



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:56 PM GMT

PDB ID : 4U4Z  
Title : Crystal structure of Phyllanthoside bound to the yeast 80S ribosome  
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.  
Deposited on : 2014-07-24  
Resolution : 3.10 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : **FAILED**  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

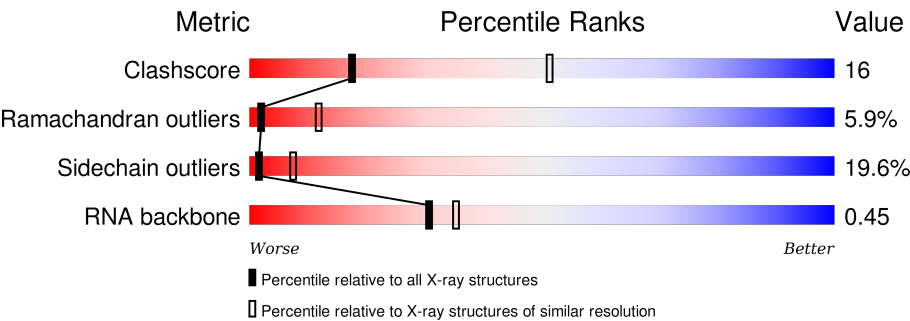
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.10 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1222 (3.14-3.06)
Ramachandran outliers	100387	1174 (3.14-3.06)
Sidechain outliers	100360	1174 (3.14-3.06)
RNA backbone	2183	1010 (3.52-2.68)

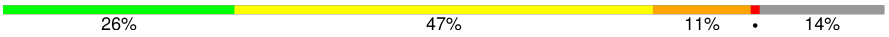

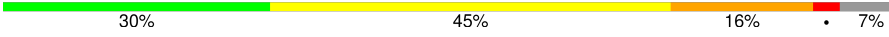

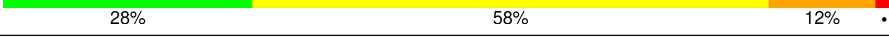

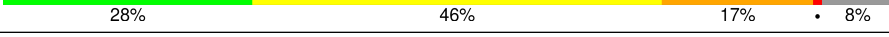

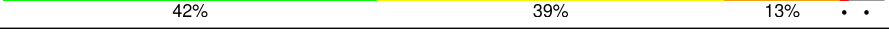

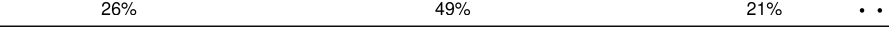
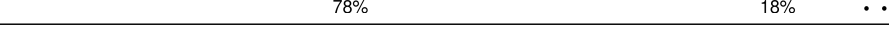

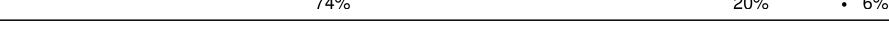


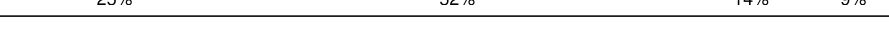

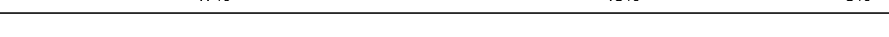




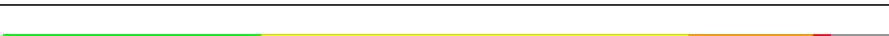

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Note EDS failed to run properly.

Mol	Chain	Length	Quality of chain
1	2	1800	<div><div></div><div><div>34%</div><div>43%</div><div>17%</div><div>.</div><div>.</div></div></div>
1	6	1800	<div><div></div><div><div>35%</div><div>45%</div><div>18%</div><div>.</div></div></div>
2	S0	251	<div><div></div><div><div>19%</div><div>49%</div><div>12%</div><div>.</div><div>18%</div></div></div>
2	s0	251	<div><div></div><div><div>61%</div><div>20%</div><div>.</div><div>18%</div></div></div>
3	S1	254	<div><div></div><div><div>19%</div><div>45%</div><div>17%</div><div>.</div><div>16%</div></div></div>
3	s1	254	<div><div></div><div><div>65%</div><div>18%</div><div>.</div><div>15%</div></div></div>


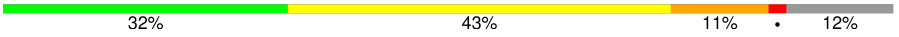



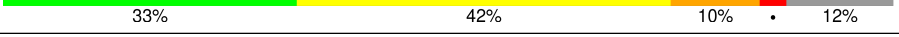


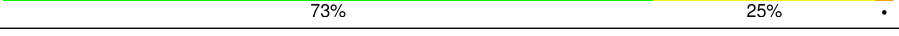

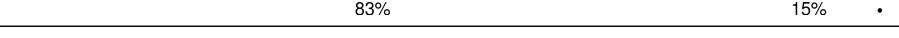
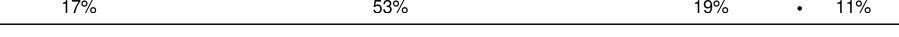

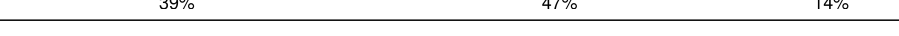


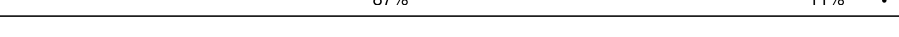

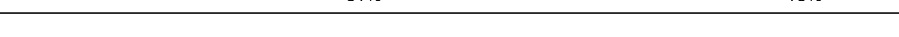






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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2	142	
14	c2	142	
15	C3	150	
15	c3	150	
16	C4	136	

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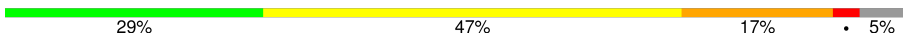



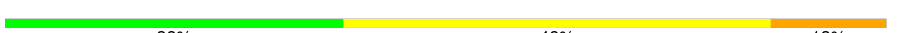








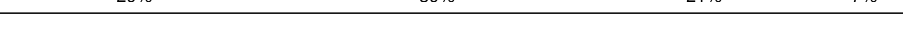


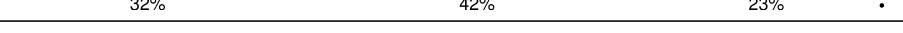






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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134	
26	d4	134	
27	D5	107	
27	d5	107	
28	D6	97	
28	d6	97	

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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253	
40	L3	386	
40	l3	386	
41	L4	361	
41	l4	361	




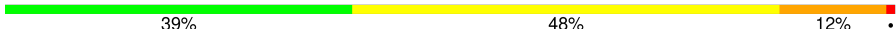

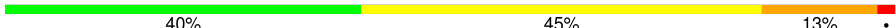

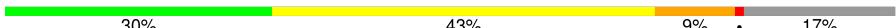

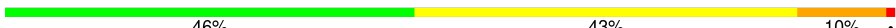

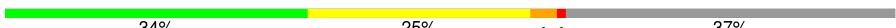





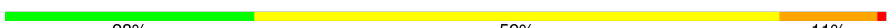

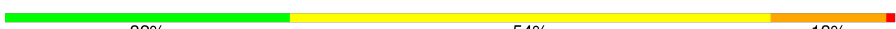





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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	198	
52	m6	198	
53	M7	183	
53	m7	183	
54	M8	185	





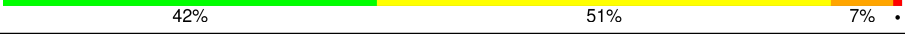


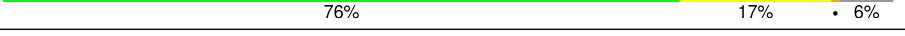
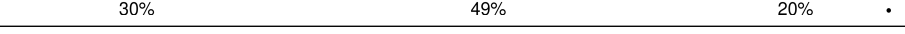








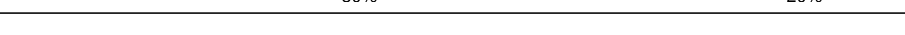


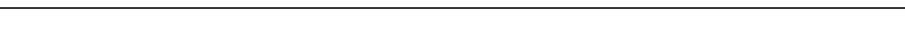


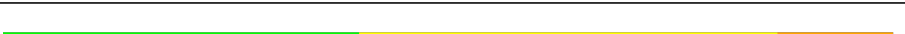

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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	
65	n9	58	
66	O0	104	
66	o0	104	

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Mol	Chain	Length	Quality of chain
67	O1	112	
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	119	
70	o4	119	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1	25	
77	q1	25	
78	Q2	105	
78	q2	105	
79	Q3	91	

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Mol	Chain	Length	Quality of chain
79	q3	91	 82% 18%
80	e0	62	 74% 24% .
81	m2	160	 94% 6%
82	p0	311	 38% 8% . 54%
83	p1	47	 100%
84	p2	46	 100%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	1	3963	-	-	X	-
86	OHX	1	3965	-	-	X	-
86	OHX	1	3977	-	-	X	-
86	OHX	1	4009	-	-	X	-
86	OHX	1	4034	-	-	X	-
86	OHX	1	4038	-	-	X	-
86	OHX	1	4050	-	-	X	-
86	OHX	1	4060	-	-	X	-
86	OHX	1	4061	-	-	X	-
86	OHX	1	4085	-	-	X	-
86	OHX	1	4145	-	-	X	-
86	OHX	1	4152	-	-	X	-
86	OHX	1	4156	-	-	X	-
86	OHX	1	4162	-	-	X	-
86	OHX	1	4169	-	-	X	-
86	OHX	1	4178	-	-	X	-
86	OHX	1	4204	-	-	X	-
86	OHX	2	2030	-	-	X	-
86	OHX	2	2043	-	-	X	-
86	OHX	2	2074	-	-	X	-
86	OHX	2	2082	-	-	X	-
86	OHX	2	2084	-	-	X	-
86	OHX	2	2089	-	-	X	-
86	OHX	2	2098	-	-	X	-
86	OHX	2	2110	-	-	X	-
86	OHX	2	2120	-	-	X	-
86	OHX	2	2130	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	2	2145	-	-	X	-
86	OHX	2	2161	-	-	X	-
86	OHX	5	3940	-	-	X	-
86	OHX	5	3960	-	-	X	-
86	OHX	5	3971	-	-	X	-
86	OHX	5	3976	-	-	X	-
86	OHX	5	3989	-	-	X	-
86	OHX	5	3999	-	-	X	-
86	OHX	5	4008	-	-	X	-
86	OHX	5	4017	-	-	X	-
86	OHX	5	4051	-	-	X	-
86	OHX	5	4062	-	-	X	-
86	OHX	5	4140	-	-	X	-
86	OHX	5	4195	-	-	X	-
86	OHX	5	4196	-	-	X	-
86	OHX	5	4197	-	-	X	-
86	OHX	5	4200	-	-	X	-
86	OHX	5	4214	-	-	X	-
86	OHX	5	4231	-	-	X	-
86	OHX	5	4239	-	-	X	-
86	OHX	6	2059	-	-	X	-
86	OHX	6	2120	-	-	X	-
86	OHX	6	2125	-	-	X	-
86	OHX	6	2126	-	-	X	-
86	OHX	6	2147	-	-	X	-
86	OHX	6	2150	-	-	X	-
86	OHX	6	2171	-	-	X	-
86	OHX	7	219	-	-	X	-
86	OHX	7	226	-	-	X	-
86	OHX	8	218	-	-	X	-
86	OHX	8	226	-	-	X	-
86	OHX	8	227	-	-	X	-
86	OHX	C5	201	-	-	X	-
86	OHX	O1	201	-	-	X	-
86	OHX	O7	104	-	-	X	-

## 2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411276 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	1750	Total	C	N	O	P	0	0	0
			37283	16668	6591	12274	1750			
1	6	1795	Total	C	N	O	P	0	0	0
			38238	17095	6758	12590	1795			

- Molecule 2 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	S0	206	Total	C	N	O	S	0	0	0
			1577	1014	278	283	2			
2	s0	206	Total	C	N	O	S	0	0	0
			1583	1017	281	283	2			

- Molecule 3 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	S1	214	Total	C	N	O	S	0	0	0
			1709	1084	310	311	4			
3	s1	216	Total	C	N	O	S	0	0	0
			1722	1091	312	315	4			

- Molecule 4 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	S2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			
4	s2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			

- Molecule 5 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	S3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			
5	s3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			

- Molecule 6 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	S4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			
6	s4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			

- Molecule 7 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	S5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			
7	s5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			

- Molecule 8 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	S6	226	Total	C	N	O	S	0	0	0
			1799	1129	346	321	3			
8	s6	218	Total	C	N	O	S	0	0	0
			1755	1102	337	313	3			

- Molecule 9 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	S7	184	Total	C	N	O	0	0	0
			1481	951	265	265			
9	s7	186	Total	C	N	O	0	0	0
			1491	957	267	267			

- Molecule 10 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	S8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	s8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

- Molecule 11 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	S9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			
11	s9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			

- Molecule 12 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	C0	96	Total	C	N	O	S	0	0	0
			773	500	126	145	2			
12	c0	96	Total	C	N	O	S	0	0	0
			762	491	125	144	2			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	89	ALA	GLY	conflict	UNP Q08745
c0	89	ALA	GLY	conflict	UNP Q08745

- Molecule 13 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C1	155	Total	C	N	O	S	0	0	0
			1214	775	230	206	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C1	147	ALA	GLY	conflict	UNP P0CX47
c1	147	ALA	GLY	conflict	UNP P0CX47

- Molecule 14 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	C2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			
14	c2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C2	104	ALA	GLY	conflict	UNP P48589
C2	110	ALA	GLY	conflict	UNP P48589
c2	104	ALA	GLY	conflict	UNP P48589
c2	110	ALA	GLY	conflict	UNP P48589

- Molecule 15 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	C3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			
15	c3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			

- Molecule 16 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	C4	127	Total	C	N	O	S	0	0	0
			891	545	182	163	1			
16	c4	128	Total	C	N	O	S	0	0	0
			949	582	188	176	3			

- Molecule 17 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	C5	124	Total	C	N	O	S	0	0	0
			977	622	182	166	7			
17	c5	135	Total	C	N	O	S	0	0	0
			1039	658	196	178	7			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C5	137	SER	ARG	conflict	UNP Q01855
c5	137	SER	ARG	conflict	UNP Q01855

- Molecule 18 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	C6	141	Total	C	N	O	0	0	0
			1105	708	203	194			
18	c6	142	Total	C	N	O	0	0	0
			1111	711	204	196			

- Molecule 19 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	C7	120	Total	C	N	O	S	0	0	0
			926	577	177	170	2			
19	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

- Molecule 20 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	C8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			
20	c8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			

- Molecule 21 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	C9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			
21	c9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			

- Molecule 22 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	D0	107	Total	C	N	O	S	0	0	0
			855	539	156	159	1			
22	d0	110	Total	C	N	O	S	0	0	0
			882	554	161	166	1			

- Molecule 23 is a protein called 40S ribosomal protein S21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	D1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			
23	d1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			

- Molecule 24 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	D2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			
24	d2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			

- Molecule 25 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	D3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			
25	d3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			

- Molecule 26 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	D4	134	Total	C	N	O	0	0	0
			1073	676	208	189			
26	d4	134	Total	C	N	O	0	0	0
			1073	676	208	189			

- Molecule 27 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	D5	70	Total	C	N	O	0	0	0
			563	360	104	99			
27	d5	69	Total	C	N	O	0	0	0
			558	357	103	98			

- Molecule 28 is a protein called 40S ribosomal protein S26-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	D6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	d6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

- Molecule 29 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	D7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			
29	d7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			

- Molecule 30 is a protein called 40S ribosomal protein S28-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	D8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			
30	d8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			

- Molecule 31 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	D9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			
31	d9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			

- Molecule 32 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	E0	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			

- Molecule 33 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	E1	71	Total	C	N	O	S	0	0	0
			566	362	106	94	4			
33	e1	76	Total	C	N	O	S	0	0	0
			608	388	117	99	4			

- Molecule 34 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	SR	318	Total	C	N	O	S	0	0	0
			2441	1544	419	470	8			
34	sR	318	Total	C	N	O	S	0	0	0
			2442	1544	418	472	8			

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	SM	159	Total	C	N	O		0	0	0
			1104	652	221	231				
35	sM	104	Total	C	N	O		0	0	0
			679	402	140	137				

- Molecule 36 is a RNA chain called 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1	3149	Total	C	N	O	P	0	0	0
			67355	30086	12142	21978	3149			
36	5	3150	Total	C	N	O	P	0	0	0
			67376	30095	12145	21987	3149			

- Molecule 37 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	3	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			
37	7	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			

- Molecule 38 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	4	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			
38	8	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			

- Molecule 39 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	12	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			

- Molecule 40 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	L3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			
40	13	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

- Molecule 41 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	L4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			
41	14	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	L5	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			
42	15	294	Total	C	N	O	S	0	0	0
			2359	1489	412	456	2			

- Molecule 43 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	L6	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			
43	16	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			

- Molecule 44 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	L7	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			
44	17	223	Total	C	N	O	S	0	0	0
			1791	1155	325	310	1			

- Molecule 45 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	L8	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			
45	18	231	Total	C	N	O	S	0	0	0
			1763	1130	316	314	3			

- Molecule 46 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	L9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
46	19	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

- Molecule 47 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	M0	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			
47	m0	213	Total	C	N	O	S	0	0	0
			1722	1094	325	297	6			

- Molecule 48 is a protein called 60S ribosomal protein L11-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	M1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			
48	m1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			

- Molecule 49 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	M3	193	Total	C	N	O	0	0	0
			1543	962	315	266			
49	m3	194	Total	C	N	O	0	0	0
			1548	965	316	267			

- Molecule 50 is a protein called 60S ribosomal protein L14-A.



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	M4	136	Total	C	N	O	S	0	0	0
			1053	675	199	177	2			
50	m4	137	Total	C	N	O	S	0	0	0
			1059	678	200	179	2			

- Molecule 51 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			
51	m5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			

- Molecule 52 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			
52	m6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			

- Molecule 53 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	M7	183	Total	C	N	O		0	0	0
			1420	882	281	257				
53	m7	155	Total	C	N	O		0	0	0
			1227	764	238	225				

- Molecule 54 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	M8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			
54	m8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			

- Molecule 55 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	M9	188	Total	C	N	O		0	0	0
			1521	935	326	260				

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	m9	188	Total	C	N	O	0	0	0
			1521	935	326	260			

- Molecule 56 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	N0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			
56	n0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			

- Molecule 57 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	N1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			
57	n1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			

- Molecule 58 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
58	N2	100	Total	C	N	O	0	0	0
			796	516	131	149			
58	n2	98	Total	C	N	O	0	0	0
			778	505	127	146			

- Molecule 59 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	N3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			
59	n3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			

- Molecule 60 is a protein called 60S ribosomal protein L24-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	N4	98	Total	C	N	O	S	0	0	0
			699	443	137	118	1			
60	n4	135	Total	C	N	O	S	0	0	0
			1038	651	206	180	1			

- Molecule 61 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	N5	121	Total	C	N	O	S	0	0	0
			964	620	169	173	2			
61	n5	120	Total	C	N	O	S	0	0	0
			959	617	168	172	2			

- Molecule 62 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
62	N6	126	Total	C	N	O		0	0	0
			993	625	192	176				
62	n6	126	Total	C	N	O		0	0	0
			993	625	192	176				

- Molecule 63 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
63	N7	135	Total	C	N	O		0	0	0
			1092	710	202	180				
63	n7	135	Total	C	N	O		0	0	0
			1092	710	202	180				

- Molecule 64 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
64	N8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			
64	n8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			

- Molecule 65 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
65	N9	58	Total	C	N	O		0	0	0
			462	289	100	73				
65	n9	58	Total	C	N	O		0	0	0
			462	289	100	73				

- Molecule 66 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	O0	97	Total	C	N	O	S	0	0	0
			743	479	124	139	1			
66	o0	100	Total	C	N	O	S	0	0	0
			767	492	128	146	1			

- Molecule 67 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
67	O1	109	Total	C	N	O	S	0	0	0
			876	556	167	152	1			
67	o1	109	Total	C	N	O	S	0	0	0
			883	559	167	156	1			

- Molecule 68 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	O2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			
68	o2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			

- Molecule 69 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	O3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			
69	o3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			

- Molecule 70 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
70	O4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			
70	o4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			

There are 22 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O4	110	GLU	-	expression tag	UNP P87262
O4	111	ALA	-	expression tag	UNP P87262
O4	112	ALA	-	expression tag	UNP P87262

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Chain	Residue	Modelled	Actual	Comment	Reference
O4	113	LYS	-	expression tag	UNP P87262
O4	114	SER	-	expression tag	UNP P87262
O4	115	GLU	-	expression tag	UNP P87262
O4	116	LYS	-	expression tag	UNP P87262
O4	117	LYS	-	expression tag	UNP P87262
O4	118	ALA	-	expression tag	UNP P87262
O4	119	LYS	-	expression tag	UNP P87262
O4	120	LYS	-	expression tag	UNP P87262
o4	110	GLU	-	expression tag	UNP P87262
o4	111	ALA	-	expression tag	UNP P87262
o4	112	ALA	-	expression tag	UNP P87262
o4	113	LYS	-	expression tag	UNP P87262
o4	114	SER	-	expression tag	UNP P87262
o4	115	GLU	-	expression tag	UNP P87262
o4	116	LYS	-	expression tag	UNP P87262
o4	117	LYS	-	expression tag	UNP P87262
o4	118	ALA	-	expression tag	UNP P87262
o4	119	LYS	-	expression tag	UNP P87262
o4	120	LYS	-	expression tag	UNP P87262

- Molecule 71 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
71	O5	119	Total	C	N	O	S	0	0	0
			969	615	186	167	1			
71	o5	119	Total	C	N	O	S	0	0	0
			965	612	185	167	1			

- Molecule 72 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
72	O6	99	Total	C	N	O	S	0	0	0
			771	481	156	132	2			
72	o6	99	Total	C	N	O	S	0	0	0
			770	481	156	131	2			

- Molecule 73 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	O7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	o7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

- Molecule 74 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	O8	77	Total	C	N	O		0	0	0
			612	391	115	106				
74	o8	77	Total	C	N	O		0	0	0
			608	388	114	106				

- Molecule 75 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	O9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			
75	o9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			

- Molecule 76 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	Q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			
76	q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			

- Molecule 77 is a protein called 60S ribosomal protein L41-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
77	Q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			
77	q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			

- Molecule 78 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	Q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			
78	q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			

- Molecule 79 is a protein called 60S ribosomal protein L43-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	Q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			
79	q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			

- Molecule 80 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	e0	62	Total	C	N	O	S	0	0	0
			491	309	101	80	1			

- Molecule 81 is a protein called Unknown protein m2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
81	m2	150	Total	C	N	O	0	0	0
			750	450	150	150			

- Molecule 82 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
82	p0	143	Total	C	N	O	S	0	0	0
			1076	686	192	195	3			

- Molecule 83 is a protein called Unknown protein p1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
83	p1	47	Total	C	N	O	0	0	0
			235	141	47	47			

- Molecule 84 is a protein called Unknown protein p2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
84	p2	46	Total	C	N	O	0	0	0
			230	138	46	46			

- Molecule 85 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L7	3	Total	Mg	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	m6	2	Total 2	Mg 2	0	0
85	n8	5	Total 5	Mg 5	0	0
85	q3	2	Total 2	Mg 2	0	0
85	o1	1	Total 1	Mg 1	0	0
85	N5	1	Total 1	Mg 1	0	0
85	6	145	Total 145	Mg 145	0	0
85	sM	2	Total 2	Mg 2	0	0
85	O4	1	Total 1	Mg 1	0	0
85	m5	3	Total 3	Mg 3	0	0
85	l3	3	Total 3	Mg 3	0	0
85	M1	2	Total 2	Mg 2	0	0
85	n0	1	Total 1	Mg 1	0	0
85	d6	1	Total 1	Mg 1	0	0
85	2	121	Total 121	Mg 121	0	0
85	O3	1	Total 1	Mg 1	0	0
85	S6	1	Total 1	Mg 1	0	0
85	L4	2	Total 2	Mg 2	0	0
85	l7	3	Total 3	Mg 3	0	0
85	M5	1	Total 1	Mg 1	0	0
85	c9	1	Total 1	Mg 1	0	0
85	S2	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L8	1	Total 1	Mg 1	0	0
85	D3	1	Total 1	Mg 1	0	0
85	o4	1	Total 1	Mg 1	0	0
85	M9	2	Total 2	Mg 2	0	0
85	q0	1	Total 1	Mg 1	0	0
85	c8	2	Total 2	Mg 2	0	0
85	M0	3	Total 3	Mg 3	0	0
85	c1	1	Total 1	Mg 1	0	0
85	5	497	Total 497	Mg 497	0	0
85	L5	1	Total 1	Mg 1	0	0
85	O7	2	Total 2	Mg 2	0	0
85	Q2	1	Total 1	Mg 1	0	0
85	1	471	Total 471	Mg 471	0	0
85	s2	1	Total 1	Mg 1	0	0
85	D0	1	Total 1	Mg 1	0	0
85	S8	1	Total 1	Mg 1	0	0
85	l2	2	Total 2	Mg 2	0	0
85	d3	2	Total 2	Mg 2	0	0
85	o7	1	Total 1	Mg 1	0	0
85	o3	2	Total 2	Mg 2	0	0
85	M3	3	Total 3	Mg 3	0	0

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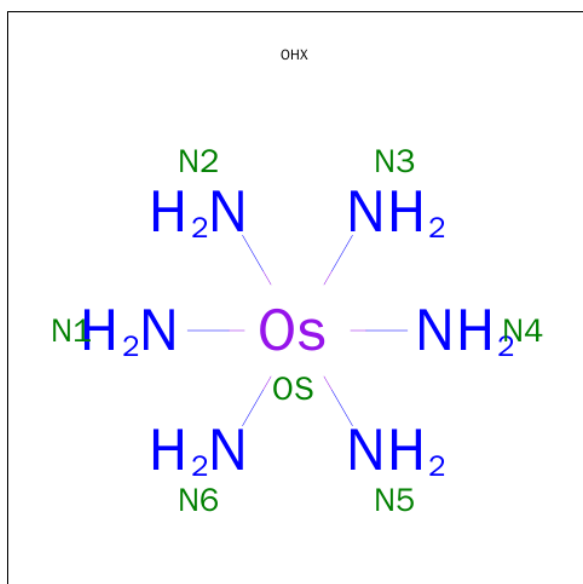
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	N3	3	Total 3	Mg 3	0	0
85	4	23	Total 23	Mg 23	0	0
85	n6	1	Total 1	Mg 1	0	0
85	S4	1	Total 1	Mg 1	0	0
85	L2	2	Total 2	Mg 2	0	0
85	m1	1	Total 1	Mg 1	0	0
85	l5	2	Total 2	Mg 2	0	0
85	m7	5	Total 5	Mg 5	0	0
85	M7	4	Total 4	Mg 4	0	0
85	m4	1	Total 1	Mg 1	0	0
85	N8	3	Total 3	Mg 3	0	0
85	s1	1	Total 1	Mg 1	0	0
85	l9	1	Total 1	Mg 1	0	0
85	s8	2	Total 2	Mg 2	0	0
85	l8	1	Total 1	Mg 1	0	0
85	c7	1	Total 1	Mg 1	0	0
85	7	16	Total 16	Mg 16	0	0
85	n3	2	Total 2	Mg 2	0	0
85	q1	1	Total 1	Mg 1	0	0
85	L3	3	Total 3	Mg 3	0	0
85	s4	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	N6	1	Total	Mg	0	0
			1	1		
85	8	15	Total	Mg	0	0
			15	15		
85	14	1	Total	Mg	0	0
			1	1		
85	M6	1	Total	Mg	0	0
			1	1		
85	N0	1	Total	Mg	0	0
			1	1		
85	3	13	Total	Mg	0	0
			13	13		

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula:  $\text{H}_{12}\text{N}_6\text{Os}$ ).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
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			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
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86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
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			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	S8	1	Total	N	Os	0	0
			7	6	1		
86	C3	1	Total	N	Os	0	0
			7	6	1		
86	C5	1	Total	N	Os	0	0
			7	6	1		
86	C8	1	Total	N	Os	0	0
			7	6	1		
86	D3	1	Total	N	Os	0	0
			7	6	1		
86	D9	1	Total	N	Os	0	0
			7	6	1		
86	SR	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	3	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
			7	6	1		
86	3	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
			7	6	1		
86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L4	1	Total	N	Os	0	0
			7	6	1		
86	M0	1	Total	N	Os	0	0
			7	6	1		
86	M5	1	Total	N	Os	0	0
			7	6	1		
86	M7	1	Total	N	Os	0	0
			7	6	1		
86	M7	1	Total	N	Os	0	0
			7	6	1		
86	M9	1	Total	N	Os	0	0
			7	6	1		
86	N1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	O1	1	Total	N	Os	0	0
			7	6	1		
86	O2	1	Total	N	Os	0	0
			7	6	1		
86	O3	1	Total	N	Os	0	0
			7	6	1		
86	O7	1	Total	N	Os	0	0
			7	6	1		
86	O7	1	Total	N	Os	0	0
			7	6	1		
86	Q2	1	Total	N	Os	0	0
			7	6	1		
86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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			7	6	1		
86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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			7	6	1		
86	6	1	Total	N	Os	0	0
			7	6	1		
86	s1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	s1	1	Total	N	Os	0	0
			7	6	1		
86	s4	1	Total	N	Os	0	0
			7	6	1		
86	s8	1	Total	N	Os	0	0
			7	6	1		
86	c3	1	Total	N	Os	0	0
			7	6	1		
86	c5	1	Total	N	Os	0	0
			7	6	1		
86	c8	1	Total	N	Os	0	0
			7	6	1		
86	d4	1	Total	N	Os	0	0
			7	6	1		
86	d9	1	Total	N	Os	0	0
			7	6	1		
86	sR	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
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86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	13	1	Total	N	Os	0	0
			7	6	1		
86	13	1	Total	N	Os	0	0
			7	6	1		
86	13	1	Total	N	Os	0	0
			7	6	1		
86	14	1	Total	N	Os	0	0
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86	14	1	Total	N	Os	0	0
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86	15	1	Total	N	Os	0	0
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86	15	1	Total	N	Os	0	0
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86	15	1	Total	N	Os	0	0
			7	6	1		
86	19	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m1	1	Total	N	Os	0	0
			7	6	1		
86	m4	1	Total	N	Os	0	0
			7	6	1		
86	m5	1	Total	N	Os	0	0
			7	6	1		
86	m5	1	Total	N	Os	0	0
			7	6	1		
86	m6	1	Total	N	Os	0	0
			7	6	1		
86	m7	1	Total	N	Os	0	0
			7	6	1		
86	m8	1	Total	N	Os	0	0
			7	6	1		
86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n9	1	Total	N	Os	0	0
			7	6	1		
86	o2	1	Total	N	Os	0	0
			7	6	1		
86	o3	1	Total	N	Os	0	0
			7	6	1		
86	o7	1	Total	N	Os	0	0
			7	6	1		
86	q1	1	Total	N	Os	0	0
			7	6	1		
86	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 87 is ZINC ION (three-letter code: ZN) (formula: Zn).

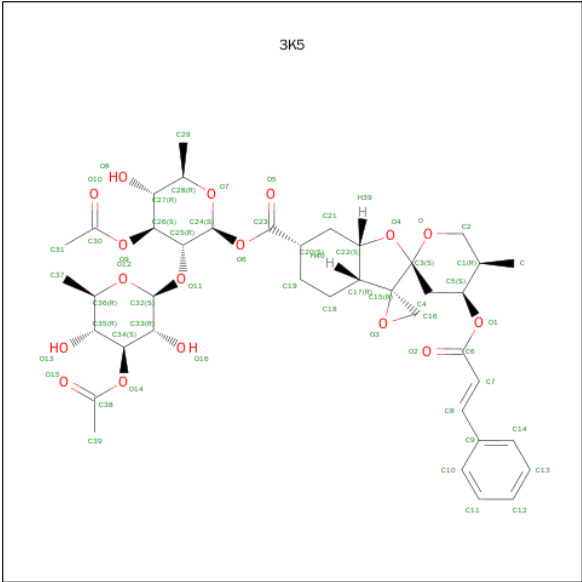
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	q0	1	Total	Zn	0	0
			1	1		
87	D6	1	Total	Zn	0	0
			1	1		
87	Q2	1	Total	Zn	0	0
			1	1		
87	e1	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	Q3	1	Total	Zn	0	0
			1	1		
87	D9	1	Total	Zn	0	0
			1	1		
87	E1	1	Total	Zn	0	0
			1	1		
87	Q0	1	Total	Zn	0	0
			1	1		
87	d7	1	Total	Zn	0	0
			1	1		
87	q3	1	Total	Zn	0	0
			1	1		
87	d9	1	Total	Zn	0	0
			1	1		
87	D7	1	Total	Zn	0	0
			1	1		
87	d6	1	Total	Zn	0	0
			1	1		
87	o7	1	Total	Zn	0	0
			1	1		
87	O7	1	Total	Zn	0	0
			1	1		
87	q2	1	Total	Zn	0	0
			1	1		

- Molecule 88 is 3-O-acetyl-2-O-(3-O-acetyl-6-deoxy-beta-D-glucopyranosyl)-6-deoxy-1-O-  
 {[ (2R,2'S,3a'R,4'S,5''R,6'S,7a'S)-5''-methyl-4''-{[(2E)-3-phenylprop-2-enoyl]oxy}decahy-  
 drodispiro[oxirane-2,3'-[1]benzofuran-2',2''-pyran]-6'-yl]carbonyl}-beta-D-glucopyranose  
 (three-letter code: 3K5) (formula: C<sub>40</sub>H<sub>52</sub>O<sub>17</sub>).



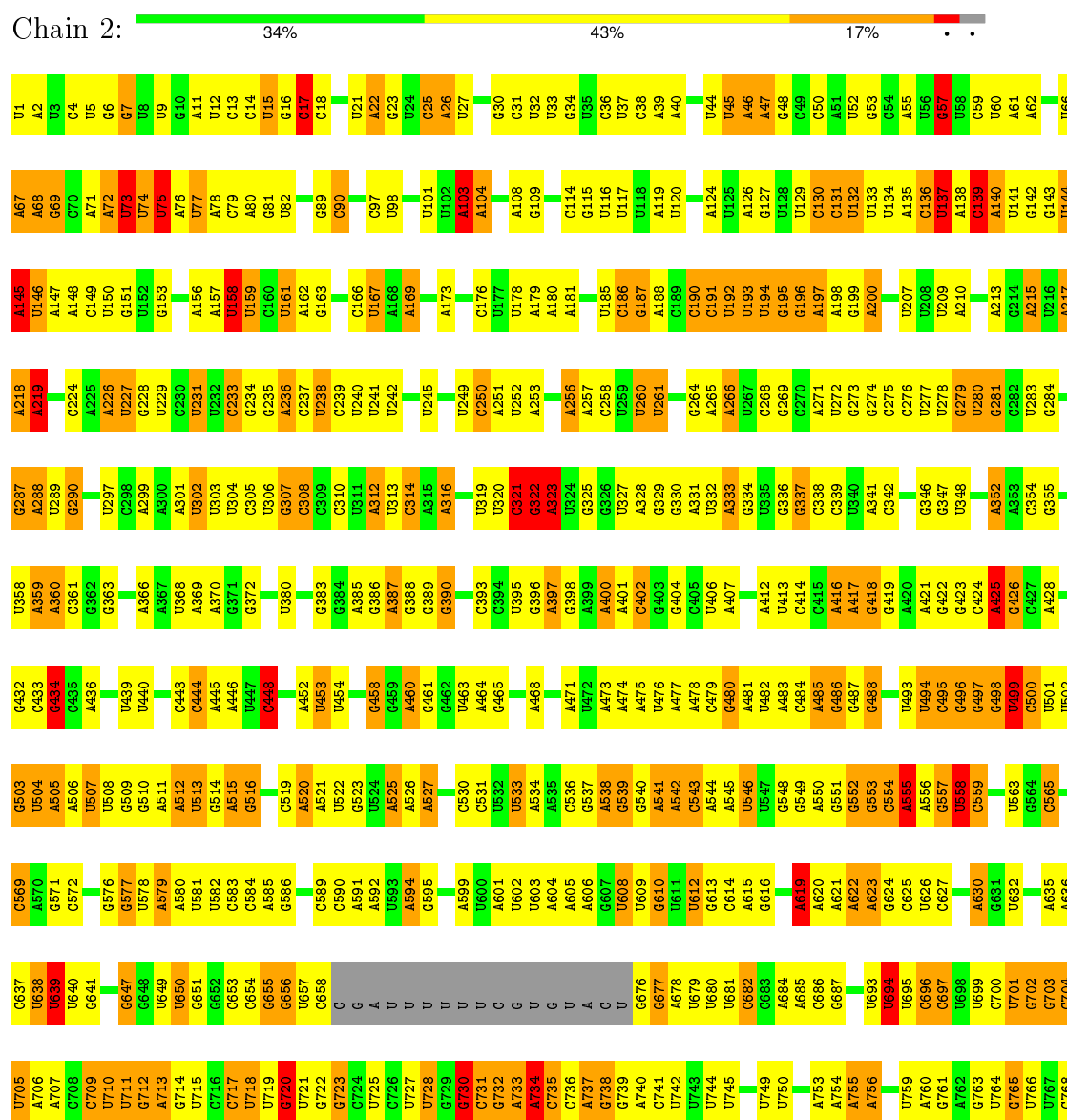
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	C	O	0	0
			57	40	17		
88	5	1	Total	C	O	0	0
			57	40	17		

### 3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ( $RSRZ > 2$ ). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

Note EDS failed to run properly.

- Molecule 1: 18S ribosomal RNA

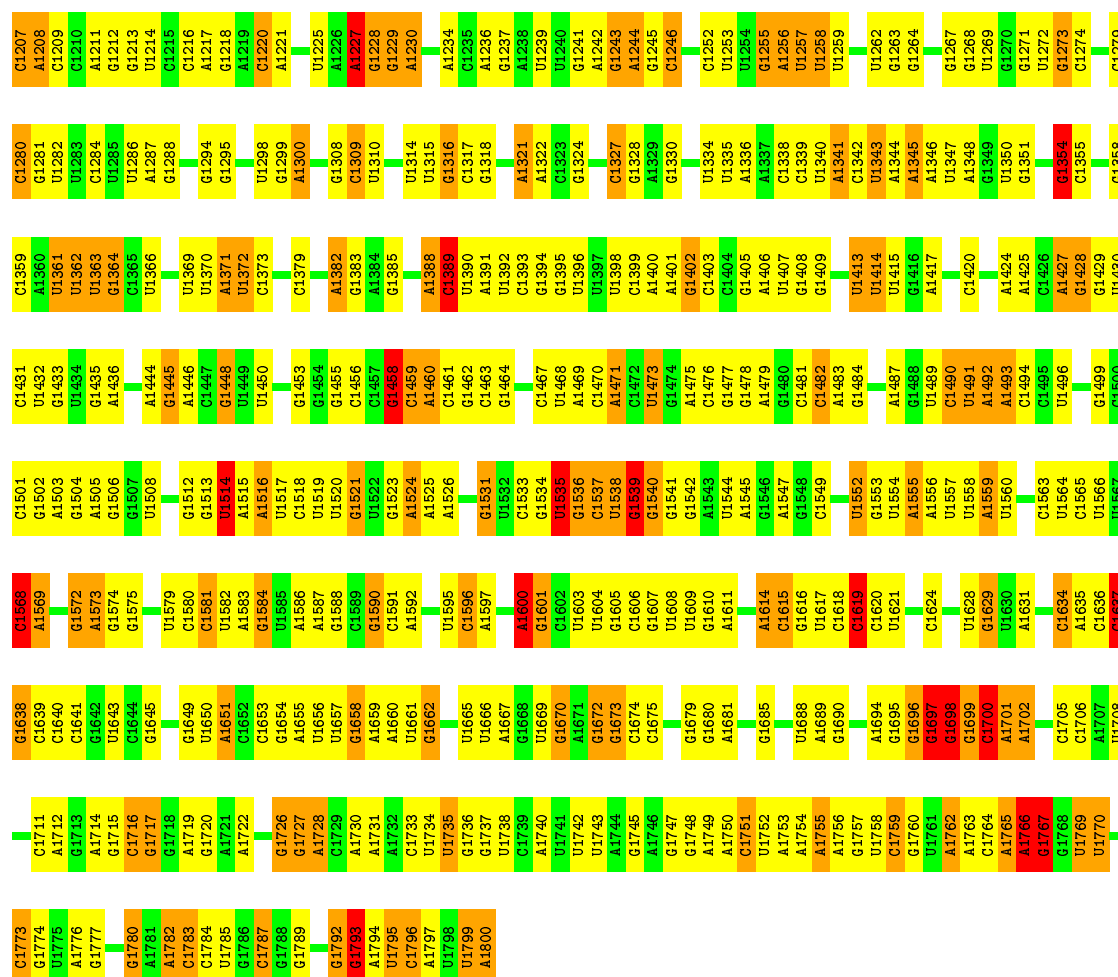


G1789	G1717	G1649	G1574	U1511	G1445	U1370	G1292	A1219	G1148	A1062	U989	A915	G837	A789
G1788	G1718	U1650	G1575	G1512	A1446	A1371	G1297	C1220	G1149	U1063	C990	U916	G838	A770
A1792	A1719	A1651	A1576	G1513	A1450	U1372	G1297	A1221	G1150	G1064	A991	U917	U839	A770
U1795	G1720	C1652	A1577	U1514	U1451	A1375	G1300	C1222	A1151	A1065	A993	U918	U840	C773
C1796	G1726	C1653	U1578	A1515	U1452	A1300	U1301	A1223	A1157	C1066	G994	U920	C842	A775
A1791	U1731	U1657	G1584	U1517	G1455	U1378	G1308	A1226	A1158	C1068	A995	U921	U843	C778
A1790	A1732	G1658	U1585	U1518	G1456	U1379	G1309	A1227	C1159	A1069	U996	G922	G844	C779
U1798	C1733	A1659	A1586	U1519	C1457	U1380	U1310	G1228	A1160	G1073	A998	A924	G845	U779
U1797	G1734	G1662	A1587	G1520	C1458	A1382	U1310	A1229	C1161	G1074	U999	G925	G846	A780
U1796	U1735	G1663	U1522	G1521	G1459	G1383	U1314	A1230	C1162	U1079	U999	G925	A847	U781
U1795	G1736	G1664	U1523	G1522	A1460	G1384	U1315	A1231	G1163	A1001	A999	G927	C848	U782
C1796	U1737	U1665	A1524	G1527	G1461	G1385	G1316	G1233	G1164	G1002	C1000	U927	C849	G783
U1794	U1738	G1670	A1525	A1526	G1462	G1386	U1317	A1234	G1165	U1003	G1001	U928	A850	C784
U1741	A1671	A1671	A1526	G1527	G1463	G1387	U1318	C1235	A1166	A1004	A999	A929	C851	A788
U1740	G1672	G1672	G1528	G1527	G1466	A1388	A1319	G1236	U1168	G1083	A1005	U931	G853	A789
U1742	U1602	G1673	U1594	G1529	A1469	U1390	A1321	G1237	G1169	C1090	U932	U932	U854	U790
U1743	C1596	C1673	C1530	C1529	A1470	U1391	A1322	A1238	G1170	G1085	A855	A933	A855	A791
A1744	A1597	C1677	C1533	C1530	C1470	C1393	A1323	U1239	A1171	A1086	G1010	C934	A856	U792
G1745	U1598	A1678	G1534	G1394	A1471	G1394	G1324	U1240	G1172	A1087	G1011	U935	A857	A793
A1746	C1599	G1679	U1535	A1472	C1472	G1394	A1325	G1241	C1173	U1088	A1013	A939	G858	U794
G1747	G1680	G1680	U1536	G1473	A1473	U1398	A1326	G1243	C1174	U1089	A1013	U940	A859	U795
G1748	A1601	G1681	G1536	G1474	G1474	C1399	G1327	A1244	U1175	C1090	G1014	A940	U860	A796
A1749	C1602	U1682	C1537	A1475	A1475	A1400	G1328	G1245	G1176	A1091	U1015	A941	U861	A799
A1750	U1603	G1683	U1538	C1476	C1476	A1401	G1329	G1245	G1177	C1096	G1016	G942	A862	A800
C1751	U1604	U1684	G1539	G1477	G1477	A1410	G1330	C1248	G1178	C1096	U1017	C943	A863	A801
A1754	C1606	G1685	G1541	A1479	A1479	A1406	A1331	U1250	G1179	U1018	A1019	U945	U864	G802
A1755	G1607	G1607	G1542	G1480	G1480	U1407	C1332	U1251	U1181	U1097	A1020	U946	G866	A803
A1756	U1609	U1609	A1545	C1481	C1481	G1409	G1338	C1252	U1182	G1100	C1021	U947	G867	A804
A1757	G1610	A1610	G1546	C1482	C1482	A1410	C1339	U1257	U1185	G1104	A1026	G948	A869	A809
G1758	A1611	G1611	A1547	G1483	G1483	A1411	U1340	A1258	G1188	G1107	A1027	A951	G872	U880
G1760	U1612	G1612	G1548	G1484	G1484	U1413	A1341	U1258	G1189	G1108	U1029	G954	U873	A811
A1761	U1613	U1613	C1549	G1485	G1485	U1414	C1342	U1259	U1191	G1109	A1030	U960	G876	A812
A1762	A1614	A1614	A1550	A1487	A1487	U1415	A1344	U1260	A1194	G1113	U1031	U963	A881	A813
A1765	G1615	G1615	U1551	G1488	G1488	G1416	A1345	U1261	C1195	G1114	G1032	U958	C880	A814
A1766	C1616	C1616	U1552	G1489	G1489	A1417	A1346	G1264	C1196	G1119	C1033	U959	C881	G815
G1767	G1619	G1619	U1554	C1490	C1490	G1418	U1347	G1265	A1196	G1120	C1034	U960	U882	G816
G1768	C1620	C1620	A1555	A1491	A1491	G1419	A1348	U1266	C1197	G1119	A1039	U963	C883	C818
U1769	G1623	G1623	U1557	A1492	A1492	C1420	U1349	G1267	G1198	U1120	A1039	U963	C884	G819
U1770	C1624	C1624	U1558	C1494	C1494	A1424	U1350	G1267	G1199	C1121	G1040	A963	C885	U820
C1773	C1629	C1629	U1559	C1495	C1495	A1425	G1354	G1273	G1200	A1125	G1041	A966	U886	U821
A1776	U1630	U1630	U1560	A1497	A1497	A1427	G1354	A1274	G1201	G1126	A1043	U968	U887	U822
G1777	A1631	A1631	G1562	G1498	G1498	G1428	U1359	U1275	A1202	G1126	A1043	U968	C887	G823
G1780	C1634	C1634	U1563	C1500	C1500	U1429	U1359	U1276	A1203	G1130	G1046	A970	G885	G824
A1781	U1635	U1635	U1564	A1503	A1503	U1431	A1360	C1280	U1206	A1131	U1050	A973	G895	U825
A1782	C1636	C1636	U1565	G1504	G1504	U1432	U1361	G1281	C1207	A1131	G1050	A973	A898	C827
C1783	G1637	G1637	U1567	G1506	G1506	G1433	U1362	U1282	A1208	C1134	G1051	A978	G899	U828
C1784	U1638	U1638	G1568	G1507	G1507	U1437	U1363	U1283	A1211	A1138	U1052	A979	A900	A829
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G1786	G1642	G1642	U1572	C1509	C1509	U1443	U1366	U1286	G1213	U1145	U1058	G985	U911	U832
C1787	A1573	A1573	A1573	U1510	U1510	A1444	G1367	U1291	A1217	G1146	U1059	G986	U912	U833
G1788							U1369		G1218	A1147	A1061	G987	U913	U834

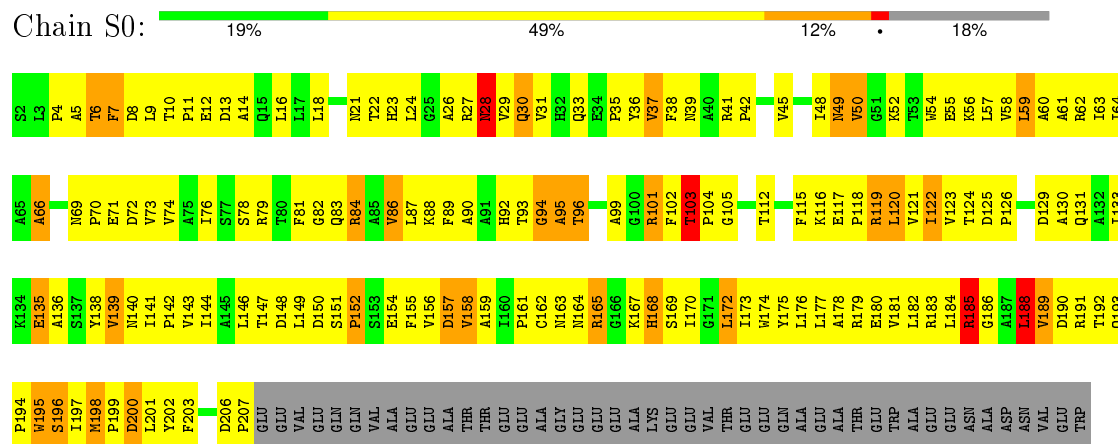
• Molecule 1: 18S ribosomal RNA

Chain 6:  35% 45% 18%

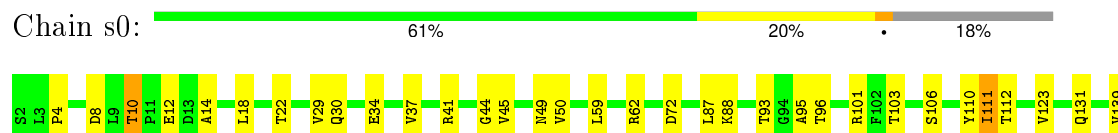




• Molecule 2: 40S ribosomal protein S0-A

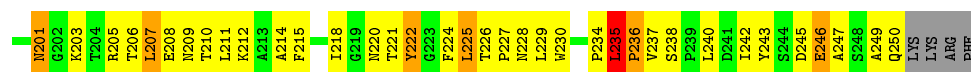


• Molecule 2: 40S ribosomal protein S0-A



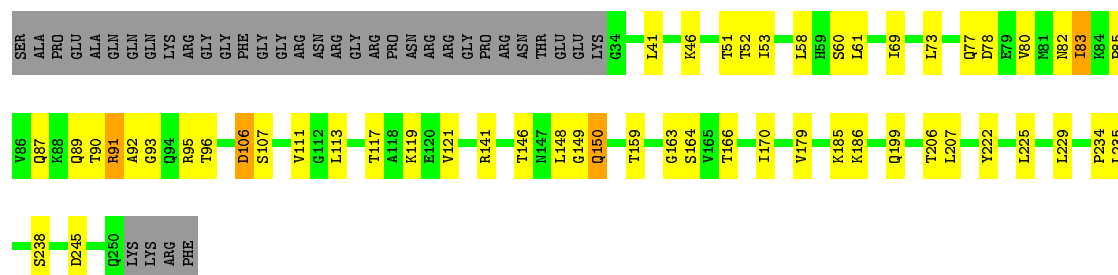






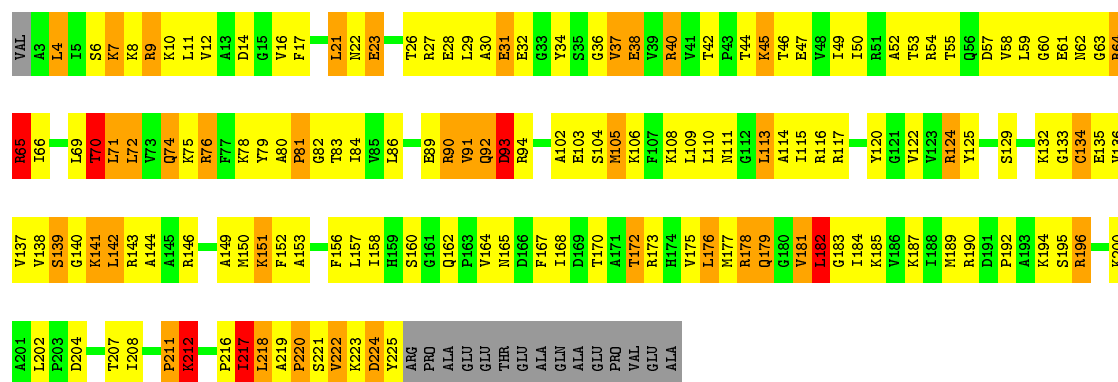
• Molecule 4: 40S ribosomal protein S2

Chain s2: 64% 20% 14%



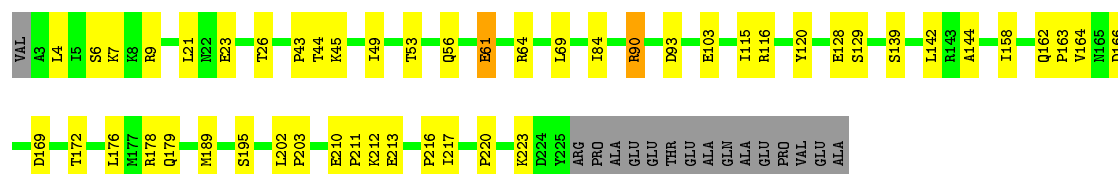
• Molecule 5: 40S ribosomal protein S3

Chain S3: 30% 45% 16% 7%



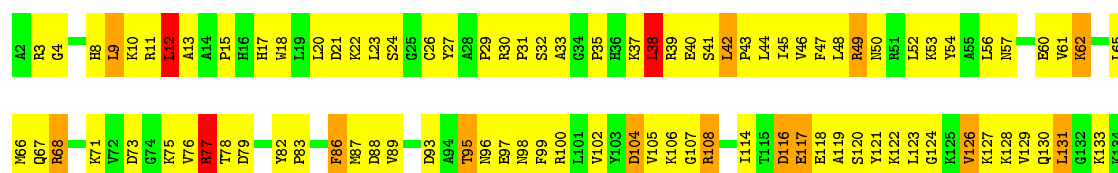
• Molecule 5: 40S ribosomal protein S3

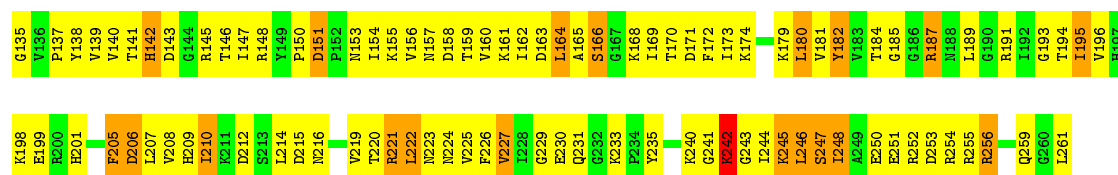
Chain s3: 72% 20% 7%



• Molecule 6: 40S ribosomal protein S4-A

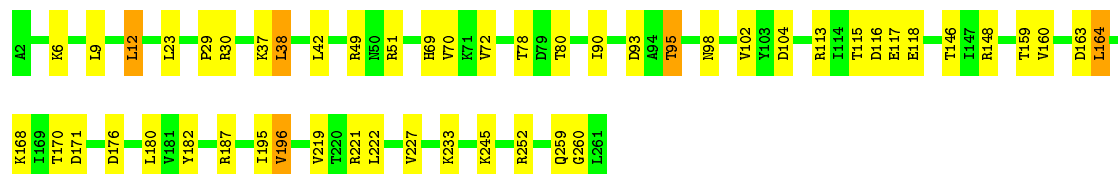
Chain S4: 28% 58% 12%





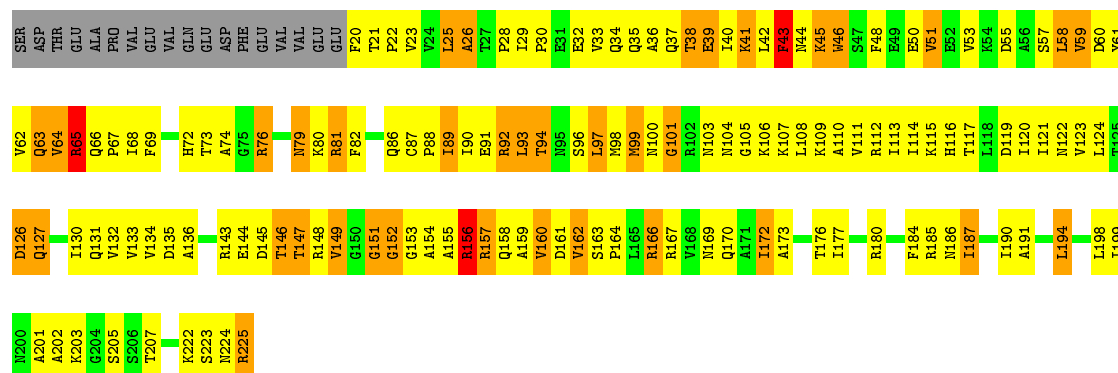
• Molecule 6: 40S ribosomal protein S4-A

Chain s4: 80% 18%



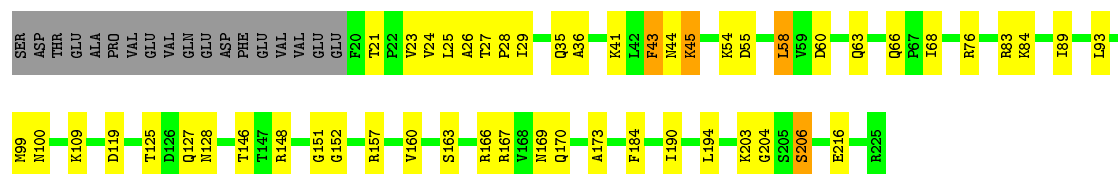
• Molecule 7: 40S ribosomal protein S5

Chain S5: 28% 46% 17% 8%



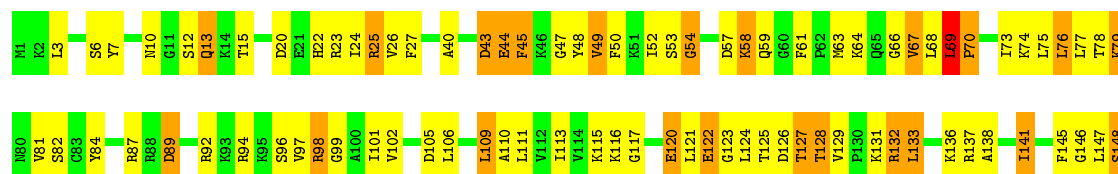
• Molecule 7: 40S ribosomal protein S5

Chain s5: 69% 21% 8%



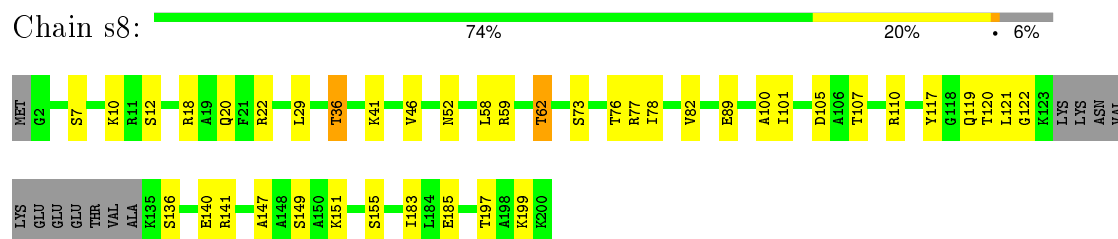
• Molecule 8: 40S ribosomal protein S6-A

Chain S6: 42% 39% 13%

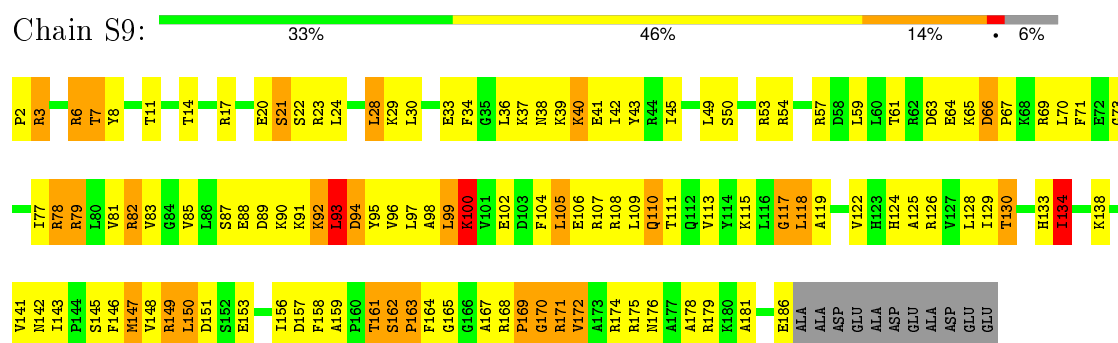




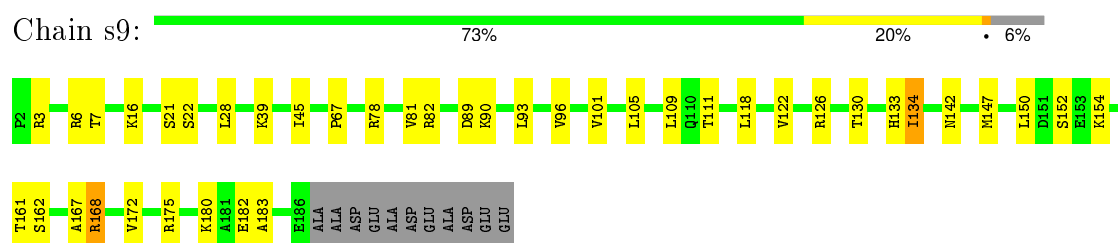
- Molecule 10: 40S ribosomal protein S8-A



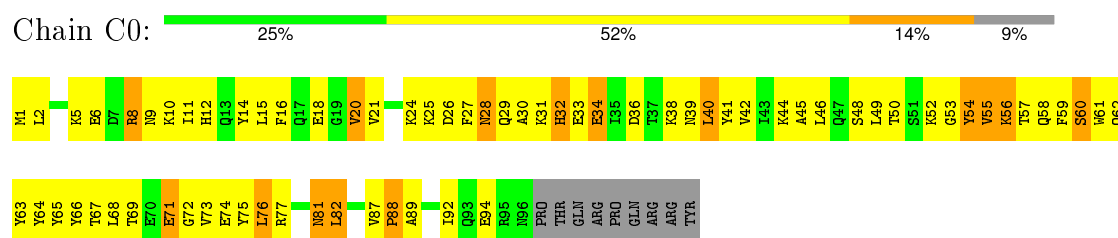
- Molecule 11: 40S ribosomal protein S9-A



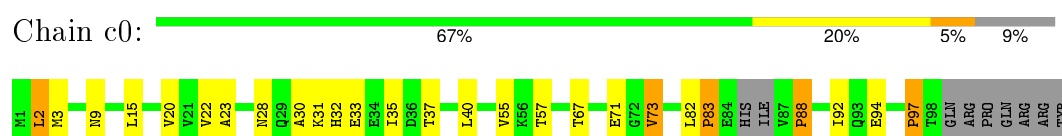
- Molecule 11: 40S ribosomal protein S9-A



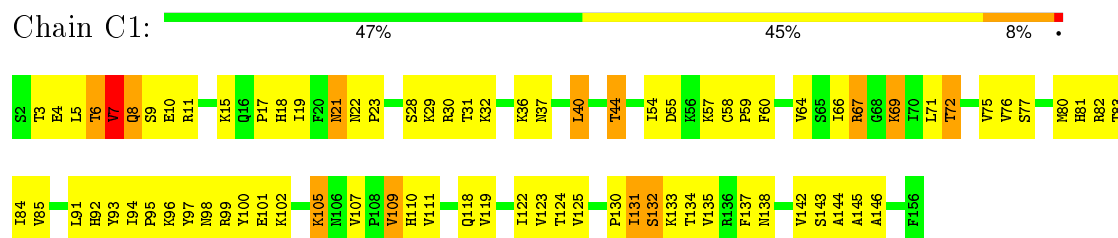
- Molecule 12: 40S ribosomal protein S10-A



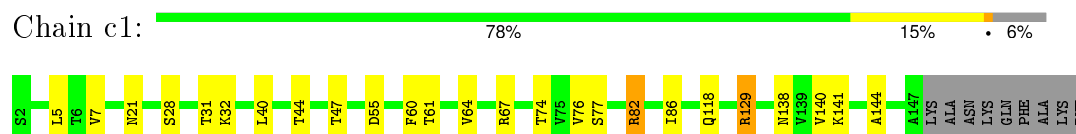
- Molecule 12: 40S ribosomal protein S10-A



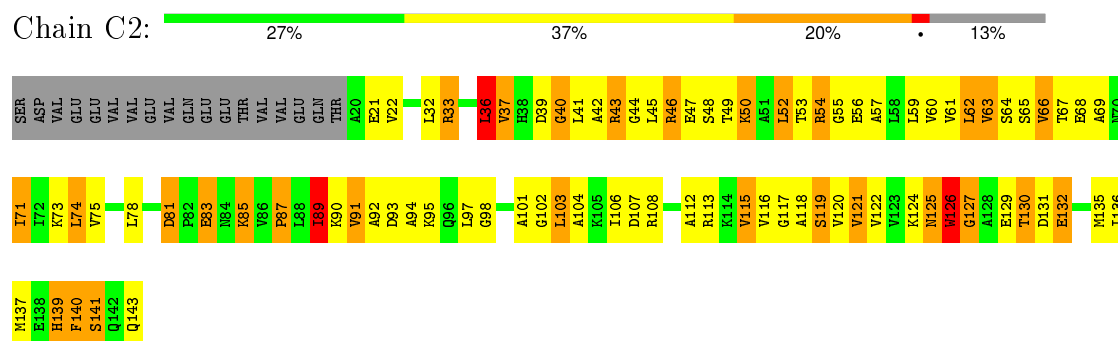
- Molecule 13: 40S ribosomal protein S11-A



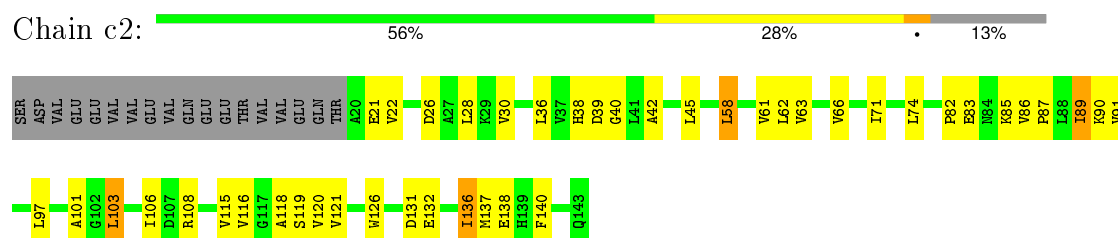
- Molecule 13: 40S ribosomal protein S11-A



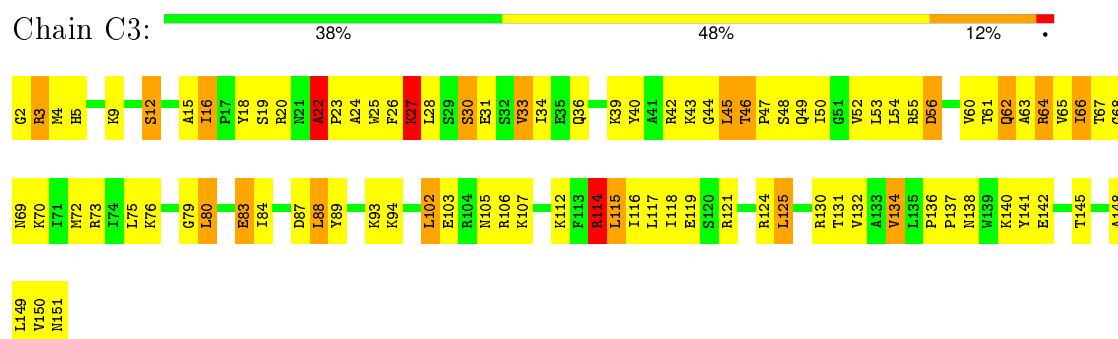
- Molecule 14: 40S ribosomal protein S12




- Molecule 14: 40S ribosomal protein S12

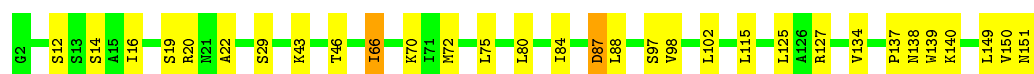


- Molecule 15: 40S ribosomal protein S13



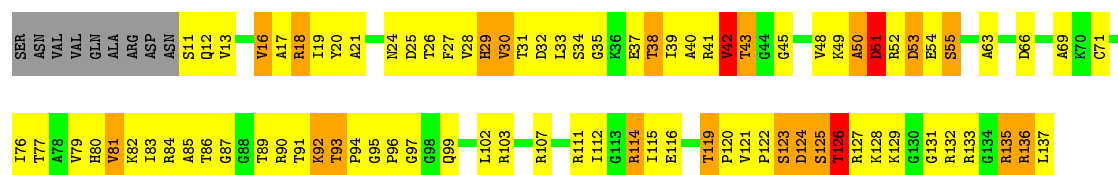
- Molecule 15: 40S ribosomal protein S13

Chain c3: 



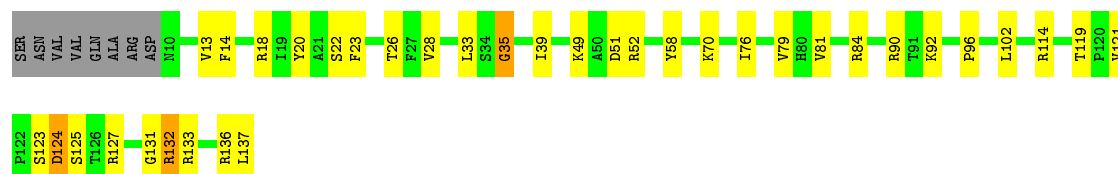
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 



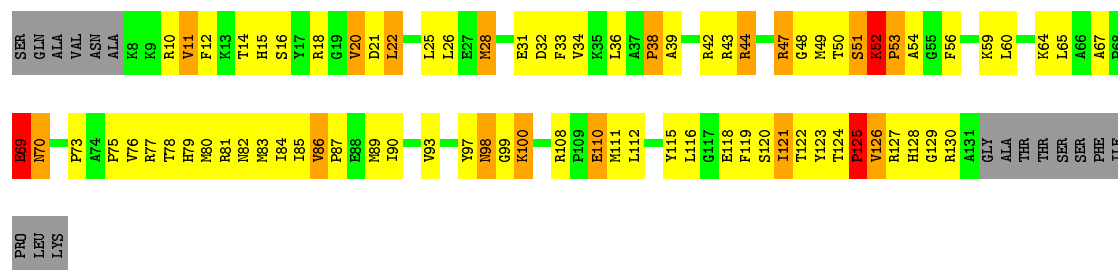
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 



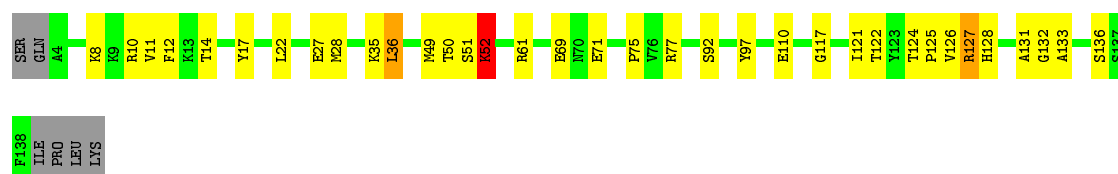
- Molecule 17: 40S ribosomal protein S15

Chain C5: 

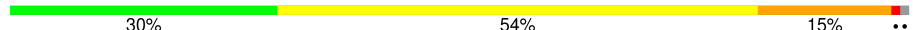


- Molecule 17: 40S ribosomal protein S15

Chain c5: 



- Molecule 18: 40S ribosomal protein S16-A

Chain C6: 





- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 30% 55% 15%



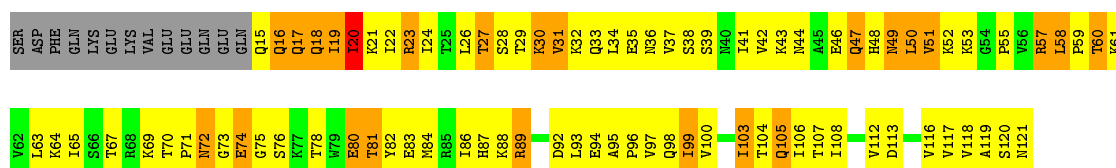
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 83% 15%



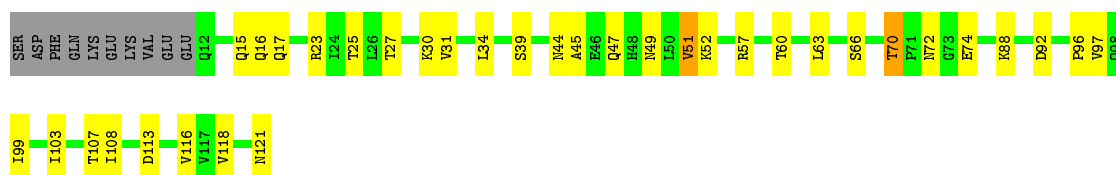
- Molecule 22: 40S ribosomal protein S20

Chain D0: 17% 53% 19% 11%



- Molecule 22: 40S ribosomal protein S20

Chain d0: 63% 28% 8%



- Molecule 23: 40S ribosomal protein S21-A

Chain D1: 39% 47% 14%







- Molecule 23: 40S ribosomal protein S21-A

Chain d1: 80% 18% .



- Molecule 24: 40S ribosomal protein S22-A

Chain D2: 33% 52% 12% .



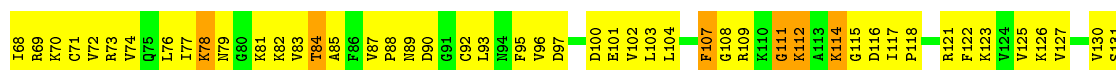
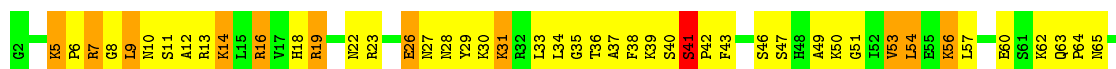
- Molecule 24: 40S ribosomal protein S22-A

Chain d2: 87% 11% .



- Molecule 25: 40S ribosomal protein S23-A

Chain D3: 27% 59% 13% .



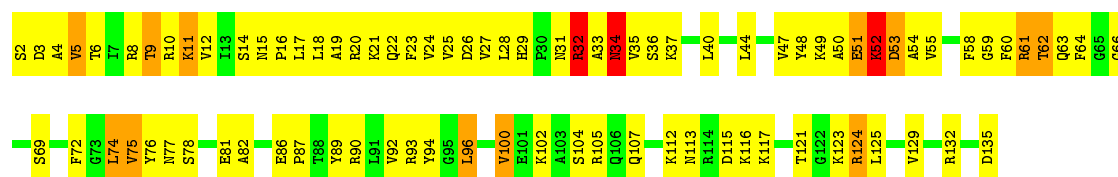
- Molecule 25: 40S ribosomal protein S23-A

Chain d3: 81% 18% .



- Molecule 26: 40S ribosomal protein S24-A

Chain D4: 36% 53% 9% .



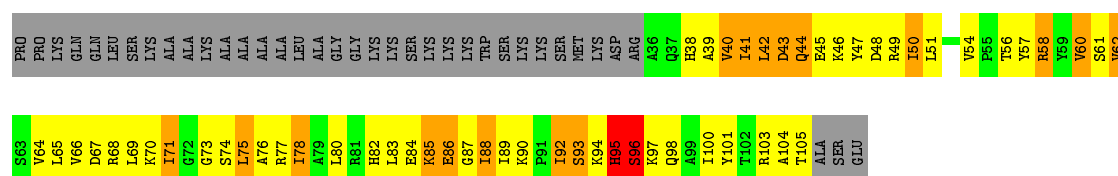
- Molecule 26: 40S ribosomal protein S24-A

Chain d4: 81% 18%



- Molecule 27: 40S ribosomal protein S25-A

Chain D5: 12% 36% 16% 35%



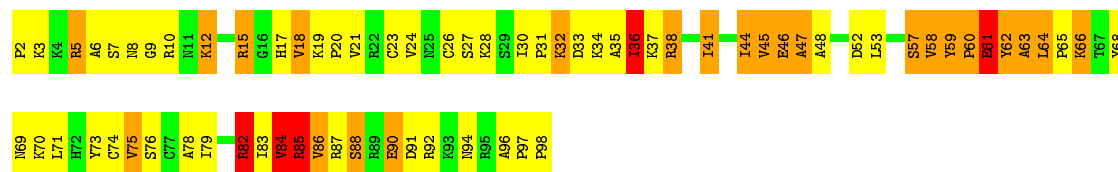
- Molecule 27: 40S ribosomal protein S25-A

Chain d5: 50% 15% 36%



- Molecule 28: 40S ribosomal protein S26-B

Chain D6: 27% 44% 24% 5%

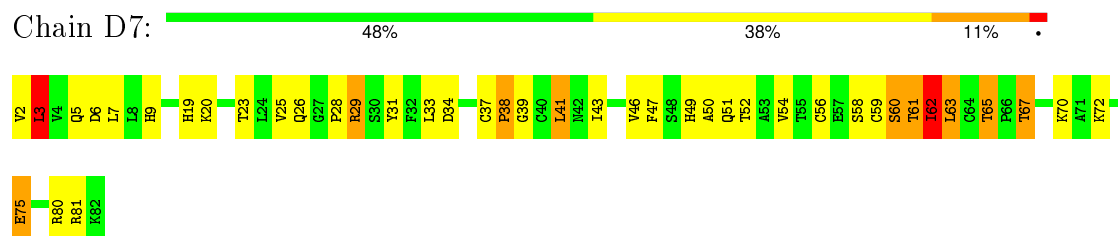


- Molecule 28: 40S ribosomal protein S26-B

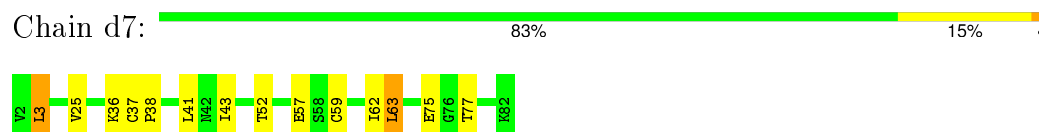
Chain d6: 71% 29%



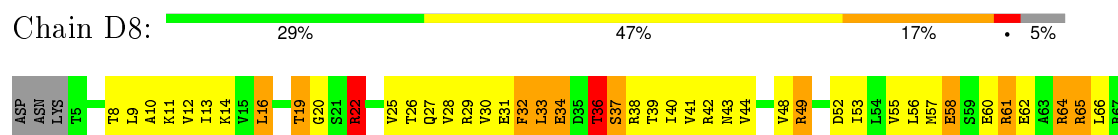
- Molecule 29: 40S ribosomal protein S27-A



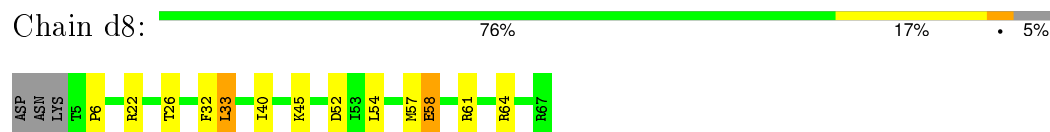
- Molecule 29: 40S ribosomal protein S27-A



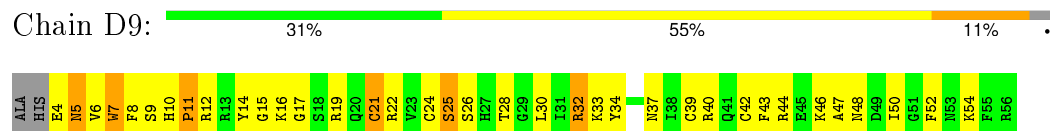
- Molecule 30: 40S ribosomal protein S28-A



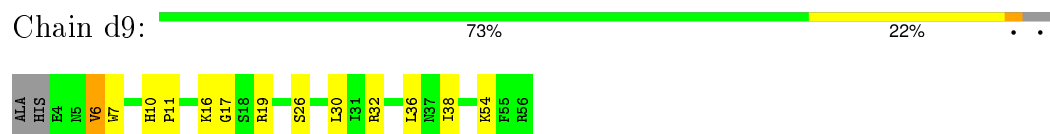
- Molecule 30: 40S ribosomal protein S28-A



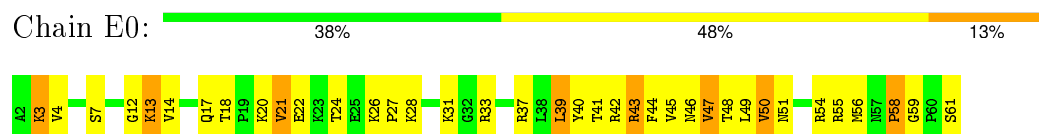
- Molecule 31: 40S ribosomal protein S29-A



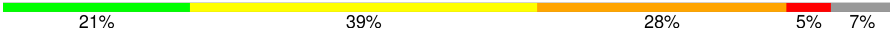
- Molecule 31: 40S ribosomal protein S29-A

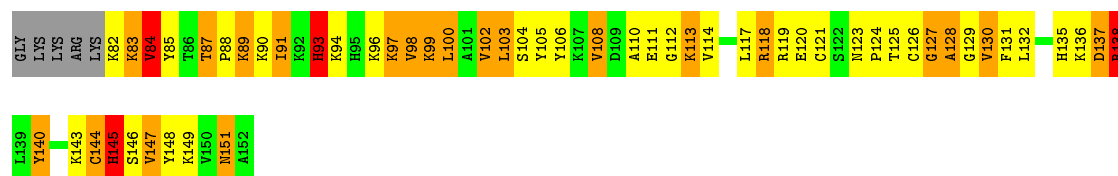


- Molecule 32: 40S ribosomal protein S30-A



- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1: 



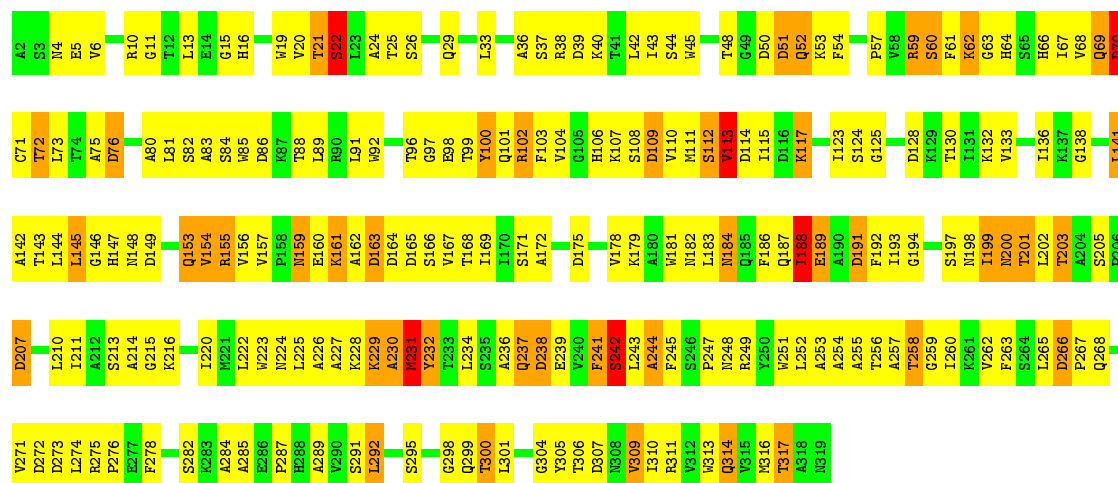
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1: 



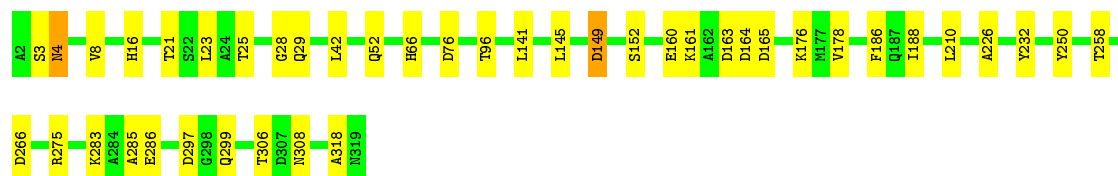
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR: 




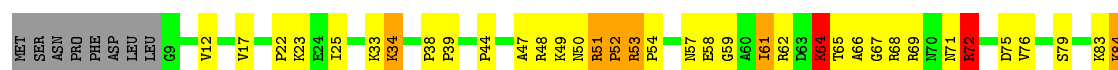
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

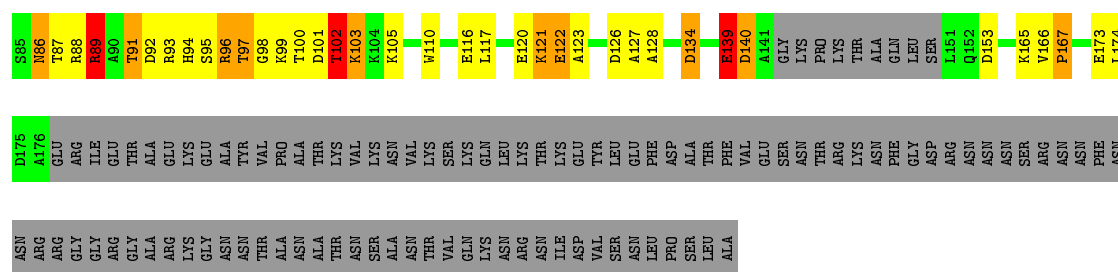
Chain sR: 



- Molecule 35: Suppressor protein STM1

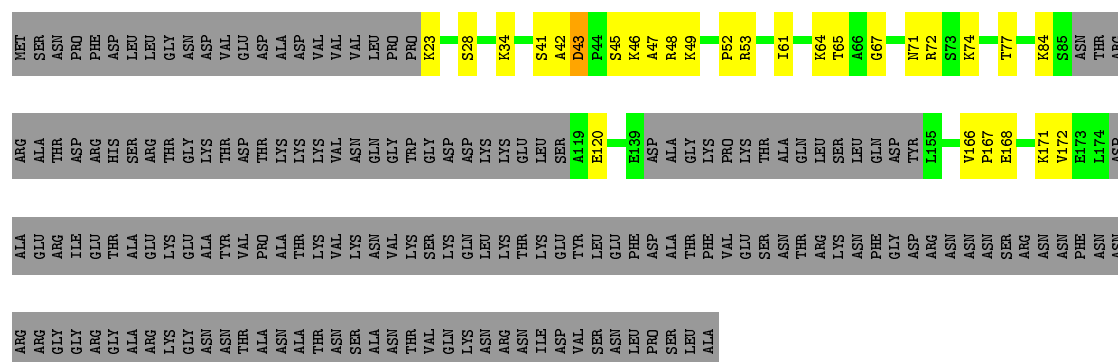
Chain SM: 





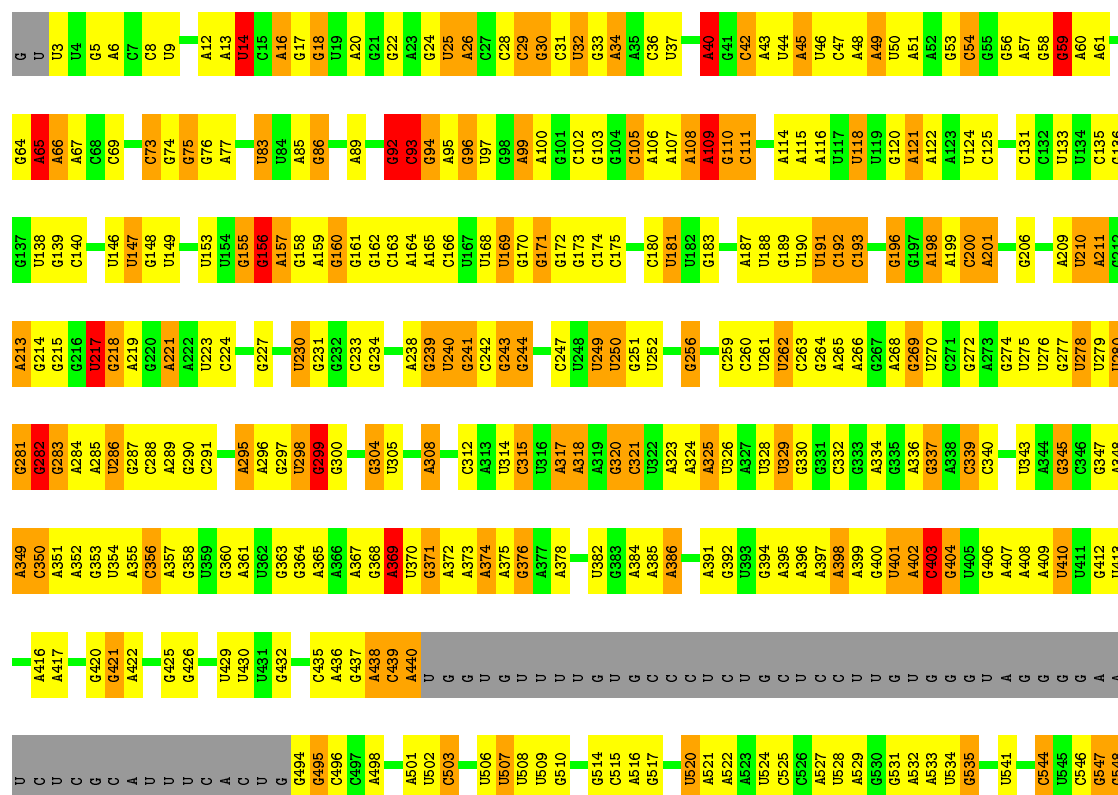
- Molecule 35: Suppressor protein STM1

Chain sM: 



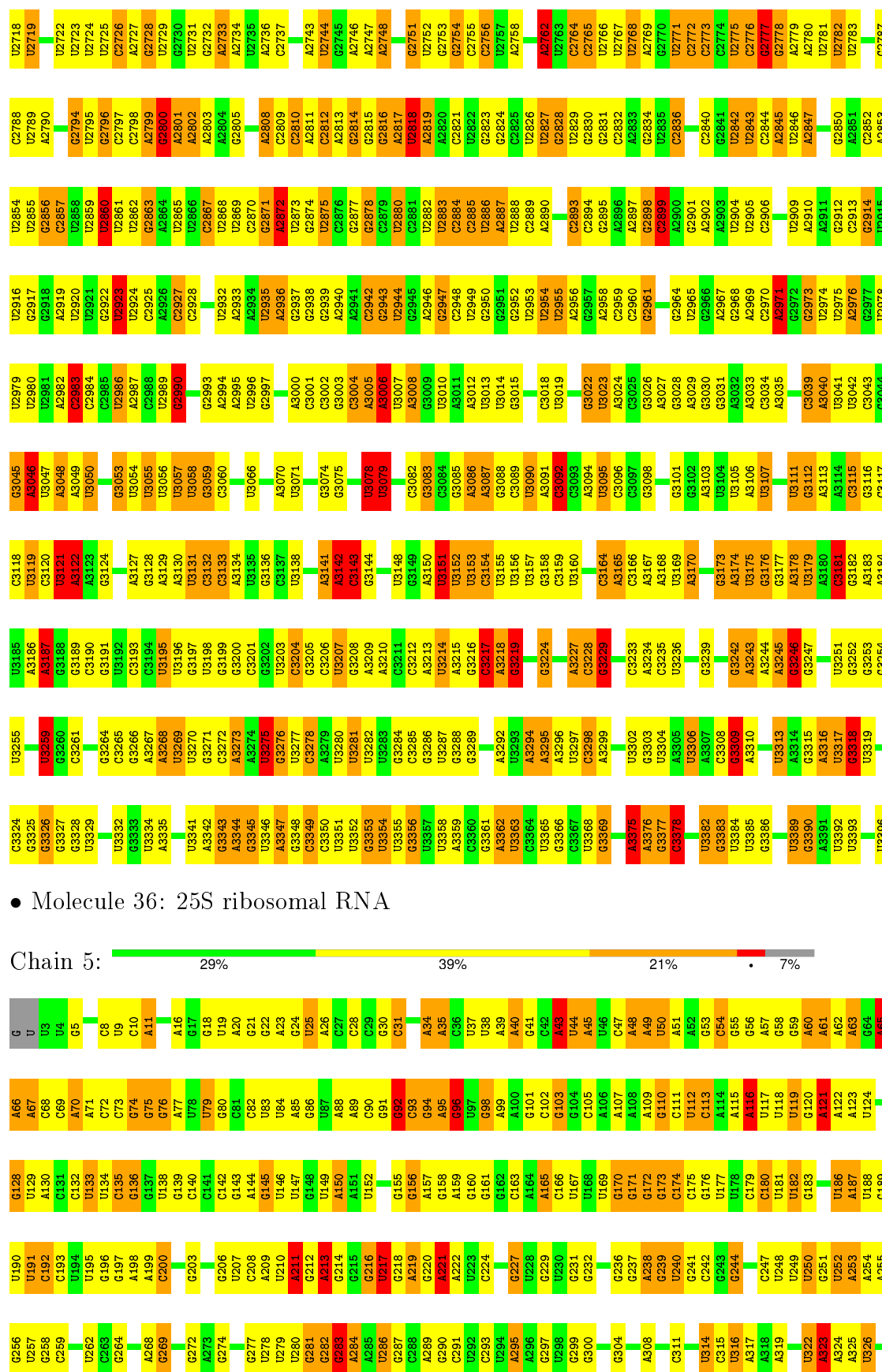
- Molecule 36: 25S ribosomal RNA

Chain 1: 29% 40% 20% 7%



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U1554	U1555	G1485	G1486	G1422	G1421	U1361	C1298	G1233	U1162	U1100	U1033	A963	G900	U830	U767	A692	U627	A552	
C1556	C1557	G1488	G1489	G1426	G1425	G1362	U1299	G1234	A1163	G1101	U1034	A964	G901	A831	G768	A693	A628	U553	
A1558	A1559	U1489	U1490	U1426	U1425	G1364	A1301	G1236	G1165	G1104	A1036	U966	A906	G835	G770	C694	U629	U554	
U1559	U1560	G1491	G1492	U1427	U1426	G1365	A1302	G1237	G1166	G1105	C1038	G968	G907	A836	U772	C695	A630	U555	
G1561	G1562	U1493	U1494	G1428	G1427	G1366	A1303	C1238	A1170	G1106	U1039	G969	G908	A837	G773	C633	C633	U556	
C1563	C1564	G1495	U1496	G1430	G1429	U1368	U1305	A1240	G1171	C1107	A1040	A970	G909	G838	U776	A699	G635	U558	
U1565	U1566	U1497	U1498	G1431	G1430	G1370	G1307	G1242	G1174	U1108	U1041	G971	G910	C839	U777	C700	C636	U560	
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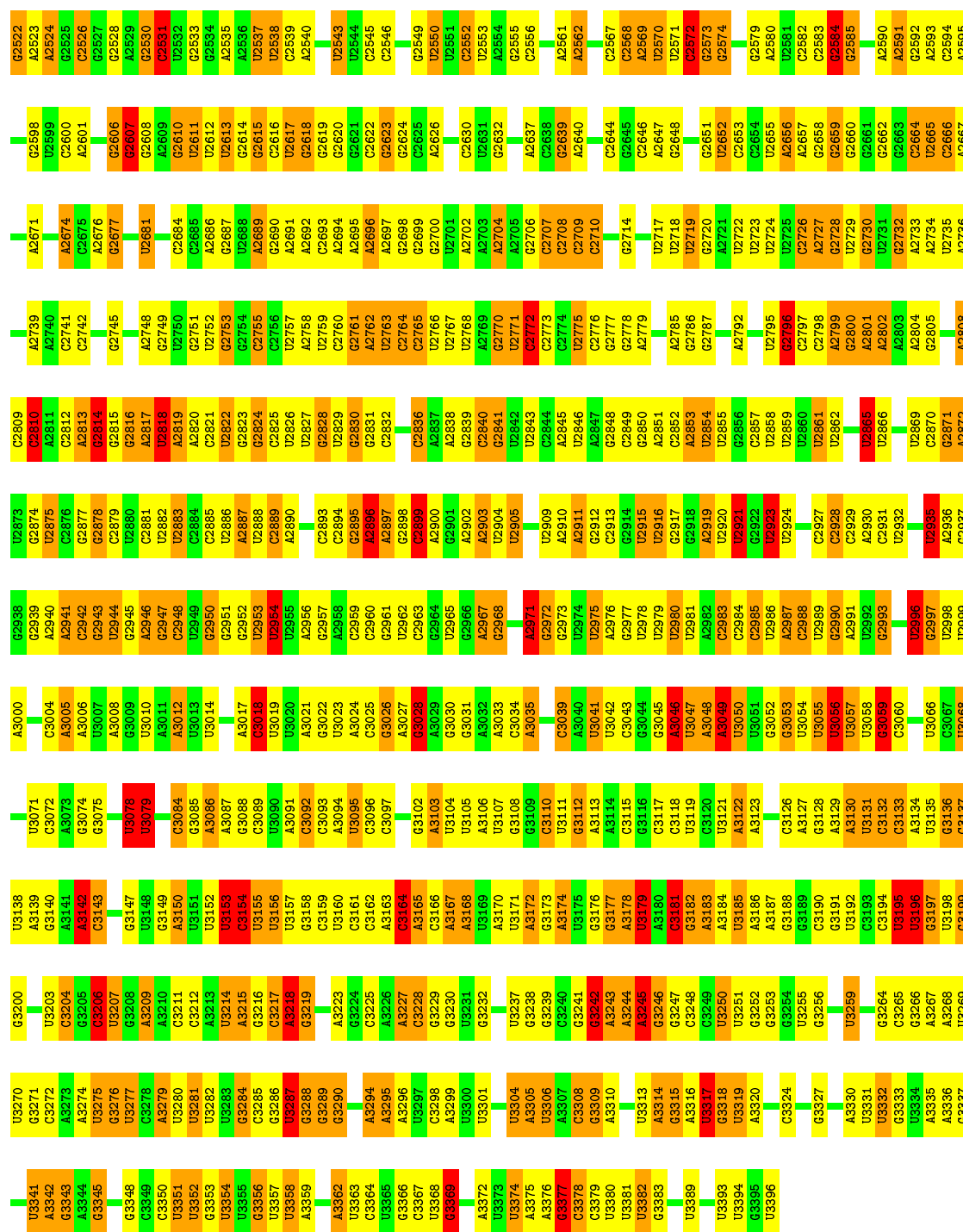




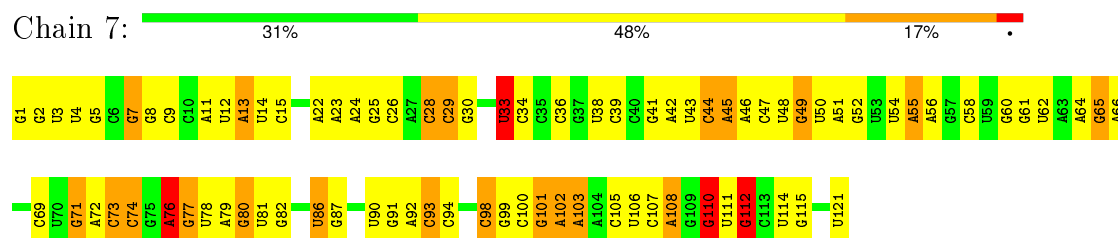




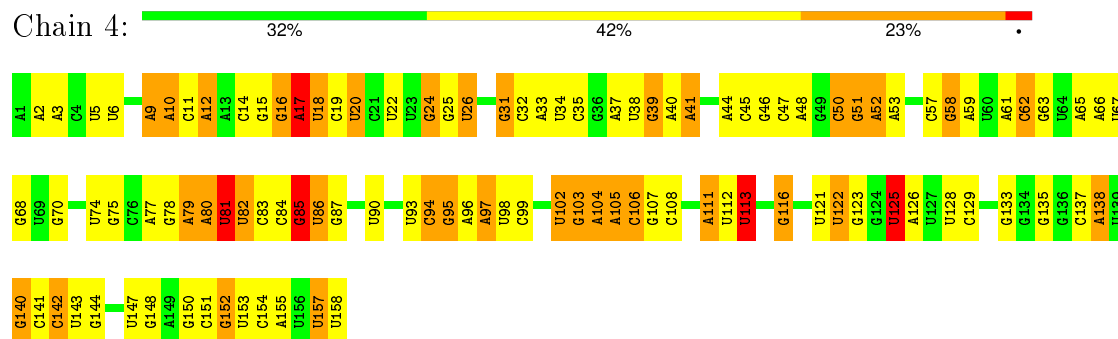
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U	A2401	U2336	G2272	G	A1888	G1790	G1700	U1557	A1490	A1419
G	A2402	A2198	U2273	U	A1889	G1794	C1701	A1558	G	C1420
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A	G2442	G2235	A2167	C	G1901	U1833	A1676	G1598	U1533	A1468
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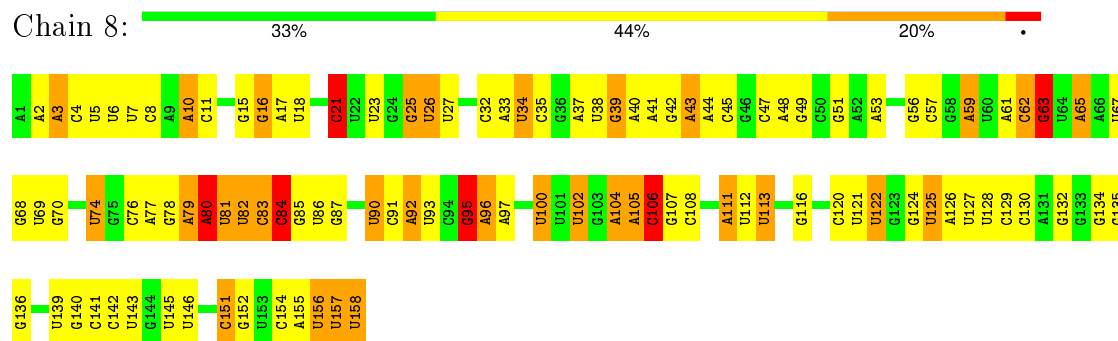
- Molecule 37: 5S ribosomal RNA



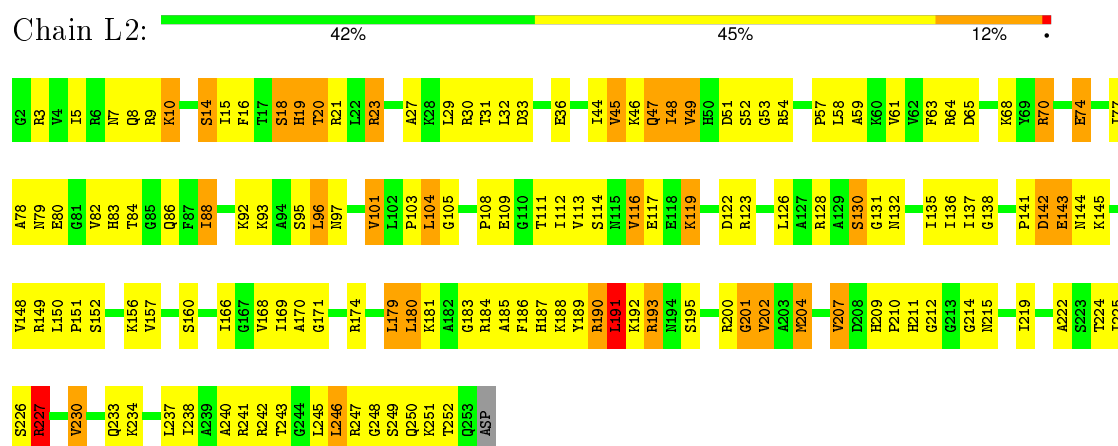
- Molecule 38: 5.8S ribosomal RNA



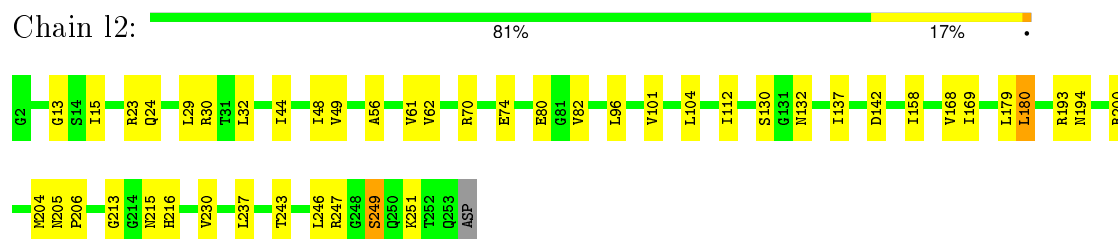
- Molecule 38: 5.8S ribosomal RNA



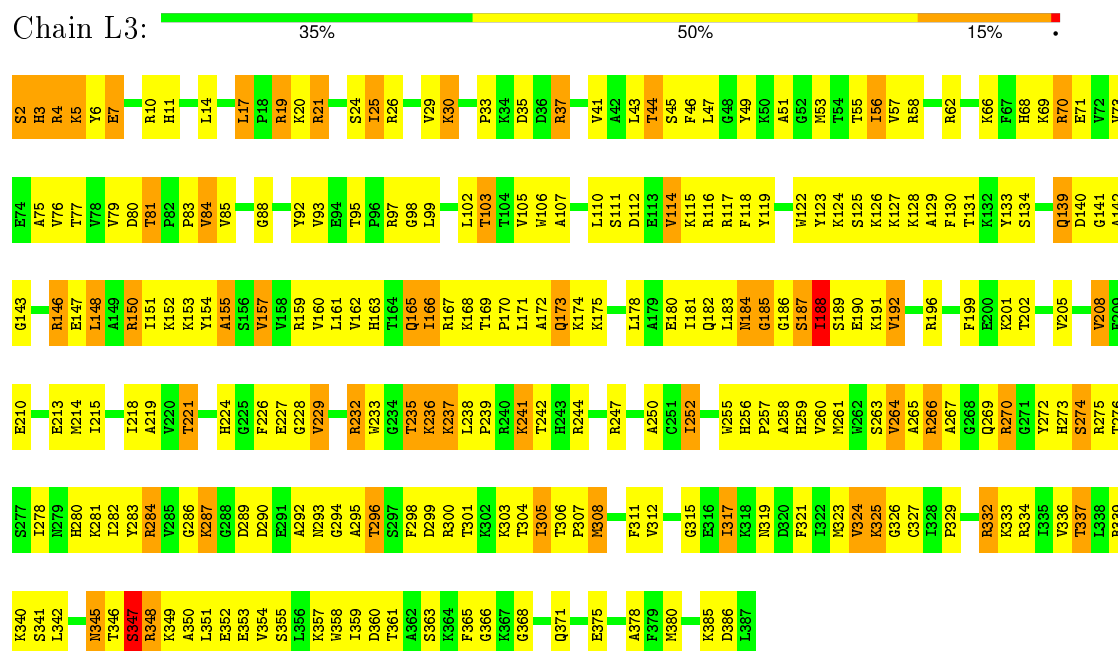
- Molecule 39: 60S ribosomal protein L2-A



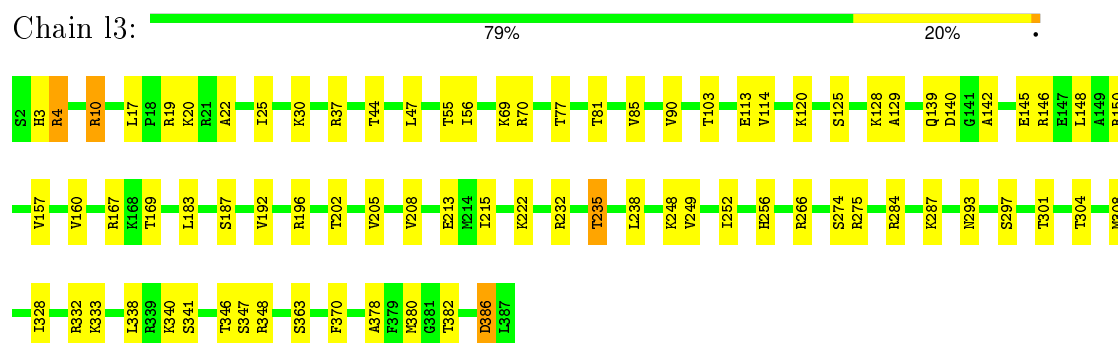
- Molecule 39: 60S ribosomal protein L2-A



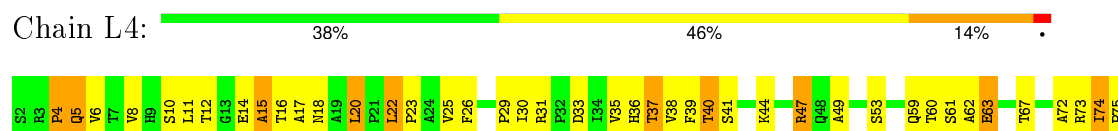
- Molecule 40: 60S ribosomal protein L3

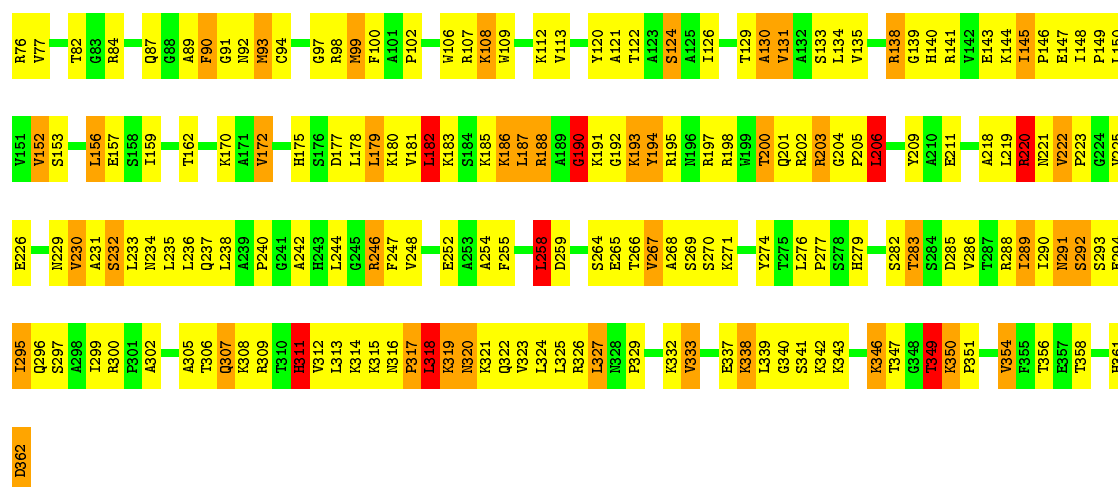


- Molecule 40: 60S ribosomal protein L3

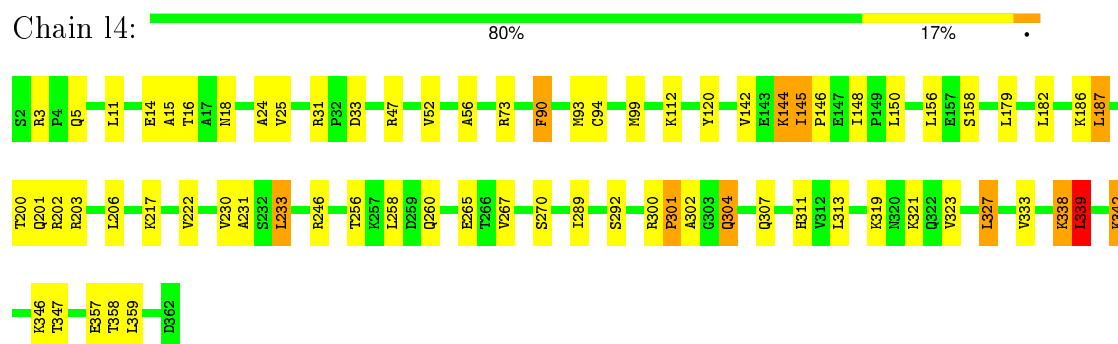


- Molecule 41: 60S ribosomal protein L4-A

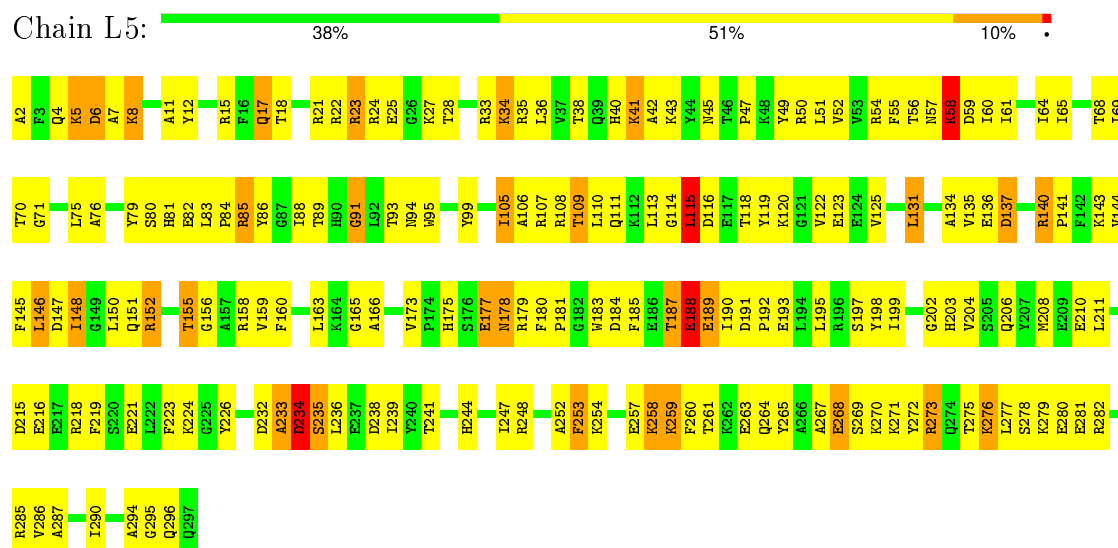




• Molecule 41: 60S ribosomal protein L4-A

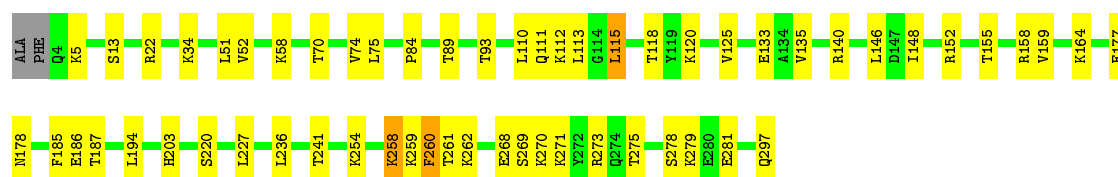


• Molecule 42: 60S ribosomal protein L5



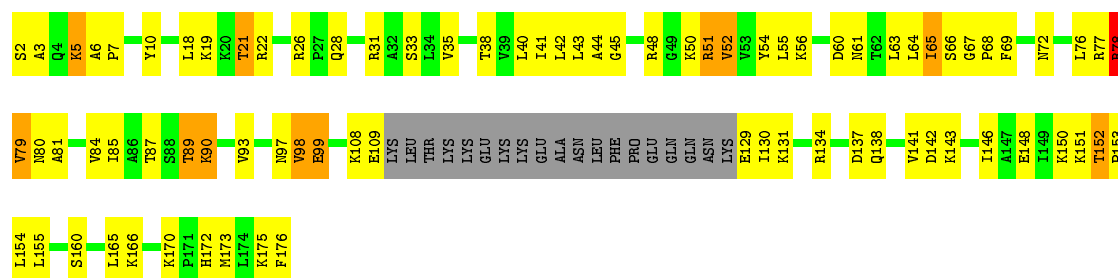
• Molecule 42: 60S ribosomal protein L5





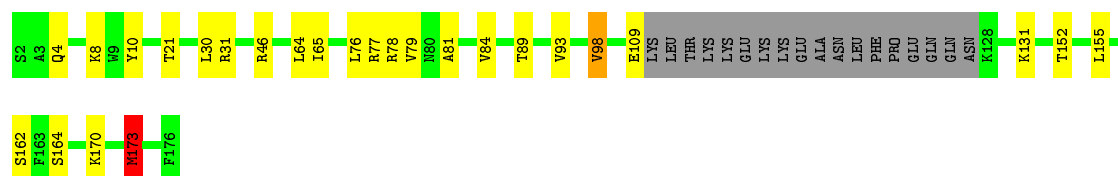
- Molecule 43: 60S ribosomal protein L6-A

Chain L6: 43% 39% 6% 11%



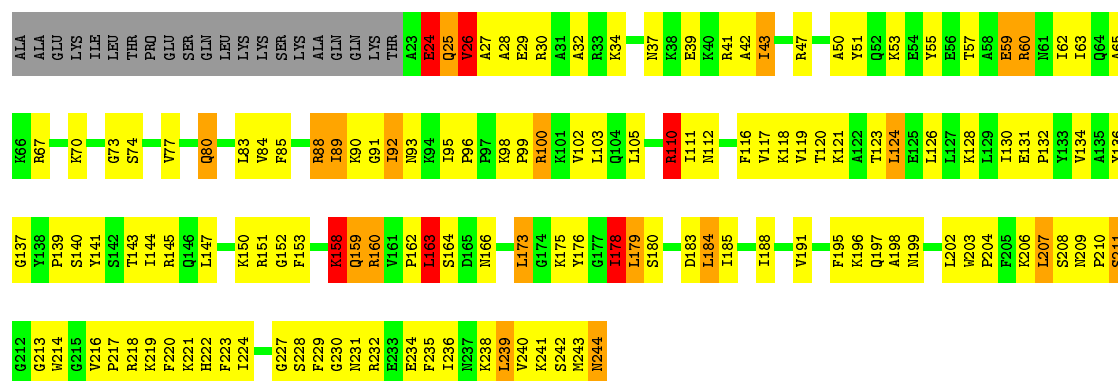
- Molecule 43: 60S ribosomal protein L6-A

Chain L6: 75% 14% 10%



- Molecule 44: 60S ribosomal protein L7-A

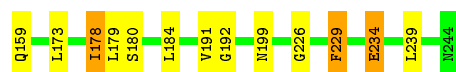
Chain L7: 35% 46% 8% 9%



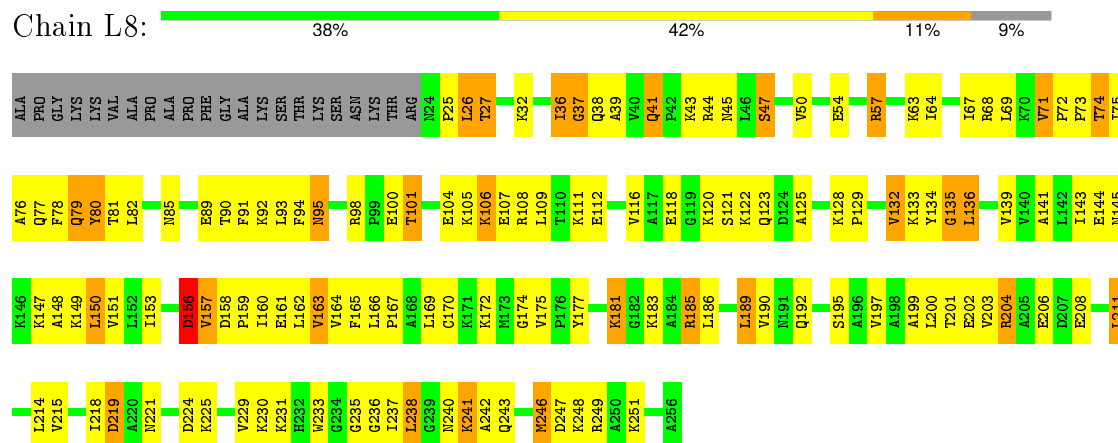
- Molecule 44: 60S ribosomal protein L7-A

Chain L7: 77% 13% 8%

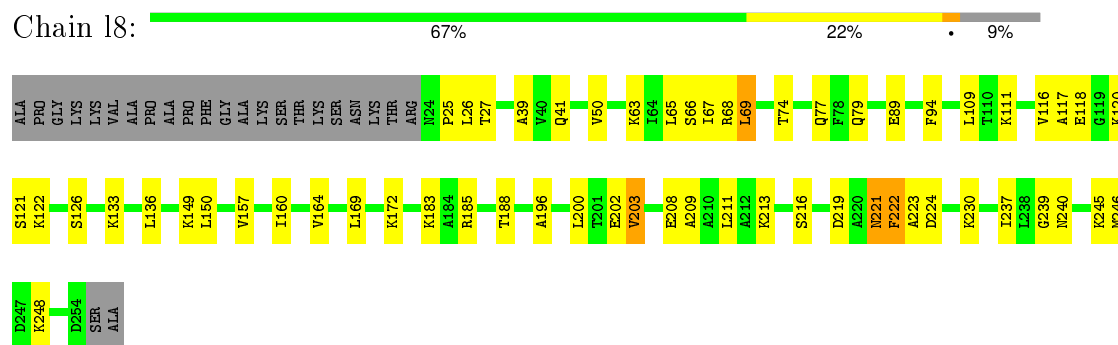




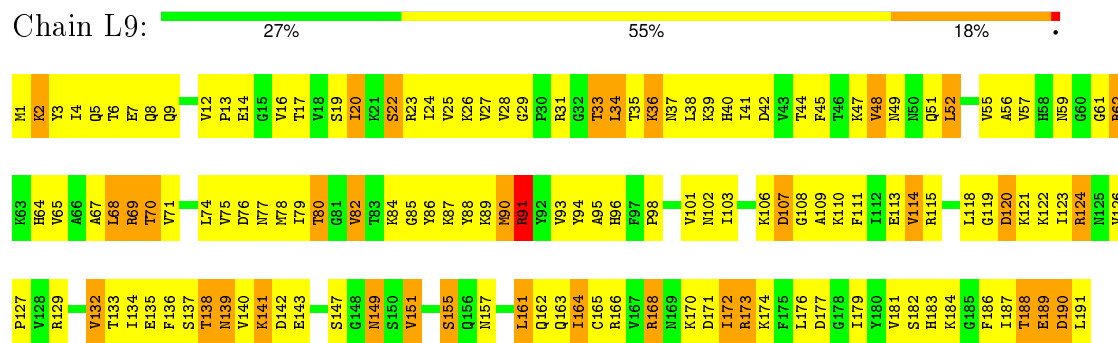
• Molecule 45: 60S ribosomal protein L8-A



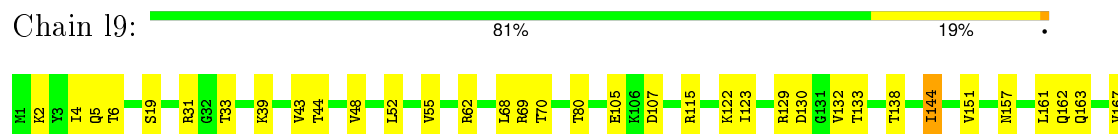
• Molecule 45: 60S ribosomal protein L8-A



• Molecule 46: 60S ribosomal protein L9-A



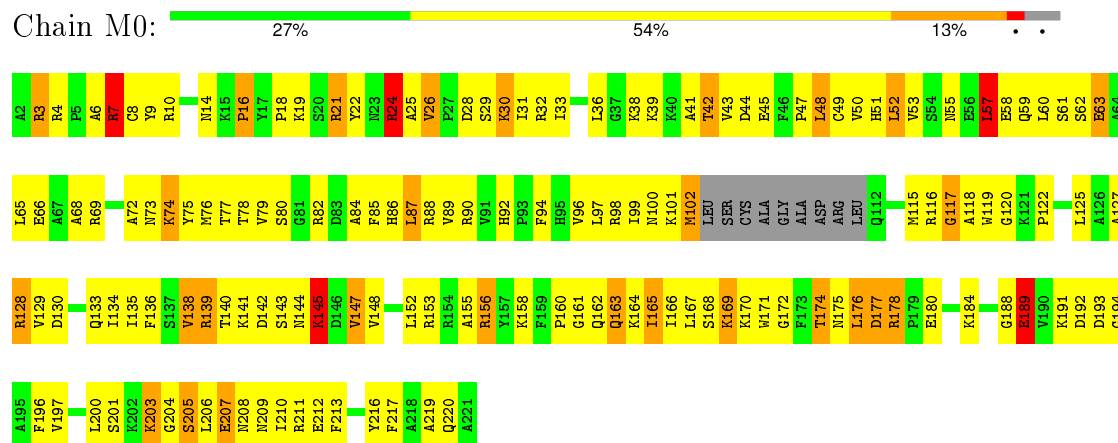
• Molecule 46: 60S ribosomal protein L9-A



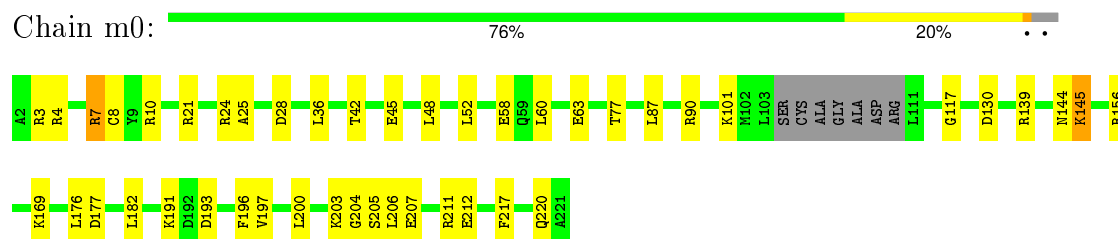




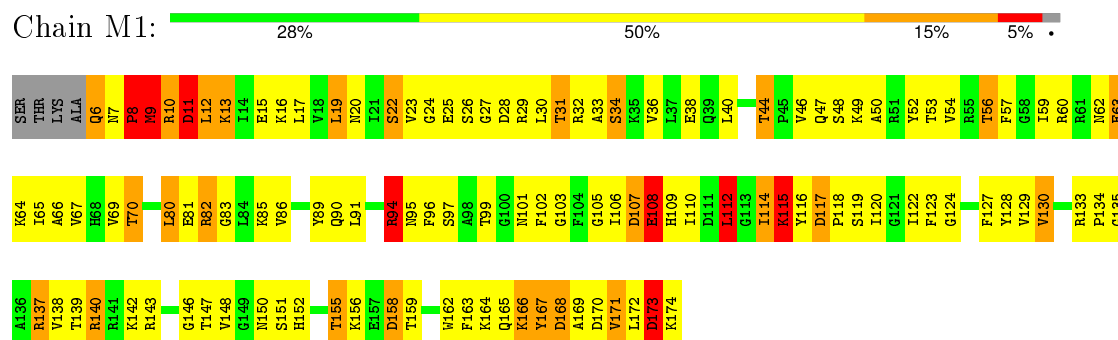
• Molecule 47: 60S ribosomal protein L10



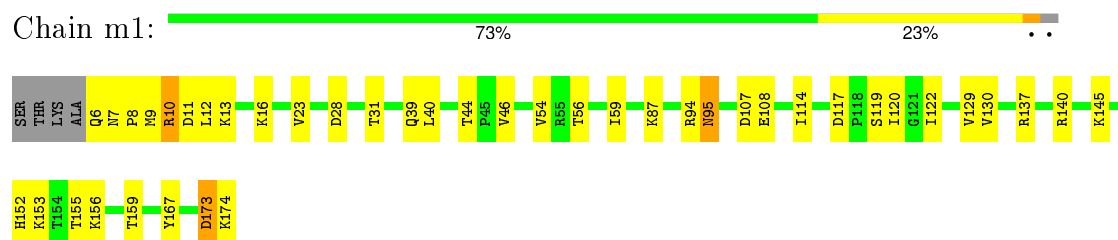
• Molecule 47: 60S ribosomal protein L10



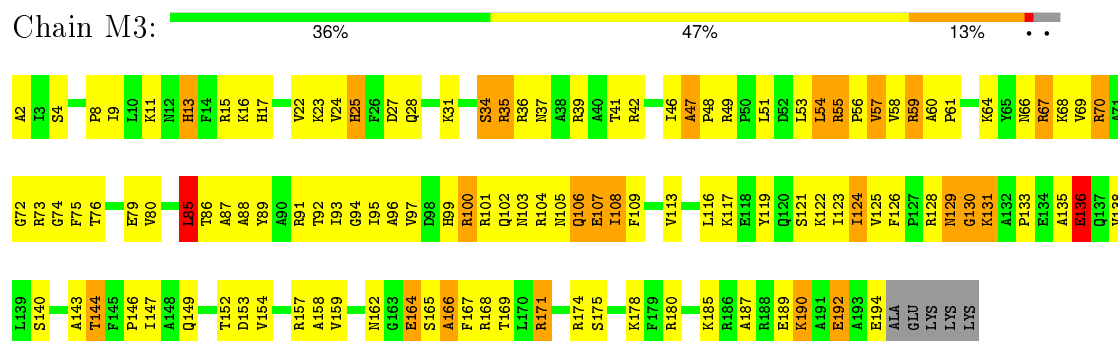
• Molecule 48: 60S ribosomal protein L11-B



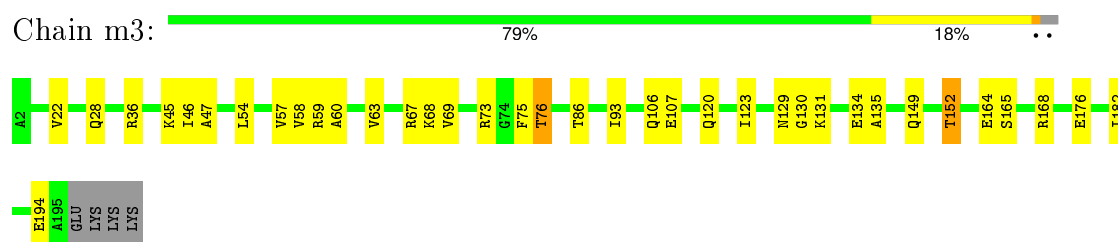
• Molecule 48: 60S ribosomal protein L11-B



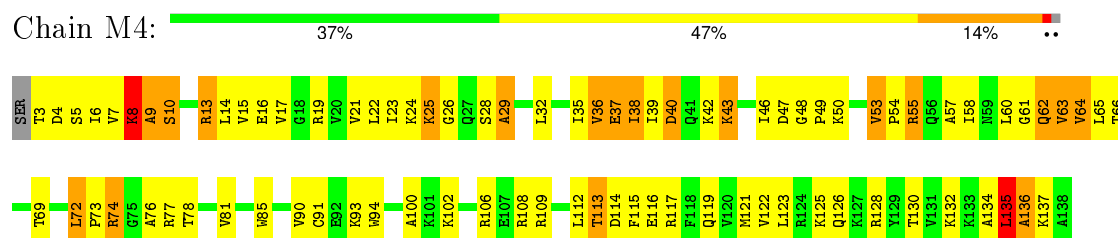
- Molecule 49: 60S ribosomal protein L13-A



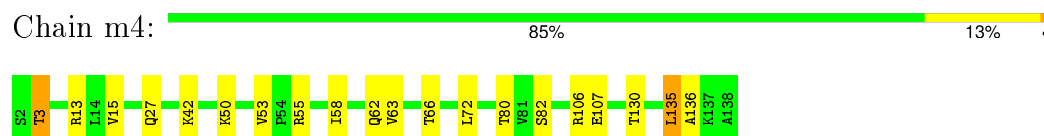
- Molecule 49: 60S ribosomal protein L13-A



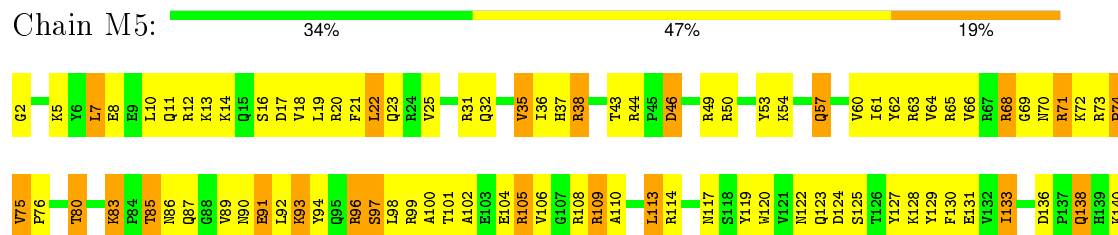
- Molecule 50: 60S ribosomal protein L14-A

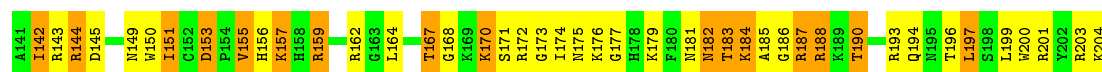


- Molecule 50: 60S ribosomal protein L14-A



- Molecule 51: 60S ribosomal protein L15-A





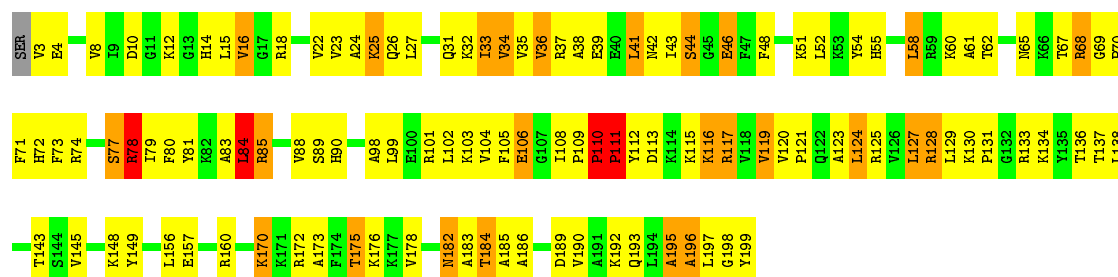
• Molecule 51: 60S ribosomal protein L15-A

Chain m5: 83% 17%



• Molecule 52: 60S ribosomal protein L16-A

Chain M6: 40% 45% 13% ..



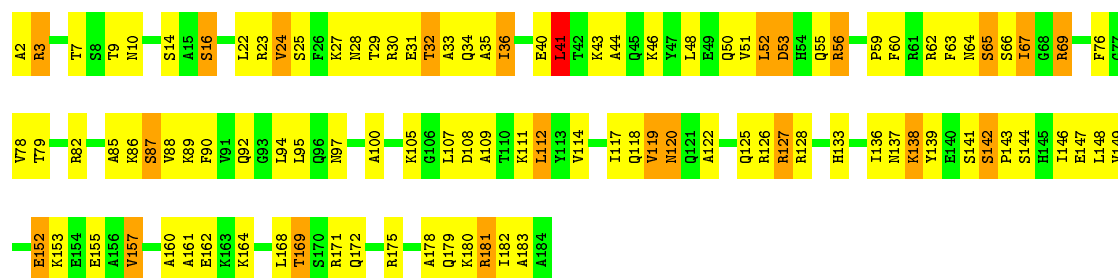
• Molecule 52: 60S ribosomal protein L16-A

Chain m6: 81% 18% ...

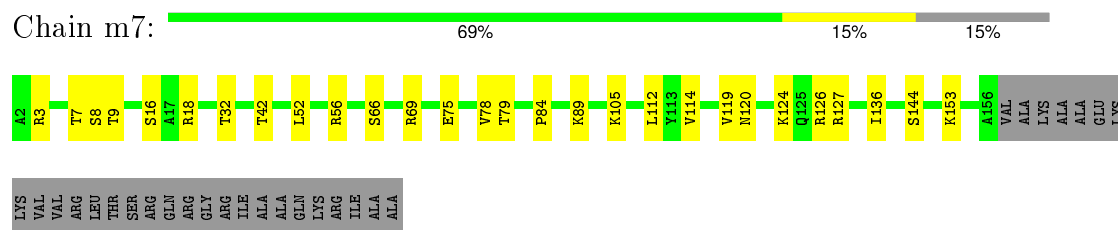


• Molecule 53: 60S ribosomal protein L17-A

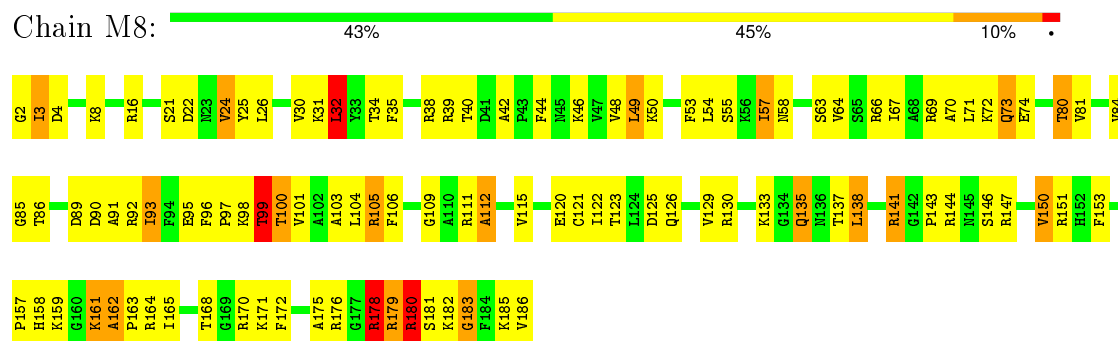
Chain M7: 43% 45% 12% .



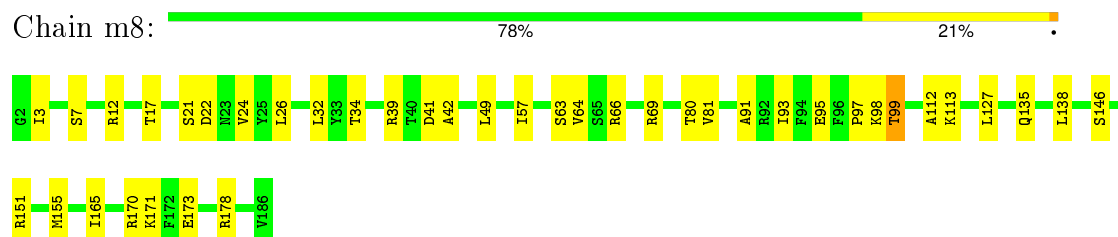
• Molecule 53: 60S ribosomal protein L17-A



- Molecule 54: 60S ribosomal protein L18-A



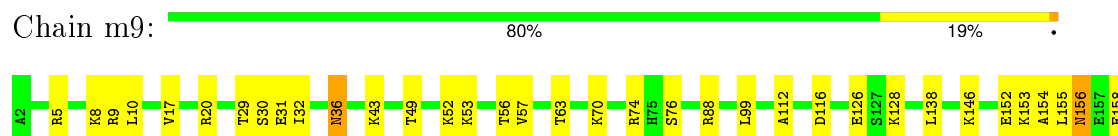
- Molecule 54: 60S ribosomal protein L18-A



- Molecule 55: 60S ribosomal protein L19-A



- Molecule 55: 60S ribosomal protein L19-A





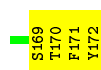
- Molecule 56: 60S ribosomal protein L20-A

Chain N0: 39% 48% 12% .



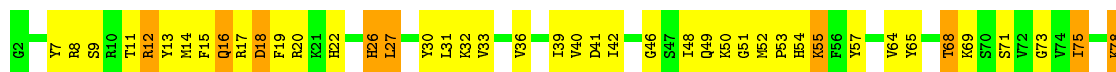
- Molecule 56: 60S ribosomal protein L20-A

Chain n0: 78% 21% .



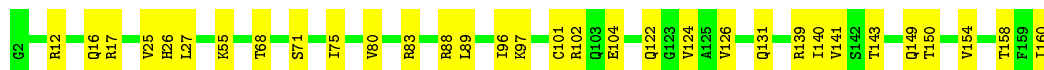
- Molecule 57: 60S ribosomal protein L21-A

Chain N1: 40% 45% 13% .



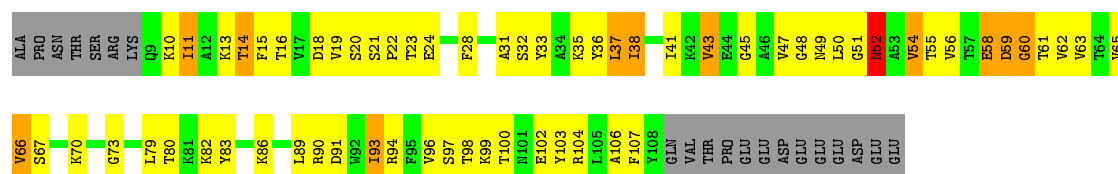
- Molecule 57: 60S ribosomal protein L21-A

Chain n1: 80% 20%



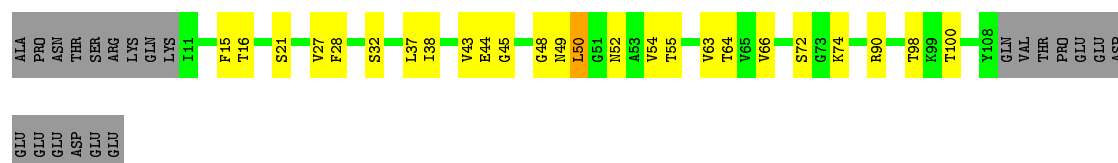
- Molecule 58: 60S ribosomal protein L22-A

Chain N2: 30% 43% 9% 17%



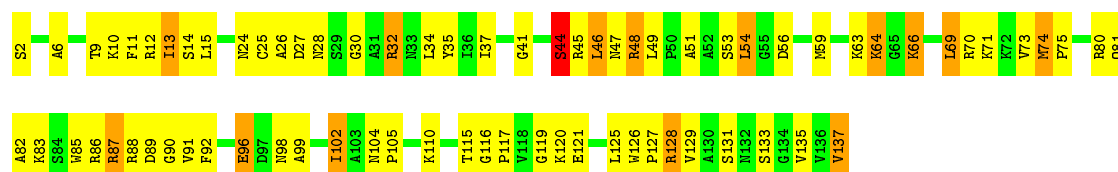
• Molecule 58: 60S ribosomal protein L22-A

Chain n2: 61% 20% 18%



• Molecule 59: 60S ribosomal protein L23-A

Chain N3: 46% 43% 10%



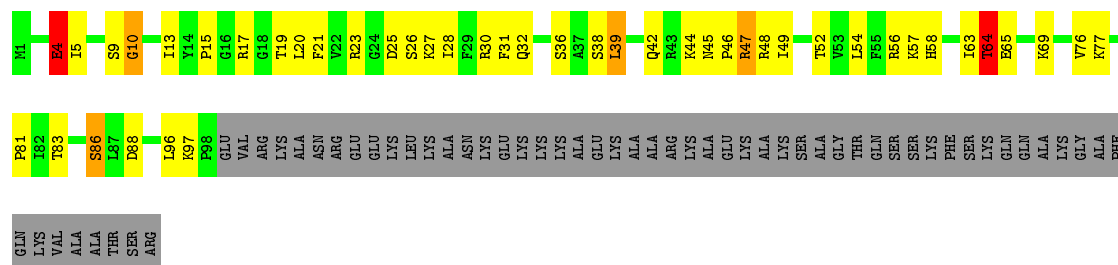
• Molecule 59: 60S ribosomal protein L23-A

Chain n3: 88% 11%



• Molecule 60: 60S ribosomal protein L24-A

Chain N4: 34% 25% 37%



• Molecule 60: 60S ribosomal protein L24-A


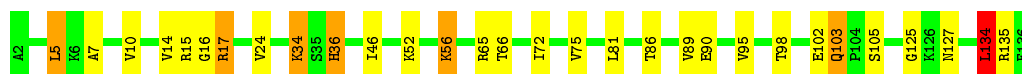
Chain n4: 72% 14% 13%



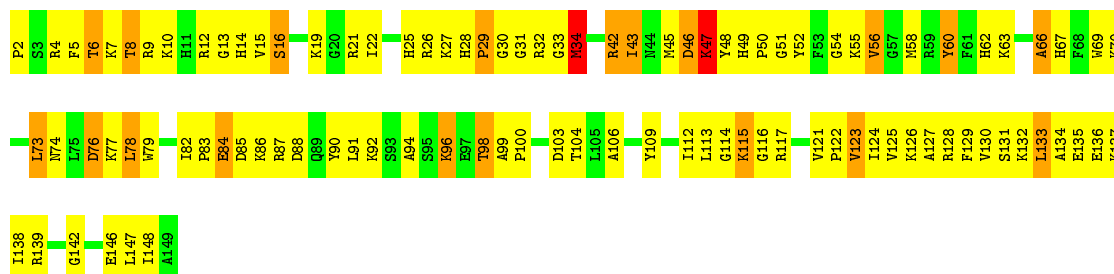


F136


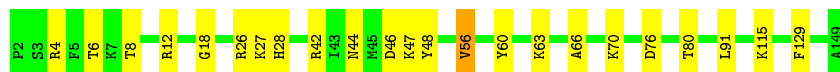
- Molecule 63: 60S ribosomal protein L27-A

Chain n7:  78% 17%

- Molecule 64: 60S ribosomal protein L28

Chain N8:  32% 54% 13%

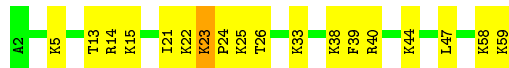
- Molecule 64: 60S ribosomal protein L28

Chain n8:  84% 15%

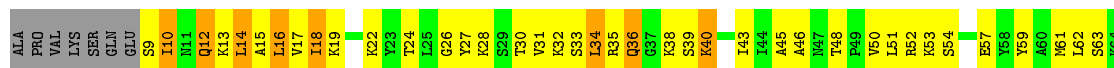
- Molecule 65: 60S ribosomal protein L29

Chain N9:  45% 40% 16%

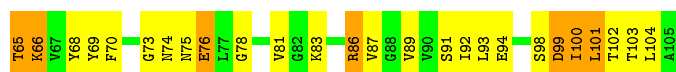
- Molecule 65: 60S ribosomal protein L29

Chain n9:  69% 29%

- Molecule 66: 60S ribosomal protein L30

Chain O0:  31% 48% 14% 7%





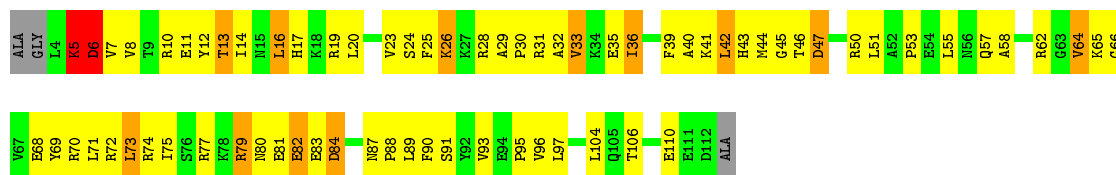
- Molecule 66: 60S ribosomal protein L30

Chain o0: 75% 19% ..



- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 34% 51% 11% ..



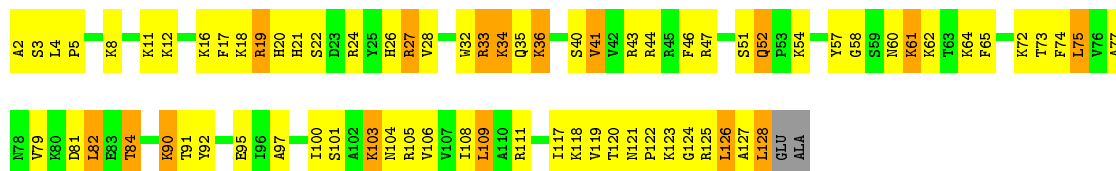
- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 70% 26% ..



- Molecule 68: 60S ribosomal protein L32

Chain O2: 41% 45% 12% ..



- Molecule 68: 60S ribosomal protein L32

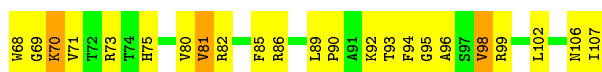
Chain o2: 78% 19% ..



- Molecule 69: 60S ribosomal protein L33-A

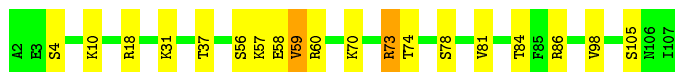
Chain O3: 42% 51% 7% ..





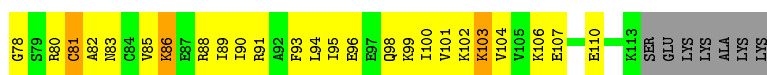
- Molecule 69: 60S ribosomal protein L33-A

Chain o3: 82% 16%



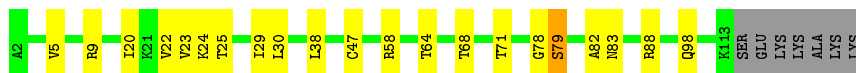
- Molecule 70: 60S ribosomal protein L34-A

Chain O4: 37% 46% 9% 6%



- Molecule 70: 60S ribosomal protein L34-A

Chain o4: 76% 17% 6%



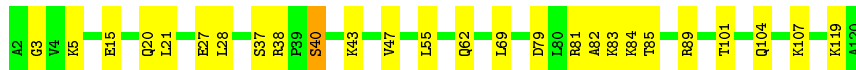
- Molecule 71: 60S ribosomal protein L35-A

Chain O5: 30% 49% 20%



- Molecule 71: 60S ribosomal protein L35-A

Chain o5: 78% 21%



- Molecule 72: 60S ribosomal protein L36-A

Chain O6: 41% 42% 12%





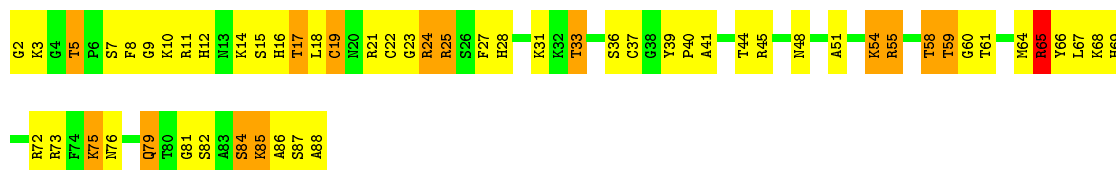
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 70% 28%



- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 34% 48% 16%



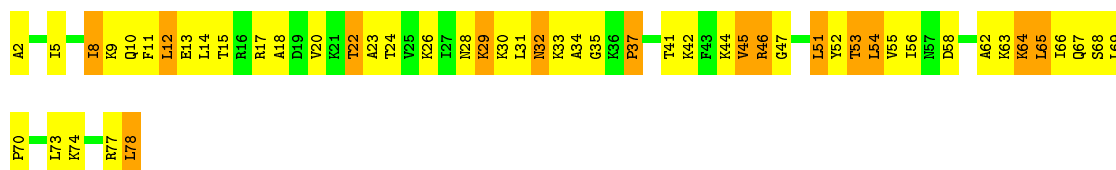
- Molecule 73: 60S ribosomal protein L37-A

Chain o7: 82% 16%



- Molecule 74: 60S ribosomal protein L38

Chain O8: 32% 49% 18%



- Molecule 74: 60S ribosomal protein L38

Chain o8: 77% 23%




- Molecule 75: 60S ribosomal protein L39

Chain O9: 38% 42% 20%



- Molecule 75: 60S ribosomal protein L39

Chain o9:  80% 20%




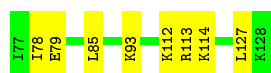
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:  42% 46% 12%



- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:  85% 15%



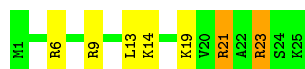
- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:  16% 64% 20%



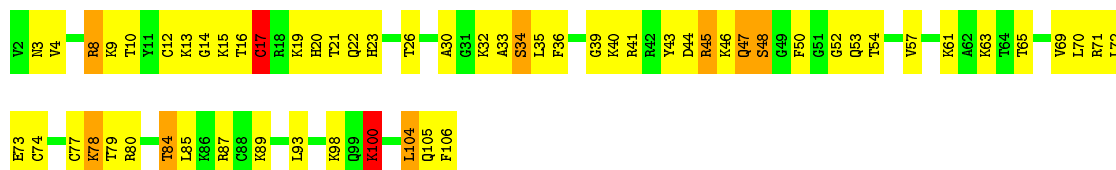
- Molecule 77: 60S ribosomal protein L41-A

Chain q1:  72% 20% 8%




- Molecule 78: 60S ribosomal protein L42-A

Chain Q2:  43% 48% 8%

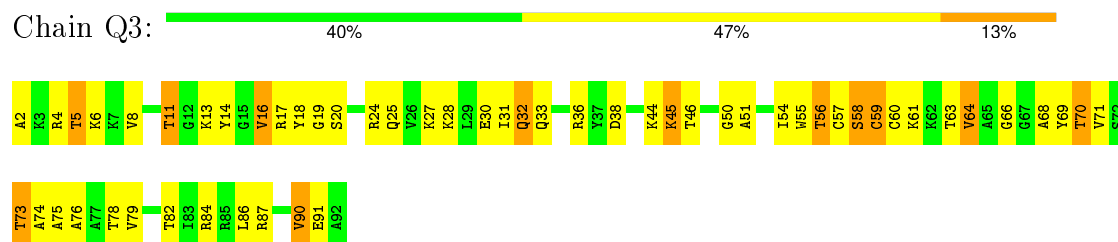


- Molecule 78: 60S ribosomal protein L42-A

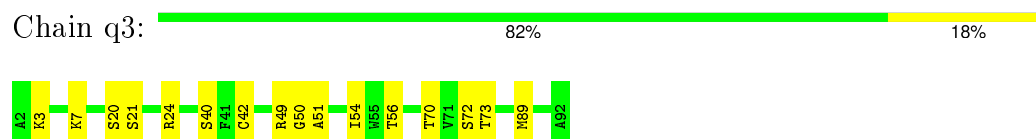
Chain q2:  76% 22% ..



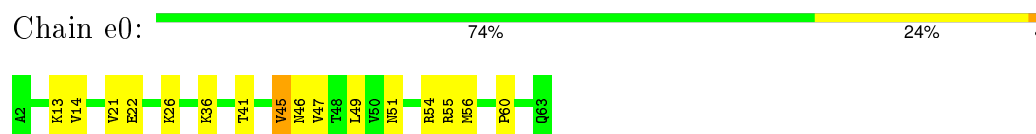
- Molecule 79: 60S ribosomal protein L43-A



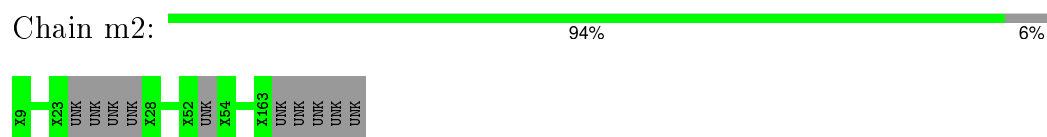
- Molecule 79: 60S ribosomal protein L43-A



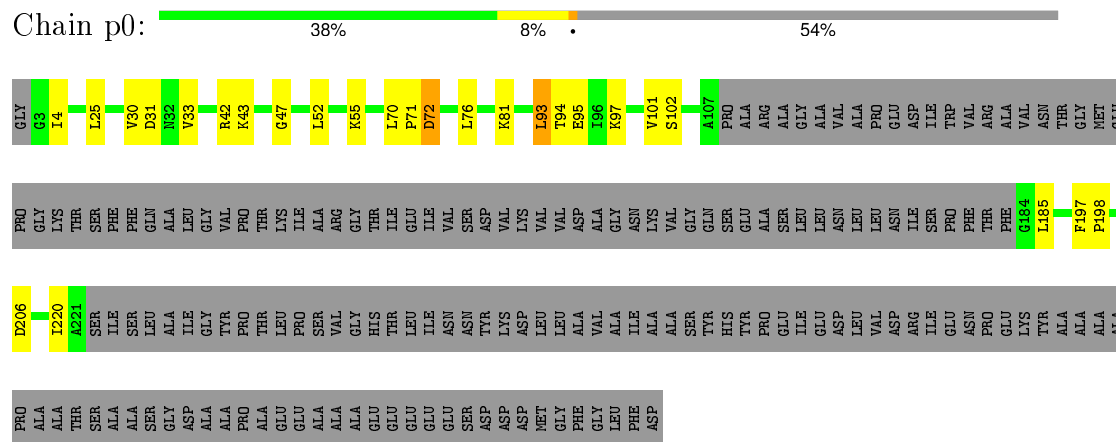
- Molecule 80: 40S ribosomal protein S30-A



- Molecule 81: Unknown protein m2



- Molecule 82: 60S acidic ribosomal protein P0



- Molecule 83: Unknown protein p1



There are no outlier residues recorded for this chain.

- Molecule 84: Unknown protein p2

Chain p2:  100%

There are no outlier residues recorded for this chain.

## 4 Data and refinement statistics

EDS failed to run properly - this section will therefore be incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	434.98Å 287.50Å 303.22Å 90.00° 98.85° 90.00°	Depositor
Resolution (Å)	299.60 – 3.10	Depositor
% Data completeness (in resolution range)	100.0 (299.60-3.10)	Depositor
$R_{merge}$	0.37	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.22 (at 3.07Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, $R_{free}$	0.202 , 0.252	Depositor
Wilson B-factor (Å <sup>2</sup> )	76.9	Xtriage
Anisotropy	0.178	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 1327406 reflections	Xtriage
Total number of atoms	411276	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	76.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.54% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 3K5, ZN, OHX, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	2	0.73	5/41698 (0.0%)	1.28	279/64972 (0.4%)
1	6	0.89	29/42765 (0.1%)	1.39	455/66634 (0.7%)
2	S0	0.48	0/1617	0.67	0/2215
2	s0	0.50	0/1623	0.68	0/2222
3	S1	0.37	0/1735	0.68	1/2335 (0.0%)
3	s1	0.53	0/1748	0.70	0/2352
4	S2	0.51	0/1665	0.66	0/2263
4	s2	0.59	0/1665	0.77	0/2263
5	S3	0.51	0/1759	0.70	1/2368 (0.0%)
5	s3	0.47	0/1759	0.61	0/2368
6	S4	0.50	0/2109	0.72	0/2839
6	s4	0.56	0/2109	0.76	1/2839 (0.0%)
7	S5	0.41	0/1629	0.61	0/2202
7	s5	0.47	0/1629	0.66	0/2202
8	S6	0.49	0/1823	0.67	0/2439
8	s6	0.57	0/1779	0.71	0/2379
9	S7	0.44	0/1506	0.67	0/2028
9	s7	0.49	0/1516	0.72	1/2043 (0.0%)
10	S8	0.56	0/1514	0.74	2/2021 (0.1%)
10	s8	0.65	0/1514	0.78	0/2021
11	S9	0.49	0/1519	0.68	1/2035 (0.0%)
11	s9	0.59	0/1519	0.74	0/2035
12	C0	0.42	0/790	0.64	1/1069 (0.1%)
12	c0	0.40	0/777	0.64	3/1049 (0.3%)
13	C1	0.61	0/1240	0.75	0/1675
13	c1	0.65	0/1194	0.77	0/1610
14	C2	0.38	0/900	0.64	0/1224
14	c2	0.30	0/900	0.59	1/1224 (0.1%)
15	C3	0.51	0/1215	0.72	3/1638 (0.2%)
15	c3	0.60	0/1215	0.73	0/1638
16	C4	0.38	0/901	0.63	0/1217
16	c4	0.54	0/960	0.78	1/1290 (0.1%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	C5	0.46	0/998	0.71	0/1341
17	c5	0.52	0/1060	0.69	1/1426 (0.1%)
18	C6	0.46	0/1125	0.67	0/1510
18	c6	0.50	0/1131	0.72	1/1518 (0.1%)
19	C7	0.44	0/935	0.63	0/1254
19	c7	0.50	0/914	0.71	0/1224
20	C8	0.45	0/1211	0.65	1/1628 (0.1%)
20	c8	0.50	0/1211	0.70	1/1628 (0.1%)
21	C9	0.46	0/1130	0.68	1/1517 (0.1%)
21	c9	0.50	0/1130	0.67	1/1517 (0.1%)
22	D0	0.48	0/865	0.66	0/1169
22	d0	0.50	0/892	0.66	0/1205
23	D1	0.45	0/693	0.62	1/935 (0.1%)
23	d1	0.57	0/693	0.73	0/935
24	D2	0.52	0/1038	0.73	1/1395 (0.1%)
24	d2	0.63	0/1038	0.75	1/1395 (0.1%)
25	D3	0.62	0/1139	0.76	1/1518 (0.1%)
25	d3	0.74	0/1139	0.87	3/1518 (0.2%)
26	D4	0.46	0/1087	0.62	0/1449
26	d4	0.57	0/1087	0.74	0/1449
27	D5	0.40	0/571	0.73	1/768 (0.1%)
27	d5	0.41	0/566	0.64	0/761
28	D6	0.47	0/782	0.68	0/1047
28	d6	0.57	0/782	0.70	0/1047
29	D7	0.43	0/620	0.67	0/838
29	d7	0.49	0/620	0.71	0/838
30	D8	0.36	0/499	0.59	0/670
30	d8	0.45	0/499	0.66	0/670
31	D9	0.55	0/452	0.74	0/600
31	d9	0.57	0/452	0.69	0/600
32	E0	0.48	0/483	0.62	0/643
33	E1	0.46	0/577	0.78	0/770
33	e1	0.42	0/619	0.73	1/822 (0.1%)
34	SR	0.41	0/2494	0.64	0/3393
34	sR	0.40	0/2495	0.60	0/3395
35	SM	0.52	0/1113	0.73	2/1502 (0.1%)
35	sM	0.48	0/682	0.68	1/921 (0.1%)
36	1	1.17	163/75394 (0.2%)	1.66	1841/117545 (1.6%)
36	5	1.20	181/75414 (0.2%)	1.67	1895/117575 (1.6%)
37	3	0.96	1/2883 (0.0%)	1.41	24/4491 (0.5%)
37	7	1.17	3/2883 (0.1%)	1.66	57/4491 (1.3%)
38	4	1.15	2/3746 (0.1%)	1.64	82/5832 (1.4%)
38	8	1.04	3/3746 (0.1%)	1.50	53/5832 (0.9%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
39	L2	0.74	0/1948	0.86	3/2617 (0.1%)
39	l2	0.74	0/1946	0.89	3/2614 (0.1%)
40	L3	0.72	0/3146	0.81	0/4228
40	l3	0.86	0/3146	0.90	5/4228 (0.1%)
41	L4	0.84	2/2800 (0.1%)	0.95	6/3790 (0.2%)
41	l4	0.75	1/2800 (0.0%)	0.92	6/3790 (0.2%)
42	L5	0.60	0/2425	0.71	1/3271 (0.0%)
42	l5	0.70	0/2408	0.79	1/3248 (0.0%)
43	L6	0.76	0/1260	0.84	1/1694 (0.1%)
43	l6	0.78	0/1269	0.85	3/1705 (0.2%)
44	L7	0.82	0/1821	0.94	3/2451 (0.1%)
44	l7	0.85	1/1828 (0.1%)	0.89	2/2461 (0.1%)
45	L8	0.60	0/1836	0.69	1/2481 (0.0%)
45	l8	0.57	0/1795	0.70	1/2429 (0.0%)
46	L9	0.67	0/1539	0.78	1/2073 (0.0%)
46	l9	0.79	0/1539	0.81	0/2073
47	M0	0.77	2/1741 (0.1%)	0.87	2/2335 (0.1%)
47	m0	0.78	1/1758 (0.1%)	0.87	3/2358 (0.1%)
48	M1	0.55	0/1374	0.74	1/1842 (0.1%)
48	m1	0.65	0/1374	0.78	1/1842 (0.1%)
49	M3	0.77	0/1568	0.88	2/2106 (0.1%)
49	m3	0.67	0/1573	0.79	1/2113 (0.0%)
50	M4	0.72	0/1068	0.80	1/1438 (0.1%)
50	m4	0.85	0/1074	0.87	2/1446 (0.1%)
51	M5	0.80	0/1757	0.87	3/2354 (0.1%)
51	m5	0.69	0/1757	0.82	2/2354 (0.1%)
52	M6	0.85	0/1585	0.91	5/2128 (0.2%)
52	m6	1.03	4/1585 (0.3%)	0.98	3/2128 (0.1%)
53	M7	0.77	0/1443	0.86	2/1944 (0.1%)
53	m7	0.90	0/1250	0.84	0/1683
54	M8	0.79	0/1465	0.90	4/1965 (0.2%)
54	m8	0.76	0/1465	0.91	2/1965 (0.1%)
55	M9	0.55	0/1538	0.69	0/2050
55	m9	0.63	0/1538	0.71	0/2050
56	N0	0.82	0/1481	0.87	0/1990
56	n0	0.88	0/1481	0.88	2/1990 (0.1%)
57	N1	0.77	0/1300	0.84	2/1743 (0.1%)
57	n1	0.83	1/1300 (0.1%)	0.81	0/1743
58	N2	0.48	0/812	0.64	0/1099
58	n2	0.51	0/794	0.69	0/1076
59	N3	0.73	0/1018	0.81	0/1369
59	n3	0.88	0/1018	0.90	3/1369 (0.2%)
60	N4	0.57	0/712	0.71	1/958 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
60	n4	0.71	0/1052	0.76	0/1398
61	N5	0.64	0/979	0.81	1/1321 (0.1%)
61	n5	0.68	0/974	0.85	1/1314 (0.1%)
62	N6	0.73	0/1004	0.91	0/1341
62	n6	0.68	0/1004	0.84	0/1341
63	N7	0.52	0/1118	0.66	0/1497
63	n7	0.49	0/1118	0.72	3/1497 (0.2%)
64	N8	0.80	0/1204	0.90	2/1612 (0.1%)
64	n8	0.78	0/1204	0.87	0/1612
65	N9	0.72	0/473	0.79	0/629
65	n9	0.80	0/473	0.87	0/629
66	O0	0.50	0/751	0.72	0/1008
66	o0	0.52	0/775	0.68	1/1040 (0.1%)
67	O1	0.63	0/890	0.78	0/1196
67	o1	0.79	0/897	0.89	0/1205
68	O2	0.86	0/1041	0.90	1/1394 (0.1%)
68	o2	0.85	0/1041	0.92	2/1394 (0.1%)
69	O3	0.90	0/868	0.89	0/1168
69	o3	0.92	0/868	0.90	3/1168 (0.3%)
70	O4	0.63	0/890	0.83	2/1189 (0.2%)
70	o4	0.65	0/890	0.83	0/1189
71	O5	0.73	0/978	0.76	1/1301 (0.1%)
71	o5	0.62	0/974	0.74	1/1297 (0.1%)
72	O6	0.67	0/778	0.78	0/1034
72	o6	0.63	0/777	0.71	0/1033
73	O7	0.80	0/696	0.93	2/923 (0.2%)
73	o7	0.77	0/696	0.88	1/923 (0.1%)
74	O8	0.53	0/618	0.64	0/826
74	o8	0.50	0/614	0.66	0/822
75	O9	0.76	0/443	0.98	1/588 (0.2%)
75	o9	0.71	0/443	0.79	0/588
76	Q0	0.71	0/423	0.80	0/562
76	q0	0.94	0/423	0.94	0/562
77	Q1	0.74	0/234	0.89	0/300
77	q1	0.76	0/234	0.94	1/300 (0.3%)
78	Q2	0.89	1/860 (0.1%)	0.88	1/1136 (0.1%)
78	q2	0.80	1/860 (0.1%)	0.82	0/1136
79	Q3	0.76	0/701	0.83	0/934
79	q3	0.75	0/701	0.80	1/934 (0.1%)
80	e0	0.56	0/499	0.81	0/665
82	p0	0.47	0/1091	0.63	0/1472
All	All	0.92	401/430072 (0.1%)	1.31	4824/631360 (0.8%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	s0	0	1
7	s5	0	2
9	S7	0	1
9	s7	0	1
12	c0	0	1
16	c4	0	1
17	c5	0	1
18	C6	0	1
18	c6	0	1
19	C7	0	2
19	c7	0	1
22	d0	0	1
25	D3	0	1
26	d4	0	1
27	D5	0	2
33	E1	0	1
39	L2	0	2
41	L4	0	1
43	L6	0	1
44	l7	0	2
45	l8	0	1
48	M1	0	1
49	M3	0	1
50	M4	0	1
52	M6	0	2
52	m6	0	1
53	M7	0	1
56	n0	0	2
57	N1	0	1
63	N7	0	1
64	N8	0	1
64	n8	0	3
65	N9	0	1
67	O1	0	1
All	All	0	43

All (401) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1152	G	N9-C4	-12.58	1.27	1.38
78	Q2	17	CYS	CB-SG	11.86	2.02	1.82
36	5	960	U	N1-C2	10.74	1.48	1.38
36	5	2971	A	N9-C4	9.52	1.43	1.37
78	q2	17	CYS	CB-SG	8.98	1.97	1.82
36	5	2358	A	N9-C4	-8.86	1.32	1.37
36	5	1143	A	N3-C4	-8.43	1.29	1.34
36	1	907	G	N7-C5	-8.12	1.34	1.39
36	1	3181	C	N3-C4	-7.89	1.28	1.33
36	5	1152	G	N3-C4	-7.82	1.29	1.35
36	1	1428	A	C5-C6	-7.61	1.34	1.41
1	6	163	G	N9-C4	-7.57	1.31	1.38
1	6	337	G	C2-N3	7.55	1.38	1.32
36	5	63	A	N7-C5	-7.48	1.34	1.39
36	5	1143	A	N9-C4	-7.41	1.33	1.37
36	1	2138	A	N7-C5	-7.37	1.34	1.39
36	1	654	C	N1-C6	-7.33	1.32	1.37
36	5	2943	G	N7-C5	-7.32	1.34	1.39
36	1	34	A	N9-C4	-7.30	1.33	1.37
36	5	2280	A	N9-C4	-7.26	1.33	1.37
36	1	804	C	N1-C6	-7.15	1.32	1.37
36	5	2147	A	C5-C6	-7.10	1.34	1.41
47	M0	8	CYS	CB-SG	-7.03	1.70	1.82
36	1	2714	G	N9-C4	-6.95	1.32	1.38
36	1	1326	A	N9-C4	-6.91	1.33	1.37
36	1	296	A	N9-C4	6.87	1.42	1.37
36	5	2885	C	N1-C6	-6.87	1.33	1.37
36	5	2941	A	N3-C4	-6.84	1.30	1.34
38	8	80	A	N9-C4	6.84	1.42	1.37
1	6	1537	C	N1-C6	6.83	1.41	1.37
36	1	1132	C	N3-C4	-6.82	1.29	1.33
36	5	1332	A	N3-C4	-6.81	1.30	1.34
36	1	2971	A	N9-C4	6.79	1.42	1.37
1	6	119	A	N9-C4	-6.77	1.33	1.37
36	5	875	G	N7-C5	6.75	1.43	1.39
36	1	907	G	N3-C4	6.70	1.40	1.35
36	1	1392	G	C5-C4	-6.70	1.33	1.38
36	5	2726	C	N3-C4	-6.70	1.29	1.33
36	5	3209	A	C5-C4	6.67	1.43	1.38
38	4	15	G	N7-C5	-6.67	1.35	1.39
36	5	40	A	N7-C5	-6.65	1.35	1.39
36	1	716	A	C5-C6	-6.61	1.35	1.41
36	5	3008	A	N9-C4	-6.61	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	642	U	N1-C2	-6.58	1.32	1.38
36	5	1159	A	N7-C5	-6.58	1.35	1.39
36	5	2639	G	N7-C5	-6.58	1.35	1.39
36	5	1152	G	C5-C6	-6.53	1.35	1.42
36	1	49	A	N9-C4	-6.52	1.33	1.37
36	5	3084	C	N1-C6	-6.50	1.33	1.37
36	1	1153	A	N7-C5	-6.50	1.35	1.39
36	1	1103	A	N9-C4	6.46	1.41	1.37
36	1	1371	G	N9-C8	-6.45	1.33	1.37
36	5	2401	A	N7-C5	6.45	1.43	1.39
36	1	1114	U	C2-N3	-6.43	1.33	1.37
36	5	971	G	N7-C5	-6.43	1.35	1.39
41	L4	63	GLU	CG-CD	6.42	1.61	1.51
36	5	1152	G	C8-N7	6.41	1.34	1.30
36	1	1103	A	N3-C4	6.40	1.38	1.34
1	6	1765	A	N9-C4	-6.39	1.34	1.37
36	5	1116	G	C8-N7	6.38	1.34	1.30
36	5	2954	U	N1-C2	6.38	1.44	1.38
36	5	2335	G	C5-C4	-6.38	1.33	1.38
36	5	423	A	N7-C5	-6.37	1.35	1.39
36	5	924	G	N3-C4	-6.37	1.30	1.35
36	5	981	U	N1-C2	6.35	1.44	1.38
36	1	2397	A	C6-N1	6.35	1.40	1.35
36	5	706	A	N9-C4	-6.31	1.34	1.37
1	2	558	U	N1-C2	6.31	1.44	1.38
36	5	2139	A	N3-C4	-6.28	1.31	1.34
36	5	2980	U	C2-O2	-6.27	1.16	1.22
36	5	366	A	C5-C6	-6.26	1.35	1.41
1	6	1655	A	N3-C4	-6.26	1.31	1.34
36	1	3273	A	N3-C4	-6.24	1.31	1.34
36	1	2404	A	N7-C5	6.23	1.43	1.39
52	m6	80	PHE	CB-CG	-6.23	1.40	1.51
36	1	1308	A	N7-C5	-6.21	1.35	1.39
36	1	2404	A	N3-C4	6.20	1.38	1.34
36	5	2386	A	N7-C5	-6.19	1.35	1.39
36	1	2187	G	N7-C5	-6.18	1.35	1.39
36	5	3106	A	N7-C5	-6.18	1.35	1.39
36	1	2983	C	N3-C4	-6.17	1.29	1.33
36	5	1912	U	N1-C2	-6.15	1.33	1.38
36	5	2640	A	N9-C4	-6.15	1.34	1.37
36	5	2996	U	N1-C2	6.13	1.44	1.38
36	1	25	U	C4-O4	6.13	1.28	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1115	G	N3-C4	-6.13	1.31	1.35
36	1	1138	U	C2-N3	-6.12	1.33	1.37
36	5	1159	A	N9-C4	-6.09	1.34	1.37
36	1	2361	A	N9-C4	6.08	1.41	1.37
36	5	2138	A	N7-C5	-6.08	1.35	1.39
36	5	2385	G	N9-C4	-6.07	1.33	1.38
36	1	2355	G	N7-C5	-6.07	1.35	1.39
36	1	1192	C	N1-C2	6.07	1.46	1.40
36	5	883	A	N3-C4	-6.07	1.31	1.34
36	1	1103	A	N7-C5	6.07	1.42	1.39
36	1	1002	A	N9-C4	-6.06	1.34	1.37
36	1	404	G	N7-C5	-6.06	1.35	1.39
36	1	2165	G	N7-C5	-6.05	1.35	1.39
36	5	1149	G	N9-C8	-6.05	1.33	1.37
1	6	65	A	N9-C4	-6.04	1.34	1.37
36	1	317	A	C5-C6	-6.04	1.35	1.41
36	1	1835	A	N9-C4	-6.03	1.34	1.37
1	6	623	A	N9-C4	-6.03	1.34	1.37
36	5	2399	A	N9-C4	-6.01	1.34	1.37
36	1	1143	A	N3-C4	-6.00	1.31	1.34
36	5	2335	G	N1-C2	-5.97	1.32	1.37
36	1	1158	A	N7-C5	-5.97	1.35	1.39
36	5	1847	A	N9-C4	-5.96	1.34	1.37
36	1	1556	C	N1-C2	5.95	1.46	1.40
36	1	1394	A	N9-C4	-5.95	1.34	1.37
36	1	1416	C	N3-C4	-5.94	1.29	1.33
36	1	354	U	C2-N3	-5.93	1.33	1.37
47	m0	8	CYS	CB-SG	-5.92	1.72	1.81
1	6	630	A	C5-C6	-5.92	1.35	1.41
36	1	699	A	N9-C4	-5.91	1.34	1.37
1	6	1748	G	N9-C8	-5.91	1.33	1.37
36	1	884	A	N9-C4	-5.91	1.34	1.37
36	1	1103	A	C6-N1	5.90	1.39	1.35
36	5	647	A	C6-N1	-5.89	1.31	1.35
36	1	716	A	N9-C4	-5.89	1.34	1.37
1	6	1750	A	N9-C4	-5.86	1.34	1.37
36	5	3245	A	C5-C6	-5.86	1.35	1.41
36	5	922	U	C4-O4	-5.85	1.19	1.23
36	5	3172	A	N9-C4	-5.85	1.34	1.37
37	7	76	A	N9-C4	-5.85	1.34	1.37
36	5	3103	A	N3-C4	-5.84	1.31	1.34
1	6	538	A	N9-C4	5.84	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2320	A	N9-C4	-5.83	1.34	1.37
36	1	1328	C	N1-C6	-5.82	1.33	1.37
36	5	3006	A	N3-C4	-5.82	1.31	1.34
36	5	1524	A	N9-C4	-5.82	1.34	1.37
36	5	646	A	C6-N1	-5.81	1.31	1.35
36	5	884	A	N9-C4	-5.81	1.34	1.37
36	5	2944	U	C2-N3	-5.80	1.33	1.37
41	L4	94	CYS	CB-SG	-5.80	1.72	1.81
36	1	925	A	N3-C4	-5.78	1.31	1.34
36	5	875	G	C6-N1	-5.78	1.35	1.39
36	5	657	A	C5-C4	-5.77	1.34	1.38
36	5	2985	C	N1-C6	-5.77	1.33	1.37
36	5	1849	C	N1-C6	-5.76	1.33	1.37
36	1	2144	A	N9-C8	-5.75	1.33	1.37
1	6	163	G	N3-C4	-5.75	1.31	1.35
36	5	1177	G	N3-C4	-5.74	1.31	1.35
36	1	653	A	N7-C5	-5.73	1.35	1.39
36	1	1135	A	N3-C4	-5.73	1.31	1.34
36	5	807	A	N9-C4	-5.73	1.34	1.37
36	1	1116	G	N7-C5	-5.72	1.35	1.39
36	5	924	G	C2-N3	-5.72	1.28	1.32
36	1	3008	A	N9-C4	-5.72	1.34	1.37
1	6	1659	A	N9-C4	-5.71	1.34	1.37
36	1	304	G	C2-N3	-5.71	1.28	1.32
36	1	363	G	C5-C6	-5.71	1.36	1.42
36	1	106	A	N9-C4	-5.70	1.34	1.37
36	5	2335	G	C6-N1	-5.70	1.35	1.39
36	5	953	G	C5-C4	-5.70	1.34	1.38
36	1	2910	A	N9-C4	-5.70	1.34	1.37
36	1	2401	A	N9-C8	5.70	1.42	1.37
36	5	2761	G	N7-C5	-5.70	1.35	1.39
36	1	826	G	C5-C4	-5.69	1.34	1.38
36	5	2755	C	N1-C6	-5.68	1.33	1.37
36	1	916	G	C6-N1	-5.68	1.35	1.39
36	1	937	G	N9-C8	-5.67	1.33	1.37
1	2	555	A	N9-C4	5.66	1.41	1.37
36	5	1303	A	N9-C4	-5.66	1.34	1.37
36	5	2360	C	C4-C5	-5.65	1.38	1.43
36	1	659	G	C5-C4	-5.65	1.34	1.38
36	5	861	C	N1-C6	-5.65	1.33	1.37
36	1	2144	A	C5-C4	-5.65	1.34	1.38
36	1	85	A	C6-N1	-5.64	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	40	A	C5-C6	-5.64	1.35	1.41
36	1	627	U	N1-C2	-5.63	1.33	1.38
1	6	1728	A	N9-C4	-5.63	1.34	1.37
36	5	921	A	N7-C5	-5.63	1.35	1.39
36	5	1180	A	C6-N1	-5.63	1.31	1.35
36	1	1326	A	N3-C4	-5.62	1.31	1.34
36	1	2982	A	N9-C8	-5.62	1.33	1.37
36	5	2379	U	C2-N3	-5.60	1.33	1.37
36	1	282	G	N1-C2	-5.60	1.33	1.37
36	1	3375	A	N3-C4	-5.60	1.31	1.34
36	1	2276	G	N7-C5	-5.59	1.35	1.39
1	6	1119	G	N7-C5	-5.59	1.35	1.39
36	5	1159	A	C5-C6	-5.59	1.36	1.41
36	1	895	A	C5-C6	-5.59	1.36	1.41
36	1	1154	A	N3-C4	-5.58	1.31	1.34
36	5	1199	C	N1-C6	-5.57	1.33	1.37
36	5	421	G	N1-C2	-5.57	1.33	1.37
36	5	3245	A	N9-C4	-5.57	1.34	1.37
36	5	3132	C	N1-C6	-5.56	1.33	1.37
36	5	420	G	C5-C4	-5.56	1.34	1.38
36	5	3047	U	C2-N3	-5.56	1.33	1.37
36	5	1047	A	N7-C5	-5.55	1.35	1.39
37	7	102	A	N9-C4	-5.54	1.34	1.37
36	1	1335	C	N3-C4	-5.53	1.30	1.33
36	1	3142	A	N3-C4	-5.53	1.31	1.34
36	5	2814	G	N7-C5	-5.53	1.35	1.39
36	5	2920	U	C4-O4	-5.53	1.19	1.23
36	1	1367	G	N7-C5	-5.52	1.35	1.39
37	3	91	G	N7-C5	-5.52	1.35	1.39
36	5	1315	U	N1-C2	-5.52	1.33	1.38
36	5	2903	A	N9-C4	-5.52	1.34	1.37
36	1	2326	A	N9-C4	-5.52	1.34	1.37
36	5	649	A	C5-C6	-5.51	1.36	1.41
36	5	2937	G	C5-C4	-5.51	1.34	1.38
36	5	2334	U	C4-O4	-5.50	1.19	1.23
36	1	2811	A	N7-C5	-5.50	1.35	1.39
36	5	3314	A	N9-C4	-5.50	1.34	1.37
36	5	1841	A	N7-C5	-5.49	1.35	1.39
36	1	36	C	N1-C6	-5.48	1.33	1.37
1	6	1537	C	C2-N3	5.48	1.40	1.35
36	5	2400	G	N9-C4	-5.48	1.33	1.38
36	1	1369	A	N7-C5	-5.47	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2879	C	N1-C6	-5.47	1.33	1.37
36	1	710	A	C5-C6	-5.47	1.36	1.41
36	1	2356	A	N9-C4	-5.46	1.34	1.37
1	6	397	A	N9-C4	-5.46	1.34	1.37
36	5	3137	C	N3-C4	-5.46	1.30	1.33
36	5	2937	G	N7-C5	-5.46	1.35	1.39
37	7	14	U	C2-N3	-5.46	1.33	1.37
36	5	941	G	C6-N1	-5.45	1.35	1.39
36	5	1372	C	N1-C6	-5.45	1.33	1.37
36	1	189	G	C6-N1	-5.45	1.35	1.39
36	5	421	G	C2-N3	-5.45	1.28	1.32
36	5	971	G	N9-C8	-5.44	1.34	1.37
36	5	2967	A	C6-N1	-5.44	1.31	1.35
36	5	934	G	C5-C6	-5.44	1.36	1.42
52	m6	167	TYR	CE1-CZ	-5.42	1.31	1.38
36	1	921	A	N7-C5	-5.42	1.36	1.39
1	6	1748	G	C5-C4	-5.42	1.34	1.38
36	1	40	A	C8-N7	-5.42	1.27	1.31
36	1	2147	A	N9-C4	-5.41	1.34	1.37
36	1	1402	C	N3-C4	-5.40	1.30	1.33
1	6	542	A	N7-C5	-5.40	1.36	1.39
52	m6	16	VAL	CB-CG2	-5.40	1.41	1.52
36	1	1149	G	N3-C4	-5.40	1.31	1.35
36	1	2616	C	N1-C6	-5.39	1.33	1.37
36	1	2384	A	C5-C6	-5.39	1.36	1.41
36	5	1048	A	C6-N1	-5.39	1.31	1.35
36	5	3197	G	N9-C8	5.38	1.41	1.37
36	1	2188	A	N3-C4	-5.38	1.31	1.34
1	6	630	A	N7-C5	-5.37	1.36	1.39
36	5	2117	A	C5-C4	-5.37	1.34	1.38
36	5	3052	G	C2-N3	-5.37	1.28	1.32
36	1	2404	A	C5-C6	5.37	1.45	1.41
36	5	3209	A	C6-N1	5.36	1.39	1.35
36	1	799	G	N3-C4	-5.36	1.31	1.35
36	1	2821	C	N3-C4	5.36	1.37	1.33
44	17	234	GLU	CD-OE2	5.36	1.31	1.25
36	1	638	C	N1-C6	-5.36	1.33	1.37
1	2	1119	G	N7-C5	-5.35	1.36	1.39
36	1	2401	A	C5-C4	5.35	1.42	1.38
36	1	364	G	N9-C4	-5.34	1.33	1.38
36	1	1164	G	N7-C5	-5.34	1.36	1.39
1	6	426	G	C6-N1	-5.34	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1537	C	C5-C6	5.33	1.38	1.34
36	1	710	A	N7-C5	-5.33	1.36	1.39
36	5	2872	A	N9-C4	-5.32	1.34	1.37
36	5	1192	C	N1-C2	5.32	1.45	1.40
36	5	2825	C	N1-C6	-5.32	1.33	1.37
36	1	2617	U	N3-C4	-5.32	1.33	1.38
36	5	2976	A	N3-C4	-5.31	1.31	1.34
36	5	3091	A	N3-C4	-5.31	1.31	1.34
36	1	942	U	C5-C6	-5.31	1.29	1.34
36	5	874	U	N1-C2	-5.31	1.33	1.38
36	5	2851	A	N9-C4	-5.31	1.34	1.37
36	5	2690	G	N3-C4	-5.30	1.31	1.35
36	5	981	U	C2-N3	5.30	1.41	1.37
36	1	1133	A	N9-C4	-5.30	1.34	1.37
36	1	2853	A	N7-C5	-5.29	1.36	1.39
36	1	1318	A	N9-C4	-5.29	1.34	1.37
36	1	699	A	N3-C4	-5.29	1.31	1.34
36	1	1606	U	N1-C2	-5.29	1.33	1.38
36	5	2911	A	N7-C5	-5.29	1.36	1.39
36	5	3107	U	C2-N3	-5.29	1.34	1.37
36	1	579	G	C5-C4	-5.28	1.34	1.38
38	8	106	C	N1-C6	-5.28	1.33	1.37
36	1	2407	C	N1-C6	-5.28	1.33	1.37
36	5	2804	A	N9-C4	-5.27	1.34	1.37
36	1	2726	C	N3-C4	-5.27	1.30	1.33
36	1	2418	G	O3'-P	5.27	1.67	1.61
36	5	95	A	C5-C6	-5.27	1.36	1.41
36	5	609	G	N3-C4	-5.27	1.31	1.35
36	1	48	A	N7-C5	-5.26	1.36	1.39
36	5	1113	G	N3-C4	-5.26	1.31	1.35
36	1	2382	G	N1-C2	-5.26	1.33	1.37
36	1	2762	A	N3-C4	-5.26	1.31	1.34
36	1	3273	A	C6-N1	-5.26	1.31	1.35
36	5	2848	G	N7-C5	-5.26	1.36	1.39
36	5	2993	G	C5-C4	-5.26	1.34	1.38
36	1	29	C	N1-C6	-5.25	1.33	1.37
36	5	644	G	N7-C5	-5.25	1.36	1.39
36	1	92	G	N1-C2	-5.25	1.33	1.37
36	1	887	G	N9-C8	-5.24	1.34	1.37
36	1	1140	G	C6-N1	-5.24	1.35	1.39
36	1	1452	A	N9-C4	-5.24	1.34	1.37
36	1	1140	G	N1-C2	-5.24	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	4	12	A	N9-C4	-5.24	1.34	1.37
36	5	1371	G	C5-C4	-5.24	1.34	1.38
36	5	345	G	N7-C5	-5.23	1.36	1.39
36	1	830	A	N7-C5	-5.23	1.36	1.39
36	5	2819	A	N9-C4	-5.23	1.34	1.37
1	6	985	G	C6-N1	-5.23	1.35	1.39
36	1	420	G	N9-C8	-5.23	1.34	1.37
36	1	2305	G	N7-C5	-5.23	1.36	1.39
36	5	1152	G	N9-C8	5.22	1.41	1.37
36	1	66	A	N9-C4	-5.22	1.34	1.37
36	5	1332	A	C5-C4	-5.22	1.35	1.38
36	1	2875	U	C2-N3	5.21	1.41	1.37
36	1	3141	A	N9-C4	-5.21	1.34	1.37
36	1	2177	G	N7-C5	-5.21	1.36	1.39
36	1	1159	A	N3-C4	-5.21	1.31	1.34
36	5	2286	U	C2-N3	-5.21	1.34	1.37
36	5	2704	A	N9-C4	-5.21	1.34	1.37
36	5	2607	G	N7-C5	-5.21	1.36	1.39
36	5	642	U	C2-N3	-5.20	1.34	1.37
36	1	1901	A	N9-C4	-5.20	1.34	1.37
36	5	420	G	N9-C8	-5.18	1.34	1.37
36	5	2815	G	N9-C8	-5.18	1.34	1.37
1	6	46	A	N3-C4	-5.18	1.31	1.34
36	5	1195	A	N9-C4	-5.18	1.34	1.37
36	1	1313	G	C5-C6	-5.18	1.37	1.42
36	1	659	G	N1-C2	-5.17	1.33	1.37
1	6	337	G	C2-N2	5.17	1.39	1.34
36	5	1048	A	C5-C6	-5.17	1.36	1.41
36	5	2819	A	N3-C4	-5.17	1.31	1.34
36	5	1915	A	C5-C4	-5.17	1.35	1.38
36	5	1195	A	N3-C4	-5.17	1.31	1.34
41	14	94	CYS	CB-SG	-5.17	1.73	1.81
36	5	924	G	N9-C4	-5.17	1.33	1.38
36	5	800	G	N9-C8	-5.16	1.34	1.37
36	5	1117	G	C5-C4	-5.16	1.34	1.38
36	1	1430	U	N1-C6	-5.16	1.33	1.38
36	5	2281	A	N9-C4	-5.16	1.34	1.37
36	5	2145	A	C6-N1	-5.15	1.31	1.35
36	1	890	C	N3-C4	-5.15	1.30	1.33
36	1	2714	G	N9-C8	5.15	1.41	1.37
36	5	2591	A	N9-C4	-5.15	1.34	1.37
36	5	3050	U	N3-C4	-5.15	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1773	C	N3-C4	5.14	1.37	1.33
36	1	286	U	C2-N3	-5.14	1.34	1.37
36	5	43	A	C5-C6	-5.13	1.36	1.41
36	1	213	A	N9-C4	-5.13	1.34	1.37
36	1	2409	G	N3-C4	-5.13	1.31	1.35
36	5	2400	G	C5-C4	-5.13	1.34	1.38
36	5	2830	G	N3-C4	-5.13	1.31	1.35
36	1	1154	A	N7-C5	-5.13	1.36	1.39
1	2	1746	A	N9-C4	-5.12	1.34	1.37
36	1	649	A	N3-C4	-5.12	1.31	1.34
36	1	1153	A	C5-C6	-5.12	1.36	1.41
36	1	2381	G	N3-C4	-5.12	1.31	1.35
36	5	865	U	N1-C2	-5.12	1.33	1.38
36	5	1897	G	N3-C4	-5.12	1.31	1.35
36	1	816	A	N9-C4	5.12	1.41	1.37
57	n1	101	CYS	CB-SG	5.12	1.91	1.82
36	5	95	A	N9-C4	-5.11	1.34	1.37
36	5	1203	A	C5-C6	-5.11	1.36	1.41
36	5	1383	G	N3-C4	-5.11	1.31	1.35
36	5	2342	U	C2-N3	-5.10	1.34	1.37
36	5	1833	G	C5-C4	-5.10	1.34	1.38
38	8	39	G	N7-C5	-5.10	1.36	1.39
36	1	706	A	N9-C4	-5.10	1.34	1.37
36	5	1504	A	N3-C4	-5.10	1.31	1.34
1	2	1754	A	N9-C4	-5.09	1.34	1.37
36	1	2404	A	N9-C4	5.08	1.40	1.37
36	1	1447	G	N3-C4	-5.08	1.31	1.35
36	1	658	G	C8-N7	-5.07	1.27	1.30
1	6	1773	C	C2-N3	5.07	1.39	1.35
36	5	647	A	N3-C4	-5.07	1.31	1.34
36	5	1148	G	N3-C4	5.07	1.39	1.35
36	1	2157	G	N7-C5	-5.07	1.36	1.39
36	1	2406	C	N1-C6	-5.07	1.34	1.37
36	5	2411	U	C2-N3	-5.07	1.34	1.37
36	5	1927	G	N3-C4	-5.07	1.31	1.35
36	5	1462	A	N9-C4	-5.06	1.34	1.37
36	5	3185	U	N1-C6	-5.06	1.33	1.38
36	1	1401	A	N7-C5	-5.06	1.36	1.39
36	1	2142	A	N3-C4	-5.05	1.31	1.34
36	5	958	C	N1-C6	-5.05	1.34	1.37
36	5	1844	C	N3-C4	-5.05	1.30	1.33
52	m6	40	GLU	CG-CD	5.05	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1129	U	C2-N3	-5.05	1.34	1.37
36	1	972	A	N9-C4	-5.05	1.34	1.37
36	1	2867	C	C2-N3	-5.05	1.31	1.35
36	1	34	A	N3-C4	-5.05	1.31	1.34
36	1	2419	A	N9-C4	-5.05	1.34	1.37
47	M0	127	ALA	CA-CB	-5.04	1.41	1.52
36	5	804	C	N1-C6	-5.04	1.34	1.37
36	5	1849	C	N3-C4	-5.04	1.30	1.33
36	5	1451	C	N1-C6	-5.04	1.34	1.37
36	5	652	G	C5-C4	-5.03	1.34	1.38
36	1	1308	A	P-OP2	-5.03	1.40	1.49
36	5	1874	A	N9-C4	-5.03	1.34	1.37
36	5	2117	A	N9-C8	-5.03	1.33	1.37
36	5	1348	U	N1-C2	5.02	1.43	1.38
36	5	2138	A	N9-C4	-5.02	1.34	1.37
36	5	943	U	C2-N3	-5.02	1.34	1.37
36	5	2364	G	N7-C5	-5.02	1.36	1.39
36	5	1131	G	N9-C8	-5.02	1.34	1.37
36	1	2867	C	N3-C4	-5.01	1.30	1.33
36	1	1133	A	C5-C4	-5.01	1.35	1.38
36	1	1100	U	N1-C2	-5.00	1.34	1.38
36	1	1328	C	C4-C5	-5.00	1.39	1.43

All (4824) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	C2-N3-C4	-23.10	100.35	111.90
36	5	1152	G	N3-C4-C5	23.05	140.12	128.60
36	5	1152	G	N3-C4-N9	-22.76	112.34	126.00
36	1	2714	G	N3-C4-C5	15.18	136.19	128.60
36	1	1308	A	O5'-P-OP2	-14.90	92.29	105.70
36	5	2385	G	O5'-P-OP1	-14.30	92.83	105.70
36	1	716	A	N1-C6-N6	13.71	126.83	118.60
36	1	86	G	O5'-P-OP2	-13.29	93.74	105.70
36	1	1308	A	C8-N9-C4	-13.10	100.56	105.80
36	1	2808	A	N1-C6-N6	12.98	126.39	118.60
36	5	2726	C	C5-C4-N4	12.69	129.08	120.20
36	1	2714	G	N3-C4-N9	-12.58	118.45	126.00
36	1	639	G	N1-C6-O6	12.47	127.39	119.90
1	6	1773	C	N3-C4-C5	-12.41	116.94	121.90
36	1	406	G	O4'-C1'-N9	12.40	118.12	108.20
36	1	2846	U	N3-C2-O2	-12.33	113.57	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2818	U	O5'-P-OP1	-12.23	94.69	105.70
1	2	553	G	N1-C6-O6	12.22	127.23	119.90
36	5	642	U	O5'-P-OP2	-12.14	94.78	105.70
36	1	2996	U	C2-N1-C1'	12.07	132.18	117.70
1	6	163	G	N3-C4-N9	-12.06	118.76	126.00
36	5	1152	G	C5-N7-C8	-11.96	98.32	104.30
36	5	2726	C	C6-N1-C2	-11.93	115.53	120.30
36	5	2726	C	N3-C2-O2	-11.92	113.56	121.90
36	5	3245	A	C5-N7-C8	-11.84	97.98	103.90
36	1	1428	A	N1-C6-N6	11.79	125.67	118.60
36	5	922	U	C5-C6-N1	-11.76	116.82	122.70
36	5	1006	A	O5'-P-OP2	-11.75	95.12	105.70
36	5	2400	G	C5-C6-O6	-11.72	121.57	128.60
36	1	939	U	C5-C4-O4	-11.65	118.91	125.90
1	6	1537	C	C6-N1-C2	-11.61	115.66	120.30
36	1	2764	C	C2-N3-C4	11.49	125.65	119.90
36	1	716	A	N9-C4-C5	-11.49	101.20	105.80
36	1	1902	G	N1-C6-O6	11.43	126.76	119.90
36	5	881	C	N1-C2-O2	11.40	125.74	118.90
36	1	54	C	N3-C4-C5	11.36	126.44	121.90
36	5	1152	G	C8-N9-C1'	11.36	141.76	127.00
36	5	63	A	N1-C6-N6	11.35	125.41	118.60
36	1	2868	U	N1-C2-O2	11.34	130.74	122.80
36	1	939	U	N1-C2-O2	-11.31	114.88	122.80
36	5	2400	G	N1-C6-O6	11.29	126.67	119.90
36	1	2617	U	C5-C4-O4	11.25	132.65	125.90
36	1	1150	A	O5'-P-OP2	-11.21	95.61	105.70
36	5	1513	G	C8-N9-C4	-11.16	101.94	106.40
36	1	1365	G	N3-C4-C5	-11.16	123.02	128.60
36	1	1132	C	O5'-P-OP1	-11.09	95.72	105.70
36	1	2884	C	N3-C4-C5	11.05	126.32	121.90
36	5	2372	A	C8-N9-C4	-11.05	101.38	105.80
36	1	794	U	O5'-P-OP2	-11.00	95.80	105.70
36	1	645	A	N1-C6-N6	-10.95	112.03	118.60
36	1	363	G	C5-C6-O6	-10.94	122.03	128.60
36	5	2334	U	O5'-P-OP2	-10.94	95.86	105.70
1	6	144	U	N3-C2-O2	-10.89	114.58	122.20
36	1	2726	C	N3-C2-O2	-10.86	114.30	121.90
36	5	2935	U	O5'-P-OP2	-10.82	95.96	105.70
36	1	1428	A	C5-C6-N6	-10.82	115.04	123.70
36	1	1902	G	C5-C6-O6	-10.80	122.12	128.60
38	8	80	A	C8-N9-C4	-10.80	101.48	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	610	G	O5'-P-OP2	-10.77	96.01	105.70
1	6	402	C	O5'-P-OP2	-10.73	96.04	105.70
36	5	2617	U	O5'-P-OP2	-10.72	96.06	105.70
36	1	1489	A	N1-C6-N6	10.71	125.03	118.60
36	1	2617	U	N1-C2-N3	10.71	121.32	114.90
36	5	421	G	O5'-P-OP2	-10.70	96.07	105.70
36	5	1452	A	N1-C6-N6	10.64	124.98	118.60
36	1	859	G	N9-C4-C5	-10.63	101.15	105.40
36	5	222	A	O5'-P-OP2	-10.62	96.14	105.70
36	1	339	C	OP1-P-OP2	-10.62	103.67	119.60
36	1	1495	U	C5-C6-N1	-10.61	117.39	122.70
36	5	2290	C	C6-N1-C2	10.57	124.53	120.30
36	5	966	U	N1-C2-O2	10.51	130.16	122.80
36	1	1495	U	C4-C5-C6	10.44	125.96	119.70
36	5	2392	C	N3-C4-C5	10.44	126.08	121.90
36	5	1481	A	C8-N9-C4	-10.42	101.63	105.80
36	5	1902	G	C5-C6-O6	-10.42	122.35	128.60
36	1	2996	U	C6-N1-C1'	-10.42	106.62	121.20
36	5	3245	A	C2-N3-C4	-10.41	105.39	110.60
36	1	1192	C	N1-C2-O2	10.41	125.14	118.90
36	1	1385	C	N1-C2-O2	-10.37	112.68	118.90
36	1	1902	G	C6-C5-N7	-10.33	124.20	130.40
36	5	2821	C	N1-C2-O2	-10.32	112.71	118.90
36	1	1838	G	N1-C6-O6	10.27	126.06	119.90
36	5	1152	G	N3-C2-N2	-10.26	112.72	119.90
36	5	1902	G	N1-C6-O6	10.25	126.05	119.90
36	5	1152	G	C4-N9-C1'	-10.23	113.20	126.50
36	1	1133	A	N1-C6-N6	10.22	124.73	118.60
36	5	585	A	O5'-P-OP2	-10.21	96.51	105.70
36	1	942	U	C5-C4-O4	-10.21	119.78	125.90
36	1	969	C	N1-C2-O2	-10.20	112.78	118.90
36	5	2354	C	N3-C2-O2	10.19	129.03	121.90
36	1	2827	U	C5-C4-O4	10.18	132.01	125.90
36	5	2383	C	N1-C2-O2	-10.18	112.79	118.90
36	5	966	U	N3-C2-O2	-10.16	115.08	122.20
36	1	1381	A	O5'-P-OP2	10.16	122.89	110.70
1	6	1100	G	N3-C4-C5	-10.14	123.53	128.60
36	1	1133	A	C5-C6-N6	-10.14	115.59	123.70
36	5	2392	C	C6-N1-C2	10.12	124.35	120.30
36	5	2945	G	O5'-P-OP1	10.12	122.84	110.70
36	1	1495	U	N1-C2-N3	10.10	120.96	114.90
36	1	2617	U	C5-C6-N1	-10.09	117.66	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	20	U	O5'-P-OP2	-10.09	96.62	105.70
1	2	558	U	N1-C2-O2	10.08	129.86	122.80
36	1	2764	C	N3-C4-C5	-10.07	117.87	121.90
36	5	860	G	O5'-P-OP2	-10.06	96.64	105.70
36	5	2403	G	O5'-P-OP2	-10.04	96.66	105.70
36	1	2197	C	C6-N1-C2	10.04	124.31	120.30
37	7	49	G	N1-C6-O6	10.04	125.92	119.90
36	1	1307	G	N9-C4-C5	10.03	109.41	105.40
1	2	639	U	N3-C2-O2	-10.03	115.18	122.20
36	1	2818	U	O5'-P-OP1	-10.03	96.67	105.70
36	1	2165	G	N1-C6-O6	10.01	125.90	119.90
36	1	2661	G	O5'-P-OP1	-10.00	96.70	105.70
37	7	93	C	O5'-P-OP2	-9.97	96.73	105.70
36	5	3218	A	N1-C6-N6	9.96	124.58	118.60
36	1	1556	C	N3-C2-O2	-9.95	114.94	121.90
36	1	1433	A	O5'-P-OP1	-9.93	96.77	105.70
36	5	2333	C	C6-N1-C2	9.92	124.27	120.30
36	1	2617	U	C4-C5-C6	9.91	125.65	119.70
36	5	2389	C	N3-C4-C5	9.85	125.84	121.90
36	5	960	U	N1-C2-O2	9.84	129.69	122.80
36	1	1428	A	C4-C5-N7	9.84	115.62	110.70
36	5	960	U	N3-C2-O2	-9.83	115.32	122.20
38	8	80	A	N7-C8-N9	9.81	118.71	113.80
36	1	2870	C	C2-N1-C1'	-9.80	108.02	118.80
36	1	830	A	N1-C6-N6	9.79	124.47	118.60
36	1	1308	A	N7-C8-N9	9.78	118.69	113.80
36	1	2714	G	C2-N3-C4	-9.77	107.02	111.90
36	5	2699	G	C5-C6-O6	-9.76	122.74	128.60
36	1	282	G	O5'-P-OP1	-9.76	96.92	105.70
36	1	895	A	O5'-P-OP1	-9.75	96.93	105.70
36	1	397	A	N1-C6-N6	-9.74	112.75	118.60
36	5	3197	G	N3-C2-N2	-9.74	113.08	119.90
36	5	2699	G	N1-C6-O6	9.72	125.73	119.90
36	1	2936	A	O5'-P-OP1	-9.72	96.95	105.70
36	1	2384	A	N1-C6-N6	9.71	124.43	118.60
36	5	2978	U	C5-C6-N1	-9.70	117.85	122.70
1	6	163	G	N3-C4-C5	9.68	133.44	128.60
36	5	640	U	N1-C2-O2	-9.67	116.03	122.80
36	5	1200	A	N1-C6-N6	9.63	124.38	118.60
36	1	2397	A	N1-C6-N6	9.62	124.38	118.60
36	1	339	C	N3-C4-N4	-9.61	111.27	118.00
36	5	2400	G	N3-C4-C5	9.60	133.40	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1773	C	N3-C4-N4	9.58	124.71	118.00
36	5	1520	G	C5-C6-O6	-9.56	122.86	128.60
36	5	2147	A	N1-C6-N6	9.55	124.33	118.60
36	5	2426	U	C5-C4-O4	9.52	131.61	125.90
36	1	640	U	N3-C4-O4	9.52	126.06	119.40
36	5	3245	A	C4-C5-N7	9.50	115.45	110.70
38	4	44	A	N1-C6-N6	9.49	124.30	118.60
36	1	3278	C	N1-C2-O2	9.48	124.59	118.90
36	1	66	A	O5'-P-OP1	-9.47	97.18	105.70
36	1	1902	G	C4-C5-N7	9.46	114.58	110.80
36	5	41	G	C4-C5-N7	9.46	114.58	110.80
36	1	2812	C	O5'-P-OP2	9.44	122.03	110.70
36	1	770	G	O4'-C1'-N9	9.43	115.74	108.20
36	1	662	U	O5'-P-OP2	-9.42	97.22	105.70
36	5	1481	A	N7-C8-N9	9.42	118.51	113.80
36	1	1389	G	C4-C5-N7	9.41	114.56	110.80
36	1	67	A	O5'-P-OP1	-9.38	97.26	105.70
36	5	40	A	O5'-P-OP1	-9.37	97.27	105.70
36	1	1389	G	N1-C6-O6	9.36	125.52	119.90
36	1	1556	C	C6-N1-C2	-9.36	116.55	120.30
36	5	911	C	C5-C6-N1	-9.33	116.33	121.00
36	5	3005	A	O5'-P-OP2	-9.33	97.30	105.70
1	6	941	A	N1-C6-N6	-9.32	113.01	118.60
36	1	3098	G	O5'-P-OP2	-9.31	97.32	105.70
36	1	3181	C	N3-C2-O2	-9.31	115.38	121.90
36	1	1103	A	O5'-P-OP1	-9.31	97.32	105.70
36	1	1846	C	O5'-P-OP1	-9.28	97.34	105.70
36	1	2237	C	C6-N1-C2	9.28	124.01	120.30
36	1	1153	A	O5'-P-OP1	-9.27	97.35	105.70
36	1	2846	U	C5-C4-O4	9.27	131.46	125.90
36	5	806	A	O5'-P-OP1	-9.24	97.38	105.70
36	1	716	A	C8-N9-C4	9.23	109.49	105.80
36	1	2700	G	C5-C6-O6	-9.23	123.06	128.60
36	1	2165	G	C5-C6-O6	-9.23	123.06	128.60
3	S1	218	LEU	CA-CB-CG	9.23	136.52	115.30
36	1	2355	G	N1-C6-O6	9.23	125.44	119.90
36	5	1390	A	N1-C6-N6	-9.23	113.06	118.60
36	1	2572	C	N1-C2-O2	9.22	124.44	118.90
36	5	776	U	C5-C6-N1	-9.22	118.09	122.70
36	5	3245	A	N7-C8-N9	9.22	118.41	113.80
36	1	672	A	N1-C6-N6	9.20	124.12	118.60
36	5	398	A	O5'-P-OP2	-9.19	97.43	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1537	C	N3-C4-C5	-9.18	118.23	121.90
36	5	2400	G	C8-N9-C4	9.18	110.07	106.40
36	1	1001	G	N1-C6-O6	9.18	125.41	119.90
1	2	558	U	N3-C2-O2	-9.17	115.78	122.20
36	5	2644	C	O5'-P-OP1	-9.15	97.47	105.70
36	1	640	U	N1-C2-O2	-9.13	116.41	122.80
36	1	1904	C	C6-N1-C2	-9.13	116.65	120.30
36	1	3183	A	N1-C6-N6	9.11	124.07	118.60
36	1	2808	A	C6-C5-N7	-9.10	125.93	132.30
36	5	981	U	C5-C6-N1	9.10	127.25	122.70
36	5	922	U	N3-C2-O2	-9.09	115.83	122.20
36	5	1897	G	N1-C6-O6	9.09	125.36	119.90
36	1	2334	U	O5'-P-OP2	-9.09	97.52	105.70
36	5	2317	A	O5'-P-OP2	-9.08	97.53	105.70
36	5	2358	A	C8-N9-C4	9.08	109.43	105.80
36	5	1152	G	N1-C6-O6	9.06	125.34	119.90
36	5	1333	C	C6-N1-C2	-9.06	116.68	120.30
1	6	337	G	N3-C4-N9	9.03	131.42	126.00
36	1	439	C	C2-N1-C1'	9.01	128.72	118.80
1	6	1634	C	C2-N1-C1'	9.00	128.70	118.80
36	5	2308	C	N1-C2-O2	-8.99	113.50	118.90
37	7	101	G	N1-C6-O6	8.99	125.29	119.90
36	1	3095	U	O5'-P-OP1	-8.98	97.61	105.70
36	5	1390	A	N9-C4-C5	8.98	109.39	105.80
36	1	718	G	C4-C5-N7	8.98	114.39	110.80
36	5	366	A	N1-C6-N6	8.97	123.98	118.60
36	1	2827	U	N1-C2-N3	8.95	120.27	114.90
36	1	2868	U	N3-C2-O2	-8.95	115.94	122.20
36	5	877	C	N3-C4-C5	8.95	125.48	121.90
36	5	2281	A	C8-N9-C4	8.94	109.38	105.80
36	1	627	U	N3-C2-O2	8.94	128.46	122.20
36	1	2885	C	C6-N1-C2	8.94	123.88	120.30
36	5	2943	G	C6-C5-N7	-8.92	125.05	130.40
1	2	453	U	N3-C2-O2	-8.92	115.96	122.20
36	1	2700	G	N1-C6-O6	8.92	125.25	119.90
36	1	1389	G	C5-C6-O6	-8.91	123.25	128.60
1	2	1280	C	N3-C4-C5	-8.91	118.33	121.90
36	1	1428	A	O5'-P-OP2	-8.91	97.68	105.70
36	1	802	C	O5'-P-OP2	8.90	121.38	110.70
36	5	2954	U	C2-N1-C1'	8.90	128.38	117.70
36	5	1592	G	C8-N9-C4	-8.89	102.84	106.40
36	1	1154	A	O5'-P-OP1	-8.87	97.72	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3050	U	C5-C4-O4	8.87	131.22	125.90
36	5	2878	G	N1-C6-O6	-8.87	114.58	119.90
36	1	637	C	C6-N1-C2	8.86	123.84	120.30
38	4	103	G	C8-N9-C4	-8.86	102.86	106.40
36	1	2369	G	O5'-P-OP1	-8.86	97.73	105.70
36	5	57	A	N1-C6-N6	8.86	123.92	118.60
36	5	2945	G	O5'-P-OP2	-8.86	97.73	105.70
1	2	453	U	C2-N1-C1'	8.85	128.32	117.70
36	1	939	U	O5'-P-OP2	-8.84	97.74	105.70
36	5	1452	A	N9-C4-C5	-8.84	102.26	105.80
36	5	2377	G	C8-N9-C4	8.84	109.94	106.40
36	1	350	C	C6-N1-C2	-8.84	116.77	120.30
36	1	716	A	C4-C5-N7	8.83	115.12	110.70
36	5	1010	G	O5'-P-OP2	-8.83	97.75	105.70
36	5	670	C	C6-N1-C2	-8.83	116.77	120.30
36	5	2815	G	C8-N9-C4	8.83	109.93	106.40
36	1	2846	U	N1-C2-O2	8.82	128.97	122.80
36	1	2617	U	N3-C2-O2	-8.81	116.03	122.20
36	5	2971	A	C2-N3-C4	8.80	115.00	110.60
36	1	2764	C	C6-N1-C2	-8.79	116.78	120.30
36	5	2726	C	N3-C4-N4	-8.78	111.86	118.00
36	1	2422	C	O5'-P-OP1	-8.77	97.81	105.70
36	1	2610	G	N1-C6-O6	8.77	125.16	119.90
36	1	830	A	C5-C6-N6	-8.76	116.69	123.70
36	1	1138	U	N3-C2-O2	-8.75	116.07	122.20
36	1	651	G	N3-C4-N9	8.75	131.25	126.00
36	1	1896	A	O5'-P-OP1	-8.74	97.83	105.70
38	4	32	C	N3-C4-C5	8.74	125.40	121.90
1	6	1121	C	O5'-P-OP2	-8.74	97.83	105.70
36	1	111	C	C6-N1-C2	8.74	123.80	120.30
36	1	2756	C	C6-N1-C2	-8.73	116.81	120.30
36	1	716	A	C5-C6-N6	-8.73	116.72	123.70
1	6	119	A	C2-N3-C4	-8.73	106.24	110.60
36	1	1371	G	C8-N9-C4	8.71	109.89	106.40
36	5	86	G	O5'-P-OP2	-8.71	97.86	105.70
36	5	3245	A	N1-C6-N6	8.67	123.80	118.60
36	1	2169	G	N1-C6-O6	-8.67	114.70	119.90
36	1	1365	G	C8-N9-C4	-8.66	102.94	106.40
36	1	2283	G	N1-C6-O6	8.66	125.10	119.90
36	5	121	A	N1-C6-N6	8.66	123.79	118.60
1	2	639	U	N1-C2-O2	8.65	128.86	122.80
36	1	939	U	N3-C2-O2	8.65	128.26	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	979	U	N3-C2-O2	-8.65	116.15	122.20
36	1	2659	G	N1-C6-O6	8.64	125.08	119.90
36	1	979	U	C6-N1-C2	-8.62	115.83	121.00
36	5	2366	C	C5-C6-N1	8.62	125.31	121.00
36	1	776	U	C4-C5-C6	8.61	124.86	119.70
36	1	1343	A	N1-C6-N6	8.59	123.76	118.60
36	5	580	C	C6-N1-C2	-8.59	116.86	120.30
36	1	3214	U	N3-C2-O2	-8.59	116.19	122.20
36	5	2345	A	N1-C6-N6	8.58	123.75	118.60
36	5	645	A	N1-C2-N3	8.56	133.58	129.30
36	5	2211	U	N3-C2-O2	-8.56	116.21	122.20
36	5	875	G	N1-C6-O6	-8.55	114.77	119.90
36	5	1117	G	O5'-P-OP1	-8.55	98.01	105.70
38	8	16	G	N1-C6-O6	8.54	125.03	119.90
36	1	1911	A	N1-C6-N6	8.51	123.70	118.60
1	6	339	C	N1-C2-O2	-8.50	113.80	118.90
36	5	2354	C	N1-C2-O2	-8.50	113.80	118.90
36	1	1484	U	P-O3'-C3'	8.50	129.90	119.70
36	5	2191	U	N1-C2-O2	8.50	128.75	122.80
36	1	2404	A	C2-N3-C4	8.49	114.84	110.60
36	1	286	U	N3-C2-O2	-8.48	116.26	122.20
1	6	310	C	N1-C2-O2	-8.48	113.81	118.90
36	1	1367	G	N1-C6-O6	8.48	124.99	119.90
36	5	2341	A	C8-N9-C4	8.48	109.19	105.80
36	5	2426	U	N3-C2-O2	-8.47	116.27	122.20
36	1	2636	A	C8-N9-C4	-8.46	102.41	105.80
36	1	3057	U	N3-C2-O2	-8.46	116.27	122.20
36	1	640	U	C5-C4-O4	-8.46	120.83	125.90
1	6	1137	A	C8-N9-C4	8.45	109.18	105.80
1	6	65	A	C2-N3-C4	-8.45	106.37	110.60
36	5	1311	G	O5'-P-OP2	-8.45	98.09	105.70
36	1	1307	G	N1-C6-O6	-8.45	114.83	119.90
36	5	1116	G	O5'-P-OP1	-8.44	98.10	105.70
36	5	3006	A	N1-C2-N3	8.44	133.52	129.30
36	5	719	U	N1-C2-O2	8.41	128.69	122.80
36	1	3175	U	O5'-P-OP2	-8.41	98.13	105.70
47	M0	24	ARG	NE-CZ-NH1	8.41	124.50	120.30
36	5	1390	A	C8-N9-C4	-8.40	102.44	105.80
36	1	2339	C	O5'-P-OP2	-8.38	98.15	105.70
36	1	65	A	P-O3'-C3'	8.37	129.74	119.70
36	1	282	G	C8-N9-C4	-8.37	103.05	106.40
36	5	578	A	N1-C6-N6	8.36	123.62	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2630	C	N1-C2-O2	-8.36	113.88	118.90
36	1	1157	G	N3-C2-N2	-8.36	114.05	119.90
36	5	2257	C	C6-N1-C2	-8.35	116.96	120.30
36	1	3306	U	N3-C2-O2	-8.34	116.36	122.20
36	1	1001	G	C5-C6-O6	-8.34	123.60	128.60
36	1	3001	C	C6-N1-C2	8.33	123.63	120.30
36	5	2858	U	C6-N1-C2	-8.33	116.00	121.00
36	1	802	C	O5'-P-OP1	-8.32	98.21	105.70
36	1	3306	U	C5-C4-O4	8.32	130.89	125.90
36	5	2354	C	C6-N1-C2	8.32	123.63	120.30
36	5	38	U	O5'-P-OP2	-8.31	98.22	105.70
36	5	1164	G	O5'-P-OP2	-8.31	98.22	105.70
36	5	2996	U	N1-C2-O2	8.31	128.62	122.80
36	5	41	G	C5-C6-O6	-8.30	123.62	128.60
36	1	645	A	C5-C6-N1	8.30	121.85	117.70
1	6	630	A	N1-C6-N6	8.30	123.58	118.60
36	1	2351	U	O5'-P-OP2	8.29	120.65	110.70
1	2	402	C	C6-N1-C2	8.29	123.62	120.30
36	5	65	A	O5'-P-OP2	-8.29	98.24	105.70
36	5	1410	U	O5'-P-OP2	-8.28	98.24	105.70
1	6	1537	C	C6-N1-C1'	8.28	130.74	120.80
36	1	1148	G	C8-N9-C4	8.28	109.71	106.40
36	1	2700	G	C6-C5-N7	-8.28	125.43	130.40
36	5	2619	G	C5-C6-O6	-8.28	123.63	128.60
40	l3	275	ARG	NE-CZ-NH1	-8.28	116.16	120.30
36	5	41	G	N1-C6-O6	8.27	124.86	119.90
36	5	1513	G	N7-C8-N9	8.27	117.23	113.10
36	1	1389	G	N9-C4-C5	-8.26	102.10	105.40
36	5	2693	C	N3-C4-C5	8.25	125.20	121.90
36	1	439	C	N1-C2-O2	8.25	123.85	118.90
36	5	3056	U	N1-C2-O2	-8.24	117.03	122.80
36	5	404	G	O5'-P-OP2	-8.23	98.29	105.70
36	5	2272	G	O4'-C1'-N9	8.23	114.78	108.20
1	6	438	A	O5'-P-OP1	-8.23	98.30	105.70
36	1	347	G	C4-C5-N7	8.22	114.09	110.80
36	1	2938	G	O5'-P-OP1	-8.22	98.30	105.70
36	5	1099	A	N1-C6-N6	8.22	123.53	118.60
36	1	1103	A	O5'-P-OP2	8.21	120.56	110.70
36	1	860	G	C5-C6-O6	-8.21	123.67	128.60
36	1	3207	U	C2-N1-C1'	-8.21	107.85	117.70
36	1	1157	G	N9-C4-C5	8.20	108.68	105.40
1	2	1600	A	C2-N3-C4	-8.19	106.50	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3140	G	C5-C6-O6	-8.19	123.68	128.60
36	1	1130	A	N1-C6-N6	8.19	123.51	118.60
36	1	2618	G	C5-C6-N1	8.19	115.59	111.50
36	5	2758	A	C8-N9-C4	-8.19	102.52	105.80
36	5	727	G	O5'-P-OP1	-8.19	98.33	105.70
36	5	2858	U	N3-C2-O2	-8.19	116.47	122.20
36	1	817	A	C8-N9-C4	-8.18	102.53	105.80
1	6	1100	G	N3-C4-N9	8.18	130.91	126.00
36	1	1891	A	C8-N9-C4	8.18	109.07	105.80
36	1	2870	C	N3-C4-C5	8.18	125.17	121.90
36	1	406	G	O5'-P-OP2	-8.17	98.34	105.70
37	7	110	G	O5'-P-OP2	-8.17	98.35	105.70
38	4	40	A	N1-C6-N6	8.17	123.50	118.60
36	5	2913	C	N1-C2-O2	-8.16	114.01	118.90
36	5	952	A	O5'-P-OP2	-8.14	98.37	105.70
36	5	2881	C	C6-N1-C2	8.14	123.56	120.30
1	6	609	U	C5-C4-O4	8.14	130.78	125.90
36	5	2396	G	N9-C4-C5	8.13	108.65	105.40
36	1	2387	A	C8-N9-C4	8.13	109.05	105.80
36	1	2572	C	C2-N1-C1'	8.13	127.74	118.80
36	5	2116	G	N1-C6-O6	8.13	124.78	119.90
36	1	1316	C	N1-C2-O2	-8.13	114.02	118.90
36	1	1428	A	C5-N7-C8	-8.13	99.84	103.90
36	1	3344	A	O4'-C1'-N9	8.13	114.70	108.20
36	5	2700	G	C5-C6-O6	-8.13	123.72	128.60
36	1	1365	G	C6-N1-C2	-8.13	120.22	125.10
1	2	1200	G	N1-C6-O6	8.12	124.77	119.90
36	1	2624	G	N1-C6-O6	8.12	124.77	119.90
36	5	437	G	N3-C4-N9	-8.11	121.13	126.00
36	5	2147	A	C5-C6-N6	-8.11	117.21	123.70
36	5	2987	A	O5'-P-OP1	-8.11	98.41	105.70
1	6	1634	C	C6-N1-C2	-8.10	117.06	120.30
36	5	2249	G	C8-N9-C4	-8.10	103.16	106.40
36	1	2821	C	O5'-P-OP1	-8.10	98.41	105.70
36	1	939	U	N3-C4-O4	8.09	125.06	119.40
36	5	2147	A	C4-C5-N7	8.09	114.74	110.70
37	7	101	G	C6-C5-N7	-8.09	125.55	130.40
36	1	2165	G	C6-C5-N7	-8.08	125.55	130.40
36	5	1416	C	N1-C2-O2	8.08	123.75	118.90
36	5	2211	U	C4-C5-C6	8.07	124.55	119.70
36	1	1307	G	C5-C6-O6	8.06	133.44	128.60
36	1	1507	G	O5'-P-OP2	-8.06	98.44	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	648	C	C2-N1-C1'	8.06	127.67	118.80
36	1	1368	U	O5'-P-OP1	-8.06	98.45	105.70
36	1	59	G	N1-C6-O6	8.06	124.73	119.90
37	3	94	C	N1-C2-O2	-8.06	114.06	118.90
36	1	1510	G	C6-C5-N7	-8.06	125.57	130.40
36	5	1483	G	O4'-C1'-N9	8.05	114.64	108.20
36	1	933	A	C4-C5-C6	8.05	121.03	117.00
36	1	2878	G	C5-C6-O6	-8.05	123.77	128.60
1	6	337	G	C4-N9-C1'	8.05	136.96	126.50
36	5	411	U	O5'-P-OP2	-8.04	98.46	105.70
36	5	2866	U	N3-C2-O2	-8.04	116.57	122.20
36	1	701	G	N1-C6-O6	8.04	124.72	119.90
36	5	806	A	C8-N9-C4	8.04	109.02	105.80
36	5	2385	G	N3-C4-C5	8.04	132.62	128.60
41	14	233	LEU	CA-CB-CG	8.04	133.79	115.30
36	5	3196	U	O5'-P-OP1	-8.03	98.47	105.70
36	5	1365	G	C6-C5-N7	-8.03	125.58	130.40
36	1	2379	U	N1-C2-O2	-8.03	117.18	122.80
36	1	343	U	N1-C2-N3	8.02	119.72	114.90
36	5	831	G	C5-C6-O6	-8.02	123.79	128.60
1	2	1560	U	N3-C2-O2	-8.02	116.59	122.20
36	1	3298	C	C6-N1-C2	8.02	123.51	120.30
36	5	406	G	O4'-C1'-N9	8.02	114.61	108.20
1	2	75	U	N1-C2-O2	8.02	128.41	122.80
38	4	103	G	N3-C4-C5	-8.02	124.59	128.60
36	1	49	A	C5-C6-N1	-8.01	113.69	117.70
36	5	2352	A	N1-C2-N3	8.01	133.30	129.30
37	7	93	C	O5'-P-OP1	8.01	120.31	110.70
36	5	2943	G	C4-C5-N7	8.01	114.00	110.80
41	14	339	LEU	CA-CB-CG	8.00	133.70	115.30
38	4	140	G	C8-N9-C4	-7.99	103.20	106.40
36	5	1075	A	C8-N9-C4	7.99	108.99	105.80
1	6	272	U	P-O3'-C3'	7.98	129.28	119.70
36	5	2363	A	N1-C6-N6	7.98	123.39	118.60
36	5	1131	G	C2-N3-C4	-7.98	107.91	111.90
36	5	1331	U	C5-C6-N1	-7.98	118.71	122.70
36	5	2372	A	P-O3'-C3'	7.98	129.27	119.70
36	1	1445	U	C2-N1-C1'	-7.97	108.13	117.70
1	6	163	G	N3-C2-N2	-7.97	114.32	119.90
36	1	3178	A	N1-C6-N6	7.97	123.38	118.60
36	1	922	U	N1-C2-O2	7.97	128.38	122.80
36	5	3218	A	C6-C5-N7	-7.96	126.72	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	709	A	C8-N9-C4	7.96	108.98	105.80
1	6	1634	C	C5-C6-N1	7.96	124.98	121.00
38	8	8	C	C6-N1-C2	-7.96	117.12	120.30
36	1	2884	C	C6-N1-C2	7.95	123.48	120.30
36	1	3181	C	C5-C4-N4	7.95	125.77	120.20
36	5	40	A	N1-C6-N6	7.95	123.37	118.60
38	4	44	A	N9-C4-C5	-7.95	102.62	105.80
36	1	3201	C	C6-N1-C2	-7.94	117.12	120.30
36	5	3216	G	N1-C6-O6	7.94	124.67	119.90
36	5	2929	C	C2-N3-C4	-7.94	115.93	119.90
36	5	3123	A	O5'-P-OP1	-7.94	98.56	105.70
36	1	1578	C	C2-N1-C1'	7.93	127.53	118.80
37	7	87	G	N1-C6-O6	7.93	124.66	119.90
36	1	2397	A	C5-C6-N6	-7.93	117.35	123.70
1	6	987	G	C5-C6-O6	-7.93	123.84	128.60
36	5	1837	U	O5'-P-OP1	-7.93	98.56	105.70
38	4	113	U	C5-C6-N1	-7.93	118.74	122.70
36	5	339	C	C6-N1-C2	-7.93	117.13	120.30
36	1	3306	U	N3-C4-O4	-7.92	113.85	119.40
1	6	337	G	N3-C4-C5	-7.92	124.64	128.60
1	2	992	A	C2-N3-C4	-7.92	106.64	110.60
36	1	1428	A	C6-C5-N7	-7.92	126.76	132.30
1	6	337	G	C6-C5-N7	-7.91	125.65	130.40
36	5	2572	C	N1-C2-O2	7.91	123.65	118.90
36	1	356	C	O5'-P-OP2	-7.91	98.58	105.70
36	1	950	G	C4-C5-N7	7.91	113.96	110.80
36	1	1741	A	N1-C6-N6	7.91	123.34	118.60
36	5	911	C	C6-N1-C2	7.91	123.46	120.30
36	5	2758	A	N9-C4-C5	7.90	108.96	105.80
36	1	701	G	N3-C2-N2	-7.89	114.37	119.90
36	1	2846	U	N3-C4-O4	-7.89	113.87	119.40
36	5	1189	C	N1-C2-O2	-7.89	114.16	118.90
1	2	970	A	N1-C6-N6	7.89	123.34	118.60
36	5	942	U	N3-C4-O4	7.89	124.92	119.40
36	5	1657	C	N1-C2-O2	7.89	123.63	118.90
36	1	1104	G	O5'-P-OP1	-7.89	98.60	105.70
36	5	3012	A	C8-N9-C4	7.88	108.95	105.80
37	7	66	A	O5'-P-OP1	-7.87	98.61	105.70
36	5	1879	A	N1-C6-N6	7.86	123.32	118.60
36	1	958	C	N3-C4-C5	7.86	125.04	121.90
36	5	907	G	O5'-P-OP1	-7.86	98.63	105.70
36	5	1846	C	N3-C4-C5	7.85	125.04	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2923	U	O5'-P-OP1	-7.85	98.63	105.70
36	1	2550	U	N3-C2-O2	-7.85	116.70	122.20
36	1	1506	A	N1-C6-N6	-7.85	113.89	118.60
36	5	922	U	C2-N3-C4	-7.85	122.29	127.00
36	1	2400	G	N9-C4-C5	-7.84	102.26	105.40
36	5	2684	C	C6-N1-C2	-7.84	117.16	120.30
1	6	371	G	N3-C4-N9	7.84	130.71	126.00
36	1	2419	A	OP1-P-OP2	-7.84	107.84	119.60
36	5	1192	C	N1-C2-O2	7.83	123.60	118.90
1	6	647	G	N3-C4-N9	-7.83	121.30	126.00
1	2	576	G	C5-C6-O6	-7.83	123.90	128.60
36	1	85	A	C2-N3-C4	-7.82	106.69	110.60
36	5	2698	G	C8-N9-C4	7.82	109.53	106.40
36	1	1604	G	C4-N9-C1'	7.82	136.66	126.50
36	5	954	U	O5'-P-OP1	-7.81	98.67	105.70
36	5	2965	U	N3-C2-O2	7.80	127.66	122.20
36	1	2758	A	C8-N9-C4	7.80	108.92	105.80
1	6	1025	A	N1-C6-N6	7.80	123.28	118.60
36	5	3154	C	C2-N1-C1'	7.80	127.38	118.80
36	1	29	C	C6-N1-C2	7.79	123.42	120.30
36	1	1349	G	N3-C4-N9	7.79	130.67	126.00
36	5	917	A	O5'-P-OP2	-7.79	98.69	105.70
36	5	2753	G	C8-N9-C4	-7.78	103.29	106.40
1	6	1782	A	C8-N9-C4	-7.78	102.69	105.80
36	5	2816	G	C5-C6-O6	-7.77	123.94	128.60
36	1	1367	G	O5'-P-OP1	-7.77	98.71	105.70
36	1	3278	C	N3-C2-O2	-7.77	116.46	121.90
36	5	2708	C	N1-C2-O2	-7.76	114.24	118.90
36	1	369	A	C8-N9-C4	-7.76	102.70	105.80
36	1	2371	G	O5'-P-OP2	-7.76	98.72	105.70
36	5	95	A	C5-C6-N6	-7.76	117.49	123.70
36	5	776	U	N1-C2-N3	7.76	119.56	114.90
36	1	2996	U	N1-C2-O2	7.75	128.23	122.80
36	5	907	G	N9-C4-C5	-7.75	102.30	105.40
36	5	1152	G	N1-C2-N3	7.75	128.55	123.90
36	5	2872	A	C2-N3-C4	-7.75	106.72	110.60
36	1	2719	U	N1-C2-O2	-7.75	117.38	122.80
1	6	542	A	C6-C5-N7	-7.75	126.88	132.30
46	L9	91	ARG	NE-CZ-NH2	7.74	124.17	120.30
36	1	348	A	N1-C6-N6	7.73	123.24	118.60
1	2	1600	A	C5-C6-N1	-7.73	113.83	117.70
15	C3	22	ALA	C-N-CD	-7.73	103.59	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	716	A	C6-C5-N7	-7.73	126.89	132.30
36	5	211	A	N1-C6-N6	-7.73	113.96	118.60
36	5	92	G	C5-C6-N1	7.72	115.36	111.50
36	1	616	G	C5-C6-O6	-7.72	123.97	128.60
36	5	586	C	N3-C4-C5	7.72	124.99	121.90
36	1	2975	U	N1-C2-O2	7.71	128.20	122.80
36	1	3277	U	N3-C2-O2	-7.71	116.80	122.20
36	5	2944	U	N3-C2-O2	-7.71	116.81	122.20
36	5	2283	G	O5'-P-OP2	-7.70	98.77	105.70
1	2	830	U	N3-C2-O2	-7.70	116.81	122.20
36	5	1879	A	C4-C5-N7	7.69	114.54	110.70
36	5	63	A	C5-C6-N6	-7.69	117.55	123.70
36	1	3181	C	N3-C4-N4	-7.68	112.62	118.00
36	1	2413	A	C8-N9-C4	7.68	108.87	105.80
36	1	2404	A	N1-C6-N6	-7.68	113.99	118.60
36	5	1429	G	N1-C2-N2	-7.68	109.29	116.20
36	1	1117	G	N1-C6-O6	7.68	124.51	119.90
36	5	2726	C	N1-C2-N3	7.68	124.57	119.20
36	1	933	A	N1-C2-N3	7.67	133.14	129.30
36	5	347	G	N3-C4-N9	-7.67	121.39	126.00
36	5	1513	G	N3-C4-C5	-7.67	124.76	128.60
36	5	2981	U	C2-N1-C1'	7.67	126.91	117.70
36	5	1152	G	C5-C6-N1	-7.67	107.67	111.50
36	1	1307	G	C4-C5-N7	-7.67	107.73	110.80
1	6	453	U	C2-N1-C1'	7.67	126.90	117.70
36	1	934	G	O5'-P-OP1	-7.66	98.80	105.70
36	5	607	A	N1-C6-N6	-7.66	114.01	118.60
36	1	958	C	C2-N3-C4	-7.66	116.07	119.90
36	5	672	A	N1-C6-N6	7.66	123.19	118.60
36	1	3006	A	N1-C6-N6	7.65	123.19	118.60
1	6	858	G	O4'-C1'-N9	7.65	114.32	108.20
36	5	337	G	N3-C4-C5	-7.65	124.77	128.60
36	1	3055	U	C5-C4-O4	-7.65	121.31	125.90
36	5	2799	A	O5'-P-OP2	-7.65	98.81	105.70
36	1	25	U	N3-C4-O4	7.65	124.75	119.40
36	5	63	A	C6-C5-N7	-7.65	126.95	132.30
36	5	1300	G	N1-C6-O6	7.65	124.49	119.90
36	5	41	G	N3-C4-C5	7.64	132.42	128.60
36	5	2191	U	N3-C2-O2	-7.64	116.85	122.20
36	5	2954	U	O4'-C1'-N1	7.64	114.31	108.20
36	1	412	G	O5'-P-OP2	-7.64	98.83	105.70
36	1	2407	C	C4-C5-C6	7.64	121.22	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	895	A	C2-N3-C4	-7.63	106.78	110.60
38	4	53	A	C2-N3-C4	7.63	114.42	110.60
38	8	26	U	O5'-P-OP2	-7.63	98.83	105.70
36	5	3093	C	C5-C6-N1	-7.63	117.19	121.00
36	1	3229	G	N1-C6-O6	7.62	124.47	119.90
36	5	3092	C	C6-N1-C2	7.62	123.35	120.30
36	1	334	A	C8-N9-C4	-7.62	102.75	105.80
36	1	54	C	C6-N1-C2	7.62	123.35	120.30
36	1	358	G	C5-C6-O6	-7.62	124.03	128.60
63	n7	5	LEU	CB-CG-CD1	-7.62	98.05	111.00
36	1	1489	A	N9-C4-C5	-7.61	102.76	105.80
36	5	2730	G	C5-C6-O6	-7.61	124.03	128.60
36	1	2812	C	C6-N1-C2	7.61	123.34	120.30
36	1	699	A	C2-N3-C4	-7.60	106.80	110.60
36	5	2889	C	C2-N3-C4	-7.60	116.10	119.90
1	6	1117	U	N3-C4-O4	7.60	124.72	119.40
1	6	1560	U	N3-C2-O2	-7.60	116.88	122.20
36	1	2138	A	C8-N9-C4	-7.60	102.76	105.80
36	1	3001	C	C5-C6-N1	-7.60	117.20	121.00
36	5	2893	C	N3-C4-C5	-7.60	118.86	121.90
36	5	1931	U	C2-N1-C1'	-7.59	108.59	117.70
36	5	1179	A	O5'-P-OP1	-7.59	98.87	105.70
36	5	2364	G	C5-C6-O6	7.58	133.15	128.60
1	6	459	G	N1-C6-O6	7.58	124.45	119.90
36	1	1389	G	C6-C5-N7	-7.58	125.85	130.40
36	1	2550	U	C5-C4-O4	7.58	130.45	125.90
36	1	3215	A	C8-N9-C4	7.58	108.83	105.80
36	1	288	C	N1-C2-O2	-7.58	114.35	118.90
36	5	102	C	N3-C4-N4	7.57	123.30	118.00
36	1	2636	A	N7-C8-N9	7.57	117.59	113.80
1	2	553	G	C5-C6-O6	-7.56	124.06	128.60
36	5	882	A	C8-N9-C4	7.56	108.82	105.80
1	2	507	U	C2-N1-C1'	7.56	126.77	117.70
1	6	1119	G	O5'-P-OP2	-7.56	98.90	105.70
36	5	2180	G	C8-N9-C4	7.56	109.42	106.40
36	5	2389	C	C6-N1-C2	7.55	123.32	120.30
36	1	148	G	N1-C6-O6	7.55	124.43	119.90
36	1	859	G	C8-N9-C4	7.55	109.42	106.40
36	1	2808	A	C5-C6-N1	-7.55	113.93	117.70
36	5	2198	A	O5'-P-OP2	-7.55	98.91	105.70
36	5	981	U	C6-N1-C2	-7.54	116.47	121.00
36	5	95	A	N1-C6-N6	7.54	123.12	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2343	C	N3-C4-C5	7.54	124.92	121.90
36	5	1180	A	O4'-C1'-N9	-7.54	102.17	108.20
36	5	776	U	C4-C5-C6	7.54	124.22	119.70
36	5	2699	G	C4-C5-N7	7.54	113.81	110.80
36	1	120	G	C8-N9-C4	7.53	109.41	106.40
1	6	272	U	N3-C2-O2	-7.53	116.93	122.20
36	5	2965	U	N1-C2-O2	-7.53	117.53	122.80
36	1	909	G	C8-N9-C4	7.52	109.41	106.40
36	5	3209	A	O4'-C1'-N9	7.52	114.22	108.20
36	1	608	A	N1-C6-N6	7.52	123.11	118.60
36	1	2153	U	C6-N1-C2	-7.51	116.49	121.00
36	5	670	C	N3-C2-O2	-7.51	116.64	121.90
36	5	2271	A	C8-N9-C4	7.51	108.80	105.80
36	5	2831	G	C5-C6-N1	7.51	115.26	111.50
38	8	84	C	C6-N1-C2	-7.51	117.30	120.30
36	5	1452	A	C4-C5-N7	7.51	114.45	110.70
36	1	1000	C	C6-N1-C1'	-7.51	111.79	120.80
36	5	1047	A	N1-C6-N6	7.51	123.10	118.60
36	1	2946	A	N1-C6-N6	7.50	123.10	118.60
36	5	2366	C	C6-N1-C2	-7.50	117.30	120.30
36	1	2996	U	C5-C6-N1	7.49	126.45	122.70
38	4	58	G	C5-C6-O6	-7.49	124.11	128.60
36	1	49	A	C8-N9-C4	7.49	108.80	105.80
36	1	716	A	C2-N3-C4	-7.49	106.85	110.60
1	6	756	A	OP1-P-OP2	-7.49	108.36	119.60
36	5	646	A	N1-C6-N6	-7.49	114.11	118.60
36	5	2879	C	C6-N1-C2	7.49	123.30	120.30
36	5	1897	G	C4-C5-N7	7.49	113.80	110.80
38	8	4	C	N1-C2-O2	7.49	123.39	118.90
36	1	718	G	C5-N7-C8	-7.49	100.56	104.30
36	1	2222	A	C8-N9-C4	-7.49	102.81	105.80
36	1	2417	U	C2-N3-C4	-7.49	122.51	127.00
36	5	1445	U	N1-C2-O2	-7.48	117.56	122.80
36	1	28	C	C6-N1-C2	7.48	123.29	120.30
36	5	3195	U	OP1-P-O3'	7.48	121.66	105.20
36	1	2121	G	N1-C6-O6	-7.48	115.41	119.90
36	5	639	G	N1-C6-O6	7.48	124.39	119.90
36	5	1152	G	C4-C5-N7	7.47	113.79	110.80
1	2	1756	A	N1-C6-N6	7.47	123.08	118.60
36	5	1464	G	C8-N9-C4	7.47	109.39	106.40
36	1	2870	C	C6-N1-C1'	7.47	129.76	120.80
36	5	2372	A	N9-C4-C5	7.46	108.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1381	A	N1-C2-N3	7.46	133.03	129.30
1	6	610	G	C8-N9-C1'	-7.46	117.30	127.00
36	5	2116	G	C6-C5-N7	-7.46	125.92	130.40
1	6	1340	U	N3-C2-O2	-7.46	116.98	122.20
36	1	3344	A	C8-N9-C4	-7.46	102.82	105.80
36	5	2278	C	C4-C5-C6	-7.46	113.67	117.40
36	5	2797	C	N1-C2-O2	-7.46	114.43	118.90
1	2	577	G	N3-C4-N9	-7.46	121.53	126.00
36	1	2286	U	O5'-P-OP2	-7.45	99.00	105.70
1	2	577	G	N3-C4-C5	7.45	132.32	128.60
36	5	1181	U	C5-C6-N1	-7.45	118.98	122.70
36	1	2878	G	C8-N9-C4	7.44	109.38	106.40
36	5	1375	G	O5'-P-OP2	-7.44	99.00	105.70
36	5	1520	G	N3-C4-C5	-7.44	124.88	128.60
1	2	1761	U	C6-N1-C2	-7.43	116.54	121.00
36	1	645	A	C6-N1-C2	-7.43	114.14	118.60
36	5	3039	C	O5'-P-OP2	-7.43	99.01	105.70
36	1	2808	A	N9-C4-C5	-7.43	102.83	105.80
36	1	3207	U	C6-N1-C1'	7.43	131.60	121.20
1	6	1097	U	P-O3'-C3'	7.43	128.61	119.70
36	1	3207	U	C5-C4-O4	7.42	130.35	125.90
1	6	1643	U	C2-N3-C4	-7.42	122.55	127.00
36	5	838	G	C5-C6-O6	7.42	133.05	128.60
36	1	937	G	O5'-P-OP2	-7.41	99.03	105.70
36	1	1845	G	N9-C4-C5	7.41	108.36	105.40
36	5	2819	A	O5'-P-OP2	-7.41	99.03	105.70
36	5	62	A	O5'-P-OP2	-7.40	99.04	105.70
37	7	105	C	N3-C4-C5	-7.40	118.94	121.90
36	1	932	U	N1-C2-O2	-7.40	117.62	122.80
1	6	29	U	C5-C4-O4	7.40	130.34	125.90
1	6	542	A	N7-C8-N9	7.40	117.50	113.80
1	6	858	G	C4-C5-N7	7.40	113.76	110.80
1	6	371	G	C6-C5-N7	-7.39	125.97	130.40
36	5	1368	U	O5'-P-OP1	-7.39	99.05	105.70
36	5	53	G	O5'-P-OP2	-7.39	99.05	105.70
1	2	1773	C	N3-C4-C5	-7.38	118.95	121.90
36	1	1376	C	C4-C5-C6	7.38	121.09	117.40
36	1	2868	U	C2-N1-C1'	7.38	126.56	117.70
36	1	2830	G	N1-C6-O6	7.38	124.33	119.90
36	1	776	U	C5-C6-N1	-7.38	119.01	122.70
36	5	3245	A	C6-C5-N7	-7.38	127.13	132.30
36	1	2768	U	O5'-P-OP2	-7.37	99.07	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	77	G	N1-C6-O6	7.37	124.32	119.90
1	2	448	C	C6-N1-C2	-7.36	117.35	120.30
1	6	1361	U	C2-N1-C1'	7.36	126.54	117.70
36	1	860	G	N1-C6-O6	7.36	124.32	119.90
36	1	2944	U	N1-C2-O2	7.36	127.95	122.80
36	1	3344	A	N7-C8-N9	7.36	117.48	113.80
36	1	651	G	N3-C4-C5	-7.36	124.92	128.60
36	5	1504	A	C2-N3-C4	-7.36	106.92	110.60
38	4	40	A	C5-C6-N6	-7.35	117.82	123.70
36	1	1320	C	C6-N1-C2	-7.35	117.36	120.30
37	3	75	G	O5'-P-OP1	-7.35	99.09	105.70
36	1	1157	G	C4-C5-N7	-7.34	107.86	110.80
36	1	3216	G	N9-C4-C5	7.34	108.34	105.40
36	1	2624	G	N7-C8-N9	7.34	116.77	113.10
36	5	366	A	C4-C5-N7	7.34	114.37	110.70
36	1	1345	G	O5'-P-OP2	-7.34	99.10	105.70
37	7	93	C	N1-C2-O2	7.34	123.30	118.90
73	o7	65	ARG	NE-CZ-NH1	7.34	123.97	120.30
38	4	111	A	N1-C6-N6	7.34	123.00	118.60
36	5	3060	C	N1-C2-O2	-7.33	114.50	118.90
36	5	3197	G	N3-C4-N9	-7.33	121.60	126.00
1	2	1273	G	O4'-C1'-N9	7.33	114.06	108.20
36	5	1147	G	N3-C2-N2	-7.33	114.77	119.90
36	5	2821	C	N3-C2-O2	7.33	127.03	121.90
36	1	2147	A	O5'-P-OP1	-7.32	99.11	105.70
36	1	1838	G	C5-C6-O6	-7.32	124.21	128.60
1	6	542	A	N1-C6-N6	7.32	122.99	118.60
37	3	94	C	N3-C2-O2	7.31	127.02	121.90
36	5	1305	U	N1-C2-N3	-7.31	110.51	114.90
36	1	963	G	C5-C6-O6	-7.31	124.21	128.60
36	5	3126	C	N3-C4-C5	7.30	124.82	121.90
36	5	2950	G	O4'-C1'-N9	7.30	114.04	108.20
36	5	367	A	C8-N9-C4	7.30	108.72	105.80
1	2	448	C	N3-C4-C5	-7.30	118.98	121.90
36	1	1175	C	O5'-P-OP1	-7.30	99.13	105.70
36	1	298	U	O5'-P-OP2	-7.29	99.14	105.70
36	1	859	G	C6-C5-N7	-7.29	126.03	130.40
36	5	1847	A	C2-N3-C4	-7.29	106.95	110.60
36	5	2978	U	C4-C5-C6	7.29	124.07	119.70
36	5	3218	A	C4-C5-N7	7.28	114.34	110.70
36	5	873	C	O5'-P-OP2	-7.28	99.15	105.70
36	5	2140	U	N1-C2-N3	7.28	119.27	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	900	G	C8-N9-C4	7.28	109.31	106.40
36	5	3006	A	C2-N3-C4	-7.27	106.97	110.60
1	6	29	U	N3-C2-O2	-7.26	117.11	122.20
36	5	1437	C	C6-N1-C2	-7.26	117.39	120.30
38	8	23	U	N1-C2-N3	7.26	119.26	114.90
36	1	1377	G	C4-C5-N7	7.26	113.70	110.80
36	5	2211	U	C5-C4-O4	7.26	130.26	125.90
36	5	3218	A	C5-N7-C8	-7.26	100.27	103.90
36	1	30	G	N1-C6-O6	-7.26	115.55	119.90
36	1	2209	U	C5-C6-N1	7.25	126.33	122.70
1	2	75	U	N3-C2-O2	-7.25	117.12	122.20
36	5	1181	U	C4-C5-C6	7.25	124.05	119.70
36	1	940	G	O5'-P-OP1	-7.25	99.18	105.70
36	1	1180	A	O4'-C1'-N9	-7.24	102.41	108.20
36	5	2145	A	N1-C6-N6	-7.24	114.25	118.60
36	1	2700	G	C4-C5-N7	7.24	113.69	110.80
36	1	343	U	C6-N1-C2	-7.24	116.66	121.00
36	5	1416	C	N3-C2-O2	-7.24	116.83	121.90
36	5	1452	A	C5-C6-N6	-7.24	117.91	123.70
52	m6	94	ARG	NE-CZ-NH1	-7.24	116.68	120.30
36	5	1200	A	C4-C5-C6	7.23	120.62	117.00
1	2	287	G	O4'-C1'-N9	7.23	113.98	108.20
36	1	2153	U	N1-C2-N3	7.23	119.24	114.90
1	6	103	A	P-O3'-C3'	7.23	128.38	119.70
36	5	2932	U	C2-N3-C4	-7.23	122.67	127.00
36	1	1425	U	N1-C2-N3	7.22	119.23	114.90
36	5	651	G	C5-C6-O6	-7.22	124.27	128.60
36	5	1902	G	C6-C5-N7	-7.22	126.07	130.40
36	5	3216	G	C5-C6-O6	-7.22	124.27	128.60
36	1	1192	C	C2-N1-C1'	7.22	126.74	118.80
36	5	2981	U	N3-C2-O2	-7.22	117.15	122.20
36	5	2821	C	C2-N1-C1'	-7.22	110.86	118.80
36	1	639	G	C5-C6-O6	-7.22	124.27	128.60
36	5	2393	G	C5-C6-O6	-7.22	124.27	128.60
36	5	2278	C	C5-C6-N1	7.21	124.61	121.00
36	5	2361	A	OP2-P-O3'	7.21	121.06	105.20
36	1	2572	C	N3-C2-O2	-7.21	116.85	121.90
36	1	2865	U	OP2-P-O3'	7.21	121.06	105.20
37	3	91	G	N1-C6-O6	7.21	124.22	119.90
36	5	1430	U	O5'-P-OP1	-7.21	99.21	105.70
36	5	2412	G	C5-C6-N1	7.21	115.10	111.50
36	1	2621	G	N3-C2-N2	-7.20	114.86	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1113	G	C2-N3-C4	-7.20	108.30	111.90
36	5	827	A	O5'-P-OP1	-7.20	99.22	105.70
38	4	9	A	O5'-P-OP2	-7.20	99.22	105.70
36	1	1130	A	C5-C6-N6	-7.20	117.94	123.70
36	1	3004	C	O5'-P-OP1	-7.20	99.22	105.70
36	5	3143	C	N3-C2-O2	7.20	126.94	121.90
36	5	1866	C	C5-C6-N1	7.19	124.60	121.00
36	5	966	U	C2-N1-C1'	7.19	126.33	117.70
36	5	2883	U	O5'-P-OP2	-7.19	99.23	105.70
36	5	1433	A	C8-N9-C4	-7.18	102.93	105.80
36	1	2827	U	N3-C4-O4	-7.18	114.38	119.40
36	5	2343	C	C6-N1-C2	7.18	123.17	120.30
36	1	1158	A	N1-C6-N6	7.17	122.90	118.60
36	1	2351	U	C5-C6-N1	7.17	126.29	122.70
36	1	2384	A	C6-C5-N7	-7.17	127.28	132.30
36	1	2351	U	O5'-P-OP1	-7.17	99.25	105.70
36	5	2396	G	N3-C2-N2	-7.17	114.88	119.90
36	5	3140	G	N1-C6-O6	7.17	124.20	119.90
38	8	43	A	C8-N9-C4	-7.17	102.93	105.80
1	6	826	U	C5-C6-N1	7.17	126.28	122.70
36	1	1307	G	C8-N9-C4	-7.17	103.53	106.40
36	5	924	G	N1-C6-O6	7.17	124.20	119.90
36	1	2816	G	O4'-C1'-N9	7.16	113.93	108.20
36	5	2392	C	C2-N3-C4	-7.16	116.32	119.90
36	1	881	C	N1-C2-O2	7.16	123.19	118.90
36	5	2899	C	C6-N1-C2	-7.16	117.44	120.30
1	6	308	C	C5-C6-N1	-7.15	117.42	121.00
36	5	3000	A	N1-C6-N6	7.15	122.89	118.60
36	5	200	C	N3-C4-N4	7.15	123.00	118.00
36	5	2411	U	O5'-P-OP2	-7.15	99.27	105.70
36	1	350	C	N3-C2-O2	-7.14	116.90	121.90
36	5	645	A	C6-N1-C2	-7.14	114.31	118.60
36	5	2271	A	N7-C8-N9	-7.14	110.23	113.80
36	1	1303	A	C8-N9-C4	7.14	108.66	105.80
1	2	794	U	N3-C2-O2	-7.14	117.20	122.20
70	O4	51	LEU	CA-CB-CG	7.13	131.71	115.30
36	1	2610	G	C6-C5-N7	-7.13	126.12	130.40
37	3	57	G	N1-C6-O6	-7.13	115.62	119.90
36	1	2808	A	C4-C5-N7	7.13	114.26	110.70
36	5	1846	C	C6-N1-C2	7.13	123.15	120.30
36	5	1139	G	C8-N9-C4	7.12	109.25	106.40
36	5	3078	U	N3-C2-O2	-7.12	117.22	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2234	G	C5-C6-O6	-7.12	124.33	128.60
36	1	635	G	C5-C6-N1	7.12	115.06	111.50
1	2	831	U	C6-N1-C2	-7.12	116.73	121.00
36	1	1313	G	C5-C6-O6	-7.12	124.33	128.60
1	6	163	G	C2-N3-C4	-7.12	108.34	111.90
1	2	1458	G	N9-C4-C5	-7.11	102.56	105.40
36	5	965	A	O5'-P-OP2	-7.11	99.30	105.70
36	5	2320	A	C2-N3-C4	-7.11	107.05	110.60
1	6	75	U	C2-N1-C1'	7.11	126.23	117.70
36	5	3195	U	P-O3'-C3'	7.10	128.22	119.70
1	2	453	U	N1-C2-O2	7.10	127.77	122.80
36	5	283	G	C4-C5-N7	7.10	113.64	110.80
36	1	2756	C	N3-C4-C5	-7.10	119.06	121.90
36	5	2726	C	N3-C4-C5	-7.10	119.06	121.90
36	1	363	G	N1-C6-O6	7.10	124.16	119.90
36	1	2187	G	C6-C5-N7	-7.10	126.14	130.40
36	1	25	U	N3-C4-C5	-7.10	110.34	114.60
36	5	54	C	N1-C2-O2	-7.10	114.64	118.90
36	5	929	A	C8-N9-C4	7.10	108.64	105.80
35	SM	167	PRO	N-CA-CB	7.09	111.81	103.30
36	1	949	C	C6-N1-C2	-7.09	117.46	120.30
36	5	3143	C	N1-C2-O2	-7.09	114.64	118.90
36	5	835	G	O4'-C1'-N9	7.09	113.87	108.20
36	1	2827	U	N3-C2-O2	-7.09	117.23	122.20
38	4	40	A	N9-C4-C5	-7.09	102.96	105.80
1	6	542	A	O4'-C1'-N9	7.09	113.87	108.20
36	5	699	A	C2-N3-C4	-7.09	107.05	110.60
36	5	1003	A	C8-N9-C4	7.09	108.64	105.80
36	1	718	G	C2-N3-C4	-7.09	108.36	111.90
36	1	1467	A	N9-C4-C5	7.09	108.64	105.80
36	5	1696	A	O5'-P-OP2	-7.09	99.32	105.70
36	5	3335	A	N1-C6-N6	7.08	122.85	118.60
1	6	1773	C	N1-C2-O2	-7.08	114.65	118.90
36	5	945	C	C6-N1-C2	7.08	123.13	120.30
36	5	3206	C	N3-C2-O2	-7.08	116.94	121.90
1	6	957	G	N1-C6-O6	7.08	124.15	119.90
36	1	2873	U	N3-C2-O2	-7.07	117.25	122.20
38	4	113	U	C5-C4-O4	7.07	130.15	125.90
36	5	1300	G	OP1-P-O3'	7.07	120.76	105.20
36	5	3154	C	N1-C2-O2	7.07	123.14	118.90
36	1	1156	C	C5-C6-N1	-7.07	117.47	121.00
36	1	1422	G	O5'-P-OP1	-7.07	99.34	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	337	G	N3-C2-N2	7.07	124.85	119.90
37	7	112	G	C8-N9-C4	-7.07	103.57	106.40
36	5	1500	G	C8-N9-C4	7.06	109.22	106.40
36	5	3306	U	O5'-P-OP2	-7.06	99.35	105.70
36	1	329	U	N1-C2-O2	-7.06	117.86	122.80
36	1	3151	U	O5'-P-OP2	-7.05	99.35	105.70
36	5	2915	U	C6-N1-C2	7.05	125.23	121.00
1	2	1745	G	C5-C6-O6	-7.05	124.37	128.60
36	1	939	U	O5'-P-OP1	7.05	119.16	110.70
36	5	1897	G	C5-C6-O6	-7.05	124.37	128.60
36	1	2831	G	N1-C6-O6	7.05	124.13	119.90
36	5	719	U	N3-C2-O2	-7.05	117.27	122.20
36	5	1306	G	C5-C6-O6	-7.05	124.37	128.60
36	5	2758	A	C2-N3-C4	7.05	114.12	110.60
36	5	2848	G	C6-C5-N7	-7.05	126.17	130.40
36	5	424	G	C5-C6-O6	-7.05	124.37	128.60
36	5	2396	G	C8-N9-C4	-7.05	103.58	106.40
36	5	2295	A	C5-C6-N6	-7.04	118.06	123.70
36	5	819	U	N3-C4-C5	-7.04	110.38	114.60
36	1	890	C	C6-N1-C2	-7.04	117.48	120.30
36	5	581	U	C5-C6-N1	7.04	126.22	122.70
36	1	2397	A	N9-C4-C5	-7.04	102.99	105.80
36	5	3211	C	C6-N1-C2	7.03	123.11	120.30
36	1	24	G	N9-C4-C5	-7.03	102.59	105.40
36	1	2359	C	O5'-P-OP2	-7.03	99.37	105.70
36	5	2400	G	C4-C5-N7	7.03	113.61	110.80
38	4	32	C	C4-C5-C6	-7.02	113.89	117.40
38	4	99	C	C6-N1-C2	7.02	123.11	120.30
36	5	3362	A	O4'-C1'-N9	7.02	113.82	108.20
36	5	1528	G	C4-C5-N7	7.02	113.61	110.80
36	1	901	G	N1-C6-O6	7.01	124.11	119.90
36	1	1133	A	O5'-P-OP2	-7.01	99.39	105.70
36	5	2411	U	N3-C4-C5	7.01	118.81	114.60
36	5	2830	G	N1-C2-N3	7.01	128.11	123.90
36	1	2811	A	C8-N9-C4	-7.01	103.00	105.80
36	5	2142	A	OP1-P-O3'	7.01	120.62	105.20
36	1	1556	C	P-O3'-C3'	7.01	128.11	119.70
36	5	2943	G	C5-C6-O6	-7.00	124.40	128.60
36	1	2376	G	C5-C6-O6	-7.00	124.40	128.60
36	5	691	A	C2-N3-C4	-7.00	107.10	110.60
36	1	2605	G	N1-C6-O6	7.00	124.10	119.90
36	1	339	C	C5-C4-N4	7.00	125.10	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1368	U	C5-C4-O4	-7.00	121.70	125.90
36	5	861	C	C6-N1-C2	7.00	123.10	120.30
36	5	1190	A	C8-N9-C4	-7.00	103.00	105.80
36	1	2165	G	O5'-P-OP2	-6.99	99.41	105.70
36	5	1208	U	C5-C4-O4	6.99	130.10	125.90
36	1	2836	C	C5-C4-N4	6.99	125.09	120.20
36	1	2373	A	C8-N9-C4	-6.99	103.00	105.80
36	5	651	G	N1-C6-O6	6.99	124.09	119.90
36	1	1489	A	C5-C6-N6	-6.99	118.11	123.70
36	1	2954	U	C6-N1-C2	6.99	125.19	121.00
36	5	3179	U	O5'-P-OP1	-6.99	99.41	105.70
36	1	639	G	N3-C2-N2	-6.99	115.01	119.90
36	5	3200	G	N1-C6-O6	6.99	124.09	119.90
36	5	1131	G	N1-C2-N3	6.98	128.09	123.90
36	5	1208	U	N1-C2-N3	6.98	119.09	114.90
36	5	3154	C	C6-N1-C2	-6.98	117.51	120.30
36	1	909	G	O5'-P-OP1	-6.98	99.42	105.70
36	1	895	A	C6-C5-N7	-6.98	127.42	132.30
36	1	2138	A	N1-C2-N3	6.98	132.79	129.30
36	5	2836	C	C4-C5-C6	6.98	120.89	117.40
1	2	553	G	C6-C5-N7	-6.98	126.21	130.40
36	5	2618	G	C5-C6-O6	-6.98	124.41	128.60
36	1	908	G	O4'-C1'-N9	-6.97	102.62	108.20
36	5	1419	A	O5'-P-OP2	-6.97	99.42	105.70
36	1	400	G	C5-C6-O6	-6.97	124.42	128.60
36	5	2314	U	C5-C4-O4	-6.97	121.72	125.90
36	1	2343	C	N3-C4-C5	6.97	124.69	121.90
1	6	136	C	C2-N1-C1'	6.97	126.47	118.80
36	1	2995	A	C8-N9-C4	6.97	108.59	105.80
36	1	1151	U	N3-C4-O4	6.96	124.28	119.40
36	1	2808	A	C5-N7-C8	-6.96	100.42	103.90
36	1	1192	C	N3-C2-O2	-6.96	117.03	121.90
38	4	14	C	N3-C4-C5	6.96	124.68	121.90
36	5	1858	A	O4'-C1'-N9	6.96	113.77	108.20
36	1	816	A	N9-C4-C5	6.96	108.58	105.80
36	5	3075	G	N1-C6-O6	6.96	124.08	119.90
36	1	2764	C	C5-C6-N1	6.96	124.48	121.00
36	5	871	U	C5-C4-O4	6.96	130.07	125.90
36	5	2148	U	C2-N1-C1'	-6.96	109.35	117.70
36	5	640	U	N3-C2-O2	6.96	127.07	122.20
1	2	558	U	C2-N1-C1'	6.95	126.04	117.70
36	1	410	U	N1-C2-O2	-6.95	117.93	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2898	G	O4'-C1'-N9	-6.95	102.64	108.20
36	1	1133	A	N9-C4-C5	-6.95	103.02	105.80
36	1	1547	G	C8-N9-C4	6.95	109.18	106.40
36	5	2302	G	N1-C6-O6	-6.95	115.73	119.90
36	5	2550	U	C5-C4-O4	6.95	130.07	125.90
1	2	571	G	N3-C4-N9	-6.95	121.83	126.00
36	1	2978	U	O4'-C1'-N1	6.95	113.76	108.20
1	6	858	G	C6-C5-N7	-6.95	126.23	130.40
36	1	627	U	C2-N1-C1'	-6.94	109.37	117.70
1	2	1431	C	C6-N1-C2	6.94	123.08	120.30
36	1	2130	G	N1-C6-O6	-6.94	115.73	119.90
36	5	2709	C	N3-C4-C5	6.94	124.68	121.90
36	1	2159	U	C6-N1-C2	6.94	125.16	121.00
36	1	2343	C	C6-N1-C2	6.94	123.08	120.30
36	1	3209	A	N1-C6-N6	6.94	122.76	118.60
36	1	3268	A	C4-C5-C6	6.94	120.47	117.00
36	1	648	C	C6-N1-C1'	-6.93	112.48	120.80
36	5	1848	G	C4-C5-N7	6.93	113.57	110.80
36	5	2379	U	C5-C6-N1	-6.93	119.23	122.70
51	m5	98	LEU	CA-CB-CG	6.93	131.25	115.30
36	5	1881	A	N1-C6-N6	6.93	122.76	118.60
36	5	1060	U	N3-C4-O4	-6.93	114.55	119.40
36	1	835	G	O4'-C1'-N9	6.93	113.74	108.20
36	1	2403	G	O5'-P-OP2	-6.93	99.46	105.70
36	1	28	C	N3-C4-C5	6.93	124.67	121.90
36	1	2679	A	C2-N3-C4	-6.93	107.14	110.60
36	5	2943	G	N9-C4-C5	-6.92	102.63	105.40
36	1	2836	C	N3-C2-O2	-6.92	117.05	121.90
36	5	2887	A	O5'-P-OP1	-6.92	99.47	105.70
44	17	229	PHE	CB-CG-CD1	6.92	125.65	120.80
36	1	93	C	C6-N1-C2	-6.92	117.53	120.30
36	1	942	U	N3-C4-O4	6.92	124.25	119.40
36	1	1365	G	N3-C4-N9	6.92	130.15	126.00
36	1	2257	C	C6-N1-C2	-6.92	117.53	120.30
36	1	3362	A	C6-C5-N7	-6.92	127.46	132.30
36	5	2385	G	N3-C4-N9	-6.92	121.85	126.00
36	5	1462	A	C2-N3-C4	-6.91	107.14	110.60
36	1	1149	G	N9-C4-C5	6.91	108.17	105.40
36	5	3209	A	N7-C8-N9	6.91	117.26	113.80
36	1	1001	G	C6-C5-N7	-6.91	126.25	130.40
36	1	785	G	N3-C4-C5	-6.91	125.15	128.60
38	4	79	A	C8-N9-C4	-6.91	103.04	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1116	G	C8-N9-C4	-6.91	103.64	106.40
36	5	2351	U	C6-N1-C2	-6.91	116.86	121.00
36	1	2836	C	C4-C5-C6	6.91	120.85	117.40
36	5	3287	U	N1-C2-O2	6.91	127.64	122.80
36	1	2975	U	N3-C2-O2	-6.91	117.37	122.20
36	5	838	G	N1-C6-O6	-6.91	115.76	119.90
36	1	808	A	C6-N1-C2	-6.90	114.46	118.60
36	1	1294	A	C2-N3-C4	6.90	114.05	110.60
1	6	68	A	N1-C6-N6	6.90	122.74	118.60
1	6	377	G	C6-C5-N7	6.90	134.54	130.40
36	5	217	U	C5-C6-N1	-6.90	119.25	122.70
36	5	361	A	N1-C6-N6	-6.90	114.46	118.60
36	1	2944	U	N3-C4-C5	6.90	118.74	114.60
36	5	2231	C	O4'-C1'-N1	6.90	113.72	108.20
1	2	794	U	N1-C2-O2	6.89	127.62	122.80
36	1	2798	C	N1-C2-O2	-6.89	114.76	118.90
36	5	55	G	C8-N9-C4	6.89	109.16	106.40
36	5	609	G	O5'-P-OP2	-6.89	99.50	105.70
36	1	670	C	C4-C5-C6	6.89	120.84	117.40
36	5	146	U	C5-C6-N1	-6.89	119.25	122.70
36	5	718	G	C8-N9-C4	-6.89	103.64	106.40
36	5	2915	U	N3-C4-C5	6.89	118.73	114.60
36	5	1149	G	C5-C6-O6	-6.89	124.47	128.60
36	5	1592	G	C5-C6-N1	-6.88	108.06	111.50
36	5	2897	A	N1-C6-N6	6.88	122.73	118.60
36	1	1391	C	C5-C4-N4	-6.88	115.38	120.20
24	d2	93	LEU	CA-CB-CG	6.88	131.13	115.30
1	6	1581	C	C6-N1-C2	6.88	123.05	120.30
36	1	2726	C	N3-C4-N4	-6.88	113.19	118.00
1	6	1000	C	N3-C2-O2	-6.88	117.09	121.90
36	5	1524	A	C8-N9-C4	6.88	108.55	105.80
36	1	640	U	OP2-P-O3'	6.87	120.32	105.20
36	5	2666	C	O5'-P-OP2	-6.87	99.51	105.70
1	2	694	U	C2-N1-C1'	6.87	125.95	117.70
36	5	1116	G	N9-C4-C5	6.87	108.15	105.40
36	5	2841	G	C4-C5-N7	6.87	113.55	110.80
36	5	2954	U	C6-N1-C1'	-6.87	111.58	121.20
36	5	1426	C	N1-C2-O2	-6.87	114.78	118.90
52	m6	84	LEU	CB-CG-CD1	-6.87	99.32	111.00
36	5	2421	U	N1-C2-O2	-6.87	117.99	122.80
36	1	3181	C	C6-N1-C2	-6.87	117.55	120.30
36	1	386	A	N1-C6-N6	6.86	122.72	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	217	U	OP1-P-O3'	6.86	120.30	105.20
36	1	1458	U	C5-C6-N1	-6.86	119.27	122.70
37	7	101	G	N9-C4-C5	-6.86	102.66	105.40
1	2	434	G	O5'-P-OP2	-6.86	99.53	105.70
36	1	948	C	N1-C2-O2	-6.86	114.78	118.90
36	1	2855	U	N3-C4-O4	-6.86	114.60	119.40
36	1	918	C	N1-C2-O2	-6.85	114.79	118.90
36	1	937	G	C8-N9-C4	6.85	109.14	106.40
36	1	1376	C	N3-C4-C5	-6.85	119.16	121.90
1	6	795	U	N3-C2-O2	-6.85	117.40	122.20
36	1	3362	A	N1-C6-N6	6.85	122.71	118.60
36	5	651	G	C6-C5-N7	-6.85	126.29	130.40
36	1	2417	U	C5-C6-N1	-6.85	119.28	122.70
1	6	359	A	C6-N1-C2	6.85	122.71	118.60
36	5	1169	A	N1-C2-N3	6.85	132.72	129.30
36	1	24	G	C8-N9-C4	6.85	109.14	106.40
1	6	1340	U	N1-C2-O2	6.85	127.59	122.80
36	1	2808	A	O4'-C1'-N9	-6.84	102.72	108.20
1	2	966	A	N1-C6-N6	6.84	122.71	118.60
36	1	284	A	C8-N9-C4	-6.84	103.06	105.80
1	6	362	G	C8-N9-C1'	-6.84	118.11	127.00
36	5	2887	A	O4'-C1'-N9	-6.84	102.73	108.20
36	5	2941	A	O4'-C1'-N9	-6.84	102.73	108.20
36	5	2395	G	O5'-P-OP2	-6.84	99.54	105.70
36	5	1412	G	C8-N9-C4	-6.84	103.67	106.40
36	1	2173	U	N1-C2-O2	-6.84	118.01	122.80
36	1	1920	U	N3-C2-O2	-6.83	117.42	122.20
36	1	895	A	C4-C5-N7	6.83	114.12	110.70
36	1	2434	U	C5-C4-O4	6.83	130.00	125.90
36	1	3362	A	N7-C8-N9	6.83	117.22	113.80
36	5	1419	A	O5'-P-OP1	6.83	118.90	110.70
36	5	2928	C	N3-C4-N4	6.83	122.78	118.00
1	6	858	G	C4-N9-C1'	6.83	135.38	126.50
36	5	2632	G	O5'-P-OP1	-6.83	99.55	105.70
36	5	2993	G	C4-C5-N7	6.83	113.53	110.80
36	1	1849	C	N3-C2-O2	6.83	126.68	121.90
36	5	997	A	C8-N9-C4	-6.83	103.07	105.80
36	1	590	G	C4-C5-N7	6.83	113.53	110.80
36	1	882	A	O5'-P-OP2	-6.83	99.56	105.70
36	1	340	C	N3-C2-O2	-6.83	117.12	121.90
36	1	2400	G	C8-N9-C4	6.83	109.13	106.40
36	5	1191	U	O5'-P-OP1	-6.83	99.56	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1328	C	C4-C5-C6	6.83	120.81	117.40
36	5	2765	C	N3-C4-N4	6.83	122.78	118.00
38	4	38	U	N3-C2-O2	-6.82	117.42	122.20
36	5	1165	A	O5'-P-OP2	-6.82	99.56	105.70
36	1	280	U	N1-C2-O2	-6.82	118.03	122.80
36	1	2585	G	N3-C4-C5	-6.82	125.19	128.60
36	1	3078	U	N1-C2-O2	6.82	127.57	122.80
36	5	2211	U	N1-C2-N3	6.82	118.99	114.90
1	6	1568	C	C6-N1-C2	-6.82	117.57	120.30
36	5	2231	C	C2-N1-C1'	6.82	126.30	118.80
20	c8	116	LEU	CA-CB-CG	6.82	130.98	115.30
36	5	1874	A	C8-N9-C4	6.82	108.53	105.80
36	5	2356	A	C2-N3-C4	-6.82	107.19	110.60
36	1	2937	G	C8-N9-C4	6.82	109.13	106.40
36	5	1532	C	C6-N1-C2	6.82	123.03	120.30
36	5	92	G	N3-C4-C5	-6.81	125.19	128.60
36	5	3018	C	O5'-P-OP2	-6.81	99.57	105.70
36	1	2883	U	C5-C6-N1	6.81	126.11	122.70
36	1	1506	A	N9-C4-C5	6.81	108.52	105.80
36	1	2358	A	C8-N9-C4	6.81	108.52	105.80
36	5	2283	G	C5-C6-O6	-6.81	124.52	128.60
36	1	439	C	C6-N1-C1'	-6.80	112.64	120.80
36	1	877	C	N3-C4-C5	6.80	124.62	121.90
1	6	20	G	N1-C6-O6	6.80	123.98	119.90
36	5	881	C	N3-C2-O2	-6.80	117.14	121.90
12	C0	88	PRO	N-CA-CB	6.80	111.46	103.30
36	1	609	G	O5'-P-OP2	-6.80	99.58	105.70
36	5	1375	G	C2-N3-C4	6.80	115.30	111.90
36	5	1321	G	N1-C6-O6	6.79	123.98	119.90
1	6	1058	U	OP1-P-O3'	6.79	120.15	105.20
36	5	586	C	C6-N1-C2	6.79	123.02	120.30
36	1	2192	C	O5'-P-OP2	-6.79	99.59	105.70
36	1	2827	U	C5-C6-N1	-6.79	119.30	122.70
1	6	1767	G	C8-N9-C4	6.79	109.11	106.40
36	5	1115	G	C4-N9-C1'	6.79	135.33	126.50
36	5	2377	G	N7-C8-N9	-6.79	109.70	113.10
36	1	1144	U	C5-C6-N1	-6.79	119.31	122.70
36	1	2719	U	C2-N1-C1'	-6.79	109.56	117.70
36	5	2572	C	C2-N1-C1'	6.79	126.26	118.80
36	1	1510	G	N3-C4-N9	6.78	130.07	126.00
36	1	2147	A	C8-N9-C4	6.78	108.51	105.80
36	5	644	G	C8-N9-C4	-6.78	103.69	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	874	U	O5'-P-OP1	-6.78	99.60	105.70
36	1	636	C	O5'-P-OP1	-6.78	99.60	105.70
36	1	1797	A	O5'-P-OP1	-6.78	99.60	105.70
36	5	640	U	C5-C4-O4	-6.78	121.83	125.90
36	5	1495	U	N3-C4-C5	-6.78	110.53	114.60
36	1	1117	G	C5-C6-O6	-6.78	124.53	128.60
36	1	3057	U	N1-C2-N3	6.78	118.97	114.90
36	5	1520	G	C8-N9-C4	-6.78	103.69	106.40
36	5	1799	A	N1-C6-N6	6.78	122.67	118.60
36	5	2295	A	C2-N3-C4	6.78	113.99	110.60
1	2	576	G	N1-C6-O6	6.77	123.96	119.90
36	1	1316	C	C2-N3-C4	-6.77	116.51	119.90
36	1	2361	A	C5-N7-C8	6.77	107.29	103.90
36	1	654	C	C6-N1-C2	6.77	123.01	120.30
36	5	776	U	C2-N3-C4	-6.77	122.94	127.00
36	1	2231	C	C6-N1-C2	6.77	123.01	120.30
1	6	1773	C	C6-N1-C2	-6.77	117.59	120.30
36	5	2983	C	N3-C4-C5	-6.77	119.19	121.90
1	6	65	A	C5-C6-N1	-6.77	114.32	117.70
1	6	542	A	O5'-P-OP1	-6.77	99.61	105.70
36	5	2147	A	C6-C5-N7	-6.77	127.56	132.30
36	5	2413	A	C2-N3-C4	-6.77	107.22	110.60
1	6	139	C	C6-N1-C2	-6.77	117.59	120.30
36	5	1847	A	C8-N9-C4	6.77	108.51	105.80
1	2	1389	C	N1-C2-O2	6.76	122.96	118.90
1	6	610	G	C4-N9-C1'	6.76	135.29	126.50
36	1	1604	G	C8-N9-C1'	-6.76	118.22	127.00
37	3	98	C	N1-C2-O2	-6.76	114.85	118.90
36	5	2765	C	C5-C6-N1	6.76	124.38	121.00
36	5	2944	U	C6-N1-C2	-6.76	116.95	121.00
36	5	2699	G	C6-C5-N7	-6.75	126.35	130.40
36	5	1848	G	C5-C6-O6	-6.75	124.55	128.60
36	5	92	G	O5'-P-OP1	-6.75	99.62	105.70
36	1	86	G	C4-C5-N7	-6.75	108.10	110.80
36	5	1300	G	C5-C6-O6	-6.75	124.55	128.60
36	5	217	U	OP1-P-O3'	6.75	120.04	105.20
36	5	639	G	C5-C6-N1	-6.75	108.13	111.50
36	1	2958	A	C5-C6-N1	6.75	121.07	117.70
36	1	2293	C	C5-C4-N4	-6.74	115.48	120.20
36	5	1556	C	C6-N1-C2	-6.74	117.60	120.30
36	5	3028	G	N3-C2-N2	6.74	124.62	119.90
36	1	2893	C	N3-C4-C5	6.74	124.59	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	337	G	C8-N9-C1'	-6.74	118.24	127.00
36	1	943	U	N3-C2-O2	-6.74	117.48	122.20
36	1	3215	A	N1-C6-N6	6.74	122.64	118.60
1	6	90	C	C2-N3-C4	-6.74	116.53	119.90
36	5	2345	A	C4-C5-C6	6.74	120.37	117.00
36	1	421	G	N3-C4-N9	6.73	130.04	126.00
36	5	2796	G	O5'-P-OP2	-6.73	99.64	105.70
36	5	1433	A	C6-N1-C2	-6.73	114.56	118.60
36	1	200	C	C2-N3-C4	-6.73	116.54	119.90
36	1	282	G	N1-C6-O6	-6.73	115.86	119.90
36	5	1194	G	N1-C6-O6	-6.73	115.86	119.90
36	5	2412	G	N3-C4-C5	-6.73	125.24	128.60
36	1	2601	A	C5-C6-N1	6.73	121.06	117.70
36	5	2764	C	C2-N3-C4	6.73	123.26	119.90
36	1	2417	U	N1-C2-O2	-6.72	118.09	122.80
36	5	1200	A	C6-C5-N7	-6.72	127.60	132.30
1	6	1749	A	N1-C6-N6	6.72	122.63	118.60
36	5	1161	G	C5-C6-N1	6.72	114.86	111.50
73	O7	65	ARG	NE-CZ-NH1	6.72	123.66	120.30
36	5	824	C	C6-N1-C2	-6.72	117.61	120.30
36	5	1879	A	C6-C5-N7	-6.72	127.60	132.30
36	1	2873	U	C5-C4-O4	6.71	129.93	125.90
36	5	2341	A	N7-C8-N9	-6.71	110.44	113.80
36	5	2988	C	C5-C6-N1	-6.71	117.64	121.00
36	1	1313	G	C4-C5-N7	6.71	113.48	110.80
1	6	609	U	N3-C4-O4	-6.71	114.70	119.40
36	5	3362	A	C2-N3-C4	-6.71	107.24	110.60
36	5	347	G	N9-C4-C5	6.71	108.08	105.40
36	5	1795	U	O5'-P-OP2	6.71	118.75	110.70
1	2	831	U	C2-N1-C1'	6.71	125.75	117.70
36	1	44	U	N1-C2-O2	-6.71	118.11	122.80
36	1	1907	C	O5'-P-OP2	-6.71	99.66	105.70
36	1	2197	C	N1-C2-N3	-6.71	114.51	119.20
36	1	2983	C	O4'-C1'-N1	6.71	113.56	108.20
36	1	2403	G	OP1-P-O3'	6.71	119.95	105.20
36	5	779	G	O5'-P-OP2	-6.70	99.67	105.70
36	5	881	C	C5-C6-N1	6.70	124.35	121.00
37	7	101	G	C4-C5-N7	6.70	113.48	110.80
36	1	930	U	C5-C6-N1	-6.70	119.35	122.70
36	5	2191	U	N3-C4-O4	-6.70	114.71	119.40
36	1	793	C	N3-C2-O2	6.70	126.59	121.90
36	1	1897	G	C5-C6-O6	-6.70	124.58	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2366	C	C2-N3-C4	6.70	123.25	119.90
36	5	180	C	N3-C2-O2	-6.70	117.21	121.90
36	1	2647	A	C6-N1-C2	-6.70	114.58	118.60
36	1	3215	A	N9-C4-C5	-6.70	103.12	105.80
36	5	1868	G	N1-C6-O6	6.70	123.92	119.90
36	5	2872	A	N3-C4-C5	6.69	131.49	126.80
1	2	1773	C	C6-N1-C2	-6.69	117.62	120.30
36	5	1116	G	N3-C4-C5	-6.69	125.25	128.60
36	1	1331	U	O4'-C1'-N1	-6.69	102.85	108.20
36	1	2731	U	N1-C2-O2	-6.69	118.12	122.80
36	5	1389	G	C5-C6-O6	-6.69	124.59	128.60
36	1	595	G	C5-C6-N1	-6.69	108.16	111.50
36	5	389	A	N1-C6-N6	-6.69	114.59	118.60
36	1	661	G	C8-N9-C4	-6.69	103.72	106.40
36	5	1390	A	C5-C6-N6	6.69	129.05	123.70
36	1	1506	A	C5-C6-N6	6.69	129.05	123.70
38	4	51	G	C5-C6-O6	-6.69	124.59	128.60
36	1	1166	G	N1-C6-O6	6.68	123.91	119.90
36	5	1420	C	C2-N1-C1'	-6.68	111.45	118.80
36	5	1701	C	C6-N1-C2	-6.68	117.63	120.30
36	5	1879	A	O5'-P-OP1	6.68	118.71	110.70
36	5	2271	A	N1-C6-N6	-6.68	114.59	118.60
36	1	785	G	N3-C4-N9	6.68	130.01	126.00
36	5	1490	A	C8-N9-C4	-6.68	103.13	105.80
36	1	2121	G	N3-C4-C5	-6.67	125.26	128.60
36	1	895	A	C5-N7-C8	-6.67	100.56	103.90
36	5	1868	G	N9-C4-C5	-6.67	102.73	105.40
1	2	57	G	O5'-P-OP2	-6.67	99.69	105.70
36	1	3368	U	C2-N1-C1'	-6.67	109.70	117.70
36	1	3362	A	O4'-C1'-N9	6.66	113.53	108.20
36	1	2165	G	C4-C5-N7	6.66	113.46	110.80
36	1	2177	G	N3-C4-C5	-6.66	125.27	128.60
41	L4	206	LEU	CA-CB-CG	6.66	130.62	115.30
36	1	280	U	C5-C4-O4	-6.66	121.91	125.90
36	5	1848	G	N1-C6-O6	6.66	123.89	119.90
36	5	3112	G	C4-C5-N7	6.66	113.46	110.80
36	5	3277	U	N3-C2-O2	-6.66	117.54	122.20
36	5	2871	G	O5'-P-OP2	-6.65	99.71	105.70
1	2	1596	C	N3-C2-O2	-6.65	117.24	121.90
36	1	2247	G	N1-C6-O6	6.65	123.89	119.90
36	5	2808	A	C8-N9-C4	6.65	108.46	105.80
36	5	2349	U	OP1-P-O3'	6.65	119.83	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	658	G	C4-N9-C1'	6.65	135.14	126.50
36	5	3197	G	N9-C4-C5	6.65	108.06	105.40
36	1	2384	A	C5-C6-N6	-6.64	118.39	123.70
36	5	2134	G	N9-C4-C5	-6.64	102.74	105.40
37	7	101	G	C5-C6-O6	-6.64	124.61	128.60
36	5	216	G	C4-C5-N7	6.64	113.46	110.80
36	5	424	G	C4-C5-N7	6.64	113.46	110.80
38	4	15	G	C5-C6-O6	-6.64	124.62	128.60
1	6	371	G	C4-N9-C1'	6.64	135.13	126.50
36	5	2400	G	C4-N9-C1'	-6.64	117.87	126.50
1	6	815	G	C6-C5-N7	-6.63	126.42	130.40
36	5	39	A	N1-C6-N6	6.63	122.58	118.60
36	1	2144	A	C5-C6-N1	6.63	121.02	117.70
36	1	2756	C	N3-C4-N4	6.63	122.64	118.00
36	5	3287	U	N3-C2-O2	-6.63	117.56	122.20
36	1	1381	A	N1-C6-N6	6.63	122.58	118.60
1	6	558	U	C2-N1-C1'	6.63	125.65	117.70
36	5	3006	A	C8-N9-C4	-6.62	103.15	105.80
36	5	934	G	C4-N9-C1'	6.62	135.11	126.50
36	1	1520	G	N7-C8-N9	-6.62	109.79	113.10
36	1	1416	C	N3-C4-C5	6.62	124.55	121.90
36	5	1488	G	N1-C6-O6	-6.62	115.93	119.90
36	5	3362	A	N1-C2-N3	6.62	132.61	129.30
36	5	1449	A	C4-C5-C6	6.62	120.31	117.00
36	5	2815	G	N7-C8-N9	-6.62	109.79	113.10
1	6	1662	G	C8-N9-C4	6.62	109.05	106.40
36	5	1192	C	N3-C2-O2	-6.62	117.27	121.90
36	1	785	G	O5'-P-OP2	-6.61	99.75	105.70
36	1	907	G	O4'-C1'-N9	6.61	113.49	108.20
36	1	1295	G	O5'-P-OP1	-6.61	99.75	105.70
36	1	2358	A	C2-N3-C4	-6.61	107.29	110.60
1	6	1125	A	C2-N3-C4	-6.61	107.29	110.60
36	1	2130	G	C5-C6-O6	6.61	132.57	128.60
36	5	2176	U	N3-C2-O2	-6.61	117.57	122.20
36	5	2708	C	N3-C2-O2	6.61	126.53	121.90
36	1	3382	U	N1-C2-O2	6.61	127.42	122.80
36	1	2148	U	N3-C2-O2	6.61	126.82	122.20
36	1	2875	U	P-O3'-C3'	-6.61	111.77	119.70
36	5	2870	C	N3-C4-C5	6.61	124.54	121.90
36	1	2816	G	C5-C6-O6	-6.60	124.64	128.60
36	1	867	G	N3-C2-N2	-6.60	115.28	119.90
36	1	2283	G	C5-C6-O6	-6.60	124.64	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	924	G	C5-C6-N1	-6.60	108.20	111.50
36	5	3188	G	N3-C4-C5	-6.60	125.30	128.60
1	6	1782	A	N9-C4-C5	6.60	108.44	105.80
36	5	1200	A	C5-C6-N6	-6.60	118.42	123.70
36	5	2944	U	C5-C6-N1	6.59	126.00	122.70
36	5	2899	C	N3-C2-O2	-6.59	117.28	121.90
36	5	1316	C	N1-C2-O2	-6.59	114.94	118.90
36	1	1604	G	N3-C4-C5	-6.59	125.31	128.60
36	5	3362	A	C5-N7-C8	-6.59	100.61	103.90
36	1	2944	U	O5'-P-OP1	-6.59	99.77	105.70
1	6	144	U	N1-C2-O2	6.59	127.41	122.80
36	5	636	C	O5'-P-OP2	-6.59	99.77	105.70
36	1	1792	C	N1-C2-O2	-6.58	114.95	118.90
36	1	49	A	C2-N3-C4	-6.58	107.31	110.60
36	5	2145	A	N3-C4-C5	-6.58	122.19	126.80
36	5	2349	U	N3-C2-O2	-6.58	117.59	122.20
1	6	1700	C	N1-C2-O2	6.58	122.85	118.90
36	1	2714	G	C4-C5-C6	-6.58	114.85	118.80
36	5	1512	U	O5'-P-OP1	-6.58	99.78	105.70
36	1	3141	A	C8-N9-C4	6.58	108.43	105.80
36	5	806	A	C4-C5-C6	-6.58	113.71	117.00
36	5	1429	G	N3-C2-N2	6.58	124.50	119.90
1	2	1486	G	C5-N7-C8	-6.58	101.01	104.30
36	1	2812	C	O5'-P-OP1	-6.58	99.78	105.70
36	5	877	C	C5-C4-N4	-6.58	115.60	120.20
1	2	388	G	C5-C6-O6	-6.57	124.66	128.60
36	5	1124	U	N3-C4-O4	-6.57	114.80	119.40
36	5	1879	A	C5-N7-C8	-6.57	100.61	103.90
36	5	2849	C	N3-C2-O2	6.57	126.50	121.90
36	1	658	G	C8-N9-C1'	-6.57	118.46	127.00
36	1	917	A	O5'-P-OP2	-6.57	99.79	105.70
36	5	890	C	C4-C5-C6	6.57	120.69	117.40
36	1	1405	U	C6-N1-C2	6.57	124.94	121.00
36	5	366	A	C2-N3-C4	-6.57	107.32	110.60
36	5	2169	G	N9-C4-C5	6.57	108.03	105.40
36	1	634	C	C2-N1-C1'	-6.57	111.58	118.80
36	1	3326	G	C8-N9-C4	6.57	109.03	106.40
36	5	3059	G	C8-N9-C4	6.57	109.03	106.40
1	2	1120	U	C5-C4-O4	6.56	129.84	125.90
36	1	56	G	C5-C6-O6	-6.56	124.66	128.60
36	1	2935	U	C5-C6-N1	6.56	125.98	122.70
1	6	404	G	N3-C2-N2	-6.56	115.31	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	504	A	C8-N9-C4	6.56	108.43	105.80
1	2	380	U	N3-C2-O2	-6.56	117.61	122.20
36	1	1343	A	C5-C6-N6	-6.56	118.45	123.70
1	6	377	G	C8-N9-C1'	6.56	135.53	127.00
1	2	1560	U	C5-C4-O4	6.56	129.84	125.90
10	S8	29	LEU	CA-CB-CG	6.56	130.39	115.30
36	1	776	U	N1-C2-N3	6.56	118.83	114.90
36	1	885	U	C5-C6-N1	-6.56	119.42	122.70
36	1	2159	U	C5-C6-N1	-6.56	119.42	122.70
36	1	1307	G	OP1-P-O3'	6.56	119.62	105.20
36	1	2601	A	C8-N9-C4	6.56	108.42	105.80
36	5	2231	C	C6-N1-C2	-6.56	117.68	120.30
36	1	2679	A	O4'-C1'-N9	6.55	113.44	108.20
36	5	665	A	N1-C6-N6	6.55	122.53	118.60
36	5	662	U	O5'-P-OP1	-6.55	99.80	105.70
36	1	1902	G	N9-C4-C5	-6.55	102.78	105.40
36	1	2606	G	N3-C4-N9	6.55	129.93	126.00
36	5	41	G	N9-C4-C5	-6.55	102.78	105.40
36	1	54	C	C2-N1-C1'	-6.55	111.60	118.80
36	5	911	C	C2-N3-C4	-6.55	116.63	119.90
36	5	1846	C	C2-N3-C4	-6.55	116.63	119.90
36	1	2625	C	N1-C2-O2	-6.54	114.97	118.90
36	1	1007	U	C5-C4-O4	-6.54	121.97	125.90
1	6	558	U	P-O3'-C3'	6.54	127.55	119.70
1	6	1700	C	C2-N1-C1'	6.54	126.00	118.80
36	1	1489	A	C6-C5-N7	-6.54	127.72	132.30
36	5	1859	A	O5'-P-OP2	-6.54	99.81	105.70
36	1	2606	G	C6-C5-N7	-6.54	126.48	130.40
36	5	1528	G	C6-C5-N7	-6.54	126.48	130.40
36	1	1198	C	C6-N1-C2	-6.54	117.69	120.30
36	1	614	C	C6-N1-C2	6.54	122.92	120.30
36	1	2147	A	C5-C6-N1	6.54	120.97	117.70
1	6	1631	A	N1-C6-N6	-6.54	114.68	118.60
36	5	1130	A	C2-N3-C4	6.54	113.87	110.60
36	1	304	G	N9-C4-C5	6.53	108.01	105.40
36	1	1405	U	N3-C2-O2	6.53	126.77	122.20
36	5	800	G	N3-C4-N9	6.53	129.92	126.00
36	5	216	G	C5-C6-O6	-6.53	124.68	128.60
36	5	1548	C	N1-C2-O2	-6.53	114.98	118.90
36	1	1547	G	N7-C8-N9	-6.53	109.84	113.10
1	6	1726	G	OP2-P-O3'	6.53	119.56	105.20
36	1	1124	U	N3-C4-C5	6.53	118.52	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3112	G	OP1-P-O3'	6.53	119.56	105.20
36	5	425	G	C2-N3-C4	-6.53	108.64	111.90
36	5	2314	U	N3-C4-O4	6.53	123.97	119.40
36	1	2213	A	N1-C6-N6	-6.53	114.69	118.60
36	5	911	C	C4-C5-C6	6.53	120.66	117.40
40	l3	196	ARG	NE-CZ-NH1	6.52	123.56	120.30
36	1	1897	G	N1-C6-O6	6.52	123.81	119.90
36	1	2355	G	C6-C5-N7	-6.52	126.49	130.40
1	6	371	G	C8-N9-C1'	-6.52	118.52	127.00
36	5	647	A	C2-N3-C4	-6.52	107.34	110.60
36	1	944	C	C5-C6-N1	6.52	124.26	121.00
36	5	2184	U	N3-C4-C5	6.52	118.51	114.60
1	2	728	U	C2-N1-C1'	6.51	125.52	117.70
1	6	287	G	C5-C6-O6	-6.51	124.69	128.60
36	5	3183	A	N1-C6-N6	6.51	122.51	118.60
36	1	709	A	N7-C8-N9	-6.51	110.55	113.80
36	1	1099	A	N1-C6-N6	6.51	122.51	118.60
36	1	1414	G	N1-C6-O6	6.51	123.81	119.90
36	1	1794	G	O5'-P-OP2	-6.51	99.84	105.70
36	5	907	G	C8-N9-C4	6.51	109.00	106.40
38	4	40	A	C4-C5-N7	6.51	113.95	110.70
36	5	562	C	C2-N1-C1'	6.50	125.95	118.80
1	6	696	C	O4'-C1'-N1	6.50	113.40	108.20
36	5	1408	G	N3-C2-N2	-6.50	115.35	119.90
36	5	3035	A	C8-N9-C4	6.50	108.40	105.80
36	5	326	U	O5'-P-OP2	-6.50	99.85	105.70
36	5	2395	G	C4-C5-N7	6.50	113.40	110.80
36	5	2735	U	C5-C6-N1	6.50	125.95	122.70
40	l3	4	ARG	NE-CZ-NH1	6.50	123.55	120.30
36	1	347	G	C5-C6-O6	-6.50	124.70	128.60
36	5	2110	G	C4-C5-N7	6.50	113.40	110.80
1	2	1196	A	P-O3'-C3'	6.50	127.49	119.70
75	O9	36	ARG	NE-CZ-NH1	6.50	123.55	120.30
36	5	2693	C	C2-N3-C4	-6.50	116.65	119.90
36	1	1101	G	C5-C6-O6	6.49	132.50	128.60
36	5	3181	C	C2-N1-C1'	6.49	125.94	118.80
36	1	2714	G	C4-N9-C1'	-6.49	118.06	126.50
36	1	2633	U	N3-C2-O2	-6.49	117.66	122.20
36	1	1838	G	C6-C5-N7	-6.49	126.51	130.40
36	5	1329	U	C2-N3-C4	-6.48	123.11	127.00
36	5	2346	C	N3-C4-N4	6.48	122.54	118.00
36	5	3362	A	N7-C8-N9	6.48	117.04	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1365	G	C2-N3-C4	6.48	115.14	111.90
36	1	2856	G	C8-N9-C4	6.48	108.99	106.40
36	5	816	A	N9-C4-C5	6.48	108.39	105.80
36	5	1335	C	C5-C4-N4	-6.48	115.66	120.20
36	1	1308	A	C4-C5-C6	6.48	120.24	117.00
36	5	803	C	C5-C4-N4	-6.48	115.66	120.20
36	5	2414	G	N1-C6-O6	6.48	123.79	119.90
36	1	1177	G	C5-C6-O6	-6.48	124.71	128.60
36	5	3046	A	O5'-P-OP2	-6.47	99.87	105.70
36	1	86	G	N9-C4-C5	6.47	107.99	105.40
36	1	2976	A	C5-C6-N6	-6.47	118.52	123.70
36	1	965	A	OP1-P-O3'	6.47	119.43	105.20
36	1	2959	C	N3-C4-C5	6.47	124.49	121.90
36	1	3368	U	C6-N1-C1'	6.47	130.26	121.20
1	2	425	A	N1-C6-N6	6.47	122.48	118.60
1	6	1119	G	C8-N9-C4	-6.47	103.81	106.40
36	1	627	U	N1-C2-O2	-6.47	118.27	122.80
36	1	3183	A	C5-C6-N6	-6.47	118.53	123.70
36	5	767	U	O4'-C1'-N1	6.47	113.37	108.20
36	5	3014	U	C5-C4-O4	-6.47	122.02	125.90
49	M3	85	LEU	CA-CB-CG	6.46	130.16	115.30
36	5	2601	A	N1-C6-N6	-6.46	114.72	118.60
36	1	3217	C	C2-N1-C1'	6.46	125.90	118.80
36	1	1140	G	N3-C2-N2	6.46	124.42	119.90
36	1	2176	U	N3-C2-O2	-6.46	117.68	122.20
36	1	2406	C	C6-N1-C2	6.46	122.88	120.30
36	5	1303	A	C5-C6-N6	-6.46	118.53	123.70
36	5	3195	U	O4'-C1'-N1	6.46	113.36	108.20
36	1	2836	C	N1-C2-N3	6.45	123.72	119.20
36	5	2156	C	C6-N1-C2	6.45	122.88	120.30
36	5	2980	U	N1-C2-N3	6.45	118.77	114.90
1	2	572	C	O5'-P-OP1	-6.45	99.89	105.70
36	1	694	C	N3-C4-C5	6.45	124.48	121.90
36	1	1798	A	C2-N3-C4	-6.45	107.38	110.60
36	1	859	G	C4-C5-N7	6.45	113.38	110.80
36	1	2610	G	C5-C6-O6	-6.45	124.73	128.60
1	6	308	C	C2-N1-C1'	-6.45	111.71	118.80
1	6	1091	A	C2-N3-C4	-6.45	107.38	110.60
36	1	3178	A	C4-C5-C6	6.45	120.22	117.00
36	5	1912	U	N3-C2-O2	6.45	126.71	122.20
36	1	1820	U	P-O3'-C3'	6.44	127.43	119.70
36	5	637	C	O5'-P-OP2	-6.44	99.90	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1869	C	O5'-P-OP2	-6.44	99.90	105.70
36	1	2693	C	N3-C4-C5	6.44	124.48	121.90
36	1	3078	U	N3-C2-O2	-6.44	117.69	122.20
36	1	2381	G	C5-C6-O6	6.44	132.46	128.60
36	5	3136	G	N1-C2-N2	-6.44	110.40	116.20
36	1	1466	G	N3-C2-N2	6.44	124.41	119.90
36	1	895	A	N1-C6-N6	6.44	122.46	118.60
36	5	95	A	C4-C5-N7	6.44	113.92	110.70
36	5	824	C	N3-C2-O2	-6.44	117.39	121.90
36	1	2617	U	N3-C4-O4	-6.44	114.89	119.40
1	2	507	U	N1-C2-O2	6.43	127.30	122.80
36	1	931	C	C2-N3-C4	-6.43	116.68	119.90
36	5	1420	C	OP2-P-O3'	6.43	119.36	105.20
38	4	44	A	C6-C5-N7	-6.43	127.80	132.30
36	5	2757	U	N1-C2-N3	6.43	118.76	114.90
1	6	542	A	C5-N7-C8	-6.43	100.69	103.90
36	1	227	G	N1-C6-O6	6.43	123.76	119.90
36	1	718	G	C6-C5-N7	-6.42	126.55	130.40
36	5	1449	A	N1-C6-N6	6.42	122.45	118.60
36	5	1834	U	N3-C4-C5	-6.42	110.75	114.60
36	1	645	A	N3-C4-C5	-6.42	122.31	126.80
36	1	2693	C	C6-N1-C2	6.42	122.87	120.30
36	1	1344	G	N9-C4-C5	-6.42	102.83	105.40
36	1	637	C	C5-C6-N1	-6.42	117.79	121.00
36	1	2725	U	C5-C6-N1	-6.42	119.49	122.70
36	5	2406	C	N1-C2-O2	-6.42	115.05	118.90
36	1	801	A	N1-C2-N3	-6.41	126.09	129.30
1	6	630	A	N9-C4-C5	-6.41	103.23	105.80
36	5	419	G	N3-C2-N2	6.41	124.39	119.90
36	1	24	G	C8-N9-C1'	-6.41	118.67	127.00
1	6	65	A	N3-C4-C5	6.41	131.29	126.80
36	5	694	C	N3-C2-O2	-6.41	117.42	121.90
36	5	2164	A	C4-C5-C6	6.41	120.20	117.00
36	1	669	U	C6-N1-C2	6.41	124.84	121.00
36	1	2177	G	N3-C4-N9	6.40	129.84	126.00
36	1	2794	G	N9-C4-C5	6.40	107.96	105.40
36	1	2222	A	N9-C4-C5	6.40	108.36	105.80
36	1	2302	G	C5-C6-O6	6.40	132.44	128.60
1	6	448	C	C6-N1-C2	-6.40	117.74	120.30
1	6	451	A	O5'-P-OP1	-6.40	99.94	105.70
35	sM	167	PRO	N-CA-CB	6.40	110.98	103.30
36	5	1369	A	N1-C6-N6	6.40	122.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	140	G	C5-C6-N1	-6.40	108.30	111.50
36	5	612	U	O5'-P-OP1	-6.40	99.94	105.70
36	5	2412	G	C8-N9-C4	-6.40	103.84	106.40
36	1	1407	A	C5-N7-C8	6.40	107.10	103.90
36	5	2975	U	N1-C2-O2	6.40	127.28	122.80
36	5	1799	A	C5-C6-N6	-6.40	118.58	123.70
36	5	2830	G	C2-N3-C4	-6.39	108.70	111.90
36	1	2384	A	N9-C4-C5	-6.39	103.24	105.80
36	1	3006	A	C2-N3-C4	-6.39	107.40	110.60
48	M1	112	LEU	CA-CB-CG	6.39	130.00	115.30
36	5	1364	C	OP2-P-O3'	6.39	119.26	105.20
36	5	3140	G	C4-C5-N7	6.39	113.36	110.80
36	5	1184	A	N1-C6-N6	-6.39	114.77	118.60
36	5	2953	U	N3-C4-O4	6.39	123.87	119.40
1	2	1761	U	P-O3'-C3'	6.39	127.37	119.70
36	1	148	G	C5-C6-O6	-6.39	124.77	128.60
36	1	1433	A	C5-C6-N6	-6.39	118.59	123.70
36	1	2621	G	N1-C6-O6	6.39	123.73	119.90
36	1	3266	G	N9-C4-C5	6.39	107.96	105.40
36	5	83	U	N3-C2-O2	-6.39	117.73	122.20
36	5	2816	G	C6-N1-C2	-6.39	121.27	125.10
41	14	327	LEU	CA-CB-CG	6.39	130.00	115.30
1	2	590	C	C2-N1-C1'	6.39	125.83	118.80
36	1	1589	A	C5-C6-N6	-6.39	118.59	123.70
36	5	886	C	C6-N1-C2	-6.39	117.75	120.30
36	5	2403	G	O5'-P-OP1	6.39	118.36	110.70
36	1	1929	G	N9-C4-C5	-6.38	102.85	105.40
1	2	425	A	C5-N7-C8	-6.38	100.71	103.90
36	1	590	G	C5-C6-O6	-6.38	124.77	128.60
36	5	3079	U	C5-C4-O4	6.38	129.73	125.90
36	1	2714	G	C5-N7-C8	-6.38	101.11	104.30
36	1	2976	A	C6-N1-C2	-6.38	114.77	118.60
36	5	2957	G	C5-C6-O6	-6.38	124.77	128.60
36	1	1904	C	C5-C6-N1	6.38	124.19	121.00
36	5	103	G	N1-C6-O6	-6.38	116.07	119.90
36	1	2305	G	C5-C6-O6	-6.38	124.77	128.60
37	3	74	C	O5'-P-OP1	-6.38	99.96	105.70
1	6	371	G	N3-C4-C5	-6.38	125.41	128.60
36	1	320	G	O5'-P-OP2	-6.38	99.96	105.70
36	1	350	C	N3-C4-C5	-6.38	119.35	121.90
36	1	3041	U	N1-C2-O2	-6.38	118.34	122.80
36	5	57	A	C5-C6-N6	-6.38	118.60	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	859	G	C4-C5-N7	6.38	113.35	110.80
36	5	1369	A	C5-C6-N6	-6.38	118.60	123.70
36	5	1909	A	C8-N9-C4	6.38	108.35	105.80
36	1	2943	G	N1-C6-O6	6.38	123.72	119.90
36	1	1849	C	C5-C4-N4	-6.37	115.74	120.20
36	5	2186	U	O5'-P-OP2	-6.37	99.96	105.70
36	1	1495	U	C5-C4-O4	6.37	129.72	125.90
36	1	2952	G	C8-N9-C1'	-6.37	118.72	127.00
36	1	3204	C	C6-N1-C2	-6.37	117.75	120.30
36	5	200	C	N3-C4-C5	-6.37	119.35	121.90
36	5	2897	A	C5-C6-N6	-6.37	118.61	123.70
36	1	3227	A	O5'-P-OP2	-6.37	99.97	105.70
36	5	121	A	C5-C6-N6	-6.37	118.61	123.70
36	5	3330	A	C6-N1-C2	-6.37	114.78	118.60
45	18	69	LEU	CA-CB-CG	6.37	129.94	115.30
36	1	2605	G	C5-C6-O6	-6.36	124.78	128.60
36	1	2874	G	C5-C6-O6	6.36	132.42	128.60
1	6	1765	A	O5'-P-OP1	-6.36	99.97	105.70
1	2	986	G	N3-C4-C5	-6.36	125.42	128.60
36	1	3079	U	C2-N1-C1'	-6.36	110.07	117.70
1	6	377	G	C4-N9-C1'	-6.36	118.23	126.50
36	5	3078	U	N1-C2-O2	6.36	127.25	122.80
36	1	1385	C	N3-C2-O2	6.36	126.35	121.90
36	1	2954	U	N3-C2-O2	6.36	126.65	122.20
36	5	1188	U	N1-C2-N3	6.36	118.72	114.90
36	1	1154	A	C4-C5-C6	6.36	120.18	117.00
36	5	1047	A	C6-C5-N7	-6.36	127.85	132.30
36	5	1519	G	N1-C6-O6	6.35	123.71	119.90
36	1	1520	G	C5-N7-C8	6.35	107.48	104.30
36	5	1437	C	C2-N1-C1'	6.35	125.79	118.80
1	6	1740	A	C8-N9-C4	6.35	108.34	105.80
36	5	2345	A	C6-C5-N7	-6.35	127.86	132.30
36	5	1305	U	O5'-P-OP1	-6.35	99.99	105.70
36	5	1595	U	N3-C2-O2	6.35	126.64	122.20
36	1	1103	A	N9-C4-C5	-6.34	103.26	105.80
36	1	1133	A	C6-C5-N7	-6.34	127.86	132.30
38	4	47	C	N3-C2-O2	-6.34	117.46	121.90
37	7	11	A	C5-N7-C8	-6.34	100.73	103.90
1	2	323	A	C8-N9-C4	-6.34	103.26	105.80
36	1	363	G	C6-C5-N7	-6.34	126.59	130.40
36	1	363	G	C4-C5-N7	6.34	113.34	110.80
36	1	3181	C	N1-C2-N3	6.34	123.64	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1051	U	N1-C2-O2	-6.34	118.36	122.80
36	1	2620	G	C8-N9-C4	6.34	108.94	106.40
36	5	1595	U	N1-C2-O2	-6.34	118.36	122.80
36	5	2978	U	N1-C2-N3	6.34	118.70	114.90
36	1	3132	C	O5'-P-OP1	6.33	118.30	110.70
10	S8	172	ARG	NE-CZ-NH1	6.33	123.47	120.30
36	1	25	U	C4-C5-C6	6.33	123.50	119.70
36	1	149	U	N3-C4-O4	6.33	123.83	119.40
36	1	939	U	C2-N3-C4	-6.33	123.20	127.00
36	1	1578	C	C6-N1-C2	-6.33	117.77	120.30
53	M7	56	ARG	NE-CZ-NH2	-6.33	117.13	120.30
36	5	2134	G	N3-C2-N2	6.33	124.33	119.90
1	2	321	C	N1-C2-O2	6.33	122.70	118.90
36	1	2403	G	N3-C4-N9	6.33	129.80	126.00
1	6	14	C	O5'-P-OP2	-6.33	100.00	105.70
1	2	1747	G	C2-N3-C4	-6.33	108.73	111.90
36	1	1741	A	C2-N3-C4	-6.33	107.44	110.60
36	5	2584	G	C4-N9-C1'	6.33	134.73	126.50
36	5	145	G	N3-C4-N9	-6.33	122.20	126.00
36	5	1303	A	N1-C6-N6	6.33	122.40	118.60
36	1	1133	A	C6-N1-C2	-6.33	114.80	118.60
1	2	1462	G	N9-C4-C5	-6.33	102.87	105.40
36	1	343	U	N3-C4-C5	-6.33	110.80	114.60
36	1	945	C	O5'-P-OP2	-6.33	100.01	105.70
36	1	1344	G	C8-N9-C4	6.33	108.93	106.40
36	1	957	C	O5'-P-OP2	-6.32	100.01	105.70
36	1	984	G	N1-C2-N2	-6.32	110.51	116.20
36	1	1339	C	N1-C2-O2	-6.32	115.11	118.90
1	2	848	C	C6-N1-C2	-6.32	117.77	120.30
36	1	776	U	C5-C4-O4	6.32	129.69	125.90
36	5	2393	G	N1-C6-O6	6.32	123.69	119.90
36	5	3204	C	O5'-P-OP2	-6.32	100.01	105.70
36	1	639	G	C5-C6-N1	-6.32	108.34	111.50
36	1	2144	A	C2-N3-C4	6.32	113.76	110.60
36	1	2256	A	O5'-P-OP2	-6.32	100.01	105.70
36	5	2659	G	N1-C6-O6	6.32	123.69	119.90
37	7	103	A	N1-C6-N6	6.32	122.39	118.60
36	1	2726	C	N1-C2-O2	6.32	122.69	118.90
36	1	3275	U	C5-C6-N1	6.32	125.86	122.70
36	5	922	U	N3-C4-O4	-6.32	114.98	119.40
1	2	1386	G	C8-N9-C4	6.31	108.93	106.40
36	1	14	U	O5'-P-OP2	-6.31	100.02	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	697	A	C8-N9-C4	6.31	108.33	105.80
36	1	1158	A	C5-C6-N6	-6.31	118.65	123.70
36	1	1407	A	N7-C8-N9	-6.31	110.64	113.80
36	1	2714	G	C8-N9-C1'	6.31	135.21	127.00
36	1	2726	C	C5-C4-N4	6.31	124.62	120.20
36	1	510	G	N3-C2-N2	-6.31	115.48	119.90
36	1	808	A	N1-C2-N3	6.31	132.45	129.30
36	1	1003	A	N1-C6-N6	6.31	122.39	118.60
36	1	1097	G	O5'-P-OP2	-6.31	100.02	105.70
1	6	687	G	N3-C2-N2	-6.31	115.48	119.90
36	5	718	G	O4'-C1'-N9	6.31	113.25	108.20
36	1	821	U	C5-C4-O4	6.31	129.68	125.90
36	1	979	U	O4'-C1'-N1	6.31	113.25	108.20
36	1	2870	C	N3-C4-N4	-6.31	113.58	118.00
36	1	2401	A	C8-N9-C4	-6.30	103.28	105.80
1	6	1100	G	C2-N3-C4	6.30	115.05	111.90
36	5	1365	G	C4-C5-N7	6.30	113.32	110.80
36	5	2283	G	N1-C6-O6	6.30	123.68	119.90
36	5	2372	A	N7-C8-N9	6.30	116.95	113.80
36	1	2367	A	N1-C6-N6	6.30	122.38	118.60
36	5	250	U	C5-C6-N1	6.30	125.85	122.70
1	2	864	U	N3-C2-O2	-6.30	117.79	122.20
36	1	943	U	N1-C2-O2	6.30	127.21	122.80
1	6	1780	G	N3-C2-N2	6.30	124.31	119.90
36	5	2116	G	N3-C4-N9	6.30	129.78	126.00
36	5	3137	C	N3-C4-N4	-6.30	113.59	118.00
37	7	108	A	N1-C6-N6	6.30	122.38	118.60
36	1	3053	G	N1-C6-O6	-6.30	116.12	119.90
36	1	3362	A	C5-N7-C8	-6.30	100.75	103.90
1	6	308	C	C2-N3-C4	-6.30	116.75	119.90
36	1	1466	G	N1-C2-N2	-6.30	110.53	116.20
36	5	3112	G	C5-C6-O6	-6.30	124.82	128.60
36	5	1464	G	N9-C4-C5	-6.30	102.88	105.40
36	5	3301	U	O5'-P-OP1	-6.30	100.03	105.70
36	5	1520	G	C6-C5-N7	-6.29	126.62	130.40
36	5	2838	A	O5'-P-OP1	6.29	118.25	110.70
36	5	2978	U	N3-C2-O2	-6.29	117.80	122.20
36	1	54	C	N3-C4-N4	-6.29	113.60	118.00
36	5	1476	G	N3-C4-C5	6.29	131.74	128.60
37	7	12	U	C5-C4-O4	-6.29	122.13	125.90
1	6	1000	C	C2-N1-C1'	6.29	125.72	118.80
1	6	1581	C	N3-C4-C5	6.29	124.41	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	77	G	C5-C6-O6	-6.29	124.83	128.60
36	5	2514	U	C5-C6-N1	6.28	125.84	122.70
1	6	425	A	N1-C6-N6	-6.28	114.83	118.60
36	1	288	C	N3-C4-N4	6.28	122.40	118.00
36	1	304	G	N3-C2-N2	-6.28	115.50	119.90
1	6	359	A	N3-C4-C5	6.28	131.20	126.80
36	1	2411	U	N3-C4-O4	-6.28	115.00	119.40
36	1	3259	U	N1-C2-O2	-6.28	118.41	122.80
1	6	747	C	N1-C2-O2	-6.28	115.13	118.90
36	1	810	A	C8-N9-C4	-6.28	103.29	105.80
36	5	2770	G	C8-N9-C4	-6.28	103.89	106.40
1	2	647	G	N3-C2-N2	-6.27	115.51	119.90
36	1	830	A	C6-C5-N7	-6.27	127.91	132.30
38	4	85	G	N7-C8-N9	6.27	116.24	113.10
1	6	418	G	C4-C5-N7	6.27	113.31	110.80
36	1	797	U	OP2-P-O3'	6.27	119.00	105.20
36	1	1495	U	C2-N3-C4	-6.27	123.24	127.00
1	6	1100	G	C5-C6-N1	6.27	114.64	111.50
36	5	1770	G	C4-N9-C1'	6.27	134.65	126.50
36	5	1834	U	N1-C2-O2	-6.27	118.41	122.80
36	5	2112	U	C6-N1-C2	-6.27	117.24	121.00
36	5	2242	A	O5'-P-OP2	-6.27	100.05	105.70
36	1	1741	A	C6-C5-N7	-6.27	127.91	132.30
36	1	2397	A	O5'-P-OP2	-6.27	100.06	105.70
36	1	2878	G	N1-C6-O6	6.27	123.66	119.90
36	5	3142	A	O5'-P-OP1	-6.27	100.06	105.70
1	2	966	A	C5-C6-N6	-6.27	118.69	123.70
36	1	227	G	N3-C2-N2	-6.27	115.51	119.90
36	1	1792	C	C4-C5-C6	6.27	120.53	117.40
36	5	3004	C	N1-C2-O2	-6.27	115.14	118.90
36	5	1468	A	N1-C6-N6	6.26	122.36	118.60
36	5	207	U	N1-C2-O2	-6.26	118.42	122.80
36	1	213	A	N1-C6-N6	6.26	122.36	118.60
1	6	609	U	N3-C2-O2	-6.26	117.82	122.20
1	6	1036	A	O5'-P-OP2	-6.26	100.06	105.70
1	2	647	G	N3-C4-N9	-6.26	122.25	126.00
36	5	3277	U	N1-C2-O2	6.26	127.18	122.80
1	6	1742	U	O5'-P-OP2	-6.26	100.07	105.70
36	1	979	U	N1-C2-N3	6.26	118.65	114.90
36	1	2295	A	N1-C6-N6	6.26	122.35	118.60
36	5	1175	C	N3-C4-C5	6.26	124.40	121.90
36	5	2838	A	N1-C6-N6	6.26	122.35	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2983	C	C6-N1-C2	-6.26	117.80	120.30
36	5	3084	C	C6-N1-C2	6.25	122.80	120.30
36	1	2132	C	O5'-P-OP2	-6.25	100.07	105.70
36	5	38	U	C5-C6-N1	-6.25	119.57	122.70
36	1	719	U	O5'-P-OP1	-6.25	100.07	105.70
36	5	1426	C	N3-C2-O2	6.25	126.28	121.90
36	5	2851	A	C2-N3-C4	-6.25	107.47	110.60
36	1	49	A	N1-C6-N6	6.25	122.35	118.60
36	1	968	G	N3-C4-C5	-6.25	125.47	128.60
36	5	2526	C	N1-C2-O2	6.25	122.65	118.90
36	5	819	U	N1-C2-O2	-6.25	118.43	122.80
61	n5	115	ARG	NE-CZ-NH1	6.25	123.42	120.30
1	2	831	U	C5-C6-N1	6.25	125.82	122.70
36	5	2610	G	C5-C6-N1	-6.25	108.38	111.50
1	2	1202	A	C8-N9-C4	-6.24	103.30	105.80
36	1	350	C	C2-N1-C1'	6.24	125.67	118.80
36	1	816	A	C8-N9-C4	-6.24	103.30	105.80
1	6	136	C	N1-C2-O2	6.24	122.65	118.90
36	5	2911	A	N1-C6-N6	6.24	122.35	118.60
36	5	3378	C	C2-N3-C4	-6.24	116.78	119.90
1	6	75	U	N1-C2-O2	6.24	127.17	122.80
36	5	2286	U	N3-C2-O2	-6.24	117.83	122.20
36	5	2572	C	N3-C2-O2	-6.24	117.53	121.90
37	7	69	C	C6-N1-C2	6.24	122.80	120.30
36	1	1655	G	N9-C4-C5	-6.24	102.91	105.40
43	L6	78	ARG	NE-CZ-NH1	6.24	123.42	120.30
36	5	1200	A	OP1-P-O3'	6.24	118.92	105.20
36	5	1879	A	N9-C4-C5	-6.24	103.31	105.80
36	1	421	G	C8-N9-C4	6.24	108.89	106.40
36	5	2330	C	O5'-P-OP2	-6.24	100.09	105.70
1	2	1745	G	N3-C4-N9	6.24	129.74	126.00
36	1	395	A	C8-N9-C4	-6.24	103.31	105.80
36	5	3369	G	C2-N3-C4	6.24	115.02	111.90
36	5	810	A	C5-C6-N1	6.23	120.82	117.70
36	1	1467	A	C8-N9-C4	-6.23	103.31	105.80
36	5	810	A	C2-N3-C4	6.23	113.72	110.60
1	2	1291	G	N3-C4-N9	-6.23	122.26	126.00
36	5	922	U	C4-C5-C6	6.23	123.44	119.70
36	1	2376	G	N7-C8-N9	6.23	116.21	113.10
36	5	40	A	C6-C5-N7	-6.23	127.94	132.30
36	5	2283	G	C4-C5-N7	6.23	113.29	110.80
36	1	2860	U	O5'-P-OP1	-6.23	100.10	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	973	A	O5'-P-OP2	-6.22	100.10	105.70
36	1	2396	G	N9-C4-C5	6.22	107.89	105.40
36	5	1500	G	N7-C8-N9	-6.22	109.99	113.10
36	5	2400	G	N9-C4-C5	-6.22	102.91	105.40
36	1	859	G	N3-C2-N2	6.22	124.25	119.90
36	5	2928	C	C5-C4-N4	-6.22	115.84	120.20
36	1	1133	A	C8-N9-C4	6.22	108.29	105.80
36	1	2817	A	C5-C6-N6	-6.22	118.72	123.70
36	5	791	A	N1-C6-N6	6.22	122.33	118.60
36	5	1303	A	C8-N9-C4	6.22	108.29	105.80
36	5	2598	G	N1-C6-O6	6.22	123.63	119.90
36	5	2916	U	C4-C5-C6	6.22	123.43	119.70
36	5	3188	G	N1-C6-O6	-6.22	116.17	119.90
36	1	111	C	N3-C4-C5	6.21	124.39	121.90
36	1	2692	A	C8-N9-C4	-6.21	103.31	105.80
36	1	2935	U	N3-C4-C5	-6.21	110.87	114.60
36	1	2938	G	OP1-P-OP2	6.21	128.92	119.60
1	6	314	C	C6-N1-C2	-6.21	117.81	120.30
36	5	3153	U	N1-C2-O2	6.21	127.15	122.80
36	5	2411	U	C6-N1-C2	6.21	124.73	121.00
36	1	813	G	N3-C2-N2	6.21	124.25	119.90
1	6	158	U	P-O3'-C3'	6.21	127.15	119.70
36	5	1817	G	O4'-C1'-N9	6.21	113.17	108.20
36	5	3052	G	C5-C6-O6	6.21	132.33	128.60
36	1	702	C	N1-C2-O2	-6.21	115.17	118.90
36	1	1902	G	C5-N7-C8	-6.21	101.20	104.30
36	5	3026	G	C5-C6-O6	-6.21	124.88	128.60
36	1	3115	C	C6-N1-C2	6.21	122.78	120.30
36	1	3275	U	OP1-P-O3'	6.21	118.85	105.20
38	4	16	G	C8-N9-C4	6.21	108.88	106.40
36	5	2147	A	C5-N7-C8	-6.21	100.80	103.90
1	2	1463	C	C6-N1-C2	6.21	122.78	120.30
36	1	66	A	O5'-P-OP2	6.21	118.15	110.70
1	6	1766	A	C5-C6-N1	-6.21	114.60	117.70
36	5	661	G	C5-C6-O6	-6.20	124.88	128.60
36	5	1174	G	C8-N9-C1'	-6.20	118.93	127.00
36	5	1481	A	P-O3'-C3'	6.20	127.14	119.70
36	5	1511	U	C5-C6-N1	-6.20	119.60	122.70
36	1	400	G	N1-C6-O6	6.20	123.62	119.90
36	5	1131	G	OP1-P-OP2	6.20	128.90	119.60
36	5	2943	G	N3-C4-N9	6.20	129.72	126.00
38	4	85	G	C8-N9-C4	-6.20	103.92	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	92	G	N1-C6-O6	-6.20	116.18	119.90
36	5	2309	A	N1-C6-N6	-6.20	114.88	118.60
36	5	2874	G	C5-C6-O6	6.20	132.32	128.60
36	1	2406	C	N1-C2-O2	-6.20	115.18	118.90
36	5	1917	C	N1-C2-O2	-6.20	115.18	118.90
36	1	1339	C	C2-N3-C4	-6.20	116.80	119.90
36	5	1110	U	N1-C2-O2	6.20	127.14	122.80
36	1	1140	G	N1-C2-N2	-6.19	110.63	116.20
36	1	1520	G	C2-N3-C4	6.19	115.00	111.90
36	5	2285	C	C6-N1-C2	-6.19	117.82	120.30
1	2	555	A	C8-N9-C4	-6.19	103.32	105.80
36	1	2872	A	N1-C6-N6	-6.19	114.89	118.60
36	1	2899	C	C2-N1-C1'	6.19	125.61	118.80
21	c9	57	ARG	NE-CZ-NH2	-6.19	117.20	120.30
36	5	145	G	N3-C4-C5	6.19	131.69	128.60
36	5	639	G	N3-C2-N2	-6.19	115.57	119.90
36	1	1442	U	N1-C2-O2	-6.19	118.47	122.80
36	1	2937	G	O5'-P-OP1	-6.19	100.13	105.70
1	6	362	G	C4-N9-C1'	6.19	134.54	126.50
36	1	2188	A	N1-C6-N6	-6.19	114.89	118.60
36	1	298	U	O5'-P-OP1	6.18	118.12	110.70
36	5	1161	G	C2-N3-C4	6.18	114.99	111.90
36	1	2709	C	N3-C4-C5	6.18	124.37	121.90
36	1	2314	U	O5'-P-OP2	-6.18	100.14	105.70
36	1	2812	C	C5-C6-N1	-6.18	117.91	121.00
36	5	102	C	C5-C4-N4	-6.18	115.88	120.20
36	5	1872	C	N3-C2-O2	-6.18	117.58	121.90
36	5	3215	A	N1-C6-N6	6.18	122.31	118.60
36	1	989	A	C8-N9-C4	6.18	108.27	105.80
36	1	2541	U	C2-N1-C1'	6.18	125.11	117.70
36	1	2800	G	N1-C2-N3	6.18	127.61	123.90
36	5	2359	C	C5-C6-N1	-6.18	117.91	121.00
36	1	69	C	N3-C4-C5	-6.17	119.43	121.90
36	5	1902	G	O5'-P-OP1	-6.17	100.14	105.70
36	5	1902	G	N3-C4-N9	6.17	129.70	126.00
36	1	148	G	C6-C5-N7	-6.17	126.70	130.40
36	1	1655	G	C5-C6-O6	-6.17	124.90	128.60
36	5	41	G	C8-N9-C4	6.17	108.87	106.40
36	5	816	A	O5'-P-OP2	-6.17	100.15	105.70
38	8	25	G	O5'-P-OP2	-6.17	100.15	105.70
36	1	2830	G	N3-C2-N2	-6.17	115.58	119.90
36	5	2287	C	C6-N1-C2	-6.17	117.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2942	C	N1-C2-O2	-6.17	115.20	118.90
36	5	2903	A	C2-N3-C4	-6.17	107.52	110.60
36	1	3208	G	N1-C6-O6	-6.16	116.20	119.90
36	5	890	C	O5'-P-OP2	-6.16	100.16	105.70
36	5	1663	C	O5'-P-OP2	-6.16	100.16	105.70
1	2	1746	A	N1-C2-N3	-6.16	126.22	129.30
36	5	1305	U	C6-N1-C2	6.16	124.69	121.00
36	5	3315	G	N3-C4-C5	-6.16	125.52	128.60
36	1	1360	C	C6-N1-C2	6.16	122.76	120.30
36	1	3143	C	C5-C6-N1	-6.16	117.92	121.00
1	6	453	U	N3-C2-O2	-6.16	117.89	122.20
36	5	931	C	C2-N3-C4	-6.16	116.82	119.90
1	2	1568	C	P-O3'-C3'	6.16	127.09	119.70
36	5	2623	G	N9-C4-C5	-6.15	102.94	105.40
36	1	1349	G	N9-C4-C5	-6.15	102.94	105.40
36	5	427	C	N3-C4-C5	6.15	124.36	121.90
36	5	1116	G	OP2-P-O3'	6.15	118.73	105.20
36	5	1866	C	C2-N1-C1'	6.15	125.56	118.80
1	6	1463	C	C6-N1-C2	6.15	122.76	120.30
36	1	131	C	C6-N1-C2	-6.15	117.84	120.30
36	1	348	A	C5-C6-N6	-6.15	118.78	123.70
36	1	635	G	N3-C4-N9	6.15	129.69	126.00
36	1	644	G	C8-N9-C4	-6.15	103.94	106.40
36	1	1445	U	N3-C4-O4	-6.15	115.10	119.40
1	6	3	U	C5-C6-N1	-6.15	119.63	122.70
1	6	1659	A	C2-N3-C4	-6.15	107.53	110.60
1	6	1641	C	N1-C2-O2	-6.14	115.21	118.90
36	5	646	A	C5-C6-N6	6.14	128.62	123.70
36	5	3190	C	C6-N1-C2	-6.14	117.84	120.30
36	1	1195	A	O5'-P-OP1	-6.14	100.17	105.70
36	1	2961	G	O5'-P-OP2	-6.14	100.17	105.70
36	5	788	C	OP2-P-O3'	6.14	118.71	105.20
36	5	2345	A	C8-N9-C4	6.14	108.26	105.80
36	5	366	A	C6-C5-N7	-6.14	128.00	132.30
36	5	1445	U	N3-C2-O2	6.14	126.50	122.20
36	1	616	G	N1-C6-O6	6.14	123.58	119.90
38	4	103	G	N7-C8-N9	6.14	116.17	113.10
36	1	364	G	N3-C4-N9	-6.14	122.32	126.00
1	6	1389	C	N1-C2-O2	6.14	122.58	118.90
36	5	2408	U	C5-C6-N1	-6.14	119.63	122.70
36	1	153	U	C6-N1-C2	-6.13	117.32	121.00
36	1	1134	G	C5-C6-O6	-6.13	124.92	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1199	C	N3-C2-O2	-6.13	117.61	121.90
36	1	1411	C	N3-C4-C5	6.13	124.35	121.90
1	6	609	U	C5-C6-N1	-6.13	119.63	122.70
36	5	2168	A	O5'-P-OP2	-6.13	100.18	105.70
36	5	2710	C	N1-C2-O2	-6.13	115.22	118.90
1	2	1096	C	N1-C2-O2	6.13	122.58	118.90
1	2	1202	A	N1-C6-N6	-6.13	114.92	118.60
36	1	660	A	O5'-P-OP1	-6.13	100.18	105.70
38	4	113	U	N3-C2-O2	-6.13	117.91	122.20
1	6	1535	U	N3-C2-O2	-6.13	117.91	122.20
36	1	1124	U	N1-C2-O2	6.13	127.09	122.80
36	5	2630	C	O5'-P-OP1	-6.13	100.18	105.70
1	2	1258	U	N3-C2-O2	-6.13	117.91	122.20
36	1	3266	G	C8-N9-C4	-6.13	103.95	106.40
36	5	1155	C	C2-N1-C1'	6.13	125.54	118.80
36	5	1587	A	C8-N9-C4	6.13	108.25	105.80
37	7	102	A	C8-N9-C4	6.13	108.25	105.80
1	2	581	U	C2-N1-C1'	6.13	125.05	117.70
36	1	702	C	C2-N3-C4	-6.13	116.84	119.90
36	1	3302	U	C5-C6-N1	-6.13	119.64	122.70
41	L4	182	LEU	CA-CB-CG	6.13	129.39	115.30
1	6	53	G	N3-C4-C5	-6.13	125.54	128.60
38	8	95	G	N3-C4-N9	-6.13	122.32	126.00
44	17	83	LEU	CA-CB-CG	6.13	129.39	115.30
1	6	317	C	N3-C4-C5	6.12	124.35	121.90
36	1	421	G	N9-C4-C5	-6.12	102.95	105.40
36	1	2894	C	N3-C4-C5	-6.12	119.45	121.90
36	5	828	A	N1-C6-N6	-6.12	114.93	118.60
36	5	2611	U	O5'-P-OP2	-6.12	100.19	105.70
36	1	1295	G	C4-C5-N7	-6.12	108.35	110.80
36	1	2245	C	N3-C2-O2	-6.12	117.62	121.90
36	1	2624	G	C6-C5-N7	-6.12	126.73	130.40
36	5	498	A	O5'-P-OP2	-6.12	100.19	105.70
36	5	578	A	O5'-P-OP2	6.12	118.05	110.70
36	5	1395	G	N1-C6-O6	6.12	123.57	119.90
1	2	1458	G	N3-C4-N9	6.12	129.67	126.00
36	1	609	G	C8-N9-C4	-6.12	103.95	106.40
36	1	1392	G	O4'-C1'-N9	6.12	113.09	108.20
36	5	1592	G	N7-C8-N9	6.12	116.16	113.10
1	6	362	G	N3-C4-N9	6.12	129.67	126.00
36	5	2333	C	C5-C4-N4	-6.12	115.92	120.20
36	5	195	U	N1-C2-N3	6.12	118.57	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	644	G	N3-C4-C5	-6.12	125.54	128.60
36	5	941	G	N1-C6-O6	-6.12	116.23	119.90
36	5	1124	U	OP1-P-O3'	6.12	118.65	105.20
36	5	2632	G	N1-C6-O6	-6.12	116.23	119.90
36	1	1136	A	C8-N9-C4	-6.11	103.36	105.80
36	1	2278	C	N3-C4-C5	6.11	124.35	121.90
36	5	792	G	C2-N3-C4	-6.11	108.84	111.90
37	7	49	G	C6-C5-N7	-6.11	126.73	130.40
1	2	137	U	N3-C2-O2	-6.11	117.92	122.20
36	1	1094	U	C5-C6-N1	6.11	125.75	122.70
36	5	1190	A	N7-C8-N9	6.11	116.86	113.80
36	5	1372	C	C6-N1-C2	6.11	122.74	120.30
1	2	1572	G	N9-C4-C5	-6.11	102.96	105.40
36	5	836	A	C5-C6-N1	6.11	120.75	117.70
36	1	618	C	N1-C2-O2	-6.11	115.24	118.90
36	1	1192	C	C6-N1-C1'	-6.11	113.47	120.80
1	6	1751	C	C6-N1-C2	6.11	122.74	120.30
36	5	405	U	C6-N1-C2	6.11	124.66	121.00
36	5	2134	G	C8-N9-C4	6.11	108.84	106.40
36	5	2295	A	C5-C6-N1	6.11	120.75	117.70
36	1	2827	U	C6-N1-C1'	6.10	129.74	121.20
36	5	1520	G	N3-C4-N9	6.10	129.66	126.00
36	1	933	A	C6-N1-C2	-6.10	114.94	118.60
36	5	635	G	N9-C4-C5	-6.10	102.96	105.40
36	5	701	G	C4-C5-N7	-6.10	108.36	110.80
36	1	1365	G	C5-C6-N1	6.10	114.55	111.50
36	5	92	G	N3-C4-N9	6.10	129.66	126.00
36	5	2363	A	C5-C6-N6	-6.10	118.82	123.70
36	1	282	G	O5'-P-OP2	6.10	118.02	110.70
1	6	542	A	C8-N9-C4	-6.10	103.36	105.80
38	4	14	C	C5-C6-N1	-6.09	117.95	121.00
1	6	1749	A	C2-N3-C4	-6.09	107.55	110.60
36	5	2888	U	C5-C4-O4	-6.09	122.24	125.90
36	1	2134	G	N3-C2-N2	6.09	124.17	119.90
36	5	437	G	C8-N9-C4	-6.09	103.96	106.40
36	1	1001	G	C4-C5-N7	6.09	113.24	110.80
36	1	2249	G	N3-C4-C5	-6.09	125.56	128.60
36	5	1099	A	C5-C6-N6	-6.09	118.83	123.70
36	5	1881	A	C5-C6-N6	-6.09	118.83	123.70
36	5	2164	A	C8-N9-C4	-6.09	103.36	105.80
36	5	2963	C	C6-N1-C2	6.09	122.73	120.30
36	1	644	G	C5-C6-N1	-6.09	108.46	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2177	G	C6-C5-N7	-6.09	126.75	130.40
36	1	2369	G	N3-C4-C5	-6.09	125.56	128.60
36	5	37	U	N1-C2-N3	6.09	118.55	114.90
36	5	2364	G	N1-C6-O6	-6.09	116.25	119.90
36	5	3172	A	C2-N3-C4	-6.09	107.56	110.60
36	1	1849	C	N3-C4-C5	6.08	124.33	121.90
69	o3	73	ARG	NE-CZ-NH2	-6.08	117.26	120.30
36	1	587	U	C2-N3-C4	-6.08	123.35	127.00
36	1	1859	A	C8-N9-C4	6.08	108.23	105.80
36	1	2385	G	N3-C4-C5	6.08	131.64	128.60
1	6	455	C	C5-C4-N4	-6.08	115.94	120.20
36	1	1520	G	C8-N9-C4	6.08	108.83	106.40
36	1	1911	A	C5-C6-N6	-6.08	118.83	123.70
36	5	1198	C	N3-C2-O2	-6.08	117.64	121.90
36	5	2531	C	N1-C2-O2	6.08	122.55	118.90
36	1	2410	U	N1-C2-O2	-6.08	118.54	122.80
36	1	2618	G	N1-C6-O6	-6.08	116.25	119.90
1	6	453	U	N1-C2-O2	6.08	127.06	122.80
36	5	424	G	C5-C6-N1	6.08	114.54	111.50
36	5	948	C	O5'-P-OP1	6.08	118.00	110.70
1	6	1637	C	N3-C2-O2	-6.08	117.65	121.90
1	2	830	U	N1-C2-O2	6.08	127.05	122.80
36	1	583	G	N3-C2-N2	-6.08	115.65	119.90
36	1	1318	A	C5-N7-C8	-6.08	100.86	103.90
36	1	3382	U	C2-N1-C1'	6.08	124.99	117.70
36	5	974	G	N3-C4-C5	-6.08	125.56	128.60
36	5	1932	A	C2-N3-C4	-6.08	107.56	110.60
36	1	2935	U	C6-N1-C2	-6.07	117.36	121.00
36	5	417	A	N7-C8-N9	-6.07	110.76	113.80
52	m6	128	ARG	N-CA-C	6.07	127.40	111.00
36	5	800	G	N1-C2-N2	-6.07	110.74	116.20
1	2	1202	A	C2-N3-C4	6.07	113.64	110.60
36	1	24	G	N1-C2-N2	-6.07	110.74	116.20
36	5	819	U	C4-C5-C6	6.07	123.34	119.70
36	5	2719	U	N1-C2-O2	-6.07	118.55	122.80
1	2	1782	A	C5-C6-N1	-6.07	114.67	117.70
36	5	2514	U	O5'-P-OP1	-6.07	100.24	105.70
36	1	357	A	C6-N1-C2	-6.07	114.96	118.60
1	6	144	U	O4'-C1'-N1	6.07	113.05	108.20
36	1	2373	A	O5'-P-OP1	-6.06	100.24	105.70
36	1	636	C	N3-C4-C5	6.06	124.33	121.90
36	1	1589	A	O4'-C1'-N9	-6.06	103.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2234	G	C8-N9-C4	6.06	108.82	106.40
36	5	3110	C	C5-C6-N1	-6.06	117.97	121.00
36	1	1198	C	N1-C2-O2	-6.06	115.26	118.90
36	1	2393	G	O5'-P-OP2	-6.06	100.25	105.70
36	5	2615	G	N1-C6-O6	6.06	123.53	119.90
36	5	2626	A	O4'-C1'-N9	-6.06	103.35	108.20
36	5	3056	U	N3-C2-O2	6.06	126.44	122.20
36	1	325	A	OP1-P-OP2	-6.06	110.52	119.60
36	1	1101	G	N1-C6-O6	-6.06	116.27	119.90
36	1	3201	C	N3-C2-O2	-6.06	117.66	121.90
36	1	1433	A	C2-N3-C4	6.05	113.63	110.60
36	1	1476	G	C5-C6-O6	6.05	132.23	128.60
1	6	1120	U	N3-C2-O2	-6.05	117.96	122.20
36	5	1716	U	P-O3'-C3'	6.05	126.96	119.70
36	1	644	G	C6-C5-N7	-6.05	126.77	130.40
36	1	1156	C	C4-C5-C6	6.05	120.42	117.40
36	5	1637	A	N1-C6-N6	-6.05	114.97	118.60
36	5	2941	A	N9-C4-C5	6.05	108.22	105.80
36	1	1307	G	N3-C4-N9	-6.05	122.37	126.00
36	1	2865	U	N3-C4-C5	6.05	118.23	114.60
36	1	2943	G	C5-C6-O6	-6.05	124.97	128.60
1	6	804	A	N1-C6-N6	6.05	122.23	118.60
36	5	2273	G	N1-C6-O6	-6.05	116.27	119.90
36	5	2808	A	N9-C4-C5	-6.05	103.38	105.80
36	5	2858	U	C5-C6-N1	6.05	125.72	122.70
36	5	3343	G	N3-C4-N9	6.05	129.63	126.00
36	1	2758	A	N7-C8-N9	-6.04	110.78	113.80
36	1	47	C	C6-N1-C2	6.04	122.72	120.30
36	1	1849	C	N1-C2-O2	-6.04	115.27	118.90
36	1	34	A	OP2-P-O3'	6.04	118.49	105.20
36	1	1000	C	C6-N1-C2	6.04	122.72	120.30
36	1	1351	U	N1-C2-O2	6.04	127.03	122.80
36	5	1301	A	N1-C6-N6	6.04	122.22	118.60
36	5	3136	G	C2-N3-C4	-6.04	108.88	111.90
37	7	49	G	C5-C6-O6	-6.04	124.97	128.60
36	5	2345	A	C8-N9-C1'	-6.04	116.83	127.70
1	2	380	U	N1-C2-O2	6.04	127.03	122.80
36	1	3143	C	C6-N1-C2	6.04	122.72	120.30
1	6	647	G	N3-C4-C5	6.04	131.62	128.60
36	5	588	G	OP1-P-OP2	6.04	128.66	119.60
1	6	1782	A	C5-C6-N6	6.04	128.53	123.70
36	1	120	G	N9-C4-C5	-6.04	102.99	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	785	G	C2-N3-C4	6.04	114.92	111.90
36	5	417	A	N1-C6-N6	-6.03	114.98	118.60
36	1	1174	G	C8-N9-C1'	-6.03	119.16	127.00
36	1	1556	C	N1-C2-O2	6.03	122.52	118.90
36	1	2832	C	C6-N1-C2	-6.03	117.89	120.30
36	1	1333	C	O5'-P-OP2	-6.03	100.27	105.70
36	1	1335	C	N3-C4-N4	-6.03	113.78	118.00
36	1	2884	C	C5-C4-N4	-6.03	115.98	120.20
36	1	3001	C	C2-N1-C1'	-6.03	112.17	118.80
36	5	2820	A	C8-N9-C4	-6.03	103.39	105.80
36	1	2856	G	O5'-P-OP2	6.03	117.93	110.70
52	M6	78	ARG	NE-CZ-NH2	-6.03	117.29	120.30
36	5	1495	U	C5-C6-N1	6.03	125.71	122.70
36	5	2249	G	N7-C8-N9	6.03	116.11	113.10
1	6	858	G	C5-N7-C8	-6.02	101.29	104.30
36	5	1844	C	C6-N1-C2	-6.02	117.89	120.30
36	1	2198	A	N1-C2-N3	6.02	132.31	129.30
36	5	869	G	C5-C6-N1	6.02	114.51	111.50
36	5	2870	C	C2-N1-C1'	-6.02	112.18	118.80
50	m4	106	ARG	NE-CZ-NH1	6.02	123.31	120.30
77	q1	21	ARG	NE-CZ-NH1	-6.02	117.29	120.30
38	4	31	G	OP2-P-O3'	6.02	118.45	105.20
1	6	1023	A	C5-C6-N6	-6.02	118.89	123.70
36	5	1179	A	C4-C5-C6	6.02	120.01	117.00
36	5	3374	U	C5-C6-N1	-6.02	119.69	122.70
36	1	2418	G	C2-N3-C4	6.02	114.91	111.90
36	5	640	U	N3-C4-O4	6.02	123.61	119.40
36	5	2616	C	C4-C5-C6	-6.02	114.39	117.40
1	2	1733	C	N3-C4-N4	6.02	122.21	118.00
36	1	2643	A	C8-N9-C4	6.02	108.21	105.80
1	2	931	C	C6-N1-C2	6.01	122.70	120.30
36	1	3242	G	C4-N9-C1'	-6.01	118.68	126.50
36	5	885	U	N1-C2-O2	-6.01	118.59	122.80
36	5	960	U	C2-N1-C1'	6.01	124.92	117.70
36	1	942	U	OP1-P-OP2	-6.01	110.58	119.60
36	1	2912	G	C5-C6-N1	6.01	114.51	111.50
36	5	1335	C	N1-C2-O2	-6.01	115.29	118.90
36	1	2406	C	N3-C2-O2	6.01	126.11	121.90
36	1	3006	A	O5'-P-OP1	-6.01	100.29	105.70
36	1	3046	A	O5'-P-OP2	-6.01	100.29	105.70
36	5	119	U	C5-C4-O4	6.01	129.51	125.90
36	5	2849	C	N3-C4-C5	-6.01	119.50	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2314	U	C5-C4-O4	-6.01	122.29	125.90
36	5	885	U	N3-C4-O4	6.01	123.61	119.40
37	7	81	U	N1-C2-O2	6.01	127.01	122.80
1	6	139	C	N3-C2-O2	-6.01	117.69	121.90
36	5	1151	U	N3-C2-O2	6.01	126.41	122.20
36	5	2236	G	C4-C5-N7	6.01	113.20	110.80
1	2	1600	A	N1-C6-N6	6.01	122.20	118.60
36	1	206	G	N7-C8-N9	-6.01	110.10	113.10
36	1	1445	U	C6-N1-C1'	6.01	129.61	121.20
70	O4	8	ARG	NE-CZ-NH1	6.01	123.30	120.30
1	6	1737	G	N9-C4-C5	-6.01	103.00	105.40
36	5	2253	G	O5'-P-OP2	-6.01	100.29	105.70
36	1	900	G	N7-C8-N9	-6.00	110.10	113.10
37	3	38	U	N1-C2-O2	-6.00	118.60	122.80
36	5	3026	G	N1-C6-O6	6.00	123.50	119.90
1	2	966	A	N9-C4-C5	-6.00	103.40	105.80
36	1	1139	G	C2-N3-C4	-6.00	108.90	111.90
36	1	1343	A	C6-C5-N7	-6.00	128.10	132.30
36	5	1085	A	O5'-P-OP1	-6.00	100.30	105.70
36	5	1495	U	O4'-C1'-N1	6.00	113.00	108.20
36	5	2623	G	C8-N9-C4	6.00	108.80	106.40
36	5	2849	C	C5-C6-N1	6.00	124.00	121.00
36	1	153	U	N3-C4-C5	-6.00	111.00	114.60
36	1	1051	U	N1-C2-N3	6.00	118.50	114.90
59	n3	48	ARG	NE-CZ-NH1	6.00	123.30	120.30
36	1	1111	U	N3-C4-C5	6.00	118.20	114.60
36	1	1197	A	O5'-P-OP2	-6.00	100.30	105.70
1	6	543	C	C5-C6-N1	6.00	124.00	121.00
36	1	2355	G	C4-C5-C6	6.00	122.40	118.80
1	6	858	G	N7-C8-N9	6.00	116.10	113.10
68	o2	44	ARG	NE-CZ-NH2	6.00	123.30	120.30
36	1	1308	A	N9-C4-C5	6.00	108.20	105.80
38	4	14	C	C2-N3-C4	-6.00	116.90	119.90
36	5	75	G	N1-C6-O6	6.00	123.50	119.90
36	1	1142	G	C8-N9-C4	-5.99	104.00	106.40
1	2	1657	U	O4'-C1'-N1	5.99	112.99	108.20
36	5	1193	A	C2-N3-C4	-5.99	107.60	110.60
36	5	2383	C	C2-N3-C4	-5.99	116.90	119.90
36	5	3245	A	C5-C6-N1	-5.99	114.70	117.70
36	1	1174	G	C4-N9-C1'	5.99	134.29	126.50
36	5	928	C	N3-C2-O2	-5.99	117.71	121.90
1	6	1127	G	C6-C5-N7	-5.99	126.81	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	923	C	C6-N1-C2	5.99	122.69	120.30
36	5	3093	C	C2-N3-C4	-5.99	116.91	119.90
36	1	2993	G	N3-C4-N9	5.99	129.59	126.00
36	1	2361	A	OP2-P-O3'	5.99	118.37	105.20
36	5	1605	A	O4'-C1'-N9	5.99	112.99	108.20
36	5	2345	A	N9-C4-C5	-5.99	103.41	105.80
1	2	765	G	O4'-C1'-N9	-5.98	103.41	108.20
1	2	1280	C	C6-N1-C2	-5.98	117.91	120.30
36	1	2943	G	C4-C5-N7	5.98	113.19	110.80
36	5	57	A	N9-C4-C5	-5.98	103.41	105.80
36	1	793	C	N1-C2-O2	-5.98	115.31	118.90
1	6	1091	A	C5-C6-N1	-5.98	114.71	117.70
36	1	1467	A	N1-C6-N6	-5.97	115.02	118.60
1	6	83	G	N1-C6-O6	5.97	123.48	119.90
1	6	163	G	N9-C4-C5	5.97	107.79	105.40
1	6	959	U	C5-C4-O4	-5.97	122.32	125.90
1	6	1635	A	N1-C6-N6	5.97	122.19	118.60
36	5	2850	G	C5-C6-O6	-5.97	125.02	128.60
36	5	2890	A	C4-C5-C6	5.97	119.99	117.00
36	5	3207	U	C2-N1-C1'	-5.97	110.53	117.70
36	1	614	C	N3-C4-C5	5.97	124.29	121.90
36	5	997	A	OP2-P-O3'	5.97	118.34	105.20
1	2	1636	C	N3-C4-C5	-5.97	119.51	121.90
36	1	374	A	N1-C2-N3	-5.97	126.31	129.30
37	3	103	A	N1-C6-N6	5.97	122.18	118.60
1	6	1573	A	P-O3'-C3'	5.97	126.86	119.70
36	5	283	G	C6-C5-N7	-5.97	126.82	130.40
36	5	2148	U	N1-C2-O2	-5.97	118.62	122.80
36	5	2916	U	C5-C6-N1	-5.97	119.72	122.70
1	6	352	A	O5'-P-OP1	-5.97	100.33	105.70
6	s4	38	LEU	CA-CB-CG	5.97	129.03	115.30
36	5	361	A	C2-N3-C4	5.97	113.58	110.60
36	5	411	U	N1-C2-O2	-5.96	118.62	122.80
36	5	884	A	C2-N3-C4	-5.96	107.62	110.60
36	5	2327	U	C5-C6-N1	-5.96	119.72	122.70
47	m0	10	ARG	NE-CZ-NH1	-5.96	117.32	120.30
36	1	1307	G	P-O3'-C3'	5.96	126.85	119.70
36	1	2643	A	N1-C6-N6	5.96	122.18	118.60
36	5	1405	U	N1-C2-N3	5.96	118.47	114.90
36	5	3178	A	O5'-P-OP1	-5.96	100.34	105.70
36	5	1495	U	C6-N1-C2	-5.95	117.43	121.00
36	1	2585	G	N3-C4-N9	5.95	129.57	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2823	G	C4-C5-N7	-5.95	108.42	110.80
36	1	206	G	C8-N9-C4	5.95	108.78	106.40
36	1	1103	A	C8-N9-C4	5.95	108.18	105.80
36	1	3229	G	C5-C6-O6	-5.95	125.03	128.60
36	5	3164	C	O4'-C1'-N1	5.95	112.96	108.20
1	2	734	A	P-O3'-C3'	5.95	126.84	119.70
36	1	2409	G	N3-C4-C5	-5.95	125.62	128.60
37	3	33	U	N3-C2-O2	-5.95	118.04	122.20
37	3	88	G	N3-C4-C5	-5.95	125.63	128.60
36	5	1160	C	N1-C2-O2	-5.95	115.33	118.90
36	1	2134	G	C5-C6-N1	5.95	114.47	111.50
36	1	2212	C	C6-N1-C2	5.95	122.68	120.30
36	1	2815	G	C8-N9-C4	5.94	108.78	106.40
36	5	3188	G	C4-C5-N7	-5.94	108.42	110.80
1	2	370	A	N1-C6-N6	-5.94	115.03	118.60
1	2	794	U	C2-N1-C1'	5.94	124.83	117.70
36	5	3214	U	N3-C2-O2	-5.94	118.04	122.20
36	5	3335	A	C6-C5-N7	-5.94	128.14	132.30
36	1	2712	U	N3-C2-O2	-5.94	118.04	122.20
1	2	571	G	C4-C5-N7	-5.94	108.42	110.80
36	1	639	G	C6-C5-N7	-5.94	126.84	130.40
37	3	83	U	C5-C6-N1	-5.94	119.73	122.70
36	5	2524	A	C5-N7-C8	-5.94	100.93	103.90
36	1	1376	C	N1-C2-O2	-5.94	115.34	118.90
36	5	339	C	N1-C2-O2	-5.94	115.34	118.90
36	5	902	G	C5-C6-O6	-5.94	125.04	128.60
36	1	2176	U	N1-C2-O2	5.93	126.95	122.80
36	5	2616	C	OP2-P-O3'	5.93	118.25	105.20
36	5	2967	A	N1-C2-N3	5.93	132.27	129.30
36	1	1835	A	O5'-P-OP1	-5.93	100.36	105.70
36	5	3245	A	N3-C4-C5	5.93	130.95	126.80
66	o0	41	LEU	CA-CB-CG	5.93	128.95	115.30
36	1	2887	A	C8-N9-C4	-5.93	103.43	105.80
1	6	1000	C	C4-C5-C6	5.93	120.36	117.40
36	5	512	U	N3-C2-O2	-5.93	118.05	122.20
36	5	2308	C	N3-C2-O2	5.93	126.05	121.90
36	5	2325	G	N3-C2-N2	-5.93	115.75	119.90
36	1	803	C	O5'-P-OP1	5.93	117.81	110.70
36	1	1002	A	C8-N9-C4	5.93	108.17	105.80
1	6	1025	A	N9-C4-C5	-5.93	103.43	105.80
36	5	2163	C	C2-N3-C4	-5.93	116.94	119.90
36	5	2388	U	OP2-P-O3'	5.93	118.24	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	282	G	C2'-C3'-O3'	5.92	123.18	113.70
36	5	1507	G	C6-C5-N7	-5.92	126.85	130.40
36	5	1598	G	C8-N9-C4	5.92	108.77	106.40
36	5	3118	C	C6-N1-C2	-5.92	117.93	120.30
36	1	2952	G	C4-N9-C1'	5.92	134.20	126.50
36	1	2236	G	N1-C6-O6	5.92	123.45	119.90
36	5	43	A	N1-C6-N6	5.92	122.15	118.60
36	1	1154	A	C8-N9-C4	-5.92	103.43	105.80
37	3	91	G	C6-C5-N7	-5.92	126.85	130.40
36	5	661	G	OP1-P-O3'	5.92	118.22	105.20
1	2	316	A	C8-N9-C4	5.92	108.17	105.80
36	5	2123	G	O5'-P-OP1	-5.92	100.38	105.70
36	1	2656	A	N1-C6-N6	-5.91	115.05	118.60
36	1	2886	U	C5-C4-O4	-5.91	122.35	125.90
1	6	390	G	O5'-P-OP2	-5.91	100.38	105.70
36	5	970	A	C5-C6-N6	-5.91	118.97	123.70
36	5	2295	A	N1-C2-N3	-5.91	126.34	129.30
1	2	1560	U	C6-N1-C2	-5.91	117.45	121.00
36	5	2524	A	N7-C8-N9	5.91	116.75	113.80
36	1	1304	A	N1-C6-N6	-5.91	115.06	118.60
36	1	3143	C	N1-C2-O2	-5.91	115.36	118.90
1	6	1100	G	C6-N1-C2	-5.91	121.56	125.10
36	5	868	C	C6-N1-C2	5.91	122.66	120.30
36	5	2236	G	C6-C5-N7	-5.91	126.86	130.40
36	1	2624	G	C8-N9-C4	-5.90	104.04	106.40
1	2	694	U	N1-C2-O2	5.90	126.93	122.80
36	1	1103	A	P-O3'-C3'	5.90	126.78	119.70
45	L8	189	LEU	CA-CB-CG	5.90	128.88	115.30
1	6	1060	U	N3-C2-O2	-5.90	118.07	122.20
36	5	2366	C	C2-N1-C1'	5.90	125.29	118.80
36	1	1374	G	C6-C5-N7	-5.90	126.86	130.40
36	1	2375	G	C8-N9-C4	5.90	108.76	106.40
36	1	2905	U	N3-C2-O2	5.90	126.33	122.20
36	1	3058	U	OP1-P-OP2	5.90	128.45	119.60
36	1	3382	U	N3-C2-O2	-5.90	118.07	122.20
38	8	21	C	N1-C2-O2	-5.90	115.36	118.90
36	5	946	U	O5'-P-OP2	-5.90	100.39	105.70
36	1	75	G	C6-C5-N7	-5.90	126.86	130.40
1	6	459	G	C5-C6-O6	-5.90	125.06	128.60
36	5	1452	A	C6-C5-N7	-5.90	128.17	132.30
1	2	569	C	N3-C2-O2	-5.90	117.77	121.90
36	1	1448	U	OP2-P-O3'	5.89	118.17	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2257	C	N3-C2-O2	-5.89	117.77	121.90
36	1	2726	C	C6-N1-C2	-5.89	117.94	120.30
36	5	1206	G	C8-N9-C4	-5.89	104.04	106.40
36	5	2358	A	N3-C4-C5	5.89	130.93	126.80
37	7	94	C	C4-C5-C6	-5.89	114.45	117.40
1	2	1274	C	C5-C4-N4	5.89	124.32	120.20
36	1	2384	A	C4-C5-N7	5.89	113.65	110.70
36	5	2917	G	O5'-P-OP2	-5.89	100.40	105.70
36	1	659	G	C5-C6-O6	-5.89	125.07	128.60
38	4	113	U	C4-C5-C6	5.89	123.23	119.70
36	5	784	A	O5'-P-OP2	-5.89	100.40	105.70
1	6	1034	C	C4-C5-C6	5.89	120.34	117.40
36	1	938	C	C6-N1-C2	-5.89	117.94	120.30
36	1	1116	G	C8-N9-C4	-5.89	104.05	106.40
38	4	32	C	C2-N1-C1'	-5.89	112.32	118.80
36	5	1381	A	C2-N3-C4	-5.89	107.66	110.60
36	5	1876	U	N3-C4-C5	5.89	118.13	114.60
1	6	1031	U	C5-C6-N1	-5.88	119.76	122.70
1	2	425	A	C4-C5-N7	5.88	113.64	110.70
1	6	1001	A	N9-C4-C5	-5.88	103.45	105.80
36	5	2929	C	N3-C4-C5	5.88	124.25	121.90
38	4	116	G	N9-C4-C5	-5.88	103.05	105.40
36	5	3095	U	N3-C4-O4	-5.88	115.28	119.40
36	1	912	G	OP2-P-O3'	5.88	118.14	105.20
1	6	1092	A	N1-C6-N6	5.88	122.13	118.60
36	1	439	C	C5-C6-N1	5.88	123.94	121.00
36	1	1386	A	C6-N1-C2	-5.88	115.07	118.60
36	5	2838	A	C5-C6-N6	-5.88	119.00	123.70
38	8	3	A	C5-C6-N1	5.88	120.64	117.70
15	C3	22	ALA	C-N-CA	5.88	146.68	122.00
36	1	1907	C	N3-C4-C5	-5.88	119.55	121.90
36	1	3133	C	C5-C4-N4	-5.88	116.09	120.20
36	1	3303	G	O4'-C1'-N9	5.88	112.90	108.20
37	3	86	U	C2-N3-C4	-5.88	123.47	127.00
41	L4	327	LEU	CA-CB-CG	5.88	128.81	115.30
36	1	916	G	N1-C6-O6	-5.88	116.38	119.90
36	1	1351	U	N3-C2-O2	-5.88	118.09	122.20
36	5	516	A	N1-C6-N6	5.88	122.12	118.60
1	2	90	C	C6-N1-C2	-5.87	117.95	120.30
36	1	1166	G	C6-C5-N7	-5.87	126.88	130.40
36	5	1897	G	N3-C4-C5	5.87	131.54	128.60
36	5	2354	C	C5-C4-N4	-5.87	116.09	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1120	U	N3-C2-O2	-5.87	118.09	122.20
1	2	1462	G	C4-C5-N7	5.87	113.15	110.80
36	1	999	G	C5-C6-O6	-5.87	125.08	128.60
36	1	2134	G	N3-C4-N9	5.87	129.52	126.00
1	2	576	G	C4-C5-N7	5.87	113.15	110.80
36	5	1433	A	N9-C4-C5	5.87	108.15	105.80
36	5	3181	C	C6-N1-C1'	-5.87	113.76	120.80
36	1	1182	A	C8-N9-C4	5.87	108.15	105.80
36	1	1419	A	N1-C6-N6	5.87	122.12	118.60
36	1	1923	C	C6-N1-C2	5.87	122.65	120.30
36	1	2798	C	N3-C4-C5	-5.87	119.55	121.90
36	1	2936	A	N1-C6-N6	-5.87	115.08	118.60
1	6	795	U	N1-C2-O2	5.87	126.91	122.80
36	1	730	C	C6-N1-C2	5.87	122.65	120.30
36	1	2886	U	N3-C4-O4	5.87	123.51	119.40
36	5	966	U	O5'-P-OP2	-5.87	100.42	105.70
36	5	2339	C	O5'-P-OP1	-5.87	100.42	105.70
36	1	2525	G	N3-C4-N9	5.87	129.52	126.00
36	5	1445	U	C5-C4-O4	-5.87	122.38	125.90
36	5	1905	G	C2-N3-C4	5.87	114.83	111.90
38	8	16	G	C5-C6-O6	-5.87	125.08	128.60
36	1	1058	U	N1-C2-O2	5.86	126.91	122.80
36	1	1779	C	C6-N1-C2	-5.86	117.95	120.30
1	6	426	G	C4-N9-C1'	5.86	134.12	126.50
36	1	809	G	C5-C6-O6	-5.86	125.08	128.60
36	1	2142	A	C6-N1-C2	-5.86	115.08	118.60
1	6	901	G	N1-C6-O6	5.86	123.42	119.90
36	1	2276	G	C5-C6-O6	-5.86	125.08	128.60
36	1	2383	C	N3-C4-C5	5.86	124.24	121.90
36	1	2803	A	C2-N3-C4	5.86	113.53	110.60
36	1	2950	G	N1-C6-O6	-5.86	116.38	119.90
1	6	338	C	C5-C6-N1	5.86	123.93	121.00
1	6	1432	U	O4'-C1'-N1	5.86	112.89	108.20
36	5	1055	A	O5'-P-OP2	-5.86	100.43	105.70
36	5	1399	A	O5'-P-OP1	5.86	117.73	110.70
1	2	970	A	C4-C5-N7	5.86	113.63	110.70
36	1	611	A	O5'-P-OP1	5.86	117.73	110.70
36	5	665	A	C5-C6-N6	-5.86	119.01	123.70
36	5	2334	U	O5'-P-OP1	5.86	117.73	110.70
38	8	80	A	C4-C5-C6	5.86	119.93	117.00
36	1	941	G	OP1-P-O3'	5.86	118.09	105.20
36	1	2323	G	N3-C2-N2	5.86	124.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1634	C	N1-C2-O2	5.86	122.41	118.90
36	5	661	G	O5'-P-OP1	-5.86	100.43	105.70
36	5	934	G	C8-N9-C1'	-5.86	119.39	127.00
36	5	1338	C	N3-C4-N4	5.86	122.10	118.00
36	1	288	C	N3-C4-C5	-5.86	119.56	121.90
36	1	1507	G	C6-N1-C2	-5.86	121.59	125.10
36	1	3201	C	N3-C4-C5	-5.86	119.56	121.90
36	5	880	G	C8-N9-C4	5.86	108.74	106.40
36	5	970	A	N1-C6-N6	5.86	122.11	118.60
36	5	2383	C	C4-C5-C6	5.86	120.33	117.40
36	5	3048	A	C5-C6-N6	-5.86	119.02	123.70
1	2	334	G	C2-N3-C4	-5.85	108.97	111.90
36	1	950	G	N1-C6-O6	5.85	123.41	119.90
36	1	1157	G	OP2-P-O3'	5.85	118.07	105.20
36	1	2134	G	N1-C6-O6	-5.85	116.39	119.90
36	1	3055	U	N3-C4-C5	5.85	118.11	114.60
36	5	1902	G	N3-C2-N2	-5.85	115.80	119.90
36	5	2840	C	O5'-P-OP1	-5.85	100.43	105.70
36	1	1901	A	N1-C6-N6	-5.85	115.09	118.60
36	1	3039	C	O5'-P-OP2	-5.85	100.43	105.70
1	6	1280	C	N3-C4-C5	-5.85	119.56	121.90
36	5	989	A	C5-C6-N6	-5.85	119.02	123.70
5	S3	182	LEU	CA-CB-CG	5.85	128.75	115.30
36	1	1513	G	C6-N1-C2	-5.85	121.59	125.10
36	1	2329	C	O5'-P-OP2	-5.85	100.44	105.70
36	1	2893	C	C5-C6-N1	-5.85	118.08	121.00
1	6	1698	G	P-O3'-C3'	5.85	126.72	119.70
36	5	360	G	C5-C6-N1	-5.85	108.58	111.50
36	5	641	C	N3-C4-C5	5.85	124.24	121.90
36	5	889	U	OP2-P-O3'	5.85	118.07	105.20
1	2	388	G	N1-C6-O6	5.85	123.41	119.90
36	1	668	G	C5-N7-C8	5.85	107.22	104.30
36	1	1495	U	N1-C2-O2	-5.85	118.71	122.80
36	5	1903	U	N3-C4-O4	5.85	123.49	119.40
36	5	2849	C	N1-C2-O2	-5.85	115.39	118.90
37	3	57	G	C5-C6-O6	5.85	132.11	128.60
36	1	874	U	N1-C2-N3	5.84	118.41	114.90
36	1	2134	G	C2-N3-C4	5.84	114.82	111.90
36	1	2185	G	P-O3'-C3'	5.84	126.71	119.70
36	1	2307	G	O4'-C1'-N9	5.84	112.88	108.20
1	6	315	A	C2-N3-C4	5.84	113.52	110.60
1	6	350	U	N1-C2-N3	5.84	118.41	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1316	C	N3-C4-N4	5.84	122.09	118.00
36	5	1476	G	N3-C4-N9	-5.84	122.49	126.00
36	5	2639	G	C6-C5-N7	-5.84	126.89	130.40
36	5	3216	G	C6-C5-N7	-5.84	126.89	130.40
36	1	1796	G	C8-N9-C4	-5.84	104.06	106.40
36	1	3193	C	C6-N1-C2	-5.84	117.96	120.30
36	5	2772	C	P-O3'-C3'	5.84	126.71	119.70
36	5	1433	A	O5'-P-OP1	-5.84	100.44	105.70
1	2	334	G	N3-C4-C5	5.84	131.52	128.60
36	5	2375	G	N1-C6-O6	-5.84	116.40	119.90
36	5	3195	U	C2-N1-C1'	5.84	124.71	117.70
36	1	2699	G	C6-C5-N7	-5.84	126.90	130.40
36	1	83	U	C5-C4-O4	-5.84	122.40	125.90
36	1	96	G	N3-C4-C5	5.84	131.52	128.60
36	1	345	G	OP1-P-O3'	5.84	118.04	105.20
64	N8	34	MET	CG-SD-CE	5.84	109.54	100.20
36	5	1452	A	C2-N3-C4	-5.84	107.68	110.60
38	8	96	A	C8-N9-C4	5.84	108.14	105.80
36	5	1721	U	O5'-P-OP1	-5.83	100.45	105.70
36	1	3050	U	N1-C2-O2	5.83	126.88	122.80
36	5	63	A	C4-C5-C6	5.83	119.92	117.00
36	5	216	G	N1-C6-O6	5.83	123.40	119.90
36	5	2366	C	N3-C4-N4	5.83	122.08	118.00
36	5	3049	A	C8-N9-C4	5.83	108.13	105.80
36	1	1589	A	N1-C6-N6	5.83	122.10	118.60
36	1	1516	C	N1-C2-O2	-5.83	115.40	118.90
36	1	2855	U	C5-C6-N1	-5.83	119.79	122.70
38	4	20	U	N1-C2-O2	-5.83	118.72	122.80
36	5	1047	A	C5-C6-N6	-5.83	119.04	123.70
36	5	2422	C	N3-C4-C5	5.83	124.23	121.90
36	5	2764	C	C5-C4-N4	5.83	124.28	120.20
36	1	1307	G	C6-C5-N7	5.83	133.90	130.40
36	1	2709	C	C2-N3-C4	-5.83	116.99	119.90
36	5	2105	G	C5-C6-O6	-5.83	125.10	128.60
1	2	499	U	P-O3'-C3'	5.83	126.69	119.70
38	4	116	G	C8-N9-C4	5.83	108.73	106.40
36	5	48	A	N9-C4-C5	5.83	108.13	105.80
36	5	1496	C	C2-N1-C1'	5.83	125.21	118.80
36	5	3048	A	O5'-P-OP2	-5.83	100.46	105.70
68	O2	27	ARG	NE-CZ-NH1	-5.82	117.39	120.30
36	5	406	G	N1-C6-O6	-5.82	116.41	119.90
36	5	1387	G	N1-C2-N2	5.82	121.44	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1829	G	C4-C5-N7	-5.82	108.47	110.80
36	1	421	G	C5-C6-N1	5.82	114.41	111.50
36	1	957	C	O5'-P-OP1	5.82	117.69	110.70
36	1	2369	G	C5-C6-N1	5.82	114.41	111.50
36	5	2145	A	C4-N9-C1'	5.82	136.78	126.30
1	2	73	U	O4'-C1'-N1	5.82	112.86	108.20
36	1	155	G	N1-C6-O6	-5.82	116.41	119.90
36	1	196	G	C5-C6-O6	-5.82	125.11	128.60
36	5	1205	A	C6-N1-C2	-5.82	115.11	118.60
37	7	41	G	N1-C6-O6	5.82	123.39	119.90
36	5	1328	C	N3-C4-C5	-5.82	119.57	121.90
36	5	2389	C	C2-N3-C4	-5.82	116.99	119.90
1	2	734	A	OP1-P-O3'	5.82	118.00	105.20
38	4	138	A	N1-C6-N6	-5.82	115.11	118.60
1	6	599	A	C8-N9-C4	-5.82	103.47	105.80
38	4	25	G	C5-C6-O6	5.82	132.09	128.60
1	6	1730	A	N1-C2-N3	5.82	132.21	129.30
36	5	339	C	C5-C4-N4	5.82	124.27	120.20
36	5	514	G	C5-C6-O6	-5.82	125.11	128.60
36	5	806	A	N3-C4-C5	5.82	130.87	126.80
36	1	648	C	C5-C4-N4	-5.81	116.13	120.20
36	1	1474	A	C2-N3-C4	-5.81	107.69	110.60
1	6	421	A	N1-C6-N6	5.81	122.09	118.60
36	5	2293	C	N3-C4-C5	5.81	124.22	121.90
36	5	3223	A	C5-C6-N1	5.81	120.61	117.70
36	5	1478	C	N3-C4-C5	-5.81	119.58	121.90
36	5	1904	C	C6-N1-C2	5.81	122.62	120.30
36	1	590	G	N1-C6-O6	5.81	123.38	119.90
1	6	1164	G	C5-C6-N1	5.81	114.40	111.50
36	5	2408	U	N1-C2-N3	5.81	118.38	114.90
36	5	3028	G	N9-C4-C5	-5.81	103.08	105.40
36	1	812	G	C4-C5-N7	-5.80	108.48	110.80
36	1	1891	A	N7-C8-N9	-5.80	110.90	113.80
36	5	931	C	N3-C4-C5	5.80	124.22	121.90
36	5	630	A	C2-N3-C4	-5.80	107.70	110.60
36	1	709	A	O5'-P-OP1	-5.80	100.48	105.70
36	1	1420	C	C5-C4-N4	5.80	124.26	120.20
36	1	3266	G	N3-C4-N9	-5.80	122.52	126.00
1	6	901	G	C6-C5-N7	-5.80	126.92	130.40
36	5	56	G	N1-C6-O6	-5.80	116.42	119.90
36	1	1156	C	C2-N3-C4	-5.80	117.00	119.90
36	5	1180	A	N9-C4-C5	5.80	108.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	297	U	C5-C6-N1	5.80	125.60	122.70
36	5	1496	C	O5'-P-OP1	5.80	117.66	110.70
1	2	1131	A	C8-N9-C4	5.80	108.12	105.80
36	1	1866	C	C6-N1-C2	5.80	122.62	120.30
36	1	2169	G	C5-C6-N1	5.80	114.40	111.50
36	1	3375	A	N1-C2-N3	5.80	132.20	129.30
1	6	1087	A	C2-N3-C4	-5.80	107.70	110.60
69	o3	73	ARG	NE-CZ-NH1	5.80	123.20	120.30
36	1	2379	U	N3-C4-O4	5.79	123.46	119.40
36	1	3278	C	C2-N1-C1'	5.79	125.17	118.80
38	4	16	G	N9-C4-C5	-5.79	103.08	105.40
36	1	1796	G	N9-C4-C5	5.79	107.72	105.40
1	6	1596	C	N3-C2-O2	-5.79	117.84	121.90
36	5	2134	G	N3-C4-N9	5.79	129.48	126.00
36	5	2967	A	C2-N3-C4	-5.79	107.70	110.60
1	2	460	A	N1-C6-N6	-5.79	115.12	118.60
36	1	666	A	C5-C6-N1	5.79	120.60	117.70
1	6	805	U	C6-N1-C2	-5.79	117.53	121.00
36	5	1803	C	C6-N1-C2	5.79	122.62	120.30
36	5	366	A	N9-C4-C5	-5.79	103.48	105.80
36	5	3305	A	N1-C6-N6	5.79	122.07	118.60
38	4	38	U	N1-C2-O2	5.79	126.85	122.80
36	5	1316	C	N3-C4-C5	-5.79	119.58	121.90
36	5	1837	U	N3-C2-O2	5.79	126.25	122.20
36	5	2185	G	OP2-P-O3'	5.79	117.93	105.20
1	2	1486	G	C4-C5-N7	5.79	113.11	110.80
15	C3	114	ARG	NE-CZ-NH1	5.79	123.19	120.30
36	5	79	U	C6-N1-C2	-5.79	117.53	121.00
36	5	192	C	O5'-P-OP2	-5.79	100.49	105.70
1	2	1432	U	O4'-C1'-N1	5.79	112.83	108.20
36	1	2798	C	C6-N1-C2	-5.79	117.99	120.30
1	2	507	U	N3-C2-O2	-5.78	118.15	122.20
36	1	357	A	N1-C2-N3	5.78	132.19	129.30
36	1	382	U	N1-C2-O2	-5.78	118.75	122.80
42	L5	115	LEU	CA-CB-CG	5.78	128.60	115.30
1	6	868	G	C5-C6-N1	5.78	114.39	111.50
36	5	70	A	C8-N9-C4	-5.78	103.49	105.80
36	5	2983	C	O5'-P-OP1	-5.78	100.50	105.70
36	5	931	C	C5-C6-N1	-5.78	118.11	121.00
36	5	1194	G	N3-C4-C5	-5.78	125.71	128.60
1	2	1653	C	N3-C4-C5	-5.78	119.59	121.90
36	1	2620	G	N3-C2-N2	-5.78	115.85	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1	U	C2-N1-C1'	5.78	124.64	117.70
36	1	1346	G	C5-C6-N1	-5.78	108.61	111.50
36	1	2642	A	C6-N1-C2	5.78	122.07	118.60
36	5	96	G	N3-C4-C5	5.78	131.49	128.60
36	1	148	G	C4-C5-N7	5.78	113.11	110.80
36	1	435	C	C6-N1-C2	5.78	122.61	120.30
36	1	1489	A	C8-N9-C4	5.78	108.11	105.80
54	M8	180	ARG	NE-CZ-NH1	5.78	123.19	120.30
36	5	1906	G	C8-N9-C4	5.78	108.71	106.40
37	7	71	G	OP2-P-O3'	5.78	117.91	105.20
1	2	1200	G	C5-C6-O6	-5.78	125.13	128.60
36	1	2620	G	N1-C6-O6	5.78	123.36	119.90
36	1	3189	G	N1-C6-O6	5.78	123.36	119.90
1	6	858	G	C8-N9-C1'	-5.78	119.49	127.00
36	5	2126	A	C5-C6-N6	-5.78	119.08	123.70
36	5	2664	C	C5-C4-N4	-5.78	116.16	120.20
36	1	3079	U	C6-N1-C1'	5.77	129.28	121.20
36	1	866	A	O5'-P-OP1	-5.77	100.50	105.70
36	1	2869	U	N1-C2-O2	-5.77	118.76	122.80
1	6	1139	A	N1-C6-N6	-5.77	115.14	118.60
36	5	1394	A	C8-N9-C4	5.77	108.11	105.80
36	5	2374	C	N3-C4-C5	5.77	124.21	121.90
1	6	989	U	O5'-P-OP2	-5.77	100.51	105.70
36	1	2943	G	C6-C5-N7	-5.77	126.94	130.40
36	5	1430	U	C6-N1-C2	5.77	124.46	121.00
36	5	2113	A	C8-N9-C4	5.77	108.11	105.80
36	5	2830	G	N1-C6-O6	5.77	123.36	119.90
68	o2	44	ARG	NE-CZ-NH1	-5.77	117.42	120.30
1	6	192	U	N3-C2-O2	-5.77	118.16	122.20
36	5	912	G	C4-C5-N7	-5.77	108.49	110.80
36	1	3224	G	N3-C2-N2	-5.77	115.86	119.90
36	5	2426	U	N3-C4-O4	-5.77	115.36	119.40
1	6	1309	C	C6-N1-C2	-5.76	118.00	120.30
36	5	388	G	O5'-P-OP2	-5.76	100.51	105.70
36	1	1349	G	C8-N9-C1'	-5.76	119.51	127.00
37	7	98	C	O5'-P-OP2	-5.76	100.51	105.70
36	1	1326	A	C8-N9-C4	5.76	108.11	105.80
36	5	399	A	C5-C6-N6	-5.76	119.09	123.70
1	2	1636	C	N3-C4-N4	5.76	122.03	118.00
36	1	3242	G	C8-N9-C4	5.76	108.70	106.40
25	d3	32	ARG	NE-CZ-NH2	-5.76	117.42	120.30
36	5	641	C	C2-N3-C4	-5.76	117.02	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	L2	122	ASP	CB-CG-OD2	5.76	123.48	118.30
36	1	819	U	C5-C6-N1	-5.76	119.82	122.70
36	1	3022	G	O4'-C1'-N9	5.76	112.81	108.20
36	5	1171	G	C4-C5-N7	5.76	113.10	110.80
37	7	93	C	N3-C2-O2	-5.76	117.87	121.90
36	5	1194	G	C5-C6-N1	5.75	114.38	111.50
36	5	2178	A	C8-N9-C4	5.75	108.10	105.80
36	5	2911	A	O5'-P-OP2	-5.75	100.52	105.70
1	2	308	C	C2-N1-C1'	-5.75	112.47	118.80
36	5	3184	A	C8-N9-C4	5.75	108.10	105.80
36	5	3206	C	O4'-C1'-N1	-5.75	103.60	108.20
36	1	2101	C	P-O3'-C3'	5.75	126.60	119.70
36	5	819	U	N3-C4-O4	5.75	123.43	119.40
36	5	1293	U	N1-C2-O2	-5.75	118.77	122.80
36	1	832	G	C8-N9-C4	5.75	108.70	106.40
1	6	1124	A	C4-C5-N7	5.75	113.58	110.70
36	5	2700	G	O5'-P-OP2	-5.75	100.53	105.70
36	1	859	G	N3-C4-N9	5.75	129.45	126.00
36	1	2289	U	C6-N1-C2	-5.75	117.55	121.00
36	5	652	G	O5'-P-OP1	-5.75	100.53	105.70
36	5	776	U	C5-C4-O4	5.75	129.35	125.90
36	5	1205	A	C5-C6-N1	5.75	120.57	117.70
1	2	322	G	N9-C4-C5	5.75	107.70	105.40
1	2	453	U	C6-N1-C1'	-5.75	113.16	121.20
1	6	351	C	C2-N1-C1'	5.75	125.12	118.80
36	5	1847	A	N3-C4-C5	5.75	130.82	126.80
36	5	2921	U	N1-C2-N3	5.75	118.35	114.90
36	1	2608	G	N3-C4-C5	5.75	131.47	128.60
36	5	355	A	C2-N3-C4	-5.75	107.73	110.60
36	5	2363	A	N9-C4-C5	-5.75	103.50	105.80
1	2	720	G	OP1-P-O3'	5.74	117.84	105.20
36	1	1199	C	N1-C2-O2	5.74	122.35	118.90
36	5	349	A	N1-C6-N6	-5.74	115.15	118.60
38	8	18	U	O5'-P-OP2	-5.74	100.53	105.70
36	1	2305	G	C6-C5-N7	-5.74	126.95	130.40
36	1	2801	A	C4-N9-C1'	-5.74	115.96	126.30
36	1	3309	G	C8-N9-C4	-5.74	104.10	106.40
36	5	2323	G	C8-N9-C4	-5.74	104.10	106.40
36	5	2405	C	C6-N1-C2	-5.74	118.00	120.30
36	5	2417	U	N3-C4-O4	5.74	123.42	119.40
36	5	2707	C	C6-N1-C2	5.74	122.60	120.30
41	14	187	LEU	CA-CB-CG	5.74	128.50	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	397	A	C5-C6-N1	5.74	120.57	117.70
36	1	967	A	C2-N3-C4	-5.74	107.73	110.60
36	1	2917	G	C5-C6-O6	-5.74	125.16	128.60
1	6	1634	C	C6-N1-C1'	-5.74	113.91	120.80
36	5	3327	G	OP2-P-O3'	5.74	117.83	105.20
36	5	889	U	N1-C2-N3	-5.74	111.46	114.90
36	5	1086	C	C6-N1-C2	5.74	122.59	120.30
36	5	1834	U	N1-C2-N3	5.74	118.34	114.90
36	5	2281	A	N7-C8-N9	-5.74	110.93	113.80
1	2	1486	G	N7-C8-N9	5.73	115.97	113.10
36	5	635	G	C8-N9-C4	5.73	108.69	106.40
36	5	2385	G	N1-C6-O6	5.73	123.34	119.90
1	6	440	U	N1-C2-N3	5.73	118.34	114.90
36	5	886	C	C4-C5-C6	5.73	120.27	117.40
36	5	2180	G	N9-C4-C5	-5.73	103.11	105.40
36	5	2930	A	O4'-C1'-N9	5.73	112.79	108.20
36	5	3309	G	C8-N9-C4	-5.73	104.11	106.40
36	1	972	A	C8-N9-C4	5.73	108.09	105.80
36	1	1392	G	N7-C8-N9	-5.73	110.23	113.10
36	5	41	G	C5-N7-C8	-5.73	101.44	104.30
36	5	987	U	N1-C2-N3	5.73	118.34	114.90
36	5	2937	G	N1-C6-O6	5.73	123.34	119.90
36	1	636	C	C2-N3-C4	-5.73	117.04	119.90
36	1	788	C	C2-N1-C1'	-5.73	112.50	118.80
1	6	351	C	N3-C4-N4	5.73	122.01	118.00
1	6	542	A	C4-N9-C1'	5.73	136.61	126.30
1	6	1697	G	N3-C4-C5	-5.73	125.74	128.60
36	1	949	C	C2-N1-C1'	5.73	125.10	118.80
36	1	2426	U	C5-C4-O4	5.73	129.34	125.90
36	5	2290	C	N3-C4-C5	5.73	124.19	121.90
36	1	1795	U	C2-N1-C1'	5.73	124.57	117.70
36	1	3001	C	N3-C4-C5	5.73	124.19	121.90
36	5	337	G	C8-N9-C4	-5.73	104.11	106.40
1	6	1382	A	O4'-C1'-N9	5.72	112.78	108.20
36	5	2824	G	C5-C6-O6	-5.72	125.17	128.60
36	5	3184	A	N9-C4-C5	-5.72	103.51	105.80
36	1	734	C	C2-N1-C1'	5.72	125.09	118.80
9	s7	131	PHE	C-N-CD	5.72	140.42	128.40
36	5	1064	A	P-O3'-C3'	5.72	126.57	119.70
36	1	3001	C	C2-N3-C4	-5.72	117.04	119.90
1	6	609	U	N1-C2-N3	5.72	118.33	114.90
1	6	1023	A	N1-C6-N6	5.72	122.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1205	A	C5-C6-N6	-5.72	119.12	123.70
36	5	2169	G	C4-C5-N7	-5.72	108.51	110.80
36	5	2352	A	C6-N1-C2	-5.72	115.17	118.60
1	6	194	U	C2-N1-C1'	5.72	124.56	117.70
1	6	1537	C	O4'-C1'-N1	5.72	112.78	108.20
1	2	1782	A	C5-C6-N6	5.72	128.27	123.70
36	1	105	C	C5-C4-N4	-5.72	116.20	120.20
36	1	1490	A	C8-N9-C4	-5.72	103.51	105.80
36	1	2115	G	C6-C5-N7	-5.72	126.97	130.40
1	6	416	A	C2-N3-C4	-5.72	107.74	110.60
36	5	2976	A	N1-C6-N6	-5.72	115.17	118.60
38	8	106	C	C6-N1-C2	5.72	122.59	120.30
36	5	1463	U	N3-C2-O2	5.71	126.20	122.20
36	5	2948	C	N1-C2-O2	5.71	122.33	118.90
36	5	2349	U	C5-C4-O4	5.71	129.33	125.90
36	5	1131	G	O5'-P-OP2	-5.71	100.56	105.70
36	5	1452	A	C5-N7-C8	-5.71	101.04	103.90
36	1	1712	G	N1-C6-O6	5.71	123.33	119.90
36	1	2213	A	N9-C4-C5	5.71	108.08	105.80
36	5	1413	G	N1-C2-N3	5.71	127.33	123.90
38	4	113	U	N1-C2-N3	5.71	118.33	114.90
36	5	1308	A	C5-N7-C8	5.71	106.75	103.90
36	5	1917	C	C5-C4-N4	-5.71	116.20	120.20
36	1	3184	A	C8-N9-C4	5.71	108.08	105.80
39	L2	191	LEU	CA-CB-CG	-5.71	102.17	115.30
1	6	1641	C	C5-C4-N4	-5.71	116.20	120.20
36	5	2732	G	O5'-P-OP2	-5.71	100.56	105.70
36	5	2825	C	C6-N1-C2	5.71	122.58	120.30
36	1	2572	C	C6-N1-C1'	-5.71	113.95	120.80
36	1	2816	G	N1-C6-O6	5.71	123.32	119.90
36	1	822	G	N1-C6-O6	5.70	123.32	119.90
36	1	3133	C	N3-C4-N4	5.70	121.99	118.00
36	1	3269	U	C5-C4-O4	5.70	129.32	125.90
36	5	1331	U	C6-N1-C2	5.70	124.42	121.00
36	5	2392	C	C5-C6-N1	-5.70	118.15	121.00
37	7	81	U	N3-C2-O2	-5.70	118.21	122.20
36	1	785	G	C5-C6-N1	5.70	114.35	111.50
36	1	1437	C	C6-N1-C2	-5.70	118.02	120.30
36	5	1141	C	C4-C5-C6	-5.70	114.55	117.40
36	5	2384	A	C5-C6-N6	-5.70	119.14	123.70
36	1	188	U	C5-C6-N1	-5.70	119.85	122.70
36	1	276	U	N3-C2-O2	5.70	126.19	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	429	U	N1-C2-O2	5.70	126.79	122.80
36	1	2869	U	O5'-P-OP1	-5.70	100.57	105.70
1	6	405	C	C6-N1-C2	5.70	122.58	120.30
1	6	1111	G	C6-C5-N7	-5.70	126.98	130.40
37	7	28	C	C6-N1-C2	-5.70	118.02	120.30
1	6	536	C	C2-N1-C1'	5.70	125.07	118.80
36	5	1156	C	C5-C4-N4	-5.70	116.21	120.20
36	5	1484	U	C5-C6-N1	-5.70	119.85	122.70
36	1	2144	A	N7-C8-N9	-5.70	110.95	113.80
36	1	2983	C	O5'-P-OP1	-5.70	100.57	105.70
36	5	1588	A	C8-N9-C4	5.70	108.08	105.80
36	5	3060	C	N3-C2-O2	5.70	125.89	121.90
1	2	638	U	C2-N1-C1'	5.69	124.53	117.70
36	1	339	C	C2-N3-C4	-5.69	117.05	119.90
36	1	583	G	N3-C4-N9	-5.69	122.58	126.00
36	1	634	C	C6-N1-C2	5.69	122.58	120.30
36	1	1906	G	C6-C5-N7	-5.69	126.98	130.40
36	1	2754	G	C8-N9-C4	5.69	108.68	106.40
36	1	3207	U	O4'-C1'-N1	5.69	112.75	108.20
36	5	35	A	C2-N3-C4	-5.69	107.75	110.60
36	5	928	C	N3-C4-N4	-5.69	114.02	118.00
36	5	2937	G	C6-C5-N7	-5.69	126.98	130.40
36	1	2937	G	N7-C8-N9	-5.69	110.25	113.10
36	5	797	U	OP2-P-O3'	5.69	117.72	105.20
36	5	1119	C	N1-C2-O2	-5.69	115.48	118.90
36	5	1837	U	N1-C2-O2	-5.69	118.82	122.80
36	1	997	A	C4-C5-C6	5.69	119.84	117.00
1	6	978	A	N9-C4-C5	5.69	108.08	105.80
36	5	437	G	N1-C2-N2	5.69	121.32	116.20
36	1	2606	G	C8-N9-C1'	-5.69	119.61	127.00
1	6	638	U	N3-C2-O2	-5.69	118.22	122.20
36	5	1528	G	N3-C4-N9	5.69	129.41	126.00
37	7	78	U	N3-C2-O2	-5.69	118.22	122.20
36	1	156	G	N3-C4-N9	5.68	129.41	126.00
36	1	2776	C	C5-C4-N4	-5.68	116.22	120.20
36	5	1428	A	O5'-P-OP1	-5.68	100.58	105.70
36	5	2134	G	N1-C2-N2	-5.68	111.08	116.20
1	6	957	G	N3-C2-N2	-5.68	115.92	119.90
36	5	1902	G	C4-C5-C6	5.68	122.21	118.80
36	1	156	G	N3-C4-C5	-5.68	125.76	128.60
36	1	3050	U	N3-C2-O2	-5.68	118.22	122.20
36	5	644	G	C4-C5-C6	5.68	122.21	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	124	U	N3-C4-O4	-5.68	115.42	119.40
36	1	2621	G	C4-C5-C6	5.68	122.21	118.80
37	3	88	G	N1-C6-O6	-5.68	116.49	119.90
36	1	416	A	OP2-P-O3'	5.68	117.69	105.20
36	1	1138	U	N1-C2-O2	5.68	126.77	122.80
36	1	2409	G	C6-C5-N7	-5.68	126.99	130.40
36	1	2608	G	N1-C6-O6	5.68	123.31	119.90
36	5	800	G	C8-N9-C1'	-5.68	119.62	127.00
36	5	1665	C	N3-C4-N4	-5.68	114.03	118.00
36	5	1927	G	C5-C6-N1	-5.68	108.66	111.50
36	5	2363	A	C6-C5-N7	-5.68	128.33	132.30
36	1	1177	G	N3-C2-N2	-5.67	115.93	119.90
36	5	277	G	O5'-P-OP1	-5.67	100.59	105.70
36	5	1076	C	N3-C4-C5	-5.67	119.63	121.90
36	5	1440	G	N9-C4-C5	5.67	107.67	105.40
36	5	1794	G	C4-C5-N7	-5.67	108.53	110.80
36	5	2366	C	N3-C4-C5	-5.67	119.63	121.90
36	5	570	A	N1-C6-N6	5.67	122.00	118.60
36	5	1300	G	C6-C5-N7	-5.67	127.00	130.40
36	1	2408	U	N3-C2-O2	-5.67	118.23	122.20
1	6	31	C	C6-N1-C2	-5.67	118.03	120.30
1	6	1001	A	N1-C6-N6	5.67	122.00	118.60
36	5	875	G	C5-C6-O6	5.67	132.00	128.60
36	5	1044	U	C5-C6-N1	-5.67	119.86	122.70
36	5	1149	G	N1-C6-O6	5.67	123.30	119.90
36	5	1868	G	C5-C6-O6	-5.67	125.20	128.60
38	8	63	G	N1-C6-O6	-5.67	116.50	119.90
36	5	47	C	C6-N1-C2	5.67	122.57	120.30
36	5	2944	U	N1-C2-O2	5.67	126.77	122.80
36	1	2878	G	N9-C4-C5	-5.67	103.13	105.40
36	5	639	G	O5'-P-OP1	5.67	117.50	110.70
36	5	970	A	C5-N7-C8	-5.67	101.07	103.90
36	5	2954	U	N1-C2-O2	5.67	126.77	122.80
36	1	2787	G	C5-C6-N1	5.67	114.33	111.50
1	6	1129	U	N3-C4-O4	-5.67	115.43	119.40
17	c5	36	LEU	CA-CB-CG	5.67	128.33	115.30
36	5	949	C	C2-N3-C4	-5.67	117.07	119.90
36	5	1561	G	O4'-C1'-N9	5.67	112.73	108.20
36	1	2138	A	C2-N3-C4	-5.67	107.77	110.60
54	M8	32	LEU	CA-CB-CG	5.66	128.32	115.30
36	5	518	G	C5-C6-O6	-5.66	125.20	128.60
36	5	2772	C	OP2-P-O3'	5.66	117.66	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	q3	50	GLY	N-CA-C	-5.66	98.94	113.10
36	1	1055	A	C8-N9-C4	5.66	108.06	105.80
36	1	1343	A	C4-C5-N7	5.66	113.53	110.70
1	6	386	G	OP2-P-O3'	5.66	117.66	105.20
36	5	1328	C	C6-N1-C2	-5.66	118.03	120.30
1	2	1462	G	C5-C6-O6	-5.66	125.20	128.60
36	1	221	A	O5'-P-OP2	-5.66	100.61	105.70
36	1	573	C	N3-C4-N4	-5.66	114.04	118.00
36	1	816	A	N1-C6-N6	-5.66	115.20	118.60
38	4	50	C	C6-N1-C2	-5.66	118.04	120.30
36	5	1927	G	N3-C2-N2	-5.66	115.94	119.90
36	5	2199	G	C4-C5-N7	5.66	113.06	110.80
36	5	2199	G	C5-N7-C8	-5.66	101.47	104.30
36	1	2664	C	C6-N1-C2	-5.66	118.04	120.30
1	6	542	A	C4-C5-N7	5.66	113.53	110.70
37	7	103	A	C5-C6-N6	-5.66	119.17	123.70
36	1	2339	C	OP1-P-O3'	5.66	117.64	105.20
1	6	987	G	N1-C6-O6	5.66	123.29	119.90
12	c0	97	PRO	N-CA-CB	5.66	110.09	103.30
36	5	1897	G	C5-N7-C8	-5.66	101.47	104.30
37	7	36	C	N3-C4-C5	5.66	124.16	121.90
1	2	145	A	C8-N9-C4	-5.65	103.54	105.80
1	2	1455	G	C5-C6-N1	-5.65	108.67	111.50
36	1	969	C	C2-N3-C4	-5.65	117.07	119.90
36	1	2728	G	O5'-P-OP2	-5.65	100.61	105.70
36	1	2893	C	C6-N1-C2	5.65	122.56	120.30
36	1	3057	U	N3-C4-O4	-5.65	115.44	119.40
1	6	1643	U	C5-C6-N1	-5.65	119.87	122.70
36	5	2820	A	O5'-P-OP1	5.65	117.48	110.70
36	5	3217	C	C2-N1-C1'	-5.65	112.58	118.80
36	5	3317	U	C5-C4-O4	5.65	129.29	125.90
40	l3	10	ARG	NE-CZ-NH1	5.65	123.13	120.30
36	1	2418	G	OP2-P-O3'	5.65	117.63	105.20
36	5	694	C	C6-N1-C2	-5.65	118.04	120.30
36	5	3218	A	C5-C6-N6	-5.65	119.18	123.70
36	1	639	G	C2-N3-C4	-5.65	109.08	111.90
1	6	767	U	C5-C4-O4	5.65	129.29	125.90
36	5	3005	A	N3-C4-C5	-5.65	122.85	126.80
36	1	754	G	C5-C6-N1	-5.65	108.68	111.50
36	1	1438	U	C4-C5-C6	5.65	123.09	119.70
36	5	558	U	N3-C2-O2	-5.65	118.25	122.20
36	5	770	G	O4'-C1'-N9	5.65	112.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	42	A	N1-C6-N6	5.65	121.99	118.60
41	L4	47	ARG	NE-CZ-NH2	5.65	123.12	120.30
36	5	2735	U	C6-N1-C2	-5.65	117.61	121.00
12	c0	83	PRO	N-CA-CB	5.64	110.07	103.30
36	5	1268	G	C8-N9-C4	-5.64	104.14	106.40
36	5	1496	C	OP1-P-OP2	-5.64	111.13	119.60
36	5	2659	G	C6-C5-N7	-5.64	127.01	130.40
36	5	3218	A	C2-N3-C4	-5.64	107.78	110.60
36	5	3376	A	N1-C6-N6	5.64	121.99	118.60
43	l6	77	ARG	NE-CZ-NH1	5.64	123.12	120.30
36	1	284	A	O4'-C1'-N9	5.64	112.72	108.20
36	5	2149	A	C8-N9-C4	5.64	108.06	105.80
1	6	1484	G	O5'-P-OP1	-5.64	100.62	105.70
36	5	3154	C	C5-C6-N1	5.64	123.82	121.00
1	2	730	G	C4-N9-C1'	5.64	133.83	126.50
36	1	2276	G	C8-N9-C4	-5.64	104.14	106.40
36	1	3229	G	N9-C4-C5	-5.64	103.14	105.40
1	6	75	U	N3-C2-O2	-5.64	118.25	122.20
1	6	970	A	O5'-P-OP2	-5.64	100.62	105.70
36	5	1201	C	C2-N3-C4	5.64	122.72	119.90
36	5	1592	G	N9-C4-C5	5.64	107.66	105.40
36	1	44	U	N3-C2-O2	5.64	126.15	122.20
1	6	1124	A	N9-C4-C5	-5.64	103.55	105.80
36	1	50	U	N1-C2-N3	5.64	118.28	114.90
36	1	2434	U	N3-C4-O4	-5.64	115.45	119.40
1	2	590	C	N1-C2-O2	5.63	122.28	118.90
36	1	1124	U	N3-C2-O2	-5.63	118.26	122.20
36	1	1379	G	N1-C2-N3	5.63	127.28	123.90
1	6	558	U	N3-C2-O2	-5.63	118.25	122.20
56	n0	155	ARG	CG-CD-NE	5.63	123.63	111.80
59	n3	45	ARG	NE-CZ-NH1	-5.63	117.48	120.30
36	1	374	A	O5'-P-OP2	-5.63	100.63	105.70
36	1	1342	C	N3-C4-C5	5.63	124.15	121.90
36	1	295	A	C8-N9-C4	-5.63	103.55	105.80
36	1	1180	A	C5-N7-C8	5.63	106.72	103.90
36	1	343	U	C4-C5-C6	5.63	123.08	119.70
36	1	1440	G	C8-N9-C4	5.63	108.65	106.40
1	2	619	A	OP2-P-O3'	5.63	117.58	105.20
36	5	1128	U	C5-C6-N1	-5.63	119.89	122.70
36	5	2606	G	O5'-P-OP1	-5.63	100.64	105.70
36	5	2702	A	C4-C5-C6	5.63	119.81	117.00
39	l2	216	HIS	N-CA-C	-5.63	95.81	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	901	G	O5'-P-OP1	-5.62	100.64	105.70
1	2	1426	C	N3-C2-O2	5.62	125.84	121.90
36	1	830	A	N9-C4-C5	-5.62	103.55	105.80
36	1	1432	C	C6-N1-C2	-5.62	118.05	120.30
36	1	1433	A	O4'-C1'-N9	-5.62	103.70	108.20
36	1	1447	G	N9-C4-C5	5.62	107.65	105.40
36	1	2899	C	O4'-C1'-N1	5.62	112.70	108.20
36	1	3214	U	C6-N1-C2	-5.62	117.63	121.00
36	5	796	U	N1-C2-N3	5.62	118.27	114.90
36	1	1376	C	N3-C4-N4	5.62	121.94	118.00
36	5	938	C	C5-C4-N4	-5.62	116.27	120.20
36	5	1321	G	C2-N3-C4	-5.62	109.09	111.90
36	5	2848	G	C4-C5-C6	5.62	122.17	118.80
36	1	1111	U	C6-N1-C2	5.62	124.37	121.00
36	1	2827	U	C2-N1-C1'	-5.62	110.96	117.70
36	5	2426	U	C6-N1-C2	-5.62	117.63	121.00
36	5	3091	A	C6-N1-C2	-5.62	115.23	118.60
36	5	3105	U	N1-C2-N3	5.62	118.27	114.90
1	6	163	G	C5-N7-C8	-5.62	101.49	104.30
36	1	2715	A	O5'-P-OP1	-5.62	100.65	105.70
36	1	2756	C	C4-C5-C6	5.62	120.21	117.40
36	5	128	G	N1-C6-O6	5.62	123.27	119.90
36	5	980	A	N1-C6-N6	-5.62	115.23	118.60
36	1	1159	A	O4'-C1'-N9	5.61	112.69	108.20
36	1	2952	G	C6-C5-N7	-5.61	127.03	130.40
36	1	3204	C	N3-C2-O2	-5.61	117.97	121.90
38	4	38	U	C2-N1-C1'	5.61	124.44	117.70
36	5	1206	G	N3-C4-C5	-5.61	125.79	128.60
36	5	1448	U	C6-N1-C2	5.61	124.37	121.00
1	6	815	G	C4-N9-C1'	5.61	133.80	126.50
36	5	2381	G	C8-N9-C4	-5.61	104.16	106.40
1	2	406	U	O5'-P-OP2	-5.61	100.65	105.70
1	2	1572	G	C4-C5-N7	5.61	113.04	110.80
36	1	2171	G	C2-N3-C4	5.61	114.70	111.90
36	1	2624	G	C4-C5-N7	5.61	113.04	110.80
36	5	998	A	OP2-P-O3'	5.61	117.54	105.20
36	1	2868	U	C6-N1-C1'	-5.61	113.35	121.20
1	6	359	A	C8-N9-C4	5.61	108.04	105.80
1	6	815	G	N7-C8-N9	5.61	115.90	113.10
36	5	1115	G	C8-N9-C1'	-5.61	119.71	127.00
36	1	233	C	C5-C6-N1	-5.61	118.20	121.00
36	1	659	G	C5-C6-N1	5.61	114.30	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1493	G	C5-C6-N1	5.61	114.30	111.50
36	1	2777	G	C5-C6-O6	5.61	131.97	128.60
1	6	815	G	C4-C5-N7	5.61	113.04	110.80
36	5	1331	U	N3-C4-C5	5.61	117.96	114.60
36	5	3382	U	N3-C2-O2	-5.61	118.27	122.20
37	7	98	C	C6-N1-C2	5.61	122.54	120.30
36	1	1000	C	C2-N1-C1'	5.61	124.97	118.80
36	1	2704	A	N1-C2-N3	5.61	132.10	129.30
1	6	1787	C	N3-C4-N4	5.61	121.92	118.00
36	5	1080	A	C8-N9-C4	5.61	108.04	105.80
36	5	1909	A	N7-C8-N9	-5.61	111.00	113.80
36	5	2814	G	C6-C5-N7	-5.61	127.04	130.40
38	8	125	U	C2-N1-C1'	5.61	124.43	117.70
51	m5	164	LEU	CA-CB-CG	-5.61	102.41	115.30
1	6	371	G	C4-C5-C6	5.60	122.16	118.80
36	1	906	A	C5-C6-N1	5.60	120.50	117.70
36	1	1320	C	N3-C4-C5	-5.60	119.66	121.90
36	5	278	U	N3-C4-O4	5.60	123.32	119.40
36	5	1931	U	C5-C6-N1	-5.60	119.90	122.70
36	5	2765	C	C5-C4-N4	-5.60	116.28	120.20
38	8	4	C	N3-C4-C5	5.60	124.14	121.90
38	8	96	A	N9-C4-C5	-5.60	103.56	105.80
36	1	595	G	C2-N3-C4	-5.60	109.10	111.90
36	1	894	G	OP1-P-O3'	5.60	117.52	105.20
36	1	3178	A	C6-C5-N7	-5.60	128.38	132.30
1	6	306	U	C2-N3-C4	-5.60	123.64	127.00
1	6	426	G	N3-C4-C5	-5.60	125.80	128.60
36	5	63	A	N9-C4-C5	-5.60	103.56	105.80
36	5	1449	A	N1-C2-N3	5.60	132.10	129.30
38	8	23	U	N1-C2-O2	-5.60	118.88	122.80
36	1	1115	G	N9-C4-C5	5.60	107.64	105.40
36	1	1180	A	C4-C5-N7	-5.60	107.90	110.70
36	1	1297	C	C4-C5-C6	5.60	120.20	117.40
36	1	2823	G	N9-C4-C5	5.60	107.64	105.40
1	6	321	C	N3-C2-O2	-5.60	117.98	121.90
1	6	1269	U	N3-C2-O2	-5.60	118.28	122.20
36	5	420	G	N9-C4-C5	5.60	107.64	105.40
36	5	739	G	N1-C6-O6	-5.60	116.54	119.90
36	1	1151	U	N1-C2-O2	-5.60	118.88	122.80
36	1	1312	C	N1-C2-O2	-5.60	115.54	118.90
36	5	2334	U	N3-C4-C5	5.60	117.96	114.60
36	5	3199	G	N1-C6-O6	-5.60	116.54	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2637	A	C8-N9-C4	-5.59	103.56	105.80
36	1	2802	A	OP2-P-O3'	5.59	117.51	105.20
1	6	1697	G	C2-N3-C4	5.59	114.70	111.90
36	5	437	G	N9-C4-C5	5.59	107.64	105.40
36	5	1403	C	N3-C4-C5	5.59	124.14	121.90
36	5	1834	U	C4-C5-C6	5.59	123.06	119.70
36	1	193	C	C6-N1-C2	-5.59	118.06	120.30
36	1	403	C	N3-C4-N4	-5.59	114.08	118.00
36	1	701	G	C5-C6-O6	-5.59	125.25	128.60
36	1	2885	C	C5-C6-N1	-5.59	118.20	121.00
36	1	3115	C	N3-C2-O2	5.59	125.81	121.90
36	5	2297	U	C2-N1-C1'	-5.59	110.99	117.70
36	5	2905	U	C2-N3-C4	-5.59	123.64	127.00
1	2	1636	C	C6-N1-C2	-5.59	118.06	120.30
36	1	317	A	C2-N3-C4	-5.59	107.81	110.60
36	5	530	G	N1-C6-O6	-5.59	116.55	119.90
1	2	553	G	C5-C6-N1	-5.59	108.71	111.50
36	1	663	C	C5-C4-N4	-5.59	116.29	120.20
36	5	339	C	C6-N1-C1'	5.59	127.51	120.80
36	5	2613	U	OP1-P-O3'	5.59	117.49	105.20
1	2	1432	U	C6-N1-C2	5.59	124.35	121.00
36	1	661	G	C4-N9-C1'	5.59	133.76	126.50
36	1	1440	G	N3-C4-C5	5.59	131.39	128.60
36	5	1107	C	N1-C2-O2	-5.59	115.55	118.90
36	5	1223	A	C8-N9-C4	5.59	108.03	105.80
36	5	1452	A	C8-N9-C4	5.59	108.03	105.80
36	5	1866	C	C6-N1-C1'	-5.59	114.10	120.80
36	1	1331	U	OP2-P-O3'	5.58	117.49	105.20
36	1	2969	A	N1-C6-N6	5.58	121.95	118.60
36	1	3092	C	O5'-P-OP1	-5.58	100.67	105.70
38	4	58	G	C4-C5-N7	5.58	113.03	110.80
1	6	1764	C	C6-N1-C2	5.58	122.53	120.30
36	5	365	A	N9-C4-C5	-5.58	103.57	105.80
36	5	2617	U	N3-C4-C5	-5.58	111.25	114.60
36	5	3374	U	N3-C4-O4	-5.58	115.49	119.40
36	1	651	G	C8-N9-C1'	-5.58	119.74	127.00
36	1	779	G	O5'-P-OP2	-5.58	100.67	105.70
1	6	1133	A	N1-C6-N6	5.58	121.95	118.60
36	5	1150	A	O5'-P-OP2	-5.58	100.67	105.70
36	5	2607	G	N7-C8-N9	5.58	115.89	113.10
36	5	2931	C	N3-C4-C5	5.58	124.13	121.90
36	1	2249	G	N3-C4-N9	5.58	129.35	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2971	A	N3-C4-C5	-5.58	122.89	126.80
37	7	87	G	C5-C6-N1	-5.58	108.71	111.50
36	1	2642	A	C5-C6-N1	-5.58	114.91	117.70
36	1	3005	A	N9-C4-C5	5.58	108.03	105.80
1	2	1328	G	C8-N9-C4	5.58	108.63	106.40
36	1	404	G	C5-C6-N1	-5.58	108.71	111.50
36	1	421	G	C5-C6-O6	-5.58	125.25	128.60
36	1	1115	G	C6-N1-C2	-5.58	121.75	125.10
36	1	2144	A	C5-N7-C8	5.58	106.69	103.90
36	1	3005	A	N1-C6-N6	-5.58	115.25	118.60
1	6	107	C	O5'-P-OP2	-5.58	100.68	105.70
36	5	2832	C	C5-C6-N1	-5.58	118.21	121.00
36	1	3375	A	C8-N9-C4	-5.58	103.57	105.80
1	6	1600	A	N9-C1'-C2'	5.58	121.25	114.00
36	1	1343	A	O5'-P-OP2	-5.58	100.68	105.70
36	1	1371	G	N7-C8-N9	-5.58	110.31	113.10
36	1	2144	A	C6-N1-C2	-5.58	115.25	118.60
36	5	48	A	N1-C6-N6	-5.58	115.25	118.60
36	5	680	G	O5'-P-OP2	-5.58	100.68	105.70
36	5	1348	U	O4'-C1'-N1	5.58	112.66	108.20
36	1	321	C	N3-C2-O2	-5.57	118.00	121.90
1	6	1346	A	O4'-C1'-N9	5.57	112.66	108.20
36	5	1534	A	N3-C4-N9	5.57	131.86	127.40
36	5	2820	A	N7-C8-N9	5.57	116.59	113.80
36	5	2981	U	N1-C2-O2	5.57	126.70	122.80
1	2	1458	G	C8-N9-C1'	-5.57	119.76	127.00
1	2	75	U	C2-N1-C1'	5.57	124.38	117.70
36	1	288	C	N3-C2-O2	5.57	125.80	121.90
36	1	1442	U	N3-C2-O2	5.57	126.10	122.20
36	5	1001	G	N1-C6-O6	-5.57	116.56	119.90
36	5	2384	A	N1-C6-N6	5.57	121.94	118.60
36	1	1929	G	C4-C5-N7	5.57	113.03	110.80
36	1	2403	G	N9-C4-C5	-5.57	103.17	105.40
38	8	4	C	N3-C2-O2	-5.57	118.00	121.90
1	2	1101	G	C5-C6-O6	-5.57	125.26	128.60
36	1	935	U	C2-N3-C4	-5.57	123.66	127.00
36	1	1452	A	N1-C6-N6	5.57	121.94	118.60
36	1	2610	G	C4-C5-N7	5.57	113.03	110.80
36	1	3079	U	N1-C2-O2	-5.57	118.90	122.80
36	5	343	U	N3-C2-O2	-5.57	118.30	122.20
36	5	2915	U	C2-N3-C4	-5.57	123.66	127.00
1	2	647	G	N9-C4-C5	5.57	107.63	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	658	G	N3-C4-C5	-5.57	125.82	128.60
36	1	1712	G	C5-C6-O6	-5.57	125.26	128.60
36	1	2203	U	N1-C2-N3	5.57	118.24	114.90
36	1	2808	A	C4-C5-C6	5.57	119.78	117.00
1	6	39	A	O4'-C1'-N9	5.57	112.65	108.20
36	5	41	G	OP2-P-O3'	5.57	117.44	105.20
1	2	402	C	N3-C2-O2	5.56	125.79	121.90
36	1	2197	C	C5-C4-N4	-5.56	116.31	120.20
36	1	2953	U	N3-C4-O4	5.56	123.29	119.40
1	6	1672	G	C4-N9-C1'	5.56	133.73	126.50
36	5	1191	U	C5-C6-N1	-5.56	119.92	122.70
36	5	1917	C	OP2-P-O3'	5.56	117.44	105.20
1	2	554	C	N1-C2-O2	5.56	122.24	118.90
36	1	3212	C	C6-N1-C2	5.56	122.53	120.30
1	2	720	G	P-O3'-C3'	5.56	126.37	119.70
1	2	1490	C	C6-N1-C2	-5.56	118.08	120.30
36	1	2381	G	N1-C6-O6	-5.56	116.56	119.90
36	1	3273	A	C2-N3-C4	-5.56	107.82	110.60
36	5	1525	G	O5'-P-OP2	-5.56	100.70	105.70
36	5	3093	C	C6-N1-C2	5.56	122.52	120.30
36	5	3209	A	C8-N9-C4	-5.56	103.58	105.80
38	8	95	G	C4-N9-C1'	-5.56	119.27	126.50
1	2	313	U	N1-C2-N3	5.56	118.23	114.90
36	5	340	C	C2-N3-C4	-5.56	117.12	119.90
36	1	340	C	C2-N3-C4	-5.56	117.12	119.90
36	5	2357	A	N9-C4-C5	-5.56	103.58	105.80
36	5	2417	U	O5'-P-OP2	5.56	117.37	110.70
36	5	3123	A	C8-N9-C4	5.56	108.02	105.80
36	1	155	G	C5-C6-N1	5.55	114.28	111.50
36	1	930	U	C2-N3-C4	-5.55	123.67	127.00
36	1	1336	U	OP2-P-O3'	5.55	117.42	105.20
36	1	2198	A	N7-C8-N9	-5.55	111.02	113.80
36	1	2616	C	C5-C4-N4	-5.55	116.31	120.20
36	1	2797	C	O5'-P-OP1	-5.55	100.70	105.70
36	1	3177	G	C5-C6-O6	-5.55	125.27	128.60
1	6	1749	A	N9-C4-C5	-5.55	103.58	105.80
36	5	1119	C	C2-N3-C4	-5.55	117.12	119.90
36	5	1409	G	N1-C6-O6	-5.55	116.57	119.90
36	5	2150	G	C4-C5-C6	5.55	122.13	118.80
36	5	2376	G	O5'-P-OP2	-5.55	100.70	105.70
36	1	337	G	OP2-P-O3'	5.55	117.41	105.20
36	1	908	G	N1-C6-O6	5.55	123.23	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1058	U	P-O3'-C3'	5.55	126.36	119.70
36	5	919	U	O5'-P-OP1	5.55	117.36	110.70
37	7	33	U	O5'-P-OP1	-5.55	100.70	105.70
38	8	65	A	C8-N9-C4	5.55	108.02	105.80
36	1	672	A	C5-C6-N1	-5.55	114.92	117.70
36	5	803	C	N3-C4-N4	5.55	121.89	118.00
1	2	1596	C	C2-N1-C1'	5.55	124.90	118.80
36	1	2400	G	N3-C4-N9	5.55	129.33	126.00
1	6	317	C	C2-N3-C4	-5.55	117.13	119.90
36	5	1117	G	N1-C6-O6	-5.55	116.57	119.90
1	6	1473	U	N3-C2-O2	-5.54	118.32	122.20
36	5	1372	C	C5-C6-N1	-5.54	118.23	121.00
36	1	1911	A	C6-C5-N7	-5.54	128.42	132.30
36	1	2877	G	N9-C4-C5	5.54	107.62	105.40
1	6	630	A	C2-N3-C4	-5.54	107.83	110.60
36	5	2110	G	N9-C4-C5	-5.54	103.18	105.40
36	5	2911	A	C6-C5-N7	-5.54	128.42	132.30
36	1	1365	G	C4-N9-C1'	5.54	133.71	126.50
36	1	3111	U	C6-N1-C2	5.54	124.33	121.00
38	4	94	C	N3-C4-C5	5.54	124.12	121.90
36	5	2968	G	N1-C6-O6	-5.54	116.58	119.90
36	1	1890	U	N3-C2-O2	5.54	126.08	122.20
36	5	103	G	C5-C6-O6	5.54	131.92	128.60
36	5	1297	C	N1-C2-O2	-5.54	115.58	118.90
36	5	690	A	C8-N9-C4	5.54	108.02	105.80
36	5	912	G	C5-N7-C8	5.54	107.07	104.30
36	5	1448	U	C5-C6-N1	-5.54	119.93	122.70
36	5	1528	G	N9-C4-C5	-5.54	103.19	105.40
36	1	715	A	N7-C8-N9	5.54	116.57	113.80
36	1	2122	G	C8-N9-C4	-5.54	104.19	106.40
36	1	3004	C	C5-C6-N1	-5.54	118.23	121.00
1	6	359	A	C4-N9-C1'	-5.54	116.33	126.30
36	5	2931	C	C6-N1-C2	5.54	122.52	120.30
38	8	127	U	N1-C2-O2	5.54	126.67	122.80
1	2	1503	A	N1-C6-N6	5.53	121.92	118.60
1	2	1749	A	N1-C6-N6	5.53	121.92	118.60
36	1	155	G	N3-C4-C5	-5.53	125.83	128.60
1	6	358	U	O5'-P-OP1	-5.53	100.72	105.70
1	6	1765	A	C8-N9-C4	5.53	108.01	105.80
36	5	1129	A	O5'-P-OP1	5.53	117.34	110.70
36	5	2524	A	N9-C1'-C2'	5.53	121.19	114.00
36	5	3004	C	N3-C2-O2	5.53	125.77	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1082	U	C6-N1-C2	-5.53	117.68	121.00
1	2	571	G	N9-C4-C5	5.53	107.61	105.40
36	1	2984	C	N3-C4-N4	-5.53	114.13	118.00
36	1	3058	U	C2-N1-C1'	5.53	124.34	117.70
38	4	18	U	C5-C4-O4	-5.53	122.58	125.90
1	6	1673	G	O5'-P-OP2	-5.53	100.72	105.70
36	5	221	A	C8-N9-C4	5.53	108.01	105.80
36	5	282	G	C5-C6-O6	5.53	131.92	128.60
36	5	2815	G	C5-N7-C8	5.53	107.07	104.30
38	8	32	C	C2-N1-C1'	-5.53	112.72	118.80
36	1	776	U	N3-C2-O2	-5.53	118.33	122.20
36	1	2643	A	N9-C4-C5	-5.53	103.59	105.80
38	4	140	G	N9-C4-C5	5.53	107.61	105.40
36	5	929	A	N7-C8-N9	-5.53	111.04	113.80
36	1	817	A	C4-C5-C6	5.53	119.76	117.00
36	1	1180	A	N7-C8-N9	-5.53	111.04	113.80
36	1	1483	G	O4'-C1'-N9	5.53	112.62	108.20
36	1	2352	A	O5'-P-OP2	-5.53	100.73	105.70
1	6	1793	G	C4-C5-N7	-5.53	108.59	110.80
36	5	1446	A	N7-C8-N9	-5.53	111.04	113.80
36	5	1604	G	C4-N9-C1'	5.53	133.69	126.50
36	5	2116	G	C8-N9-C1'	-5.53	119.81	127.00
36	5	3048	A	N1-C6-N6	5.53	121.92	118.60
36	5	3200	G	C5-C6-O6	-5.53	125.28	128.60
36	5	3368	U	C2-N1-C1'	-5.53	111.07	117.70
36	1	188	U	N1-C2-N3	5.53	118.22	114.90
36	1	213	A	C5-N7-C8	-5.53	101.14	103.90
36	1	1655	G	N3-C4-N9	5.53	129.32	126.00
36	1	1845	G	C8-N9-C4	-5.53	104.19	106.40
36	1	2200	U	N3-C4-O4	5.53	123.27	119.40
36	5	2813	A	C2-N3-C4	5.53	113.36	110.60
36	5	2889	C	N3-C2-O2	-5.53	118.03	121.90
36	5	3087	A	C8-N9-C4	-5.53	103.59	105.80
1	6	163	G	N1-C2-N2	5.52	121.17	116.20
36	5	1395	G	C5-C6-O6	-5.52	125.29	128.60
36	5	1520	G	N1-C6-O6	5.52	123.21	119.90
36	5	2324	A	N1-C6-N6	5.52	121.91	118.60
36	5	2708	C	C5-C4-N4	-5.52	116.33	120.20
36	1	432	G	C5-C6-N1	-5.52	108.74	111.50
36	1	874	U	O5'-P-OP1	-5.52	100.73	105.70
1	6	1150	G	C8-N9-C4	5.52	108.61	106.40
36	5	217	U	N3-C4-O4	-5.52	115.53	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	630	A	C8-N9-C4	5.52	108.01	105.80
36	5	1813	A	C8-N9-C4	-5.52	103.59	105.80
1	2	1363	U	C2-N1-C1'	5.52	124.32	117.70
1	6	1514	U	N3-C4-O4	-5.52	115.54	119.40
36	5	1662	G	C2-N3-C4	-5.52	109.14	111.90
36	5	3054	U	N3-C4-C5	-5.52	111.29	114.60
54	m8	66	ARG	NE-CZ-NH2	-5.52	117.54	120.30
36	1	2397	A	C6-C5-N7	-5.52	128.44	132.30
36	1	3362	A	C2-N3-C4	-5.52	107.84	110.60
36	5	102	C	C2-N1-C1'	5.52	124.87	118.80
36	5	420	G	C6-N1-C2	-5.52	121.79	125.10
38	8	95	G	C8-N9-C1'	5.52	134.17	127.00
1	2	610	G	C4-N9-C1'	5.52	133.67	126.50
36	5	1628	C	C6-N1-C2	-5.52	118.09	120.30
36	5	3319	U	C2-N1-C1'	5.52	124.32	117.70
1	2	73	U	OP1-P-O3'	5.51	117.33	105.20
36	1	830	A	C4-C5-N7	5.51	113.46	110.70
36	1	1054	A	O5'-P-OP2	-5.51	100.74	105.70
36	1	1379	G	N3-C4-N9	-5.51	122.69	126.00
36	1	2378	C	N1-C2-O2	-5.51	115.59	118.90
1	6	305	C	N1-C2-O2	-5.51	115.59	118.90
36	5	2897	A	C6-N1-C2	-5.51	115.29	118.60
36	1	1578	C	N1-C2-O2	5.51	122.21	118.90
36	1	2996	U	N1-C2-N3	-5.51	111.59	114.90
36	1	2996	U	C5-C4-O4	-5.51	122.59	125.90
36	1	3000	A	C8-N9-C4	5.51	108.00	105.80
36	5	649	A	C5-C6-N6	-5.51	119.29	123.70
36	5	2273	G	C4-C5-N7	-5.51	108.59	110.80
38	8	92	A	O5'-P-OP1	-5.51	100.74	105.70
36	1	233	C	C6-N1-C2	5.51	122.50	120.30
36	1	1741	A	N1-C2-N3	5.51	132.06	129.30
1	6	1025	A	C2-N3-C4	-5.51	107.84	110.60
36	5	43	A	C5-C6-N6	-5.51	119.29	123.70
36	5	278	U	N1-C2-O2	-5.51	118.94	122.80
36	5	2980	U	N3-C2-O2	-5.51	118.34	122.20
36	5	3181	C	O5'-P-OP2	-5.51	100.74	105.70
36	5	3204	C	N1-C2-O2	-5.51	115.59	118.90
1	6	767	U	N3-C2-O2	-5.51	118.34	122.20
1	2	1536	G	N3-C4-N9	5.51	129.30	126.00
36	1	57	A	OP2-P-O3'	5.51	117.31	105.20
36	1	404	G	C8-N9-C4	-5.51	104.20	106.40
1	6	438	A	N1-C6-N6	5.51	121.90	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1120	U	C5-C4-O4	5.51	129.20	125.90
36	5	326	U	N3-C2-O2	5.51	126.05	122.20
36	5	1770	G	C8-N9-C1'	-5.51	119.84	127.00
36	5	3217	C	C5-C6-N1	-5.51	118.25	121.00
52	M6	33	ILE	CG1-CB-CG2	-5.50	99.29	111.40
36	5	1799	A	C4-C5-N7	5.50	113.45	110.70
1	2	608	U	N3-C2-O2	-5.50	118.35	122.20
36	1	358	G	N3-C4-N9	5.50	129.30	126.00
36	1	635	G	C5-C6-O6	-5.50	125.30	128.60
38	4	10	A	C5-C6-N1	5.50	120.45	117.70
36	5	607	A	C5-C6-N6	5.50	128.10	123.70
36	5	2753	G	N3-C2-N2	-5.50	116.05	119.90
36	1	1061	A	C4-C5-C6	5.50	119.75	117.00
36	1	2371	G	OP2-P-O3'	5.50	117.30	105.20
36	1	200	C	N3-C4-C5	5.50	124.10	121.90
36	1	957	C	N1-C2-O2	-5.50	115.60	118.90
36	5	2126	A	N9-C4-C5	-5.50	103.60	105.80
36	5	2630	C	C2-N3-C4	-5.50	117.15	119.90
36	1	198	A	C8-N9-C4	-5.50	103.60	105.80
36	1	2636	A	C5-N7-C8	-5.50	101.15	103.90
38	4	116	G	C8-N9-C1'	-5.50	119.85	127.00
36	5	281	G	N3-C2-N2	-5.50	116.05	119.90
36	5	2658	G	N1-C2-N3	5.50	127.20	123.90
36	1	1377	G	C5-N7-C8	-5.50	101.55	104.30
36	1	2629	U	O5'-P-OP2	-5.50	100.75	105.70
1	6	536	C	C6-N1-C2	-5.50	118.10	120.30
1	2	1634	C	C6-N1-C2	5.49	122.50	120.30
36	1	2679	A	N1-C6-N6	5.49	121.90	118.60
36	5	831	G	C2-N3-C4	5.49	114.65	111.90
1	2	1748	G	O5'-P-OP2	-5.49	100.76	105.70
36	1	432	G	C6-C5-N7	-5.49	127.11	130.40
36	1	2689	A	N1-C6-N6	-5.49	115.31	118.60
36	1	297	G	O4'-C1'-N9	5.49	112.59	108.20
36	1	3310	A	N9-C4-C5	-5.49	103.60	105.80
43	16	173	MET	CB-CG-SD	-5.49	95.93	112.40
36	1	2899	C	C4-C5-C6	5.49	120.14	117.40
36	5	971	G	C5-N7-C8	5.49	107.05	104.30
36	5	2385	G	O5'-P-OP2	5.49	117.29	110.70
1	2	1761	U	C5-C4-O4	5.49	129.19	125.90
38	4	25	G	C2-N3-C4	-5.49	109.16	111.90
36	5	1865	A	N1-C6-N6	5.49	121.89	118.60
1	2	15	U	C5-C4-O4	5.49	129.19	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	640	U	N1-C2-N3	5.49	118.19	114.90
36	5	51	A	C5-C6-N1	-5.49	114.96	117.70
36	5	399	A	N9-C4-C5	-5.49	103.61	105.80
36	5	2116	G	C5-C6-O6	-5.49	125.31	128.60
36	5	2297	U	C6-N1-C1'	5.49	128.88	121.20
1	6	965	U	C2-N1-C1'	5.48	124.28	117.70
36	5	3049	A	C6-N1-C2	5.48	121.89	118.60
36	1	59	G	C5-C6-O6	-5.48	125.31	128.60
36	1	277	G	C2-N3-C4	5.48	114.64	111.90
36	1	913	A	C8-N9-C4	-5.48	103.61	105.80
36	1	2198	A	C6-N1-C2	-5.48	115.31	118.60
36	5	2180	G	C2-N3-C4	-5.48	109.16	111.90
36	5	2242	A	C8-N9-C4	-5.48	103.61	105.80
36	5	2607	G	C8-N9-C4	-5.48	104.21	106.40
36	5	2943	G	N1-C6-O6	5.48	123.19	119.90
36	5	3092	C	N3-C4-C5	5.48	124.09	121.90
36	5	3185	U	O5'-P-OP2	-5.48	100.77	105.70
36	1	633	C	C5-C6-N1	-5.48	118.26	121.00
36	1	1148	G	N9-C4-C5	-5.48	103.21	105.40
36	1	1535	A	N1-C6-N6	5.48	121.89	118.60
38	4	50	C	C2-N1-C1'	5.48	124.83	118.80
1	6	1458	G	C4-N9-C1'	5.48	133.62	126.50
36	5	813	G	OP2-P-O3'	5.48	117.26	105.20
36	5	1578	C	N1-C2-O2	5.48	122.19	118.90
36	5	2349	U	N3-C4-O4	-5.48	115.56	119.40
36	5	2981	U	C6-N1-C1'	-5.48	113.53	121.20
36	1	1298	C	O5'-P-OP1	-5.48	100.77	105.70
36	5	971	G	C4-C5-N7	-5.48	108.61	110.80
1	2	864	U	C5-C4-O4	5.48	129.19	125.90
36	1	96	G	C2-N3-C4	-5.48	109.16	111.90
36	1	1000	C	C5-C4-N4	-5.48	116.36	120.20
36	1	2651	G	OP2-P-O3'	5.48	117.25	105.20
36	1	2809	C	N1-C2-O2	5.48	122.19	118.90
36	5	348	A	C8-N9-C4	5.48	107.99	105.80
36	1	1467	A	C6-N1-C2	-5.48	115.31	118.60
36	1	2404	A	C5-C6-N1	5.48	120.44	117.70
36	5	3093	C	C2-N1-C1'	-5.48	112.78	118.80
36	1	2284	C	C2-N1-C1'	5.47	124.82	118.80
36	5	918	C	N1-C2-O2	-5.47	115.62	118.90
36	5	960	U	N3-C4-O4	-5.47	115.57	119.40
36	5	1057	A	C4-C5-N7	5.47	113.44	110.70
36	5	3018	C	O5'-P-OP1	5.47	117.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	496	C	O5'-P-OP2	5.47	117.27	110.70
36	1	681	U	N1-C2-N3	5.47	118.18	114.90
36	1	2122	G	O5'-P-OP2	-5.47	100.77	105.70
38	4	58	G	N9-C4-C5	-5.47	103.21	105.40
36	5	341	G	C5-C6-O6	-5.47	125.32	128.60
36	5	2414	G	C5-C6-N1	-5.47	108.76	111.50
36	5	2647	A	C6-N1-C2	-5.47	115.32	118.60
36	1	230	U	C5-C6-N1	-5.47	119.97	122.70
36	1	2427	U	C5-C6-N1	-5.47	119.96	122.70
36	1	2775	U	C5-C6-N1	-5.47	119.97	122.70
1	6	57	G	O5'-P-OP2	-5.47	100.78	105.70
21	C9	57	ARG	NE-CZ-NH1	5.47	123.03	120.30
36	1	1200	A	O4'-C1'-N9	5.47	112.58	108.20
36	1	2320	A	C2-N3-C4	-5.47	107.86	110.60
36	1	2617	U	C2-N3-C4	-5.47	123.72	127.00
16	c4	35	GLY	N-CA-C	5.47	126.77	113.10
36	1	865	U	N3-C4-O4	-5.47	115.57	119.40
1	2	390	G	N3-C2-N2	-5.47	116.07	119.90
36	1	1110	U	N3-C4-C5	5.47	117.88	114.60
36	1	1377	G	C5-C6-O6	-5.47	125.32	128.60
36	5	1465	A	C8-N9-C4	-5.47	103.61	105.80
43	l6	30	LEU	CA-CB-CG	5.47	127.87	115.30
36	1	47	C	N3-C4-N4	5.46	121.83	118.00
36	1	2282	U	C2-N3-C4	-5.46	123.72	127.00
1	6	1747	G	C8-N9-C4	5.46	108.59	106.40
36	5	658	G	C5-C6-O6	-5.46	125.32	128.60
36	5	3000	A	C5-C6-N6	-5.46	119.33	123.70
36	1	658	G	C4-C5-C6	5.46	122.08	118.80
1	6	173	A	N1-C6-N6	5.46	121.88	118.60
36	5	1446	A	C5-N7-C8	5.46	106.63	103.90
36	5	1515	A	C8-N9-C4	-5.46	103.61	105.80
1	2	1565	C	C6-N1-C2	-5.46	118.11	120.30
36	1	34	A	C5-N7-C8	-5.46	101.17	103.90
36	1	89	A	N1-C2-N3	5.46	132.03	129.30
36	1	1351	U	C2-N1-C1'	5.46	124.25	117.70
1	6	400	A	N1-C6-N6	5.46	121.88	118.60
36	5	1303	A	O5'-P-OP1	-5.46	100.78	105.70
36	5	2306	C	O5'-P-OP2	-5.46	100.79	105.70
36	5	2881	C	N3-C2-O2	5.46	125.72	121.90
36	1	579	G	OP2-P-O3'	5.46	117.21	105.20
1	6	387	A	C2-N3-C4	5.46	113.33	110.60
36	5	795	G	N7-C8-N9	-5.46	110.37	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1201	C	C5-C6-N1	5.46	123.73	121.00
36	5	1507	G	O4'-C1'-N9	-5.46	103.83	108.20
36	1	1101	G	O5'-P-OP2	-5.46	100.79	105.70
36	5	1365	G	N1-C6-O6	5.46	123.17	119.90
36	5	2953	U	C5-C4-O4	-5.46	122.62	125.90
37	7	76	A	C8-N9-C4	5.46	107.98	105.80
1	2	308	C	C5-C6-N1	-5.46	118.27	121.00
36	1	970	A	C5-N7-C8	-5.46	101.17	103.90
38	4	102	U	N1-C2-O2	-5.46	118.98	122.80
36	5	645	A	N9-C4-C5	5.46	107.98	105.80
1	2	610	G	C8-N9-C1'	-5.46	119.91	127.00
36	1	1189	C	N1-C2-O2	-5.46	115.63	118.90
36	1	2968	G	N7-C8-N9	5.46	115.83	113.10
36	5	277	G	C5-C6-O6	5.46	131.87	128.60
36	5	2646	C	C6-N1-C2	5.46	122.48	120.30
38	8	32	C	N1-C2-O2	-5.46	115.63	118.90
36	1	2541	U	P-O3'-C3'	5.45	126.24	119.70
36	5	661	G	C6-C5-N7	-5.45	127.13	130.40
36	5	1338	C	N1-C2-O2	-5.45	115.63	118.90
36	5	1585	C	C6-N1-C2	5.45	122.48	120.30
36	5	3214	U	N1-C2-N3	5.45	118.17	114.90
56	n0	144	LEU	CA-CB-CG	-5.45	102.76	115.30
36	1	102	C	N3-C4-N4	5.45	121.82	118.00
36	1	1902	G	N3-C4-N9	5.45	129.27	126.00
36	5	1124	U	N3-C4-C5	5.45	117.87	114.60
36	5	2584	G	C8-N9-C1'	-5.45	119.92	127.00
36	1	201	A	C2-N3-C4	-5.45	107.88	110.60
36	1	1507	G	C5-C6-O6	-5.45	125.33	128.60
36	1	2726	C	N1-C2-N3	5.45	123.01	119.20
36	5	437	G	N3-C2-N2	-5.45	116.09	119.90
36	5	816	A	N1-C6-N6	-5.45	115.33	118.60
36	1	1007	U	C5-C6-N1	-5.45	119.98	122.70
36	1	1155	C	C5-C6-N1	5.45	123.72	121.00
36	1	2857	C	C5-C4-N4	-5.45	116.39	120.20
36	1	214	G	N1-C6-O6	5.45	123.17	119.90
36	1	262	U	N1-C2-O2	-5.45	118.99	122.80
36	5	969	C	C4-C5-C6	5.45	120.12	117.40
36	5	1495	U	OP1-P-O3'	5.45	117.18	105.20
36	5	1866	C	O4'-C1'-N1	-5.45	103.84	108.20
36	1	2731	U	OP2-P-O3'	5.44	117.18	105.20
36	1	3023	U	O5'-P-OP1	-5.44	100.80	105.70
1	6	1145	U	N3-C4-O4	5.44	123.21	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2685	C	N3-C4-N4	5.44	121.81	118.00
36	1	3144	G	C8-N9-C4	5.44	108.58	106.40
1	6	543	C	C6-N1-C2	-5.44	118.12	120.30
36	5	349	A	OP2-P-O3'	5.44	117.17	105.20
36	5	1506	A	C8-N9-C4	-5.44	103.62	105.80
1	2	590	C	C6-N1-C2	-5.44	118.12	120.30
36	1	1886	A	N1-C6-N6	-5.44	115.33	118.60
36	5	882	A	N1-C2-N3	5.44	132.02	129.30
36	5	1065	A	O5'-P-OP1	-5.44	100.80	105.70
36	5	2387	A	C6-N1-C2	-5.44	115.33	118.60
36	1	633	C	N1-C2-O2	-5.44	115.64	118.90
36	5	864	G	OP2-P-O3'	5.44	117.17	105.20
1	2	831	U	N3-C2-O2	-5.44	118.39	122.20
36	1	332	C	C5-C6-N1	-5.44	118.28	121.00
36	1	1058	U	N3-C2-O2	-5.44	118.39	122.20
36	1	1585	C	C6-N1-C2	5.44	122.47	120.30
36	1	2836	C	N3-C4-N4	-5.44	114.19	118.00
36	1	3318	G	C8-N9-C4	-5.44	104.22	106.40
51	M5	188	ARG	NE-CZ-NH1	-5.44	117.58	120.30
1	6	89	G	N1-C6-O6	5.44	123.16	119.90
36	5	1897	G	C6-C5-N7	-5.44	127.14	130.40
36	5	2136	C	OP2-P-O3'	5.44	117.16	105.20
36	5	2385	G	N3-C2-N2	-5.44	116.09	119.90
36	1	325	A	C5-C6-N1	5.44	120.42	117.70
1	6	1075	C	N1-C2-O2	-5.44	115.64	118.90
1	2	1276	U	O5'-P-OP2	-5.43	100.81	105.70
36	1	369	A	C2-N3-C4	5.43	113.32	110.60
36	1	930	U	C2-N1-C1'	-5.43	111.18	117.70
36	1	2093	A	C2-N3-C4	5.43	113.32	110.60
36	1	2600	C	C6-N1-C2	-5.43	118.13	120.30
1	6	687	G	N3-C4-N9	-5.43	122.74	126.00
1	2	552	G	N3-C4-N9	-5.43	122.74	126.00
1	2	1134	C	C6-N1-C2	-5.43	118.13	120.30
64	N8	43	ILE	CG1-CB-CG2	-5.43	99.45	111.40
36	5	180	C	N1-C2-O2	5.43	122.16	118.90
36	5	857	G	N1-C6-O6	5.43	123.16	119.90
36	5	2996	U	O5'-P-OP2	-5.43	100.81	105.70
36	5	3214	U	C5-C4-O4	5.43	129.16	125.90
36	5	1853	U	C5-C4-O4	5.43	129.16	125.90
1	2	1756	A	C5-C6-N6	-5.43	119.36	123.70
36	1	1695	U	C5-C6-N1	-5.43	119.98	122.70
36	1	2116	G	C5-C6-O6	5.43	131.86	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2409	G	C4-C5-C6	5.43	122.06	118.80
36	5	2360	C	O5'-P-OP1	5.43	117.22	110.70
1	6	1549	C	N3-C4-C5	-5.43	119.73	121.90
36	1	819	U	C4-C5-C6	5.43	122.96	119.70
36	1	951	A	N1-C6-N6	5.43	121.86	118.60
1	6	976	G	C6-C5-N7	-5.43	127.14	130.40
36	5	3107	U	OP2-P-O3'	5.43	117.14	105.20
36	5	3153	U	C2-N1-C1'	5.43	124.21	117.70
36	1	1157	G	N1-C2-N3	5.42	127.15	123.90
36	1	1416	C	N3-C4-N4	-5.42	114.20	118.00
36	1	2396	G	C4-C5-C6	5.42	122.05	118.80
1	2	1596	C	N1-C2-O2	5.42	122.15	118.90
1	6	795	U	C2-N1-C1'	5.42	124.21	117.70
36	5	986	U	N3-C2-O2	-5.42	118.40	122.20
38	4	32	C	O5'-P-OP2	-5.42	100.82	105.70
1	6	461	G	C5-C6-O6	-5.42	125.35	128.60
36	5	961	C	N3-C4-N4	5.42	121.80	118.00
36	5	1902	G	C6-N1-C2	-5.42	121.85	125.10
36	1	1159	A	N1-C6-N6	-5.42	115.35	118.60
36	1	2600	C	N3-C2-O2	-5.42	118.11	121.90
36	5	2400	G	N7-C8-N9	-5.42	110.39	113.10
1	2	158	U	P-O3'-C3'	5.42	126.20	119.70
36	1	1492	G	N1-C6-O6	-5.42	116.65	119.90
36	1	1906	G	N1-C6-O6	5.42	123.15	119.90
36	5	1661	G	N1-C6-O6	5.42	123.15	119.90
36	5	2116	G	C4-C5-C6	5.42	122.05	118.80
36	5	2895	G	N3-C4-N9	5.42	129.25	126.00
36	5	3075	G	N3-C2-N2	-5.42	116.11	119.90
36	5	3362	A	C6-C5-N7	-5.42	128.51	132.30
1	2	1432	U	C5-C6-N1	-5.42	119.99	122.70
36	1	308	A	O5'-P-OP2	-5.42	100.83	105.70
36	1	2965	U	N1-C2-N3	5.42	118.15	114.90
36	5	2118	C	O5'-P-OP1	-5.42	100.83	105.70
1	2	1170	G	C4-N9-C1'	5.41	133.54	126.50
36	1	1733	G	N3-C4-C5	-5.41	125.89	128.60
36	1	2867	C	N3-C2-O2	-5.41	118.11	121.90
1	6	25	C	N1-C2-O2	-5.41	115.65	118.90
1	6	1097	U	OP2-P-O3'	5.41	117.11	105.20
36	5	2165	G	C6-C5-N7	-5.41	127.15	130.40
36	5	2365	C	N1-C2-O2	-5.41	115.65	118.90
38	8	39	G	N3-C4-C5	-5.41	125.89	128.60
36	1	2242	A	N1-C2-N3	5.41	132.01	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	46	U	O5'-P-OP2	-5.41	100.83	105.70
36	1	2527	G	N3-C4-N9	-5.41	122.75	126.00
1	6	933	A	N1-C6-N6	-5.41	115.35	118.60
1	6	1537	C	C2-N3-C4	5.41	122.61	119.90
1	6	1614	A	C5-N7-C8	-5.41	101.19	103.90
36	5	2920	U	C5-C6-N1	-5.41	120.00	122.70
36	1	806	A	O4'-C1'-N9	-5.41	103.87	108.20
36	1	2316	G	C8-N9-C4	5.41	108.56	106.40
36	1	2748	A	C8-N9-C4	5.41	107.96	105.80
36	5	180	C	C6-N1-C2	-5.41	118.14	120.30
36	5	1184	A	C5-C6-N1	5.41	120.41	117.70
36	1	701	G	OP2-P-O3'	5.41	117.10	105.20
36	1	2871	G	C5-C6-O6	-5.41	125.36	128.60
1	6	1	U	N3-C2-O2	-5.41	118.42	122.20
36	5	2753	G	N9-C4-C5	5.41	107.56	105.40
1	2	934	C	C2-N1-C1'	5.41	124.75	118.80
36	1	116	A	O4'-C1'-N9	5.41	112.52	108.20
1	6	957	G	C5-C6-N1	-5.41	108.80	111.50
36	5	1301	A	N7-C8-N9	5.41	116.50	113.80
36	5	1829	G	C5-C6-O6	5.41	131.84	128.60
36	5	2411	U	N3-C4-O4	-5.41	115.62	119.40
36	5	3377	G	C5-C6-O6	-5.41	125.36	128.60
38	8	111	A	N1-C6-N6	5.41	121.84	118.60
36	1	2665	U	O5'-P-OP1	-5.40	100.84	105.70
1	2	779	U	O4'-C1'-N1	5.40	112.52	108.20
36	1	227	G	C5-C6-O6	-5.40	125.36	128.60
36	5	881	C	C2-N3-C4	5.40	122.60	119.90
36	5	1155	C	C6-N1-C1'	-5.40	114.32	120.80
36	5	1840	U	N3-C2-O2	-5.40	118.42	122.20
36	5	2396	G	N1-C2-N2	5.40	121.06	116.20
1	2	1762	A	C8-N9-C4	5.40	107.96	105.80
36	1	802	C	C6-N1-C2	-5.40	118.14	120.30
36	1	1685	C	N1-C2-O2	5.40	122.14	118.90
36	1	2714	G	C4-C5-N7	5.40	112.96	110.80
36	1	3107	U	C5-C6-N1	-5.40	120.00	122.70
38	4	41	A	N1-C2-N3	5.40	132.00	129.30
38	4	103	G	N9-C4-C5	5.40	107.56	105.40
1	6	90	C	N3-C4-C5	5.40	124.06	121.90
36	5	314	U	N3-C4-O4	-5.40	115.62	119.40
36	5	430	U	C4-C5-C6	-5.40	116.46	119.70
36	5	1376	C	O5'-P-OP2	-5.40	100.84	105.70
36	5	2134	G	O5'-P-OP2	-5.40	100.84	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	o5	55	LEU	CA-CB-CG	-5.40	102.88	115.30
36	1	397	A	OP2-P-O3'	5.40	117.08	105.20
1	6	17	C	N1-C2-O2	5.40	122.14	118.90
36	5	672	A	C6-C5-N7	-5.40	128.52	132.30
36	5	2112	U	C2-N1-C1'	5.40	124.18	117.70
37	7	49	G	C4-C5-C6	5.40	122.04	118.80
1	2	728	U	N1-C2-O2	5.40	126.58	122.80
36	1	3242	G	C6-C5-N7	5.40	133.64	130.40
36	1	404	G	O5'-P-OP2	-5.39	100.85	105.70
36	1	2656	A	O5'-P-OP1	-5.39	100.84	105.70
1	6	1354	G	C4-N9-C1'	5.39	133.51	126.50
36	5	636	C	OP1-P-O3'	5.39	117.07	105.20
36	5	3021	A	C5-C6-N1	5.39	120.40	117.70
36	1	1934	G	N3-C4-N9	-5.39	122.76	126.00
36	1	2847	A	N1-C6-N6	5.39	121.83	118.60
36	5	2356	A	N1-C2-N3	5.39	132.00	129.30
38	8	42	G	C8-N9-C4	5.39	108.56	106.40
1	2	48	G	OP2-P-O3'	5.39	117.06	105.20
36	1	51	A	N1-C6-N6	5.39	121.83	118.60
36	1	685	G	N1-C6-O6	5.39	123.13	119.90
36	5	841	A	C6-N1-C2	-5.39	115.36	118.60
36	5	2093	A	C4-C5-N7	5.39	113.39	110.70
36	5	2346	C	N1-C2-O2	-5.39	115.67	118.90
36	5	2699	G	N9-C4-C5	-5.39	103.24	105.40
36	1	1313	G	C6-C5-N7	-5.39	127.17	130.40
36	1	2634	U	N3-C2-O2	-5.39	118.43	122.20
1	6	391	A	C8-N9-C4	5.39	107.96	105.80
36	5	208	C	N3-C4-C5	-5.39	119.74	121.90
36	5	1868	G	C4-C5-N7	5.39	112.96	110.80
36	1	2554	A	P-O3'-C3'	5.39	126.17	119.70
36	1	2808	A	C2-N3-C4	-5.39	107.91	110.60
53	M7	41	LEU	CA-CB-CG	5.39	127.69	115.30
1	6	1025	A	C6-C5-N7	-5.39	128.53	132.30
36	5	2932	U	N1-C2-N3	5.39	118.13	114.90
36	5	2987	A	O5'-P-OP2	5.39	117.17	110.70
1	2	1280	C	N3-C4-N4	5.39	121.77	118.00
36	1	2537	U	P-O3'-C3'	5.39	126.16	119.70
36	5	1305	U	C6-N1-C1'	-5.39	113.66	121.20
36	5	3093	C	C4-C5-C6	5.39	120.09	117.40
1	2	973	A	C2-N3-C4	-5.38	107.91	110.60
36	1	188	U	C4-C5-C6	5.38	122.93	119.70
36	1	218	G	O5'-P-OP1	-5.38	100.85	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	363	G	OP1-P-O3'	5.38	117.05	105.20
36	1	906	A	C5-C6-N6	-5.38	119.39	123.70
36	1	2393	G	N3-C4-C5	-5.38	125.91	128.60
52	M6	84	LEU	CB-CG-CD2	-5.38	101.84	111.00
36	5	655	C	OP2-P-O3'	5.38	117.05	105.20
36	5	922	U	N1-C2-O2	5.38	126.57	122.80
36	5	924	G	C2-N3-C4	-5.38	109.21	111.90
36	5	1000	C	N3-C2-O2	5.38	125.67	121.90
36	5	2345	A	N3-C4-N9	5.38	131.71	127.40
36	5	2824	G	N1-C6-O6	5.38	123.13	119.90
36	1	1918	C	C6-N1-C2	-5.38	118.15	120.30
36	1	2976	A	C5-C6-N1	5.38	120.39	117.70
1	6	1759	C	C6-N1-C2	5.38	122.45	120.30
36	5	121	A	N9-C4-C5	-5.38	103.65	105.80
36	5	2909	U	C2-N3-C4	-5.38	123.77	127.00
36	1	1041	U	C5-C6-N1	-5.38	120.01	122.70
36	1	2765	C	N3-C4-C5	-5.38	119.75	121.90
36	5	2893	C	N1-C2-O2	-5.38	115.67	118.90
38	8	102	U	N1-C2-O2	-5.38	119.03	122.80
36	1	1379	G	C2-N3-C4	-5.38	109.21	111.90
36	1	1484	U	C2-N1-C1'	5.38	124.16	117.70
36	1	2337	C	C6-N1-C2	-5.38	118.15	120.30
36	1	3183	A	C4-C5-N7	5.38	113.39	110.70
39	L2	227	ARG	NE-CZ-NH1	5.38	122.99	120.30
36	5	522	A	O5'-P-OP1	-5.38	100.86	105.70
36	5	1332	A	N1-C2-N3	5.38	131.99	129.30
36	5	1484	U	C6-N1-C2	5.38	124.23	121.00
36	5	3215	A	C5-C6-N1	-5.38	115.01	117.70
1	2	627	C	C5-C4-N4	-5.38	116.44	120.20
36	1	1329	U	N1-C1'-C2'	-5.38	106.08	112.00
36	1	1556	C	C2-N1-C1'	5.38	124.72	118.80
36	5	24	G	O5'-P-OP2	-5.38	100.86	105.70
36	5	1194	G	C4-C5-N7	-5.38	108.65	110.80
36	5	1855	U	O5'-P-OP2	-5.38	100.86	105.70
37	7	77	G	C8-N9-C4	5.38	108.55	106.40
1	2	992	A	N1-C2-N3	5.38	131.99	129.30
1	2	1206	U	N3-C4-O4	5.38	123.16	119.40
36	1	2179	C	N1-C2-O2	5.38	122.13	118.90
36	5	335	G	N1-C6-O6	-5.38	116.67	119.90
36	5	914	A	N1-C6-N6	5.38	121.83	118.60
36	5	1385	C	C5-C4-N4	-5.38	116.44	120.20
36	5	2616	C	N1-C2-N3	-5.38	115.44	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1922	A	C2-N3-C4	-5.38	107.91	110.60
36	5	2211	U	N3-C4-C5	-5.38	111.38	114.60
36	1	32	U	O5'-P-OP2	-5.37	100.86	105.70
36	1	74	G	N3-C4-N9	5.37	129.22	126.00
36	1	633	C	C6-N1-C2	5.37	122.45	120.30
36	1	878	G	C5-C6-O6	5.37	131.82	128.60
36	1	2323	G	N3-C4-C5	-5.37	125.91	128.60
36	1	2618	G	C2-N3-C4	5.37	114.59	111.90
1	6	259	U	OP2-P-O3'	5.37	117.02	105.20
36	5	3137	C	N3-C4-C5	5.37	124.05	121.90
36	1	2417	U	N1-C2-N3	5.37	118.12	114.90
36	1	3326	G	N7-C8-N9	-5.37	110.42	113.10
36	5	3185	U	C2-N3-C4	-5.37	123.78	127.00
37	7	45	A	O5'-P-OP2	-5.37	100.86	105.70
36	1	1154	A	N1-C2-N3	5.37	131.99	129.30
36	5	116	A	O4'-C1'-N9	5.37	112.49	108.20
36	5	342	A	C5-N7-C8	-5.37	101.22	103.90
36	5	1188	U	N3-C2-O2	-5.37	118.44	122.20
36	5	1789	G	N3-C4-N9	-5.37	122.78	126.00
36	5	2112	U	N3-C2-O2	-5.37	118.44	122.20
36	5	2616	C	C6-N1-C2	5.37	122.45	120.30
36	5	3374	U	N1-C2-O2	5.37	126.56	122.80
36	5	31	C	C6-N1-C2	5.37	122.45	120.30
36	5	1403	C	C6-N1-C2	5.37	122.45	120.30
1	2	144	U	N3-C2-O2	-5.37	118.44	122.20
1	2	554	C	C2-N1-C1'	5.37	124.70	118.80
36	1	1103	A	OP1-P-O3'	5.37	117.00	105.20
36	1	1658	G	N3-C4-N9	-5.37	122.78	126.00
36	1	2662	G	C6-C5-N7	-5.37	127.18	130.40
36	1	2888	U	N3-C2-O2	5.37	125.96	122.20
36	5	324	A	OP1-P-O3'	5.37	117.00	105.20
36	5	2183	A	N9-C4-C5	-5.37	103.65	105.80
36	1	873	C	N3-C4-C5	5.36	124.05	121.90
36	1	908	G	C5-C6-O6	-5.36	125.38	128.60
36	1	966	U	C2-N1-C1'	5.36	124.14	117.70
36	1	1329	U	C2-N1-C1'	5.36	124.14	117.70
36	1	1792	C	N3-C4-C5	-5.36	119.75	121.90
36	5	62	A	N1-C2-N3	5.36	131.98	129.30
36	5	112	U	O4'-C1'-N1	5.36	112.49	108.20
36	5	1324	U	C5-C6-N1	-5.36	120.02	122.70
36	5	1788	C	C6-N1-C2	-5.36	118.15	120.30
36	1	3122	A	C8-N9-C4	-5.36	103.66	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2354	C	N3-C4-N4	5.36	121.75	118.00
36	1	1452	A	C2-N3-C4	-5.36	107.92	110.60
1	6	350	U	C5-C6-N1	-5.36	120.02	122.70
36	5	75	G	C5-C6-O6	-5.36	125.38	128.60
36	5	3305	A	C5-C6-N6	-5.36	119.41	123.70
36	1	637	C	C2-N1-C1'	-5.36	112.91	118.80
1	6	886	U	C5-C6-N1	-5.36	120.02	122.70
36	5	2335	G	N1-C6-O6	-5.36	116.69	119.90
36	5	2950	G	C6-N1-C2	5.36	128.31	125.10
41	14	202	ARG	NE-CZ-NH2	-5.36	117.62	120.30
1	2	992	A	O4'-C1'-N9	5.36	112.48	108.20
36	1	53	G	N7-C8-N9	-5.36	110.42	113.10
36	1	1903	U	N3-C4-O4	5.36	123.15	119.40
36	1	2901	G	N3-C2-N2	-5.36	116.15	119.90
1	6	1735	U	O5'-P-OP2	-5.36	100.88	105.70
36	5	1520	G	C6-N1-C2	-5.35	121.89	125.10
36	5	2148	U	C6-N1-C1'	5.35	128.70	121.20
36	1	1148	G	N7-C8-N9	-5.35	110.42	113.10
36	1	2144	A	C8-N9-C4	5.35	107.94	105.80
36	5	2978	U	C2-N3-C4	-5.35	123.79	127.00
37	7	103	A	N9-C4-C5	-5.35	103.66	105.80
1	2	1457	C	C5-C6-N1	5.35	123.68	121.00
36	1	874	U	N1-C2-O2	-5.35	119.05	122.80
36	1	1132	C	N3-C4-N4	-5.35	114.25	118.00
36	5	349	A	N9-C4-C5	5.35	107.94	105.80
36	5	561	C	C6-N1-C2	-5.35	118.16	120.30
36	5	3206	C	N1-C2-O2	5.35	122.11	118.90
36	1	1316	C	C5-C6-N1	-5.35	118.33	121.00
36	1	1368	U	C2-N3-C4	-5.35	123.79	127.00
36	1	2814	G	O5'-P-OP2	5.35	117.12	110.70
36	1	2920	U	C2-N3-C4	-5.35	123.79	127.00
36	1	2995	A	N7-C8-N9	-5.35	111.13	113.80
36	5	693	A	O5'-P-OP2	5.35	117.12	110.70
36	5	2700	G	C4-C5-N7	5.35	112.94	110.80
36	5	2857	C	C5-C4-N4	-5.35	116.45	120.20
1	2	316	A	N9-C4-C5	-5.35	103.66	105.80
1	6	1478	G	C4-N9-C1'	5.35	133.45	126.50
36	5	646	A	C8-N9-C4	-5.35	103.66	105.80
36	5	1846	C	C5-C6-N1	-5.35	118.33	121.00
36	1	2407	C	N3-C4-N4	5.35	121.74	118.00
1	6	1000	C	C2-N3-C4	-5.35	117.23	119.90
36	5	2824	G	N3-C2-N2	-5.35	116.16	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2975	U	C5-C6-N1	5.35	125.37	122.70
49	m3	46	ILE	CG1-CB-CG2	-5.35	99.64	111.40
1	2	1426	C	C4-C5-C6	-5.34	114.73	117.40
36	1	1694	U	C5-C6-N1	-5.34	120.03	122.70
1	6	1583	A	C8-N9-C4	5.34	107.94	105.80
36	5	2632	G	OP1-P-O3'	5.34	116.96	105.20
36	5	984	G	C4-C5-C6	5.34	122.01	118.80
36	1	25	U	N1-C2-N3	5.34	118.10	114.90
36	1	2376	G	C5-N7-C8	-5.34	101.63	104.30
36	1	2376	G	C8-N9-C4	-5.34	104.26	106.40
36	1	2411	U	N3-C4-C5	5.34	117.81	114.60
36	1	3278	C	N3-C4-C5	-5.34	119.76	121.90
1	6	1737	G	C4-C5-N7	5.34	112.94	110.80
36	5	314	U	OP1-P-OP2	5.34	127.61	119.60
36	5	800	G	N1-C2-N3	5.34	127.11	123.90
36	5	902	G	N1-C6-O6	5.34	123.11	119.90
36	5	1337	A	C8-N9-C4	-5.34	103.66	105.80
1	2	158	U	C2-N1-C1'	5.34	124.11	117.70
36	1	24	G	C6-C5-N7	-5.34	127.20	130.40
36	1	382	U	N3-C2-O2	5.34	125.94	122.20
36	1	765	C	N1-C2-O2	5.34	122.10	118.90
36	1	2884	C	C4-C5-C6	-5.34	114.73	117.40
1	6	337	G	N7-C8-N9	5.34	115.77	113.10
36	5	2686	A	N1-C2-N3	5.34	131.97	129.30
36	5	2957	G	C6-N1-C2	-5.34	121.90	125.10
38	4	96	A	N1-C6-N6	5.34	121.80	118.60
1	6	514	G	C8-N9-C4	5.34	108.53	106.40
36	5	2383	C	N3-C4-N4	5.34	121.74	118.00
36	5	2988	C	O5'-P-OP2	-5.34	100.90	105.70
1	2	426	G	C8-N9-C1'	-5.34	120.06	127.00
36	1	2198	A	C8-N9-C4	5.34	107.93	105.80
36	5	3005	A	C2-N3-C4	5.34	113.27	110.60
37	7	82	G	C8-N9-C4	-5.34	104.27	106.40
36	5	2365	C	C2-N3-C4	-5.33	117.23	119.90
1	2	139	C	P-O3'-C3'	5.33	126.10	119.70
36	1	32	U	O5'-P-OP1	5.33	117.10	110.70
36	5	2116	G	C4-N9-C1'	5.33	133.43	126.50
36	5	2169	G	N3-C2-N2	-5.33	116.17	119.90
36	5	3310	A	N1-C2-N3	5.33	131.97	129.30
36	1	360	G	C5-C6-O6	-5.33	125.40	128.60
36	1	873	C	O5'-P-OP2	-5.33	100.90	105.70
36	1	1495	U	C2-N1-C1'	-5.33	111.30	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	308	C	N3-C4-N4	-5.33	114.27	118.00
36	5	1515	A	N9-C4-C5	5.33	107.93	105.80
38	8	4	C	N3-C4-N4	-5.33	114.27	118.00
36	5	1107	C	N3-C4-N4	5.33	121.73	118.00
36	1	109	A	C5-C6-N6	5.33	127.96	123.70
36	1	357	A	N1-C6-N6	5.33	121.80	118.60
36	1	2373	A	N7-C8-N9	5.33	116.46	113.80
36	1	3335	A	O5'-P-OP2	-5.33	100.91	105.70
1	6	1670	G	O5'-P-OP2	-5.33	100.90	105.70
36	1	2434	U	C5-C6-N1	-5.33	120.04	122.70
47	M0	57	LEU	CA-CB-CG	5.33	127.55	115.30
36	5	2145	A	C6-N1-C2	-5.33	115.40	118.60
36	5	3091	A	N1-C6-N6	-5.33	115.40	118.60
1	2	1399	C	C5-C6-N1	5.33	123.66	121.00
36	1	430	U	N3-C4-C5	5.33	117.80	114.60
38	4	44	A	C5-C6-N6	-5.33	119.44	123.70
36	5	1048	A	C2-N3-C4	-5.33	107.94	110.60
36	5	2619	G	N1-C6-O6	5.33	123.10	119.90
36	5	2704	A	O5'-P-OP2	-5.33	100.91	105.70
36	1	1421	G	O5'-P-OP2	-5.32	100.91	105.70
36	5	700	C	C6-N1-C2	5.32	122.43	120.30
36	5	1000	C	C6-N1-C2	5.32	122.43	120.30
36	5	1352	A	P-O3'-C3'	5.32	126.09	119.70
36	5	1841	A	N1-C6-N6	5.32	121.79	118.60
36	5	1869	C	C6-N1-C2	5.32	122.43	120.30
36	5	2659	G	C4-C5-N7	5.32	112.93	110.80
36	5	2865	U	C4-C5-C6	-5.32	116.51	119.70
1	2	1642	G	N3-C4-N9	5.32	129.19	126.00
36	1	1344	G	C5-C6-O6	-5.32	125.41	128.60
36	1	1381	A	C5-C6-N6	-5.32	119.44	123.70
36	1	1410	U	O5'-P-OP1	-5.32	100.91	105.70
36	1	1911	A	N9-C4-C5	-5.32	103.67	105.80
1	6	1032	G	C8-N9-C4	5.32	108.53	106.40
1	6	1641	C	N3-C2-O2	5.32	125.62	121.90
36	5	957	C	N3-C2-O2	-5.32	118.17	121.90
36	5	1548	C	N3-C2-O2	5.32	125.62	121.90
36	5	2854	U	N3-C4-O4	5.32	123.12	119.40
36	5	2993	G	C5-C6-O6	-5.32	125.41	128.60
36	5	3154	C	N3-C2-O2	-5.32	118.18	121.90
48	m1	152	HIS	N-CA-C	-5.32	96.63	111.00
36	1	1425	U	N3-C2-O2	-5.32	118.48	122.20
36	1	2603	G	N3-C2-N2	5.32	123.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1057	A	C5-N7-C8	-5.32	101.24	103.90
36	5	1324	U	O5'-P-OP2	-5.32	100.91	105.70
38	8	74	U	C5-C4-O4	-5.32	122.71	125.90
36	1	1295	G	N1-C6-O6	-5.32	116.71	119.90
36	1	2855	U	N3-C4-C5	5.32	117.79	114.60
36	1	2968	G	C8-N9-C4	-5.32	104.27	106.40
36	5	1168	U	N3-C4-C5	5.32	117.79	114.60
36	5	2951	G	OP1-P-O3'	5.32	116.90	105.20
38	8	90	U	C6-N1-C2	5.32	124.19	121.00
36	1	1846	C	N1-C2-O2	-5.32	115.71	118.90
36	5	368	G	N1-C6-O6	-5.32	116.71	119.90
36	5	3245	A	C8-N9-C4	-5.32	103.67	105.80
36	1	1127	G	N1-C2-N3	-5.31	120.71	123.90
1	2	1182	U	N3-C2-O2	-5.31	118.48	122.20
11	S9	93	LEU	CA-CB-CG	5.31	127.52	115.30
36	1	1160	C	C2-N3-C4	5.31	122.56	119.90
36	1	2400	G	C6-C5-N7	-5.31	127.21	130.40
36	1	2983	C	C5-C4-N4	5.31	123.92	120.20
36	5	112	U	N1-C1'-C2'	-5.31	106.16	112.00
36	5	195	U	C4-C5-C6	5.31	122.89	119.70
36	5	520	U	N1-C2-O2	-5.31	119.08	122.80
38	8	102	U	N3-C4-O4	5.31	123.12	119.40
36	1	1420	C	C6-N1-C1'	5.31	127.17	120.80
36	1	1911	A	C4-C5-N7	5.31	113.36	110.70
36	1	2308	C	N1-C2-O2	-5.31	115.71	118.90
1	6	583	C	C2-N1-C1'	5.31	124.64	118.80
1	6	1614	A	C4-C5-N7	5.31	113.36	110.70
36	5	128	G	N3-C4-N9	5.31	129.19	126.00
36	5	366	A	C5-N7-C8	-5.31	101.25	103.90
36	5	886	C	N3-C4-C5	-5.31	119.78	121.90
37	7	13	A	C5-C6-N6	-5.31	119.45	123.70
1	6	1100	G	N1-C6-O6	-5.31	116.72	119.90
36	5	2169	G	C6-C5-N7	5.31	133.59	130.40
36	5	2553	U	N3-C2-O2	-5.31	118.48	122.20
36	5	3182	G	C4-C5-N7	-5.31	108.68	110.80
36	5	3199	G	C5-C6-O6	5.31	131.78	128.60
36	1	66	A	O4'-C1'-N9	-5.31	103.95	108.20
36	1	2139	A	N1-C6-N6	-5.31	115.42	118.60
36	1	3368	U	O4'-C1'-N1	5.31	112.45	108.20
36	5	1585	C	O5'-P-OP1	-5.31	100.92	105.70
1	2	1573	A	OP2-P-O3'	5.31	116.87	105.20
36	1	1323	G	C8-N9-C4	5.31	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2931	C	OP1-P-OP2	5.31	127.56	119.60
36	1	961	C	C6-N1-C2	5.30	122.42	120.30
36	1	1551	C	OP1-P-O3'	5.30	116.87	105.20
36	1	1932	A	C2-N3-C4	5.30	113.25	110.60
36	1	3187	A	N1-C6-N6	-5.30	115.42	118.60
52	M6	78	ARG	NE-CZ-NH1	5.30	122.95	120.30
1	6	416	A	N1-C6-N6	5.30	121.78	118.60
36	5	1449	A	C2-N3-C4	-5.30	107.95	110.60
36	5	2159	U	C2-N1-C1'	5.30	124.06	117.70
36	5	2316	G	N1-C2-N3	5.30	127.08	123.90
36	5	2323	G	N9-C4-C5	5.30	107.52	105.40
36	1	860	G	N1-C2-N2	5.30	120.97	116.20
36	1	2408	U	O5'-P-OP1	-5.30	100.93	105.70
36	5	877	C	C4-C5-C6	-5.30	114.75	117.40
36	5	2257	C	P-O3'-C3'	5.30	126.06	119.70
14	c2	58	LEU	CA-CB-CG	5.30	127.49	115.30
36	5	3049	A	C5-C6-N1	-5.30	115.05	117.70
36	5	3336	A	C2-N3-C4	-5.30	107.95	110.60
37	7	41	G	C5-C6-O6	-5.30	125.42	128.60
36	1	1408	G	N3-C4-N9	5.30	129.18	126.00
36	1	2659	G	C5-C6-O6	-5.30	125.42	128.60
1	6	72	A	C8-N9-C4	-5.30	103.68	105.80
36	5	34	A	OP2-P-O3'	5.30	116.86	105.20
36	5	934	G	C5-C6-O6	-5.30	125.42	128.60
36	5	2681	U	N1-C2-N3	5.30	118.08	114.90
36	1	1189	C	C4-C5-C6	5.30	120.05	117.40
38	4	125	U	N1-C2-O2	5.30	126.51	122.80
1	6	1773	C	C5-C6-N1	5.30	123.65	121.00
36	5	283	G	C5-C6-O6	-5.30	125.42	128.60
36	5	3172	A	OP1-P-OP2	5.30	127.55	119.60
36	1	59	G	C6-C5-N7	-5.30	127.22	130.40
36	1	1386	A	C5-C6-N6	-5.30	119.46	123.70
36	1	2950	G	O4'-C1'-N9	5.30	112.44	108.20
1	6	418	G	C6-C5-N7	-5.30	127.22	130.40
1	6	1361	U	C6-N1-C1'	-5.30	113.78	121.20
36	1	645	A	N9-C4-C5	5.29	107.92	105.80
36	1	1397	C	OP1-P-O3'	5.29	116.84	105.20
1	6	1300	A	O5'-P-OP1	-5.29	100.94	105.70
36	5	107	A	N1-C6-N6	-5.29	115.42	118.60
36	5	644	G	C4-C5-N7	-5.29	108.68	110.80
36	5	1143	A	C2-N3-C4	-5.29	107.95	110.60
36	5	1152	G	N9-C4-C5	5.29	107.52	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1219	C	N3-C4-C5	5.29	124.02	121.90
36	5	1465	A	C2-N3-C4	-5.29	107.95	110.60
36	5	2919	A	C4-C5-C6	5.29	119.65	117.00
36	5	2959	C	OP2-P-O3'	5.29	116.84	105.20
38	8	100	U	C2-N1-C1'	5.29	124.05	117.70
36	1	5	G	OP1-P-O3'	5.29	116.84	105.20
36	1	950	G	N3-C4-C5	5.29	131.25	128.60
36	1	2316	G	N1-C6-O6	5.29	123.08	119.90
36	1	2880	U	OP2-P-O3'	5.29	116.84	105.20
1	6	1631	A	C5-C6-N6	5.29	127.93	123.70
1	6	1672	G	C8-N9-C1'	-5.29	120.12	127.00
36	5	1863	G	C4-C5-N7	5.29	112.92	110.80
36	5	354	U	C2-N1-C1'	5.29	124.05	117.70
36	5	859	G	C5-C6-O6	-5.29	125.43	128.60
36	5	2114	C	OP1-P-OP2	5.29	127.54	119.60
1	2	219	A	O5'-P-OP2	-5.29	100.94	105.70
1	2	1629	G	C6-C5-N7	-5.29	127.23	130.40
36	1	3264	G	OP2-P-O3'	5.29	116.83	105.20
36	5	1008	U	C5-C6-N1	-5.29	120.06	122.70
36	5	2626	A	OP1-P-OP2	-5.29	111.67	119.60
36	5	934	G	C6-C5-N7	-5.29	127.23	130.40
36	1	936	A	C5-N7-C8	-5.29	101.26	103.90
36	1	2651	G	N3-C2-N2	-5.29	116.20	119.90
1	6	418	G	C5-N7-C8	-5.29	101.66	104.30
36	5	2700	G	N3-C4-N9	5.29	129.17	126.00
37	7	74	C	N1-C2-O2	-5.29	115.73	118.90
1	2	1041	G	C8-N9-C4	-5.28	104.29	106.40
1	2	1773	C	N3-C4-N4	5.28	121.70	118.00
36	1	612	U	C5-C6-N1	-5.28	120.06	122.70
36	5	2249	G	C3'-C2'-C1'	-5.28	97.27	101.50
36	1	1132	C	N3-C2-O2	-5.28	118.20	121.90
36	1	1421	G	C8-N9-C4	5.28	108.51	106.40
1	2	1573	A	P-O3'-C3'	5.28	126.04	119.70
36	1	1188	U	N3-C2-O2	-5.28	118.50	122.20
36	1	2585	G	C2-N3-C4	5.28	114.54	111.90
38	4	17	A	C4-C5-C6	5.28	119.64	117.00
1	6	965	U	C6-N1-C1'	-5.28	113.81	121.20
36	5	345	G	N1-C6-O6	5.28	123.07	119.90
69	o3	18	ARG	NE-CZ-NH1	-5.28	117.66	120.30
1	2	1354	G	C8-N9-C4	-5.28	104.29	106.40
36	1	2782	U	N1-C2-O2	-5.28	119.11	122.80
1	2	552	G	N3-C4-C5	5.28	131.24	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	214	G	N3-C2-N2	-5.28	116.21	119.90
36	1	3269	U	N3-C2-O2	-5.28	118.51	122.20
1	6	421	A	N9-C4-C5	-5.28	103.69	105.80
36	5	1116	G	C5-C6-N1	-5.28	108.86	111.50
36	5	1148	G	C5-C6-N1	5.28	114.14	111.50
36	5	2234	G	C4-C5-N7	5.28	112.91	110.80
36	5	2861	U	O5'-P-OP2	5.28	117.03	110.70
1	2	1370	U	P-O3'-C3'	5.28	126.03	119.70
36	5	1116	G	N1-C2-N3	5.28	127.06	123.90
41	14	94	CYS	CA-CB-SG	-5.28	104.50	114.00
36	1	577	C	N3-C4-C5	-5.27	119.79	121.90
40	13	10	ARG	NE-CZ-NH2	-5.27	117.66	120.30
36	1	24	G	N3-C4-N9	5.27	129.16	126.00
36	1	262	U	N3-C2-O2	5.27	125.89	122.20
1	6	489	C	C2-N1-C1'	5.27	124.60	118.80
36	1	3175	U	C5-C4-O4	5.27	129.06	125.90
1	6	310	C	N3-C2-O2	5.27	125.59	121.90
1	6	1549	C	C6-N1-C2	-5.27	118.19	120.30
36	5	2144	A	O5'-P-OP2	-5.27	100.96	105.70
38	8	32	C	C6-N1-C2	5.27	122.41	120.30
47	m0	7	ARG	NE-CZ-NH1	-5.27	117.67	120.30
36	1	100	A	N1-C2-N3	5.27	131.93	129.30
36	1	281	G	C6-N1-C2	-5.27	121.94	125.10
36	1	281	G	O5'-P-OP2	5.27	117.02	110.70
36	1	902	G	O5'-P-OP2	-5.27	100.96	105.70
36	1	2572	C	C6-N1-C2	-5.27	118.19	120.30
36	5	706	A	C8-N9-C4	5.27	107.91	105.80
36	5	1063	G	C5-C6-O6	5.27	131.76	128.60
36	5	1147	G	N1-C2-N2	5.27	120.94	116.20
36	5	2889	C	N3-C4-C5	5.27	124.01	121.90
1	2	554	C	C6-N1-C1'	-5.27	114.48	120.80
36	1	971	G	O5'-P-OP2	-5.27	100.96	105.70
1	6	1	U	N1-C2-O2	5.27	126.49	122.80
1	6	630	A	C8-N9-C4	5.27	107.91	105.80
38	4	74	U	O5'-P-OP1	-5.26	100.96	105.70
36	5	1060	U	C5-C4-O4	5.26	129.06	125.90
36	5	2792	A	C8-N9-C4	-5.26	103.69	105.80
36	1	51	A	C4-C5-N7	5.26	113.33	110.70
36	1	2316	G	C5-C6-O6	-5.26	125.44	128.60
36	1	3176	G	C8-N9-C4	-5.26	104.30	106.40
36	1	3219	G	N1-C6-O6	5.26	123.06	119.90
1	2	426	G	C4-N9-C1'	5.26	133.34	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	909	G	N7-C8-N9	-5.26	110.47	113.10
36	1	1878	G	O4'-C1'-N9	-5.26	103.99	108.20
36	1	2888	U	C2-N3-C4	-5.26	123.84	127.00
38	4	25	G	N1-C2-N3	5.26	127.06	123.90
1	6	387	A	N1-C6-N6	-5.26	115.44	118.60
1	6	590	C	O5'-P-OP1	-5.26	100.97	105.70
36	5	2150	G	C8-N9-C4	-5.26	104.30	106.40
1	2	1043	A	O5'-P-OP2	-5.26	100.97	105.70
1	2	1608	U	O5'-P-OP1	-5.26	100.97	105.70
1	6	393	C	N3-C4-C5	5.26	124.00	121.90
36	5	2857	C	N3-C4-C5	5.26	124.00	121.90
36	5	2978	U	O4'-C1'-N1	5.26	112.41	108.20
36	5	3107	U	C2-N3-C4	-5.26	123.84	127.00
59	n3	15	LEU	CA-CB-CG	-5.26	103.20	115.30
36	1	3083	G	C5-C6-N1	5.26	114.13	111.50
44	L7	163	LEU	CA-CB-CG	-5.26	103.21	115.30
36	5	297	G	N1-C6-O6	-5.26	116.75	119.90
36	5	437	G	N3-C4-C5	5.26	131.23	128.60
1	2	810	G	C4-C5-N7	5.26	112.90	110.80
24	D2	65	LEU	CA-CB-CG	5.26	127.39	115.30
36	1	835	G	C5-C6-O6	-5.26	125.45	128.60
36	1	1179	A	OP2-P-O3'	5.26	116.77	105.20
36	1	1510	G	N1-C2-N2	-5.26	111.47	116.20
36	1	1589	A	N9-C4-C5	-5.26	103.70	105.80
36	1	1845	G	C4-C5-N7	-5.26	108.70	110.80
1	6	1672	G	N3-C4-C5	-5.26	125.97	128.60
36	5	2937	G	C5-C6-O6	-5.26	125.45	128.60
36	5	2956	A	C8-N9-C4	-5.26	103.70	105.80
36	5	2983	C	N3-C4-N4	5.26	121.68	118.00
36	5	3319	U	C5-C6-N1	5.26	125.33	122.70
38	4	112	U	O5'-P-OP2	5.25	117.01	110.70
36	5	3091	A	N9-C4-C5	5.25	107.90	105.80
36	5	3335	A	C5-C6-N6	-5.25	119.50	123.70
36	1	2272	G	O5'-P-OP2	-5.25	100.97	105.70
36	1	2688	U	N1-C2-N3	-5.25	111.75	114.90
38	4	18	U	N3-C4-O4	5.25	123.08	119.40
36	5	216	G	C5-N7-C8	-5.25	101.67	104.30
36	5	1506	A	N7-C8-N9	5.25	116.43	113.80
1	2	312	A	C8-N9-C4	-5.25	103.70	105.80
1	2	1389	C	C2-N1-C1'	5.25	124.58	118.80
36	1	2608	G	C5-C6-N1	-5.25	108.87	111.50
1	6	1697	G	N3-C4-N9	5.25	129.15	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1750	A	C2-N3-C4	-5.25	107.97	110.60
36	5	340	C	C5-C6-N1	-5.25	118.38	121.00
36	5	1840	U	N1-C2-N3	5.25	118.05	114.90
36	5	2359	C	C6-N1-C2	5.25	122.40	120.30
36	5	2608	G	OP2-P-O3'	5.25	116.75	105.20
36	1	3212	C	C5-C6-N1	-5.25	118.38	121.00
1	6	967	A	N3-C4-C5	-5.25	123.12	126.80
36	5	1014	U	C2-N1-C1'	5.25	124.00	117.70
1	2	423	G	N1-C6-O6	-5.25	116.75	119.90
25	D3	111	GLY	N-CA-C	-5.25	99.98	113.10
36	1	1179	A	C2-N3-C4	-5.25	107.98	110.60
36	1	2826	U	OP2-P-O3'	5.25	116.75	105.20
36	1	1661	G	N3-C4-N9	5.25	129.15	126.00
1	6	1658	G	C5-C6-O6	5.25	131.75	128.60
36	5	1104	G	C6-C5-N7	-5.25	127.25	130.40
36	5	2297	U	N1-C2-O2	-5.25	119.13	122.80
36	1	2906	C	N1-C2-N3	5.25	122.87	119.20
38	8	132	G	C4-N9-C1'	-5.25	119.68	126.50
36	1	788	C	C6-N1-C2	5.24	122.40	120.30
36	1	1001	G	N9-C4-C5	-5.24	103.30	105.40
37	3	85	G	OP2-P-O3'	5.24	116.74	105.20
36	5	369	A	C8-N9-C4	-5.24	103.70	105.80
36	5	2971	A	N3-C4-N9	5.24	131.59	127.40
36	5	3107	U	N3-C4-C5	5.24	117.75	114.60
36	1	857	G	N1-C6-O6	5.24	123.05	119.90
36	1	1007	U	C6-N1-C2	5.24	124.14	121.00
36	5	75	G	C6-C5-N7	-5.24	127.25	130.40
36	5	197	G	C5-C6-O6	-5.24	125.45	128.60
36	5	424	G	N3-C4-N9	5.24	129.15	126.00
36	1	2387	A	N7-C8-N9	-5.24	111.18	113.80
36	1	2424	A	N1-C2-N3	-5.24	126.68	129.30
1	6	1614	A	O4'-C1'-N9	5.24	112.39	108.20
1	6	1793	G	C5-C6-O6	5.24	131.75	128.60
36	5	1169	A	OP2-P-O3'	5.24	116.73	105.20
36	5	2149	A	N1-C6-N6	5.24	121.74	118.60
27	D5	95	HIS	N-CA-C	5.24	125.15	111.00
36	1	510	G	N1-C2-N2	5.24	120.92	116.20
36	5	847	A	C8-N9-C4	5.24	107.89	105.80
36	5	933	A	N1-C2-N3	5.24	131.92	129.30
36	5	2290	C	C5-C4-N4	-5.24	116.53	120.20
36	5	2399	A	C8-N9-C4	5.24	107.89	105.80
36	1	648	C	O5'-P-OP1	-5.24	100.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	860	G	N3-C2-N2	-5.24	116.23	119.90
36	5	2136	C	N3-C2-O2	-5.24	118.23	121.90
1	2	1747	G	N1-C6-O6	5.24	123.04	119.90
36	1	907	G	N7-C8-N9	5.24	115.72	113.10
36	1	2150	G	C5-C6-N1	-5.24	108.88	111.50
36	1	2179	C	OP2-P-O3'	5.24	116.72	105.20
36	1	2369	G	C2-N3-C4	5.24	114.52	111.90
36	5	630	A	O5'-P-OP1	5.24	116.98	110.70
36	1	347	G	C5-N7-C8	-5.23	101.68	104.30
36	1	694	C	C2-N3-C4	-5.23	117.28	119.90
36	1	2817	A	OP2-P-O3'	5.23	116.71	105.20
36	1	3212	C	O5'-P-OP1	5.23	116.98	110.70
36	5	1780	G	N1-C6-O6	-5.23	116.76	119.90
36	5	2600	C	C5-C6-N1	5.23	123.62	121.00
36	5	2888	U	N3-C4-O4	5.23	123.06	119.40
36	5	2975	U	C4-C5-C6	-5.23	116.56	119.70
36	5	3091	A	N1-C2-N3	5.23	131.92	129.30
36	5	3181	C	O5'-P-OP1	5.23	116.98	110.70
36	5	3362	A	C8-N9-C4	-5.23	103.71	105.80
50	m4	55	ARG	NE-CZ-NH2	-5.23	117.68	120.30
36	1	754	G	N1-C6-O6	5.23	123.04	119.90
36	1	1043	C	N3-C4-C5	5.23	123.99	121.90
36	1	3328	G	C8-N9-C4	-5.23	104.31	106.40
36	5	942	U	C6-N1-C2	-5.23	117.86	121.00
36	5	2352	A	C4-C5-C6	5.23	119.61	117.00
36	5	3209	A	C5-N7-C8	-5.23	101.28	103.90
36	1	1472	U	C5-C6-N1	-5.23	120.09	122.70
52	M6	110	PRO	C-N-CD	-5.23	109.10	120.60
36	5	1154	A	C2-N3-C4	5.23	113.21	110.60
36	5	1607	U	C5-C4-O4	5.23	129.04	125.90
36	5	2808	A	O4'-C1'-N9	-5.23	104.02	108.20
36	5	2836	C	C5-C6-N1	-5.23	118.39	121.00
1	2	499	U	C2-N1-C1'	5.23	123.97	117.70
36	1	1320	C	C5-C6-N1	5.23	123.61	121.00
36	1	2527	G	N3-C4-C5	5.23	131.21	128.60
36	1	2624	G	C5-N7-C8	-5.23	101.69	104.30
36	1	2687	G	N1-C6-O6	-5.23	116.76	119.90
36	1	3101	G	C5-C6-N1	5.23	114.11	111.50
73	O7	67	LEU	CA-CB-CG	5.23	127.32	115.30
36	5	880	G	O5'-P-OP2	-5.23	101.00	105.70
1	6	1672	G	N3-C4-N9	5.23	129.13	126.00
12	c0	88	PRO	N-CA-CB	5.23	109.57	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	323	A	OP1-P-O3'	5.23	116.70	105.20
1	2	458	G	C5-C6-N1	-5.22	108.89	111.50
36	1	339	C	N3-C2-O2	-5.22	118.24	121.90
36	1	421	G	O5'-P-OP1	-5.22	101.00	105.70
36	1	893	C	C6-N1-C2	-5.22	118.21	120.30
36	1	1367	G	C6-C5-N7	-5.22	127.27	130.40
36	5	399	A	N1-C6-N6	5.22	121.73	118.60
36	5	938	C	OP1-P-O3'	5.22	116.70	105.20
36	5	950	G	C5-C6-O6	-5.22	125.47	128.60
36	5	1187	C	N1-C2-O2	5.22	122.03	118.90
36	5	2607	G	C5-N7-C8	-5.22	101.69	104.30
63	n7	5	LEU	CA-CB-CG	5.22	127.31	115.30
1	2	22	A	N1-C6-N6	5.22	121.73	118.60
36	1	1510	G	C4-C5-C6	5.22	121.93	118.80
38	4	150	G	N3-C4-N9	5.22	129.13	126.00
44	L7	110	ARG	NE-CZ-NH2	-5.22	117.69	120.30
36	5	1199	C	O5'-P-OP2	-5.22	101.00	105.70
36	5	2681	U	C2-N3-C4	-5.22	123.87	127.00
36	5	3105	U	N3-C4-O4	-5.22	115.74	119.40
1	2	1437	U	N3-C4-O4	5.22	123.06	119.40
36	1	109	A	OP1-P-O3'	5.22	116.69	105.20
36	5	1489	A	N1-C6-N6	5.22	121.73	118.60
36	5	2159	U	N3-C2-O2	-5.22	118.55	122.20
36	1	1185	C	N1-C2-O2	-5.22	115.77	118.90
36	1	1186	G	OP2-P-O3'	5.22	116.68	105.20
36	1	2382	G	C5-C6-O6	5.22	131.73	128.60
36	1	2719	U	C6-N1-C1'	5.22	128.51	121.20
37	3	15	C	C6-N1-C2	5.22	122.39	120.30
1	6	66	U	P-O3'-C3'	5.22	125.96	119.70
36	5	1200	A	N3-C4-C5	-5.22	123.15	126.80
36	5	2326	A	C8-N9-C4	5.22	107.89	105.80
36	5	3000	A	C4-C5-N7	5.22	113.31	110.70
1	2	1432	U	C2-N1-C1'	-5.22	111.44	117.70
36	1	299	G	C6-C5-N7	-5.22	127.27	130.40
36	1	2393	G	C5-C6-O6	-5.22	125.47	128.60
36	5	1137	C	N1-C2-O2	5.22	122.03	118.90
42	15	22	ARG	NE-CZ-NH1	-5.22	117.69	120.30
1	2	970	A	C5-N7-C8	-5.22	101.29	103.90
36	1	2355	G	C5-C6-O6	-5.22	125.47	128.60
1	6	1743	U	C5-C6-N1	-5.22	120.09	122.70
36	5	220	G	OP1-P-O3'	5.22	116.68	105.20
36	5	1107	C	OP2-P-O3'	5.22	116.68	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1512	U	N3-C4-C5	-5.22	111.47	114.60
36	1	146	U	C2-N1-C1'	-5.21	111.44	117.70
36	1	1313	G	N1-C6-O6	5.21	123.03	119.90
36	1	3178	A	C2-N3-C4	-5.21	107.99	110.60
1	6	1624	C	O5'-P-OP1	-5.21	101.01	105.70
36	5	1420	C	C6-N1-C1'	5.21	127.06	120.80
36	5	2727	A	C8-N9-C4	-5.21	103.72	105.80
36	5	2765	C	C6-N1-C2	-5.21	118.21	120.30
35	SM	134	ASP	CB-CG-OD2	5.21	122.99	118.30
36	1	2187	G	C4-C5-C6	5.21	121.93	118.80
37	7	36	C	C6-N1-C2	5.21	122.39	120.30
36	1	1049	C	O5'-P-OP2	-5.21	101.01	105.70
36	1	1097	G	P-O3'-C3'	5.21	125.95	119.70
36	1	1151	U	N3-C4-C5	-5.21	111.47	114.60
36	1	2273	G	N7-C8-N9	-5.21	110.50	113.10
36	1	2819	A	O5'-P-OP2	-5.21	101.01	105.70
36	1	2996	U	N1-C1'-C2'	5.21	120.78	114.00
36	1	3209	A	N9-C4-C5	-5.21	103.72	105.80
1	6	542	A	P-O3'-C3'	5.21	125.95	119.70
36	5	938	C	N3-C2-O2	5.21	125.55	121.90
36	5	991	G	N1-C6-O6	-5.21	116.77	119.90
36	5	3183	A	OP2-P-O3'	5.21	116.67	105.20
36	1	878	G	N3-C4-N9	-5.21	122.87	126.00
36	5	984	G	N3-C4-C5	-5.21	126.00	128.60
36	5	2710	C	N3-C2-O2	5.21	125.55	121.90
1	2	616	G	N1-C6-O6	-5.21	116.78	119.90
36	1	1404	G	N3-C2-N2	5.21	123.55	119.90
36	5	191	U	N3-C4-O4	-5.21	115.75	119.40
36	5	1187	C	N3-C2-O2	-5.21	118.25	121.90
36	5	1308	A	C8-N9-C4	5.21	107.88	105.80
36	5	1449	A	C6-C5-N7	-5.21	128.65	132.30
36	5	1604	G	C8-N9-C1'	-5.21	120.23	127.00
37	7	44	C	N1-C2-O2	-5.21	115.78	118.90
1	2	1756	A	C4-C5-N7	5.21	113.30	110.70
36	1	125	C	C2-N3-C4	-5.21	117.30	119.90
1	6	1100	G	C8-N9-C1'	-5.21	120.23	127.00
1	6	1499	G	C4-N9-C1'	5.21	133.27	126.50
1	6	1662	G	N1-C6-O6	-5.21	116.78	119.90
36	5	915	A	OP1-P-OP2	5.21	127.41	119.60
38	8	42	G	C4-N9-C1'	-5.21	119.73	126.50
1	2	1780	G	N1-C6-O6	5.21	123.02	119.90
36	5	644	G	N9-C4-C5	5.21	107.48	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	794	U	P-O3'-C3'	5.20	125.94	119.70
36	1	217	U	N1-C2-O2	-5.20	119.16	122.80
36	1	1151	U	O5'-P-OP2	5.20	116.94	110.70
36	1	1335	C	C5-C4-N4	5.20	123.84	120.20
36	1	1444	G	C4-C5-N7	5.20	112.88	110.80
36	1	2709	C	C6-N1-C2	5.20	122.38	120.30
61	N5	34	LEU	CA-CB-CG	5.20	127.27	115.30
1	6	1503	A	O4'-C1'-N9	5.20	112.36	108.20
36	5	2113	A	N7-C8-N9	-5.20	111.20	113.80
36	1	1177	G	N1-C6-O6	5.20	123.02	119.90
36	1	1364	C	OP2-P-O3'	5.20	116.64	105.20
37	7	30	G	N1-C2-N3	5.20	127.02	123.90
36	1	942	U	O5'-P-OP1	5.20	116.94	110.70
36	1	1202	A	C2-N3-C4	-5.20	108.00	110.60
36	1	1227	C	C5-C6-N1	5.20	123.60	121.00
36	5	924	G	N3-C4-C5	5.20	131.20	128.60
36	5	1420	C	N1-C2-O2	-5.20	115.78	118.90
36	5	3308	C	C2-N3-C4	-5.20	117.30	119.90
36	1	963	G	C6-N1-C2	-5.20	121.98	125.10
36	1	1211	U	N3-C4-O4	-5.20	115.76	119.40
1	6	426	G	N1-C6-O6	-5.20	116.78	119.90
36	5	88	A	C8-N9-C4	5.20	107.88	105.80
36	5	970	A	C4-C5-N7	5.20	113.30	110.70
36	5	2408	U	N1-C2-O2	-5.20	119.16	122.80
1	6	116	U	N1-C2-O2	-5.20	119.16	122.80
1	6	1361	U	C5-C6-N1	5.20	125.30	122.70
36	5	345	G	C6-C5-N7	-5.20	127.28	130.40
36	5	2976	A	OP2-P-O3'	5.20	116.63	105.20
36	1	348	A	N9-C4-C5	-5.20	103.72	105.80
36	1	922	U	C4-C5-C6	-5.20	116.58	119.70
36	1	1121	U	N1-C2-N3	5.20	118.02	114.90
36	1	1940	G	N1-C2-N2	-5.20	111.52	116.20
36	1	2699	G	C4-C5-N7	5.20	112.88	110.80
36	1	2787	G	C2-N3-C4	5.20	114.50	111.90
36	5	916	G	O5'-P-OP1	-5.20	101.02	105.70
36	5	1898	G	N1-C6-O6	5.20	123.02	119.90
36	5	2323	G	OP1-P-OP2	-5.20	111.81	119.60
36	5	2639	G	N1-C6-O6	5.20	123.02	119.90
36	5	3266	G	C5-C6-O6	5.20	131.72	128.60
1	2	321	C	OP2-P-O3'	5.19	116.63	105.20
36	1	628	A	O5'-P-OP1	5.19	116.93	110.70
36	5	703	G	O5'-P-OP1	-5.19	101.03	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1495	U	C6-N1-C1'	5.19	128.47	121.20
36	1	2121	G	C5-C6-O6	5.19	131.72	128.60
38	4	17	A	N1-C2-N3	5.19	131.90	129.30
1	6	1782	A	N7-C8-N9	5.19	116.40	113.80
36	5	61	A	N1-C2-N3	5.19	131.90	129.30
36	5	973	A	C5-C6-N6	-5.19	119.55	123.70
36	5	1198	C	O5'-P-OP1	-5.19	101.03	105.70
36	5	1795	U	C2-N1-C1'	5.19	123.93	117.70
36	5	526	C	N3-C4-C5	5.19	123.98	121.90
36	5	578	A	C5-C6-N6	-5.19	119.55	123.70
36	5	2816	G	N9-C4-C5	-5.19	103.32	105.40
1	6	622	A	O5'-P-OP1	-5.19	101.03	105.70
36	5	530	G	O4'-C1'-N9	5.19	112.35	108.20
36	1	171	G	N1-C6-O6	5.19	123.01	119.90
36	1	2407	C	C5-C6-N1	-5.19	118.41	121.00
36	1	2622	C	C6-N1-C2	-5.19	118.22	120.30
1	6	311	U	N1-C2-O2	5.19	126.43	122.80
1	6	542	A	C4-C5-C6	5.19	119.59	117.00
1	6	1124	A	N1-C6-N6	5.19	121.71	118.60
1	6	1773	C	N3-C2-O2	5.19	125.53	121.90
38	8	23	U	OP1-P-OP2	5.19	127.38	119.60
36	1	646	A	O5'-P-OP2	-5.19	101.03	105.70
36	1	2188	A	C5-C6-N6	5.19	127.85	123.70
36	1	2950	G	C8-N9-C4	-5.19	104.33	106.40
36	5	3058	U	C2-N1-C1'	5.19	123.92	117.70
37	3	87	G	N9-C4-C5	-5.18	103.33	105.40
36	5	2145	A	OP1-P-OP2	-5.18	111.82	119.60
36	5	3345	G	N3-C2-N2	-5.18	116.27	119.90
1	2	17	C	O5'-P-OP2	-5.18	101.04	105.70
36	1	1144	U	C2-N3-C4	-5.18	123.89	127.00
36	1	1297	C	O5'-P-OP1	-5.18	101.04	105.70
36	1	1578	C	C6-N1-C1'	-5.18	114.58	120.80
36	1	2653	C	C5-C6-N1	-5.18	118.41	121.00
36	1	2893	C	C2-N3-C4	-5.18	117.31	119.90
1	6	163	G	C8-N9-C1'	5.18	133.74	127.00
1	6	359	A	C4-C5-C6	-5.18	114.41	117.00
1	6	448	C	OP1-P-O3'	5.18	116.60	105.20
36	5	648	C	C2-N1-C1'	5.18	124.50	118.80
36	1	884	A	C8-N9-C4	5.18	107.87	105.80
36	1	2413	A	C4-C5-C6	-5.18	114.41	117.00
1	6	387	A	O5'-P-OP2	-5.18	101.04	105.70
1	2	1431	C	N1-C2-N3	-5.18	115.57	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1201	C	C6-N1-C2	-5.18	118.23	120.30
1	6	359	A	N1-C2-N3	-5.18	126.71	129.30
1	6	800	U	N1-C2-N3	5.18	118.01	114.90
1	6	959	U	O4'-C1'-N1	-5.18	104.06	108.20
36	5	2662	G	N3-C4-N9	5.18	129.11	126.00
1	2	103	A	P-O3'-C3'	5.18	125.91	119.70
1	2	1486	G	C8-N9-C4	-5.18	104.33	106.40
36	1	515	C	O5'-P-OP2	-5.18	101.04	105.70
36	1	1395	G	C5-C6-O6	-5.18	125.49	128.60
1	6	426	G	O5'-P-OP2	-5.18	101.04	105.70
36	5	2236	G	N1-C6-O6	5.18	123.01	119.90
36	1	932	U	C2-N3-C4	-5.18	123.89	127.00
36	1	2973	G	N1-C6-O6	5.18	123.01	119.90
1	6	1659	A	N3-C4-C5	5.18	130.42	126.80
36	5	1341	U	C6-N1-C2	-5.18	117.89	121.00
36	5	1389	G	C6-C5-N7	-5.18	127.30	130.40
36	5	2353	G	OP2-P-O3'	5.18	116.59	105.20
36	1	515	C	C5-C6-N1	5.17	123.59	121.00
36	1	1503	A	C2-N3-C4	-5.17	108.01	110.60
36	1	2728	G	C2-N3-C4	5.17	114.49	111.90
36	1	2956	A	OP1-P-OP2	-5.17	111.84	119.60
36	5	969	C	C5-C6-N1	-5.17	118.41	121.00
36	1	1305	U	C5-C6-N1	5.17	125.29	122.70
36	1	2304	C	C6-N1-C2	-5.17	118.23	120.30
1	6	941	A	N9-C4-C5	5.17	107.87	105.80
36	5	2732	G	N1-C6-O6	-5.17	116.80	119.90
36	1	100	A	C2-N3-C4	-5.17	108.02	110.60
1	6	1227	A	P-O3'-C3'	5.17	125.90	119.70
36	5	1476	G	OP2-P-O3'	5.17	116.57	105.20
36	5	2821	C	C6-N1-C1'	5.17	127.00	120.80
36	5	2996	U	O5'-P-OP1	5.17	116.90	110.70
1	2	1600	A	P-O3'-C3'	5.17	125.90	119.70
36	1	2799	A	C6-N1-C2	-5.17	115.50	118.60
36	1	2993	G	N9-C4-C5	-5.17	103.33	105.40
1	6	1666	U	N1-C2-N3	5.17	118.00	114.90
36	5	1589	A	C5-C6-N1	5.17	120.28	117.70
36	5	1937	U	C5-C6-N1	-5.17	120.12	122.70
36	5	2187	G	C6-C5-N7	-5.17	127.30	130.40
36	5	3242	G	C2-N3-C4	-5.17	109.32	111.90
36	1	1329	U	N1-C2-N3	5.17	118.00	114.90
38	4	24	G	C4-C5-N7	5.17	112.87	110.80
36	5	871	U	N3-C4-O4	-5.17	115.78	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1909	A	O5'-P-OP2	-5.17	101.05	105.70
36	5	2775	U	C5-C6-N1	-5.17	120.12	122.70
1	2	970	A	C6-C5-N7	-5.17	128.69	132.30
36	5	82	C	C4-C5-C6	5.17	119.98	117.40
1	2	15	U	C6-N1-C2	-5.16	117.90	121.00
36	1	1113	G	C5-C6-N1	-5.16	108.92	111.50
36	1	3207	U	N1-C2-O2	-5.16	119.19	122.80
36	1	3246	G	C2-N3-C4	-5.16	109.32	111.90
1	6	804	A	N9-C4-C5	-5.16	103.73	105.80
1	6	1537	C	N1-C2-O2	-5.16	115.80	118.90
36	5	964	G	C8-N9-C4	-5.16	104.33	106.40
36	1	2847	A	C4-C5-N7	5.16	113.28	110.70
49	M3	67	ARG	NE-CZ-NH1	-5.16	117.72	120.30
36	1	1556	C	OP1-P-O3'	5.16	116.55	105.20
36	1	1858	A	C8-N9-C1'	-5.16	118.41	127.70
36	1	2905	U	N1-C2-O2	-5.16	119.19	122.80
36	1	2939	G	C4-C5-N7	-5.16	108.74	110.80
37	3	98	C	N3-C2-O2	5.16	125.51	121.90
36	5	420	G	N3-C4-C5	-5.16	126.02	128.60
36	5	834	U	C6-N1-C2	5.16	124.10	121.00
36	5	1113	G	N1-C6-O6	5.16	123.00	119.90
36	5	1528	G	C5-C6-O6	-5.16	125.50	128.60
36	5	1547	G	N1-C6-O6	5.16	123.00	119.90
36	5	3006	A	N9-C4-C5	5.16	107.86	105.80
1	2	612	U	C2-N3-C4	-5.16	123.91	127.00
1	2	1595	U	C4-C5-C6	5.16	122.80	119.70
36	5	622	A	N1-C6-N6	5.16	121.69	118.60
36	5	947	G	N3-C4-C5	-5.16	126.02	128.60
36	5	1844	C	N1-C2-N3	5.16	122.81	119.20
36	5	1856	C	C6-N1-C2	-5.16	118.24	120.30
36	5	2214	A	O5'-P-OP2	-5.16	101.06	105.70
38	8	80	A	N3-C4-C5	-5.16	123.19	126.80
36	1	1929	G	C8-N9-C4	5.16	108.46	106.40
36	5	400	G	N3-C4-N9	-5.16	122.91	126.00
36	5	3372	A	N1-C6-N6	-5.16	115.51	118.60
1	2	694	U	C5-C6-N1	5.16	125.28	122.70
36	1	364	G	N3-C4-C5	5.16	131.18	128.60
36	1	1163	A	OP1-P-OP2	5.16	127.33	119.60
36	5	649	A	N1-C6-N6	5.16	121.69	118.60
36	5	949	C	C5-C4-N4	-5.15	116.59	120.20
36	5	3052	G	N3-C4-N9	-5.15	122.91	126.00
36	1	278	U	N1-C2-N3	5.15	117.99	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	716	A	O5'-P-OP1	-5.15	101.06	105.70
36	1	2914	G	OP1-P-OP2	5.15	127.33	119.60
36	1	2923	U	O5'-P-OP1	-5.15	101.06	105.70
37	3	91	G	C2-N3-C4	-5.15	109.32	111.90
36	5	213	A	N1-C2-N3	-5.15	126.72	129.30
36	5	1116	G	C4-C5-C6	5.15	121.89	118.80
36	5	1171	G	C2-N3-C4	-5.15	109.33	111.90
36	5	2707	C	N3-C4-C5	5.15	123.96	121.90
36	1	2917	G	C2-N3-C4	5.15	114.47	111.90
1	6	1499	G	N1-C2-N2	-5.15	111.57	116.20
36	5	1110	U	C4-C5-C6	-5.15	116.61	119.70
37	7	81	U	N3-C4-O4	-5.15	115.80	119.40
1	2	307	G	C8-N9-C4	5.15	108.46	106.40
36	1	403	C	C5-C4-N4	5.15	123.80	120.20
36	1	1110	U	C4-C5-C6	-5.15	116.61	119.70
36	1	1151	U	C5-C6-N1	5.15	125.27	122.70
36	1	2873	U	N1-C2-N3	5.15	117.99	114.90
1	6	29	U	N3-C4-O4	-5.15	115.80	119.40
1	6	30	G	C8-N9-C4	-5.15	104.34	106.40
1	6	1568	C	C2-N1-C1'	5.15	124.46	118.80
36	5	152	U	C4-C5-C6	5.15	122.79	119.70
36	5	2093	A	C5-N7-C8	-5.15	101.33	103.90
36	1	2257	C	C2-N1-C1'	5.15	124.46	118.80
36	5	960	U	C6-N1-C1'	-5.15	114.00	121.20
1	2	1479	A	N1-C6-N6	5.14	121.69	118.60
36	1	937	G	OP1-P-OP2	5.14	127.32	119.60
36	1	1308	A	C5-C6-N1	-5.14	115.13	117.70
36	1	1381	A	OP1-P-O3'	5.14	116.52	105.20
36	1	1615	C	N3-C2-O2	-5.14	118.30	121.90
36	1	1822	C	C6-N1-C2	-5.14	118.24	120.30
36	1	2788	C	N3-C2-O2	5.14	125.50	121.90
36	1	2801	A	C8-N9-C1'	5.14	136.96	127.70
18	c6	113	ASP	CB-CG-OD1	5.14	122.93	118.30
36	5	1481	A	C5-N7-C8	-5.14	101.33	103.90
36	5	1609	C	N3-C4-N4	5.14	121.60	118.00
36	1	901	G	C5-C6-O6	-5.14	125.52	128.60
36	1	2212	C	OP2-P-O3'	5.14	116.52	105.20
36	1	3179	U	N1-C2-N3	5.14	117.98	114.90
1	6	1104	U	OP2-P-O3'	5.14	116.51	105.20
36	5	974	G	C5-C6-N1	5.14	114.07	111.50
36	5	2362	C	C2-N1-C1'	5.14	124.46	118.80
36	5	2600	C	C6-N1-C2	-5.14	118.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3133	C	O5'-P-OP1	5.14	116.87	110.70
36	1	3045	G	C2-N3-C4	5.14	114.47	111.90
36	5	802	C	N3-C4-C5	-5.14	119.84	121.90
36	5	1789	G	C4-N9-C1'	-5.14	119.82	126.50
1	2	213	A	C8-N9-C4	5.14	107.86	105.80
36	1	908	G	N1-C2-N2	5.14	120.83	116.20
36	1	2847	A	C5-C6-N6	-5.14	119.59	123.70
57	N1	78	LYS	CD-CE-NZ	5.14	123.52	111.70
1	6	1269	U	C6-N1-C2	-5.14	117.92	121.00
36	5	56	G	C5-C6-N1	5.14	114.07	111.50
36	5	710	A	C5-C6-N1	5.14	120.27	117.70
36	5	2815	G	C4-C5-N7	-5.14	108.74	110.80
1	6	1619	C	C6-N1-C2	-5.14	118.25	120.30
1	6	1774	G	O5'-P-OP2	5.14	116.87	110.70
36	5	346	C	C2-N1-C1'	5.14	124.45	118.80
1	2	124	A	O5'-P-OP2	-5.14	101.08	105.70
36	1	357	A	C5-C6-N6	-5.14	119.59	123.70
36	1	676	G	C6-C5-N7	-5.14	127.32	130.40
36	1	948	C	C2-N3-C4	-5.14	117.33	119.90
36	1	2888	U	C5-C4-O4	-5.14	122.82	125.90
50	M4	135	LEU	CA-CB-CG	5.14	127.11	115.30
1	6	377	G	N3-C4-N9	-5.14	122.92	126.00
1	6	1629	G	N3-C4-C5	-5.14	126.03	128.60
36	5	705	A	C8-N9-C4	5.14	107.86	105.80
36	5	2426	U	N1-C2-O2	5.14	126.40	122.80
36	5	3195	U	C6-N1-C1'	-5.14	114.01	121.20
1	2	590	C	N3-C2-O2	-5.13	118.31	121.90
1	6	1396	U	C6-N1-C2	-5.13	117.92	121.00
36	5	2246	G	C2-N3-C4	5.13	114.47	111.90
36	5	2362	C	C6-N1-C2	-5.13	118.25	120.30
36	1	908	G	N3-C2-N2	-5.13	116.31	119.90
36	1	930	U	C6-N1-C2	5.13	124.08	121.00
36	1	950	G	C5-N7-C8	-5.13	101.73	104.30
36	1	1315	U	C5-C6-N1	-5.13	120.13	122.70
36	1	2888	U	N1-C2-O2	-5.13	119.21	122.80
1	6	1600	A	P-O3'-C3'	5.13	125.86	119.70
1	6	1700	C	C6-N1-C1'	-5.13	114.64	120.80
36	5	1200	A	N3-C4-N9	5.13	131.51	127.40
36	5	2606	G	C8-N9-C4	-5.13	104.35	106.40
36	1	1325	U	C5-C4-O4	5.13	128.98	125.90
36	1	2351	U	C6-N1-C2	-5.13	117.92	121.00
36	1	2633	U	C4-C5-C6	5.13	122.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2805	G	N1-C2-N2	-5.13	111.58	116.20
36	1	2986	U	N1-C2-N3	5.13	117.98	114.90
57	N1	128	LEU	CA-CB-CG	5.13	127.10	115.30
36	5	1004	U	N1-C2-O2	5.13	126.39	122.80
36	5	1194	G	C6-N1-C2	-5.13	122.02	125.10
36	5	1306	G	C4-C5-N7	5.13	112.85	110.80
36	5	3041	U	N3-C2-O2	5.13	125.79	122.20
37	7	80	G	C6-C5-N7	-5.13	127.32	130.40
37	7	94	C	N3-C4-C5	5.13	123.95	121.90
36	1	386	A	C6-C5-N7	-5.13	128.71	132.30
1	6	622	A	OP1-P-O3'	5.13	116.49	105.20
36	1	45	A	C8-N9-C4	5.13	107.85	105.80
36	1	859	G	N1-C6-O6	5.13	122.98	119.90
36	1	1129	A	C8-N9-C4	5.13	107.85	105.80
36	1	1133	A	C4-C5-N7	5.13	113.26	110.70
36	1	3306	U	N1-C2-O2	5.13	126.39	122.80
41	L4	190	GLY	N-CA-C	5.13	125.92	113.10
1	6	187	G	P-O3'-C3'	5.13	125.86	119.70
1	6	377	G	C4-C5-C6	-5.13	115.72	118.80
1	6	1651	A	N1-C6-N6	5.13	121.68	118.60
36	5	50	U	OP1-P-O3'	5.13	116.48	105.20
36	5	1910	A	OP2-P-O3'	5.13	116.48	105.20
1	2	465	G	O5'-P-OP1	-5.13	101.09	105.70
1	2	1274	C	N3-C4-N4	-5.13	114.41	118.00
36	1	935	U	OP2-P-O3'	5.13	116.48	105.20
36	1	1364	C	N3-C4-C5	5.13	123.95	121.90
36	1	2383	C	C5-C4-N4	-5.13	116.61	120.20
36	5	500	C	OP1-P-O3'	5.13	116.48	105.20
36	5	3207	U	N1-C2-O2	-5.13	119.21	122.80
36	1	645	A	C2-N3-C4	5.12	113.16	110.60
36	1	1530	U	C6-N1-C2	5.12	124.07	121.00
1	6	1552	U	N3-C2-O2	5.12	125.79	122.20
36	5	1878	G	C4-N9-C1'	5.12	133.16	126.50
38	8	5	U	C5-C4-O4	-5.12	122.83	125.90
36	1	3053	G	C5-C6-O6	5.12	131.67	128.60
1	6	351	C	C6-N1-C1'	-5.12	114.65	120.80
1	6	1135	U	O5'-P-OP2	-5.12	101.09	105.70
36	5	213	A	OP2-P-O3'	5.12	116.47	105.20
1	6	68	A	C6-C5-N7	-5.12	128.72	132.30
1	6	1327	C	OP2-P-O3'	5.12	116.47	105.20
36	5	2858	U	C2-N1-C1'	5.12	123.84	117.70
1	2	1756	A	C6-C5-N7	-5.12	128.72	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1380	G	C4-C5-N7	5.12	112.85	110.80
36	1	2685	C	N1-C2-O2	-5.12	115.83	118.90
36	5	872	U	C2-N3-C4	-5.12	123.93	127.00
36	5	2808	A	N1-C6-N6	5.12	121.67	118.60
1	2	251	A	O5'-P-OP1	-5.12	101.09	105.70
36	1	907	G	N3-C4-N9	5.12	129.07	126.00
36	1	1154	A	O4'-C1'-N9	5.12	112.29	108.20
36	1	1385	C	C5-C6-N1	-5.12	118.44	121.00
36	1	2374	C	C4-C5-C6	5.12	119.96	117.40
36	5	1371	G	N1-C6-O6	-5.12	116.83	119.90
36	5	2817	A	OP2-P-O3'	5.12	116.46	105.20
36	5	2829	U	O5'-P-OP1	5.12	116.84	110.70
39	12	169	ILE	CG1-CB-CG2	-5.12	100.14	111.40
36	1	711	A	C8-N9-C4	5.12	107.85	105.80
36	1	1859	A	O5'-P-OP2	-5.12	101.10	105.70
36	1	2606	G	C4-N9-C1'	5.12	133.15	126.50
36	5	804	C	N3-C4-C5	-5.12	119.85	121.90
36	5	2379	U	C2-N3-C4	-5.12	123.93	127.00
36	5	2726	C	C4-C5-C6	5.12	119.96	117.40
36	1	1111	U	C5-C4-O4	-5.11	122.83	125.90
36	1	1154	A	C6-C5-N7	-5.11	128.72	132.30
36	1	1269	U	C2-N1-C1'	5.11	123.84	117.70
36	1	1392	G	C5-C6-O6	-5.11	125.53	128.60
1	6	976	G	C5-C6-N1	-5.11	108.94	111.50
36	5	749	C	C6-N1-C2	-5.11	118.25	120.30
36	5	1116	G	N7-C8-N9	5.11	115.66	113.10
36	5	1788	C	O5'-P-OP2	-5.11	101.10	105.70
36	5	2199	G	N1-C6-O6	5.11	122.97	119.90
36	5	2665	U	O5'-P-OP2	-5.11	101.10	105.70
36	1	627	U	C6-N1-C2	5.11	124.07	121.00
1	6	408	C	C6-N1-C2	-5.11	118.25	120.30
36	1	3214	U	C5-C4-O4	5.11	128.97	125.90
36	5	40	A	C4-C5-N7	5.11	113.26	110.70
36	5	649	A	C4-C5-N7	5.11	113.25	110.70
36	5	1389	G	C4-C5-N7	5.11	112.84	110.80
36	5	2910	A	OP2-P-O3'	5.11	116.44	105.20
37	7	86	U	OP1-P-O3'	5.11	116.44	105.20
36	1	1949	G	O5'-P-OP1	-5.11	101.10	105.70
1	6	119	A	N1-C2-N3	5.11	131.85	129.30
36	5	694	C	C2-N1-C1'	5.11	124.42	118.80
1	2	1258	U	C2-N1-C1'	5.11	123.83	117.70
36	1	1420	C	C2-N1-C1'	-5.11	113.18	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2920	U	N3-C4-C5	5.11	117.67	114.60
1	6	1227	A	OP2-P-O3'	5.11	116.44	105.20
1	6	1535	U	N1-C2-O2	5.11	126.38	122.80
36	5	367	A	N7-C8-N9	-5.11	111.25	113.80
36	5	974	G	C2-N3-C4	5.11	114.45	111.90
36	1	1329	U	O4'-C1'-N1	5.11	112.28	108.20
36	1	2257	C	O4'-C1'-N1	5.11	112.28	108.20
36	1	2297	U	P-O3'-C3'	5.11	125.83	119.70
38	4	58	G	N3-C4-N9	5.11	129.06	126.00
1	6	418	G	N7-C8-N9	5.11	115.65	113.10
36	5	3174	A	C5-N7-C8	-5.11	101.35	103.90
36	1	1336	U	O5'-P-OP1	5.10	116.82	110.70
1	6	1137	A	N7-C8-N9	-5.10	111.25	113.80
36	1	64	G	N3-C4-N9	-5.10	122.94	126.00
36	1	955	U	C5-C6-N1	-5.10	120.15	122.70
36	1	3041	U	N1-C2-N3	5.10	117.96	114.90
36	5	2121	G	O5'-P-OP2	-5.10	101.11	105.70
36	5	2831	G	C5-C6-O6	-5.10	125.54	128.60
36	1	118	U	C5-C6-N1	-5.10	120.15	122.70
36	1	3318	G	C4-N9-C1'	5.10	133.13	126.50
1	6	136	C	C6-N1-C1'	-5.10	114.68	120.80
36	5	1292	C	O5'-P-OP1	-5.10	101.11	105.70
36	5	2392	C	C2-N1-C1'	-5.10	113.19	118.80
36	5	2700	G	N9-C4-C5	-5.10	103.36	105.40
36	5	2984	C	C2-N3-C4	-5.10	117.35	119.90
1	2	1274	C	C6-N1-C2	-5.10	118.26	120.30
36	1	984	G	C6-C5-N7	-5.10	127.34	130.40
36	1	1170	A	C8-N9-C4	5.10	107.84	105.80
1	6	1659	A	N3-C4-N9	-5.10	123.32	127.40
36	5	2208	A	O4'-C1'-N9	5.10	112.28	108.20
36	5	2326	A	OP2-P-O3'	5.10	116.42	105.20
36	5	2692	A	N1-C6-N6	-5.10	115.54	118.60
1	2	307	G	C8-N9-C1'	-5.10	120.37	127.00
36	1	654	C	C5-C6-N1	-5.10	118.45	121.00
36	1	2508	U	C5-C6-N1	5.10	125.25	122.70
36	1	2800	G	C6-N1-C2	-5.10	122.04	125.10
1	6	297	U	N3-C4-O4	5.10	122.97	119.40
1	6	650	U	N1-C2-O2	5.10	126.37	122.80
1	6	1539	G	O4'-C1'-N9	-5.10	104.12	108.20
36	5	1578	C	C6-N1-C2	-5.10	118.26	120.30
36	5	353	G	C8-N9-C4	5.10	108.44	106.40
1	2	1751	C	C6-N1-C2	-5.09	118.26	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	C8	3	LEU	CA-CB-CG	5.09	127.02	115.30
36	1	53	G	C8-N9-C4	5.09	108.44	106.40
36	1	312	C	C5-C4-N4	-5.09	116.63	120.20
36	1	1121	U	N1-C2-O2	-5.09	119.23	122.80
36	1	3302	U	C6-N1-C2	5.09	124.06	121.00
33	e1	100	LEU	CA-CB-CG	5.09	127.02	115.30
36	5	826	G	N3-C2-N2	-5.09	116.33	119.90
36	5	2828	G	N1-C2-N3	5.09	126.96	123.90
38	8	34	U	N1-C2-N3	5.09	117.96	114.90
1	6	1537	C	C5-C4-N4	5.09	123.77	120.20
36	5	2234	G	N9-C4-C5	-5.09	103.36	105.40
1	2	256	A	C8-N9-C4	-5.09	103.76	105.80
36	1	503	C	N1-C2-O2	5.09	121.95	118.90
36	1	2203	U	N1-C2-O2	-5.09	119.24	122.80
36	1	3268	A	C6-C5-N7	-5.09	128.74	132.30
1	6	113	U	C5-C4-O4	5.09	128.96	125.90
1	6	1750	A	C8-N9-C4	5.09	107.84	105.80
36	5	128	G	C5-C6-O6	-5.09	125.55	128.60
36	5	1495	U	N3-C4-O4	5.09	122.97	119.40
36	5	1834	U	C6-N1-C1'	5.09	128.33	121.20
36	5	2893	C	C4-C5-C6	5.09	119.95	117.40
36	5	3209	A	C4-N9-C1'	5.09	135.47	126.30
36	1	1008	U	C2-N1-C1'	-5.09	111.59	117.70
38	4	44	A	C4-C5-N7	5.09	113.25	110.70
36	5	816	A	C5-C6-N6	5.09	127.77	123.70
36	5	948	C	C6-N1-C2	5.09	122.33	120.30
36	5	1124	U	OP1-P-OP2	5.09	127.23	119.60
36	5	3055	U	C5-C4-O4	-5.09	122.85	125.90
36	1	2146	C	N1-C2-O2	5.09	121.95	118.90
1	6	144	U	N1-C2-N3	5.09	117.95	114.90
36	5	1313	G	OP1-P-O3'	5.09	116.39	105.20
36	5	2360	C	N3-C4-N4	5.09	121.56	118.00
36	5	2397	A	C8-N9-C4	5.09	107.83	105.80
1	2	1761	U	N3-C2-O2	-5.09	118.64	122.20
36	1	3362	A	C4-C5-N7	5.09	113.24	110.70
38	4	44	A	C2-N3-C4	-5.09	108.06	110.60
71	O5	28	LEU	CA-CB-CG	5.09	127.00	115.30
36	5	984	G	N3-C4-N9	5.09	129.05	126.00
36	5	1369	A	N9-C4-C5	-5.09	103.77	105.80
36	5	2948	C	O5'-P-OP1	5.09	116.80	110.70
1	2	970	A	C5-C6-N6	-5.08	119.63	123.70
36	5	943	U	C2-N3-C4	-5.08	123.95	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1314	C	C2-N1-C1'	5.08	124.39	118.80
36	5	3121	U	C2-N1-C1'	-5.08	111.60	117.70
36	1	635	G	C6-N1-C2	-5.08	122.05	125.10
36	5	889	U	N3-C4-C5	5.08	117.65	114.60
36	5	2283	G	C5-N7-C8	-5.08	101.76	104.30
36	5	2406	C	N3-C2-O2	5.08	125.46	121.90
36	5	3028	G	N1-C2-N2	-5.08	111.63	116.20
38	8	111	A	C2-N3-C4	-5.08	108.06	110.60
1	2	553	G	N3-C2-N2	-5.08	116.34	119.90
36	1	788	C	N3-C4-N4	-5.08	114.44	118.00
36	1	1101	G	C4-C5-N7	-5.08	108.77	110.80
36	1	1151	U	C6-N1-C2	-5.08	117.95	121.00
36	1	1767	C	C6-N1-C2	-5.08	118.27	120.30
36	1	3378	C	C6-N1-C2	5.08	122.33	120.30
51	M5	83	LYS	CD-CE-NZ	5.08	123.39	111.70
1	6	1090	C	C6-N1-C2	5.08	122.33	120.30
1	6	1667	A	OP1-P-OP2	-5.08	111.98	119.60
36	5	227	G	N1-C6-O6	5.08	122.95	119.90
36	5	806	A	N9-C4-C5	-5.08	103.77	105.80
36	5	880	G	O4'-C1'-N9	5.08	112.27	108.20
36	5	2648	G	C5-C6-N1	5.08	114.04	111.50
36	5	2878	G	C5-C6-N1	5.08	114.04	111.50
1	2	1745	G	C6-C5-N7	-5.08	127.35	130.40
36	1	2298	U	N3-C4-O4	-5.08	115.84	119.40
51	M5	22	LEU	CA-CB-CG	5.08	126.98	115.30
36	5	98	G	C2-N3-C4	-5.08	109.36	111.90
36	5	2417	U	N1-C2-O2	-5.08	119.24	122.80
36	5	2870	C	O4'-C1'-N1	5.08	112.26	108.20
36	1	612	U	C2-N3-C4	-5.08	123.95	127.00
36	1	1352	A	P-O3'-C3'	5.08	125.79	119.70
36	1	1387	G	OP1-P-O3'	5.08	116.37	105.20
38	4	111	A	C6-C5-N7	-5.08	128.75	132.30
1	6	1031	U	C2-N3-C4	-5.08	123.95	127.00
36	5	412	G	N7-C8-N9	5.08	115.64	113.10
36	5	1332	A	C6-N1-C2	-5.08	115.55	118.60
36	5	2875	U	N3-C4-O4	5.08	122.95	119.40
36	5	3118	C	C2-N1-C1'	5.08	124.39	118.80
36	1	2283	G	N3-C2-N2	-5.08	116.35	119.90
36	5	2622	C	OP2-P-O3'	5.08	116.37	105.20
36	5	3215	A	C2-N3-C4	-5.08	108.06	110.60
1	2	1458	G	C5-C6-O6	-5.08	125.56	128.60
36	1	326	U	N3-C4-O4	5.08	122.95	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	417	A	N1-C6-N6	5.08	121.64	118.60
36	1	2712	U	C5-C4-O4	5.08	128.95	125.90
36	1	2827	U	C4-C5-C6	5.08	122.75	119.70
36	5	3092	C	O4'-C1'-N1	5.08	112.26	108.20
1	2	7	G	N1-C6-O6	-5.07	116.86	119.90
1	2	55	A	N1-C6-N6	-5.07	115.56	118.60
36	1	960	U	OP2-P-O3'	5.07	116.36	105.20
36	1	2942	C	C5-C4-N4	-5.07	116.65	120.20
1	6	1458	G	C8-N9-C1'	-5.07	120.40	127.00
36	5	25	U	N3-C4-C5	-5.07	111.56	114.60
36	5	337	G	N1-C6-O6	-5.07	116.86	119.90
36	5	941	G	C5-C6-N1	5.07	114.04	111.50
36	5	3317	U	N3-C2-O2	-5.07	118.65	122.20
1	2	1482	C	C6-N1-C2	5.07	122.33	120.30
1	6	337	G	C4-C5-C6	5.07	121.84	118.80
36	5	1389	G	N3-C4-N9	5.07	129.04	126.00
36	5	2698	G	N7-C8-N9	-5.07	110.56	113.10
36	5	3130	A	N1-C2-N3	5.07	131.84	129.30
36	1	821	U	C5-C6-N1	-5.07	120.17	122.70
36	1	944	C	OP2-P-O3'	5.07	116.35	105.20
36	5	3133	C	C4-C5-C6	5.07	119.93	117.40
36	1	1307	G	C2'-C3'-O3'	5.07	121.81	113.70
36	5	2180	G	N3-C4-C5	5.07	131.13	128.60
36	5	2763	U	OP1-P-O3'	5.07	116.35	105.20
36	1	1002	A	C4-C5-C6	-5.07	114.47	117.00
36	5	105	C	C6-N1-C2	5.07	122.33	120.30
36	1	206	G	C5-N7-C8	5.06	106.83	104.30
36	5	787	G	C2-N3-C4	-5.06	109.37	111.90
36	5	3225	C	N1-C2-O2	5.06	121.94	118.90
36	1	1874	A	C8-N9-C4	5.06	107.83	105.80
36	1	2323	G	O5'-P-OP2	5.06	116.78	110.70
36	1	2362	C	C5-C4-N4	5.06	123.74	120.20
36	1	2994	A	N1-C2-N3	5.06	131.83	129.30
36	5	412	G	C8-N9-C4	-5.06	104.38	106.40
36	5	1151	U	N3-C4-O4	5.06	122.94	119.40
36	5	1370	G	C6-N1-C2	-5.06	122.06	125.10
36	5	2148	U	N3-C2-O2	5.06	125.74	122.20
36	5	2295	A	C4-C5-N7	5.06	113.23	110.70
36	5	2719	U	C2-N1-C1'	-5.06	111.62	117.70
36	5	2819	A	C5-C6-N1	-5.06	115.17	117.70
78	Q2	70	LEU	CA-CB-CG	5.06	126.94	115.30
1	6	457	G	N1-C6-O6	5.06	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3068	U	C5-C6-N1	-5.06	120.17	122.70
36	1	1660	C	N3-C4-N4	5.06	121.54	118.00
36	1	1934	G	C8-N9-C4	-5.06	104.38	106.40
36	1	2675	C	C6-N1-C1'	-5.06	114.73	120.80
36	1	3375	A	N9-C4-C5	5.06	107.82	105.80
37	3	79	A	N1-C2-N3	5.06	131.83	129.30
1	6	1280	C	C6-N1-C2	-5.06	118.28	120.30
36	5	889	U	C6-N1-C2	5.06	124.03	121.00
36	5	943	U	OP1-P-OP2	5.06	127.19	119.60
36	5	2407	C	N3-C4-N4	5.06	121.54	118.00
36	5	2742	C	C6-N1-C2	5.06	122.32	120.30
36	1	1659	U	N3-C4-C5	-5.06	111.57	114.60
36	1	2295	A	C6-C5-N7	-5.06	128.76	132.30
36	1	2333	C	O5'-P-OP1	-5.06	101.15	105.70
1	6	173	A	C2-N3-C4	-5.06	108.07	110.60
36	5	1392	G	N3-C4-N9	5.06	129.03	126.00
36	1	2927	C	C2-N3-C4	-5.06	117.37	119.90
36	5	3244	A	O4'-C1'-N9	-5.06	104.16	108.20
36	1	1334	U	C6-N1-C2	-5.05	117.97	121.00
38	4	147	U	C2-N1-C1'	5.05	123.77	117.70
1	6	1031	U	C6-N1-C2	5.05	124.03	121.00
36	5	795	G	C4-C5-N7	-5.05	108.78	110.80
36	5	862	U	N1-C2-N3	5.05	117.93	114.90
36	5	912	G	N3-C4-C5	-5.05	126.07	128.60
36	5	2333	C	N3-C2-O2	5.05	125.44	121.90
23	D1	78	LEU	CA-CB-CG	5.05	126.92	115.30
36	1	919	U	N3-C4-C5	5.05	117.63	114.60
60	N4	10	GLY	N-CA-C	-5.05	100.47	113.10
36	1	99	A	C2-N3-C4	5.05	113.12	110.60
36	1	1144	U	N1-C2-O2	-5.05	119.27	122.80
36	1	2130	G	N1-C2-N2	-5.05	111.66	116.20
36	1	2658	G	C8-N9-C4	5.05	108.42	106.40
37	3	49	G	C5-N7-C8	5.05	106.82	104.30
1	6	771	A	N1-C6-N6	5.05	121.63	118.60
36	5	1195	A	N3-C4-N9	-5.05	123.36	127.40
36	5	1301	A	C5-N7-C8	-5.05	101.38	103.90
36	5	1912	U	C6-N1-C2	5.05	124.03	121.00
36	5	2358	A	C4-C5-C6	-5.05	114.47	117.00
36	1	1859	A	N1-C6-N6	5.05	121.63	118.60
36	1	2289	U	N1-C2-N3	5.05	117.93	114.90
1	2	7	G	N3-C4-C5	-5.05	126.08	128.60
36	1	97	U	OP1-P-O3'	-5.05	94.10	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2623	G	N1-C2-N2	-5.05	111.66	116.20
36	5	341	G	N1-C6-O6	5.05	122.93	119.90
36	1	587	U	N1-C2-N3	5.04	117.93	114.90
36	1	2809	C	N3-C2-O2	-5.04	118.37	121.90
36	5	3129	A	C8-N9-C4	5.04	107.82	105.80
36	5	3248	C	N3-C4-N4	5.04	121.53	118.00
38	4	47	C	C2-N3-C4	-5.04	117.38	119.90
54	M8	99	THR	N-CA-C	5.04	124.62	111.00
1	6	339	C	N3-C2-O2	5.04	125.43	121.90
1	6	558	U	N1-C2-O2	5.04	126.33	122.80
36	5	811	U	C5-C4-O4	-5.04	122.87	125.90
36	5	2357	A	C5-C6-N6	-5.04	119.67	123.70
1	2	120	U	C2-N1-C1'	5.04	123.75	117.70
36	1	353	G	N3-C2-N2	5.04	123.43	119.90
36	1	371	G	C4-C5-N7	5.04	112.82	110.80
36	1	936	A	O5'-P-OP2	-5.04	101.16	105.70
36	1	2814	G	O5'-P-OP1	-5.04	101.16	105.70
1	6	1098	U	O5'-P-OP1	-5.04	101.16	105.70
1	6	1747	G	N7-C8-N9	-5.04	110.58	113.10
36	5	1876	U	C5-C6-N1	-5.04	120.18	122.70
36	5	2167	A	O5'-P-OP1	-5.04	101.16	105.70
36	5	2278	C	N1-C2-O2	5.04	121.92	118.90
36	5	2296	A	C5-C6-N6	-5.04	119.67	123.70
36	5	2818	U	C5'-C4'-O4'	-5.04	103.05	109.10
36	1	1176	C	O5'-P-OP2	5.04	116.75	110.70
1	6	421	A	C8-N9-C4	5.04	107.82	105.80
1	2	1108	G	C8-N9-C4	-5.04	104.38	106.40
1	2	1457	C	C6-N1-C2	-5.04	118.28	120.30
36	1	44	U	C2-N1-C1'	-5.04	111.65	117.70
36	1	2883	U	C4-C5-C6	-5.04	116.68	119.70
1	6	57	G	N3-C4-N9	5.04	129.02	126.00
1	6	599	A	N9-C4-C5	5.04	107.81	105.80
1	6	1027	A	N1-C6-N6	5.04	121.62	118.60
1	6	1757	G	C8-N9-C4	5.04	108.42	106.40
36	5	799	G	O5'-P-OP1	-5.04	101.17	105.70
36	5	951	A	C2-N3-C4	-5.04	108.08	110.60
36	5	1488	G	OP1-P-O3'	5.04	116.28	105.20
36	5	1872	C	C2-N3-C4	-5.04	117.38	119.90
36	5	2610	G	C2-N3-C4	-5.04	109.38	111.90
36	5	2917	G	C6-C5-N7	-5.04	127.38	130.40
1	2	1600	A	C6-C5-N7	-5.04	128.78	132.30
36	1	818	C	OP1-P-OP2	-5.04	112.05	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	929	A	OP1-P-O3'	5.04	116.28	105.20
36	1	1438	U	N1-C2-N3	5.04	117.92	114.90
36	1	1846	C	C4-C5-C6	5.04	119.92	117.40
38	4	81	U	C2-N1-C1'	5.04	123.74	117.70
1	6	295	A	C8-N9-C4	5.04	107.81	105.80
1	6	1773	C	C2-N3-C4	5.04	122.42	119.90
36	5	607	A	N9-C4-C5	5.04	107.81	105.80
36	5	856	G	C5-C6-O6	-5.04	125.58	128.60
36	5	2887	A	C4-C5-C6	5.04	119.52	117.00
36	5	3140	G	N9-C4-C5	-5.04	103.39	105.40
36	1	1193	A	C4-C5-N7	5.03	113.22	110.70
1	6	1037	C	C6-N1-C2	5.03	122.31	120.30
36	5	859	G	N3-C4-N9	5.03	129.02	126.00
36	5	1667	A	N9-C4-C5	-5.03	103.79	105.80
36	5	2405	C	N3-C2-O2	-5.03	118.38	121.90
36	1	125	C	C5-C6-N1	-5.03	118.48	121.00
36	1	954	U	C5-C4-O4	-5.03	122.88	125.90
36	1	2705	A	C2-N3-C4	5.03	113.12	110.60
36	5	61	A	C8-N9-C4	-5.03	103.79	105.80
36	5	1075	A	N7-C8-N9	-5.03	111.28	113.80
36	5	1381	A	O5'-P-OP2	5.03	116.74	110.70
36	1	810	A	N9-C4-C5	5.03	107.81	105.80
36	1	1307	G	C8-N9-C1'	5.03	133.54	127.00
36	1	2610	G	C2-N3-C4	-5.03	109.39	111.90
38	4	39	G	O5'-P-OP2	-5.03	101.17	105.70
1	6	633	U	OP2-P-O3'	5.03	116.27	105.20
1	6	1117	U	N1-C2-O2	-5.03	119.28	122.80
36	5	908	G	C4-N9-C1'	5.03	133.04	126.50
36	5	2335	G	N7-C8-N9	-5.03	110.58	113.10
36	5	3212	C	C2-N1-C1'	-5.03	113.27	118.80
36	5	49	A	C5-C6-N6	-5.03	119.68	123.70
36	5	874	U	N1-C2-O2	-5.03	119.28	122.80
36	5	1352	A	OP1-P-O3'	5.03	116.26	105.20
36	1	125	C	N3-C4-N4	-5.03	114.48	118.00
36	1	2112	U	P-O3'-C3'	5.03	125.73	119.70
1	6	65	A	N1-C6-N6	5.03	121.62	118.60
36	5	907	G	N3-C4-N9	5.03	129.02	126.00
36	5	1208	U	N3-C2-O2	-5.03	118.68	122.20
36	5	1516	C	N1-C2-O2	5.03	121.92	118.90
54	m8	151	ARG	NE-CZ-NH1	-5.03	117.79	120.30
36	1	611	A	O5'-P-OP2	-5.03	101.18	105.70
36	1	1899	G	C4-C5-N7	5.03	112.81	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2799	A	C5-C6-N6	-5.03	119.68	123.70
38	4	53	A	N1-C6-N6	-5.03	115.58	118.60
1	6	343	C	N1-C2-O2	-5.03	115.89	118.90
36	5	635	G	C4-C5-N7	5.03	112.81	110.80
36	1	2372	A	OP1-P-O3'	5.02	116.25	105.20
41	L4	313	LEU	CA-CB-CG	5.02	126.86	115.30
36	5	382	U	O5'-P-OP2	-5.02	101.18	105.70
36	5	1200	A	P-O3'-C3'	5.02	125.73	119.70
36	5	1868	G	C8-N9-C4	5.02	108.41	106.40
38	8	108	C	N1-C2-O2	-5.02	115.89	118.90
36	1	573	C	C5-C6-N1	-5.02	118.49	121.00
36	1	577	C	N1-C2-O2	-5.02	115.89	118.90
36	1	932	U	C5-C4-O4	-5.02	122.89	125.90
36	5	339	C	N3-C4-N4	-5.02	114.48	118.00
36	5	1049	C	N3-C4-C5	5.02	123.91	121.90
36	5	2896	A	C5'-C4'-O4'	-5.02	103.07	109.10
36	5	3309	G	C4-N9-C1'	5.02	133.03	126.50
38	8	10	A	C8-N9-C4	-5.02	103.79	105.80
36	1	2950	G	C5-C6-O6	5.02	131.61	128.60
1	6	474	A	C8-N9-C4	5.02	107.81	105.80
36	5	1496	C	N3-C4-C5	5.02	123.91	121.90
36	5	2810	C	C4-C5-C6	5.02	119.91	117.40
36	1	1329	U	N3-C2-O2	-5.02	118.69	122.20
36	1	2762	A	N1-C6-N6	-5.02	115.59	118.60
38	4	142	C	C6-N1-C2	-5.02	118.29	120.30
1	6	557	G	N3-C4-C5	-5.02	126.09	128.60
25	d3	33	LEU	CB-CG-CD1	-5.02	102.47	111.00
36	5	2163	C	N1-C2-N3	5.02	122.71	119.20
36	5	3053	G	N1-C2-N3	-5.02	120.89	123.90
36	5	3092	C	C2-N3-C4	-5.02	117.39	119.90
38	8	92	A	N1-C6-N6	5.02	121.61	118.60
36	1	650	C	N1-C2-O2	-5.02	115.89	118.90
36	1	1162	U	C5-C6-N1	5.02	125.21	122.70
36	1	2808	A	C5-C6-N6	-5.02	119.69	123.70
36	5	1077	U	N3-C2-O2	5.02	125.71	122.20
36	5	2105	G	N1-C6-O6	5.02	122.91	119.90
36	5	2292	U	N3-C2-O2	-5.02	118.69	122.20
36	5	2945	G	OP1-P-OP2	-5.02	112.07	119.60
36	1	1131	G	N9-C4-C5	-5.02	103.39	105.40
36	5	1140	G	OP1-P-O3'	5.02	116.23	105.20
1	2	1495	C	O5'-P-OP1	-5.01	101.19	105.70
36	1	619	A	N9-C4-C5	-5.01	103.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	58	G	O5'-P-OP2	-5.01	101.19	105.70
1	6	1743	U	C4-C5-C6	5.01	122.71	119.70
36	5	530	G	C8-N9-C1'	5.01	133.52	127.00
36	1	1384	U	OP2-P-O3'	5.01	116.23	105.20
36	1	1617	G	C8-N9-C4	5.01	108.41	106.40
36	1	1851	G	C8-N9-C4	-5.01	104.39	106.40
36	1	2871	G	O5'-P-OP2	-5.01	101.19	105.70
1	6	1060	U	C6-N1-C2	-5.01	117.99	121.00
36	5	2199	G	C5-C6-O6	-5.01	125.59	128.60
36	5	3250	U	O4'-C1'-N1	5.01	112.21	108.20
63	n7	134	LEU	CA-CB-CG	5.01	126.83	115.30
1	6	53	G	N3-C4-N9	5.01	129.01	126.00
36	5	506	U	OP2-P-O3'	5.01	116.23	105.20
36	5	1398	U	OP2-P-O3'	5.01	116.22	105.20
36	5	2640	A	N1-C2-N3	5.01	131.81	129.30
47	m0	60	LEU	CA-CB-CG	5.01	126.83	115.30
36	1	339	C	N1-C2-N3	5.01	122.71	119.20
36	1	1189	C	C5-C6-N1	-5.01	118.50	121.00
36	1	1513	G	N1-C2-N3	5.01	126.91	123.90
36	1	2212	C	C5-C6-N1	-5.01	118.50	121.00
36	1	3022	G	C4-N9-C1'	-5.01	119.99	126.50
36	1	3121	U	N1-C2-O2	-5.01	119.29	122.80
37	3	95	A	C5-N7-C8	-5.01	101.40	103.90
36	5	1195	A	C2-N3-C4	-5.01	108.09	110.60
37	7	79	A	N1-C6-N6	5.01	121.61	118.60
36	1	51	A	C5-C6-N6	-5.01	119.69	123.70
36	1	221	A	N1-C2-N3	5.01	131.80	129.30
36	1	663	C	N3-C4-N4	5.01	121.51	118.00
36	1	2282	U	O5'-P-OP1	5.01	116.71	110.70
1	2	59	C	N1-C2-O2	5.01	121.90	118.90
36	1	24	G	N1-C2-N3	5.01	126.90	123.90
36	1	2878	G	OP1-P-O3'	5.01	116.22	105.20
44	L7	160	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	6	1127	G	N1-C2-N3	5.01	126.90	123.90
36	5	19	U	N3-C4-O4	5.01	122.91	119.40
36	5	146	U	N3-C4-O4	-5.01	115.90	119.40
39	12	237	LEU	CA-CB-CG	-5.01	103.78	115.30
1	2	1104	U	O5'-P-OP2	-5.00	101.19	105.70
36	1	2990	G	OP1-P-O3'	5.00	116.21	105.20
54	M8	178	ARG	NE-CZ-NH1	-5.00	117.80	120.30
25	d3	45	GLY	N-CA-C	-5.00	100.59	113.10
36	5	2158	A	C5-C6-N1	5.00	120.20	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3136	G	N1-C2-N3	5.00	126.90	123.90
37	7	90	U	C5-C4-O4	-5.00	122.90	125.90
1	2	44	U	N1-C2-O2	-5.00	119.30	122.80
36	1	18	G	OP2-P-O3'	5.00	116.21	105.20
36	1	54	C	C2-N3-C4	-5.00	117.40	119.90
36	1	410	U	N3-C4-O4	5.00	122.90	119.40
36	1	410	U	N3-C4-C5	-5.00	111.60	114.60
36	1	2751	G	C5-C6-O6	-5.00	125.60	128.60
36	5	928	C	O5'-P-OP1	5.00	116.70	110.70
36	5	1119	C	OP2-P-O3'	5.00	116.21	105.20
36	5	1309	U	C2-N1-C1'	-5.00	111.69	117.70
36	5	2375	G	O4'-C1'-N9	5.00	112.20	108.20
36	5	2395	G	C5-N7-C8	-5.00	101.80	104.30
36	5	2739	A	N1-C2-N3	5.00	131.80	129.30
36	5	2942	C	C5-C4-N4	-5.00	116.70	120.20
36	5	3130	A	C4-C5-C6	5.00	119.50	117.00
38	8	96	A	C5-C6-N6	-5.00	119.70	123.70
36	1	1402	C	N3-C4-N4	-5.00	114.50	118.00
36	1	3039	C	C6-N1-C2	-5.00	118.30	120.30
38	4	81	U	N3-C2-O2	-5.00	118.70	122.20

There are no chirality outliers.

All (43) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
18	C6	113	ASP	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
25	D3	78	LYS	Peptide
27	D5	94	LYS	Peptide
27	D5	96	SER	Peptide
33	E1	137	ASP	Peptide
39	L2	19	HIS	Peptide
39	L2	48	ILE	Peptide
41	L4	318	LEU	Peptide
43	L6	51	ARG	Peptide
48	M1	8	PRO	Peptide
49	M3	164	GLU	Peptide
50	M4	112	LEU	Peptide
52	M6	110	PRO	Peptide
52	M6	111	PRO	Peptide
53	M7	120	ASN	Peptide

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Mol	Chain	Res	Type	Group
57	N1	16	GLN	Peptide
63	N7	3	LYS	Peptide
64	N8	30	GLY	Peptide
65	N9	20	GLY	Peptide
67	O1	5	LYS	Peptide
9	S7	131	PHE	Peptide
12	c0	33	GLU	Peptide
16	c4	123	SER	Peptide
17	c5	52	LYS	Peptide
18	c6	40	GLU	Peptide
19	c7	87	GLU	Peptide
22	d0	70	THR	Peptide
26	d4	59	GLY	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
45	l8	221	ASN	Peptide
52	m6	110	PRO	Peptide
56	n0	133	ALA	Peptide
56	n0	170	THR	Peptide
64	n8	18	GLY	Peptide
64	n8	26	ARG	Peptide
64	n8	66	ALA	Peptide
2	s0	165	ARG	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	Peptide

## 5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37283	0	18757	944	0
1	6	38238	0	19241	917	0
2	S0	1577	0	1567	175	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	175	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	140	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	147	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	168	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	175	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	132	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	130	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	150	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	148	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	77	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	77	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	67	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	110	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	97	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	109	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	105	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	73	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	129	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	105	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	98	0
22	d0	882	0	939	0	0
23	D1	684	0	672	62	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	99	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	103	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	94	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	62	0
27	d5	558	0	598	0	0
28	D6	769	0	814	91	0
28	d6	769	0	814	0	0
29	D7	610	0	631	47	0
29	d7	610	0	633	0	0
30	D8	497	0	535	47	0
30	d8	497	0	535	0	0
31	D9	442	0	428	45	0
31	d9	442	0	428	0	0
32	E0	475	0	525	42	0
33	E1	566	0	602	67	0
33	e1	608	0	656	0	0
34	SR	2441	0	2397	197	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	83	0
35	sM	679	0	603	0	0
36	1	67355	0	33846	1399	0
36	5	67376	0	33860	1386	0
37	3	2579	0	1303	58	0
37	7	2579	0	1303	49	0
38	4	3353	0	1695	74	0
38	8	3353	0	1695	80	0
39	L2	1914	0	1981	147	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	281	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	209	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	208	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	84	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	155	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	122	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	151	0
46	l9	1518	0	1587	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	M0	1705	0	1735	162	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	112	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	145	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	83	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	157	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	140	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	114	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	105	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	116	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	112	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	111	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	52	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	83	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	29	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	74	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	77	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	102	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	113	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	43	0
65	n9	462	0	491	0	0
66	O0	743	0	797	61	0
66	o0	767	0	816	0	0
67	O1	876	0	912	68	0
67	o1	883	0	918	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
68	O2	1020	0	1090	72	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	59	0
69	o3	850	0	880	0	0
70	O4	880	0	945	76	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	97	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	54	0
72	o6	770	0	846	0	0
73	O7	681	0	682	65	0
73	o7	681	0	683	0	0
74	O8	612	0	682	51	0
74	o8	608	0	671	0	0
75	O9	436	0	475	45	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	25	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	26	0
77	q1	233	0	284	0	0
78	Q2	847	0	917	66	0
78	q2	847	0	917	0	0
79	Q3	694	0	734	50	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	m2	750	0	175	0	0
82	p0	1076	0	1040	0	0
83	p1	235	0	52	0	0
84	p2	230	0	51	0	0
85	1	471	0	0	0	0
85	2	121	0	0	0	0
85	3	13	0	0	0	0
85	4	23	0	0	0	0
85	5	497	0	0	0	0
85	6	145	0	0	0	0
85	7	16	0	0	0	0
85	8	15	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0
85	L2	2	0	0	0	0
85	L3	3	0	0	0	0
85	L4	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	L5	1	0	0	0	0
85	L7	3	0	0	0	0
85	L8	1	0	0	0	0
85	M0	3	0	0	0	0
85	M1	2	0	0	0	0
85	M3	3	0	0	0	0
85	M5	1	0	0	0	0
85	M6	1	0	0	0	0
85	M7	4	0	0	0	0
85	M9	2	0	0	0	0
85	N0	1	0	0	0	0
85	N3	3	0	0	0	0
85	N5	1	0	0	0	0
85	N6	1	0	0	0	0
85	N8	3	0	0	0	0
85	O3	1	0	0	0	0
85	O4	1	0	0	0	0
85	O7	2	0	0	0	0
85	Q2	1	0	0	0	0
85	S2	2	0	0	0	0
85	S4	1	0	0	0	0
85	S6	1	0	0	0	0
85	S8	1	0	0	0	0
85	c1	1	0	0	0	0
85	c7	1	0	0	0	0
85	c8	2	0	0	0	0
85	c9	1	0	0	0	0
85	d3	2	0	0	0	0
85	d6	1	0	0	0	0
85	l2	2	0	0	0	0
85	l3	3	0	0	0	0
85	l4	1	0	0	0	0
85	l5	2	0	0	0	0
85	l7	3	0	0	0	0
85	l8	1	0	0	0	0
85	l9	1	0	0	0	0
85	m1	1	0	0	0	0
85	m4	1	0	0	0	0
85	m5	3	0	0	0	0
85	m6	2	0	0	0	0
85	m7	5	0	0	0	0
85	n0	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	n3	2	0	0	0	0
85	n6	1	0	0	0	0
85	n8	5	0	0	0	0
85	o1	1	0	0	0	0
85	o3	2	0	0	0	0
85	o4	1	0	0	0	0
85	o7	1	0	0	0	0
85	q0	1	0	0	0	0
85	q1	1	0	0	0	0
85	q3	2	0	0	0	0
85	s1	1	0	0	0	0
85	s2	1	0	0	0	0
85	s4	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2443	0	0	239	0
86	2	1106	0	0	115	0
86	3	77	0	0	3	0
86	4	112	0	0	10	0
86	5	2457	0	0	240	0
86	6	1120	0	0	118	0
86	7	77	0	0	11	0
86	8	119	0	0	19	0
86	C3	7	0	0	2	0
86	C5	7	0	0	4	0
86	C8	7	0	0	0	0
86	D3	7	0	0	0	0
86	D9	7	0	0	1	0
86	L3	21	0	0	2	0
86	L4	7	0	0	2	0
86	M0	7	0	0	0	0
86	M5	7	0	0	1	0
86	M7	14	0	0	3	0
86	M9	7	0	0	0	0
86	N1	7	0	0	1	0
86	N9	7	0	0	1	0
86	O1	7	0	0	6	0
86	O2	7	0	0	0	0
86	O3	7	0	0	1	0
86	O7	14	0	0	6	0
86	Q2	7	0	0	2	0
86	S8	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d4	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	21	0	0	0	0
86	l4	14	0	0	0	0
86	l5	28	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0
86	m5	14	0	0	0	0
86	m6	7	0	0	0	0
86	m7	7	0	0	0	0
86	m8	7	0	0	0	0
86	n3	7	0	0	0	0
86	n9	7	0	0	0	0
86	o2	7	0	0	0	0
86	o3	7	0	0	0	0
86	o7	7	0	0	0	0
86	q1	7	0	0	0	0
86	q2	7	0	0	0	0
86	s1	14	0	0	0	0
86	s4	7	0	0	0	0
86	s8	7	0	0	0	0
86	sR	7	0	0	0	0
87	D6	1	0	0	0	0
87	D7	1	0	0	0	0
87	D9	1	0	0	0	0
87	E1	1	0	0	0	0
87	O7	1	0	0	0	0
87	Q0	1	0	0	0	0
87	Q2	1	0	0	0	0
87	Q3	1	0	0	0	0
87	d6	1	0	0	0	0
87	d7	1	0	0	0	0
87	d9	1	0	0	0	0
87	e1	1	0	0	0	0
87	o7	1	0	0	0	0
87	q0	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	q2	1	0	0	0	0
87	q3	1	0	0	0	0
88	1	57	0	52	6	0
88	5	57	0	52	8	0
All	All	411276	0	297392	10984	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 16.

All (10984) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:17:CYS:CB	78:Q2:17:CYS:SG	2.02	1.47
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.36	1.08
36:5:3274:A:H3'	36:5:3275:U:H5''	1.36	1.07
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.39	1.05
36:5:2273:G:O6	86:5:4195:OHX:N5	1.91	1.03
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.34	1.03
24:D2:2:THR:N	1:6:1034:C:HO2'	337.66	0.99
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.77	0.99
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.42	0.98
36:5:343:U:OP2	86:5:3922:OHX:N3	1.95	0.98
40:L3:296:THR:HG22	40:L3:298:PHE:H	4.70	0.97
36:1:640:U:OP1	64:N8:21:ARG:NH2	1.97	0.96
36:1:1192:C:N4	36:1:1302:A:OP2	1.96	0.96
47:M0:76:MET:HE3	47:M0:148:VAL:HG13	1.43	0.95
1:2:1339:C:O2'	1:2:1341:A:N7	2.00	0.95
40:L3:81:THR:HG23	40:L3:205:VAL:HG21	1.48	0.95
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	1.80	0.94
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.14	0.94
52:M6:160:ARG:NH2	36:5:3182:G:OP1	279.67	0.94
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	4.27	0.94
36:5:240:U:HO2'	36:5:241:G:H8	1.09	0.94
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.33	0.94
36:1:439:C:H3'	36:1:440:A:H8	1.31	0.94
1:2:992:A:H2	1:2:1012:U:H3	1.08	0.94
36:1:1898:G:OP2	86:1:3937:OHX:N4	2.01	0.94
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.01	0.93
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.51	0.93
1:2:320:U:H3'	1:2:321:C:H5''	1.51	0.93
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.00	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1011:G:OP2	86:6:2120:OHX:N3	2.02	0.93
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.51	0.93
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.50	0.92
55:M9:46:LYS:HZ1	36:5:1766:G:H8	100.57	0.92
36:1:2206:G:H1	36:1:2237:C:H42	1.14	0.92
36:5:2836:C:H5	36:5:2852:C:H42	1.09	0.92
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.52	0.92
69:O3:18:ARG:HD3	36:5:1178:G:H5''	237.67	0.92
17:C5:43:ARG:NH2	1:6:1552:U:OP2	403.23	0.91
51:M5:188:ARG:NH2	36:5:31:C:OP2	122.05	0.91
1:6:1588:G:H1	1:6:1608:U:H3	1.14	0.91
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.31	0.91
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.29	0.91
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.61	0.90
36:1:1887:A:OP2	86:1:3898:OHX:N4	2.05	0.90
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.36	0.90
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.04	0.90
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.54	0.90
50:M4:128:ARG:NH2	36:5:3214:U:OP2	279.65	0.89
61:N5:71:THR:HG21	36:5:1603:A:H61	90.54	0.89
59:N3:74:MET:HG3	59:N3:102:ILE:HD13	1.52	0.89
36:5:174:C:H42	36:5:244:G:H1	1.21	0.89
47:M0:99:ILE:HD12	47:M0:101:LYS:HB2	6.51	0.89
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.38	0.88
86:1:4085:OHX:N1	72:O6:28:TYR:O	2.06	0.88
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.53	0.88
36:5:2620:G:O6	86:5:4239:OHX:N4	2.07	0.88
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.06	0.88
52:M6:110:PRO:O	52:M6:112:TYR:N	3.00	0.88
24:D2:82:LYS:O	24:D2:84:GLY:N	2.05	0.88
36:1:1481:A:O2'	36:1:1858:A:N3	2.04	0.88
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.87	0.88
36:1:2836:C:H5	36:1:2852:C:H42	1.17	0.88
40:L3:3:HIS:ND1	40:L3:3:HIS:O	2.06	0.88
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB3	2.90	0.88
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.05	0.88
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.57	0.87
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	3.52	0.87
36:1:2818:U:H6	36:1:2818:U:H5'	1.38	0.87
40:L3:139:GLN:O	40:L3:141:GLY:N	2.07	0.87
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.18	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1362:G:H4'	44:L7:159:GLN:O	1.74	0.87
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.27	0.87
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	1.54	0.87
36:1:439:C:H3'	36:1:440:A:C8	2.10	0.87
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	2.00	0.87
37:7:86:U:O2	86:7:220:OHX:N4	2.08	0.87
36:5:272:G:OP2	86:5:4070:OHX:N6	2.08	0.86
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.54	0.86
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.31	0.86
36:1:2794:G:N7	86:1:3940:OHX:N2	2.23	0.86
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.40	0.86
1:6:471:A:OP2	86:6:2102:OHX:N5	2.07	0.86
22:D0:89:ARG:NH2	1:6:1383:G:OP1	445.98	0.86
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.16	0.86
36:5:2569:A:H4'	36:5:2570:U:H5'	1.57	0.86
1:2:1291:G:H5'	4:S2:119:LYS:HD3	1.58	0.86
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.56	0.86
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.63	0.86
36:1:3050:U:OP2	86:1:4187:OHX:N4	2.09	0.86
9:S7:141:ARG:HD2	9:S7:151:LYS:HE3	1.57	0.86
1:2:237:C:H5''	1:2:238:U:H5'	1.58	0.86
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.09	0.85
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.08	0.85
36:1:3182:G:OP1	52:M6:160:ARG:NH2	2.10	0.85
36:1:3134:A:OP1	86:1:3907:OHX:N4	2.09	0.85
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.57	0.85
1:2:1010:C:OP2	86:2:2130:OHX:N6	2.10	0.85
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	7.86	0.85
1:6:991:G:OP2	86:6:2171:OHX:N2	2.10	0.85
48:M1:94:ARG:O	48:M1:96:PHE:N	2.34	0.85
36:1:1567:U:O2	36:1:1571:A:N6	2.10	0.85
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	3.46	0.85
1:2:1508:U:O4	86:2:2030:OHX:N5	2.09	0.85
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	2.14	0.85
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.10	0.84
44:L7:110:ARG:NH2	36:5:1364:C:OP1	222.78	0.84
36:5:2258:U:OP2	86:5:3946:OHX:N4	2.10	0.84
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.11	0.84
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.11	0.84
36:5:2439:A:H61	36:5:2508:U:H3	1.23	0.84
36:1:1580:A:OP1	39:L2:68:LYS:NZ	2.09	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.10	0.84
47:M0:77:THR:HG22	47:M0:82:ARG:HA	1.89	0.84
55:M9:105:LEU:HD12	55:M9:135:LYS:HD2	1.58	0.84
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.95	0.84
8:S6:70:PRO:HB3	8:S6:101:ILE:HB	1.59	0.84
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.58	0.84
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.45	0.84
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.34	0.84
13:C1:96:LYS:NZ	1:6:374:U:OP1	346.68	0.83
36:5:1565:G:N1	36:5:1574:C:N3	2.26	0.83
1:2:559:C:N4	1:2:586:G:O6	2.12	0.83
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	3.74	0.83
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.60	0.83
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	1.84	0.83
39:L2:70:ARG:NH2	36:5:2522:G:O6	174.03	0.83
1:2:741:C:O2	9:S7:107:ARG:NH1	2.11	0.83
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.26	0.83
36:5:1152:G:H22	36:5:1200:A:H61	1.26	0.83
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.24	0.83
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.12	0.83
36:5:3194:C:O2	36:5:3197:G:N2	2.12	0.83
38:8:16:G:O6	86:8:217:OHX:N6	2.12	0.83
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.12	0.82
73:O7:87:SER:O	86:O7:104:OHX:N3	2.12	0.82
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.61	0.82
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.59	0.82
36:5:2971:A:H3'	36:5:2971:A:N3	1.94	0.82
20:C8:135:GLY:HA3	1:6:1559:A:H5''	365.87	0.82
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.67	0.82
51:M5:49:ARG:NH2	36:5:115:A:OP1	101.29	0.82
36:1:2208:A:N1	86:1:4049:OHX:N2	2.27	0.82
43:L6:78:ARG:HG3	43:L6:78:ARG:HH11	1.43	0.82
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.17	0.82
36:1:371:G:O6	86:1:4186:OHX:N4	2.13	0.82
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.53	0.82
36:5:510:G:O6	86:5:4019:OHX:N2	2.13	0.82
38:8:79:A:H3'	38:8:80:A:C8	2.15	0.82
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.57	0.82
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.45	0.82
37:3:4:U:H2'	37:3:5:G:C8	2.15	0.82
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.40	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:168:ARG:HD3	11:S9:171:ARG:HH11	1.42	0.82
1:6:1230:A:H2	1:6:1255:G:H21	1.28	0.81
40:L3:160:VAL:HG12	40:L3:162:VAL:HG12	1.61	0.81
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.13	0.81
1:6:312:A:H4'	1:6:313:U:H5''	1.62	0.81
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.27	0.81
56:N0:90:MET:HG2	36:5:1213:G:H4'	318.12	0.81
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.25	0.81
36:1:3344:A:H2	36:1:3361:G:H21	1.28	0.81
1:6:1636:C:H4'	1:6:1637:C:H5''	1.60	0.81
67:O1:44:MET:O	67:O1:46:THR:N	3.37	0.81
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.45	0.81
1:6:1010:C:OP2	86:6:2171:OHX:N3	2.13	0.81
1:2:9:U:O4	86:2:2154:OHX:N6	2.14	0.81
1:2:862:A:N7	15:C3:64:ARG:NH2	2.29	0.81
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	3.80	0.81
34:SR:22:SER:HB2	34:SR:70:ASP:HA	1.60	0.81
78:Q2:50:PHE:O	86:Q2:503:OHX:N2	2.13	0.80
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.61	0.80
41:L4:317:PRO:O	41:L4:319:LYS:N	2.14	0.80
36:1:2123:G:N7	86:1:4205:OHX:N2	2.29	0.80
36:1:924:G:OP1	86:1:4149:OHX:N5	2.14	0.80
53:M7:69:ARG:HG2	53:M7:79:THR:HG23	4.76	0.80
1:6:1227:A:H4'	1:6:1228:G:H5'	1.61	0.80
1:2:452:A:OP2	86:2:2037:OHX:N5	2.13	0.80
1:2:1203:A:OP2	86:2:2110:OHX:N5	2.14	0.80
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.64	0.80
1:6:895:G:H1	1:6:917:U:H3	1.28	0.80
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.15	0.80
46:L9:22:SER:OG	46:L9:23:ARG:N	2.14	0.80
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.64	0.80
36:1:1441:G:O6	86:1:3931:OHX:N1	2.15	0.80
6:S4:117:GLU:O	6:S4:119:ALA:N	3.40	0.80
36:5:863:C:OP1	86:5:3915:OHX:N3	2.15	0.80
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.45	0.80
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.15	0.80
9:S7:167:GLU:OE2	9:S7:170:GLN:NE2	2.15	0.80
1:6:754:A:N6	1:6:793:A:N7	2.29	0.80
18:C6:10:PHE:O	18:C6:87:LYS:NZ	2.16	0.79
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.62	0.79
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.20	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:8:ARG:HD2	57:N1:52:MET:HE1	1.63	0.79
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.43	0.79
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.16	0.79
36:1:695:C:OP1	41:L4:271:LYS:NZ	2.14	0.79
10:S8:82:VAL:HG23	10:S8:101:ILE:HG22	6.38	0.79
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.45	0.79
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	3.04	0.79
47:M0:55:ASN:ND2	47:M0:162:GLN:OE1	2.61	0.79
1:2:471:A:OP2	86:2:2075:OHX:N4	2.15	0.79
52:M6:18:ARG:NH2	36:5:1318:A:OP1	275.99	0.79
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.62	0.79
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.15	0.79
5:S3:113:LEU:HD21	5:S3:117:ARG:HH11	1.48	0.79
1:2:1280:C:O2	1:2:1428:G:N2	2.11	0.79
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.65	0.79
36:1:2878:G:H5''	40:L3:5:LYS:HE2	1.65	0.79
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.65	0.79
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.39	0.79
64:N8:22:ILE:HD12	36:5:1114:U:H5''	191.02	0.79
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	5.14	0.79
79:Q3:36:ARG:NH2	79:Q3:45:LYS:O	2.16	0.79
43:L6:52:VAL:HG11	43:L6:65:ILE:HG23	4.28	0.79
68:O2:41:VAL:HG23	68:O2:46:PHE:HB2	5.49	0.79
1:6:717:C:O2	1:6:722:G:N2	2.15	0.79
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.62	0.79
36:5:1555:U:O4	36:5:1557:A:N6	2.17	0.78
1:2:740:A:H2'	1:2:741:C:H5''	1.63	0.78
1:6:1150:G:O6	86:6:2114:OHX:N5	2.16	0.78
66:O0:98:SER:OG	66:O0:99:ASP:N	2.16	0.78
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.15	0.78
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.81	0.78
11:S9:157:ASP:OD1	11:S9:158:PHE:N	4.37	0.78
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.06	0.78
1:6:1579:U:OP1	86:6:2183:OHX:N4	2.16	0.78
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.46	0.78
15:C3:67:THR:O	15:C3:69:ASN:N	2.17	0.78
36:5:1878:G:OP1	86:5:3955:OHX:N5	2.16	0.78
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.66	0.78
1:6:1680:G:O6	86:6:2190:OHX:N4	2.16	0.78
71:O5:83:LYS:HA	38:8:38:U:H5	65.58	0.78
21:C9:57:ARG:NH1	1:6:1479:A:OP1	392.75	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.16	0.78
1:2:325:G:H4'	13:C1:83:THR:HG21	1.65	0.78
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.39	0.78
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.72	0.78
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.17	0.78
62:N6:35:LEU:HD21	62:N6:48:LEU:HD12	1.65	0.78
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.64	0.78
36:5:1806:A:OP2	86:5:4020:OHX:N5	2.17	0.78
12:C0:29:GLN:NE2	12:C0:31:LYS:O	3.88	0.78
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.02	0.78
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.64	0.78
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	1.98	0.78
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.17	0.78
58:N2:104:ARG:HH12	58:N2:106:ALA:HB2	4.56	0.78
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.19	0.78
36:1:2233:A:OP2	86:1:4049:OHX:N5	2.17	0.78
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.65	0.78
16:C4:38:THR:HG21	1:6:895:G:H21	264.18	0.78
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.67	0.78
36:5:410:U:O4	86:5:4099:OHX:N1	2.16	0.78
36:5:980:A:H2'	36:5:981:U:C2	2.19	0.78
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.65	0.77
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.82	0.77
49:M3:165:SER:O	49:M3:167:PHE:N	2.15	0.77
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.60	0.77
36:5:658:G:OP1	86:5:4088:OHX:N5	2.17	0.77
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.47	0.77
1:6:486:G:H22	1:6:501:U:H3	1.28	0.77
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.66	0.77
4:S2:58:LEU:HD11	4:S2:236:PRO:HG2	2.95	0.77
36:5:1919:G:N7	86:5:4068:OHX:N4	2.33	0.77
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	1.66	0.77
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.71	0.77
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.34	0.77
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	6.61	0.77
1:6:1385:G:N7	86:6:2121:OHX:N6	2.32	0.77
2:S0:185:ARG:H	23:D1:45:ALA:H	2.16	0.77
48:M1:6:GLN:O	48:M1:7:ASN:ND2	2.18	0.77
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.67	0.77
1:2:702:G:O6	1:2:736:C:N4	2.16	0.77
1:2:823:G:H2'	1:2:824:G:C8	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:64:VAL:HG12	7:S5:89:ILE:HD11	5.50	0.77
3:S1:157:GLN:O	3:S1:159:SER:N	2.18	0.77
1:6:915:A:OP1	86:6:2070:OHX:N6	2.18	0.77
36:1:1126:G:OP2	47:M0:14:ASN:ND2	2.17	0.77
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.51	0.77
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.65	0.77
36:5:2233:A:OP2	86:5:3960:OHX:N5	2.16	0.77
36:1:3376:A:OP2	86:1:3912:OHX:N5	2.18	0.76
1:2:1537:C:N3	86:2:2153:OHX:N3	2.32	0.76
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.84	0.76
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.17	0.76
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.08	0.76
16:C4:50:ALA:O	16:C4:52:ARG:N	2.32	0.76
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	5.98	0.76
20:C8:12:GLN:NE2	20:C8:13:HIS:O	3.87	0.76
37:3:60:G:OP2	86:3:224:OHX:N3	2.17	0.76
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.36	0.76
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.60	0.76
36:1:2443:A:N6	36:1:2504:U:O4	2.18	0.76
8:S6:153:VAL:O	8:S6:155:ASP:N	2.73	0.76
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.59	0.76
1:2:1170:G:H1	1:2:1469:A:H61	1.32	0.76
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.67	0.76
72:O6:63:ASN:O	72:O6:65:GLY:N	4.65	0.76
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.66	0.76
1:6:826:U:O4	86:6:2065:OHX:N3	2.18	0.76
1:2:190:C:N4	1:2:196:G:O6	2.19	0.76
36:1:300:G:O6	86:1:4156:OHX:N1	2.18	0.76
72:O6:28:TYR:O	86:5:4186:OHX:N2	104.06	0.76
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.48	0.76
41:L4:338:LYS:O	41:L4:340:GLY:N	2.18	0.76
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.51	0.76
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.68	0.76
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.67	0.76
36:5:2537:U:O2'	36:5:2538:U:O4'	2.03	0.76
69:O3:60:ARG:HD2	36:5:3275:U:C2	214.08	0.76
59:N3:87:ARG:HH12	59:N3:137:VAL:HG21	1.49	0.76
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.19	0.76
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.37	0.76
20:C8:143:ARG:NH2	1:6:1462:G:N7	338.33	0.76
11:S9:124:HIS:HD2	1:6:478:A:O2'	448.64	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.18	0.76
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.19	0.76
1:6:1726:G:N7	86:6:2147:OHX:N5	2.33	0.76
36:5:959:C:H5'	36:5:960:U:H5'	1.67	0.76
34:SR:101:GLN:HG2	34:SR:138:GLY:HA3	2.40	0.76
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.30	0.76
5:S3:115:ILE:HD11	5:S3:138:VAL:HG11	1.68	0.76
7:S5:41:LYS:HZ2	18:C6:112:TYR:HE2	4.61	0.76
36:1:155:G:H5''	36:1:156:G:C8	2.21	0.76
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	6.12	0.76
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.71	0.76
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.83	0.75
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.68	0.75
21:C9:42:GLY:HA2	21:C9:84:LYS:HB2	1.68	0.75
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	2.04	0.75
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.85	0.75
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.66	0.75
1:6:1665:U:O4	86:6:2123:OHX:N6	2.19	0.75
1:2:1745:G:O6	86:2:2085:OHX:N6	2.19	0.75
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.41	0.75
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.51	0.75
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.67	0.75
36:1:356:C:OP2	86:1:4147:OHX:N1	2.20	0.75
40:L3:169:THR:HG23	40:L3:171:LEU:H	3.15	0.75
36:5:1804:A:H2'	36:5:1805:C:C6	2.21	0.75
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.69	0.75
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.76	0.75
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.69	0.75
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.18	0.75
1:2:1202:A:OP1	86:2:2110:OHX:N1	2.20	0.75
1:2:1585:U:H3	1:2:1611:A:H2	1.33	0.75
1:2:1533:C:H4'	1:2:1539:G:N1	2.02	0.75
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.68	0.75
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.19	0.75
34:SR:160:GLU:O	34:SR:162:ALA:N	2.19	0.75
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.50	0.75
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.18	0.75
1:2:75:U:N3	1:2:76:A:N3	2.34	0.75
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.95	0.75
17:C5:98:ASN:ND2	17:C5:100:LYS:O	2.19	0.75
39:L2:83:HIS:HB3	79:Q3:64:VAL:HG13	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.10	0.75
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.20	0.75
36:5:2211:U:H5	36:5:2234:G:O6	1.70	0.75
1:2:770:A:OP2	86:2:2137:OHX:N6	2.19	0.75
1:2:1472:C:O2	1:2:1534:G:N2	2.19	0.75
47:M0:194:GLY:HA3	36:5:1010:G:N3	334.88	0.75
52:M6:68:ARG:NH1	36:5:2988:C:OP1	216.98	0.75
32:E0:59:GLY:O	32:E0:61:SER:N	2.81	0.75
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.69	0.74
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.19	0.74
20:C8:13:HIS:HA	20:C8:24:GLY:HA3	2.35	0.74
36:1:2248:C:OP2	86:1:3888:OHX:N3	2.20	0.74
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	8.63	0.74
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.68	0.74
24:D2:105:THR:HG23	24:D2:110:ILE:HG13	3.26	0.74
1:6:228:G:N2	1:6:237:C:N3	2.35	0.74
1:2:301:A:OP2	86:2:2063:OHX:N2	2.18	0.74
9:S7:131:PHE:O	9:S7:133:THR:N	2.20	0.74
1:2:630:A:N6	1:2:969:C:O2	2.18	0.74
43:L6:172:HIS:HD1	69:O3:44:TYR:HH	1.34	0.74
10:S8:36:THR:HB	10:S8:57:ALA:O	1.93	0.74
41:L4:141:ARG:O	41:L4:143:GLU:N	4.22	0.74
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.34	0.74
21:C9:84:LYS:NZ	1:6:1563:C:OP1	379.36	0.74
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.22	0.74
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.19	0.74
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	2.94	0.74
1:2:542:A:H8	1:2:543:C:H5'	1.50	0.74
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.20	0.74
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.20	0.74
36:1:807:A:H61	36:1:934:G:H22	1.34	0.74
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.20	0.74
74:O8:9:LYS:NZ	74:O8:13:GLU:OE2	2.21	0.74
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.21	0.74
3:S1:51:SER:HA	3:S1:57:ALA:H	1.52	0.74
38:4:62:C:O2	86:4:231:OHX:N5	2.19	0.74
1:2:991:G:OP2	86:2:2130:OHX:N1	2.20	0.74
44:L7:158:LYS:HE2	44:L7:159:GLN:N	2.01	0.74
51:M5:125:SER:HB3	36:5:2433:U:H1'	161.01	0.74
1:6:1695:G:H21	1:6:1706:C:H41	1.33	0.74
41:L4:326:ARG:O	44:L7:41:ARG:NH2	3.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1738:U:O4	86:2:2040:OHX:N4	2.20	0.74
36:1:3116:G:N2	36:1:3116:G:OP1	2.19	0.74
40:L3:274:SER:OG	36:5:3139:A:OP1	227.76	0.74
34:SR:20:VAL:HG11	34:SR:310:ILE:HG12	2.40	0.74
1:2:434:G:N7	86:2:2047:OHX:N4	2.36	0.74
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.70	0.74
36:1:656:A:H2'	36:1:657:A:H8	1.53	0.74
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.01	0.74
36:5:1178:G:H5'	36:5:1178:G:H8	1.53	0.74
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.71	0.74
36:5:3055:U:O2'	36:5:3057:U:OP1	2.05	0.74
36:1:3329:U:H5''	40:L3:308:MET:HE3	1.70	0.74
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.20	0.74
36:5:2818:U:H6	36:5:2818:U:H5'	1.51	0.74
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	2.90	0.73
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.64	0.73
1:6:1595:U:H3	1:6:1600:A:H2	1.34	0.73
42:L5:68:THR:HG22	42:L5:70:THR:H	1.52	0.73
1:6:25:C:O2	86:6:2107:OHX:N5	2.21	0.73
8:S6:171:LYS:NZ	1:6:67:A:OP1	347.02	0.73
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.13	0.73
1:6:564:G:O6	86:6:2154:OHX:N5	2.21	0.73
1:2:717:C:H42	1:2:720:G:H22	1.32	0.73
36:1:3087:A:OP1	86:1:4187:OHX:N5	2.21	0.73
36:5:2211:U:O4	86:5:3960:OHX:N4	2.20	0.73
68:O2:81:ASP:O	68:O2:84:THR:OG1	3.50	0.73
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.21	0.73
1:6:1417:A:OP1	86:6:2086:OHX:N4	2.21	0.73
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.22	0.73
36:1:1409:G:N7	86:1:4071:OHX:N3	2.36	0.73
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.70	0.73
1:6:301:A:OP2	86:6:2092:OHX:N1	2.21	0.73
86:5:3940:OHX:N5	86:5:4231:OHX:N6	2.36	0.73
74:O8:18:ALA:O	74:O8:20:VAL:N	3.39	0.73
19:C7:8:THR:HG21	1:6:1330:G:H21	418.92	0.73
36:5:2762:A:OP2	86:5:3987:OHX:N5	2.22	0.73
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.23	0.73
1:2:142:G:H22	1:2:173:A:H2	1.37	0.73
32:E0:18:THR:HG21	1:6:584:C:H1'	388.99	0.73
1:2:1795:U:O2	28:D6:10:ARG:HD2	1.87	0.73
36:1:3343:G:H21	36:1:3362:A:H2	1.35	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1428:G:H8	1:2:1428:G:H5'	1.54	0.73
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.03	0.73
40:L3:347:SER:O	40:L3:349:LYS:N	2.21	0.73
36:1:3122:A:N1	46:L9:70:THR:HG21	2.03	0.73
7:S5:177:ILE:HG12	7:S5:180:ARG:HH12	2.43	0.73
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.19	0.73
34:SR:70:ASP:OD1	34:SR:155:ARG:NH2	2.21	0.73
10:S8:138:ASN:HA	10:S8:141:ARG:HD3	5.01	0.73
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.70	0.73
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.77	0.73
36:1:2169:G:O6	86:1:3918:OHX:N4	2.22	0.73
1:2:623:A:OP1	86:2:2156:OHX:N1	2.22	0.73
16:C4:123:SER:HB2	1:6:885:G:H21	285.83	0.73
3:S1:180:THR:HG22	3:S1:181:LEU:HD22	1.68	0.73
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.21	0.73
41:L4:93:MET:HB2	36:5:658:G:N2	145.58	0.73
36:1:3375:A:O2'	36:1:3378:C:OP2	2.06	0.73
36:1:3195:U:O2'	36:1:3197:G:N2	2.22	0.73
1:2:348:U:O4	86:2:2126:OHX:N5	2.22	0.73
1:6:25:C:OP2	1:6:25:C:H4'	1.87	0.73
55:M9:169:ALA:HA	55:M9:172:ARG:HD2	1.71	0.73
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.22	0.73
36:5:3343:G:H21	36:5:3362:A:H2	1.34	0.73
36:1:883:A:H5'	53:M7:133:HIS:HA	1.71	0.73
36:1:2101:C:O2'	36:1:2102:U:O5'	2.06	0.73
3:S1:154:SER:OG	3:S1:154:SER:O	2.06	0.73
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.93	0.73
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.50	0.73
86:2:2030:OHX:N4	86:2:2145:OHX:N2	2.37	0.73
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.54	0.73
1:2:538:A:H5'	1:2:543:C:H42	1.52	0.73
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	2.15	0.73
67:O1:25:PHE:HB3	67:O1:65:LYS:HG3	4.70	0.73
55:M9:148:ASP:OD2	55:M9:151:ARG:NH2	2.21	0.73
2:S0:78:SER:OG	2:S0:129:ASP:OD1	2.85	0.73
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.21	0.73
75:O9:27:ILE:HG23	75:O9:30:ARG:HH12	3.84	0.72
5:S3:7:LYS:HD3	22:D0:27:THR:HG21	4.66	0.72
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.71	0.72
36:5:869:G:N2	36:5:890:C:O2	2.18	0.72
36:1:425:G:O6	86:1:3881:OHX:N6	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	3.03	0.72
36:5:1152:G:N2	36:5:1200:A:H61	1.86	0.72
36:5:25:U:O4	86:5:3905:OHX:N6	2.22	0.72
40:L3:44:THR:OG1	40:L3:182:GLN:O	2.23	0.72
53:M7:62:ARG:O	86:M7:205:OHX:N1	2.22	0.72
55:M9:127:SER:OG	55:M9:128:LYS:N	4.11	0.72
4:S2:159:THR:HG21	1:6:1097:U:O3'	382.88	0.72
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.54	0.72
36:1:679:U:O4	86:1:3978:OHX:N1	2.23	0.72
45:L8:95:ASN:OD1	45:L8:98:ARG:NH2	2.35	0.72
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.54	0.72
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	2.03	0.72
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.22	0.72
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	2.65	0.72
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.22	0.72
6:S4:187:ARG:NH2	1:6:753:A:N7	373.91	0.72
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.05	0.72
36:1:1016:C:H1'	36:1:1028:U:C2	2.25	0.72
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.90	0.72
63:N7:124:ALA:O	63:N7:126:LYS:N	2.71	0.72
36:1:2924:U:O4	86:1:4023:OHX:N1	2.22	0.72
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	1.71	0.72
1:6:86:A:OP2	86:6:2189:OHX:N1	2.23	0.72
36:5:600:G:N2	36:5:603:A:OP2	2.22	0.72
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.72	0.72
64:N8:77:LYS:O	64:N8:79:TRP:N	2.41	0.72
36:5:2996:U:OP1	36:5:2996:U:H4'	1.87	0.72
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.71	0.72
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.23	0.72
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	1.70	0.72
49:M3:79:GLU:OE2	49:M3:103:ASN:ND2	2.98	0.72
20:C8:16:ARG:NH1	20:C8:19:ASN:O	3.97	0.72
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.08	0.72
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.21	0.72
36:1:1238:C:N4	36:1:1245:A:OP2	2.22	0.72
1:2:1619:C:H1'	30:D8:22:ARG:HH21	1.52	0.72
36:5:1781:C:H2'	36:5:1782:U:C6	2.24	0.72
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.71	0.72
49:M3:36:ARG:HG3	49:M3:39:ARG:HH21	3.17	0.72
36:5:1235:U:H4'	36:5:1236:G:H5'	1.70	0.72
36:1:1234:G:H1	36:1:1254:C:H42	1.37	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.83	0.72
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	1.72	0.72
37:3:48:U:O4	42:L5:58:LYS:NZ	2.20	0.72
36:1:1596:C:H2'	36:1:1597:C:C6	2.24	0.72
11:S9:64:GLU:OE2	11:S9:69:ARG:NH2	5.09	0.72
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.20	0.72
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.23	0.72
51:M5:35:VAL:HA	51:M5:65:ARG:HD3	3.44	0.72
86:5:3940:OHX:N1	86:5:4231:OHX:N4	2.37	0.72
37:3:49:G:O6	42:L5:58:LYS:NZ	2.22	0.72
36:1:92:G:OP2	36:1:93:C:H5''	1.89	0.71
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	1.70	0.71
40:L3:83:PRO:O	40:L3:165:GLN:NE2	4.93	0.71
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.71	0.71
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	8.98	0.71
36:5:1912:U:N3	36:5:2122:G:OP2	2.23	0.71
64:N8:21:ARG:NH1	36:5:1369:A:OP1	182.96	0.71
86:2:2030:OHX:N4	86:2:2145:OHX:N1	2.38	0.71
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.71	0.71
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	1.54	0.71
53:M7:53:ASP:O	86:M7:206:OHX:N6	3.97	0.71
36:1:595:G:N1	36:1:609:G:H5''	2.04	0.71
36:1:801:A:O2'	86:1:3986:OHX:N2	2.23	0.71
36:5:299:G:N7	86:5:4186:OHX:N1	2.37	0.71
4:S2:76:LEU:HD21	4:S2:104:VAL:HB	4.77	0.71
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.04	0.71
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.72	0.71
1:2:802:G:H21	24:D2:107:SER:HB3	1.55	0.71
25:D3:64:PRO:O	86:6:2159:OHX:N2	360.52	0.71
36:1:2310:U:OP1	86:1:4144:OHX:N1	2.23	0.71
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	1.97	0.71
36:5:1581:C:OP2	36:5:1581:C:H4'	1.90	0.71
39:L2:143:GLU:O	39:L2:145:LYS:HG2	1.89	0.71
36:5:3153:U:H4'	36:5:3154:C:H5'	1.72	0.71
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.54	0.71
73:O7:59:THR:HG22	38:8:41:A:O2'	91.73	0.71
41:L4:60:THR:HG22	41:L4:62:ALA:H	1.56	0.71
33:E1:146:SER:HB3	1:6:1234:A:H4'	433.84	0.71
50:M4:50:LYS:HD3	50:M4:85:TRP:CD1	2.24	0.71
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.73	0.71
36:5:1560:G:N2	36:5:1579:C:O2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:187:ARG:NH1	1:6:753:A:OP2	377.21	0.71
25:D3:78:LYS:HG3	25:D3:79:ASN:HB2	1.72	0.71
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.32	0.71
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.25	0.71
1:2:209:U:H2'	1:2:210:A:C8	2.24	0.71
38:4:107:G:OP2	86:4:236:OHX:N2	2.24	0.71
1:2:1067:C:H2'	1:2:1068:C:H6	1.54	0.71
36:1:25:U:O4	86:1:3877:OHX:N4	2.24	0.71
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.72	0.71
86:1:3918:OHX:N6	51:M5:32:GLN:O	2.24	0.71
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.01	0.71
5:S3:162:GLN:O	5:S3:165:ASN:N	2.99	0.71
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.71	0.71
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.95	0.71
37:3:49:G:N7	42:L5:58:LYS:HG2	2.06	0.71
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.37	0.71
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.72	0.71
56:N0:155:ARG:HB3	56:N0:172:TYR:HB2	3.30	0.71
40:L3:35:ASP:OD2	40:L3:37:ARG:NH1	2.23	0.71
36:5:174:C:N4	36:5:244:G:H1	1.89	0.71
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	4.69	0.71
10:S8:141:ARG:NH2	1:6:196:G:N7	280.37	0.71
36:1:2120:A:OP2	86:1:4014:OHX:N2	2.23	0.71
61:N5:48:SER:OG	38:8:136:G:OP1	84.28	0.71
1:6:1542:G:N2	1:6:1568:C:H1'	2.06	0.71
13:C1:64:VAL:HG11	13:C1:131:ILE:HD11	1.95	0.71
36:1:2940:A:N7	40:L3:2:SER:N	2.38	0.71
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.24	0.71
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	1.94	0.71
1:2:1488:G:H3'	1:2:1515:A:H61	1.56	0.71
47:M0:48:LEU:HD11	47:M0:145:LYS:HG2	1.71	0.71
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	1.88	0.71
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.23	0.71
8:S6:180:THR:HG23	8:S6:183:ARG:H	5.23	0.71
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.55	0.71
36:5:2573:G:N7	86:5:4191:OHX:N6	2.39	0.70
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.73	0.70
36:5:409:A:OP2	86:5:4099:OHX:N3	2.24	0.70
7:S5:57:SER:O	7:S5:59:VAL:N	2.23	0.70
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.73	0.70
1:2:1073:G:H2'	1:2:1074:G:H5''	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:170:THR:HG22	5:S3:187:LYS:HA	6.11	0.70
1:2:359:A:C2	25:D3:38:PHE:HB3	2.26	0.70
1:2:1034:C:HO2'	24:D2:2:THR:N	1.89	0.70
86:2:2030:OHX:N3	86:2:2145:OHX:N1	2.39	0.70
1:6:1564:U:H2'	1:6:1565:C:C6	2.25	0.70
36:1:368:G:OP1	86:1:3890:OHX:N1	2.24	0.70
36:5:3035:A:OP2	86:5:4047:OHX:N5	2.24	0.70
1:6:1482:C:OP2	1:6:1521:G:N1	2.24	0.70
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.24	0.70
48:M1:82:ARG:HG3	48:M1:112:LEU:HB2	1.72	0.70
24:D2:15:ASN:HD21	24:D2:71:LYS:HG3	2.66	0.70
72:O6:28:TYR:OH	36:5:315:C:OP2	97.95	0.70
36:5:438:A:H2'	36:5:494:G:H21	1.56	0.70
37:3:4:U:H2'	37:3:5:G:H8	1.56	0.70
86:5:3940:OHX:N1	86:5:4231:OHX:N3	2.38	0.70
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.91	0.70
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.54	0.70
36:1:3259:U:H6	36:1:3259:U:H5'	1.56	0.70
28:D6:10:ARG:NE	1:6:1795:U:O2	327.61	0.70
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.72	0.70
34:SR:33:LEU:HB3	34:SR:45:TRP:HB2	1.72	0.70
36:1:595:G:H1	36:1:609:G:H5''	1.56	0.70
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.24	0.70
15:C3:112:LYS:NZ	1:6:975:C:OP1	279.15	0.70
18:C6:66:ARG:HH21	18:C6:68:ARG:HG2	5.21	0.70
62:N6:37:LYS:H	62:N6:37:LYS:HE2	3.37	0.70
15:C3:70:LYS:NZ	1:6:963:A:OP2	331.88	0.70
51:M5:35:VAL:HG12	51:M5:65:ARG:HB3	1.72	0.70
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.17	0.70
1:6:1130:G:OP2	86:6:2112:OHX:N1	2.24	0.70
36:5:1070:U:O4	86:5:4108:OHX:N6	2.24	0.70
36:1:1878:G:OP1	86:1:3933:OHX:N4	2.24	0.70
11:S9:149:ARG:HG2	1:6:765:G:O6	432.87	0.70
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.08	0.70
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.24	0.70
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.56	0.70
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	2.03	0.70
44:L7:217:PRO:O	86:5:3999:OHX:N3	259.57	0.70
40:L3:242:THR:HG22	36:5:2948:C:O2'	215.01	0.70
36:1:1844:C:H2'	36:1:1845:G:H5''	1.74	0.70
1:6:542:A:C8	1:6:543:C:H2'	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:95:THR:O	6:S4:97:GLU:N	2.24	0.70
1:2:1720:G:O6	86:2:2081:OHX:N5	2.25	0.70
36:1:2560:C:O2	86:1:3932:OHX:N1	2.24	0.70
21:C9:40:SER:HB2	21:C9:96:ALA:HA	2.39	0.70
36:1:1495:U:H5	36:1:1835:A:N1	1.89	0.70
86:2:2030:OHX:N6	86:2:2145:OHX:N5	2.40	0.70
55:M9:105:LEU:HD21	55:M9:139:VAL:HG13	5.42	0.70
6:S4:187:ARG:HH21	1:6:754:A:H8	374.48	0.70
3:S1:61:LEU:O	3:S1:62:LYS:NZ	2.24	0.70
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.74	0.70
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.49	0.70
36:1:3166:C:H42	36:1:3284:G:H1	1.39	0.70
1:6:992:A:OP1	86:6:2053:OHX:N1	2.25	0.70
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.26	0.70
7:S5:48:PHE:O	7:S5:65:ARG:NH1	5.44	0.70
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.24	0.70
36:1:1443:G:O6	86:1:3982:OHX:N3	2.24	0.70
36:5:1898:G:OP2	86:5:3943:OHX:N5	2.25	0.70
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.74	0.70
63:N7:67:LYS:NZ	36:5:1630:U:OP1	197.09	0.70
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.72	0.70
1:6:990:C:OP2	86:6:2120:OHX:N2	2.25	0.69
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.30	0.69
36:5:1580:A:O3'	36:5:2522:G:N2	2.25	0.69
73:O7:88:ALA:O	86:O7:104:OHX:N1	2.24	0.69
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.17	0.69
36:1:2623:G:H2'	36:1:2624:G:H8	1.57	0.69
1:2:1041:G:H2'	1:2:1042:G:C8	2.27	0.69
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.72	0.69
1:2:1542:G:H22	1:2:1568:C:H1'	1.57	0.69
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.09	0.69
20:C8:145:ARG:HB3	35:SM:68:ARG:NH2	2.07	0.69
86:2:2030:OHX:N3	86:2:2145:OHX:N5	2.40	0.69
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	1.74	0.69
36:1:110:G:H5''	49:M3:91:ARG:HH21	1.57	0.69
36:5:1781:C:H2'	36:5:1782:U:H6	1.56	0.69
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.57	0.69
36:5:1192:C:N4	36:5:1301:A:O2'	2.26	0.69
1:6:1645:G:OP2	86:6:2184:OHX:N3	2.25	0.69
21:C9:10:ALA:HB3	21:C9:13:ASP:HB2	3.62	0.69
1:2:1316:G:OP1	19:C7:7:LYS:N	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.24	0.69
78:Q2:47:GLN:OE1	78:Q2:54:THR:OG1	2.37	0.69
36:5:2568:C:N4	36:5:2574:G:O6	2.24	0.69
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.70	0.69
86:5:3940:OHX:N5	86:5:4231:OHX:N3	2.40	0.69
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.16	0.69
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.24	0.69
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.74	0.69
16:C4:131:GLY:O	16:C4:133:ARG:N	3.32	0.69
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.24	0.69
36:5:1753:G:O6	36:5:1772:U:N3	2.19	0.69
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.22	0.69
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	2.73	0.69
63:N7:83:THR:HG22	63:N7:85:TYR:H	3.10	0.69
1:6:982:U:OP1	86:6:2075:OHX:N2	2.25	0.69
42:L5:287:ALA:HA	42:L5:290:ILE:HD12	4.40	0.69
6:S4:44:LEU:HG	6:S4:82:TYR:HB3	1.73	0.69
36:5:3276:G:OP2	36:5:3276:G:H2'	1.92	0.69
16:C4:127:ARG:HH11	16:C4:127:ARG:HG2	4.37	0.69
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.27	0.69
36:5:2234:G:O6	86:5:3960:OHX:N1	2.26	0.69
1:2:833:U:H5'	1:2:834:G:H5''	1.73	0.69
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.25	0.69
42:L5:131:LEU:HD22	42:L5:131:LEU:H	1.57	0.69
75:O9:43:ASN:HB3	75:O9:46:ARG:HB2	1.73	0.69
40:L3:62:ARG:NH1	36:5:3039:C:OP1	276.09	0.69
44:L7:180:SER:HB2	44:L7:183:ASP:H	3.50	0.69
1:2:1564:U:H2'	1:2:1565:C:C6	2.27	0.69
12:C0:56:LYS:HB3	12:C0:67:THR:HG23	6.59	0.69
6:S4:159:THR:HG22	6:S4:173:ILE:HB	2.51	0.69
36:5:419:G:N7	86:8:216:OHX:N3	2.41	0.69
36:1:239:G:O2'	36:1:240:U:OP1	2.11	0.69
36:1:1315:U:OP2	52:M6:44:SER:OG	2.10	0.69
11:S9:163:PRO:O	11:S9:165:GLY:N	2.26	0.69
36:5:3274:A:H3'	36:5:3275:U:C5'	2.19	0.69
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.75	0.69
36:1:1095:U:H4'	36:1:1096:U:H5'	1.74	0.69
1:2:273:G:H1	1:2:283:U:H3	1.41	0.69
1:2:868:G:H1	1:2:960:U:H3	1.40	0.69
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.57	0.69
20:C8:45:LEU:HG	20:C8:81:ILE:HD12	3.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:35:ARG:NH1	36:5:685:G:OP1	81.93	0.69
34:SR:262:VAL:HB	34:SR:271:VAL:HB	1.75	0.69
53:M7:25:SER:O	53:M7:29:THR:HG23	4.99	0.69
86:2:2030:OHX:N6	86:2:2145:OHX:N2	2.40	0.69
26:D4:117:LYS:HG2	1:6:159:U:H5'	331.86	0.69
21:C9:39:THR:OG1	21:C9:43:ASN:ND2	2.25	0.69
3:S1:72:ASP:OD1	16:C4:114:ARG:NH1	4.42	0.69
52:M6:14:HIS:CE1	52:M6:119:VAL:HG12	2.27	0.69
1:2:538:A:H8	1:2:543:C:C4	2.11	0.69
1:6:1696:G:O2'	1:6:1698:G:N7	2.26	0.69
36:1:13:A:H8	36:1:13:A:H5''	1.58	0.69
73:O7:58:THR:O	73:O7:61:THR:HG23	1.93	0.69
38:4:125:U:OP2	38:4:125:U:H4'	1.93	0.69
36:1:118:U:O2	36:1:121:A:H5'	1.93	0.69
1:6:1603:U:H2'	1:6:1604:U:H6	1.56	0.69
28:D6:58:VAL:HG22	28:D6:59:TYR:H	2.32	0.69
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	4.69	0.69
36:1:1114:U:H5''	64:N8:22:ILE:HD12	1.74	0.69
26:D4:116:LYS:HE2	1:6:57:G:OP2	338.27	0.69
36:1:770:G:N7	86:1:4100:OHX:N6	2.41	0.69
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.26	0.69
64:N8:28:HIS:H	64:N8:29:PRO:HD3	2.96	0.69
10:S8:199:LYS:HE3	13:C1:11:ARG:HH22	1.57	0.69
10:S8:192:TYR:O	10:S8:196:LEU:HB2	1.93	0.69
1:2:885:G:H21	16:C4:123:SER:HB2	1.58	0.69
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.26	0.69
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	2.92	0.69
34:SR:25:THR:OG1	34:SR:26:SER:N	2.67	0.69
47:M0:116:ARG:HH21	36:5:2618:G:H5'	228.96	0.69
1:6:550:A:OP2	86:6:2049:OHX:N2	2.25	0.69
17:C5:81:ARG:HH12	17:C5:120:SER:HB2	1.58	0.69
36:5:3241:G:H2'	36:5:3245:A:C8	2.28	0.69
1:2:603:U:H2'	1:2:604:A:C8	2.28	0.69
45:L8:181:LYS:HD3	38:8:154:C:H5''	149.77	0.69
64:N8:85:ASP:OD1	64:N8:86:LYS:N	2.26	0.69
26:D4:12:VAL:HG12	1:6:783:G:H8	422.72	0.69
1:2:1610:G:OP1	7:S5:72:HIS:NE2	2.27	0.68
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.09	0.68
70:O4:52:GLN:HG2	36:5:1639:C:H5'	196.61	0.68
1:2:927:C:H1'	16:C4:125:SER:HB2	1.74	0.68
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	3.34	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:15:ILE:HD13	21:C9:60:SER:HA	2.48	0.68
62:N6:27:ARG:NH1	62:N6:75:ARG:O	3.01	0.68
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	1.88	0.68
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.26	0.68
1:2:480:G:H22	1:2:509:G:H1'	1.58	0.68
26:D4:124:ARG:NH2	1:6:151:G:O6	319.12	0.68
66:O0:63:SER:HG	66:O0:65:THR:HG1	1.32	0.68
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.36	0.68
1:2:701:U:H3	1:2:737:A:H61	1.39	0.68
86:1:3963:OHX:N6	44:L7:217:PRO:O	2.26	0.68
1:2:1370:U:O4	86:2:2120:OHX:N1	2.26	0.68
27:D5:43:ASP:O	27:D5:46:LYS:N	2.20	0.68
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.76	0.68
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.83	0.68
31:D9:54:LYS:NZ	1:6:1420:C:OP1	405.38	0.68
36:5:1152:G:H22	36:5:1200:A:N6	1.91	0.68
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.59	0.68
49:M3:2:ALA:N	64:N8:33:GLY:O	4.65	0.68
36:5:2827:U:O4	86:5:3900:OHX:N6	2.25	0.68
36:1:2744:U:OP1	86:1:4081:OHX:N1	2.27	0.68
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.78	0.68
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.26	0.68
13:C1:132:SER:O	13:C1:132:SER:OG	2.09	0.68
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	1.75	0.68
86:5:3940:OHX:N2	86:5:4231:OHX:N4	2.41	0.68
36:1:2810:C:OP1	86:1:4087:OHX:N6	2.26	0.68
70:O4:91:ARG:HG3	70:O4:95:ILE:HD13	1.75	0.68
36:5:2875:U:H3	36:5:2952:G:H1	1.42	0.68
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.26	0.68
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.28	0.68
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.74	0.68
7:S5:144:GLU:OE1	7:S5:225:ARG:NH1	4.82	0.68
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	3.29	0.68
36:1:2318:U:O4	86:1:4045:OHX:N2	2.26	0.68
5:S3:42:THR:OG1	5:S3:44:THR:O	5.45	0.68
27:D5:77:ARG:NH2	1:6:1534:G:N7	348.98	0.68
36:5:2319:U:O4	86:5:3994:OHX:N2	2.26	0.68
1:6:833:U:O4	86:6:2100:OHX:N2	2.27	0.68
40:L3:293:ASN:N	40:L3:293:ASN:OD1	3.42	0.68
78:Q2:45:ARG:NH2	36:5:283:G:OP2	146.67	0.68
1:2:1507:G:O6	86:2:2145:OHX:N5	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.61	0.68
21:C9:38:LYS:NZ	21:C9:43:ASN:O	2.25	0.68
1:2:1220:C:OP1	12:C0:48:SER:OG	2.10	0.68
8:S6:206:ALA:O	8:S6:210:GLN:NE2	2.73	0.68
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	1.58	0.68
36:5:2924:U:O4	86:5:4055:OHX:N2	2.27	0.68
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.88	0.68
36:5:1541:G:OP2	86:5:4090:OHX:N4	2.26	0.68
36:5:2402:A:OP2	86:5:4107:OHX:N3	2.27	0.68
3:S1:65:VAL:HG12	1:6:920:U:H5''	263.86	0.68
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.26	0.68
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.30	0.68
1:2:1542:G:N2	1:2:1568:C:H1'	2.08	0.68
1:2:603:U:H2'	1:2:604:A:H8	1.57	0.68
36:5:1815:U:O2'	36:5:1816:A:OP2	2.11	0.68
1:6:1164:G:O6	1:6:1581:C:N4	2.19	0.68
21:C9:31:PRO:HG2	21:C9:34:VAL:HG23	6.03	0.68
3:S1:113:MET:HE2	3:S1:142:PHE:HE2	4.87	0.68
36:1:2303:A:OP2	77:Q1:23:ARG:NH2	2.27	0.68
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	6.99	0.68
51:M5:140:LYS:O	51:M5:144:ARG:HG3	1.93	0.68
36:1:829:U:H3	36:1:895:A:H62	1.42	0.68
36:5:813:G:N2	36:5:927:C:O2	2.20	0.68
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	293.61	0.68
40:L3:141:GLY:O	40:L3:143:GLY:N	2.87	0.68
36:5:1365:G:OP2	86:5:4025:OHX:N3	2.26	0.68
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.27	0.68
11:S9:2:PRO:N	11:S9:3:ARG:HH21	1.91	0.68
36:5:3074:G:OP1	86:5:4116:OHX:N4	2.26	0.68
36:1:1553:U:H4'	36:1:1554:U:H5'	1.75	0.68
36:1:3242:G:N2	36:1:3245:A:H5''	2.09	0.68
1:2:1564:U:H2'	1:2:1565:C:H6	1.58	0.68
14:C2:46:ARG:HB2	33:E1:103:LEU:HD12	1.73	0.68
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.94	0.68
1:2:73:U:H4'	1:2:74:U:OP1	1.93	0.68
36:5:330:G:OP2	86:5:4045:OHX:N1	2.27	0.68
25:D3:14:LYS:O	25:D3:18:HIS:HB2	2.49	0.68
36:5:2730:G:OP2	86:5:3957:OHX:N4	2.26	0.68
39:L2:5:ILE:HG12	39:L2:8:GLN:HG3	1.76	0.68
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.25	0.68
5:S3:6:SER:HB3	5:S3:9:ARG:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:65:ILE:HD13	21:C9:71:VAL:HG23	1.76	0.68
47:M0:184:LYS:NZ	47:M0:189:GLU:OE2	6.41	0.67
3:S1:131:ASP:O	3:S1:133:TYR:N	2.26	0.67
55:M9:175:GLN:HA	55:M9:178:ALA:HB3	1.76	0.67
1:2:520:A:H2'	1:2:521:A:C8	2.29	0.67
70:O4:9:ARG:NH2	70:O4:34:HIS:HB2	2.95	0.67
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.74	0.67
36:1:1093:A:N3	36:1:1096:U:N3	2.43	0.67
25:D3:130:VAL:O	25:D3:131:SER:HB3	4.64	0.67
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.57	0.67
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.28	0.67
36:1:2395:G:H5"	40:L3:255:TRP:CD1	2.30	0.67
15:C3:119:GLU:HG2	15:C3:141:TYR:HE2	3.39	0.67
72:O6:97:SER:O	72:O6:99:ARG:N	2.26	0.67
36:5:2765:C:H2'	36:5:2766:U:C6	2.29	0.67
15:C3:148:ALA:O	86:C3:201:OHX:N4	6.05	0.67
58:N2:59:ASP:O	58:N2:61:THR:N	2.27	0.67
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.36	0.67
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	1.75	0.67
37:7:64:A:H5'	37:7:65:G:H5"	1.75	0.67
1:6:1202:A:OP1	86:6:2130:OHX:N2	2.26	0.67
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.77	0.67
57:N1:103:GLN:HA	57:N1:106:LEU:HD12	5.65	0.67
36:5:742:G:N7	86:5:4000:OHX:N4	2.42	0.67
56:N0:82:ASP:OD1	56:N0:87:THR:HB	1.94	0.67
13:C1:101:GLU:OE1	25:D3:16:ARG:NH2	2.82	0.67
63:N7:33:SER:HB2	63:N7:36:HIS:HB2	3.24	0.67
47:M0:119:TRP:HZ3	36:5:1126:G:H5"	256.74	0.67
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.06	0.67
40:L3:284:ARG:HH11	40:L3:284:ARG:HB2	3.35	0.67
1:6:140:A:N6	1:6:281:G:OP1	2.27	0.67
1:2:565:C:O2	86:2:2038:OHX:N5	2.28	0.67
57:N1:39:ILE:HD12	57:N1:102:ARG:HB2	2.66	0.67
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.77	0.67
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.75	0.67
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.60	0.67
2:S0:112:THR:HG22	2:S0:115:PHE:HB2	2.89	0.67
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.87	0.67
62:N6:4:GLN:HB2	36:5:229:G:H5"	69.30	0.67
71:O5:31:LEU:HD23	71:O5:44:ILE:HA	1.75	0.67
36:5:155:G:H5"	36:5:156:G:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2764:C:N3	88:5:4249:3K5:C16	2.58	0.67
36:5:1066:G:OP1	86:5:4225:OHX:N2	2.27	0.67
41:L4:10:SER:HB3	41:L4:14:GLU:HG3	6.58	0.67
5:S3:102:ALA:HB1	5:S3:173:ARG:HG3	2.84	0.67
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	1.77	0.67
36:1:1362:G:H2'	36:1:1363:A:C8	2.29	0.67
22:D0:20:ILE:HD11	22:D0:95:ALA:H	1.59	0.67
1:6:40:A:O2'	86:6:2107:OHX:N4	2.27	0.67
12:C0:53:GLY:O	12:C0:55:VAL:N	2.28	0.67
1:2:1382:A:H5''	22:D0:60:THR:HG22	1.77	0.67
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.28	0.67
36:1:994:G:N2	36:1:995:U:O4	2.28	0.67
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.63	0.67
25:D3:40:SER:OG	25:D3:41:SER:N	2.25	0.67
36:1:562:C:H2'	36:1:563:U:H6	1.60	0.67
36:1:3087:A:P	86:1:4187:OHX:N5	2.68	0.67
1:2:140:A:N6	1:2:281:G:OP1	2.24	0.67
1:2:734:A:H5''	1:2:735:C:OP1	1.95	0.67
36:5:1596:C:H2'	36:5:1597:C:C6	2.30	0.67
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	1.76	0.67
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.51	0.67
55:M9:20:ARG:HG3	36:5:1875:G:OP2	138.28	0.67
49:M3:58:VAL:HG13	36:5:75:G:H5''	87.67	0.67
16:C4:19:ILE:HG23	16:C4:28:VAL:HG22	1.77	0.67
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.59	0.67
36:5:3195:U:H1'	36:5:3196:U:OP1	1.95	0.67
1:6:486:G:O6	1:6:488:G:N2	2.28	0.67
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.76	0.67
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.59	0.67
25:D3:126:LYS:HA	25:D3:131:SER:HA	3.03	0.67
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.02	0.67
36:1:2255:A:OP1	86:1:3939:OHX:N3	2.27	0.67
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.70	0.67
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	1.76	0.67
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.02	0.67
36:1:249:U:O2	36:1:250:U:N3	2.27	0.67
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.75	0.67
36:1:3233:C:H2'	36:1:3234:A:C8	2.30	0.67
1:6:770:A:OP2	86:6:2138:OHX:N3	2.28	0.67
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.76	0.67
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.46	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.20	0.67
20:C8:56:LYS:HD2	20:C8:61:LEU:HD23	3.43	0.67
36:1:656:A:H2'	36:1:657:A:C8	2.29	0.67
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.40	0.67
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.36	0.67
1:2:829:A:O2'	1:2:830:U:OP2	2.12	0.67
1:2:1606:C:H2'	1:2:1607:G:C8	2.30	0.67
1:6:1524:A:H2'	1:6:1525:A:C8	2.30	0.67
36:1:2209:U:H6	36:1:2209:U:OP2	1.77	0.67
20:C8:86:LEU:HD12	20:C8:99:HIS:HB2	1.77	0.67
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.77	0.66
7:S5:222:LYS:HE3	7:S5:225:ARG:HH12	1.60	0.66
66:O0:17:VAL:HG11	66:O0:92:ILE:HD12	1.76	0.66
36:1:361:A:O3'	73:O7:45:ARG:NH2	2.27	0.66
61:N5:82:LEU:HD11	61:N5:135:ILE:HG21	1.76	0.66
41:L4:179:LEU:HD22	41:L4:183:LYS:HG2	2.41	0.66
53:M7:138:LYS:NZ	36:5:2356:A:OP1	147.05	0.66
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.30	0.66
38:4:77:A:OP2	86:4:229:OHX:N2	2.28	0.66
74:O8:23:ALA:HB2	74:O8:45:VAL:HG13	3.02	0.66
42:L5:151:GLN:NE2	37:7:45:A:OP1	280.57	0.66
50:M4:121:MET:HG3	36:5:3214:U:C4	282.91	0.66
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.77	0.66
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.08	0.66
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.59	0.66
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	4.94	0.66
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.29	0.66
36:5:2514:U:OP1	36:5:2514:U:H6	1.76	0.66
15:C3:94:LYS:HE3	1:6:952:A:H5''	298.41	0.66
36:1:2818:U:C6	36:1:2818:U:H5'	2.27	0.66
51:M5:70:ASN:OD1	36:5:290:G:O2'	150.71	0.66
20:C8:27:LYS:O	20:C8:31:ALA:N	2.50	0.66
36:1:3186:A:O2'	46:L9:42:ASP:HA	1.96	0.66
36:5:2975:U:OP1	86:5:4085:OHX:N3	2.28	0.66
5:S3:59:LEU:HA	5:S3:66:ILE:HG13	1.78	0.66
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.39	0.66
78:Q2:17:CYS:HB2	78:Q2:77:CYS:SG	2.90	0.66
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.78	0.66
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	1.77	0.66
14:C2:94:ALA:HB1	14:C2:119:SER:H	1.60	0.66
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:668:G:OP1	86:5:4138:OHX:N1	2.29	0.66
28:D6:46:GLU:HG3	28:D6:48:ALA:H	3.90	0.66
51:M5:179:LYS:O	36:5:287:G:H5'	124.40	0.66
1:6:819:G:O2'	1:6:821:U:OP2	2.12	0.66
38:4:79:A:H2'	38:4:80:A:H1'	1.77	0.66
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.11	0.66
1:2:900:A:OP1	16:C4:43:THR:OG1	2.09	0.66
7:S5:205:SER:O	7:S5:207:THR:N	2.82	0.66
1:2:699:U:OP2	1:2:733:A:N6	2.28	0.66
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	2.24	0.66
1:2:584:C:H1'	32:E0:18:THR:HG21	1.78	0.66
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.61	0.66
64:N8:47:LYS:O	64:N8:49:HIS:N	2.99	0.66
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.43	0.66
1:6:1542:G:N2	1:6:1569:A:OP2	2.27	0.66
36:1:3358:U:H2'	36:1:3359:A:O4'	1.96	0.66
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.77	0.66
79:Q3:30:GLU:HA	79:Q3:33:GLN:HG2	1.77	0.66
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.30	0.66
36:5:2841:G:OP2	86:5:4135:OHX:N1	2.28	0.66
42:L5:261:THR:HG23	42:L5:264:GLN:HE21	1.61	0.66
4:S2:243:TYR:HB3	4:S2:246:GLU:HG3	1.78	0.66
36:5:1934:G:O6	86:5:3914:OHX:N2	2.27	0.66
1:6:1208:A:N1	1:6:1455:G:N2	2.43	0.66
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.96	0.66
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	3.12	0.66
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.77	0.66
36:1:2247:G:OP1	86:1:3888:OHX:N1	2.29	0.66
1:2:142:G:O6	8:S6:177:ARG:NH1	2.28	0.66
62:N6:52:ARG:O	62:N6:54:ASP:N	2.28	0.66
36:5:1345:G:N7	86:5:4062:OHX:N5	2.44	0.66
68:O2:26:HIS:O	68:O2:28:VAL:N	2.72	0.66
36:1:1454:A:OP2	86:1:4215:OHX:N6	2.29	0.66
33:E1:121:CYS:HB3	33:E1:132:LEU:HD21	3.55	0.66
38:8:81:U:H1'	38:8:82:U:H5'	1.77	0.66
5:S3:32:GLU:HG3	5:S3:57:ASP:HB2	2.46	0.66
10:S8:16:ALA:HB2	1:6:354:C:H5''	297.52	0.66
1:6:1662:G:O6	86:6:2062:OHX:N6	2.28	0.66
1:6:922:G:H2'	1:6:923:A:H8	1.60	0.66
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.28	0.66
1:6:922:G:H2'	1:6:923:A:C8	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.75	0.66
36:5:2717:U:OP1	86:5:4064:OHX:N3	2.29	0.66
40:L3:221:THR:HB	40:L3:273:HIS:H	1.85	0.66
1:2:1114:G:O2'	1:2:1130:G:O6	2.13	0.66
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	3.09	0.66
1:2:229:U:H3	1:2:236:A:H61	1.44	0.66
36:1:1815:U:O2'	36:1:1816:A:OP2	2.14	0.66
37:3:17:A:OP1	42:L5:2:ALA:N	2.29	0.66
9:S7:78:THR:HG22	9:S7:92:PHE:HE1	3.04	0.66
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.20	0.66
36:5:25:U:O4	86:5:3905:OHX:N5	2.29	0.66
1:6:833:U:O4	86:6:2100:OHX:N5	2.29	0.66
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	1.78	0.66
1:2:104:A:OP2	1:2:308:C:N4	2.27	0.66
37:7:112:G:OP2	86:7:222:OHX:N2	2.29	0.66
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	1.78	0.66
7:S5:37:GLN:HG2	7:S5:69:PHE:CE1	3.13	0.66
9:S7:17:GLU:HG3	9:S7:46:ILE:HG13	3.86	0.66
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.28	0.66
51:M5:49:ARG:NH1	36:5:149:U:OP2	101.29	0.66
40:L3:20:LYS:HG2	40:L3:21:ARG:N	3.76	0.66
12:C0:87:VAL:O	12:C0:89:ALA:N	5.23	0.66
1:2:1487:A:H2'	1:2:1488:G:H8	1.61	0.66
36:1:1565:G:N2	36:1:1574:C:O2	2.28	0.66
45:L8:121:SER:O	45:L8:123:GLN:N	2.37	0.66
1:2:591:A:H2'	1:2:592:A:C8	2.31	0.66
31:D9:15:GLY:O	31:D9:17:GLY:N	2.91	0.66
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.60	0.66
7:S5:44:ASN:HD22	7:S5:115:LYS:HD2	5.19	0.65
40:L3:296:THR:HG22	40:L3:298:PHE:N	5.33	0.65
36:1:2764:C:N3	88:1:4221:3K5:H42	2.11	0.65
1:2:1477:G:H1	1:2:1530:C:H42	1.43	0.65
40:L3:171:LEU:O	86:L3:405:OHX:N6	2.30	0.65
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.25	0.65
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.77	0.65
36:1:600:G:N7	86:1:4101:OHX:N1	2.44	0.65
56:N0:50:LYS:HB2	56:N0:50:LYS:HZ2	4.52	0.65
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.78	0.65
57:N1:78:LYS:HE2	36:5:2728:G:O6	218.88	0.65
1:6:800:U:H2'	1:6:801:G:H8	1.61	0.65
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.47	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:46:PHE:O	18:C6:50:GLU:HG3	1.96	0.65
44:L7:110:ARG:CZ	54:M8:3:ILE:HD12	2.83	0.65
36:5:2439:A:N6	36:5:2508:U:H3	1.93	0.65
1:2:732:G:O6	86:2:2128:OHX:N5	2.29	0.65
34:SR:164:ASP:O	34:SR:166:SER:N	2.70	0.65
36:1:1308:A:OP2	36:1:1308:A:C8	2.48	0.65
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.91	0.65
50:M4:113:THR:HG23	50:M4:116:GLU:H	3.17	0.65
36:5:1249:G:H2'	36:5:1250:G:H8	1.60	0.65
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.77	0.65
1:2:656:G:O2'	1:2:657:U:O4'	2.14	0.65
15:C3:87:ASP:HB3	15:C3:125:LEU:HD11	4.95	0.65
36:1:1119:C:OP2	86:1:3959:OHX:N1	2.29	0.65
79:Q3:18:TYR:H	36:5:2131:A:H61	226.97	0.65
13:C1:77:SER:HB3	13:C1:85:VAL:HB	1.78	0.65
38:4:70:G:O6	86:O7:104:OHX:N4	2.29	0.65
36:5:1387:G:OP1	86:5:4197:OHX:N3	2.29	0.65
59:N3:133:SER:O	86:6:2117:OHX:N3	295.64	0.65
1:6:1694:A:H2	1:6:1708:U:H3	1.44	0.65
86:1:4204:OHX:N6	86:O1:201:OHX:N5	2.44	0.65
18:C6:42:GLU:HA	18:C6:45:ARG:HB2	1.78	0.65
36:1:2732:G:OP2	86:1:4211:OHX:N2	2.29	0.65
36:5:1586:G:OP1	86:5:3989:OHX:N3	2.29	0.65
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.63	0.65
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.84	0.65
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	1.98	0.65
1:6:1672:G:H2'	1:6:1673:G:C8	2.31	0.65
42:L5:85:ARG:HH12	42:L5:254:LYS:H	4.89	0.65
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	2.42	0.65
16:C4:29:HIS:HB2	16:C4:41:ARG:HA	1.78	0.65
26:D4:12:VAL:HA	26:D4:23:PHE:HB3	2.82	0.65
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.23	0.65
74:O8:12:LEU:HD21	74:O8:65:LEU:HD21	2.93	0.65
36:5:421:G:OP1	86:5:4016:OHX:N2	2.29	0.65
36:1:223:U:O4	86:1:4202:OHX:N5	2.29	0.65
36:5:159:A:H61	36:5:262:U:H3	1.42	0.65
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.29	0.65
10:S8:18:ARG:NH1	1:6:105:A:OP1	304.43	0.65
36:1:2138:A:HO2'	73:O7:2:GLY:N	1.94	0.65
36:1:3013:U:H2'	36:1:3014:U:C6	2.31	0.65
36:5:2207:A:H62	36:5:2236:G:H1	1.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:144:LEU:HD21	34:SR:186:PHE:HB3	3.23	0.65
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.30	0.65
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.77	0.65
1:6:1595:U:N3	1:6:1600:A:H2	1.95	0.65
42:L5:107:ARG:HA	42:L5:107:ARG:HE	1.62	0.65
33:E1:82:LYS:O	33:E1:84:VAL:N	5.00	0.65
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.14	0.65
8:S6:20:ASP:HB3	8:S6:23:ARG:HB2	1.81	0.65
36:5:2409:G:H4'	36:5:2410:U:OP2	1.96	0.65
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.28	0.65
1:6:383:G:N7	86:6:2149:OHX:N5	2.44	0.65
36:5:2311:G:OP2	86:5:4195:OHX:N1	2.29	0.65
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.88	0.65
66:O0:13:LYS:HB3	66:O0:100:ILE:HG23	1.78	0.65
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	4.07	0.65
1:6:1699:G:H22	1:6:1702:A:H5''	1.60	0.65
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	1.94	0.65
1:6:755:A:O2'	1:6:756:A:OP1	2.13	0.65
39:L2:131:GLY:H	39:L2:169:ILE:HG22	2.23	0.65
53:M7:28:ASN:O	53:M7:32:THR:HG22	1.95	0.65
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.55	0.65
1:2:730:G:H21	1:2:731:C:H5''	1.61	0.65
59:N3:54:LEU:HD11	59:N3:119:GLY:HA3	1.79	0.65
86:5:3940:OHX:N2	86:5:4231:OHX:N6	2.45	0.65
1:6:1542:G:H22	1:6:1568:C:H1'	1.62	0.65
36:1:249:U:H1'	36:1:250:U:O2	1.95	0.65
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.36	0.65
55:M9:116:ASP:OD1	55:M9:118:HIS:N	2.29	0.65
36:5:549:U:H2'	36:5:550:A:C8	2.31	0.65
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.30	0.65
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.39	0.65
39:L2:128:ARG:NH1	36:5:2177:G:OP2	197.28	0.65
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.44	0.65
61:N5:25:LYS:HD3	61:N5:27:ARG:HH12	1.62	0.65
59:N3:75:PRO:HG2	59:N3:105:PRO:HD3	1.77	0.65
36:1:562:C:H2'	36:1:563:U:C6	2.32	0.65
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.30	0.65
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.30	0.65
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.62	0.65
1:2:676:G:O6	1:2:677:G:N2	2.28	0.65
36:5:789:A:H2'	36:5:790:U:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2810:C:OP1	86:5:4075:OHX:N3	2.30	0.65
1:2:481:A:H61	1:2:505:A:H62	1.45	0.65
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.77	0.65
29:D7:20:LYS:NZ	1:6:959:U:OP2	346.77	0.65
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	2.02	0.65
22:D0:28:SER:OG	22:D0:29:THR:N	2.28	0.65
1:2:166:C:H4'	8:S6:131:LYS:HE3	1.77	0.65
21:C9:33:TYR:CD1	21:C9:37:VAL:HG21	3.12	0.65
5:S3:140:GLY:HA3	5:S3:182:LEU:HD22	4.44	0.65
1:2:583:C:OP1	86:2:2025:OHX:N3	2.30	0.65
3:S1:181:LEU:O	3:S1:184:LEU:N	2.30	0.65
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	2.32	0.65
18:C6:31:VAL:HG13	18:C6:67:VAL:HB	1.79	0.65
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.68	0.65
1:6:1058:U:H4'	1:6:1059:U:OP1	1.97	0.65
36:1:410:U:O4	86:1:4061:OHX:N2	2.30	0.65
46:L9:113:GLU:OE1	46:L9:115:ARG:NE	3.11	0.65
5:S3:172:THR:HB	5:S3:185:LYS:HG2	2.65	0.65
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.35	0.65
2:S0:123:VAL:HG11	2:S0:133:ILE:HD11	1.77	0.65
48:M1:117:ASP:OD2	48:M1:119:SER:OG	2.15	0.65
1:6:845:G:H2'	1:6:846:G:H8	1.61	0.65
36:1:1740:U:H1'	36:1:1741:A:H2	1.60	0.65
1:6:491:C:H42	1:6:497:G:H21	1.45	0.65
1:2:647:G:N2	1:2:687:G:H22	1.95	0.65
36:5:438:A:H2'	36:5:494:G:N2	2.12	0.65
41:L4:299:ILE:HG22	41:L4:300:ARG:O	1.96	0.65
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	4.17	0.65
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.30	0.65
65:N9:46:ALA:O	65:N9:50:THR:HG23	2.73	0.65
36:5:1804:A:H2'	36:5:1805:C:H6	1.60	0.65
74:O8:5:ILE:HD11	74:O8:10:GLN:HE22	2.47	0.65
36:1:952:A:OP1	65:N9:14:ARG:NH2	2.30	0.65
13:C1:5:LEU:O	13:C1:7:VAL:N	2.27	0.65
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	3.34	0.65
55:M9:125:LYS:NZ	36:5:1720:U:O4	240.41	0.65
36:5:1556:C:O5'	36:5:2169:G:N2	2.30	0.65
36:5:132:C:H2'	36:5:133:U:H5''	1.79	0.65
44:L7:222:HIS:CE1	44:L7:224:ILE:HD12	4.21	0.64
10:S8:137:LYS:NZ	1:6:192:U:O4	263.86	0.64
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:60:THR:HG22	41:L4:62:ALA:N	2.13	0.64
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.62	0.64
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	1.78	0.64
49:M3:157:ARG:HH12	64:N8:146:GLU:CD	2.36	0.64
36:5:495:G:H2'	36:5:496:C:O4'	1.96	0.64
38:4:103:G:O6	86:4:228:OHX:N4	2.30	0.64
42:L5:36:LEU:HB3	42:L5:50:ARG:HD2	1.79	0.64
21:C9:112:GLY:O	21:C9:125:SER:OG	4.10	0.64
1:2:614:C:H2'	1:2:615:A:H8	1.60	0.64
36:5:2255:A:H5'	36:5:2261:G:H22	1.61	0.64
78:Q2:77:CYS:SG	78:Q2:79:THR:HG22	2.37	0.64
36:1:619:A:H5''	36:1:620:U:OP1	1.98	0.64
59:N3:2:SER:HA	59:N3:56:ASP:HA	3.37	0.64
1:2:702:G:O6	1:2:737:A:N6	2.31	0.64
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	2.35	0.64
19:C7:20:TYR:CD2	19:C7:38:ILE:HD11	2.32	0.64
86:2:2038:OHX:N1	25:D3:64:PRO:O	2.29	0.64
36:1:662:U:OP1	64:N8:8:THR:HG21	1.97	0.64
36:5:1530:U:OP1	86:5:3989:OHX:N1	2.30	0.64
7:S5:42:LEU:HB2	7:S5:46:TRP:O	1.98	0.64
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.32	0.64
32:E0:39:LEU:HG	32:E0:43:ARG:HH21	5.35	0.64
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.31	0.64
51:M5:172:ARG:NH2	36:5:63:A:OP1	104.06	0.64
26:D4:15:ASN:HD22	26:D4:22:GLN:NE2	3.39	0.64
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	280.78	0.64
36:5:2444:C:H42	36:5:2503:G:H1	1.43	0.64
29:D7:67:THR:O	1:6:871:G:O2'	327.20	0.64
1:2:425:A:H5'	1:2:425:A:H8	1.61	0.64
1:2:992:A:H2	1:2:1012:U:N3	1.88	0.64
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	1.77	0.64
40:L3:232:ARG:NH2	36:5:2989:U:O2'	214.96	0.64
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.79	0.64
1:6:578:U:O2	86:6:2154:OHX:N3	2.30	0.64
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.77	0.64
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.80	0.64
36:1:1555:U:H5	36:1:1559:A:H61	1.46	0.64
36:1:1230:G:H1	36:1:1279:C:H42	1.44	0.64
27:D5:66:VAL:HG22	27:D5:71:ILE:HG22	5.95	0.64
2:S0:184:LEU:O	2:S0:186:GLY:N	2.30	0.64
36:5:1170:A:OP2	86:5:3999:OHX:N4	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:83:PRO:HG2	64:N8:86:LYS:HD2	5.48	0.64
36:5:1155:C:O2'	36:5:1197:A:N1	2.31	0.64
1:6:1649:G:N7	86:6:2109:OHX:N2	2.45	0.64
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.79	0.64
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.79	0.64
40:L3:92:TYR:HB2	40:L3:157:VAL:HG13	1.79	0.64
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.79	0.64
1:2:705:U:H2'	1:2:706:A:C8	2.32	0.64
36:1:1790:G:O6	86:1:4174:OHX:N4	2.30	0.64
55:M9:154:ALA:O	55:M9:156:ASN:N	3.69	0.64
64:N8:42:ARG:NH2	36:5:2799:A:N3	192.94	0.64
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.33	0.64
36:1:621:A:O2'	86:1:4170:OHX:N1	2.30	0.64
36:1:1724:U:OP2	55:M9:128:LYS:NZ	2.31	0.64
36:1:917:A:OP2	86:1:4149:OHX:N2	2.30	0.64
42:L5:181:PRO:HD2	42:L5:195:LEU:HD13	2.45	0.64
14:C2:124:LYS:O	14:C2:126:TRP:N	2.28	0.64
86:1:4204:OHX:N4	86:O1:201:OHX:N1	2.45	0.64
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.79	0.64
36:1:1024:G:N7	86:1:4171:OHX:N6	2.45	0.64
42:L5:17:GLN:OE1	57:N1:22:HIS:N	2.29	0.64
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.32	0.64
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	3.98	0.64
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	1.96	0.64
42:L5:8:LYS:NZ	37:7:15:C:O3'	311.14	0.64
1:6:1393:C:H2'	1:6:1394:G:H8	1.63	0.64
28:D6:5:ARG:O	28:D6:8:ASN:N	2.70	0.64
1:2:703:G:H2'	1:2:704:C:H5'	1.80	0.64
5:S3:142:LEU:O	5:S3:144:ALA:N	2.29	0.64
34:SR:227:ALA:O	34:SR:229:LYS:NZ	2.31	0.64
73:O7:31:LYS:O	73:O7:33:THR:HG22	2.09	0.64
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	2.16	0.64
24:D2:55:ASP:O	24:D2:57:ARG:N	2.90	0.64
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.63	0.64
36:5:1307:G:O2'	36:5:1308:A:N7	2.28	0.64
22:D0:48:HIS:ND1	22:D0:48:HIS:O	2.31	0.64
71:O5:105:ARG:HB2	71:O5:105:ARG:HH21	1.63	0.64
51:M5:157:LYS:NZ	36:5:58:G:OP1	85.39	0.64
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	1.80	0.64
7:S5:44:ASN:O	7:S5:45:LYS:HD3	3.62	0.64
53:M7:62:ARG:NH1	36:5:412:G:OP1	159.19	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2425:G:H2'	36:5:2426:U:O4'	1.96	0.64
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	5.59	0.64
18:C6:66:ARG:NH1	1:6:1351:G:OP1	435.03	0.64
36:5:2947:G:H4'	36:5:2947:G:OP2	1.98	0.64
36:5:3241:G:H2'	36:5:3245:A:H8	1.61	0.64
46:L9:84:LYS:HA	46:L9:188:THR:HG22	3.46	0.64
36:1:2970:C:HO2'	36:1:2971:A:H2	1.46	0.64
36:1:3148:U:O4	86:1:4114:OHX:N2	2.31	0.64
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.31	0.64
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.79	0.64
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.80	0.64
1:2:793:A:H5''	1:2:794:U:C5	2.32	0.64
36:1:1233:G:H22	36:1:1255:C:H42	1.46	0.64
36:1:2775:U:H2'	36:1:2776:C:C6	2.33	0.64
1:6:75:U:O2'	1:6:76:A:O5'	2.15	0.64
39:L2:209:HIS:HD2	39:L2:211:HIS:N	1.96	0.64
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.63	0.64
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	1.79	0.64
37:3:60:G:H2'	37:3:61:G:H8	1.63	0.64
3:S1:173:THR:O	3:S1:177:GLN:HB2	5.98	0.64
71:O5:31:LEU:HD23	71:O5:41:LEU:HD21	5.88	0.64
36:5:2236:G:OP1	86:5:4245:OHX:N3	2.31	0.64
7:S5:35:GLN:O	7:S5:37:GLN:N	3.24	0.63
57:N1:68:THR:OG1	57:N1:69:LYS:N	2.32	0.63
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.11	0.63
28:D6:7:SER:O	28:D6:9:GLY:N	3.38	0.63
1:2:780:A:C8	26:D4:8:ARG:HB3	2.33	0.63
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	1.97	0.63
36:5:622:A:H2'	36:5:623:U:O4'	1.97	0.63
42:L5:265:TYR:OH	37:7:121:U:OP2	312.24	0.63
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.96	0.63
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.63	0.63
36:1:612:U:OP1	43:L6:21:THR:HB	1.98	0.63
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	2.67	0.63
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.44	0.63
50:M4:39:ILE:HD12	50:M4:43:LYS:HB3	1.80	0.63
1:6:831:U:O2'	1:6:832:U:H5'	1.99	0.63
1:2:7:G:O6	4:S2:205:ARG:NH2	2.30	0.63
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.60	0.63
1:2:45:U:O2'	1:2:46:A:H2'	1.98	0.63
45:L8:101:THR:HG22	45:L8:104:GLU:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1017:C:H42	36:5:2671:A:P	2.21	0.63
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.67	0.63
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	1.80	0.63
45:L8:224:ASP:OD1	45:L8:224:ASP:N	2.89	0.63
17:C5:47:ARG:HH21	1:6:1555:A:P	403.07	0.63
36:5:2572:C:O2'	36:5:2573:G:OP2	2.14	0.63
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.00	0.63
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	2.23	0.63
1:2:1067:C:H2'	1:2:1068:C:C6	2.32	0.63
42:L5:17:GLN:HG3	57:N1:20:ARG:HA	1.80	0.63
1:6:686:C:H2'	1:6:687:G:C8	2.33	0.63
62:N6:57:LEU:HD23	62:N6:67:GLU:HG2	3.29	0.63
36:5:993:G:OP1	86:5:3909:OHX:N6	2.31	0.63
36:1:1077:U:OP1	65:N9:38:LYS:NZ	2.27	0.63
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.37	0.63
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	3.21	0.63
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	1.79	0.63
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.34	0.63
10:S8:161:SER:OG	36:5:3353:G:OP1	233.19	0.63
36:1:2983:C:OP1	86:1:4195:OHX:N3	2.31	0.63
52:M6:157:GLU:OE2	52:M6:160:ARG:NH1	2.31	0.63
86:5:4017:OHX:N5	86:5:4214:OHX:N2	2.46	0.63
71:O5:83:LYS:HA	38:8:38:U:C5	66.36	0.63
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.79	0.63
36:1:829:U:H3	36:1:895:A:N6	1.96	0.63
46:L9:48:VAL:HG22	46:L9:52:LEU:HB3	1.80	0.63
63:N7:62:VAL:O	63:N7:66:THR:OG1	2.30	0.63
86:1:4204:OHX:N4	86:O1:201:OHX:N3	2.46	0.63
36:5:789:A:H2'	36:5:790:U:H6	1.62	0.63
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.80	0.63
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	3.51	0.63
26:D4:3:ASP:O	26:D4:5:VAL:N	2.28	0.63
36:5:1085:A:H5''	36:5:1085:A:H8	1.64	0.63
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.31	0.63
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.63	0.63
53:M7:29:THR:HA	53:M7:32:THR:HG23	2.03	0.63
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.14	0.63
15:C3:31:GLU:HA	15:C3:34:ILE:HD12	3.62	0.63
63:N7:136:PHE:HD2	70:O4:89:ILE:HG12	1.62	0.63
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.74	0.63
86:1:4204:OHX:N2	86:O1:201:OHX:N5	2.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1242:G:H2'	36:5:1243:G:O4'	1.99	0.63
61:N5:63:ILE:HA	61:N5:86:VAL:HG23	1.80	0.63
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.33	0.63
36:5:2977:G:OP1	86:5:4150:OHX:N4	2.31	0.63
51:M5:149:ASN:OD1	86:M5:302:OHX:N2	2.32	0.63
1:2:499:U:O2'	1:2:500:C:H5''	1.98	0.63
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.99	0.63
36:1:2767:U:OP2	86:1:4138:OHX:N2	2.32	0.63
36:1:1383:G:O6	86:1:3887:OHX:N3	2.32	0.63
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.32	0.63
36:5:2568:C:O2'	36:5:2569:A:O5'	2.14	0.63
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.79	0.63
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	3.39	0.63
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.31	0.63
36:1:3043:C:P	59:N3:48:ARG:HH22	2.22	0.63
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.81	0.63
1:2:649:U:O2'	1:2:650:U:O5'	2.14	0.63
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.79	0.63
16:C4:121:VAL:O	1:6:886:U:O2'	286.58	0.63
56:N0:169:SER:HA	36:5:3185:U:O2	301.14	0.63
36:1:1456:A:N7	67:O1:26:LYS:NZ	2.45	0.63
1:6:489:C:O2'	1:6:490:C:O4'	2.16	0.63
6:S4:212:ASP:OD1	6:S4:214:LEU:N	2.31	0.63
46:L9:149:ASN:N	46:L9:149:ASN:OD1	2.29	0.63
36:1:2208:A:N1	86:1:4049:OHX:N4	2.46	0.63
20:C8:33:THR:HA	20:C8:38:VAL:HG22	3.83	0.63
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.11	0.63
38:8:74:U:O2	86:8:222:OHX:N5	2.31	0.63
48:M1:60:ARG:NE	78:Q2:104:LEU:O	4.17	0.63
2:S0:167:LYS:HG2	2:S0:168:HIS:CE1	2.33	0.63
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.80	0.63
22:D0:24:ILE:HG23	22:D0:116:VAL:HG22	1.80	0.63
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.77	0.63
1:2:856:A:H62	9:S7:97:ARG:H	1.47	0.63
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.81	0.63
70:O4:58:ARG:HH11	70:O4:58:ARG:CG	2.12	0.63
5:S3:31:GLU:O	5:S3:54:ARG:NH2	3.25	0.63
5:S3:222:VAL:HG13	34:SR:230:ALA:H	1.63	0.63
86:7:219:OHX:N4	86:7:226:OHX:N2	2.47	0.63
38:8:126:A:O2'	38:8:128:U:OP2	2.12	0.63
9:S7:50:ASP:HB3	9:S7:56:LYS:HG2	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:71:ARG:HE	78:Q2:80:ARG:HE	1.46	0.63
51:M5:13:LYS:O	51:M5:16:SER:OG	2.07	0.63
36:5:2123:G:N7	86:5:4096:OHX:N1	2.47	0.63
42:L5:279:LYS:HG2	42:L5:282:ARG:CZ	2.28	0.63
1:2:1160:A:H2'	1:2:1161:C:H6	1.64	0.63
36:5:408:A:N6	38:8:15:G:H1'	2.13	0.63
49:M3:16:LYS:NZ	36:5:98:G:OP1	133.20	0.63
36:5:314:U:H2'	36:5:315:C:C6	2.34	0.63
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.81	0.63
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.13	0.63
1:6:193:U:C2	1:6:195:G:H1'	2.34	0.63
3:S1:175:GLU:HG2	3:S1:193:ILE:HG23	2.58	0.63
45:L8:81:THR:HG23	45:L8:82:LEU:H	3.67	0.63
1:2:1160:A:H2'	1:2:1161:C:C6	2.34	0.63
7:S5:121:ILE:HA	7:S5:199:ILE:HD11	1.81	0.63
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.31	0.63
59:N3:32:ARG:O	59:N3:32:ARG:NH1	7.07	0.63
36:5:59:G:H4'	36:5:60:A:H4'	1.79	0.63
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	2.22	0.63
40:L3:41:VAL:HG22	40:L3:186:GLY:H	1.64	0.62
36:5:93:C:OP2	36:5:2764:C:O2'	2.14	0.62
36:5:1580:A:O2'	36:5:1581:C:OP2	2.17	0.62
36:5:1650:G:N7	86:5:4178:OHX:N3	2.47	0.62
30:D8:26:THR:O	30:D8:44:VAL:HG22	3.96	0.62
16:C4:136:ARG:HD2	1:6:1769:U:O2	302.83	0.62
74:O8:14:LEU:HD23	74:O8:17:ARG:HD3	2.26	0.62
36:1:830:A:OP1	86:1:4016:OHX:N4	2.31	0.62
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	1.64	0.62
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	1.91	0.62
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.14	0.62
36:5:192:C:H2'	36:5:193:C:C6	2.34	0.62
5:S3:192:PRO:O	5:S3:195:SER:OG	4.23	0.62
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.31	0.62
7:S5:36:ALA:HB1	7:S5:42:LEU:HD21	1.81	0.62
7:S5:43:PHE:N	7:S5:46:TRP:O	2.75	0.62
86:5:3971:OHX:N3	86:5:4239:OHX:N5	2.47	0.62
1:2:1291:G:N2	1:2:1324:G:H22	1.96	0.62
14:C2:63:VAL:HG11	14:C2:94:ALA:HB2	1.82	0.62
15:C3:63:ALA:O	15:C3:67:THR:OG1	3.30	0.62
36:5:1940:G:H21	36:5:3362:A:H8	1.46	0.62
36:5:1696:A:OP2	86:5:4182:OHX:N6	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:146:ILE:HG22	43:L6:150:LYS:HE2	3.33	0.62
36:5:1409:G:O6	86:5:4159:OHX:N6	2.32	0.62
10:S8:64:ASN:OD1	1:6:257:A:O2'	275.63	0.62
1:2:855:A:C2	1:2:857:U:H1'	2.33	0.62
1:2:530:C:O2	26:D4:61:ARG:NH2	2.32	0.62
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.33	0.62
16:C4:111:ARG:NH1	28:D6:57:SER:O	4.51	0.62
64:N8:73:LEU:HD23	64:N8:109:TYR:CZ	5.52	0.62
11:S9:11:THR:HG23	1:6:472:U:H5''	397.43	0.62
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.97	0.62
55:M9:104:ARG:NH1	36:5:1949:G:OP1	221.27	0.62
1:6:1166:A:H2'	1:6:1167:G:O4'	1.99	0.62
1:2:71:A:H2'	1:2:72:A:O4'	1.99	0.62
34:SR:197:SER:HB2	34:SR:216:LYS:HB3	3.33	0.62
1:2:1592:A:H2'	1:2:1593:A:H8	1.64	0.62
1:6:1393:C:H2'	1:6:1394:G:C8	2.33	0.62
57:N1:13:TYR:O	86:N1:201:OHX:N5	2.33	0.62
1:6:65:A:H2	1:6:84:A:H62	1.47	0.62
24:D2:122:SER:OG	24:D2:123:GLY:N	2.31	0.62
1:2:136:C:H4'	1:2:137:U:OP1	1.99	0.62
36:1:1915:A:H5''	55:M9:84:THR:HG22	1.81	0.62
57:N1:41:ASP:HB2	57:N1:97:LYS:HD2	4.46	0.62
47:M0:78:THR:OG1	47:M0:79:VAL:N	4.49	0.62
36:5:3078:U:H4'	36:5:3079:U:O5'	1.98	0.62
36:5:1013:G:C2	36:5:1014:U:H1'	2.35	0.62
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.80	0.62
32:E0:46:ASN:HD21	32:E0:48:THR:HG22	5.39	0.62
36:5:1317:A:OP1	86:5:4094:OHX:N1	2.32	0.62
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.80	0.62
40:L3:5:LYS:HE3	36:5:2878:G:OP1	243.89	0.62
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	1.81	0.62
34:SR:38:ARG:HA	34:SR:67:ILE:HG23	2.74	0.62
36:1:114:A:N1	36:1:266:A:O2'	2.32	0.62
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	3.28	0.62
1:2:1487:A:H2'	1:2:1488:G:C8	2.33	0.62
64:N8:147:LEU:HD12	72:O6:7:ILE:HD11	5.26	0.62
12:C0:58:GLN:O	12:C0:65:TYR:N	2.68	0.62
16:C4:125:SER:OG	16:C4:126:THR:N	2.31	0.62
48:M1:60:ARG:O	48:M1:63:GLU:HB2	1.99	0.62
36:5:3103:A:OP2	86:5:4156:OHX:N4	2.32	0.62
44:L7:96:PRO:O	44:L7:99:PRO:HD2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:970:A:OP2	65:N9:19:ASN:ND2	2.33	0.62
1:6:1690:G:H1	1:6:1711:C:H42	1.47	0.62
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.82	0.62
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.50	0.62
51:M5:197:LEU:HD21	51:M5:199:LEU:HD21	1.81	0.62
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	2.69	0.62
36:1:1171:G:O6	86:1:3963:OHX:N2	2.33	0.62
64:N8:28:HIS:CD2	64:N8:32:ARG:HG2	2.35	0.62
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	4.22	0.62
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.31	0.62
69:O3:13:HIS:O	69:O3:95:GLY:N	2.33	0.62
36:1:1808:G:O6	86:1:3987:OHX:N3	2.32	0.62
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.20	0.62
36:5:1688:U:H2'	36:5:1689:U:C6	2.34	0.62
1:2:1228:G:H1	14:C2:67:THR:HG1	1.46	0.62
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	2.08	0.62
9:S7:14:THR:HG22	9:S7:17:GLU:H	2.80	0.62
40:L3:228:GLY:O	40:L3:232:ARG:HB3	2.71	0.62
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.82	0.62
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.19	0.62
1:2:1776:A:H2'	1:2:1777:G:C8	2.35	0.62
16:C4:84:ARG:HA	16:C4:119:THR:HG22	3.24	0.62
5:S3:124:ARG:HD2	35:SM:128:ALA:HA	9.92	0.62
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.80	0.62
54:M8:170:ARG:O	54:M8:171:LYS:HB2	1.99	0.62
42:L5:270:LYS:HD2	42:L5:272:TYR:HB2	9.81	0.62
42:L5:22:ARG:NH2	42:L5:28:THR:OG1	2.27	0.62
36:5:425:G:O6	86:5:3913:OHX:N3	2.31	0.62
36:1:1933:A:OP2	86:1:3891:OHX:N6	2.32	0.62
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	2.55	0.62
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	1.81	0.62
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.78	0.62
11:S9:110:GLN:NE2	11:S9:122:VAL:O	2.31	0.62
1:6:1280:C:H2'	1:6:1281:G:C8	2.35	0.62
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.65	0.62
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.32	0.62
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	3.73	0.62
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	2.17	0.62
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.00	0.62
15:C3:124:ARG:NH2	1:6:967:A:OP2	318.97	0.62
1:6:1508:U:O4	86:6:2054:OHX:N4	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4213:OHX:N4	38:4:16:G:OP1	2.32	0.62
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	4.28	0.62
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.80	0.62
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.32	0.62
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.82	0.62
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.33	0.62
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.95	0.62
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.81	0.62
36:1:2218:G:H2'	36:1:2219:A:H8	1.64	0.62
36:5:873:C:H5''	36:5:874:U:O5'	2.00	0.62
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.81	0.62
1:6:213:A:OP2	86:6:2150:OHX:N1	2.33	0.62
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.00	0.62
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.22	0.62
36:1:314:U:O4	86:1:4156:OHX:N4	2.32	0.62
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.84	0.62
41:L4:269:SER:O	41:L4:269:SER:OG	2.49	0.62
1:2:1738:U:H2'	1:2:1739:C:C6	2.34	0.62
46:L9:70:THR:HG21	36:5:3122:A:N1	323.90	0.62
36:1:1430:U:H2'	64:N8:9:ARG:HH22	1.65	0.62
1:2:1000:C:N4	1:2:1003:A:OP2	2.33	0.62
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.82	0.62
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.63	0.62
43:L6:129:GLU:N	43:L6:129:GLU:OE2	2.33	0.62
1:6:1650:U:H2'	1:6:1651:A:C8	2.35	0.62
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	5.07	0.62
36:5:90:C:H2'	36:5:91:G:H5'	1.81	0.62
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.85	0.62
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	2.78	0.62
2:S0:70:PRO:O	2:S0:95:ALA:N	2.28	0.62
28:D6:36:ILE:HD12	28:D6:78:ALA:HB1	1.81	0.62
67:O1:43:HIS:O	67:O1:44:MET:HE2	5.35	0.62
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	1.82	0.62
37:3:60:G:H2'	37:3:61:G:C8	2.34	0.62
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.15	0.62
79:Q3:4:ARG:HD2	36:5:837:A:OP2	238.30	0.62
36:1:2273:G:O6	86:1:4144:OHX:N5	2.32	0.62
36:1:2947:G:H4'	36:1:2947:G:OP2	1.99	0.62
36:1:1233:G:H1	36:1:1255:C:H42	1.48	0.62
42:L5:140:ARG:NH2	36:5:1080:A:OP2	228.29	0.62
1:2:867:G:O6	86:2:2031:OHX:N2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1282:U:OP1	86:6:2137:OHX:N4	2.33	0.62
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.33	0.62
40:L3:129:ALA:O	36:5:3150:A:H5'	210.90	0.62
36:1:3278:C:H2'	36:1:3278:C:O2	1.99	0.62
36:1:742:G:N7	86:1:3980:OHX:N1	2.48	0.62
1:6:453:U:O4	86:6:2061:OHX:N4	2.32	0.62
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.00	0.62
67:O1:41:LYS:HA	67:O1:46:THR:HG23	4.15	0.62
1:2:1681:A:H2'	1:2:1682:U:H5'	1.81	0.62
12:C0:56:LYS:N	12:C0:67:THR:O	2.94	0.62
1:6:1698:G:O2'	1:6:1699:G:O5'	2.15	0.62
36:1:410:U:O4	86:1:4061:OHX:N5	2.32	0.62
56:N0:74:ASN:HD21	56:N0:144:LEU:HD21	1.64	0.62
1:6:694:U:H3'	1:6:695:U:O2	2.00	0.62
1:6:1427:A:O2'	1:6:1428:G:OP1	2.17	0.62
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	3.83	0.62
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.18	0.61
36:1:2185:G:O2'	36:1:2314:U:OP2	2.18	0.61
20:C8:18:LEU:HB2	20:C8:35:ILE:HD13	3.10	0.61
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	1.82	0.61
1:2:1002:G:N1	1:2:1761:U:OP1	2.31	0.61
9:S7:119:THR:OG1	1:6:639:U:OP2	366.23	0.61
44:L7:228:SER:HA	44:L7:232:ARG:NH2	2.98	0.61
1:6:1758:U:O2'	36:5:2262:A:N1	2.25	0.61
66:O0:22:LYS:HE2	66:O0:94:GLU:HG3	5.45	0.61
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.32	0.61
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.15	0.61
28:D6:31:PRO:HB2	28:D6:34:LYS:HB3	1.82	0.61
36:5:3195:U:O2'	36:5:3196:U:H5'	2.00	0.61
21:C9:53:TRP:HA	21:C9:56:LYS:HB2	1.82	0.61
1:2:732:G:O2'	1:2:733:A:O4'	2.18	0.61
48:M1:137:ARG:NH1	37:7:28:C:OP1	301.21	0.61
1:2:167:U:OP1	8:S6:131:LYS:NZ	2.32	0.61
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.00	0.61
36:1:162:G:N2	36:1:259:C:O2	2.33	0.61
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.36	0.61
40:L3:53:MET:HE1	40:L3:327:CYS:HB3	2.18	0.61
36:5:2248:C:OP2	86:5:3976:OHX:N6	2.32	0.61
57:N1:50:LYS:HB3	57:N1:92:ARG:NH1	2.16	0.61
53:M7:64:ASN:O	53:M7:67:ILE:HG12	4.32	0.61
40:L3:76:VAL:HG11	40:L3:323:MET:HE2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3115:C:O2'	36:1:3117:C:N4	2.30	0.61
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.39	0.61
36:1:2107:A:H2	36:1:3344:A:H8	1.48	0.61
3:S1:62:LYS:HD2	3:S1:91:VAL:HG11	1.81	0.61
11:S9:99:LEU:O	11:S9:100:LYS:HB3	1.99	0.61
1:2:851:U:H2'	1:2:852:C:C6	2.36	0.61
36:5:23:A:OP1	86:5:3905:OHX:N4	2.33	0.61
38:8:83:C:H4'	38:8:85:G:N3	2.16	0.61
36:5:900:G:H1'	36:5:1589:A:N6	2.14	0.61
36:1:2850:G:O6	86:1:4080:OHX:N6	2.34	0.61
1:2:67:A:O2'	1:2:69:G:OP1	2.13	0.61
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.36	0.61
36:5:2580:A:O2'	86:5:4127:OHX:N1	2.32	0.61
40:L3:58:ARG:NH1	40:L3:352:GLU:OE1	2.33	0.61
36:5:1064:A:H4'	36:5:1065:A:O5'	2.00	0.61
3:S1:119:THR:HB	3:S1:143:THR:HG23	1.82	0.61
26:D4:10:ARG:HD2	1:6:778:G:O6	429.56	0.61
47:M0:26:VAL:HG11	47:M0:96:VAL:HG21	2.97	0.61
41:L4:354:VAL:O	41:L4:358:THR:HG23	2.82	0.61
36:5:2310:U:OP1	86:5:4195:OHX:N2	2.33	0.61
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.00	0.61
6:S4:106:LYS:O	6:S4:187:ARG:NH2	2.33	0.61
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.65	0.61
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.43	0.61
36:5:2765:C:H2'	36:5:2766:U:H6	1.64	0.61
36:5:2520:A:H2'	36:5:2521:U:C6	2.35	0.61
1:6:1767:G:OP1	1:6:1770:U:H4'	1.99	0.61
20:C8:91:ASP:HB3	20:C8:95:GLY:H	1.88	0.61
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.81	0.61
34:SR:22:SER:OG	34:SR:69:GLN:O	6.22	0.61
10:S8:26:LYS:HD2	10:S8:29:LEU:HD12	1.83	0.61
9:S7:124:LYS:O	9:S7:128:ASP:N	2.33	0.61
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.23	0.61
36:1:3048:A:H5'	40:L3:53:MET:HE3	1.83	0.61
46:L9:2:LYS:NZ	46:L9:59:ASN:HD21	1.99	0.61
36:1:1809:A:OP1	63:N7:65:ARG:NH2	2.32	0.61
36:1:979:U:H1'	36:1:980:A:C4	2.36	0.61
16:C4:86:THR:HG21	16:C4:90:ARG:HD2	1.81	0.61
1:2:978:A:H2'	1:2:979:A:O4'	2.00	0.61
36:5:566:G:N7	86:5:4128:OHX:N5	2.49	0.61
1:6:463:U:OP1	86:6:2205:OHX:N1	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3246:G:O6	86:1:4112:OHX:N4	2.34	0.61
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.33	0.61
36:5:129:U:H2'	36:5:130:A:C8	2.35	0.61
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.66	0.61
7:S5:42:LEU:HD21	7:S5:45:LYS:HE2	1.81	0.61
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.53	0.61
11:S9:29:LYS:HG2	32:E0:44:PHE:CE1	4.27	0.61
41:L4:8:VAL:HB	41:L4:16:THR:HG21	4.13	0.61
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.17	0.61
3:S1:183:GLN:O	3:S1:187:LYS:N	2.33	0.61
25:D3:97:ASP:O	25:D3:100:ASP:HB2	3.10	0.61
36:1:1430:U:H2'	64:N8:9:ARG:NH2	2.15	0.61
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.01	0.61
46:L9:31:ARG:HG2	46:L9:149:ASN:ND2	2.16	0.61
2:S0:167:LYS:HE2	2:S0:168:HIS:CD2	4.51	0.61
63:N7:41:ALA:HB2	63:N7:77:TYR:HE2	5.80	0.61
36:5:90:C:C2'	36:5:91:G:H5'	2.31	0.61
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.16	0.61
1:2:1735:U:O4	86:2:2135:OHX:N2	2.34	0.61
36:1:3010:U:OP2	86:1:4207:OHX:N5	2.34	0.61
36:5:835:G:O2'	36:5:857:G:N2	2.29	0.61
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.34	0.61
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.14	0.61
86:1:3883:OHX:N5	51:M5:91:GLU:OE2	2.34	0.61
36:5:269:G:N2	36:5:295:A:OP2	2.32	0.61
1:2:514:G:O2'	1:2:515:A:H5'	2.01	0.61
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.80	0.61
1:6:1280:C:H2'	1:6:1281:G:H8	1.66	0.61
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.83	0.61
74:O8:44:LYS:HG2	74:O8:53:THR:HB	2.05	0.61
9:S7:35:LYS:O	9:S7:37:GLU:N	2.28	0.61
36:1:1934:G:N7	86:1:3891:OHX:N2	2.48	0.61
1:2:778:G:H1	26:D4:10:ARG:HG2	1.65	0.61
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.01	0.61
36:1:3094:A:H2'	36:1:3095:U:C6	2.36	0.61
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.82	0.61
1:2:1535:U:O2'	1:2:1536:G:N3	2.32	0.61
6:S4:194:THR:O	6:S4:195:ILE:HB	2.00	0.61
70:O4:17:SER:OG	36:5:1590:G:OP1	153.59	0.61
5:S3:94:ARG:NH2	35:SM:134:ASP:OD2	2.34	0.61
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.43	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.01	0.61
36:5:3377:G:O6	86:5:4084:OHX:N2	2.33	0.61
48:M1:155:THR:O	48:M1:159:THR:HG23	5.58	0.61
54:M8:176:ARG:HG3	36:5:2763:U:H5'	182.02	0.61
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.82	0.61
67:O1:51:LEU:HD22	67:O1:55:LEU:HD12	1.83	0.61
42:L5:276:LYS:HG2	42:L5:277:LEU:H	2.35	0.61
36:1:2897:A:H2'	36:1:2899:C:H5''	1.83	0.61
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	2.11	0.61
33:E1:135:HIS:HB2	33:E1:138:ARG:HB3	1.82	0.61
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.51	0.61
19:C7:7:LYS:N	1:6:1316:G:OP1	409.81	0.61
36:1:2687:G:OP1	42:L5:8:LYS:NZ	2.32	0.61
46:L9:34:LEU:HD21	46:L9:149:ASN:HB2	1.82	0.61
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.33	0.61
36:1:370:U:H4'	36:1:404:G:H5'	1.82	0.61
42:L5:155:THR:HA	42:L5:179:ARG:HA	1.92	0.61
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.62	0.61
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.65	0.61
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	1.83	0.61
37:3:112:G:H2'	37:3:113:C:C6	2.35	0.61
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.00	0.61
72:O6:26:ILE:O	72:O6:28:TYR:N	2.33	0.61
6:S4:18:TRP:HE3	6:S4:20:LEU:HD11	1.65	0.61
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.16	0.61
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	2.55	0.61
68:O2:19:ARG:HH22	36:5:1433:A:P	163.70	0.61
17:C5:111:MET:HG3	20:C8:119:ILE:HG13	3.55	0.61
36:1:3353:G:O2'	36:1:3356:G:OP2	2.19	0.61
70:O4:102:LYS:NZ	36:5:2552:C:OP1	232.21	0.61
1:6:1239:U:O4	86:6:2096:OHX:N1	2.34	0.61
21:C9:117:SER:HB3	21:C9:123:ARG:HB3	4.21	0.61
42:L5:4:GLN:O	42:L5:6:ASP:N	2.90	0.61
30:D8:8:THR:HB	30:D8:56:LEU:HB2	2.53	0.61
69:O3:58:GLU:HG3	69:O3:63:LYS:HZ3	1.64	0.61
36:1:3060:C:OP1	86:1:4044:OHX:N4	2.34	0.61
44:L7:222:HIS:ND1	44:L7:224:ILE:HG13	2.15	0.61
86:5:4017:OHX:N5	86:5:4214:OHX:N1	2.49	0.61
1:2:1479:A:H2'	1:2:1480:G:H8	1.66	0.61
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	2.70	0.61
45:L8:108:ARG:O	45:L8:112:GLU:HG2	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:868:G:H1	1:6:960:U:H3	1.48	0.61
54:M8:133:LYS:HB2	54:M8:135:GLN:HE22	2.94	0.61
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.41	0.61
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.01	0.61
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	3.77	0.61
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.66	0.61
1:2:260:U:H3'	1:2:261:U:H5''	1.83	0.61
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.33	0.61
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.41	0.61
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.83	0.60
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.01	0.60
28:D6:84:VAL:O	28:D6:86:VAL:N	2.29	0.60
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.34	0.60
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.00	0.60
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.01	0.60
36:1:3074:G:OP1	86:1:4044:OHX:N1	2.34	0.60
36:5:1414:G:O6	86:5:4144:OHX:N1	2.34	0.60
36:1:956:U:OP1	86:1:4130:OHX:N1	2.33	0.60
1:2:854:U:O4	55:M9:173:ARG:NH2	2.34	0.60
59:N3:26:ALA:O	59:N3:115:THR:N	2.26	0.60
70:O4:10:ARG:O	36:5:1488:G:O2'	139.20	0.60
36:1:1103:A:H4'	36:1:1103:A:OP2	2.01	0.60
1:2:1410:A:H2'	1:2:1411:A:O4'	1.99	0.60
44:L7:151:ARG:NH2	36:5:1334:U:O2'	240.42	0.60
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	4.77	0.60
1:2:73:U:H1'	1:2:74:U:H5'	1.83	0.60
36:1:1306:G:C6	52:M6:62:THR:HA	2.35	0.60
36:1:2616:C:H2'	36:1:2617:U:H5'	1.82	0.60
6:S4:163:ASP:O	6:S4:165:ALA:N	2.34	0.60
36:5:3049:A:H8	36:5:3049:A:H5'	1.65	0.60
36:1:1390:A:N6	36:1:1418:A:O2'	2.34	0.60
41:L4:170:LYS:HG2	41:L4:175:HIS:HB2	3.73	0.60
38:4:122:U:H2'	38:4:123:G:H8	1.67	0.60
62:N6:2:ALA:N	36:5:213:A:OP1	81.65	0.60
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.83	0.60
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.83	0.60
36:1:2592:G:H4'	36:1:2594:C:C2	2.35	0.60
44:L7:25:GLN:HA	44:L7:29:GLU:H	1.65	0.60
53:M7:29:THR:HG22	53:M7:87:SER:OG	4.44	0.60
28:D6:73:TYR:HB3	28:D6:78:ALA:HB2	1.83	0.60
36:5:1573:G:C5	36:5:1574:C:H1'	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:53:ILE:HG23	4:S2:72:LEU:HD23	1.84	0.60
1:6:485:A:H61	1:6:502:U:H3	1.48	0.60
1:6:196:G:O2'	1:6:197:A:OP2	2.18	0.60
39:L2:79:ASN:O	39:L2:82:VAL:HG13	2.01	0.60
17:C5:79:HIS:O	17:C5:81:ARG:N	2.34	0.60
1:2:1665:U:O4	86:2:2135:OHX:N4	2.34	0.60
1:6:1041:G:OP1	86:6:2175:OHX:N4	2.35	0.60
1:2:1385:G:N7	86:2:2131:OHX:N3	2.48	0.60
54:M8:141:ARG:HD3	36:5:743:C:O2	174.05	0.60
40:L3:294:GLY:HA3	40:L3:303:LYS:HG3	2.97	0.60
48:M1:59:ILE:HG21	48:M1:65:ILE:HD11	1.95	0.60
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.13	0.60
36:1:2376:G:H2'	36:1:2377:G:C8	2.36	0.60
36:5:2222:A:O5'	36:5:2222:A:H8	1.84	0.60
36:1:1547:G:P	51:M5:105:ARG:HH11	2.24	0.60
7:S5:42:LEU:HB2	7:S5:45:LYS:HD2	6.27	0.60
78:Q2:48:SER:O	86:Q2:503:OHX:N6	2.34	0.60
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.33	0.60
44:L7:131:GLU:HG2	44:L7:230:GLY:HA2	3.26	0.60
22:D0:74:GLU:HG2	1:6:1429:G:H1'	377.75	0.60
1:2:1482:C:OP2	1:2:1521:G:N2	2.35	0.60
36:1:514:G:N3	41:L4:341:SER:OG	2.35	0.60
36:1:1231:A:OP2	86:1:4090:OHX:N6	2.34	0.60
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.20	0.60
29:D7:50:ALA:O	29:D7:52:THR:N	2.34	0.60
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	1.66	0.60
36:1:1478:C:H2'	36:1:1479:U:C6	2.36	0.60
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.07	0.60
15:C3:114:ARG:CG	15:C3:114:ARG:HH11	2.13	0.60
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.33	0.60
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.64	0.60
86:5:4017:OHX:N6	86:5:4214:OHX:N2	2.50	0.60
59:N3:120:LYS:H	59:N3:137:VAL:CG2	2.63	0.60
1:6:140:A:H4'	1:6:140:A:OP2	2.00	0.60
10:S8:29:LEU:HD21	10:S8:31:ARG:HG3	1.84	0.60
50:M4:113:THR:HG22	50:M4:116:GLU:HB2	3.21	0.60
1:6:37:U:O2'	1:6:770:A:N1	2.30	0.60
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.27	0.60
36:5:2169:G:O6	86:5:3952:OHX:N5	2.34	0.60
36:1:847:A:H2'	36:1:848:A:C8	2.36	0.60
61:N5:53:HIS:ND1	61:N5:54:TYR:O	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.84	0.60
2:S0:193:GLN:O	2:S0:195:TRP:N	2.34	0.60
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.36	0.60
36:1:3295:A:OP2	40:L3:126:LYS:N	2.35	0.60
36:1:2683:U:H2'	36:1:2684:C:C6	2.36	0.60
6:S4:8:HIS:CD2	1:6:95:G:H4'	352.33	0.60
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.82	0.60
1:2:1409:G:N2	1:2:1411:A:H3'	2.17	0.60
7:S5:37:GLN:HB3	18:C6:53:LEU:HB3	1.82	0.60
36:5:2440:G:H2'	36:5:2441:A:C8	2.37	0.60
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.39	0.60
28:D6:30:ILE:HG12	28:D6:35:ALA:HB2	2.14	0.60
25:D3:7:ARG:HH11	25:D3:7:ARG:HB2	1.66	0.60
36:5:864:G:OP2	86:5:3915:OHX:N4	2.35	0.60
21:C9:84:LYS:HE2	21:C9:94:ILE:HG13	4.15	0.60
46:L9:101:VAL:HG22	46:L9:114:VAL:HG13	1.84	0.60
7:S5:144:GLU:OE2	7:S5:225:ARG:NH2	4.36	0.60
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.06	0.60
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.15	0.60
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.17	0.60
63:N7:2:ALA:O	63:N7:4:PHE:N	2.34	0.60
1:2:1169:G:N1	1:2:1575:G:OP2	2.33	0.60
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.34	0.60
59:N3:128:ARG:NH2	59:N3:128:ARG:HB3	3.59	0.60
39:L2:150:LEU:HB3	39:L2:151:PRO:HD2	1.84	0.60
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.23	0.60
1:2:866:G:OP1	15:C3:2:GLY:HA3	2.01	0.60
36:5:3295:A:H2'	36:5:3296:A:C8	2.37	0.60
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.35	0.60
1:2:385:A:OP1	10:S8:25:ARG:NH1	2.29	0.60
28:D6:37:LYS:O	28:D6:38:ARG:NE	3.90	0.60
24:D2:46:TYR:HB3	24:D2:69:LEU:HD13	1.82	0.60
3:S1:35:PRO:HD3	3:S1:98:THR:HG23	1.83	0.60
1:6:138:A:N6	1:6:266:A:H61	2.00	0.60
36:1:2101:C:OP1	55:M9:71:ARG:NH1	2.35	0.60
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.97	0.60
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.84	0.60
6:S4:155:LYS:NZ	1:6:244:A:OP1	344.21	0.60
5:S3:22:ASN:O	5:S3:26:THR:OG1	2.61	0.60
36:5:3041:U:H2'	36:5:3042:U:C6	2.37	0.60
63:N7:69:LYS:NZ	36:5:1633:C:OP2	193.92	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:883:C:H2'	1:2:884:A:H8	1.66	0.60
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	2.06	0.60
2:S0:119:ARG:HH11	2:S0:119:ARG:HB3	1.66	0.60
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.83	0.60
36:5:1025:A:H3'	36:5:1026:A:H4'	1.84	0.60
1:2:320:U:H3'	1:2:321:C:C5'	2.30	0.60
53:M7:29:THR:HG22	53:M7:87:SER:CB	5.18	0.60
2:S0:136:ALA:HB1	2:S0:141:ILE:HB	1.84	0.60
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.82	0.60
4:S2:60:SER:OG	23:D1:15:ARG:NH2	2.96	0.60
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	2.87	0.60
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.01	0.60
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.54	0.60
36:5:1595:U:C2	36:5:1596:C:C5	2.90	0.60
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.12	0.60
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.67	0.60
1:2:749:U:H3	1:2:800:U:H3	1.49	0.60
36:1:1841:A:H2	75:O9:45:ARG:HH22	1.49	0.60
41:L4:23:PRO:O	41:L4:25:VAL:N	2.58	0.60
6:S4:42:LEU:HD13	6:S4:47:PHE:HB2	4.68	0.60
71:O5:95:PHE:CD2	36:5:136:G:H5'	62.99	0.60
1:2:322:G:OP1	86:2:2090:OHX:N4	2.34	0.60
51:M5:90:ASN:O	51:M5:92:LEU:N	2.28	0.60
36:5:1555:U:OP2	36:5:1581:C:N4	2.35	0.60
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.17	0.60
21:C9:52:GLY:O	21:C9:54:PHE:N	2.31	0.60
36:1:1713:G:H1	36:1:1730:G:HO2'	1.50	0.60
1:6:1603:U:H2'	1:6:1604:U:C6	2.35	0.60
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.37	0.60
42:L5:270:LYS:HB3	42:L5:273:ARG:HB3	4.19	0.60
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	2.07	0.60
59:N3:30:GLY:HA3	59:N3:66:LYS:HD2	1.82	0.60
36:5:1506:A:H1'	36:5:1848:G:O6	2.02	0.60
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.74	0.60
11:S9:119:ALA:O	11:S9:124:HIS:ND1	4.37	0.60
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.98	0.60
19:C7:8:THR:HG21	1:6:1330:G:N2	418.85	0.60
86:1:4204:OHX:N6	86:O1:201:OHX:N3	2.49	0.60
28:D6:26:CYS:HB2	28:D6:28:LYS:H	4.22	0.60
49:M3:123:ILE:HG22	71:O5:118:ILE:HG12	3.22	0.60
36:1:1240:A:H3'	36:1:1241:U:H5'	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1243:G:N2	36:1:1244:A:N7	2.47	0.60
36:5:1831:U:H2'	36:5:1832:C:C6	2.37	0.60
1:6:1754:A:H4'	1:6:1755:A:O5'	2.02	0.60
50:M4:46:ILE:HD13	50:M4:58:ILE:HG21	2.40	0.60
51:M5:57:GLN:HE22	36:5:143:G:H21	94.30	0.60
1:2:329:G:H5''	10:S8:98:LYS:HB3	1.84	0.59
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	2.62	0.59
61:N5:48:SER:OG	61:N5:49:LYS:N	4.11	0.59
8:S6:78:THR:HG22	8:S6:79:LYS:H	3.82	0.59
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.71	0.59
86:1:4204:OHX:N2	86:O1:201:OHX:N1	2.49	0.59
36:1:180:C:H2'	36:1:181:U:H6	1.67	0.59
36:5:589:A:H1'	36:5:1337:A:H5''	1.83	0.59
36:5:1196:C:OP1	86:5:4233:OHX:N6	2.35	0.59
48:M1:95:ASN:OD1	48:M1:95:ASN:N	2.72	0.59
1:2:872:G:O6	86:2:2125:OHX:N3	2.35	0.59
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.70	0.59
67:O1:46:THR:OG1	67:O1:47:ASP:N	3.32	0.59
1:6:485:A:N6	1:6:486:G:N3	2.50	0.59
1:6:1533:C:H4'	1:6:1539:G:N1	2.16	0.59
1:6:578:U:H4'	1:6:579:A:H5'	1.82	0.59
1:6:1350:U:H2'	1:6:1351:G:C8	2.37	0.59
5:S3:64:ARG:O	5:S3:66:ILE:N	2.36	0.59
1:6:886:U:H2'	1:6:887:A:H8	1.67	0.59
86:7:219:OHX:N3	86:7:226:OHX:N5	2.50	0.59
46:L9:44:THR:HG22	36:5:3186:A:C2	326.73	0.59
36:1:1222:G:O2'	36:1:1285:G:N1	2.35	0.59
1:6:621:A:HO2'	1:6:1106:U:HO2'	1.47	0.59
1:6:1450:U:OP2	86:6:2128:OHX:N4	2.35	0.59
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.37	0.59
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	1.84	0.59
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.29	0.59
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.35	0.59
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.02	0.59
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	2.62	0.59
19:C7:105:GLN:O	19:C7:109:LEU:N	2.47	0.59
74:O8:51:LEU:N	36:5:1613:A:OP1	135.64	0.59
27:D5:57:TYR:HB3	27:D5:60:VAL:HG12	1.83	0.59
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.84	0.59
20:C8:4:VAL:HG12	27:D5:42:LEU:HD11	9.59	0.59
36:5:3078:U:O2'	86:5:4192:OHX:N1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:179:LYS:N	6:S4:194:THR:O	2.36	0.59
70:O4:98:GLN:O	70:O4:102:LYS:HD3	2.03	0.59
46:L9:44:THR:HG22	36:5:3186:A:N3	326.10	0.59
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.66	0.59
25:D3:83:VAL:HG21	25:D3:122:PHE:CE2	3.82	0.59
71:O5:10:ARG:NH1	71:O5:60:GLU:OE2	2.35	0.59
75:O9:27:ILE:HG23	75:O9:30:ARG:NH1	3.57	0.59
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.08	0.59
52:M6:18:ARG:NH1	36:5:1314:C:O3'	275.70	0.59
39:L2:209:HIS:CD2	39:L2:211:HIS:H	2.19	0.59
7:S5:97:LEU:O	7:S5:99:MET:N	3.20	0.59
6:S4:159:THR:HB	6:S4:227:VAL:HG23	2.14	0.59
20:C8:49:LYS:HG3	20:C8:81:ILE:HD11	2.46	0.59
1:2:151:G:O6	26:D4:124:ARG:NH2	2.32	0.59
58:N2:59:ASP:OD1	58:N2:60:GLY:N	4.55	0.59
36:1:1278:A:O2'	36:1:1279:C:O5'	2.20	0.59
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.36	0.59
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.38	0.59
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.82	0.59
1:6:1268:G:H1'	1:6:1448:G:H5''	1.83	0.59
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.42	0.59
7:S5:73:THR:HG23	18:C6:114:ARG:HD3	1.84	0.59
28:D6:5:ARG:HG2	1:6:1796:C:C6	341.72	0.59
34:SR:84:SER:OG	34:SR:85:TRP:N	2.54	0.59
1:6:488:G:H21	1:6:499:U:H3	1.49	0.59
20:C8:24:GLY:O	20:C8:26:ILE:HG22	2.02	0.59
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.68	0.59
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	2.01	0.59
40:L3:154:TYR:CD1	36:5:3242:G:H2'	260.46	0.59
71:O5:21:LEU:HD21	71:O5:51:ILE:HG23	2.12	0.59
39:L2:19:HIS:O	39:L2:21:ARG:N	2.34	0.59
52:M6:182:ASN:O	52:M6:182:ASN:ND2	2.35	0.59
36:1:873:C:H5''	36:1:874:U:O5'	2.03	0.59
66:O0:36:GLN:HB3	66:O0:38:LYS:HG3	1.84	0.59
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.84	0.59
19:C7:13:SER:HA	19:C7:54:THR:HG22	1.98	0.59
16:C4:24:ASN:HA	16:C4:55:SER:HB3	2.61	0.59
1:2:145:A:O2'	1:2:146:U:O5'	2.17	0.59
75:O9:7:PHE:HB3	38:8:113:U:H5''	108.27	0.59
55:M9:133:LYS:HG2	55:M9:134:HIS:HD2	2.37	0.59
1:6:699:U:H3	1:6:739:G:H1	1.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:955:U:H2'	36:5:956:U:C6	2.37	0.59
25:D3:23:ARG:HB3	25:D3:29:TYR:CE1	2.92	0.59
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.85	0.59
51:M5:113:LEU:HD12	51:M5:136:ASP:HA	1.85	0.59
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.02	0.59
7:S5:72:HIS:ND1	18:C6:44:LEU:HD11	2.17	0.59
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.38	0.59
34:SR:108:SER:OG	34:SR:109:ASP:N	2.76	0.59
49:M3:101:ARG:HB2	36:5:76:G:N7	84.68	0.59
41:L4:47:ARG:NH1	41:L4:109:TRP:O	3.28	0.59
3:S1:34:ALA:N	3:S1:41:ARG:O	2.34	0.59
3:S1:92:GLN:O	3:S1:94:LYS:N	2.36	0.59
36:1:1094:U:H1'	36:1:1096:U:H2'	1.84	0.59
5:S3:162:GLN:O	5:S3:164:VAL:N	2.94	0.59
38:4:79:A:O3'	38:4:80:A:H4'	2.01	0.59
36:1:1824:U:O3'	74:O8:17:ARG:NH2	2.36	0.59
9:S7:126:LEU:HD13	9:S7:173:TYR:CE2	3.08	0.59
49:M3:143:ALA:O	49:M3:146:PRO:HD3	2.02	0.59
50:M4:134:ALA:O	50:M4:136:ALA:N	2.34	0.59
36:1:1785:U:H2'	36:1:1786:G:C8	2.38	0.59
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.01	0.59
40:L3:95:THR:HG22	36:5:3243:A:H4'	254.91	0.59
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.38	0.59
1:6:180:A:H2'	1:6:181:A:O4'	2.03	0.59
78:Q2:17:CYS:HG	78:Q2:74:CYS:HG	1.51	0.59
57:N1:68:THR:HG21	36:5:2736:A:O2'	224.98	0.59
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.66	0.59
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.32	0.59
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.83	0.59
12:C0:15:LEU:HD13	12:C0:68:LEU:HD22	4.58	0.59
1:6:1164:G:N1	1:6:1581:C:N3	2.42	0.59
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.11	0.59
1:2:647:G:H22	1:2:687:G:H1	1.48	0.59
42:L5:119:TYR:CZ	42:L5:135:VAL:HG23	2.37	0.59
1:2:880:C:O2	1:2:948:G:N2	2.28	0.59
1:2:1180:C:O2'	17:C5:128:HIS:ND1	2.35	0.59
36:5:3280:U:O2'	36:5:3281:U:H5''	2.03	0.59
1:2:358:U:O2'	1:2:360:A:OP1	2.19	0.59
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.45	0.59
36:1:2107:A:H2	36:1:3344:A:C8	2.19	0.59
41:L4:143:GLU:O	86:L4:403:OHX:N2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:125:ILE:HG12	35:SM:61:ILE:HG23	1.85	0.59
63:N7:135:ARG:NH2	36:5:2556:C:O3'	197.34	0.59
2:S0:13:ASP:O	2:S0:16:LEU:N	3.11	0.59
36:1:1597:C:H2'	36:1:1598:G:H8	1.67	0.59
1:2:1542:G:N2	1:2:1569:A:OP2	2.35	0.59
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	2.32	0.59
1:2:1000:C:H2'	1:2:1002:G:OP2	2.03	0.59
36:5:166:C:H2'	36:5:167:U:H6	1.67	0.59
36:1:1493:G:O6	75:O9:2:ALA:HB2	2.03	0.59
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.85	0.59
1:2:1017:U:H2'	1:2:1018:U:C6	2.38	0.59
1:2:759:U:OP1	86:2:2159:OHX:N1	2.36	0.59
39:L2:136:ILE:HG13	39:L2:148:VAL:HG12	2.37	0.59
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.41	0.59
1:6:275:C:N4	1:6:276:C:H41	2.00	0.59
1:2:1600:A:O2'	1:2:1602:C:N4	2.36	0.59
1:6:823:G:H2'	1:6:824:G:O4'	2.03	0.59
4:S2:206:THR:HG21	1:6:14:C:OP2	375.55	0.59
38:4:133:G:O6	86:4:232:OHX:N5	2.36	0.59
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.85	0.59
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.84	0.59
1:2:1291:G:H2'	1:2:1292:G:H8	1.68	0.59
36:1:1724:U:H1'	36:1:1725:C:C6	2.37	0.59
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.24	0.59
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.79	0.59
1:2:143:G:N7	8:S6:177:ARG:NH2	2.51	0.59
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.02	0.59
36:1:2623:G:H2'	36:1:2624:G:C8	2.37	0.59
31:D9:39:CYS:SG	31:D9:42:CYS:HB2	2.43	0.59
32:E0:48:THR:OG1	32:E0:49:LEU:N	2.61	0.59
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.17	0.59
14:C2:95:LYS:HA	14:C2:117:GLY:HA2	3.29	0.59
36:1:3392:U:H2'	36:1:3393:U:H6	1.68	0.59
1:6:235:G:H2'	1:6:236:A:H8	1.67	0.59
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.85	0.59
36:5:1717:U:H2'	36:5:1718:G:C8	2.37	0.59
46:L9:75:VAL:HA	46:L9:78:MET:HE3	3.24	0.59
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	1.85	0.59
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	1.95	0.59
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	2.98	0.59
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2242:A:H5'	39:L2:243:THR:O	2.02	0.59
36:5:881:C:H1'	36:5:1850:A:C8	2.38	0.59
36:5:776:U:H5	36:5:2719:U:O2	1.86	0.59
1:2:1338:C:H1'	1:2:1410:A:C4	2.38	0.59
40:L3:81:THR:HG22	40:L3:321:PHE:HA	2.18	0.59
13:C1:99:ARG:NH1	25:D3:8:GLY:O	2.31	0.59
1:2:1586:A:H2'	1:2:1587:A:O4'	2.03	0.59
7:S5:87:CYS:SG	7:S5:92:ARG:HG3	2.57	0.59
5:S3:74:GLN:HE22	5:S3:82:GLY:H	6.69	0.59
1:2:260:U:H3'	1:2:261:U:C5'	2.32	0.59
75:O9:2:ALA:N	36:5:1493:G:O6	122.12	0.59
39:L2:243:THR:OG1	36:5:2244:A:H5''	227.96	0.59
1:2:1239:U:O4	86:2:2046:OHX:N2	2.36	0.59
1:2:1672:G:H2'	1:2:1673:G:C8	2.38	0.59
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.02	0.59
3:S1:83:LYS:HE3	3:S1:106:THR:HG22	5.19	0.59
1:2:1062:A:OP2	86:2:2164:OHX:N4	2.35	0.59
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	280.82	0.59
45:L8:36:ILE:HG22	45:L8:37:GLY:H	1.68	0.59
1:6:1339:C:O2'	1:6:1341:A:N7	2.35	0.58
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.06	0.58
66:O0:9:SER:N	66:O0:12:GLN:HE21	2.00	0.58
20:C8:57:ARG:H	20:C8:60:GLU:HG3	1.66	0.58
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.03	0.58
63:N7:17:ARG:HG3	70:O4:73:SER:HB3	1.84	0.58
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.43	0.58
39:L2:181:LYS:HB3	36:5:860:G:C5	212.81	0.58
1:6:217:A:C8	1:6:218:A:C8	2.91	0.58
36:1:1919:G:N7	86:1:4019:OHX:N5	2.50	0.58
1:2:1578:U:O2'	1:2:1579:U:H5'	2.03	0.58
36:5:1641:U:O2'	36:5:1643:A:OP2	2.19	0.58
36:1:2573:G:O6	86:1:4003:OHX:N3	2.36	0.58
36:5:3374:U:O4	86:5:4031:OHX:N5	2.36	0.58
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.85	0.58
36:1:1506:A:H1'	36:1:1848:G:O6	2.03	0.58
16:C4:89:THR:O	16:C4:128:LYS:HE2	2.41	0.58
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.99	0.58
4:S2:140:ARG:HH21	4:S2:229:LEU:HD22	1.68	0.58
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	4.04	0.58
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.37	0.58
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:55:ASP:HB3	29:D7:25:VAL:HG22	2.51	0.58
1:6:75:U:O2'	1:6:76:A:O4'	2.21	0.58
86:7:219:OHX:N4	86:7:226:OHX:N6	2.52	0.58
4:S2:139:ILE:HG22	4:S2:141:ARG:HD2	1.85	0.58
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.41	0.58
1:2:1588:G:H1	1:2:1608:U:H3	1.50	0.58
44:L7:239:LEU:O	44:L7:242:SER:N	2.64	0.58
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.97	0.58
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.84	0.58
23:D1:3:ASN:OD1	23:D1:7:GLN:HB3	3.33	0.58
6:S4:50:ASN:O	6:S4:53:LYS:NZ	2.23	0.58
36:1:3214:U:C6	50:M4:121:MET:HE3	2.38	0.58
52:M6:110:PRO:O	52:M6:111:PRO:C	3.47	0.58
4:S2:78:ASP:HB3	4:S2:104:VAL:HG12	3.94	0.58
11:S9:29:LYS:HG2	32:E0:44:PHE:HE1	4.83	0.58
46:L9:22:SER:HB2	46:L9:39:LYS:NZ	3.06	0.58
36:1:1947:G:H1	36:1:2101:C:H42	1.51	0.58
53:M7:59:PRO:HB3	53:M7:78:VAL:HG11	1.84	0.58
1:6:222:A:H62	1:6:833:U:H3	1.51	0.58
36:1:287:G:OP1	51:M5:179:LYS:HD3	2.02	0.58
36:1:1233:G:H22	36:1:1255:C:N4	2.01	0.58
36:1:634:C:O3'	68:O2:47:ARG:NH1	2.36	0.58
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.72	0.58
1:2:1022:C:OP2	86:2:2049:OHX:N6	2.37	0.58
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.04	0.58
52:M6:88:VAL:O	52:M6:90:HIS:N	2.36	0.58
1:6:1160:A:H2'	1:6:1161:C:C6	2.38	0.58
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.04	0.58
36:1:1524:A:OP1	61:N5:92:LYS:NZ	2.36	0.58
1:2:641:G:H1	1:2:693:U:H3	1.49	0.58
1:6:848:C:H2'	1:6:849:C:H6	1.68	0.58
45:L8:190:VAL:HG12	45:L8:192:GLN:HG2	1.84	0.58
1:2:820:U:H2'	1:2:821:U:H4'	1.85	0.58
52:M6:3:VAL:HG22	52:M6:4:GLU:HG3	1.84	0.58
1:2:66:U:O3'	8:S6:171:LYS:NZ	2.35	0.58
36:1:1581:C:H2'	36:1:1582:C:H5'	1.85	0.58
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	1.84	0.58
28:D6:36:ILE:HD12	28:D6:36:ILE:H	5.53	0.58
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.39	0.58
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.22	0.58
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.24	0.58
36:5:2128:C:OP1	86:5:4086:OHX:N3	2.36	0.58
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.86	0.58
1:6:219:A:C6	1:6:843:U:H1'	2.38	0.58
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	2.02	0.58
36:1:2244:A:H5''	39:L2:243:THR:OG1	2.04	0.58
6:S4:157:ASN:ND2	6:S4:222:LEU:HD11	2.19	0.58
28:D6:17:HIS:ND1	28:D6:18:VAL:O	2.36	0.58
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.45	0.58
50:M4:23:ILE:HA	50:M4:63:VAL:HG22	1.84	0.58
58:N2:22:PRO:HG3	58:N2:93:ILE:HG21	1.86	0.58
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.03	0.58
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.85	0.58
40:L3:185:GLY:O	40:L3:191:LYS:NZ	3.03	0.58
36:5:300:G:O6	86:5:4188:OHX:N2	2.36	0.58
51:M5:106:VAL:O	51:M5:109:ARG:N	2.36	0.58
41:L4:219:LEU:O	41:L4:221:ASN:N	2.37	0.58
39:L2:3:ARG:HD3	36:5:911:C:H42	179.55	0.58
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	4.27	0.58
18:C6:126:PRO:O	18:C6:128:LYS:NZ	2.23	0.58
7:S5:159:ALA:HB3	7:S5:225:ARG:HB3	4.07	0.58
36:1:2115:G:H22	36:1:2120:A:H1'	1.68	0.58
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	2.60	0.58
86:7:219:OHX:N1	86:7:226:OHX:N2	2.52	0.58
52:M6:182:ASN:HD21	52:M6:186:ALA:HB2	5.60	0.58
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.36	0.58
1:6:1294:G:O6	86:6:2068:OHX:N5	2.37	0.58
86:1:4009:OHX:N3	86:1:4178:OHX:N5	2.52	0.58
68:O2:124:GLY:O	68:O2:126:LEU:N	2.94	0.58
36:5:990:U:O4	86:5:4181:OHX:N6	2.37	0.58
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.28	0.58
36:1:230:U:H2'	36:1:231:G:O4'	2.04	0.58
86:2:2035:OHX:N2	10:S8:17:LYS:O	2.35	0.58
21:C9:119:LYS:NZ	1:6:1369:U:OP1	441.42	0.58
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.03	0.58
49:M3:68:LYS:HZ2	49:M3:149:GLN:HG2	7.21	0.58
1:6:1244:A:H3'	1:6:1244:A:N3	2.18	0.58
10:S8:23:LYS:NZ	1:6:391:A:OP2	304.72	0.58
36:1:2771:U:O2'	36:1:2772:C:O4'	2.21	0.58
1:6:1491:U:H4'	1:6:1492:A:H5''	1.85	0.58
36:5:92:G:H5'	36:5:93:C:H5''	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:79:ILE:HD11	1:6:1795:U:H5'	333.49	0.58
11:S9:108:ARG:NH1	11:S9:110:GLN:OE1	3.13	0.58
22:D0:105:GLN:HG3	22:D0:106:ILE:H	1.68	0.58
11:S9:117:GLY:O	11:S9:119:ALA:N	2.81	0.58
1:6:162:A:H2'	1:6:163:G:C8	2.38	0.58
49:M3:93:ILE:HG22	49:M3:94:GLY:H	4.72	0.58
36:5:408:A:H61	38:8:15:G:H1'	1.66	0.58
39:L2:92:LYS:NZ	39:L2:93:LYS:HE3	2.19	0.58
1:6:1490:C:H4'	1:6:1491:U:OP1	2.03	0.58
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	2.31	0.58
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.04	0.58
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.04	0.58
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.38	0.58
55:M9:88:ARG:NH1	36:5:2103:U:OP1	213.26	0.58
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.36	0.58
10:S8:116:HIS:NE2	10:S8:146:ARG:HD3	2.86	0.58
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	2.43	0.58
36:1:2404:A:N3	36:1:2404:A:H2'	2.17	0.58
78:Q2:12:CYS:SG	78:Q2:77:CYS:SG	3.01	0.58
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.70	0.58
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.43	0.58
55:M9:13:SER:HB3	55:M9:38:ARG:HH12	3.66	0.58
11:S9:149:ARG:O	11:S9:151:ASP:N	2.35	0.58
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	4.58	0.58
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	2.71	0.58
47:M0:68:ALA:HB1	47:M0:155:ALA:HB1	2.38	0.58
36:5:1064:A:H62	36:5:1096:U:H3	1.50	0.58
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.47	0.58
36:1:2403:G:N2	36:1:2404:A:H62	2.01	0.58
1:6:1018:U:H2'	1:6:1019:A:C8	2.38	0.58
36:1:1675:G:H2'	36:1:1676:A:C8	2.39	0.58
36:5:171:G:H1	36:5:247:C:N4	2.01	0.58
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.41	0.58
1:6:521:A:H2'	1:6:522:U:O4'	2.04	0.58
39:L2:117:GLU:HB3	39:L2:119:LYS:O	2.04	0.58
1:2:25:C:O2	86:2:2083:OHX:N1	2.37	0.58
22:D0:63:LEU:HD22	31:D9:34:TYR:CZ	2.39	0.58
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.37	0.58
37:3:3:U:H2'	37:3:4:U:C6	2.38	0.58
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.47	0.58
1:6:193:U:C4	1:6:195:G:C8	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:56:THR:O	42:L5:58:LYS:N	2.34	0.58
38:4:41:A:O2'	73:O7:59:THR:HG22	2.04	0.58
22:D0:80:GLU:OE1	31:D9:44:ARG:NH1	3.33	0.58
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.66	0.58
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.38	0.58
37:3:79:A:C2	37:3:102:A:C4	2.92	0.58
38:4:52:A:H4'	75:O9:19:GLN:HA	1.86	0.58
1:2:1345:A:H2'	1:2:1348:A:H62	1.69	0.58
1:6:9:U:O4	86:6:2146:OHX:N3	2.37	0.58
40:L3:46:PHE:CD2	40:L3:205:VAL:HG13	3.06	0.58
51:M5:65:ARG:HG2	51:M5:129:TYR:CE1	4.76	0.58
1:2:158:U:O2'	1:2:159:U:H3'	2.04	0.58
43:L6:52:VAL:CG1	43:L6:65:ILE:HG23	4.84	0.58
17:C5:115:TYR:CZ	1:6:1556:A:H5''	384.63	0.58
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.30	0.58
1:6:830:U:H2'	1:6:831:U:H5'	1.85	0.58
86:1:4009:OHX:N6	86:1:4178:OHX:N1	2.52	0.58
37:3:77:G:N2	37:3:102:A:OP2	2.24	0.58
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.39	0.58
79:Q3:32:GLN:HG2	79:Q3:70:THR:HB	1.86	0.58
36:5:2369:G:OP2	86:5:3907:OHX:N5	2.36	0.58
40:L3:30:LYS:HE3	36:5:3138:U:OP2	238.72	0.58
36:5:1765:U:H4'	36:5:1765:U:OP1	2.03	0.58
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	3.76	0.58
56:N0:137:ARG:HD3	36:5:1213:G:OP1	324.68	0.58
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.86	0.58
1:2:702:G:O2'	1:2:703:G:O4'	2.21	0.58
36:1:2443:A:O2'	36:1:2444:C:OP2	2.19	0.58
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.30	0.58
1:2:1231:U:HO2'	1:2:1258:U:HO2'	1.52	0.58
36:1:2986:U:H2'	36:1:2987:A:C8	2.39	0.58
1:6:1799:U:H4'	1:6:1800:A:H2'	1.85	0.58
46:L9:76:ASP:O	46:L9:80:THR:HG23	3.53	0.58
36:1:3026:G:O6	86:1:3945:OHX:N4	2.37	0.58
36:5:920:A:OP1	36:5:922:U:H5	1.87	0.58
18:C6:26:LYS:NZ	1:6:1364:G:O3'	435.22	0.58
31:D9:25:SER:OG	86:D9:102:OHX:N3	2.37	0.58
27:D5:93:SER:O	27:D5:93:SER:OG	4.57	0.58
1:6:1670:G:N7	86:6:2191:OHX:N4	2.52	0.58
40:L3:81:THR:HG23	40:L3:81:THR:O	2.22	0.57
16:C4:127:ARG:CG	16:C4:127:ARG:HH11	3.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:53:TRP:HH2	21:C9:100:ILE:HD13	2.65	0.57
41:L4:219:LEU:HD22	41:L4:225:VAL:HG11	3.43	0.57
5:S3:105:MET:HA	5:S3:108:LYS:HB2	1.85	0.57
10:S8:136:SER:OG	10:S8:137:LYS:N	2.37	0.57
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.28	0.57
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.53	0.57
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.37	0.57
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.45	0.57
36:1:2971:A:N3	36:1:2971:A:H3'	2.18	0.57
86:7:219:OHX:N3	86:7:226:OHX:N6	2.52	0.57
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	1.86	0.57
36:5:996:A:H2'	36:5:997:A:O4'	2.03	0.57
36:5:1801:U:H2'	36:5:1802:C:C6	2.39	0.57
36:5:1246:G:O2'	36:5:1264:G:OP2	2.21	0.57
1:2:77:U:OP2	86:2:2149:OHX:N2	2.37	0.57
1:6:906:A:H2'	1:6:907:A:C8	2.39	0.57
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	6.80	0.57
36:5:1103:A:H3'	36:5:1104:G:H5'	1.85	0.57
5:S3:80:ALA:H	5:S3:83:THR:HG1	1.51	0.57
71:O5:33:VAL:O	71:O5:36:LEU:HG	2.63	0.57
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	3.47	0.57
36:1:263:C:H2'	36:1:264:G:O4'	2.04	0.57
48:M1:94:ARG:C	48:M1:96:PHE:H	2.07	0.57
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.18	0.57
28:D6:10:ARG:NH1	28:D6:36:ILE:HA	2.19	0.57
28:D6:82:ARG:HB2	28:D6:85:ARG:HE	8.27	0.57
36:5:1581:C:P	36:5:2522:G:H21	2.27	0.57
73:O7:88:ALA:O	86:O7:104:OHX:N4	2.36	0.57
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.86	0.57
10:S8:83:TYR:HB3	10:S8:101:ILE:HG21	3.11	0.57
36:1:2185:G:H5"	39:L2:219:ILE:HD11	1.86	0.57
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	1.86	0.57
36:5:3057:U:O2'	36:5:3059:G:OP1	2.21	0.57
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.52	0.57
36:5:282:G:H2'	36:5:286:U:H5'	1.86	0.57
36:1:1433:A:P	68:O2:19:ARG:HH22	2.27	0.57
15:C3:15:ALA:H	29:D7:20:LYS:HZ1	1.52	0.57
36:1:2775:U:H2'	36:1:2776:C:H6	1.69	0.57
1:6:73:U:H2'	1:6:74:U:C6	2.39	0.57
1:2:16:G:H2'	1:2:17:C:C6	2.39	0.57
86:7:219:OHX:N1	86:7:226:OHX:N5	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1478:C:H2'	36:1:1479:U:H6	1.69	0.57
40:L3:124:LYS:NZ	36:5:3296:A:H62	179.22	0.57
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.85	0.57
58:N2:23:THR:HA	58:N2:28:PHE:HB3	1.86	0.57
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.50	0.57
36:5:3318:G:OP2	86:5:4137:OHX:N5	2.37	0.57
1:2:482:U:H2'	1:2:483:A:H8	1.69	0.57
36:5:3227:A:H2'	36:5:3228:C:H5'	1.86	0.57
36:5:279:U:H2'	36:5:280:U:H6	1.69	0.57
41:L4:193:LYS:NZ	38:8:21:C:OP1	108.95	0.57
65:N9:7:HIS:O	36:5:1135:A:H5'	226.65	0.57
36:5:1481:A:H2'	36:5:1858:A:N3	2.19	0.57
43:L6:108:LYS:O	43:L6:109:GLU:HG2	2.04	0.57
27:D5:61:SER:H	27:D5:64:VAL:HB	1.68	0.57
1:2:1291:G:H8	1:2:1291:G:O5'	1.86	0.57
26:D4:62:THR:HA	26:D4:69:SER:HA	1.99	0.57
34:SR:114:ASP:HB2	34:SR:155:ARG:HH11	1.69	0.57
39:L2:192:LYS:HB3	39:L2:193:ARG:NH1	2.54	0.57
2:S0:84:ARG:NE	2:S0:201:LEU:O	3.53	0.57
1:2:1248:C:H2'	1:2:1249:U:C6	2.39	0.57
1:2:1523:G:O6	21:C9:71:VAL:HG11	2.05	0.57
1:2:1657:U:H4'	1:2:1658:G:O5'	2.02	0.57
36:5:1366:A:C2	36:5:1367:G:C4	2.93	0.57
55:M9:85:ARG:NH2	36:5:1916:U:O3'	231.02	0.57
53:M7:16:SER:HB2	53:M7:149:VAL:HG22	3.37	0.57
67:O1:14:ILE:HG13	67:O1:19:ARG:NH1	2.19	0.57
58:N2:47:VAL:O	58:N2:49:ASN:N	3.25	0.57
36:5:2404:A:H2'	36:5:2405:C:H5'	1.86	0.57
36:5:1887:A:OP1	86:5:4111:OHX:N6	2.37	0.57
1:2:197:A:H61	10:S8:138:ASN:ND2	2.02	0.57
36:1:12:A:OP1	86:1:4210:OHX:N6	2.36	0.57
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	1.86	0.57
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.37	0.57
1:2:25:C:H4'	1:2:25:C:OP2	2.05	0.57
16:C4:107:ARG:NH2	28:D6:52:ASP:OD2	2.37	0.57
38:4:22:U:OP1	62:N6:12:ARG:NH2	2.37	0.57
1:2:1683:C:O2'	1:2:1684:U:O5'	2.23	0.57
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.47	0.57
10:S8:140:GLU:HA	10:S8:143:TRP:HB2	2.97	0.57
36:5:3341:U:H5''	36:5:3342:A:OP2	2.05	0.57
36:1:2298:U:O4	36:1:2923:U:H5	1.88	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:38:VAL:HG21	41:L4:121:ALA:HB2	2.59	0.57
51:M5:69:GLY:O	36:5:290:G:H4'	145.58	0.57
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.85	0.57
36:5:1438:U:H2'	36:5:1439:U:H6	1.70	0.57
36:1:3197:G:H2'	36:1:3198:U:H5''	1.86	0.57
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.82	0.57
44:L7:217:PRO:O	86:5:3999:OHX:N6	259.06	0.57
36:5:118:U:O2	36:5:121:A:H5'	2.04	0.57
15:C3:151:ASN:O	86:C3:201:OHX:N6	3.68	0.57
1:6:1208:A:H5''	1:6:1209:C:OP2	2.04	0.57
75:O9:4:GLN:HG2	36:5:1588:A:C2	125.35	0.57
52:M6:81:TYR:OH	52:M6:99:LEU:HD13	2.03	0.57
36:1:73:C:C2	49:M3:59:ARG:HD3	2.38	0.57
36:1:2986:U:H2'	36:1:2987:A:H8	1.67	0.57
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	2.14	0.57
42:L5:233:ALA:O	42:L5:235:SER:N	2.37	0.57
1:2:825:U:H3	1:2:847:A:H61	1.53	0.57
59:N3:13:ILE:HD12	59:N3:85:TRP:CG	2.39	0.57
29:D7:37:CYS:O	29:D7:39:GLY:N	2.32	0.57
36:1:1422:G:H21	43:L6:5:LYS:HZ3	1.52	0.57
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.86	0.57
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.39	0.57
36:1:3033:A:H2'	36:1:3034:C:C6	2.40	0.57
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.36	0.57
37:3:10:C:OP2	57:N1:26:HIS:HD2	1.87	0.57
39:L2:7:ASN:O	36:5:2163:C:H4'	185.25	0.57
36:5:2732:G:OP2	86:5:4216:OHX:N1	2.37	0.57
46:L9:17:THR:HG21	50:M4:3:THR:HB	1.85	0.57
7:S5:94:THR:HB	7:S5:114:ILE:HG13	1.87	0.57
36:1:2206:G:OP2	36:1:2206:G:H8	1.88	0.57
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.40	0.57
55:M9:105:LEU:HD13	55:M9:138:LEU:HD12	1.87	0.57
1:2:740:A:C2'	1:2:741:C:H5''	2.34	0.57
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.85	0.57
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.90	0.57
10:S8:81:VAL:HG12	10:S8:82:VAL:H	1.70	0.57
36:5:1808:G:O6	86:5:4020:OHX:N3	2.38	0.57
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	3.06	0.57
1:6:539:G:OP2	1:6:539:G:H8	1.88	0.57
1:6:542:A:H2'	1:6:542:A:OP1	2.05	0.57
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2259:A:OP2	86:1:3939:OHX:N2	2.37	0.57
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.86	0.57
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.38	0.57
5:S3:223:LYS:HD3	34:SR:193:ILE:HD13	5.28	0.57
15:C3:3:ARG:NH1	1:6:955:A:OP1	326.98	0.57
1:2:1018:U:H2'	1:2:1019:A:C8	2.39	0.57
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.04	0.57
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.67	0.57
36:5:163:C:H42	36:5:258:G:H1	1.51	0.57
36:1:3239:G:O6	86:1:3973:OHX:N6	2.37	0.57
61:N5:105:VAL:HG13	61:N5:130:TYR:CG	4.63	0.57
45:L8:78:PHE:O	45:L8:80:TYR:N	2.34	0.57
45:L8:74:THR:HB	45:L8:230:LYS:NZ	2.19	0.57
40:L3:368:GLY:O	60:N4:17:ARG:NH1	2.65	0.57
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	1.86	0.57
36:1:1445:U:H5''	36:1:1446:A:OP2	2.05	0.57
36:1:3152:U:O2	86:1:4150:OHX:N4	2.37	0.57
60:N4:47:ARG:HG2	60:N4:54:LEU:HD12	6.69	0.57
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.29	0.57
36:5:2249:G:C8	36:5:2249:G:H3'	2.40	0.57
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.38	0.57
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.05	0.57
73:O7:28:HIS:CD2	73:O7:31:LYS:HE2	3.23	0.57
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.85	0.57
42:L5:22:ARG:HA	42:L5:25:GLU:HG3	3.00	0.57
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	1.86	0.57
1:2:872:G:H2'	1:2:873:U:O4'	2.04	0.57
34:SR:133:VAL:HB	34:SR:142:ALA:HB3	1.87	0.57
21:C9:14:PHE:HZ	21:C9:132:LEU:HG	1.70	0.57
1:2:1297:G:N2	1:2:1300:A:OP2	2.34	0.57
33:E1:127:GLY:O	33:E1:129:GLY:N	2.38	0.57
1:2:1223:A:H2	1:2:1260:U:H3	1.52	0.57
19:C7:66:VAL:HB	19:C7:69:ILE:HD11	1.86	0.57
61:N5:42:ARG:O	61:N5:44:PRO:HD3	2.81	0.57
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	3.71	0.57
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.31	0.57
1:6:66:U:O2'	1:6:67:A:H5''	2.04	0.57
36:1:1480:G:H4'	36:1:1481:A:OP1	2.05	0.57
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.37	0.57
1:2:876:G:H1'	1:2:944:A:O4'	2.05	0.57
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.02	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.12	0.57
5:S3:115:ILE:HG23	5:S3:116:ARG:HG3	1.87	0.57
52:M6:41:LEU:HB3	52:M6:138:LEU:HD22	1.87	0.57
47:M0:145:LYS:HD3	47:M0:167:LEU:HD11	1.86	0.57
36:1:13:A:H5'	36:1:14:U:OP2	2.04	0.57
1:6:272:U:H4'	1:6:273:G:O5'	2.04	0.57
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.05	0.57
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.35	0.57
1:2:268:C:H41	8:S6:186:ARG:HD3	1.69	0.57
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.29	0.57
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.56	0.57
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.38	0.57
36:5:1434:G:OP1	36:5:1437:C:N4	2.37	0.57
36:5:2579:G:O6	86:5:4027:OHX:N3	2.38	0.57
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.54	0.57
36:1:1429:G:C5	41:L4:99:MET:HE1	2.40	0.57
27:D5:61:SER:OG	27:D5:62:VAL:N	3.29	0.57
75:O9:9:ILE:O	75:O9:13:MET:HG3	2.05	0.57
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.87	0.57
41:L4:144:LYS:H	41:L4:144:LYS:HE3	6.75	0.57
1:6:1680:G:O6	86:6:2190:OHX:N1	2.37	0.57
40:L3:308:MET:O	40:L3:363:SER:HB2	2.53	0.57
1:6:1600:A:H4'	1:6:1601:G:OP1	2.04	0.57
42:L5:64:ILE:HD12	42:L5:109:THR:HG21	1.87	0.57
26:D4:35:VAL:HG11	26:D4:40:LEU:HD21	1.87	0.57
36:1:13:A:OP2	86:1:4210:OHX:N5	2.37	0.57
63:N7:107:ARG:NH2	36:5:1635:G:OP1	208.88	0.57
73:O7:55:ARG:NH1	36:5:353:G:O6	112.49	0.57
16:C4:112:ILE:H	28:D6:57:SER:HA	1.70	0.57
36:1:2422:C:O2	51:M5:87:GLN:NE2	2.36	0.57
36:1:1420:C:OP2	41:L4:193:LYS:NZ	2.37	0.57
36:5:2562:A:N6	36:5:2579:G:O2'	2.35	0.57
1:2:1474:G:H2'	1:2:1475:A:C8	2.40	0.57
46:L9:122:LYS:HD3	46:L9:123:ILE:N	5.13	0.57
51:M5:159:ARG:HB2	51:M5:164:LEU:HB2	2.82	0.57
41:L4:283:THR:HG21	41:L4:288:ARG:HH22	8.32	0.57
1:2:931:C:O2'	3:S1:118:GLN:O	2.20	0.57
14:C2:32:LEU:O	14:C2:36:LEU:N	2.37	0.57
2:S0:27:ARG:C	2:S0:29:VAL:H	2.07	0.57
36:1:1752:A:OP2	86:1:4052:OHX:N3	2.38	0.57
78:Q2:43:TYR:CE2	88:5:4249:3K5:H31	179.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:64:LEU:HD22	43:L6:65:ILE:H	2.88	0.57
71:O5:83:LYS:HD2	38:8:38:U:H6	68.24	0.57
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	2.05	0.57
36:5:604:G:N7	86:5:4165:OHX:N2	2.53	0.57
7:S5:93:LEU:HD23	7:S5:172:ILE:HG12	1.87	0.57
7:S5:203:LYS:O	7:S5:205:SER:N	3.74	0.57
9:S7:31:SER:HA	9:S7:35:LYS:HB3	3.20	0.57
16:C4:85:ALA:HB2	16:C4:94:PRO:HA	2.68	0.57
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.39	0.57
31:D9:32:ARG:HH11	31:D9:32:ARG:HG2	1.70	0.57
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.35	0.57
62:N6:119:ILE:HG22	62:N6:124:GLY:HA3	2.45	0.57
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	4.44	0.57
1:2:1490:C:H4'	1:2:1491:U:OP1	2.04	0.57
86:8:218:OHX:N5	86:8:226:OHX:N3	2.52	0.57
36:5:2437:G:H2'	36:5:2438:A:O4'	2.04	0.57
12:C0:32:HIS:CD2	12:C0:33:GLU:H	4.55	0.57
1:6:1087:A:H2'	1:6:1088:A:C8	2.40	0.57
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	6.06	0.57
36:1:1286:A:N3	36:1:1287:A:H1'	2.19	0.57
86:6:2120:OHX:N6	86:6:2171:OHX:N5	2.52	0.56
41:L4:6:VAL:N	41:L4:20:LEU:O	2.60	0.56
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.43	0.56
57:N1:127:GLN:HG3	36:5:1095:U:H3	261.81	0.56
62:N6:37:LYS:H	62:N6:37:LYS:CE	3.33	0.56
6:S4:75:LYS:HD2	6:S4:77:ARG:NH2	3.95	0.56
45:L8:108:ARG:O	45:L8:111:LYS:HB2	2.05	0.56
42:L5:270:LYS:C	42:L5:272:TYR:H	2.99	0.56
1:6:719:U:C4	1:6:721:U:H5	2.23	0.56
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.85	0.56
43:L6:45:GLY:O	43:L6:48:ARG:NH1	5.30	0.56
40:L3:296:THR:HG21	40:L3:357:LYS:O	4.58	0.56
1:2:1788:G:P	16:C4:127:ARG:HH12	2.28	0.56
36:5:3354:U:O2	36:5:3354:U:H5''	2.04	0.56
86:1:4137:OHX:N5	86:1:4170:OHX:N6	2.54	0.56
36:1:624:G:OP2	86:1:4137:OHX:N3	2.38	0.56
1:2:332:U:OP2	10:S8:56:ARG:NH2	2.38	0.56
36:5:2859:U:O2'	86:5:3900:OHX:N2	2.39	0.56
1:2:694:U:H3	9:S7:98:ILE:HD12	1.70	0.56
36:1:1235:U:H4'	36:1:1236:G:H5'	1.86	0.56
36:1:3151:U:H4'	36:1:3294:A:H1'	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:7:TYR:HA	71:O5:10:ARG:HD2	4.31	0.56
1:6:235:G:H2'	1:6:236:A:C8	2.41	0.56
37:7:55:A:H2'	37:7:56:A:O4'	2.05	0.56
86:8:218:OHX:N2	86:8:226:OHX:N1	2.53	0.56
67:O1:81:GLU:O	67:O1:82:GLU:HG2	2.24	0.56
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.23	0.56
46:L9:61:GLY:O	46:L9:65:VAL:HG23	2.05	0.56
33:E1:117:LEU:HB3	33:E1:118:ARG:HH11	1.70	0.56
79:Q3:50:GLY:O	79:Q3:54:ILE:HG12	5.31	0.56
79:Q3:58:SER:O	79:Q3:61:LYS:NZ	3.15	0.56
34:SR:255:ALA:HB2	34:SR:292:LEU:HD22	1.87	0.56
36:5:430:U:OP2	86:5:3981:OHX:N5	2.38	0.56
36:5:1119:C:OP2	86:5:3984:OHX:N2	2.38	0.56
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.50	0.56
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.06	0.56
36:1:1569:U:H5'	36:1:1570:U:H5''	1.85	0.56
13:C1:83:THR:HG22	13:C1:110:HIS:HA	4.97	0.56
86:6:2120:OHX:N6	86:6:2171:OHX:N3	2.53	0.56
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.70	0.56
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.87	0.56
36:1:1580:A:H1'	36:1:1581:C:H5	1.69	0.56
1:6:158:U:O2'	1:6:159:U:H3'	2.04	0.56
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.27	0.56
11:S9:110:GLN:HA	11:S9:129:ILE:HD11	1.87	0.56
66:O0:9:SER:OG	66:O0:10:ILE:N	2.62	0.56
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.70	0.56
41:L4:91:GLY:HA3	41:L4:93:MET:HE2	1.86	0.56
1:2:328:A:H2'	1:2:329:G:O4'	2.04	0.56
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.88	0.56
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.86	0.56
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.87	0.56
42:L5:131:LEU:HD12	42:L5:175:HIS:CD2	2.40	0.56
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.19	0.56
36:5:2514:U:C6	36:5:2514:U:OP1	2.59	0.56
1:2:1114:G:O6	86:2:2073:OHX:N5	2.38	0.56
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.05	0.56
51:M5:12:ARG:HG3	36:5:268:A:C4	127.43	0.56
41:L4:106:TRP:CZ3	49:M3:22:VAL:HG21	3.10	0.56
41:L4:230:VAL:O	41:L4:232:SER:N	3.23	0.56
1:6:229:U:N3	1:6:236:A:N1	2.42	0.56
61:N5:92:LYS:HD3	61:N5:112:THR:HG23	3.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:107:ARG:NH2	16:C4:107:ARG:HB2	3.96	0.56
24:D2:70:ASN:HB2	24:D2:130:TYR:O	2.63	0.56
79:Q3:75:ALA:O	79:Q3:79:VAL:HG23	2.05	0.56
36:5:2187:G:OP2	86:5:3970:OHX:N4	2.38	0.56
38:4:67:U:H5''	73:O7:84:SER:O	2.05	0.56
36:1:900:G:H1'	36:1:1589:A:H61	1.69	0.56
33:E1:102:VAL:O	33:E1:104:SER:N	2.38	0.56
36:1:1892:G:N7	86:1:4083:OHX:N1	2.54	0.56
67:O1:17:HIS:CG	67:O1:69:TYR:HD1	2.23	0.56
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	1.88	0.56
14:C2:47:GLU:N	1:6:1229:G:O6	461.63	0.56
36:1:716:A:C6	64:N8:117:ARG:HD2	2.40	0.56
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.14	0.56
36:5:1861:G:OP2	86:5:3993:OHX:N2	2.38	0.56
15:C3:105:ASN:HB3	1:6:879:G:O2'	275.83	0.56
36:5:2530:G:H2'	36:5:2531:C:H5''	1.86	0.56
34:SR:102:ARG:HB3	34:SR:102:ARG:HH11	1.71	0.56
1:2:1553:G:N2	1:2:1555:A:H3'	2.20	0.56
86:5:4017:OHX:N3	86:5:4214:OHX:N4	2.53	0.56
24:D2:24:GLN:NE2	29:D7:5:GLN:H	2.04	0.56
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.37	0.56
36:1:2442:G:H2'	36:1:2443:A:H5''	1.87	0.56
1:6:152:U:C2	1:6:163:G:N2	2.73	0.56
32:E0:55:ARG:HB2	32:E0:58:PRO:HG3	1.87	0.56
1:2:800:U:H2'	1:2:801:G:H8	1.70	0.56
58:N2:19:VAL:O	58:N2:23:THR:OG1	2.35	0.56
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	1.86	0.56
8:S6:73:ILE:HD12	8:S6:75:LEU:HD21	2.04	0.56
36:5:10:C:H2'	36:5:11:A:H5''	1.88	0.56
61:N5:56:ARG:NH2	38:8:135:G:OP2	81.93	0.56
36:5:561:C:H2'	36:5:562:C:C6	2.40	0.56
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.36	0.56
36:1:1464:G:O2'	86:1:3885:OHX:N4	2.38	0.56
5:S3:106:LYS:HG2	5:S3:110:LEU:HD12	1.85	0.56
1:2:1274:C:H5	35:SM:96:ARG:H	1.53	0.56
7:S5:73:THR:N	7:S5:91:GLU:OE2	2.71	0.56
43:L6:80:ASN:HB2	36:5:3272:C:O2	247.39	0.56
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	6.09	0.56
38:8:142:C:H2'	38:8:143:U:C6	2.40	0.56
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	1.88	0.56
86:5:4017:OHX:N3	86:5:4214:OHX:N1	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1940:G:H2'	36:1:1941:C:O4'	2.05	0.56
20:C8:125:ILE:HG12	35:SM:61:ILE:HG22	3.27	0.56
41:L4:89:ALA:O	41:L4:91:GLY:N	2.36	0.56
19:C7:105:GLN:HA	19:C7:108:ASP:HB2	2.26	0.56
5:S3:142:LEU:H	5:S3:142:LEU:HD22	3.57	0.56
1:6:85:A:OP1	86:6:2189:OHX:N4	2.39	0.56
42:L5:56:THR:C	42:L5:58:LYS:H	2.08	0.56
68:O2:44:ARG:NH1	36:5:1145:G:OP1	206.87	0.56
1:6:650:U:H2'	1:6:651:G:H5''	1.86	0.56
2:S0:198:MET:SD	19:C7:85:VAL:HG11	2.45	0.56
86:2:2043:OHX:N1	86:2:2098:OHX:N5	2.54	0.56
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	3.98	0.56
58:N2:43:VAL:C	58:N2:45:GLY:H	2.84	0.56
38:8:68:G:OP1	86:8:218:OHX:N3	2.38	0.56
42:L5:187:THR:O	42:L5:189:GLU:N	2.38	0.56
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.41	0.56
4:S2:152:HIS:CG	4:S2:174:ARG:HG3	2.40	0.56
1:6:513:U:H2'	1:6:514:G:C8	2.40	0.56
36:1:402:A:OP1	75:O9:36:ARG:NH2	2.38	0.56
62:N6:120:GLN:HG2	62:N6:126:LEU:HD23	3.07	0.56
36:1:1631:C:H5''	36:1:1632:A:H5''	1.86	0.56
36:5:2610:G:H2'	36:5:2611:U:O4'	2.06	0.56
1:2:549:G:H1	1:2:589:C:H42	1.52	0.56
39:L2:156:LYS:NZ	36:5:2158:A:OP2	203.74	0.56
18:C6:114:ARG:O	18:C6:115:THR:HB	3.84	0.56
50:M4:72:LEU:HD23	50:M4:73:PRO:HD2	3.64	0.56
1:6:1588:G:OP1	86:6:2124:OHX:N2	2.39	0.56
71:O5:94:LYS:NZ	36:5:173:G:OP1	46.29	0.56
36:5:1557:A:N7	36:5:1559:A:N6	2.53	0.56
1:6:825:U:O2'	1:6:826:U:H6	1.89	0.56
1:2:582:U:H5'	1:2:583:C:H5	1.71	0.56
44:L7:180:SER:H	44:L7:183:ASP:HB2	2.12	0.56
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.05	0.56
11:S9:163:PRO:HB3	11:S9:169:PRO:HA	2.59	0.56
1:6:783:G:H2'	1:6:784:C:H6	1.71	0.56
36:1:3094:A:OP1	59:N3:14:SER:OG	2.23	0.56
36:1:1103:A:H2'	36:1:1103:A:N3	2.21	0.56
86:8:218:OHX:N6	86:8:226:OHX:N3	2.54	0.56
36:1:715:A:H4'	36:1:716:A:OP1	2.05	0.56
36:5:345:G:OP1	36:5:1429:G:N1	2.34	0.56
61:N5:79:GLY:O	61:N5:81:ILE:HD12	2.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1378:U:OP1	86:5:4023:OHX:N3	2.39	0.56
1:2:795:U:C5	1:2:796:A:C8	2.93	0.56
45:L8:172:LYS:HA	45:L8:172:LYS:HE3	4.80	0.56
44:L7:140:SER:OG	44:L7:143:THR:HG23	2.06	0.56
1:2:66:U:C5	8:S6:173:PRO:HG3	2.40	0.56
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.61	0.56
86:5:4017:OHX:N6	86:5:4214:OHX:N4	2.54	0.56
1:2:280:U:O2'	1:2:281:G:OP2	2.22	0.56
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.19	0.56
63:N7:84:ARG:CZ	63:N7:85:TYR:HE1	3.28	0.56
36:5:128:G:H2'	36:5:129:U:O4'	2.05	0.56
14:C2:33:ARG:HG2	14:C2:36:LEU:HD12	1.87	0.56
2:S0:188:LEU:HD12	2:S0:189:VAL:HB	1.87	0.56
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.86	0.56
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	1.86	0.56
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.88	0.56
1:6:1071:U:H2'	1:6:1072:C:C6	2.40	0.56
37:3:64:A:H3'	47:M0:204:GLY:O	2.05	0.56
36:5:2213:A:N1	36:5:2429:G:H1'	2.21	0.56
1:2:1509:C:H2'	1:2:1510:U:O4'	2.05	0.56
1:2:895:G:H1	1:2:917:U:H3	1.52	0.56
1:6:1370:U:H4'	1:6:1371:A:H4'	1.88	0.56
22:D0:46:GLU:HG2	22:D0:52:LYS:HZ3	1.70	0.56
1:2:1450:U:H2'	1:2:1451:C:C6	2.41	0.56
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	3.60	0.56
36:5:2249:G:OP1	86:5:4195:OHX:N6	2.38	0.56
86:5:3976:OHX:N4	86:5:4195:OHX:N3	2.54	0.56
36:1:2611:U:H2'	36:1:2612:U:C6	2.41	0.56
4:S2:140:ARG:CZ	23:D1:1:MET:SD	2.94	0.56
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.70	0.56
20:C8:29:VAL:HG21	20:C8:54:LEU:HD23	5.63	0.56
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.87	0.56
36:1:1245:A:H3'	36:1:1246:G:H5''	1.87	0.56
1:2:1234:A:N3	33:E1:140:TYR:OH	2.39	0.56
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.41	0.56
41:L4:237:GLN:HG2	41:L4:246:ARG:HH21	3.36	0.56
1:2:780:A:H8	26:D4:8:ARG:HB3	1.69	0.56
54:M8:170:ARG:HD2	64:N8:56:VAL:O	2.24	0.56
43:L6:129:GLU:HG2	43:L6:130:ILE:N	4.99	0.56
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.25	0.56
38:8:104:A:C8	38:8:105:A:C8	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:93:GLY:C	3:S1:95:ASN:H	2.75	0.56
45:L8:128:LYS:NZ	45:L8:202:GLU:OE2	2.33	0.56
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.35	0.56
44:L7:83:LEU:HD21	44:L7:116:PHE:HB3	1.86	0.56
36:5:2584:G:H3'	36:5:2585:G:H4'	1.87	0.56
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	1.87	0.56
3:S1:70:LEU:HA	3:S1:73:LEU:HG	1.88	0.56
61:N5:138:ARG:HG2	61:N5:138:ARG:HH21	1.71	0.56
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.28	0.56
36:1:2777:G:H5'	36:1:2779:A:OP2	2.06	0.56
36:1:2228:A:H2'	36:1:2229:A:C8	2.40	0.56
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.51	0.56
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.41	0.56
36:1:42:C:H5"	36:1:2612:U:OP1	2.06	0.56
40:L3:284:ARG:HB2	40:L3:284:ARG:NH1	3.88	0.56
1:2:1796:C:H4'	1:2:1797:A:OP2	2.06	0.56
28:D6:10:ARG:NE	1:6:1797:A:OP2	330.28	0.56
49:M3:75:PHE:HA	49:M3:101:ARG:HH12	1.71	0.56
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.25	0.56
20:C8:24:GLY:O	20:C8:26:ILE:N	2.39	0.56
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.34	0.56
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.41	0.56
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.71	0.56
15:C3:124:ARG:NH1	1:6:628:G:OP1	310.87	0.56
44:L7:219:LYS:HE2	36:5:1169:A:H4'	249.56	0.56
15:C3:107:LYS:NZ	1:6:1018:U:OP1	269.07	0.56
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	3.10	0.56
56:N0:13:ARG:NH1	37:7:73:C:O2	304.72	0.56
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.65	0.56
36:1:975:C:H2'	36:1:976:U:C6	2.41	0.56
36:1:929:A:H2'	36:1:930:U:C6	2.41	0.56
21:C9:33:TYR:OH	21:C9:99:SER:OG	2.23	0.56
36:1:2108:C:H1'	36:1:3344:A:C8	2.40	0.56
44:L7:210:PRO:CA	44:L7:243:MET:HG2	2.36	0.56
14:C2:89:ILE:HD13	14:C2:90:LYS:H	1.71	0.56
16:C4:37:GLU:HA	1:6:895:G:O2'	258.28	0.56
1:6:488:G:N2	1:6:499:U:H3	2.03	0.56
18:C6:66:ARG:HG3	18:C6:67:VAL:N	2.18	0.56
47:M0:116:ARG:NH2	36:5:2618:G:H5'	228.73	0.56
41:L4:337:GLU:O	41:L4:339:LEU:N	2.39	0.56
1:6:219:A:O2'	1:6:220:A:O5'	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:89:A:H2'	36:5:90:C:H6	1.71	0.56
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.05	0.56
40:L3:346:THR:O	40:L3:348:ARG:N	2.49	0.56
8:S6:52:ILE:HG23	8:S6:109:LEU:HD21	2.48	0.56
1:2:256:A:H2'	1:2:257:A:O4'	2.05	0.56
36:1:781:G:N7	86:1:3946:OHX:N5	2.53	0.56
60:N4:13:ILE:HG12	60:N4:32:GLN:HB2	2.23	0.56
38:8:157:U:H2'	38:8:158:U:C6	2.40	0.56
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.39	0.56
56:N0:77:VAL:HG13	56:N0:126:VAL:HG22	1.88	0.56
21:C9:102:ARG:NH2	1:6:1502:G:N7	404.61	0.56
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	1.88	0.56
1:2:651:G:N7	86:2:2103:OHX:N6	2.54	0.56
1:2:994:G:N2	1:2:1010:C:O2	2.23	0.55
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.39	0.55
36:1:1580:A:H5'	36:1:2522:G:C5	2.40	0.55
71:O5:89:ARG:HD2	38:8:38:U:C4	67.59	0.55
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.88	0.55
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.87	0.55
1:2:1525:A:OP1	21:C9:93:HIS:ND1	2.33	0.55
42:L5:195:LEU:O	42:L5:199:ILE:HG13	2.87	0.55
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.89	0.55
86:5:3989:OHX:N4	38:8:112:U:O2	2.38	0.55
36:1:1720:U:P	55:M9:110:ARG:HH12	2.28	0.55
65:N9:14:ARG:NH2	65:N9:18:ARG:HH11	3.78	0.55
63:N7:5:LEU:HD11	63:N7:77:TYR:CE1	4.63	0.55
73:O7:48:ASN:HA	73:O7:54:LYS:HZ2	3.90	0.55
40:L3:77:THR:OG1	40:L3:324:VAL:HG12	2.06	0.55
36:5:209:A:H4'	36:5:211:A:C8	2.42	0.55
1:2:569:C:H41	25:D3:69:ARG:HH12	1.54	0.55
36:1:1675:G:H2'	36:1:1676:A:H8	1.71	0.55
36:5:2960:C:OP1	86:5:3970:OHX:N5	2.39	0.55
36:1:2366:C:H5'	40:L3:259:HIS:CE1	2.41	0.55
36:1:1033:U:H2'	36:1:1034:U:C6	2.41	0.55
28:D6:15:ARG:NH1	1:6:936:G:N7	319.31	0.55
36:1:1078:U:O4	86:1:3971:OHX:N2	2.39	0.55
40:L3:66:LYS:HE2	40:L3:70:ARG:NH2	3.86	0.55
64:N8:131:SER:HB3	64:N8:134:ALA:HB2	3.77	0.55
67:O1:79:ARG:CZ	67:O1:79:ARG:H	2.19	0.55
47:M0:168:SER:OG	47:M0:169:LYS:N	2.39	0.55
1:6:587:C:H2'	1:6:588:U:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:10:ARG:HH12	28:D6:36:ILE:HG13	3.87	0.55
36:5:1576:G:C8	36:5:1577:G:C8	2.94	0.55
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.87	0.55
22:D0:23:ARG:HB3	22:D0:117:VAL:HG12	1.88	0.55
36:1:2557:A:H5'	63:N7:135:ARG:HH11	1.71	0.55
36:1:109:A:H4'	36:1:110:G:OP1	2.06	0.55
36:5:2180:G:C6	36:5:2181:C:N4	2.74	0.55
20:C8:17:LEU:O	20:C8:19:ASN:N	3.11	0.55
20:C8:61:LEU:HD12	20:C8:66:LEU:HD23	1.88	0.55
52:M6:14:HIS:HE1	52:M6:119:VAL:HG12	1.68	0.55
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.87	0.55
1:6:837:G:O6	86:6:2100:OHX:N1	2.39	0.55
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.91	0.55
5:S3:32:GLU:HG2	5:S3:58:VAL:HG23	3.57	0.55
36:5:549:U:H2'	36:5:550:A:H8	1.71	0.55
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.88	0.55
5:S3:10:LYS:HG3	5:S3:11:LEU:HD23	1.86	0.55
1:2:1726:G:N7	86:2:2098:OHX:N4	2.55	0.55
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.71	0.55
1:2:1650:U:H2'	1:2:1651:A:C8	2.42	0.55
36:1:3057:U:H5'	36:1:3086:A:H61	1.72	0.55
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	2.07	0.55
36:1:2197:C:N4	36:1:2241:U:H2'	2.21	0.55
1:6:1236:A:H3'	1:6:1237:G:C8	2.42	0.55
36:1:2689:A:H2'	36:1:2689:A:N3	2.20	0.55
6:S4:252:ARG:HH11	11:S9:71:PHE:HD2	1.54	0.55
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.05	0.55
36:1:385:A:H2'	36:1:386:A:C8	2.40	0.55
2:S0:23:HIS:HA	2:S0:48:ILE:HB	1.88	0.55
26:D4:11:LYS:NZ	1:6:775:G:N7	414.01	0.55
47:M0:72:ALA:O	47:M0:76:MET:HG3	2.06	0.55
36:1:269:G:O6	86:1:4084:OHX:N3	2.40	0.55
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.41	0.55
34:SR:66:HIS:HB3	34:SR:85:TRP:HB2	2.12	0.55
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.07	0.55
49:M3:73:ARG:NH2	36:5:77:A:N7	79.84	0.55
41:L4:93:MET:HB2	36:5:658:G:H21	145.04	0.55
59:N3:54:LEU:HD21	59:N3:121:GLU:HB2	1.88	0.55
36:1:2616:C:C2'	36:1:2617:U:H5'	2.36	0.55
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.21	0.55
39:L2:77:ILE:HD13	39:L2:128:ARG:HB3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:76:A:H3'	86:6:2193:OHX:N1	2.21	0.55
36:1:2767:U:H2'	36:1:2768:U:C6	2.41	0.55
36:5:167:U:H3	36:5:255:A:H2	1.54	0.55
73:O7:14:LYS:HD3	75:O9:51:ILE:HD11	3.55	0.55
36:1:345:G:OP1	36:1:1429:G:N1	2.38	0.55
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.46	0.55
34:SR:292:LEU:HD12	34:SR:301:LEU:HD11	1.89	0.55
7:S5:25:LEU:HD21	7:S5:29:ILE:HD12	3.32	0.55
1:2:1451:C:H2'	1:2:1452:U:C6	2.42	0.55
9:S7:109:VAL:HG22	9:S7:110:GLN:H	1.71	0.55
55:M9:28:GLU:HG3	55:M9:49:THR:HB	4.90	0.55
36:1:2633:U:H2'	36:1:2634:U:O4'	2.05	0.55
75:O9:37:TYR:O	36:5:351:A:N6	93.78	0.55
36:1:692:A:OP1	51:M5:201:ARG:NH2	2.39	0.55
17:C5:116:LEU:O	17:C5:118:GLU:N	3.10	0.55
1:6:880:C:OP2	86:6:2108:OHX:N2	2.39	0.55
15:C3:33:VAL:HA	15:C3:36:GLN:HB2	1.88	0.55
36:1:1352:A:H4'	36:1:1353:U:OP1	2.05	0.55
77:Q1:22:ALA:O	77:Q1:25:LYS:N	3.08	0.55
1:2:639:U:OP1	9:S7:117:THR:OG1	2.23	0.55
1:2:463:U:H2'	1:2:464:A:H8	1.71	0.55
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.49	0.55
8:S6:173:PRO:O	1:6:79:C:H4'	344.02	0.55
1:6:1225:U:O2	1:6:1230:A:O2'	2.24	0.55
67:O1:47:ASP:HB3	67:O1:87:ASN:ND2	4.23	0.55
7:S5:57:SER:O	7:S5:59:VAL:HG23	2.32	0.55
39:L2:215:ASN:OD1	86:5:3910:OHX:N3	212.70	0.55
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.42	0.55
1:2:61:A:H8	1:2:269:G:HO2'	1.53	0.55
46:L9:75:VAL:HA	46:L9:78:MET:HE2	1.88	0.55
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.45	0.55
14:C2:33:ARG:HA	14:C2:36:LEU:HB2	1.88	0.55
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.36	0.55
14:C2:57:ALA:HB3	14:C2:85:LYS:HZ2	3.13	0.55
34:SR:220:ILE:HD11	34:SR:254:ALA:HB2	1.88	0.55
10:S8:89:GLU:O	10:S8:93:THR:OG1	2.21	0.55
34:SR:200:ASN:O	34:SR:201:THR:HB	2.07	0.55
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.41	0.55
11:S9:94:ASP:N	11:S9:94:ASP:OD1	2.39	0.55
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.19	0.55
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.81	0.55
31:D9:14:TYR:OH	1:6:1553:G:O2'	402.57	0.55
36:1:2107:A:C2	36:1:3344:A:H8	2.24	0.55
54:M8:147:ARG:NH2	36:5:670:C:OP1	162.83	0.55
34:SR:33:LEU:O	34:SR:45:TRP:N	2.37	0.55
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.88	0.55
26:D4:124:ARG:HH11	26:D4:124:ARG:HB3	1.72	0.55
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.25	0.55
17:C5:130:ARG:NH2	35:SM:65:THR:O	2.92	0.55
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.45	0.55
19:C7:5:ARG:O	19:C7:10:LYS:HE2	2.15	0.55
1:6:647:G:H22	1:6:687:G:N2	2.03	0.55
44:L7:214:TRP:CD2	44:L7:219:LYS:HD3	4.34	0.55
36:1:2718:U:OP2	86:1:3988:OHX:N3	2.39	0.55
70:O4:10:ARG:HG3	75:O9:4:GLN:HE22	5.27	0.55
36:5:171:G:H1	36:5:247:C:H42	1.54	0.55
86:8:218:OHX:N5	86:8:226:OHX:N1	2.54	0.55
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.03	0.55
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.06	0.55
17:C5:99:GLY:O	1:6:1211:A:H1'	374.83	0.55
1:6:1391:A:H2'	1:6:1392:U:H6	1.70	0.55
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.88	0.55
1:6:475:A:H2'	1:6:476:U:O4'	2.06	0.55
22:D0:58:LEU:HD23	1:6:1516:A:C8	443.91	0.55
2:S0:84:ARG:O	2:S0:88:LYS:HG2	2.07	0.55
1:6:542:A:O2'	1:6:543:C:O5'	2.24	0.55
36:5:3343:G:N2	36:5:3362:A:H2	2.03	0.55
1:2:1592:A:H2'	1:2:1593:A:C8	2.42	0.55
26:D4:36:SER:OG	26:D4:37:LYS:N	2.39	0.55
36:1:3242:G:H21	36:1:3245:A:H5''	1.71	0.55
36:1:2338:C:OP1	40:L3:236:LYS:HE2	2.07	0.55
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.77	0.55
6:S4:205:PHE:HB3	6:S4:221:ARG:HD2	1.88	0.55
51:M5:7:LEU:HD22	51:M5:46:ASP:HB3	1.88	0.55
36:1:161:G:N2	36:1:261:U:H1'	2.21	0.55
58:N2:90:ARG:HH11	58:N2:90:ARG:HB3	4.69	0.55
36:5:67:A:OP1	86:5:3953:OHX:N6	2.39	0.55
25:D3:19:ARG:HD3	1:6:609:U:H1'	343.43	0.55
17:C5:60:LEU:HD23	17:C5:76:VAL:HG21	2.76	0.55
6:S4:11:ARG:HB2	6:S4:27:TYR:C	2.33	0.55
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:56:SER:OG	36:5:3170:A:OP2	203.03	0.55
1:6:1765:A:OP1	86:6:2126:OHX:N2	2.39	0.55
44:L7:53:LYS:O	44:L7:57:THR:HG23	2.76	0.55
34:SR:21:THR:HA	34:SR:291:SER:HB3	1.89	0.55
36:1:524:U:OP1	50:M4:77:ARG:NH2	2.40	0.55
4:S2:157:LYS:HD2	4:S2:168:ARG:NH2	2.22	0.55
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.57	0.55
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.55	0.55
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.88	0.55
36:1:1723:A:N1	36:1:1788:C:O2'	2.36	0.55
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.07	0.55
16:C4:99:GLN:HB3	28:D6:46:GLU:OE2	2.07	0.55
40:L3:88:GLY:O	40:L3:161:LEU:N	2.42	0.55
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	1.88	0.55
1:6:886:U:H2'	1:6:887:A:C8	2.41	0.55
51:M5:16:SER:O	51:M5:20:ARG:HG3	2.06	0.55
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.63	0.55
36:1:1317:A:OP1	86:1:4068:OHX:N2	2.40	0.55
25:D3:83:VAL:HG21	25:D3:122:PHE:HE2	3.83	0.55
48:M1:166:LYS:O	48:M1:168:ASP:N	3.94	0.55
86:8:218:OHX:N2	86:8:226:OHX:N4	2.54	0.55
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.42	0.55
36:5:398:A:O2'	36:5:1416:C:OP1	2.18	0.55
1:2:474:A:O2'	11:S9:37:LYS:HE2	2.06	0.55
8:S6:12:SER:HB2	8:S6:124:LEU:HD12	1.88	0.55
1:2:487:G:O6	1:2:498:G:N1	2.34	0.55
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.88	0.55
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	1.87	0.55
36:1:2534:G:H2'	36:1:2535:A:H8	1.71	0.55
48:M1:105:GLY:HA3	36:5:2674:A:H5''	333.58	0.55
53:M7:41:LEU:HD23	53:M7:95:LEU:HD22	1.88	0.55
73:O7:60:GLY:O	86:O7:105:OHX:N6	2.40	0.55
34:SR:238:ASP:N	34:SR:238:ASP:OD1	2.40	0.55
10:S8:121:LEU:HD12	10:S8:157:GLU:HG3	1.88	0.55
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.27	0.55
16:C4:127:ARG:HD2	1:6:990:C:O2'	283.33	0.55
36:5:1554:U:H4'	36:5:1555:U:OP1	2.05	0.55
21:C9:39:THR:HA	21:C9:100:ILE:HD12	3.59	0.55
1:2:1226:A:O2'	1:2:1227:A:OP1	2.21	0.55
4:S2:89:GLN:HG3	4:S2:93:GLY:O	3.66	0.55
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.43	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:49:ASN:HA	19:C7:109:LEU:HD21	2.91	0.55
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.89	0.55
7:S5:164:PRO:HA	7:S5:167:ARG:HG3	3.23	0.55
70:O4:8:ARG:NH2	70:O4:31:ARG:HD2	3.82	0.55
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	3.30	0.55
9:S7:51:VAL:HG23	9:S7:53:GLY:H	1.72	0.55
86:1:4009:OHX:N3	86:1:4178:OHX:N3	2.54	0.55
18:C6:27:GLY:HA2	18:C6:60:PHE:O	2.06	0.55
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.89	0.55
46:L9:168:ARG:HD2	36:5:2894:C:OP1	305.58	0.55
18:C6:140:LYS:NZ	1:6:1192:C:O3'	362.87	0.55
36:5:767:U:H1'	36:5:768:C:C6	2.42	0.55
36:1:1498:A:H2'	36:1:1499:C:C6	2.42	0.55
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.11	0.55
1:2:773:C:OP1	6:S4:22:LYS:N	2.35	0.55
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.42	0.55
49:M3:185:LYS:NZ	49:M3:189:GLU:OE2	2.40	0.55
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.06	0.55
49:M3:187:ALA:HA	49:M3:190:LYS:HG3	1.88	0.55
1:2:1147:A:H2'	1:2:1148:C:C6	2.42	0.55
41:L4:291:ASN:O	41:L4:296:GLN:HG2	2.07	0.55
51:M5:190:THR:HG22	51:M5:193:ARG:NH2	4.48	0.55
64:N8:34:MET:HB2	36:5:95:A:H5''	163.13	0.55
36:1:1019:G:H2'	36:1:1020:G:O4'	2.06	0.55
10:S8:105:ASP:OD1	10:S8:107:THR:OG1	3.16	0.55
41:L4:299:ILE:HD12	54:M8:39:ARG:NH2	5.34	0.55
66:O0:99:ASP:O	66:O0:103:THR:HG23	2.06	0.55
70:O4:46:ASP:CG	70:O4:80:ARG:HD2	2.82	0.55
86:6:2059:OHX:N2	86:6:2147:OHX:N4	2.55	0.55
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	1.89	0.55
59:N3:82:ALA:HB3	59:N3:98:ASN:HD21	1.72	0.55
36:1:1064:A:H4'	36:1:1065:A:O5'	2.06	0.55
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.03	0.55
1:2:959:U:C6	15:C3:61:THR:HB	2.42	0.55
2:S0:76:ILE:HB	2:S0:123:VAL:HG13	4.10	0.55
1:6:846:G:H2'	1:6:847:A:C8	2.42	0.55
36:5:1241:U:O2'	36:5:1242:G:O5'	2.24	0.55
40:L3:53:MET:HE3	36:5:3048:A:H5'	232.91	0.55
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.34	0.55
36:1:1103:A:H1'	36:1:1104:G:OP1	2.07	0.55
36:1:180:C:H2'	36:1:181:U:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:103:LYS:NZ	36:5:221:A:N6	79.16	0.55
33:E1:108:VAL:HG12	33:E1:114:VAL:HG22	3.65	0.55
36:1:1039:U:H2'	36:1:1040:A:C8	2.42	0.55
41:L4:265:GLU:HG2	41:L4:266:THR:HG23	1.88	0.55
36:1:2357:A:H2'	36:1:2358:A:C8	2.42	0.55
36:5:1078:U:O4	86:5:3997:OHX:N5	2.40	0.55
36:1:1813:A:OP1	36:1:1817:G:O2'	2.24	0.55
1:2:912:U:H4'	1:2:913:G:O5'	2.07	0.55
40:L3:247:ARG:HD3	36:5:1888:U:OP1	209.91	0.55
36:5:948:C:H2'	36:5:949:C:C6	2.42	0.55
40:L3:169:THR:CG2	40:L3:171:LEU:H	2.72	0.55
10:S8:33:PRO:HA	1:6:331:A:H5'	276.81	0.55
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.40	0.55
74:O8:2:ALA:N	74:O8:51:LEU:H	2.73	0.55
61:N5:49:LYS:HD2	61:N5:52:PRO:HA	2.74	0.55
36:1:3166:C:N3	36:1:3284:G:N2	2.40	0.55
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.21	0.55
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.07	0.55
42:L5:122:VAL:HG23	42:L5:123:GLU:H	3.25	0.55
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.66	0.55
36:1:1915:A:H2'	36:1:1916:U:C6	2.42	0.55
2:S0:10:THR:OG1	2:S0:12:GLU:OE1	2.18	0.55
77:Q1:9:ARG:HG3	77:Q1:9:ARG:HH11	2.17	0.55
86:2:2043:OHX:N1	86:2:2098:OHX:N3	2.55	0.55
36:5:2404:A:H2'	36:5:2405:C:C5'	2.37	0.55
56:N0:13:ARG:HD3	56:N0:51:VAL:HG22	6.62	0.55
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	2.14	0.55
51:M5:190:THR:O	51:M5:194:GLN:HG2	2.08	0.55
62:N6:103:LYS:HZ3	36:5:221:A:N6	78.27	0.55
36:1:1668:G:C6	36:1:1669:C:C4	2.95	0.55
1:2:901:G:H22	16:C4:54:GLU:CD	2.10	0.55
1:6:424:C:O2'	1:6:426:G:OP1	2.25	0.55
58:N2:33:TYR:CE1	58:N2:80:THR:HG23	4.44	0.55
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	1.89	0.55
1:2:116:U:H2'	1:2:117:U:C6	2.42	0.55
36:5:1534:A:OP1	86:5:3920:OHX:N1	2.40	0.55
37:3:71:G:H2'	37:3:72:A:C8	2.42	0.55
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	1.89	0.55
76:Q0:102:ARG:NE	36:5:2896:A:OP1	320.59	0.55
36:5:770:G:N7	86:5:4093:OHX:N6	2.55	0.55
57:N1:132:PRO:O	57:N1:134:GLN:HG2	2.67	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:651:G:O2'	36:1:1435:A:OP1	2.21	0.55
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.42	0.54
62:N6:39:LEU:HD13	62:N6:43:TYR:CE2	4.08	0.54
19:C7:33:ARG:NH2	34:SR:109:ASP:OD2	2.80	0.54
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.88	0.54
49:M3:27:ASP:HB2	49:M3:31:LYS:HG3	2.89	0.54
1:6:919:A:H2'	1:6:920:U:H6	1.73	0.54
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	1.72	0.54
29:D7:19:HIS:CE1	29:D7:20:LYS:HB3	5.00	0.54
1:6:491:C:N4	1:6:497:G:H21	2.04	0.54
32:E0:48:THR:OG1	32:E0:49:LEU:HD22	3.54	0.54
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	1.97	0.54
36:1:3243:A:C8	52:M6:156:LEU:HD22	2.42	0.54
36:1:1047:A:N3	36:1:2633:U:O2'	2.40	0.54
49:M3:189:GLU:O	49:M3:192:GLU:HG2	2.08	0.54
1:6:248:U:OP1	86:6:2122:OHX:N3	2.41	0.54
86:1:3977:OHX:N3	86:1:4162:OHX:N1	2.55	0.54
1:6:1697:G:H8	1:6:1705:C:N3	2.04	0.54
1:6:348:U:O4	86:6:2163:OHX:N4	2.40	0.54
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	5.15	0.54
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	3.97	0.54
51:M5:184:LYS:H	51:M5:186:GLY:H	1.65	0.54
1:6:30:G:H2'	1:6:31:C:C6	2.42	0.54
36:1:1207:G:N7	86:1:4067:OHX:N2	2.55	0.54
36:5:3159:C:H2'	36:5:3160:U:C6	2.42	0.54
36:5:982:C:H42	36:5:1101:G:H1	1.55	0.54
64:N8:84:GLU:O	64:N8:87:ARG:HB2	2.36	0.54
86:6:2120:OHX:N4	86:6:2171:OHX:N3	2.54	0.54
28:D6:75:VAL:O	28:D6:79:ILE:N	2.40	0.54
4:S2:52:THR:HB	4:S2:53:ILE:HD12	6.29	0.54
36:1:3116:G:H3'	36:1:3117:C:H6	1.72	0.54
32:E0:41:THR:HG22	32:E0:45:VAL:HG11	3.88	0.54
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.50	0.54
4:S2:90:THR:O	4:S2:92:ALA:N	2.48	0.54
36:5:979:U:O2'	36:5:980:A:C5	2.55	0.54
1:2:705:U:H2'	1:2:706:A:H8	1.71	0.54
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.51	0.54
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.53	0.54
33:E1:144:CYS:O	33:E1:146:SER:N	2.41	0.54
40:L3:255:TRP:CD1	36:5:2395:G:H5''	216.04	0.54
36:1:1658:G:H2'	36:1:1659:U:H6	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4009:OHX:N6	86:1:4178:OHX:N5	2.54	0.54
41:L4:193:LYS:O	41:L4:198:ARG:HG2	4.11	0.54
86:8:218:OHX:N6	86:8:226:OHX:N4	2.55	0.54
36:5:3117:C:N3	86:5:4201:OHX:N2	2.55	0.54
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.07	0.54
59:N3:96:GLU:HG3	60:N4:21:PHE:CE1	2.42	0.54
36:1:401:U:H4'	36:1:403:C:C2	2.42	0.54
68:O2:12:LYS:HD2	68:O2:57:TYR:O	2.07	0.54
47:M0:208:ASN:HA	47:M0:211:ARG:HD2	2.11	0.54
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	2.15	0.54
1:2:1250:U:O2'	1:2:1251:U:OP1	2.24	0.54
8:S6:58:LYS:HG2	8:S6:105:ASP:O	2.07	0.54
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	3.07	0.54
9:S7:105:THR:OG1	9:S7:106:SER:N	4.36	0.54
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.36	0.54
36:1:3306:U:H5''	40:L3:21:ARG:NH1	2.22	0.54
41:L4:269:SER:O	41:L4:271:LYS:N	2.40	0.54
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.66	0.54
18:C6:32:ASN:HD21	18:C6:69:VAL:HG23	2.54	0.54
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.41	0.54
1:6:151:G:H1	1:6:163:G:H1	1.54	0.54
46:L9:115:ARG:HH11	46:L9:115:ARG:HG2	2.61	0.54
51:M5:172:ARG:HB2	51:M5:174:ILE:HD12	1.88	0.54
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.42	0.54
36:1:979:U:H1'	36:1:980:A:N9	2.22	0.54
33:E1:97:LYS:NZ	1:6:1253:U:O4	438.77	0.54
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	2.68	0.54
52:M6:182:ASN:O	52:M6:185:ALA:N	4.24	0.54
4:S2:203:LYS:O	4:S2:206:THR:HG23	4.03	0.54
1:6:1745:G:O6	86:6:2077:OHX:N4	2.40	0.54
36:1:715:A:C8	64:N8:115:LYS:HG3	2.43	0.54
36:5:1750:A:H4'	36:5:1751:G:H5'	1.88	0.54
36:1:3103:A:OP2	86:1:4173:OHX:N1	2.41	0.54
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.34	0.54
36:1:2236:G:OP1	86:1:4123:OHX:N6	2.40	0.54
36:1:2734:A:OP1	86:1:4012:OHX:N3	2.40	0.54
15:C3:138:ASN:O	15:C3:140:LYS:N	3.37	0.54
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	1.90	0.54
1:2:1165:G:C6	1:2:1166:A:C6	2.96	0.54
1:6:853:G:H2'	1:6:854:U:C6	2.42	0.54
29:D7:26:GLN:NE2	1:6:864:U:OP2	352.83	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	2.34	0.54
38:4:93:U:H2'	38:4:94:C:O4'	2.07	0.54
44:L7:208:SER:OG	44:L7:209:ASN:N	2.40	0.54
42:L5:277:LEU:HD12	37:7:62:U:H5''	335.92	0.54
3:S1:144:ARG:HB3	3:S1:206:PRO:HB3	1.90	0.54
11:S9:2:PRO:HD2	1:6:461:G:OP1	359.78	0.54
63:N7:17:ARG:HB2	36:5:1635:G:O6	201.72	0.54
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.49	0.54
1:6:220:A:H3'	1:6:832:U:H1'	1.90	0.54
78:Q2:71:ARG:NE	78:Q2:80:ARG:HE	2.06	0.54
16:C4:107:ARG:HH21	16:C4:107:ARG:HB2	3.18	0.54
1:2:1474:G:H2'	1:2:1475:A:H8	1.73	0.54
1:6:976:G:O6	86:6:2079:OHX:N6	2.40	0.54
13:C1:118:GLN:HE21	13:C1:146:ALA:HA	1.73	0.54
1:6:987:G:O6	86:6:2119:OHX:N4	2.41	0.54
1:2:1680:G:O6	86:2:2109:OHX:N5	2.40	0.54
1:6:363:G:OP1	86:6:2111:OHX:N1	2.41	0.54
86:5:4051:OHX:N3	86:5:4196:OHX:N6	2.55	0.54
49:M3:133:PRO:O	49:M3:135:ALA:N	3.16	0.54
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.31	0.54
86:5:3971:OHX:N4	86:5:4239:OHX:N2	2.55	0.54
67:O1:40:ALA:HA	67:O1:75:ILE:HD13	2.45	0.54
1:2:1291:G:N2	1:2:1324:G:N2	2.55	0.54
33:E1:103:LEU:HD11	1:6:1252:C:H5'	454.75	0.54
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.46	0.54
46:L9:8:GLN:NE2	46:L9:69:ARG:HG2	2.73	0.54
70:O4:98:GLN:HA	70:O4:101:VAL:HG23	1.88	0.54
1:2:1600:A:H4'	1:2:1601:G:OP1	2.07	0.54
48:M1:8:PRO:CG	48:M1:9:MET:H	3.16	0.54
75:O9:36:ARG:HG2	75:O9:36:ARG:HH11	1.73	0.54
30:D8:65:ARG:HG3	30:D8:66:LEU:N	2.23	0.54
36:5:879:U:O2	36:5:2357:A:H1'	2.07	0.54
70:O4:5:VAL:HG13	70:O4:6:THR:N	2.59	0.54
1:6:404:G:H2'	1:6:405:C:C6	2.43	0.54
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.88	0.54
1:6:432:G:H2'	1:6:433:C:O4'	2.08	0.54
36:1:3203:U:H2'	36:1:3204:C:C6	2.43	0.54
1:2:1358:G:H2'	1:2:1359:C:C6	2.43	0.54
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.23	0.54
36:1:817:A:H2'	36:1:920:A:C2	2.42	0.54
36:1:2834:G:OP1	86:1:4194:OHX:N3	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.88	0.54
51:M5:65:ARG:HG2	51:M5:127:TYR:CD1	2.42	0.54
1:2:196:G:HO2'	1:2:197:A:H8	1.50	0.54
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.21	0.54
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.07	0.54
36:1:2257:C:H2'	36:1:2258:U:O4'	2.08	0.54
1:2:614:C:H2'	1:2:615:A:C8	2.43	0.54
47:M0:74:LYS:O	47:M0:78:THR:HG23	5.12	0.54
30:D8:32:PHE:O	30:D8:34:GLU:N	3.66	0.54
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.07	0.54
36:1:2973:G:O6	86:1:4103:OHX:N2	2.41	0.54
51:M5:85:THR:HG21	36:5:45:A:OP1	155.68	0.54
8:S6:145:PHE:HB3	8:S6:147:LEU:HD21	1.90	0.54
40:L3:252:ILE:HG23	40:L3:260:VAL:HG13	1.88	0.54
78:Q2:65:THR:OG1	78:Q2:87:ARG:HD3	2.08	0.54
36:1:718:G:C2	36:1:721:G:H1'	2.43	0.54
5:S3:60:GLY:HA3	5:S3:65:ARG:HB3	3.77	0.54
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	2.46	0.54
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.07	0.54
36:1:1942:U:O2'	36:1:3345:G:O2'	2.11	0.54
86:6:2120:OHX:N2	86:6:2171:OHX:N1	2.56	0.54
36:5:1178:G:C8	36:5:1178:G:H5'	2.39	0.54
4:S2:140:ARG:HH12	23:D1:1:MET:HB3	1.73	0.54
41:L4:316:ASN:ND2	44:L7:150:LYS:HG3	2.23	0.54
1:2:140:A:H61	1:2:281:G:P	2.30	0.54
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.39	0.54
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.40	0.54
41:L4:329:PRO:HB3	44:L7:41:ARG:NH1	3.38	0.54
36:5:2818:U:C6	36:5:2818:U:H5'	2.38	0.54
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	2.27	0.54
36:1:784:A:H2'	54:M8:69:ARG:HH21	1.72	0.54
53:M7:127:ARG:NH2	36:5:1508:C:OP1	137.92	0.54
11:S9:3:ARG:H	11:S9:3:ARG:HH21	1.55	0.54
6:S4:161:LYS:HB3	6:S4:170:THR:O	4.75	0.54
42:L5:265:TYR:HE1	37:7:121:U:H5''	315.92	0.54
1:6:218:A:H2'	1:6:219:A:H5''	1.88	0.54
36:1:578:A:H5''	36:1:579:G:O5'	2.08	0.54
36:1:3281:U:H2'	36:1:3282:U:C6	2.42	0.54
38:4:85:G:C8	38:4:85:G:H3'	2.42	0.54
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.01	0.54
36:5:2676:A:H4'	36:5:2677:G:O5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:77:ASN:O	26:D4:78:SER:HB3	3.60	0.54
36:5:3192:U:O4	86:5:4141:OHX:N6	2.41	0.54
12:C0:5:LYS:HE2	12:C0:9:ASN:HD21	5.37	0.54
64:N8:88:ASP:O	64:N8:92:LYS:HG3	2.08	0.54
1:6:678:A:N7	1:6:679:U:N3	2.56	0.54
8:S6:174:LYS:HG3	1:6:79:C:H1'	341.52	0.54
1:6:794:U:H4'	1:6:795:U:OP2	2.07	0.54
17:C5:25:LEU:O	17:C5:28:MET:HE2	2.68	0.54
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.14	0.54
22:D0:58:LEU:HD13	22:D0:88:LYS:HD2	1.89	0.54
66:O0:98:SER:OG	66:O0:100:ILE:HG13	2.07	0.54
33:E1:136:LYS:O	33:E1:138:ARG:HB2	2.08	0.54
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.73	0.54
1:6:1203:A:C4	1:6:1556:A:C2	2.96	0.54
36:1:2255:A:H5'	36:1:2261:G:H22	1.73	0.54
1:2:1760:G:C2'	1:2:1761:U:H5'	2.38	0.54
36:1:1276:U:OP1	86:1:4090:OHX:N4	2.41	0.54
45:L8:107:GLU:O	45:L8:111:LYS:HG2	2.08	0.54
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	5.29	0.54
54:M8:153:PHE:O	54:M8:161:LYS:HG3	4.97	0.54
36:5:2101:C:O2'	36:5:2102:U:OP1	2.26	0.54
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.26	0.54
71:O5:63:ARG:HG3	71:O5:67:ARG:NH2	5.53	0.54
36:5:2299:A:OP2	86:5:3958:OHX:N1	2.40	0.54
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.90	0.54
36:1:1593:A:N3	36:1:1615:C:O2'	2.37	0.54
36:1:528:U:H2'	36:1:529:A:C8	2.43	0.54
25:D3:134:ALA:HB1	25:D3:140:LYS:HB2	3.22	0.54
38:8:10:A:H2'	38:8:11:C:C6	2.42	0.54
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	2.16	0.54
36:1:1194:G:H2'	36:1:1195:A:C8	2.43	0.54
51:M5:2:GLY:HA3	36:5:116:A:OP2	107.48	0.54
13:C1:133:LYS:HG3	13:C1:134:THR:HG23	1.90	0.54
47:M0:191:LYS:NZ	47:M0:212:GLU:O	7.65	0.54
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.07	0.54
11:S9:28:LEU:HD13	32:E0:40:TYR:HA	2.83	0.54
14:C2:119:SER:OG	1:6:1228:G:OP1	464.28	0.54
35:SM:61:ILE:HD12	35:SM:62:ARG:N	2.23	0.54
22:D0:70:THR:O	31:D9:40:ARG:NH1	2.40	0.54
36:1:1307:G:H1'	36:1:1308:A:C8	2.43	0.54
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1350:U:H2'	1:6:1351:G:H8	1.73	0.54
1:2:480:G:N1	1:2:509:G:N3	2.55	0.54
36:5:813:G:N1	36:5:927:C:N3	2.53	0.54
57:N1:102:ARG:HG3	57:N1:106:LEU:HD11	5.11	0.54
40:L3:221:THR:HG22	40:L3:272:TYR:H	1.73	0.54
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.41	0.54
36:1:2585:G:N7	45:L8:47:SER:OG	2.41	0.54
29:D7:28:PRO:HB3	1:6:959:U:H5''	350.90	0.54
14:C2:67:THR:C	14:C2:69:ALA:H	2.12	0.54
36:1:979:U:O2'	36:1:980:A:N7	2.31	0.54
48:M1:155:THR:HG1	48:M1:158:ASP:H	1.55	0.54
36:5:3279:A:H2'	36:5:3280:U:H5'	1.90	0.54
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.40	0.54
36:1:2357:A:H2'	36:1:2358:A:H8	1.72	0.54
36:5:2895:G:H2'	36:5:2896:A:H5''	1.90	0.54
54:M8:44:PHE:O	54:M8:48:VAL:HG23	2.08	0.54
11:S9:17:ARG:HD2	11:S9:20:GLU:OE1	2.08	0.54
1:2:1393:C:H2'	1:2:1394:G:O4'	2.07	0.54
36:1:1688:U:H2'	36:1:1689:U:C6	2.43	0.54
36:5:3305:A:H2'	36:5:3306:U:C6	2.43	0.54
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	2.31	0.54
36:5:2274:U:OP2	86:5:3982:OHX:N6	2.41	0.54
6:S4:62:LYS:HD2	6:S4:66:MET:HG2	2.50	0.54
5:S3:55:THR:OG1	5:S3:90:ARG:NH2	2.40	0.54
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.08	0.54
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.08	0.54
37:7:107:C:H2'	37:7:108:A:C8	2.43	0.54
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.96	0.54
36:5:2309:A:H4'	86:5:4195:OHX:N4	2.23	0.54
11:S9:146:PHE:HZ	1:6:765:G:N1	430.84	0.54
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.23	0.54
67:O1:44:MET:HB3	67:O1:77:ARG:HH11	3.41	0.54
34:SR:70:ASP:CB	34:SR:112:SER:HA	2.39	0.54
48:M1:28:ASP:HA	48:M1:31:THR:HG23	4.99	0.54
3:S1:144:ARG:NH2	3:S1:207:LEU:O	3.34	0.54
48:M1:109:HIS:O	48:M1:112:LEU:HD23	2.08	0.54
45:L8:81:THR:HG21	45:L8:181:LYS:HD3	1.90	0.54
17:C5:130:ARG:HH12	35:SM:71:ASN:HA	2.34	0.54
68:O2:19:ARG:HD2	68:O2:28:VAL:CG1	2.38	0.54
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.55	0.54
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	2.52	0.54
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.08	0.54
1:6:1459:C:OP2	1:6:1459:C:H6	1.89	0.54
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.88	0.54
21:C9:139:THR:O	21:C9:142:GLU:HG3	5.09	0.54
36:1:2175:U:O2	39:L2:23:ARG:HB3	2.08	0.54
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.42	0.54
36:1:1952:G:H3'	36:1:1953:G:H5''	1.89	0.54
54:M8:58:ASN:HB3	54:M8:144:ARG:CZ	2.38	0.54
1:6:8:U:O2'	86:6:2071:OHX:N2	2.41	0.54
36:1:871:U:H2'	36:1:872:U:C6	2.42	0.54
12:C0:11:ILE:HD13	12:C0:42:VAL:HA	1.89	0.54
38:8:121:U:O2'	38:8:122:U:H5'	2.08	0.54
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.08	0.54
49:M3:15:ARG:NH2	36:5:96:G:OP1	154.03	0.54
36:5:750:G:H2'	36:5:751:A:H8	1.71	0.54
12:C0:28:ASN:OD1	12:C0:28:ASN:N	2.53	0.54
39:L2:245:LEU:O	39:L2:247:ARG:N	2.40	0.54
1:2:715:U:H3	1:2:723:G:H1	1.56	0.54
50:M4:47:ASP:OD1	50:M4:55:ARG:HB2	2.68	0.53
1:2:989:U:H2'	1:2:990:C:C6	2.43	0.53
52:M6:27:LEU:CD2	52:M6:101:ARG:HB2	2.38	0.53
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.27	0.53
1:6:1230:A:C8	1:6:1258:U:C4	2.96	0.53
1:6:191:C:O2'	1:6:192:U:O5'	2.25	0.53
36:1:1556:C:H2'	36:1:2169:G:N1	2.22	0.53
1:6:884:A:H2'	1:6:885:G:C8	2.43	0.53
36:1:1597:C:H2'	36:1:1598:G:C8	2.43	0.53
86:1:3963:OHX:N4	44:L7:217:PRO:HA	2.23	0.53
1:2:856:A:N6	9:S7:96:ARG:HB3	2.22	0.53
6:S4:121:TYR:CG	6:S4:161:LYS:HE3	2.42	0.53
36:1:2789:U:H2'	36:1:2790:A:H8	1.73	0.53
48:M1:59:ILE:HD12	48:M1:65:ILE:HD11	2.54	0.53
2:S0:195:TRP:C	2:S0:197:ILE:H	2.42	0.53
47:M0:85:PHE:CB	47:M0:140:THR:HG22	2.78	0.53
61:N5:80:ASN:HD21	61:N5:126:LEU:HB2	1.73	0.53
41:L4:283:THR:HG21	41:L4:288:ARG:NH2	7.54	0.53
1:6:1776:A:H2'	1:6:1777:G:C8	2.42	0.53
1:2:1649:G:N7	86:2:2050:OHX:N1	2.56	0.53
13:C1:6:THR:O	13:C1:8:GLN:N	2.40	0.53
39:L2:57:PRO:HD2	39:L2:170:ALA:HB3	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:23:ASN:ND2	36:5:633:C:H1'	221.30	0.53
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.09	0.53
34:SR:81:LEU:HD23	34:SR:91:LEU:HA	2.94	0.53
48:M1:48:SER:HB2	48:M1:66:ALA:HB3	2.96	0.53
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.07	0.53
44:L7:26:VAL:C	44:L7:28:ALA:H	3.23	0.53
44:L7:195:PHE:O	44:L7:199:ASN:HB3	2.54	0.53
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.55	0.53
36:1:727:G:H2'	36:1:728:G:O4'	2.08	0.53
10:S8:10:LYS:HG2	13:C1:133:LYS:HE2	4.48	0.53
1:6:66:U:H4'	1:6:67:A:OP1	2.08	0.53
47:M0:4:ARG:CZ	47:M0:99:ILE:HG22	6.56	0.53
10:S8:21:PHE:HD1	10:S8:22:ARG:HG2	4.46	0.53
36:1:1577:G:H2'	36:1:1578:C:O4'	2.08	0.53
14:C2:62:LEU:HB3	14:C2:75:VAL:HG11	1.90	0.53
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	3.38	0.53
3:S1:35:PRO:HG2	3:S1:38:PHE:HE2	1.72	0.53
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.07	0.53
9:S7:130:VAL:O	9:S7:132:PRO:HD2	5.01	0.53
30:D8:52:ASP:N	30:D8:52:ASP:OD2	4.16	0.53
1:2:1482:C:O2'	18:C6:72:GLY:O	2.25	0.53
3:S1:125:VAL:HG21	3:S1:173:THR:HG22	1.89	0.53
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.53	0.53
1:6:492:A:O2'	1:6:496:G:N1	2.40	0.53
52:M6:156:LEU:HD22	36:5:3243:A:C8	264.37	0.53
48:M1:8:PRO:HD2	48:M1:10:ARG:HG3	2.16	0.53
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.22	0.53
36:1:975:C:H2'	36:1:976:U:H6	1.72	0.53
61:N5:141:TYR:O	61:N5:142:ILE:HG13	4.51	0.53
1:6:1054:U:H2'	1:6:1055:U:C6	2.44	0.53
17:C5:51:SER:C	17:C5:53:PRO:HD2	4.44	0.53
1:2:207:U:O2	10:S8:178:ARG:NH1	2.39	0.53
75:O9:26:TRP:HA	75:O9:29:LEU:HD22	2.86	0.53
39:L2:9:ARG:NH1	36:5:912:G:OP2	180.07	0.53
62:N6:86:THR:HG22	62:N6:96:PRO:HA	2.58	0.53
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.90	0.53
68:O2:121:ASN:OD1	68:O2:121:ASN:N	2.40	0.53
36:1:2859:U:H4'	36:1:2860:U:OP1	2.07	0.53
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.08	0.53
36:1:565:U:H2'	36:1:566:G:H8	1.72	0.53
86:5:3976:OHX:N6	86:5:4195:OHX:N3	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1553:G:O6	17:C5:43:ARG:HD3	2.09	0.53
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.08	0.53
40:L3:3:HIS:O	40:L3:5:LYS:N	2.41	0.53
78:Q2:47:GLN:NE2	78:Q2:53:GLN:OE1	3.25	0.53
36:5:3197:G:H2'	36:5:3198:U:H5''	1.90	0.53
1:2:1477:G:H2'	1:2:1478:G:C8	2.43	0.53
41:L4:274:TYR:HE1	41:L4:276:LEU:HD23	1.73	0.53
40:L3:49:TYR:OH	40:L3:166:ILE:HG13	2.09	0.53
34:SR:162:ALA:O	34:SR:163:ASP:HB3	2.07	0.53
27:D5:56:THR:H	27:D5:103:ARG:HH11	1.55	0.53
53:M7:53:ASP:O	86:M7:206:OHX:N3	2.40	0.53
36:5:1157:G:H2'	36:5:1158:A:O4'	2.08	0.53
1:6:1699:G:C2	1:6:1701:A:H5''	2.44	0.53
45:L8:129:PRO:HB3	36:5:121:A:C2	101.22	0.53
17:C5:115:TYR:OH	1:6:1556:A:OP1	387.38	0.53
1:2:687:G:H5'	24:D2:119:LYS:HD2	1.90	0.53
1:2:1063:U:OP1	29:D7:72:LYS:NZ	2.40	0.53
42:L5:152:ARG:HG3	42:L5:152:ARG:HH11	2.16	0.53
42:L5:24:ARG:NH2	37:7:13:A:N3	292.54	0.53
36:5:1063:G:H2'	36:5:1097:G:N2	2.22	0.53
1:2:711:U:H1'	1:2:712:G:H5'	1.89	0.53
25:D3:65:ASN:ND2	25:D3:116:ASP:OD1	2.70	0.53
4:S2:218:ILE:O	4:S2:221:THR:OG1	2.25	0.53
36:5:1831:U:H2'	36:5:1832:C:H6	1.73	0.53
36:1:2777:G:H5''	36:1:2778:G:OP1	2.09	0.53
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.13	0.53
1:2:485:A:H2'	1:2:486:G:O4'	2.08	0.53
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.90	0.53
36:5:710:A:H2'	36:5:711:A:C8	2.44	0.53
79:Q3:5:THR:OG1	79:Q3:6:LYS:N	2.38	0.53
36:5:2298:U:O4	36:5:2923:U:H5	1.92	0.53
29:D7:23:THR:HG21	29:D7:29:ARG:HH22	4.18	0.53
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	1.96	0.53
36:1:2554:A:H5'	36:1:2554:A:C8	2.43	0.53
36:5:2897:A:H2'	36:5:2899:C:H5''	1.90	0.53
36:5:112:U:O2'	36:5:113:C:OP2	2.26	0.53
36:1:3377:G:H21	40:L3:332:ARG:HH21	1.57	0.53
51:M5:35:VAL:HG23	36:5:1543:G:OP1	138.89	0.53
67:O1:13:THR:HG22	67:O1:72:ARG:HD3	2.75	0.53
4:S2:76:LEU:CD2	4:S2:104:VAL:HB	4.52	0.53
36:1:911:C:H42	39:L2:3:ARG:HD3	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:20:LYS:HG3	40:L3:21:ARG:O	2.08	0.53
1:6:751:G:H2'	1:6:752:A:H8	1.72	0.53
1:2:733:A:O5'	1:2:734:A:N6	2.42	0.53
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.42	0.53
1:2:542:A:C8	1:2:543:C:H3'	2.43	0.53
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.90	0.53
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.14	0.53
26:D4:112:LYS:NZ	26:D4:113:ASN:OD1	2.63	0.53
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	3.02	0.53
27:D5:42:LEU:HD22	27:D5:47:TYR:HB2	6.64	0.53
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.74	0.53
2:S0:56:LYS:HZ3	2:S0:158:VAL:HA	1.73	0.53
17:C5:121:ILE:HD13	17:C5:123:TYR:H	3.72	0.53
1:2:792:U:H3'	1:2:793:A:H8	1.73	0.53
1:6:489:C:O2'	1:6:490:C:O5'	2.26	0.53
1:6:1458:G:H5''	1:6:1459:C:OP2	2.08	0.53
53:M7:46:LYS:O	53:M7:50:GLN:HG3	2.08	0.53
1:6:947:U:H2'	1:6:948:G:C8	2.44	0.53
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.38	0.53
69:O3:86:ARG:O	86:O3:202:OHX:N1	2.41	0.53
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.41	0.53
7:S5:81:ARG:HD2	1:6:1615:C:H3'	372.68	0.53
10:S8:84:HIS:CE1	10:S8:90:LEU:HD12	2.78	0.53
36:1:3318:G:H2'	36:1:3318:G:OP2	2.08	0.53
36:1:3316:A:OP1	36:1:3318:G:N2	2.40	0.53
36:1:1507:G:N3	36:1:1507:G:H5'	2.23	0.53
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	2.61	0.53
72:O6:26:ILE:C	72:O6:28:TYR:H	2.12	0.53
22:D0:58:LEU:HD12	22:D0:88:LYS:O	2.08	0.53
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.80	0.53
1:6:486:G:H4'	1:6:486:G:OP1	2.09	0.53
1:6:500:C:O2'	1:6:501:U:O4'	2.26	0.53
2:S0:185:ARG:HG3	23:D1:45:ALA:O	2.08	0.53
1:2:823:G:H2'	1:2:824:G:H8	1.71	0.53
20:C8:35:ILE:HB	20:C8:38:VAL:CG1	4.04	0.53
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.44	0.53
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.38	0.53
7:S5:144:GLU:HB2	7:S5:160:VAL:O	2.09	0.53
72:O6:67:LYS:O	72:O6:70:ARG:N	3.29	0.53
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.08	0.53
36:5:192:C:H2'	36:5:193:C:H6	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:215:PHE:O	4:S2:218:ILE:HG13	2.09	0.53
1:2:1018:U:H2'	1:2:1019:A:H8	1.74	0.53
16:C4:54:GLU:CD	1:6:901:G:H22	282.11	0.53
1:2:1549:C:H5''	17:C5:42:ARG:HH12	1.74	0.53
1:6:333:A:C6	1:6:334:G:C6	2.97	0.53
1:6:339:C:H2'	1:6:340:U:C6	2.44	0.53
1:6:1345:A:H2'	1:6:1348:A:H62	1.73	0.53
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.74	0.53
1:2:1445:G:C5	33:E1:91:ILE:HB	2.42	0.53
36:5:3152:U:O2	86:5:4223:OHX:N5	2.42	0.53
35:SM:123:ALA:O	35:SM:127:ALA:N	3.08	0.53
41:L4:229:ASN:OD1	41:L4:231:ALA:N	2.61	0.53
1:2:1609:U:H2'	1:2:1610:G:O4'	2.08	0.53
11:S9:38:ASN:HB2	11:S9:41:GLU:H	1.73	0.53
36:5:3194:C:O2'	36:5:3195:U:H5'	2.09	0.53
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.08	0.53
27:D5:58:ARG:HB3	27:D5:103:ARG:NH1	9.15	0.53
5:S3:164:VAL:HG22	5:S3:168:ILE:HG12	2.77	0.53
68:O2:19:ARG:HB3	68:O2:22:SER:HB3	1.89	0.53
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.47	0.53
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	3.16	0.53
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.85	0.53
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.29	0.53
1:6:1336:A:OP1	86:6:2179:OHX:N1	2.42	0.53
41:L4:346:LYS:HD2	41:L4:347:THR:H	6.30	0.53
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.91	0.53
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.91	0.53
63:N7:95:VAL:O	63:N7:100:THR:OG1	2.19	0.53
1:6:1016:C:H2'	1:6:1017:U:H6	1.73	0.53
64:N8:125:VAL:HG21	64:N8:138:ILE:HD13	1.90	0.53
36:1:3136:G:OP2	86:1:4104:OHX:N6	2.41	0.53
34:SR:187:GLN:O	34:SR:187:GLN:HG2	2.07	0.53
65:N9:25:LYS:HB2	65:N9:25:LYS:NZ	2.23	0.53
36:1:93:C:H4'	36:1:94:G:H5''	1.90	0.53
15:C3:64:ARG:HG2	15:C3:64:ARG:HH11	3.99	0.53
20:C8:24:GLY:HA2	20:C8:58:ALA:HB3	1.91	0.53
76:Q0:125:LYS:NZ	36:5:2898:G:O6	328.07	0.53
1:6:538:A:C4	1:6:543:C:H5	2.26	0.53
3:S1:182:ALA:O	3:S1:185:THR:HB	2.08	0.53
36:1:1065:A:C4	65:N9:28:LYS:HB2	2.43	0.53
36:5:3242:G:H21	36:5:3245:A:H5''	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:152:U:O2	1:6:163:G:N2	2.42	0.53
36:1:1634:G:N7	63:N7:17:ARG:NH2	2.57	0.53
1:2:830:U:C2	1:2:831:U:H5	2.26	0.53
1:6:800:U:H2'	1:6:801:G:C8	2.43	0.53
36:1:789:A:H2'	36:1:790:U:H6	1.74	0.53
1:2:649:U:O2'	1:2:650:U:H6	1.92	0.53
26:D4:3:ASP:HB2	26:D4:31:ASN:HB2	3.30	0.53
1:2:569:C:H41	25:D3:69:ARG:NH1	2.06	0.53
25:D3:23:ARG:HH11	25:D3:23:ARG:HG3	2.16	0.53
1:2:355:G:OP2	86:2:2035:OHX:N4	2.42	0.53
36:1:1488:G:H1	36:1:1854:C:H42	1.57	0.53
38:8:6:U:H2'	38:8:7:U:C6	2.43	0.53
36:5:1340:G:H2'	36:5:1341:U:H6	1.73	0.53
46:L9:109:ALA:O	46:L9:110:LYS:HB2	2.09	0.53
41:L4:264:SER:OG	41:L4:267:VAL:HG13	2.08	0.53
36:1:138:U:O4	86:1:3896:OHX:N3	2.41	0.53
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.91	0.53
2:S0:83:GLN:O	2:S0:87:LEU:HB2	2.96	0.53
23:D1:16:LYS:HG2	23:D1:21:ASN:HA	1.91	0.53
42:L5:41:LYS:HA	42:L5:41:LYS:HE2	1.91	0.53
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.81	0.53
1:2:1178:G:H2'	1:2:1179:G:O4'	2.07	0.53
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.43	0.53
36:5:953:G:H2'	36:5:1117:G:H5''	1.89	0.53
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.77	0.53
77:Q1:2:ARG:NH1	1:6:1773:C:OP2	308.57	0.53
36:1:563:U:OP1	56:N0:68:HIS:HD2	1.91	0.53
51:M5:98:LEU:HD22	36:5:290:G:OP1	136.72	0.53
36:5:439:C:O2	36:5:493:G:N2	2.38	0.53
36:1:42:C:H42	36:1:92:G:H1	1.57	0.53
55:M9:104:ARG:HH22	55:M9:135:LYS:HE2	1.74	0.53
55:M9:59:SER:N	36:5:3068:U:OP1	164.87	0.53
36:5:1806:A:H2'	36:5:1807:G:O4'	2.08	0.53
40:L3:10:ARG:HD3	40:L3:11:HIS:O	4.46	0.53
1:2:75:U:H2'	1:2:76:A:O4'	2.08	0.53
8:S6:137:ARG:HH11	1:6:144:U:H5	311.49	0.53
1:6:1699:G:N2	1:6:1701:A:H5''	2.23	0.53
8:S6:13:GLN:OE1	1:6:151:G:N2	310.38	0.53
13:C1:94:ILE:HD12	25:D3:16:ARG:HD2	1.90	0.53
26:D4:20:ARG:HD2	26:D4:74:LEU:HD22	3.09	0.53
5:S3:167:PHE:O	5:S3:190:ARG:HG2	2.25	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2157:G:O6	39:L2:152:SER:HB3	2.08	0.53
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.56	0.53
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	2.65	0.53
45:L8:67:ILE:HG23	45:L8:237:ILE:HD12	1.91	0.53
36:1:2534:G:O6	86:1:4002:OHX:N4	2.42	0.53
58:N2:33:TYR:HD2	58:N2:63:VAL:HG21	2.76	0.53
49:M3:171:ARG:HD3	36:5:770:G:OP1	144.54	0.53
56:N0:84:ARG:HG3	36:5:1295:G:OP1	294.43	0.53
72:O6:56:ARG:O	72:O6:60:LEU:HD22	5.09	0.53
36:5:3366:G:H2'	36:5:3367:C:C6	2.44	0.53
1:2:1417:A:OP1	86:2:2070:OHX:N5	2.42	0.53
36:1:2561:A:HO2'	36:1:2562:A:H8	1.57	0.53
36:1:1176:C:H2'	36:1:1177:G:N2	2.23	0.53
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.44	0.53
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.66	0.53
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.36	0.53
24:D2:15:ASN:ND2	24:D2:71:LYS:HG3	3.09	0.53
36:5:1577:G:H2'	36:5:1578:C:C6	2.43	0.53
36:1:655:C:H2'	36:1:656:A:C8	2.44	0.53
27:D5:89:ILE:HB	27:D5:101:TYR:CD1	2.44	0.53
47:M0:210:ILE:HG12	47:M0:217:PHE:CE2	2.89	0.53
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.36	0.53
36:1:2209:U:H2'	36:1:2209:U:OP2	2.09	0.53
74:O8:70:PRO:HB2	74:O8:73:LEU:HB2	1.90	0.53
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.76	0.53
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.89	0.53
44:L7:239:LEU:O	44:L7:242:SER:OG	2.21	0.53
8:S6:122:GLU:O	8:S6:124:LEU:N	2.69	0.53
36:1:817:A:H8	73:O7:15:SER:HG	1.56	0.53
48:M1:164:LYS:HE3	48:M1:171:VAL:HB	1.89	0.53
36:1:373:A:N6	36:1:396:A:H62	2.07	0.53
36:1:330:G:OP2	86:1:4048:OHX:N2	2.41	0.53
1:2:1789:G:OP2	16:C4:132:ARG:NH2	2.38	0.53
36:1:534:U:O3'	56:N0:146:LYS:HD3	2.09	0.53
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.68	0.53
36:1:2405:C:O2	36:1:2819:A:N1	2.42	0.53
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.41	0.53
1:2:990:C:H2'	1:2:991:G:O4'	2.09	0.53
47:M0:174:THR:HG23	47:M0:176:LEU:HD12	1.91	0.53
36:1:1481:A:H2'	36:1:1481:A:N3	2.23	0.53
67:O1:51:LEU:HD23	67:O1:93:VAL:HB	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:513:U:H2'	1:2:514:G:C8	2.44	0.53
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.90	0.53
63:N7:85:TYR:HE2	63:N7:129:TRP:CE2	3.12	0.53
26:D4:44:LEU:HA	26:D4:47:VAL:HG13	4.60	0.53
63:N7:46:ILE:HD11	63:N7:49:TYR:CA	2.39	0.53
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.31	0.53
36:1:789:A:H2'	36:1:790:U:C6	2.44	0.53
46:L9:7:GLU:HB3	46:L9:56:ALA:HB2	1.91	0.53
47:M0:177:ASP:N	47:M0:177:ASP:OD2	3.10	0.53
36:5:1024:G:N7	36:5:1027:A:N6	2.56	0.53
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	4.38	0.53
38:8:104:A:H3'	38:8:105:A:H5''	1.89	0.53
36:5:1915:A:H2'	36:5:1916:U:C6	2.43	0.53
73:O7:19:CYS:O	73:O7:23:GLY:N	2.35	0.53
36:5:415:G:OP2	86:5:4218:OHX:N4	2.41	0.53
36:5:677:A:H4'	36:5:678:G:O5'	2.08	0.53
36:1:3143:C:O2'	86:1:3906:OHX:N2	2.41	0.53
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	3.44	0.53
36:5:434:U:H2'	36:5:435:C:C6	2.44	0.53
40:L3:174:LYS:N	36:5:3314:A:OP1	203.86	0.53
36:5:3113:A:OP2	86:5:4007:OHX:N4	2.42	0.53
36:1:812:G:N7	86:1:3989:OHX:N1	2.55	0.53
36:1:1282:G:C6	36:1:1283:C:C4	2.96	0.53
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.44	0.53
1:2:36:C:H2'	1:2:37:U:O4'	2.08	0.53
1:2:38:C:H2'	1:2:39:A:H5'	1.91	0.53
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.09	0.52
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	1.90	0.52
4:S2:53:ILE:CD1	4:S2:53:ILE:H	3.57	0.52
21:C9:30:VAL:HG12	21:C9:54:PHE:CD2	2.44	0.52
43:L6:52:VAL:HG12	43:L6:65:ILE:HD12	5.20	0.52
3:S1:41:ARG:O	3:S1:43:VAL:HG23	2.08	0.52
10:S8:97:THR:OG1	10:S8:98:LYS:O	3.30	0.52
38:4:151:C:C4	61:N5:24:LEU:HD11	2.44	0.52
1:6:492:A:H2'	1:6:493:U:H5''	1.91	0.52
5:S3:74:GLN:NE2	5:S3:82:GLY:H	6.33	0.52
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.52	0.52
54:M8:133:LYS:N	54:M8:135:GLN:OE1	2.38	0.52
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	2.44	0.52
48:M1:91:LEU:HD22	48:M1:95:ASN:HD22	1.74	0.52
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:59:ARG:NH1	49:M3:66:ASN:O	2.99	0.52
44:L7:196:LYS:HE2	36:5:1100:U:OP2	245.88	0.52
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.30	0.52
86:5:4051:OHX:N5	86:5:4196:OHX:N6	2.58	0.52
1:2:383:G:N7	86:2:2129:OHX:N4	2.57	0.52
36:1:3082:C:H2'	36:1:3083:G:C8	2.44	0.52
36:5:1355:A:H1'	36:5:1356:U:OP2	2.09	0.52
36:5:1810:A:H2'	36:5:1811:G:C8	2.44	0.52
1:2:416:A:H4'	1:2:417:A:OP2	2.09	0.52
36:1:1015:U:O2'	36:1:1017:C:OP2	2.20	0.52
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.46	0.52
49:M3:79:GLU:OE1	49:M3:101:ARG:NH2	2.38	0.52
49:M3:91:ARG:HH12	49:M3:97:VAL:HB	1.73	0.52
1:6:189:C:O2'	1:6:190:C:H5'	2.09	0.52
28:D6:32:LYS:NZ	1:6:932:U:O2	311.61	0.52
36:5:1024:G:N2	36:5:1026:A:OP2	2.42	0.52
49:M3:57:VAL:HG13	49:M3:147:ILE:HG23	2.06	0.52
41:L4:11:LEU:HD13	41:L4:159:ILE:HD11	1.90	0.52
1:6:879:G:H1	1:6:949:C:H42	1.56	0.52
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.41	0.52
86:1:3977:OHX:N3	86:1:4162:OHX:N4	2.57	0.52
36:1:1482:A:H4'	36:1:1483:G:OP2	2.09	0.52
69:O3:59:VAL:O	69:O3:61:GLY:N	3.16	0.52
46:L9:88:TYR:CE1	46:L9:184:LYS:HG2	2.44	0.52
1:2:843:U:H2'	1:2:844:A:C8	2.44	0.52
54:M8:85:GLY:O	54:M8:104:LEU:HB2	2.67	0.52
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	2.09	0.52
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.32	0.52
35:SM:52:PRO:O	35:SM:54:PRO:HD3	4.78	0.52
1:6:38:C:H2'	1:6:39:A:H5'	1.91	0.52
35:SM:64:LYS:O	35:SM:66:ALA:N	2.82	0.52
1:6:914:G:H5'	1:6:914:G:C8	2.44	0.52
36:1:2960:C:OP1	86:1:4007:OHX:N4	2.42	0.52
17:C5:43:ARG:NH1	1:6:1553:G:N7	401.01	0.52
55:M9:38:ARG:NH2	36:5:1603:A:OP1	111.91	0.52
51:M5:102:ALA:O	51:M5:106:VAL:HG13	2.18	0.52
1:2:594:A:OP2	11:S9:38:ASN:ND2	2.42	0.52
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.09	0.52
57:N1:79:MET:HB3	57:N1:84:TYR:CD2	2.44	0.52
36:1:1075:A:C5	65:N9:45:HIS:CD2	2.98	0.52
7:S5:99:MET:HA	7:S5:104:ASN:ND2	2.54	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:6:2059:OHX:N1	86:6:2147:OHX:N3	2.58	0.52
3:S1:113:MET:HE2	3:S1:142:PHE:CE2	5.77	0.52
11:S9:3:ARG:H	11:S9:3:ARG:NH2	2.06	0.52
1:2:792:U:C2'	1:2:793:A:H5'	2.39	0.52
36:1:1240:A:H61	36:1:1244:A:C5'	2.23	0.52
36:1:2403:G:H21	36:1:2404:A:N6	2.07	0.52
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	2.68	0.52
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.74	0.52
1:2:796:A:OP2	86:2:2056:OHX:N6	2.42	0.52
86:5:4051:OHX:N1	86:5:4196:OHX:N2	2.57	0.52
36:1:1951:C:H5'	36:1:1952:G:OP1	2.09	0.52
1:6:1681:A:H2	1:6:1720:G:H21	1.55	0.52
1:6:1413:U:H4'	1:6:1414:U:OP2	2.09	0.52
5:S3:194:LYS:O	5:S3:196:ARG:N	2.66	0.52
36:5:1566:A:H2'	36:5:1567:U:H5'	1.91	0.52
27:D5:40:VAL:C	27:D5:75:LEU:HD11	2.29	0.52
34:SR:252:LEU:N	34:SR:263:PHE:O	2.55	0.52
36:5:1479:U:C3'	36:5:1480:G:H5'	2.38	0.52
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.43	0.52
3:S1:42:ASN:N	3:S1:42:ASN:OD1	2.42	0.52
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.29	0.52
36:5:3275:U:H4'	36:5:3276:G:OP2	2.09	0.52
9:S7:139:ARG:HB2	9:S7:151:LYS:HB2	1.92	0.52
39:L2:193:ARG:NH2	36:5:2181:C:H5''	195.76	0.52
76:Q0:77:ILE:O	76:Q0:78:ILE:HB	2.09	0.52
1:2:186:C:H3'	1:2:187:G:H8	1.74	0.52
10:S8:142:LYS:NZ	1:6:187:G:OP2	272.07	0.52
1:6:542:A:H1'	1:6:543:C:OP1	2.10	0.52
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.09	0.52
36:1:675:C:O2'	36:1:679:U:OP1	2.24	0.52
34:SR:89:LEU:O	34:SR:103:PHE:HD2	1.91	0.52
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.25	0.52
36:5:1070:U:C4	36:5:1071:U:C4	2.98	0.52
63:N7:101:PHE:HA	63:N7:107:ARG:HD2	1.91	0.52
8:S6:131:LYS:O	60:N4:83:THR:N	2.42	0.52
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.24	0.52
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.89	0.52
24:D2:118:ARG:NH1	1:6:686:C:O3'	399.80	0.52
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.32	0.52
36:5:3353:G:O2'	36:5:3356:G:OP2	2.26	0.52
2:S0:168:HIS:HA	2:S0:203:PHE:CE2	3.54	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1916:U:H2'	36:1:1917:C:C6	2.43	0.52
48:M1:91:LEU:HD12	48:M1:163:PHE:CZ	2.44	0.52
1:6:1491:U:H4'	1:6:1492:A:C5'	2.39	0.52
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.09	0.52
1:6:986:G:OP2	86:6:2119:OHX:N2	2.42	0.52
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.24	0.52
21:C9:86:ARG:HG3	21:C9:90:PRO:O	2.39	0.52
8:S6:48:TYR:CE2	8:S6:121:LEU:HD22	4.50	0.52
18:C6:109:PHE:O	18:C6:113:ASP:N	2.60	0.52
36:1:1826:C:H2'	36:1:1827:C:H6	1.75	0.52
75:O9:41:ARG:HG3	75:O9:42:ARG:H	1.75	0.52
3:S1:103:MET:HB3	3:S1:215:VAL:HG12	2.42	0.52
36:1:2093:A:H3'	36:1:2093:A:N3	2.24	0.52
5:S3:125:TYR:O	5:S3:129:SER:OG	2.36	0.52
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.13	0.52
1:2:1742:U:OP1	25:D3:39:LYS:HD3	2.10	0.52
10:S8:10:LYS:HG2	13:C1:133:LYS:CE	3.58	0.52
10:S8:10:LYS:HG3	1:6:323:A:OP2	286.65	0.52
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.09	0.52
9:S7:107:ARG:HH22	1:6:741:C:H2'	345.02	0.52
11:S9:34:PHE:HE1	11:S9:106:GLU:HA	2.39	0.52
24:D2:67:GLY:O	24:D2:68:ARG:HG3	4.49	0.52
1:2:1428:G:H5'	1:2:1428:G:C8	2.39	0.52
1:2:543:C:O2	1:2:543:C:H5''	2.08	0.52
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.92	0.52
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.09	0.52
36:1:1245:A:C3'	36:1:1246:G:H5''	2.39	0.52
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.25	0.52
15:C3:150:VAL:HG12	15:C3:151:ASN:OD1	2.09	0.52
36:1:2209:U:C6	36:1:2209:U:OP2	2.61	0.52
36:5:2386:A:OP1	86:5:4016:OHX:N1	2.42	0.52
16:C4:84:ARG:HG2	16:C4:85:ALA:O	2.36	0.52
36:1:3092:C:O2'	36:1:3094:A:OP2	2.21	0.52
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.20	0.52
36:1:2294:U:OP1	59:N3:70:ARG:NH2	2.42	0.52
36:1:1389:G:OP2	86:1:3977:OHX:N4	2.42	0.52
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.51	0.52
34:SR:205:SER:OG	34:SR:207:ASP:OD1	2.25	0.52
15:C3:4:MET:HG3	15:C3:5:HIS:N	2.24	0.52
1:6:1405:G:H2'	1:6:1406:A:H8	1.75	0.52
36:5:2726:C:O2'	36:5:2727:A:H2'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:96:LYS:O	64:N8:98:THR:N	2.39	0.52
63:N7:16:GLY:O	63:N7:18:TYR:N	3.00	0.52
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.25	0.52
6:S4:45:ILE:HG13	6:S4:61:VAL:HG21	3.81	0.52
36:1:1621:A:H2'	36:1:1622:U:C6	2.44	0.52
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.39	0.52
10:S8:76:THR:HB	10:S8:105:ASP:HB2	1.91	0.52
51:M5:14:LYS:HE2	36:5:269:G:H5''	132.44	0.52
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.40	0.52
1:2:1565:C:H2'	1:2:1566:U:O4'	2.08	0.52
5:S3:117:ARG:HH21	35:SM:126:ASP:CB	5.12	0.52
79:Q3:36:ARG:HH22	36:5:1725:C:H5''	230.35	0.52
46:L9:114:VAL:HB	46:L9:124:ARG:HB2	2.74	0.52
66:O0:30:THR:O	66:O0:33:SER:OG	2.21	0.52
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	2.85	0.52
31:D9:6:VAL:O	31:D9:8:PHE:N	4.22	0.52
26:D4:14:SER:HA	26:D4:21:LYS:HG3	1.91	0.52
73:O7:11:ARG:HB3	36:5:817:A:N3	142.63	0.52
1:2:1597:A:OP1	31:D9:19:ARG:NH2	2.42	0.52
44:L7:214:TRP:CE2	44:L7:219:LYS:HD3	4.01	0.52
46:L9:151:VAL:O	46:L9:155:SER:OG	2.22	0.52
56:N0:115:ARG:NH1	36:5:1296:C:H5'	291.43	0.52
40:L3:292:ALA:HA	40:L3:303:LYS:O	2.09	0.52
48:M1:8:PRO:HG2	48:M1:9:MET:HG3	1.91	0.52
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.73	0.52
35:SM:88:ARG:HD2	35:SM:89:ARG:N	2.25	0.52
38:4:10:A:H2'	38:4:11:C:C6	2.45	0.52
15:C3:73:ARG:HD3	1:6:859:A:C5	330.88	0.52
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	2.45	0.52
1:2:1119:G:O6	86:2:2147:OHX:N1	2.42	0.52
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.44	0.52
36:5:2767:U:H2'	36:5:2768:U:C6	2.45	0.52
1:6:355:G:OP1	86:6:2066:OHX:N5	2.42	0.52
42:L5:197:SER:OG	42:L5:202:GLY:HA3	2.08	0.52
1:2:1158:C:OP2	86:2:2172:OHX:N5	2.43	0.52
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.44	0.52
36:1:1108:U:H2'	36:1:1109:U:C6	2.45	0.52
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	5.03	0.52
86:5:3976:OHX:N6	86:5:4195:OHX:N5	2.58	0.52
40:L3:305:ILE:HG12	40:L3:321:PHE:CE2	2.44	0.52
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1480:G:H3'	1:2:1481:C:C6	2.45	0.52
63:N7:135:ARG:NH1	36:5:1807:G:H5'	194.65	0.52
63:N7:136:PHE:N	63:N7:136:PHE:CD1	2.77	0.52
70:O4:88:ARG:NH1	36:5:2556:C:OP1	199.86	0.52
41:L4:93:MET:CE	41:L4:93:MET:H	3.06	0.52
36:1:2505:U:H2'	36:1:2506:U:C6	2.44	0.52
1:6:138:A:H2'	1:6:139:C:H5'	1.92	0.52
42:L5:211:LEU:HD22	42:L5:215:ASP:HB3	2.28	0.52
7:S5:57:SER:C	7:S5:59:VAL:H	2.53	0.52
63:N7:10:VAL:HB	63:N7:83:THR:HG21	1.91	0.52
1:6:783:G:H2'	1:6:784:C:C6	2.44	0.52
68:O2:27:ARG:HB3	36:5:655:C:OP1	162.14	0.52
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	4.67	0.52
19:C7:10:LYS:HD3	19:C7:53:TYR:CZ	3.41	0.52
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.75	0.52
1:2:482:U:H2'	1:2:483:A:C8	2.44	0.52
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	4.65	0.52
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.24	0.52
36:5:252:U:H4'	36:5:253:A:C5'	2.39	0.52
36:1:2528:G:N7	86:1:4189:OHX:N3	2.57	0.52
59:N3:15:LEU:HD13	59:N3:51:ALA:O	2.09	0.52
49:M3:34:SER:HA	49:M3:37:ASN:HB2	1.92	0.52
51:M5:167:THR:O	51:M5:170:LYS:HB3	2.79	0.52
1:2:1572:G:H1'	7:S5:185:ARG:HH12	1.74	0.52
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.56	0.52
36:5:2256:A:OP2	36:5:2256:A:H2'	2.10	0.52
34:SR:276:PRO:HB2	34:SR:278:PHE:CE1	4.45	0.52
78:Q2:17:CYS:CB	78:Q2:77:CYS:SG	3.32	0.52
40:L3:81:THR:CG2	40:L3:205:VAL:HG21	2.31	0.52
57:N1:84:TYR:CG	65:N9:24:PRO:HG3	2.45	0.52
71:O5:89:ARG:HH11	71:O5:89:ARG:HG2	1.74	0.52
36:5:1438:U:H2'	36:5:1439:U:C6	2.44	0.52
2:S0:163:ASN:ND2	2:S0:165:ARG:HG3	2.25	0.52
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	2.31	0.52
7:S5:57:SER:HB2	30:D8:53:ILE:HB	2.58	0.52
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.45	0.52
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.35	0.52
49:M3:27:ASP:OD1	49:M3:31:LYS:HE2	2.08	0.52
34:SR:26:SER:OG	34:SR:75:ALA:O	2.28	0.52
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.09	0.52
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.81	0.52
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.73	0.52
6:S4:87:MET:O	6:S4:122:LYS:HE3	2.09	0.52
1:2:647:G:N2	1:2:687:G:H1	2.08	0.52
15:C3:48:SER:O	15:C3:52:VAL:HG23	3.64	0.52
3:S1:116:LYS:HB3	3:S1:117:TRP:CD1	4.94	0.52
21:C9:14:PHE:HZ	21:C9:132:LEU:HB3	3.04	0.52
36:5:3255:U:H2'	36:5:3256:G:C8	2.44	0.52
36:1:3055:U:H1'	36:1:3057:U:OP2	2.10	0.52
36:5:1450:G:OP1	86:5:4226:OHX:N4	2.43	0.52
68:O2:60:ASN:HD22	36:5:1338:C:H4'	200.92	0.52
36:5:1895:A:O2'	36:5:3053:G:H4'	2.09	0.52
36:5:3010:U:OP2	86:5:4243:OHX:N4	2.43	0.52
45:L8:93:LEU:HD21	45:L8:211:LEU:HD23	4.62	0.52
36:1:1509:A:H2'	36:1:1510:G:C8	2.45	0.52
53:M7:24:VAL:HG12	53:M7:86:LYS:HD3	3.06	0.52
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.10	0.52
36:5:371:G:O6	86:5:4202:OHX:N5	2.43	0.52
64:N8:70:LYS:HE2	64:N8:129:PHE:CD2	2.45	0.52
1:6:58:U:O2'	1:6:451:A:N3	2.35	0.52
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.96	0.52
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.09	0.52
73:O7:76:ASN:O	73:O7:79:GLN:HG3	3.90	0.52
29:D7:58:SER:O	29:D7:60:SER:N	3.98	0.52
44:L7:39:GLU:O	44:L7:42:ALA:HB3	2.10	0.52
1:6:1640:C:H1'	1:6:1763:A:N1	2.25	0.52
36:1:1744:G:O6	86:1:4099:OHX:N2	2.43	0.52
46:L9:89:LYS:HD3	46:L9:183:HIS:HB3	1.92	0.52
18:C6:114:ARG:O	18:C6:115:THR:OG1	2.25	0.52
1:6:1255:G:H4'	1:6:1256:A:OP1	2.09	0.52
36:1:1071:U:O2'	36:1:1072:G:OP2	2.22	0.52
36:5:2946:A:H5''	36:5:2947:G:H5'	1.92	0.52
16:C4:133:ARG:HB3	16:C4:136:ARG:HH21	3.94	0.52
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.10	0.52
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.37	0.52
26:D4:76:TYR:OH	26:D4:86:GLU:OE2	2.95	0.52
36:1:1658:G:H2'	36:1:1659:U:C6	2.45	0.52
36:5:1018:G:C2	36:5:1019:G:H1'	2.45	0.52
36:5:2510:U:O2'	36:5:2511:A:H5''	2.08	0.52
34:SR:81:LEU:HG	34:SR:91:LEU:HD13	1.92	0.52
76:Q0:113:ARG:HA	76:Q0:117:HIS:CE1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1133:A:H2'	1:6:1134:C:O4'	2.10	0.52
11:S9:8:TYR:O	86:6:2178:OHX:N4	383.57	0.52
36:1:698:U:H2'	36:1:699:A:O4'	2.10	0.52
37:7:91:G:H2'	37:7:92:A:C8	2.45	0.52
36:5:1081:U:O2'	36:5:1082:U:O5'	2.26	0.52
4:S2:44:LEU:HD21	4:S2:247:ALA:HB2	2.11	0.52
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.44	0.52
36:5:2407:C:H2'	36:5:2408:U:C6	2.44	0.52
36:5:1936:A:H2'	36:5:1937:U:O4'	2.10	0.52
2:S0:146:LEU:HB3	2:S0:162:CYS:SG	3.12	0.52
36:5:1214:U:H2'	36:5:1215:U:C6	2.45	0.52
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.91	0.52
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.09	0.52
36:5:123:A:H5'	36:5:124:U:OP2	2.10	0.52
39:L2:188:LYS:HE2	39:L2:189:TYR:CZ	2.91	0.52
3:S1:26:ARG:HD2	3:S1:49:ASN:OD1	2.58	0.52
10:S8:114:GLU:HG2	10:S8:120:THR:HA	1.92	0.52
1:2:542:A:C8	1:2:543:C:H5'	2.40	0.52
42:L5:58:LYS:HG3	42:L5:93:THR:HG21	1.92	0.52
7:S5:222:LYS:HE3	7:S5:225:ARG:NH1	2.24	0.52
5:S3:135:GLU:HB3	5:S3:187:LYS:HB3	3.41	0.52
47:M0:88:ARG:HG2	47:M0:90:ARG:HG2	3.00	0.52
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	1.92	0.52
36:5:1556:C:C5'	36:5:2169:G:H22	2.23	0.52
36:1:1794:G:O2'	36:1:1795:U:H5'	2.10	0.52
36:1:58:G:OP1	51:M5:157:LYS:NZ	2.37	0.52
36:5:2950:G:C5	36:5:2979:U:C4	2.98	0.52
36:1:978:G:O2'	36:1:979:U:O2	2.17	0.52
16:C4:92:LYS:HD3	28:D6:69:ASN:HD21	1.74	0.52
36:5:279:U:H2'	36:5:280:U:C6	2.45	0.52
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.10	0.52
15:C3:47:PRO:HA	15:C3:50:ILE:HD12	1.90	0.52
25:D3:112:LYS:NZ	1:6:19:A:OP1	346.32	0.52
36:1:317:A:C2	36:1:318:A:C4	2.97	0.52
1:6:291:G:H2'	1:6:292:U:C6	2.45	0.52
14:C2:97:LEU:HB3	14:C2:118:ALA:HB3	3.35	0.52
7:S5:105:GLY:O	1:6:1609:U:O2'	375.95	0.52
1:2:412:A:H2'	1:2:413:U:H6	1.75	0.52
1:2:354:C:OP1	10:S8:14:THR:OG1	2.18	0.52
36:1:3035:A:OP2	86:1:4079:OHX:N4	2.43	0.52
36:5:2434:U:H4'	36:5:2435:G:H5''	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:66:VAL:HG21	51:M5:98:LEU:HB3	2.28	0.51
36:5:2258:U:H2'	36:5:2259:A:O4'	2.09	0.51
36:5:2971:A:H5''	36:5:2972:G:C5'	2.40	0.51
11:S9:133:HIS:O	11:S9:134:ILE:HD13	2.10	0.51
41:L4:16:THR:HG23	41:L4:18:ASN:N	3.76	0.51
39:L2:83:HIS:HB3	79:Q3:64:VAL:CG1	2.40	0.51
36:1:655:C:H2'	36:1:656:A:H8	1.75	0.51
3:S1:181:LEU:H	3:S1:181:LEU:HD22	1.75	0.51
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.44	0.51
36:1:653:A:C2	36:1:1443:G:C4	2.98	0.51
53:M7:127:ARG:HB3	53:M7:139:TYR:O	2.09	0.51
72:O6:95:ALA:O	72:O6:99:ARG:HB3	2.10	0.51
57:N1:102:ARG:NH2	36:5:1061:A:O3'	237.67	0.51
6:S4:121:TYR:CD2	6:S4:161:LYS:HE3	2.45	0.51
6:S4:147:ILE:HG21	6:S4:169:ILE:HG13	1.92	0.51
36:1:1796:G:H5''	36:1:1797:A:OP1	2.10	0.51
6:S4:256:ARG:NH1	11:S9:78:ARG:HH21	2.08	0.51
86:2:2043:OHX:N4	86:2:2098:OHX:N6	2.59	0.51
36:5:22:G:H1'	38:8:104:A:N3	2.25	0.51
39:L2:112:ILE:HD12	79:Q3:79:VAL:HG13	1.91	0.51
40:L3:172:ALA:O	40:L3:174:LYS:N	2.43	0.51
36:5:1796:G:H5''	36:5:1797:A:OP1	2.10	0.51
1:2:108:A:H2'	1:2:109:G:C8	2.45	0.51
38:4:37:A:H5''	38:4:39:G:O4'	2.10	0.51
42:L5:258:LYS:O	42:L5:258:LYS:HG2	4.62	0.51
1:6:909:U:H2'	1:6:910:C:C6	2.45	0.51
40:L3:107:ALA:HA	40:L3:199:PHE:CD2	2.50	0.51
11:S9:90:LYS:HG3	11:S9:95:TYR:CE2	2.45	0.51
40:L3:73:VAL:HG13	59:N3:90:GLY:HA3	1.91	0.51
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.92	0.51
36:1:3217:C:O2	36:1:3217:C:H2'	2.10	0.51
36:5:3259:U:H5'	36:5:3259:U:H6	1.73	0.51
38:4:143:U:H2'	38:4:144:G:O4'	2.09	0.51
49:M3:128:ARG:HG3	71:O5:114:ARG:NH2	3.81	0.51
36:1:2836:C:H5	36:1:2852:C:N4	1.96	0.51
1:2:1460:A:OP2	35:SM:68:ARG:HD3	2.10	0.51
55:M9:127:SER:O	55:M9:130:ASN:N	3.68	0.51
67:O1:46:THR:O	67:O1:47:ASP:HB3	4.84	0.51
47:M0:16:PRO:HG3	47:M0:128:ARG:HH11	3.64	0.51
1:6:190:C:O2'	1:6:191:C:O5'	2.29	0.51
40:L3:49:TYR:C	40:L3:79:VAL:HG23	4.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:331:A:H5'	10:S8:33:PRO:HA	1.92	0.51
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.10	0.51
5:S3:134:CYS:N	5:S3:157:LEU:HD11	2.25	0.51
48:M1:137:ARG:HD3	37:7:28:C:OP1	303.55	0.51
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.10	0.51
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.10	0.51
56:N0:1:MET:HE3	56:N0:32:SER:HB3	1.91	0.51
1:2:1761:U:O2'	1:2:1762:A:OP2	2.21	0.51
38:4:78:G:H2'	38:4:79:A:C8	2.45	0.51
5:S3:79:TYR:CE2	5:S3:84:ILE:HG13	4.90	0.51
65:N9:38:LYS:NZ	36:5:1076:C:O3'	217.34	0.51
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.51	0.51
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.40	0.51
36:1:3152:U:O2'	36:1:3153:U:H5'	2.10	0.51
56:N0:16:THR:OG1	56:N0:19:VAL:N	2.41	0.51
36:1:3365:U:H2'	36:1:3366:G:C8	2.45	0.51
36:5:1131:G:C4	36:5:2373:A:C2	2.98	0.51
40:L3:334:ARG:NH2	36:5:3304:U:O3'	212.77	0.51
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.07	0.51
36:5:2112:U:H4'	36:5:2113:A:H5'	1.92	0.51
3:S1:146:GLN:O	3:S1:148:ASN:N	2.36	0.51
36:1:1496:C:C2	36:1:1521:G:N2	2.78	0.51
36:1:1645:U:H2'	36:1:1646:G:H5'	1.92	0.51
1:2:1175:U:H2'	1:2:1176:G:C8	2.44	0.51
1:6:425:A:H8	1:6:425:A:H5'	1.75	0.51
40:L3:159:ARG:HD2	40:L3:180:GLU:OE1	2.57	0.51
9:S7:77:LEU:O	9:S7:81:LEU:HG	2.27	0.51
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.37	0.51
1:2:1559:A:C6	20:C8:134:ARG:HD2	2.45	0.51
11:S9:143:ILE:HG12	1:6:768:C:C2	417.14	0.51
11:S9:171:ARG:HA	11:S9:171:ARG:HE	3.00	0.51
5:S3:105:MET:O	5:S3:109:LEU:HB2	3.28	0.51
22:D0:70:THR:HB	22:D0:72:ASN:O	4.47	0.51
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	2.55	0.51
54:M8:86:THR:HG22	54:M8:105:ARG:HD2	1.93	0.51
40:L3:347:SER:HB2	40:L3:350:ALA:CB	3.13	0.51
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.28	0.51
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.76	0.51
2:S0:122:ILE:HB	2:S0:174:TRP:HH2	1.75	0.51
36:5:541:U:O4	86:5:4010:OHX:N3	2.43	0.51
49:M3:157:ARG:HH11	64:N8:124:ILE:HG21	3.52	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.91	0.51
36:1:1456:A:N1	36:1:1476:G:O2'	2.39	0.51
6:S4:212:ASP:OD2	6:S4:216:ASN:HB2	2.10	0.51
42:L5:140:ARG:HH21	36:5:1080:A:P	228.10	0.51
7:S5:34:GLN:O	7:S5:38:THR:OG1	2.27	0.51
37:3:112:G:OP2	86:3:219:OHX:N1	2.43	0.51
70:O4:99:LYS:HB3	70:O4:103:LYS:HZ1	1.74	0.51
2:S0:195:TRP:CZ2	2:S0:197:ILE:HD12	2.74	0.51
71:O5:119:LYS:NZ	71:O5:119:LYS:HA	4.87	0.51
1:6:848:C:H2'	1:6:849:C:C6	2.45	0.51
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	2.38	0.51
36:1:1686:U:O2	36:1:1688:U:H1'	2.11	0.51
49:M3:159:VAL:HB	64:N8:96:LYS:HG2	1.93	0.51
1:6:1171:A:H2'	1:6:1172:G:C8	2.44	0.51
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.10	0.51
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.41	0.51
1:2:1317:C:H2'	1:2:1318:G:O4'	2.10	0.51
36:5:34:A:H2'	36:5:35:A:C8	2.46	0.51
5:S3:37:VAL:HG12	5:S3:50:ILE:HA	3.97	0.51
36:1:2652:U:C5	36:1:2653:C:C5	2.98	0.51
1:2:245:U:O4	86:2:2092:OHX:N5	2.43	0.51
69:O3:15:SER:HB3	69:O3:29:LEU:HD12	1.93	0.51
36:1:3228:C:H4'	36:1:3229:G:O5'	2.11	0.51
44:L7:27:ALA:O	44:L7:30:ARG:HB3	2.11	0.51
5:S3:76:ARG:O	5:S3:76:ARG:NH1	3.35	0.51
62:N6:16:ARG:NH1	36:5:216:G:OP1	84.19	0.51
44:L7:77:VAL:CG2	57:N1:139:ARG:HG2	2.40	0.51
1:2:1283:U:OP1	86:2:2114:OHX:N2	2.44	0.51
7:S5:42:LEU:HD11	7:S5:45:LYS:HD3	1.92	0.51
86:5:3976:OHX:N2	86:5:4195:OHX:N1	2.57	0.51
36:1:1833:G:OP1	75:O9:10:LYS:HD3	2.11	0.51
86:1:4038:OHX:N4	86:1:4050:OHX:N3	2.58	0.51
61:N5:46:TYR:OH	71:O5:78:LYS:HE3	2.47	0.51
1:6:1097:U:H4'	1:6:1098:U:H5'	1.92	0.51
50:M4:8:LYS:HE3	50:M4:10:SER:H	1.75	0.51
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.93	0.51
76:Q0:78:ILE:HG23	76:Q0:83:LYS:HD3	1.93	0.51
1:2:542:A:C2	32:E0:28:LYS:HD3	2.45	0.51
1:2:1488:G:H5'	1:2:1489:U:OP1	2.10	0.51
1:6:919:A:H2'	1:6:920:U:C6	2.45	0.51
20:C8:83:ALA:HA	20:C8:86:LEU:HD23	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:205:SER:OG	7:S5:205:SER:O	2.34	0.51
17:C5:122:THR:CG2	1:6:1558:U:H3	366.07	0.51
6:S4:166:SER:O	6:S4:168:LYS:HG2	5.49	0.51
36:5:1307:G:C2	36:5:1308:A:C2	2.98	0.51
40:L3:53:MET:HG2	40:L3:77:THR:HG22	2.43	0.51
42:L5:155:THR:HG22	42:L5:179:ARG:NH1	2.30	0.51
4:S2:214:ALA:O	4:S2:218:ILE:HG13	3.30	0.51
1:6:230:C:N3	1:6:235:G:N2	2.39	0.51
1:6:230:C:H42	1:6:235:G:H1	1.58	0.51
86:2:2043:OHX:N4	86:2:2098:OHX:N3	2.58	0.51
45:L8:36:ILE:HG22	45:L8:37:GLY:N	2.25	0.51
1:2:1450:U:OP2	86:2:2061:OHX:N5	2.43	0.51
53:M7:27:LYS:HG2	53:M7:63:PHE:CG	2.88	0.51
58:N2:94:ARG:NH2	36:5:1757:A:OP1	127.08	0.51
1:2:840:U:O2'	1:2:841:U:H5''	2.10	0.51
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.10	0.51
10:S8:73:SER:O	10:S8:74:LYS:HD2	2.11	0.51
25:D3:107:PHE:CE1	25:D3:123:LYS:HB3	2.46	0.51
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.10	0.51
36:1:2369:G:H2'	36:1:2370:G:O4'	2.10	0.51
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.09	0.51
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.41	0.51
36:1:1481:A:N1	70:O4:2:ALA:HA	2.25	0.51
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.50	0.51
38:8:47:C:H1'	38:8:61:A:H2'	1.92	0.51
54:M8:178:ARG:HG2	64:N8:51:GLY:HA3	2.56	0.51
19:C7:104:ASN:O	19:C7:106:THR:N	3.81	0.51
42:L5:68:THR:HG22	42:L5:70:THR:N	2.22	0.51
36:1:1234:G:N2	36:1:1254:C:N3	2.51	0.51
36:1:2273:G:O2'	36:1:2274:U:P	2.68	0.51
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.10	0.51
18:C6:95:LYS:NZ	18:C6:96:TYR:OH	3.19	0.51
36:5:1772:U:H5''	36:5:1773:C:H5'	1.92	0.51
1:2:1241:G:H1'	17:C5:79:HIS:CG	2.45	0.51
25:D3:10:ASN:O	25:D3:12:ALA:N	2.44	0.51
36:1:1633:C:H2'	36:1:1634:G:H8	1.75	0.51
1:2:505:A:N3	1:2:505:A:H2'	2.25	0.51
36:1:409:A:OP2	86:1:4061:OHX:N5	2.43	0.51
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.31	0.51
37:7:2:G:O2'	37:7:23:A:N1	2.32	0.51
5:S3:212:LYS:HB2	5:S3:212:LYS:NZ	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:99:ALA:HB1	64:N8:122:PRO:O	2.59	0.51
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.40	0.51
1:2:1595:U:N3	1:2:1600:A:H2	2.08	0.51
48:M1:10:ARG:HB3	48:M1:152:HIS:CE1	3.78	0.51
58:N2:32:SER:HB3	58:N2:83:TYR:OH	4.05	0.51
1:2:25:C:HO2'	1:2:366:A:HO2'	1.57	0.51
48:M1:166:LYS:C	48:M1:168:ASP:H	2.89	0.51
36:5:1481:A:O4'	36:5:1481:A:OP1	2.28	0.51
61:N5:80:ASN:ND2	61:N5:80:ASN:O	2.43	0.51
86:1:3977:OHX:N6	86:1:4162:OHX:N4	2.59	0.51
1:6:339:C:H2'	1:6:340:U:H6	1.75	0.51
68:O2:101:SER:OG	68:O2:103:LYS:HG3	3.06	0.51
35:SM:44:PRO:HA	36:1:2678:A:C4	2.45	0.51
36:1:2567:C:C2'	36:1:2568:C:H5'	2.40	0.51
1:6:91:G:H2'	1:6:92:A:C8	2.46	0.51
36:1:2765:C:OP1	64:N8:55:LYS:NZ	2.43	0.51
36:5:1631:C:H5''	36:5:1632:A:H5'	1.91	0.51
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.54	0.51
27:D5:104:ALA:O	27:D5:105:THR:OG1	4.19	0.51
36:5:374:A:N3	36:5:376:G:H5''	2.25	0.51
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.43	0.51
36:5:2771:U:H2'	36:5:2772:C:C6	2.46	0.51
8:S6:164:LYS:O	8:S6:166:GLU:N	2.39	0.51
6:S4:193:GLY:O	6:S4:210:ILE:HG22	2.09	0.51
42:L5:204:VAL:O	42:L5:208:MET:HG3	2.11	0.51
36:1:272:G:OP2	86:1:4036:OHX:N3	2.43	0.51
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	3.19	0.51
51:M5:90:ASN:ND2	36:5:2425:G:OP2	167.72	0.51
34:SR:178:VAL:HG13	34:SR:202:LEU:HD12	1.93	0.51
36:1:911:C:N4	39:L2:3:ARG:HD3	2.26	0.51
22:D0:20:ILE:HD13	22:D0:22:ILE:HB	1.92	0.51
58:N2:98:THR:HG21	58:N2:104:ARG:HE	5.22	0.51
9:S7:41:LEU:HB3	9:S7:70:PHE:CE2	4.18	0.51
1:6:539:G:O2'	1:6:540:G:OP2	2.27	0.51
2:S0:35:PRO:C	2:S0:37:VAL:H	2.14	0.51
33:E1:144:CYS:HB3	33:E1:147:VAL:HG22	1.92	0.51
48:M1:112:LEU:HD21	48:M1:127:PHE:HZ	4.21	0.51
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.42	0.51
36:1:2278:C:OP1	77:Q1:23:ARG:NH1	2.37	0.51
17:C5:122:THR:HG22	1:6:1558:U:H3	366.36	0.51
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.06	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:59:G:C4'	36:5:60:A:H4'	2.41	0.51
58:N2:36:TYR:CD2	58:N2:83:TYR:HB2	3.07	0.51
6:S4:3:ARG:HB3	1:6:93:A:H1'	325.78	0.51
86:5:4051:OHX:N1	86:5:4196:OHX:N4	2.59	0.51
78:Q2:63:LYS:HE2	78:Q2:87:ARG:NH2	2.86	0.51
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	2.10	0.51
36:5:2512:C:N4	36:5:2513:U:O4	2.43	0.51
13:C1:81:HIS:NE2	13:C1:82:ARG:HD2	4.32	0.51
4:S2:163:GLY:O	4:S2:164:SER:HB3	4.12	0.51
36:1:3008:A:OP2	52:M6:74:ARG:NH1	2.43	0.51
37:3:45:A:H2'	37:3:46:A:C8	2.45	0.51
28:D6:24:VAL:HG21	28:D6:71:LEU:HD12	1.92	0.51
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.11	0.51
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.46	0.51
1:6:407:A:H2'	1:6:408:C:C6	2.46	0.51
50:M4:21:VAL:HA	50:M4:66:THR:HG23	1.92	0.51
36:5:2592:G:H4'	36:5:2594:C:C2	2.46	0.51
12:C0:52:LYS:HE2	1:6:1220:C:H5'	443.95	0.51
1:2:526:A:H2'	1:2:527:A:O4'	2.11	0.51
36:5:1221:A:H4'	36:5:1222:G:OP2	2.10	0.51
36:5:316:U:H4'	36:5:317:A:H5'	1.91	0.51
44:L7:59:GLU:O	44:L7:63:ILE:HD12	2.11	0.51
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.59	0.51
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.36	0.51
18:C6:115:THR:O	18:C6:117:LEU:N	2.43	0.51
61:N5:71:THR:O	61:N5:75:LYS:HG3	2.70	0.51
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	2.22	0.51
59:N3:11:PHE:HB2	59:N3:88:ARG:NH1	2.86	0.51
4:S2:53:ILE:HB	4:S2:57:PHE:CE2	2.46	0.51
44:L7:207:LEU:O	36:5:1334:U:H5'	240.09	0.51
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	2.18	0.51
59:N3:48:ARG:HH22	36:5:3043:C:P	250.72	0.51
46:L9:70:THR:HB	36:5:3112:G:O2'	328.62	0.51
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.91	0.51
25:D3:63:GLN:HB3	25:D3:64:PRO:HA	1.91	0.51
48:M1:109:HIS:HD2	48:M1:123:PHE:H	1.58	0.51
42:L5:294:ALA:O	42:L5:296:GLN:N	2.37	0.51
44:L7:178:ILE:HG23	44:L7:183:ASP:HB3	2.27	0.51
46:L9:84:LYS:HA	46:L9:188:THR:CG2	2.76	0.51
2:S0:76:ILE:HB	2:S0:123:VAL:HG22	1.92	0.51
1:6:219:A:H2'	1:6:831:U:O2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2767:U:H2'	36:1:2768:U:H6	1.75	0.51
36:5:3269:U:O2	36:5:3271:G:N1	2.44	0.51
61:N5:92:LYS:HD2	61:N5:112:THR:HG23	1.92	0.51
58:N2:89:LEU:HB3	58:N2:93:ILE:HD12	2.23	0.51
36:1:2723:U:H2'	36:1:2724:U:C6	2.46	0.51
36:1:1204:A:H2	36:1:2834:G:N3	2.08	0.51
49:M3:15:ARG:CZ	36:5:96:G:H5'	152.28	0.51
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.11	0.51
1:6:1405:G:H2'	1:6:1406:A:C8	2.46	0.51
36:5:322:U:H5''	36:5:323:A:OP1	2.10	0.51
36:5:231:G:O6	86:5:4130:OHX:N4	2.43	0.51
1:2:387:A:H5''	1:2:389:G:OP2	2.11	0.51
16:C4:66:ASP:O	16:C4:69:ALA:N	2.85	0.51
36:1:739:G:O6	86:1:3924:OHX:N3	2.43	0.51
53:M7:179:GLN:O	53:M7:183:ALA:N	2.27	0.51
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.76	0.51
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	1.93	0.51
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.46	0.51
9:S7:158:ASP:O	9:S7:160:GLN:N	2.44	0.51
36:5:84:U:O2'	36:5:101:G:O6	2.15	0.51
9:S7:73:VAL:HG12	9:S7:76:LYS:HB2	2.89	0.51
67:O1:84:ASP:OD1	67:O1:84:ASP:N	2.44	0.51
1:2:337:G:H1'	10:S8:10:LYS:HZ1	1.75	0.51
8:S6:173:PRO:HG3	1:6:66:U:C5	333.57	0.51
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.17	0.51
6:S4:31:PRO:HB2	6:S4:38:LEU:HB2	4.37	0.51
10:S8:188:GLU:HG3	10:S8:192:TYR:HE2	1.76	0.51
11:S9:153:GLU:O	11:S9:156:ILE:HG13	2.51	0.51
44:L7:208:SER:O	44:L7:243:MET:HB3	2.10	0.51
1:2:1202:A:N3	1:2:1202:A:H3'	2.26	0.51
36:1:265:A:O3'	51:M5:5:LYS:NZ	2.44	0.51
36:1:1739:U:O2	70:O4:41:ARG:NH1	2.43	0.51
43:L6:43:LEU:HD22	69:O3:102:LEU:HB2	2.44	0.51
1:6:918:U:H2'	1:6:919:A:H8	1.76	0.51
36:1:409:A:OP2	86:1:4061:OHX:N6	2.44	0.51
36:5:3131:U:H2'	36:5:3132:C:C6	2.46	0.51
1:6:1159:C:N3	86:6:2137:OHX:N5	2.58	0.51
1:2:268:C:N4	8:S6:186:ARG:HD3	2.26	0.51
36:5:996:A:C2	36:5:1054:A:C4	2.99	0.51
1:2:1657:U:C2	86:2:2088:OHX:N1	2.79	0.51
1:2:1629:G:H2'	1:2:1630:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:130:ARG:HD3	15:C3:137:PRO:O	4.47	0.51
39:L2:20:THR:O	39:L2:23:ARG:HB2	2.11	0.51
1:6:1688:U:H2'	1:6:1689:A:C8	2.45	0.51
1:2:922:G:H2'	1:2:923:A:C8	2.46	0.51
38:4:2:A:OP2	86:4:225:OHX:N1	2.44	0.51
69:O3:73:ARG:HG3	69:O3:82:ARG:HG3	1.91	0.51
36:1:2518:C:OP1	86:1:4214:OHX:N5	2.44	0.51
1:6:1068:C:H2'	1:6:1069:A:C8	2.45	0.51
36:5:530:G:N7	86:5:3947:OHX:N3	2.59	0.51
1:6:1606:C:H2'	1:6:1607:G:C8	2.46	0.51
1:6:1424:A:H2'	1:6:1425:A:O4'	2.10	0.51
21:C9:25:GLN:HG2	21:C9:27:LYS:HD3	1.92	0.51
1:2:1406:A:OP2	7:S5:80:LYS:HE2	2.10	0.51
6:S4:23:LEU:O	6:S4:24:SER:OG	2.71	0.51
59:N3:35:TYR:CG	59:N3:63:LYS:HE2	2.46	0.51
36:1:2296:A:OP1	86:1:4153:OHX:N2	2.44	0.51
9:S7:9:LEU:HD13	9:S7:18:LEU:HD23	1.93	0.51
1:2:1164:G:O2'	1:2:1612:U:O2	2.27	0.51
3:S1:222:LYS:O	3:S1:224:ASP:N	2.44	0.51
51:M5:94:TYR:CE2	51:M5:96:ARG:HB2	3.40	0.51
56:N0:80:ARG:HB3	56:N0:122:HIS:HB2	1.92	0.51
4:S2:147:ASN:O	23:D1:4:ASP:N	2.42	0.51
44:L7:158:LYS:HD2	44:L7:159:GLN:HA	5.15	0.51
34:SR:83:ALA:HB1	34:SR:110:VAL:HG12	1.93	0.51
34:SR:72:THR:HG21	34:SR:114:ASP:HA	2.75	0.51
1:6:751:G:H2'	1:6:752:A:C8	2.46	0.51
39:L2:211:HIS:CD2	39:L2:219:ILE:HG23	3.01	0.51
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.74	0.51
52:M6:62:THR:HA	36:5:1306:G:C6	232.71	0.51
10:S8:57:ALA:HB1	10:S8:60:ILE:HD11	2.08	0.51
36:1:1613:A:OP1	74:O8:2:ALA:N	2.44	0.51
36:5:599:C:H2'	36:5:600:G:O4'	2.11	0.51
36:1:1095:U:N3	57:N1:127:GLN:HG2	2.25	0.51
7:S5:96:SER:HB2	7:S5:176:THR:HG21	2.76	0.51
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.46	0.51
49:M3:27:ASP:N	49:M3:27:ASP:OD2	2.69	0.51
74:O8:56:ILE:HG13	74:O8:65:LEU:HD12	1.92	0.51
74:O8:65:LEU:HD22	74:O8:68:SER:HB2	3.31	0.51
73:O7:8:PHE:O	73:O7:11:ARG:HD3	3.74	0.51
47:M0:177:ASP:O	47:M0:180:GLU:N	2.91	0.51
9:S7:118:LEU:HD11	9:S7:122:HIS:CE1	2.87	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:183:ALA:C	52:M6:185:ALA:H	2.14	0.51
36:5:1643:A:H4'	36:5:1822:C:H5'	1.93	0.51
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	3.14	0.51
41:L4:11:LEU:HD23	41:L4:153:SER:HB3	2.68	0.51
36:1:900:G:H1'	36:1:1589:A:N6	2.24	0.51
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.10	0.51
36:1:1194:G:OP1	86:1:3968:OHX:N1	2.44	0.51
38:8:6:U:H2'	38:8:7:U:H6	1.76	0.51
29:D7:59:CYS:SG	29:D7:61:THR:HG22	3.07	0.51
36:1:1419:A:H5'	38:4:20:U:O3'	2.09	0.51
36:1:2419:A:H2'	36:1:2420:C:H6	1.74	0.51
34:SR:11:GLY:HA3	34:SR:54:PHE:HB2	1.93	0.51
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.76	0.51
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	2.11	0.51
1:6:336:G:H2'	1:6:338:C:H5	1.75	0.51
33:E1:143:LYS:O	33:E1:145:HIS:N	2.44	0.51
1:6:1716:C:O2'	1:6:1717:G:H5''	2.11	0.51
36:1:1260:A:H1'	36:1:1280:C:H1'	1.91	0.51
36:5:847:A:H2'	36:5:848:A:C8	2.45	0.51
50:M4:40:ASP:HA	56:N0:143:PHE:CE1	3.13	0.51
36:5:381:U:O4	86:5:4123:OHX:N5	2.44	0.51
49:M3:46:ILE:HG23	49:M3:49:ARG:CZ	2.47	0.51
36:1:1583:A:H5''	36:1:1584:U:OP2	2.11	0.51
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	2.02	0.51
21:C9:33:TYR:O	21:C9:34:VAL:HB	4.68	0.51
11:S9:28:LEU:HD11	32:E0:39:LEU:HB3	1.92	0.51
41:L4:269:SER:C	41:L4:271:LYS:H	2.14	0.51
56:N0:6:GLU:CD	56:N0:99:ARG:HH21	3.20	0.51
4:S2:89:GLN:HE21	4:S2:89:GLN:N	2.09	0.51
41:L4:91:GLY:HA3	41:L4:93:MET:CE	2.40	0.51
10:S8:33:PRO:HB3	1:6:330:G:O2'	273.96	0.51
12:C0:20:VAL:HG23	12:C0:67:THR:HA	3.85	0.51
1:2:927:C:H1'	16:C4:125:SER:CB	2.40	0.51
74:O8:69:LEU:HD12	74:O8:73:LEU:HD23	1.93	0.51
62:N6:51:ARG:HB3	62:N6:54:ASP:OD2	2.11	0.51
1:6:755:A:HO2'	1:6:756:A:P	2.30	0.51
39:L2:47:GLN:HA	39:L2:84:THR:HG22	2.66	0.51
2:S0:126:PRO:HA	2:S0:133:ILE:HD11	2.94	0.51
1:6:72:A:H2'	1:6:73:U:H1'	1.93	0.51
78:Q2:23:HIS:HA	78:Q2:73:GLU:O	2.19	0.51
36:1:1807:G:C6	36:1:1808:G:N1	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:639:U:H5	1:6:695:U:C6	2.29	0.51
9:S7:98:ILE:HD13	9:S7:118:LEU:HD22	1.93	0.51
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.79	0.51
36:5:3022:G:O2'	36:5:3031:G:O6	2.29	0.51
36:1:2789:U:H2'	36:1:2790:A:C8	2.46	0.51
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.92	0.51
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.44	0.51
38:4:86:U:H2'	71:O5:7:TYR:HE2	1.75	0.51
62:N6:45:ILE:HG13	62:N6:119:ILE:HG23	1.93	0.51
36:1:715:A:H8	64:N8:115:LYS:HG3	1.74	0.51
14:C2:73:LYS:HE3	33:E1:108:VAL:HG13	1.93	0.51
1:6:1518:C:OP2	86:6:2143:OHX:N1	2.44	0.51
12:C0:25:LYS:NZ	1:6:1435:G:N7	418.63	0.51
36:5:2513:U:OP2	86:5:3963:OHX:N3	2.44	0.51
53:M7:24:VAL:HG12	53:M7:86:LYS:HG2	1.92	0.51
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.38	0.51
6:S4:98:ASN:ND2	6:S4:116:ASP:OD1	2.44	0.51
7:S5:145:ASP:CG	7:S5:146:THR:H	2.14	0.51
12:C0:10:LYS:NZ	12:C0:36:ASP:HB3	2.75	0.51
1:6:1342:C:C2'	1:6:1343:U:H5'	2.41	0.51
1:2:1783:C:H2'	1:2:1784:C:H6	1.76	0.51
36:1:243:G:H2'	36:1:244:G:O4'	2.10	0.51
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.26	0.51
57:N1:114:ALA:O	57:N1:116:ARG:N	2.43	0.51
1:2:1332:C:O5'	1:2:1332:C:H6	1.94	0.51
21:C9:118:PRO:C	21:C9:120:GLY:H	2.15	0.51
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.10	0.51
36:1:3252:G:H2'	36:1:3253:G:C8	2.46	0.51
36:1:1191:U:H4'	36:1:1192:C:H5''	1.92	0.50
53:M7:32:THR:HG21	53:M7:87:SER:HB2	2.88	0.50
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.35	0.50
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.12	0.50
9:S7:78:THR:HG22	9:S7:92:PHE:CE1	3.70	0.50
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.44	0.50
6:S4:104:ASP:OD2	6:S4:108:ARG:HB2	2.50	0.50
1:2:702:G:C2	1:2:703:G:H1'	2.46	0.50
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	5.03	0.50
10:S8:42:ARG:HB3	10:S8:59:ARG:HB2	2.56	0.50
19:C7:34:LEU:HD22	19:C7:38:ILE:HD13	3.15	0.50
40:L3:347:SER:HB2	40:L3:350:ALA:HB2	3.13	0.50
1:2:852:C:P	55:M9:172:ARG:HD3	2.51	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1235:C:H5'	33:E1:146:SER:HB2	1.92	0.50
63:N7:8:GLY:HA2	63:N7:25:ILE:O	2.95	0.50
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.92	0.50
72:O6:97:SER:OG	72:O6:98:ARG:N	2.45	0.50
14:C2:50:LYS:O	14:C2:54:ARG:HG2	4.28	0.50
50:M4:113:THR:HG22	50:M4:116:GLU:OE1	4.28	0.50
1:2:591:A:H2'	1:2:592:A:H8	1.75	0.50
42:L5:82:GLU:O	42:L5:85:ARG:HB3	2.79	0.50
1:2:15:U:H2'	1:2:16:G:O4'	2.11	0.50
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.57	0.50
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	1.93	0.50
49:M3:59:ARG:HD3	36:5:73:C:C2	93.71	0.50
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.43	0.50
8:S6:211:LEU:O	8:S6:215:ARG:HB2	2.10	0.50
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.93	0.50
62:N6:125:LYS:O	62:N6:126:LEU:HG	2.11	0.50
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.50	0.50
62:N6:103:LYS:NZ	36:5:217:U:O2	78.04	0.50
36:1:1615:C:H2'	36:1:1616:U:C6	2.46	0.50
1:2:39:A:O2'	1:2:40:A:OP2	2.27	0.50
34:SR:278:PHE:CE1	34:SR:287:PRO:HD2	2.46	0.50
36:5:644:G:H2'	36:5:2372:A:N7	2.26	0.50
36:5:848:A:C5	36:5:849:C:H1'	2.45	0.50
1:6:1590:G:H2'	1:6:1591:C:H6	1.75	0.50
36:1:627:U:H2'	36:1:628:A:C8	2.47	0.50
36:5:2751:G:O6	86:5:4152:OHX:N3	2.44	0.50
15:C3:84:ILE:HD12	15:C3:88:LEU:HD13	1.92	0.50
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	1.93	0.50
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.91	0.50
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.11	0.50
50:M4:24:LYS:NZ	50:M4:61:GLY:O	2.27	0.50
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.61	0.50
47:M0:129:VAL:HG23	47:M0:133:GLN:HG2	1.93	0.50
44:L7:74:SER:OG	57:N1:142:SER:HA	2.12	0.50
15:C3:12:SER:HB3	1:6:956:C:OP2	334.71	0.50
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.06	0.50
11:S9:162:SER:O	11:S9:167:ALA:HB3	2.11	0.50
1:6:1539:G:H5'	1:6:1539:G:C8	2.45	0.50
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.46	0.50
43:L6:172:HIS:ND1	69:O3:44:TYR:OH	2.30	0.50
10:S8:24:LYS:O	1:6:400:A:H5''	307.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:594:A:H4'	1:6:595:G:H5'	1.92	0.50
36:1:1016:C:O2	36:1:1028:U:N3	2.45	0.50
27:D5:54:VAL:HA	27:D5:57:TYR:CE1	2.70	0.50
86:1:3963:OHX:N3	44:L7:217:PRO:O	2.44	0.50
28:D6:59:TYR:O	28:D6:61:GLU:N	3.91	0.50
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.75	0.50
36:5:2278:C:OP1	86:5:4086:OHX:N6	2.44	0.50
15:C3:24:ALA:O	15:C3:27:LYS:HE2	7.55	0.50
1:2:779:U:OP2	1:2:780:A:H2	1.95	0.50
1:6:755:A:H2'	1:6:756:A:C8	2.45	0.50
1:6:647:G:H1	1:6:687:G:H1	1.60	0.50
9:S7:118:LEU:N	1:6:639:U:OP1	365.85	0.50
33:E1:98:VAL:HG22	33:E1:100:LEU:HD13	1.93	0.50
36:1:215:G:OP1	62:N6:12:ARG:HD2	2.11	0.50
34:SR:305:TYR:O	34:SR:307:ASP:N	3.48	0.50
56:N0:77:VAL:HG11	56:N0:106:LEU:HD12	1.93	0.50
54:M8:54:LEU:HD22	54:M8:58:ASN:HB2	1.94	0.50
3:S1:111:ARG:CG	28:D6:68:TYR:HB2	2.41	0.50
27:D5:38:HIS:ND1	27:D5:70:LYS:HG2	6.36	0.50
68:O2:95:GLU:OE1	68:O2:120:THR:OG1	2.14	0.50
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.64	0.50
1:2:130:C:O2'	1:2:131:C:OP1	2.25	0.50
1:2:131:C:O2'	1:2:132:U:OP1	2.29	0.50
21:C9:105:LEU:O	21:C9:109:GLU:HB2	2.61	0.50
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.93	0.50
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.76	0.50
1:2:179:A:H2'	1:2:180:A:O4'	2.10	0.50
36:1:3181:C:H2'	36:1:3182:G:O4'	2.12	0.50
86:5:3971:OHX:N1	86:5:4239:OHX:N5	2.59	0.50
86:1:4038:OHX:N4	86:1:4050:OHX:N1	2.59	0.50
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	3.46	0.50
2:S0:69:ASN:HB2	2:S0:72:ASP:OD2	2.85	0.50
36:5:1560:G:O2'	36:5:1561:G:OP1	2.24	0.50
3:S1:23:PRO:O	3:S1:27:LYS:HG2	2.47	0.50
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.24	0.50
37:3:62:U:OP1	42:L5:277:LEU:HB2	2.12	0.50
1:6:825:U:O2'	1:6:826:U:P	2.69	0.50
41:L4:8:VAL:CG2	41:L4:20:LEU:HD11	2.41	0.50
36:1:799:G:O6	86:1:3986:OHX:N5	2.44	0.50
36:1:1495:U:C5	36:1:1835:A:N1	2.76	0.50
1:6:992:A:O2'	1:6:1785:U:O2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:9:ARG:HH21	70:O4:34:HIS:HB2	3.22	0.50
36:5:2207:A:N6	36:5:2236:G:H1	2.08	0.50
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.46	0.50
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.87	0.50
36:5:2158:A:H5'	36:5:2160:G:O4'	2.11	0.50
34:SR:245:PHE:CD1	34:SR:252:LEU:HD13	2.54	0.50
1:2:809:A:C6	1:2:810:G:C6	3.00	0.50
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.11	0.50
36:5:1818:U:H2'	36:5:1819:U:H6	1.75	0.50
2:S0:147:THR:O	2:S0:161:PRO:HA	2.57	0.50
39:L2:241:ARG:HA	36:5:2203:U:H4'	221.02	0.50
55:M9:119:LEU:O	55:M9:123:LEU:HG	2.12	0.50
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	3.91	0.50
56:N0:78:TRP:CZ3	56:N0:125:LYS:HG2	3.05	0.50
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.44	0.50
1:2:13:C:OP1	4:S2:84:LYS:NZ	2.44	0.50
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	1.94	0.50
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.10	0.50
61:N5:71:THR:HG21	36:5:1603:A:N6	91.34	0.50
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.89	0.50
9:S7:15:GLU:O	9:S7:19:GLN:HG2	2.11	0.50
1:2:1796:C:C6	28:D6:5:ARG:HG2	2.45	0.50
36:5:1564:U:H2'	36:5:1565:G:C8	2.46	0.50
34:SR:37:SER:OG	34:SR:38:ARG:N	2.51	0.50
36:5:2180:G:H2'	36:5:2181:C:C6	2.45	0.50
39:L2:193:ARG:O	39:L2:195:SER:N	2.70	0.50
1:6:479:C:O2	1:6:510:G:N2	2.45	0.50
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.12	0.50
38:4:137:C:OP2	86:4:236:OHX:N5	2.44	0.50
25:D3:96:VAL:HG23	25:D3:97:ASP:N	2.24	0.50
86:1:4210:OHX:N4	38:4:140:G:OP1	2.44	0.50
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.10	0.50
38:4:79:A:O5'	38:4:79:A:H8	1.93	0.50
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	1.92	0.50
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	2.81	0.50
40:L3:361:THR:CG2	40:L3:371:GLN:HB3	2.58	0.50
1:2:358:U:O2'	1:2:360:A:H5''	2.11	0.50
86:1:4009:OHX:N5	86:1:4178:OHX:N5	2.60	0.50
1:2:25:C:H1'	1:2:26:A:OP2	2.12	0.50
36:5:2561:A:O2'	36:5:2562:A:H5''	2.11	0.50
36:1:1812:G:O2'	36:1:1818:U:H4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:251:GLU:O	6:S4:255:ARG:HG2	4.07	0.50
40:L3:117:ARG:NH2	40:L3:175:LYS:HG2	3.07	0.50
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.94	0.50
63:N7:73:LYS:NZ	36:5:1636:U:H5''	212.33	0.50
63:N7:73:LYS:HZ3	36:5:1636:U:H5''	212.17	0.50
1:6:1050:G:N2	1:6:1068:C:O2	2.43	0.50
1:2:919:A:H2'	1:2:920:U:C6	2.45	0.50
36:1:591:G:H4'	36:1:592:A:OP1	2.12	0.50
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.92	0.50
18:C6:143:ARG:HH22	35:SM:84:LYS:HZ1	1.59	0.50
41:L4:192:GLY:O	41:L4:195:ARG:N	2.72	0.50
55:M9:72:GLU:O	55:M9:74:ARG:NH2	2.66	0.50
36:5:1661:G:H2'	36:5:1662:G:C8	2.46	0.50
8:S6:43:ASP:OD1	8:S6:43:ASP:N	2.43	0.50
36:5:308:A:H5'	36:5:2223:A:O2'	2.11	0.50
36:5:1037:C:H2'	36:5:1038:C:H6	1.77	0.50
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.46	0.50
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.12	0.50
1:2:1362:U:O2'	1:2:1363:U:O2	2.28	0.50
38:8:37:A:H5''	38:8:39:G:O4'	2.12	0.50
40:L3:98:GLY:HA3	36:5:3005:A:H5'	248.71	0.50
36:1:2964:G:N2	36:1:2967:A:OP2	2.42	0.50
79:Q3:20:SER:O	79:Q3:24:ARG:HB2	2.99	0.50
7:S5:64:VAL:HG12	7:S5:65:ARG:HD3	1.93	0.50
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.12	0.50
40:L3:35:ASP:HA	40:L3:184:ASN:ND2	2.90	0.50
40:L3:81:THR:HG22	40:L3:321:PHE:CA	2.77	0.50
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	2.58	0.50
2:S0:71:GLU:HA	2:S0:95:ALA:N	2.25	0.50
36:5:3198:U:H4'	36:5:3199:G:OP2	2.12	0.50
11:S9:149:ARG:HG3	1:6:765:G:N7	429.26	0.50
15:C3:18:TYR:CZ	24:D2:56:HIS:CE1	2.99	0.50
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.46	0.50
71:O5:83:LYS:O	71:O5:85:THR:N	3.08	0.50
22:D0:70:THR:OG1	22:D0:72:ASN:ND2	2.44	0.50
37:3:61:G:H2'	37:3:62:U:H6	1.76	0.50
36:1:2899:C:C5	46:L9:171:ASP:HA	2.47	0.50
36:1:3111:U:H2'	36:1:3112:G:O4'	2.11	0.50
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.44	0.50
37:3:27:A:P	42:L5:57:ASN:H	2.34	0.50
36:1:2273:G:O2'	36:1:2274:U:OP2	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:82:ARG:O	48:M1:86:VAL:HG23	2.63	0.50
1:2:57:G:OP1	26:D4:112:LYS:NZ	2.33	0.50
36:5:2947:G:N2	36:5:2948:C:C2	2.80	0.50
79:Q3:17:ARG:HB2	79:Q3:18:TYR:CE1	2.86	0.50
1:6:72:A:H2'	1:6:73:U:C1'	2.41	0.50
1:2:800:U:H2'	1:2:801:G:C8	2.45	0.50
55:M9:133:LYS:HG2	55:M9:134:HIS:CD2	2.49	0.50
53:M7:50:GLN:OE1	53:M7:56:ARG:HG3	2.11	0.50
52:M6:3:VAL:O	52:M6:4:GLU:HG3	3.19	0.50
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.12	0.50
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	1.92	0.50
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.45	0.50
36:1:317:A:H2'	36:1:318:A:C8	2.47	0.50
40:L3:252:ILE:HG12	36:5:2393:G:H4'	212.04	0.50
6:S4:184:THR:C	6:S4:189:LEU:HD13	2.71	0.50
1:2:755:A:HO2'	1:2:756:A:P	2.34	0.50
36:5:1701:C:H2'	36:5:1702:U:O4'	2.10	0.50
1:6:416:A:H4'	1:6:417:A:OP2	2.11	0.50
8:S6:10:ASN:HB3	8:S6:128:THR:HA	1.93	0.50
43:L6:97:ASN:OD1	43:L6:99:GLU:HG3	2.11	0.50
63:N7:103:GLN:HG3	63:N7:105:SER:OG	2.11	0.50
45:L8:94:PHE:CE2	45:L8:200:LEU:HG	2.46	0.50
45:L8:149:LYS:NZ	45:L8:208:GLU:OE2	2.43	0.50
1:2:1266:U:H2'	1:2:1267:G:C8	2.46	0.50
51:M5:38:ARG:NH2	51:M5:60:VAL:HG13	2.26	0.50
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.44	0.50
1:2:1461:C:H1'	35:SM:76:VAL:HG11	1.93	0.50
18:C6:91:ALA:O	18:C6:94:GLN:HB3	2.12	0.50
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.46	0.50
86:2:2089:OHX:N3	86:2:2130:OHX:N6	2.59	0.50
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.45	0.50
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.11	0.50
36:1:3268:A:OP2	53:M7:181:ARG:NH1	2.45	0.50
36:1:2443:A:N6	36:1:2503:G:C2	2.80	0.50
3:S1:92:GLN:HG2	3:S1:97:LEU:HD21	5.62	0.50
86:6:2059:OHX:N5	86:6:2147:OHX:N6	2.60	0.50
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.44	0.50
3:S1:141:ALA:HB1	3:S1:207:LEU:HD13	5.38	0.50
36:1:1064:A:H5''	36:1:1066:G:O4'	2.12	0.50
7:S5:59:VAL:C	7:S5:61:TYR:H	2.27	0.50
37:3:28:C:H5''	48:M1:137:ARG:HG2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.12	0.50
1:2:1459:C:H4'	17:C5:126:VAL:HG11	1.92	0.50
36:1:1719:G:OP1	55:M9:110:ARG:NH2	2.45	0.50
36:1:1231:A:OP2	86:1:4090:OHX:N5	2.45	0.50
39:L2:52:SER:HB3	39:L2:191:LEU:HD12	5.42	0.50
73:O7:28:HIS:CE1	73:O7:31:LYS:HG3	2.47	0.50
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.46	0.50
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.12	0.50
4:S2:66:PHE:CE2	4:S2:67:GLN:HG3	2.47	0.50
36:1:3095:U:H2'	36:1:3096:C:C6	2.47	0.50
36:1:2550:U:C6	45:L8:37:GLY:HA3	2.47	0.50
6:S4:222:LEU:O	6:S4:225:VAL:N	2.43	0.50
73:O7:17:THR:HG22	73:O7:18:LEU:H	1.77	0.50
46:L9:4:ILE:HG23	56:N0:142:GLN:CD	3.75	0.50
57:N1:124:VAL:HG12	57:N1:125:ALA:H	3.35	0.50
49:M3:28:GLN:HG2	51:M5:201:ARG:NH1	3.39	0.50
77:Q1:22:ALA:O	77:Q1:25:LYS:HB2	2.12	0.50
1:6:334:G:H2'	1:6:335:U:H6	1.76	0.50
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	3.24	0.50
3:S1:111:ARG:HG3	28:D6:68:TYR:HB2	1.93	0.50
69:O3:73:ARG:HH21	69:O3:82:ARG:CZ	3.20	0.50
36:1:3006:A:H2'	36:1:3007:U:O4'	2.11	0.50
15:C3:42:ARG:C	15:C3:44:GLY:H	2.77	0.50
1:2:218:A:H2'	1:2:219:A:H5''	1.93	0.50
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.89	0.50
38:8:67:U:O4	86:8:228:OHX:N3	2.45	0.50
36:1:2856:G:H2'	36:1:2857:C:C6	2.47	0.50
36:1:2747:A:H2'	36:1:2748:A:C8	2.46	0.50
67:O1:53:PRO:O	67:O1:57:GLN:HG3	2.11	0.50
1:6:1489:U:H5'	1:6:1494:C:H1'	1.93	0.50
1:2:1381:U:H4'	22:D0:59:PRO:HG3	1.93	0.50
36:5:2533:G:O6	86:5:4037:OHX:N2	2.45	0.50
68:O2:82:LEU:HD22	68:O2:117:ILE:HD13	2.67	0.50
1:6:1214:U:OP1	1:6:1246:C:O2'	2.22	0.50
43:L6:48:ARG:NH2	36:5:3276:G:O2'	238.89	0.50
47:M0:174:THR:HA	47:M0:196:PHE:HE2	2.18	0.50
6:S4:187:ARG:CZ	6:S4:187:ARG:HB2	5.77	0.50
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.94	0.50
41:L4:93:MET:O	36:5:1438:U:H1'	141.58	0.50
20:C8:54:LEU:H	20:C8:54:LEU:HD12	4.14	0.50
86:6:2059:OHX:N2	86:6:2147:OHX:N6	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:929:A:C8	16:C4:123:SER:HA	2.47	0.50
1:2:1681:A:H61	1:2:1720:G:H1'	1.76	0.50
70:O4:8:ARG:HH11	70:O4:8:ARG:CG	2.25	0.50
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.92	0.50
36:5:550:A:H2'	36:5:551:A:C8	2.47	0.50
36:5:1017:C:H2'	36:5:1017:C:OP1	2.11	0.50
1:2:694:U:H5''	1:2:695:U:H5	1.77	0.50
73:O7:51:ALA:O	73:O7:54:LYS:HB2	2.70	0.50
36:5:1501:U:O2'	36:5:1502:C:H5'	2.11	0.50
1:2:1595:U:H5	1:2:1596:C:C5	2.30	0.50
34:SR:133:VAL:O	34:SR:141:LEU:N	2.71	0.50
46:L9:4:ILE:HG22	56:N0:142:GLN:CD	2.31	0.50
1:2:1490:C:H1'	1:2:1491:U:O4'	2.12	0.50
42:L5:51:LEU:HB2	42:L5:144:VAL:HG13	2.97	0.50
13:C1:6:THR:HB	13:C1:9:SER:HB3	1.93	0.50
51:M5:99:ARG:HD3	51:M5:167:THR:HB	1.94	0.50
63:N7:88:ASP:HB3	63:N7:121:ARG:NH2	2.26	0.50
50:M4:25:LYS:HG3	50:M4:62:GLN:OE1	2.12	0.50
36:5:2201:G:H2'	36:5:2202:C:C6	2.47	0.50
36:1:3027:A:H2'	36:1:3028:G:O4'	2.11	0.50
36:5:3251:U:H2'	36:5:3252:G:C8	2.46	0.50
36:1:1532:C:H2'	36:1:1533:U:C6	2.47	0.50
36:1:736:A:H2'	36:1:737:G:O4'	2.12	0.50
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.28	0.50
26:D4:49:LYS:N	26:D4:49:LYS:HD3	2.60	0.50
36:5:174:C:H2'	36:5:175:C:C6	2.46	0.50
59:N3:10:LYS:HG2	59:N3:11:PHE:O	2.11	0.50
36:5:2427:U:H2'	36:5:2428:U:C6	2.47	0.50
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.19	0.50
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.50	0.50
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.51	0.50
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.43	0.50
1:6:542:A:H8	1:6:543:C:H5'	1.77	0.50
36:1:266:A:OP1	51:M5:5:LYS:NZ	2.42	0.50
12:C0:54:TYR:O	12:C0:69:THR:N	2.80	0.50
36:5:1171:G:O6	86:5:3999:OHX:N1	2.45	0.50
1:2:833:U:OP2	86:2:2140:OHX:N4	2.45	0.50
26:D4:12:VAL:HG12	1:6:783:G:C8	423.05	0.50
86:5:4008:OHX:N6	86:5:4197:OHX:N2	2.59	0.50
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.12	0.50
36:1:29:C:O3'	51:M5:172:ARG:NH2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	2.00	0.50
40:L3:124:LYS:HZ1	36:5:3296:A:H62	179.37	0.50
1:2:1642:G:O6	86:2:2022:OHX:N6	2.45	0.50
52:M6:184:THR:OG1	52:M6:184:THR:O	2.24	0.50
86:2:2043:OHX:N2	86:2:2098:OHX:N5	2.60	0.50
36:1:2772:C:H4'	36:1:2773:C:H5'	1.94	0.50
36:5:1764:U:H3'	36:5:1765:U:H5''	1.94	0.50
36:5:2404:A:H2'	36:5:2405:C:O5'	2.11	0.50
36:5:561:C:H2'	36:5:562:C:H6	1.75	0.50
36:1:671:U:OP2	54:M8:57:ILE:HD12	2.12	0.50
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.24	0.50
6:S4:21:ASP:HB2	1:6:773:C:OP1	387.81	0.50
5:S3:139:SER:HA	5:S3:149:ALA:HA	1.93	0.50
1:2:1015:U:OP1	86:2:2044:OHX:N3	2.45	0.50
1:6:706:A:H2'	1:6:707:A:O4'	2.11	0.50
36:5:2115:G:H22	36:5:2120:A:H1'	1.77	0.50
36:1:1733:G:OP2	86:1:3921:OHX:N6	2.45	0.50
36:1:256:G:N7	86:1:4165:OHX:N4	2.60	0.50
47:M0:60:LEU:HD11	47:M0:135:ILE:HD13	2.23	0.50
1:2:1014:G:OP1	86:2:2023:OHX:N3	2.44	0.50
3:S1:82:ARG:NH2	3:S1:189:ILE:O	2.43	0.50
5:S3:93:ASP:N	5:S3:93:ASP:OD2	2.45	0.50
12:C0:72:GLY:O	12:C0:74:GLU:N	3.25	0.50
39:L2:249:SER:OG	39:L2:250:GLN:N	2.45	0.50
18:C6:87:LYS:HG3	18:C6:117:LEU:HA	1.94	0.50
27:D5:71:ILE:HD12	27:D5:76:ALA:HA	1.94	0.50
86:6:2120:OHX:N2	86:6:2171:OHX:N5	2.60	0.50
36:1:299:G:N7	86:1:4085:OHX:N2	2.58	0.50
36:1:156:G:C5	49:M3:99:HIS:ND1	2.80	0.50
40:L3:2:SER:N	36:5:2943:G:C8	235.38	0.50
36:1:1363:A:OP2	86:1:4050:OHX:N6	2.45	0.50
51:M5:98:LEU:HD23	51:M5:128:LYS:HD2	4.27	0.50
11:S9:142:ASN:ND2	11:S9:143:ILE:HD12	5.07	0.50
15:C3:20:ARG:HG3	24:D2:56:HIS:CD2	2.47	0.50
15:C3:18:TYR:HA	24:D2:56:HIS:CD2	3.48	0.50
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.42	0.50
17:C5:86:VAL:HG23	17:C5:87:PRO:HD2	1.94	0.50
12:C0:31:LYS:H	12:C0:38:LYS:HA	4.08	0.50
2:S0:84:ARG:NH2	2:S0:201:LEU:HD12	3.62	0.50
52:M6:62:THR:HB	52:M6:65:ASN:O	2.46	0.50
2:S0:37:VAL:HG12	2:S0:38:PHE:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:125:GLU:HG2	18:C6:126:PRO:HD2	2.80	0.50
38:4:107:G:C2	38:4:116:G:C5	3.00	0.50
71:O5:28:LEU:O	71:O5:32:LYS:HG3	2.42	0.50
55:M9:21:LYS:O	55:M9:53:LYS:HB2	2.12	0.50
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	1.97	0.50
1:6:217:A:O2'	1:6:218:A:H8	1.95	0.50
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.47	0.50
51:M5:150:TRP:CZ3	51:M5:151:ILE:HG12	2.47	0.50
64:N8:94:ALA:CB	64:N8:121:VAL:HG13	2.42	0.50
36:5:955:U:H2'	36:5:956:U:H6	1.76	0.50
58:N2:83:TYR:O	58:N2:86:LYS:N	2.45	0.50
86:1:3977:OHX:N5	86:1:4162:OHX:N1	2.60	0.50
1:6:46:A:N6	1:6:433:C:H4'	2.27	0.50
29:D7:23:THR:HG21	29:D7:29:ARG:NH2	3.62	0.50
1:6:341:A:H2'	1:6:342:C:C6	2.47	0.50
27:D5:88:ILE:O	27:D5:104:ALA:N	2.44	0.50
55:M9:23:TRP:CZ3	55:M9:25:ASP:HB2	2.47	0.50
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.26	0.50
52:M6:26:GLN:HG3	52:M6:31:GLN:HB3	1.93	0.50
36:1:863:C:H2'	36:1:864:G:O4'	2.12	0.50
36:1:3326:G:H2'	36:1:3327:G:H8	1.76	0.50
68:O2:91:THR:HB	68:O2:92:TYR:HD2	2.48	0.50
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.12	0.50
36:1:2902:A:P	46:L9:170:LYS:HE3	2.52	0.50
38:8:91:C:H2'	38:8:92:A:C8	2.46	0.50
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.39	0.50
36:5:1110:U:H2'	36:5:1111:U:C6	2.46	0.50
30:D8:36:THR:OG1	30:D8:37:SER:N	2.44	0.50
1:6:649:U:H3	1:6:685:A:H61	1.60	0.50
36:5:3358:U:H2'	36:5:3359:A:H8	1.77	0.50
42:L5:136:GLU:N	42:L5:136:GLU:OE2	6.14	0.50
8:S6:89:ASP:N	8:S6:89:ASP:OD2	2.45	0.50
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.41	0.50
16:C4:32:ASP:O	16:C4:35:GLY:N	2.44	0.50
48:M1:97:SER:O	48:M1:156:LYS:HB2	2.68	0.50
36:1:2407:C:H2'	36:1:2408:U:H6	1.77	0.50
50:M4:126:GLN:O	50:M4:130:THR:HG23	2.65	0.50
42:L5:40:HIS:CD2	57:N1:69:LYS:HA	2.46	0.49
36:1:2232:A:H2'	36:1:2233:A:C8	2.47	0.49
1:2:1497:U:OP2	86:2:2030:OHX:N1	2.45	0.49
36:1:1582:C:H5''	36:1:1583:A:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:88:SER:OG	28:D6:91:ASP:OD2	4.22	0.49
34:SR:85:TRP:HA	34:SR:109:ASP:HA	1.93	0.49
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.12	0.49
24:D2:23:ARG:H	24:D2:24:GLN:NE2	4.59	0.49
63:N7:136:PHE:N	63:N7:136:PHE:HD1	2.10	0.49
36:1:110:G:C5'	49:M3:91:ARG:HH21	2.24	0.49
1:2:701:U:H3	1:2:737:A:N6	2.09	0.49
1:6:197:A:H2'	1:6:198:A:C8	2.46	0.49
2:S0:21:ASN:OD1	2:S0:24:LEU:HD22	4.77	0.49
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	3.44	0.49
41:L4:60:THR:HG23	36:5:364:G:OP1	129.21	0.49
56:N0:155:ARG:HH21	56:N0:155:ARG:HG2	2.12	0.49
17:C5:81:ARG:HH12	17:C5:120:SER:CB	2.25	0.49
1:2:1518:C:OP1	86:2:2120:OHX:N5	2.45	0.49
1:2:443:C:P	26:D4:105:ARG:HB3	2.52	0.49
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.58	0.49
1:2:792:U:H3'	1:2:793:A:C8	2.47	0.49
42:L5:155:THR:HB	42:L5:179:ARG:HD3	1.95	0.49
46:L9:91:ARG:CG	46:L9:91:ARG:HH21	2.25	0.49
4:S2:139:ILE:HD11	4:S2:218:ILE:HD13	2.75	0.49
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	1.93	0.49
45:L8:36:ILE:O	45:L8:38:GLN:N	2.45	0.49
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.26	0.49
26:D4:11:LYS:HB2	26:D4:24:VAL:HG23	2.05	0.49
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.12	0.49
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.47	0.49
3:S1:216:LYS:O	3:S1:218:LEU:N	2.45	0.49
2:S0:83:GLN:HG2	2:S0:99:ALA:HB1	1.94	0.49
11:S9:90:LYS:HB3	11:S9:95:TYR:CD2	2.47	0.49
4:S2:149:GLY:H	23:D1:4:ASP:HB2	3.93	0.49
12:C0:10:LYS:NZ	12:C0:36:ASP:O	3.51	0.49
36:5:2718:U:O4	86:5:4229:OHX:N6	2.45	0.49
1:6:872:G:H2'	1:6:873:U:O4'	2.12	0.49
36:5:2822:U:H2'	36:5:2823:G:O4'	2.12	0.49
4:S2:81:MET:HE3	4:S2:186:LYS:HB3	1.94	0.49
29:D7:41:LEU:H	29:D7:41:LEU:HD23	2.41	0.49
33:E1:151:ASN:O	33:E1:151:ASN:ND2	2.45	0.49
24:D2:31:SER:O	24:D2:34:ILE:N	2.97	0.49
1:2:1213:G:O6	86:2:2028:OHX:N5	2.45	0.49
64:N8:16:SER:HA	36:5:942:U:N3	169.27	0.49
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:169:THR:OG1	53:M7:171:ARG:NH1	2.46	0.49
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.47	0.49
52:M6:109:PRO:O	52:M6:110:PRO:O	2.68	0.49
78:Q2:57:VAL:HG13	88:5:4249:3K5:H13	192.30	0.49
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	3.67	0.49
36:1:3087:A:H5''	40:L3:365:PHE:CD1	2.47	0.49
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.45	0.49
36:1:3362:A:H2'	36:1:3363:U:O4'	2.12	0.49
15:C3:18:TYR:HA	24:D2:56:HIS:HD2	3.25	0.49
34:SR:85:TRP:HA	34:SR:109:ASP:HB3	1.94	0.49
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.27	0.49
36:5:2211:U:H2'	36:5:2212:C:O4'	2.13	0.49
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.09	0.49
1:6:827:C:H2'	1:6:828:U:H6	1.75	0.49
86:6:2059:OHX:N5	86:6:2147:OHX:N3	2.60	0.49
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.77	0.49
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.12	0.49
52:M6:42:ASN:OD1	52:M6:125:ARG:NH1	3.03	0.49
36:1:121:A:C2	45:L8:129:PRO:HB3	2.48	0.49
36:1:40:A:N7	64:N8:29:PRO:O	2.45	0.49
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.94	0.49
53:M7:138:LYS:NZ	36:5:2356:A:H5'	149.19	0.49
51:M5:179:LYS:NZ	36:5:287:G:OP1	127.72	0.49
3:S1:167:VAL:O	3:S1:171:ILE:HG13	2.49	0.49
36:5:255:A:H2'	36:5:256:G:C8	2.47	0.49
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.45	0.49
48:M1:95:ASN:HB3	48:M1:103:GLY:O	2.60	0.49
39:L2:242:ARG:HG3	39:L2:243:THR:N	2.88	0.49
15:C3:45:LEU:HD13	15:C3:49:GLN:HB3	1.94	0.49
47:M0:49:CYS:O	47:M0:168:SER:HB3	2.12	0.49
33:E1:108:VAL:HB	33:E1:114:VAL:HA	1.94	0.49
1:6:853:G:H2'	1:6:854:U:H6	1.76	0.49
77:Q1:2:ARG:HG2	77:Q1:4:LYS:HG2	1.93	0.49
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.58	0.49
57:N1:139:ARG:NH2	57:N1:139:ARG:HG2	4.78	0.49
47:M0:21:ARG:HG3	47:M0:22:TYR:CE2	2.90	0.49
36:1:1770:G:H5'	36:1:1771:C:OP2	2.11	0.49
51:M5:97:SER:O	51:M5:100:ALA:N	2.61	0.49
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.74	0.49
1:6:1334:U:H2'	1:6:1335:U:O4'	2.12	0.49
52:M6:130:LYS:HB3	52:M6:133:ARG:HG3	2.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.94	0.49
1:6:165:G:H2'	1:6:166:C:H5''	1.94	0.49
44:L7:60:ARG:NH2	36:5:516:A:O3'	303.69	0.49
56:N0:52:LYS:NZ	37:7:100:C:O5'	278.93	0.49
36:5:1190:A:C8	36:5:1193:A:H1'	2.47	0.49
36:5:3238:G:H5''	36:5:3238:G:H8	1.77	0.49
36:1:3066:U:O4	86:1:4140:OHX:N5	2.46	0.49
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.77	0.49
36:1:2206:G:C2	36:1:2207:A:C8	3.00	0.49
8:S6:136:LYS:NZ	1:6:66:U:OP1	335.38	0.49
73:O7:72:ARG:O	73:O7:75:LYS:HB3	2.75	0.49
36:5:1564:U:H2'	36:5:1565:G:H8	1.78	0.49
41:L4:222:VAL:HG22	41:L4:225:VAL:HG23	1.94	0.49
43:L6:54:TYR:HA	43:L6:65:ILE:HD13	6.24	0.49
20:C8:61:LEU:HB3	20:C8:66:LEU:HG	1.94	0.49
3:S1:89:ASP:OD1	3:S1:89:ASP:N	2.44	0.49
3:S1:35:PRO:HB3	3:S1:231:LEU:HD21	6.33	0.49
86:6:2059:OHX:N1	86:6:2147:OHX:N4	2.61	0.49
42:L5:218:ARG:HA	42:L5:221:GLU:HB2	1.92	0.49
41:L4:206:LEU:HB3	41:L4:248:VAL:HG22	3.27	0.49
70:O4:8:ARG:HH11	70:O4:8:ARG:HG2	1.77	0.49
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.94	0.49
1:6:219:A:OP1	1:6:219:A:H4'	2.13	0.49
36:1:3392:U:H2'	36:1:3393:U:C6	2.47	0.49
39:L2:30:ARG:HG2	39:L2:74:GLU:OE1	2.13	0.49
12:C0:32:HIS:CG	12:C0:33:GLU:H	3.60	0.49
68:O2:11:LYS:O	68:O2:12:LYS:HB2	2.11	0.49
54:M8:89:ASP:HB3	36:5:677:A:OP1	134.00	0.49
36:5:507:U:H2'	36:5:508:U:C6	2.46	0.49
59:N3:127:PRO:O	59:N3:131:SER:N	2.80	0.49
38:8:107:G:OP2	86:8:231:OHX:N1	2.45	0.49
11:S9:7:THR:HG21	1:6:758:U:OP1	383.06	0.49
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	1.94	0.49
54:M8:70:ALA:O	54:M8:73:GLN:HB2	2.11	0.49
36:5:189:G:H2'	36:5:224:C:OP1	2.11	0.49
36:1:1131:G:C4	36:1:2373:A:C2	3.00	0.49
9:S7:155:ASP:OD2	9:S7:156:SER:N	2.45	0.49
55:M9:6:THR:HG22	55:M9:10:LEU:HD22	2.61	0.49
36:5:850:U:H2'	36:5:851:C:C6	2.47	0.49
10:S8:185:GLU:HG2	13:C1:23:PRO:HG2	1.94	0.49
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1030:A:H4'	1:6:1031:U:OP2	2.12	0.49
1:2:1550:A:H2'	1:2:1551:U:C6	2.47	0.49
11:S9:170:GLY:O	11:S9:174:ARG:HG3	4.95	0.49
36:1:1940:G:H21	36:1:3362:A:H8	1.60	0.49
14:C2:43:ARG:HG3	1:6:1227:A:C2	462.01	0.49
3:S1:61:LEU:HD22	3:S1:61:LEU:H	1.77	0.49
40:L3:49:TYR:O	40:L3:79:VAL:HG23	3.68	0.49
1:2:434:G:H5'	25:D3:78:LYS:HB3	1.93	0.49
42:L5:68:THR:HG22	42:L5:69:ILE:N	2.83	0.49
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.53	0.49
1:2:1486:G:H1'	1:2:1592:A:O2'	2.13	0.49
48:M1:114:ILE:HG22	48:M1:115:LYS:O	2.44	0.49
47:M0:210:ILE:HA	47:M0:217:PHE:HE2	2.20	0.49
36:5:1301:A:OP1	36:5:1301:A:H8	1.96	0.49
1:2:1759:C:O2'	36:1:2263:C:H4'	2.11	0.49
36:5:1419:A:C2'	36:5:1420:C:H5'	2.42	0.49
18:C6:40:GLU:HG3	18:C6:41:PRO:HA	1.93	0.49
21:C9:112:GLY:O	21:C9:127:ASN:HB3	3.12	0.49
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.52	0.49
6:S4:180:LEU:HD23	6:S4:194:THR:H	1.78	0.49
14:C2:47:GLU:HG3	1:6:1229:G:H1	459.32	0.49
86:5:4051:OHX:N3	86:5:4196:OHX:N4	2.59	0.49
1:6:1614:A:C6	1:6:1615:C:N4	2.80	0.49
9:S7:143:LEU:HB2	9:S7:147:ASN:O	3.15	0.49
1:2:387:A:OP2	1:2:387:A:H8	1.94	0.49
35:SM:84:LYS:HG2	35:SM:86:ASN:H	1.78	0.49
15:C3:55:ARG:NH1	15:C3:56:ASP:OD2	2.41	0.49
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.29	0.49
55:M9:41:ILE:O	55:M9:45:VAL:N	2.41	0.49
1:2:1101:G:O3'	24:D2:76:SER:HB2	2.12	0.49
36:1:501:A:H2'	36:1:502:U:C6	2.47	0.49
36:5:2882:U:H2'	36:5:2883:U:C6	2.48	0.49
36:1:2909:U:O2'	36:1:3105:U:O2	2.21	0.49
46:L9:85:GLY:O	46:L9:186:PHE:HA	2.56	0.49
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.87	0.49
72:O6:77:LEU:HD11	72:O6:86:LYS:HB2	1.94	0.49
36:5:709:A:O5'	36:5:709:A:H8	1.95	0.49
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.45	0.49
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.13	0.49
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.13	0.49
6:S4:29:PRO:HD3	1:6:448:C:OP1	373.09	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:101:THR:HG23	71:O5:103:LYS:H	1.93	0.49
51:M5:106:VAL:HA	51:M5:109:ARG:HB3	1.94	0.49
67:O1:44:MET:HB3	67:O1:77:ARG:HD3	2.26	0.49
67:O1:44:MET:O	67:O1:46:THR:HG22	4.70	0.49
34:SR:22:SER:CB	34:SR:71:CYS:H	2.26	0.49
3:S1:69:CYS:SG	16:C4:114:ARG:HD3	2.52	0.49
71:O5:89:ARG:NH1	71:O5:89:ARG:HG2	2.27	0.49
22:D0:20:ILE:CD1	22:D0:95:ALA:H	2.26	0.49
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.12	0.49
36:5:2209:U:OP2	36:5:2209:U:H2'	2.13	0.49
20:C8:57:ARG:N	20:C8:60:GLU:HG3	2.28	0.49
1:6:187:G:H8	1:6:187:G:O5'	1.95	0.49
59:N3:87:ARG:HH12	59:N3:137:VAL:CG1	3.15	0.49
34:SR:99:THR:HG22	34:SR:101:GLN:H	1.77	0.49
7:S5:162:VAL:HG23	7:S5:166:ARG:HB3	1.95	0.49
1:2:209:U:H2'	1:2:210:A:H8	1.76	0.49
10:S8:56:ARG:HH22	1:6:332:U:P	287.34	0.49
1:2:1433:G:O2'	31:D9:26:SER:HB2	2.13	0.49
36:5:286:U:H2'	36:5:287:G:C8	2.47	0.49
36:5:655:C:H2'	36:5:656:A:C8	2.48	0.49
79:Q3:18:TYR:H	36:5:2131:A:N6	226.92	0.49
42:L5:106:ALA:O	42:L5:110:LEU:HD22	3.53	0.49
1:6:647:G:N2	1:6:687:G:H22	2.10	0.49
2:S0:200:ASP:HA	2:S0:203:PHE:CD1	2.97	0.49
30:D8:9:LEU:HD12	30:D8:34:GLU:OE1	2.12	0.49
66:O0:32:LYS:O	66:O0:36:GLN:HG3	4.53	0.49
24:D2:103:ILE:HB	24:D2:112:ASP:HA	3.18	0.49
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.95	0.49
1:6:1236:A:H3'	1:6:1237:G:H8	1.77	0.49
36:1:1047:A:C6	36:1:1048:A:C6	3.00	0.49
36:5:1363:A:OP2	86:5:4196:OHX:N3	2.46	0.49
36:5:252:U:H4'	36:5:253:A:H5'	1.94	0.49
63:N7:87:LEU:HD12	63:N7:121:ARG:NH2	2.28	0.49
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.54	0.49
67:O1:80:ASN:HA	67:O1:90:PHE:CE2	5.40	0.49
1:2:476:U:C2	32:E0:31:LYS:HB2	2.47	0.49
38:8:62:C:H4'	38:8:63:G:O5'	2.13	0.49
36:5:2927:C:H2'	36:5:2928:C:C6	2.48	0.49
49:M3:175:SER:O	49:M3:178:LYS:N	2.45	0.49
3:S1:50:LYS:O	3:S1:52:THR:N	2.46	0.49
6:S4:171:ASP:OD1	6:S4:172:PHE:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:45:ALA:O	66:O0:48:THR:OG1	3.30	0.49
36:5:2775:U:H2'	36:5:2776:C:C6	2.47	0.49
36:5:1840:U:OP2	86:5:4035:OHX:N4	2.45	0.49
36:1:2105:G:O2'	36:1:2106:A:H5'	2.12	0.49
52:M6:39:GLU:N	52:M6:39:GLU:OE1	2.61	0.49
10:S8:2:GLY:N	1:6:393:C:OP2	291.83	0.49
7:S5:108:LEU:HD21	18:C6:44:LEU:HD23	1.95	0.49
13:C1:133:LYS:HB2	1:6:337:G:H3'	290.43	0.49
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.69	0.49
72:O6:31:GLY:HA3	36:5:299:G:C4	112.50	0.49
40:L3:299:ASP:OD1	40:L3:301:THR:OG1	3.27	0.49
4:S2:159:THR:HB	4:S2:168:ARG:HG3	4.85	0.49
11:S9:157:ASP:OD2	11:S9:158:PHE:N	2.45	0.49
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.35	0.49
1:6:485:A:C5	1:6:486:G:H1'	2.48	0.49
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.13	0.49
36:5:3364:C:OP1	86:5:3940:OHX:N1	2.45	0.49
36:1:2169:G:O6	86:1:3918:OHX:N1	2.45	0.49
12:C0:12:HIS:HD2	12:C0:76:LEU:HD11	1.78	0.49
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.13	0.49
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.95	0.49
42:L5:287:ALA:HA	42:L5:290:ILE:HG12	1.95	0.49
25:D3:10:ASN:C	25:D3:12:ALA:H	2.15	0.49
5:S3:61:GLU:O	5:S3:63:GLY:N	2.45	0.49
36:5:1389:G:OP2	86:5:4008:OHX:N5	2.46	0.49
17:C5:15:HIS:CG	17:C5:16:SER:N	2.81	0.49
61:N5:25:LYS:HD3	61:N5:27:ARG:NH1	2.27	0.49
1:2:793:A:H5''	1:2:794:U:C4	2.48	0.49
46:L9:91:ARG:HH21	46:L9:91:ARG:HG3	1.78	0.49
36:1:3295:A:H5'	40:L3:119:TYR:HE1	1.77	0.49
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	5.19	0.49
57:N1:17:ARG:HG2	57:N1:17:ARG:HH11	4.01	0.49
34:SR:241:PHE:O	34:SR:255:ALA:HB3	2.12	0.49
8:S6:50:PHE:HB3	8:S6:111:LEU:HB3	3.08	0.49
49:M3:187:ALA:HA	49:M3:190:LYS:CG	2.42	0.49
1:2:1163:A:N6	1:2:1164:G:C6	2.81	0.49
36:5:579:G:O2'	36:5:580:C:H5'	2.13	0.49
26:D4:2:SER:N	26:D4:32:ARG:HG2	4.99	0.49
36:5:2660:G:O3'	36:5:2749:G:N2	2.45	0.49
36:1:3173:G:N1	69:O3:92:LYS:O	2.39	0.49
36:1:2890:A:O2'	36:1:2933:A:N3	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:20:LEU:HD11	67:O1:32:ALA:HB2	2.65	0.49
3:S1:104:ASP:OD2	3:S1:214:LYS:HE2	3.28	0.49
61:N5:117:ASN:HD22	61:N5:117:ASN:H	4.62	0.49
1:6:1213:G:O6	86:6:2072:OHX:N6	2.46	0.49
56:N0:71:LYS:O	56:N0:73:LYS:HE2	2.12	0.49
20:C8:146:ALA:H	35:SM:68:ARG:HH21	1.61	0.49
36:1:2854:U:P	47:M0:3:ARG:HH22	2.35	0.49
36:5:2971:A:H5''	36:5:2972:G:O5'	2.12	0.49
21:C9:16:ASN:HA	21:C9:56:LYS:HZ3	2.78	0.49
11:S9:142:ASN:HD22	11:S9:142:ASN:C	4.72	0.49
36:1:3309:G:O6	40:L3:21:ARG:NH2	2.45	0.49
22:D0:104:THR:HG22	22:D0:116:VAL:HG21	1.93	0.49
36:1:1307:G:H5''	52:M6:60:LYS:NZ	2.27	0.49
1:2:138:A:N6	1:2:266:A:H61	2.09	0.49
3:S1:180:THR:HB	3:S1:182:ALA:HB3	1.93	0.49
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.19	0.49
7:S5:53:VAL:O	7:S5:55:ASP:N	2.86	0.49
7:S5:87:CYS:HB3	7:S5:92:ARG:HD2	2.77	0.49
71:O5:44:ILE:O	71:O5:48:ARG:HG3	3.92	0.49
5:S3:66:ILE:O	5:S3:70:THR:OG1	2.26	0.49
34:SR:230:ALA:O	34:SR:231:MET:HB2	2.13	0.49
36:5:166:C:H2'	36:5:167:U:C6	2.47	0.49
42:L5:270:LYS:HB2	37:7:1:G:O2'	321.57	0.49
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.66	0.49
56:N0:7:TYR:CE1	56:N0:34:GLU:HB3	2.47	0.49
64:N8:122:PRO:HB3	64:N8:142:GLY:O	3.16	0.49
36:1:2601:A:H2'	36:1:2602:G:H8	1.77	0.49
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.73	0.49
48:M1:107:ASP:O	48:M1:108:GLU:HG2	3.76	0.49
1:2:1746:A:H2'	1:2:1747:G:O4'	2.12	0.49
45:L8:67:ILE:CG2	45:L8:237:ILE:HB	2.43	0.49
36:5:3163:A:O2'	36:5:3164:C:H5'	2.12	0.49
5:S3:106:LYS:O	5:S3:110:LEU:HB2	2.13	0.49
13:C1:105:LYS:HD2	1:6:306:U:P	322.34	0.49
3:S1:93:GLY:O	3:S1:95:ASN:N	3.25	0.49
61:N5:137:ASN:OD1	61:N5:137:ASN:N	2.36	0.49
1:2:1629:G:H2'	1:2:1630:U:H6	1.78	0.49
48:M1:34:SER:HB2	48:M1:67:VAL:HG11	1.95	0.49
35:SM:91:THR:OG1	35:SM:91:THR:O	2.29	0.49
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.94	0.49
11:S9:17:ARG:NH1	1:6:4:C:O2'	388.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.44	0.49
29:D7:61:THR:OG1	29:D7:62:ILE:N	3.28	0.49
36:5:1817:G:O2'	36:5:1818:U:OP2	2.25	0.49
1:6:129:U:O2	86:6:2058:OHX:N2	2.45	0.49
36:1:1944:U:H2'	36:1:1945:A:C8	2.48	0.49
70:O4:86:LYS:O	70:O4:90:ILE:HG13	2.13	0.49
36:1:1804:A:H5'	70:O4:70:LYS:HB3	1.95	0.49
45:L8:26:LEU:H	45:L8:26:LEU:HD12	1.77	0.49
36:5:1879:A:H2'	36:5:1879:A:N3	2.26	0.49
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.79	0.49
36:5:139:G:H2'	36:5:140:C:C6	2.46	0.49
39:L2:14:SER:OG	39:L2:15:ILE:N	2.45	0.49
34:SR:102:ARG:O	34:SR:104:VAL:HG23	3.98	0.49
27:D5:71:ILE:CG2	27:D5:73:GLY:H	6.83	0.49
86:2:2089:OHX:N5	86:2:2130:OHX:N2	2.60	0.49
1:2:323:A:OP2	10:S8:10:LYS:HA	2.13	0.49
53:M7:31:GLU:CG	53:M7:60:PHE:HA	3.44	0.49
38:8:76:C:H2'	38:8:77:A:O4'	2.13	0.49
41:L4:317:PRO:HB3	41:L4:324:LEU:HA	2.22	0.49
1:2:1280:C:H2'	1:2:1281:G:C8	2.48	0.49
7:S5:100:ASN:N	1:6:1166:A:OP1	355.79	0.49
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.75	0.49
36:1:1307:G:H5''	52:M6:60:LYS:HZ2	1.77	0.49
30:D8:22:ARG:HD2	1:6:1619:C:C2	342.83	0.49
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	4.11	0.49
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	2.21	0.49
1:2:1518:C:OP2	86:2:2120:OHX:N2	2.46	0.49
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.57	0.49
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.47	0.49
49:M3:93:ILE:HG22	49:M3:94:GLY:N	4.15	0.49
61:N5:57:LEU:HD22	61:N5:62:VAL:HG22	4.56	0.49
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	2.28	0.49
9:S7:173:TYR:CE1	9:S7:179:LYS:HB2	2.48	0.49
1:6:1492:A:HO2'	1:6:1493:A:H8	1.59	0.49
36:1:3085:G:OP2	86:1:3893:OHX:N2	2.46	0.49
51:M5:85:THR:HG23	36:5:44:U:H5''	160.57	0.49
36:1:1295:G:P	56:N0:84:ARG:HG3	2.53	0.49
7:S5:120:ILE:O	7:S5:124:LEU:HD13	2.61	0.49
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	2.20	0.49
36:1:2406:C:H2'	36:1:2407:C:C6	2.47	0.49
6:S4:131:LEU:HD11	6:S4:135:GLY:HA2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:113:LEU:HD22	36:5:1522:U:H3'	101.89	0.49
36:1:776:U:C5	36:1:2719:U:O2	2.65	0.49
71:O5:57:VAL:O	71:O5:61:GLN:HG3	2.69	0.49
36:1:2808:A:C5	36:1:2955:U:H4'	2.48	0.49
36:5:3045:G:H2'	36:5:3046:A:O4'	2.13	0.49
36:1:1798:A:H2'	36:1:1799:A:C8	2.47	0.49
36:1:3023:U:H2'	36:1:3024:A:C8	2.48	0.49
1:6:725:U:H2'	1:6:726:C:C6	2.47	0.49
36:5:2861:U:H2'	36:5:2862:U:C6	2.48	0.49
36:1:1438:U:H2'	36:1:1439:U:C6	2.47	0.49
49:M3:55:ARG:HG3	49:M3:72:GLY:O	2.13	0.49
1:2:819:G:O6	1:2:853:G:C5	2.65	0.49
36:5:2796:G:H5''	36:5:2798:C:O4'	2.13	0.49
9:S7:16:LEU:HD11	9:S7:48:GLU:HG3	1.95	0.49
10:S8:196:LEU:HD22	10:S8:200:LYS:HD3	7.55	0.49
21:C9:53:TRP:CH2	21:C9:100:ILE:HD13	3.49	0.49
11:S9:168:ARG:HD3	11:S9:174:ARG:HD2	3.12	0.49
1:6:1230:A:H8	1:6:1258:U:C4	2.29	0.49
1:2:862:A:OP1	15:C3:20:ARG:NE	2.38	0.49
66:O0:16:LEU:HD12	66:O0:98:SER:HA	2.27	0.49
4:S2:235:LEU:HD13	23:D1:33:GLN:NE2	2.28	0.49
3:S1:61:LEU:HB2	3:S1:64:ARG:HE	1.78	0.49
1:2:190:C:O2'	1:2:191:C:H5'	2.13	0.49
1:6:478:A:C2	1:6:479:C:C2	3.01	0.49
5:S3:140:GLY:HA3	5:S3:182:LEU:HB3	1.95	0.49
57:N1:127:GLN:HG3	36:5:1095:U:N3	261.15	0.49
40:L3:165:GLN:HB3	40:L3:168:LYS:HG3	4.19	0.49
30:D8:42:ARG:NH2	30:D8:58:GLU:O	4.17	0.49
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.64	0.49
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.95	0.49
56:N0:155:ARG:HB2	56:N0:172:TYR:HB2	1.94	0.49
62:N6:36:SER:HB2	62:N6:37:LYS:HE2	3.88	0.49
36:5:1404:G:N2	36:5:1407:A:OP2	2.38	0.49
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	5.37	0.49
73:O7:11:ARG:HB3	36:5:817:A:C2	141.44	0.49
36:5:3024:A:H5''	36:5:3025:C:OP2	2.12	0.49
59:N3:12:ARG:HG3	59:N3:13:ILE:N	3.95	0.49
1:2:463:U:H2'	1:2:464:A:C8	2.48	0.49
1:2:1165:G:O6	1:2:1166:A:N6	2.46	0.49
25:D3:140:LYS:HG3	25:D3:141:GLU:H	1.78	0.49
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.34	0.49
1:6:592:A:O2'	1:6:596:C:OP1	2.29	0.49
36:5:3136:G:OP2	86:5:4103:OHX:N3	2.46	0.49
38:8:2:A:H3'	38:8:3:A:H8	1.78	0.49
36:5:422:A:N1	36:5:2362:C:O2'	2.33	0.49
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.48	0.49
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	2.04	0.49
1:2:1031:U:H4'	1:2:1032:G:OP2	2.12	0.49
1:2:953:G:H2'	1:2:954:G:C8	2.48	0.49
40:L3:45:SER:O	40:L3:181:ILE:HD13	2.62	0.49
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.48	0.49
36:1:2827:U:O4	86:1:3874:OHX:N4	2.46	0.49
1:2:1320:U:O2	1:2:1322:A:H5'	2.13	0.49
1:2:147:A:H2'	1:2:148:A:O4'	2.12	0.49
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.52	0.49
78:Q2:45:ARG:O	78:Q2:48:SER:OG	2.69	0.49
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	4.34	0.49
32:E0:43:ARG:HG2	32:E0:44:PHE:CE2	2.48	0.49
67:O1:36:ILE:O	67:O1:39:PHE:N	2.44	0.49
44:L7:208:SER:HB2	36:5:1334:U:H1'	241.23	0.49
17:C5:28:MET:O	17:C5:32:ASP:HB2	2.13	0.49
12:C0:38:LYS:NZ	31:D9:4:GLU:OE1	2.45	0.49
37:3:20:A:C4	37:3:60:G:N2	2.80	0.49
32:E0:28:LYS:HD3	1:6:542:A:N1	428.53	0.49
55:M9:99:LEU:HD22	55:M9:103:ARG:HG3	5.89	0.49
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	1.95	0.49
36:1:3375:A:O2'	36:1:3378:C:H5'	2.13	0.49
9:S7:62:VAL:HB	9:S7:94:ALA:HA	1.95	0.49
13:C1:94:ILE:HG12	25:D3:16:ARG:HD2	4.67	0.49
71:O5:21:LEU:HD22	71:O5:25:LYS:HE3	1.98	0.49
1:2:1483:A:H2'	1:2:1484:G:C8	2.48	0.49
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	3.20	0.49
40:L3:106:TRP:CH2	40:L3:161:LEU:HD13	2.61	0.49
39:L2:181:LYS:NZ	36:5:860:G:O4'	210.45	0.49
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.51	0.49
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.48	0.49
64:N8:13:GLY:O	68:O2:36:LYS:HD2	2.86	0.49
36:5:3132:C:H2'	36:5:3133:C:C6	2.47	0.49
36:1:1322:U:P	56:N0:117:ARG:HH21	2.35	0.49
49:M3:140:SER:O	49:M3:144:THR:OG1	2.29	0.49
41:L4:220:ARG:NH1	36:5:211:A:OP1	74.55	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:165:CYS:SG	46:L9:179:ILE:HG13	4.68	0.49
2:S0:58:VAL:O	2:S0:62:ARG:HG2	5.18	0.49
36:1:1668:G:C5	36:1:1669:C:C5	3.01	0.49
36:1:1615:C:H2'	36:1:1616:U:H6	1.77	0.49
46:L9:170:LYS:HE3	36:5:2902:A:OP1	318.18	0.49
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.12	0.49
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.95	0.49
13:C1:59:PRO:HB3	13:C1:66:ILE:HD11	1.95	0.49
47:M0:62:SER:O	47:M0:65:LEU:HB2	2.82	0.49
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.02	0.49
64:N8:60:TYR:CD2	64:N8:63:LYS:HD2	5.06	0.49
1:6:723:G:H5'	1:6:724:C:OP2	2.11	0.49
48:M1:110:ILE:HD13	48:M1:122:ILE:HD11	4.25	0.49
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.86	0.49
39:L2:200:ARG:NH1	36:5:2146:C:OP1	212.86	0.49
33:E1:96:LYS:HD2	33:E1:96:LYS:H	1.78	0.49
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.46	0.49
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	1.84	0.49
6:S4:233:LYS:HZ2	6:S4:233:LYS:HB3	5.24	0.48
47:M0:30:LYS:HG3	47:M0:63:GLU:OE1	4.89	0.48
1:2:933:A:OP2	28:D6:37:LYS:NZ	2.35	0.48
4:S2:170:ILE:HG12	4:S2:197:TYR:O	3.33	0.48
21:C9:31:PRO:HD2	21:C9:54:PHE:CZ	2.48	0.48
11:S9:151:ASP:OD1	11:S9:151:ASP:N	2.58	0.48
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.56	0.48
35:SM:62:ARG:NH1	36:1:2675:C:H4'	2.28	0.48
63:N7:136:PHE:CD2	70:O4:89:ILE:HG12	2.47	0.48
1:2:119:A:H1'	1:2:397:A:C5	2.48	0.48
9:S7:39:ARG:NH1	55:M9:189:ALA:HB2	6.78	0.48
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.13	0.48
1:6:826:U:H2'	1:6:827:C:C6	2.47	0.48
10:S8:98:LYS:HB3	1:6:329:G:H5''	274.75	0.48
1:6:542:A:N7	1:6:543:C:H2'	2.28	0.48
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.12	0.48
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.95	0.48
63:N7:33:SER:H	63:N7:40:HIS:HE1	4.81	0.48
41:L4:186:LYS:HE2	36:5:1389:G:O6	115.32	0.48
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.12	0.48
14:C2:67:THR:O	14:C2:69:ALA:N	2.44	0.48
57:N1:129:LYS:HD2	36:5:1097:G:H4'	248.98	0.48
25:D3:42:PRO:HA	25:D3:81:LYS:HD2	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1267:G:H2'	1:6:1268:G:C8	2.47	0.48
63:N7:3:LYS:HE3	66:O0:36:GLN:HA	2.17	0.48
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.16	0.48
1:6:1765:A:OP2	86:6:2126:OHX:N4	2.45	0.48
53:M7:3:ARG:NH2	36:5:398:A:N7	128.08	0.48
1:2:1765:A:H5'	1:2:1767:G:N7	2.28	0.48
54:M8:81:VAL:HG22	54:M8:101:VAL:HG22	1.95	0.48
38:8:121:U:C2'	38:8:122:U:H5'	2.43	0.48
1:6:1714:A:H2'	1:6:1715:G:O4'	2.13	0.48
27:D5:38:HIS:CE1	27:D5:70:LYS:HD3	2.48	0.48
1:6:714:G:N2	1:6:724:C:O2	2.46	0.48
11:S9:178:ALA:O	11:S9:181:ALA:HB3	3.44	0.48
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.08	0.48
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.94	0.48
36:5:2916:U:H5	36:5:2935:U:HO2'	1.59	0.48
1:6:1395:G:O6	86:6:2088:OHX:N3	2.45	0.48
40:L3:329:PRO:HA	36:5:3047:U:H5'	233.09	0.48
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.12	0.48
36:1:1355:A:O5'	36:1:1356:U:H5	1.95	0.48
52:M6:170:LYS:O	52:M6:173:ALA:HB3	2.13	0.48
1:6:654:C:H2'	1:6:655:G:C8	2.47	0.48
36:5:65:A:C4	36:5:110:G:N7	2.81	0.48
36:1:559:A:H3'	36:1:559:A:C8	2.47	0.48
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	2.51	0.48
86:5:3976:OHX:N2	86:5:4195:OHX:N5	2.61	0.48
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	2.38	0.48
36:1:1639:C:O2'	36:1:1640:G:H5'	2.12	0.48
36:5:177:U:OP2	86:5:4014:OHX:N6	2.46	0.48
72:O6:25:LYS:HB3	36:5:156:G:OP2	87.88	0.48
75:O9:30:ARG:HB2	75:O9:30:ARG:HE	1.44	0.48
28:D6:86:VAL:HG12	1:6:1795:U:OP1	343.55	0.48
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.26	0.48
39:L2:3:ARG:HD3	36:5:911:C:N4	179.16	0.48
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.45	0.48
7:S5:144:GLU:HA	7:S5:162:VAL:HG12	1.95	0.48
1:2:802:G:N2	24:D2:107:SER:HB3	2.26	0.48
25:D3:72:VAL:HG11	25:D3:96:VAL:HG21	2.70	0.48
36:1:1633:C:H2'	36:1:1634:G:C8	2.49	0.48
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	1.95	0.48
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	2.21	0.48
36:1:2218:G:H2'	36:1:2219:A:C8	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:180:LEU:HA	6:S4:194:THR:HA	1.95	0.48
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.84	0.48
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	1.95	0.48
40:L3:290:ASP:OD2	40:L3:292:ALA:N	4.83	0.48
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.13	0.48
46:L9:17:THR:HB	50:M4:4:ASP:O	2.12	0.48
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.29	0.48
36:1:1679:A:OP1	58:N2:94:ARG:NH1	2.46	0.48
36:5:2775:U:H2'	36:5:2776:C:H6	1.78	0.48
6:S4:89:VAL:O	6:S4:99:PHE:O	4.64	0.48
36:1:668:G:OP1	86:1:4125:OHX:N2	2.45	0.48
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.63	0.48
40:L3:261:MET:O	40:L3:264:VAL:HG13	2.13	0.48
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.47	0.48
36:1:2812:C:H2'	36:1:2813:A:C8	2.48	0.48
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.23	0.48
1:6:1535:U:H4'	1:6:1535:U:OP1	2.13	0.48
28:D6:3:LYS:HA	1:6:1792:G:O5'	338.00	0.48
65:N9:59:LYS:HD3	65:N9:59:LYS:H	1.78	0.48
1:6:1586:A:H2'	1:6:1587:A:C8	2.49	0.48
45:L8:167:PRO:HB3	45:L8:177:TYR:CE1	3.17	0.48
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	1.93	0.48
54:M8:180:ARG:HH11	54:M8:185:LYS:HB3	1.77	0.48
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.58	0.48
40:L3:92:TYR:CE1	40:L3:159:ARG:HD2	2.49	0.48
40:L3:5:LYS:HG2	40:L3:6:TYR:CE1	2.48	0.48
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	1.94	0.48
8:S6:69:LEU:N	8:S6:101:ILE:HD12	3.08	0.48
36:5:406:G:H1'	38:8:16:G:N2	2.28	0.48
38:8:79:A:H2'	38:8:80:A:O4'	2.13	0.48
5:S3:117:ARG:HE	35:SM:122:GLU:HB3	1.78	0.48
39:L2:209:HIS:HD2	39:L2:211:HIS:H	1.57	0.48
71:O5:83:LYS:O	71:O5:89:ARG:NE	2.72	0.48
1:6:825:U:HO2'	1:6:826:U:P	2.37	0.48
11:S9:85:VAL:HG12	11:S9:99:LEU:HD11	1.95	0.48
36:1:1246:G:H2'	36:1:1247:U:O4'	2.12	0.48
36:1:1246:G:N2	36:1:1264:G:HO2'	2.10	0.48
50:M4:50:LYS:HD3	50:M4:85:TRP:HD1	1.75	0.48
52:M6:16:VAL:HG23	52:M6:43:ILE:HG12	2.69	0.48
1:6:105:A:H2'	1:6:106:U:O4'	2.14	0.48
49:M3:152:THR:O	49:M3:153:ASP:HB2	2.56	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.46	0.48
86:2:2043:OHX:N2	86:2:2098:OHX:N6	2.61	0.48
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.14	0.48
45:L8:202:GLU:O	45:L8:203:VAL:HB	2.35	0.48
52:M6:172:ARG:HD2	36:5:3191:G:P	307.10	0.48
36:5:2372:A:H4'	36:5:2373:A:OP2	2.12	0.48
52:M6:148:LYS:HB2	52:M6:149:TYR:CD2	2.48	0.48
36:1:2320:A:C2	79:Q3:16:VAL:HG13	2.49	0.48
21:C9:63:ARG:O	21:C9:67:MET:HE3	2.13	0.48
1:6:149:C:H2'	1:6:150:U:H6	1.77	0.48
1:2:1006:C:O2	86:2:2144:OHX:N2	2.46	0.48
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.95	0.48
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.94	0.48
44:L7:152:GLY:O	44:L7:163:LEU:HG	2.14	0.48
60:N4:58:HIS:ND1	60:N4:58:HIS:O	3.83	0.48
36:5:2973:G:N7	86:5:4114:OHX:N1	2.62	0.48
22:D0:44:ASN:O	22:D0:47:GLN:HB3	2.12	0.48
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.47	0.48
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.48	0.48
1:2:1010:C:H2'	1:2:1011:G:O4'	2.12	0.48
38:8:141:C:H2'	38:8:142:C:C6	2.48	0.48
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.28	0.48
67:O1:12:TYR:HD2	67:O1:75:ILE:HG13	1.78	0.48
1:6:766:U:H3'	1:6:768:C:OP2	2.14	0.48
11:S9:108:ARG:HH21	11:S9:145:SER:HB3	3.45	0.48
40:L3:21:ARG:HG3	36:5:2991:A:OP1	209.45	0.48
36:1:1074:U:O2'	36:1:1075:A:H2'	2.13	0.48
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.28	0.48
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.47	0.48
36:1:2443:A:N6	36:1:2504:U:C4	2.80	0.48
36:1:1306:G:O2'	36:1:1307:G:H5'	2.13	0.48
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	1.95	0.48
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.96	0.48
1:6:1173:C:H2'	1:6:1174:C:H6	1.77	0.48
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.47	0.48
27:D5:51:LEU:HD12	27:D5:51:LEU:H	2.75	0.48
53:M7:139:TYR:CE1	36:5:2355:G:H5'	143.21	0.48
1:2:1760:G:H2'	1:2:1761:U:H5'	1.94	0.48
62:N6:80:VAL:HG11	62:N6:104:LEU:HD11	1.95	0.48
56:N0:95:ARG:NH1	56:N0:144:LEU:HD21	2.62	0.48
36:5:3269:U:H5'	36:5:3271:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:61:A:H8	1:2:269:G:O2'	1.97	0.48
19:C7:51:ALA:O	19:C7:54:THR:OG1	3.21	0.48
34:SR:123:ILE:HD11	34:SR:156:VAL:HG23	1.95	0.48
21:C9:14:PHE:CZ	21:C9:135:ILE:HD11	2.49	0.48
51:M5:156:HIS:O	51:M5:159:ARG:HG2	2.12	0.48
30:D8:19:THR:HB	30:D8:66:LEU:HB2	1.95	0.48
9:S7:109:VAL:HG13	9:S7:110:GLN:HB2	4.15	0.48
36:1:2544:U:H2'	36:1:2545:C:C6	2.48	0.48
46:L9:166:ARG:NH2	46:L9:168:ARG:HH12	11.98	0.48
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	2.93	0.48
66:O0:86:ARG:NH1	79:Q3:44:LYS:HG2	3.97	0.48
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.78	0.48
36:1:1765:U:H2'	36:1:1766:G:H8	1.78	0.48
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	3.79	0.48
67:O1:90:PHE:HB3	67:O1:91:SER:H	3.62	0.48
86:5:4211:OHX:N4	86:5:4221:OHX:N3	2.62	0.48
36:5:1424:C:H2'	36:5:1425:U:O4'	2.13	0.48
36:1:520:U:O4	41:L4:349:THR:HG23	2.13	0.48
40:L3:7:GLU:HG2	36:5:2915:U:C5	257.17	0.48
18:C6:78:VAL:O	18:C6:81:ILE:HG12	2.36	0.48
36:1:2665:U:H4'	36:1:2666:C:OP1	2.13	0.48
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.82	0.48
33:E1:113:LYS:H	33:E1:113:LYS:HD2	1.83	0.48
36:1:1373:A:OP2	64:N8:7:LYS:NZ	2.46	0.48
1:6:113:U:H4'	1:6:114:C:H3'	1.94	0.48
21:C9:33:TYR:HD1	21:C9:34:VAL:H	2.96	0.48
22:D0:58:LEU:HD23	1:6:1516:A:H8	444.45	0.48
22:D0:22:ILE:HD12	22:D0:118:VAL:HA	1.95	0.48
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	4.18	0.48
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.46	0.48
20:C8:29:VAL:HG12	20:C8:30:TYR:CD1	3.55	0.48
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.14	0.48
36:1:355:A:H2'	36:1:356:C:O4'	2.14	0.48
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.47	0.48
19:C7:109:LEU:O	19:C7:113:LEU:HB2	3.47	0.48
59:N3:80:ARG:HD3	59:N3:117:PRO:O	2.44	0.48
3:S1:181:LEU:O	3:S1:183:GLN:N	2.46	0.48
37:3:31:U:H2'	37:3:32:U:C6	2.48	0.48
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	4.05	0.48
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.81	0.48
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:2:ALA:HB2	64:N8:31:GLY:O	2.13	0.48
15:C3:89:TYR:CE1	15:C3:93:LYS:HD2	2.48	0.48
4:S2:116:LYS:HB2	4:S2:131:ILE:HD12	2.46	0.48
1:2:830:U:C2	1:2:831:U:C5	3.02	0.48
17:C5:127:ARG:NH2	35:SM:65:THR:OG1	2.81	0.48
7:S5:205:SER:C	7:S5:207:THR:H	2.46	0.48
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.22	0.48
36:1:1741:A:C2	36:1:1742:U:C4	3.01	0.48
36:5:2799:A:H5''	36:5:2800:G:O5'	2.13	0.48
19:C7:5:ARG:NH1	1:6:1402:G:OP2	408.11	0.48
36:5:1691:U:H2'	36:5:1692:U:C6	2.49	0.48
48:M1:150:ASN:C	48:M1:152:HIS:H	2.16	0.48
36:5:172:G:C6	36:5:247:C:N4	2.82	0.48
62:N6:125:LYS:HD2	71:O5:71:LYS:HB3	53.74	0.48
52:M6:36:VAL:HG11	52:M6:108:ILE:HG23	1.95	0.48
1:2:775:G:O6	26:D4:11:LYS:NZ	2.38	0.48
1:6:1766:A:H5''	86:6:2126:OHX:N3	2.28	0.48
76:Q0:93:LYS:HD3	76:Q0:102:ARG:HG2	1.95	0.48
86:1:3977:OHX:N5	86:1:4162:OHX:N2	2.61	0.48
36:1:565:U:H2'	36:1:566:G:C8	2.48	0.48
47:M0:51:HIS:O	47:M0:165:ILE:HA	2.46	0.48
47:M0:51:HIS:CD2	57:N1:160:ILE:HG22	2.49	0.48
38:8:106:C:O2'	86:8:231:OHX:N5	2.46	0.48
36:5:1953:G:O6	36:5:2094:C:N4	2.47	0.48
5:S3:136:VAL:HB	5:S3:152:PHE:HB2	1.94	0.48
36:1:3325:G:H5'	67:O1:104:LEU:O	2.14	0.48
36:5:2279:A:O5'	36:5:2280:A:H5'	2.13	0.48
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.13	0.48
1:2:1:U:C4	1:2:369:A:C6	3.02	0.48
42:L5:268:GLU:HG3	42:L5:271:LYS:HD2	1.94	0.48
65:N9:9:ALA:O	65:N9:12:GLN:HG2	2.12	0.48
86:2:2095:OHX:N6	13:C1:18:HIS:O	2.46	0.48
22:D0:36:ASN:HA	22:D0:39:SER:HB3	4.07	0.48
36:5:407:A:C2	38:8:17:A:H1'	2.49	0.48
54:M8:165:ILE:HD11	54:M8:172:PHE:HB3	1.94	0.48
1:2:1183:A:C5	1:2:1184:A:C6	3.01	0.48
46:L9:189:GLU:O	46:L9:191:LEU:N	2.40	0.48
36:1:3:U:C2	38:4:157:U:C2	3.02	0.48
49:M3:46:ILE:O	49:M3:46:ILE:HG22	2.14	0.48
47:M0:191:LYS:HB3	47:M0:213:PHE:CE2	2.49	0.48
35:SM:68:ARG:HH21	1:6:1460:A:P	332.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:13:THR:CG2	67:O1:72:ARG:HH21	6.02	0.48
86:1:4137:OHX:N1	86:1:4170:OHX:N4	2.61	0.48
62:N6:43:TYR:CE2	62:N6:109:LEU:HD12	3.28	0.48
36:1:1579:C:H2'	36:1:1580:A:C8	2.48	0.48
20:C8:27:LYS:HA	20:C8:57:ARG:HA	2.13	0.48
1:2:78:A:H1'	8:S6:175:ILE:HD11	1.96	0.48
3:S1:26:ARG:NH1	3:S1:49:ASN:OD1	2.37	0.48
1:6:1483:A:OP2	1:6:1521:G:N2	2.26	0.48
36:5:3242:G:N2	36:5:3245:A:H5''	2.28	0.48
71:O5:21:LEU:HD22	71:O5:25:LYS:HG3	2.48	0.48
1:2:1459:C:N4	20:C8:139:LYS:HG3	2.28	0.48
59:N3:129:VAL:O	59:N3:133:SER:OG	2.30	0.48
6:S4:162:ILE:HG22	6:S4:164:LEU:H	1.79	0.48
1:2:959:U:H5'	29:D7:28:PRO:HB3	1.94	0.48
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.79	0.48
62:N6:59:VAL:C	62:N6:64:LYS:HD2	2.34	0.48
64:N8:73:LEU:HB2	64:N8:109:TYR:CE2	2.48	0.48
62:N6:74:TYR:HD2	62:N6:81:GLN:NE2	3.13	0.48
36:5:1093:A:C2	36:5:1096:U:C2	3.01	0.48
36:1:979:U:O3'	36:1:980:A:C8	2.67	0.48
1:6:1475:A:H2'	1:6:1476:C:C6	2.48	0.48
36:1:2403:G:N2	36:1:2404:A:N6	2.62	0.48
62:N6:40:ARG:O	62:N6:44:GLY:N	2.40	0.48
8:S6:53:SER:O	8:S6:110:ALA:HB3	2.13	0.48
17:C5:85:ILE:HD11	17:C5:116:LEU:HD23	1.94	0.48
36:1:1295:G:H2'	36:1:1296:C:C6	2.48	0.48
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.78	0.48
47:M0:52:LEU:HD23	47:M0:165:ILE:HG12	5.42	0.48
5:S3:23:GLU:HG3	12:C0:61:TRP:HE1	1.79	0.48
36:1:373:A:H62	36:1:396:A:N6	2.12	0.48
1:2:417:A:H4'	1:2:418:G:O5'	2.13	0.48
7:S5:184:PHE:CD1	7:S5:185:ARG:HG3	2.48	0.48
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	2.93	0.48
1:2:1066:C:H1'	3:S1:146:GLN:HG2	1.95	0.48
1:2:599:A:H5'	25:D3:123:LYS:NZ	2.28	0.48
1:2:422:G:N7	86:2:2107:OHX:N5	2.60	0.48
36:5:3358:U:H2'	36:5:3359:A:C8	2.49	0.48
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	1.96	0.48
1:2:761:G:OP1	11:S9:54:ARG:NH1	2.47	0.48
36:1:1027:A:H2'	36:1:1029:G:H5''	1.95	0.48
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:35:PRO:HB3	6:S4:143:ASP:O	2.38	0.48
36:1:1709:C:H2'	36:1:1710:C:H6	1.77	0.48
26:D4:19:ALA:HB1	26:D4:81:GLU:OE2	3.76	0.48
42:L5:278:SER:O	42:L5:281:GLU:HB2	2.14	0.48
36:1:3298:C:H2'	36:1:3299:A:O4'	2.13	0.48
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.77	0.48
49:M3:80:VAL:HG12	49:M3:85:LEU:O	2.29	0.48
38:4:152:G:H2'	38:4:153:U:O4'	2.13	0.48
38:4:154:C:H2'	38:4:155:A:O4'	2.13	0.48
1:6:1309:C:H2'	1:6:1310:U:O4'	2.12	0.48
36:5:1856:C:H2'	36:5:1857:C:C6	2.48	0.48
36:5:501:A:H2'	36:5:502:U:C6	2.48	0.48
36:1:439:C:HO2'	36:1:619:A:H2	1.59	0.48
86:2:2089:OHX:N1	86:2:2130:OHX:N2	2.61	0.48
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.49	0.48
20:C8:129:TRP:O	35:SM:68:ARG:HB2	2.95	0.48
75:O9:24:PRO:HB2	75:O9:27:ILE:HD13	2.58	0.48
44:L7:223:PHE:HA	44:L7:227:GLY:O	2.12	0.48
28:D6:36:ILE:HD12	28:D6:78:ALA:CB	2.44	0.48
38:8:78:G:H2'	38:8:79:A:O4'	2.13	0.48
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.32	0.48
49:M3:79:GLU:OE2	49:M3:101:ARG:NH2	2.77	0.48
20:C8:26:ILE:HG23	20:C8:31:ALA:HB2	1.94	0.48
59:N3:87:ARG:HB2	59:N3:89:ASP:OD1	2.72	0.48
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.47	0.48
52:M6:12:LYS:HD3	52:M6:37:ARG:NH2	2.29	0.48
52:M6:68:ARG:NH1	36:5:2988:C:P	215.91	0.48
1:2:968:U:H5''	1:2:1033:C:O2'	2.14	0.48
36:1:438:A:O2'	36:1:495:G:H4'	2.14	0.48
55:M9:80:LYS:HE2	36:5:1940:G:OP1	206.26	0.48
1:6:1429:G:C6	1:6:1430:U:C4	3.02	0.48
5:S3:135:GLU:HB2	5:S3:157:LEU:HD11	4.32	0.48
5:S3:6:SER:CA	1:6:1514:U:H1'	439.66	0.48
72:O6:98:ARG:HD2	72:O6:98:ARG:H	1.78	0.48
42:L5:114:GLY:C	42:L5:116:ASP:H	2.15	0.48
86:5:4062:OHX:N3	86:5:4140:OHX:N4	2.60	0.48
86:5:4008:OHX:N6	86:5:4197:OHX:N5	2.61	0.48
1:6:648:G:C2	1:6:687:G:C2	3.01	0.48
42:L5:270:LYS:HG2	37:7:2:G:H5'	318.76	0.48
48:M1:166:LYS:O	48:M1:167:TYR:HB2	2.14	0.48
76:Q0:93:LYS:HB3	76:Q0:93:LYS:HE2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:85:G:O6	62:N6:112:ASP:HB3	2.13	0.48
36:1:1680:G:H2'	36:1:1681:U:H6	1.77	0.48
10:S8:72:ILE:HG21	10:S8:112:TRP:CE2	2.49	0.48
46:L9:36:LYS:HE3	46:L9:74:LEU:HD22	1.95	0.48
36:1:3324:C:H42	36:1:3383:G:H1	1.62	0.48
36:1:3018:C:H2'	36:1:3019:U:O4'	2.14	0.48
26:D4:125:LEU:O	26:D4:129:VAL:HG23	2.14	0.48
40:L3:43:LEU:HB2	40:L3:208:VAL:HG11	1.95	0.48
36:1:2563:G:H5''	45:L8:27:THR:HG23	1.94	0.48
39:L2:137:ILE:HG13	39:L2:138:GLY:N	3.00	0.48
1:6:815:G:H5'	1:6:815:G:H8	1.77	0.48
36:1:708:G:H5'	36:1:708:G:H8	1.79	0.48
50:M4:57:ALA:HB2	56:N0:97:VAL:HG21	1.96	0.48
36:1:748:U:H2'	36:1:749:C:C6	2.48	0.48
5:S3:225:TYR:HE2	34:SR:191:ASP:H	1.62	0.48
11:S9:176:ASN:HA	11:S9:179:ARG:HG2	4.46	0.48
18:C6:11:GLY:HA2	18:C6:83:GLN:NE2	4.79	0.48
7:S5:20:PHE:CE1	7:S5:22:PRO:HA	3.14	0.48
43:L6:44:ALA:O	43:L6:48:ARG:HB3	3.41	0.48
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	2.51	0.48
10:S8:76:THR:HB	10:S8:77:ARG:H	2.40	0.48
51:M5:11:GLN:HA	51:M5:19:LEU:HD21	1.95	0.48
36:5:618:C:H2'	36:5:619:A:C8	2.49	0.48
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.81	0.48
9:S7:103:SER:OG	9:S7:106:SER:N	3.27	0.48
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.14	0.48
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.29	0.48
36:5:1807:G:C6	36:5:1808:G:N1	2.81	0.48
1:2:119:A:H1'	1:2:397:A:C4	2.48	0.48
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.28	0.48
46:L9:95:ALA:O	76:Q0:77:ILE:HG12	6.84	0.48
5:S3:142:LEU:HD11	5:S3:182:LEU:HD21	1.96	0.48
18:C6:128:LYS:HE3	1:6:1417:A:O2'	395.91	0.48
7:S5:177:ILE:HG12	7:S5:180:ARG:NH1	2.90	0.48
1:6:884:A:H2'	1:6:885:G:H8	1.78	0.48
36:1:2273:G:N2	36:1:2311:G:H2'	2.29	0.48
47:M0:90:ARG:NH2	47:M0:134:ILE:HD12	2.63	0.48
26:D4:47:VAL:HG22	26:D4:48:TYR:CD2	5.94	0.48
15:C3:119:GLU:HG2	15:C3:141:TYR:CE2	3.66	0.48
40:L3:147:GLU:OE1	40:L3:150:ARG:NH2	4.42	0.48
6:S4:160:VAL:HG12	6:S4:162:ILE:HD12	3.05	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:81:G:C6	1:2:82:U:N3	2.82	0.48
71:O5:74:LYS:NZ	36:5:128:G:OP2	79.13	0.48
46:L9:90:MET:O	46:L9:91:ARG:HD2	5.95	0.48
75:O9:45:ARG:NH2	36:5:1841:A:N3	127.19	0.48
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.49	0.48
51:M5:153:ASP:OD2	51:M5:155:VAL:HG23	3.24	0.48
36:5:3288:G:O2'	36:5:3289:G:P	2.72	0.48
1:2:1451:C:H2'	1:2:1452:U:H6	1.77	0.48
86:5:4051:OHX:N5	86:5:4196:OHX:N2	2.61	0.48
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.48	0.48
6:S4:184:THR:O	6:S4:189:LEU:HD13	3.46	0.48
1:6:570:A:H5''	1:6:571:G:OP2	2.12	0.48
71:O5:93:THR:HG23	71:O5:96:GLU:OE1	2.12	0.48
1:2:1400:A:O3'	19:C7:60:ARG:NH1	2.47	0.48
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.70	0.48
53:M7:65:SER:O	53:M7:66:SER:HB2	2.60	0.48
36:1:959:C:H5'	36:1:960:U:O5'	2.14	0.48
61:N5:131:ASP:HB3	61:N5:134:ASP:HB2	1.96	0.48
25:D3:137:LYS:O	25:D3:139:LYS:N	3.43	0.48
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.45	0.48
1:2:1050:G:H2'	1:2:1051:G:H5'	1.96	0.48
4:S2:38:VAL:N	4:S2:65:GLU:OE1	2.55	0.48
56:N0:113:ARG:HB2	56:N0:114:HIS:CD2	2.49	0.48
36:5:2985:C:H2'	36:5:2986:U:C6	2.49	0.48
12:C0:71:GLU:H	12:C0:71:GLU:HG2	1.36	0.48
36:1:2249:G:H3'	36:1:2249:G:C8	2.49	0.48
44:L7:147:LEU:HD23	44:L7:147:LEU:HA	1.43	0.48
36:5:1039:U:H2'	36:5:1040:A:C8	2.49	0.48
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.14	0.48
7:S5:41:LYS:NZ	18:C6:112:TYR:HE2	3.93	0.48
53:M7:33:ALA:C	53:M7:35:ALA:H	2.52	0.48
36:1:156:G:O2'	36:1:157:A:H4'	2.14	0.48
35:SM:61:ILE:HG13	35:SM:61:ILE:H	1.52	0.48
70:O4:44:CYS:SG	70:O4:46:ASP:HB2	2.53	0.48
3:S1:58:SER:O	3:S1:60:ALA:N	2.47	0.48
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.45	0.48
1:2:72:A:C2	1:2:73:U:N3	2.81	0.48
47:M0:193:ASP:OD1	36:5:1010:G:N2	335.98	0.48
10:S8:59:ARG:HG2	10:S8:59:ARG:HH11	4.86	0.48
1:6:168:A:C6	1:6:169:A:N6	2.82	0.48
12:C0:16:PHE:HD2	12:C0:76:LEU:HB3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1591:C:H2'	1:2:1592:A:C8	2.49	0.48
34:SR:44:SER:OG	34:SR:59:ARG:HB2	2.14	0.48
36:5:420:G:N2	36:5:2385:G:OP2	2.41	0.48
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.77	0.48
2:S0:121:VAL:HB	2:S0:143:VAL:HG22	1.96	0.48
22:D0:48:HIS:CG	22:D0:48:HIS:O	2.67	0.48
32:E0:49:LEU:HG	32:E0:58:PRO:HG3	5.69	0.48
36:5:1064:A:N6	36:5:1096:U:H3	2.10	0.48
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.13	0.48
49:M3:59:ARG:NH1	36:5:73:C:N3	95.05	0.48
72:O6:57:LEU:HD11	72:O6:73:ALA:HB2	1.95	0.48
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.95	0.48
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.41	0.48
15:C3:46:THR:O	15:C3:50:ILE:HG13	2.57	0.48
13:C1:21:ASN:HD22	13:C1:31:THR:HA	3.85	0.48
47:M0:138:VAL:CG2	47:M0:152:LEU:HD11	2.43	0.48
1:6:1348:A:OP1	86:6:2143:OHX:N2	2.47	0.48
54:M8:84:VAL:C	54:M8:104:LEU:HD12	2.33	0.48
11:S9:88:GLU:O	11:S9:91:LYS:HE3	2.30	0.48
1:2:217:A:H4'	1:2:218:A:OP2	2.13	0.48
48:M1:90:GLN:OE1	48:M1:172:LEU:HD21	2.74	0.48
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.34	0.48
1:2:1183:A:C6	1:2:1184:A:N1	2.82	0.48
45:L8:54:GLU:HG2	45:L8:57:ARG:HH21	1.79	0.48
36:1:677:A:C8	36:1:786:A:C6	3.02	0.48
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.46	0.48
71:O5:70:TYR:O	71:O5:73:LYS:HG2	2.13	0.48
73:O7:81:GLY:O	38:8:95:G:H1'	41.03	0.48
45:L8:50:VAL:HA	61:N5:30:ALA:HB1	2.95	0.48
6:S4:146:THR:OG1	6:S4:146:THR:O	4.38	0.48
36:5:2689:A:H2'	36:5:2689:A:N3	2.29	0.48
20:C8:110:ARG:HB3	20:C8:110:ARG:HH11	2.37	0.48
1:2:23:G:O2'	1:2:368:U:OP1	2.28	0.48
41:L4:322:GLN:OE1	36:5:598:A:H1'	255.56	0.48
27:D5:61:SER:H	27:D5:64:VAL:CG2	3.06	0.48
1:2:1555:A:OP2	17:C5:47:ARG:NH2	2.47	0.48
36:5:92:G:H5'	36:5:93:C:C5'	2.44	0.48
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.31	0.48
36:1:3361:G:O6	86:1:4166:OHX:N6	2.47	0.48
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.49	0.48
10:S8:81:VAL:O	10:S8:82:VAL:HB	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:38:ASP:HA	79:Q3:45:LYS:HA	1.95	0.48
34:SR:16:HIS:CE1	34:SR:37:SER:HB3	2.49	0.48
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.60	0.48
1:2:191:C:O2'	1:2:192:U:O5'	2.32	0.48
52:M6:14:HIS:O	52:M6:41:LEU:HD12	2.14	0.48
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.48	0.48
37:3:26:C:H2'	37:3:27:A:O4'	2.14	0.48
46:L9:12:VAL:CG1	46:L9:16:VAL:HG22	3.17	0.48
63:N7:9:LYS:O	63:N7:25:ILE:HD12	2.74	0.48
36:1:239:G:O6	86:1:4040:OHX:N3	2.47	0.48
68:O2:32:TRP:CZ2	68:O2:52:GLN:HB3	2.49	0.48
42:L5:226:TYR:H	42:L5:226:TYR:HD2	4.63	0.48
42:L5:120:LYS:NZ	42:L5:123:GLU:OE1	5.92	0.48
15:C3:61:THR:HB	1:6:959:U:O2	350.91	0.48
35:SM:48:ARG:HA	36:5:1019:G:OP1	334.55	0.48
48:M1:60:ARG:H	48:M1:63:GLU:HG3	1.79	0.48
63:N7:51:LEU:HB2	63:N7:65:ARG:HD3	1.95	0.48
2:S0:26:ALA:H	2:S0:149:LEU:HD12	2.52	0.48
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.59	0.48
36:5:3288:G:O2'	36:5:3289:G:OP2	2.28	0.48
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.62	0.48
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.14	0.48
36:1:1498:A:H2'	36:1:1499:C:H6	1.79	0.48
36:5:2904:U:H2'	36:5:2905:U:C6	2.48	0.48
36:1:1951:C:H42	36:1:2095:G:H1	1.62	0.48
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.04	0.48
6:S4:185:GLY:N	6:S4:189:LEU:HD13	2.29	0.48
77:Q1:2:ARG:HG3	77:Q1:3:ALA:N	2.43	0.48
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.68	0.48
66:O0:15:ALA:O	66:O0:19:LYS:HG2	3.06	0.48
39:L2:179:LEU:O	39:L2:184:ARG:HG3	2.14	0.48
86:5:4104:OHX:N5	38:8:139:U:O4	2.47	0.48
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.13	0.48
36:5:701:G:H2'	36:5:702:C:C6	2.49	0.48
36:5:612:U:H2'	36:5:613:G:H8	1.77	0.48
70:O4:71:THR:HG22	70:O4:78:GLY:H	2.04	0.48
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	2.17	0.48
17:C5:77:ARG:NH1	1:6:1241:G:OP1	382.34	0.48
1:2:312:A:C2	1:2:314:C:H2'	2.49	0.48
1:2:1351:G:C2	1:2:1375:A:C2	3.02	0.48
38:8:145:U:H2'	38:8:146:U:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:97:ARG:NH1	36:5:3244:A:C2	243.75	0.48
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.95	0.48
36:1:629:U:H2'	36:1:630:A:C8	2.48	0.48
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.29	0.48
11:S9:186:GLU:N	11:S9:186:GLU:OE1	2.47	0.48
16:C4:11:SER:OG	16:C4:12:GLN:N	4.78	0.48
1:6:116:U:H2'	1:6:117:U:C6	2.48	0.48
36:1:304:G:N3	36:1:304:G:H5'	2.29	0.47
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.47	0.47
36:5:123:A:C6	36:5:150:A:C5	3.02	0.47
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.44	0.47
36:1:3187:A:H5'	46:L9:22:SER:HA	1.94	0.47
4:S2:89:GLN:OE1	4:S2:94:GLN:NE2	2.47	0.47
24:D2:110:ILE:HG12	24:D2:126:LEU:HD11	3.44	0.47
3:S1:130:SER:OG	3:S1:131:ASP:N	2.47	0.47
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.46	0.47
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.75	0.47
25:D3:53:VAL:O	25:D3:74:VAL:HA	2.13	0.47
36:5:420:G:O5'	36:5:420:G:OP2	2.30	0.47
1:2:1420:C:OP1	31:D9:54:LYS:NZ	2.46	0.47
77:Q1:7:LYS:HE2	77:Q1:11:ARG:NH1	3.30	0.47
46:L9:48:VAL:CG2	46:L9:52:LEU:HB3	2.62	0.47
17:C5:126:VAL:HG22	17:C5:127:ARG:H	3.26	0.47
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.16	0.47
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	2.07	0.47
9:S7:122:HIS:CE1	9:S7:177:THR:HB	2.90	0.47
71:O5:6:ALA:HB1	71:O5:10:ARG:HH21	2.68	0.47
10:S8:152:ILE:HB	10:S8:153:GLU:H	1.50	0.47
38:4:85:G:H8	38:4:85:G:H3'	1.78	0.47
36:5:3191:G:H2'	36:5:3192:U:C6	2.49	0.47
36:1:933:A:C4	41:L4:98:ARG:NH2	2.82	0.47
18:C6:113:ASP:HA	18:C6:116:LEU:HD12	5.83	0.47
1:6:1609:U:H2'	1:6:1610:G:O4'	2.14	0.47
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.81	0.47
36:1:3006:A:C2	36:1:3141:A:C4	3.02	0.47
67:O1:23:VAL:HG12	67:O1:28:ARG:HG2	2.12	0.47
48:M1:116:TYR:CE2	48:M1:122:ILE:HD11	2.49	0.47
76:Q0:110:CYS:HB2	76:Q0:121:LEU:HD21	1.96	0.47
38:8:56:G:H2'	38:8:57:C:O4'	2.13	0.47
59:N3:86:ARG:HB2	59:N3:92:PHE:CD1	2.49	0.47
43:L6:148:GLU:HA	43:L6:151:LYS:HD2	3.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:473:A:H4'	1:2:768:C:O2	2.14	0.47
36:5:712:G:H2'	36:5:713:U:C6	2.49	0.47
1:2:304:U:H2'	1:2:305:C:H6	1.79	0.47
28:D6:44:ILE:HG13	28:D6:66:LYS:HA	1.96	0.47
58:N2:38:ILE:HD12	58:N2:56:VAL:HB	4.02	0.47
1:2:162:A:H2'	1:2:163:G:N3	2.29	0.47
37:7:3:U:H2'	37:7:4:U:C6	2.48	0.47
18:C6:44:LEU:O	18:C6:47:LYS:N	2.40	0.47
47:M0:191:LYS:O	47:M0:197:VAL:HG22	3.68	0.47
50:M4:121:MET:O	50:M4:125:LYS:HG3	2.73	0.47
36:5:2764:C:C2	88:5:4249:3K5:H42	2.49	0.47
1:2:1290:U:H2'	1:2:1291:G:C8	2.49	0.47
23:D1:32:VAL:HB	23:D1:60:ARG:HD2	2.59	0.47
21:C9:43:ASN:HB3	1:6:1477:G:OP1	373.76	0.47
33:E1:103:LEU:HA	33:E1:103:LEU:HD23	1.59	0.47
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.27	0.47
1:2:622:A:H4'	1:2:623:A:OP1	2.13	0.47
1:2:1248:C:H2'	1:2:1249:U:H6	1.78	0.47
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	1.95	0.47
63:N7:63:ALA:O	63:N7:67:LYS:HE3	2.14	0.47
11:S9:159:ALA:O	11:S9:165:GLY:HA3	3.42	0.47
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.56	0.47
40:L3:56:ILE:HD12	40:L3:359:ILE:HA	1.96	0.47
40:L3:56:ILE:HG23	40:L3:57:VAL:N	2.82	0.47
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.29	0.47
9:S7:173:TYR:CE2	9:S7:177:THR:HG21	2.49	0.47
9:S7:98:ILE:HG13	1:6:694:U:N3	372.23	0.47
36:1:3353:G:O2'	36:1:3354:U:OP1	2.32	0.47
4:S2:169:LEU:HD13	4:S2:218:ILE:HG23	3.62	0.47
48:M1:148:VAL:CG1	48:M1:152:HIS:HB3	2.81	0.47
6:S4:252:ARG:NH2	6:S4:252:ARG:HB3	4.29	0.47
34:SR:201:THR:HG21	34:SR:242:SER:HA	2.53	0.47
34:SR:91:LEU:O	34:SR:100:TYR:N	2.44	0.47
3:S1:112:SER:HB2	28:D6:68:TYR:CZ	2.48	0.47
36:1:2419:A:H2'	36:1:2420:C:C6	2.48	0.47
1:2:920:U:H2'	1:2:921:U:O4'	2.14	0.47
52:M6:173:ALA:O	52:M6:176:LYS:HB3	3.10	0.47
47:M0:29:SER:HA	47:M0:125:LEU:HD12	3.44	0.47
1:6:386:G:H2'	1:6:387:A:C8	2.48	0.47
36:1:274:G:H2'	36:1:275:U:O4'	2.14	0.47
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.50	0.47
1:2:407:A:O2'	1:2:1671:A:N3	2.39	0.47
36:5:532:A:O2'	36:5:533:A:H5'	2.15	0.47
5:S3:27:ARG:NH2	1:6:1436:A:OP2	420.61	0.47
86:5:4029:OHX:N1	86:5:4077:OHX:N2	2.62	0.47
1:2:47:A:N7	1:2:98:U:O2'	2.47	0.47
1:2:503:G:O2'	1:2:504:U:OP1	2.28	0.47
3:S1:128:LYS:HE3	3:S1:132:ASP:HB3	1.97	0.47
32:E0:26:LYS:HB2	32:E0:27:PRO:HD2	2.41	0.47
35:SM:75:ASP:N	35:SM:75:ASP:OD1	3.16	0.47
6:S4:199:GLU:OE2	6:S4:209:HIS:NE2	2.47	0.47
1:6:1205:C:H5''	1:6:1206:U:OP2	2.14	0.47
1:6:939:A:H2'	1:6:940:A:C8	2.50	0.47
13:C1:132:SER:O	13:C1:134:THR:N	2.46	0.47
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.76	0.47
36:1:289:A:H2	51:M5:93:LYS:HD2	1.78	0.47
57:N1:80:VAL:HG13	57:N1:85:LEU:HG	2.92	0.47
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.29	0.47
15:C3:20:ARG:HG3	24:D2:56:HIS:HD2	1.78	0.47
34:SR:16:HIS:HD1	34:SR:39:ASP:CG	2.17	0.47
52:M6:121:PRO:O	52:M6:123:ALA:N	2.91	0.47
52:M6:124:LEU:HD23	56:N0:168:PRO:HG3	1.96	0.47
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.14	0.47
38:8:154:C:H2'	38:8:155:A:O4'	2.15	0.47
9:S7:96:ARG:HB3	1:6:856:A:N6	364.65	0.47
5:S3:42:THR:OG1	5:S3:45:LYS:O	3.09	0.47
17:C5:115:TYR:OH	1:6:1556:A:H5''	385.47	0.47
57:N1:103:GLN:O	57:N1:107:GLU:N	2.35	0.47
49:M3:104:ARG:NH2	36:5:75:G:OP2	89.04	0.47
1:6:491:C:N4	1:6:496:G:O6	2.48	0.47
65:N9:18:ARG:O	86:N9:101:OHX:N4	5.59	0.47
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	3.67	0.47
1:2:1503:A:C6	20:C8:84:TRP:CD1	3.02	0.47
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.14	0.47
42:L5:184:ASP:HB3	42:L5:187:THR:O	2.15	0.47
34:SR:36:ALA:HB2	34:SR:42:LEU:HD23	2.43	0.47
36:1:398:A:C8	53:M7:3:ARG:NH2	2.82	0.47
47:M0:208:ASN:CB	47:M0:211:ARG:HD2	2.45	0.47
1:2:1167:G:OP1	7:S5:101:GLY:HA3	2.13	0.47
1:6:38:C:C2'	1:6:39:A:H5'	2.43	0.47
43:L6:19:LYS:N	36:5:591:G:H21	219.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	2.11	0.47
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.47	0.47
24:D2:76:SER:OG	24:D2:77:PRO:HD3	2.14	0.47
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.77	0.47
36:5:792:G:H2'	36:5:793:C:C6	2.50	0.47
14:C2:40:GLY:HA3	14:C2:125:ASN:HB3	1.96	0.47
36:5:998:A:O2'	36:5:999:G:H5'	2.15	0.47
1:2:1301:U:H5'	4:S2:88:LYS:HD2	1.96	0.47
30:D8:16:LEU:HB2	30:D8:27:GLN:O	2.14	0.47
36:5:3066:U:O4	86:5:4102:OHX:N4	2.48	0.47
36:5:1838:G:H4'	36:5:1839:A:N3	2.30	0.47
36:5:1839:A:N6	36:5:1843:C:C2	2.82	0.47
86:1:4060:OHX:N2	86:1:4169:OHX:N1	2.63	0.47
42:L5:191:ASP:OD1	42:L5:193:GLU:HB2	3.64	0.47
18:C6:131:GLY:HA3	18:C6:136:SER:O	2.38	0.47
36:5:2505:U:H2'	36:5:2506:U:C5	2.49	0.47
6:S4:52:LEU:HB3	6:S4:54:TYR:HD2	1.79	0.47
66:O0:74:ASN:OD1	66:O0:74:ASN:N	2.68	0.47
52:M6:46:GLU:HB3	52:M6:134:LYS:HG2	5.40	0.47
55:M9:166:ASN:HD22	55:M9:167:ARG:HD2	9.02	0.47
49:M3:42:ARG:HH21	49:M3:51:LEU:HD22	5.15	0.47
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	2.46	0.47
36:5:283:G:O6	36:5:304:G:H1'	2.15	0.47
51:M5:120:TRP:CE3	36:5:269:G:H5'	132.72	0.47
34:SR:172:ALA:HB2	34:SR:202:LEU:HD13	1.95	0.47
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.96	0.47
4:S2:89:GLN:HG2	1:6:1146:G:O2'	371.20	0.47
36:1:3090:U:OP1	40:L3:270:ARG:NH2	2.45	0.47
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.63	0.47
36:1:114:A:H2'	36:1:115:A:O4'	2.15	0.47
19:C7:110:VAL:O	19:C7:112:SER:N	2.48	0.47
19:C7:38:ILE:HG12	19:C7:39:ALA:N	4.41	0.47
44:L7:111:ILE:O	44:L7:112:ASN:HB2	2.14	0.47
2:S0:41:ARG:HB3	2:S0:45:VAL:HG23	4.61	0.47
2:S0:122:ILE:HG23	2:S0:144:ILE:HG22	1.96	0.47
36:1:75:G:H5''	49:M3:58:VAL:HG13	1.97	0.47
86:5:4062:OHX:N5	86:5:4140:OHX:N2	2.61	0.47
26:D4:76:TYR:HB2	26:D4:82:ALA:HB2	2.10	0.47
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	1.65	0.47
65:N9:38:LYS:HD3	36:5:1076:C:H4'	213.07	0.47
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	4.90	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:104:A:C8	38:4:105:A:C8	3.01	0.47
36:1:213:A:H5'	62:N6:2:ALA:HA	1.95	0.47
59:N3:128:ARG:CZ	59:N3:128:ARG:HB3	2.90	0.47
86:1:4009:OHX:N3	86:1:4178:OHX:N1	2.63	0.47
21:C9:9:VAL:HG22	21:C9:140:LEU:HD23	3.13	0.47
45:L8:68:ARG:HA	45:L8:236:GLY:O	5.02	0.47
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.14	0.47
46:L9:88:TYR:CZ	46:L9:184:LYS:HE2	2.50	0.47
36:5:528:U:H2'	36:5:529:A:C8	2.50	0.47
61:N5:113:LEU:C	61:N5:113:LEU:HD12	2.34	0.47
22:D0:43:LYS:HD3	22:D0:47:GLN:HB2	6.70	0.47
36:5:1952:G:H1	36:5:2094:C:H42	1.62	0.47
36:1:279:U:H2'	36:1:280:U:C6	2.49	0.47
26:D4:29:HIS:CE1	26:D4:34:ASN:H	2.33	0.47
45:L8:116:VAL:O	45:L8:120:LYS:HA	2.15	0.47
36:1:962:A:N1	36:1:2814:G:O2'	2.41	0.47
36:1:1894:U:O2'	36:1:3054:U:OP1	2.32	0.47
36:5:928:C:H2'	36:5:929:A:C8	2.50	0.47
20:C8:8:GLN:HB3	20:C8:9:GLY:H	3.14	0.47
36:1:1540:U:OP1	86:1:4025:OHX:N1	2.46	0.47
1:2:605:A:OP2	1:2:606:A:O2'	2.24	0.47
2:S0:81:PHE:HB3	2:S0:170:ILE:HD12	4.47	0.47
57:N1:68:THR:HG23	57:N1:71:SER:HB2	1.96	0.47
36:1:2764:C:N3	88:1:4221:3K5:C16	2.77	0.47
36:1:3344:A:H2	36:1:3361:G:N2	2.04	0.47
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	3.85	0.47
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.78	0.47
2:S0:182:LEU:C	2:S0:184:LEU:H	2.17	0.47
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	2.18	0.47
34:SR:199:ILE:HA	34:SR:215:GLY:HA3	1.97	0.47
8:S6:177:ARG:NH2	1:6:143:G:N7	311.27	0.47
1:2:623:A:OP1	86:2:2156:OHX:N4	2.47	0.47
58:N2:73:GLY:HA3	58:N2:103:TYR:OH	2.13	0.47
24:D2:5:SER:O	24:D2:8:ALA:N	2.48	0.47
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.95	0.47
57:N1:101:CYS:SG	57:N1:102:ARG:N	3.67	0.47
36:1:2263:C:O5'	36:1:2263:C:H6	1.96	0.47
1:6:1660:A:H2'	1:6:1661:U:C6	2.49	0.47
36:1:1573:G:H2'	36:1:1573:G:N3	2.29	0.47
1:6:1694:A:H2	1:6:1708:U:N3	2.11	0.47
6:S4:88:ASP:HA	6:S4:122:LYS:HZ1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.27	0.47
39:L2:46:LYS:O	39:L2:47:GLN:HB3	3.26	0.47
1:2:425:A:C8	1:2:425:A:H5'	2.47	0.47
1:6:219:A:N6	1:6:843:U:C2	2.82	0.47
9:S7:58:LEU:HD12	9:S7:88:ARG:HB3	3.23	0.47
43:L6:129:GLU:HG2	43:L6:130:ILE:H	4.84	0.47
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.58	0.47
36:5:1493:G:OP2	36:5:1493:G:N2	2.38	0.47
12:C0:32:HIS:HB3	12:C0:34:GLU:O	7.35	0.47
36:1:1811:G:H2'	36:1:1812:G:O4'	2.14	0.47
34:SR:21:THR:O	34:SR:291:SER:HB3	4.56	0.47
8:S6:12:SER:OG	8:S6:124:LEU:HD12	3.67	0.47
10:S8:87:ASN:HB3	10:S8:90:LEU:HG	1.97	0.47
36:1:3317:U:H4'	36:1:3318:G:O5'	2.14	0.47
36:1:2418:G:H4'	36:1:2419:A:OP2	2.13	0.47
36:1:2407:C:H2'	36:1:2408:U:C6	2.50	0.47
52:M6:133:ARG:HD2	36:5:1315:U:O2'	290.70	0.47
13:C1:17:PRO:HB2	13:C1:18:HIS:CD2	4.28	0.47
9:S7:61:PHE:HA	9:S7:93:LEU:O	2.14	0.47
36:5:679:U:O4	86:5:4012:OHX:N2	2.47	0.47
38:8:56:G:C2	38:8:57:C:C2	3.03	0.47
5:S3:132:LYS:HG2	5:S3:156:PHE:HB3	3.37	0.47
6:S4:199:GLU:OE1	6:S4:207:LEU:HD12	2.13	0.47
1:6:82:U:H2'	1:6:83:G:O4'	2.14	0.47
46:L9:49:ASN:OD1	46:L9:51:GLN:N	2.74	0.47
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.13	0.47
28:D6:19:LYS:HE3	28:D6:19:LYS:HB2	1.68	0.47
1:2:199:G:HO2'	1:2:200:A:H8	1.61	0.47
36:1:1599:G:OP1	86:1:4089:OHX:N5	2.48	0.47
40:L3:226:PHE:HE2	40:L3:267:ALA:HB1	1.79	0.47
1:6:325:G:H2'	1:6:326:G:H8	1.79	0.47
26:D4:89:TYR:HE1	26:D4:93:ARG:HH12	4.12	0.47
1:6:108:A:H2'	1:6:109:G:C8	2.49	0.47
36:5:3094:A:H2'	36:5:3095:U:C6	2.49	0.47
36:1:551:A:O2'	36:1:552:G:O5'	2.27	0.47
40:L3:219:ALA:HB2	40:L3:336:VAL:HG13	1.97	0.47
7:S5:51:VAL:HA	7:S5:131:GLN:OE1	2.15	0.47
51:M5:17:ASP:N	51:M5:17:ASP:OD1	3.22	0.47
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.19	0.47
1:2:321:C:H4'	1:2:322:G:OP2	2.15	0.47
13:C1:131:ILE:O	13:C1:132:SER:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:131:ILE:HG22	13:C1:135:VAL:HB	1.95	0.47
1:2:1555:A:OP1	17:C5:47:ARG:HD3	2.13	0.47
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.22	0.47
36:1:92:G:H8	36:1:92:G:H3'	1.80	0.47
1:2:1291:G:H2'	1:2:1292:G:C8	2.49	0.47
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	3.80	0.47
1:2:531:C:OP2	86:2:2069:OHX:N4	2.48	0.47
36:1:670:C:P	54:M8:147:ARG:HH21	2.38	0.47
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.27	0.47
1:6:119:A:H1'	1:6:397:A:C5	2.49	0.47
11:S9:124:HIS:CD2	1:6:478:A:O2'	448.96	0.47
36:5:959:C:OP2	36:5:960:U:H5	1.98	0.47
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	1.97	0.47
41:L4:84:ARG:HG2	36:5:364:G:O3'	124.00	0.47
1:2:1234:A:O2'	1:2:1235:C:O5'	2.28	0.47
44:L7:103:LEU:HA	44:L7:103:LEU:HD23	1.74	0.47
1:2:332:U:P	10:S8:56:ARG:HH22	2.37	0.47
36:1:3165:A:H2'	36:1:3166:C:C6	2.48	0.47
36:1:2622:C:C2'	36:1:2623:G:H5'	2.44	0.47
36:1:945:C:OP1	68:O2:33:ARG:HG3	2.15	0.47
68:O2:27:ARG:NH1	36:5:1433:A:N3	169.38	0.47
31:D9:6:VAL:HG23	31:D9:7:TRP:CE3	2.62	0.47
45:L8:41:GLN:HG3	45:L8:44:ARG:HH22	3.81	0.47
1:6:887:A:H2'	1:6:888:U:C6	2.49	0.47
36:5:255:A:H2'	36:5:256:G:H8	1.79	0.47
7:S5:198:LEU:O	7:S5:202:ALA:N	2.47	0.47
38:4:121:U:H2'	38:4:122:U:C6	2.50	0.47
6:S4:47:PHE:HD2	6:S4:48:LEU:HD12	1.79	0.47
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.50	0.47
46:L9:75:VAL:HA	46:L9:78:MET:CE	2.56	0.47
34:SR:123:ILE:HD12	34:SR:154:VAL:HG23	3.16	0.47
45:L8:68:ARG:HH21	45:L8:237:ILE:HG22	4.24	0.47
14:C2:81:ASP:O	14:C2:83:GLU:N	2.94	0.47
36:5:766:U:H4'	36:5:767:U:O5'	2.13	0.47
1:2:1145:U:C4	1:2:1146:G:N7	2.82	0.47
54:M8:57:ILE:HG22	54:M8:58:ASN:N	2.29	0.47
29:D7:61:THR:HG23	29:D7:62:ILE:H	1.95	0.47
54:M8:38:ARG:NH2	36:5:1348:U:OP2	187.30	0.47
45:L8:73:PRO:HA	45:L8:76:ALA:HB3	1.95	0.47
11:S9:92:LYS:HB2	11:S9:95:TYR:CD2	7.64	0.47
33:E1:126:CYS:HB3	33:E1:143:LYS:HG2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:30:ARG:C	53:M7:30:ARG:HD3	2.35	0.47
25:D3:57:LEU:HD13	32:E0:4:VAL:HG13	2.41	0.47
78:Q2:19:LYS:HA	36:5:2741:C:H4'	208.30	0.47
1:2:763:G:C6	1:2:764:U:C4	3.03	0.47
1:6:1584:G:N2	1:6:1611:A:OP2	2.28	0.47
36:1:792:G:H2'	36:1:793:C:C6	2.49	0.47
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.40	0.47
33:E1:87:THR:HG22	1:6:1445:G:O6	380.13	0.47
36:5:736:A:C5	36:5:737:G:H1'	2.50	0.47
36:5:3264:G:N2	36:5:3265:C:H1'	2.29	0.47
51:M5:114:ARG:HD3	51:M5:114:ARG:HA	2.39	0.47
59:N3:28:ASN:OD1	59:N3:28:ASN:N	2.77	0.47
49:M3:124:ILE:HD12	49:M3:125:VAL:H	5.86	0.47
36:5:2612:U:H2'	36:5:2613:U:O4'	2.14	0.47
40:L3:187:SER:HB3	40:L3:190:GLU:HB2	3.92	0.47
10:S8:105:ASP:OD1	10:S8:106:ALA:N	2.91	0.47
86:1:4038:OHX:N2	86:1:4050:OHX:N1	2.63	0.47
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.80	0.47
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	2.95	0.47
67:O1:46:THR:HG23	67:O1:47:ASP:H	3.73	0.47
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.48	0.47
1:2:1529:C:O2'	21:C9:12:GLN:OE1	2.13	0.47
8:S6:153:VAL:HG11	8:S6:175:ILE:HG21	1.96	0.47
10:S8:138:ASN:O	10:S8:142:LYS:HG3	2.14	0.47
10:S8:136:SER:HB3	10:S8:139:ALA:HB3	1.95	0.47
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.68	0.47
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.48	0.47
2:S0:50:VAL:H	19:C7:109:LEU:HD21	2.39	0.47
1:2:142:G:N2	1:2:173:A:H2	2.08	0.47
12:C0:8:ARG:HD2	12:C0:12:HIS:HE1	1.80	0.47
7:S5:59:VAL:HG12	7:S5:60:ASP:H	2.09	0.47
7:S5:159:ALA:CB	7:S5:225:ARG:HB3	4.46	0.47
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.27	0.47
1:2:1236:A:H2'	1:2:1237:G:C8	2.50	0.47
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	1.97	0.47
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.83	0.47
36:5:1192:C:H5	86:5:4087:OHX:N4	2.13	0.47
1:2:523:G:H5''	26:D4:59:GLY:O	2.14	0.47
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	3.00	0.47
36:1:2617:U:H3'	65:N9:3:LYS:HD3	1.96	0.47
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:21:LEU:O	71:O5:25:LYS:HG3	2.14	0.47
41:L4:339:LEU:HA	41:L4:342:LYS:HB3	4.40	0.47
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.47	0.47
5:S3:30:ALA:C	5:S3:32:GLU:H	2.18	0.47
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.79	0.47
19:C7:10:LYS:HD3	19:C7:53:TYR:CE1	3.78	0.47
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.50	0.47
49:M3:94:GLY:HA3	71:O5:116:TYR:CZ	2.50	0.47
4:S2:205:ARG:NH1	1:6:6:G:N7	373.51	0.47
36:1:2767:U:O4	86:1:4043:OHX:N6	2.48	0.47
16:C4:71:CYS:O	16:C4:76:ILE:N	2.79	0.47
7:S5:194:LEU:O	7:S5:198:LEU:HG	2.14	0.47
18:C6:93:HIS:ND1	18:C6:101:SER:OG	2.48	0.47
26:D4:10:ARG:NH1	1:6:778:G:O6	429.66	0.47
36:5:128:G:O6	86:5:3930:OHX:N4	2.48	0.47
36:1:1317:A:C2	36:1:1319:G:C5	3.03	0.47
1:6:1041:G:H2'	1:6:1042:G:C8	2.49	0.47
36:1:1547:G:OP1	51:M5:105:ARG:HD3	2.14	0.47
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.37	0.47
6:S4:222:LEU:O	6:S4:224:ASN:N	2.47	0.47
36:1:2403:G:H21	36:1:2404:A:H62	1.61	0.47
41:L4:193:LYS:HA	41:L4:198:ARG:HA	1.96	0.47
34:SR:253:ALA:O	34:SR:292:LEU:HD11	2.15	0.47
1:2:1274:C:H41	35:SM:95:SER:HA	1.80	0.47
36:1:398:A:C5	53:M7:3:ARG:NH2	2.82	0.47
36:1:398:A:H5''	53:M7:3:ARG:HD3	1.96	0.47
34:SR:236:ALA:O	34:SR:238:ASP:N	2.74	0.47
62:N6:102:SER:O	62:N6:103:LYS:HE2	4.21	0.47
86:1:3977:OHX:N6	86:1:4162:OHX:N2	2.62	0.47
51:M5:53:TYR:HD1	51:M5:133:ILE:HD13	1.79	0.47
47:M0:161:GLY:O	47:M0:163:GLN:NE2	3.70	0.47
12:C0:61:TRP:O	12:C0:62:GLN:HB2	2.15	0.47
12:C0:25:LYS:HG3	12:C0:64:TYR:OH	2.14	0.47
42:L5:41:LYS:HA	42:L5:41:LYS:HD3	3.67	0.47
4:S2:59:HIS:CE1	4:S2:238:SER:HA	3.44	0.47
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.38	0.47
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.30	0.47
35:SM:84:LYS:HG2	35:SM:86:ASN:N	2.29	0.47
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	2.00	0.47
6:S4:141:THR:O	6:S4:143:ASP:N	2.47	0.47
36:1:1539:A:H2'	36:1:1540:U:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2989:U:H2'	36:1:2990:G:O4'	2.14	0.47
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	2.25	0.47
53:M7:22:LEU:HD12	53:M7:146:ILE:HD12	1.95	0.47
73:O7:64:MET:HB2	73:O7:68:LYS:HB3	4.72	0.47
47:M0:115:MET:N	36:5:2865:U:OP1	238.82	0.47
36:5:2667:A:H61	36:5:2687:G:H1'	1.80	0.47
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.30	0.47
37:7:43:U:C4	37:7:44:C:C4	3.03	0.47
1:6:1117:U:H2'	1:6:1118:G:C8	2.49	0.47
36:5:1785:U:H2'	36:5:1786:G:C8	2.50	0.47
55:M9:9:ARG:NH2	36:5:1602:A:O3'	107.86	0.47
1:2:1498:G:H4'	21:C9:121:GLY:H	1.79	0.47
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.71	0.47
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	2.98	0.47
52:M6:83:ALA:HB1	36:5:1313:G:H5'	258.64	0.47
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	3.12	0.47
20:C8:14:ILE:HD12	20:C8:23:ASP:HA	2.89	0.47
2:S0:163:ASN:O	2:S0:165:ARG:N	2.98	0.47
19:C7:104:ASN:HB2	19:C7:105:GLN:NE2	2.29	0.47
3:S1:179:SER:HB3	3:S1:183:GLN:HB3	2.96	0.47
36:5:3362:A:C2	36:5:3363:U:C2	3.03	0.47
12:C0:18:GLU:O	12:C0:89:ALA:HB2	2.14	0.47
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.03	0.47
1:2:1542:G:O2'	86:2:2101:OHX:N4	2.48	0.47
40:L3:153:LYS:HD3	40:L3:154:TYR:CE2	2.49	0.47
27:D5:82:HIS:C	27:D5:84:GLU:H	2.75	0.47
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.43	0.47
86:5:4008:OHX:N4	86:5:4197:OHX:N1	2.62	0.47
1:6:755:A:H2'	1:6:756:A:H8	1.80	0.47
64:N8:67:HIS:NE2	36:5:71:A:OP2	119.07	0.47
19:C7:3:ARG:O	1:6:1402:G:H5''	403.17	0.47
32:E0:48:THR:OG1	32:E0:49:LEU:HD23	2.15	0.47
36:1:956:U:H2'	36:1:957:C:C6	2.50	0.47
24:D2:20:THR:OG1	24:D2:22:LYS:HD3	3.62	0.47
23:D1:64:GLU:OE1	29:D7:2:VAL:HG13	2.15	0.47
61:N5:92:LYS:HD2	61:N5:110:VAL:O	3.08	0.47
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.62	0.47
1:2:306:U:H2'	1:2:307:G:C8	2.49	0.47
14:C2:57:ALA:HB3	14:C2:85:LYS:NZ	2.30	0.47
1:6:1793:G:H4'	86:6:2126:OHX:N5	2.29	0.47
51:M5:183:THR:O	51:M5:183:THR:HG23	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:52:LEU:HB2	47:M0:152:LEU:HD22	2.56	0.47
63:N7:100:THR:HG22	63:N7:106:GLN:HG2	6.75	0.47
42:L5:278:SER:O	42:L5:280:GLU:N	3.11	0.47
53:M7:109:ALA:O	53:M7:112:LEU:HB2	2.97	0.47
36:1:2882:U:H2'	36:1:2883:U:C6	2.49	0.47
36:5:3203:U:H2'	36:5:3204:C:C6	2.50	0.47
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.97	0.47
1:6:320:U:H2'	1:6:321:C:H2'	1.97	0.47
1:2:1576:A:H2'	1:2:1577:A:O4'	2.15	0.47
36:1:772:U:H2'	36:1:773:G:C8	2.49	0.47
36:5:748:U:H2'	36:5:749:C:C6	2.50	0.47
29:D7:6:ASP:OD1	29:D7:9:HIS:HB2	2.15	0.47
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	1.97	0.47
55:M9:12:ALA:HB1	55:M9:17:VAL:O	2.29	0.47
22:D0:65:ILE:O	22:D0:81:THR:HA	2.15	0.47
52:M6:54:TYR:CD2	52:M6:145:VAL:HG11	2.50	0.47
36:1:3214:U:N1	50:M4:121:MET:HE3	2.29	0.47
36:5:2943:G:H2'	36:5:2944:U:O4'	2.15	0.47
34:SR:69:GLN:OE1	34:SR:85:TRP:NE1	2.45	0.47
20:C8:18:LEU:C	20:C8:20:THR:H	2.66	0.47
8:S6:7:TYR:CE1	8:S6:125:THR:HA	2.77	0.47
48:M1:83:GLY:HA2	48:M1:86:VAL:HG23	1.97	0.47
22:D0:82:TYR:OH	31:D9:44:ARG:HD2	4.17	0.47
5:S3:6:SER:HA	1:6:1514:U:H1'	439.90	0.47
36:1:408:A:OP1	86:1:4061:OHX:N3	2.48	0.47
36:5:117:U:O2	36:5:119:U:H2'	2.15	0.47
24:D2:86:ILE:HB	24:D2:117:ARG:NH2	7.03	0.47
36:5:1692:U:O4	36:5:1693:C:N4	2.48	0.47
9:S7:118:LEU:HD12	9:S7:118:LEU:O	3.73	0.47
38:4:122:U:H2'	38:4:123:G:C8	2.48	0.47
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.39	0.47
33:E1:117:LEU:HB3	33:E1:118:ARG:NH1	2.29	0.47
47:M0:203:LYS:HG2	47:M0:204:GLY:N	2.30	0.47
47:M0:169:LYS:HD2	47:M0:169:LYS:H	3.43	0.47
78:Q2:63:LYS:NZ	36:5:2761:G:N7	211.41	0.47
5:S3:65:ARG:O	5:S3:69:LEU:HG	2.15	0.47
21:C9:17:ALA:HB2	21:C9:139:THR:HG21	2.60	0.47
1:2:1742:U:H2'	1:2:1743:U:O4'	2.15	0.47
1:2:1572:G:H1'	7:S5:185:ARG:NH1	2.29	0.47
4:S2:40:LYS:HG3	4:S2:247:ALA:O	7.32	0.47
36:5:2516:U:O2'	36:5:2595:A:N1	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:104:LEU:HD11	39:L2:113:VAL:HG21	1.96	0.47
36:5:2651:G:H4'	36:5:2652:U:OP2	2.14	0.47
36:1:664:U:H5'	41:L4:107:ARG:HA	1.97	0.47
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	2.22	0.47
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.45	0.47
37:3:55:A:H2'	37:3:56:A:O4'	2.15	0.47
36:5:3299:A:H61	36:5:3315:G:H1	1.63	0.47
41:L4:82:THR:OG1	36:5:365:A:H1'	121.72	0.47
42:L5:47:PRO:HG2	42:L5:49:TYR:CE2	2.49	0.47
1:2:986:G:H2'	1:2:987:G:O4'	2.15	0.47
1:2:1188:G:O2'	1:2:1430:U:OP1	2.20	0.47
36:1:2571:U:H4'	36:1:2572:C:OP1	2.14	0.47
1:6:1243:G:H5''	1:6:1243:G:N3	2.30	0.47
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.50	0.47
60:N4:63:ILE:O	60:N4:65:GLU:N	3.01	0.47
40:L3:296:THR:HG21	40:L3:357:LYS:C	4.29	0.47
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.15	0.47
32:E0:54:ARG:O	32:E0:54:ARG:HG3	2.14	0.47
33:E1:89:LYS:HD2	33:E1:89:LYS:HA	1.63	0.47
34:SR:24:ALA:HB2	34:SR:72:THR:HA	1.96	0.47
36:5:1470:U:H2'	36:5:1471:U:C6	2.50	0.47
21:C9:57:ARG:NH2	21:C9:80:TYR:CG	3.38	0.47
48:M1:7:ASN:N	48:M1:7:ASN:OD1	4.31	0.47
36:1:2503:G:H1'	36:1:2504:U:C5	2.49	0.47
1:2:930:A:H2'	3:S1:114:VAL:HG11	1.97	0.47
27:D5:50:ILE:O	27:D5:54:VAL:HG23	2.14	0.47
36:1:653:A:H61	36:1:1442:U:H3	1.62	0.47
24:D2:5:SER:HG	24:D2:8:ALA:H	1.63	0.47
1:2:1776:A:C2	1:2:1786:G:C6	3.02	0.47
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	1.97	0.47
27:D5:82:HIS:O	27:D5:85:LYS:HB3	2.15	0.47
55:M9:175:GLN:O	55:M9:179:GLU:N	2.48	0.47
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.50	0.47
17:C5:18:ARG:H	17:C5:20:VAL:HG23	1.80	0.47
1:6:452:A:H3'	1:6:453:U:C5	2.50	0.47
62:N6:71:SER:HB3	62:N6:83:ASP:HB3	1.97	0.47
23:D1:40:ASP:HB2	23:D1:41:GLU:OE2	3.98	0.47
48:M1:155:THR:OG1	48:M1:158:ASP:HB2	2.15	0.47
30:D8:8:THR:HB	30:D8:56:LEU:O	2.14	0.47
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.47	0.47
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:110:ALA:HB1	51:M5:113:LEU:HG	4.26	0.47
73:O7:14:LYS:NZ	75:O9:51:ILE:HG12	2.96	0.47
67:O1:19:ARG:NH2	36:5:3324:C:OP1	173.66	0.47
19:C7:66:VAL:O	19:C7:69:ILE:HG12	2.14	0.47
1:6:947:U:H2'	1:6:948:G:H8	1.80	0.47
5:S3:28:GLU:HG3	5:S3:29:LEU:HD23	3.25	0.47
36:1:3280:U:O2'	36:1:3281:U:OP2	2.24	0.47
1:2:11:A:C2'	1:2:12:U:H5'	2.45	0.47
24:D2:34:ILE:O	24:D2:38:LEU:HG	2.53	0.47
39:L2:233:GLN:NE2	36:5:2607:G:OP1	194.88	0.47
6:S4:52:LEU:HB3	6:S4:54:TYR:CD2	2.53	0.47
86:1:4089:OHX:N4	55:M9:14:VAL:O	2.48	0.47
36:5:1599:G:OP1	86:5:4134:OHX:N4	2.47	0.47
38:4:61:A:OP1	71:O5:49:LYS:HE2	2.15	0.47
37:7:58:C:OP1	86:7:218:OHX:N3	2.47	0.47
36:1:1127:G:H5'	47:M0:118:ALA:O	2.15	0.47
36:1:608:A:C4	43:L6:22:ARG:NH1	2.83	0.47
36:1:1701:C:H2'	36:1:1702:U:O4'	2.15	0.47
36:1:1159:A:O2'	36:1:1160:C:H5''	2.15	0.47
9:S7:157:LYS:O	9:S7:159:VAL:HG13	2.15	0.47
38:4:26:U:H5'	41:L4:53:SER:HB2	1.97	0.47
36:1:965:A:H5''	49:M3:4:SER:HB3	1.97	0.47
36:5:1015:U:O3'	36:5:1016:C:H2'	2.14	0.47
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.96	0.47
3:S1:137:ILE:HD12	3:S1:172:LEU:HD22	1.97	0.47
43:L6:55:LEU:HD23	43:L6:55:LEU:HA	1.57	0.47
40:L3:146:ARG:NH1	40:L3:146:ARG:HA	2.86	0.47
1:2:1514:U:H5'	1:2:1514:U:O2	2.15	0.47
44:L7:34:LYS:O	44:L7:37:ASN:HB2	2.15	0.47
51:M5:62:TYR:O	51:M5:131:GLU:HA	2.15	0.47
1:2:911:U:O2'	1:2:915:A:H1'	2.15	0.47
36:1:841:A:OP2	86:1:4181:OHX:N2	2.48	0.47
18:C6:115:THR:HB	18:C6:118:ILE:O	2.14	0.46
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.85	0.46
52:M6:48:PHE:HE1	52:M6:52:LEU:HD11	3.37	0.46
47:M0:200:LEU:HA	47:M0:213:PHE:CE1	2.50	0.46
47:M0:4:ARG:NH2	36:5:1128:U:OP1	264.21	0.46
88:1:4221:3K5:H41	88:1:4221:3K5:H43	1.81	0.46
36:1:1560:G:C2'	36:1:1561:G:H5'	2.45	0.46
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.37	0.46
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.85	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.96	0.46
12:C0:55:VAL:HA	12:C0:68:LEU:HA	2.65	0.46
27:D5:57:TYR:OH	27:D5:68:ARG:HG3	2.16	0.46
65:N9:28:LYS:HG3	65:N9:29:TYR:CD1	2.50	0.46
47:M0:50:VAL:HG22	47:M0:167:LEU:HD13	1.96	0.46
64:N8:6:THR:CG2	64:N8:8:THR:HG23	2.51	0.46
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	3.46	0.46
27:D5:43:ASP:C	27:D5:45:GLU:H	2.66	0.46
27:D5:43:ASP:O	27:D5:44:GLN:HB3	4.32	0.46
22:D0:80:GLU:HG3	31:D9:54:LYS:HZ2	1.80	0.46
36:1:2743:A:H2'	36:1:2744:U:O4'	2.15	0.46
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.48	0.46
71:O5:35:LYS:HA	71:O5:41:LEU:HD23	1.96	0.46
36:1:806:A:C4	36:1:936:A:C2	3.03	0.46
36:1:1386:A:N7	41:L4:183:LYS:HE3	2.29	0.46
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.46	0.46
26:D4:87:PRO:HD2	26:D4:90:ARG:NH1	2.29	0.46
5:S3:208:ILE:HG21	19:C7:19:ARG:HD2	1.97	0.46
3:S1:116:LYS:HB3	3:S1:117:TRP:CE3	2.51	0.46
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.46	0.46
24:D2:70:ASN:ND2	24:D2:130:TYR:O	2.32	0.46
36:5:345:G:H2'	38:8:25:G:O2'	2.14	0.46
34:SR:40:LYS:HA	34:SR:68:VAL:HG23	1.97	0.46
51:M5:175:ASN:O	51:M5:184:LYS:HG3	2.14	0.46
36:1:718:G:O6	36:1:751:A:H1'	2.16	0.46
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.43	0.46
34:SR:252:LEU:O	34:SR:263:PHE:N	2.45	0.46
9:S7:75:THR:OG1	9:S7:76:LYS:N	2.48	0.46
27:D5:38:HIS:CE1	27:D5:70:LYS:HA	2.50	0.46
18:C6:143:ARG:HH12	35:SM:84:LYS:HZ3	1.62	0.46
36:1:544:C:H1'	36:1:548:G:H22	1.80	0.46
36:1:3028:G:H2'	36:1:3029:A:C8	2.50	0.46
36:1:2933:A:OP1	36:1:3015:G:H4'	2.15	0.46
67:O1:20:LEU:HD21	67:O1:31:ARG:HB3	2.42	0.46
13:C1:59:PRO:HG2	13:C1:60:PHE:CE2	2.49	0.46
1:2:760:A:H2'	1:2:761:G:O4'	2.14	0.46
58:N2:56:VAL:HG22	58:N2:65:VAL:HG22	2.73	0.46
1:6:1584:G:H22	1:6:1611:A:P	2.36	0.46
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.57	0.46
53:M7:97:ASN:O	53:M7:100:ALA:HB3	2.54	0.46
28:D6:12:LYS:HB3	28:D6:33:ASP:OD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:921:U:O4	86:6:2180:OHX:N3	2.48	0.46
36:1:2976:A:OP1	86:1:4124:OHX:N6	2.48	0.46
36:5:72:C:C2	36:5:74:G:H1'	2.50	0.46
1:6:350:U:H5''	1:6:352:A:H5'	1.97	0.46
66:O0:46:ALA:HB2	66:O0:70:PHE:O	3.45	0.46
45:L8:158:ASP:O	36:5:147:U:N3	130.78	0.46
36:1:3030:G:N7	86:1:4078:OHX:N6	2.62	0.46
1:6:709:C:O2	1:6:730:G:N2	2.48	0.46
57:N1:65:TYR:CE2	57:N1:88:ARG:HB3	2.50	0.46
34:SR:157:VAL:HG23	34:SR:168:THR:O	2.15	0.46
36:1:2916:U:O3'	59:N3:46:LEU:HA	2.15	0.46
1:2:1086:A:C6	1:2:1087:A:C6	3.03	0.46
1:2:632:U:OP2	13:C1:102:LYS:NZ	2.37	0.46
46:L9:38:LEU:HD23	46:L9:38:LEU:HA	1.88	0.46
18:C6:46:PHE:HA	18:C6:49:TYR:HD2	1.79	0.46
15:C3:94:LYS:HE2	1:6:953:G:P	301.10	0.46
86:1:4038:OHX:N6	86:1:4050:OHX:N3	2.63	0.46
53:M7:125:GLN:CB	53:M7:141:SER:HB2	2.38	0.46
1:2:740:A:N1	1:2:741:C:N4	2.63	0.46
1:2:515:A:OP2	86:2:2069:OHX:N3	2.49	0.46
71:O5:88:LEU:HA	71:O5:88:LEU:HD23	1.62	0.46
70:O4:80:ARG:HG3	70:O4:88:ARG:HH21	1.80	0.46
40:L3:148:LEU:HD12	40:L3:148:LEU:HA	2.15	0.46
43:L6:2:SER:HA	68:O2:81:ASP:OD2	2.59	0.46
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	1.97	0.46
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.96	0.46
5:S3:144:ALA:HB2	1:6:579:A:N1	391.42	0.46
74:O8:46:ARG:NH2	36:5:1613:A:OP1	132.82	0.46
44:L7:90:LYS:HD2	36:5:1158:A:OP2	241.57	0.46
47:M0:48:LEU:HD12	47:M0:142:ASP:HA	1.97	0.46
86:5:4062:OHX:N1	86:5:4140:OHX:N2	2.63	0.46
49:M3:157:ARG:NH1	64:N8:124:ILE:HG21	3.08	0.46
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.36	0.46
26:D4:72:PHE:HE1	26:D4:74:LEU:HD23	1.80	0.46
36:5:165:A:H2'	36:5:166:C:O4'	2.16	0.46
59:N3:32:ARG:HB2	59:N3:32:ARG:NH2	2.30	0.46
36:5:2911:A:H4'	36:5:2912:G:C8	2.50	0.46
36:5:1690:C:C4	36:5:1691:U:C4	3.03	0.46
36:5:1093:A:H4'	36:5:1093:A:OP1	2.14	0.46
46:L9:165:CYS:SG	46:L9:179:ILE:HD12	2.55	0.46
52:M6:182:ASN:ND2	52:M6:186:ALA:HB2	5.59	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:6:VAL:HB	21:C9:14:PHE:CE1	2.50	0.46
6:S4:4:GLY:HA3	1:6:93:A:O2'	329.35	0.46
34:SR:237:GLN:HB2	34:SR:238:ASP:OD1	2.15	0.46
8:S6:58:LYS:HE3	8:S6:105:ASP:HA	1.97	0.46
36:1:96:G:H5'	49:M3:15:ARG:CZ	2.45	0.46
27:D5:90:LYS:NZ	27:D5:105:THR:OG1	4.27	0.46
42:L5:45:ASN:O	42:L5:47:PRO:HD3	2.42	0.46
38:4:24:G:OP2	62:N6:13:ARG:HD3	2.15	0.46
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.15	0.46
36:1:541:U:O4	86:1:4199:OHX:N2	2.49	0.46
36:1:1413:G:N7	86:1:4127:OHX:N4	2.62	0.46
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.68	0.46
36:5:2759:U:H5''	36:5:2760:C:H5'	1.97	0.46
36:5:1728:G:H5''	36:5:1730:G:O4'	2.15	0.46
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.14	0.46
9:S7:140:VAL:HG22	9:S7:150:GLN:HG2	1.97	0.46
36:1:1611:G:H2'	36:1:1612:A:C8	2.50	0.46
36:1:532:A:O2'	36:1:533:A:H5'	2.14	0.46
36:5:1151:U:OP1	86:5:4208:OHX:N1	2.49	0.46
36:1:2213:A:N1	36:1:2429:G:H1'	2.30	0.46
1:6:658:C:H5'	1:6:659:C:OP2	2.15	0.46
37:7:29:C:H42	37:7:49:G:H1	1.62	0.46
37:7:8:G:C6	37:7:9:C:C4	3.03	0.46
1:2:1410:A:H5''	18:C6:118:ILE:HD13	1.96	0.46
40:L3:152:LYS:HD3	40:L3:189:SER:HA	1.97	0.46
52:M6:34:VAL:HG11	52:M6:112:TYR:CE1	2.50	0.46
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.47	0.46
1:6:1347:U:O2	1:6:1516:A:H5'	2.16	0.46
65:N9:50:THR:CG2	36:5:1073:U:H1'	205.30	0.46
39:L2:202:VAL:HA	39:L2:211:HIS:O	2.74	0.46
61:N5:115:ARG:NH1	61:N5:119:THR:HG1	2.63	0.46
1:2:731:C:H4'	1:2:732:G:OP1	2.14	0.46
36:1:2339:C:OP2	59:N3:48:ARG:HG2	2.14	0.46
47:M0:194:GLY:H	36:5:1010:G:H21	335.93	0.46
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	2.18	0.46
48:M1:139:THR:HG22	48:M1:146:GLY:O	2.17	0.46
3:S1:178:GLY:HA3	3:S1:187:LYS:HZ1	1.81	0.46
36:1:2282:U:O2	36:1:2310:U:H4'	2.14	0.46
1:6:1540:G:C6	1:6:1541:G:C4	3.04	0.46
21:C9:40:SER:OG	21:C9:96:ALA:HA	2.15	0.46
36:1:2618:G:O4'	65:N9:3:LYS:HE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:604:A:OP2	86:2:2167:OHX:N5	2.48	0.46
62:N6:76:LEU:HD22	62:N6:76:LEU:O	2.44	0.46
1:6:151:G:N2	1:6:163:G:N2	2.63	0.46
27:D5:43:ASP:O	27:D5:45:GLU:N	2.48	0.46
5:S3:44:THR:HB	5:S3:45:LYS:HE2	1.97	0.46
1:6:918:U:H2'	1:6:919:A:C8	2.50	0.46
16:C4:19:ILE:HB	16:C4:83:ILE:HG13	1.97	0.46
55:M9:152:GLU:O	55:M9:156:ASN:HB2	3.52	0.46
37:3:110:G:OP2	42:L5:279:LYS:HG3	2.15	0.46
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.14	0.46
17:C5:128:HIS:HA	1:6:1180:C:O2'	333.80	0.46
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.14	0.46
22:D0:63:LEU:HB2	22:D0:84:MET:HB3	2.73	0.46
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.49	0.46
30:D8:64:ARG:HB3	30:D8:65:ARG:H	1.69	0.46
1:6:29:U:H2'	1:6:30:G:H8	1.80	0.46
57:N1:54:HIS:CD2	36:5:2724:U:H4'	228.80	0.46
34:SR:205:SER:HA	34:SR:245:PHE:HD2	2.53	0.46
1:6:1783:C:H2'	1:6:1784:C:C6	2.50	0.46
36:1:2510:U:O2'	36:1:2511:A:H5''	2.14	0.46
1:6:1046:G:C6	1:6:1047:G:N7	2.84	0.46
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	2.50	0.46
36:1:3299:A:H61	36:1:3315:G:H1	1.64	0.46
3:S1:22:ASP:O	3:S1:25:THR:OG1	3.32	0.46
36:5:2192:C:H2'	36:5:2193:U:O4'	2.16	0.46
36:1:1635:G:N2	36:1:1638:A:OP2	2.37	0.46
25:D3:87:VAL:HA	25:D3:88:PRO:HD3	1.66	0.46
36:5:2801:A:O2'	36:5:2802:A:H2'	2.14	0.46
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.96	0.46
47:M0:92:HIS:HB2	47:M0:94:PHE:CE2	2.50	0.46
68:O2:4:LEU:HD13	68:O2:4:LEU:HA	3.02	0.46
36:5:687:U:H2'	36:5:688:G:C8	2.50	0.46
4:S2:95:ARG:NH1	4:S2:97:ARG:HD3	7.89	0.46
36:1:2396:G:OP1	36:1:2397:A:H4'	2.14	0.46
35:SM:25:ILE:HG12	37:7:39:C:H5'	290.40	0.46
7:S5:108:LEU:HD22	18:C6:43:ILE:HG13	1.98	0.46
86:5:3971:OHX:N1	86:5:4239:OHX:N2	2.63	0.46
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.16	0.46
6:S4:187:ARG:NH1	6:S4:187:ARG:HB2	6.24	0.46
36:1:1072:G:O2'	36:1:1073:U:H5'	2.14	0.46
79:Q3:36:ARG:HH22	36:5:1725:C:C5'	229.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:108:A:O2'	36:1:109:A:H2'	2.14	0.46
18:C6:123:ARG:HG3	18:C6:124:PRO:CD	2.40	0.46
34:SR:162:ALA:O	34:SR:164:ASP:N	4.78	0.46
8:S6:137:ARG:HD3	8:S6:177:ARG:NE	2.78	0.46
42:L5:219:PHE:C	42:L5:221:GLU:H	3.45	0.46
1:6:624:G:H2'	1:6:625:C:H6	1.80	0.46
12:C0:56:LYS:HG3	12:C0:67:THR:HB	1.96	0.46
27:D5:85:LYS:O	27:D5:86:GLU:HB2	2.16	0.46
1:2:1759:C:H5''	1:2:1760:G:OP2	2.16	0.46
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.09	0.46
64:N8:14:HIS:HA	68:O2:36:LYS:HD2	2.64	0.46
1:2:886:U:O2'	16:C4:121:VAL:O	2.33	0.46
36:5:59:G:H2'	38:8:33:A:O2'	2.16	0.46
43:L6:142:ASP:O	43:L6:146:ILE:HG12	2.14	0.46
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.27	0.46
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.75	0.46
40:L3:77:THR:HG23	40:L3:327:CYS:HA	1.98	0.46
36:1:979:U:H1'	36:1:980:A:C8	2.50	0.46
70:O4:99:LYS:HB3	70:O4:103:LYS:NZ	2.30	0.46
36:1:977:C:OP1	54:M8:141:ARG:NH2	2.49	0.46
36:5:3041:U:H2'	36:5:3042:U:H6	1.78	0.46
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	2.79	0.46
12:C0:32:HIS:CG	12:C0:33:GLU:N	3.38	0.46
6:S4:248:ILE:HB	11:S9:71:PHE:CE1	2.50	0.46
2:S0:86:VAL:O	2:S0:89:PHE:N	2.48	0.46
36:5:1340:G:H2'	36:5:1341:U:C6	2.50	0.46
1:6:1031:U:H4'	1:6:1032:G:OP2	2.16	0.46
52:M6:83:ALA:CB	36:5:1313:G:H5'	258.15	0.46
36:1:535:G:O6	86:1:4065:OHX:N3	2.47	0.46
1:6:1122:G:O6	86:6:2162:OHX:N6	2.49	0.46
34:SR:295:SER:HB3	34:SR:300:THR:HB	2.99	0.46
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.96	0.46
36:5:815:G:C6	36:5:906:A:C4	3.04	0.46
1:2:625:C:H2'	1:2:626:U:C6	2.49	0.46
1:2:1793:G:H1'	1:2:1794:A:H2'	1.98	0.46
50:M4:37:GLU:HG2	56:N0:72:VAL:HG21	2.45	0.46
37:3:39:C:N3	48:M1:70:THR:HG23	2.30	0.46
45:L8:156:ASP:HB2	45:L8:183:LYS:HD3	1.97	0.46
1:2:215:A:OP2	1:2:215:A:H8	1.97	0.46
14:C2:98:GLY:O	14:C2:102:GLY:N	3.04	0.46
7:S5:40:ILE:HG12	7:S5:41:LYS:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.16	0.46
75:O9:10:LYS:HA	75:O9:13:MET:HE3	1.98	0.46
36:1:2656:A:C8	36:1:2658:G:C8	3.04	0.46
36:5:1560:G:H2'	36:5:1561:G:C8	2.49	0.46
11:S9:107:ARG:HH21	11:S9:150:LEU:H	1.64	0.46
11:S9:33:GLU:O	11:S9:122:VAL:HG11	2.16	0.46
41:L4:140:HIS:CG	41:L4:247:PHE:HB2	3.04	0.46
44:L7:150:LYS:HD3	44:L7:244:ASN:HD21	1.81	0.46
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.81	0.46
39:L2:209:HIS:CD2	39:L2:211:HIS:N	2.77	0.46
1:6:540:G:O2'	1:6:542:A:H5'	2.15	0.46
32:E0:17:GLN:OE1	1:6:563:U:H4'	383.70	0.46
36:1:3120:C:HO2'	36:1:3121:U:H6	1.63	0.46
12:C0:15:LEU:HD23	12:C0:21:VAL:HG23	5.39	0.46
25:D3:74:VAL:HG21	25:D3:104:LEU:HD11	1.97	0.46
36:1:3165:A:H61	36:1:3285:C:H42	1.64	0.46
54:M8:96:PHE:CG	54:M8:97:PRO:HD2	2.60	0.46
36:1:13:A:H5''	36:1:13:A:C8	2.44	0.46
36:5:5:G:C2	38:8:155:A:C2	3.03	0.46
15:C3:22:ALA:HB1	15:C3:23:PRO:C	2.36	0.46
14:C2:122:VAL:HG12	14:C2:124:LYS:HG3	3.19	0.46
74:O8:23:ALA:HB1	74:O8:44:LYS:O	2.91	0.46
38:8:83:C:H4'	38:8:85:G:C2	2.51	0.46
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.55	0.46
36:5:549:U:O4	86:5:4010:OHX:N4	2.47	0.46
16:C4:16:VAL:HG11	16:C4:18:ARG:HH12	4.12	0.46
41:L4:31:ARG:HE	41:L4:31:ARG:HB3	2.09	0.46
36:1:1317:A:C2	36:1:1319:G:C6	3.04	0.46
36:1:2683:U:H2'	36:1:2684:C:H6	1.80	0.46
77:Q1:9:ARG:NH1	77:Q1:9:ARG:HG3	2.63	0.46
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.37	0.46
62:N6:40:ARG:HG3	62:N6:45:ILE:O	2.16	0.46
36:5:626:U:O4	86:5:3981:OHX:N4	2.48	0.46
31:D9:10:HIS:CG	31:D9:11:PRO:HD2	2.51	0.46
36:1:2534:G:H1	36:1:2545:C:H42	1.63	0.46
36:1:1488:G:H5''	36:1:1838:G:O6	2.16	0.46
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	310.23	0.46
38:4:9:A:H2'	38:4:10:A:C8	2.50	0.46
1:2:839:U:H2'	1:2:840:U:H5'	1.97	0.46
27:D5:38:HIS:HA	27:D5:70:LYS:HD3	6.54	0.46
53:M7:52:LEU:HD13	53:M7:88:VAL:HG11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1029:G:H2'	36:1:1030:A:C8	2.50	0.46
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.71	0.46
47:M0:100:ASN:ND2	47:M0:118:ALA:HB1	2.92	0.46
36:1:608:A:C5	43:L6:22:ARG:NH1	2.84	0.46
48:M1:25:GLU:HG3	48:M1:26:SER:O	2.15	0.46
36:5:2665:U:H4'	36:5:2666:C:OP1	2.15	0.46
36:5:186:U:H5''	36:5:187:A:OP2	2.15	0.46
36:1:1063:G:C6	36:1:1097:G:C5	3.04	0.46
36:1:522:A:OP1	86:1:3948:OHX:N5	2.48	0.46
1:2:1242:A:OP1	17:C5:59:LYS:NZ	2.36	0.46
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.16	0.46
1:2:21:U:H2'	1:2:22:A:C8	2.50	0.46
78:Q2:16:THR:OG1	78:Q2:17:CYS:N	2.82	0.46
18:C6:43:ILE:HG12	18:C6:43:ILE:H	1.61	0.46
36:5:2267:C:H2'	36:5:2268:U:C6	2.51	0.46
36:5:173:G:HO2'	36:5:174:C:C5'	2.29	0.46
20:C8:134:ARG:NH1	1:6:1559:A:N1	362.91	0.46
33:E1:103:LEU:C	33:E1:105:TYR:H	2.96	0.46
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.30	0.46
36:5:2537:U:O2	36:5:2543:U:N3	2.47	0.46
59:N3:87:ARG:HH21	59:N3:121:GLU:CD	2.19	0.46
59:N3:24:ASN:N	59:N3:98:ASN:O	2.47	0.46
27:D5:83:LEU:O	27:D5:89:ILE:HG12	2.88	0.46
18:C6:31:VAL:O	18:C6:32:ASN:HB2	2.16	0.46
36:1:2623:G:C4	36:1:2624:G:C8	3.04	0.46
8:S6:13:GLN:CD	1:6:151:G:H21	311.20	0.46
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.97	0.46
57:N1:130:ARG:NH1	36:5:1098:A:OP2	253.05	0.46
54:M8:49:LEU:O	54:M8:49:LEU:HD22	2.15	0.46
86:5:4062:OHX:N3	86:5:4140:OHX:N6	2.64	0.46
1:6:755:A:H2'	1:6:756:A:O4'	2.15	0.46
36:1:1719:G:H2'	36:1:1720:U:O4'	2.15	0.46
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.46	0.46
36:5:3022:G:O2'	36:5:3023:U:OP2	2.32	0.46
62:N6:2:ALA:N	36:5:212:G:OP2	77.58	0.46
38:4:86:U:H2'	71:O5:7:TYR:CE2	2.50	0.46
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.96	0.46
1:2:393:C:H4'	1:2:1673:G:O2'	2.16	0.46
46:L9:4:ILE:HD11	56:N0:148:LEU:HD21	3.34	0.46
47:M0:9:TYR:O	47:M0:59:GLN:NE2	2.48	0.46
36:1:715:A:H5''	64:N8:114:GLY:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:549:G:H2'	1:2:550:A:H8	1.81	0.46
3:S1:70:LEU:CD2	3:S1:74:GLN:HE21	5.95	0.46
1:6:1151:A:O2'	1:6:1766:A:N7	2.32	0.46
17:C5:56:PHE:HE2	17:C5:78:THR:HB	1.81	0.46
36:1:1393:A:N3	36:1:1419:A:O2'	2.47	0.46
1:6:973:A:H5'	36:5:848:A:C2	2.51	0.46
36:5:508:U:H2'	36:5:509:U:C6	2.51	0.46
36:1:2890:A:N1	36:1:2913:C:N3	2.63	0.46
34:SR:50:ASP:O	34:SR:52:GLN:N	2.46	0.46
36:1:2812:C:H2'	36:1:2813:A:H8	1.80	0.46
20:C8:7:GLU:HB3	20:C8:10:SER:OG	3.32	0.46
34:SR:299:GLN:O	34:SR:314:GLN:HG3	2.15	0.46
1:6:1321:A:H4'	1:6:1322:A:O5'	2.15	0.46
1:6:760:A:OP2	86:6:2083:OHX:N5	2.49	0.46
74:O8:22:THR:HG22	74:O8:74:LYS:HB3	6.09	0.46
36:5:3308:C:C4	36:5:3309:G:C5	3.04	0.46
13:C1:40:LEU:HD22	1:6:246:G:N2	325.27	0.46
1:6:897:C:HO2'	1:6:898:A:H8	1.62	0.46
36:5:1252:A:H2	36:5:1263:A:C2	2.34	0.46
36:5:2590:A:C6	36:5:2591:A:C5	3.04	0.46
36:1:2932:U:OP1	59:N3:41:GLY:N	2.39	0.46
60:N4:57:LYS:HB2	60:N4:57:LYS:HE3	1.77	0.46
1:2:638:U:OP2	24:D2:32:LYS:HD3	2.15	0.46
36:5:2998:U:O4	86:5:4139:OHX:N4	2.49	0.46
36:5:1124:U:O4	86:5:4125:OHX:N3	2.48	0.46
36:1:8:C:H2'	36:1:9:U:O4'	2.16	0.46
1:6:1119:G:H2'	1:6:1120:U:O4'	2.15	0.46
13:C1:110:HIS:HB3	13:C1:138:ASN:ND2	3.33	0.46
1:6:67:A:O2'	1:6:69:G:OP1	2.20	0.46
86:5:3971:OHX:N3	86:5:4239:OHX:N2	2.63	0.46
52:M6:24:ALA:O	52:M6:27:LEU:HB2	2.15	0.46
51:M5:35:VAL:HG13	51:M5:65:ARG:CZ	2.46	0.46
44:L7:222:HIS:ND1	44:L7:223:PHE:N	3.05	0.46
62:N6:38:GLU:HG3	62:N6:39:LEU:N	2.31	0.46
36:5:2257:C:H2'	36:5:2258:U:H6	1.80	0.46
1:2:1796:C:H5	28:D6:6:ALA:N	2.14	0.46
36:1:670:C:P	54:M8:147:ARG:NH2	2.89	0.46
27:D5:95:HIS:CG	27:D5:96:SER:N	2.84	0.46
22:D0:99:ILE:O	22:D0:103:ILE:N	2.44	0.46
3:S1:64:ARG:HG3	3:S1:64:ARG:H	1.47	0.46
1:2:76:A:N6	1:2:80:A:O2'	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:37:ARG:NH1	36:5:3183:A:OP1	283.62	0.46
10:S8:29:LEU:HD12	1:6:400:A:N6	297.05	0.46
64:N8:6:THR:HG23	64:N8:8:THR:H	1.94	0.46
24:D2:7:LEU:HD13	24:D2:74:VAL:HG23	2.40	0.46
6:S4:71:LYS:HB2	6:S4:75:LYS:O	2.16	0.46
52:M6:43:ILE:HG22	52:M6:44:SER:O	2.15	0.46
1:6:483:A:H2'	1:6:484:C:O4'	2.16	0.46
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.17	0.46
3:S1:167:VAL:HA	3:S1:170:GLU:HB3	1.98	0.46
2:S0:126:PRO:O	2:S0:130:ALA:HB2	2.16	0.46
36:1:1807:G:C6	36:1:1808:G:C6	3.03	0.46
36:5:1689:U:H2'	36:5:1690:C:H6	1.80	0.46
38:4:104:A:H3'	38:4:105:A:H5''	1.96	0.46
36:1:3042:U:OP2	36:1:3092:C:N4	2.38	0.46
70:O4:98:GLN:OE1	70:O4:102:LYS:HE2	2.16	0.46
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.59	0.46
42:L5:134:ALA:HB2	42:L5:141:PRO:HD3	3.40	0.46
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	3.13	0.46
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.79	0.46
51:M5:73:ARG:HB3	51:M5:89:VAL:HG13	3.18	0.46
14:C2:57:ALA:HB3	14:C2:85:LYS:HZ1	1.80	0.46
36:1:2533:G:H2'	36:1:2534:G:O4'	2.15	0.46
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	2.51	0.46
36:1:1387:G:OP1	86:1:4162:OHX:N6	2.49	0.46
36:1:2796:G:N7	78:Q2:63:LYS:NZ	2.59	0.46
36:5:1348:U:C6	36:5:1355:A:C5	3.04	0.46
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.77	0.46
9:S7:73:VAL:O	9:S7:75:THR:N	2.70	0.46
48:M1:116:TYR:CD2	48:M1:122:ILE:HD11	2.50	0.46
39:L2:179:LEU:O	39:L2:180:LEU:HB2	2.15	0.46
86:1:4060:OHX:N4	86:1:4169:OHX:N1	2.63	0.46
6:S4:242:LYS:HE3	6:S4:242:LYS:H	1.81	0.46
36:1:2425:G:H2'	36:1:2426:U:O4'	2.15	0.46
56:N0:134:ASP:O	56:N0:136:LYS:HG3	2.16	0.46
1:6:892:A:H2'	1:6:893:U:C6	2.51	0.46
36:1:2943:G:H2'	36:1:2944:U:O4'	2.15	0.46
24:D2:90:THR:O	24:D2:94:LEU:HB2	2.16	0.46
1:6:1273:G:O5'	1:6:1274:C:H3'	2.16	0.46
70:O4:11:ASN:OD1	70:O4:18:ASN:ND2	2.48	0.46
86:1:3965:OHX:N1	86:1:4145:OHX:N3	2.64	0.46
57:N1:119:ALA:O	57:N1:123:GLY:N	3.22	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.33	0.46
1:2:488:G:OP1	1:2:488:G:H4'	2.15	0.46
18:C6:102:LYS:HE2	18:C6:102:LYS:HB3	2.03	0.46
36:5:650:C:O5'	36:5:650:C:H6	1.99	0.46
1:2:1244:A:N3	1:2:1244:A:H3'	2.30	0.46
36:1:1375:G:O6	64:N8:10:LYS:HE2	2.15	0.46
36:1:374:A:HO2'	36:1:376:G:H8	1.62	0.46
36:1:191:U:H2'	36:1:192:C:C6	2.51	0.46
1:2:545:A:H4'	1:2:546:U:OP1	2.15	0.46
36:1:926:A:H2'	36:1:927:C:C6	2.51	0.46
11:S9:21:SER:HA	11:S9:24:LEU:HB2	2.54	0.46
53:M7:168:LEU:HD13	53:M7:172:GLN:O	2.16	0.46
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	3.16	0.46
20:C8:131:LEU:HA	20:C8:145:ARG:NH1	2.30	0.46
2:S0:142:PRO:HG3	23:D1:32:VAL:HG13	1.97	0.46
28:D6:82:ARG:HB2	28:D6:85:ARG:NE	8.92	0.46
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.30	0.46
43:L6:52:VAL:HA	43:L6:67:GLY:HA2	3.35	0.46
39:L2:201:GLY:CA	39:L2:204:MET:HG3	2.46	0.46
1:2:1533:C:H4'	1:2:1539:G:H1	1.78	0.46
36:1:2444:C:H3'	36:1:2445:A:H5''	1.97	0.46
52:M6:12:LYS:O	52:M6:14:HIS:N	3.45	0.46
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.24	0.46
24:D2:5:SER:O	24:D2:6:VAL:HG12	4.85	0.46
38:8:155:A:H2'	38:8:156:U:O4'	2.15	0.46
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.31	0.46
63:N7:46:ILE:HD11	63:N7:49:TYR:N	2.31	0.46
74:O8:5:ILE:HD11	74:O8:10:GLN:NE2	2.82	0.46
55:M9:116:ASP:OD1	55:M9:116:ASP:N	3.95	0.46
17:C5:16:SER:HB2	17:C5:20:VAL:N	2.31	0.46
36:1:2340:U:OP2	40:L3:237:LYS:HB2	2.16	0.46
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.51	0.46
36:1:22:G:H1'	38:4:104:A:N3	2.31	0.46
62:N6:71:SER:N	62:N6:81:GLN:O	2.78	0.46
1:2:67:A:C2	1:2:69:G:H1'	2.51	0.46
16:C4:90:ARG:HB3	16:C4:91:THR:H	1.57	0.46
36:1:2790:A:O2'	86:1:3988:OHX:N1	2.48	0.46
1:2:947:U:H2'	1:2:948:G:C8	2.51	0.46
10:S8:116:HIS:CD2	10:S8:146:ARG:HD3	3.11	0.46
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.15	0.46
42:L5:41:LYS:NZ	57:N1:32:LYS:O	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1818:U:O2'	36:5:1819:U:H5'	2.16	0.46
41:L4:195:ARG:NH2	36:5:341:G:N7	109.84	0.46
36:1:547:G:N2	36:1:548:G:N3	2.64	0.46
21:C9:23:GLN:HB2	21:C9:55:TYR:CD2	5.29	0.46
60:N4:63:ILE:HD12	60:N4:64:THR:H	6.04	0.46
71:O5:49:LYS:O	71:O5:52:ALA:N	3.20	0.46
36:1:531:G:H2'	36:1:532:A:C8	2.51	0.46
48:M1:11:ASP:HB3	48:M1:12:LEU:H	1.49	0.46
37:7:110:G:C6	37:7:111:U:C4	3.04	0.46
1:2:52:U:H2'	1:2:53:G:C8	2.51	0.46
69:O3:10:LYS:HE3	69:O3:33:GLU:OE2	4.64	0.46
70:O4:106:LYS:O	70:O4:110:GLU:HB2	3.32	0.46
55:M9:40:ALA:O	55:M9:44:LEU:HG	3.51	0.46
44:L7:85:PHE:HB2	44:L7:139:PRO:HG3	1.96	0.46
53:M7:90:PHE:O	53:M7:94:LEU:HD22	2.16	0.46
36:5:1734:G:O6	86:5:3967:OHX:N5	2.49	0.46
26:D4:121:THR:C	26:D4:123:LYS:H	2.90	0.46
36:5:3155:U:H4'	36:5:3156:U:OP2	2.16	0.46
35:SM:117:LEU:HD23	35:SM:121:LYS:HG3	1.96	0.46
36:5:1487:G:H1	36:5:1855:U:H3	1.61	0.46
86:1:3969:OHX:N3	86:1:4077:OHX:N4	2.64	0.46
1:6:1004:U:H4'	1:6:1005:A:OP2	2.16	0.46
36:1:2508:U:O5'	36:1:2508:U:H6	1.99	0.46
1:2:1426:C:H5''	35:SM:93:ARG:NH1	2.31	0.46
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.15	0.46
43:L6:50:LYS:HE2	43:L6:72:ASN:O	2.15	0.46
36:5:2353:G:C5	36:5:2354:C:C5	3.03	0.46
7:S5:108:LEU:HA	7:S5:108:LEU:HD23	1.73	0.46
1:2:1012:U:H5''	39:L2:248:GLY:HA2	1.98	0.46
1:2:337:G:H1'	10:S8:10:LYS:NZ	2.31	0.46
17:C5:43:ARG:HG3	17:C5:47:ARG:HG3	4.47	0.46
50:M4:121:MET:HG3	36:5:3214:U:C5	281.93	0.46
40:L3:2:SER:N	36:5:2940:A:N7	237.61	0.46
36:1:1362:G:H2'	36:1:1363:A:H8	1.76	0.46
88:1:4221:3K5:H30	78:Q2:40:LYS:HA	1.98	0.46
28:D6:90:GLU:OE1	28:D6:90:GLU:N	3.44	0.46
6:S4:18:TRP:HH2	6:S4:31:PRO:HD3	2.18	0.46
1:6:768:C:H2'	1:6:769:A:O4'	2.16	0.46
11:S9:105:LEU:HD12	11:S9:105:LEU:HA	1.99	0.46
46:L9:24:ILE:HD11	46:L9:39:LYS:HD2	3.29	0.46
39:L2:201:GLY:O	39:L2:204:MET:HG2	3.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:87:ALA:O	71:O5:90:ARG:HG2	3.19	0.46
1:2:702:G:N1	1:2:736:C:N3	2.54	0.46
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.97	0.46
1:2:192:U:O2'	1:2:193:U:O5'	2.28	0.46
1:6:542:A:C8	1:6:543:C:H5'	2.50	0.46
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.15	0.46
1:6:1541:G:C5	1:6:1542:G:C6	3.04	0.46
5:S3:135:GLU:HG3	5:S3:153:ALA:HB2	3.17	0.46
25:D3:38:PHE:HB3	1:6:359:A:C2	325.34	0.46
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.46	0.46
1:2:443:C:OP2	26:D4:105:ARG:HB3	2.16	0.46
5:S3:63:GLY:O	5:S3:66:ILE:HG22	6.12	0.46
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.49	0.46
6:S4:163:ASP:OD1	6:S4:164:LEU:N	4.39	0.46
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.98	0.46
5:S3:223:LYS:N	5:S3:223:LYS:HD2	4.46	0.46
1:6:219:A:HO2'	1:6:220:A:P	2.38	0.46
37:7:23:A:C6	37:7:24:A:C6	3.04	0.46
37:3:7:G:OP2	42:L5:28:THR:OG1	2.26	0.46
1:2:710:U:H2'	1:2:711:U:H5'	1.97	0.46
41:L4:232:SER:OG	41:L4:233:LEU:N	2.44	0.46
36:1:1841:A:O2'	36:1:1842:A:H5''	2.16	0.46
22:D0:63:LEU:HD13	31:D9:34:TYR:CE1	3.58	0.46
36:1:32:U:H2'	36:1:33:G:O4'	2.16	0.46
36:5:3232:G:N2	36:5:3255:U:O2	2.47	0.46
36:1:2358:A:H2'	36:1:2359:C:O4'	2.16	0.46
36:1:2754:G:OP2	86:1:4012:OHX:N6	2.49	0.46
17:C5:49:MET:HB3	17:C5:50:THR:H	4.23	0.46
54:M8:90:ASP:O	54:M8:92:ARG:N	2.53	0.46
36:5:1566:A:H61	36:5:1571:A:H2	1.62	0.46
21:C9:70:GLN:HG3	21:C9:120:GLY:O	2.68	0.46
39:L2:250:GLN:HG2	39:L2:251:LYS:H	4.15	0.46
36:1:3088:G:H2'	36:1:3089:C:C6	2.51	0.46
48:M1:173:ASP:HB2	48:M1:174:LYS:H	3.37	0.46
65:N9:16:ALA:O	65:N9:20:GLY:HA3	3.92	0.46
36:1:1347:U:O4'	41:L4:305:ALA:HA	2.16	0.46
1:6:1263:G:C2	1:6:1264:G:H1'	2.51	0.46
36:5:196:G:N7	86:5:3942:OHX:N3	2.64	0.46
1:2:352:A:OP2	1:2:352:A:H8	1.98	0.46
46:L9:172:ILE:O	46:L9:172:ILE:HG12	2.16	0.46
36:1:719:U:H5''	36:1:719:U:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3334:U:O4	36:1:3369:G:H1'	2.16	0.46
45:L8:45:ASN:OD1	61:N5:26:VAL:HG23	2.16	0.46
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	4.85	0.46
18:C6:50:GLU:HA	18:C6:53:LEU:HD11	2.50	0.46
7:S5:72:HIS:CD2	7:S5:107:LYS:HG2	3.05	0.46
86:2:2089:OHX:N3	86:2:2130:OHX:N4	2.64	0.46
57:N1:84:TYR:HE1	65:N9:21:ILE:HG23	2.83	0.46
2:S0:71:GLU:O	2:S0:73:VAL:N	2.73	0.46
28:D6:87:ARG:HB3	28:D6:91:ASP:HB3	2.53	0.46
36:1:1334:U:HO2'	44:L7:151:ARG:HH22	1.62	0.46
23:D1:18:SER:HG	23:D1:54:ALA:H	1.62	0.46
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.51	0.46
37:7:61:G:C2	37:7:62:U:C2	3.04	0.46
1:6:509:G:H2'	1:6:510:G:O4'	2.16	0.46
1:6:544:A:H5''	1:6:545:A:OP2	2.16	0.46
3:S1:184:LEU:HD12	3:S1:188:LEU:HG	4.15	0.46
1:2:1235:C:H2'	33:E1:138:ARG:HH21	1.81	0.46
1:2:1718:G:H2'	1:2:1719:A:O4'	2.15	0.46
36:1:3164:C:H1'	36:1:3165:A:H5'	1.98	0.46
26:D4:9:THR:HG21	26:D4:48:TYR:OH	2.15	0.46
31:D9:30:LEU:HA	31:D9:39:CYS:HA	1.97	0.46
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.98	0.46
21:C9:35:ASP:OD2	21:C9:36:ILE:HG23	3.68	0.46
64:N8:28:HIS:H	64:N8:29:PRO:CD	3.56	0.46
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.42	0.46
15:C3:25:TRP:HA	15:C3:27:LYS:HE2	6.41	0.46
14:C2:87:PRO:HA	14:C2:140:PHE:CE1	2.76	0.46
36:5:937:G:C6	36:5:2410:U:H5''	2.51	0.46
71:O5:105:ARG:HB2	71:O5:105:ARG:NH2	2.30	0.46
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	3.16	0.46
42:L5:282:ARG:O	42:L5:286:VAL:HG23	2.92	0.46
1:2:778:G:H22	26:D4:10:ARG:CZ	2.29	0.46
2:S0:193:GLN:C	2:S0:195:TRP:H	2.19	0.46
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.34	0.46
68:O2:126:LEU:HD23	68:O2:126:LEU:HA	1.79	0.46
36:1:1674:G:OP2	86:1:3952:OHX:N2	2.48	0.46
51:M5:155:VAL:HG23	51:M5:156:HIS:CD2	2.50	0.46
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.97	0.46
1:6:245:U:O4	86:6:2122:OHX:N4	2.49	0.46
3:S1:135:LEU:HA	3:S1:216:LYS:O	5.19	0.46
5:S3:52:ALA:O	5:S3:90:ARG:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:57:ILE:HG21	54:M8:57:ILE:HD13	1.63	0.46
21:C9:26:GLY:O	21:C9:28:LEU:HG	2.16	0.46
46:L9:27:VAL:HG11	46:L9:79:ILE:HA	1.97	0.46
36:1:1541:G:OP2	86:1:4025:OHX:N5	2.48	0.46
36:1:664:U:H2'	36:1:665:A:C8	2.50	0.46
86:1:3965:OHX:N1	86:1:4145:OHX:N4	2.64	0.46
36:5:238:A:H2'	36:5:239:G:C8	2.51	0.46
15:C3:103:GLU:HA	15:C3:106:ARG:NH2	2.31	0.46
7:S5:126:ASP:HB3	7:S5:127:GLN:H	1.51	0.46
64:N8:19:LYS:HD2	64:N8:25:HIS:ND1	2.31	0.46
1:2:224:C:C2	1:2:838:G:C2	3.04	0.46
11:S9:36:LEU:O	32:E0:33:ARG:HG3	2.16	0.46
6:S4:127:LYS:N	6:S4:140:VAL:O	2.76	0.46
86:2:2133:OHX:N6	10:S8:52:ASN:OD1	2.48	0.46
36:1:221:A:C2	36:1:224:C:C5	3.04	0.46
1:6:525:A:H2'	1:6:526:A:C8	2.51	0.46
53:M7:85:ALA:O	53:M7:89:LYS:HB2	3.21	0.46
2:S0:206:ASP:H	2:S0:207:PRO:HA	4.74	0.46
36:5:2582:C:H2'	36:5:2583:C:C6	2.50	0.46
36:5:734:C:OP1	36:5:734:C:H6	1.99	0.46
64:N8:74:ASN:HB3	64:N8:76:ASP:HB2	1.97	0.46
36:1:3218:A:H4'	36:1:3219:G:O5'	2.16	0.46
36:5:2136:C:O2'	36:5:2137:U:H5'	2.16	0.46
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.94	0.46
43:L6:131:LYS:HE2	43:L6:131:LYS:HA	5.02	0.46
76:Q0:88:LYS:HE2	76:Q0:88:LYS:HB3	4.23	0.46
66:O0:66:LYS:H	66:O0:66:LYS:HD2	3.44	0.46
86:6:2120:OHX:N4	86:6:2171:OHX:N1	2.63	0.45
36:1:157:A:C8	72:O6:26:ILE:HG12	2.52	0.45
36:1:3133:C:H2'	36:1:3134:A:O4'	2.16	0.45
65:N9:23:LYS:CD	65:N9:24:PRO:HD3	2.65	0.45
1:2:1796:C:C5	28:D6:6:ALA:N	2.84	0.45
10:S8:81:VAL:HG11	10:S8:91:VAL:HA	1.97	0.45
1:2:1586:A:H1'	1:2:1611:A:N6	2.31	0.45
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.16	0.45
36:5:2209:U:H4'	36:5:2210:G:OP1	2.16	0.45
36:1:1307:G:H1'	36:1:1308:A:N7	2.31	0.45
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	3.74	0.45
36:1:883:A:H2'	36:1:921:A:C2	2.51	0.45
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.45	0.45
50:M4:64:VAL:HA	56:N0:172:TYR:OH	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:76:LEU:HD21	25:D3:104:LEU:HD12	2.55	0.45
26:D4:44:LEU:HA	26:D4:47:VAL:HB	1.98	0.45
34:SR:59:ARG:HD3	34:SR:97:GLY:HA3	3.55	0.45
9:S7:120:ALA:O	9:S7:124:LYS:HG2	2.73	0.45
1:2:1370:U:O4	86:2:2120:OHX:N3	2.49	0.45
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.47	0.45
71:O5:47:VAL:HA	71:O5:50:SER:HB2	1.97	0.45
14:C2:48:SER:HB3	14:C2:122:VAL:HG23	1.97	0.45
11:S9:39:LYS:HB3	11:S9:43:TYR:CE2	3.21	0.45
36:5:1238:C:H2'	36:5:1239:C:C6	2.50	0.45
39:L2:77:ILE:CD1	39:L2:128:ARG:HB3	2.46	0.45
1:6:493:U:H2'	1:6:494:U:H5''	1.98	0.45
55:M9:125:LYS:O	36:5:841:A:H5'	246.52	0.45
36:5:1556:C:H5''	36:5:2169:G:H22	1.81	0.45
42:L5:17:GLN:HB2	57:N1:20:ARG:HG2	4.00	0.45
57:N1:13:TYR:O	86:5:3909:OHX:N4	260.71	0.45
9:S7:89:HIS:ND1	9:S7:168:SER:OG	2.41	0.45
36:5:1908:A:H2'	36:5:1909:A:O4'	2.16	0.45
1:2:778:G:H22	26:D4:10:ARG:NH1	2.14	0.45
23:D1:41:GLU:CD	23:D1:41:GLU:H	2.17	0.45
51:M5:164:LEU:HA	51:M5:164:LEU:HD23	1.76	0.45
1:6:1388:A:H4'	1:6:1389:C:O5'	2.15	0.45
10:S8:155:SER:HB2	10:S8:189:LEU:HD21	1.98	0.45
36:1:2724:U:H4'	57:N1:54:HIS:CD2	2.51	0.45
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.47	0.45
29:D7:56:CYS:O	29:D7:58:SER:N	3.79	0.45
1:2:839:U:H5'	13:C1:28:SER:HB3	1.97	0.45
1:6:1068:C:H2'	1:6:1069:A:H8	1.82	0.45
1:6:146:U:OP2	86:6:2170:OHX:N6	2.49	0.45
36:1:1805:C:H2'	36:1:1806:A:H8	1.82	0.45
36:1:677:A:H4'	36:1:678:G:O5'	2.15	0.45
26:D4:89:TYR:HE1	26:D4:93:ARG:NH1	3.82	0.45
45:L8:135:GLY:O	45:L8:139:VAL:HG23	2.16	0.45
41:L4:73:ARG:NH2	36:5:2814:G:OP1	172.20	0.45
36:5:2359:C:H2'	36:5:2360:C:C6	2.51	0.45
36:5:3027:A:H2'	36:5:3028:G:O4'	2.16	0.45
8:S6:214:LYS:HB3	8:S6:218:GLU:OE1	6.28	0.45
36:1:861:C:H2'	36:1:862:U:C6	2.51	0.45
7:S5:149:VAL:HG13	7:S5:151:GLY:N	5.18	0.45
1:2:127:G:C8	8:S6:198:ALA:HB1	2.51	0.45
36:1:996:A:C2	36:1:1054:A:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:696:C:H1'	1:2:697:C:H2'	1.99	0.45
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.66	0.45
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	2.71	0.45
35:SM:102:THR:OG1	35:SM:103:LYS:N	2.49	0.45
1:6:1271:G:H2'	1:6:1272:U:O4'	2.15	0.45
36:1:1196:C:O2	86:1:3999:OHX:N2	2.49	0.45
26:D4:132:ARG:O	26:D4:135:ASP:N	2.41	0.45
36:5:2313:A:H4'	36:5:2314:U:H5'	1.99	0.45
41:L4:307:GLN:HE21	41:L4:307:GLN:N	2.97	0.45
1:6:980:G:N7	86:6:2055:OHX:N4	2.63	0.45
37:7:33:U:H2'	37:7:34:C:O4'	2.16	0.45
36:5:2787:G:OP2	86:5:4030:OHX:N6	2.49	0.45
78:Q2:34:SER:C	78:Q2:36:PHE:H	4.62	0.45
1:2:372:G:H1'	1:2:612:U:O2	2.15	0.45
40:L3:41:VAL:CG2	40:L3:186:GLY:H	2.27	0.45
40:L3:293:ASN:HB3	40:L3:305:ILE:HG13	1.98	0.45
51:M5:120:TRP:CZ2	51:M5:122:ASN:HA	2.52	0.45
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.51	0.45
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.16	0.45
11:S9:29:LYS:HA	32:E0:40:TYR:CE2	2.89	0.45
11:S9:129:ILE:HG22	11:S9:142:ASN:HA	1.98	0.45
41:L4:145:ILE:O	86:L4:403:OHX:N5	2.49	0.45
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.50	0.45
22:D0:103:ILE:HA	22:D0:106:ILE:HG22	2.54	0.45
41:L4:47:ARG:NH2	41:L4:109:TRP:HA	2.31	0.45
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.82	0.45
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.16	0.45
1:2:1769:U:O2	16:C4:136:ARG:HD2	2.16	0.45
20:C8:5:VAL:O	27:D5:42:LEU:HB2	3.68	0.45
15:C3:27:LYS:H	15:C3:27:LYS:HE3	1.80	0.45
62:N6:52:ARG:HH11	62:N6:52:ARG:HB3	2.39	0.45
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.60	0.45
1:2:481:A:H61	1:2:505:A:N6	2.12	0.45
39:L2:225:ILE:O	39:L2:238:ILE:O	4.84	0.45
31:D9:19:ARG:HH21	1:6:1597:A:P	406.70	0.45
31:D9:19:ARG:HD3	31:D9:32:ARG:HD2	1.99	0.45
49:M3:22:VAL:HG13	51:M5:197:LEU:HD23	1.98	0.45
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	4.74	0.45
41:L4:31:ARG:HG3	41:L4:120:TYR:CE1	2.51	0.45
36:1:1240:A:N6	36:1:1244:A:OP2	2.49	0.45
77:Q1:9:ARG:HH11	77:Q1:9:ARG:CG	2.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:8:PRO:HD2	48:M1:10:ARG:H	1.81	0.45
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.30	0.45
6:S4:252:ARG:HB3	6:S4:252:ARG:HH21	4.11	0.45
62:N6:103:LYS:HZ3	36:5:221:A:H61	77.80	0.45
37:3:71:G:H2'	37:3:72:A:H8	1.79	0.45
36:1:1100:U:H2'	36:1:1101:G:O4'	2.16	0.45
3:S1:127:VAL:O	3:S1:135:LEU:HD23	2.15	0.45
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.40	0.45
36:5:2770:G:C2'	36:5:2771:U:H5'	2.47	0.45
36:5:3238:G:N2	36:5:3250:U:H1'	2.31	0.45
1:2:1546:G:OP1	20:C8:123:ARG:HD2	2.16	0.45
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.48	0.45
5:S3:141:LYS:NZ	5:S3:179:GLN:OE1	2.23	0.45
1:2:1504:G:H2'	1:2:1505:A:C8	2.52	0.45
36:5:2198:A:OP2	86:5:4189:OHX:N4	2.49	0.45
36:1:1618:G:H4'	38:4:129:C:H1'	1.98	0.45
46:L9:141:LYS:HE2	46:L9:142:ASP:OD1	2.15	0.45
36:1:16:A:H2'	36:1:17:G:O4'	2.15	0.45
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	1.79	0.45
1:6:1081:A:OP2	1:6:1081:A:H2'	2.16	0.45
1:2:1388:A:C5	1:2:1411:A:C6	3.05	0.45
36:1:290:G:H1'	51:M5:93:LYS:HD3	1.98	0.45
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.49	0.45
1:2:1566:U:H2'	1:2:1567:U:H6	1.82	0.45
20:C8:135:GLY:CA	1:6:1559:A:H5''	364.91	0.45
11:S9:150:LEU:O	11:S9:153:GLU:HB2	3.20	0.45
38:8:77:A:H2'	38:8:78:G:O4'	2.17	0.45
15:C3:64:ARG:NH1	15:C3:64:ARG:HG2	4.42	0.45
1:6:894:U:H2'	1:6:895:G:C8	2.52	0.45
17:C5:87:PRO:HD3	17:C5:112:LEU:HD22	1.98	0.45
17:C5:28:MET:HE2	17:C5:28:MET:HB3	1.70	0.45
43:L6:63:LEU:HB2	43:L6:79:VAL:HG12	1.98	0.45
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.16	0.45
41:L4:44:LYS:HG2	41:L4:47:ARG:NH1	2.32	0.45
1:6:188:A:H3'	1:6:189:C:H6	1.81	0.45
1:6:190:C:HO2'	1:6:191:C:P	2.40	0.45
56:N0:166:LYS:HB2	56:N0:166:LYS:HE3	3.86	0.45
1:2:1739:C:H2'	1:2:1740:A:H8	1.82	0.45
36:1:2101:C:H1'	36:1:2102:U:OP1	2.17	0.45
68:O2:105:ARG:NH2	36:5:1412:G:OP1	145.64	0.45
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:53:ARG:NH2	11:S9:53:ARG:HB3	3.49	0.45
1:2:781:U:P	26:D4:9:THR:HG1	2.38	0.45
27:D5:43:ASP:HB2	27:D5:46:LYS:HG3	1.98	0.45
21:C9:65:ILE:CD1	21:C9:71:VAL:HG23	2.45	0.45
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	1.99	0.45
86:5:4008:OHX:N4	86:5:4197:OHX:N2	2.64	0.45
36:1:922:U:P	73:O7:3:LYS:HD2	2.56	0.45
65:N9:14:ARG:HH22	65:N9:18:ARG:HH11	3.21	0.45
61:N5:86:VAL:HG11	61:N5:95:ILE:HD13	1.99	0.45
44:L7:214:TRP:CE2	44:L7:219:LYS:HD2	2.51	0.45
36:5:1096:U:H4'	36:5:1097:G:O5'	2.16	0.45
1:2:287:G:O2'	1:2:288:A:OP2	2.30	0.45
70:O4:102:LYS:HB3	70:O4:103:LYS:HE3	4.06	0.45
4:S2:139:ILE:HD11	4:S2:218:ILE:HB	2.11	0.45
71:O5:119:LYS:NZ	71:O5:120:ALA:HB2	2.32	0.45
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.51	0.45
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.17	0.45
6:S4:157:ASN:HD21	6:S4:222:LEU:HD11	1.81	0.45
41:L4:285:ASP:OD2	41:L4:288:ARG:HB2	2.16	0.45
5:S3:78:LYS:NZ	12:C0:33:GLU:HG2	2.32	0.45
36:5:1348:U:H5''	36:5:1355:A:H61	1.82	0.45
1:6:1469:A:H2'	1:6:1470:C:C6	2.51	0.45
41:L4:188:ARG:HG2	41:L4:190:GLY:H	3.67	0.45
42:L5:203:HIS:CE1	42:L5:204:VAL:HG23	3.17	0.45
36:5:2659:G:H4'	36:5:2751:G:O2'	2.16	0.45
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	2.51	0.45
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.60	0.45
5:S3:136:VAL:N	5:S3:152:PHE:O	2.43	0.45
36:5:999:G:C6	36:5:1000:C:N4	2.84	0.45
86:1:4060:OHX:N6	86:1:4169:OHX:N5	2.64	0.45
26:D4:89:TYR:O	26:D4:93:ARG:HG3	2.49	0.45
36:1:551:A:O2'	36:1:552:G:H8	1.99	0.45
36:1:2571:U:H2'	36:1:2571:U:OP1	2.16	0.45
36:1:191:U:H5'	36:1:191:U:H6	1.81	0.45
1:2:858:G:OP1	9:S7:116:ARG:NH2	2.49	0.45
53:M7:118:GLN:HG2	53:M7:147:GLU:HG2	3.24	0.45
45:L8:85:ASN:O	45:L8:89:GLU:HB2	3.37	0.45
36:5:739:G:O6	86:5:3964:OHX:N6	2.49	0.45
49:M3:25:HIS:CD2	51:M5:200:TRP:CD2	3.23	0.45
1:6:532:U:H2'	1:6:533:U:O4'	2.17	0.45
3:S1:202:LYS:C	3:S1:204:ILE:H	2.91	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2144:A:C4	36:1:2281:A:N6	2.84	0.45
36:1:3127:A:N6	36:1:3128:G:C2	2.85	0.45
36:1:3131:U:H2'	36:1:3132:C:H6	1.81	0.45
34:SR:184:ASN:N	34:SR:184:ASN:OD1	2.49	0.45
19:C7:67:ARG:HG3	19:C7:67:ARG:H	3.45	0.45
36:5:1464:G:O2'	86:5:3911:OHX:N5	2.50	0.45
36:5:79:U:O2'	36:5:80:G:H5'	2.16	0.45
36:1:59:G:H2'	38:4:33:A:O2'	2.17	0.45
36:1:2227:C:OP1	78:Q2:32:LYS:NZ	2.44	0.45
78:Q2:78:LYS:HG2	78:Q2:79:THR:N	2.54	0.45
18:C6:87:LYS:HA	18:C6:90:VAL:HG22	1.98	0.45
7:S5:72:HIS:HA	7:S5:107:LYS:HE2	1.99	0.45
1:2:1341:A:O2'	34:SR:102:ARG:NH2	2.50	0.45
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.80	0.45
10:S8:77:ARG:HB2	10:S8:105:ASP:HB2	3.11	0.45
36:1:290:G:H2'	36:1:291:C:C6	2.51	0.45
15:C3:65:VAL:HG23	15:C3:66:ILE:CG2	5.94	0.45
36:5:1877:U:OP2	86:5:3955:OHX:N1	2.50	0.45
41:L4:311:HIS:HE1	41:L4:314:LYS:HA	1.77	0.45
41:L4:16:THR:HG23	41:L4:17:ALA:N	3.17	0.45
59:N3:87:ARG:NH1	59:N3:137:VAL:HG21	2.23	0.45
1:6:328:A:H2'	1:6:329:G:O4'	2.17	0.45
10:S8:59:ARG:O	10:S8:60:ILE:HD13	2.16	0.45
1:2:45:U:C2	1:2:436:A:N6	2.84	0.45
1:2:1236:A:H2'	1:2:1237:G:H8	1.81	0.45
1:2:1777:G:O6	77:Q1:8:LYS:HE3	2.16	0.45
1:2:1785:U:OP1	16:C4:136:ARG:NH1	2.48	0.45
36:1:1713:G:O6	66:O0:28:LYS:HD3	2.16	0.45
49:M3:27:ASP:OD1	49:M3:31:LYS:HD2	4.46	0.45
1:2:1003:A:H1'	1:2:1005:A:N7	2.32	0.45
42:L5:254:LYS:O	42:L5:254:LYS:HG3	2.61	0.45
6:S4:87:MET:HB3	6:S4:122:LYS:HG3	3.77	0.45
36:5:541:U:H2'	36:5:542:G:C8	2.52	0.45
36:5:437:G:H1	36:5:622:A:H61	1.63	0.45
62:N6:57:LEU:HD22	62:N6:58:VAL:N	2.68	0.45
36:5:1240:A:H2'	36:5:1241:U:H5'	1.98	0.45
36:1:1456:A:N6	67:O1:64:VAL:HG22	2.31	0.45
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.99	0.45
38:4:104:A:H3'	38:4:105:A:C5'	2.46	0.45
36:5:209:A:H1'	36:5:212:G:N2	2.31	0.45
36:1:3294:A:H2'	36:1:3295:A:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:822:U:H2'	1:6:823:G:H5''	1.98	0.45
1:2:1238:A:OP2	86:2:2046:OHX:N2	2.49	0.45
49:M3:59:ARG:HA	49:M3:69:VAL:HG23	2.22	0.45
18:C6:60:PHE:CZ	18:C6:89:LEU:HD22	2.51	0.45
6:S4:247:SER:HB3	6:S4:250:GLU:OE1	2.15	0.45
34:SR:243:LEU:HD23	34:SR:254:ALA:HA	1.98	0.45
1:2:1148:C:H2'	1:2:1149:G:C8	2.52	0.45
59:N3:96:GLU:HG3	60:N4:21:PHE:HE1	1.79	0.45
38:4:83:C:H1'	38:4:85:G:N2	2.31	0.45
2:S0:89:PHE:O	2:S0:93:THR:HG23	2.59	0.45
36:5:707:U:H1'	36:5:754:G:O2'	2.17	0.45
41:L4:346:LYS:HG2	41:L4:346:LYS:H	1.45	0.45
36:1:1176:C:OP1	52:M6:25:LYS:HE3	2.16	0.45
36:5:231:G:C2	36:5:232:G:C8	3.05	0.45
1:2:922:G:H2'	1:2:923:A:H8	1.80	0.45
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.49	0.45
86:5:4211:OHX:N2	86:5:4221:OHX:N5	2.65	0.45
18:C6:131:GLY:HA2	18:C6:138:PHE:CD1	2.67	0.45
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.98	0.45
26:D4:66:GLY:HA2	1:6:532:U:H4'	431.21	0.45
49:M3:95:ILE:HD13	49:M3:116:LEU:HD22	1.97	0.45
36:5:994:G:N2	36:5:1053:A:H2'	2.31	0.45
36:1:1120:A:H2'	36:1:1121:U:C6	2.51	0.45
36:1:2712:U:H2'	36:1:2713:U:C6	2.51	0.45
36:1:2713:U:H3'	78:Q2:9:LYS:O	2.17	0.45
1:6:1512:G:H2'	1:6:1513:G:O4'	2.16	0.45
36:1:1508:C:C6	36:1:1880:U:H1'	2.51	0.45
4:S2:106:ASP:OD1	4:S2:107:SER:N	2.49	0.45
36:1:3205:G:OP2	36:1:3206:C:N4	2.46	0.45
55:M9:122:VAL:O	55:M9:126:GLU:HB2	2.41	0.45
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.83	0.45
1:2:1096:C:O2	1:2:1096:C:H2'	2.15	0.45
49:M3:136:GLU:HG3	49:M3:136:GLU:O	2.17	0.45
44:L7:188:ILE:HD13	44:L7:188:ILE:HA	2.11	0.45
1:2:1638:G:P	35:SM:94:HIS:HE2	2.39	0.45
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.63	0.45
1:2:552:G:C6	1:2:553:G:C6	3.04	0.45
14:C2:64:SER:OG	14:C2:65:SER:N	2.48	0.45
40:L3:188:ILE:HA	40:L3:191:LYS:HD2	1.99	0.45
50:M4:17:VAL:HA	50:M4:35:ILE:HG22	1.97	0.45
51:M5:23:GLN:NE2	51:M5:122:ASN:OD1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:46:ILE:HG12	9:S7:60:ILE:HG23	2.43	0.45
28:D6:92:ARG:HD2	1:6:1796:C:OP2	344.09	0.45
1:2:559:C:N3	1:2:586:G:N1	2.48	0.45
1:2:1565:C:OP1	20:C8:41:ARG:HG3	2.16	0.45
4:S2:228:ASN:ND2	23:D1:1:MET:HB3	2.32	0.45
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.26	0.45
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.64	0.45
3:S1:131:ASP:CB	3:S1:180:THR:HG23	2.47	0.45
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	5.39	0.45
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.16	0.45
20:C8:49:LYS:NZ	20:C8:80:LYS:HB2	3.77	0.45
15:C3:23:PRO:HD2	15:C3:26:PHE:HB2	2.87	0.45
38:4:81:U:O2	38:4:82:U:C5	2.70	0.45
42:L5:107:ARG:HH12	42:L5:120:LYS:HA	1.81	0.45
55:M9:154:ALA:O	55:M9:158:GLU:HG2	2.49	0.45
86:1:4138:OHX:N3	86:1:4197:OHX:N4	2.63	0.45
32:E0:55:ARG:CB	32:E0:58:PRO:HG3	2.46	0.45
44:L7:232:ARG:O	44:L7:235:PHE:HB2	2.17	0.45
36:1:2376:G:C6	36:1:2377:G:O6	2.69	0.45
73:O7:25:ARG:HG3	75:O9:51:ILE:HG13	3.01	0.45
36:1:3138:U:OP2	40:L3:30:LYS:HD3	2.17	0.45
60:N4:17:ARG:HD3	60:N4:17:ARG:HA	1.60	0.45
46:L9:122:LYS:HD3	46:L9:123:ILE:H	5.35	0.45
44:L7:83:LEU:HD11	44:L7:116:PHE:CD1	2.51	0.45
1:2:639:U:P	9:S7:117:THR:HG1	2.37	0.45
53:M7:95:LEU:HD23	53:M7:148:LEU:HD11	2.57	0.45
37:7:106:U:H2'	37:7:107:C:O4'	2.17	0.45
54:M8:58:ASN:HB3	54:M8:144:ARG:NH2	2.32	0.45
36:5:912:G:H1'	36:5:917:A:C2	2.52	0.45
29:D7:61:THR:O	29:D7:62:ILE:HB	2.17	0.45
38:4:19:C:H2'	38:4:20:U:O4'	2.16	0.45
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.31	0.45
36:1:559:A:H4'	36:1:559:A:OP1	2.17	0.45
36:5:702:C:O2'	36:5:788:C:H5''	2.16	0.45
1:2:1086:A:H5''	1:2:1087:A:OP2	2.16	0.45
36:5:2664:C:O2'	36:5:2665:U:H5'	2.17	0.45
36:1:308:A:H1'	36:1:2222:A:N3	2.31	0.45
68:O2:2:ALA:O	68:O2:90:LYS:HG3	2.17	0.45
86:1:3974:OHX:N1	38:4:31:G:OP2	2.50	0.45
50:M4:106:ARG:NH1	36:5:3209:A:C6	295.03	0.45
4:S2:180:ALA:HB1	4:S2:184:VAL:HB	2.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:47:GLN:OE1	48:M1:64:LYS:HE2	2.16	0.45
74:O8:32:ASN:O	74:O8:34:ALA:N	2.49	0.45
36:1:2726:C:O2'	36:1:2727:A:H2'	2.17	0.45
54:M8:80:THR:O	54:M8:137:THR:HA	2.43	0.45
9:S7:153:LEU:HD22	9:S7:184:GLU:HB3	4.24	0.45
1:2:346:G:O6	86:2:2124:OHX:N5	2.50	0.45
1:2:539:G:OP2	1:2:539:G:H8	1.99	0.45
20:C8:136:GLN:HG2	20:C8:136:GLN:H	1.26	0.45
17:C5:10:ARG:O	17:C5:12:PHE:N	2.50	0.45
51:M5:204:LYS:HE2	36:5:683:U:OP1	108.36	0.45
4:S2:99:LYS:HG3	4:S2:117:THR:HG22	1.98	0.45
36:5:3084:C:H2'	36:5:3085:G:O4'	2.17	0.45
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.49	0.45
1:2:1555:A:P	17:C5:47:ARG:HH21	2.40	0.45
1:2:1795:U:H3'	28:D6:5:ARG:NH1	2.32	0.45
1:2:1478:G:OP1	21:C9:39:THR:OG1	2.31	0.45
34:SR:22:SER:HB3	34:SR:71:CYS:H	1.81	0.45
1:2:1387:G:OP1	34:SR:66:HIS:NE2	2.50	0.45
57:N1:46:GLY:O	57:N1:49:GLN:NE2	2.47	0.45
57:N1:46:GLY:HA2	57:N1:52:MET:HE3	5.76	0.45
10:S8:81:VAL:HG12	10:S8:82:VAL:N	2.31	0.45
4:S2:90:THR:HB	4:S2:93:GLY:CA	2.47	0.45
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.82	0.45
10:S8:173:PRO:C	10:S8:175:GLN:H	2.40	0.45
46:L9:101:VAL:HG12	46:L9:136:PHE:CE1	2.52	0.45
47:M0:36:LEU:HD12	47:M0:87:LEU:HB3	2.64	0.45
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.17	0.45
36:1:1947:G:H1	36:1:2101:C:N4	2.13	0.45
12:C0:76:LEU:HD12	12:C0:76:LEU:HA	1.69	0.45
41:L4:62:ALA:HB3	41:L4:90:PHE:CE2	2.51	0.45
24:D2:7:LEU:HD22	24:D2:11:LEU:HG	2.29	0.45
36:1:12:A:OP2	86:1:4209:OHX:N5	2.49	0.45
36:5:2826:U:O4	86:5:3900:OHX:N6	2.50	0.45
1:2:443:C:H2'	1:2:444:C:O4'	2.17	0.45
42:L5:107:ARG:HH21	42:L5:110:LEU:HD23	1.81	0.45
1:6:647:G:N2	1:6:687:G:N2	2.64	0.45
11:S9:79:ARG:NH1	1:6:762:A:OP1	408.47	0.45
47:M0:26:VAL:HG12	47:M0:122:PRO:HB3	4.10	0.45
10:S8:110:ARG:NH2	36:1:3354:U:H3	2.14	0.45
1:6:1175:U:H2'	1:6:1176:G:C8	2.52	0.45
1:2:1081:A:H5"	1:2:1082:C:OP1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:881:A:H2'	1:2:882:U:O4'	2.17	0.45
43:L6:175:LYS:O	43:L6:176:PHE:HB2	4.50	0.45
6:S4:241:GLY:O	6:S4:243:GLY:N	2.50	0.45
36:5:3317:U:O2'	86:5:4137:OHX:N6	2.50	0.45
33:E1:127:GLY:C	33:E1:129:GLY:H	2.20	0.45
36:5:2437:G:C6	36:5:2511:A:C6	3.05	0.45
52:M6:71:PHE:HE1	36:5:2383:C:H5'	230.52	0.45
24:D2:80:ASN:ND2	1:6:747:C:H4'	353.86	0.45
1:2:1146:G:C6	1:2:1147:A:C6	3.05	0.45
36:5:948:C:H2'	36:5:949:C:H6	1.81	0.45
13:C1:6:THR:CB	13:C1:9:SER:HB3	2.47	0.45
43:L6:69:PHE:CZ	36:5:3267:A:H2'	258.48	0.45
10:S8:14:THR:HG23	10:S8:14:THR:H	2.21	0.45
57:N1:42:ILE:HG12	57:N1:96:ILE:HD11	1.98	0.45
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.52	0.45
5:S3:178:ARG:NE	5:S3:178:ARG:H	2.14	0.45
1:6:892:A:H2'	1:6:893:U:O4'	2.16	0.45
36:1:964:G:OP1	86:1:3969:OHX:N2	2.49	0.45
8:S6:214:LYS:O	8:S6:218:GLU:HG3	2.28	0.45
86:1:3999:OHX:N5	37:3:86:U:O2	2.50	0.45
36:1:2227:C:P	78:Q2:32:LYS:HZ3	2.40	0.45
44:L7:117:VAL:HG12	44:L7:118:LYS:O	2.75	0.45
1:6:1135:U:H2'	1:6:1136:U:C6	2.51	0.45
36:1:1762:C:H2'	36:1:1763:U:H4'	1.97	0.45
41:L4:72:ALA:O	41:L4:76:ARG:NH1	2.53	0.45
19:C7:25:THR:HB	19:C7:26:LEU:H	2.13	0.45
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.98	0.45
37:3:106:U:H2'	37:3:107:C:C6	2.51	0.45
1:2:1308:G:C2	1:2:1309:C:C2	3.05	0.45
36:1:508:U:H2'	36:1:509:U:C6	2.51	0.45
26:D4:63:GLN:HG3	26:D4:64:PHE:O	2.97	0.45
45:L8:238:LEU:HB3	45:L8:242:ALA:HB3	2.58	0.45
22:D0:17:GLN:HG3	22:D0:18:GLN:HG3	8.66	0.45
2:S0:79:ARG:HD3	2:S0:125:ASP:HB2	2.76	0.45
36:5:2953:U:H2'	36:5:2954:U:H2'	1.98	0.45
1:6:1638:G:C2	1:6:1639:C:H1'	2.52	0.45
69:O3:11:GLY:O	69:O3:98:VAL:N	2.84	0.45
1:2:1524:A:N3	1:2:1590:G:O2'	2.42	0.45
41:L4:200:THR:HG23	41:L4:202:ARG:HH22	2.81	0.45
58:N2:99:LYS:HG3	58:N2:102:GLU:HB2	1.98	0.45
68:O2:8:LYS:HE3	68:O2:8:LYS:HB2	1.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2223:A:H8	36:1:2223:A:OP2	1.99	0.45
74:O8:64:LYS:HE3	74:O8:64:LYS:HA	1.99	0.45
1:6:913:G:O4'	1:6:913:G:N3	2.49	0.45
22:D0:38:SER:O	22:D0:41:ILE:N	3.47	0.45
53:M7:34:GLN:OE1	36:5:413:U:H5''	154.34	0.45
49:M3:174:ARG:NH1	72:O6:9:ILE:HG21	2.31	0.45
36:5:1046:A:H2'	36:5:1049:C:C5	2.50	0.45
36:1:1161:G:H5'	36:1:1365:G:O2'	2.17	0.45
36:1:1639:C:H4'	36:1:1737:U:O2'	2.17	0.45
47:M0:174:THR:HA	47:M0:196:PHE:CE2	2.85	0.45
36:1:1602:A:C6	36:1:1603:A:C6	3.04	0.45
10:S8:61:GLU:HG3	10:S8:62:THR:HG23	2.45	0.45
9:S7:77:LEU:HD13	9:S7:92:PHE:CZ	3.44	0.45
8:S6:64:LYS:HB2	8:S6:97:VAL:HG21	1.99	0.45
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.99	0.45
1:6:1257:U:O2'	1:6:1258:U:O4'	2.35	0.45
34:SR:211:ILE:O	34:SR:223:TRP:HD1	2.66	0.45
41:L4:316:ASN:C	41:L4:317:PRO:O	2.55	0.45
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.82	0.45
39:L2:204:MET:HB3	36:5:914:A:N3	194.19	0.45
55:M9:61:SER:OG	55:M9:62:ARG:N	3.01	0.45
3:S1:62:LYS:O	3:S1:64:ARG:N	2.50	0.45
59:N3:80:ARG:O	59:N3:98:ASN:HA	2.72	0.45
1:2:720:G:H2'	1:2:720:G:N3	2.31	0.45
46:L9:64:HIS:O	46:L9:67:ALA:N	2.41	0.45
25:D3:53:VAL:O	25:D3:54:LEU:HG	2.17	0.45
31:D9:22:ARG:HG3	31:D9:37:ASN:O	2.17	0.45
1:2:226:A:H2'	1:2:227:U:H5'	1.99	0.45
44:L7:179:LEU:H	44:L7:179:LEU:HD22	2.00	0.45
58:N2:58:GLU:O	58:N2:60:GLY:N	2.50	0.45
1:6:846:G:H2'	1:6:847:A:H8	1.81	0.45
36:1:1230:G:H1	36:1:1279:C:N4	2.14	0.45
36:1:1262:G:C6	36:1:1278:A:N6	2.85	0.45
36:5:958:C:H5'	36:5:2799:A:H2'	1.98	0.45
73:O7:28:HIS:HD2	73:O7:31:LYS:HE2	3.49	0.45
1:2:5:U:H2'	1:2:6:G:H8	1.80	0.45
86:1:4034:OHX:N2	86:1:4152:OHX:N5	2.65	0.45
40:L3:241:LYS:HE2	36:5:874:U:OP2	213.33	0.45
40:L3:53:MET:HB2	36:5:3049:A:H5''	233.10	0.45
42:L5:177:GLU:O	42:L5:179:ARG:N	2.49	0.45
40:L3:340:LYS:HE2	40:L3:340:LYS:HB3	4.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1027:A:N7	36:5:1029:G:C2	2.84	0.45
38:4:142:C:H5'	51:M5:113:LEU:HD21	1.99	0.45
1:2:1238:A:H2'	1:2:1239:U:O4'	2.17	0.45
44:L7:211:SER:O	44:L7:213:GLY:N	2.46	0.45
86:1:4009:OHX:N4	86:1:4178:OHX:N1	2.65	0.45
21:C9:3:GLY:HA3	1:6:1364:G:N2	430.09	0.45
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.71	0.45
12:C0:25:LYS:HD2	12:C0:59:PHE:CZ	2.52	0.45
36:1:372:A:H2'	36:1:373:A:O4'	2.17	0.45
36:1:3082:C:H2'	36:1:3083:G:H8	1.81	0.45
53:M7:24:VAL:HG12	53:M7:86:LYS:CD	3.33	0.45
36:5:1796:G:O6	86:5:4224:OHX:N5	2.50	0.45
36:5:1798:A:H2'	36:5:1799:A:C8	2.52	0.45
43:L6:19:LYS:HG3	36:5:591:G:N3	216.22	0.45
5:S3:150:MET:HB3	5:S3:152:PHE:CE2	2.52	0.45
86:1:4060:OHX:N6	86:1:4169:OHX:N3	2.65	0.45
36:1:2571:U:H1'	36:1:2572:C:H5'	1.99	0.45
36:1:1063:G:N7	36:1:1097:G:H2'	2.31	0.45
1:6:869:A:H2'	1:6:870:C:O4'	2.17	0.45
58:N2:96:VAL:HG12	58:N2:97:SER:O	2.16	0.45
1:6:1408:G:H2'	1:6:1409:G:O4'	2.16	0.45
40:L3:307:PRO:HD3	40:L3:311:PHE:CE2	3.02	0.45
36:5:2264:U:OP2	86:5:3954:OHX:N4	2.50	0.45
7:S5:148:ARG:HE	7:S5:155:ALA:HB3	1.81	0.45
36:5:2745:G:N2	36:5:2748:A:OP2	2.49	0.45
1:2:1623:C:H2'	1:2:1624:C:C6	2.52	0.45
36:1:2174:G:OP2	39:L2:18:SER:OG	2.34	0.45
36:1:183:G:C4	36:1:234:G:C2	3.04	0.45
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.40	0.45
60:N4:38:SER:O	60:N4:42:GLN:HG3	2.16	0.45
36:1:3075:G:H5''	67:O1:62:ARG:O	2.17	0.45
55:M9:143:ILE:HG22	55:M9:144:GLN:N	2.49	0.45
44:L7:105:LEU:HA	44:L7:105:LEU:HD23	1.53	0.45
72:O6:21:THR:O	72:O6:21:THR:OG1	2.34	0.45
2:S0:202:TYR:N	2:S0:202:TYR:CD2	3.14	0.45
3:S1:165:ARG:O	3:S1:169:SER:OG	2.34	0.45
7:S5:35:GLN:C	7:S5:37:GLN:H	2.96	0.45
1:2:1610:G:O3'	7:S5:98:MET:HE1	2.16	0.45
53:M7:168:LEU:HB2	53:M7:172:GLN:HB3	1.99	0.45
52:M6:48:PHE:CE1	52:M6:52:LEU:HD11	3.82	0.45
43:L6:166:LYS:NZ	36:5:3214:U:H6	273.10	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2611:U:H2'	36:1:2612:U:H6	1.82	0.45
44:L7:210:PRO:HA	44:L7:243:MET:HG2	1.97	0.45
36:5:2989:U:H2'	36:5:2990:G:O4'	2.16	0.45
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	3.55	0.45
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	5.17	0.45
34:SR:19:TRP:CE3	34:SR:306:THR:HG22	2.52	0.45
17:C5:69:GLU:HG2	17:C5:70:ASN:HD22	5.78	0.45
60:N4:25:ASP:OD2	60:N4:26:SER:N	4.45	0.45
3:S1:109:LYS:HE3	3:S1:113:MET:HE2	1.98	0.45
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	1.99	0.45
37:3:30:G:C6	37:3:31:U:C4	3.05	0.45
5:S3:135:GLU:HG2	5:S3:153:ALA:HB2	1.99	0.45
15:C3:150:VAL:HG12	15:C3:151:ASN:CG	2.37	0.45
36:1:2258:U:H2'	36:1:2259:A:O4'	2.17	0.45
49:M3:105:ASN:OD1	49:M3:107:GLU:N	2.73	0.45
36:1:3346:U:H2'	36:1:3347:A:O4'	2.16	0.45
86:5:4062:OHX:N5	86:5:4140:OHX:N6	2.64	0.45
3:S1:171:ILE:HA	3:S1:174:LYS:HE3	1.99	0.45
31:D9:6:VAL:HB	31:D9:7:TRP:H	4.29	0.45
42:L5:238:ASP:HA	42:L5:241:THR:HB	1.99	0.45
42:L5:241:THR:O	42:L5:244:HIS:HB2	2.17	0.45
55:M9:154:ALA:O	55:M9:157:GLU:N	3.42	0.45
1:6:218:A:H61	1:6:829:A:H2	1.65	0.45
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.17	0.45
24:D2:86:ILE:HB	24:D2:117:ARG:HH22	7.20	0.45
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.65	0.45
42:L5:33:ARG:HD2	37:7:7:G:OP1	270.92	0.45
36:1:1235:U:C4'	36:1:1236:G:H5'	2.47	0.45
36:5:3049:A:H5'	36:5:3049:A:C8	2.50	0.45
1:2:289:U:H2'	1:2:290:G:O4'	2.16	0.45
54:M8:40:THR:C	54:M8:42:ALA:H	2.20	0.45
1:2:883:C:H2'	1:2:884:A:C8	2.50	0.45
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.31	0.45
47:M0:85:PHE:HA	47:M0:140:THR:HG22	2.10	0.45
73:O7:14:LYS:HZ3	75:O9:51:ILE:HG12	2.41	0.45
73:O7:25:ARG:NE	75:O9:51:ILE:HG13	2.94	0.45
22:D0:64:LYS:O	31:D9:33:LYS:NZ	3.18	0.45
36:5:1230:G:OP2	86:5:4004:OHX:N6	2.50	0.45
36:5:3317:U:H4'	36:5:3318:G:O5'	2.17	0.45
36:5:766:U:H4'	36:5:767:U:C5'	2.47	0.45
11:S9:87:SER:OG	11:S9:90:LYS:HB2	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:810:G:C5	9:S7:111:LYS:HE3	2.51	0.45
76:Q0:118:THR:OG1	76:Q0:120:GLN:HG3	3.47	0.45
36:1:2437:G:N2	36:1:2511:A:H1'	2.31	0.45
52:M6:130:LYS:HA	36:5:1316:C:C4	297.11	0.45
28:D6:60:PRO:C	28:D6:62:TYR:H	2.20	0.45
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.99	0.45
1:6:708:C:H2'	1:6:709:C:O4'	2.17	0.45
36:1:2397:A:O5'	36:1:2398:A:H5'	2.17	0.45
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	3.30	0.45
41:L4:200:THR:HG23	41:L4:201:GLN:N	2.31	0.45
49:M3:53:LEU:HD12	49:M3:96:ALA:HB2	1.97	0.45
36:1:1397:C:C2'	36:1:1398:U:H5'	2.47	0.45
1:2:1561:U:H2'	1:2:1562:G:H8	1.80	0.45
34:SR:111:MET:N	34:SR:125:GLY:O	2.65	0.45
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.17	0.45
55:M9:60:LYS:HE2	36:5:1671:C:OP1	171.07	0.45
43:L6:7:PRO:HD3	68:O2:74:PHE:CE1	3.48	0.45
1:6:454:U:P	1:6:455:C:H41	2.40	0.45
36:5:2696:A:H2'	36:5:2697:A:C8	2.51	0.45
1:2:902:G:H8	1:2:902:G:O5'	1.99	0.45
52:M6:106:GLU:H	52:M6:106:GLU:HG2	1.46	0.45
62:N6:108:LYS:HA	62:N6:108:LYS:HD3	3.48	0.45
45:L8:231:LYS:HE3	45:L8:231:LYS:HB2	4.35	0.45
36:5:1867:A:H2'	36:5:1868:G:C8	2.52	0.45
46:L9:176:LEU:HB3	76:Q0:86:ALA:CB	2.47	0.45
67:O1:71:LEU:HB3	67:O1:73:LEU:HD21	2.52	0.45
36:5:175:C:H2'	36:5:176:G:H8	1.81	0.45
71:O5:94:LYS:HB2	71:O5:94:LYS:HE3	1.84	0.45
78:Q2:52:GLY:O	78:Q2:54:THR:HG23	2.40	0.45
36:1:94:G:OP2	64:N8:54:GLY:N	2.44	0.45
36:5:2572:C:HO2'	36:5:2573:G:P	2.37	0.45
9:S7:107:ARG:NH2	1:6:741:C:O2	347.76	0.45
11:S9:28:LEU:HD23	11:S9:28:LEU:HA	2.21	0.45
1:6:793:A:H3'	1:6:794:U:H5'	1.98	0.45
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.30	0.45
37:3:61:G:H2'	37:3:62:U:C6	2.51	0.45
3:S1:58:SER:HA	3:S1:62:LYS:HD3	1.98	0.45
1:2:196:G:O2'	1:2:197:A:P	2.75	0.45
19:C7:32:LYS:HG3	19:C7:47:ARG:HH11	1.82	0.45
42:L5:68:THR:HB	42:L5:71:GLY:H	3.02	0.45
25:D3:35:GLY:O	25:D3:38:PHE:N	3.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1172:G:H4'	1:2:1569:A:H2	1.81	0.45
41:L4:206:LEU:HB2	41:L4:246:ARG:HD2	2.94	0.45
43:L6:165:LEU:HD11	69:O3:102:LEU:HD11	1.99	0.45
20:C8:11:PHE:CG	27:D5:41:ILE:HD13	4.40	0.45
31:D9:54:LYS:HE2	31:D9:54:LYS:HB2	3.11	0.45
36:1:1408:G:P	68:O2:33:ARG:HH22	2.40	0.45
57:N1:130:ARG:O	36:5:1098:A:O2'	255.78	0.45
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.99	0.45
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.84	0.45
42:L5:106:ALA:O	42:L5:110:LEU:HB2	2.17	0.45
36:1:2585:G:C6	61:N5:24:LEU:HD13	2.52	0.45
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.99	0.45
36:5:2912:G:H1'	36:5:3131:U:OP1	2.16	0.45
36:5:565:U:H2'	36:5:566:G:O4'	2.16	0.45
6:S4:180:LEU:HD23	6:S4:180:LEU:HA	1.80	0.45
36:1:3060:C:H1'	36:1:3332:U:H1'	1.99	0.45
2:S0:58:VAL:O	2:S0:61:ALA:HB3	2.47	0.45
48:M1:150:ASN:O	48:M1:152:HIS:N	2.45	0.45
25:D3:68:ILE:HG21	32:E0:7:SER:O	2.60	0.45
35:SM:89:ARG:O	35:SM:92:ASP:HB2	2.17	0.45
36:1:138:U:H2'	36:1:139:G:C8	2.52	0.45
29:D7:61:THR:HG23	29:D7:62:ILE:O	2.16	0.45
8:S6:45:PHE:HA	8:S6:48:TYR:HD2	1.81	0.45
38:4:5:U:H2'	38:4:6:U:O4'	2.17	0.45
36:1:1108:U:H2'	36:1:1109:U:H6	1.81	0.45
9:S7:75:THR:HG23	9:S7:161:GLN:OE1	5.30	0.45
36:1:1765:U:H2'	36:1:1766:G:C8	2.52	0.45
36:1:1316:C:O4'	52:M6:130:LYS:HD3	2.16	0.45
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.52	0.45
1:6:950:C:H2'	1:6:951:A:C8	2.52	0.45
36:1:535:G:O2'	36:1:554:A:N1	2.46	0.45
36:5:43:A:N6	36:5:2802:A:C4	2.84	0.45
36:5:734:C:H2'	36:5:735:A:O4'	2.17	0.45
36:5:1464:G:N2	36:5:1466:G:H3'	2.32	0.45
36:5:1466:G:O6	86:5:3911:OHX:N5	2.50	0.45
6:S4:102:VAL:HG23	6:S4:182:TYR:CE1	2.70	0.45
57:N1:9:SER:O	57:N1:11:THR:HG23	2.17	0.45
79:Q3:57:CYS:SG	79:Q3:59:CYS:O	2.75	0.45
1:6:1082:C:OP2	1:6:1082:C:H3'	2.17	0.45
74:O8:78:LEU:HD13	74:O8:78:LEU:HA	1.64	0.45
1:6:656:G:H2'	1:6:657:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2862:U:H2'	36:1:2863:G:O4'	2.17	0.45
47:M0:53:VAL:HG21	47:M0:166:ILE:HD12	1.99	0.45
1:2:738:G:H2'	1:2:739:G:H8	1.82	0.45
7:S5:39:GLU:HB3	7:S5:40:ILE:H	1.46	0.45
40:L3:84:VAL:CG2	40:L3:162:VAL:HB	4.01	0.45
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.17	0.45
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	3.86	0.45
1:6:1544:U:H2'	1:6:1545:A:O4'	2.17	0.45
14:C2:104:ALA:HB2	14:C2:115:VAL:HG22	4.62	0.45
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.23	0.45
1:2:139:C:H4'	1:2:140:A:O5'	2.16	0.45
39:L2:185:ALA:O	39:L2:188:LYS:HB3	2.21	0.45
1:2:1525:A:H5'	21:C9:93:HIS:HB2	1.98	0.45
1:2:968:U:H2'	1:2:969:C:O4'	2.16	0.45
13:C1:10:GLU:HG2	1:6:327:U:O2'	270.11	0.45
12:C0:12:HIS:CD2	12:C0:76:LEU:HD11	2.52	0.45
7:S5:162:VAL:HG22	7:S5:167:ARG:HD3	3.96	0.45
44:L7:229:PHE:HD1	44:L7:230:GLY:N	2.75	0.45
5:S3:168:ILE:O	5:S3:168:ILE:HG13	2.17	0.45
36:1:1834:U:H3'	36:1:1835:A:H5'	1.98	0.45
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.56	0.45
1:2:916:U:H3	16:C4:41:ARG:NH2	2.13	0.45
9:S7:96:ARG:NH2	9:S7:128:ASP:OD2	3.00	0.45
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.17	0.45
36:5:1393:A:N3	36:5:1419:A:O2'	2.48	0.45
86:5:4008:OHX:N3	86:5:4197:OHX:N5	2.65	0.45
55:M9:121:HIS:HE1	36:5:1719:G:N7	240.07	0.45
39:L2:52:SER:HB3	39:L2:191:LEU:HD22	1.99	0.45
19:C7:4:VAL:HG13	1:6:1402:G:H5'	400.97	0.45
61:N5:86:VAL:HG12	61:N5:120:LYS:HG2	1.98	0.45
86:1:4138:OHX:N5	86:1:4197:OHX:N2	2.65	0.45
16:C4:76:ILE:H	16:C4:76:ILE:HG12	4.23	0.45
36:5:874:U:H5''	36:5:2950:G:OP1	2.16	0.45
36:1:1240:A:H3'	36:1:1241:U:C5'	2.47	0.45
2:S0:61:ALA:HA	2:S0:181:VAL:HG12	1.99	0.45
2:S0:9:LEU:HA	2:S0:54:TRP:NE1	3.33	0.45
22:D0:63:LEU:O	22:D0:83:GLU:HA	2.17	0.45
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.47	0.45
46:L9:17:THR:O	46:L9:17:THR:OG1	2.33	0.45
1:2:1475:A:H2'	1:2:1476:C:O4'	2.17	0.45
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:136:ALA:HB1	61:N5:141:TYR:CE1	2.51	0.45
17:C5:48:GLY:O	17:C5:50:THR:OG1	5.03	0.45
47:M0:10:ARG:HH21	47:M0:161:GLY:HA2	1.82	0.45
3:S1:195:LYS:O	3:S1:199:ASN:HB2	2.17	0.45
36:5:370:U:O4	36:5:371:G:C6	2.70	0.45
1:2:1253:U:H4'	33:E1:143:LYS:CA	2.47	0.45
1:2:1783:C:H2'	1:2:1784:C:C6	2.52	0.45
67:O1:31:ARG:HA	67:O1:31:ARG:HD3	1.73	0.45
63:N7:81:LEU:HA	63:N7:81:LEU:HD23	1.82	0.45
63:N7:82:PRO:HG2	66:O0:59:TYR:CE2	2.52	0.45
36:1:1804:A:H2'	36:1:1805:C:C6	2.52	0.45
36:1:1137:C:OP2	65:N9:9:ALA:HB3	2.17	0.45
43:L6:38:THR:OG1	43:L6:90:LYS:HE2	2.64	0.45
37:7:3:U:H2'	37:7:4:U:H6	1.80	0.45
36:5:1486:G:O6	86:5:4077:OHX:N4	2.49	0.45
7:S5:131:GLN:O	7:S5:134:VAL:HB	2.18	0.45
47:M0:24:ARG:H	47:M0:24:ARG:HG3	3.42	0.45
36:1:3169:U:H2'	36:1:3170:A:O4'	2.17	0.45
71:O5:40:SER:HA	38:8:49:G:O2'	55.20	0.45
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.97	0.45
36:1:2655:U:H2'	78:Q2:3:ASN:O	2.17	0.45
36:5:3218:A:H4'	36:5:3219:G:O5'	2.17	0.45
1:2:1620:C:OP2	86:2:2165:OHX:N6	2.50	0.45
39:L2:207:VAL:HG11	36:5:916:G:N1	183.85	0.45
1:6:546:U:H2'	1:6:547:U:C6	2.52	0.45
19:C7:117:LEU:HA	19:C7:118:PRO:HD2	1.73	0.45
26:D4:53:ASP:HB3	26:D4:96:LEU:HD21	1.99	0.45
36:5:378:A:N7	36:5:391:A:H2	2.14	0.45
8:S6:49:VAL:HB	8:S6:115:LYS:HG2	5.10	0.45
36:1:1471:U:H2'	36:1:1472:U:C6	2.51	0.45
36:1:1270:A:N6	36:1:1271:A:N3	2.65	0.45
18:C6:47:LYS:HZ2	18:C6:114:ARG:HD2	1.82	0.44
27:D5:61:SER:H	27:D5:64:VAL:HG23	3.06	0.44
86:1:4038:OHX:N2	86:1:4050:OHX:N5	2.65	0.44
44:L7:158:LYS:NZ	36:5:1362:G:N3	211.38	0.44
10:S8:8:ARG:NH2	10:S8:22:ARG:HH11	8.61	0.44
36:1:1566:A:H2'	36:1:1567:U:H5''	1.99	0.44
36:1:1950:U:H6	36:1:1950:U:O5'	2.00	0.44
11:S9:133:HIS:CD2	11:S9:162:SER:HB2	2.51	0.44
36:1:1213:G:H4'	56:N0:90:MET:CG	2.46	0.44
56:N0:139:TYR:HD2	56:N0:140:VAL:HG23	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:144:LYS:HG2	41:L4:145:ILE:H	5.23	0.44
3:S1:68:VAL:HG22	3:S1:69:CYS:O	2.17	0.44
5:S3:113:LEU:HD23	5:S3:113:LEU:HA	1.80	0.44
36:5:1876:U:H2'	36:5:1877:U:H6	1.82	0.44
49:M3:76:THR:HG23	49:M3:101:ARG:CZ	2.47	0.44
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.47	0.44
1:2:1469:A:H2'	1:2:1470:C:C6	2.52	0.44
8:S6:116:LYS:HE3	8:S6:125:THR:HB	4.98	0.44
56:N0:151:PRO:C	56:N0:153:PRO:HD3	2.38	0.44
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.17	0.44
54:M8:178:ARG:HD3	54:M8:178:ARG:HA	1.58	0.44
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.81	0.44
36:1:3375:A:H5''	36:1:3378:C:H5	1.82	0.44
37:3:47:C:H2'	37:3:48:U:C6	2.52	0.44
1:2:1068:C:H2'	1:2:1069:A:C8	2.52	0.44
36:1:3039:C:OP1	40:L3:62:ARG:NH1	2.49	0.44
26:D4:55:VAL:HG12	26:D4:75:VAL:HG22	7.33	0.44
53:M7:139:TYR:CZ	36:5:2355:G:H4'	146.37	0.44
6:S4:121:TYR:HA	6:S4:164:LEU:HG	1.99	0.44
36:1:790:U:H4'	41:L4:112:LYS:O	2.16	0.44
36:1:1659:U:H2'	36:1:1660:C:C6	2.52	0.44
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	2.33	0.44
1:6:1402:G:C6	1:6:1403:C:C4	3.05	0.44
65:N9:38:LYS:HG3	65:N9:38:LYS:O	4.39	0.44
23:D1:41:GLU:O	23:D1:42:GLU:HB3	2.72	0.44
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.43	0.44
30:D8:8:THR:O	30:D8:56:LEU:N	3.17	0.44
49:M3:122:LYS:HA	71:O5:120:ALA:HA	3.88	0.44
44:L7:92:ILE:HA	44:L7:92:ILE:HD12	1.53	0.44
36:5:1764:U:H3'	36:5:1765:U:C5'	2.47	0.44
60:N4:45:ASN:O	60:N4:47:ARG:N	2.50	0.44
56:N0:24:LEU:HD13	57:N1:148:PRO:HG3	1.99	0.44
34:SR:80:ALA:HB3	34:SR:92:TRP:HB2	2.26	0.44
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.99	0.44
1:2:1445:G:C6	33:E1:91:ILE:HB	2.52	0.44
1:6:425:A:C8	1:6:425:A:H5'	2.52	0.44
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.82	0.44
36:1:1544:G:O6	86:1:4062:OHX:N4	2.49	0.44
36:5:2694:A:C6	36:5:2695:A:C6	3.05	0.44
56:N0:134:ASP:O	56:N0:136:LYS:HG2	3.06	0.44
36:5:2360:C:H5''	36:5:2361:A:P	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:94:TYR:HD2	26:D4:96:LEU:HD12	2.96	0.44
36:1:1470:U:H2'	36:1:1471:U:H6	1.82	0.44
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.17	0.44
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.23	0.44
36:1:2751:G:O6	86:1:4111:OHX:N6	2.50	0.44
36:1:3385:U:C2	36:1:3386:G:C8	3.05	0.44
1:6:607:G:H5'	1:6:613:G:N2	2.32	0.44
36:1:2178:A:H3'	39:L2:132:ASN:ND2	2.32	0.44
25:D3:71:CYS:HB3	25:D3:85:ALA:O	2.81	0.44
36:1:336:A:C2	36:1:337:G:C5	3.05	0.44
36:1:1135:A:OP1	65:N9:6:ASN:HB2	2.17	0.44
36:1:174:C:H2'	36:1:175:C:C6	2.52	0.44
60:N4:31:PHE:HB3	60:N4:36:SER:OG	2.19	0.44
47:M0:206:LEU:HD12	47:M0:206:LEU:HA	1.80	0.44
43:L6:66:SER:O	43:L6:68:PRO:HA	4.08	0.44
1:2:1368:G:C6	1:2:1369:U:C4	3.05	0.44
7:S5:43:PHE:HA	7:S5:68:ILE:O	2.16	0.44
50:M4:121:MET:HE1	36:5:3215:A:H5'	274.90	0.44
88:5:4249:3K5:H42	88:5:4249:3K5:H35	1.15	0.44
78:Q2:43:TYR:O	78:Q2:47:GLN:HB2	2.64	0.44
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.93	0.44
55:M9:142:ILE:HG22	55:M9:146:LYS:HD3	2.00	0.44
21:C9:100:ILE:O	21:C9:104:VAL:HG23	2.39	0.44
41:L4:205:PRO:HG2	41:L4:225:VAL:HG22	3.14	0.44
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.40	0.44
1:2:1202:A:H1'	1:2:1207:C:H42	1.82	0.44
4:S2:61:LEU:HG	4:S2:61:LEU:H	2.14	0.44
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.66	0.44
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.52	0.44
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.82	0.44
17:C5:69:GLU:OE1	86:C5:201:OHX:N2	2.50	0.44
36:1:266:A:P	51:M5:5:LYS:HZ1	2.40	0.44
48:M1:16:LYS:HG3	48:M1:130:VAL:HG13	2.05	0.44
25:D3:95:PHE:O	25:D3:142:LYS:NZ	2.43	0.44
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.51	0.44
38:8:40:A:H2'	38:8:41:A:C8	2.52	0.44
21:C9:64:HIS:O	21:C9:68:ARG:HG2	2.18	0.44
71:O5:28:LEU:HD23	71:O5:47:VAL:HG13	1.99	0.44
20:C8:87:ASN:HD21	20:C8:100:THR:HG23	4.83	0.44
5:S3:54:ARG:HB3	5:S3:57:ASP:OD1	4.08	0.44
15:C3:16:ILE:HD12	1:6:959:U:H4'	345.90	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1742:U:H2'	36:1:1743:G:C8	2.53	0.44
73:O7:28:HIS:CD2	73:O7:31:LYS:HG3	3.37	0.44
5:S3:74:GLN:NE2	5:S3:81:PRO:HA	4.71	0.44
36:1:2768:U:H2'	36:1:2769:A:C8	2.51	0.44
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.44	0.44
40:L3:125:SER:OG	40:L3:126:LYS:N	3.70	0.44
36:5:1024:G:OP2	36:5:1024:G:N2	2.50	0.44
36:1:159:A:C2'	36:1:160:G:H5'	2.47	0.44
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.64	0.44
52:M6:10:ASP:HB2	52:M6:117:ARG:HG3	1.98	0.44
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.04	0.44
77:Q1:19:LYS:O	77:Q1:22:ALA:HB3	2.71	0.44
58:N2:90:ARG:HB3	58:N2:90:ARG:NH1	4.80	0.44
10:S8:152:ILE:O	10:S8:153:GLU:HB2	2.15	0.44
1:2:1148:C:H2'	1:2:1149:G:H8	1.82	0.44
36:1:139:G:H2'	36:1:140:C:O4'	2.17	0.44
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.28	0.44
38:4:11:C:H2'	38:4:12:A:O4'	2.17	0.44
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.31	0.44
28:D6:44:ILE:HG22	28:D6:45:VAL:HG13	6.56	0.44
36:1:1127:G:O5'	36:1:1127:G:H8	2.01	0.44
36:5:2263:C:OP1	86:5:3954:OHX:N2	2.50	0.44
36:1:850:U:H2'	36:1:851:C:H6	1.83	0.44
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.43	0.44
36:1:1781:C:H2'	36:1:1782:U:C6	2.52	0.44
41:L4:361:HIS:ND1	41:L4:362:ASP:N	2.99	0.44
36:5:638:C:H2'	36:5:639:G:C8	2.52	0.44
1:6:555:A:C6	1:6:556:A:N1	2.86	0.44
1:6:282:C:H2'	1:6:283:U:O4'	2.18	0.44
36:5:1120:A:H2'	36:5:1121:U:C6	2.53	0.44
64:N8:15:VAL:HG23	64:N8:15:VAL:H	2.59	0.44
67:O1:97:LEU:HD23	67:O1:97:LEU:HA	1.72	0.44
56:N0:45:LEU:HD22	56:N0:45:LEU:HA	1.65	0.44
28:D6:41:ILE:HD13	28:D6:41:ILE:H	1.82	0.44
86:5:4200:OHX:N4	86:8:227:OHX:N1	2.65	0.44
18:C6:10:PHE:CE2	1:6:1379:C:H5'	431.48	0.44
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.83	0.44
49:M3:46:ILE:HG23	49:M3:46:ILE:HD12	1.81	0.44
36:1:2736:A:O2'	57:N1:68:THR:HG21	2.17	0.44
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	3.54	0.44
86:2:2089:OHX:N5	86:2:2130:OHX:N6	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.50	0.44
36:1:314:U:H2'	36:1:315:C:C6	2.52	0.44
67:O1:33:VAL:HG13	67:O1:51:LEU:CD1	2.81	0.44
36:1:1571:A:H2'	36:1:1572:U:O4'	2.17	0.44
36:1:1580:A:H1'	36:1:1581:C:C5	2.49	0.44
47:M0:73:ASN:O	47:M0:77:THR:OG1	3.41	0.44
8:S6:98:ARG:HH21	8:S6:106:LEU:HD21	1.83	0.44
22:D0:99:ILE:HG12	22:D0:99:ILE:H	4.36	0.44
20:C8:60:GLU:HB2	20:C8:61:LEU:H	1.61	0.44
3:S1:86:LEU:HA	3:S1:86:LEU:HD23	3.87	0.44
1:2:188:A:N7	1:2:197:A:H2	2.15	0.44
10:S8:136:SER:O	10:S8:139:ALA:HB3	4.95	0.44
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	1.99	0.44
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.49	0.44
19:C7:23:LYS:HD3	34:SR:198:ASN:HD21	4.97	0.44
3:S1:142:PHE:HD2	3:S1:209:ASN:HB2	1.81	0.44
4:S2:175:GLY:HA3	11:S9:97:LEU:O	2.85	0.44
36:1:1171:G:OP2	44:L7:218:ARG:HD2	2.16	0.44
63:N7:23:VAL:HB	63:N7:43:VAL:HB	2.00	0.44
1:2:834:G:C2	1:2:835:U:C2	3.05	0.44
78:Q2:39:GLY:HA3	36:5:2765:C:O3'	173.28	0.44
29:D7:65:THR:OG1	29:D7:72:LYS:HB3	3.19	0.44
31:D9:32:ARG:NH1	31:D9:32:ARG:HG2	2.32	0.44
56:N0:141:LYS:HE3	56:N0:141:LYS:HB3	4.43	0.44
37:3:7:G:O3'	42:L5:33:ARG:NH2	2.51	0.44
36:1:1932:A:H5'	36:1:1933:A:OP2	2.18	0.44
86:6:2125:OHX:N2	86:6:2150:OHX:N4	2.65	0.44
46:L9:86:TYR:CD2	46:L9:151:VAL:HG22	2.73	0.44
6:S4:180:LEU:N	6:S4:229:GLY:O	2.77	0.44
42:L5:4:GLN:N	42:L5:4:GLN:OE1	2.38	0.44
4:S2:139:ILE:CD1	4:S2:218:ILE:HB	2.63	0.44
48:M1:103:GLY:HA3	48:M1:128:TYR:CD2	2.51	0.44
23:D1:39:VAL:HB	23:D1:43:GLY:O	4.13	0.44
47:M0:42:THR:HG23	47:M0:45:GLU:HB2	2.37	0.44
45:L8:37:GLY:HA3	36:5:2550:U:C6	211.96	0.44
42:L5:158:ARG:HD3	37:7:46:A:OP1	281.20	0.44
45:L8:134:TYR:CE2	45:L8:190:VAL:HG11	3.47	0.44
58:N2:32:SER:HA	58:N2:35:LYS:HB3	1.99	0.44
5:S3:46:THR:N	5:S3:83:THR:O	3.23	0.44
45:L8:68:ARG:HG2	45:L8:68:ARG:H	1.99	0.44
15:C3:33:VAL:O	15:C3:36:GLN:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:113:C:C2	36:5:319:A:C2	3.05	0.44
43:L6:69:PHE:HB2	43:L6:138:GLN:NE2	2.73	0.44
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	1.80	0.44
47:M0:207:GLU:C	47:M0:209:ASN:H	2.20	0.44
1:2:412:A:H2'	1:2:413:U:C6	2.51	0.44
50:M4:24:LYS:HG3	50:M4:25:LYS:HD3	1.98	0.44
1:2:1347:U:O2	1:2:1516:A:H5'	2.18	0.44
1:6:53:G:H2'	1:6:54:C:O4'	2.17	0.44
36:5:2822:U:OP2	86:5:3951:OHX:N1	2.50	0.44
63:N7:82:PRO:HB2	66:O0:62:LEU:CD1	2.83	0.44
52:M6:148:LYS:HE2	36:5:3135:U:OP1	256.61	0.44
46:L9:190:ASP:OD1	46:L9:191:LEU:HG	2.18	0.44
28:D6:12:LYS:O	28:D6:12:LYS:HG2	2.18	0.44
50:M4:37:GLU:CG	56:N0:72:VAL:HG21	3.17	0.44
67:O1:70:ARG:O	67:O1:71:LEU:HD23	2.78	0.44
36:5:1146:C:H2'	36:5:1147:G:H8	1.83	0.44
18:C6:142:TYR:O	1:6:1191:U:O2'	351.86	0.44
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.48	0.44
45:L8:218:ILE:HG22	45:L8:219:ASP:N	2.32	0.44
1:6:176:C:OP1	86:6:2095:OHX:N6	2.50	0.44
42:L5:11:ALA:O	42:L5:15:ARG:HG3	2.18	0.44
1:2:1325:A:C2	1:2:1326:A:C5	3.06	0.44
36:5:2816:G:C8	36:5:2869:U:H3'	2.50	0.44
19:C7:115:LEU:HB3	19:C7:116:LYS:H	1.58	0.44
37:3:90:U:C4	37:3:91:G:C5	3.05	0.44
25:D3:133:LEU:HA	25:D3:133:LEU:HD22	2.36	0.44
1:2:827:C:H2'	1:2:828:U:O4'	2.17	0.44
36:1:2781:U:H2'	36:1:2782:U:O4'	2.18	0.44
1:2:1609:U:OP2	18:C6:76:SER:OG	2.36	0.44
51:M5:98:LEU:O	51:M5:102:ALA:N	2.92	0.44
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.31	0.44
9:S7:12:ALA:N	9:S7:13:PRO:HD2	2.47	0.44
2:S0:116:LYS:HB2	2:S0:118:PRO:HD3	2.23	0.44
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.18	0.44
36:5:1563:C:O2	36:5:1577:G:N2	2.51	0.44
26:D4:62:THR:HB	26:D4:69:SER:OG	2.20	0.44
48:M1:143:ARG:NH2	37:7:5:G:OP1	291.19	0.44
44:L7:206:LYS:HB3	36:5:1334:U:H5''	236.08	0.44
42:L5:95:TRP:HZ3	42:L5:156:GLY:C	8.94	0.44
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.76	0.44
2:S0:52:LYS:NZ	23:D1:82:VAL:O	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:929:A:N6	1:2:930:A:C6	2.86	0.44
36:5:419:G:O3'	36:5:420:G:OP2	2.32	0.44
1:6:278:U:OP2	1:6:278:U:H2'	2.17	0.44
72:O6:67:LYS:HB3	72:O6:67:LYS:HE2	1.84	0.44
58:N2:58:GLU:HA	58:N2:62:VAL:O	2.17	0.44
55:M9:19:LYS:C	55:M9:21:LYS:H	2.20	0.44
20:C8:83:ALA:CA	20:C8:86:LEU:HD23	2.47	0.44
17:C5:108:ARG:HB3	17:C5:110:GLU:HG2	1.99	0.44
1:6:220:A:OP2	1:6:832:U:H5''	2.18	0.44
1:6:647:G:H1	1:6:687:G:H22	1.66	0.44
41:L4:181:VAL:O	41:L4:182:LEU:CB	2.65	0.44
59:N3:32:ARG:HB2	59:N3:32:ARG:HH21	1.81	0.44
63:N7:41:ALA:HB2	63:N7:77:TYR:HE1	1.81	0.44
36:5:1692:U:C4	36:5:1693:C:N4	2.85	0.44
42:L5:21:ARG:HH11	42:L5:21:ARG:HG2	2.04	0.44
4:S2:69:ILE:HD11	4:S2:133:LYS:HG2	1.98	0.44
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.53	0.44
6:S4:208:VAL:HB	6:S4:225:VAL:HG21	2.30	0.44
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	1.99	0.44
61:N5:142:ILE:HD12	61:N5:142:ILE:HA	1.66	0.44
53:M7:3:ARG:NH2	36:5:398:A:C8	126.93	0.44
34:SR:224:ASN:O	34:SR:228:LYS:HA	2.84	0.44
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.51	0.44
36:5:3305:A:H2'	36:5:3306:U:H6	1.80	0.44
57:N1:160:ILE:HD13	57:N1:160:ILE:HA	1.66	0.44
10:S8:90:LEU:HD22	10:S8:95:THR:HG21	2.22	0.44
21:C9:86:ARG:HG3	21:C9:86:ARG:HH11	1.82	0.44
1:6:1590:G:H2'	1:6:1591:C:C6	2.52	0.44
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.27	0.44
1:6:1005:A:C5	1:6:1006:C:C4	3.05	0.44
1:6:652:G:N2	1:6:682:C:O2	2.50	0.44
55:M9:109:TYR:OH	36:5:2093:A:N1	239.50	0.44
1:6:51:A:OP1	86:6:2067:OHX:N3	2.50	0.44
70:O4:65:VAL:HG13	70:O4:69:HIS:HB2	2.00	0.44
36:1:2529:A:OP1	45:L8:248:LYS:HE2	2.18	0.44
2:S0:6:THR:C	2:S0:8:ASP:H	2.21	0.44
37:3:11:A:H8	42:L5:18:THR:HG1	1.63	0.44
70:O4:67:LYS:HB2	36:5:1821:U:C2	166.74	0.44
16:C4:21:ALA:HB1	16:C4:95:GLY:O	4.10	0.44
36:1:2677:G:OP2	86:1:4053:OHX:N4	2.51	0.44
36:5:3088:G:H2'	36:5:3089:C:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3124:G:H5'	46:L9:40:HIS:ND1	2.33	0.44
1:2:1511:U:H2'	1:2:1512:G:C8	2.53	0.44
36:5:2315:G:H2'	36:5:2316:G:H8	1.82	0.44
36:5:1666:G:H2'	36:5:1667:A:C8	2.51	0.44
23:D1:72:LEU:HA	23:D1:72:LEU:HD23	2.02	0.44
36:5:1680:G:H2'	36:5:1681:U:H6	1.82	0.44
36:1:1004:U:C4	36:1:1005:G:N7	2.85	0.44
53:M7:40:GLU:HB3	53:M7:43:LYS:HG2	1.99	0.44
25:D3:60:GLU:CD	32:E0:3:LYS:HB2	2.38	0.44
56:N0:39:SER:OG	37:7:98:C:OP1	284.32	0.44
36:5:2507:C:O2'	36:5:2508:U:OP1	2.34	0.44
36:1:1578:C:H3'	36:1:1579:C:C6	2.52	0.44
2:S0:71:GLU:HA	2:S0:95:ALA:H	1.82	0.44
36:5:1560:G:C6	36:5:1580:A:N6	2.85	0.44
4:S2:188:LEU:HA	4:S2:188:LEU:HD23	1.84	0.44
10:S8:197:THR:C	10:S8:199:LYS:H	2.20	0.44
37:3:3:U:H2'	37:3:4:U:H6	1.80	0.44
1:6:1579:U:H2'	1:6:1580:C:C6	2.53	0.44
22:D0:50:LEU:HB3	22:D0:51:VAL:H	1.64	0.44
12:C0:45:ALA:O	12:C0:48:SER:OG	4.45	0.44
41:L4:8:VAL:HG23	41:L4:20:LEU:HD11	2.00	0.44
1:2:327:U:H2'	1:2:328:A:C8	2.52	0.44
36:1:1016:C:O2	36:1:1028:U:C4	2.71	0.44
36:1:2273:G:C6	86:1:4144:OHX:N5	2.86	0.44
10:S8:44:HIS:O	10:S8:56:ARG:N	2.81	0.44
44:L7:179:LEU:HD22	44:L7:183:ASP:OD2	2.17	0.44
3:S1:65:VAL:CG1	1:6:920:U:H5''	264.40	0.44
68:O2:32:TRP:CG	68:O2:33:ARG:N	2.87	0.44
15:C3:93:LYS:HA	15:C3:150:VAL:HG21	2.32	0.44
71:O5:32:LYS:HG2	71:O5:44:ILE:HD11	1.98	0.44
36:5:286:U:H2'	36:5:287:G:H8	1.81	0.44
45:L8:123:GLN:C	45:L8:125:ALA:H	2.99	0.44
36:5:1587:A:OP1	86:5:3989:OHX:N5	2.50	0.44
1:6:845:G:H2'	1:6:846:G:C8	2.46	0.44
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.47	0.44
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.66	0.44
36:5:1184:A:OP2	86:5:4094:OHX:N6	2.50	0.44
42:L5:25:GLU:HB2	42:L5:27:LYS:HG3	2.30	0.44
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.32	0.44
40:L3:280:HIS:HB3	40:L3:324:VAL:HG21	2.51	0.44
36:1:1319:G:H2'	36:1:1320:C:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1547:G:P	51:M5:105:ARG:NH1	2.90	0.44
36:5:1023:C:H3'	36:5:1024:G:N2	2.31	0.44
48:M1:17:LEU:HD12	48:M1:128:TYR:O	3.02	0.44
1:6:1491:U:H5'	1:6:1492:A:OP1	2.18	0.44
1:6:905:A:H2'	1:6:906:A:O4'	2.18	0.44
36:5:2162:U:H2'	36:5:2163:C:O4'	2.18	0.44
15:C3:40:TYR:O	15:C3:45:LEU:HB2	2.55	0.44
36:5:3289:G:H4'	36:5:3290:G:OP1	2.17	0.44
36:5:10:C:O2'	36:5:1558:A:N6	2.40	0.44
8:S6:110:ALA:O	8:S6:111:LEU:HD23	2.18	0.44
48:M1:54:VAL:O	48:M1:56:THR:N	2.49	0.44
36:5:1221:A:H3'	36:5:1222:G:H5'	1.99	0.44
38:8:91:C:H2'	38:8:92:A:H8	1.83	0.44
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	1.68	0.44
36:5:2830:G:H1'	36:5:2861:U:C2	2.53	0.44
1:6:526:A:N6	1:6:527:A:C6	2.86	0.44
41:L4:362:ASP:C	57:N1:150:THR:HG21	2.38	0.44
36:5:325:A:H5''	36:5:326:U:OP2	2.17	0.44
36:5:985:U:H2'	36:5:986:U:H6	1.82	0.44
36:1:2512:C:C4	36:1:2513:U:O4	2.71	0.44
63:N7:104:PRO:O	63:N7:108:GLU:HG3	4.54	0.44
36:1:3003:G:P	40:L3:26:ARG:HH22	2.41	0.44
36:5:1638:A:H2	36:5:1736:G:N3	2.15	0.44
24:D2:26:LEU:HB2	29:D7:7:LEU:HD13	1.99	0.44
1:6:1287:A:N1	1:6:1328:G:O2'	2.41	0.44
72:O6:94:ILE:HD13	72:O6:94:ILE:HA	4.39	0.44
36:5:783:A:OP2	86:5:4190:OHX:N6	2.50	0.44
7:S5:33:VAL:O	7:S5:37:GLN:HB2	3.00	0.44
40:L3:92:TYR:HE1	40:L3:159:ARG:HD2	1.81	0.44
72:O6:26:ILE:C	72:O6:28:TYR:N	2.71	0.44
36:1:3178:A:C2	52:M6:115:LYS:HD3	2.53	0.44
55:M9:128:LYS:HE3	36:5:1721:U:O4	233.96	0.44
28:D6:6:ALA:N	1:6:1796:C:C5	343.85	0.44
28:D6:87:ARG:HD3	1:6:1796:C:OP1	345.15	0.44
13:C1:96:LYS:HD3	13:C1:97:TYR:CE2	3.65	0.44
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.33	0.44
63:N7:136:PHE:H	63:N7:136:PHE:HD1	1.65	0.44
58:N2:104:ARG:NH1	58:N2:106:ALA:HB2	4.15	0.44
36:5:1439:U:H2'	36:5:1440:G:O4'	2.17	0.44
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.49	0.44
59:N3:48:ARG:NH2	36:5:3043:C:P	251.02	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:301:A:H2'	1:2:302:U:O4'	2.18	0.44
1:2:717:C:N4	1:2:720:G:H22	2.05	0.44
36:1:1556:C:O2	36:1:2169:G:C2	2.71	0.44
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.82	0.44
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	1.69	0.44
12:C0:12:HIS:NE2	12:C0:49:LEU:HD21	2.32	0.44
12:C0:21:VAL:HG12	12:C0:66:TYR:HD2	2.72	0.44
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	2.18	0.44
47:M0:48:LEU:HB2	47:M0:142:ASP:OD1	2.83	0.44
36:1:1844:C:C2'	36:1:1845:G:H5''	2.47	0.44
63:N7:67:LYS:HD3	63:N7:67:LYS:HA	1.78	0.44
52:M6:136:THR:HG22	52:M6:137:THR:N	2.45	0.44
1:2:831:U:H2'	1:2:831:U:O2	2.16	0.44
5:S3:32:GLU:CG	5:S3:57:ASP:HB2	3.05	0.44
6:S4:86:PHE:CD1	6:S4:87:MET:HG2	2.53	0.44
36:1:1789:G:O6	86:1:4174:OHX:N4	2.51	0.44
42:L5:17:GLN:HG3	57:N1:20:ARG:CA	2.47	0.44
62:N6:58:VAL:HG22	62:N6:104:LEU:CD2	2.60	0.44
36:1:2662:G:H2'	36:1:2663:G:O4'	2.18	0.44
1:6:639:U:C5	1:6:695:U:C6	3.05	0.44
40:L3:75:ALA:O	40:L3:326:GLY:N	2.40	0.44
46:L9:2:LYS:HB3	46:L9:59:ASN:OD1	2.18	0.44
62:N6:2:ALA:N	36:5:213:A:H5''	80.69	0.44
48:M1:95:ASN:O	48:M1:102:PHE:HA	2.25	0.44
71:O5:56:THR:O	71:O5:60:GLU:HB2	2.18	0.44
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.17	0.44
36:5:1020:G:H1	36:5:1033:U:H3	1.64	0.44
1:2:1113:A:H5''	77:Q1:6:ARG:NH2	2.33	0.44
1:2:297:U:OP1	6:S4:37:LYS:NZ	2.51	0.44
40:L3:345:ASN:OD1	40:L3:346:THR:N	3.48	0.44
29:D7:63:LEU:HA	29:D7:63:LEU:HD23	2.96	0.44
36:1:2960:C:H2'	36:1:2961:G:H8	1.82	0.44
34:SR:245:PHE:HD1	34:SR:251:TRP:O	2.83	0.44
36:5:2406:C:H2'	36:5:2407:C:C6	2.53	0.44
1:6:909:U:H2'	1:6:910:C:H6	1.83	0.44
42:L5:208:MET:HG2	42:L5:223:PHE:CE2	2.52	0.44
49:M3:70:ARG:NH2	36:5:103:G:OP1	94.91	0.44
1:2:12:U:H2'	1:2:13:C:C6	2.52	0.44
15:C3:79:GLY:O	15:C3:80:LEU:HD22	2.17	0.44
63:N7:81:LEU:HA	63:N7:82:PRO:HD3	3.13	0.44
36:1:1680:G:H2'	36:1:1681:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:108:A:OP2	86:6:2090:OHX:N4	2.51	0.44
73:O7:64:MET:O	73:O7:68:LYS:HG3	2.16	0.44
1:6:1263:G:H2'	1:6:1264:G:O4'	2.18	0.44
1:6:1082:C:H2'	1:6:1083:G:O4'	2.18	0.44
56:N0:26:ARG:HB3	57:N1:150:THR:HB	4.15	0.44
71:O5:9:LEU:HD23	71:O5:9:LEU:HA	1.69	0.44
36:5:2144:A:C4	36:5:2281:A:C6	3.06	0.44
36:1:3004:C:O2'	36:1:3005:A:H5'	2.17	0.44
1:6:1617:U:H2'	1:6:1618:C:C6	2.53	0.44
38:4:65:A:C4	38:4:66:A:C8	3.05	0.44
36:5:8:C:H2'	36:5:9:U:O4'	2.18	0.44
36:1:939:U:OP2	64:N8:26:ARG:NH2	2.43	0.44
21:C9:126:GLU:H	21:C9:126:GLU:CD	2.13	0.44
49:M3:131:LYS:HG2	49:M3:131:LYS:H	1.32	0.44
15:C3:102:LEU:HD23	15:C3:102:LEU:HA	2.23	0.44
45:L8:147:LYS:HE2	45:L8:147:LYS:HB3	1.62	0.44
56:N0:124:LEU:HD23	56:N0:124:LEU:HA	1.77	0.44
11:S9:22:SER:OG	11:S9:23:ARG:N	2.50	0.44
36:1:3002:C:O2'	40:L3:180:GLU:OE2	2.27	0.44
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.06	0.44
27:D5:62:VAL:O	27:D5:66:VAL:HG23	2.37	0.44
27:D5:65:LEU:HD22	27:D5:71:ILE:HD11	2.00	0.44
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.47	0.44
53:M7:67:ILE:HG13	53:M7:82:ARG:CZ	2.48	0.44
50:M4:122:VAL:O	50:M4:125:LYS:HB2	2.17	0.44
15:C3:114:ARG:O	15:C3:118:ILE:HG13	2.65	0.44
75:O9:25:GLN:O	75:O9:28:ARG:HG3	2.17	0.44
28:D6:94:ASN:HD21	28:D6:96:ALA:HB3	1.82	0.44
1:6:473:A:H4'	1:6:768:C:O2	2.17	0.44
15:C3:20:ARG:HH11	15:C3:20:ARG:HG3	3.35	0.44
41:L4:131:VAL:HG12	41:L4:134:LEU:H	2.96	0.44
24:D2:50:PHE:HB3	24:D2:63:VAL:HG13	2.51	0.44
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.18	0.44
22:D0:21:LYS:HA	22:D0:94:GLU:HG2	1.99	0.44
22:D0:96:PRO:HB2	22:D0:97:VAL:H	2.88	0.44
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.54	0.44
1:2:704:C:OP2	1:2:704:C:H3'	2.18	0.44
20:C8:28:ILE:HB	20:C8:57:ARG:O	2.18	0.44
20:C8:31:ALA:O	20:C8:34:THR:HG23	4.01	0.44
41:L4:16:THR:HG23	41:L4:18:ASN:H	2.92	0.44
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:717:C:H2'	1:2:718:U:H5''	1.99	0.44
8:S6:137:ARG:NH2	8:S6:177:ARG:CZ	3.10	0.44
36:1:3112:G:O6	36:1:3120:C:H5''	2.17	0.44
55:M9:172:ARG:O	55:M9:176:ARG:HB2	2.16	0.44
27:D5:87:GLY:O	27:D5:89:ILE:N	2.46	0.44
1:2:1068:C:H2'	1:2:1069:A:H8	1.82	0.44
36:1:3166:C:H2'	36:1:3167:A:O4'	2.17	0.44
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.52	0.44
1:2:1785:U:H2'	1:2:1786:G:C8	2.51	0.44
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	2.92	0.44
42:L5:108:ARG:O	42:L5:111:GLN:HB3	2.17	0.44
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.47	0.44
55:M9:52:LYS:O	55:M9:52:LYS:HG2	2.68	0.44
36:1:1232:C:H41	36:1:1261:G:H2'	1.82	0.44
17:C5:123:TYR:OH	20:C8:122:HIS:NE2	2.43	0.44
33:E1:121:CYS:SG	33:E1:130:VAL:HG11	6.50	0.44
1:6:676:G:H2'	1:6:677:G:C8	2.52	0.44
59:N3:104:ASN:HB2	59:N3:105:PRO:HD2	2.00	0.44
61:N5:62:VAL:O	61:N5:86:VAL:HG22	2.56	0.44
13:C1:19:ILE:HD13	86:6:2125:OHX:N3	294.61	0.44
43:L6:130:ILE:HG12	36:5:3269:U:C6	246.92	0.44
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	3.12	0.44
36:5:1103:A:N3	36:5:1103:A:H2'	2.33	0.44
36:1:34:A:H5'	51:M5:86:ASN:ND2	2.32	0.44
61:N5:56:ARG:H	61:N5:56:ARG:HG2	3.54	0.44
2:S0:22:THR:HG21	2:S0:173:ILE:HD11	2.60	0.44
17:C5:99:GLY:O	1:6:1453:G:N2	376.03	0.44
5:S3:53:THR:O	5:S3:90:ARG:NH2	6.48	0.44
5:S3:90:ARG:HB3	5:S3:91:VAL:H	3.76	0.44
36:1:373:A:N6	36:1:396:A:N6	2.66	0.44
41:L4:138:ARG:NH1	41:L4:138:ARG:HB3	3.73	0.44
1:6:909:U:O2'	1:6:910:C:H5'	2.18	0.44
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	2.51	0.44
1:2:1252:C:H2'	1:2:1253:U:O4'	2.18	0.44
2:S0:147:THR:OG1	2:S0:159:ALA:HB1	2.18	0.44
36:1:1748:G:C6	36:1:1749:A:C6	3.06	0.44
12:C0:72:GLY:O	12:C0:75:TYR:N	3.08	0.44
36:1:2373:A:N3	36:1:2824:G:O2'	2.41	0.44
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	2.11	0.44
36:1:3315:G:C5	40:L3:123:TYR:CE2	3.06	0.44
36:1:2523:A:N6	45:L8:57:ARG:HD2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	2.00	0.44
66:O0:43:ILE:CG2	66:O0:70:PHE:HB2	2.48	0.44
57:N1:88:ARG:HH21	65:N9:33:LYS:HB3	1.82	0.44
68:O2:4:LEU:HD12	68:O2:5:PRO:HD3	2.00	0.44
24:D2:94:LEU:HA	24:D2:94:LEU:HD23	1.77	0.44
18:C6:22:VAL:HG13	18:C6:65:ILE:HD11	1.99	0.44
40:L3:14:LEU:HA	40:L3:17:LEU:HD22	2.13	0.44
5:S3:14:ASP:O	5:S3:17:PHE:HB3	2.18	0.44
36:5:1444:G:H2'	36:5:1445:U:O4'	2.18	0.44
9:S7:144:VAL:HG22	24:D2:49:GLU:HB3	3.80	0.44
6:S4:57:ASN:HB2	6:S4:60:GLU:H	2.13	0.44
36:5:3167:A:H2'	36:5:3168:A:O4'	2.17	0.44
36:5:1668:G:H2'	36:5:1669:C:O4'	2.18	0.44
1:2:1614:A:C6	1:2:1615:C:C4	3.06	0.44
36:1:2371:G:O6	86:1:3879:OHX:N3	2.50	0.44
68:O2:72:LYS:HG2	68:O2:72:LYS:H	3.80	0.44
75:O9:12:LYS:HE3	75:O9:12:LYS:HB3	2.01	0.44
11:S9:6:ARG:HH11	11:S9:6:ARG:HA	1.83	0.44
11:S9:115:LYS:HA	11:S9:115:LYS:HD2	1.76	0.44
65:N9:58:LYS:HA	65:N9:58:LYS:HZ3	4.25	0.44
54:M8:138:LEU:HA	54:M8:138:LEU:HD23	2.04	0.44
67:O1:42:LEU:O	67:O1:42:LEU:HG	2.17	0.44
47:M0:58:GLU:OE1	47:M0:160:PRO:HG2	2.18	0.44
41:L4:315:LYS:HD3	41:L4:320:ASN:ND2	2.33	0.44
7:S5:20:PHE:HB3	7:S5:39:GLU:OE1	4.19	0.44
40:L3:81:THR:CG2	40:L3:81:THR:O	2.79	0.44
1:2:990:C:H4'	16:C4:128:LYS:O	2.17	0.44
50:M4:77:ARG:NH2	36:5:524:U:OP1	340.35	0.44
10:S8:165:LEU:HA	10:S8:165:LEU:HD23	2.26	0.44
75:O9:28:ARG:HE	75:O9:28:ARG:HB3	1.54	0.44
36:1:2795:U:O2	36:1:2800:G:H1'	2.17	0.44
1:2:1227:A:C2	14:C2:43:ARG:HG2	2.52	0.44
6:S4:187:ARG:NH2	1:6:754:A:C8	374.60	0.44
35:SM:61:ILE:HD12	35:SM:62:ARG:H	1.82	0.44
25:D3:50:LYS:HG2	25:D3:77:ILE:HD12	4.11	0.44
1:6:1679:G:O6	86:6:2190:OHX:N3	2.50	0.44
2:S0:163:ASN:HD21	2:S0:165:ARG:HG3	1.83	0.44
41:L4:62:ALA:HB3	41:L4:90:PHE:HE2	1.82	0.44
47:M0:144:ASN:HA	47:M0:144:ASN:HD22	1.86	0.44
31:D9:24:CYS:SG	31:D9:26:SER:HB3	2.92	0.44
20:C8:49:LYS:NZ	20:C8:80:LYS:HB3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:28:HIS:N	64:N8:29:PRO:HD3	2.91	0.44
26:D4:12:VAL:HG23	26:D4:23:PHE:HB3	4.21	0.44
27:D5:42:LEU:HA	27:D5:42:LEU:HD23	4.46	0.44
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.18	0.44
5:S3:45:LYS:HB2	5:S3:45:LYS:HE3	1.78	0.44
70:O4:9:ARG:HG3	70:O4:34:HIS:CE1	3.67	0.44
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.41	0.44
49:M3:107:GLU:OE1	72:O6:18:THR:HG23	2.18	0.44
70:O4:58:ARG:HG3	70:O4:58:ARG:NH1	2.31	0.44
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.51	0.44
5:S3:222:VAL:C	5:S3:223:LYS:HD2	5.36	0.44
64:N8:66:ALA:O	64:N8:67:HIS:C	2.56	0.44
36:1:1233:G:N2	36:1:1255:C:H42	2.14	0.44
4:S2:173:PRO:O	4:S2:176:SER:OG	2.27	0.44
9:S7:50:ASP:HB3	9:S7:56:LYS:CG	2.45	0.44
86:6:2125:OHX:N5	86:6:2150:OHX:N3	2.65	0.44
42:L5:140:ARG:HB2	42:L5:140:ARG:HH21	1.83	0.44
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.55	0.44
33:E1:131:PHE:HB2	1:6:1253:U:OP1	455.61	0.44
36:1:1317:A:O2'	36:1:1318:A:H3'	2.17	0.44
1:6:1475:A:N6	1:6:1531:G:O6	2.51	0.44
19:C7:51:ALA:O	19:C7:55:THR:HG23	4.94	0.44
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	1.91	0.44
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	3.68	0.44
21:C9:14:PHE:CE1	21:C9:136:ALA:HB2	3.10	0.44
8:S6:74:LYS:O	8:S6:75:LEU:HD23	2.97	0.44
14:C2:81:ASP:OD1	14:C2:85:LYS:HB3	2.59	0.44
1:2:1211:A:H1'	17:C5:99:GLY:O	2.18	0.44
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	2.00	0.44
24:D2:28:ARG:NH1	1:6:864:U:OP1	354.78	0.44
6:S4:137:PRO:HB2	6:S4:150:PRO:HD2	2.98	0.44
36:1:818:C:N3	36:1:920:A:H5'	2.32	0.44
1:2:599:A:H5'	25:D3:123:LYS:HZ3	1.82	0.44
15:C3:72:MET:HA	15:C3:75:LEU:HD12	4.44	0.44
67:O1:50:ARG:CZ	67:O1:90:PHE:CZ	4.09	0.44
46:L9:87:LYS:HZ2	46:L9:191:LEU:HD13	16.07	0.44
76:Q0:96:CYS:HA	76:Q0:121:LEU:HD23	2.37	0.44
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.33	0.44
25:D3:88:PRO:O	25:D3:89:ASN:HB2	2.18	0.44
48:M1:12:LEU:HD12	48:M1:13:LYS:N	3.40	0.44
1:6:979:A:H2'	1:6:980:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:27:LYS:O	79:Q3:31:ILE:HD12	2.17	0.44
10:S8:104:ILE:O	10:S8:164:ARG:HA	2.69	0.44
4:S2:86:VAL:C	4:S2:87:GLN:HG2	2.55	0.44
36:5:1261:G:H5''	36:5:1262:G:OP1	2.18	0.44
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.25	0.44
64:N8:103:ASP:HB3	64:N8:106:ALA:HB3	1.99	0.44
1:2:516:G:N2	1:2:537:G:H1'	2.33	0.44
1:6:1752:U:H2'	1:6:1753:A:C8	2.53	0.44
1:6:449:C:H2'	1:6:450:U:H6	1.82	0.44
54:M8:16:ARG:HG3	36:5:974:G:H5'	173.45	0.44
59:N3:37:ILE:HG12	59:N3:59:MET:O	2.18	0.44
36:5:3096:C:H2'	36:5:3097:C:C6	2.52	0.44
1:2:1458:G:H2'	1:2:1458:G:N3	2.33	0.44
5:S3:4:LEU:HA	5:S3:4:LEU:HD22	2.57	0.44
1:2:1367:G:N7	86:2:2108:OHX:N6	2.66	0.44
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	2.00	0.44
36:5:1947:G:H5''	36:5:1948:G:OP2	2.18	0.44
36:1:3078:U:H4'	36:1:3079:U:O5'	2.14	0.44
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	3.46	0.44
20:C8:146:ALA:N	35:SM:68:ARG:HH21	2.16	0.44
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.42	0.44
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.46	0.44
86:5:4019:OHX:N4	86:5:4214:OHX:N3	2.65	0.44
36:1:1213:G:H4'	56:N0:90:MET:HG3	1.99	0.44
53:M7:69:ARG:HG2	53:M7:79:THR:CG2	3.90	0.44
46:L9:23:ARG:NH2	46:L9:39:LYS:O	2.50	0.44
1:6:793:A:OP2	1:6:793:A:C8	2.71	0.44
5:S3:113:LEU:HD12	5:S3:117:ARG:HD2	5.05	0.44
1:6:189:C:C2'	1:6:190:C:H5'	2.48	0.44
1:6:538:A:H2	1:6:540:G:N2	2.15	0.44
1:6:1013:A:H2'	1:6:1014:G:O4'	2.18	0.44
6:S4:68:ARG:HB3	6:S4:76:VAL:HG11	1.99	0.44
41:L4:129:THR:HB	41:L4:246:ARG:O	2.88	0.44
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.34	0.44
55:M9:21:LYS:O	55:M9:53:LYS:HG3	3.20	0.44
42:L5:261:THR:HG23	42:L5:264:GLN:OE1	4.44	0.44
6:S4:114:ILE:HD12	6:S4:118:GLU:HG2	2.86	0.44
73:O7:3:LYS:HB3	36:5:2138:A:C4	170.25	0.44
1:6:71:A:H2'	1:6:72:A:O4'	2.17	0.44
16:C4:18:ARG:HA	16:C4:82:LYS:O	2.61	0.44
78:Q2:71:ARG:HH11	78:Q2:71:ARG:HG3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2179:C:C2	39:L2:130:SER:O	2.71	0.44
39:L2:130:SER:OG	39:L2:171:GLY:O	2.36	0.44
1:2:712:G:H2'	1:2:713:A:O4'	2.17	0.44
1:2:1082:C:H2'	1:2:1083:G:H5'	2.00	0.44
36:1:2427:U:H2'	36:1:2428:U:C6	2.53	0.44
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.17	0.44
36:1:1785:U:H2'	36:1:1786:G:H8	1.79	0.44
4:S2:174:ARG:HA	4:S2:195:ASP:OD2	2.19	0.44
62:N6:42:GLN:O	62:N6:125:LYS:HE3	2.17	0.44
34:SR:62:LYS:O	34:SR:92:TRP:HH2	2.00	0.44
36:1:373:A:N1	36:1:394:G:H4'	2.32	0.44
15:C3:83:GLU:H	15:C3:83:GLU:HG2	1.54	0.44
15:C3:42:ARG:NH1	15:C3:80:LEU:HD21	5.78	0.44
50:M4:123:LEU:O	50:M4:126:GLN:N	2.50	0.44
36:5:506:U:H2'	36:5:507:U:O4'	2.18	0.44
69:O3:30:ILE:HB	69:O3:81:VAL:HG12	2.00	0.44
38:8:2:A:H2'	38:8:3:A:O4'	2.18	0.44
1:2:924:A:O2'	1:2:987:G:OP1	2.34	0.44
22:D0:16:GLN:HB3	22:D0:17:GLN:H	1.49	0.44
36:5:2093:A:H3'	36:5:2093:A:N3	2.33	0.44
36:5:522:A:OP1	86:5:3937:OHX:N1	2.51	0.44
36:1:407:A:C2	38:4:17:A:H1'	2.52	0.44
1:6:1057:U:H3	1:6:1062:A:H61	1.65	0.44
36:5:69:C:H2'	36:5:70:A:O4'	2.18	0.44
41:L4:157:GLU:HB3	41:L4:211:GLU:O	2.18	0.44
36:1:2111:G:C8	60:N4:49:ILE:HD13	2.53	0.44
36:5:2961:G:C6	36:5:2962:U:C4	3.06	0.44
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	2.17	0.44
36:5:1846:C:H5'	36:5:1849:C:N4	2.32	0.44
36:1:1088:U:H2'	36:1:1089:G:H8	1.83	0.44
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.28	0.44
36:1:1459:C:O5'	36:1:1459:C:H6	2.01	0.44
29:D7:75:GLU:H	29:D7:75:GLU:HG3	4.42	0.44
36:1:2872:A:N3	36:1:2872:A:H2'	2.33	0.44
71:O5:55:LEU:HA	71:O5:55:LEU:HD23	2.15	0.44
40:L3:287:LYS:HA	40:L3:287:LYS:HD2	4.50	0.44
36:1:1592:G:OP2	70:O4:37:LYS:NZ	2.35	0.44
21:C9:73:VAL:HG12	21:C9:77:ASN:ND2	2.33	0.44
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.86	0.43
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	4.72	0.43
75:O9:3:ALA:O	75:O9:5:LYS:HE3	4.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2207:A:C2'	36:1:2208:A:H5'	2.48	0.43
86:1:4085:OHX:N2	86:1:4156:OHX:N5	2.66	0.43
40:L3:3:HIS:CG	40:L3:3:HIS:O	2.71	0.43
36:5:618:C:O2'	36:5:621:A:N3	2.40	0.43
86:2:2082:OHX:N6	86:2:2084:OHX:N5	2.66	0.43
73:O7:75:LYS:HE3	73:O7:75:LYS:HB3	1.79	0.43
36:1:1580:A:H4'	36:1:1581:C:O5'	2.17	0.43
36:1:1725:C:H2'	36:1:1726:C:C6	2.53	0.43
9:S7:103:SER:OG	9:S7:104:ARG:N	2.51	0.43
36:1:2392:C:H5''	36:1:2393:G:OP2	2.18	0.43
36:1:1073:U:H2'	36:1:1074:U:C6	2.53	0.43
66:O0:103:THR:HB	66:O0:104:LEU:H	2.02	0.43
21:C9:57:ARG:HH22	21:C9:80:TYR:HB3	2.35	0.43
1:6:1279:C:H2'	1:6:1280:C:O4'	2.18	0.43
1:6:195:G:H2'	1:6:196:G:H5'	1.99	0.43
24:D2:36:LYS:HD2	24:D2:110:ILE:HB	2.00	0.43
1:2:45:U:O2	1:2:434:G:H1'	2.18	0.43
8:S6:137:ARG:NH1	1:6:144:U:H5	311.97	0.43
12:C0:54:TYR:O	12:C0:68:LEU:HD12	2.80	0.43
48:M1:101:ASN:HB3	48:M1:129:VAL:O	2.18	0.43
36:5:1192:C:C5	86:5:4087:OHX:N6	2.86	0.43
31:D9:21:CYS:SG	31:D9:24:CYS:N	2.98	0.43
38:4:140:G:C6	38:4:141:C:C4	3.06	0.43
62:N6:27:ARG:HH11	62:N6:27:ARG:HD3	1.99	0.43
57:N1:104:GLU:OE1	57:N1:130:ARG:NH1	2.51	0.43
17:C5:125:PRO:O	17:C5:126:VAL:HB	2.17	0.43
1:6:1738:U:O4	86:6:2062:OHX:N5	2.51	0.43
17:C5:110:GLU:HB2	20:C8:119:ILE:HG12	2.00	0.43
5:S3:74:GLN:HE21	5:S3:75:LYS:N	2.16	0.43
45:L8:101:THR:HG22	45:L8:104:GLU:CB	2.46	0.43
45:L8:101:THR:CG2	45:L8:104:GLU:H	2.30	0.43
36:1:2697:A:H2'	36:1:2698:G:C8	2.53	0.43
39:L2:51:ASP:O	39:L2:54:ARG:HB3	2.18	0.43
1:2:886:U:H2'	1:2:887:A:O4'	2.18	0.43
36:5:1317:A:C4	36:5:1319:G:N7	2.85	0.43
86:1:4034:OHX:N4	86:1:4152:OHX:N3	2.66	0.43
5:S3:124:ARG:HH21	35:SM:128:ALA:HB1	11.00	0.43
1:6:1758:U:H2'	1:6:1759:C:C6	2.53	0.43
57:N1:143:THR:HA	57:N1:146:ASN:O	2.17	0.43
36:1:1222:G:N2	36:1:1285:G:O2'	2.48	0.43
25:D3:23:ARG:HA	25:D3:23:ARG:HD2	2.03	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2573:G:N7	86:1:4003:OHX:N1	2.65	0.43
36:5:3018:C:C4	36:5:3019:U:C4	3.06	0.43
57:N1:124:VAL:HB	57:N1:125:ALA:H	1.48	0.43
51:M5:73:ARG:HA	51:M5:74:PRO:HD2	2.30	0.43
15:C3:46:THR:HG23	15:C3:49:GLN:CD	2.38	0.43
36:1:1466:G:O6	86:1:3885:OHX:N4	2.51	0.43
74:O8:26:LYS:NZ	36:5:1751:G:H5'	129.00	0.43
36:1:2689:A:C8	36:1:2702:A:C6	3.06	0.43
17:C5:75:PRO:HG3	17:C5:93:VAL:HG11	2.52	0.43
36:1:1952:G:H5'	36:1:1953:G:OP2	2.17	0.43
46:L9:184:LYS:NZ	36:5:3111:U:OP1	336.45	0.43
42:L5:258:LYS:O	42:L5:259:LYS:HG2	2.18	0.43
36:5:2373:A:H2'	36:5:2373:A:OP2	2.18	0.43
9:S7:161:GLN:HG2	9:S7:161:GLN:H	1.62	0.43
1:6:1715:G:N1	1:6:1716:C:N4	2.66	0.43
55:M9:7:GLN:NE2	55:M9:35:ALA:O	2.49	0.43
36:1:3023:U:H2'	36:1:3024:A:H8	1.82	0.43
20:C8:8:GLN:C	20:C8:10:SER:H	2.94	0.43
45:L8:139:VAL:HG21	45:L8:197:VAL:HG23	2.00	0.43
36:1:2861:U:H2'	36:1:2862:U:O4'	2.17	0.43
78:Q2:3:ASN:O	36:5:2655:U:H2'	238.56	0.43
26:D4:94:TYR:CD2	26:D4:96:LEU:HD12	3.68	0.43
36:5:637:C:C2	36:5:638:C:C5	3.06	0.43
36:1:3004:C:H4'	40:L3:99:LEU:O	2.18	0.43
36:5:1794:G:O2'	36:5:1795:U:H5'	2.17	0.43
36:1:1851:G:OP1	86:1:3983:OHX:N4	2.51	0.43
1:2:395:U:H2'	1:2:396:G:O4'	2.18	0.43
35:SM:34:LYS:N	35:SM:34:LYS:HD2	4.67	0.43
36:1:147:U:O4	45:L8:157:VAL:HA	2.18	0.43
36:1:1340:G:H2'	36:1:1341:U:H6	1.82	0.43
36:5:878:G:C2	36:5:2980:U:H5'	2.53	0.43
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.99	0.43
54:M8:143:PRO:O	54:M8:146:SER:HB2	3.11	0.43
64:N8:133:LEU:CD1	64:N8:137:LYS:HZ2	2.32	0.43
36:1:2840:C:N4	36:1:2845:A:O2'	2.51	0.43
13:C1:54:ILE:HA	13:C1:54:ILE:HD13	3.20	0.43
36:1:1484:U:O5'	36:1:1484:U:H6	2.01	0.43
36:5:1716:U:H6	36:5:1716:U:H5'	1.82	0.43
33:E1:83:LYS:HE3	33:E1:83:LYS:HB2	1.52	0.43
36:1:618:C:H5'	53:M7:169:THR:HG22	2.00	0.43
17:C5:43:ARG:NH1	17:C5:47:ARG:HD3	4.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1481:A:O2'	36:1:1858:A:C2	2.70	0.43
36:1:283:G:O6	36:1:304:G:H1'	2.18	0.43
51:M5:70:ASN:HD21	51:M5:93:LYS:HE3	3.98	0.43
40:L3:295:ALA:HB2	40:L3:301:THR:O	2.19	0.43
36:5:2440:G:N2	36:5:2508:U:C2	2.86	0.43
8:S6:70:PRO:C	8:S6:98:ARG:HH11	2.21	0.43
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	2.74	0.43
14:C2:45:LEU:HB2	1:6:1228:G:OP1	462.68	0.43
1:2:1202:A:H1'	1:2:1207:C:N4	2.33	0.43
36:1:1072:G:C4	36:1:1087:G:C2	3.06	0.43
2:S0:31:VAL:HG21	1:6:1040:G:H5'	382.24	0.43
43:L6:172:HIS:C	43:L6:173:MET:HG2	2.38	0.43
10:S8:172:ARG:HD2	1:6:330:G:OP2	280.73	0.43
36:1:1556:C:O2	36:1:1556:C:H5''	2.19	0.43
3:S1:193:ILE:H	3:S1:193:ILE:HG12	1.65	0.43
79:Q3:73:THR:HG22	79:Q3:76:ALA:CB	2.48	0.43
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.51	0.43
36:5:1201:C:N3	36:5:1202:A:H1'	2.32	0.43
31:D9:21:CYS:HB2	31:D9:39:CYS:CB	3.00	0.43
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.49	0.43
20:C8:11:PHE:CD2	20:C8:59:GLY:HA3	2.53	0.43
36:5:1815:U:HO2'	36:5:1816:A:P	2.39	0.43
14:C2:54:ARG:HG3	14:C2:56:GLU:HG3	5.77	0.43
36:1:1703:U:N3	36:1:1740:U:O2	2.51	0.43
26:D4:14:SER:OG	26:D4:21:LYS:HE3	2.17	0.43
1:6:218:A:N1	1:6:844:A:H1'	2.33	0.43
9:S7:56:LYS:HB2	9:S7:88:ARG:NH1	2.44	0.43
56:N0:144:LEU:HA	56:N0:144:LEU:HD23	2.61	0.43
4:S2:70:ASP:OD1	4:S2:133:LYS:NZ	3.29	0.43
26:D4:10:ARG:HB3	1:6:778:G:O6	427.83	0.43
2:S0:148:ASP:HB2	2:S0:164:ASN:ND2	2.33	0.43
1:6:1176:G:C6	1:6:1464:G:C6	3.07	0.43
1:2:866:G:H5''	15:C3:3:ARG:H	1.83	0.43
52:M6:182:ASN:O	52:M6:184:THR:N	4.27	0.43
9:S7:55:LYS:HB3	9:S7:55:LYS:HE2	4.26	0.43
73:O7:18:LEU:HD12	75:O9:8:ARG:HD2	2.00	0.43
36:5:182:U:H2'	36:5:183:G:C8	2.53	0.43
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	2.59	0.43
36:1:261:U:H2'	36:1:262:U:C6	2.54	0.43
38:4:67:U:OP1	73:O7:85:LYS:HD2	2.18	0.43
52:M6:71:PHE:CE1	36:5:2383:C:H5'	230.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:549:G:C2	1:2:550:A:N7	2.86	0.43
36:5:2585:G:C2	38:8:151:C:H5	2.36	0.43
8:S6:27:PHE:CZ	8:S6:111:LEU:HD11	2.52	0.43
21:C9:102:ARG:NH1	1:6:1501:C:OP2	410.49	0.43
25:D3:109:ARG:HD2	25:D3:112:LYS:HZ2	8.50	0.43
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.18	0.43
34:SR:225:LEU:O	34:SR:228:LYS:HG3	2.18	0.43
36:1:2722:U:H2'	36:1:2723:U:C6	2.53	0.43
38:4:85:G:C8	38:4:85:G:C3'	3.01	0.43
36:1:564:G:H2'	36:1:565:U:C6	2.54	0.43
46:L9:88:TYR:CZ	46:L9:184:LYS:HG2	2.53	0.43
36:1:3228:C:C3'	50:M4:137:LYS:HZ1	2.31	0.43
58:N2:20:SER:O	58:N2:24:GLU:HG2	2.27	0.43
1:2:755:A:O2'	1:2:756:A:OP1	2.34	0.43
57:N1:53:PRO:HD3	57:N1:95:HIS:CG	2.87	0.43
48:M1:116:TYR:HE1	48:M1:118:PRO:HB3	1.83	0.43
40:L3:128:LYS:HG3	36:5:3294:A:H5'	197.40	0.43
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.18	0.43
1:6:1118:G:O6	86:6:2176:OHX:N2	2.52	0.43
1:2:1085:G:N2	1:2:1087:A:H3'	2.33	0.43
47:M0:24:ARG:HH11	47:M0:24:ARG:HG3	1.83	0.43
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.41	0.43
36:1:217:U:H4'	62:N6:100:HIS:CD2	2.53	0.43
36:1:209:A:H4'	36:1:211:A:C8	2.52	0.43
61:N5:73:MET:O	61:N5:77:GLU:HG3	2.71	0.43
1:6:1487:A:H61	1:6:1519:U:H3	1.66	0.43
20:C8:124:GLY:O	20:C8:127:HIS:N	2.50	0.43
1:2:1415:U:H2'	1:2:1416:G:C8	2.53	0.43
36:1:2379:U:H2'	36:1:2380:U:H6	1.84	0.43
36:1:3224:G:O6	86:1:3899:OHX:N4	2.51	0.43
36:1:650:C:O5'	36:1:650:C:H6	2.01	0.43
1:2:1573:A:H8	1:2:1573:A:O5'	2.01	0.43
1:2:1157:A:H3'	1:2:1157:A:C8	2.54	0.43
36:1:2402:A:H5''	41:L4:67:THR:OG1	2.19	0.43
13:C1:72:THR:HA	13:C1:124:THR:HA	2.00	0.43
1:6:1299:G:C6	1:6:1300:A:N6	2.86	0.43
40:L3:183:LEU:HA	40:L3:183:LEU:HD12	1.99	0.43
38:4:75:G:C8	75:O9:30:ARG:HG2	2.53	0.43
73:O7:87:SER:C	86:O7:104:OHX:N1	2.72	0.43
1:6:312:A:C5	1:6:314:C:C4	3.06	0.43
15:C3:20:ARG:NH1	15:C3:20:ARG:HG3	3.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.74	0.43
41:L4:321:LYS:O	41:L4:324:LEU:HB3	2.36	0.43
1:2:452:A:OP2	1:2:453:U:H5	2.01	0.43
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.48	0.43
43:L6:42:LEU:HD22	43:L6:79:VAL:HG21	2.28	0.43
71:O5:85:THR:HG22	71:O5:88:LEU:N	2.52	0.43
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	4.12	0.43
63:N7:135:ARG:HH11	36:5:1807:G:H5'	194.78	0.43
36:1:1427:U:OP1	41:L4:44:LYS:NZ	2.51	0.43
1:2:331:A:H4'	10:S8:31:ARG:O	2.18	0.43
34:SR:89:LEU:HD11	34:SR:124:SER:HB3	2.36	0.43
1:2:1310:U:C2	1:2:1316:G:C2	3.07	0.43
26:D4:40:LEU:O	26:D4:44:LEU:HD12	2.18	0.43
64:N8:32:ARG:NH1	36:5:799:G:OP2	151.88	0.43
1:6:151:G:N2	1:6:163:G:H22	2.15	0.43
36:5:1597:C:H5'	36:5:1696:A:H1'	2.01	0.43
14:C2:44:GLY:O	14:C2:48:SER:OG	2.21	0.43
1:2:1483:A:C6	1:2:1484:G:C6	3.07	0.43
36:1:1795:U:H4'	36:1:1796:G:C4	2.53	0.43
36:1:2667:A:H61	36:1:2687:G:H1'	1.84	0.43
17:C5:111:MET:HG3	20:C8:119:ILE:CG1	4.38	0.43
62:N6:101:PRO:HA	62:N6:104:LEU:HD12	2.00	0.43
1:2:1597:A:H2'	1:2:1598:U:H6	1.82	0.43
28:D6:53:LEU:O	28:D6:57:SER:OG	2.36	0.43
36:5:900:G:H1'	36:5:1589:A:H61	1.80	0.43
5:S3:211:PRO:O	5:S3:212:LYS:HB2	2.16	0.43
71:O5:6:ALA:O	71:O5:10:ARG:HG3	3.76	0.43
45:L8:132:VAL:HG21	45:L8:190:VAL:HG22	3.61	0.43
36:5:2101:C:H2'	36:5:2102:U:C6	2.52	0.43
4:S2:148:LEU:HA	4:S2:148:LEU:HD22	1.77	0.43
34:SR:238:ASP:HB3	34:SR:257:ALA:HB3	1.99	0.43
35:SM:79:SER:OG	35:SM:79:SER:O	3.83	0.43
1:2:416:A:H5''	1:2:417:A:N7	2.33	0.43
21:C9:89:ARG:HB3	21:C9:90:PRO:HD2	2.00	0.43
68:O2:61:LYS:HD3	36:5:1339:C:OP1	192.46	0.43
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.54	0.43
42:L5:208:MET:HG2	42:L5:223:PHE:CZ	2.53	0.43
27:D5:70:LYS:HD3	27:D5:70:LYS:HA	1.81	0.43
1:2:1347:U:C2	1:2:1517:U:C5	3.06	0.43
55:M9:23:TRP:CH2	55:M9:25:ASP:HB2	2.53	0.43
36:5:2796:G:H4'	36:5:2798:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:97:C:H2'	1:2:98:U:H6	1.82	0.43
60:N4:64:THR:HB	60:N4:65:GLU:H	1.71	0.43
36:1:1617:G:H2'	36:1:1618:G:O4'	2.18	0.43
57:N1:87:LYS:HE3	36:5:2723:U:OP1	214.59	0.43
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.39	0.43
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.53	0.43
45:L8:170:CYS:HB3	45:L8:175:VAL:O	2.18	0.43
1:2:1442:U:H2'	1:2:1443:U:C6	2.53	0.43
44:L7:236:ILE:HA	44:L7:236:ILE:HD12	1.90	0.43
24:D2:58:SER:OG	1:6:636:A:H1'	354.33	0.43
1:2:1240:U:OP2	86:2:2143:OHX:N1	2.51	0.43
30:D8:39:THR:O	30:D8:40:ILE:HG13	2.19	0.43
22:D0:26:LEU:HD11	22:D0:37:VAL:HG12	2.00	0.43
1:6:465:G:C5	1:6:466:U:C5	3.06	0.43
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.31	0.43
1:6:1001:A:C6	1:6:1002:G:C6	3.06	0.43
8:S6:44:GLU:N	8:S6:44:GLU:OE2	2.51	0.43
26:D4:18:LEU:HD23	26:D4:18:LEU:HA	1.77	0.43
6:S4:12:LEU:HD23	6:S4:12:LEU:HA	2.46	0.43
53:M7:155:GLU:OE2	53:M7:155:GLU:N	5.04	0.43
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	4.39	0.43
50:M4:73:PRO:HG2	50:M4:76:ALA:HB2	3.07	0.43
47:M0:174:THR:HG23	47:M0:175:ASN:N	2.33	0.43
47:M0:174:THR:CG2	47:M0:176:LEU:H	2.30	0.43
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.27	0.43
11:S9:34:PHE:CE1	11:S9:105:LEU:HB3	2.52	0.43
36:1:1334:U:H2'	36:1:1335:C:C6	2.54	0.43
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	2.59	0.43
44:L7:210:PRO:N	44:L7:243:MET:HG2	2.34	0.43
38:8:59:A:N1	38:8:100:U:H1'	2.33	0.43
1:2:279:G:H2'	1:2:281:G:H5'	2.01	0.43
12:C0:29:GLN:HB3	12:C0:39:ASN:CB	2.48	0.43
36:5:979:U:H1'	36:5:980:A:C4	2.53	0.43
36:5:2232:A:H2'	36:5:2233:A:O4'	2.18	0.43
20:C8:54:LEU:C	20:C8:56:LYS:H	2.60	0.43
5:S3:115:ILE:HD12	5:S3:116:ARG:H	4.59	0.43
11:S9:93:LEU:HA	11:S9:96:VAL:CG1	2.48	0.43
52:M6:121:PRO:C	52:M6:123:ALA:H	2.29	0.43
1:2:329:G:H5'	10:S8:99:ALA:HB3	2.01	0.43
36:5:603:A:H2'	36:5:604:G:O4'	2.17	0.43
11:S9:59:LEU:HD23	11:S9:59:LEU:HA	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	2.99	0.43
40:L3:168:LYS:O	40:L3:319:ASN:ND2	2.52	0.43
9:S7:97:ARG:HA	9:S7:97:ARG:HD3	3.26	0.43
42:L5:108:ARG:NE	42:L5:253:PHE:HB2	2.33	0.43
1:2:830:U:H2'	1:2:830:U:O2	2.17	0.43
39:L2:45:VAL:HA	39:L2:61:VAL:HG22	2.01	0.43
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	1.98	0.43
36:5:1018:G:H2'	36:5:1019:G:O4'	2.19	0.43
44:L7:73:GLY:O	57:N1:143:THR:HB	2.40	0.43
36:1:3095:U:H2'	36:1:3096:C:H6	1.81	0.43
46:L9:90:MET:HB3	46:L9:90:MET:HE2	1.88	0.43
1:2:1384:A:H2'	1:2:1385:G:O4'	2.18	0.43
15:C3:53:LEU:HD13	29:D7:52:THR:HG21	2.56	0.43
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.28	0.43
47:M0:44:ASP:O	47:M0:45:GLU:C	3.13	0.43
46:L9:3:TYR:N	46:L9:3:TYR:CD2	2.86	0.43
15:C3:45:LEU:HB3	15:C3:50:ILE:HG13	2.00	0.43
7:S5:157:ARG:HE	7:S5:157:ARG:N	4.20	0.43
52:M6:108:ILE:HG21	52:M6:108:ILE:HD13	1.90	0.43
1:6:1372:U:H6	1:6:1372:U:OP1	2.02	0.43
1:6:93:A:C6	1:6:398:G:C6	3.06	0.43
8:S6:122:GLU:C	8:S6:124:LEU:H	2.52	0.43
40:L3:117:ARG:HA	40:L3:175:LYS:CD	3.23	0.43
36:1:2175:U:H4'	36:1:2176:U:OP2	2.18	0.43
1:2:1179:G:H4'	35:SM:79:SER:O	2.18	0.43
34:SR:205:SER:OG	34:SR:210:LEU:HB2	2.19	0.43
63:N7:73:LYS:HZ2	36:5:1637:A:P	211.99	0.43
3:S1:112:SER:HB2	28:D6:68:TYR:OH	2.19	0.43
33:E1:126:CYS:O	33:E1:128:ALA:N	2.50	0.43
36:1:1229:G:H1	36:1:1280:C:H42	1.66	0.43
1:2:1783:C:OP2	77:Q1:1:MET:HB2	2.18	0.43
1:2:180:A:H2'	1:2:181:A:O4'	2.18	0.43
46:L9:27:VAL:HG12	46:L9:82:VAL:HG11	2.00	0.43
69:O3:42:GLN:HA	69:O3:45:LEU:HG	2.00	0.43
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.70	0.43
1:6:1536:G:C5	1:6:1538:U:H1'	2.52	0.43
51:M5:181:ASN:C	51:M5:182:ASN:O	4.07	0.43
1:2:199:G:O2'	1:2:200:A:H8	2.01	0.43
1:6:761:G:O6	86:6:2083:OHX:N1	2.52	0.43
36:5:196:G:C2	36:5:199:A:C8	3.06	0.43
36:1:3131:U:H2'	36:1:3132:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1134:G:O2'	36:1:2642:A:N3	2.43	0.43
71:O5:9:LEU:HD13	71:O5:54:VAL:HA	2.00	0.43
67:O1:88:PRO:C	67:O1:89:LEU:HD12	2.39	0.43
36:5:144:A:N6	36:5:145:G:C2	2.87	0.43
45:L8:105:LYS:O	45:L8:109:LEU:HB2	3.29	0.43
65:N9:11:ASN:O	65:N9:15:LYS:HG3	2.18	0.43
56:N0:17:GLU:O	56:N0:20:PRO:HD3	2.18	0.43
1:6:231:U:H2'	1:6:232:U:H5''	1.99	0.43
26:D4:50:ALA:O	26:D4:51:GLU:HB3	2.80	0.43
39:L2:149:ARG:HH21	39:L2:252:THR:HG23	1.82	0.43
44:L7:95:ILE:HG22	44:L7:100:ARG:HB2	2.45	0.43
1:6:10:G:C2	1:6:11:A:C4	3.07	0.43
39:L2:29:LEU:HD22	39:L2:101:VAL:HG21	2.92	0.43
1:2:533:U:H4'	26:D4:33:ALA:HB2	2.00	0.43
86:2:2074:OHX:N6	86:2:2161:OHX:N2	2.66	0.43
36:5:2124:G:O2'	36:5:2125:A:H5'	2.18	0.43
36:1:1528:G:H2'	36:1:1529:A:O4'	2.17	0.43
79:Q3:82:THR:O	79:Q3:86:LEU:HG	2.69	0.43
36:5:1752:A:OP2	86:5:4076:OHX:N3	2.52	0.43
34:SR:256:THR:N	34:SR:259:GLY:O	2.59	0.43
1:2:1349:G:H2'	1:2:1350:U:C6	2.52	0.43
36:5:2384:A:H8	36:5:2384:A:O5'	2.02	0.43
36:1:1237:G:H2'	36:1:1237:G:N3	2.32	0.43
36:1:821:U:OP2	86:1:3985:OHX:N3	2.51	0.43
1:6:1207:C:H42	1:6:1456:C:H5	1.66	0.43
36:1:3070:A:C5	36:1:3071:U:C5	3.06	0.43
18:C6:87:LYS:HB3	18:C6:87:LYS:HE2	1.60	0.43
36:5:2249:G:C8	36:5:2249:G:C3'	3.01	0.43
13:C1:125:VAL:HB	13:C1:137:PHE:HB3	2.52	0.43
43:L6:166:LYS:HA	43:L6:166:LYS:HD3	1.79	0.43
1:2:1324:G:OP2	86:2:2082:OHX:N1	2.51	0.43
36:1:436:A:H2'	36:1:437:G:O4'	2.18	0.43
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.42	0.43
55:M9:104:ARG:NH1	36:5:1949:G:H5''	218.62	0.43
28:D6:30:ILE:HD13	28:D6:74:CYS:HA	2.27	0.43
25:D3:9:LEU:HD23	25:D3:9:LEU:HA	2.56	0.43
21:C9:101:ASN:O	21:C9:104:VAL:N	2.52	0.43
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.17	0.43
3:S1:46:THR:OG1	3:S1:47:LEU:N	4.12	0.43
17:C5:112:LEU:HD23	17:C5:112:LEU:HA	1.85	0.43
36:1:2186:U:H2'	36:1:2187:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:44:CYS:HA	70:O4:51:LEU:HD21	4.42	0.43
1:2:735:C:OP2	1:2:735:C:H2'	2.18	0.43
46:L9:173:ARG:NH2	36:5:2898:G:OP2	330.21	0.43
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.42	0.43
8:S6:7:TYR:CD1	8:S6:125:THR:HA	2.80	0.43
1:2:1662:G:O2'	1:2:1663:G:H5'	2.18	0.43
34:SR:13:LEU:HD22	34:SR:45:TRP:CE3	2.53	0.43
19:C7:20:TYR:CG	19:C7:38:ILE:HD11	2.54	0.43
7:S5:164:PRO:O	7:S5:167:ARG:HB2	2.19	0.43
31:D9:24:CYS:HB3	31:D9:42:CYS:SG	3.02	0.43
20:C8:49:LYS:HE3	20:C8:81:ILE:HG12	2.00	0.43
62:N6:50:ILE:HD13	62:N6:51:ARG:O	2.19	0.43
1:2:103:A:H4'	1:2:104:A:OP2	2.18	0.43
24:D2:57:ARG:N	24:D2:57:ARG:HD2	2.33	0.43
16:C4:93:THR:HA	16:C4:94:PRO:HD2	2.96	0.43
36:5:992:A:C2'	36:5:993:G:H5'	2.48	0.43
36:5:1691:U:H2'	36:5:1692:U:H6	1.82	0.43
47:M0:19:LYS:HB2	47:M0:26:VAL:HG21	2.68	0.43
59:N3:26:ALA:HB1	59:N3:115:THR:O	2.18	0.43
28:D6:26:CYS:HB2	28:D6:28:LYS:HB2	4.61	0.43
54:M8:159:LYS:HE2	54:M8:159:LYS:HB3	1.63	0.43
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.19	0.43
79:Q3:55:TRP:CE3	79:Q3:71:VAL:HG22	2.53	0.43
47:M0:201:SER:OG	47:M0:203:LYS:HD2	2.18	0.43
8:S6:3:LEU:O	8:S6:15:THR:HA	2.47	0.43
30:D8:25:VAL:HG11	30:D8:43:ASN:HB3	2.94	0.43
40:L3:173:GLN:O	40:L3:175:LYS:N	2.49	0.43
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.53	0.43
5:S3:53:THR:HG22	5:S3:91:VAL:HG21	4.98	0.43
36:5:1566:A:C2'	36:5:1567:U:H5'	2.48	0.43
71:O5:92:LEU:HD13	71:O5:96:GLU:O	2.18	0.43
36:1:3228:C:H6	36:1:3228:C:H2'	1.61	0.43
36:1:3251:U:H2'	36:1:3252:G:C8	2.53	0.43
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.60	0.43
10:S8:72:ILE:HD13	10:S8:112:TRP:CD2	2.54	0.43
28:D6:44:ILE:HD12	28:D6:44:ILE:H	1.83	0.43
36:1:3088:G:H2'	36:1:3089:C:O4'	2.17	0.43
67:O1:62:ARG:HB2	67:O1:66:GLY:O	2.19	0.43
34:SR:203:THR:HG21	34:SR:244:ALA:N	2.34	0.43
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.50	0.43
39:L2:49:VAL:HG12	39:L2:58:LEU:HB2	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:809:A:C6	1:6:810:G:O6	2.71	0.43
1:6:1733:C:H2'	1:6:1734:U:H6	1.83	0.43
52:M6:175:THR:HA	52:M6:178:VAL:HB	2.01	0.43
46:L9:118:LEU:HD23	46:L9:118:LEU:HA	1.84	0.43
54:M8:71:LEU:HD23	54:M8:71:LEU:HA	2.09	0.43
17:C5:83:MET:HB2	17:C5:83:MET:HE2	3.20	0.43
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.39	0.43
1:2:1091:A:H5''	1:2:1091:A:N3	2.33	0.43
36:5:698:U:H2'	36:5:699:A:O4'	2.18	0.43
13:C1:109:VAL:HA	13:C1:135:VAL:HG13	2.01	0.43
69:O3:2:ALA:HB1	69:O3:4:SER:O	5.93	0.43
36:1:1579:C:N3	36:1:1580:A:N6	2.66	0.43
1:2:159:U:O2'	8:S6:87:ARG:NH1	2.52	0.43
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	2.06	0.43
36:5:1553:U:H1'	36:5:1554:U:H5	1.84	0.43
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	1.83	0.43
3:S1:69:CYS:O	3:S1:72:ASP:HB2	2.18	0.43
36:1:2185:G:H2'	36:1:2186:U:H6	1.83	0.43
4:S2:90:THR:C	4:S2:92:ALA:N	2.71	0.43
22:D0:106:ILE:HD12	22:D0:106:ILE:HA	1.90	0.43
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.41	0.43
58:N2:18:ASP:HB3	58:N2:104:ARG:HB2	1.99	0.43
8:S6:175:ILE:HB	8:S6:178:LEU:HD22	2.51	0.43
59:N3:120:LYS:N	59:N3:137:VAL:HG23	2.63	0.43
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.18	0.43
1:2:584:C:OP2	86:2:2025:OHX:N6	2.51	0.43
3:S1:211:HIS:CD2	3:S1:211:HIS:N	3.06	0.43
42:L5:211:LEU:O	42:L5:215:ASP:N	3.83	0.43
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	4.85	0.43
7:S5:164:PRO:HG3	30:D8:52:ASP:HB3	2.14	0.43
37:3:28:C:O3'	48:M1:135:GLY:HA2	2.19	0.43
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.30	0.43
36:1:2948:C:H2'	36:1:2949:U:C6	2.54	0.43
20:C8:80:LYS:HD2	20:C8:80:LYS:HA	1.72	0.43
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.47	0.43
41:L4:10:SER:C	41:L4:12:THR:H	2.30	0.43
14:C2:56:GLU:HB3	14:C2:124:LYS:HE3	2.01	0.43
1:6:1661:U:H2'	1:6:1662:G:H8	1.84	0.43
36:1:860:G:N7	39:L2:181:LYS:HB2	2.34	0.43
42:L5:85:ARG:NH1	42:L5:254:LYS:H	4.72	0.43
42:L5:85:ARG:HH21	42:L5:254:LYS:H	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:48:ARG:NH1	69:O3:48:ARG:HG2	2.34	0.43
1:6:74:U:H5'	1:6:75:U:OP2	2.19	0.43
36:1:2768:U:H2'	36:1:2769:A:H8	1.83	0.43
3:S1:66:VAL:HG22	16:C4:34:SER:HA	2.00	0.43
2:S0:200:ASP:HB2	19:C7:85:VAL:CG2	2.48	0.43
7:S5:133:VAL:O	7:S5:136:ALA:HB3	3.26	0.43
36:1:3094:A:H2'	36:1:3095:U:H6	1.82	0.43
37:3:13:A:O4'	37:3:112:G:C8	2.71	0.43
36:5:209:A:H1'	36:5:212:G:H22	1.83	0.43
39:L2:150:LEU:HD23	39:L2:150:LEU:HA	1.78	0.43
4:S2:169:LEU:HD23	4:S2:198:THR:HG22	2.79	0.43
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.34	0.43
8:S6:211:LEU:HD23	8:S6:211:LEU:HA	1.84	0.43
34:SR:305:TYR:CD2	34:SR:311:ARG:HD2	2.80	0.43
1:2:1274:C:N4	35:SM:95:SER:HA	2.33	0.43
36:5:2584:G:H5'	36:5:2585:G:OP2	2.19	0.43
8:S6:109:LEU:HA	8:S6:109:LEU:HD23	1.91	0.43
14:C2:52:LEU:HD13	14:C2:85:LYS:NZ	2.32	0.43
34:SR:21:THR:HG23	34:SR:36:ALA:O	5.62	0.43
51:M5:185:ALA:HB3	51:M5:190:THR:HG23	4.36	0.43
51:M5:183:THR:O	51:M5:184:LYS:HB2	2.18	0.43
78:Q2:63:LYS:HD3	36:5:2795:U:OP2	213.13	0.43
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.22	0.43
42:L5:41:LYS:HD3	57:N1:93:VAL:HG11	2.01	0.43
29:D7:62:ILE:HA	29:D7:62:ILE:HD12	1.86	0.43
16:C4:132:ARG:HH11	16:C4:132:ARG:HG3	1.83	0.43
1:6:1720:G:O6	86:6:2093:OHX:N4	2.51	0.43
36:1:1769:G:H5'	36:1:1770:G:OP2	2.19	0.43
36:1:3383:G:H2'	36:1:3384:U:H6	1.83	0.43
42:L5:183:TRP:CZ2	42:L5:188:GLU:HA	2.53	0.43
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.19	0.43
37:3:90:U:C4	37:3:91:G:C4	3.06	0.43
1:6:1751:C:H2'	1:6:1752:U:O4'	2.19	0.43
55:M9:29:THR:O	55:M9:33:ALA:N	3.25	0.43
14:C2:135:MET:C	14:C2:137:MET:H	2.80	0.43
38:4:45:C:H2'	38:4:46:G:O4'	2.19	0.43
35:SM:49:LYS:HG3	35:SM:50:ASN:H	5.03	0.43
36:5:2333:C:H2'	36:5:2334:U:O4'	2.19	0.43
22:D0:31:VAL:HG13	22:D0:87:HIS:CD2	2.54	0.43
56:N0:75:PHE:O	56:N0:94:ILE:N	2.50	0.43
40:L3:122:TRP:CH2	40:L3:127:LYS:HG2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:3981:OHX:N1	86:1:4161:OHX:N4	2.67	0.43
44:L7:241:LYS:NZ	36:5:576:C:OP1	274.35	0.43
52:M6:48:PHE:CE1	36:5:1191:U:C2	286.25	0.43
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.66	0.43
1:2:1011:G:HO2'	1:2:1012:U:H6	1.66	0.43
16:C4:129:LYS:HE3	16:C4:129:LYS:HB2	1.66	0.43
36:1:1887:A:OP1	86:1:4092:OHX:N3	2.52	0.43
36:5:176:G:H2'	36:5:177:U:H6	1.84	0.43
40:L3:5:LYS:HE3	40:L3:6:TYR:HE1	1.83	0.43
86:2:2082:OHX:N3	86:2:2084:OHX:N1	2.66	0.43
36:5:1364:C:O2'	36:5:1365:G:H5'	2.19	0.43
17:C5:25:LEU:HD23	17:C5:28:MET:SD	3.07	0.43
1:6:1347:U:C2	1:6:1517:U:C5	3.07	0.43
36:5:1475:A:H2'	36:5:1476:G:O4'	2.19	0.43
20:C8:23:ASP:OD1	20:C8:25:ASN:ND2	3.63	0.43
3:S1:88:VAL:HG11	3:S1:96:LEU:HG	1.99	0.43
41:L4:338:LYS:HA	41:L4:338:LYS:HD2	1.35	0.43
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	3.69	0.43
50:M4:60:LEU:HA	50:M4:60:LEU:HD23	1.90	0.43
3:S1:113:MET:HE3	3:S1:209:ASN:HD22	6.28	0.43
36:1:1247:U:H2'	36:1:1268:G:O6	2.19	0.43
1:2:1486:G:C8	1:2:1487:A:C8	3.07	0.43
36:5:1898:G:O2'	36:5:1899:G:H5'	2.19	0.43
64:N8:8:THR:HG21	36:5:662:U:OP1	149.23	0.43
36:5:3242:G:H5'	36:5:3245:A:H8	1.84	0.43
36:5:926:A:H2'	36:5:927:C:C6	2.54	0.43
36:5:1595:U:H1'	36:5:1596:C:C6	2.54	0.43
57:N1:103:GLN:HG3	57:N1:104:GLU:N	2.33	0.43
36:5:1449:A:C2	36:5:2356:A:C4	3.07	0.43
55:M9:124:TYR:CE2	36:5:1720:U:C4	235.75	0.43
62:N6:80:VAL:HG12	62:N6:99:LEU:HB2	2.01	0.43
1:2:887:A:H61	1:2:925:G:H1	1.67	0.43
36:1:391:A:C5	36:1:392:G:C8	3.07	0.43
16:C4:87:GLY:HA2	16:C4:92:LYS:HD3	7.02	0.43
48:M1:19:LEU:HG	48:M1:19:LEU:H	1.61	0.43
1:2:1600:A:HO2'	1:2:1602:C:N4	2.16	0.43
38:8:104:A:H3'	38:8:105:A:C5'	2.48	0.43
45:L8:162:LEU:HA	51:M5:7:LEU:HD11	2.00	0.43
52:M6:78:ARG:HD2	52:M6:78:ARG:HA	3.03	0.43
36:5:997:A:H4'	37:7:80:G:H5'	2.01	0.43
61:N5:130:TYR:N	61:N5:130:TYR:CD1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.57	0.43
1:2:497:G:O2'	1:2:498:G:C8	2.69	0.43
51:M5:187:ARG:HH11	51:M5:187:ARG:HD3	1.81	0.43
36:1:2834:G:N7	86:1:3908:OHX:N3	2.67	0.43
36:1:527:A:C6	36:1:528:U:C4	3.07	0.43
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	2.16	0.43
64:N8:70:LYS:HE3	64:N8:70:LYS:HB2	3.38	0.43
21:C9:28:LEU:HB3	21:C9:29:GLU:H	3.75	0.43
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.18	0.43
1:2:755:A:H2'	1:2:756:A:O4'	2.18	0.43
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.19	0.43
52:M6:130:LYS:HA	36:5:1316:C:C5	295.84	0.43
69:O3:90:PRO:O	69:O3:92:LYS:N	2.51	0.43
66:O0:18:ILE:HD13	66:O0:81:VAL:HB	2.00	0.43
45:L8:167:PRO:HB3	45:L8:177:TYR:CZ	2.84	0.43
45:L8:156:ASP:OD2	45:L8:156:ASP:N	3.06	0.43
3:S1:123:ALA:HB2	3:S1:165:ARG:CD	2.48	0.43
31:D9:46:LYS:O	31:D9:50:ILE:HG13	2.44	0.43
36:5:423:A:C6	36:5:424:G:C6	3.06	0.43
1:6:1504:G:H2'	1:6:1505:A:C8	2.54	0.43
36:1:1226:G:H2'	36:1:1227:C:C6	2.54	0.43
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.71	0.43
36:1:2288:G:N2	36:1:2289:U:C2	2.86	0.43
36:1:1643:A:H3'	36:1:1644:C:C6	2.53	0.43
36:1:2927:C:H2'	36:1:2928:C:C6	2.54	0.43
36:5:1754:G:OP1	86:5:4072:OHX:N1	2.51	0.43
36:1:171:G:H2'	36:1:172:G:O4'	2.19	0.43
36:1:1901:A:H5''	36:1:2919:A:OP1	2.18	0.43
36:1:815:G:C6	36:1:906:A:C4	3.07	0.43
70:O4:100:ILE:H	70:O4:100:ILE:HG13	3.75	0.43
18:C6:54:LEU:HD13	18:C6:54:LEU:HA	2.53	0.43
1:6:720:G:N2	1:6:720:G:OP2	2.48	0.43
5:S3:220:PRO:O	5:S3:221:SER:OG	2.30	0.43
1:2:1340:U:C2	1:2:1378:U:H4'	2.54	0.43
36:1:2207:A:O2'	36:1:2208:A:H5'	2.18	0.43
44:L7:224:ILE:HD13	56:N0:39:SER:HB2	2.00	0.43
36:1:1949:G:C2	36:1:1950:U:C2	3.07	0.43
36:1:839:C:H4'	36:1:1724:U:H2'	2.00	0.43
8:S6:67:VAL:CG2	8:S6:99:GLY:HA2	2.66	0.43
28:D6:82:ARG:HB3	28:D6:83:ILE:H	1.54	0.43
4:S2:41:LEU:HD13	4:S2:68:ILE:HD13	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1478:G:OP1	21:C9:43:ASN:ND2	2.51	0.43
11:S9:107:ARG:NH2	11:S9:148:VAL:O	2.35	0.43
11:S9:161:THR:O	11:S9:162:SER:HB3	2.18	0.43
34:SR:69:GLN:O	34:SR:83:ALA:HB3	2.18	0.43
41:L4:141:ARG:HA	41:L4:141:ARG:HD3	2.30	0.43
41:L4:318:LEU:HD23	41:L4:318:LEU:HA	2.06	0.43
66:O0:10:ILE:HD11	66:O0:104:LEU:HD11	6.40	0.43
36:1:77:A:H5'	49:M3:100:ARG:NH1	2.34	0.43
4:S2:235:LEU:HA	4:S2:236:PRO:HD2	1.80	0.43
48:M1:28:ASP:CA	48:M1:31:THR:HG23	5.56	0.43
20:C8:14:ILE:H	20:C8:24:GLY:H	1.65	0.43
3:S1:62:LYS:HB2	3:S1:62:LYS:HE2	1.81	0.43
19:C7:104:ASN:O	19:C7:106:THR:HG22	6.75	0.43
19:C7:104:ASN:O	19:C7:107:SER:HB3	2.18	0.43
8:S6:176:GLN:HG2	1:6:169:A:C5'	327.83	0.43
1:2:563:U:H4'	32:E0:17:GLN:NE2	2.34	0.43
3:S1:37:THR:HG21	3:S1:185:THR:HB	5.13	0.43
55:M9:172:ARG:NH1	1:6:852:C:OP1	321.10	0.43
42:L5:56:THR:C	42:L5:58:LYS:N	2.71	0.43
12:C0:1:MET:SD	12:C0:40:LEU:HD12	2.59	0.43
1:6:862:A:C2	1:6:963:A:C4	3.06	0.43
27:D5:74:SER:HA	27:D5:77:ARG:NH2	2.34	0.43
13:C1:92:HIS:O	13:C1:100:TYR:HA	2.50	0.43
2:S0:112:THR:O	2:S0:115:PHE:HB2	2.18	0.43
36:5:2840:C:OP1	86:5:4135:OHX:N3	2.52	0.43
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.54	0.43
36:1:2970:C:O2'	36:1:2971:A:H2	2.01	0.43
1:6:831:U:H6	1:6:831:U:OP2	2.01	0.43
35:SM:48:ARG:NH1	36:5:1017:C:H5''	337.00	0.43
62:N6:61:GLY:O	62:N6:64:LYS:HB2	2.58	0.43
4:S2:144:TRP:CE2	24:D2:97:ARG:HD2	2.54	0.43
2:S0:168:HIS:HB3	2:S0:203:PHE:CE2	2.53	0.43
36:1:391:A:OP2	86:1:4152:OHX:N1	2.51	0.43
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	2.18	0.43
40:L3:53:MET:HE2	40:L3:77:THR:HG22	2.10	0.43
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.25	0.43
70:O4:10:ARG:HD2	36:5:1489:A:OP1	129.68	0.43
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.73	0.43
36:5:1641:U:O2'	36:5:1642:A:H3'	2.19	0.43
45:L8:63:LYS:HA	45:L8:63:LYS:HD3	1.91	0.43
36:1:1463:U:H2'	36:1:1464:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:71:ALA:HB2	3:S1:79:HIS:O	2.19	0.43
7:S5:158:GLN:HG2	30:D8:66:LEU:HD21	2.00	0.43
1:2:789:A:H2	11:S9:71:PHE:HE1	1.65	0.43
36:1:1014:U:H2'	36:1:1015:U:H5''	2.01	0.43
36:5:3110:C:C4	36:5:3111:U:C4	3.07	0.43
1:6:1470:C:H5''	1:6:1471:A:O4'	2.19	0.43
34:SR:278:PHE:CE2	34:SR:287:PRO:HG2	2.54	0.43
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.31	0.43
72:O6:4:LYS:HE3	72:O6:14:GLY:HA3	4.04	0.43
46:L9:79:ILE:O	46:L9:82:VAL:HG12	2.18	0.43
1:6:1152:A:O2'	1:6:1153:G:H5'	2.18	0.43
44:L7:136:TYR:O	44:L7:231:ASN:HA	2.20	0.43
1:6:654:C:H2'	1:6:655:G:H8	1.83	0.43
39:L2:230:VAL:HG21	36:5:2424:A:N1	183.29	0.43
36:5:787:G:H2'	36:5:788:C:C6	2.54	0.43
52:M6:58:LEU:HD12	52:M6:58:LEU:HA	2.08	0.43
70:O4:37:LYS:NZ	36:5:1591:G:OP1	159.97	0.43
86:2:2074:OHX:N3	86:2:2161:OHX:N1	2.66	0.43
34:SR:10:ARG:HG2	34:SR:51:ASP:O	2.17	0.43
36:5:2308:C:O2	86:5:4236:OHX:N1	2.52	0.43
45:L8:204:ARG:HD2	45:L8:206:GLU:OE2	6.90	0.43
46:L9:103:ILE:HD11	46:L9:134:ILE:HB	2.63	0.43
45:L8:75:ILE:C	45:L8:77:GLN:N	3.12	0.43
47:M0:57:LEU:HB3	37:7:93:C:H5'	280.80	0.43
33:E1:123:ASN:O	33:E1:125:THR:N	2.52	0.43
36:5:1627:U:H2'	36:5:1814:A:H62	1.83	0.43
1:2:681:U:C4	1:2:682:C:H5	2.37	0.43
1:6:1354:G:H5'	1:6:1355:C:OP2	2.18	0.43
36:5:1648:A:H2'	36:5:1649:U:O4'	2.18	0.43
36:1:2190:U:C4	36:1:2191:U:C4	3.07	0.43
36:1:643:U:O4	36:1:644:G:C6	2.72	0.43
50:M4:13:ARG:HD2	50:M4:65:LEU:O	2.40	0.43
36:5:595:G:C8	36:5:609:G:C6	3.07	0.43
36:5:3375:A:OP2	86:5:3956:OHX:N3	2.52	0.43
36:1:999:G:N3	36:1:1002:A:N6	2.67	0.43
36:1:2681:U:H1'	48:M1:22:SER:OG	2.19	0.43
65:N9:10:HIS:NE2	36:5:1139:G:O6	225.33	0.43
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.82	0.43
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.49	0.43
7:S5:63:GLN:HG3	7:S5:86:GLN:O	2.60	0.43
1:2:1341:A:OP1	34:SR:63:GLY:HA2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.18	0.43
52:M6:32:LYS:HA	52:M6:101:ARG:HB3	2.00	0.43
36:5:438:A:H4'	36:5:439:C:OP2	2.19	0.43
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	2.68	0.43
53:M7:111:LYS:HB2	53:M7:152:GLU:HB3	2.01	0.43
11:S9:146:PHE:HZ	1:6:765:G:C2	429.97	0.43
11:S9:148:VAL:HG11	11:S9:156:ILE:HD11	2.00	0.43
86:5:4019:OHX:N2	86:5:4214:OHX:N5	2.67	0.43
1:6:1258:U:H5	1:6:1259:U:C2	2.37	0.43
1:2:862:A:C2	1:2:963:A:C4	3.07	0.43
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.54	0.43
36:5:892:U:OP2	86:5:3915:OHX:N6	2.52	0.43
6:S4:187:ARG:HH12	1:6:752:A:H3'	377.42	0.43
49:M3:54:LEU:HD13	49:M3:75:PHE:CE2	2.53	0.43
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.19	0.43
2:S0:13:ASP:CG	2:S0:179:ARG:HH22	2.85	0.43
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.19	0.43
1:6:86:A:O2'	1:6:87:C:H5'	2.19	0.43
7:S5:92:ARG:NH1	7:S5:92:ARG:HG2	2.27	0.43
1:6:1541:G:C6	1:6:1542:G:N1	2.86	0.43
20:C8:82:PRO:HG3	21:C9:36:ILE:HD12	2.90	0.43
57:N1:39:ILE:HG21	57:N1:101:CYS:SG	2.58	0.43
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.18	0.43
20:C8:87:ASN:OD1	20:C8:88:ARG:N	3.05	0.43
5:S3:70:THR:HG23	5:S3:86:LEU:HD22	2.01	0.43
15:C3:16:ILE:HG13	15:C3:62:GLN:OE1	3.84	0.43
36:1:1742:U:H2'	36:1:1743:G:H8	1.83	0.43
19:C7:4:VAL:HA	1:6:1402:G:OP1	404.37	0.43
49:M3:89:TYR:CE2	49:M3:93:ILE:HD11	2.54	0.43
68:O2:34:LYS:O	68:O2:36:LYS:HG2	2.28	0.43
62:N6:31:LEU:HB3	62:N6:101:PRO:HG3	2.22	0.43
39:L2:92:LYS:HA	39:L2:103:PRO:CD	2.96	0.43
42:L5:160:PHE:CE2	42:L5:179:ARG:HB3	2.53	0.43
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.78	0.43
36:5:135:C:H6	36:5:135:C:OP2	2.02	0.43
36:1:1786:G:H2'	36:1:1787:A:C8	2.54	0.43
39:L2:136:ILE:HA	39:L2:148:VAL:HG12	2.00	0.43
36:1:3392:U:H5'	53:M7:56:ARG:NH2	2.34	0.43
1:6:1654:G:H2'	1:6:1745:G:N2	2.34	0.43
1:6:1294:G:C6	1:6:1295:G:N7	2.87	0.43
46:L9:4:ILE:CD1	56:N0:148:LEU:HD21	3.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:142:GLN:HE21	56:N0:142:GLN:HB3	1.54	0.43
48:M1:166:LYS:HE2	48:M1:166:LYS:HB2	2.24	0.43
21:C9:137:ALA:HA	21:C9:140:LEU:HD12	2.01	0.43
21:C9:14:PHE:HE1	21:C9:136:ALA:HB2	2.36	0.43
64:N8:115:LYS:HA	36:5:715:A:H3'	148.88	0.43
52:M6:8:VAL:HG12	52:M6:117:ARG:HB3	2.59	0.43
36:5:2585:G:N3	38:8:151:C:H5	2.17	0.43
13:C1:21:ASN:HD22	13:C1:32:LYS:H	4.61	0.43
38:8:120:C:H2'	38:8:121:U:O4'	2.18	0.43
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.78	0.43
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	2.27	0.43
36:5:1658:G:C4	36:5:1796:G:C6	3.06	0.43
63:N7:81:LEU:HD11	70:O4:90:ILE:HG23	2.00	0.43
33:E1:96:LYS:HD2	33:E1:96:LYS:N	2.34	0.43
1:2:372:G:OP1	24:D2:88:LYS:NZ	2.51	0.43
1:2:1670:G:N7	86:2:2122:OHX:N5	2.67	0.43
1:2:836:U:H2'	1:2:837:G:H8	1.84	0.43
36:5:1332:A:H2'	36:5:1333:C:C6	2.54	0.43
1:2:494:U:O2'	1:2:495:C:O5'	2.34	0.43
36:1:1691:U:H2'	36:1:1692:U:C6	2.53	0.43
1:2:1120:U:H2'	1:2:1121:C:C6	2.54	0.43
21:C9:18:TYR:O	21:C9:22:LEU:HD22	2.19	0.43
33:E1:93:HIS:HB3	33:E1:94:LYS:H	1.40	0.43
36:1:729:C:H2'	36:1:730:C:H6	1.83	0.43
1:2:231:U:O2'	1:2:233:C:OP2	2.36	0.43
41:L4:100:PHE:CD1	36:5:660:A:H5''	141.93	0.43
63:N7:90:GLU:OE1	63:N7:93:LYS:HG3	3.66	0.43
36:1:1716:U:O2'	36:1:1717:U:O5'	2.36	0.43
36:5:395:A:H5''	36:5:396:A:OP2	2.18	0.43
8:S6:158:ILE:HA	8:S6:158:ILE:HD12	1.76	0.43
33:E1:149:LYS:HE3	33:E1:149:LYS:HB2	3.10	0.43
35:SM:139:GLU:HG2	35:SM:140:ASP:N	2.33	0.43
1:6:604:A:OP1	86:6:2151:OHX:N2	2.51	0.43
7:S5:69:PHE:CE2	18:C6:53:LEU:HD12	2.54	0.43
17:C5:43:ARG:HD3	1:6:1553:G:O6	396.28	0.43
20:C8:145:ARG:HD3	35:SM:68:ARG:CZ	3.73	0.43
86:5:4089:OHX:N6	86:7:220:OHX:N3	2.66	0.43
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.77	0.43
2:S0:141:ILE:HG22	2:S0:142:PRO:O	2.19	0.43
28:D6:38:ARG:NE	28:D6:83:ILE:HG13	2.34	0.43
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:87:ASN:OD1	67:O1:87:ASN:N	2.71	0.43
14:C2:61:VAL:HA	14:C2:89:ILE:HG22	2.01	0.43
9:S7:182:VAL:HG12	9:S7:183:PHE:H	1.84	0.43
2:S0:184:LEU:HD13	2:S0:184:LEU:HA	2.04	0.43
52:M6:14:HIS:NE2	52:M6:124:LEU:HD13	2.62	0.43
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.59	0.43
36:1:2101:C:HO2'	36:1:2102:U:P	2.35	0.43
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.19	0.43
7:S5:92:ARG:HB3	7:S5:172:ILE:CD1	2.49	0.43
1:6:565:C:O2	86:6:2159:OHX:N2	2.52	0.43
79:Q3:73:THR:HG22	79:Q3:76:ALA:HB2	2.01	0.43
1:2:1681:A:H1'	8:S6:66:GLY:HA3	2.00	0.43
36:1:3166:C:N4	36:1:3284:G:H1	2.11	0.43
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	2.01	0.43
20:C8:11:PHE:CD1	27:D5:41:ILE:HG21	4.24	0.43
5:S3:42:THR:O	5:S3:44:THR:N	3.42	0.43
36:1:2278:C:OP1	86:1:3962:OHX:N3	2.52	0.43
1:2:1484:G:H21	1:2:1606:C:H1'	1.84	0.43
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	2.49	0.43
1:2:613:G:H4'	1:2:614:C:OP1	2.18	0.43
36:1:2524:A:N1	45:L8:44:ARG:HD2	2.34	0.43
42:L5:267:ALA:O	42:L5:269:SER:N	2.46	0.43
41:L4:31:ARG:HG3	41:L4:120:TYR:HE1	1.84	0.43
49:M3:126:PHE:CD2	71:O5:115:LYS:HG2	3.23	0.43
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.48	0.43
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.19	0.43
44:L7:92:ILE:HD11	54:M8:4:ASP:H	1.84	0.43
1:6:1669:U:OP2	86:6:2191:OHX:N3	2.52	0.43
45:L8:74:THR:HB	45:L8:230:LYS:HZ2	1.80	0.43
1:6:1087:A:H5'	1:6:1298:U:O4	2.18	0.43
61:N5:81:ILE:HG13	61:N5:125:ARG:HA	3.00	0.43
1:6:1371:A:H5'	1:6:1372:U:OP2	2.19	0.43
64:N8:131:SER:HB3	64:N8:134:ALA:CB	4.43	0.43
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	2.36	0.43
63:N7:97:SER:O	63:N7:100:THR:HB	2.19	0.43
69:O3:7:LEU:HD23	69:O3:7:LEU:HA	2.02	0.43
6:S4:24:SER:O	6:S4:24:SER:OG	2.35	0.43
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	2.00	0.43
47:M0:129:VAL:HG13	47:M0:133:GLN:HG2	5.28	0.43
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.54	0.43
34:SR:274:LEU:HD13	34:SR:313:TRP:CE2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:304:U:H2'	1:2:305:C:C6	2.54	0.43
36:5:736:A:H2'	36:5:737:G:O4'	2.19	0.43
36:5:3298:C:H2'	36:5:3299:A:O4'	2.18	0.43
36:1:1054:A:H5''	36:1:2637:A:H61	1.83	0.43
38:8:43:A:OP1	86:8:227:OHX:N3	2.52	0.43
22:D0:33:GLN:O	22:D0:37:VAL:HG23	2.97	0.43
14:C2:132:GLU:HA	14:C2:135:MET:HB2	2.17	0.43
36:5:1770:G:H5'	36:5:1771:C:OP2	2.19	0.43
18:C6:6:SER:HB2	18:C6:23:LYS:HB3	3.69	0.43
37:7:114:U:H2'	37:7:115:G:H8	1.84	0.43
36:5:1539:A:C6	36:5:1583:A:C8	3.07	0.43
1:6:1147:A:H2'	1:6:1148:C:O4'	2.19	0.43
14:C2:136:ILE:HA	14:C2:139:HIS:HB3	2.01	0.43
36:5:359:U:H2'	36:5:360:G:O4'	2.19	0.43
15:C3:142:GLU:HG3	15:C3:145:THR:HG23	2.01	0.43
40:L3:380:MET:HE3	36:5:3369:G:C6	225.18	0.43
1:6:1358:G:H2'	1:6:1359:C:C6	2.54	0.43
1:6:206:A:H1'	1:6:262:U:C2	2.54	0.43
1:6:811:A:N3	1:6:858:G:H1'	2.34	0.43
21:C9:111:ILE:HG23	21:C9:113:ILE:HG12	2.01	0.43
1:2:799:A:O3'	6:S4:201:HIS:NE2	2.52	0.43
38:4:97:A:H2'	38:4:98:U:C6	2.54	0.43
57:N1:31:LEU:HD23	57:N1:31:LEU:HA	1.95	0.43
40:L3:110:LEU:HD12	40:L3:110:LEU:HA	1.81	0.43
40:L3:29:VAL:HG22	40:L3:337:THR:HG21	1.99	0.43
36:5:2764:C:C2	88:5:4249:3K5:C16	3.01	0.42
36:1:1362:G:OP1	86:1:4038:OHX:N6	2.51	0.42
4:S2:52:THR:OG1	4:S2:54:GLU:HG2	2.47	0.42
21:C9:37:VAL:HG11	21:C9:100:ILE:HD11	2.28	0.42
11:S9:150:LEU:HB3	11:S9:151:ASP:H	1.99	0.42
1:2:861:U:H5'	1:2:862:A:OP2	2.18	0.42
20:C8:40:ARG:NH1	1:6:1539:G:O4'	352.88	0.42
20:C8:66:LEU:O	20:C8:70:VAL:HG23	2.19	0.42
1:2:190:C:O2'	1:2:191:C:OP2	2.28	0.42
10:S8:60:ILE:HG21	10:S8:179:CYS:HB3	2.01	0.42
8:S6:137:ARG:HD3	8:S6:177:ARG:HE	1.94	0.42
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	4.42	0.42
25:D3:142:LYS:O	25:D3:144:ARG:NH1	9.56	0.42
44:L7:88:ARG:CZ	44:L7:103:LEU:HD13	2.49	0.42
1:6:1429:G:C5	1:6:1430:U:C4	3.07	0.42
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:30:LEU:HD21	31:D9:37:ASN:HA	2.01	0.42
36:5:420:G:OP1	36:5:420:G:OP2	2.37	0.42
1:2:151:G:H21	8:S6:13:GLN:HE22	1.65	0.42
42:L5:261:THR:HG23	42:L5:264:GLN:NE2	2.31	0.42
86:5:4062:OHX:N1	86:5:4140:OHX:N4	2.66	0.42
36:1:1823:A:H2'	36:1:1824:U:C6	2.55	0.42
1:6:5:U:H2'	1:6:6:G:H8	1.84	0.42
31:D9:19:ARG:CD	31:D9:32:ARG:HD2	2.49	0.42
7:S5:194:LEU:HD22	7:S5:194:LEU:HA	1.83	0.42
36:5:3025:C:H2'	36:5:3026:G:O4'	2.19	0.42
70:O4:103:LYS:HA	70:O4:103:LYS:HD3	2.50	0.42
70:O4:103:LYS:O	70:O4:107:GLU:HG3	2.87	0.42
42:L5:4:GLN:CD	42:L5:4:GLN:H	2.20	0.42
2:S0:10:THR:HB	2:S0:11:PRO:HD2	2.00	0.42
1:2:1196:A:C8	1:2:1602:C:H4'	2.54	0.42
34:SR:179:LYS:HD2	34:SR:181:TRP:CZ2	3.92	0.42
47:M0:140:THR:HB	47:M0:141:LYS:H	1.61	0.42
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.87	0.42
1:2:1657:U:C5	36:1:2125:A:O3'	2.72	0.42
21:C9:131:ASP:O	21:C9:135:ILE:HG23	2.63	0.42
8:S6:3:LEU:HA	8:S6:3:LEU:HD23	2.45	0.42
36:1:1100:U:OP2	44:L7:196:LYS:HE2	2.19	0.42
36:5:2512:C:C4	36:5:2513:U:O4	2.72	0.42
35:SM:51:ARG:CZ	35:SM:52:PRO:HD2	6.53	0.42
36:1:1110:U:O4	86:1:3984:OHX:N5	2.52	0.42
25:D3:107:PHE:CE2	25:D3:114:LYS:HB2	2.53	0.42
1:2:527:A:OP2	86:2:2052:OHX:N4	2.52	0.42
36:1:627:U:H4'	36:1:1399:A:O2'	2.19	0.42
61:N5:38:LEU:CD1	61:N5:40:LEU:HD13	2.49	0.42
18:C6:143:ARG:HH22	35:SM:84:LYS:CE	2.32	0.42
36:5:138:U:H2'	36:5:139:G:H8	1.84	0.42
11:S9:54:ARG:HA	11:S9:57:ARG:HE	2.05	0.42
1:6:1309:C:O2	1:6:1401:A:H2	2.02	0.42
64:N8:76:ASP:HB3	64:N8:116:GLY:HA3	6.93	0.42
86:1:3999:OHX:N2	86:3:221:OHX:N5	2.66	0.42
86:5:3998:OHX:N2	86:5:4189:OHX:N1	2.67	0.42
36:5:1052:U:H2'	36:5:1053:A:O4'	2.19	0.42
36:5:638:C:H2'	36:5:639:G:H8	1.84	0.42
1:2:396:G:N2	1:2:398:G:H3'	2.34	0.42
36:5:394:G:N2	36:5:396:A:H3'	2.33	0.42
52:M6:35:VAL:HB	52:M6:104:VAL:HG13	2.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	2.13	0.42
69:O3:70:LYS:HE2	36:5:585:A:OP1	238.04	0.42
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.29	0.42
44:L7:55:TYR:CE2	44:L7:141:TYR:CE2	3.26	0.42
36:1:3296:A:H2'	36:1:3297:U:O4'	2.19	0.42
2:S0:60:ALA:O	2:S0:64:ILE:HG13	2.80	0.42
1:6:1216:C:O2'	1:6:1444:A:N1	2.48	0.42
36:5:731:U:H2'	36:5:732:C:H6	1.84	0.42
1:6:1727:G:H2'	1:6:1728:A:C8	2.54	0.42
1:6:733:A:H2'	1:6:734:A:O4'	2.19	0.42
36:5:3350:C:H2'	36:5:3351:U:O2	2.19	0.42
6:S4:235:TYR:N	6:S4:235:TYR:CD2	3.16	0.42
7:S5:224:ASN:HD22	7:S5:224:ASN:HA	1.59	0.42
36:1:281:G:C6	36:1:282:G:C6	3.08	0.42
1:2:635:A:H2'	1:2:636:A:H8	1.83	0.42
42:L5:206:GLN:NE2	42:L5:210:GLU:OE2	2.52	0.42
1:2:310:C:H4'	25:D3:33:LEU:CD2	2.49	0.42
36:1:1481:A:OP1	36:1:1481:A:O4'	2.38	0.42
71:O5:101:THR:CG2	71:O5:104:GLN:H	2.36	0.42
51:M5:11:GLN:HE21	51:M5:44:ARG:CZ	2.33	0.42
36:1:1560:G:C2	36:1:1580:A:N1	2.86	0.42
4:S2:140:ARG:O	4:S2:140:ARG:HG3	2.18	0.42
44:L7:207:LEU:HD23	44:L7:207:LEU:N	3.13	0.42
24:D2:67:GLY:O	24:D2:69:LEU:N	3.52	0.42
17:C5:33:PHE:O	17:C5:36:LEU:HG	2.19	0.42
22:D0:96:PRO:HD2	22:D0:99:ILE:HG13	5.82	0.42
70:O4:85:VAL:O	70:O4:89:ILE:HG13	2.19	0.42
36:1:107:A:H2'	36:1:108:A:O4'	2.19	0.42
49:M3:73:ARG:HH21	49:M3:73:ARG:HG3	1.83	0.42
40:L3:49:TYR:O	40:L3:80:ASP:N	2.88	0.42
1:2:330:G:H2'	1:2:331:A:C8	2.54	0.42
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.19	0.42
3:S1:178:GLY:HA3	3:S1:187:LYS:NZ	2.34	0.42
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	2.01	0.42
26:D4:112:LYS:O	26:D4:115:ASP:HB2	2.19	0.42
1:2:1719:A:N6	1:2:1720:G:C2	2.87	0.42
31:D9:54:LYS:HE3	31:D9:54:LYS:HB3	1.67	0.42
1:6:1203:A:OP2	86:6:2130:OHX:N4	2.52	0.42
50:M4:15:VAL:HG13	56:N0:150:PHE:O	2.19	0.42
49:M3:105:ASN:OD1	49:M3:105:ASN:C	2.66	0.42
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.26	0.42
64:N8:73:LEU:HD23	64:N8:112:ILE:HD12	2.01	0.42
24:D2:86:ILE:HD11	24:D2:122:SER:OG	8.03	0.42
36:1:378:A:N7	36:1:391:A:H2	2.17	0.42
36:5:3049:A:H2'	36:5:3050:U:O4'	2.18	0.42
1:6:1042:G:N2	1:6:1077:C:O2	2.53	0.42
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.34	0.42
1:2:749:U:H2'	1:2:750:U:C6	2.54	0.42
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.59	0.42
66:O0:38:LYS:C	66:O0:93:LEU:HD23	3.65	0.42
36:5:3279:A:N6	36:5:3280:U:C4	2.87	0.42
36:1:1674:G:C6	36:1:1675:G:C5	3.07	0.42
36:5:3163:A:C6	36:5:3164:C:N4	2.86	0.42
13:C1:21:ASN:ND2	13:C1:31:THR:HA	3.41	0.42
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.24	0.42
34:SR:36:ALA:HB1	34:SR:68:VAL:HB	2.40	0.42
8:S6:12:SER:OG	8:S6:124:LEU:HA	3.22	0.42
5:S3:224:ASP:OD1	34:SR:228:LYS:HD2	2.43	0.42
36:5:529:A:H2'	36:5:530:G:O4'	2.19	0.42
47:M0:89:VAL:HG13	47:M0:136:PHE:CE1	2.54	0.42
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.58	0.42
36:1:1618:G:H2'	36:1:1619:A:O4'	2.19	0.42
43:L6:7:PRO:HG2	43:L6:10:TYR:CZ	2.55	0.42
1:2:1614:A:H2'	1:2:1615:C:H5'	2.01	0.42
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.49	0.42
1:2:635:A:H2'	1:2:636:A:C8	2.54	0.42
36:5:2364:G:H22	36:5:2396:G:H1'	1.83	0.42
36:1:2336:U:H2'	36:1:2337:C:O4'	2.18	0.42
35:SM:97:THR:C	35:SM:99:LYS:H	2.23	0.42
60:N4:86:SER:C	60:N4:88:ASP:H	2.23	0.42
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.54	0.42
36:5:2379:U:H2'	36:5:2380:U:C6	2.54	0.42
1:6:702:G:N7	86:6:2098:OHX:N4	2.66	0.42
1:2:249:U:H3'	1:2:250:C:H5'	2.02	0.42
36:5:1932:A:H5'	36:5:1933:A:OP2	2.19	0.42
8:S6:22:HIS:HA	8:S6:25:ARG:NH1	2.34	0.42
51:M5:203:ARG:HD2	36:5:665:A:OP1	121.88	0.42
39:L2:240:ALA:HA	36:5:2154:U:O3'	218.21	0.42
1:6:926:A:H2'	1:6:927:C:C6	2.54	0.42
1:6:1572:G:H2'	1:6:1572:G:N3	2.34	0.42
41:L4:325:LEU:HD23	41:L4:325:LEU:HA	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1045:C:H6	36:1:1045:C:H5''	1.84	0.42
36:5:3337:G:H8	36:5:3337:G:O5'	2.01	0.42
36:5:1390:A:N3	36:5:1390:A:H5'	2.34	0.42
48:M1:85:LYS:HE3	48:M1:85:LYS:HB2	1.81	0.42
42:L5:5:LYS:HE2	42:L5:5:LYS:HA	2.01	0.42
34:SR:282:SER:H	34:SR:285:ALA:HB3	1.91	0.42
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.20	0.42
7:S5:68:ILE:HD13	7:S5:69:PHE:N	5.32	0.42
36:5:2309:A:H8	36:5:2309:A:OP1	2.02	0.42
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	4.45	0.42
36:1:1899:G:N7	86:1:3937:OHX:N3	2.67	0.42
53:M7:25:SER:CB	53:M7:28:ASN:HB2	3.32	0.42
36:5:314:U:H2'	36:5:315:C:H6	1.81	0.42
10:S8:62:THR:OG1	10:S8:62:THR:O	2.84	0.42
52:M6:27:LEU:HA	52:M6:27:LEU:HD23	1.82	0.42
67:O1:55:LEU:HD23	67:O1:95:PRO:HB3	2.79	0.42
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.88	0.42
21:C9:38:LYS:O	21:C9:39:THR:OG1	2.37	0.42
11:S9:141:VAL:HG11	11:S9:146:PHE:CD2	2.92	0.42
41:L4:222:VAL:HA	41:L4:223:PRO:HD3	2.10	0.42
24:D2:27:ILE:HB	24:D2:61:ILE:HB	4.43	0.42
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	2.02	0.42
50:M4:8:LYS:HB3	50:M4:9:ALA:H	1.47	0.42
57:N1:15:PHE:CD1	57:N1:52:MET:HE2	4.91	0.42
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	2.01	0.42
36:5:2211:U:OP2	86:5:4220:OHX:N1	2.53	0.42
1:2:541:A:O2'	1:2:542:A:H4'	2.19	0.42
42:L5:57:ASN:O	42:L5:58:LYS:HB2	2.18	0.42
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.48	0.42
33:E1:144:CYS:C	33:E1:146:SER:H	2.54	0.42
44:L7:103:LEU:HG	44:L7:130:ILE:HD11	5.17	0.42
40:L3:239:PRO:O	40:L3:242:THR:HG23	2.20	0.42
36:1:1711:C:H2'	36:1:1712:G:O4'	2.19	0.42
42:L5:131:LEU:HA	42:L5:131:LEU:HD13	3.43	0.42
2:S0:41:ARG:HG2	2:S0:42:PRO:HD2	2.34	0.42
68:O2:33:ARG:HH22	36:5:1408:G:P	159.41	0.42
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.32	0.42
36:1:600:G:H5''	36:1:600:G:H8	1.84	0.42
74:O8:12:LEU:HA	74:O8:12:LEU:HD22	1.84	0.42
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	2.01	0.42
1:2:647:G:N2	1:2:687:G:N2	2.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:146:LEU:HG	42:L5:163:LEU:HD23	2.01	0.42
36:1:30:G:P	51:M5:172:ARG:HE	2.41	0.42
29:D7:65:THR:O	29:D7:67:THR:HG23	6.19	0.42
1:2:792:U:H2'	1:2:793:A:H5'	2.01	0.42
1:6:72:A:H5'	1:6:73:U:OP2	2.18	0.42
1:2:17:C:H2'	1:2:18:C:C6	2.54	0.42
48:M1:60:ARG:NH1	78:Q2:105:GLN:HA	5.22	0.42
11:S9:79:ARG:HA	11:S9:82:ARG:HB2	2.01	0.42
42:L5:140:ARG:HD3	36:5:1080:A:OP1	225.84	0.42
1:2:61:A:C6	1:2:62:A:C6	3.07	0.42
1:2:709:C:C4	1:2:710:U:H1'	2.54	0.42
46:L9:90:MET:CE	46:L9:181:VAL:HG23	2.85	0.42
36:5:361:A:N3	36:5:814:U:H1'	2.33	0.42
47:M0:9:TYR:HB3	47:M0:97:LEU:HD13	2.43	0.42
36:5:345:G:OP1	36:5:1429:G:N2	2.51	0.42
14:C2:78:LEU:HD21	33:E1:114:VAL:HG11	2.57	0.42
51:M5:173:GLY:HA3	51:M5:183:THR:OG1	2.19	0.42
1:6:29:U:O2'	1:6:30:G:H5'	2.18	0.42
1:2:1166:A:H2'	1:2:1167:G:O4'	2.19	0.42
36:1:671:U:H2'	36:1:672:A:C8	2.54	0.42
36:1:1854:C:OP2	86:1:4039:OHX:N5	2.53	0.42
36:1:517:G:P	44:L7:60:ARG:HH22	2.43	0.42
47:M0:65:LEU:HA	47:M0:65:LEU:HD23	2.14	0.42
39:L2:200:ARG:HD2	39:L2:200:ARG:HH21	1.69	0.42
51:M5:119:TYR:OH	51:M5:131:GLU:OE1	2.50	0.42
36:1:2379:U:H2'	36:1:2380:U:C6	2.53	0.42
36:5:1627:U:H2'	36:5:1814:A:N6	2.34	0.42
46:L9:45:PHE:CD1	46:L9:55:VAL:HG13	3.85	0.42
70:O4:83:ASN:ND2	36:5:1709:C:OP1	212.90	0.42
36:1:831:G:O2'	36:1:1864:A:N3	2.41	0.42
36:1:1694:U:H2'	36:1:1695:U:C6	2.54	0.42
54:M8:109:GLY:O	54:M8:112:ALA:HB3	2.19	0.42
36:5:54:C:O2'	36:5:1547:G:H1'	2.19	0.42
1:6:711:U:C2	1:6:728:U:C2	3.07	0.42
1:6:1628:U:H2'	1:6:1629:G:C8	2.55	0.42
41:L4:162:THR:HA	41:L4:218:ALA:O	2.18	0.42
45:L8:247:ASP:O	45:L8:251:LYS:N	3.51	0.42
36:5:830:A:O2'	36:5:1866:C:H2'	2.20	0.42
1:2:601:A:H2'	1:2:602:U:O4'	2.19	0.42
37:7:25:G:H2'	37:7:26:C:O4'	2.19	0.42
1:6:1700:C:O2	1:6:1700:C:H2'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:196:G:N2	36:1:198:A:H3'	2.35	0.42
1:6:63:G:C6	1:6:64:U:C5	3.07	0.42
70:O4:22:VAL:HG12	70:O4:30:LEU:HD22	2.02	0.42
49:M3:87:ALA:O	49:M3:88:ALA:C	2.58	0.42
36:1:3159:C:H2'	36:1:3160:U:O4'	2.18	0.42
7:S5:119:ASP:O	7:S5:123:VAL:HG23	2.50	0.42
10:S8:9:HIS:C	10:S8:9:HIS:CD2	3.33	0.42
4:S2:228:ASN:OD1	4:S2:229:LEU:N	2.52	0.42
14:C2:119:SER:OG	14:C2:120:VAL:N	2.52	0.42
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.30	0.42
43:L6:65:ILE:CD1	43:L6:77:ARG:HB3	2.49	0.42
66:O0:16:LEU:HA	66:O0:16:LEU:HD22	1.71	0.42
34:SR:159:ASN:O	34:SR:161:LYS:N	4.70	0.42
1:2:1585:U:N3	1:2:1611:A:H2	2.09	0.42
18:C6:139:GLN:HA	1:6:1579:U:O2'	360.00	0.42
4:S2:90:THR:HB	4:S2:93:GLY:C	2.40	0.42
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.83	0.42
36:5:2180:G:C6	36:5:2181:C:C4	3.07	0.42
2:S0:185:ARG:CA	23:D1:45:ALA:H	2.32	0.42
48:M1:32:ARG:O	48:M1:36:VAL:HG23	2.20	0.42
20:C8:28:ILE:HA	20:C8:31:ALA:HB3	2.01	0.42
20:C8:28:ILE:O	20:C8:32:LEU:HG	2.19	0.42
1:2:78:A:N3	8:S6:175:ILE:HG12	2.34	0.42
40:L3:166:ILE:O	40:L3:169:THR:HB	2.20	0.42
1:2:72:A:C3'	1:2:73:U:H5''	2.50	0.42
10:S8:99:ALA:HB3	1:6:329:G:H5'	270.80	0.42
1:2:1739:C:H2'	1:2:1740:A:C8	2.54	0.42
47:M0:36:LEU:HD11	47:M0:87:LEU:CD1	4.31	0.42
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	2.01	0.42
3:S1:113:MET:O	3:S1:115:ARG:N	3.22	0.42
27:D5:80:LEU:HD22	27:D5:101:TYR:CE2	3.04	0.42
36:1:594:U:H2'	36:1:609:G:O6	2.20	0.42
1:2:1429:G:O2'	22:D0:74:GLU:HB3	2.20	0.42
47:M0:210:ILE:HG23	47:M0:217:PHE:CE2	2.54	0.42
63:N7:67:LYS:HZ3	63:N7:67:LYS:HG3	2.91	0.42
63:N7:85:TYR:HD2	63:N7:129:TRP:CZ3	3.37	0.42
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	2.02	0.42
1:2:868:G:O2'	1:2:869:A:H5'	2.18	0.42
1:2:868:G:C2	1:2:869:A:C8	3.08	0.42
1:6:784:C:H2'	1:6:785:U:H6	1.83	0.42
2:S0:41:ARG:HB3	2:S0:45:VAL:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:52:LEU:HA	46:L9:52:LEU:HD23	1.88	0.42
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.05	0.42
50:M4:113:THR:HB	50:M4:116:GLU:OE1	2.19	0.42
36:1:1573:G:N2	36:1:1574:C:O2'	2.51	0.42
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.19	0.42
36:5:1556:C:H2'	36:5:2169:G:N1	2.34	0.42
36:1:2746:A:H2	42:L5:146:LEU:HB3	1.84	0.42
45:L8:133:LYS:NZ	36:5:119:U:O3'	103.33	0.42
78:Q2:71:ARG:CZ	78:Q2:80:ARG:HD3	4.07	0.42
36:5:1317:A:C5	36:5:1319:G:C8	3.07	0.42
36:5:1514:G:C6	36:5:1841:A:C5	3.08	0.42
52:M6:182:ASN:O	52:M6:183:ALA:C	3.65	0.42
6:S4:126:VAL:CG2	6:S4:156:VAL:HA	3.04	0.42
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.20	0.42
36:5:3227:A:C2'	36:5:3228:C:H5'	2.49	0.42
1:2:1365:C:H5"	18:C6:28:LEU:HD22	2.00	0.42
1:2:549:G:C2	1:2:550:A:C8	3.07	0.42
8:S6:27:PHE:HB3	8:S6:102:VAL:HG11	2.02	0.42
14:C2:55:GLY:HA2	14:C2:85:LYS:HD3	2.43	0.42
10:S8:113:PHE:O	10:S8:117:TYR:HB2	2.79	0.42
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.70	0.42
12:C0:5:LYS:HG3	12:C0:6:GLU:N	2.34	0.42
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.94	0.42
18:C6:113:ASP:HA	18:C6:116:LEU:HD23	2.00	0.42
1:2:1253:U:H4'	33:E1:143:LYS:N	2.35	0.42
12:C0:10:LYS:HE3	12:C0:36:ASP:HB3	2.02	0.42
9:S7:162:ILE:HB	9:S7:169:PHE:CE2	2.53	0.42
36:1:2902:A:OP1	46:L9:170:LYS:HE3	2.19	0.42
1:6:1212:G:C2	1:6:1213:G:C8	3.07	0.42
42:L5:45:ASN:OD1	57:N1:33:VAL:HG21	2.20	0.42
36:5:187:A:C5	36:5:188:U:C4	3.08	0.42
7:S5:153:GLY:O	7:S5:155:ALA:N	2.52	0.42
36:1:1187:C:C4	36:1:1188:U:C5	3.07	0.42
39:L2:224:THR:HA	39:L2:237:LEU:O	2.51	0.42
34:SR:266:ASP:HA	34:SR:267:PRO:HA	1.88	0.42
42:L5:34:LYS:HA	57:N1:27:LEU:HD21	2.01	0.42
54:M8:111:ARG:HD2	54:M8:111:ARG:HH11	1.60	0.42
36:1:1504:A:C5	36:1:1505:C:C5	3.07	0.42
36:5:811:U:H2'	36:5:812:G:C8	2.54	0.42
37:3:115:G:H2'	37:3:116:C:H6	1.84	0.42
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:371:G:H2'	1:6:372:G:O4'	2.19	0.42
44:L7:47:ARG:O	44:L7:50:ALA:N	3.56	0.42
50:M4:93:LYS:HE3	50:M4:93:LYS:HB2	1.79	0.42
64:N8:43:ILE:HD13	64:N8:43:ILE:HG21	1.75	0.42
52:M6:192:LYS:O	52:M6:195:ALA:HB3	2.30	0.42
36:5:2708:C:H2'	36:5:2709:C:C6	2.54	0.42
36:5:2623:G:H2'	36:5:2624:G:O4'	2.20	0.42
1:2:460:A:H5'	1:2:461:G:OP2	2.19	0.42
78:Q2:12:CYS:SG	78:Q2:17:CYS:CB	3.19	0.42
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.52	0.42
86:5:3976:OHX:N4	86:5:4195:OHX:N1	2.67	0.42
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.46	0.42
36:1:2794:G:N2	88:1:4221:3K5:H41	2.34	0.42
67:O1:10:ARG:NH1	67:O1:12:TYR:OH	2.90	0.42
67:O1:51:LEU:HD22	67:O1:55:LEU:CD1	2.48	0.42
44:L7:110:ARG:HB2	54:M8:2:GLY:O	2.20	0.42
55:M9:130:ASN:O	55:M9:131:ALA:HB3	2.19	0.42
36:5:1152:G:N2	36:5:1200:A:N6	2.58	0.42
13:C1:99:ARG:HB3	25:D3:9:LEU:O	2.19	0.42
42:L5:150:LEU:HD12	48:M1:143:ARG:HG3	2.50	0.42
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	2.65	0.42
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.43	0.42
4:S2:90:THR:N	4:S2:93:GLY:O	2.53	0.42
22:D0:50:LEU:O	22:D0:51:VAL:HG13	4.61	0.42
51:M5:176:LYS:HE2	36:5:66:A:N3	97.25	0.42
1:2:823:G:O2'	1:2:824:G:O4'	2.34	0.42
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.30	0.42
1:2:74:U:O2'	1:2:75:U:OP2	2.27	0.42
10:S8:26:LYS:HD2	10:S8:29:LEU:CD1	2.47	0.42
1:2:333:A:H5'	10:S8:48:THR:HB	2.00	0.42
2:S0:63:ILE:O	2:S0:66:ALA:HB3	2.19	0.42
7:S5:172:ILE:HG22	7:S5:173:ALA:N	2.33	0.42
40:L3:250:ALA:HB1	36:5:2947:G:N3	218.61	0.42
40:L3:153:LYS:HD3	40:L3:154:TYR:CZ	2.55	0.42
36:5:1144:U:H1'	36:5:1145:G:C8	2.55	0.42
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	2.02	0.42
20:C8:87:ASN:OD1	20:C8:99:HIS:HA	2.30	0.42
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.28	0.42
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.86	0.42
42:L5:279:LYS:HD3	42:L5:282:ARG:HH22	4.63	0.42
9:S7:98:ILE:HG13	1:6:694:U:C4	373.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:212:U:OP2	86:6:2125:OHX:N1	2.52	0.42
36:1:3059:G:H2'	36:1:3060:C:H6	1.85	0.42
36:5:135:C:H4'	36:5:136:G:OP2	2.18	0.42
1:2:946:U:H2'	1:2:947:U:O4'	2.18	0.42
48:M1:152:HIS:HB2	37:7:56:A:H4'	326.46	0.42
52:M6:73:PHE:CG	52:M6:78:ARG:HG2	2.53	0.42
1:6:906:A:H2	1:6:998:A:HO2'	1.65	0.42
58:N2:47:VAL:H	58:N2:47:VAL:HG22	2.08	0.42
45:L8:230:LYS:HA	45:L8:230:LYS:HD2	1.80	0.42
21:C9:9:VAL:HB	21:C9:14:PHE:HB2	2.68	0.42
1:6:774:A:C5	1:6:775:G:H1'	2.55	0.42
15:C3:136:PRO:O	15:C3:138:ASN:N	3.21	0.42
57:N1:160:ILE:HG23	57:N1:160:ILE:HD12	1.80	0.42
55:M9:90:PRO:HG2	55:M9:93:VAL:HG23	3.14	0.42
36:5:1657:C:C5	36:5:1797:A:H5''	2.55	0.42
51:M5:38:ARG:HH21	51:M5:60:VAL:HG13	1.84	0.42
15:C3:75:LEU:HD23	15:C3:80:LEU:HB3	2.68	0.42
55:M9:35:ALA:HB1	55:M9:41:ILE:HD12	2.00	0.42
36:1:1438:U:H2'	36:1:1439:U:H6	1.84	0.42
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.44	0.42
39:L2:200:ARG:HG3	39:L2:200:ARG:H	2.01	0.42
22:D0:43:LYS:NZ	22:D0:47:GLN:HG3	6.24	0.42
36:5:407:A:O2'	36:5:1397:C:OP1	2.37	0.42
36:5:2424:A:O5'	36:5:2424:A:H8	2.02	0.42
20:C8:8:GLN:HB2	20:C8:9:GLY:H	1.66	0.42
52:M6:55:HIS:HA	52:M6:58:LEU:HB2	2.00	0.42
66:O0:87:VAL:HB	36:5:1728:G:O2'	249.91	0.42
36:1:533:A:OP2	86:1:4065:OHX:N5	2.52	0.42
36:1:192:C:H2'	36:1:193:C:C6	2.54	0.42
67:O1:71:LEU:HA	67:O1:71:LEU:HD23	1.73	0.42
37:3:11:A:H2	37:3:67:G:N3	2.17	0.42
1:6:11:A:C6	1:6:12:U:C5	3.08	0.42
1:2:836:U:H2'	1:2:837:G:C8	2.55	0.42
8:S6:202:ARG:NH2	1:6:127:G:N7	329.47	0.42
70:O4:57:LEU:HB3	70:O4:61:GLN:HB2	2.13	0.42
36:5:643:U:O2'	36:5:1153:A:N1	2.45	0.42
36:5:2733:A:H2'	36:5:2734:A:O4'	2.20	0.42
36:1:1449:A:C2	36:1:2356:A:C4	3.07	0.42
65:N9:41:ARG:O	65:N9:44:LYS:HB3	2.20	0.42
64:N8:104:THR:OG1	64:N8:127:ALA:HB2	2.54	0.42
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:286:VAL:HA	41:L4:289:ILE:HG13	2.01	0.42
20:C8:112:ASP:OD2	1:6:1547:A:H5'	357.33	0.42
1:2:432:G:H2'	1:2:433:C:O4'	2.19	0.42
55:M9:182:ASP:N	55:M9:182:ASP:OD1	2.52	0.42
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.03	0.42
36:1:199:A:C4	36:1:201:A:C8	3.08	0.42
18:C6:46:PHE:HA	18:C6:49:TYR:CD2	2.54	0.42
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.78	0.42
53:M7:25:SER:OG	36:5:1447:G:N7	150.08	0.42
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.53	0.42
10:S8:22:ARG:HB2	10:S8:25:ARG:NH2	2.33	0.42
1:6:1565:C:H2'	1:6:1566:U:O4'	2.20	0.42
36:1:915:A:C5	36:1:917:A:H1'	2.55	0.42
24:D2:10:ALA:O	24:D2:14:ILE:HG13	2.20	0.42
12:C0:38:LYS:HB2	12:C0:41:TYR:CD1	2.54	0.42
9:S7:38:LEU:H	9:S7:40:PRO:HD2	1.84	0.42
1:2:704:C:H4'	1:2:705:U:OP1	2.20	0.42
1:6:509:G:O5'	1:6:509:G:H8	2.02	0.42
1:6:1039:A:O2'	1:6:1040:G:P	2.78	0.42
56:N0:166:LYS:O	56:N0:167:ARG:CB	2.67	0.42
54:M8:178:ARG:HD2	54:M8:178:ARG:HA	2.19	0.42
21:C9:75:LYS:HE2	1:6:1520:U:OP2	418.31	0.42
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.54	0.42
3:S1:110:LEU:O	3:S1:113:MET:N	2.53	0.42
55:M9:176:ARG:HA	55:M9:176:ARG:HD3	1.77	0.42
36:1:368:G:C2	36:1:369:A:N7	2.87	0.42
1:6:1316:G:H2'	1:6:1317:C:H6	1.85	0.42
24:D2:11:LEU:HD22	24:D2:72:CYS:O	2.20	0.42
6:S4:77:ARG:HD2	6:S4:82:TYR:CD1	5.29	0.42
1:6:1698:G:H1'	1:6:1699:G:OP1	2.19	0.42
1:6:271:A:H5'	1:6:272:U:P	2.60	0.42
53:M7:127:ARG:O	53:M7:139:TYR:N	2.70	0.42
36:5:1597:C:H2'	36:5:1598:G:C8	2.54	0.42
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.20	0.42
14:C2:87:PRO:HA	14:C2:140:PHE:CZ	3.17	0.42
1:6:1673:G:O5'	1:6:1673:G:H8	2.02	0.42
34:SR:182:ASN:O	34:SR:186:PHE:HA	2.19	0.42
36:1:795:G:O2'	36:1:796:U:H5'	2.19	0.42
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.23	0.42
2:S0:135:GLU:O	2:S0:138:TYR:HB2	2.34	0.42
1:2:499:U:H1'	1:2:500:C:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:178:LEU:O	41:L4:182:LEU:HD23	2.20	0.42
37:7:23:A:H2'	37:7:24:A:C8	2.55	0.42
7:S5:135:ASP:HB3	7:S5:202:ALA:O	2.19	0.42
44:L7:89:ILE:HG23	44:L7:219:LYS:HE3	2.02	0.42
36:5:213:A:C2	36:5:214:G:H1'	2.55	0.42
36:1:2601:A:H2'	36:1:2602:G:C8	2.52	0.42
48:M1:19:LEU:HD12	48:M1:69:VAL:HG13	2.01	0.42
1:2:1230:A:H2'	1:2:1258:U:C5	2.54	0.42
36:5:1481:A:O3'	36:5:1858:A:O2'	2.32	0.42
5:S3:38:GLU:HB3	5:S3:49:ILE:HD12	3.56	0.42
36:1:3153:U:H6	36:1:3154:C:H5	1.67	0.42
44:L7:116:PHE:CZ	44:L7:144:ILE:HG12	2.54	0.42
61:N5:137:ASN:HA	61:N5:141:TYR:H	3.17	0.42
53:M7:3:ARG:HB3	53:M7:3:ARG:HE	1.42	0.42
61:N5:51:VAL:HG21	71:O5:62:GLN:HB3	2.01	0.42
13:C1:36:LYS:HD3	1:6:248:U:H4'	311.82	0.42
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.50	0.42
70:O4:4:ARG:HD2	36:5:1485:G:N2	151.59	0.42
5:S3:29:LEU:HD21	5:S3:69:LEU:HD21	3.99	0.42
1:6:334:G:H2'	1:6:335:U:C6	2.55	0.42
54:M8:122:ILE:HG23	54:M8:126:GLN:CB	2.77	0.42
59:N3:15:LEU:HA	59:N3:53:SER:HB3	2.28	0.42
55:M9:90:PRO:O	55:M9:94:VAL:HG23	2.41	0.42
73:O7:76:ASN:HB3	73:O7:79:GLN:HG2	2.02	0.42
44:L7:77:VAL:HG23	44:L7:77:VAL:O	2.20	0.42
1:2:525:A:H3'	1:2:526:A:H8	1.84	0.42
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.54	0.42
1:2:1101:G:H5''	24:D2:76:SER:HB3	2.01	0.42
57:N1:40:VAL:HB	57:N1:96:ILE:HD12	3.12	0.42
36:5:612:U:H2'	36:5:613:G:C8	2.53	0.42
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.20	0.42
66:O0:78:GLY:CA	66:O0:87:VAL:HG13	2.49	0.42
78:Q2:32:LYS:O	78:Q2:33:ALA:HB3	4.53	0.42
86:5:4200:OHX:N2	86:8:227:OHX:N1	2.67	0.42
36:5:2722:U:H2'	36:5:2723:U:H6	1.82	0.42
22:D0:33:GLN:OE1	22:D0:33:GLN:N	2.62	0.42
1:2:577:G:O6	35:SM:100:THR:HG22	2.20	0.42
70:O4:83:ASN:OD1	70:O4:83:ASN:N	3.95	0.42
54:M8:111:ARG:O	54:M8:115:VAL:HG23	2.20	0.42
36:1:661:G:OP2	64:N8:12:ARG:NH2	2.52	0.42
9:S7:174:ASN:O	9:S7:178:GLY:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:767:U:H1'	36:1:768:C:C6	2.55	0.42
6:S4:138:TYR:HA	6:S4:148:ARG:HA	2.92	0.42
40:L3:283:TYR:CE1	40:L3:354:VAL:HG11	2.93	0.42
9:S7:83:LYS:C	9:S7:85:PHE:H	2.22	0.42
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.85	0.42
36:5:2993:G:C6	36:5:3142:A:C4	3.08	0.42
78:Q2:69:VAL:HG22	78:Q2:84:THR:HB	2.00	0.42
56:N0:5:LYS:HD3	56:N0:63:GLN:NE2	3.37	0.42
1:6:1079:U:H2'	1:6:1080:U:O4'	2.19	0.42
36:5:1460:A:H2'	36:5:1461:A:C8	2.55	0.42
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	2.02	0.42
4:S2:222:TYR:OH	23:D1:12:TYR:O	2.38	0.42
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.21	0.42
50:M4:42:LYS:HE2	50:M4:42:LYS:HB3	4.36	0.42
4:S2:162:CYS:SG	4:S2:212:LYS:HD3	3.03	0.42
66:O0:34:LEU:HA	66:O0:34:LEU:HD13	1.84	0.42
20:C8:101:LEU:HA	20:C8:101:LEU:HD23	1.84	0.42
44:L7:184:LEU:HA	44:L7:184:LEU:HD23	1.80	0.42
34:SR:188:ILE:HG13	34:SR:189:GLU:H	1.84	0.42
54:M8:24:VAL:HG23	54:M8:25:TYR:CD2	2.55	0.42
1:6:1674:C:H2'	1:6:1675:C:C6	2.54	0.42
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.20	0.42
36:5:524:U:H2'	36:5:525:C:H5'	2.01	0.42
88:5:4249:3K5:O15	88:5:4249:3K5:O13	2.27	0.42
36:1:2762:A:OP2	86:1:3940:OHX:N1	2.53	0.42
10:S8:21:PHE:CD1	10:S8:22:ARG:HG2	4.33	0.42
10:S8:85:PRO:HA	13:C1:11:ARG:HE	1.84	0.42
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.18	0.42
11:S9:171:ARG:O	11:S9:175:ARG:HB2	2.20	0.42
34:SR:24:ALA:HB1	34:SR:73:LEU:HG	2.02	0.42
17:C5:33:PHE:O	17:C5:36:LEU:HD22	4.83	0.42
5:S3:113:LEU:HD21	5:S3:117:ARG:NH1	2.26	0.42
5:S3:117:ARG:NE	35:SM:126:ASP:O	7.93	0.42
4:S2:235:LEU:HD11	23:D1:54:ALA:HB2	2.02	0.42
1:2:187:G:OP2	10:S8:142:LYS:NZ	2.52	0.42
1:2:76:A:H2'	1:2:80:A:N6	2.35	0.42
36:5:2987:A:H2'	36:5:2988:C:C6	2.55	0.42
74:O8:13:GLU:HG3	74:O8:13:GLU:H	2.64	0.42
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.19	0.42
42:L5:56:THR:OG1	42:L5:59:ASP:HB3	2.19	0.42
25:D3:144:ARG:HG3	25:D3:144:ARG:H	1.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1911:A:H2	36:5:2122:G:C8	2.38	0.42
7:S5:161:ASP:OD2	30:D8:42:ARG:NH2	2.47	0.42
1:6:625:C:H2'	1:6:626:U:C6	2.55	0.42
26:D4:36:SER:O	26:D4:40:LEU:HG	2.20	0.42
1:2:226:A:H61	1:2:835:U:H3	1.66	0.42
36:1:1559:A:OP1	61:N5:33:ARG:HG2	2.19	0.42
63:N7:74:VAL:HG23	63:N7:101:PHE:CE1	2.54	0.42
49:M3:105:ASN:CG	49:M3:108:ILE:HG12	4.51	0.42
86:5:4008:OHX:N3	86:5:4197:OHX:N1	2.67	0.42
31:D9:5:ASN:CG	31:D9:7:TRP:NE1	2.71	0.42
36:1:1719:G:N7	55:M9:121:HIS:HE1	2.17	0.42
39:L2:61:VAL:HG12	39:L2:63:PHE:CE1	2.54	0.42
36:1:1277:C:O2'	36:1:1278:A:C8	2.73	0.42
36:1:1231:A:N1	36:1:1279:C:N4	2.67	0.42
54:M8:175:ALA:HB2	64:N8:56:VAL:HG12	2.21	0.42
38:4:16:G:O6	86:4:224:OHX:N3	2.53	0.42
1:2:694:U:H3'	1:2:695:U:C6	2.54	0.42
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	2.01	0.42
86:6:2125:OHX:N2	86:6:2150:OHX:N1	2.68	0.42
46:L9:1:MET:O	46:L9:2:LYS:HB2	2.20	0.42
1:2:269:G:C6	1:2:287:G:C6	3.07	0.42
1:2:711:U:H4'	1:2:712:G:OP1	2.18	0.42
46:L9:90:MET:HE1	46:L9:179:ILE:HG22	2.02	0.42
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	2.00	0.42
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.29	0.42
42:L5:119:TYR:OH	42:L5:141:PRO:HD3	2.20	0.42
1:6:1180:C:C4	1:6:1181:U:C4	3.08	0.42
34:SR:169:ILE:HG13	34:SR:181:TRP:HB2	2.01	0.42
36:5:3017:A:H2'	36:5:3018:C:C6	2.55	0.42
79:Q3:70:THR:HG23	79:Q3:71:VAL:N	3.61	0.42
21:C9:135:ILE:HA	21:C9:138:GLN:HB2	2.01	0.42
36:1:1465:A:H2'	36:1:1466:G:O4'	2.20	0.42
1:2:549:G:N3	1:2:550:A:C8	2.88	0.42
56:N0:23:LYS:HE3	56:N0:25:PHE:HZ	1.83	0.42
16:C4:45:GLY:HA2	16:C4:54:GLU:HG2	2.51	0.42
36:1:651:G:C6	36:1:652:G:C6	3.08	0.42
57:N1:54:HIS:NE2	36:5:2724:U:H4'	228.92	0.42
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.20	0.42
1:2:1445:G:C4	33:E1:91:ILE:HB	2.54	0.42
8:S6:164:LYS:HG3	8:S6:165:GLY:N	4.58	0.42
36:5:1813:A:OP1	36:5:1817:G:H4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:115:ILE:CG1	55:M9:119:LEU:HD23	2.50	0.42
39:L2:80:GLU:N	39:L2:168:VAL:O	2.45	0.42
36:5:2919:A:N1	36:5:2927:C:O2	2.53	0.42
37:3:121:U:C2	42:L5:268:GLU:HB3	2.55	0.42
24:D2:32:LYS:HG3	1:6:637:C:O5'	362.98	0.42
70:O4:11:ASN:C	70:O4:11:ASN:OD1	3.08	0.42
48:M1:12:LEU:HA	48:M1:12:LEU:HD13	1.81	0.42
2:S0:101:ARG:NH2	2:S0:104:PRO:HD3	2.34	0.42
36:5:1769:G:C2	36:5:1770:G:C8	3.08	0.42
1:6:1324:G:N7	86:6:2103:OHX:N2	2.67	0.42
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.35	0.42
40:L3:366:GLY:HA2	36:5:3086:A:H4'	219.40	0.42
1:2:939:A:H2'	1:2:940:A:C8	2.55	0.42
36:1:2166:A:OP2	51:M5:76:PRO:HA	2.20	0.42
36:5:1621:A:H2'	36:5:1622:U:C6	2.55	0.42
36:5:629:U:H2'	36:5:630:A:C8	2.55	0.42
74:O8:29:LYS:O	74:O8:30:LYS:HG3	2.19	0.42
36:1:2353:G:C5	36:1:2354:C:C5	3.06	0.42
6:S4:33:ALA:O	1:6:121:U:H1'	350.84	0.42
36:1:1706:C:H2'	36:1:1707:A:O4'	2.19	0.42
36:5:845:G:O6	86:5:4033:OHX:N6	2.53	0.42
71:O5:24:LEU:HA	71:O5:24:LEU:HD23	2.31	0.42
25:D3:5:LYS:HG2	25:D3:5:LYS:H	1.44	0.42
1:6:855:A:C2	1:6:857:U:H1'	2.55	0.42
1:2:1556:A:C5	1:2:1560:U:C2	3.08	0.42
53:M7:33:ALA:C	53:M7:35:ALA:N	2.99	0.42
1:2:1551:U:H3'	17:C5:43:ARG:NH2	2.35	0.42
8:S6:163:THR:HG22	8:S6:168:THR:OG1	4.62	0.42
11:S9:130:THR:HB	1:6:475:A:OP1	426.63	0.42
1:6:1382:A:C4	1:6:1383:G:N7	2.88	0.42
57:N1:79:MET:HA	57:N1:84:TYR:HA	2.00	0.42
47:M0:63:GLU:H	47:M0:63:GLU:HG2	1.62	0.42
25:D3:7:ARG:HD2	1:6:1102:G:OP2	352.18	0.42
11:S9:171:ARG:NE	11:S9:171:ARG:HA	2.76	0.42
41:L4:144:LYS:H	41:L4:144:LYS:CE	6.31	0.42
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.19	0.42
70:O4:85:VAL:HA	70:O4:88:ARG:HG3	2.01	0.42
36:1:65:A:C4	36:1:110:G:N7	2.87	0.42
1:6:478:A:H2	1:6:510:G:H22	1.66	0.42
40:L3:167:ARG:O	86:L3:405:OHX:N4	2.52	0.42
9:S7:29:ASN:O	9:S7:30:SER:OG	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:64:ILE:HG13	42:L5:105:ILE:HD12	2.02	0.42
36:1:1238:C:H41	36:1:1245:A:P	2.42	0.42
41:L4:60:THR:HG22	41:L4:61:SER:N	2.35	0.42
47:M0:144:ASN:O	47:M0:145:LYS:C	2.74	0.42
6:S4:71:LYS:HA	6:S4:76:VAL:O	2.19	0.42
64:N8:82:ILE:HG23	64:N8:83:PRO:HD2	2.53	0.42
71:O5:31:LEU:O	71:O5:35:LYS:N	2.83	0.42
42:L5:261:THR:H	42:L5:264:GLN:NE2	2.17	0.42
46:L9:115:ARG:HG2	46:L9:115:ARG:NH1	3.04	0.42
36:1:2766:U:O4	86:1:4043:OHX:N2	2.53	0.42
2:S0:168:HIS:HA	2:S0:203:PHE:HE2	3.43	0.42
36:1:86:G:C5	49:M3:13:HIS:ND1	2.87	0.42
1:2:69:G:H1	1:2:82:U:H3	1.67	0.42
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.04	0.42
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	2.18	0.42
36:5:1513:G:O2'	36:5:1514:G:H5'	2.20	0.42
36:1:1240:A:H1'	36:1:1249:G:H22	1.85	0.42
36:5:956:U:H2'	36:5:957:C:C6	2.55	0.42
48:M1:133:ARG:HB3	48:M1:134:PRO:CD	2.75	0.42
1:6:1492:A:O2'	1:6:1493:A:H8	2.03	0.42
79:Q3:28:LYS:O	79:Q3:32:GLN:HG3	4.37	0.42
58:N2:43:VAL:C	58:N2:45:GLY:N	3.02	0.42
36:5:2405:C:O2	36:5:2819:A:N1	2.53	0.42
1:6:515:A:H2'	1:6:516:G:O4'	2.20	0.42
6:S4:250:GLU:O	6:S4:254:ARG:HG3	2.19	0.42
42:L5:51:LEU:HB2	42:L5:144:VAL:CG1	3.25	0.42
1:6:1391:A:H2'	1:6:1392:U:C6	2.54	0.42
47:M0:52:LEU:HD23	47:M0:165:ILE:HG22	2.02	0.42
36:1:3317:U:O2'	86:1:4029:OHX:N3	2.52	0.42
7:S5:103:ASN:HA	7:S5:106:LYS:HD2	2.02	0.42
3:S1:111:ARG:HA	3:S1:111:ARG:HD3	1.86	0.42
59:N3:35:TYR:CD2	59:N3:63:LYS:HE2	2.72	0.42
15:C3:83:GLU:HG3	15:C3:84:ILE:HD13	4.24	0.42
50:M4:24:LYS:HE2	50:M4:25:LYS:CE	2.50	0.42
44:L7:80:GLN:HG3	57:N1:136:ARG:HB2	4.51	0.42
56:N0:42:TRP:CZ2	56:N0:58:ILE:HD12	4.66	0.42
36:5:3237:U:H2'	36:5:3238:G:O4'	2.20	0.42
1:2:97:C:H2'	1:2:98:U:C6	2.55	0.42
1:2:579:A:C8	5:S3:178:ARG:HD3	2.55	0.42
5:S3:178:ARG:HE	5:S3:178:ARG:H	1.68	0.42
52:M6:54:TYR:HD2	52:M6:58:LEU:HD22	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:32:LYS:HD3	1:6:638:U:OP2	363.59	0.42
64:N8:10:LYS:HD2	64:N8:10:LYS:HA	2.51	0.42
36:5:160:G:H2'	36:5:161:G:O4'	2.19	0.42
45:L8:215:VAL:O	45:L8:219:ASP:HB2	2.20	0.42
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.69	0.42
35:SM:34:LYS:HE2	36:1:2707:C:OP1	2.19	0.42
36:5:2812:C:H2'	36:5:2813:A:H8	1.84	0.42
1:2:478:A:OP1	32:E0:37:ARG:NH1	2.51	0.42
4:S2:165:VAL:HG11	4:S2:210:THR:HA	2.01	0.42
57:N1:14:MET:HE1	57:N1:55:LYS:O	2.24	0.42
36:1:938:C:OP1	36:1:963:G:H5'	2.19	0.42
64:N8:2:PRO:HG2	64:N8:5:PHE:CE2	2.90	0.42
36:1:3106:A:H2'	36:1:3107:U:O4'	2.19	0.42
36:1:1158:A:H4'	36:1:1330:A:N1	2.35	0.42
1:6:534:A:C5	1:6:535:A:C8	3.07	0.42
36:1:820:A:OP1	86:1:3947:OHX:N5	2.53	0.42
56:N0:100:VAL:HG12	56:N0:101:ALA:N	2.34	0.42
36:1:2576:G:C6	36:1:2577:C:C4	3.07	0.42
5:S3:202:LEU:O	5:S3:204:ASP:N	3.09	0.42
36:5:593:C:C4	36:5:594:U:C4	3.08	0.42
36:1:1926:C:H5'	36:1:1927:G:C5	2.55	0.42
36:1:2686:A:OP2	86:1:3905:OHX:N2	2.53	0.42
16:C4:128:LYS:HD3	28:D6:27:SER:OG	3.47	0.42
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	2.14	0.42
59:N3:102:ILE:HG13	59:N3:110:LYS:HB2	2.02	0.42
40:L3:5:LYS:HG2	40:L3:6:TYR:CD1	2.55	0.42
44:L7:159:GLN:O	44:L7:160:ARG:C	2.56	0.42
88:1:4221:3K5:O	88:1:4221:3K5:H35	2.19	0.42
36:1:2656:A:C4	36:1:2658:G:N7	2.88	0.42
9:S7:141:ARG:NH1	9:S7:149:ILE:HD12	3.47	0.42
6:S4:31:PRO:HD2	6:S4:38:LEU:HD13	2.90	0.42
11:S9:109:LEU:HD22	11:S9:109:LEU:O	2.20	0.42
34:SR:70:ASP:HB2	34:SR:112:SER:HA	2.02	0.42
17:C5:28:MET:CE	17:C5:33:PHE:HB2	2.49	0.42
1:6:1145:U:H2'	1:6:1146:G:O4'	2.20	0.42
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.35	0.42
39:L2:188:LYS:HE2	39:L2:189:TYR:CE1	3.32	0.42
1:2:1533:C:OP1	20:C8:27:LYS:HE3	2.20	0.42
20:C8:65:GLU:HG2	20:C8:68:ARG:NH2	4.52	0.42
34:SR:86:ASP:O	34:SR:88:THR:HG23	2.19	0.42
36:1:1613:A:H2'	36:1:1614:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:82:PHE:CE2	30:D8:49:ARG:HB3	2.55	0.42
47:M0:144:ASN:ND2	47:M0:147:VAL:HB	3.03	0.42
26:D4:112:LYS:HB3	26:D4:112:LYS:HE3	2.51	0.42
36:1:2948:C:O2'	40:L3:242:THR:HG22	2.20	0.42
20:C8:81:ILE:HG23	20:C8:82:PRO:HD2	2.02	0.42
1:6:784:C:H2'	1:6:785:U:C6	2.55	0.42
62:N6:27:ARG:NH1	62:N6:76:LEU:HA	3.18	0.42
36:5:1815:U:O2'	36:5:1816:A:P	2.78	0.42
70:O4:8:ARG:NH2	36:5:1597:C:OP1	136.21	0.42
15:C3:28:LEU:HA	15:C3:28:LEU:HD23	1.71	0.42
36:1:994:G:N2	36:1:1053:A:H2'	2.34	0.42
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.42	0.42
49:M3:13:HIS:NE2	36:5:98:G:N7	139.23	0.42
39:L2:174:ARG:HA	79:Q3:69:TYR:CE2	2.70	0.42
1:2:288:A:H2'	1:2:289:U:C6	2.54	0.42
36:1:955:U:H2'	36:1:956:U:C6	2.55	0.42
46:L9:91:ARG:NH2	46:L9:91:ARG:HG3	2.34	0.42
36:1:2157:G:O6	39:L2:151:PRO:HG2	2.20	0.42
41:L4:22:LEU:HD23	41:L4:22:LEU:HA	1.87	0.42
1:6:621:A:N3	1:6:1107:G:H1'	2.35	0.42
2:S0:54:TRP:O	2:S0:58:VAL:HG23	2.20	0.42
2:S0:9:LEU:HD22	2:S0:9:LEU:O	4.15	0.42
25:D3:42:PRO:HG2	25:D3:122:PHE:HZ	1.84	0.42
36:1:210:U:C2	36:1:230:U:H4'	2.55	0.42
18:C6:30:LYS:HZ3	1:6:1366:U:P	427.47	0.42
36:1:715:A:H3'	64:N8:115:LYS:HG2	2.00	0.42
8:S6:74:LYS:HE2	8:S6:96:SER:OG	3.09	0.42
45:L8:172:LYS:C	45:L8:174:GLY:H	2.23	0.42
6:S4:246:LEU:HB2	6:S4:251:GLU:HG2	3.33	0.42
37:3:73:C:C2	56:N0:13:ARG:NH1	2.88	0.42
36:5:3160:U:H2'	36:5:3161:C:C6	2.55	0.42
1:6:985:G:C5	1:6:986:G:C8	3.07	0.42
41:L4:98:ARG:HB3	41:L4:98:ARG:CZ	3.31	0.42
17:C5:56:PHE:CE2	17:C5:78:THR:HB	2.55	0.42
36:1:1109:U:H2'	36:1:1110:U:O4'	2.19	0.42
14:C2:97:LEU:HD23	14:C2:97:LEU:HA	2.86	0.42
43:L6:18:LEU:HB3	36:5:591:G:N2	219.86	0.42
51:M5:60:VAL:O	51:M5:61:ILE:HD13	2.20	0.42
1:6:166:C:OP2	86:6:2170:OHX:N4	2.53	0.42
53:M7:52:LEU:HD13	53:M7:52:LEU:HA	2.76	0.42
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:209:HIS:ND1	6:S4:219:VAL:HG22	2.35	0.42
7:S5:51:VAL:HG21	7:S5:130:ILE:HG23	2.99	0.42
86:1:3965:OHX:N5	86:1:4145:OHX:N6	2.68	0.42
78:Q2:9:LYS:HB2	78:Q2:9:LYS:HE3	1.83	0.42
49:M3:53:LEU:HA	49:M3:53:LEU:HD23	2.57	0.42
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.39	0.42
36:1:2111:G:H5''	60:N4:48:ARG:CZ	2.49	0.42
45:L8:161:GLU:HA	45:L8:164:VAL:CG2	2.84	0.42
21:C9:77:ASN:HB3	21:C9:95:ASP:HB3	2.39	0.42
1:2:194:U:O2'	1:2:195:G:O2'	2.37	0.42
45:L8:159:PRO:HG3	51:M5:43:THR:O	4.15	0.42
24:D2:106:THR:C	24:D2:108:ALA:H	2.89	0.42
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.36	0.42
13:C1:95:PRO:O	13:C1:98:ASN:N	2.51	0.42
36:5:3134:A:OP1	86:5:3923:OHX:N5	2.53	0.42
30:D8:11:LYS:O	30:D8:31:GLU:N	2.59	0.42
36:1:506:U:H2'	36:1:507:U:O4'	2.20	0.42
57:N1:36:VAL:HA	57:N1:64:VAL:HG12	2.06	0.42
36:1:3200:G:O6	86:1:4133:OHX:N4	2.53	0.42
36:1:3022:G:O2'	36:1:3031:G:O6	2.24	0.42
1:2:1604:U:C4	1:2:1605:G:N7	2.88	0.42
1:2:1059:U:O2'	1:2:1060:U:C2	2.72	0.42
9:S7:164:TYR:CE1	9:S7:165:LYS:HG2	2.54	0.42
56:N0:157:GLN:HG2	56:N0:157:GLN:H	1.50	0.42
36:1:3158:G:H22	36:1:3292:A:H2	1.67	0.42
36:1:709:A:P	54:M8:179:ARG:HH22	2.43	0.42
36:1:3348:G:H2'	36:1:3349:C:C6	2.54	0.42
42:L5:81:HIS:O	42:L5:84:PRO:HD2	2.20	0.42
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.20	0.42
36:1:1369:A:H2'	36:1:1370:G:O4'	2.18	0.42
36:5:240:U:OP2	36:5:240:U:H6	2.03	0.42
86:2:2089:OHX:N1	86:2:2130:OHX:N4	2.68	0.42
47:M0:189:GLU:HA	47:M0:200:LEU:HB3	2.00	0.42
1:2:79:C:H4'	8:S6:173:PRO:O	2.20	0.42
86:1:4085:OHX:N4	86:1:4156:OHX:N1	2.68	0.42
10:S8:61:GLU:OE2	10:S8:77:ARG:NH2	10.18	0.42
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.19	0.42
36:5:2572:C:H1'	36:5:2573:G:O5'	2.20	0.42
44:L7:110:ARG:NH2	54:M8:3:ILE:HD12	2.81	0.42
55:M9:132:PHE:CZ	55:M9:138:LEU:HD23	2.54	0.42
55:M9:146:LYS:HD2	55:M9:146:LYS:HA	4.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3197:G:H3'	36:5:3197:G:C8	2.55	0.42
44:L7:151:ARG:HH11	44:L7:244:ASN:HD22	1.66	0.42
1:2:1207:C:H4'	1:2:1208:A:O5'	2.20	0.42
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.55	0.42
17:C5:22:LEU:HA	17:C5:25:LEU:CD1	3.52	0.42
17:C5:26:LEU:HD23	17:C5:87:PRO:HB2	8.05	0.42
16:C4:80:HIS:HB3	16:C4:114:ARG:O	2.20	0.42
36:5:1114:U:C4	36:5:1115:G:N7	2.88	0.42
43:L6:65:ILE:HB	43:L6:77:ARG:O	5.38	0.42
39:L2:209:HIS:ND1	39:L2:210:PRO:HD2	3.55	0.42
25:D3:51:GLY:O	25:D3:101:GLU:HA	3.25	0.42
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.50	0.42
1:6:279:G:C6	1:6:281:G:C5	3.08	0.42
56:N0:152:LEU:N	56:N0:153:PRO:HD3	2.47	0.42
1:6:542:A:OP1	1:6:544:A:C5	2.73	0.42
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.20	0.42
19:C7:20:TYR:CE2	19:C7:38:ILE:HD11	2.54	0.42
3:S1:105:PHE:HZ	3:S1:211:HIS:ND1	2.76	0.42
55:M9:172:ARG:HD2	1:6:852:C:OP1	323.35	0.42
12:C0:49:LEU:HB3	12:C0:55:VAL:HG13	2.82	0.42
7:S5:57:SER:CB	30:D8:53:ILE:HB	2.74	0.42
7:S5:53:VAL:HG21	7:S5:59:VAL:HG13	2.72	0.42
1:6:803:A:O2'	1:6:804:A:OP2	2.36	0.42
1:2:209:U:H5'	10:S8:171:SER:HB3	2.02	0.42
52:M6:15:LEU:O	52:M6:16:VAL:C	2.58	0.42
1:6:1698:G:HO2'	1:6:1699:G:P	2.41	0.42
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.19	0.42
1:6:273:G:C6	1:6:284:G:C2	3.08	0.42
1:2:1370:U:H1'	1:2:1371:A:OP2	2.20	0.42
25:D3:36:THR:HG22	25:D3:40:SER:OG	4.17	0.42
36:1:2254:U:H2'	36:1:2261:G:N2	2.35	0.42
38:8:82:U:H2'	38:8:83:C:H5'	2.02	0.42
5:S3:71:LEU:O	5:S3:75:LYS:HG3	2.20	0.42
1:2:14:C:O2'	1:2:619:A:N1	2.43	0.42
36:5:1085:A:H5''	36:5:1085:A:C8	2.50	0.42
36:5:1317:A:C4	36:5:1319:G:C8	3.08	0.42
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.56	0.42
36:1:259:C:H2'	36:1:260:C:C6	2.55	0.42
49:M3:140:SER:OG	49:M3:143:ALA:N	2.83	0.42
36:1:54:C:O2'	36:1:1547:G:H1'	2.20	0.42
1:2:882:U:H2'	1:2:883:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:121:VAL:O	64:N8:123:VAL:HG23	4.30	0.42
51:M5:110:ALA:HB1	51:M5:113:LEU:CD2	2.50	0.42
58:N2:43:VAL:O	58:N2:45:GLY:N	3.20	0.42
41:L4:38:VAL:HG13	41:L4:113:VAL:HG21	2.65	0.42
42:L5:235:SER:O	42:L5:239:ILE:HG12	2.20	0.42
19:C7:61:ILE:HD11	19:C7:69:ILE:HG13	2.54	0.42
36:5:2509:U:H2'	36:5:2510:U:H5''	2.02	0.42
49:M3:180:ARG:NH2	36:5:2779:A:O2'	127.57	0.42
56:N0:12:ARG:HG3	56:N0:13:ARG:O	3.06	0.42
51:M5:183:THR:HB	51:M5:187:ARG:HB2	2.02	0.42
47:M0:208:ASN:HB3	47:M0:211:ARG:HD2	2.02	0.42
8:S6:59:GLN:HB3	8:S6:61:PHE:CE2	2.55	0.42
36:5:2921:U:H2'	36:5:2923:U:H5''	2.02	0.42
1:6:1719:A:N6	1:6:1720:G:C2	2.88	0.42
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.30	0.42
34:SR:249:ARG:O	34:SR:251:TRP:N	3.11	0.42
11:S9:91:LYS:O	11:S9:92:LYS:HG2	2.19	0.42
11:S9:90:LYS:HB3	11:S9:95:TYR:CG	2.55	0.42
1:6:700:C:H2'	1:6:701:U:C6	2.55	0.42
47:M0:22:TYR:CE1	36:5:1048:A:H2'	268.04	0.42
69:O3:49:ILE:HD11	69:O3:71:VAL:HG23	2.62	0.42
64:N8:58:MET:SD	36:5:2775:U:H1'	152.84	0.42
63:N7:12:VAL:HB	63:N7:81:LEU:HB3	3.16	0.42
9:S7:16:LEU:HD23	9:S7:16:LEU:HA	1.84	0.42
40:L3:45:SER:OG	40:L3:181:ILE:HG23	2.20	0.42
42:L5:271:LYS:HA	42:L5:271:LYS:HD3	4.17	0.42
22:D0:32:LYS:O	22:D0:36:ASN:HB2	2.20	0.42
9:S7:44:LYS:O	9:S7:61:PHE:HB2	2.20	0.42
36:1:349:A:C4	38:4:24:G:H1'	2.55	0.42
36:5:2192:C:O2'	36:5:2312:A:N1	2.42	0.42
18:C6:37:THR:O	18:C6:38:LEU:HD23	2.20	0.42
26:D4:53:ASP:HB3	26:D4:96:LEU:CD2	2.50	0.42
36:5:585:A:H2'	36:5:586:C:C6	2.55	0.42
20:C8:112:ASP:O	20:C8:115:ARG:N	2.53	0.42
51:M5:63:ARG:HA	51:M5:130:PHE:O	2.20	0.42
36:5:158:G:N2	36:5:264:G:H1'	2.35	0.42
34:SR:5:GLU:HA	34:SR:317:THR:HA	3.07	0.42
72:O6:53:TYR:CD1	72:O6:76:ARG:HG2	2.54	0.42
36:1:168:U:H2'	36:1:169:U:C5	2.55	0.42
1:6:838:G:C6	1:6:839:U:C4	3.08	0.42
45:L8:32:LYS:HD3	45:L8:32:LYS:HA	4.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1182:U:H2'	1:2:1182:U:O2	2.20	0.42
54:M8:8:LYS:HB2	54:M8:8:LYS:HE3	4.06	0.42
54:M8:72:LYS:HE3	54:M8:72:LYS:HB3	3.96	0.42
36:5:3380:U:H2'	36:5:3381:U:C6	2.55	0.42
8:S6:162:VAL:HG21	8:S6:171:LYS:HD3	4.21	0.41
86:5:4186:OHX:N1	86:5:4188:OHX:N4	2.68	0.41
10:S8:105:ASP:O	10:S8:106:ALA:CB	2.68	0.41
51:M5:11:GLN:O	51:M5:14:LYS:HE3	2.20	0.41
36:1:94:G:H2'	36:1:95:A:C8	2.55	0.41
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.52	0.41
47:M0:30:LYS:HD2	47:M0:63:GLU:OE1	2.20	0.41
38:4:94:C:H3'	73:O7:72:ARG:HH11	1.84	0.41
36:1:1577:G:C5	36:1:1578:C:C5	3.07	0.41
11:S9:129:ILE:O	11:S9:134:ILE:HD11	4.65	0.41
11:S9:107:ARG:NH2	11:S9:150:LEU:H	2.17	0.41
34:SR:202:LEU:HA	34:SR:213:SER:HA	2.02	0.41
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.20	0.41
1:2:1599:C:O2	86:2:2110:OHX:N1	2.52	0.41
17:C5:22:LEU:O	17:C5:26:LEU:HG	4.89	0.41
15:C3:30:SER:HA	15:C3:66:ILE:HD11	2.01	0.41
36:5:1470:U:OP1	86:5:3955:OHX:N6	2.53	0.41
12:C0:29:GLN:O	12:C0:30:ALA:HB3	2.20	0.41
49:M3:101:ARG:C	49:M3:102:GLN:HG2	2.41	0.41
2:S0:185:ARG:HA	23:D1:45:ALA:H	1.84	0.41
3:S1:41:ARG:HH21	3:S1:97:LEU:HD11	1.85	0.41
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.72	0.41
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	2.02	0.41
62:N6:34:PRO:HA	62:N6:47:ALA:HB2	2.28	0.41
19:C7:23:LYS:H	34:SR:216:LYS:HE2	1.84	0.41
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.33	0.41
36:1:1613:A:H2'	36:1:1614:C:H6	1.85	0.41
36:1:1246:G:N2	36:1:1264:G:O2'	2.52	0.41
36:1:1095:U:O2	57:N1:128:LEU:N	2.53	0.41
7:S5:166:ARG:O	7:S5:170:GLN:HB2	2.36	0.41
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.89	0.41
1:2:1785:U:H2'	1:2:1786:G:H8	1.84	0.41
36:5:2278:C:C2	36:5:2307:G:N2	2.88	0.41
51:M5:142:ILE:O	51:M5:144:ARG:O	2.37	0.41
36:1:3186:A:OP1	56:N0:154:HIS:ND1	2.51	0.41
28:D6:46:GLU:HG3	28:D6:47:ALA:N	2.68	0.41
62:N6:52:ARG:HA	62:N6:70:ILE:CG2	3.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1815:U:O2'	36:1:1816:A:P	2.78	0.41
61:N5:24:LEU:O	61:N5:25:LYS:HB2	4.71	0.41
34:SR:222:LEU:O	34:SR:231:MET:HB3	2.20	0.41
16:C4:39:ILE:HG21	16:C4:76:ILE:HG13	6.79	0.41
36:1:268:A:C4	51:M5:12:ARG:HG2	2.55	0.41
36:5:1063:G:OP2	36:5:1097:G:H5''	2.19	0.41
1:2:778:G:O6	26:D4:10:ARG:HA	2.20	0.41
54:M8:133:LYS:HB2	54:M8:135:GLN:NE2	3.23	0.41
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.55	0.41
42:L5:119:TYR:OH	42:L5:135:VAL:HG23	2.19	0.41
1:6:275:C:C4	1:6:276:C:C5	3.08	0.41
36:5:257:U:H2'	36:5:258:G:H8	1.85	0.41
39:L2:30:ARG:HB2	39:L2:36:GLU:OE2	2.20	0.41
36:1:158:G:H2'	36:1:159:A:C8	2.55	0.41
1:2:307:G:OP2	13:C1:105:LYS:HE3	2.20	0.41
9:S7:110:GLN:HB3	9:S7:110:GLN:HE21	3.97	0.41
1:2:497:G:O2'	1:2:498:G:N7	2.53	0.41
1:2:1149:G:H1'	1:2:1765:A:C4	2.55	0.41
58:N2:33:TYR:CD2	58:N2:63:VAL:HG21	2.94	0.41
48:M1:30:LEU:O	48:M1:30:LEU:HD22	2.20	0.41
36:1:270:U:O2'	36:1:318:A:H1'	2.19	0.41
77:Q1:4:LYS:HD3	77:Q1:5:TRP:CZ3	3.11	0.41
36:5:435:C:H2'	36:5:436:A:O4'	2.20	0.41
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.53	0.41
7:S5:185:ARG:HD3	1:6:1471:A:P	335.05	0.41
53:M7:175:ARG:O	53:M7:179:GLN:HG3	2.20	0.41
1:2:1015:U:H5''	1:2:1016:C:OP2	2.20	0.41
38:8:92:A:H2'	38:8:93:U:O4'	2.20	0.41
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	2.06	0.41
86:5:4029:OHX:N3	86:5:4077:OHX:N4	2.67	0.41
36:5:3299:A:N6	36:5:3315:G:H1	2.18	0.41
40:L3:146:ARG:HA	40:L3:146:ARG:CZ	3.28	0.41
11:S9:6:ARG:HH11	11:S9:6:ARG:HB2	2.09	0.41
36:1:1853:U:O4	86:1:3983:OHX:N5	2.53	0.41
36:1:1528:G:N3	36:1:1588:A:H2	2.18	0.41
6:S4:235:TYR:N	6:S4:235:TYR:HD2	2.52	0.41
8:S6:25:ARG:HB2	8:S6:25:ARG:HH11	1.84	0.41
36:1:199:A:H4'	36:1:200:C:OP1	2.19	0.41
6:S4:130:GLN:HB3	6:S4:138:TYR:CZ	4.39	0.41
1:2:1330:G:N1	5:S3:204:ASP:OD1	2.50	0.41
36:1:2413:A:H2'	36:1:2414:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:318:U:O4	86:6:2161:OHX:N4	2.53	0.41
48:M1:27:GLY:O	48:M1:29:ARG:N	3.01	0.41
8:S6:123:GLY:HA2	8:S6:127:THR:HG23	2.01	0.41
1:6:882:U:H2'	1:6:883:C:C6	2.54	0.41
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.19	0.41
36:1:2438:A:H2'	36:1:2439:A:C8	2.55	0.41
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	3.13	0.41
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	3.86	0.41
36:1:2180:G:H2'	36:1:2181:C:C6	2.55	0.41
36:1:26:A:N3	36:1:328:U:O2'	2.41	0.41
55:M9:153:LYS:NZ	55:M9:153:LYS:HB2	3.97	0.41
45:L8:43:LYS:HD3	45:L8:43:LYS:HA	1.63	0.41
36:1:2875:U:C6	36:1:2875:U:H3'	2.55	0.41
36:1:2514:U:H6	36:1:2514:U:OP1	2.02	0.41
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.86	0.41
1:6:876:G:O2'	1:6:944:A:H5'	2.19	0.41
36:1:1384:U:O2'	36:1:1385:C:H5'	2.20	0.41
36:5:2442:G:N1	36:5:2443:A:N7	2.68	0.41
40:L3:187:SER:O	40:L3:190:GLU:N	2.53	0.41
47:M0:176:LEU:HD11	47:M0:184:LYS:HD2	4.00	0.41
43:L6:166:LYS:HZ3	36:5:3214:U:H6	273.54	0.41
52:M6:115:LYS:HD3	36:5:3178:A:C2	258.49	0.41
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.85	0.41
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.19	0.41
78:Q2:46:LYS:HD3	78:Q2:54:THR:CB	3.04	0.41
40:L3:139:GLN:H	40:L3:139:GLN:HG3	1.59	0.41
51:M5:68:ARG:NE	51:M5:124:ASP:O	2.53	0.41
36:1:289:A:C2	51:M5:93:LYS:HD2	2.56	0.41
48:M1:94:ARG:C	48:M1:96:PHE:N	2.72	0.41
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	2.02	0.41
11:S9:133:HIS:O	11:S9:134:ILE:HG13	4.48	0.41
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.55	0.41
24:D2:24:GLN:HA	24:D2:63:VAL:O	2.21	0.41
56:N0:66:GLU:OE1	56:N0:99:ARG:N	2.44	0.41
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	2.02	0.41
22:D0:70:THR:OG1	22:D0:72:ASN:N	2.52	0.41
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.54	0.41
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	2.53	0.41
1:6:564:G:O2'	1:6:577:G:H4'	2.19	0.41
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	3.08	0.41
42:L5:113:LEU:HB3	42:L5:115:LEU:CD2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3245:A:H2	36:5:3246:G:C6	2.39	0.41
26:D4:52:LYS:O	26:D4:55:VAL:HG22	4.44	0.41
86:5:4090:OHX:N3	86:5:4198:OHX:N1	2.67	0.41
25:D3:18:HIS:O	25:D3:22:ASN:ND2	2.40	0.41
40:L3:255:TRP:HB3	36:5:2941:A:OP1	224.72	0.41
47:M0:119:TRP:CZ3	36:5:1126:G:H5''	256.89	0.41
61:N5:132:ALA:HA	61:N5:135:ILE:HB	2.02	0.41
17:C5:126:VAL:HG22	17:C5:127:ARG:N	3.12	0.41
17:C5:127:ARG:O	17:C5:129:GLY:N	4.48	0.41
74:O8:12:LEU:HA	74:O8:12:LEU:HD13	3.04	0.41
2:S0:139:VAL:HG22	2:S0:139:VAL:O	2.35	0.41
2:S0:121:VAL:HG12	2:S0:123:VAL:HG23	2.01	0.41
69:O3:48:ARG:HG3	69:O3:69:GLY:O	2.20	0.41
36:5:3352:U:O4'	36:5:3353:G:C2	2.73	0.41
36:1:86:G:C5	49:M3:13:HIS:CE1	3.08	0.41
86:1:4034:OHX:N2	86:1:4152:OHX:N1	2.68	0.41
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	2.84	0.41
4:S2:66:PHE:HA	4:S2:134:LEU:HD13	2.01	0.41
42:L5:83:LEU:HA	42:L5:83:LEU:HD23	1.85	0.41
40:L3:58:ARG:O	40:L3:71:GLU:HA	2.43	0.41
36:1:744:A:H1'	54:M8:141:ARG:NH1	2.35	0.41
48:M1:8:PRO:HG2	48:M1:9:MET:H	2.93	0.41
48:M1:80:LEU:HD12	48:M1:167:TYR:OH	2.68	0.41
58:N2:47:VAL:C	58:N2:49:ASN:H	2.69	0.41
19:C7:61:ILE:O	19:C7:63:LYS:N	2.99	0.41
19:C7:63:LYS:NZ	34:SR:284:ALA:HB2	2.35	0.41
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.45	0.41
32:E0:21:VAL:HG22	1:6:586:G:H4'	407.99	0.41
36:1:384:A:H2'	36:1:385:A:O4'	2.20	0.41
77:Q1:22:ALA:HB1	77:Q1:25:LYS:NZ	2.35	0.41
25:D3:19:ARG:CD	1:6:609:U:H1'	342.76	0.41
1:6:1151:A:H4'	1:6:1766:A:C5	2.56	0.41
34:SR:291:SER:OG	34:SR:304:GLY:HA3	2.20	0.41
47:M0:52:LEU:HD22	47:M0:163:GLN:HB2	2.02	0.41
54:M8:121:CYS:O	54:M8:122:ILE:HD13	2.20	0.41
68:O2:58:GLY:HA3	36:5:1339:C:O2'	189.79	0.41
36:5:370:U:H4'	36:5:404:G:H5'	2.01	0.41
1:2:413:U:H2'	1:2:414:C:C6	2.55	0.41
36:5:1657:C:N4	36:5:1798:A:OP2	2.44	0.41
69:O3:90:PRO:C	69:O3:92:LYS:H	2.24	0.41
36:1:776:U:H5	36:1:2719:U:O2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:200:ARG:HG3	36:5:2147:A:OP1	207.50	0.41
36:1:1355:A:H1'	36:1:1356:U:OP2	2.20	0.41
1:6:1535:U:O2'	1:6:1536:G:O5'	2.39	0.41
36:1:278:U:H2'	36:1:279:U:O4'	2.21	0.41
86:1:4025:OHX:N4	86:1:4062:OHX:N2	2.68	0.41
86:1:4089:OHX:N2	86:1:4160:OHX:N4	2.68	0.41
5:S3:141:LYS:HB2	5:S3:141:LYS:HE2	1.73	0.41
35:SM:33:LYS:C	35:SM:34:LYS:HD2	5.40	0.41
86:2:2074:OHX:N3	86:2:2161:OHX:N5	2.68	0.41
37:3:115:G:H2'	37:3:116:C:C6	2.55	0.41
29:D7:70:LYS:HD2	1:6:1049:U:H5''	348.66	0.41
36:5:3177:G:O2'	36:5:3179:U:OP1	2.36	0.41
36:5:1165:A:H2'	36:5:1166:G:O4'	2.20	0.41
36:1:1138:U:H2'	36:1:1139:G:O4'	2.20	0.41
41:L4:29:PRO:HG3	41:L4:279:HIS:CD2	3.14	0.41
36:5:3056:U:OP2	86:5:3939:OHX:N2	2.53	0.41
51:M5:171:SER:HB3	36:5:289:A:OP1	125.19	0.41
36:5:48:A:O4'	36:5:50:U:C6	2.73	0.41
38:8:26:U:H2'	38:8:27:U:C6	2.55	0.41
1:6:558:U:H6	1:6:581:U:O4'	2.02	0.41
19:C7:81:LYS:HB3	19:C7:81:LYS:HE3	2.63	0.41
13:C1:91:LEU:HA	13:C1:91:LEU:HD23	1.79	0.41
53:M7:117:ILE:HG23	53:M7:117:ILE:O	2.20	0.41
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.74	0.41
36:5:1021:G:N1	36:5:1032:C:O2	2.53	0.41
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.42	0.41
36:1:1106:G:H2'	36:1:1107:C:O4'	2.19	0.41
13:C1:131:ILE:HA	13:C1:131:ILE:HD12	1.63	0.41
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.66	0.41
36:5:2426:U:H2'	36:5:2427:U:C6	2.54	0.41
51:M5:68:ARG:HH21	51:M5:123:GLN:HG3	1.84	0.41
51:M5:36:ILE:HG21	51:M5:109:ARG:HG2	2.01	0.41
75:O9:23:LEU:HD22	75:O9:23:LEU:HA	1.90	0.41
23:D1:32:VAL:HG12	23:D1:55:LEU:HB2	4.65	0.41
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.52	0.41
1:6:1255:G:O2'	1:6:1256:A:H8	2.04	0.41
34:SR:109:ASP:N	34:SR:109:ASP:OD1	2.53	0.41
36:1:915:A:H2'	36:1:915:A:N3	2.35	0.41
33:E1:103:LEU:HD23	33:E1:105:TYR:CD2	3.85	0.41
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.25	0.41
5:S3:108:LYS:O	5:S3:113:LEU:HB2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:702:G:C6	1:2:737:A:N6	2.87	0.41
1:2:823:G:HO2'	1:2:824:G:C5'	2.33	0.41
17:C5:65:LEU:O	86:C5:201:OHX:N1	2.54	0.41
36:1:1308:A:H8	36:1:1308:A:OP2	2.01	0.41
52:M6:68:ARG:H	52:M6:68:ARG:HG2	1.50	0.41
74:O8:9:LYS:HD2	74:O8:9:LYS:O	2.20	0.41
1:6:138:A:N6	1:6:266:A:N6	2.68	0.41
36:1:3112:G:O2'	46:L9:70:THR:HB	2.20	0.41
41:L4:77:VAL:HG11	41:L4:84:ARG:HG3	2.02	0.41
56:N0:171:PHE:O	56:N0:171:PHE:CD2	3.53	0.41
66:O0:30:THR:HG21	66:O0:89:VAL:HG22	2.99	0.41
1:6:833:U:OP2	86:6:2203:OHX:N5	2.53	0.41
74:O8:8:ILE:H	74:O8:8:ILE:CD1	2.24	0.41
36:5:1238:C:H2'	36:5:1239:C:O4'	2.21	0.41
11:S9:65:LYS:NZ	1:6:650:U:H5''	420.77	0.41
36:5:1085:A:H5'	36:5:1086:C:OP2	2.20	0.41
78:Q2:105:GLN:HG2	78:Q2:105:GLN:H	2.32	0.41
9:S7:56:LYS:HB2	9:S7:88:ARG:HD3	2.02	0.41
5:S3:190:ARG:HH12	5:S3:195:SER:HA	3.70	0.41
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.91	0.41
42:L5:269:SER:O	42:L5:272:TYR:HD2	3.67	0.41
42:L5:22:ARG:HH11	42:L5:22:ARG:HD3	4.36	0.41
40:L3:53:MET:HE2	40:L3:77:THR:CG2	2.67	0.41
46:L9:2:LYS:HZ2	46:L9:59:ASN:HD21	1.68	0.41
14:C2:74:LEU:HD21	33:E1:106:TYR:HB3	3.25	0.41
15:C3:52:VAL:HG22	1:6:960:U:H1'	328.60	0.41
2:S0:175:TYR:OH	2:S0:195:TRP:HB3	3.16	0.41
4:S2:141:ARG:H	4:S2:141:ARG:HG2	2.39	0.41
20:C8:138:THR:N	1:6:1458:G:OP1	353.45	0.41
34:SR:154:VAL:HG12	34:SR:171:SER:HB3	2.01	0.41
23:D1:5:LYS:O	23:D1:7:GLN:N	3.39	0.41
52:M6:88:VAL:HG12	52:M6:89:SER:N	3.21	0.41
86:1:4009:OHX:N6	86:1:4178:OHX:N2	2.68	0.41
36:1:1818:U:H2'	36:1:1819:U:O4'	2.20	0.41
17:C5:60:LEU:HA	17:C5:60:LEU:HD23	3.07	0.41
36:5:3170:A:O5'	36:5:3170:A:H8	2.02	0.41
53:M7:95:LEU:HD23	53:M7:148:LEU:CD1	2.85	0.41
29:D7:61:THR:HG23	29:D7:62:ILE:N	2.38	0.41
16:C4:132:ARG:HB3	1:6:1787:C:OP2	292.86	0.41
69:O3:6:ARG:O	69:O3:7:LEU:HD23	3.19	0.41
36:1:1620:U:H2'	36:1:1621:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:73:VAL:CG1	59:N3:90:GLY:HA3	2.49	0.41
36:5:2594:C:H2'	36:5:2595:A:O4'	2.21	0.41
5:S3:176:LEU:HA	5:S3:181:VAL:HB	2.59	0.41
39:L2:116:VAL:HG22	39:L2:126:LEU:HD12	2.01	0.41
43:L6:97:ASN:O	43:L6:99:GLU:N	2.51	0.41
36:5:1109:U:H2'	36:5:1110:U:C6	2.55	0.41
67:O1:20:LEU:HD23	67:O1:20:LEU:HA	1.79	0.41
36:1:6:A:C2	38:4:154:C:C2	3.08	0.41
1:6:729:G:O2'	1:6:730:G:O5'	2.35	0.41
86:1:3965:OHX:N2	86:1:4145:OHX:N4	2.68	0.41
36:1:1345:G:N7	86:1:3965:OHX:N4	2.68	0.41
55:M9:40:ALA:HA	55:M9:43:LYS:HE3	2.02	0.41
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.28	0.41
36:5:1052:U:C5	36:5:1053:A:C5	3.08	0.41
1:6:555:A:C5	1:6:556:A:C6	3.08	0.41
36:5:3167:A:C2	36:5:3168:A:C4	3.08	0.41
36:5:2379:U:H2'	36:5:2380:U:H6	1.85	0.41
36:5:1675:G:H2'	36:5:1676:A:C8	2.54	0.41
14:C2:130:THR:HB	14:C2:131:ASP:H	1.66	0.41
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.20	0.41
56:N0:33:ASN:OD1	56:N0:35:VAL:N	2.53	0.41
36:5:2846:U:O2	86:5:4048:OHX:N5	2.53	0.41
27:D5:92:ILE:O	27:D5:100:ILE:HB	2.19	0.41
36:1:2193:U:H5''	36:1:2194:G:H5'	2.02	0.41
36:5:651:G:C6	36:5:652:G:C6	3.08	0.41
36:1:164:A:C2	36:1:165:A:C4	3.08	0.41
36:1:2564:G:C6	36:1:2565:U:C4	3.09	0.41
36:1:352:A:H61	36:1:365:A:H5''	1.84	0.41
1:6:480:G:H2'	1:6:480:G:N3	2.36	0.41
4:S2:240:LEU:HD13	4:S2:240:LEU:HA	1.82	0.41
55:M9:180:LYS:HE2	55:M9:180:LYS:HB3	1.71	0.41
36:1:494:G:OP1	36:1:494:G:H3'	2.20	0.41
41:L4:187:LEU:HA	41:L4:187:LEU:HD23	1.90	0.41
36:5:3162:C:O5'	36:5:3162:C:H6	2.03	0.41
36:5:771:A:H2'	36:5:772:U:O4'	2.20	0.41
50:M4:109:ARG:HG3	52:M6:199:TYR:CE2	4.63	0.41
1:2:1199:G:O6	22:D0:67:THR:HG23	2.21	0.41
36:1:2137:U:C6	36:1:2141:U:C4	3.09	0.41
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.35	0.41
36:1:1602:A:C5	36:1:1603:A:C6	3.09	0.41
36:5:174:C:H2'	36:5:175:C:H6	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:3971:OHX:N1	86:5:4239:OHX:N1	2.68	0.41
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	2.03	0.41
36:5:2568:C:C4	36:5:2574:G:O6	2.72	0.41
65:N9:21:ILE:HG23	65:N9:21:ILE:HD12	1.78	0.41
55:M9:132:PHE:CE2	55:M9:138:LEU:HD23	2.56	0.41
21:C9:52:GLY:C	21:C9:54:PHE:H	2.19	0.41
17:C5:22:LEU:O	17:C5:25:LEU:HB2	2.58	0.41
35:SM:120:GLU:C	35:SM:122:GLU:H	3.39	0.41
43:L6:65:ILE:O	43:L6:76:LEU:HA	2.21	0.41
48:M1:6:GLN:HB3	48:M1:7:ASN:H	1.59	0.41
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.20	0.41
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	2.03	0.41
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.20	0.41
36:5:1235:U:C4'	36:5:1236:G:H5'	2.42	0.41
37:3:30:G:C2	37:3:31:U:C2	3.08	0.41
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.59	0.41
65:N9:3:LYS:HE2	36:5:2618:G:O4'	228.52	0.41
62:N6:28:ARG:HB2	62:N6:75:ARG:NH2	2.35	0.41
1:2:1370:U:H4'	1:2:1371:A:C5'	2.51	0.41
15:C3:27:LYS:H	15:C3:27:LYS:CD	2.32	0.41
36:5:1066:G:H2'	36:5:1067:U:C6	2.54	0.41
74:O8:54:LEU:O	74:O8:54:LEU:HG	2.20	0.41
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.58	0.41
36:5:2206:G:C2'	36:5:2207:A:H5'	2.50	0.41
61:N5:27:ARG:HG2	61:N5:27:ARG:H	1.93	0.41
34:SR:231:MET:HB3	34:SR:232:TYR:H	1.72	0.41
69:O3:89:LEU:HA	69:O3:89:LEU:HD23	1.89	0.41
36:5:437:G:H22	36:5:622:A:H61	1.68	0.41
68:O2:34:LYS:O	68:O2:34:LYS:HG3	2.51	0.41
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	1.91	0.41
36:5:193:C:C2	36:5:203:G:C2	3.09	0.41
2:S0:12:GLU:HG2	2:S0:12:GLU:H	3.09	0.41
25:D3:42:PRO:HG2	25:D3:122:PHE:CZ	2.54	0.41
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.72	0.41
68:O2:126:LEU:O	68:O2:128:LEU:N	2.53	0.41
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	2.11	0.41
36:5:3163:A:C6	36:5:3288:G:C6	3.08	0.41
2:S0:27:ARG:C	2:S0:29:VAL:N	2.72	0.41
34:SR:289:ALA:HB2	34:SR:305:TYR:CZ	3.34	0.41
8:S6:3:LEU:HD22	8:S6:111:LEU:HD11	4.23	0.41
38:8:157:U:O2'	38:8:158:U:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:24:ILE:O	8:S6:26:VAL:N	2.65	0.41
7:S5:110:ALA:O	7:S5:113:ILE:N	2.54	0.41
53:M7:27:LYS:HE2	53:M7:63:PHE:CD1	2.55	0.41
2:S0:87:LEU:HD13	2:S0:87:LEU:HA	2.98	0.41
29:D7:58:SER:C	29:D7:60:SER:H	4.02	0.41
36:5:2373:A:N3	36:5:2824:G:O2'	2.47	0.41
36:5:1222:G:O3'	36:5:1223:A:H8	2.04	0.41
1:2:985:G:O6	86:2:2023:OHX:N4	2.53	0.41
1:6:872:G:N2	1:6:1047:G:H4'	2.34	0.41
47:M0:21:ARG:NH1	47:M0:22:TYR:HE2	4.42	0.41
36:1:3015:G:C5	36:1:3040:A:C2	3.08	0.41
3:S1:104:ASP:OD1	3:S1:214:LYS:HD3	2.20	0.41
28:D6:2:PRO:HB2	28:D6:3:LYS:H	1.65	0.41
36:1:1709:C:H2'	36:1:1710:C:C6	2.55	0.41
26:D4:16:PRO:HA	26:D4:19:ALA:HA	3.39	0.41
1:6:1308:G:C2	1:6:1309:C:C2	3.08	0.41
1:6:350:U:H5''	1:6:352:A:C5'	2.51	0.41
46:L9:38:LEU:HD13	46:L9:71:VAL:HG13	2.02	0.41
1:6:246:G:C6	1:6:247:A:C6	3.08	0.41
7:S5:152:GLY:H	7:S5:155:ALA:HB2	4.08	0.41
44:L7:43:ILE:O	44:L7:47:ARG:HG3	2.41	0.41
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	3.96	0.41
42:L5:143:LYS:HE3	42:L5:145:PHE:HZ	2.86	0.41
36:5:1068:C:O2'	36:5:1069:C:H5'	2.21	0.41
36:1:2700:G:O2'	36:1:2705:A:N1	2.40	0.41
7:S5:143:ARG:HD3	30:D8:55:VAL:CG1	3.14	0.41
64:N8:27:LYS:NZ	36:5:801:A:OP1	154.07	0.41
58:N2:13:LYS:HD3	58:N2:15:PHE:CZ	2.55	0.41
76:Q0:95:VAL:HA	76:Q0:101:ALA:O	2.25	0.41
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.24	0.41
1:2:1407:U:H2'	1:2:1408:G:O4'	2.20	0.41
36:1:2542:U:N3	36:1:2543:U:O4	2.53	0.41
44:L7:153:PHE:CE1	44:L7:162:PRO:HB3	2.55	0.41
36:1:898:U:H2'	36:1:899:U:O4'	2.21	0.41
36:5:1741:A:H5''	36:5:1742:U:OP2	2.20	0.41
60:N4:20:LEU:HD21	60:N4:28:ILE:HG23	2.02	0.41
36:1:351:A:N6	75:O9:35:ILE:HG23	2.35	0.41
36:5:3284:G:OP2	36:5:3284:G:H8	2.04	0.41
61:N5:109:LYS:HB2	61:N5:109:LYS:HE2	1.92	0.41
45:L8:106:LYS:C	45:L8:106:LYS:HE3	2.40	0.41
1:6:137:U:H2'	1:6:137:U:H6	1.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2997:G:N7	86:5:4180:OHX:N3	2.68	0.41
10:S8:35:ASN:O	10:S8:37:LYS:HD3	2.19	0.41
36:1:2390:A:H2'	36:1:2391:G:O4'	2.20	0.41
49:M3:106:GLN:HA	72:O6:20:MET:SD	2.85	0.41
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.55	0.41
13:C1:132:SER:OG	13:C1:135:VAL:HB	2.89	0.41
10:S8:107:THR:HG23	36:5:3354:U:H5	243.27	0.41
52:M6:112:TYR:HA	52:M6:115:LYS:HG3	3.84	0.41
36:1:2794:G:H1'	36:1:2795:U:C6	2.56	0.41
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.51	0.41
2:S0:155:PHE:HD1	23:D1:60:ARG:HB3	1.85	0.41
36:5:3194:C:C2	36:5:3197:G:N2	2.73	0.41
38:8:59:A:H5''	38:8:61:A:C8	2.55	0.41
10:S8:83:TYR:O	10:S8:101:ILE:HB	2.69	0.41
36:5:981:U:H3'	36:5:981:U:H6	1.85	0.41
36:5:1440:G:H2'	36:5:1441:G:C8	2.55	0.41
22:D0:72:ASN:HB2	22:D0:73:GLY:H	1.56	0.41
20:C8:17:LEU:HD12	20:C8:18:LEU:HB2	2.01	0.41
1:2:327:U:H6	1:2:327:U:O5'	2.03	0.41
1:6:330:G:C6	1:6:331:A:C5	3.09	0.41
10:S8:29:LEU:HD12	1:6:400:A:H61	296.51	0.41
2:S0:66:ALA:HB1	23:D1:50:TYR:CD1	3.43	0.41
48:M1:138:VAL:HG12	48:M1:139:THR:N	2.35	0.41
32:E0:13:LYS:HD3	32:E0:17:GLN:OE1	6.18	0.41
3:S1:120:LEU:HG	3:S1:142:PHE:HE1	1.85	0.41
64:N8:8:THR:HG21	36:5:662:U:P	149.59	0.41
44:L7:51:TYR:HE2	44:L7:183:ASP:OD1	2.26	0.41
1:6:776:G:N2	1:6:785:U:H1'	2.36	0.41
74:O8:15:THR:O	74:O8:70:PRO:HG2	2.59	0.41
17:C5:126:VAL:HG13	17:C5:127:ARG:N	2.36	0.41
36:5:1239:C:H42	36:5:1249:G:H1	1.67	0.41
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	3.29	0.41
36:1:1658:G:C5	36:1:1659:U:C5	3.08	0.41
54:M8:32:LEU:O	54:M8:35:PHE:HB3	2.51	0.41
64:N8:66:ALA:HA	64:N8:69:TRP:N	4.06	0.41
1:2:886:U:C2	1:2:887:A:C8	3.08	0.41
78:Q2:73:GLU:OE2	78:Q2:80:ARG:NH2	2.53	0.41
1:2:694:U:O2	1:2:694:U:H2'	2.20	0.41
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.72	0.41
44:L7:89:ILE:HG22	44:L7:220:PHE:CE1	2.56	0.41
63:N7:61:LYS:O	63:N7:65:ARG:N	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:268:C:C2	1:2:288:A:C2	3.09	0.41
33:E1:97:LYS:HE3	33:E1:98:VAL:HB	5.99	0.41
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.35	0.41
36:1:1317:A:C4	36:1:1319:G:C8	3.09	0.41
36:1:1547:G:OP1	51:M5:108:ARG:NH2	2.53	0.41
1:6:234:G:H2'	1:6:235:G:O4'	2.21	0.41
36:5:2102:U:H2'	36:5:2103:U:C6	2.56	0.41
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.62	0.41
45:L8:78:PHE:CD1	45:L8:78:PHE:N	3.05	0.41
36:5:3288:G:C4	36:5:3289:G:C8	3.08	0.41
34:SR:255:ALA:HB1	34:SR:289:ALA:O	2.20	0.41
39:L2:112:ILE:HG12	79:Q3:79:VAL:HG13	4.14	0.41
35:SM:96:ARG:O	35:SM:98:GLY:N	2.54	0.41
1:2:549:G:H1	1:2:589:C:N4	2.18	0.41
1:6:586:G:C6	1:6:587:C:C4	3.08	0.41
36:1:105:C:O2'	36:1:684:G:O2'	2.33	0.41
36:5:1100:U:H2'	36:5:1101:G:C8	2.55	0.41
71:O5:63:ARG:HG3	71:O5:67:ARG:HH21	5.28	0.41
63:N7:95:VAL:O	63:N7:100:THR:HG21	2.99	0.41
1:2:422:G:OP1	86:2:2041:OHX:N6	2.53	0.41
55:M9:25:ASP:HA	55:M9:26:PRO:HD2	2.20	0.41
53:M7:44:ALA:O	53:M7:48:LEU:HG	2.19	0.41
36:1:501:A:H2'	36:1:502:U:H6	1.85	0.41
36:5:3136:G:C5	36:5:3137:C:C5	3.09	0.41
36:1:559:A:C8	36:1:559:A:C3'	3.03	0.41
61:N5:100:LYS:HZ2	61:N5:107:VAL:H	1.67	0.41
36:1:2213:A:C6	36:1:2214:A:C6	3.08	0.41
48:M1:44:THR:O	37:7:39:C:O2'	299.72	0.41
1:6:891:A:H2'	1:6:892:A:C8	2.56	0.41
69:O3:10:LYS:HB2	69:O3:33:GLU:HG3	2.03	0.41
86:5:4200:OHX:N6	86:8:227:OHX:N5	2.68	0.41
39:L2:58:LEU:HD23	39:L2:58:LEU:HA	2.08	0.41
14:C2:137:MET:O	14:C2:141:SER:OG	3.88	0.41
45:L8:75:ILE:C	45:L8:77:GLN:H	2.75	0.41
52:M6:195:ALA:O	52:M6:198:GLY:N	2.45	0.41
6:S4:33:ALA:O	1:6:121:U:O2'	352.80	0.41
49:M3:92:THR:HB	71:O5:112:PRO:O	2.68	0.41
31:D9:16:LYS:HG2	1:6:1596:C:OP1	400.18	0.41
36:5:796:U:H2'	36:5:797:U:C6	2.56	0.41
36:5:2376:G:C6	36:5:2377:G:C6	3.08	0.41
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.21	0.41
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	2.02	0.41
40:L3:51:ALA:CB	40:L3:317:ILE:HD11	2.51	0.41
36:5:3331:U:H2'	36:5:3332:U:O4'	2.21	0.41
39:L2:31:THR:OG1	39:L2:123:ARG:NH1	3.31	0.41
36:5:574:U:H2'	36:5:575:G:O4'	2.21	0.41
1:2:1264:G:H8	1:2:1264:G:O5'	2.04	0.41
6:S4:206:ASP:N	6:S4:206:ASP:OD1	2.53	0.41
56:N0:161:LYS:HB3	56:N0:161:LYS:HE2	1.89	0.41
10:S8:119:GLN:H	10:S8:119:GLN:HG2	3.01	0.41
45:L8:186:LEU:O	45:L8:189:LEU:HB3	4.51	0.41
36:1:1006:A:H5''	36:1:1007:U:OP2	2.20	0.41
49:M3:129:ASN:OD1	49:M3:130:GLY:N	5.03	0.41
1:2:557:G:O2'	1:2:558:U:H4'	2.20	0.41
1:2:1388:A:HO2'	1:2:1411:A:H2	1.65	0.41
40:L3:37:ARG:HG2	40:L3:187:SER:H	4.24	0.41
36:5:241:G:H2'	36:5:242:C:C6	2.55	0.41
53:M7:67:ILE:HD12	53:M7:67:ILE:HG23	4.17	0.41
1:2:66:U:H5'	8:S6:173:PRO:HA	2.02	0.41
51:M5:18:VAL:HG13	51:M5:19:LEU:HD13	3.18	0.41
51:M5:64:VAL:HG13	51:M5:102:ALA:HB1	2.03	0.41
75:O9:23:LEU:HA	75:O9:24:PRO:HD3	1.81	0.41
36:5:293:C:OP2	86:5:4241:OHX:N5	2.53	0.41
36:1:92:G:C8	36:1:92:G:H3'	2.55	0.41
86:2:2082:OHX:N3	86:2:2084:OHX:N5	2.68	0.41
40:L3:76:VAL:HG11	40:L3:323:MET:CE	2.51	0.41
36:5:2257:C:H6	36:5:2257:C:O5'	2.04	0.41
8:S6:70:PRO:CB	8:S6:101:ILE:HB	2.41	0.41
4:S2:76:LEU:HA	4:S2:76:LEU:HD12	1.90	0.41
1:2:531:C:O2	26:D4:62:THR:HG23	2.21	0.41
11:S9:150:LEU:HD12	11:S9:150:LEU:HA	2.12	0.41
43:L6:42:LEU:HD11	43:L6:52:VAL:HG21	2.85	0.41
1:2:1480:G:H3'	1:2:1481:C:H6	1.83	0.41
1:2:824:G:H1	1:2:848:C:H42	1.68	0.41
46:L9:119:GLY:O	46:L9:120:ASP:C	2.58	0.41
1:6:138:A:OP2	1:6:1706:C:O2'	2.35	0.41
34:SR:64:HIS:HD1	34:SR:86:ASP:CG	2.13	0.41
3:S1:208:GLN:O	3:S1:210:ILE:HG13	2.30	0.41
12:C0:46:LEU:O	12:C0:50:THR:N	2.54	0.41
9:S7:30:SER:CB	9:S7:34:LEU:HD12	3.60	0.41
25:D3:104:LEU:HA	25:D3:104:LEU:HD23	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:93:ILE:HG23	36:5:784:A:C6	150.93	0.41
1:6:1769:U:OP2	86:6:2144:OHX:N2	2.53	0.41
36:1:1144:U:H1'	36:1:1145:G:C8	2.55	0.41
36:1:3254:G:H2'	36:1:3255:U:O4'	2.19	0.41
36:5:1393:A:C8	36:5:1418:A:C6	3.08	0.41
17:C5:16:SER:HA	17:C5:20:VAL:O	2.21	0.41
41:L4:290:ILE:HD13	54:M8:35:PHE:CG	3.20	0.41
51:M5:12:ARG:C	51:M5:13:LYS:HD3	2.41	0.41
36:5:1013:G:N2	36:5:1014:U:H1'	2.34	0.41
41:L4:209:TYR:C	41:L4:254:ALA:HB2	2.65	0.41
54:M8:42:ALA:HB2	54:M8:133:LYS:HD3	2.03	0.41
71:O5:118:ILE:O	71:O5:119:LYS:HB2	3.56	0.41
44:L7:211:SER:N	44:L7:242:SER:O	2.53	0.41
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	2.69	0.41
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.61	0.41
38:8:157:U:H2'	38:8:158:U:H6	1.85	0.41
36:1:1667:A:H2'	36:1:1668:G:C8	2.56	0.41
54:M8:81:VAL:HG13	54:M8:101:VAL:HG22	3.74	0.41
34:SR:80:ALA:O	34:SR:91:LEU:HD12	2.21	0.41
36:5:1699:A:H2'	36:5:1700:G:C8	2.55	0.41
46:L9:106:LYS:HG3	46:L9:107:ASP:OD2	2.86	0.41
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.79	0.41
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	7.13	0.41
36:1:242:C:O2'	36:1:243:G:H8	2.03	0.41
1:2:1013:A:H2'	1:2:1014:G:O4'	2.21	0.41
13:C1:22:ASN:HA	13:C1:23:PRO:HD3	1.81	0.41
69:O3:71:VAL:HG13	69:O3:81:VAL:HG13	2.01	0.41
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.56	0.41
40:L3:213:GLU:HG2	40:L3:214:MET:N	2.35	0.41
86:1:4060:OHX:N4	86:1:4169:OHX:N3	2.69	0.41
86:5:4125:OHX:N4	86:5:4143:OHX:N1	2.68	0.41
1:2:495:C:H3'	1:2:496:G:O4'	2.21	0.41
36:5:975:C:H2'	36:5:976:U:C6	2.56	0.41
44:L7:198:ALA:O	44:L7:202:LEU:HD12	2.20	0.41
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	3.25	0.41
38:4:18:U:OP1	86:4:233:OHX:N2	2.53	0.41
8:S6:47:GLY:C	8:S6:117:GLY:HA2	3.21	0.41
36:5:1329:U:O2'	36:5:1330:A:P	2.79	0.41
36:5:428:A:H2'	36:5:429:U:C6	2.56	0.41
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.24	0.41
36:5:1614:C:O2'	36:5:1615:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3033:A:H2'	36:5:3034:C:C6	2.54	0.41
1:2:1029:U:O4	86:2:2168:OHX:N3	2.53	0.41
1:2:1677:C:H2'	1:2:1678:A:O4'	2.21	0.41
36:5:807:A:H61	36:5:934:G:H22	1.69	0.41
37:3:57:G:H3'	37:3:58:C:C6	2.55	0.41
36:5:2289:U:H2'	36:5:2290:C:C6	2.55	0.41
36:1:1791:C:H2'	36:1:1792:C:C6	2.55	0.41
41:L4:30:ILE:HA	41:L4:124:SER:HB3	3.68	0.41
34:SR:132:LYS:HG2	34:SR:143:THR:HG23	2.23	0.41
36:1:1895:A:O2'	36:1:3053:G:H4'	2.21	0.41
36:1:3118:C:C4	36:1:3119:U:C4	3.09	0.41
1:6:938:G:N7	86:6:2105:OHX:N3	2.67	0.41
71:O5:98:SER:O	71:O5:100:VAL:HG23	3.05	0.41
1:6:1467:C:H2'	1:6:1468:U:H6	1.84	0.41
74:O8:63:LYS:HE2	74:O8:63:LYS:HB2	4.75	0.41
1:2:30:G:H2'	1:2:31:C:C6	2.55	0.41
36:5:871:U:H2'	36:5:872:U:C6	2.55	0.41
18:C6:11:GLY:HA2	18:C6:83:GLN:HE21	5.28	0.41
36:5:3181:C:H2'	36:5:3182:G:O4'	2.20	0.41
53:M7:82:ARG:HB3	36:5:2352:A:OP1	158.64	0.41
15:C3:94:LYS:HE2	1:6:953:G:OP2	301.34	0.41
10:S8:105:ASP:OD1	10:S8:107:THR:HG23	2.21	0.41
44:L7:158:LYS:CE	44:L7:159:GLN:H	2.27	0.41
55:M9:130:ASN:C	55:M9:132:PHE:H	2.23	0.41
28:D6:79:ILE:HA	28:D6:84:VAL:CB	2.51	0.41
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.31	0.41
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.20	0.41
36:1:916:G:H5'	36:1:917:A:OP1	2.21	0.41
14:C2:45:LEU:HB3	14:C2:46:ARG:H	2.24	0.41
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.21	0.41
55:M9:185:LEU:O	55:M9:189:ALA:N	5.17	0.41
3:S1:86:LEU:HD12	3:S1:98:THR:HG23	2.02	0.41
42:L5:180:PHE:HB3	42:L5:195:LEU:HD13	2.03	0.41
1:2:71:A:N1	1:2:72:A:C6	2.89	0.41
10:S8:59:ARG:NH1	10:S8:59:ARG:HG2	4.69	0.41
3:S1:181:LEU:HB2	3:S1:182:ALA:H	1.58	0.41
44:L7:88:ARG:HG2	44:L7:111:ILE:HA	2.02	0.41
48:M1:109:HIS:ND1	48:M1:114:ILE:HG21	2.36	0.41
36:1:784:A:C6	54:M8:93:ILE:HG23	2.56	0.41
52:M6:42:ASN:HA	52:M6:136:THR:O	2.21	0.41
16:C4:29:HIS:CB	16:C4:41:ARG:HA	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:171:ASP:O	55:M9:175:GLN:NE2	2.52	0.41
46:L9:84:LYS:O	46:L9:187:ILE:HB	2.21	0.41
38:4:80:A:N3	38:4:82:U:O4	2.54	0.41
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.69	0.41
74:O8:54:LEU:HG	74:O8:56:ILE:HD12	4.65	0.41
69:O3:67:MET:HE3	69:O3:89:LEU:CD2	2.51	0.41
36:1:1658:G:O4'	36:1:1796:G:H2'	2.21	0.41
1:6:829:A:OP1	1:6:829:A:H4'	2.21	0.41
19:C7:83:GLN:O	19:C7:85:VAL:HG22	6.76	0.41
16:C4:111:ARG:NH2	28:D6:57:SER:O	2.37	0.41
7:S5:133:VAL:HG22	7:S5:198:LEU:HD13	2.02	0.41
48:M1:53:THR:HG23	48:M1:59:ILE:O	2.20	0.41
54:M8:159:LYS:O	54:M8:161:LYS:HG3	2.20	0.41
71:O5:7:TYR:CD1	71:O5:8:GLU:N	3.20	0.41
6:S4:191:ARG:NH1	6:S4:245:LYS:HD3	3.12	0.41
45:L8:36:ILE:O	45:L8:38:GLN:HG2	2.20	0.41
72:O6:33:ALA:HB1	72:O6:38:LYS:HE3	2.01	0.41
46:L9:4:ILE:HD13	46:L9:4:ILE:HG21	1.85	0.41
45:L8:63:LYS:HD2	45:L8:67:ILE:HD11	4.26	0.41
38:4:67:U:H2'	38:4:68:G:H8	1.85	0.41
71:O5:13:SER:C	71:O5:15:GLU:H	2.24	0.41
8:S6:124:LEU:HD12	8:S6:124:LEU:HA	1.99	0.41
49:M3:190:LYS:NZ	49:M3:190:LYS:HB2	2.35	0.41
57:N1:131:GLN:HG3	57:N1:132:PRO:HD2	2.02	0.41
63:N7:97:SER:OG	63:N7:99:GLU:HG3	2.21	0.41
36:1:1177:G:N7	69:O3:20:LYS:HD3	2.35	0.41
57:N1:73:GLY:HA2	57:N1:89:LEU:O	2.47	0.41
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	3.01	0.41
36:5:1567:U:H2'	36:5:1568:U:H4'	2.03	0.41
36:1:1826:C:H2'	36:1:1827:C:C6	2.55	0.41
49:M3:9:ILE:HD13	64:N8:52:TYR:HE1	1.85	0.41
36:5:1081:U:H3'	36:5:1081:U:H6	1.85	0.41
28:D6:24:VAL:HG11	28:D6:71:LEU:HD12	2.02	0.41
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	2.21	0.41
1:6:1685:G:H1	1:6:1716:C:N4	2.17	0.41
1:2:1516:A:C8	22:D0:59:PRO:HD2	2.55	0.41
74:O8:31:LEU:HD11	74:O8:35:GLY:O	2.20	0.41
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.43	0.41
24:D2:79:PHE:O	24:D2:124:LYS:HA	2.39	0.41
46:L9:189:GLU:C	46:L9:191:LEU:N	2.73	0.41
36:1:2989:U:O2'	40:L3:267:ALA:O	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:21:U:H2'	1:2:22:A:H8	1.86	0.41
72:O6:9:ILE:HD13	72:O6:10:GLY:H	5.25	0.41
86:5:4200:OHX:N2	86:8:227:OHX:N5	2.69	0.41
65:N9:58:LYS:HA	65:N9:58:LYS:NZ	4.22	0.41
36:1:2402:A:OP2	86:1:4093:OHX:N6	2.53	0.41
36:1:1227:C:H5'	36:1:1228:C:OP2	2.21	0.41
75:O9:35:ILE:HD12	75:O9:35:ILE:N	4.32	0.41
36:1:2321:A:H2'	36:1:2322:C:O4'	2.20	0.41
37:7:71:G:O2'	37:7:72:A:H5'	2.21	0.41
38:8:69:U:H2'	38:8:70:G:O4'	2.21	0.41
36:5:2322:C:OP1	86:5:4157:OHX:N6	2.54	0.41
3:S1:191:GLU:O	3:S1:194:ASN:HB2	2.39	0.41
62:N6:121:ARG:C	62:N6:123:GLY:H	2.24	0.41
36:5:2304:C:C5	36:5:2305:G:C6	3.09	0.41
63:N7:133:LYS:O	63:N7:134:LEU:HB3	4.66	0.41
72:O6:81:THR:O	72:O6:84:LYS:HB2	2.20	0.41
36:1:2842:U:OP1	36:1:2844:C:N4	2.54	0.41
30:D8:61:ARG:HH11	30:D8:61:ARG:HB3	1.85	0.41
1:2:555:A:H3'	1:2:555:A:C8	2.56	0.41
34:SR:117:LYS:HE3	34:SR:117:LYS:H	1.86	0.41
36:5:2282:U:O2	36:5:2310:U:H4'	2.21	0.41
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	2.01	0.41
52:M6:105:PHE:CD1	52:M6:109:PRO:HG3	3.00	0.41
86:5:4089:OHX:N6	86:7:220:OHX:N5	2.69	0.41
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	251.89	0.41
36:1:1577:G:H2'	36:1:1578:C:C1'	2.51	0.41
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.09	0.41
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.86	0.41
36:5:1557:A:C5	36:5:1559:A:C6	3.08	0.41
4:S2:170:ILE:O	4:S2:196:VAL:HG23	2.52	0.41
32:E0:40:TYR:CD1	32:E0:41:THR:HG23	4.02	0.41
32:E0:43:ARG:HG2	32:E0:54:ARG:NH1	5.50	0.41
11:S9:134:ILE:N	11:S9:134:ILE:HD12	4.12	0.41
36:1:3308:C:C4	36:1:3309:G:C5	3.08	0.41
46:L9:22:SER:HB2	46:L9:39:LYS:HZ3	3.37	0.41
15:C3:65:VAL:C	15:C3:67:THR:H	3.22	0.41
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.28	0.41
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	5.69	0.41
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.55	0.41
39:L2:188:LYS:O	39:L2:192:LYS:HG3	2.21	0.41
2:S0:185:ARG:HD3	2:S0:185:ARG:C	3.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:737:A:OP2	1:2:737:A:H2'	2.21	0.41
3:S1:24:PHE:C	3:S1:26:ARG:H	2.24	0.41
3:S1:41:ARG:HH22	3:S1:232:HIS:HB3	1.85	0.41
3:S1:48:VAL:HG12	3:S1:49:ASN:O	2.56	0.41
59:N3:89:ASP:OD1	59:N3:91:VAL:HG12	3.75	0.41
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.86	0.41
36:1:1010:G:N2	47:M0:193:ASP:OD2	2.54	0.41
10:S8:63:GLY:HA3	10:S8:179:CYS:O	2.21	0.41
32:E0:28:LYS:HB3	32:E0:28:LYS:HE3	1.79	0.41
45:L8:141:ALA:HA	45:L8:144:GLU:OE2	2.21	0.41
59:N3:80:ARG:NH1	59:N3:116:GLY:HA3	2.36	0.41
1:2:582:U:H3'	1:2:583:C:C6	2.56	0.41
3:S1:142:PHE:O	3:S1:208:GLN:N	2.45	0.41
36:1:1846:C:C4	53:M7:136:ILE:HG13	2.54	0.41
30:D8:52:ASP:OD1	30:D8:52:ASP:N	2.53	0.41
5:S3:134:CYS:SG	5:S3:135:GLU:N	2.93	0.41
36:1:1170:A:OP2	86:1:3963:OHX:N5	2.53	0.41
1:2:1786:G:OP1	16:C4:136:ARG:NH2	2.54	0.41
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.23	0.41
1:2:443:C:O2	1:2:445:A:N6	2.52	0.41
36:1:2261:G:O2'	36:1:2263:C:N4	2.54	0.41
1:6:1525:A:H2'	1:6:1526:A:O4'	2.20	0.41
1:2:1130:G:OP2	86:2:2073:OHX:N2	2.53	0.41
74:O8:54:LEU:HD11	74:O8:56:ILE:HD11	2.02	0.41
42:L5:107:ARG:NE	42:L5:107:ARG:HA	2.29	0.41
2:S0:151:SER:HA	2:S0:152:PRO:HD2	1.86	0.41
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.33	0.41
36:1:86:G:N7	49:M3:13:HIS:ND1	2.68	0.41
64:N8:112:ILE:HA	64:N8:112:ILE:HD13	1.78	0.41
36:5:873:C:H4'	36:5:1908:A:H5'	2.03	0.41
40:L3:360:ASP:OD1	40:L3:361:THR:N	3.28	0.41
44:L7:92:ILE:HD11	54:M8:4:ASP:N	2.36	0.41
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.53	0.41
23:D1:64:GLU:OE2	29:D7:2:VAL:HG13	2.98	0.41
36:1:1750:A:N3	36:1:1752:A:C8	2.88	0.41
39:L2:112:ILE:HG12	39:L2:135:ILE:HG12	2.02	0.41
6:S4:253:ASP:C	6:S4:255:ARG:H	2.24	0.41
7:S5:113:ILE:HG23	7:S5:191:ALA:HB2	2.03	0.41
1:2:207:U:H3	1:2:258:C:H42	1.67	0.41
63:N7:95:VAL:HG13	63:N7:110:ALA:HA	2.03	0.41
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1762:A:H1'	1:6:1783:C:OP1	2.21	0.41
36:1:1645:U:C2'	36:1:1646:G:H5'	2.51	0.41
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	2.02	0.41
69:O3:73:ARG:HH12	36:5:1167:U:P	246.04	0.41
36:5:2201:G:H2'	36:5:2202:C:H6	1.84	0.41
55:M9:23:TRP:CH2	55:M9:25:ASP:HA	3.33	0.41
36:5:851:C:H2'	36:5:852:U:H6	1.86	0.41
36:5:2882:U:H2'	36:5:2883:U:O4'	2.21	0.41
3:S1:104:ASP:OD2	3:S1:214:LYS:NZ	2.50	0.41
42:L5:278:SER:N	42:L5:281:GLU:OE2	2.80	0.41
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.24	0.41
36:1:280:U:H4'	51:M5:182:ASN:OD1	2.21	0.41
36:1:551:A:C4	36:1:552:G:C8	3.09	0.41
45:L8:195:SER:O	45:L8:197:VAL:N	2.63	0.41
37:7:49:G:H4'	37:7:50:U:O5'	2.21	0.41
1:2:52:U:H2'	1:2:53:G:H8	1.86	0.41
36:1:1134:G:C2	36:1:1135:A:C8	3.09	0.41
43:L6:66:SER:C	43:L6:68:PRO:HA	3.31	0.41
37:3:67:G:H2'	37:3:68:C:O4'	2.21	0.41
40:L3:122:TRP:CE2	40:L3:127:LYS:HE2	2.55	0.41
1:2:654:C:H3'	1:2:655:G:H5''	2.02	0.41
62:N6:10:SER:N	36:5:336:A:OP1	78.87	0.41
54:M8:50:LYS:O	54:M8:53:PHE:N	2.45	0.41
55:M9:55:VAL:HG12	55:M9:56:THR:H	1.85	0.41
1:2:1125:A:C5	1:2:1126:G:H1'	2.56	0.41
36:1:503:C:OP1	43:L6:26:ARG:NH1	2.54	0.41
36:1:2265:C:H2'	36:1:2266:U:O4'	2.21	0.41
1:6:1045:C:C2	1:6:1074:G:C2	3.08	0.41
36:5:1266:G:C6	36:5:1276:U:C2	3.09	0.41
1:2:89:G:C6	1:2:90:C:C4	3.08	0.41
55:M9:170:ARG:HH12	1:6:814:A:H2'	323.53	0.41
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.56	0.41
1:6:26:A:OP2	1:6:26:A:H3'	2.21	0.41
29:D7:80:ARG:HG2	29:D7:81:ARG:N	2.35	0.41
6:S4:10:LYS:HD3	1:6:381:C:H5''	358.40	0.41
7:S5:43:PHE:HB3	7:S5:46:TRP:HB2	2.02	0.41
40:L3:160:VAL:O	40:L3:180:GLU:HA	2.38	0.41
36:1:951:A:C4	36:1:1369:A:C2	3.09	0.41
1:2:322:G:O4'	1:2:323:A:H8	2.04	0.41
10:S8:9:HIS:CD2	10:S8:10:LYS:HB2	2.56	0.41
36:5:1766:G:C6	36:5:1767:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:49:ARG:HG3	6:S4:50:ASN:N	4.05	0.41
43:L6:78:ARG:HG3	43:L6:78:ARG:NH1	2.19	0.41
55:M9:38:ARG:O	55:M9:42:ARG:HG3	4.27	0.41
15:C3:117:LEU:HD23	15:C3:117:LEU:HA	2.37	0.41
52:M6:33:ILE:HG22	52:M6:34:VAL:N	2.78	0.41
24:D2:81:VAL:HG12	24:D2:82:LYS:O	5.00	0.41
88:5:4249:3K5:H39	88:5:4249:3K5:H16	2.03	0.41
36:1:269:G:P	51:M5:44:ARG:HH22	2.42	0.41
36:1:92:G:C3'	36:1:92:G:C8	3.04	0.41
1:2:400:A:H5''	10:S8:25:ARG:HA	2.03	0.41
1:2:1507:G:C2	1:2:1508:U:C2	3.09	0.41
73:O7:75:LYS:HE2	36:5:181:U:O3'	50.42	0.41
36:1:839:C:H2'	36:1:840:C:C6	2.56	0.41
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.78	0.41
28:D6:73:TYR:HB2	28:D6:78:ALA:HB2	2.33	0.41
11:S9:129:ILE:HG12	11:S9:134:ILE:HG12	4.44	0.41
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	3.01	0.41
36:1:2108:C:O2'	36:1:3362:A:N6	2.54	0.41
34:SR:114:ASP:OD1	34:SR:115:ILE:N	2.50	0.41
24:D2:23:ARG:NH1	24:D2:65:LEU:O	2.54	0.41
36:1:3187:A:H5''	50:M4:8:LYS:HD2	2.03	0.41
17:C5:86:VAL:O	17:C5:89:MET:HG2	2.21	0.41
22:D0:49:ASN:O	22:D0:50:LEU:HD23	6.54	0.41
22:D0:92:ASP:O	22:D0:93:LEU:HD23	2.21	0.41
70:O4:81:CYS:O	70:O4:82:ALA:HB3	2.21	0.41
36:5:981:U:C6	36:5:981:U:H3'	2.55	0.41
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.21	0.41
4:S2:58:LEU:HD23	4:S2:58:LEU:HA	1.77	0.41
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.55	0.41
3:S1:61:LEU:HB2	3:S1:62:LYS:H	1.62	0.41
1:6:192:U:HO2'	1:6:193:U:P	2.44	0.41
3:S1:88:VAL:HG21	3:S1:96:LEU:HD21	2.03	0.41
42:L5:99:TYR:O	42:L5:165:GLY:HA3	2.79	0.41
52:M6:121:PRO:HA	52:M6:124:LEU:HB2	2.25	0.41
56:N0:152:LEU:HA	56:N0:152:LEU:HD23	1.83	0.41
2:S0:38:PHE:CD2	19:C7:109:LEU:HD13	2.96	0.41
1:6:138:A:H5''	1:6:138:A:N3	2.36	0.41
3:S1:197:ILE:HG22	3:S1:210:ILE:HD13	3.26	0.41
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.36	0.41
12:C0:14:TYR:CZ	12:C0:18:GLU:HG3	2.60	0.41
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:28:LYS:O	65:N9:29:TYR:HB2	2.21	0.41
38:4:106:C:H5'	38:4:108:C:OP2	2.21	0.41
36:1:2948:C:H2'	36:1:2949:U:H6	1.86	0.41
6:S4:95:THR:OG1	6:S4:95:THR:O	2.38	0.41
1:6:1645:G:H22	1:6:1756:A:H2	1.67	0.41
44:L7:173:LEU:HD12	44:L7:173:LEU:HA	1.67	0.41
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.03	0.41
26:D4:52:LYS:O	26:D4:54:ALA:N	2.54	0.41
70:O4:52:GLN:CG	36:5:1639:C:H5'	196.36	0.41
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	2.02	0.41
36:5:1595:U:C2	36:5:1596:C:C4	3.09	0.41
14:C2:126:TRP:HD1	14:C2:127:GLY:N	3.42	0.41
53:M7:138:LYS:HZ2	36:5:2356:A:H5'	149.16	0.41
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	2.03	0.41
15:C3:125:LEU:HD23	15:C3:125:LEU:HA	2.08	0.41
47:M0:86:HIS:HB3	47:M0:139:ARG:HG3	2.91	0.41
74:O8:5:ILE:HG23	74:O8:54:LEU:HD13	3.79	0.41
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	3.13	0.41
51:M5:172:ARG:HH22	36:5:63:A:P	101.85	0.41
24:D2:118:ARG:NH1	1:6:687:G:OP1	397.92	0.41
62:N6:73:VAL:HA	62:N6:80:VAL:HG22	2.93	0.41
73:O7:5:THR:HA	73:O7:8:PHE:HD2	1.84	0.41
3:S1:66:VAL:HG23	16:C4:33:LEU:O	4.67	0.41
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.66	0.41
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.81	0.41
36:5:129:U:O4	86:5:3930:OHX:N4	2.54	0.41
66:O0:50:VAL:HG11	36:5:2552:C:H2'	233.13	0.41
3:S1:106:THR:HA	16:C4:116:GLU:OE1	3.15	0.41
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.21	0.41
50:M4:23:ILE:HG22	50:M4:29:ALA:HA	2.03	0.41
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.21	0.41
1:2:1657:U:C4	86:2:2088:OHX:N4	2.89	0.41
62:N6:45:ILE:HD13	62:N6:45:ILE:HA	1.78	0.41
1:2:1490:C:H6	1:2:1490:C:OP2	2.04	0.41
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	1.97	0.41
4:S2:224:PHE:CE1	24:D2:70:ASN:ND2	3.71	0.41
71:O5:71:LYS:HE3	71:O5:72:GLY:N	2.36	0.41
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.84	0.41
36:1:3085:G:H5''	36:1:3086:A:OP1	2.21	0.41
34:SR:201:THR:HG21	34:SR:242:SER:CA	2.91	0.41
1:6:1389:C:C4	1:6:1391:A:O4'	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:37:LEU:HD12	58:N2:41:ILE:HD11	5.35	0.41
36:1:1019:G:O6	86:1:4063:OHX:N1	2.54	0.41
36:5:982:C:N4	36:5:1101:G:H1	2.19	0.41
8:S6:58:LYS:H	8:S6:58:LYS:HG2	1.56	0.41
3:S1:135:LEU:HD21	3:S1:217:LEU:HD12	7.58	0.41
5:S3:91:VAL:HG23	5:S3:92:GLN:OE1	2.21	0.41
69:O3:23:ASN:OD1	69:O3:25:PRO:HD3	2.32	0.41
17:C5:52:LYS:HE2	17:C5:52:LYS:HB3	1.82	0.41
10:S8:87:ASN:ND2	1:6:341:A:H4'	257.57	0.41
54:M8:106:PHE:CE2	54:M8:121:CYS:HB3	2.56	0.41
36:5:2767:U:O4	86:5:4115:OHX:N3	2.54	0.41
1:6:1171:A:C2	1:6:1469:A:C2	3.09	0.41
36:1:591:G:O4'	43:L6:19:LYS:HG3	2.21	0.41
1:6:772:G:C6	1:6:773:C:C4	3.09	0.41
53:M7:142:SER:HA	53:M7:143:PRO:HD3	1.81	0.41
46:L9:29:GLY:H	46:L9:82:VAL:HG21	2.38	0.41
53:M7:36:ILE:HD11	53:M7:44:ALA:HB1	2.03	0.41
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.66	0.41
2:S0:172:LEU:HA	2:S0:172:LEU:HD23	1.92	0.41
70:O4:93:PHE:CD2	70:O4:94:LEU:HD23	2.89	0.41
5:S3:217:ILE:C	5:S3:219:ALA:H	4.18	0.41
36:1:748:U:H2'	36:1:749:C:H6	1.86	0.41
66:O0:53:LYS:NZ	66:O0:69:TYR:HE2	4.87	0.41
71:O5:68:GLN:C	71:O5:70:TYR:H	2.24	0.41
40:L3:128:LYS:O	40:L3:131:THR:HG23	2.53	0.41
42:L5:191:ASP:HA	42:L5:192:PRO:HD3	1.97	0.41
52:M6:54:TYR:CD2	52:M6:58:LEU:HD22	2.74	0.41
66:O0:14:LEU:HD21	66:O0:43:ILE:CD1	4.00	0.41
66:O0:68:TYR:HE2	66:O0:70:PHE:HA	3.15	0.41
1:6:246:G:H2'	1:6:247:A:C8	2.56	0.41
48:M1:11:ASP:O	48:M1:12:LEU:HB3	3.97	0.41
1:6:1221:A:C2	1:6:1263:G:C2	3.08	0.41
66:O0:39:SER:C	66:O0:40:LYS:HD2	2.41	0.41
4:S2:107:SER:HA	4:S2:190:LEU:O	2.21	0.41
1:2:553:G:C6	1:2:554:C:N3	2.88	0.41
20:C8:136:GLN:HE21	20:C8:136:GLN:HB3	4.21	0.41
1:6:1136:U:O2'	1:6:1137:A:H5'	2.21	0.41
86:5:4200:OHX:N4	86:8:227:OHX:N3	2.69	0.41
36:5:1716:U:P	36:5:1716:U:H3'	2.61	0.41
36:1:1852:G:N7	86:1:3983:OHX:N3	2.69	0.41
36:5:2722:U:H2'	36:5:2723:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:102:PHE:O	2:S0:103:THR:HB	2.20	0.41
1:6:811:A:C2	1:6:858:G:H1'	2.56	0.41
36:5:2709:C:H2'	36:5:2710:C:C6	2.56	0.41
36:1:661:G:C5	36:1:802:C:C6	3.09	0.41
36:5:2993:G:H2'	36:5:3142:A:N6	2.36	0.41
36:1:503:C:H42	36:1:588:G:H1	1.69	0.41
44:L7:62:ILE:O	44:L7:65:ALA:HB3	2.46	0.41
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.55	0.41
44:L7:67:ARG:NH2	36:5:517:G:H5''	308.96	0.41
36:5:169:U:H4'	36:5:170:G:OP1	2.21	0.41
36:1:1500:G:H2'	36:1:1501:U:O4'	2.21	0.41
40:L3:215:ILE:HG21	40:L3:282:ILE:HD11	2.03	0.41
36:1:320:G:C2	36:1:321:C:C5	3.09	0.41
36:1:2640:A:H2'	36:1:2641:U:C6	2.55	0.41
36:5:1008:U:H2'	36:5:1009:A:O4'	2.21	0.41
30:D8:60:GLU:O	30:D8:62:GLU:N	5.02	0.41
22:D0:75:GLY:N	1:6:1194:A:OP2	373.40	0.41
57:N1:141:VAL:HG12	57:N1:141:VAL:H	2.93	0.41
47:M0:102:MET:H	47:M0:102:MET:HG2	3.79	0.41
64:N8:62:HIS:O	64:N8:62:HIS:CG	2.73	0.41
39:L2:88:ILE:HD13	39:L2:88:ILE:HA	1.65	0.41
4:S2:211:LEU:HA	4:S2:211:LEU:HD23	2.20	0.41
28:D6:97:PRO:N	28:D6:98:PRO:HD2	2.36	0.41
3:S1:158:SER:O	3:S1:162:ARG:HG3	2.21	0.41
36:1:1930:A:O2'	86:1:3904:OHX:N1	2.54	0.41
35:SM:38:PRO:HA	35:SM:39:PRO:HD2	1.78	0.41
36:5:1270:A:H3'	36:5:1271:A:H8	1.85	0.41
40:L3:102:LEU:O	36:5:3147:G:H4'	240.33	0.41
36:5:1282:G:H2'	36:5:1283:C:O4'	2.21	0.41
1:6:1000:C:C5	1:6:1003:A:OP2	2.74	0.41
57:N1:75:ILE:HD13	57:N1:75:ILE:O	2.21	0.41
47:M0:153:ARG:HH11	47:M0:153:ARG:HG2	2.43	0.41
11:S9:45:ILE:HD13	11:S9:45:ILE:HA	1.76	0.41
36:5:1219:C:O2	36:5:1286:A:H2	2.04	0.41
1:2:1089:U:O2'	1:2:1090:C:H5'	2.20	0.41
25:D3:93:LEU:O	25:D3:93:LEU:HG	2.20	0.41
36:5:2148:U:H2'	36:5:2149:A:C5	2.55	0.41
36:1:2691:A:H2'	36:1:2692:A:O4'	2.21	0.41
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	3.03	0.41
1:2:992:A:H2'	1:2:993:A:H5'	2.03	0.41
36:1:3213:A:C2'	36:1:3214:U:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:304:G:N3	36:5:304:G:H5'	2.36	0.41
9:S7:14:THR:HG23	9:S7:15:GLU:N	2.35	0.41
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.20	0.41
4:S2:41:LEU:O	4:S2:45:VAL:HG23	2.20	0.41
20:C8:134:ARG:NH2	1:6:1545:A:C8	356.00	0.41
1:6:716:C:H2'	1:6:717:C:O4'	2.21	0.41
39:L2:204:MET:O	39:L2:212:GLY:HA2	2.40	0.41
1:6:1579:U:H2'	1:6:1580:C:H6	1.86	0.41
15:C3:30:SER:O	15:C3:34:ILE:HG13	2.73	0.41
71:O5:84:LYS:HB3	71:O5:85:THR:H	1.41	0.41
39:L2:53:GLY:O	39:L2:192:LYS:NZ	3.40	0.41
36:5:2209:U:C2	36:5:2210:G:C8	3.10	0.41
3:S1:34:ALA:HA	3:S1:98:THR:CG2	2.51	0.41
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	2.02	0.41
19:C7:32:LYS:HG3	19:C7:47:ARG:NH1	2.35	0.41
56:N0:166:LYS:HG3	56:N0:167:ARG:N	4.61	0.41
1:6:168:A:C6	1:6:169:A:C6	3.08	0.41
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.31	0.41
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.56	0.41
24:D2:107:SER:HA	1:6:804:A:C8	366.62	0.41
33:E1:144:CYS:C	33:E1:146:SER:N	2.80	0.41
36:1:3259:U:H5'	36:1:3259:U:C6	2.45	0.41
36:5:720:A:O2'	36:5:784:A:OP2	2.25	0.41
42:L5:294:ALA:C	42:L5:296:GLN:H	2.21	0.41
52:M6:42:ASN:HD22	52:M6:42:ASN:HA	1.65	0.41
36:1:806:A:C5	36:1:936:A:C2	3.08	0.41
5:S3:32:GLU:O	5:S3:54:ARG:HB2	3.14	0.41
74:O8:65:LEU:HA	74:O8:65:LEU:HD23	1.88	0.41
36:5:1556:C:C5	36:5:2169:G:C4	3.09	0.41
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.51	0.41
36:1:2698:G:O2'	57:N1:12:ARG:HG3	2.21	0.41
1:6:208:U:H2'	1:6:209:U:C6	2.56	0.41
63:N7:4:PHE:CE2	66:O0:35:ARG:HA	2.55	0.41
54:M8:183:GLY:N	36:5:2763:U:OP1	184.95	0.41
36:1:3059:G:H2'	36:1:3060:C:C6	2.56	0.41
36:1:2363:A:C2	36:1:2376:G:C6	3.09	0.41
1:2:1082:C:O2	23:D1:62:ARG:NE	2.44	0.41
36:1:1240:A:H61	36:1:1244:A:H5''	1.86	0.41
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	3.34	0.41
16:C4:55:SER:HB2	16:C4:96:PRO:HG2	4.22	0.41
36:1:2244:A:H2'	36:1:2245:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:45:GLU:O	47:M0:141:LYS:HE3	2.20	0.41
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.12	0.41
19:C7:61:ILE:C	19:C7:63:LYS:H	2.79	0.41
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.59	0.41
8:S6:75:LEU:HD13	1:6:1722:A:H5''	281.08	0.41
4:S2:148:LEU:O	4:S2:174:ARG:NH2	5.79	0.41
49:M3:28:GLN:HB3	51:M5:201:ARG:HD2	2.30	0.41
25:D3:112:LYS:H	25:D3:112:LYS:HG3	4.28	0.41
34:SR:236:ALA:C	34:SR:238:ASP:H	2.85	0.41
10:S8:153:GLU:HG2	10:S8:155:SER:OG	3.41	0.41
36:1:2357:A:C2	36:1:2358:A:C5	3.09	0.41
39:L2:20:THR:HA	39:L2:23:ARG:HD3	2.03	0.41
17:C5:48:GLY:O	17:C5:52:LYS:HD2	2.22	0.41
36:1:1488:G:C2	36:1:1489:A:C8	3.09	0.41
36:5:953:G:O2'	36:5:1116:G:H5'	2.21	0.41
34:SR:248:ASN:OD1	34:SR:248:ASN:N	2.49	0.41
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.56	0.41
1:6:1406:A:C2	1:6:1407:U:C2	3.09	0.41
45:L8:73:PRO:HD3	45:L8:233:TRP:CE2	2.56	0.41
36:5:647:A:C2	36:5:2372:A:H2'	2.56	0.41
36:5:848:A:C4	36:5:849:C:H1'	2.56	0.41
36:1:1748:G:OP2	74:O8:42:LYS:NZ	2.51	0.41
1:6:1046:G:C2	1:6:1073:G:C2	3.09	0.41
36:5:138:U:H2'	36:5:139:G:C8	2.55	0.41
26:D4:16:PRO:C	26:D4:19:ALA:H	2.97	0.41
76:Q0:110:CYS:SG	76:Q0:112:LYS:HB2	2.66	0.41
1:6:325:G:C2	1:6:344:A:C2	3.09	0.41
53:M7:55:GLN:NE2	36:5:3299:A:O2'	163.92	0.41
1:2:577:G:H2'	35:SM:99:LYS:NZ	2.35	0.41
25:D3:111:GLY:O	25:D3:121:ARG:HD2	5.41	0.41
4:S2:43:ARG:NH2	4:S2:249:ALA:HB2	4.08	0.41
1:2:129:U:O4	1:2:264:G:H2'	2.20	0.41
36:5:3071:U:H2'	36:5:3072:C:O4'	2.21	0.41
36:5:1538:G:N7	86:5:4003:OHX:N4	2.68	0.41
51:M5:177:GLY:HA2	36:5:68:C:O3'	110.99	0.41
1:2:252:U:H2'	1:2:253:A:H8	1.85	0.41
8:S6:76:LEU:HA	8:S6:76:LEU:HD23	2.01	0.41
15:C3:116:ILE:HG21	15:C3:116:ILE:HD13	1.89	0.41
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	1.85	0.41
66:O0:51:LEU:HA	66:O0:51:LEU:HD12	1.75	0.41
36:1:1366:A:C2	36:1:1367:G:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2192:C:O2'	36:1:2312:A:N1	2.36	0.41
26:D4:25:VAL:HG12	26:D4:27:VAL:HG23	2.13	0.41
18:C6:83:GLN:HG3	18:C6:115:THR:HG23	7.88	0.40
53:M7:62:ARG:O	53:M7:64:ASN:N	2.78	0.40
36:5:2836:C:C5	36:5:2852:C:N4	2.76	0.40
10:S8:62:THR:HA	10:S8:76:THR:O	2.36	0.40
52:M6:33:ILE:O	52:M6:102:LEU:HA	2.21	0.40
44:L7:160:ARG:HG3	44:L7:203:TRP:CD2	2.56	0.40
86:2:2082:OHX:N6	86:2:2084:OHX:N2	2.69	0.40
55:M9:104:ARG:NH2	55:M9:105:LEU:HB2	2.35	0.40
28:D6:90:GLU:OE1	28:D6:91:ASP:N	5.65	0.40
9:S7:103:SER:OG	9:S7:105:THR:N	2.51	0.40
32:E0:43:ARG:HE	32:E0:43:ARG:HB2	3.34	0.40
32:E0:44:PHE:O	32:E0:45:VAL:HB	4.49	0.40
78:Q2:41:ARG:NH2	36:5:2785:A:O2'	160.24	0.40
41:L4:93:MET:H	41:L4:93:MET:HE2	2.46	0.40
36:5:1918:C:H5''	36:5:1919:G:OP2	2.20	0.40
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.51	0.40
1:2:706:A:N1	1:2:734:A:N6	2.70	0.40
37:3:19:C:O2	37:3:20:A:C8	2.74	0.40
17:C5:67:ALA:HB2	17:C5:73:PRO:HA	2.55	0.40
5:S3:138:VAL:O	5:S3:138:VAL:HG12	2.21	0.40
40:L3:169:THR:HG22	40:L3:171:LEU:HG	2.03	0.40
34:SR:164:ASP:C	34:SR:166:SER:H	2.25	0.40
47:M0:194:GLY:HA3	36:5:1010:G:C2	334.55	0.40
51:M5:5:LYS:HB3	72:O6:36:ARG:NH1	2.36	0.40
25:D3:46:SER:OG	25:D3:78:LYS:NZ	2.54	0.40
1:2:582:U:H3'	1:2:583:C:H6	1.86	0.40
3:S1:181:LEU:HD23	3:S1:181:LEU:HA	4.46	0.40
42:L5:113:LEU:HA	42:L5:113:LEU:HD12	1.97	0.40
1:6:992:A:C8	1:6:1013:A:C2	3.09	0.40
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.21	0.40
8:S6:185:GLN:NE2	1:6:284:G:C6	352.90	0.40
63:N7:55:LYS:O	63:N7:57:HIS:N	3.13	0.40
50:M4:38:ILE:HD13	50:M4:38:ILE:HG21	1.76	0.40
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.79	0.40
55:M9:20:ARG:O	55:M9:53:LYS:HE3	5.43	0.40
41:L4:333:VAL:O	41:L4:337:GLU:HG3	2.21	0.40
1:6:1661:U:H2'	1:6:1662:G:C8	2.56	0.40
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.47	0.40
36:5:2254:U:H2'	36:5:2261:G:N2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:67:MET:HE3	69:O3:89:LEU:HD22	2.02	0.40
36:5:1308:A:H4'	36:5:1309:U:OP1	2.21	0.40
62:N6:58:VAL:O	62:N6:64:LYS:HA	2.86	0.40
73:O7:8:PHE:C	73:O7:10:LYS:H	2.58	0.40
36:5:1014:U:H3	36:5:1036:A:H61	1.66	0.40
9:S7:125:ILE:O	9:S7:129:LEU:N	2.60	0.40
21:C9:117:SER:HB2	21:C9:123:ARG:HE	3.94	0.40
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	3.27	0.40
1:2:1672:G:N7	86:2:2043:OHX:N5	2.70	0.40
50:M4:26:GLY:N	50:M4:29:ALA:HB2	2.36	0.40
49:M3:69:VAL:HG12	49:M3:149:GLN:OE1	2.97	0.40
59:N3:13:ILE:HD13	59:N3:13:ILE:HG21	2.64	0.40
34:SR:305:TYR:C	34:SR:307:ASP:H	2.80	0.40
18:C6:28:LEU:HD13	18:C6:30:LYS:HG3	2.03	0.40
7:S5:26:ALA:HB3	18:C6:28:LEU:N	2.51	0.40
64:N8:115:LYS:HG3	36:5:715:A:C8	149.50	0.40
1:2:1274:C:H4'	1:2:1275:A:O5'	2.21	0.40
44:L7:116:PHE:CE1	44:L7:144:ILE:HG12	2.56	0.40
20:C8:50:ALA:O	20:C8:52:VAL:HG23	3.24	0.40
7:S5:147:THR:HG21	30:D8:25:VAL:HG21	2.58	0.40
40:L3:66:LYS:HE2	40:L3:70:ARG:HH21	3.81	0.40
1:2:789:A:C2	11:S9:71:PHE:HE1	2.38	0.40
36:1:3313:U:H4'	40:L3:173:GLN:OE1	2.20	0.40
44:L7:24:GLU:O	44:L7:26:VAL:N	2.38	0.40
36:5:1340:G:C4	36:5:1341:U:C5	3.08	0.40
68:O2:103:LYS:O	68:O2:106:VAL:HG12	2.20	0.40
69:O3:52:VAL:HG21	69:O3:99:ARG:CZ	3.13	0.40
63:N7:16:GLY:HA3	36:5:1637:A:H5''	209.63	0.40
45:L8:71:VAL:HA	45:L8:72:PRO:HD3	2.25	0.40
36:5:2407:C:H2'	36:5:2408:U:H6	1.86	0.40
21:C9:25:GLN:CG	21:C9:27:LYS:HD3	2.51	0.40
36:1:241:G:O2'	36:1:242:C:H5'	2.21	0.40
12:C0:24:LYS:HD2	12:C0:63:TYR:CZ	4.85	0.40
36:1:3141:A:H4'	36:1:3142:A:OP2	2.21	0.40
36:1:3326:G:H2'	36:1:3327:G:C8	2.55	0.40
57:N1:40:VAL:HB	57:N1:96:ILE:HG23	2.03	0.40
3:S1:52:THR:OG1	3:S1:53:GLY:O	4.49	0.40
67:O1:20:LEU:O	67:O1:23:VAL:HB	2.51	0.40
3:S1:104:ASP:CG	3:S1:214:LYS:HG3	4.09	0.40
46:L9:49:ASN:OD1	46:L9:51:GLN:HB2	3.16	0.40
36:1:608:A:N6	43:L6:22:ARG:HD3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:37:ASN:HB3	36:5:597:G:OP1	249.25	0.40
36:5:1734:G:H2'	36:5:1735:G:O4'	2.21	0.40
36:5:2528:G:N7	86:5:4205:OHX:N3	2.69	0.40
66:O0:40:LYS:HD2	66:O0:40:LYS:N	2.36	0.40
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	2.07	0.40
30:D8:29:ARG:HA	30:D8:41:VAL:HA	2.03	0.40
86:1:3981:OHX:N1	86:1:4161:OHX:N2	2.69	0.40
1:2:1321:A:OP2	2:S0:101:ARG:NH2	2.52	0.40
52:M6:195:ALA:O	52:M6:197:LEU:N	2.53	0.40
56:N0:101:ALA:O	56:N0:105:THR:HG23	2.21	0.40
36:5:3127:A:H2'	36:5:3128:G:O4'	2.21	0.40
36:5:1266:G:C6	36:5:1267:U:C4	3.10	0.40
1:6:1592:A:C2	1:6:1605:G:C2	3.10	0.40
7:S5:76:ARG:HG3	7:S5:79:ASN:HD21	1.84	0.40
36:1:2884:C:H2'	36:1:2885:C:H6	1.86	0.40
1:2:1755:A:OP2	86:2:2057:OHX:N3	2.54	0.40
36:1:2153:U:OP1	39:L2:246:LEU:HB2	2.22	0.40
1:6:423:G:N7	86:6:2085:OHX:N6	2.69	0.40
1:6:238:U:H5	1:6:240:U:C5	2.39	0.40
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.28	0.40
49:M3:162:ASN:HD21	49:M3:164:GLU:HG2	5.52	0.40
78:Q2:100:LYS:HE2	36:5:2657:A:OP2	259.26	0.40
47:M0:6:ALA:HB3	36:5:2855:U:OP2	285.39	0.40
38:8:129:C:H2'	38:8:130:C:H6	1.86	0.40
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.53	0.40
20:C8:2:SER:HA	27:D5:78:ILE:HG23	6.29	0.40
58:N2:50:LEU:H	58:N2:50:LEU:HG	2.73	0.40
1:2:1064:G:H2'	1:2:1065:A:C8	2.55	0.40
1:2:156:A:H2'	1:2:157:A:O4'	2.20	0.40
72:O6:93:ILE:O	72:O6:96:ALA:HB3	2.92	0.40
36:1:558:U:H6	36:1:558:U:O5'	2.04	0.40
2:S0:28:ASN:ND2	2:S0:28:ASN:O	2.36	0.40
1:2:1756:A:C8	1:2:1756:A:OP2	2.74	0.40
8:S6:133:LEU:HD12	8:S6:133:LEU:HA	1.98	0.40
41:L4:350:LYS:HB3	41:L4:350:LYS:HE3	1.87	0.40
63:N7:116:LYS:HB2	63:N7:116:LYS:HE3	2.50	0.40
30:D8:33:LEU:HA	30:D8:33:LEU:HD22	1.89	0.40
12:C0:44:LYS:HD3	12:C0:44:LYS:HA	2.05	0.40
10:S8:151:LYS:HA	10:S8:151:LYS:HD2	4.22	0.40
56:N0:123:ILE:HG23	56:N0:123:ILE:HD12	2.16	0.40
78:Q2:10:THR:O	78:Q2:20:HIS:HA	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2221:G:N2	36:1:2224:A:OP2	2.47	0.40
36:5:2808:A:H4'	36:5:2809:C:O5'	2.21	0.40
40:L3:46:PHE:CE2	40:L3:205:VAL:HG22	2.56	0.40
36:5:274:G:H1	36:5:291:C:H42	1.68	0.40
36:1:93:C:OP2	36:1:2764:C:O2'	2.33	0.40
67:O1:13:THR:HG22	67:O1:72:ARG:CD	2.98	0.40
2:S0:71:GLU:C	2:S0:73:VAL:H	2.37	0.40
9:S7:106:SER:OG	9:S7:107:ARG:N	2.54	0.40
1:2:1545:A:N7	20:C8:134:ARG:NH2	2.69	0.40
11:S9:83:VAL:HA	11:S9:149:ARG:HA	2.03	0.40
67:O1:39:PHE:CZ	67:O1:43:HIS:NE2	3.21	0.40
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.28	0.40
34:SR:153:GLN:HB3	34:SR:202:LEU:HD22	2.02	0.40
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.73	0.40
49:M3:54:LEU:HD23	49:M3:54:LEU:HA	1.82	0.40
16:C4:52:ARG:HG2	16:C4:53:ASP:OD1	2.21	0.40
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.53	0.40
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.21	0.40
1:6:545:A:C6	1:6:594:A:C8	3.09	0.40
46:L9:67:ALA:HA	46:L9:70:THR:HG23	2.04	0.40
57:N1:128:LEU:N	57:N1:128:LEU:HD12	2.36	0.40
33:E1:135:HIS:CD2	33:E1:138:ARG:HH21	7.60	0.40
38:4:106:C:O2'	86:4:236:OHX:N4	2.54	0.40
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.48	0.40
36:1:1704:A:HO2'	36:1:1705:U:H5	1.68	0.40
36:1:121:A:N1	45:L8:129:PRO:HB3	2.37	0.40
36:5:3242:G:H5'	36:5:3245:A:C8	2.56	0.40
11:S9:2:PRO:N	11:S9:3:ARG:NH2	2.64	0.40
57:N1:130:ARG:HH11	36:5:1098:A:P	252.39	0.40
2:S0:144:ILE:HG23	2:S0:158:VAL:HG13	3.66	0.40
14:C2:54:ARG:O	14:C2:56:GLU:N	2.52	0.40
36:1:3346:U:H3	36:1:3359:A:N6	2.20	0.40
33:E1:121:CYS:HB2	33:E1:132:LEU:HD21	2.02	0.40
13:C1:5:LEU:HD23	13:C1:7:VAL:HA	7.97	0.40
38:8:44:A:H2'	38:8:45:C:C6	2.56	0.40
1:2:14:C:H2'	1:2:15:U:H6	1.86	0.40
45:L8:41:GLN:HG3	45:L8:44:ARG:NH2	4.06	0.40
59:N3:32:ARG:HG2	59:N3:64:LYS:HB3	2.01	0.40
4:S2:71:THR:O	4:S2:74:PRO:HD3	3.09	0.40
16:C4:91:THR:O	16:C4:92:LYS:HD2	2.21	0.40
1:2:287:G:O2'	1:2:288:A:P	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:58:GLU:HG2	69:O3:62:SER:H	3.78	0.40
36:1:1547:G:OP2	51:M5:105:ARG:NH1	2.54	0.40
1:2:1230:A:H2'	1:2:1258:U:H5	1.86	0.40
68:O2:47:ARG:NH1	36:5:634:C:O3'	217.32	0.40
73:O7:18:LEU:HA	73:O7:24:ARG:O	4.68	0.40
36:5:3164:C:O2'	36:5:3165:A:P	2.79	0.40
18:C6:28:LEU:O	18:C6:29:ILE:HG13	2.82	0.40
72:O6:11:LEU:HA	72:O6:11:LEU:HD12	1.71	0.40
36:5:2158:A:O4'	36:5:2160:G:C8	2.74	0.40
36:5:94:G:H2'	36:5:95:A:C8	2.56	0.40
1:6:97:C:O2'	1:6:426:G:H5'	2.21	0.40
76:Q0:104:PRO:HA	76:Q0:105:PRO:HD3	1.86	0.40
1:2:413:U:H2'	1:2:414:C:H6	1.85	0.40
1:2:1317:C:O2	1:2:1400:A:H2	2.04	0.40
1:2:809:A:N6	1:2:810:G:O6	2.54	0.40
36:5:189:G:H3'	36:5:224:C:OP2	2.21	0.40
36:1:2105:G:C2'	36:1:2106:A:H5'	2.50	0.40
1:6:149:C:H2'	1:6:150:U:C6	2.55	0.40
1:2:1:U:O4	11:S9:54:ARG:HD3	2.21	0.40
36:1:1026:A:H2'	36:1:1027:A:O4'	2.21	0.40
71:O5:45:LYS:O	71:O5:49:LYS:HG2	2.62	0.40
37:7:47:C:H2'	37:7:48:U:C6	2.56	0.40
86:1:3965:OHX:N2	86:1:4145:OHX:N6	2.70	0.40
11:S9:24:LEU:HD23	11:S9:24:LEU:HA	1.93	0.40
32:E0:33:ARG:CZ	32:E0:33:ARG:HB3	2.51	0.40
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.64	0.40
30:D8:29:ARG:HG2	30:D8:39:THR:OG1	2.21	0.40
34:SR:10:ARG:NH1	34:SR:51:ASP:OD2	4.87	0.40
6:S4:148:ARG:HG2	6:S4:148:ARG:H	2.38	0.40
36:5:1614:C:H2'	36:5:1615:C:C6	2.56	0.40
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	2.03	0.40
36:1:712:G:N2	36:1:754:G:O3'	2.54	0.40
18:C6:5:PRO:HG2	18:C6:24:ALA:CB	2.51	0.40
1:6:1064:G:H2'	1:6:1065:A:C8	2.56	0.40
36:1:324:A:H2'	36:1:325:A:C8	2.56	0.40
59:N3:25:CYS:SG	59:N3:27:ASP:OD2	3.17	0.40
63:N7:13:VAL:HA	63:N7:80:LEU:HD23	2.43	0.40
36:5:1927:G:N2	36:5:1928:G:C8	2.90	0.40
36:5:2130:G:OP1	86:5:4184:OHX:N5	2.55	0.40
36:1:1902:G:C6	36:1:1903:U:C2	3.09	0.40
36:5:3287:U:O2	36:5:3287:U:H2'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:183:ILE:HG13	10:S8:183:ILE:O	4.78	0.40
36:1:1525:G:H2'	36:1:1525:G:N3	2.35	0.40
31:D9:43:PHE:O	31:D9:47:ALA:N	2.68	0.40
36:1:3276:G:H3'	43:L6:48:ARG:NH2	2.37	0.40
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.04	0.40
47:M0:191:LYS:HD3	47:M0:213:PHE:CE2	2.56	0.40
43:L6:166:LYS:HE2	69:O3:4:SER:OG	2.33	0.40
36:1:42:C:N4	36:1:92:G:H1	2.18	0.40
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.21	0.40
36:5:1579:C:H2'	36:5:1580:A:H8	1.86	0.40
4:S2:229:LEU:HD12	23:D1:13:VAL:HG13	3.03	0.40
1:2:1599:C:O2	86:2:2110:OHX:N3	2.54	0.40
24:D2:25:VAL:HG22	24:D2:65:LEU:HD21	4.78	0.40
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.19	0.40
10:S8:81:VAL:H	10:S8:102:VAL:HG12	1.85	0.40
1:2:279:G:N7	1:2:281:G:C8	2.90	0.40
20:C8:29:VAL:CG2	20:C8:54:LEU:HD23	6.14	0.40
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.30	0.40
1:2:196:G:O2'	1:2:197:A:H8	2.03	0.40
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.28	0.40
34:SR:164:ASP:OD2	34:SR:166:SER:OG	2.30	0.40
19:C7:24:LEU:HD13	19:C7:58:MET:HE3	3.82	0.40
1:2:142:G:C5	1:2:266:A:C6	3.10	0.40
36:1:3198:U:H4'	36:1:3199:G:OP2	2.21	0.40
68:O2:97:ALA:O	68:O2:100:ILE:HG12	2.42	0.40
25:D3:130:VAL:O	25:D3:131:SER:CB	4.32	0.40
30:D8:44:VAL:HG21	30:D8:48:VAL:CG2	2.50	0.40
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.20	0.40
44:L7:132:PRO:HA	44:L7:229:PHE:CD1	2.57	0.40
1:2:150:U:H2'	1:2:151:G:O4'	2.22	0.40
72:O6:99:ARG:HB3	72:O6:100:HIS:H	1.50	0.40
63:N7:32:GLY:O	63:N7:33:SER:HB2	2.21	0.40
2:S0:115:PHE:CE1	2:S0:117:GLU:HG3	3.54	0.40
55:M9:52:LYS:O	55:M9:53:LYS:O	2.39	0.40
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	2.03	0.40
22:D0:29:THR:OG1	22:D0:30:LYS:HE3	2.21	0.40
1:6:1125:A:N7	1:6:1126:G:H1'	2.36	0.40
1:6:76:A:H2'	1:6:76:A:N3	2.36	0.40
45:L8:150:LEU:HD22	45:L8:151:VAL:N	2.37	0.40
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CD1	6.12	0.40
2:S0:167:LYS:HE2	2:S0:168:HIS:NE2	4.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:23:HIS:HD2	78:Q2:72:LEU:HB3	2.58	0.40
86:1:4034:OHX:N6	86:1:4152:OHX:N5	2.69	0.40
63:N7:61:LYS:O	63:N7:64:LYS:N	3.04	0.40
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	2.73	0.40
17:C5:128:HIS:NE2	1:6:1459:C:O2	339.42	0.40
36:1:2245:C:O4'	39:L2:222:ALA:HA	2.21	0.40
36:1:634:C:H5'	69:O3:21:ARG:O	2.22	0.40
52:M6:81:TYR:O	52:M6:85:ARG:HB2	2.20	0.40
48:M1:80:LEU:HD22	48:M1:80:LEU:O	2.38	0.40
1:2:1657:U:C4	86:2:2088:OHX:N2	2.90	0.40
1:2:1657:U:H5	36:1:2125:A:O3'	2.04	0.40
1:2:1658:G:C4	1:2:1659:A:C8	3.09	0.40
45:L8:64:ILE:O	45:L8:68:ARG:HG2	2.65	0.40
34:SR:305:TYR:CE2	34:SR:311:ARG:HB2	2.56	0.40
1:2:1451:C:OP1	31:D9:10:HIS:HB3	2.21	0.40
2:S0:22:THR:O	2:S0:48:ILE:HD12	2.85	0.40
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.43	0.40
34:SR:201:THR:OG1	34:SR:242:SER:HA	2.21	0.40
1:6:398:G:O5'	1:6:398:G:H8	2.04	0.40
1:6:901:G:N1	1:6:902:G:C6	2.90	0.40
16:C4:54:GLU:OE1	1:6:901:G:N2	282.13	0.40
36:1:2733:A:H2'	36:1:2734:A:O4'	2.21	0.40
46:L9:106:LYS:HG3	46:L9:107:ASP:CG	3.61	0.40
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.54	0.40
4:S2:44:LEU:HD23	4:S2:44:LEU:HA	1.96	0.40
40:L3:199:PHE:C	40:L3:201:LYS:H	2.25	0.40
4:S2:163:GLY:HA3	4:S2:209:ASN:ND2	2.36	0.40
36:5:2533:G:N2	36:5:2546:C:O2	2.37	0.40
24:D2:38:LEU:HA	24:D2:38:LEU:HD23	1.82	0.40
56:N0:52:LYS:HG2	37:7:77:G:N7	291.27	0.40
36:5:2775:U:C2	36:5:2786:G:C2	3.09	0.40
52:M6:84:LEU:HD23	52:M6:84:LEU:C	2.88	0.40
37:7:48:U:O2	37:7:50:U:C4	2.74	0.40
1:2:1561:U:OP1	86:2:2178:OHX:N3	2.54	0.40
64:N8:26:ARG:HD2	36:5:938:C:C5	174.03	0.40
86:2:2074:OHX:N6	86:2:2161:OHX:N5	2.69	0.40
36:1:282:G:H3'	36:1:282:G:C8	2.56	0.40
36:1:1185:C:OP1	50:M4:42:LYS:HD2	2.21	0.40
36:5:772:U:H2'	36:5:773:G:O4'	2.21	0.40
36:5:975:C:H2'	36:5:976:U:H6	1.86	0.40
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:654:C:H3'	1:2:655:G:C5'	2.52	0.40
63:N7:80:LEU:HD23	63:N7:80:LEU:HA	2.23	0.40
46:L9:163:GLN:HE22	36:5:3108:G:H21	313.62	0.40
36:1:3174:A:C6	36:1:3175:U:N3	2.89	0.40
1:6:1318:G:N7	86:6:2165:OHX:N3	2.69	0.40
36:5:601:U:H2'	36:5:602:A:O4'	2.22	0.40
1:2:336:G:H5'	13:C1:130:PRO:O	2.20	0.40
4:S2:185:LYS:HE3	4:S2:189:GLN:NE2	2.37	0.40
36:1:2112:U:H4'	36:1:2113:A:H5'	2.02	0.40
36:5:28:C:O2'	36:5:61:A:H1'	2.22	0.40
20:C8:36:LYS:O	20:C8:102:ALA:N	2.81	0.40
5:S3:183:GLY:O	5:S3:184:ILE:HD13	3.12	0.40
1:6:1092:A:OP1	86:6:2201:OHX:N2	2.54	0.40
21:C9:58:ALA:O	21:C9:108:LEU:HD11	2.21	0.40
9:S7:7:LYS:HE3	9:S7:7:LYS:HB2	4.58	0.40
52:M6:127:LEU:HD23	52:M6:127:LEU:HA	1.87	0.40
7:S5:187:ILE:HG13	7:S5:187:ILE:H	1.55	0.40
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.22	0.40
36:1:1299:U:H2'	36:1:1300:G:O4'	2.21	0.40
68:O2:79:VAL:HG13	68:O2:111:ARG:HG2	2.03	0.40
7:S5:37:GLN:NE2	18:C6:46:PHE:CD1	3.38	0.40
36:1:2206:G:N2	36:1:2207:A:C8	2.90	0.40
9:S7:71:HIS:HD2	9:S7:74:GLN:OE1	5.90	0.40
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.37	0.40
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.46	0.40
24:D2:14:ILE:HA	24:D2:25:VAL:HG21	2.04	0.40
4:S2:227:PRO:HD3	24:D2:99:PHE:CD2	2.56	0.40
36:1:1072:G:C5	36:1:1087:G:N1	2.89	0.40
62:N6:48:LEU:HA	62:N6:48:LEU:HD23	2.25	0.40
12:C0:41:TYR:O	12:C0:45:ALA:N	3.05	0.40
36:5:2209:U:O4	86:5:3960:OHX:N4	2.54	0.40
20:C8:61:LEU:HA	20:C8:65:GLU:OE1	4.16	0.40
41:L4:15:ALA:O	41:L4:16:THR:OG1	2.34	0.40
9:S7:133:THR:OG1	9:S7:134:GLU:N	2.55	0.40
1:6:542:A:H1'	1:6:543:C:H5'	2.02	0.40
1:6:542:A:H1'	1:6:543:C:P	2.62	0.40
1:6:168:A:N6	1:6:169:A:N6	2.69	0.40
1:2:804:A:C5	24:D2:107:SER:HA	2.56	0.40
1:2:1234:A:H4'	33:E1:146:SER:HB3	2.03	0.40
44:L7:128:LYS:O	44:L7:130:ILE:N	3.12	0.40
1:2:1486:G:C6	1:2:1522:U:H5	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:142:ASP:C	47:M0:144:ASN:H	2.24	0.40
1:2:1331:A:N6	5:S3:160:SER:OG	2.54	0.40
36:5:1202:A:N6	36:5:1301:A:C4	2.90	0.40
36:1:1712:G:N2	36:1:1731:A:OP2	2.44	0.40
47:M0:116:ARG:NH2	36:5:2617:U:O3'	227.70	0.40
1:2:1370:U:H4'	1:2:1371:A:H5'	2.04	0.40
36:5:1696:A:H2'	36:5:1697:A:C8	2.56	0.40
25:D3:13:ARG:HD2	25:D3:13:ARG:HH11	1.73	0.40
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	2.02	0.40
36:1:1823:A:H2'	36:1:1824:U:H6	1.86	0.40
41:L4:112:LYS:HG2	36:5:790:U:C5'	120.95	0.40
26:D4:20:ARG:HE	26:D4:22:GLN:NE2	4.69	0.40
60:N4:39:LEU:HD13	60:N4:39:LEU:HA	1.86	0.40
45:L8:100:GLU:HB3	45:L8:104:GLU:HB2	5.21	0.40
45:L8:108:ARG:O	45:L8:112:GLU:N	2.94	0.40
1:2:499:U:H6	1:2:499:U:H2'	1.45	0.40
44:L7:89:ILE:HA	44:L7:89:ILE:HD13	1.63	0.40
61:N5:91:ASN:ND2	61:N5:93:TYR:HD2	2.19	0.40
36:5:1502:C:N3	36:5:1513:G:O6	2.54	0.40
1:6:1458:G:C2	1:6:1459:C:C4	3.10	0.40
1:6:823:G:C5	1:6:850:A:C2	3.09	0.40
36:5:2101:C:O2'	36:5:2102:U:P	2.80	0.40
10:S8:146:ARG:O	10:S8:147:ALA:HB3	2.21	0.40
36:5:1278:A:C8	36:5:1279:C:C5	3.09	0.40
10:S8:140:GLU:H	10:S8:140:GLU:HG2	4.33	0.40
1:2:1222:C:H2'	1:2:1223:A:O4'	2.21	0.40
4:S2:152:HIS:ND1	4:S2:174:ARG:HG3	2.36	0.40
3:S1:93:GLY:C	3:S1:95:ASN:N	3.10	0.40
36:5:2903:A:H2'	36:5:2904:U:O4'	2.21	0.40
43:L6:69:PHE:CE1	36:5:3268:A:C4	257.36	0.40
55:M9:94:VAL:H	55:M9:94:VAL:HG23	1.89	0.40
36:5:1338:C:H2'	36:5:1339:C:H6	1.86	0.40
68:O2:60:ASN:OD1	68:O2:62:LYS:HB2	2.22	0.40
1:2:526:A:C6	1:2:527:A:C5	3.09	0.40
59:N3:126:TRP:HA	59:N3:127:PRO:HD3	1.82	0.40
1:2:1322:A:H2'	1:2:1323:C:H6	1.87	0.40
48:M1:90:GLN:OE1	48:M1:172:LEU:HD11	2.21	0.40
46:L9:189:GLU:HA	46:L9:189:GLU:OE2	2.21	0.40
1:2:163:G:H5'	8:S6:54:GLY:HA3	2.04	0.40
36:1:1543:G:O6	86:1:4062:OHX:N2	2.55	0.40
57:N1:88:ARG:NH2	65:N9:33:LYS:HB3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:139:VAL:HG21	45:L8:197:VAL:CG2	2.51	0.40
36:1:2636:A:H5''	36:1:2637:A:H5'	2.03	0.40
36:1:2529:A:C2	36:1:2582:C:C2	3.09	0.40
36:5:8:C:C4	36:5:9:U:C4	3.09	0.40
67:O1:88:PRO:O	67:O1:89:LEU:HD12	2.22	0.40
1:2:681:U:O5'	1:2:681:U:H6	2.04	0.40
36:5:1461:A:H2'	36:5:1462:A:O4'	2.21	0.40
34:SR:107:LYS:HB2	34:SR:128:ASP:CB	3.63	0.40
36:1:2842:U:C5	36:1:2843:U:C5	3.10	0.40
1:6:1065:A:C6	1:6:1066:C:C4	3.09	0.40
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.69	0.40
44:L7:84:VAL:HG13	44:L7:119:VAL:CG2	2.52	0.40
55:M9:183:ALA:O	55:M9:187:GLU:HB2	2.22	0.40
8:S6:77:LEU:HD13	8:S6:84:TYR:HB2	2.03	0.40
36:1:3190:C:H2'	36:1:3191:G:H8	1.86	0.40
72:O6:52:PRO:HD3	72:O6:55:ARG:HH12	1.86	0.40
43:L6:152:THR:HA	43:L6:153:PRO:HD3	2.06	0.40
1:2:957:G:H2'	1:2:958:U:O4'	2.22	0.40
36:1:981:U:HO2'	36:1:982:C:P	2.44	0.40
34:SR:145:LEU:O	34:SR:147:HIS:N	4.77	0.40
36:1:703:G:C6	36:1:704:U:C4	3.10	0.40
1:6:1362:U:H1'	1:6:1363:U:C4	2.57	0.40
36:5:2805:G:O2'	36:5:2967:A:N1	2.47	0.40
2:S0:140:ASN:OD1	23:D1:29:HIS:HA	2.22	0.40
1:2:341:A:C5	1:2:342:C:C4	3.10	0.40
35:SM:105:LYS:HE2	35:SM:105:LYS:HB3	1.89	0.40
68:O2:104:ASN:O	68:O2:108:ILE:HG13	2.21	0.40
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.26	0.40
79:Q3:13:LYS:HD2	79:Q3:14:TYR:CE1	3.31	0.40
18:C6:44:LEU:HD12	18:C6:47:LYS:HG2	2.03	0.40
40:L3:305:ILE:H	40:L3:305:ILE:HG13	1.51	0.40
16:C4:129:LYS:HE2	86:6:2171:OHX:N6	280.41	0.40
36:1:283:G:OP2	36:1:285:A:H4'	2.21	0.40
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.39	0.40
36:1:1578:C:C2	36:1:1579:C:C5	3.10	0.40
36:5:1573:G:C6	36:5:1574:C:H1'	2.56	0.40
4:S2:73:LEU:HG	4:S2:76:LEU:HD12	3.71	0.40
4:S2:159:THR:O	4:S2:220:ASN:ND2	2.55	0.40
36:5:124:U:O2	36:5:149:U:O2'	2.24	0.40
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.51	0.40
41:L4:145:ILE:HA	41:L4:146:PRO:HD3	2.49	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:911:C:O2	36:1:917:A:N1	2.54	0.40
6:S4:108:ARG:NH2	1:6:789:A:OP1	390.19	0.40
66:O0:98:SER:HG	66:O0:100:ILE:HG13	1.85	0.40
22:D0:53:LYS:HA	22:D0:53:LYS:HD3	1.85	0.40
49:M3:100:ARG:NH1	36:5:77:A:H5'	85.62	0.40
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	2.12	0.40
8:S6:152:ASP:OD1	8:S6:153:VAL:N	2.54	0.40
17:C5:65:LEU:C	17:C5:67:ALA:H	2.24	0.40
42:L5:99:TYR:CG	42:L5:199:ILE:HG23	2.99	0.40
1:2:76:A:H2'	1:2:80:A:H62	1.85	0.40
9:S7:131:PHE:CG	9:S7:132:PRO:N	2.90	0.40
1:6:329:G:H2'	1:6:330:G:H8	1.86	0.40
36:1:425:G:O2'	36:1:426:G:H5'	2.21	0.40
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.26	0.40
36:1:367:A:OP1	86:1:3890:OHX:N2	2.54	0.40
37:3:28:C:H2'	37:3:29:C:H5'	2.03	0.40
1:6:624:G:H2'	1:6:625:C:C6	2.56	0.40
1:6:862:A:H4'	1:6:863:A:O5'	2.22	0.40
54:M8:64:VAL:O	54:M8:96:PHE:HE2	2.05	0.40
24:D2:5:SER:O	24:D2:7:LEU:N	2.60	0.40
1:6:273:G:H2'	1:6:274:G:O4'	2.21	0.40
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.37	0.40
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.57	0.40
1:6:484:C:N4	1:6:503:G:N1	2.68	0.40
1:2:999:U:H2'	1:2:1000:C:H5'	2.03	0.40
11:S9:39:LYS:O	11:S9:42:ILE:N	2.51	0.40
36:5:281:G:C6	36:5:282:G:C6	3.10	0.40
1:2:677:G:H2'	1:2:678:A:C8	2.56	0.40
1:2:347:G:OP1	13:C1:77:SER:OG	2.30	0.40
74:O8:56:ILE:HD13	74:O8:56:ILE:HA	1.91	0.40
55:M9:110:ARG:C	55:M9:112:ALA:H	2.79	0.40
19:C7:3:ARG:N	19:C7:3:ARG:HD3	3.03	0.40
1:6:829:A:H61	1:6:843:U:H3	1.69	0.40
57:N1:12:ARG:HD2	57:N1:13:TYR:CZ	2.57	0.40
63:N7:2:ALA:C	63:N7:4:PHE:N	2.75	0.40
42:L5:21:ARG:HA	42:L5:24:ARG:NH2	2.37	0.40
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.22	0.40
40:L3:115:LYS:HA	40:L3:118:PHE:CD1	2.78	0.40
2:S0:30:GLN:NE2	2:S0:149:LEU:HD13	2.37	0.40
46:L9:90:MET:HE3	46:L9:181:VAL:HG23	2.41	0.40
46:L9:161:LEU:O	46:L9:161:LEU:HD22	3.01	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:85:PHE:HB3	47:M0:140:THR:HG22	2.28	0.40
42:L5:158:ARG:HH21	42:L5:158:ARG:HD3	4.30	0.40
61:N5:103:TYR:O	61:N5:105:VAL:HG23	3.25	0.40
36:5:715:A:H4'	36:5:716:A:OP1	2.22	0.40
6:S4:246:LEU:CD2	6:S4:254:ARG:HD2	2.51	0.40
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	2.21	0.40
36:5:1536:G:N7	86:5:3920:OHX:N2	2.70	0.40
47:M0:152:LEU:HA	47:M0:152:LEU:HD23	1.88	0.40
36:5:112:U:H2'	36:5:112:U:H6	1.56	0.40
72:O6:60:LEU:HD13	72:O6:68:ARG:HD2	2.02	0.40
69:O3:6:ARG:HG3	69:O3:8:TYR:CE1	2.80	0.40
35:SM:51:ARG:NH2	35:SM:52:PRO:HD2	6.64	0.40
45:L8:71:VAL:HG13	45:L8:235:GLY:N	2.46	0.40
36:1:3227:A:H2'	36:1:3228:C:H5'	2.04	0.40
12:C0:10:LYS:CE	12:C0:36:ASP:HB3	2.52	0.40
57:N1:114:ALA:C	57:N1:116:ARG:H	2.25	0.40
36:1:1316:C:N4	52:M6:131:PRO:HD3	2.36	0.40
1:6:591:A:H2'	1:6:592:A:C8	2.56	0.40
41:L4:282:SER:HB3	54:M8:125:ASP:OD1	3.78	0.40
46:L9:189:GLU:HB3	46:L9:190:ASP:H	1.76	0.40
40:L3:43:LEU:HA	40:L3:43:LEU:HD12	2.37	0.40
36:5:929:A:H2'	36:5:930:U:C6	2.56	0.40
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.21	0.40
36:5:2998:U:C4	36:5:2999:U:C4	3.09	0.40
42:L5:178:ASN:OD1	42:L5:178:ASN:N	2.55	0.40
56:N0:45:LEU:HA	56:N0:45:LEU:HD13	2.55	0.40
86:1:3981:OHX:N5	86:1:4161:OHX:N6	2.70	0.40
18:C6:6:SER:OG	18:C6:7:VAL:N	4.25	0.40
46:L9:139:ASN:ND2	46:L9:140:VAL:HG23	2.37	0.40
70:O4:57:LEU:HD12	70:O4:62:TYR:CD1	2.57	0.40
36:5:628:A:H2'	36:5:629:U:O4'	2.21	0.40
44:L7:153:PHE:CD1	44:L7:162:PRO:HA	2.56	0.40
1:6:1467:C:H2'	1:6:1468:U:C6	2.56	0.40
29:D7:31:TYR:HB2	29:D7:81:ARG:HG3	2.02	0.40
58:N2:48:GLY:C	58:N2:50:LEU:H	2.45	0.40
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.84	0.40
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	2.03	0.40
51:M5:72:LYS:HD3	36:5:2166:A:O3'	157.96	0.40
1:2:621:A:N3	1:2:1107:G:H1'	2.37	0.40
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	2.03	0.40
36:1:3389:U:HO2'	36:1:3390:G:P	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:198:A:C6	36:5:219:A:C6	3.09	0.40
1:2:608:U:H4'	1:2:610:G:O6	2.22	0.40
36:1:3046:A:H2'	36:1:3047:U:O4'	2.21	0.40
1:6:1473:U:O2	1:6:1473:U:H2'	2.22	0.40
42:L5:224:LYS:HE3	42:L5:224:LYS:HB2	2.17	0.40
61:N5:108:LEU:HA	61:N5:108:LEU:HD22	3.01	0.40
36:1:1908:A:O5'	36:1:1908:A:H8	2.04	0.40
1:2:32:U:H2'	1:2:33:U:H6	1.86	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	S0	204/251 (81%)	142 (70%)	40 (20%)	22 (11%)	0	3
2	s0	204/251 (81%)	155 (76%)	28 (14%)	21 (10%)	1	4
3	S1	212/254 (84%)	144 (68%)	35 (16%)	33 (16%)	0	0
3	s1	214/254 (84%)	174 (81%)	27 (13%)	13 (6%)	2	11
4	S2	215/253 (85%)	182 (85%)	22 (10%)	11 (5%)	2	15
4	s2	215/253 (85%)	178 (83%)	22 (10%)	15 (7%)	1	8
5	S3	221/239 (92%)	177 (80%)	25 (11%)	19 (9%)	1	5
5	s3	221/239 (92%)	179 (81%)	28 (13%)	14 (6%)	2	10
6	S4	258/260 (99%)	205 (80%)	36 (14%)	17 (7%)	1	9
6	s4	258/260 (99%)	212 (82%)	29 (11%)	17 (7%)	1	9
7	S5	204/224 (91%)	155 (76%)	33 (16%)	16 (8%)	1	6
7	s5	204/224 (91%)	160 (78%)	23 (11%)	21 (10%)	1	4
8	S6	224/236 (95%)	195 (87%)	17 (8%)	12 (5%)	2	14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	s6	216/236 (92%)	181 (84%)	22 (10%)	13 (6%)	2	11
9	S7	182/189 (96%)	128 (70%)	28 (15%)	26 (14%)	0	1
9	s7	184/189 (97%)	148 (80%)	26 (14%)	10 (5%)	2	14
10	S8	184/200 (92%)	152 (83%)	21 (11%)	11 (6%)	2	11
10	s8	184/200 (92%)	155 (84%)	17 (9%)	12 (6%)	1	9
11	S9	183/196 (93%)	149 (81%)	24 (13%)	10 (6%)	2	13
11	s9	183/196 (93%)	152 (83%)	22 (12%)	9 (5%)	3	16
12	C0	94/105 (90%)	77 (82%)	10 (11%)	7 (7%)	1	7
12	c0	92/105 (88%)	58 (63%)	19 (21%)	15 (16%)	0	0
13	C1	153/155 (99%)	121 (79%)	23 (15%)	9 (6%)	2	12
13	c1	144/155 (93%)	122 (85%)	15 (10%)	7 (5%)	3	16
14	C2	122/142 (86%)	66 (54%)	30 (25%)	26 (21%)	0	0
14	c2	122/142 (86%)	62 (51%)	37 (30%)	23 (19%)	0	0
15	C3	148/150 (99%)	124 (84%)	19 (13%)	5 (3%)	5	25
15	c3	148/150 (99%)	116 (78%)	22 (15%)	10 (7%)	1	8
16	C4	125/136 (92%)	90 (72%)	25 (20%)	10 (8%)	1	6
16	c4	126/136 (93%)	100 (79%)	16 (13%)	10 (8%)	1	6
17	C5	122/141 (86%)	85 (70%)	26 (21%)	11 (9%)	1	5
17	c5	133/141 (94%)	93 (70%)	23 (17%)	17 (13%)	0	1
18	C6	139/142 (98%)	114 (82%)	19 (14%)	6 (4%)	3	19
18	c6	140/142 (99%)	120 (86%)	13 (9%)	7 (5%)	3	16
19	C7	116/136 (85%)	86 (74%)	18 (16%)	12 (10%)	1	4
19	c7	113/136 (83%)	89 (79%)	17 (15%)	7 (6%)	2	10
20	C8	143/145 (99%)	106 (74%)	25 (18%)	12 (8%)	1	6
20	c8	143/145 (99%)	116 (81%)	16 (11%)	11 (8%)	1	6
21	C9	141/143 (99%)	116 (82%)	18 (13%)	7 (5%)	3	16
21	c9	141/143 (99%)	119 (84%)	18 (13%)	4 (3%)	6	30
22	D0	105/120 (88%)	84 (80%)	16 (15%)	5 (5%)	3	17
22	d0	108/120 (90%)	82 (76%)	16 (15%)	10 (9%)	1	4
23	D1	85/87 (98%)	66 (78%)	14 (16%)	5 (6%)	2	12
23	d1	85/87 (98%)	70 (82%)	9 (11%)	6 (7%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
24	D2	127/129 (98%)	102 (80%)	19 (15%)	6 (5%)	3	17
24	d2	127/129 (98%)	114 (90%)	10 (8%)	3 (2%)	7	33
25	D3	142/144 (99%)	114 (80%)	22 (16%)	6 (4%)	3	19
25	d3	142/144 (99%)	125 (88%)	13 (9%)	4 (3%)	6	30
26	D4	132/134 (98%)	104 (79%)	17 (13%)	11 (8%)	1	6
26	d4	132/134 (98%)	111 (84%)	15 (11%)	6 (4%)	3	17
27	D5	68/107 (64%)	48 (71%)	12 (18%)	8 (12%)	0	2
27	d5	67/107 (63%)	51 (76%)	10 (15%)	6 (9%)	1	5
28	D6	95/97 (98%)	59 (62%)	18 (19%)	18 (19%)	0	0
28	d6	95/97 (98%)	74 (78%)	10 (10%)	11 (12%)	0	2
29	D7	79/81 (98%)	65 (82%)	8 (10%)	6 (8%)	1	7
29	d7	79/81 (98%)	59 (75%)	14 (18%)	6 (8%)	1	7
30	D8	61/66 (92%)	49 (80%)	6 (10%)	6 (10%)	1	4
30	d8	61/66 (92%)	42 (69%)	14 (23%)	5 (8%)	1	6
31	D9	51/55 (93%)	40 (78%)	9 (18%)	2 (4%)	4	22
31	d9	51/55 (93%)	40 (78%)	6 (12%)	5 (10%)	1	4
32	E0	58/60 (97%)	43 (74%)	12 (21%)	3 (5%)	2	15
33	E1	69/76 (91%)	36 (52%)	14 (20%)	19 (28%)	0	0
33	e1	74/76 (97%)	35 (47%)	20 (27%)	19 (26%)	0	0
34	SR	316/318 (99%)	242 (77%)	50 (16%)	24 (8%)	1	7
34	sR	316/318 (99%)	253 (80%)	48 (15%)	15 (5%)	3	17
35	SM	155/273 (57%)	103 (66%)	30 (19%)	22 (14%)	0	1
35	sM	98/273 (36%)	65 (66%)	18 (18%)	15 (15%)	0	0
39	L2	250/253 (99%)	224 (90%)	20 (8%)	6 (2%)	7	33
39	l2	250/253 (99%)	215 (86%)	24 (10%)	11 (4%)	3	18
40	L3	384/386 (100%)	328 (85%)	38 (10%)	18 (5%)	3	17
40	l3	384/386 (100%)	338 (88%)	35 (9%)	11 (3%)	6	29
41	L4	359/361 (99%)	299 (83%)	36 (10%)	24 (7%)	1	9
41	l4	359/361 (99%)	287 (80%)	51 (14%)	21 (6%)	2	12
42	L5	294/296 (99%)	241 (82%)	37 (13%)	16 (5%)	2	14
42	l5	292/296 (99%)	247 (85%)	37 (13%)	8 (3%)	6	31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	L6	152/175 (87%)	128 (84%)	21 (14%)	3 (2%)	9	38
43	l6	153/175 (87%)	131 (86%)	17 (11%)	5 (3%)	5	26
44	L7	220/243 (90%)	186 (84%)	23 (10%)	11 (5%)	3	16
44	l7	221/243 (91%)	194 (88%)	23 (10%)	4 (2%)	11	42
45	L8	231/255 (91%)	190 (82%)	32 (14%)	9 (4%)	4	22
45	l8	229/255 (90%)	177 (77%)	30 (13%)	22 (10%)	1	4
46	L9	189/191 (99%)	164 (87%)	21 (11%)	4 (2%)	9	37
46	l9	189/191 (99%)	172 (91%)	14 (7%)	3 (2%)	12	44
47	M0	207/220 (94%)	172 (83%)	24 (12%)	11 (5%)	2	14
47	m0	209/220 (95%)	168 (80%)	28 (13%)	13 (6%)	2	10
48	M1	167/173 (96%)	126 (75%)	28 (17%)	13 (8%)	1	6
48	m1	167/173 (96%)	137 (82%)	16 (10%)	14 (8%)	1	6
49	M3	191/198 (96%)	161 (84%)	22 (12%)	8 (4%)	3	19
49	m3	192/198 (97%)	162 (84%)	21 (11%)	9 (5%)	3	17
50	M4	134/137 (98%)	113 (84%)	11 (8%)	10 (8%)	1	7
50	m4	135/137 (98%)	119 (88%)	13 (10%)	3 (2%)	8	36
51	M5	201/203 (99%)	182 (90%)	15 (8%)	4 (2%)	9	38
51	m5	201/203 (99%)	179 (89%)	17 (8%)	5 (2%)	7	32
52	M6	195/198 (98%)	173 (89%)	14 (7%)	8 (4%)	3	20
52	m6	195/198 (98%)	178 (91%)	11 (6%)	6 (3%)	5	27
53	M7	181/183 (99%)	146 (81%)	30 (17%)	5 (3%)	6	30
53	m7	153/183 (84%)	138 (90%)	11 (7%)	4 (3%)	7	32
54	M8	183/185 (99%)	157 (86%)	20 (11%)	6 (3%)	5	26
54	m8	183/185 (99%)	154 (84%)	19 (10%)	10 (6%)	2	13
55	M9	186/188 (99%)	164 (88%)	18 (10%)	4 (2%)	8	36
55	m9	186/188 (99%)	162 (87%)	18 (10%)	6 (3%)	5	26
56	N0	170/172 (99%)	149 (88%)	16 (9%)	5 (3%)	6	29
56	n0	170/172 (99%)	156 (92%)	13 (8%)	1 (1%)	30	68
57	N1	157/159 (99%)	134 (85%)	16 (10%)	7 (4%)	3	17
57	n1	157/159 (99%)	143 (91%)	12 (8%)	2 (1%)	15	50
58	N2	98/120 (82%)	77 (79%)	15 (15%)	6 (6%)	2	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
58	n2	96/120 (80%)	76 (79%)	14 (15%)	6 (6%)	2	10
59	N3	134/136 (98%)	122 (91%)	10 (8%)	2 (2%)	13	46
59	n3	134/136 (98%)	125 (93%)	6 (4%)	3 (2%)	8	36
60	N4	96/155 (62%)	65 (68%)	20 (21%)	11 (12%)	0	2
60	n4	133/155 (86%)	108 (81%)	17 (13%)	8 (6%)	2	11
61	N5	119/141 (84%)	103 (87%)	15 (13%)	1 (1%)	24	63
61	n5	118/141 (84%)	99 (84%)	10 (8%)	9 (8%)	1	7
62	N6	124/126 (98%)	113 (91%)	6 (5%)	5 (4%)	4	21
62	n6	124/126 (98%)	110 (89%)	11 (9%)	3 (2%)	7	33
63	N7	133/135 (98%)	114 (86%)	12 (9%)	7 (5%)	2	14
63	n7	133/135 (98%)	109 (82%)	13 (10%)	11 (8%)	1	6
64	N8	146/148 (99%)	125 (86%)	16 (11%)	5 (3%)	5	25
64	n8	146/148 (99%)	121 (83%)	19 (13%)	6 (4%)	3	20
65	N9	56/58 (97%)	48 (86%)	7 (12%)	1 (2%)	11	42
65	n9	56/58 (97%)	41 (73%)	10 (18%)	5 (9%)	1	5
66	O0	95/104 (91%)	82 (86%)	12 (13%)	1 (1%)	17	55
66	o0	98/104 (94%)	81 (83%)	14 (14%)	3 (3%)	5	27
67	O1	107/112 (96%)	96 (90%)	5 (5%)	6 (6%)	2	13
67	o1	107/112 (96%)	88 (82%)	12 (11%)	7 (6%)	1	9
68	O2	125/129 (97%)	114 (91%)	10 (8%)	1 (1%)	24	63
68	o2	125/129 (97%)	101 (81%)	18 (14%)	6 (5%)	3	17
69	O3	104/106 (98%)	93 (89%)	9 (9%)	2 (2%)	10	40
69	o3	104/106 (98%)	94 (90%)	9 (9%)	1 (1%)	19	58
70	O4	110/119 (92%)	91 (83%)	16 (14%)	3 (3%)	6	31
70	o4	110/119 (92%)	92 (84%)	15 (14%)	3 (3%)	6	31
71	O5	117/119 (98%)	96 (82%)	17 (14%)	4 (3%)	5	25
71	o5	117/119 (98%)	96 (82%)	14 (12%)	7 (6%)	2	11
72	O6	97/99 (98%)	77 (79%)	12 (12%)	8 (8%)	1	6
72	o6	97/99 (98%)	77 (79%)	14 (14%)	6 (6%)	2	10
73	O7	85/87 (98%)	76 (89%)	7 (8%)	2 (2%)	7	33
73	o7	85/87 (98%)	73 (86%)	9 (11%)	3 (4%)	4	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
74	O8	75/77 (97%)	63 (84%)	10 (13%)	2 (3%)	6	31
74	o8	75/77 (97%)	62 (83%)	11 (15%)	2 (3%)	6	31
75	O9	48/50 (96%)	39 (81%)	8 (17%)	1 (2%)	9	37
75	o9	48/50 (96%)	39 (81%)	7 (15%)	2 (4%)	3	19
76	Q0	50/52 (96%)	46 (92%)	2 (4%)	2 (4%)	4	21
76	q0	50/52 (96%)	47 (94%)	2 (4%)	1 (2%)	9	38
77	Q1	23/25 (92%)	21 (91%)	2 (9%)	0	100	100
77	q1	23/25 (92%)	19 (83%)	3 (13%)	1 (4%)	3	19
78	Q2	103/105 (98%)	82 (80%)	15 (15%)	6 (6%)	2	12
78	q2	103/105 (98%)	92 (89%)	7 (7%)	4 (4%)	4	22
79	Q3	89/91 (98%)	73 (82%)	15 (17%)	1 (1%)	17	55
79	q3	89/91 (98%)	78 (88%)	10 (11%)	1 (1%)	17	55
80	e0	60/62 (97%)	46 (77%)	9 (15%)	5 (8%)	1	6
82	p0	139/311 (45%)	109 (78%)	20 (14%)	10 (7%)	1	7
All	All	22333/24141 (92%)	18272 (82%)	2751 (12%)	1310 (6%)	2	12

All (1310) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	66	ALA
2	S0	158	VAL
2	S0	191	ARG
2	S0	194	PRO
3	S1	49	ASN
3	S1	51	SER
3	S1	81	PHE
3	S1	132	ASP
3	S1	181	LEU
3	S1	182	ALA
3	S1	206	PRO
3	S1	223	PHE
4	S2	107	SER
4	S2	182	PRO
5	S3	62	ASN
5	S3	64	ARG

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Mol	Chain	Res	Type
5	S3	65	ARG
5	S3	93	ASP
5	S3	211	PRO
5	S3	220	PRO
6	S4	26	CYS
6	S4	96	ASN
6	S4	104	ASP
6	S4	223	ASN
6	S4	245	LYS
7	S5	39	GLU
7	S5	43	PHE
7	S5	81	ARG
7	S5	101	GLY
8	S6	54	GLY
8	S6	122	GLU
8	S6	173	PRO
9	S7	5	GLN
9	S7	31	SER
9	S7	32	PRO
9	S7	47	ARG
9	S7	49	ILE
9	S7	64	VAL
9	S7	85	PHE
9	S7	111	LYS
9	S7	112	ARG
9	S7	129	LEU
9	S7	131	PHE
9	S7	186	PRO
10	S8	81	VAL
10	S8	82	VAL
10	S8	105	ASP
11	S9	98	ALA
11	S9	134	ILE
11	S9	164	PHE
11	S9	169	PRO
12	C0	60	SER
12	C0	81	ASN
12	C0	88	PRO
12	C0	94	GLU
13	C1	7	VAL
13	C1	132	SER
13	C1	145	ALA

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Mol	Chain	Res	Type
14	C2	91	VAL
14	C2	101	ALA
14	C2	126	TRP
15	C3	22	ALA
16	C4	50	ALA
16	C4	124	ASP
16	C4	126	THR
17	C5	11	VAL
17	C5	39	ALA
17	C5	80	MET
17	C5	125	PRO
17	C5	126	VAL
18	C6	116	LEU
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	118	PRO
19	C7	124	VAL
20	C8	14	ILE
20	C8	25	ASN
20	C8	60	GLU
20	C8	61	LEU
20	C8	82	PRO
20	C8	91	ASP
20	C8	92	ILE
21	C9	31	PRO
21	C9	53	TRP
23	D1	4	ASP
23	D1	11	LEU
24	D2	6	VAL
24	D2	83	ILE
25	D3	11	SER
25	D3	53	VAL
25	D3	54	LEU
27	D5	43	ASP
27	D5	86	GLU
27	D5	97	LYS
28	D6	18	VAL
28	D6	36	ILE
28	D6	45	VAL
28	D6	47	ALA
28	D6	65	PRO

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Mol	Chain	Res	Type
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
29	D7	38	PRO
29	D7	62	ILE
31	D9	25	SER
32	E0	47	VAL
33	E1	85	TYR
33	E1	103	LEU
33	E1	144	CYS
34	SR	22	SER
34	SR	72	THR
34	SR	161	LYS
34	SR	188	ILE
34	SR	201	THR
34	SR	231	MET
35	SM	52	PRO
35	SM	83	LYS
35	SM	89	ARG
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
35	SM	173	GLU
39	L2	20	THR
39	L2	130	SER
39	L2	144	ASN
39	L2	246	LEU
40	L3	3	HIS
40	L3	140	ASP
40	L3	173	GLN
40	L3	347	SER
40	L3	386	ASP
41	L4	4	PRO
41	L4	15	ALA
41	L4	130	ALA
41	L4	131	VAL
41	L4	270	SER
41	L4	311	HIS
41	L4	338	LYS
42	L5	7	ALA
42	L5	58	LYS
42	L5	233	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
42	L5	234	ASP
42	L5	258	LYS
42	L5	259	LYS
43	L6	6	ALA
43	L6	98	VAL
44	L7	26	VAL
44	L7	91	GLY
44	L7	211	SER
45	L8	25	PRO
45	L8	36	ILE
46	L9	190	ASP
47	M0	219	ALA
47	M0	220	GLN
48	M1	9	MET
48	M1	11	ASP
48	M1	151	SER
48	M1	165	GLN
49	M3	47	ALA
49	M3	129	ASN
50	M4	8	LYS
50	M4	9	ALA
50	M4	135	LEU
50	M4	136	ALA
51	M5	74	PRO
51	M5	184	LYS
52	M6	110	PRO
52	M6	111	PRO
52	M6	128	ARG
53	M7	157	VAL
54	M8	99	THR
55	M9	53	LYS
57	N1	124	VAL
58	N2	31	ALA
58	N2	52	ASN
58	N2	59	ASP
58	N2	60	GLY
60	N4	4	GLU
60	N4	76	VAL
60	N4	81	PRO
60	N4	97	LYS
62	N6	126	LEU
63	N7	3	LYS

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Mol	Chain	Res	Type
63	N7	33	SER
64	N8	76	ASP
67	O1	6	ASP
70	O4	74	ARG
71	O5	118	ILE
72	O6	33	ALA
74	O8	33	LYS
76	Q0	78	ILE
78	Q2	30	ALA
78	Q2	100	LYS
2	s0	4	PRO
2	s0	29	VAL
2	s0	164	ASN
2	s0	186	GLY
2	s0	206	ASP
3	s1	206	PRO
4	s2	92	ALA
5	s3	179	GLN
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	12	LEU
6	s4	95	THR
6	s4	104	ASP
6	s4	118	GLU
6	s4	163	ASP
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	36	ALA
7	s5	55	ASP
7	s5	184	PHE
8	s6	25	ARG
8	s6	70	PRO
8	s6	122	GLU
8	s6	153	VAL
8	s6	154	ARG
8	s6	156	PHE
8	s6	173	PRO
8	s6	174	LYS
9	s7	13	PRO

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Mol	Chain	Res	Type
9	s7	64	VAL
9	s7	131	PHE
9	s7	185	ILE
10	s8	36	THR
10	s8	62	THR
10	s8	101	ILE
10	s8	149	SER
11	s9	134	ILE
11	s9	150	LEU
12	c0	2	LEU
12	c0	32	HIS
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	97	PRO
13	c1	144	ALA
14	c2	22	VAL
14	c2	131	ASP
15	c3	19	SER
15	c3	29	SER
15	c3	66	ILE
15	c3	87	ASP
15	c3	137	PRO
15	c3	139	TRP
15	c3	140	LYS
16	c4	96	PRO
16	c4	124	ASP
16	c4	132	ARG
17	c5	50	THR
17	c5	51	SER
17	c5	52	LYS
17	c5	117	GLY
17	c5	125	PRO
17	c5	126	VAL
17	c5	127	ARG
18	c6	42	GLU
18	c6	115	THR
18	c6	116	LEU
19	c7	63	LYS
19	c7	88	VAL
19	c7	99	VAL
20	c8	18	LEU

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Mol	Chain	Res	Type
20	c8	91	ASP
20	c8	145	ARG
21	c9	29	GLU
22	d0	15	GLN
22	d0	51	VAL
22	d0	118	VAL
23	d1	4	ASP
24	d2	68	ARG
26	d4	33	ALA
26	d4	78	SER
27	d5	85	LYS
27	d5	104	ALA
28	d6	61	GLU
29	d7	3	LEU
29	d7	57	GLU
29	d7	59	CYS
29	d7	62	ILE
30	d8	57	MET
31	d9	6	VAL
31	d9	7	TRP
31	d9	16	LYS
80	e0	45	VAL
80	e0	51	ASN
33	e1	83	LYS
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	103	LEU
33	e1	106	TYR
34	sR	4	ASN
34	sR	163	ASP
34	sR	165	ASP
34	sR	250	TYR
34	sR	306	THR
35	sM	172	VAL
39	l2	24	GLN
39	l2	194	ASN
39	l2	213	GLY
40	l3	129	ALA
40	l3	140	ASP
40	l3	142	ALA

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Mol	Chain	Res	Type
40	l3	187	SER
40	l3	347	SER
40	l3	386	ASP
41	l4	14	GLU
41	l4	56	ALA
41	l4	90	PHE
41	l4	142	VAL
41	l4	302	ALA
41	l4	342	LYS
42	l5	5	LYS
42	l5	258	LYS
42	l5	260	PHE
42	l5	269	SER
43	l6	81	ALA
43	l6	98	VAL
45	l8	25	PRO
45	l8	26	LEU
45	l8	118	GLU
45	l8	121	SER
45	l8	122	LYS
45	l8	203	VAL
45	l8	222	PHE
46	l9	144	ILE
47	m0	3	ARG
47	m0	220	GLN
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	28	ASP
48	m1	95	ASN
48	m1	108	GLU
48	m1	173	ASP
49	m3	47	ALA
49	m3	76	THR
49	m3	93	ILE
49	m3	134	GLU
50	m4	136	ALA
51	m5	183	THR
52	m6	110	PRO
52	m6	111	PRO
54	m8	99	THR
55	m9	112	ALA

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Mol	Chain	Res	Type
55	m9	128	LYS
55	m9	155	LEU
57	n1	122	GLN
60	n4	26	SER
60	n4	63	ILE
60	n4	76	VAL
61	n5	24	LEU
61	n5	40	LEU
61	n5	44	PRO
62	n6	125	LYS
63	n7	5	LEU
63	n7	125	GLY
64	n8	28	HIS
65	n9	21	ILE
65	n9	23	LYS
65	n9	39	PHE
67	o1	7	VAL
67	o1	45	GLY
67	o1	91	SER
68	o2	4	LEU
68	o2	27	ARG
68	o2	89	THR
70	o4	79	SER
71	o5	82	ALA
71	o5	119	LYS
72	o6	33	ALA
72	o6	98	ARG
73	o7	84	SER
73	o7	85	LYS
74	o8	19	ASP
78	q2	17	CYS
78	q2	77	CYS
82	p0	93	LEU
82	p0	198	PRO
2	S0	5	ALA
2	S0	49	ASN
2	S0	94	GLY
2	S0	139	VAL
2	S0	185	ARG
2	S0	188	LEU
2	S0	190	ASP
2	S0	196	SER

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Mol	Chain	Res	Type
3	S1	58	SER
3	S1	63	GLY
3	S1	64	ARG
3	S1	82	ARG
3	S1	93	GLY
3	S1	131	ASP
3	S1	147	ALA
3	S1	148	ASN
3	S1	209	ASN
4	S2	91	ARG
4	S2	134	LEU
4	S2	148	LEU
4	S2	207	LEU
4	S2	236	PRO
5	S3	38	GLU
5	S3	40	ARG
5	S3	216	PRO
6	S4	12	LEU
6	S4	86	PHE
6	S4	142	HIS
6	S4	164	LEU
6	S4	242	LYS
7	S5	26	ALA
7	S5	58	LEU
7	S5	63	GLN
7	S5	152	GLY
7	S5	156	ARG
8	S6	70	PRO
8	S6	152	ASP
8	S6	165	GLY
9	S7	159	VAL
10	S8	106	ALA
10	S8	149	SER
11	S9	100	LYS
11	S9	117	GLY
11	S9	163	PRO
11	S9	170	GLY
12	C0	54	TYR
13	C1	3	THR
13	C1	4	GLU
13	C1	55	ASP
13	C1	72	THR

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Mol	Chain	Res	Type
14	C2	21	GLU
14	C2	42	ALA
14	C2	83	GLU
14	C2	93	ASP
14	C2	115	VAL
14	C2	127	GLY
14	C2	130	THR
15	C3	68	GLY
16	C4	42	VAL
16	C4	125	SER
17	C5	54	ALA
18	C6	114	ARG
18	C6	138	PHE
19	C7	111	LYS
19	C7	113	LEU
19	C7	115	LEU
20	C8	83	ALA
20	C8	125	ILE
20	C8	144	ARG
21	C9	130	ARG
22	D0	49	ASN
24	D2	66	ASN
26	D4	4	ALA
26	D4	11	LYS
27	D5	39	ALA
27	D5	44	GLN
28	D6	46	GLU
28	D6	63	ALA
28	D6	86	VAL
29	D7	51	GLN
29	D7	63	LEU
30	D8	14	LYS
30	D8	36	THR
33	E1	84	VAL
33	E1	98	VAL
33	E1	102	VAL
33	E1	111	GLU
33	E1	127	GLY
33	E1	128	ALA
34	SR	189	GLU
34	SR	203	THR
34	SR	230	ALA

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Mol	Chain	Res	Type
35	SM	64	LYS
35	SM	72	ARG
35	SM	87	THR
35	SM	153	ASP
35	SM	165	LYS
39	L2	47	GLN
40	L3	4	ARG
40	L3	5	LYS
40	L3	185	GLY
40	L3	188	ILE
40	L3	351	LEU
41	L4	190	GLY
41	L4	220	ARG
41	L4	232	SER
41	L4	268	ALA
41	L4	317	PRO
41	L4	319	LYS
41	L4	320	ASN
42	L5	178	ASN
42	L5	188	GLU
44	L7	24	GLU
45	L8	37	GLY
45	L8	39	ALA
45	L8	156	ASP
47	M0	7	ARG
47	M0	117	GLY
47	M0	189	GLU
47	M0	207	GLU
48	M1	8	PRO
48	M1	94	ARG
48	M1	114	ILE
48	M1	140	ARG
48	M1	167	TYR
50	M4	28	SER
50	M4	113	THR
51	M5	75	VAL
52	M6	127	LEU
52	M6	196	ALA
53	M7	164	LYS
54	M8	112	ALA
55	M9	133	LYS
56	N0	2	ALA

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Mol	Chain	Res	Type
56	N0	155	ARG
57	N1	16	GLN
57	N1	122	GLN
57	N1	159	PHE
58	N2	11	ILE
58	N2	107	PHE
60	N4	64	THR
60	N4	96	LEU
62	N6	53	ASP
62	N6	84	LYS
63	N7	52	LYS
63	N7	102	GLU
63	N7	125	GLY
64	N8	66	ALA
67	O1	83	GLU
70	O4	3	GLN
70	O4	77	GLY
71	O5	97	ALA
72	O6	3	VAL
72	O6	34	SER
72	O6	98	ARG
78	Q2	8	ARG
79	Q3	58	SER
2	s0	10	THR
2	s0	14	ALA
2	s0	44	GLY
2	s0	49	ASN
2	s0	95	ALA
2	s0	189	VAL
2	s0	196	SER
3	s1	93	GLY
3	s1	209	ASN
3	s1	223	PHE
4	s2	93	GLY
4	s2	121	VAL
4	s2	163	GLY
5	s3	61	GLU
5	s3	195	SER
6	s4	164	LEU
6	s4	245	LYS
7	s5	35	GLN
7	s5	43	PHE

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Mol	Chain	Res	Type
7	s5	54	LYS
7	s5	58	LEU
7	s5	100	ASN
7	s5	204	GLY
7	s5	206	SER
8	s6	68	LEU
9	s7	30	SER
9	s7	116	ARG
9	s7	155	ASP
10	s8	199	LYS
11	s9	118	LEU
12	c0	23	ALA
12	c0	73	VAL
12	c0	92	ILE
12	c0	94	GLU
13	c1	82	ARG
14	c2	45	LEU
14	c2	101	ALA
14	c2	119	SER
15	c3	43	LYS
16	c4	35	GLY
17	c5	11	VAL
17	c5	132	GLY
18	c6	39	VAL
20	c8	92	ILE
21	c9	33	TYR
22	d0	39	SER
22	d0	52	LYS
23	d1	44	ARG
26	d4	4	ALA
26	d4	35	VAL
27	d5	87	GLY
28	d6	5	ARG
28	d6	13	LYS
28	d6	34	LYS
28	d6	62	TYR
28	d6	63	ALA
30	d8	33	LEU
30	d8	58	GLU
33	e1	102	VAL
33	e1	127	GLY
34	sR	149	ASP

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Mol	Chain	Res	Type
34	sR	318	ALA
35	sM	42	ALA
35	sM	67	GLY
39	l2	96	LEU
39	l2	215	ASN
39	l2	249	SER
40	l3	22	ALA
41	l4	15	ALA
41	l4	146	PRO
41	l4	311	HIS
44	l7	27	ALA
44	l7	129	LEU
44	l7	178	ILE
45	l8	39	ALA
45	l8	117	ALA
45	l8	133	LYS
45	l8	223	ALA
45	l8	239	GLY
45	l8	240	ASN
47	m0	7	ARG
47	m0	45	GLU
47	m0	101	LYS
47	m0	117	GLY
47	m0	196	PHE
48	m1	94	ARG
48	m1	114	ILE
49	m3	129	ASN
50	m4	135	LEU
51	m5	81	TYR
51	m5	182	ASN
51	m5	184	LYS
52	m6	183	ALA
54	m8	21	SER
55	m9	156	ASN
58	n2	49	ASN
58	n2	52	ASN
59	n3	42	SER
60	n4	77	LYS
61	n5	25	LYS
61	n5	38	LEU
61	n5	55	ASN
62	n6	126	LEU

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Mol	Chain	Res	Type
63	n7	7	ALA
63	n7	16	GLY
63	n7	56	LYS
63	n7	134	LEU
67	o1	47	ASP
68	o2	5	PRO
68	o2	124	GLY
72	o6	64	SER
75	o9	44	TRP
76	q0	78	ILE
2	S0	30	GLN
2	S0	36	TYR
2	S0	95	ALA
2	S0	192	THR
2	S0	195	TRP
3	S1	35	PRO
3	S1	54	LEU
3	S1	59	ASP
3	S1	105	PHE
3	S1	224	ASP
4	S2	150	GLN
5	S3	139	SER
5	S3	212	LYS
5	S3	217	ILE
5	S3	218	LEU
6	S4	17	HIS
6	S4	38	LEU
6	S4	195	ILE
6	S4	222	LEU
7	S5	51	VAL
7	S5	127	GLN
7	S5	154	ALA
9	S7	73	VAL
9	S7	98	ILE
9	S7	155	ASP
10	S8	59	ARG
10	S8	120	THR
10	S8	153	GLU
11	S9	150	LEU
14	C2	68	GLU
14	C2	89	ILE
14	C2	106	ILE

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Mol	Chain	Res	Type
14	C2	108	ARG
14	C2	112	ALA
14	C2	119	SER
15	C3	12	SER
16	C4	18	ARG
17	C5	38	PRO
17	C5	51	SER
19	C7	87	GLU
20	C8	7	GLU
20	C8	8	GLN
21	C9	50	ALA
23	D1	10	GLU
23	D1	82	VAL
24	D2	57	ARG
24	D2	98	GLN
25	D3	112	LYS
25	D3	115	GLY
26	D4	5	VAL
26	D4	32	ARG
26	D4	34	ASN
28	D6	15	ARG
30	D8	16	LEU
30	D8	37	SER
32	E0	51	ASN
33	E1	87	THR
34	SR	4	ASN
34	SR	51	ASP
34	SR	153	GLN
34	SR	155	ARG
34	SR	244	ALA
35	SM	97	THR
35	SM	101	ASP
35	SM	139	GLU
35	SM	174	LEU
39	L2	201	GLY
40	L3	348	ARG
41	L4	291	ASN
41	L4	292	SER
42	L5	137	ASP
42	L5	253	PHE
44	L7	32	ALA
44	L7	163	LEU

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Mol	Chain	Res	Type
45	L8	80	TYR
46	L9	120	ASP
47	M0	145	LYS
48	M1	115	LYS
48	M1	173	ASP
49	M3	130	GLY
49	M3	136	GLU
50	M4	10	SER
51	M5	91	GLU
52	M6	195	ALA
53	M7	161	ALA
54	M8	98	LYS
57	N1	114	ALA
62	N6	52	ARG
63	N7	128	GLN
64	N8	47	LYS
66	O0	99	ASP
67	O1	5	LYS
67	O1	82	GLU
68	O2	127	ALA
72	O6	97	SER
72	O6	99	ARG
73	O7	86	ALA
74	O8	37	PRO
78	Q2	15	LYS
2	s0	8	ASP
2	s0	152	PRO
2	s0	167	LYS
3	s1	22	ASP
3	s1	59	ASP
3	s1	94	LYS
3	s1	232	HIS
4	s2	91	ARG
4	s2	107	SER
5	s3	43	PRO
5	s3	90	ARG
6	s4	90	ILE
7	s5	127	GLN
9	s7	74	GLN
10	s8	100	ALA
10	s8	122	GLY
10	s8	147	ALA

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Mol	Chain	Res	Type
11	s9	147	MET
11	s9	167	ALA
11	s9	183	ALA
12	c0	30	ALA
12	c0	31	LYS
13	c1	7	VAL
13	c1	55	ASP
14	c2	26	ASP
14	c2	39	ASP
14	c2	42	ALA
14	c2	108	ARG
14	c2	136	ILE
16	c4	33	LEU
16	c4	58	TYR
17	c5	17	TYR
17	c5	136	SER
19	c7	62	GLN
20	c8	61	LEU
22	d0	17	GLN
22	d0	49	ASN
22	d0	96	PRO
23	d1	21	ASN
23	d1	64	GLU
23	d1	81	ASN
24	d2	56	HIS
25	d3	70	LYS
25	d3	131	SER
26	d4	58	PHE
27	d5	38	HIS
28	d6	8	ASN
28	d6	35	ALA
28	d6	60	PRO
29	d7	38	PRO
29	d7	63	LEU
30	d8	61	ARG
31	d9	11	PRO
31	d9	17	GLY
80	e0	54	ARG
80	e0	60	PRO
33	e1	85	TYR
33	e1	111	GLU
33	e1	128	ALA

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Mol	Chain	Res	Type
33	e1	136	LYS
34	sR	141	LEU
34	sR	161	LYS
34	sR	164	ASP
34	sR	226	ALA
35	sM	120	GLU
35	sM	166	VAL
39	l2	56	ALA
40	l3	297	SER
40	l3	378	ALA
41	l4	5	GLN
41	l4	145	ILE
41	l4	231	ALA
41	l4	301	PRO
41	l4	338	LYS
42	l5	115	LEU
42	l5	178	ASN
43	l6	10	TYR
43	l6	93	VAL
45	l8	116	VAL
45	l8	188	THR
45	l8	196	ALA
45	l8	202	GLU
45	l8	209	ALA
45	l8	237	ILE
47	m0	25	ALA
47	m0	193	ASP
47	m0	207	GLU
48	m1	39	GLN
48	m1	117	ASP
48	m1	167	TYR
49	m3	130	GLY
49	m3	135	ALA
53	m7	66	SER
54	m8	41	ASP
54	m8	91	ALA
54	m8	98	LYS
54	m8	155	MET
55	m9	36	ASN
56	n0	2	ALA
58	n2	44	GLU
58	n2	48	GLY

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Mol	Chain	Res	Type
59	n3	16	GLY
61	n5	39	LYS
61	n5	45	LYS
61	n5	47	ALA
63	n7	34	LYS
64	n8	12	ARG
67	o1	82	GLU
72	o6	12	ASN
72	o6	34	SER
73	o7	55	ARG
74	o8	60	GLY
75	o9	3	ALA
79	q3	51	ALA
82	p0	33	VAL
82	p0	72	ASP
82	p0	102	SER
82	p0	220	ILE
2	S0	28	ASN
2	S0	103	THR
2	S0	152	PRO
3	S1	55	LYS
3	S1	158	SER
3	S1	177	GLN
3	S1	213	ARG
3	S1	217	LEU
3	S1	221	PRO
5	S3	31	GLU
5	S3	72	LEU
6	S4	153	ASN
6	S4	205	PHE
7	S5	21	THR
7	S5	64	VAL
8	S6	69	LEU
8	S6	138	ALA
8	S6	174	LYS
9	S7	36	ALA
9	S7	84	LYS
9	S7	116	ARG
9	S7	134	GLU
10	S8	52	ASN
10	S8	152	ILE
13	C1	6	THR

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Mol	Chain	Res	Type
14	C2	107	ASP
14	C2	125	ASN
14	C2	141	SER
15	C3	19	SER
16	C4	40	ALA
18	C6	142	TYR
19	C7	23	LYS
19	C7	123	ASN
21	C9	39	THR
21	C9	116	ILE
23	D1	8	LEU
25	D3	41	SER
27	D5	93	SER
28	D6	61	GLU
28	D6	64	LEU
29	D7	75	GLU
30	D8	22	ARG
32	E0	13	LYS
33	E1	90	LYS
33	E1	93	HIS
33	E1	145	HIS
34	SR	112	SER
34	SR	146	GLY
34	SR	242	SER
35	SM	17	VAL
35	SM	53	ARG
35	SM	86	ASN
40	L3	142	ALA
40	L3	155	ALA
40	L3	221	THR
41	L4	90	PHE
41	L4	182	LEU
41	L4	294	GLU
42	L5	6	ASP
42	L5	91	GLY
42	L5	252	ALA
42	L5	260	PHE
44	L7	159	GLN
45	L8	122	LYS
46	L9	2	LYS
46	L9	108	GLY
47	M0	172	GLY

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Mol	Chain	Res	Type
47	M0	188	GLY
49	M3	25	HIS
50	M4	29	ALA
50	M4	36	VAL
52	M6	16	VAL
53	M7	160	ALA
53	M7	162	GLU
54	M8	91	ALA
54	M8	162	ALA
54	M8	183	GLY
55	M9	20	ARG
56	N0	24	LEU
56	N0	167	ARG
57	N1	115	LYS
59	N3	44	SER
60	N4	69	LYS
61	N5	105	VAL
63	N7	103	GLN
64	N8	78	LEU
67	O1	7	VAL
67	O1	33	VAL
72	O6	27	SER
73	O7	12	HIS
75	O9	3	ALA
76	Q0	79	GLU
78	Q2	17	CYS
2	s0	111	ILE
2	s0	185	ARG
2	s0	203	PHE
3	s1	177	GLN
3	s1	207	LEU
3	s1	218	LEU
4	s2	85	PRO
4	s2	106	ASP
4	s2	150	GLN
4	s2	234	PRO
4	s2	235	LEU
4	s2	238	SER
5	s3	45	LYS
5	s3	144	ALA
6	s4	78	THR
6	s4	80	THR

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Mol	Chain	Res	Type
6	s4	117	GLU
6	s4	168	LYS
6	s4	171	ASP
7	s5	29	ILE
7	s5	45	LYS
7	s5	169	ASN
8	s6	18	ILE
10	s8	136	SER
11	s9	168	ARG
12	c0	3	MET
12	c0	9	ASN
14	c2	89	ILE
14	c2	90	LYS
14	c2	103	LEU
14	c2	106	ILE
16	c4	79	VAL
16	c4	90	ARG
17	c5	8	LYS
17	c5	14	THR
17	c5	75	PRO
17	c5	131	ALA
18	c6	57	LEU
18	c6	97	VAL
19	c7	120	SER
20	c8	14	ILE
20	c8	55	HIS
20	c8	60	GLU
25	d3	13	ARG
25	d3	138	GLU
28	d6	59	TYR
33	e1	131	PHE
33	e1	146	SER
35	sM	43	ASP
35	sM	47	ALA
39	l2	130	SER
39	l2	180	LEU
39	l2	247	ARG
40	l3	235	THR
41	l4	24	ALA
41	l4	339	LEU
42	l5	220	SER
43	l6	173	MET

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Mol	Chain	Res	Type
44	l7	191	VAL
45	l8	120	LYS
46	l9	2	LYS
47	m0	145	LYS
47	m0	176	LEU
49	m3	60	ALA
52	m6	16	VAL
52	m6	177	LYS
53	m7	3	ARG
53	m7	75	GLU
58	n2	45	GLY
58	n2	50	LEU
60	n4	25	ASP
60	n4	83	THR
62	n6	83	ASP
63	n7	17	ARG
63	n7	103	GLN
63	n7	127	ASN
64	n8	129	PHE
65	n9	5	LYS
67	o1	83	GLU
67	o1	99	ALA
70	o4	82	ALA
71	o5	40	SER
71	o5	83	LYS
72	o6	4	LYS
77	q1	23	ARG
78	q2	33	ALA
82	p0	206	ASP
3	S1	179	SER
4	S2	235	LEU
5	S3	36	GLY
5	S3	70	THR
5	S3	81	PRO
6	S4	77	ARG
8	S6	146	GLY
9	S7	14	THR
9	S7	29	ASN
9	S7	132	PRO
10	S8	22	ARG
11	S9	147	MET
12	C0	34	GLU

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Mol	Chain	Res	Type
13	C1	30	ARG
14	C2	36	LEU
14	C2	87	PRO
14	C2	113	ARG
15	C3	27	LYS
16	C4	51	ASP
16	C4	135	ARG
17	C5	52	LYS
17	C5	53	PRO
17	C5	69	GLU
18	C6	33	GLY
22	D0	16	GLN
22	D0	17	GLN
24	D2	30	SER
26	D4	6	THR
26	D4	53	ASP
26	D4	58	PHE
26	D4	60	PHE
27	D5	41	ILE
27	D5	88	ILE
28	D6	62	TYR
29	D7	3	LEU
31	D9	11	PRO
33	E1	99	LYS
33	E1	100	LEU
33	E1	138	ARG
34	SR	70	ASP
34	SR	98	GLU
34	SR	247	PRO
35	SM	102	THR
40	L3	289	ASP
40	L3	317	ILE
40	L3	385	LYS
41	L4	5	GLN
41	L4	258	LEU
41	L4	318	LEU
41	L4	349	THR
42	L5	125	VAL
43	L6	87	THR
44	L7	25	GLN
44	L7	158	LYS
45	L8	157	VAL

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Mol	Chain	Res	Type
47	M0	143	SER
48	M1	117	ASP
49	M3	13	HIS
50	M4	6	ILE
52	M6	184	THR
55	M9	3	ASN
60	N4	46	PRO
60	N4	77	LYS
69	O3	94	PHE
71	O5	10	ARG
72	O6	21	THR
78	Q2	34	SER
2	s0	103	THR
2	s0	139	VAL
2	s0	194	PRO
6	s4	30	ARG
7	s5	21	THR
7	s5	26	ALA
8	s6	152	ASP
9	s7	112	ARG
10	s8	52	ASN
10	s8	78	ILE
10	s8	105	ASP
11	s9	67	PRO
13	c1	61	THR
14	c2	21	GLU
14	c2	87	PRO
16	c4	131	GLY
17	c5	128	HIS
21	c9	62	ALA
22	d0	45	ALA
23	d1	10	GLU
26	d4	68	LYS
27	d5	83	LEU
30	d8	6	PRO
33	e1	81	LYS
33	e1	100	LEU
33	e1	124	PRO
33	e1	148	TYR
34	sR	160	GLU
34	sR	186	PHE
34	sR	285	ALA

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Mol	Chain	Res	Type
35	sM	46	LYS
35	sM	65	THR
35	sM	72	ARG
35	sM	84	LYS
35	sM	168	GLU
41	l4	233	LEU
41	l4	270	SER
41	l4	304	GLN
41	l4	321	LYS
45	l8	69	LEU
46	l9	167	VAL
48	m1	12	LEU
49	m3	152	THR
50	m4	3	THR
52	m6	13	GLY
54	m8	112	ALA
54	m8	171	LYS
55	m9	154	ALA
57	n1	16	GLN
64	n8	48	TYR
65	n9	24	PRO
66	o0	9	SER
66	o0	41	LEU
66	o0	46	ALA
71	o5	84	LYS
78	q2	78	LYS
3	S1	201	THR
3	S1	210	ILE
5	S3	71	LEU
7	S5	65	ARG
8	S6	148	SER
9	S7	35	LYS
14	C2	37	VAL
14	C2	40	GLY
21	C9	29	GLU
22	D0	20	ILE
26	D4	52	LYS
33	E1	110	ALA
33	E1	124	PRO
34	SR	194	GLY
34	SR	237	GLN
35	SM	12	VAL

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Mol	Chain	Res	Type
42	L5	295	GLY
44	L7	178	ILE
48	M1	108	GLU
49	M3	166	ALA
49	M3	192	GLU
57	N1	18	ASP
59	N3	66	LYS
60	N4	86	SER
64	N8	96	LYS
65	N9	21	ILE
69	O3	59	VAL
71	O5	119	LYS
3	s1	114	VAL
3	s1	129	THR
4	s2	119	LYS
5	s3	93	ASP
6	s4	260	GLY
7	s5	60	ASP
7	s5	151	GLY
7	s5	173	ALA
8	s6	123	GLY
12	c0	35	ILE
13	c1	28	SER
14	c2	40	GLY
14	c2	118	ALA
16	c4	125	SER
17	c5	133	ALA
18	c6	4	VAL
20	c8	7	GLU
20	c8	90	ASN
20	c8	139	LYS
22	d0	97	VAL
80	e0	47	VAL
35	sM	49	LYS
35	sM	171	LYS
40	l3	333	LYS
41	l4	144	LYS
42	l5	125	VAL
45	l8	216	SER
48	m1	7	ASN
54	m8	42	ALA
54	m8	113	LYS

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Mol	Chain	Res	Type
60	n4	98	PRO
63	n7	36	HIS
64	n8	47	LYS
68	o2	6	HIS
71	o5	3	GLY
71	o5	43	LYS
82	p0	71	PRO
3	S1	176	VAL
3	S1	226	GLY
4	S2	36	VAL
9	S7	13	PRO
9	S7	125	ILE
14	C2	22	VAL
26	D4	100	VAL
28	D6	59	TYR
30	D8	20	GLY
33	E1	112	GLY
35	SM	67	GLY
47	M0	16	PRO
5	s3	163	PRO
7	s5	152	GLY
11	s9	162	SER
14	c2	63	VAL
19	c7	86	PRO
21	c9	118	PRO
24	d2	6	VAL
35	sM	52	PRO
51	m5	74	PRO
53	m7	84	PRO
60	n4	132	GLY
82	p0	47	GLY
82	p0	197	PHE
4	S2	145	GLY
14	C2	81	ASP
22	D0	19	ILE
34	SR	15	GLY
41	L4	97	GLY
44	L7	191	VAL
45	L8	135	GLY
60	N4	10	GLY
4	s2	83	ILE
5	s3	203	PRO

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Mol	Chain	Res	Type
9	s7	73	VAL
14	c2	66	VAL
14	c2	91	VAL
14	c2	115	VAL
27	d5	50	ILE
34	sR	28	GLY
47	m0	204	GLY
64	n8	56	VAL
12	C0	92	ILE
19	C7	110	VAL
34	SR	113	VAL
40	L3	33	PRO
15	c3	22	ALA
39	l2	13	GLY
59	n3	134	GLY
7	S5	151	GLY
8	S6	162	VAL
18	C6	40	GLU
28	D6	60	PRO
28	D6	75	VAL
4	s2	149	GLY
14	c2	82	PRO
15	c3	98	VAL
16	C4	79	VAL
56	N0	22	PRO
62	N6	92	GLY
8	s6	69	LEU
13	c1	129	ARG
19	c7	117	LEU
28	d6	16	GLY
69	o3	59	VAL
70	o4	78	GLY

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	S0	164/209 (78%)	136 (83%)	28 (17%)	2	11
2	s0	165/209 (79%)	130 (79%)	35 (21%)	1	6
3	S1	191/223 (86%)	150 (78%)	41 (22%)	1	5
3	s1	192/223 (86%)	151 (79%)	41 (21%)	1	5
4	S2	176/204 (86%)	137 (78%)	39 (22%)	1	5
4	s2	176/204 (86%)	133 (76%)	43 (24%)	1	3
5	S3	182/194 (94%)	138 (76%)	44 (24%)	1	3
5	s3	182/194 (94%)	144 (79%)	38 (21%)	1	6
6	S4	221/221 (100%)	175 (79%)	46 (21%)	1	6
6	s4	221/221 (100%)	183 (83%)	38 (17%)	2	11
7	S5	173/190 (91%)	137 (79%)	36 (21%)	1	6
7	s5	173/190 (91%)	140 (81%)	33 (19%)	2	8
8	S6	188/201 (94%)	152 (81%)	36 (19%)	2	8
8	s6	187/201 (93%)	152 (81%)	35 (19%)	2	8
9	S7	165/169 (98%)	140 (85%)	25 (15%)	3	14
9	s7	165/169 (98%)	135 (82%)	30 (18%)	2	9
10	S8	150/161 (93%)	128 (85%)	22 (15%)	4	16
10	s8	150/161 (93%)	119 (79%)	31 (21%)	1	6
11	S9	158/165 (96%)	126 (80%)	32 (20%)	1	6
11	s9	158/165 (96%)	124 (78%)	34 (22%)	1	5
12	C0	77/98 (79%)	64 (83%)	13 (17%)	2	11
12	c0	73/98 (74%)	61 (84%)	12 (16%)	3	12
13	C1	129/136 (95%)	115 (89%)	14 (11%)	8	30
13	c1	129/136 (95%)	109 (84%)	20 (16%)	3	14
14	C2	88/118 (75%)	62 (70%)	26 (30%)	0	1
14	c2	88/118 (75%)	64 (73%)	24 (27%)	0	1
15	C3	127/127 (100%)	102 (80%)	25 (20%)	1	7
15	c3	127/127 (100%)	104 (82%)	23 (18%)	2	9
16	C4	81/104 (78%)	57 (70%)	24 (30%)	0	1
16	c4	97/104 (93%)	70 (72%)	27 (28%)	0	1
17	C5	101/117 (86%)	82 (81%)	19 (19%)	2	8
17	c5	103/117 (88%)	83 (81%)	20 (19%)	2	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	C6	117/118 (99%)	90 (77%)	27 (23%)	1	4
18	c6	118/118 (100%)	96 (81%)	22 (19%)	2	9
19	C7	94/124 (76%)	74 (79%)	20 (21%)	1	6
19	c7	92/124 (74%)	72 (78%)	20 (22%)	1	5
20	C8	128/128 (100%)	107 (84%)	21 (16%)	3	12
20	c8	128/128 (100%)	98 (77%)	30 (23%)	1	4
21	C9	115/115 (100%)	92 (80%)	23 (20%)	1	7
21	c9	115/115 (100%)	94 (82%)	21 (18%)	2	9
22	D0	100/113 (88%)	72 (72%)	28 (28%)	0	1
22	d0	103/113 (91%)	77 (75%)	26 (25%)	1	2
23	D1	74/74 (100%)	61 (82%)	13 (18%)	2	10
23	d1	74/74 (100%)	62 (84%)	12 (16%)	3	12
24	D2	110/110 (100%)	91 (83%)	19 (17%)	2	11
24	d2	110/110 (100%)	94 (86%)	16 (14%)	4	16
25	D3	119/119 (100%)	97 (82%)	22 (18%)	2	9
25	d3	119/119 (100%)	98 (82%)	21 (18%)	2	10
26	D4	112/112 (100%)	98 (88%)	14 (12%)	6	22
26	d4	112/112 (100%)	93 (83%)	19 (17%)	2	11
27	D5	61/88 (69%)	43 (70%)	18 (30%)	0	1
27	d5	61/88 (69%)	51 (84%)	10 (16%)	3	12
28	D6	83/83 (100%)	63 (76%)	20 (24%)	1	3
28	d6	83/83 (100%)	66 (80%)	17 (20%)	1	6
29	D7	70/70 (100%)	59 (84%)	11 (16%)	3	13
29	d7	70/70 (100%)	60 (86%)	10 (14%)	4	17
30	D8	56/59 (95%)	43 (77%)	13 (23%)	1	4
30	d8	56/59 (95%)	46 (82%)	10 (18%)	2	10
31	D9	47/48 (98%)	39 (83%)	8 (17%)	2	11
31	d9	47/48 (98%)	38 (81%)	9 (19%)	2	8
32	E0	51/51 (100%)	39 (76%)	12 (24%)	1	4
33	E1	62/66 (94%)	45 (73%)	17 (27%)	0	1
33	e1	66/66 (100%)	50 (76%)	16 (24%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	SR	260/261 (100%)	211 (81%)	49 (19%)	2	8
34	sR	260/261 (100%)	231 (89%)	29 (11%)	7	29
35	SM	97/228 (42%)	80 (82%)	17 (18%)	2	10
35	sM	54/228 (24%)	41 (76%)	13 (24%)	1	3
39	L2	193/195 (99%)	157 (81%)	36 (19%)	2	8
39	l2	192/195 (98%)	158 (82%)	34 (18%)	2	10
40	L3	320/322 (99%)	252 (79%)	68 (21%)	1	6
40	l3	321/322 (100%)	252 (78%)	69 (22%)	1	5
41	L4	288/288 (100%)	230 (80%)	58 (20%)	1	7
41	l4	288/288 (100%)	231 (80%)	57 (20%)	1	7
42	L5	244/244 (100%)	206 (84%)	38 (16%)	3	14
42	l5	243/244 (100%)	191 (79%)	52 (21%)	1	5
43	L6	134/152 (88%)	114 (85%)	20 (15%)	4	15
43	l6	135/152 (89%)	114 (84%)	21 (16%)	3	14
44	L7	186/204 (91%)	160 (86%)	26 (14%)	4	18
44	l7	187/204 (92%)	157 (84%)	30 (16%)	3	13
45	L8	187/207 (90%)	157 (84%)	30 (16%)	3	13
45	l8	177/207 (86%)	138 (78%)	39 (22%)	1	5
46	L9	171/171 (100%)	128 (75%)	43 (25%)	1	2
46	l9	171/171 (100%)	136 (80%)	35 (20%)	1	6
47	M0	177/186 (95%)	139 (78%)	38 (22%)	1	5
47	m0	179/186 (96%)	149 (83%)	30 (17%)	2	11
48	M1	147/150 (98%)	109 (74%)	38 (26%)	0	2
48	m1	147/150 (98%)	117 (80%)	30 (20%)	1	6
49	M3	154/158 (98%)	124 (80%)	30 (20%)	2	7
49	m3	154/158 (98%)	125 (81%)	29 (19%)	2	8
50	M4	107/108 (99%)	87 (81%)	20 (19%)	2	8
50	m4	108/108 (100%)	91 (84%)	17 (16%)	3	13
51	M5	175/175 (100%)	139 (79%)	36 (21%)	1	6
51	m5	175/175 (100%)	146 (83%)	29 (17%)	3	12
52	M6	160/161 (99%)	132 (82%)	28 (18%)	2	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	m6	160/161 (99%)	134 (84%)	26 (16%)	3	12
53	M7	140/145 (97%)	106 (76%)	34 (24%)	1	3
53	m7	125/145 (86%)	101 (81%)	24 (19%)	2	8
54	M8	150/150 (100%)	121 (81%)	29 (19%)	2	8
54	m8	150/150 (100%)	121 (81%)	29 (19%)	2	8
55	M9	153/153 (100%)	131 (86%)	22 (14%)	4	17
55	m9	153/153 (100%)	119 (78%)	34 (22%)	1	5
56	N0	156/156 (100%)	127 (81%)	29 (19%)	2	9
56	n0	156/156 (100%)	123 (79%)	33 (21%)	1	6
57	N1	136/136 (100%)	111 (82%)	25 (18%)	2	9
57	n1	136/136 (100%)	107 (79%)	29 (21%)	1	6
58	N2	87/106 (82%)	72 (83%)	15 (17%)	2	11
58	n2	85/106 (80%)	65 (76%)	20 (24%)	1	4
59	N3	104/104 (100%)	84 (81%)	20 (19%)	2	8
59	n3	104/104 (100%)	91 (88%)	13 (12%)	6	22
60	N4	57/129 (44%)	50 (88%)	7 (12%)	6	23
60	n4	100/129 (78%)	84 (84%)	16 (16%)	3	13
61	N5	104/117 (89%)	81 (78%)	23 (22%)	1	5
61	n5	104/117 (89%)	86 (83%)	18 (17%)	2	11
62	N6	109/109 (100%)	88 (81%)	21 (19%)	2	8
62	n6	109/109 (100%)	86 (79%)	23 (21%)	1	6
63	N7	115/115 (100%)	92 (80%)	23 (20%)	1	7
63	n7	115/115 (100%)	90 (78%)	25 (22%)	1	5
64	N8	118/118 (100%)	97 (82%)	21 (18%)	2	10
64	n8	118/118 (100%)	103 (87%)	15 (13%)	5	22
65	N9	46/46 (100%)	38 (83%)	8 (17%)	2	11
65	n9	46/46 (100%)	32 (70%)	14 (30%)	0	1
66	O0	81/87 (93%)	63 (78%)	18 (22%)	1	5
66	o0	84/87 (97%)	63 (75%)	21 (25%)	1	2
67	O1	92/96 (96%)	76 (83%)	16 (17%)	2	11
67	o1	94/96 (98%)	68 (72%)	26 (28%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	O2	109/110 (99%)	87 (80%)	22 (20%)	1	7
68	o2	109/110 (99%)	87 (80%)	22 (20%)	1	7
69	O3	90/90 (100%)	80 (89%)	10 (11%)	8	29
69	o3	90/90 (100%)	72 (80%)	18 (20%)	1	7
70	O4	95/101 (94%)	77 (81%)	18 (19%)	2	8
70	o4	95/101 (94%)	76 (80%)	19 (20%)	1	7
71	O5	104/104 (100%)	78 (75%)	26 (25%)	1	2
71	o5	103/104 (99%)	84 (82%)	19 (18%)	2	9
72	O6	81/81 (100%)	61 (75%)	20 (25%)	1	3
72	o6	80/81 (99%)	54 (68%)	26 (32%)	0	0
73	O7	70/70 (100%)	52 (74%)	18 (26%)	0	2
73	o7	70/70 (100%)	56 (80%)	14 (20%)	1	7
74	O8	68/68 (100%)	49 (72%)	19 (28%)	0	1
74	o8	67/68 (98%)	51 (76%)	16 (24%)	1	3
75	O9	45/45 (100%)	37 (82%)	8 (18%)	2	10
75	o9	45/45 (100%)	37 (82%)	8 (18%)	2	10
76	Q0	47/47 (100%)	41 (87%)	6 (13%)	5	21
76	q0	47/47 (100%)	40 (85%)	7 (15%)	4	15
77	Q1	23/23 (100%)	14 (61%)	9 (39%)	0	0
77	q1	23/23 (100%)	16 (70%)	7 (30%)	0	1
78	Q2	90/90 (100%)	74 (82%)	16 (18%)	2	10
78	q2	90/90 (100%)	67 (74%)	23 (26%)	0	2
79	Q3	71/71 (100%)	55 (78%)	16 (22%)	1	4
79	q3	71/71 (100%)	57 (80%)	14 (20%)	1	7
80	e0	53/53 (100%)	41 (77%)	12 (23%)	1	4
82	p0	105/253 (42%)	87 (83%)	18 (17%)	2	11
All	All	18729/20239 (92%)	15053 (80%)	3676 (20%)	1	7

All (3676) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	6	THR
2	S0	7	PHE

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Mol	Chain	Res	Type
2	S0	28	ASN
2	S0	37	VAL
2	S0	50	VAL
2	S0	57	LEU
2	S0	59	LEU
2	S0	84	ARG
2	S0	86	VAL
2	S0	96	THR
2	S0	101	ARG
2	S0	103	THR
2	S0	119	ARG
2	S0	120	LEU
2	S0	122	ILE
2	S0	131	GLN
2	S0	135	GLU
2	S0	156	VAL
2	S0	157	ASP
2	S0	165	ARG
2	S0	168	HIS
2	S0	172	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	189	VAL
2	S0	196	SER
2	S0	198	MET
2	S0	200	ASP
3	S1	20	VAL
3	S1	21	VAL
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	42	ASN
3	S1	46	THR
3	S1	47	LEU
3	S1	61	LEU
3	S1	64	ARG
3	S1	65	VAL
3	S1	70	LEU
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE
3	S1	85	LYS

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Mol	Chain	Res	Type
3	S1	89	ASP
3	S1	97	LEU
3	S1	104	ASP
3	S1	105	PHE
3	S1	108	ASP
3	S1	111	ARG
3	S1	117	TRP
3	S1	125	VAL
3	S1	126	THR
3	S1	137	ILE
3	S1	144	ARG
3	S1	145	LYS
3	S1	148	ASN
3	S1	154	SER
3	S1	169	SER
3	S1	181	LEU
3	S1	193	ILE
3	S1	202	LYS
3	S1	204	ILE
3	S1	206	PRO
3	S1	214	LYS
3	S1	217	LEU
3	S1	218	LEU
3	S1	219	LYS
3	S1	223	PHE
4	S2	41	LEU
4	S2	53	ILE
4	S2	54	GLU
4	S2	69	ILE
4	S2	70	ASP
4	S2	76	LEU
4	S2	77	GLN
4	S2	83	ILE
4	S2	87	GLN
4	S2	89	GLN
4	S2	94	GLN
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	113	LEU
4	S2	117	THR

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Mol	Chain	Res	Type
4	S2	119	LYS
4	S2	130	ILE
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	140	ARG
4	S2	141	ARG
4	S2	146	THR
4	S2	148	LEU
4	S2	153	SER
4	S2	154	LEU
4	S2	166	THR
4	S2	187	LEU
4	S2	201	ASN
4	S2	208	GLU
4	S2	222	TYR
4	S2	225	LEU
4	S2	226	THR
4	S2	235	LEU
4	S2	245	ASP
4	S2	246	GLU
4	S2	250	GLN
5	S3	4	LEU
5	S3	7	LYS
5	S3	9	ARG
5	S3	21	LEU
5	S3	23	GLU
5	S3	37	VAL
5	S3	45	LYS
5	S3	65	ARG
5	S3	70	THR
5	S3	74	GLN
5	S3	76	ARG
5	S3	89	GLU
5	S3	90	ARG
5	S3	91	VAL
5	S3	92	GLN
5	S3	93	ASP
5	S3	103	GLU
5	S3	104	SER
5	S3	105	MET
5	S3	111	ASN

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Mol	Chain	Res	Type
5	S3	113	LEU
5	S3	122	VAL
5	S3	124	ARG
5	S3	134	CYS
5	S3	141	LYS
5	S3	142	LEU
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	179	GLN
5	S3	181	VAL
5	S3	182	LEU
5	S3	196	ARG
5	S3	200	LYS
5	S3	207	THR
5	S3	212	LYS
5	S3	217	ILE
5	S3	222	VAL
5	S3	224	ASP
6	S4	9	LEU
6	S4	12	LEU
6	S4	38	LEU
6	S4	41	SER
6	S4	42	LEU
6	S4	49	ARG
6	S4	56	LEU
6	S4	62	LYS
6	S4	65	LEU
6	S4	67	GLN
6	S4	68	ARG
6	S4	77	ARG
6	S4	78	THR
6	S4	93	ASP
6	S4	95	THR
6	S4	108	ARG
6	S4	116	ASP
6	S4	117	GLU

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Mol	Chain	Res	Type
6	S4	123	LEU
6	S4	126	VAL
6	S4	128	LYS
6	S4	131	LEU
6	S4	133	LYS
6	S4	145	ARG
6	S4	151	ASP
6	S4	166	SER
6	S4	180	LEU
6	S4	182	TYR
6	S4	187	ARG
6	S4	198	LYS
6	S4	206	ASP
6	S4	210	ILE
6	S4	215	ASP
6	S4	220	THR
6	S4	221	ARG
6	S4	226	PHE
6	S4	227	VAL
6	S4	231	GLN
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	248	ILE
6	S4	256	ARG
6	S4	259	GLN
6	S4	261	LEU
7	S5	25	LEU
7	S5	32	GLU
7	S5	38	THR
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS
7	S5	46	TRP
7	S5	50	GLU
7	S5	59	VAL
7	S5	65	ARG
7	S5	66	GLN
7	S5	76	ARG
7	S5	79	ASN
7	S5	89	ILE

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Mol	Chain	Res	Type
7	S5	92	ARG
7	S5	93	LEU
7	S5	94	THR
7	S5	97	LEU
7	S5	99	MET
7	S5	122	ASN
7	S5	126	ASP
7	S5	146	THR
7	S5	147	THR
7	S5	149	VAL
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	162	VAL
7	S5	166	ARG
7	S5	172	ILE
7	S5	186	ASN
7	S5	187	ILE
7	S5	190	ILE
7	S5	194	LEU
7	S5	223	SER
7	S5	225	ARG
8	S6	6	SER
8	S6	13	GLN
8	S6	25	ARG
8	S6	43	ASP
8	S6	44	GLU
8	S6	45	PHE
8	S6	49	VAL
8	S6	58	LYS
8	S6	67	VAL
8	S6	69	LEU
8	S6	76	LEU
8	S6	79	LYS
8	S6	81	VAL
8	S6	82	SER
8	S6	89	ASP
8	S6	98	ARG
8	S6	109	LEU
8	S6	113	ILE
8	S6	120	GLU
8	S6	126	ASP

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Mol	Chain	Res	Type
8	S6	127	THR
8	S6	128	THR
8	S6	129	VAL
8	S6	132	ARG
8	S6	133	LEU
8	S6	141	ILE
8	S6	154	ARG
8	S6	162	VAL
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	176	GLN
8	S6	177	ARG
8	S6	211	LEU
8	S6	212	LEU
8	S6	223	LYS
9	S7	24	PHE
9	S7	28	GLU
9	S7	37	GLU
9	S7	38	LEU
9	S7	42	GLN
9	S7	44	LYS
9	S7	46	ILE
9	S7	51	VAL
9	S7	60	ILE
9	S7	67	LEU
9	S7	79	ARG
9	S7	85	PHE
9	S7	87	ASP
9	S7	97	ARG
9	S7	107	ARG
9	S7	114	ARG
9	S7	118	LEU
9	S7	126	LEU
9	S7	130	VAL
9	S7	147	ASN
9	S7	149	ILE
9	S7	174	ASN
9	S7	181	ILE
9	S7	182	VAL
9	S7	185	ILE
10	S8	4	SER

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Mol	Chain	Res	Type
10	S8	7	SER
10	S8	8	ARG
10	S8	21	PHE
10	S8	22	ARG
10	S8	26	LYS
10	S8	29	LEU
10	S8	36	THR
10	S8	37	LYS
10	S8	46	VAL
10	S8	56	ARG
10	S8	58	LEU
10	S8	66	SER
10	S8	74	LYS
10	S8	97	THR
10	S8	123	LYS
10	S8	138	ASN
10	S8	151	LYS
10	S8	152	ILE
10	S8	155	SER
10	S8	164	ARG
10	S8	195	ARG
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR
11	S9	14	THR
11	S9	21	SER
11	S9	28	LEU
11	S9	40	LYS
11	S9	50	SER
11	S9	61	THR
11	S9	63	ASP
11	S9	66	ASP
11	S9	78	ARG
11	S9	79	ARG
11	S9	81	VAL
11	S9	82	ARG
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	94	ASP
11	S9	99	LEU
11	S9	100	LYS

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Mol	Chain	Res	Type
11	S9	105	LEU
11	S9	110	GLN
11	S9	118	LEU
11	S9	130	THR
11	S9	134	ILE
11	S9	138	LYS
11	S9	149	ARG
11	S9	161	THR
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
12	C0	8	ARG
12	C0	20	VAL
12	C0	26	ASP
12	C0	28	ASN
12	C0	32	HIS
12	C0	40	LEU
12	C0	55	VAL
12	C0	56	LYS
12	C0	60	SER
12	C0	71	GLU
12	C0	76	LEU
12	C0	81	ASN
12	C0	82	LEU
13	C1	7	VAL
13	C1	8	GLN
13	C1	21	ASN
13	C1	29	LYS
13	C1	40	LEU
13	C1	44	THR
13	C1	67	ARG
13	C1	69	LYS
13	C1	80	MET
13	C1	105	LYS
13	C1	107	VAL
13	C1	109	VAL
13	C1	131	ILE
13	C1	143	SER
14	C2	33	ARG
14	C2	36	LEU
14	C2	37	VAL
14	C2	39	ASP

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Mol	Chain	Res	Type
14	C2	41	LEU
14	C2	43	ARG
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	53	THR
14	C2	54	ARG
14	C2	62	LEU
14	C2	63	VAL
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	85	LYS
14	C2	89	ILE
14	C2	103	LEU
14	C2	121	VAL
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	139	HIS
14	C2	140	PHE
14	C2	143	GLN
15	C3	3	ARG
15	C3	9	LYS
15	C3	16	ILE
15	C3	27	LYS
15	C3	30	SER
15	C3	33	VAL
15	C3	39	LYS
15	C3	43	LYS
15	C3	45	LEU
15	C3	46	THR
15	C3	56	ASP
15	C3	62	GLN
15	C3	64	ARG
15	C3	66	ILE
15	C3	76	LYS
15	C3	80	LEU
15	C3	83	GLU
15	C3	88	LEU
15	C3	102	LEU
15	C3	114	ARG

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Mol	Chain	Res	Type
15	C3	115	LEU
15	C3	125	LEU
15	C3	131	THR
15	C3	134	VAL
15	C3	149	LEU
16	C4	16	VAL
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	38	THR
16	C4	42	VAL
16	C4	43	THR
16	C4	48	VAL
16	C4	49	LYS
16	C4	51	ASP
16	C4	53	ASP
16	C4	55	SER
16	C4	81	VAL
16	C4	92	LYS
16	C4	93	THR
16	C4	102	LEU
16	C4	103	ARG
16	C4	114	ARG
16	C4	119	THR
16	C4	123	SER
16	C4	126	THR
16	C4	135	ARG
16	C4	136	ARG
16	C4	137	LEU
17	C5	11	VAL
17	C5	20	VAL
17	C5	22	LEU
17	C5	28	MET
17	C5	31	GLU
17	C5	34	VAL
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	69	GLU
17	C5	70	ASN
17	C5	84	ILE
17	C5	86	VAL

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Mol	Chain	Res	Type
17	C5	98	ASN
17	C5	100	LYS
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR
17	C5	125	PRO
18	C6	4	VAL
18	C6	8	GLN
18	C6	14	LYS
18	C6	26	LYS
18	C6	28	LEU
18	C6	43	ILE
18	C6	47	LYS
18	C6	53	LEU
18	C6	54	LEU
18	C6	68	ARG
18	C6	69	VAL
18	C6	82	ARG
18	C6	98	ASP
18	C6	101	SER
18	C6	104	GLU
18	C6	106	LYS
18	C6	114	ARG
18	C6	118	ILE
18	C6	121	SER
18	C6	123	ARG
18	C6	127	LYS
18	C6	136	SER
18	C6	137	ARG
18	C6	138	PHE
18	C6	139	GLN
18	C6	141	SER
18	C6	143	ARG
19	C7	3	ARG
19	C7	5	ARG
19	C7	6	THR
19	C7	10	LYS
19	C7	25	THR
19	C7	30	THR
19	C7	34	LEU
19	C7	40	THR
19	C7	45	ARG

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Mol	Chain	Res	Type
19	C7	58	MET
19	C7	62	GLN
19	C7	67	ARG
19	C7	69	ILE
19	C7	72	LYS
19	C7	78	ARG
19	C7	88	VAL
19	C7	105	GLN
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	13	HIS
20	C8	15	LEU
20	C8	17	LEU
20	C8	20	THR
20	C8	28	ILE
20	C8	40	ARG
20	C8	61	LEU
20	C8	65	GLU
20	C8	72	ILE
20	C8	74	GLN
20	C8	80	LYS
20	C8	92	ILE
20	C8	93	THR
20	C8	97	ASP
20	C8	108	LYS
20	C8	132	ARG
20	C8	136	GLN
20	C8	138	THR
20	C8	143	ARG
21	C9	6	VAL
21	C9	22	LEU
21	C9	27	LYS
21	C9	28	LEU
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	38	LYS
21	C9	57	ARG
21	C9	60	SER

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Mol	Chain	Res	Type
21	C9	67	MET
21	C9	71	VAL
21	C9	86	ARG
21	C9	94	ILE
21	C9	103	LYS
21	C9	116	ILE
21	C9	122	ARG
21	C9	130	ARG
21	C9	131	ASP
21	C9	133	ASP
21	C9	134	ARG
21	C9	143	ASP
21	C9	144	GLU
22	D0	15	GLN
22	D0	18	GLN
22	D0	19	ILE
22	D0	20	ILE
22	D0	23	ARG
22	D0	27	THR
22	D0	30	LYS
22	D0	31	VAL
22	D0	34	LEU
22	D0	47	GLN
22	D0	50	LEU
22	D0	51	VAL
22	D0	57	ARG
22	D0	58	LEU
22	D0	60	THR
22	D0	61	LYS
22	D0	72	ASN
22	D0	74	GLU
22	D0	76	SER
22	D0	80	GLU
22	D0	81	THR
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	105	GLN
22	D0	108	ILE
22	D0	120	SER
22	D0	121	ASN
23	D1	3	ASN

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Mol	Chain	Res	Type
23	D1	8	LEU
23	D1	11	LEU
23	D1	12	TYR
23	D1	18	SER
23	D1	21	ASN
23	D1	41	GLU
23	D1	49	GLU
23	D1	50	TYR
23	D1	52	THR
23	D1	69	LEU
23	D1	80	LYS
23	D1	87	ARG
24	D2	7	LEU
24	D2	12	ASN
24	D2	15	ASN
24	D2	20	THR
24	D2	23	ARG
24	D2	24	GLN
24	D2	27	ILE
24	D2	30	SER
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	66	ASN
24	D2	81	VAL
24	D2	93	LEU
24	D2	98	GLN
24	D2	103	ILE
24	D2	105	THR
24	D2	117	ARG
24	D2	129	VAL
25	D3	5	LYS
25	D3	7	ARG
25	D3	9	LEU
25	D3	14	LYS
25	D3	16	ARG
25	D3	19	ARG
25	D3	26	GLU
25	D3	28	ASN
25	D3	31	LYS
25	D3	41	SER
25	D3	47	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	D3	56	LYS
25	D3	82	LYS
25	D3	84	THR
25	D3	103	LEU
25	D3	107	PHE
25	D3	114	LYS
25	D3	117	ILE
25	D3	132	LEU
25	D3	135	LEU
25	D3	140	LYS
25	D3	144	ARG
26	D4	9	THR
26	D4	28	LEU
26	D4	32	ARG
26	D4	34	ASN
26	D4	51	GLU
26	D4	52	LYS
26	D4	61	ARG
26	D4	62	THR
26	D4	74	LEU
26	D4	75	VAL
26	D4	96	LEU
26	D4	100	VAL
26	D4	102	LYS
26	D4	124	ARG
27	D5	40	VAL
27	D5	42	LEU
27	D5	48	ASP
27	D5	49	ARG
27	D5	50	ILE
27	D5	58	ARG
27	D5	60	VAL
27	D5	62	VAL
27	D5	67	ASP
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	78	ILE
27	D5	85	LYS
27	D5	92	ILE
27	D5	95	HIS
27	D5	96	SER

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Mol	Chain	Res	Type
27	D5	98	GLN
28	D6	5	ARG
28	D6	12	LYS
28	D6	21	VAL
28	D6	32	LYS
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	44	ILE
28	D6	57	SER
28	D6	58	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	66	LYS
28	D6	70	LYS
28	D6	76	SER
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
28	D6	88	SER
28	D6	90	GLU
29	D7	3	LEU
29	D7	29	ARG
29	D7	33	LEU
29	D7	34	ASP
29	D7	41	LEU
29	D7	43	ILE
29	D7	60	SER
29	D7	61	THR
29	D7	62	ILE
29	D7	65	THR
29	D7	67	THR
30	D8	13	ILE
30	D8	19	THR
30	D8	22	ARG
30	D8	32	PHE
30	D8	33	LEU
30	D8	34	GLU
30	D8	36	THR
30	D8	49	ARG
30	D8	57	MET
30	D8	58	GLU

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Mol	Chain	Res	Type
30	D8	61	ARG
30	D8	64	ARG
30	D8	65	ARG
31	D9	5	ASN
31	D9	7	TRP
31	D9	9	SER
31	D9	12	ARG
31	D9	21	CYS
31	D9	28	THR
31	D9	32	ARG
31	D9	48	ASN
32	E0	3	LYS
32	E0	20	LYS
32	E0	21	VAL
32	E0	22	GLU
32	E0	24	THR
32	E0	39	LEU
32	E0	42	ARG
32	E0	43	ARG
32	E0	47	VAL
32	E0	50	VAL
32	E0	56	MET
32	E0	58	PRO
33	E1	83	LYS
33	E1	84	VAL
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	97	LYS
33	E1	108	VAL
33	E1	113	LYS
33	E1	118	ARG
33	E1	120	GLU
33	E1	130	VAL
33	E1	137	ASP
33	E1	138	ARG
33	E1	140	TYR
33	E1	145	HIS
33	E1	147	VAL
33	E1	151	ASN
34	SR	6	VAL
34	SR	21	THR

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Mol	Chain	Res	Type
34	SR	22	SER
34	SR	29	GLN
34	SR	48	THR
34	SR	52	GLN
34	SR	59	ARG
34	SR	60	SER
34	SR	62	LYS
34	SR	69	GLN
34	SR	70	ASP
34	SR	76	ASP
34	SR	96	THR
34	SR	100	TYR
34	SR	102	ARG
34	SR	106	HIS
34	SR	109	ASP
34	SR	113	VAL
34	SR	117	LYS
34	SR	136	ILE
34	SR	141	LEU
34	SR	145	LEU
34	SR	148	ASN
34	SR	154	VAL
34	SR	159	ASN
34	SR	163	ASP
34	SR	165	ASP
34	SR	184	ASN
34	SR	188	ILE
34	SR	191	ASP
34	SR	199	ILE
34	SR	200	ASN
34	SR	207	ASP
34	SR	229	LYS
34	SR	231	MET
34	SR	232	TYR
34	SR	238	ASP
34	SR	241	PHE
34	SR	242	SER
34	SR	258	THR
34	SR	265	LEU
34	SR	266	ASP
34	SR	268	GLN
34	SR	292	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	SR	300	THR
34	SR	309	VAL
34	SR	314	GLN
34	SR	316	MET
34	SR	317	THR
35	SM	34	LYS
35	SM	51	ARG
35	SM	53	ARG
35	SM	61	ILE
35	SM	64	LYS
35	SM	69	ARG
35	SM	72	ARG
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	96	ARG
35	SM	102	THR
35	SM	103	LYS
35	SM	116	GLU
35	SM	121	LYS
35	SM	122	GLU
35	SM	139	GLU
39	L2	10	LYS
39	L2	14	SER
39	L2	18	SER
39	L2	23	ARG
39	L2	32	LEU
39	L2	44	ILE
39	L2	45	VAL
39	L2	49	VAL
39	L2	64	ARG
39	L2	70	ARG
39	L2	74	GLU
39	L2	88	ILE
39	L2	95	SER
39	L2	96	LEU
39	L2	97	ASN
39	L2	101	VAL
39	L2	104	LEU
39	L2	109	GLU
39	L2	114	SER
39	L2	116	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	L2	119	LYS
39	L2	141	PRO
39	L2	142	ASP
39	L2	143	GLU
39	L2	157	VAL
39	L2	179	LEU
39	L2	180	LEU
39	L2	190	ARG
39	L2	191	LEU
39	L2	193	ARG
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	226	SER
39	L2	227	ARG
39	L2	230	VAL
40	L3	2	SER
40	L3	7	GLU
40	L3	17	LEU
40	L3	19	ARG
40	L3	21	ARG
40	L3	24	SER
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	44	THR
40	L3	47	LEU
40	L3	55	THR
40	L3	56	ILE
40	L3	70	ARG
40	L3	81	THR
40	L3	84	VAL
40	L3	85	VAL
40	L3	93	VAL
40	L3	103	THR
40	L3	112	ASP
40	L3	114	VAL
40	L3	116	ARG
40	L3	134	SER
40	L3	139	GLN
40	L3	146	ARG
40	L3	148	LEU

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Mol	Chain	Res	Type
40	L3	150	ARG
40	L3	157	VAL
40	L3	165	GLN
40	L3	166	ILE
40	L3	184	ASN
40	L3	187	SER
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	202	THR
40	L3	208	VAL
40	L3	229	VAL
40	L3	232	ARG
40	L3	235	THR
40	L3	236	LYS
40	L3	237	LYS
40	L3	238	LEU
40	L3	241	LYS
40	L3	244	ARG
40	L3	252	ILE
40	L3	264	VAL
40	L3	266	ARG
40	L3	270	ARG
40	L3	274	SER
40	L3	278	ILE
40	L3	284	ARG
40	L3	287	LYS
40	L3	296	THR
40	L3	304	THR
40	L3	305	ILE
40	L3	306	THR
40	L3	308	MET
40	L3	312	VAL
40	L3	324	VAL
40	L3	325	LYS
40	L3	332	ARG
40	L3	337	THR
40	L3	341	SER
40	L3	345	ASN
40	L3	347	SER
40	L3	353	GLU
40	L3	355	SER

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Mol	Chain	Res	Type
41	L4	4	PRO
41	L4	20	LEU
41	L4	22	LEU
41	L4	37	THR
41	L4	40	THR
41	L4	41	SER
41	L4	63	GLU
41	L4	74	ILE
41	L4	93	MET
41	L4	99	MET
41	L4	108	LYS
41	L4	124	SER
41	L4	133	SER
41	L4	138	ARG
41	L4	145	ILE
41	L4	147	GLU
41	L4	150	LEU
41	L4	152	VAL
41	L4	156	LEU
41	L4	172	VAL
41	L4	179	LEU
41	L4	182	LEU
41	L4	185	LYS
41	L4	186	LYS
41	L4	187	LEU
41	L4	188	ARG
41	L4	193	LYS
41	L4	194	TYR
41	L4	200	THR
41	L4	203	ARG
41	L4	206	LEU
41	L4	220	ARG
41	L4	222	VAL
41	L4	230	VAL
41	L4	246	ARG
41	L4	258	LEU
41	L4	259	ASP
41	L4	267	VAL
41	L4	283	THR
41	L4	289	ILE
41	L4	292	SER
41	L4	293	SER

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Mol	Chain	Res	Type
41	L4	295	ILE
41	L4	297	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	308	LYS
41	L4	311	HIS
41	L4	323	VAL
41	L4	332	LYS
41	L4	333	VAL
41	L4	343	LYS
41	L4	346	LYS
41	L4	349	THR
41	L4	350	LYS
41	L4	354	VAL
41	L4	356	THR
41	L4	362	ASP
42	L5	5	LYS
42	L5	8	LYS
42	L5	17	GLN
42	L5	23	ARG
42	L5	34	LYS
42	L5	35	ARG
42	L5	41	LYS
42	L5	58	LYS
42	L5	75	LEU
42	L5	85	ARG
42	L5	89	THR
42	L5	105	ILE
42	L5	109	THR
42	L5	115	LEU
42	L5	118	THR
42	L5	131	LEU
42	L5	137	ASP
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE
42	L5	152	ARG
42	L5	155	THR
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	188	GLU

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Mol	Chain	Res	Type
42	L5	189	GLU
42	L5	190	ILE
42	L5	216	GLU
42	L5	232	ASP
42	L5	234	ASP
42	L5	235	SER
42	L5	257	GLU
42	L5	263	GLU
42	L5	268	GLU
42	L5	273	ARG
42	L5	275	THR
42	L5	276	LYS
43	L6	5	LYS
43	L6	21	THR
43	L6	33	SER
43	L6	35	VAL
43	L6	41	ILE
43	L6	52	VAL
43	L6	56	LYS
43	L6	65	ILE
43	L6	78	ARG
43	L6	79	VAL
43	L6	89	THR
43	L6	90	LYS
43	L6	93	VAL
43	L6	98	VAL
43	L6	99	GLU
43	L6	134	ARG
43	L6	143	LYS
43	L6	152	THR
43	L6	155	LEU
43	L6	160	SER
44	L7	24	GLU
44	L7	26	VAL
44	L7	43	ILE
44	L7	59	GLU
44	L7	60	ARG
44	L7	80	GLN
44	L7	88	ARG
44	L7	89	ILE
44	L7	92	ILE
44	L7	93	ASN

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Mol	Chain	Res	Type
44	L7	98	LYS
44	L7	100	ARG
44	L7	110	ARG
44	L7	124	LEU
44	L7	158	LYS
44	L7	164	SER
44	L7	173	LEU
44	L7	175	LYS
44	L7	178	ILE
44	L7	179	LEU
44	L7	184	LEU
44	L7	207	LEU
44	L7	234	GLU
44	L7	238	LYS
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU
45	L8	27	THR
45	L8	41	GLN
45	L8	47	SER
45	L8	57	ARG
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	92	LYS
45	L8	95	ASN
45	L8	101	THR
45	L8	106	LYS
45	L8	118	GLU
45	L8	132	VAL
45	L8	136	LEU
45	L8	145	ASN
45	L8	150	LEU
45	L8	156	ASP
45	L8	160	ILE
45	L8	163	VAL
45	L8	169	LEU
45	L8	181	LYS
45	L8	185	ARG
45	L8	204	ARG
45	L8	211	LEU
45	L8	219	ASP

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Mol	Chain	Res	Type
45	L8	221	ASN
45	L8	238	LEU
45	L8	241	LYS
45	L8	246	MET
46	L9	5	GLN
46	L9	6	THR
46	L9	14	GLU
46	L9	19	SER
46	L9	20	ILE
46	L9	22	SER
46	L9	33	THR
46	L9	34	LEU
46	L9	36	LYS
46	L9	41	ILE
46	L9	48	VAL
46	L9	52	LEU
46	L9	62	ARG
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	80	THR
46	L9	82	VAL
46	L9	90	MET
46	L9	91	ARG
46	L9	102	ASN
46	L9	107	ASP
46	L9	114	VAL
46	L9	121	LYS
46	L9	124	ARG
46	L9	132	VAL
46	L9	133	THR
46	L9	135	GLU
46	L9	138	THR
46	L9	139	ASN
46	L9	141	LYS
46	L9	149	ASN
46	L9	151	VAL
46	L9	155	SER
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	164	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	L9	168	ARG
46	L9	172	ILE
46	L9	173	ARG
46	L9	188	THR
46	L9	189	GLU
47	M0	3	ARG
47	M0	7	ARG
47	M0	21	ARG
47	M0	24	ARG
47	M0	26	VAL
47	M0	28	ASP
47	M0	30	LYS
47	M0	31	ILE
47	M0	32	ARG
47	M0	33	ILE
47	M0	39	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	57	LEU
47	M0	63	GLU
47	M0	74	LYS
47	M0	87	LEU
47	M0	102	MET
47	M0	128	ARG
47	M0	130	ASP
47	M0	138	VAL
47	M0	139	ARG
47	M0	145	LYS
47	M0	147	VAL
47	M0	156	ARG
47	M0	163	GLN
47	M0	164	LYS
47	M0	165	ILE
47	M0	169	LYS
47	M0	174	THR
47	M0	176	LEU
47	M0	177	ASP
47	M0	178	ARG
47	M0	189	GLU
47	M0	192	ASP
47	M0	203	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
47	M0	205	SER
48	M1	6	GLN
48	M1	9	MET
48	M1	10	ARG
48	M1	11	ASP
48	M1	12	LEU
48	M1	13	LYS
48	M1	19	LEU
48	M1	20	ASN
48	M1	22	SER
48	M1	23	VAL
48	M1	31	THR
48	M1	34	SER
48	M1	40	LEU
48	M1	44	THR
48	M1	46	VAL
48	M1	52	TYR
48	M1	56	THR
48	M1	63	GLU
48	M1	70	THR
48	M1	80	LEU
48	M1	82	ARG
48	M1	94	ARG
48	M1	99	THR
48	M1	106	ILE
48	M1	107	ASP
48	M1	108	GLU
48	M1	112	LEU
48	M1	115	LYS
48	M1	130	VAL
48	M1	137	ARG
48	M1	140	ARG
48	M1	142	LYS
48	M1	155	THR
48	M1	158	ASP
48	M1	166	LYS
48	M1	168	ASP
48	M1	171	VAL
48	M1	173	ASP
49	M3	23	LYS
49	M3	24	VAL
49	M3	34	SER

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Mol	Chain	Res	Type
49	M3	35	ARG
49	M3	41	THR
49	M3	54	LEU
49	M3	55	ARG
49	M3	57	VAL
49	M3	59	ARG
49	M3	67	ARG
49	M3	70	ARG
49	M3	85	LEU
49	M3	86	THR
49	M3	100	ARG
49	M3	106	GLN
49	M3	107	GLU
49	M3	108	ILE
49	M3	117	LYS
49	M3	121	SER
49	M3	124	ILE
49	M3	131	LYS
49	M3	136	GLU
49	M3	138	VAL
49	M3	144	THR
49	M3	154	VAL
49	M3	168	ARG
49	M3	169	THR
49	M3	171	ARG
49	M3	190	LYS
49	M3	194	GLU
50	M4	5	SER
50	M4	8	LYS
50	M4	13	ARG
50	M4	25	LYS
50	M4	37	GLU
50	M4	38	ILE
50	M4	40	ASP
50	M4	43	LYS
50	M4	53	VAL
50	M4	55	ARG
50	M4	62	GLN
50	M4	63	VAL
50	M4	64	VAL
50	M4	72	LEU
50	M4	74	ARG

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Mol	Chain	Res	Type
50	M4	90	VAL
50	M4	91	CYS
50	M4	102	LYS
50	M4	108	ARG
50	M4	135	LEU
51	M5	7	LEU
51	M5	10	LEU
51	M5	22	LEU
51	M5	35	VAL
51	M5	38	ARG
51	M5	46	ASP
51	M5	57	GLN
51	M5	68	ARG
51	M5	71	ARG
51	M5	80	THR
51	M5	83	LYS
51	M5	85	THR
51	M5	93	LYS
51	M5	96	ARG
51	M5	97	SER
51	M5	105	ARG
51	M5	109	ARG
51	M5	113	LEU
51	M5	117	ASN
51	M5	133	ILE
51	M5	138	GLN
51	M5	142	ILE
51	M5	144	ARG
51	M5	151	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	157	LYS
51	M5	159	ARG
51	M5	167	THR
51	M5	170	LYS
51	M5	182	ASN
51	M5	183	THR
51	M5	187	ARG
51	M5	190	THR
51	M5	196	THR
51	M5	197	LEU
52	M6	25	LYS

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Mol	Chain	Res	Type
52	M6	34	VAL
52	M6	36	VAL
52	M6	41	LEU
52	M6	44	SER
52	M6	46	GLU
52	M6	51	LYS
52	M6	58	LEU
52	M6	68	ARG
52	M6	77	SER
52	M6	78	ARG
52	M6	84	LEU
52	M6	85	ARG
52	M6	103	LYS
52	M6	106	GLU
52	M6	110	PRO
52	M6	116	LYS
52	M6	117	ARG
52	M6	119	VAL
52	M6	124	LEU
52	M6	128	ARG
52	M6	129	LEU
52	M6	143	THR
52	M6	170	LYS
52	M6	175	THR
52	M6	182	ASN
52	M6	189	ASP
52	M6	190	VAL
53	M7	3	ARG
53	M7	7	THR
53	M7	9	THR
53	M7	10	ASN
53	M7	14	SER
53	M7	16	SER
53	M7	23	ARG
53	M7	24	VAL
53	M7	32	THR
53	M7	36	ILE
53	M7	41	LEU
53	M7	52	LEU
53	M7	53	ASP
53	M7	65	SER
53	M7	67	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
53	M7	69	ARG
53	M7	87	SER
53	M7	112	LEU
53	M7	114	VAL
53	M7	119	VAL
53	M7	120	ASN
53	M7	126	ARG
53	M7	127	ARG
53	M7	128	ARG
53	M7	138	LYS
53	M7	142	SER
53	M7	144	SER
53	M7	152	GLU
53	M7	153	LYS
53	M7	157	VAL
53	M7	169	THR
53	M7	180	LYS
53	M7	181	ARG
53	M7	182	ILE
54	M8	3	ILE
54	M8	21	SER
54	M8	22	ASP
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	46	LYS
54	M8	49	LEU
54	M8	55	SER
54	M8	57	ILE
54	M8	63	SER
54	M8	73	GLN
54	M8	74	GLU
54	M8	80	THR
54	M8	93	ILE
54	M8	95	GLU
54	M8	99	THR
54	M8	100	THR
54	M8	105	ARG
54	M8	129	VAL
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG

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Mol	Chain	Res	Type
54	M8	150	VAL
54	M8	161	LYS
54	M8	168	THR
54	M8	178	ARG
54	M8	179	ARG
54	M8	180	ARG
55	M9	5	ARG
55	M9	31	GLU
55	M9	41	ILE
55	M9	46	LYS
55	M9	52	LYS
55	M9	55	VAL
55	M9	57	VAL
55	M9	60	LYS
55	M9	74	ARG
55	M9	81	ARG
55	M9	86	GLU
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	110	ARG
55	M9	115	ILE
55	M9	116	ASP
55	M9	134	HIS
55	M9	135	LYS
55	M9	160	GLU
55	M9	176	ARG
55	M9	180	LYS
56	N0	1	MET
56	N0	8	GLN
56	N0	45	LEU
56	N0	51	VAL
56	N0	71	LYS
56	N0	81	TYR
56	N0	82	ASP
56	N0	85	SER
56	N0	87	THR
56	N0	92	LYS
56	N0	100	VAL
56	N0	105	THR
56	N0	113	ARG
56	N0	115	ARG

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Mol	Chain	Res	Type
56	N0	122	HIS
56	N0	125	LYS
56	N0	130	GLU
56	N0	131	LYS
56	N0	132	THR
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	145	THR
56	N0	155	ARG
56	N0	156	VAL
56	N0	157	GLN
56	N0	160	THR
56	N0	162	THR
56	N0	166	LYS
57	N1	12	ARG
57	N1	26	HIS
57	N1	27	LEU
57	N1	55	LYS
57	N1	68	THR
57	N1	75	ILE
57	N1	79	MET
57	N1	83	ARG
57	N1	88	ARG
57	N1	104	GLU
57	N1	106	LEU
57	N1	120	LYS
57	N1	122	GLN
57	N1	124	VAL
57	N1	126	VAL
57	N1	128	LEU
57	N1	136	ARG
57	N1	139	ARG
57	N1	141	VAL
57	N1	143	THR
57	N1	144	GLU
57	N1	149	GLN
57	N1	158	THR
57	N1	159	PHE
57	N1	160	ILE
58	N2	10	LYS
58	N2	11	ILE

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Mol	Chain	Res	Type
58	N2	14	THR
58	N2	16	THR
58	N2	37	LEU
58	N2	38	ILE
58	N2	43	VAL
58	N2	52	ASN
58	N2	54	VAL
58	N2	55	THR
58	N2	58	GLU
58	N2	66	VAL
58	N2	70	LYS
58	N2	93	ILE
58	N2	100	THR
59	N3	9	THR
59	N3	13	ILE
59	N3	32	ARG
59	N3	44	SER
59	N3	45	ARG
59	N3	46	LEU
59	N3	48	ARG
59	N3	54	LEU
59	N3	64	LYS
59	N3	69	LEU
59	N3	73	VAL
59	N3	74	MET
59	N3	83	LYS
59	N3	87	ARG
59	N3	96	GLU
59	N3	102	ILE
59	N3	125	LEU
59	N3	128	ARG
59	N3	135	VAL
59	N3	137	VAL
60	N4	4	GLU
60	N4	5	ILE
60	N4	19	THR
60	N4	27	LYS
60	N4	39	LEU
60	N4	47	ARG
60	N4	64	THR
61	N5	27	ARG
61	N5	33	ARG

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Mol	Chain	Res	Type
61	N5	37	THR
61	N5	38	LEU
61	N5	39	LYS
61	N5	45	LYS
61	N5	59	SER
61	N5	63	ILE
61	N5	74	LYS
61	N5	86	VAL
61	N5	92	LYS
61	N5	96	LYS
61	N5	105	VAL
61	N5	108	LEU
61	N5	109	LYS
61	N5	113	LEU
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	134	ASP
61	N5	135	ILE
61	N5	139	ILE
61	N5	142	ILE
62	N6	3	LYS
62	N6	5	SER
62	N6	10	SER
62	N6	13	ARG
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU
62	N6	50	ILE
62	N6	55	GLU
62	N6	56	VAL
62	N6	57	LEU
62	N6	63	LYS
62	N6	70	ILE
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	83	ASP
62	N6	94	SER
62	N6	105	VAL
62	N6	115	ARG
62	N6	127	GLU

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Mol	Chain	Res	Type
63	N7	9	LYS
63	N7	14	VAL
63	N7	24	VAL
63	N7	26	VAL
63	N7	35	SER
63	N7	46	ILE
63	N7	52	LYS
63	N7	53	VAL
63	N7	60	LYS
63	N7	72	ILE
63	N7	75	VAL
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	99	GLU
63	N7	107	ARG
63	N7	108	GLU
63	N7	109	GLU
63	N7	121	ARG
63	N7	123	GLN
63	N7	134	LEU
63	N7	136	PHE
64	N8	6	THR
64	N8	8	THR
64	N8	16	SER
64	N8	29	PRO
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	47	LYS
64	N8	56	VAL
64	N8	60	TYR
64	N8	73	LEU
64	N8	78	LEU
64	N8	84	GLU
64	N8	91	LEU
64	N8	98	THR
64	N8	115	LYS
64	N8	123	VAL
64	N8	130	VAL
64	N8	133	LEU

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Mol	Chain	Res	Type
64	N8	135	GLU
64	N8	139	ARG
65	N9	13	THR
65	N9	14	ARG
65	N9	23	LYS
65	N9	25	LYS
65	N9	28	LYS
65	N9	33	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	10	ILE
66	O0	12	GLN
66	O0	14	LEU
66	O0	16	LEU
66	O0	18	ILE
66	O0	34	LEU
66	O0	36	GLN
66	O0	40	LYS
66	O0	52	ARG
66	O0	61	MET
66	O0	65	THR
66	O0	66	LYS
66	O0	76	GLU
66	O0	83	LYS
66	O0	86	ARG
66	O0	100	ILE
66	O0	101	LEU
66	O0	102	THR
67	O1	6	ASP
67	O1	8	VAL
67	O1	13	THR
67	O1	16	LEU
67	O1	24	SER
67	O1	26	LYS
67	O1	36	ILE
67	O1	42	LEU
67	O1	47	ASP
67	O1	64	VAL
67	O1	68	GLU
67	O1	73	LEU
67	O1	79	ARG
67	O1	84	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
67	O1	106	THR
67	O1	110	GLU
68	O2	3	SER
68	O2	18	LYS
68	O2	19	ARG
68	O2	33	ARG
68	O2	34	LYS
68	O2	35	GLN
68	O2	36	LYS
68	O2	41	VAL
68	O2	51	SER
68	O2	52	GLN
68	O2	54	LYS
68	O2	61	LYS
68	O2	73	THR
68	O2	75	LEU
68	O2	82	LEU
68	O2	84	THR
68	O2	90	LYS
68	O2	103	LYS
68	O2	109	LEU
68	O2	125	ARG
68	O2	126	LEU
68	O2	128	LEU
69	O3	14	LEU
69	O3	15	SER
69	O3	37	THR
69	O3	48	ARG
69	O3	59	VAL
69	O3	60	ARG
69	O3	70	LYS
69	O3	81	VAL
69	O3	98	VAL
69	O3	106	ASN
70	O4	3	GLN
70	O4	8	ARG
70	O4	16	ARG
70	O4	20	ILE
70	O4	21	LYS
70	O4	24	LYS
70	O4	29	ILE
70	O4	51	LEU

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Mol	Chain	Res	Type
70	O4	58	ARG
70	O4	65	VAL
70	O4	68	THR
70	O4	69	HIS
70	O4	71	THR
70	O4	73	SER
70	O4	81	CYS
70	O4	86	LYS
70	O4	103	LYS
70	O4	104	VAL
71	O5	4	VAL
71	O5	15	GLU
71	O5	21	LEU
71	O5	38	ARG
71	O5	41	LEU
71	O5	43	LYS
71	O5	45	LYS
71	O5	46	THR
71	O5	48	ARG
71	O5	49	LYS
71	O5	50	SER
71	O5	68	GLN
71	O5	71	LYS
71	O5	81	ARG
71	O5	84	LYS
71	O5	85	THR
71	O5	89	ARG
71	O5	90	ARG
71	O5	93	THR
71	O5	100	VAL
71	O5	101	THR
71	O5	102	GLU
71	O5	105	ARG
71	O5	107	LYS
71	O5	111	PHE
71	O5	119	LYS
72	O6	11	LEU
72	O6	17	VAL
72	O6	18	THR
72	O6	20	MET
72	O6	21	THR
72	O6	25	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
72	O6	26	ILE
72	O6	29	LYS
72	O6	34	SER
72	O6	45	ARG
72	O6	56	ARG
72	O6	57	LEU
72	O6	58	ILE
72	O6	59	ASP
72	O6	68	ARG
72	O6	76	ARG
72	O6	81	THR
72	O6	88	GLU
72	O6	98	ARG
72	O6	99	ARG
73	O7	5	THR
73	O7	17	THR
73	O7	19	CYS
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR
73	O7	36	SER
73	O7	44	THR
73	O7	54	LYS
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	65	ARG
73	O7	75	LYS
73	O7	79	GLN
73	O7	82	SER
73	O7	84	SER
73	O7	85	LYS
74	O8	8	ILE
74	O8	12	LEU
74	O8	22	THR
74	O8	24	THR
74	O8	29	LYS
74	O8	32	ASN
74	O8	41	THR
74	O8	45	VAL
74	O8	46	ARG
74	O8	51	LEU

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Mol	Chain	Res	Type
74	O8	52	TYR
74	O8	53	THR
74	O8	54	LEU
74	O8	58	ASP
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	77	ARG
74	O8	78	LEU
75	O9	5	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	25	GLN
75	O9	28	ARG
75	O9	29	LEU
75	O9	48	LYS
75	O9	51	ILE
76	Q0	85	LEU
76	Q0	92	ASP
76	Q0	93	LYS
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	127	LEU
77	Q1	1	MET
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	11	ARG
77	Q1	13	LEU
77	Q1	16	LYS
77	Q1	17	ARG
77	Q1	19	LYS
77	Q1	24	SER
78	Q2	4	VAL
78	Q2	8	ARG
78	Q2	13	LYS
78	Q2	21	THR
78	Q2	22	GLN
78	Q2	26	THR
78	Q2	45	ARG
78	Q2	47	GLN
78	Q2	48	SER
78	Q2	61	LYS

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Mol	Chain	Res	Type
78	Q2	78	LYS
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	93	LEU
78	Q2	100	LYS
78	Q2	104	LEU
79	Q3	5	THR
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	25	GLN
79	Q3	32	GLN
79	Q3	45	LYS
79	Q3	46	THR
79	Q3	56	THR
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	64	VAL
79	Q3	70	THR
79	Q3	73	THR
79	Q3	84	ARG
79	Q3	90	VAL
79	Q3	91	GLU
2	s0	10	THR
2	s0	12	GLU
2	s0	18	LEU
2	s0	22	THR
2	s0	30	GLN
2	s0	34	GLU
2	s0	37	VAL
2	s0	41	ARG
2	s0	45	VAL
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP
2	s0	87	LEU
2	s0	88	LYS
2	s0	93	THR
2	s0	96	THR
2	s0	101	ARG
2	s0	106	SER
2	s0	110	TYR

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Mol	Chain	Res	Type
2	s0	111	ILE
2	s0	112	THR
2	s0	123	VAL
2	s0	131	GLN
2	s0	154	GLU
2	s0	158	VAL
2	s0	172	LEU
2	s0	179	ARG
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	189	VAL
2	s0	191	ARG
2	s0	198	MET
2	s0	202	TYR
3	s1	21	VAL
3	s1	25	THR
3	s1	37	THR
3	s1	47	LEU
3	s1	62	LYS
3	s1	70	LEU
3	s1	73	LEU
3	s1	74	GLN
3	s1	78	ASP
3	s1	81	PHE
3	s1	83	LYS
3	s1	89	ASP
3	s1	90	GLU
3	s1	97	LEU
3	s1	105	PHE
3	s1	108	ASP
3	s1	114	VAL
3	s1	120	LEU
3	s1	131	ASP
3	s1	137	ILE
3	s1	146	GLN
3	s1	152	ARG
3	s1	159	SER
3	s1	169	SER
3	s1	173	THR
3	s1	177	GLN
3	s1	181	LEU

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Mol	Chain	Res	Type
3	s1	183	GLN
3	s1	184	LEU
3	s1	193	ILE
3	s1	195	LYS
3	s1	197	ILE
3	s1	202	LYS
3	s1	206	PRO
3	s1	212	VAL
3	s1	214	LYS
3	s1	219	LYS
3	s1	222	LYS
3	s1	223	PHE
3	s1	228	LEU
3	s1	231	LEU
4	s2	41	LEU
4	s2	46	LYS
4	s2	51	THR
4	s2	52	THR
4	s2	53	ILE
4	s2	58	LEU
4	s2	60	SER
4	s2	61	LEU
4	s2	69	ILE
4	s2	73	LEU
4	s2	77	GLN
4	s2	78	ASP
4	s2	80	VAL
4	s2	82	ASN
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	95	ARG
4	s2	96	THR
4	s2	106	ASP
4	s2	111	VAL
4	s2	113	LEU
4	s2	117	THR
4	s2	141	ARG
4	s2	146	THR
4	s2	148	LEU

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Mol	Chain	Res	Type
4	s2	150	GLN
4	s2	159	THR
4	s2	164	SER
4	s2	166	THR
4	s2	170	ILE
4	s2	179	VAL
4	s2	185	LYS
4	s2	186	LYS
4	s2	199	GLN
4	s2	206	THR
4	s2	207	LEU
4	s2	222	TYR
4	s2	225	LEU
4	s2	229	LEU
4	s2	245	ASP
5	s3	4	LEU
5	s3	6	SER
5	s3	7	LYS
5	s3	9	ARG
5	s3	21	LEU
5	s3	23	GLU
5	s3	26	THR
5	s3	44	THR
5	s3	49	ILE
5	s3	53	THR
5	s3	56	GLN
5	s3	61	GLU
5	s3	64	ARG
5	s3	69	LEU
5	s3	84	ILE
5	s3	90	ARG
5	s3	103	GLU
5	s3	115	ILE
5	s3	116	ARG
5	s3	120	TYR
5	s3	128	GLU
5	s3	129	SER
5	s3	139	SER
5	s3	142	LEU
5	s3	158	ILE
5	s3	162	GLN
5	s3	164	VAL

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Mol	Chain	Res	Type
5	s3	166	ASP
5	s3	169	ASP
5	s3	172	THR
5	s3	176	LEU
5	s3	178	ARG
5	s3	189	MET
5	s3	202	LEU
5	s3	210	GLU
5	s3	212	LYS
5	s3	213	GLU
5	s3	223	LYS
6	s4	6	LYS
6	s4	9	LEU
6	s4	12	LEU
6	s4	23	LEU
6	s4	29	PRO
6	s4	37	LYS
6	s4	38	LEU
6	s4	42	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	69	HIS
6	s4	70	VAL
6	s4	72	VAL
6	s4	93	ASP
6	s4	95	THR
6	s4	98	ASN
6	s4	102	VAL
6	s4	113	ARG
6	s4	115	THR
6	s4	116	ASP
6	s4	146	THR
6	s4	148	ARG
6	s4	159	THR
6	s4	160	VAL
6	s4	164	LEU
6	s4	170	THR
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	187	ARG
6	s4	196	VAL

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Mol	Chain	Res	Type
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	227	VAL
6	s4	233	LYS
6	s4	252	ARG
6	s4	259	GLN
7	s5	23	VAL
7	s5	24	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	41	LYS
7	s5	43	PHE
7	s5	45	LYS
7	s5	58	LEU
7	s5	63	GLN
7	s5	66	GLN
7	s5	68	ILE
7	s5	76	ARG
7	s5	83	ARG
7	s5	84	LYS
7	s5	89	ILE
7	s5	93	LEU
7	s5	109	LYS
7	s5	119	ASP
7	s5	125	THR
7	s5	128	ASN
7	s5	146	THR
7	s5	148	ARG
7	s5	157	ARG
7	s5	160	VAL
7	s5	163	SER
7	s5	166	ARG
7	s5	167	ARG
7	s5	170	GLN
7	s5	190	ILE
7	s5	194	LEU
7	s5	203	LYS
7	s5	206	SER
7	s5	216	GLU
8	s6	15	THR
8	s6	31	ARG

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Mol	Chain	Res	Type
8	s6	69	LEU
8	s6	71	THR
8	s6	73	ILE
8	s6	76	LEU
8	s6	78	THR
8	s6	79	LYS
8	s6	89	ASP
8	s6	93	LYS
8	s6	96	SER
8	s6	108	VAL
8	s6	109	LEU
8	s6	111	LEU
8	s6	112	VAL
8	s6	121	LEU
8	s6	122	GLU
8	s6	126	ASP
8	s6	127	THR
8	s6	129	VAL
8	s6	143	LYS
8	s6	151	ASP
8	s6	156	PHE
8	s6	157	VAL
8	s6	162	VAL
8	s6	164	LYS
8	s6	166	GLU
8	s6	170	THR
8	s6	171	LYS
8	s6	179	VAL
8	s6	193	LEU
8	s6	207	GLU
8	s6	212	LEU
8	s6	215	ARG
8	s6	216	LEU
9	s7	5	GLN
9	s7	9	LEU
9	s7	10	SER
9	s7	11	GLN
9	s7	14	THR
9	s7	16	LEU
9	s7	17	GLU
9	s7	18	LEU
9	s7	26	GLU

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Mol	Chain	Res	Type
9	s7	33	GLU
9	s7	44	LYS
9	s7	49	ILE
9	s7	51	VAL
9	s7	58	LEU
9	s7	60	ILE
9	s7	62	VAL
9	s7	67	LEU
9	s7	77	LEU
9	s7	97	ARG
9	s7	110	GLN
9	s7	112	ARG
9	s7	114	ARG
9	s7	116	ARG
9	s7	117	THR
9	s7	126	LEU
9	s7	143	LEU
9	s7	149	ILE
9	s7	157	LYS
9	s7	166	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	10	LYS
10	s8	12	SER
10	s8	18	ARG
10	s8	20	GLN
10	s8	22	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	41	LYS
10	s8	46	VAL
10	s8	58	LEU
10	s8	59	ARG
10	s8	62	THR
10	s8	73	SER
10	s8	76	THR
10	s8	77	ARG
10	s8	82	VAL
10	s8	89	GLU
10	s8	107	THR
10	s8	110	ARG
10	s8	117	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
10	s8	119	GLN
10	s8	120	THR
10	s8	121	LEU
10	s8	140	GLU
10	s8	141	ARG
10	s8	151	LYS
10	s8	155	SER
10	s8	183	ILE
10	s8	185	GLU
10	s8	197	THR
11	s9	3	ARG
11	s9	6	ARG
11	s9	7	THR
11	s9	16	LYS
11	s9	21	SER
11	s9	22	SER
11	s9	28	LEU
11	s9	39	LYS
11	s9	45	ILE
11	s9	78	ARG
11	s9	81	VAL
11	s9	82	ARG
11	s9	89	ASP
11	s9	90	LYS
11	s9	93	LEU
11	s9	96	VAL
11	s9	101	VAL
11	s9	105	LEU
11	s9	109	LEU
11	s9	111	THR
11	s9	122	VAL
11	s9	126	ARG
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	142	ASN
11	s9	152	SER
11	s9	154	LYS
11	s9	161	THR
11	s9	168	ARG
11	s9	172	VAL
11	s9	175	ARG

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Mol	Chain	Res	Type
11	s9	180	LYS
11	s9	182	GLU
12	c0	2	LEU
12	c0	15	LEU
12	c0	20	VAL
12	c0	22	VAL
12	c0	28	ASN
12	c0	37	THR
12	c0	40	LEU
12	c0	55	VAL
12	c0	57	THR
12	c0	67	THR
12	c0	71	GLU
12	c0	73	VAL
13	c1	5	LEU
13	c1	21	ASN
13	c1	31	THR
13	c1	32	LYS
13	c1	40	LEU
13	c1	44	THR
13	c1	47	THR
13	c1	60	PHE
13	c1	64	VAL
13	c1	67	ARG
13	c1	74	THR
13	c1	76	VAL
13	c1	77	SER
13	c1	82	ARG
13	c1	86	ILE
13	c1	118	GLN
13	c1	129	ARG
13	c1	138	ASN
13	c1	140	VAL
13	c1	141	LYS
14	c2	28	LEU
14	c2	30	VAL
14	c2	36	LEU
14	c2	38	HIS
14	c2	58	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	71	ILE

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Mol	Chain	Res	Type
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	86	VAL
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	116	VAL
14	c2	120	VAL
14	c2	121	VAL
14	c2	126	TRP
14	c2	132	GLU
14	c2	136	ILE
14	c2	137	MET
14	c2	138	GLU
14	c2	140	PHE
15	c3	12	SER
15	c3	14	SER
15	c3	16	ILE
15	c3	20	ARG
15	c3	46	THR
15	c3	66	ILE
15	c3	70	LYS
15	c3	72	MET
15	c3	75	LEU
15	c3	80	LEU
15	c3	84	ILE
15	c3	87	ASP
15	c3	88	LEU
15	c3	97	SER
15	c3	102	LEU
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	134	VAL
15	c3	138	ASN
15	c3	149	LEU
15	c3	150	VAL
15	c3	151	ASN
16	c4	13	VAL
16	c4	14	PHE
16	c4	18	ARG

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Mol	Chain	Res	Type
16	c4	20	TYR
16	c4	22	SER
16	c4	23	PHE
16	c4	26	THR
16	c4	28	VAL
16	c4	39	ILE
16	c4	49	LYS
16	c4	51	ASP
16	c4	52	ARG
16	c4	70	LYS
16	c4	76	ILE
16	c4	81	VAL
16	c4	84	ARG
16	c4	92	LYS
16	c4	102	LEU
16	c4	114	ARG
16	c4	119	THR
16	c4	121	VAL
16	c4	124	ASP
16	c4	127	ARG
16	c4	132	ARG
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	10	ARG
17	c5	12	PHE
17	c5	22	LEU
17	c5	27	GLU
17	c5	28	MET
17	c5	35	LYS
17	c5	36	LEU
17	c5	49	MET
17	c5	52	LYS
17	c5	61	ARG
17	c5	69	GLU
17	c5	71	GLU
17	c5	77	ARG
17	c5	92	SER
17	c5	97	TYR
17	c5	110	GLU
17	c5	121	ILE
17	c5	122	THR

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Mol	Chain	Res	Type
17	c5	124	THR
17	c5	127	ARG
18	c6	23	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	43	ILE
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	55	VAL
18	c6	57	LEU
18	c6	68	ARG
18	c6	69	VAL
18	c6	70	THR
18	c6	81	ILE
18	c6	83	GLN
18	c6	94	GLN
18	c6	106	LYS
18	c6	110	THR
18	c6	113	ASP
18	c6	115	THR
18	c6	118	ILE
18	c6	137	ARG
18	c6	143	ARG
19	c7	3	ARG
19	c7	5	ARG
19	c7	6	THR
19	c7	8	THR
19	c7	25	THR
19	c7	34	LEU
19	c7	38	ILE
19	c7	46	LEU
19	c7	47	ARG
19	c7	49	LYS
19	c7	62	GLN
19	c7	69	ILE
19	c7	74	GLN
19	c7	83	GLN
19	c7	85	VAL
19	c7	87	GLU
19	c7	106	THR
19	c7	107	SER

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Mol	Chain	Res	Type
19	c7	110	VAL
19	c7	113	LEU
20	c8	2	SER
20	c8	3	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	8	GLN
20	c8	13	HIS
20	c8	15	LEU
20	c8	20	THR
20	c8	25	ASN
20	c8	26	ILE
20	c8	28	ILE
20	c8	33	THR
20	c8	36	LYS
20	c8	38	VAL
20	c8	40	ARG
20	c8	57	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	80	LYS
20	c8	85	PHE
20	c8	105	VAL
20	c8	106	GLU
20	c8	110	ARG
20	c8	116	LEU
20	c8	119	ILE
20	c8	136	GLN
20	c8	138	THR
20	c8	144	ARG
20	c8	145	ARG
21	c9	6	VAL
21	c9	13	ASP
21	c9	28	LEU
21	c9	29	GLU
21	c9	35	ASP
21	c9	51	GLU
21	c9	57	ARG
21	c9	68	ARG
21	c9	75	LYS
21	c9	84	LYS

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Mol	Chain	Res	Type
21	c9	86	ARG
21	c9	88	VAL
21	c9	111	ILE
21	c9	115	GLU
21	c9	123	ARG
21	c9	126	GLU
21	c9	133	ASP
21	c9	139	THR
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
22	d0	16	GLN
22	d0	23	ARG
22	d0	25	THR
22	d0	27	THR
22	d0	30	LYS
22	d0	31	VAL
22	d0	34	LEU
22	d0	44	ASN
22	d0	47	GLN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	63	LEU
22	d0	66	SER
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	88	LYS
22	d0	92	ASP
22	d0	99	ILE
22	d0	103	ILE
22	d0	107	THR
22	d0	108	ILE
22	d0	113	ASP
22	d0	116	VAL
22	d0	121	ASN
23	d1	1	MET
23	d1	2	GLU
23	d1	5	LYS
23	d1	10	GLU
23	d1	32	VAL

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Mol	Chain	Res	Type
23	d1	49	GLU
23	d1	52	THR
23	d1	68	SER
23	d1	69	LEU
23	d1	74	GLN
23	d1	78	LEU
23	d1	86	SER
24	d2	2	THR
24	d2	6	VAL
24	d2	7	LEU
24	d2	22	LYS
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	68	ARG
24	d2	74	VAL
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	105	THR
24	d2	119	LYS
24	d2	122	SER
24	d2	124	LYS
25	d3	9	LEU
25	d3	16	ARG
25	d3	18	HIS
25	d3	19	ARG
25	d3	23	ARG
25	d3	31	LYS
25	d3	36	THR
25	d3	40	SER
25	d3	72	VAL
25	d3	73	ARG
25	d3	75	GLN
25	d3	84	THR
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	112	LYS
25	d3	121	ARG
25	d3	123	LYS
25	d3	131	SER

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Mol	Chain	Res	Type
25	d3	133	LEU
25	d3	144	ARG
26	d4	5	VAL
26	d4	6	THR
26	d4	10	ARG
26	d4	13	ILE
26	d4	22	GLN
26	d4	26	ASP
26	d4	36	SER
26	d4	42	GLU
26	d4	43	LYS
26	d4	46	GLU
26	d4	47	VAL
26	d4	49	LYS
26	d4	62	THR
26	d4	77	ASN
26	d4	78	SER
26	d4	88	THR
26	d4	100	VAL
26	d4	116	LYS
26	d4	133	ASN
27	d5	48	ASP
27	d5	51	LEU
27	d5	60	VAL
27	d5	61	SER
27	d5	62	VAL
27	d5	71	ILE
27	d5	81	ARG
27	d5	88	ILE
27	d5	90	LYS
27	d5	97	LYS
28	d6	4	LYS
28	d6	10	ARG
28	d6	12	LYS
28	d6	15	ARG
28	d6	18	VAL
28	d6	25	ASN
28	d6	28	LYS
28	d6	33	ASP
28	d6	39	MET
28	d6	44	ILE
28	d6	46	GLU

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Mol	Chain	Res	Type
28	d6	51	ARG
28	d6	67	THR
28	d6	82	ARG
28	d6	85	ARG
28	d6	88	SER
28	d6	90	GLU
29	d7	3	LEU
29	d7	25	VAL
29	d7	36	LYS
29	d7	37	CYS
29	d7	41	LEU
29	d7	43	ILE
29	d7	52	THR
29	d7	63	LEU
29	d7	75	GLU
29	d7	77	THR
30	d8	22	ARG
30	d8	26	THR
30	d8	32	PHE
30	d8	33	LEU
30	d8	40	ILE
30	d8	45	LYS
30	d8	52	ASP
30	d8	54	LEU
30	d8	58	GLU
30	d8	64	ARG
31	d9	6	VAL
31	d9	10	HIS
31	d9	19	ARG
31	d9	26	SER
31	d9	30	LEU
31	d9	32	ARG
31	d9	36	LEU
31	d9	38	ILE
31	d9	54	LYS
80	e0	13	LYS
80	e0	14	VAL
80	e0	21	VAL
80	e0	22	GLU
80	e0	26	LYS
80	e0	36	LYS
80	e0	41	THR

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Mol	Chain	Res	Type
80	e0	45	VAL
80	e0	46	ASN
80	e0	49	LEU
80	e0	55	ARG
80	e0	56	MET
33	e1	80	ARG
33	e1	84	VAL
33	e1	87	THR
33	e1	90	LYS
33	e1	96	LYS
33	e1	100	LEU
33	e1	106	TYR
33	e1	109	ASP
33	e1	113	LYS
33	e1	115	THR
33	e1	118	ARG
33	e1	125	THR
33	e1	135	HIS
33	e1	147	VAL
33	e1	150	VAL
33	e1	151	ASN
34	sR	3	SER
34	sR	4	ASN
34	sR	8	VAL
34	sR	16	HIS
34	sR	21	THR
34	sR	23	LEU
34	sR	25	THR
34	sR	29	GLN
34	sR	42	LEU
34	sR	52	GLN
34	sR	66	HIS
34	sR	76	ASP
34	sR	96	THR
34	sR	145	LEU
34	sR	149	ASP
34	sR	152	SER
34	sR	176	LYS
34	sR	178	VAL
34	sR	188	ILE
34	sR	210	LEU
34	sR	232	TYR

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Mol	Chain	Res	Type
34	sR	258	THR
34	sR	266	ASP
34	sR	275	ARG
34	sR	283	LYS
34	sR	286	GLU
34	sR	297	ASP
34	sR	299	GLN
34	sR	308	ASN
35	sM	23	LYS
35	sM	28	SER
35	sM	34	LYS
35	sM	41	SER
35	sM	43	ASP
35	sM	45	SER
35	sM	48	ARG
35	sM	53	ARG
35	sM	61	ILE
35	sM	64	LYS
35	sM	71	ASN
35	sM	74	LYS
35	sM	77	THR
39	l2	15	ILE
39	l2	23	ARG
39	l2	29	LEU
39	l2	30	ARG
39	l2	32	LEU
39	l2	44	ILE
39	l2	48	ILE
39	l2	49	VAL
39	l2	61	VAL
39	l2	62	VAL
39	l2	70	ARG
39	l2	74	GLU
39	l2	80	GLU
39	l2	82	VAL
39	l2	101	VAL
39	l2	104	LEU
39	l2	112	ILE
39	l2	132	ASN
39	l2	137	ILE
39	l2	142	ASP
39	l2	158	ILE

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Mol	Chain	Res	Type
39	12	168	VAL
39	12	179	LEU
39	12	180	LEU
39	12	193	ARG
39	12	200	ARG
39	12	204	MET
39	12	205	ASN
39	12	206	PRO
39	12	230	VAL
39	12	243	THR
39	12	246	LEU
39	12	249	SER
39	12	251	LYS
40	13	3	HIS
40	13	4	ARG
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	20	LYS
40	13	25	ILE
40	13	30	LYS
40	13	37	ARG
40	13	44	THR
40	13	47	LEU
40	13	55	THR
40	13	56	ILE
40	13	69	LYS
40	13	70	ARG
40	13	77	THR
40	13	81	THR
40	13	85	VAL
40	13	90	VAL
40	13	103	THR
40	13	113	GLU
40	13	114	VAL
40	13	120	LYS
40	13	125	SER
40	13	128	LYS
40	13	139	GLN
40	13	145	GLU
40	13	146	ARG
40	13	148	LEU

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Mol	Chain	Res	Type
40	l3	150	ARG
40	l3	157	VAL
40	l3	160	VAL
40	l3	167	ARG
40	l3	169	THR
40	l3	183	LEU
40	l3	192	VAL
40	l3	202	THR
40	l3	205	VAL
40	l3	208	VAL
40	l3	213	GLU
40	l3	215	ILE
40	l3	222	LYS
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	248	LYS
40	l3	249	VAL
40	l3	252	ILE
40	l3	256	HIS
40	l3	266	ARG
40	l3	274	SER
40	l3	284	ARG
40	l3	287	LYS
40	l3	293	ASN
40	l3	301	THR
40	l3	304	THR
40	l3	308	MET
40	l3	328	ILE
40	l3	332	ARG
40	l3	338	LEU
40	l3	340	LYS
40	l3	341	SER
40	l3	346	THR
40	l3	348	ARG
40	l3	363	SER
40	l3	370	PHE
40	l3	380	MET
40	l3	382	THR
40	l3	386	ASP
41	l4	3	ARG
41	l4	11	LEU

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Mol	Chain	Res	Type
41	14	16	THR
41	14	18	ASN
41	14	25	VAL
41	14	31	ARG
41	14	33	ASP
41	14	47	ARG
41	14	52	VAL
41	14	73	ARG
41	14	90	PHE
41	14	93	MET
41	14	99	MET
41	14	112	LYS
41	14	120	TYR
41	14	144	LYS
41	14	145	ILE
41	14	148	ILE
41	14	150	LEU
41	14	156	LEU
41	14	158	SER
41	14	179	LEU
41	14	182	LEU
41	14	186	LYS
41	14	187	LEU
41	14	200	THR
41	14	201	GLN
41	14	203	ARG
41	14	206	LEU
41	14	217	LYS
41	14	222	VAL
41	14	230	VAL
41	14	246	ARG
41	14	256	THR
41	14	258	LEU
41	14	260	GLN
41	14	265	GLU
41	14	267	VAL
41	14	289	ILE
41	14	292	SER
41	14	300	ARG
41	14	301	PRO
41	14	304	GLN
41	14	307	GLN

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Mol	Chain	Res	Type
41	14	313	LEU
41	14	319	LYS
41	14	323	VAL
41	14	327	LEU
41	14	333	VAL
41	14	338	LYS
41	14	339	LEU
41	14	342	LYS
41	14	346	LYS
41	14	347	THR
41	14	357	GLU
41	14	358	THR
41	14	359	LEU
42	15	13	SER
42	15	34	LYS
42	15	51	LEU
42	15	52	VAL
42	15	58	LYS
42	15	70	THR
42	15	74	VAL
42	15	75	LEU
42	15	84	PRO
42	15	89	THR
42	15	93	THR
42	15	110	LEU
42	15	111	GLN
42	15	112	LYS
42	15	113	LEU
42	15	115	LEU
42	15	118	THR
42	15	120	LYS
42	15	133	GLU
42	15	135	VAL
42	15	140	ARG
42	15	146	LEU
42	15	148	ILE
42	15	152	ARG
42	15	155	THR
42	15	158	ARG
42	15	159	VAL
42	15	164	LYS
42	15	177	GLU

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Mol	Chain	Res	Type
42	15	185	PHE
42	15	186	GLU
42	15	187	THR
42	15	194	LEU
42	15	203	HIS
42	15	227	LEU
42	15	236	LEU
42	15	241	THR
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	260	PHE
42	15	261	THR
42	15	262	LYS
42	15	268	GLU
42	15	270	LYS
42	15	271	LYS
42	15	273	ARG
42	15	275	THR
42	15	278	SER
42	15	279	LYS
42	15	281	GLU
42	15	297	GLN
43	16	4	GLN
43	16	8	LYS
43	16	21	THR
43	16	31	ARG
43	16	46	ARG
43	16	64	LEU
43	16	65	ILE
43	16	76	LEU
43	16	78	ARG
43	16	79	VAL
43	16	84	VAL
43	16	89	THR
43	16	98	VAL
43	16	109	GLU
43	16	131	LYS
43	16	152	THR
43	16	155	LEU
43	16	162	SER
43	16	164	SER

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Mol	Chain	Res	Type
43	16	170	LYS
43	16	173	MET
44	17	24	GLU
44	17	29	GLU
44	17	40	LYS
44	17	41	ARG
44	17	45	LEU
44	17	46	GLU
44	17	54	GLU
44	17	56	GLU
44	17	60	ARG
44	17	77	VAL
44	17	83	LEU
44	17	93	ASN
44	17	98	LYS
44	17	101	LYS
44	17	110	ARG
44	17	124	LEU
44	17	130	ILE
44	17	156	ILE
44	17	157	ASN
44	17	158	LYS
44	17	159	GLN
44	17	173	LEU
44	17	178	ILE
44	17	179	LEU
44	17	180	SER
44	17	184	LEU
44	17	199	ASN
44	17	229	PHE
44	17	234	GLU
44	17	239	LEU
45	18	27	THR
45	18	41	GLN
45	18	50	VAL
45	18	63	LYS
45	18	65	LEU
45	18	66	SER
45	18	67	ILE
45	18	68	ARG
45	18	74	THR
45	18	77	GLN

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Mol	Chain	Res	Type
45	18	79	GLN
45	18	89	GLU
45	18	94	PHE
45	18	109	LEU
45	18	111	LYS
45	18	126	SER
45	18	136	LEU
45	18	149	LYS
45	18	150	LEU
45	18	157	VAL
45	18	160	ILE
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	183	LYS
45	18	185	ARG
45	18	200	LEU
45	18	203	VAL
45	18	208	GLU
45	18	211	LEU
45	18	213	LYS
45	18	219	ASP
45	18	221	ASN
45	18	222	PHE
45	18	224	ASP
45	18	230	LYS
45	18	245	LYS
45	18	246	MET
45	18	248	LYS
46	19	4	ILE
46	19	5	GLN
46	19	6	THR
46	19	19	SER
46	19	31	ARG
46	19	33	THR
46	19	39	LYS
46	19	43	VAL
46	19	44	THR
46	19	48	VAL
46	19	52	LEU
46	19	55	VAL
46	19	62	ARG

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Mol	Chain	Res	Type
46	l9	68	LEU
46	l9	69	ARG
46	l9	70	THR
46	l9	80	THR
46	l9	105	GLU
46	l9	107	ASP
46	l9	115	ARG
46	l9	122	LYS
46	l9	123	ILE
46	l9	129	ARG
46	l9	130	ASP
46	l9	132	VAL
46	l9	133	THR
46	l9	138	THR
46	l9	144	ILE
46	l9	151	VAL
46	l9	157	ASN
46	l9	161	LEU
46	l9	162	GLN
46	l9	163	GLN
46	l9	177	ASP
46	l9	179	ILE
47	m0	4	ARG
47	m0	21	ARG
47	m0	24	ARG
47	m0	28	ASP
47	m0	36	LEU
47	m0	42	THR
47	m0	48	LEU
47	m0	52	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	77	THR
47	m0	87	LEU
47	m0	90	ARG
47	m0	130	ASP
47	m0	139	ARG
47	m0	144	ASN
47	m0	145	LYS
47	m0	156	ARG
47	m0	169	LYS
47	m0	177	ASP

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Mol	Chain	Res	Type
47	m0	182	LEU
47	m0	191	LYS
47	m0	197	VAL
47	m0	200	LEU
47	m0	203	LYS
47	m0	205	SER
47	m0	206	LEU
47	m0	211	ARG
47	m0	212	GLU
47	m0	217	PHE
48	m1	6	GLN
48	m1	10	ARG
48	m1	11	ASP
48	m1	13	LYS
48	m1	16	LYS
48	m1	23	VAL
48	m1	31	THR
48	m1	40	LEU
48	m1	44	THR
48	m1	46	VAL
48	m1	54	VAL
48	m1	56	THR
48	m1	59	ILE
48	m1	87	LYS
48	m1	95	ASN
48	m1	107	ASP
48	m1	119	SER
48	m1	120	ILE
48	m1	122	ILE
48	m1	129	VAL
48	m1	130	VAL
48	m1	137	ARG
48	m1	140	ARG
48	m1	145	LYS
48	m1	153	LYS
48	m1	155	THR
48	m1	156	LYS
48	m1	159	THR
48	m1	173	ASP
48	m1	174	LYS
49	m3	22	VAL
49	m3	28	GLN

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Mol	Chain	Res	Type
49	m3	36	ARG
49	m3	45	LYS
49	m3	54	LEU
49	m3	57	VAL
49	m3	58	VAL
49	m3	59	ARG
49	m3	63	VAL
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL
49	m3	73	ARG
49	m3	75	PHE
49	m3	76	THR
49	m3	86	THR
49	m3	106	GLN
49	m3	107	GLU
49	m3	120	GLN
49	m3	123	ILE
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR
49	m3	164	GLU
49	m3	165	SER
49	m3	168	ARG
49	m3	176	GLU
49	m3	182	ILE
49	m3	194	GLU
50	m4	3	THR
50	m4	13	ARG
50	m4	15	VAL
50	m4	27	GLN
50	m4	42	LYS
50	m4	50	LYS
50	m4	53	VAL
50	m4	58	ILE
50	m4	62	GLN
50	m4	63	VAL
50	m4	66	THR
50	m4	72	LEU
50	m4	80	THR
50	m4	82	SER
50	m4	107	GLU

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Mol	Chain	Res	Type
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	12	ARG
51	m5	17	ASP
51	m5	19	LEU
51	m5	20	ARG
51	m5	22	LEU
51	m5	24	ARG
51	m5	27	VAL
51	m5	49	ARG
51	m5	65	ARG
51	m5	68	ARG
51	m5	72	LYS
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	92	LEU
51	m5	98	LEU
51	m5	105	ARG
51	m5	106	VAL
51	m5	138	GLN
51	m5	142	ILE
51	m5	153	ASP
51	m5	155	VAL
51	m5	165	THR
51	m5	171	SER
51	m5	175	ASN
51	m5	176	LYS
51	m5	204	LYS
52	m6	22	VAL
52	m6	34	VAL
52	m6	41	LEU
52	m6	51	LYS
52	m6	58	LEU
52	m6	60	LYS
52	m6	66	LYS
52	m6	68	ARG
52	m6	74	ARG
52	m6	78	ARG
52	m6	100	GLU

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Mol	Chain	Res	Type
52	m6	106	GLU
52	m6	110	PRO
52	m6	114	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	134	LYS
52	m6	143	THR
52	m6	152	VAL
52	m6	166	GLU
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	184	THR
52	m6	197	LEU
53	m7	7	THR
53	m7	8	SER
53	m7	9	THR
53	m7	16	SER
53	m7	18	ARG
53	m7	32	THR
53	m7	42	THR
53	m7	52	LEU
53	m7	56	ARG
53	m7	69	ARG
53	m7	78	VAL
53	m7	79	THR
53	m7	89	LYS
53	m7	105	LYS
53	m7	112	LEU
53	m7	114	VAL
53	m7	119	VAL
53	m7	120	ASN
53	m7	124	LYS
53	m7	126	ARG
53	m7	127	ARG
53	m7	136	ILE
53	m7	144	SER
53	m7	153	LYS
54	m8	3	ILE
54	m8	7	SER
54	m8	12	ARG

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Mol	Chain	Res	Type
54	m8	17	THR
54	m8	22	ASP
54	m8	24	VAL
54	m8	26	LEU
54	m8	32	LEU
54	m8	34	THR
54	m8	39	ARG
54	m8	49	LEU
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	69	ARG
54	m8	80	THR
54	m8	81	VAL
54	m8	93	ILE
54	m8	95	GLU
54	m8	97	PRO
54	m8	99	THR
54	m8	127	LEU
54	m8	135	GLN
54	m8	138	LEU
54	m8	146	SER
54	m8	165	ILE
54	m8	170	ARG
54	m8	173	GLU
54	m8	178	ARG
55	m9	5	ARG
55	m9	8	LYS
55	m9	9	ARG
55	m9	10	LEU
55	m9	17	VAL
55	m9	20	ARG
55	m9	29	THR
55	m9	30	SER
55	m9	31	GLU
55	m9	32	ILE
55	m9	36	ASN
55	m9	43	LYS
55	m9	49	THR
55	m9	52	LYS
55	m9	53	LYS
55	m9	56	THR

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Mol	Chain	Res	Type
55	m9	57	VAL
55	m9	63	THR
55	m9	70	LYS
55	m9	74	ARG
55	m9	76	SER
55	m9	88	ARG
55	m9	99	LEU
55	m9	116	ASP
55	m9	126	GLU
55	m9	138	LEU
55	m9	146	LYS
55	m9	152	GLU
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU
55	m9	167	ARG
55	m9	173	ARG
55	m9	177	VAL
56	n0	8	GLN
56	n0	16	THR
56	n0	19	VAL
56	n0	21	GLU
56	n0	23	LYS
56	n0	46	GLN
56	n0	50	LYS
56	n0	58	ILE
56	n0	72	VAL
56	n0	73	LYS
56	n0	80	ARG
56	n0	87	THR
56	n0	92	LYS
56	n0	97	VAL
56	n0	105	THR
56	n0	115	ARG
56	n0	117	ARG
56	n0	120	SER
56	n0	130	GLU
56	n0	136	LYS
56	n0	137	ARG
56	n0	145	THR
56	n0	148	LEU
56	n0	149	LYS

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Mol	Chain	Res	Type
56	n0	155	ARG
56	n0	157	GLN
56	n0	160	THR
56	n0	161	LYS
56	n0	162	THR
56	n0	166	LYS
56	n0	169	SER
56	n0	171	PHE
56	n0	172	TYR
57	n1	12	ARG
57	n1	17	ARG
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	55	LYS
57	n1	68	THR
57	n1	71	SER
57	n1	75	ILE
57	n1	80	VAL
57	n1	83	ARG
57	n1	88	ARG
57	n1	89	LEU
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	104	GLU
57	n1	124	VAL
57	n1	126	VAL
57	n1	131	GLN
57	n1	139	ARG
57	n1	140	ILE
57	n1	141	VAL
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
57	n1	154	VAL
57	n1	158	THR
57	n1	160	ILE
58	n2	15	PHE
58	n2	16	THR
58	n2	21	SER
58	n2	27	VAL

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Mol	Chain	Res	Type
58	n2	28	PHE
58	n2	32	SER
58	n2	37	LEU
58	n2	38	ILE
58	n2	43	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	55	THR
58	n2	63	VAL
58	n2	64	THR
58	n2	66	VAL
58	n2	72	SER
58	n2	74	LYS
58	n2	90	ARG
58	n2	98	THR
58	n2	100	THR
59	n3	7	GLN
59	n3	13	ILE
59	n3	14	SER
59	n3	45	ARG
59	n3	48	ARG
59	n3	69	LEU
59	n3	70	ARG
59	n3	73	VAL
59	n3	93	LEU
59	n3	102	ILE
59	n3	104	ASN
59	n3	110	LYS
59	n3	115	THR
60	n4	1	MET
60	n4	19	THR
60	n4	34	SER
60	n4	39	LEU
60	n4	54	LEU
60	n4	57	LYS
60	n4	63	ILE
60	n4	89	LEU
60	n4	91	LYS
60	n4	96	LEU
60	n4	97	LYS
60	n4	105	ARG
60	n4	107	GLU

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Mol	Chain	Res	Type
60	n4	119	GLU
60	n4	126	GLU
60	n4	135	SER
61	n5	24	LEU
61	n5	27	ARG
61	n5	37	THR
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	64	GLU
61	n5	86	VAL
61	n5	96	LYS
61	n5	104	GLU
61	n5	108	LEU
61	n5	109	LYS
61	n5	115	ARG
61	n5	117	ASN
61	n5	125	ARG
61	n5	133	LEU
61	n5	135	ILE
61	n5	137	ASN
62	n6	3	LYS
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	17	LYS
62	n6	37	LYS
62	n6	39	LEU
62	n6	40	ARG
62	n6	50	ILE
62	n6	51	ARG
62	n6	52	ARG
62	n6	56	VAL
62	n6	57	LEU
62	n6	59	VAL
62	n6	62	SER
62	n6	64	LYS
62	n6	66	GLN
62	n6	74	TYR
62	n6	80	VAL
62	n6	83	ASP
62	n6	88	GLU

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Mol	Chain	Res	Type
62	n6	105	VAL
62	n6	108	LYS
63	n7	10	VAL
63	n7	14	VAL
63	n7	15	ARG
63	n7	17	ARG
63	n7	24	VAL
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	52	LYS
63	n7	56	LYS
63	n7	65	ARG
63	n7	66	THR
63	n7	72	ILE
63	n7	75	VAL
63	n7	81	LEU
63	n7	86	THR
63	n7	89	VAL
63	n7	90	GLU
63	n7	95	VAL
63	n7	98	THR
63	n7	102	GLU
63	n7	103	GLN
63	n7	105	SER
63	n7	134	LEU
63	n7	135	ARG
64	n8	4	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	27	LYS
64	n8	42	ARG
64	n8	44	ASN
64	n8	46	ASP
64	n8	56	VAL
64	n8	60	TYR
64	n8	63	LYS
64	n8	70	LYS
64	n8	76	ASP
64	n8	80	THR
64	n8	91	LEU
64	n8	115	LYS

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Mol	Chain	Res	Type
65	n9	13	THR
65	n9	14	ARG
65	n9	15	LYS
65	n9	22	LYS
65	n9	23	LYS
65	n9	25	LYS
65	n9	26	THR
65	n9	33	LYS
65	n9	38	LYS
65	n9	40	ARG
65	n9	44	LYS
65	n9	47	LEU
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	9	SER
66	o0	10	ILE
66	o0	12	GLN
66	o0	16	LEU
66	o0	18	ILE
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU
66	o0	44	ILE
66	o0	48	THR
66	o0	55	GLU
66	o0	59	TYR
66	o0	61	MET
66	o0	66	LYS
66	o0	74	ASN
66	o0	81	VAL
66	o0	83	LYS
66	o0	86	ARG
66	o0	87	VAL
66	o0	97	ASP
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	31	ARG
67	o1	34	LYS
67	o1	35	GLU
67	o1	36	ILE

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Mol	Chain	Res	Type
67	o1	44	MET
67	o1	46	THR
67	o1	48	ASP
67	o1	55	LEU
67	o1	68	GLU
67	o1	73	LEU
67	o1	76	SER
67	o1	83	GLU
67	o1	84	ASP
67	o1	87	ASN
67	o1	89	LEU
67	o1	91	SER
67	o1	96	VAL
67	o1	97	LEU
67	o1	102	LYS
67	o1	104	LEU
67	o1	106	THR
67	o1	107	VAL
67	o1	112	ASP
68	o2	3	SER
68	o2	4	LEU
68	o2	6	HIS
68	o2	8	LYS
68	o2	10	VAL
68	o2	19	ARG
68	o2	24	ARG
68	o2	33	ARG
68	o2	35	GLN
68	o2	41	VAL
68	o2	51	SER
68	o2	72	LYS
68	o2	73	THR
68	o2	75	LEU
68	o2	76	VAL
68	o2	82	LEU
68	o2	84	THR
68	o2	91	THR
68	o2	95	GLU
68	o2	109	LEU
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER

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Mol	Chain	Res	Type
69	o3	10	LYS
69	o3	31	LYS
69	o3	37	THR
69	o3	56	SER
69	o3	57	LYS
69	o3	58	GLU
69	o3	59	VAL
69	o3	60	ARG
69	o3	70	LYS
69	o3	73	ARG
69	o3	74	THR
69	o3	78	SER
69	o3	81	VAL
69	o3	84	THR
69	o3	86	ARG
69	o3	98	VAL
69	o3	105	SER
70	o4	5	VAL
70	o4	9	ARG
70	o4	20	ILE
70	o4	22	VAL
70	o4	23	VAL
70	o4	24	LYS
70	o4	25	THR
70	o4	29	ILE
70	o4	30	LEU
70	o4	38	LEU
70	o4	47	CYS
70	o4	58	ARG
70	o4	64	THR
70	o4	68	THR
70	o4	71	THR
70	o4	79	SER
70	o4	83	ASN
70	o4	88	ARG
70	o4	98	GLN
71	o5	5	LYS
71	o5	15	GLU
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	28	LEU

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Mol	Chain	Res	Type
71	o5	37	SER
71	o5	38	ARG
71	o5	40	SER
71	o5	47	VAL
71	o5	62	GLN
71	o5	69	LEU
71	o5	79	ASP
71	o5	81	ARG
71	o5	85	THR
71	o5	89	ARG
71	o5	101	THR
71	o5	104	GLN
71	o5	107	LYS
72	o6	2	THR
72	o6	7	ILE
72	o6	9	ILE
72	o6	16	LYS
72	o6	17	VAL
72	o6	18	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	38	LYS
72	o6	45	ARG
72	o6	46	GLU
72	o6	56	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	60	LEU
72	o6	68	ARG
72	o6	76	ARG
72	o6	79	SER
72	o6	84	LYS
72	o6	88	GLU
72	o6	94	ILE
72	o6	98	ARG
73	o7	5	THR
73	o7	7	SER
73	o7	17	THR

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Mol	Chain	Res	Type
73	o7	25	ARG
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	55	ARG
73	o7	58	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	74	PHE
73	o7	80	THR
73	o7	82	SER
74	o8	5	ILE
74	o8	12	LEU
74	o8	13	GLU
74	o8	24	THR
74	o8	31	LEU
74	o8	32	ASN
74	o8	33	LYS
74	o8	41	THR
74	o8	45	VAL
74	o8	46	ARG
74	o8	53	THR
74	o8	61	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	67	GLN
74	o8	68	SER
75	o9	4	GLN
75	o9	11	GLN
75	o9	15	LYS
75	o9	21	ARG
75	o9	27	ILE
75	o9	28	ARG
75	o9	29	LEU
75	o9	45	ARG
76	q0	79	GLU
76	q0	85	LEU
76	q0	93	LYS
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU

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Mol	Chain	Res	Type
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	14	LYS
77	q1	19	LYS
77	q1	21	ARG
77	q1	23	ARG
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	17	CYS
78	q2	20	HIS
78	q2	22	GLN
78	q2	26	THR
78	q2	45	ARG
78	q2	46	LYS
78	q2	61	LYS
78	q2	71	ARG
78	q2	72	LEU
78	q2	73	GLU
78	q2	78	LYS
78	q2	79	THR
78	q2	83	LEU
78	q2	84	THR
78	q2	89	LYS
78	q2	93	LEU
78	q2	100	LYS
78	q2	104	LEU
78	q2	105	GLN
79	q3	3	LYS
79	q3	7	LYS
79	q3	20	SER
79	q3	21	SER
79	q3	24	ARG
79	q3	40	SER
79	q3	42	CYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	70	THR
79	q3	72	SER

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Mol	Chain	Res	Type
79	q3	73	THR
79	q3	89	MET
82	p0	4	ILE
82	p0	25	LEU
82	p0	30	VAL
82	p0	31	ASP
82	p0	42	ARG
82	p0	43	LYS
82	p0	52	LEU
82	p0	55	LYS
82	p0	70	LEU
82	p0	72	ASP
82	p0	76	LEU
82	p0	81	LYS
82	p0	93	LEU
82	p0	94	THR
82	p0	95	GLU
82	p0	97	LYS
82	p0	101	VAL
82	p0	185	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (55) such sidechains are listed below:

Mol	Chain	Res	Type
4	S2	89	GLN
4	S2	94	GLN
7	S5	200	ASN
7	S5	224	ASN
10	S8	116	HIS
12	C0	12	HIS
13	C1	110	HIS
13	C1	118	GLN
19	C7	29	GLN
22	D0	72	ASN
23	D1	74	GLN
24	D2	56	HIS
27	D5	38	HIS
35	SM	86	ASN
39	L2	209	HIS
41	L4	311	HIS
42	L5	40	HIS
42	L5	264	GLN

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Mol	Chain	Res	Type
44	L7	225	GLN
44	L7	244	ASN
46	L9	59	ASN
47	M0	12	GLN
47	M0	163	GLN
48	M1	109	HIS
57	N1	26	HIS
59	N3	98	ASN
61	N5	80	ASN
64	N8	64	GLN
69	O3	106	ASN
70	O4	69	HIS
3	s1	74	GLN
3	s1	209	ASN
4	s2	220	ASN
5	s3	74	GLN
7	s5	104	ASN
8	s6	139	ASN
9	s7	71	HIS
11	s9	124	HIS
11	s9	142	ASN
12	c0	32	HIS
13	c1	18	HIS
13	c1	21	ASN
20	c8	6	GLN
20	c8	12	GLN
24	d2	56	HIS
26	d4	22	GLN
34	sR	299	GLN
34	sR	314	GLN
41	l4	307	GLN
46	l9	169	ASN
61	n5	111	ASN
61	n5	117	ASN
64	n8	28	HIS
64	n8	44	ASN
82	p0	37	GLN

### 5.3.3 RNA ⓘ

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	488 (27%)	54 (3%)
1	6	1792/1800 (99%)	440 (24%)	49 (2%)
36	1	3145/3396 (92%)	696 (22%)	89 (2%)
36	5	3145/3396 (92%)	666 (21%)	74 (2%)
37	3	120/121 (99%)	15 (12%)	0
37	7	120/121 (99%)	20 (16%)	0
38	4	157/158 (99%)	39 (24%)	2 (1%)
38	8	157/158 (99%)	36 (22%)	1 (0%)
All	All	10383/10950 (94%)	2400 (23%)	269 (2%)

All (2400) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	45	U
1	2	46	A
1	2	47	A
1	2	50	C
1	2	57	G
1	2	60	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	101	U
1	2	104	A
1	2	114	C
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U

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Mol	Chain	Res	Type
1	2	135	A
1	2	136	C
1	2	137	U
1	2	140	A
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U
1	2	153	G
1	2	158	U
1	2	159	U
1	2	161	U
1	2	167	U
1	2	169	A
1	2	176	C
1	2	178	U
1	2	185	U
1	2	186	C
1	2	187	G
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U
1	2	195	G
1	2	196	G
1	2	197	A
1	2	198	A
1	2	200	A
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U

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Mol	Chain	Res	Type
1	2	239	C
1	2	240	U
1	2	241	U
1	2	242	U
1	2	250	C
1	2	260	U
1	2	261	U
1	2	265	A
1	2	266	A
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	284	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	302	U
1	2	303	U
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	323	A
1	2	333	A
1	2	337	G
1	2	338	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	363	G
1	2	387	A
1	2	390	G
1	2	397	A

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Mol	Chain	Res	Type
1	2	400	A
1	2	401	A
1	2	402	C
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	421	A
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	439	U
1	2	440	U
1	2	444	C
1	2	446	A
1	2	448	C
1	2	454	U
1	2	468	A
1	2	477	A
1	2	479	C
1	2	480	G
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	508	U

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Mol	Chain	Res	Type
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	515	A
1	2	516	G
1	2	519	C
1	2	520	A
1	2	522	U
1	2	525	A
1	2	527	A
1	2	533	U
1	2	534	A
1	2	536	C
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	546	U
1	2	548	G
1	2	551	G
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	578	U
1	2	579	A
1	2	580	A
1	2	585	A
1	2	594	A
1	2	595	G
1	2	609	U
1	2	619	A
1	2	620	A
1	2	622	A
1	2	623	A
1	2	624	G

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Mol	Chain	Res	Type
1	2	630	A
1	2	639	U
1	2	640	U
1	2	650	U
1	2	653	C
1	2	655	G
1	2	656	G
1	2	658	C
1	2	677	G
1	2	679	U
1	2	680	U
1	2	682	C
1	2	684	A
1	2	685	A
1	2	686	C
1	2	694	U
1	2	696	C
1	2	697	C
1	2	700	C
1	2	701	U
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U
1	2	707	A
1	2	709	C
1	2	710	U
1	2	711	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G

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Mol	Chain	Res	Type
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	744	U
1	2	745	U
1	2	754	A
1	2	755	A
1	2	756	A
1	2	765	G
1	2	766	U
1	2	774	A
1	2	775	G
1	2	778	G
1	2	779	U
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	789	A
1	2	790	U
1	2	793	A
1	2	794	U
1	2	795	U
1	2	799	A
1	2	803	A
1	2	811	A
1	2	812	A
1	2	813	U
1	2	814	A
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	823	G

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Mol	Chain	Res	Type
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	839	U
1	2	840	U
1	2	846	G
1	2	848	C
1	2	850	A
1	2	854	U
1	2	860	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	865	A
1	2	886	U
1	2	895	G
1	2	898	A
1	2	911	U
1	2	912	U
1	2	913	G
1	2	914	G
1	2	916	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	944	A
1	2	951	A
1	2	960	U
1	2	966	A
1	2	991	G
1	2	992	A
1	2	993	A
1	2	995	A
1	2	997	G
1	2	999	U
1	2	1002	G
1	2	1003	A
1	2	1004	U
1	2	1005	A

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Mol	Chain	Res	Type
1	2	1021	C
1	2	1026	A
1	2	1028	C
1	2	1031	U
1	2	1039	A
1	2	1043	A
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1074	G
1	2	1079	U
1	2	1082	C
1	2	1086	A
1	2	1087	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1109	G
1	2	1138	A
1	2	1139	A
1	2	1146	G
1	2	1150	G
1	2	1151	A
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1163	A
1	2	1167	G
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C

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Mol	Chain	Res	Type
1	2	1208	A
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1235	C
1	2	1241	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1256	A
1	2	1257	U
1	2	1258	U
1	2	1260	U
1	2	1267	G
1	2	1284	C
1	2	1286	U
1	2	1291	G
1	2	1314	U
1	2	1315	U
1	2	1316	G
1	2	1321	A
1	2	1338	C
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1342	C
1	2	1344	A
1	2	1345	A
1	2	1346	A
1	2	1361	U
1	2	1362	U
1	2	1363	U
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1379	C
1	2	1390	U
1	2	1398	U
1	2	1399	C

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Mol	Chain	Res	Type
1	2	1400	A
1	2	1412	G
1	2	1413	U
1	2	1418	G
1	2	1427	A
1	2	1428	G
1	2	1433	G
1	2	1446	A
1	2	1457	C
1	2	1459	C
1	2	1462	G
1	2	1466	G
1	2	1469	A
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1475	A
1	2	1478	G
1	2	1482	C
1	2	1486	G
1	2	1488	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1506	G
1	2	1510	U
1	2	1514	U
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1530	C
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1540	G
1	2	1548	G

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Mol	Chain	Res	Type
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1574	G
1	2	1584	G
1	2	1588	G
1	2	1590	G
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1631	A
1	2	1635	A
1	2	1639	C
1	2	1657	U
1	2	1658	G
1	2	1663	G
1	2	1681	A
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1731	A
1	2	1736	G
1	2	1756	A
1	2	1757	G
1	2	1759	C
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1768	G
1	2	1769	U
1	2	1770	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	14	U
36	1	16	A

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Mol	Chain	Res	Type
36	1	26	A
36	1	37	U
36	1	40	A
36	1	42	C
36	1	43	A
36	1	45	A
36	1	49	A
36	1	59	G
36	1	60	A
36	1	61	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	83	U
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	108	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	121	A
36	1	122	A
36	1	133	U
36	1	135	C
36	1	136	G
36	1	147	U
36	1	156	G
36	1	157	A
36	1	160	G
36	1	163	C
36	1	166	C
36	1	169	U
36	1	170	G
36	1	173	G
36	1	181	U
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	210	U

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Mol	Chain	Res	Type
36	1	211	A
36	1	218	G
36	1	219	A
36	1	238	A
36	1	240	U
36	1	241	G
36	1	243	G
36	1	244	G
36	1	247	C
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	256	G
36	1	269	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U
36	1	299	G
36	1	305	U
36	1	315	C
36	1	318	A
36	1	323	A
36	1	329	U
36	1	339	C
36	1	349	A
36	1	350	C
36	1	375	A
36	1	376	G
36	1	398	A
36	1	399	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	421	G
36	1	422	A
36	1	438	A
36	1	440	A
36	1	495	G
36	1	498	A
36	1	507	U

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Mol	Chain	Res	Type
36	1	520	U
36	1	521	A
36	1	525	C
36	1	535	G
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	552	G
36	1	555	U
36	1	556	U
36	1	557	A
36	1	559	A
36	1	560	G
36	1	568	G
36	1	578	A
36	1	579	G
36	1	592	A
36	1	594	U
36	1	600	G
36	1	604	G
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	622	A
36	1	636	C
36	1	642	U
36	1	643	U
36	1	644	G
36	1	647	A
36	1	648	C
36	1	649	A
36	1	651	G
36	1	653	A
36	1	658	G
36	1	660	A
36	1	662	U
36	1	667	C
36	1	677	A
36	1	681	U

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Mol	Chain	Res	Type
36	1	691	A
36	1	692	A
36	1	693	A
36	1	705	A
36	1	708	G
36	1	712	G
36	1	715	A
36	1	716	A
36	1	725	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	768	C
36	1	776	U
36	1	777	U
36	1	781	G
36	1	785	G
36	1	806	A
36	1	816	A
36	1	817	A
36	1	830	A
36	1	837	A
36	1	849	C
36	1	855	U
36	1	859	G
36	1	861	C
36	1	874	U
36	1	879	U
36	1	883	A
36	1	885	U
36	1	887	G
36	1	890	C
36	1	896	A
36	1	897	U
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	921	A
36	1	923	C

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Mol	Chain	Res	Type
36	1	937	G
36	1	938	C
36	1	943	U
36	1	944	C
36	1	959	C
36	1	960	U
36	1	962	A
36	1	974	G
36	1	979	U
36	1	981	U
36	1	982	C
36	1	993	G
36	1	994	G
36	1	1001	G
36	1	1002	A
36	1	1006	A
36	1	1010	G
36	1	1015	U
36	1	1016	C
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1045	C
36	1	1047	A
36	1	1049	C
36	1	1052	U
36	1	1064	A
36	1	1065	A
36	1	1068	C
36	1	1069	C
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U

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Mol	Chain	Res	Type
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1116	G
36	1	1117	G
36	1	1128	U
36	1	1131	G
36	1	1153	A
36	1	1159	A
36	1	1160	C
36	1	1161	G
36	1	1178	G
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1191	U
36	1	1192	C
36	1	1201	C
36	1	1202	A
36	1	1205	A
36	1	1209	G
36	1	1217	A
36	1	1222	G
36	1	1226	G
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1235	U
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1251	A
36	1	1258	U

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Mol	Chain	Res	Type
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A
36	1	1278	A
36	1	1279	C
36	1	1280	C
36	1	1285	G
36	1	1287	A
36	1	1292	C
36	1	1293	U
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1324	U
36	1	1329	U
36	1	1330	A
36	1	1332	A
36	1	1344	G
36	1	1345	G
36	1	1348	U
36	1	1349	G
36	1	1350	A
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1379	G
36	1	1386	A
36	1	1398	U
36	1	1399	A
36	1	1400	G
36	1	1418	A
36	1	1419	A

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Mol	Chain	Res	Type
36	1	1422	G
36	1	1425	U
36	1	1429	G
36	1	1434	G
36	1	1437	C
36	1	1446	A
36	1	1450	G
36	1	1481	A
36	1	1482	A
36	1	1485	G
36	1	1488	G
36	1	1490	A
36	1	1496	C
36	1	1503	A
36	1	1508	C
36	1	1526	U
36	1	1527	C
36	1	1528	G
36	1	1529	A
36	1	1555	U
36	1	1556	C
36	1	1557	A
36	1	1560	G
36	1	1561	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1572	U
36	1	1576	G
36	1	1578	C
36	1	1579	C
36	1	1580	A
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A

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Mol	Chain	Res	Type
36	1	1593	A
36	1	1605	A
36	1	1609	C
36	1	1620	U
36	1	1629	U
36	1	1633	C
36	1	1639	C
36	1	1643	A
36	1	1657	C
36	1	1683	A
36	1	1688	U
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1727	G
36	1	1729	A
36	1	1736	G
36	1	1741	A
36	1	1745	C
36	1	1746	U
36	1	1750	A
36	1	1751	G
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1763	U
36	1	1764	U
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1769	G
36	1	1770	G
36	1	1775	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1811	G
36	1	1813	A
36	1	1814	A
36	1	1815	U

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Mol	Chain	Res	Type
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1835	A
36	1	1839	A
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1849	C
36	1	1850	A
36	1	1866	C
36	1	1871	U
36	1	1879	A
36	1	1880	U
36	1	1886	A
36	1	1901	A
36	1	1906	G
36	1	1920	U
36	1	1927	G
36	1	1948	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2114	C
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G
36	1	2140	U
36	1	2158	A
36	1	2162	U

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Mol	Chain	Res	Type
36	1	2165	G
36	1	2169	G
36	1	2186	U
36	1	2194	G
36	1	2201	G
36	1	2205	U
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2244	A
36	1	2249	G
36	1	2250	G
36	1	2255	A
36	1	2256	A
36	1	2268	U
36	1	2272	G
36	1	2273	G
36	1	2281	A
36	1	2282	U
36	1	2298	U
36	1	2303	A
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2319	U
36	1	2330	C
36	1	2334	U
36	1	2336	U
36	1	2341	A
36	1	2347	U
36	1	2360	C
36	1	2366	C
36	1	2370	G
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2393	G
36	1	2394	G
36	1	2397	A

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Mol	Chain	Res	Type
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2405	C
36	1	2406	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2424	A
36	1	2435	G
36	1	2437	G
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2505	U
36	1	2509	U
36	1	2511	A
36	1	2513	U
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2526	C
36	1	2532	U
36	1	2533	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2544	U
36	1	2547	A
36	1	2549	G
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2561	A
36	1	2568	C

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Mol	Chain	Res	Type
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2583	C
36	1	2585	G
36	1	2586	G
36	1	2593	A
36	1	2594	C
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2617	U
36	1	2628	A
36	1	2637	A
36	1	2638	C
36	1	2644	C
36	1	2652	U
36	1	2655	U
36	1	2656	A
36	1	2674	A
36	1	2677	G
36	1	2681	U
36	1	2689	A
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2699	G
36	1	2705	A
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2733	A
36	1	2737	C
36	1	2744	U
36	1	2752	U
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2771	U
36	1	2772	C

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Mol	Chain	Res	Type
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2780	A
36	1	2783	U
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2810	C
36	1	2816	G
36	1	2817	A
36	1	2818	U
36	1	2828	G
36	1	2829	U
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2860	U
36	1	2863	G
36	1	2867	C
36	1	2871	G
36	1	2872	A
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2893	C
36	1	2898	G
36	1	2899	C
36	1	2904	U
36	1	2914	G
36	1	2922	G
36	1	2923	U
36	1	2925	C
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2947	G
36	1	2954	U
36	1	2955	U

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Mol	Chain	Res	Type
36	1	2971	A
36	1	2974	U
36	1	2979	U
36	1	2980	U
36	1	2983	C
36	1	2990	G
36	1	2997	G
36	1	3006	A
36	1	3012	A
36	1	3040	A
36	1	3046	A
36	1	3058	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3090	U
36	1	3091	A
36	1	3092	C
36	1	3113	A
36	1	3119	U
36	1	3122	A
36	1	3129	A
36	1	3130	A
36	1	3131	U
36	1	3142	A
36	1	3143	C
36	1	3150	A
36	1	3151	U
36	1	3152	U
36	1	3153	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3168	A
36	1	3170	A
36	1	3173	G
36	1	3174	A

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Mol	Chain	Res	Type
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3187	A
36	1	3195	U
36	1	3196	U
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3236	U
36	1	3243	A
36	1	3244	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3259	U
36	1	3261	C
36	1	3265	C
36	1	3269	U
36	1	3270	U
36	1	3271	G
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3288	G
36	1	3289	G
36	1	3294	A
36	1	3295	A
36	1	3304	U
36	1	3309	G
36	1	3313	U
36	1	3316	A
36	1	3317	U
36	1	3318	G
36	1	3319	U

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Mol	Chain	Res	Type
36	1	3341	U
36	1	3342	A
36	1	3343	G
36	1	3345	G
36	1	3347	A
36	1	3349	C
36	1	3351	U
36	1	3352	U
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3363	U
36	1	3369	G
36	1	3375	A
36	1	3376	A
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
36	1	3390	G
36	1	3396	U
37	3	3	U
37	3	11	A
37	3	21	G
37	3	22	A
37	3	26	C
37	3	42	A
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	91	G
37	3	102	A
37	3	103	A
37	3	112	G
37	3	121	U
38	4	3	A
38	4	17	A
38	4	26	U
38	4	34	U
38	4	35	C

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Mol	Chain	Res	Type
38	4	48	A
38	4	50	C
38	4	51	G
38	4	52	A
38	4	57	C
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	80	A
38	4	81	U
38	4	82	U
38	4	84	C
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	97	A
38	4	102	U
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	122	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	148	G
38	4	152	G
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	24	U
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G

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Mol	Chain	Res	Type
1	6	47	A
1	6	50	C
1	6	57	G
1	6	60	U
1	6	61	A
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	71	A
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	104	A
1	6	114	C
1	6	127	G
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	144	U
1	6	145	A
1	6	153	G
1	6	158	U
1	6	159	U
1	6	166	C
1	6	178	U
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	195	G
1	6	196	G
1	6	197	A
1	6	199	G
1	6	200	A
1	6	215	A

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Mol	Chain	Res	Type
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	240	U
1	6	241	U
1	6	249	U
1	6	250	C
1	6	261	U
1	6	265	A
1	6	270	C
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	287	G
1	6	299	A
1	6	309	C
1	6	313	U
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	329	G
1	6	337	G
1	6	338	C
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C

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Mol	Chain	Res	Type
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	A
1	6	417	A
1	6	418	G
1	6	424	C
1	6	425	A
1	6	426	G
1	6	428	A
1	6	434	G
1	6	439	U
1	6	444	C
1	6	448	C
1	6	455	C
1	6	468	A
1	6	477	A
1	6	480	G
1	6	484	C
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C
1	6	490	C
1	6	492	A
1	6	493	U
1	6	494	U
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	508	U
1	6	511	A
1	6	512	A
1	6	513	U
1	6	515	A
1	6	519	C
1	6	527	A

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Mol	Chain	Res	Type
1	6	536	C
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	548	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	606	A
1	6	609	U
1	6	610	G
1	6	617	U
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	630	A
1	6	637	C
1	6	639	U
1	6	640	U
1	6	645	C
1	6	651	G
1	6	652	G
1	6	653	C
1	6	658	C
1	6	659	C
1	6	661	A

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Mol	Chain	Res	Type
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	680	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	696	C
1	6	697	C
1	6	698	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	717	C
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	730	G
1	6	744	U
1	6	751	G
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	766	U
1	6	774	A
1	6	775	G
1	6	780	A
1	6	781	U
1	6	782	U

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Mol	Chain	Res	Type
1	6	783	G
1	6	789	A
1	6	793	A
1	6	794	U
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	823	G
1	6	825	U
1	6	826	U
1	6	828	U
1	6	829	A
1	6	830	U
1	6	831	U
1	6	832	U
1	6	834	G
1	6	835	U
1	6	847	A
1	6	854	U
1	6	856	A
1	6	860	U
1	6	863	A
1	6	873	U
1	6	898	A
1	6	906	A
1	6	910	C
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	942	G
1	6	959	U
1	6	960	U
1	6	966	A
1	6	970	A
1	6	971	A
1	6	992	A
1	6	993	A
1	6	1003	A
1	6	1004	U

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Mol	Chain	Res	Type
1	6	1005	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1063	U
1	6	1070	C
1	6	1072	C
1	6	1081	A
1	6	1082	C
1	6	1092	A
1	6	1093	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1101	G
1	6	1104	U
1	6	1109	G
1	6	1138	A
1	6	1146	G
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1167	G
1	6	1183	A
1	6	1185	U
1	6	1191	U
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A

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Mol	Chain	Res	Type
1	6	1207	C
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1262	U
1	6	1273	G
1	6	1284	C
1	6	1286	U
1	6	1288	G
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1327	C
1	6	1338	C
1	6	1341	A
1	6	1343	U
1	6	1344	A
1	6	1345	A
1	6	1354	G
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1388	A
1	6	1389	C

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Mol	Chain	Res	Type
1	6	1390	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1431	C
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1458	G
1	6	1459	C
1	6	1460	A
1	6	1461	C
1	6	1471	A
1	6	1481	C
1	6	1482	C
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1496	U
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1531	G
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1539	G
1	6	1540	G
1	6	1554	U

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Mol	Chain	Res	Type
1	6	1555	A
1	6	1557	U
1	6	1559	A
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1582	U
1	6	1584	G
1	6	1590	G
1	6	1600	A
1	6	1601	G
1	6	1616	G
1	6	1619	C
1	6	1620	C
1	6	1621	U
1	6	1634	C
1	6	1637	C
1	6	1638	G
1	6	1656	U
1	6	1657	U
1	6	1658	G
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1712	A
1	6	1716	C
1	6	1717	G
1	6	1727	G
1	6	1731	A
1	6	1735	U
1	6	1736	G
1	6	1755	A
1	6	1760	G
1	6	1762	A
1	6	1766	A
1	6	1767	G
1	6	1769	U

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Mol	Chain	Res	Type
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1783	C
1	6	1789	G
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	11	A
36	5	16	A
36	5	21	G
36	5	26	A
36	5	40	A
36	5	44	U
36	5	45	A
36	5	49	A
36	5	60	A
36	5	65	A
36	5	66	A
36	5	67	A
36	5	74	G
36	5	76	G
36	5	85	A
36	5	92	G
36	5	93	C
36	5	94	G
36	5	96	G
36	5	99	A
36	5	109	A
36	5	110	G
36	5	111	C
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	133	U
36	5	134	U

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Mol	Chain	Res	Type
36	5	135	C
36	5	136	G
36	5	142	C
36	5	150	A
36	5	156	G
36	5	157	A
36	5	165	A
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	179	C
36	5	180	C
36	5	182	U
36	5	186	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C
36	5	206	G
36	5	210	U
36	5	211	A
36	5	213	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	227	G
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	244	G
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	259	C
36	5	269	G

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Mol	Chain	Res	Type
36	5	284	A
36	5	286	U
36	5	295	A
36	5	311	C
36	5	316	U
36	5	322	U
36	5	323	A
36	5	329	U
36	5	334	A
36	5	338	A
36	5	339	C
36	5	349	A
36	5	350	C
36	5	366	A
36	5	376	G
36	5	390	G
36	5	395	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	421	G
36	5	422	A
36	5	436	A
36	5	438	A
36	5	439	C
36	5	441	U
36	5	442	G
36	5	492	U
36	5	507	U
36	5	520	U
36	5	521	A
36	5	529	A
36	5	532	A
36	5	535	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	552	G
36	5	553	U

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Mol	Chain	Res	Type
36	5	555	U
36	5	557	A
36	5	559	A
36	5	560	G
36	5	578	A
36	5	579	G
36	5	592	A
36	5	600	G
36	5	604	G
36	5	607	A
36	5	609	G
36	5	611	A
36	5	619	A
36	5	620	U
36	5	621	A
36	5	636	C
36	5	649	A
36	5	651	G
36	5	656	A
36	5	660	A
36	5	661	G
36	5	675	C
36	5	677	A
36	5	681	U
36	5	689	U
36	5	691	A
36	5	705	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	719	U
36	5	725	G
36	5	727	G
36	5	758	C
36	5	760	G
36	5	766	U
36	5	767	U
36	5	774	G
36	5	776	U
36	5	777	U
36	5	780	A
36	5	781	G

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Mol	Chain	Res	Type
36	5	785	G
36	5	786	A
36	5	800	G
36	5	806	A
36	5	817	A
36	5	830	A
36	5	861	C
36	5	874	U
36	5	877	C
36	5	879	U
36	5	881	C
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	914	A
36	5	916	G
36	5	917	A
36	5	921	A
36	5	923	C
36	5	924	G
36	5	937	G
36	5	938	C
36	5	944	C
36	5	959	C
36	5	960	U
36	5	961	C
36	5	963	G
36	5	964	G
36	5	979	U
36	5	984	G
36	5	993	G
36	5	994	G
36	5	1001	G
36	5	1002	A
36	5	1010	G
36	5	1014	U
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1018	G

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Mol	Chain	Res	Type
36	5	1019	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1027	A
36	5	1028	U
36	5	1029	G
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1064	A
36	5	1065	A
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1085	A
36	5	1087	G
36	5	1088	U
36	5	1093	A
36	5	1094	U
36	5	1095	U
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1116	G
36	5	1117	G
36	5	1129	A
36	5	1131	G
36	5	1144	U
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1160	C
36	5	1178	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1191	U
36	5	1192	C
36	5	1193	A

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Mol	Chain	Res	Type
36	5	1196	C
36	5	1197	A
36	5	1201	C
36	5	1202	A
36	5	1209	G
36	5	1222	G
36	5	1232	C
36	5	1235	U
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1253	U
36	5	1258	U
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1301	A
36	5	1307	G
36	5	1309	U
36	5	1312	C
36	5	1330	A
36	5	1332	A
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1354	G
36	5	1355	A
36	5	1356	U
36	5	1357	G
36	5	1380	G
36	5	1386	A
36	5	1387	G
36	5	1399	A

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Mol	Chain	Res	Type
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1428	A
36	5	1429	G
36	5	1431	G
36	5	1434	G
36	5	1437	C
36	5	1443	G
36	5	1446	A
36	5	1450	G
36	5	1465	A
36	5	1480	G
36	5	1481	A
36	5	1482	A
36	5	1488	G
36	5	1490	A
36	5	1495	U
36	5	1498	A
36	5	1508	C
36	5	1509	A
36	5	1526	U
36	5	1533	U
36	5	1536	G
36	5	1541	G
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1565	G
36	5	1566	A
36	5	1567	U
36	5	1570	U
36	5	1571	A
36	5	1573	G
36	5	1574	C
36	5	1575	A
36	5	1576	G
36	5	1577	G
36	5	1578	C

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Mol	Chain	Res	Type
36	5	1579	C
36	5	1581	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1605	A
36	5	1620	U
36	5	1621	A
36	5	1629	U
36	5	1635	G
36	5	1639	C
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1657	C
36	5	1661	G
36	5	1683	A
36	5	1684	U
36	5	1704	A
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1736	G
36	5	1750	A
36	5	1751	G
36	5	1761	C
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1770	G
36	5	1780	G
36	5	1795	U
36	5	1797	A
36	5	1810	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1818	U
36	5	1819	U
36	5	1820	U

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Mol	Chain	Res	Type
36	5	1821	U
36	5	1839	A
36	5	1842	A
36	5	1846	C
36	5	1847	A
36	5	1849	C
36	5	1850	A
36	5	1866	C
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1886	A
36	5	1891	A
36	5	1893	A
36	5	1897	G
36	5	1906	G
36	5	1909	A
36	5	1918	C
36	5	1922	A
36	5	1932	A
36	5	1935	G
36	5	1947	G
36	5	1952	G
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2117	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2133	U
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2170	U
36	5	2187	G
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2209	U

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Mol	Chain	Res	Type
36	5	2210	G
36	5	2222	A
36	5	2223	A
36	5	2225	U
36	5	2244	A
36	5	2246	G
36	5	2250	G
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2267	C
36	5	2268	U
36	5	2269	U
36	5	2273	G
36	5	2276	G
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2282	U
36	5	2283	G
36	5	2288	G
36	5	2303	A
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2388	U
36	5	2392	C
36	5	2393	G
36	5	2397	A
36	5	2401	A
36	5	2403	G

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Mol	Chain	Res	Type
36	5	2404	A
36	5	2405	C
36	5	2410	U
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2435	G
36	5	2436	U
36	5	2439	A
36	5	2441	A
36	5	2443	A
36	5	2444	C
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2509	U
36	5	2510	U
36	5	2511	A
36	5	2514	U
36	5	2515	A
36	5	2522	G
36	5	2523	A
36	5	2524	A
36	5	2526	C
36	5	2530	G
36	5	2531	C
36	5	2535	A
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2545	C
36	5	2549	G
36	5	2552	C
36	5	2555	G
36	5	2562	A
36	5	2567	C
36	5	2568	C
36	5	2569	A

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Mol	Chain	Res	Type
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2573	G
36	5	2574	G
36	5	2584	G
36	5	2585	G
36	5	2593	A
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2615	G
36	5	2637	A
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2681	U
36	5	2689	A
36	5	2691	A
36	5	2696	A
36	5	2704	A
36	5	2706	G
36	5	2707	C
36	5	2714	G
36	5	2720	G
36	5	2728	G
36	5	2729	U
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2762	A
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2796	G
36	5	2800	G
36	5	2801	A
36	5	2802	A

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Mol	Chain	Res	Type
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2822	U
36	5	2839	G
36	5	2843	U
36	5	2845	A
36	5	2853	A
36	5	2865	U
36	5	2871	G
36	5	2872	A
36	5	2877	G
36	5	2886	U
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2900	A
36	5	2921	U
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2939	G
36	5	2942	C
36	5	2946	A
36	5	2947	G
36	5	2954	U
36	5	2971	A
36	5	2972	G
36	5	2983	C
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3018	C
36	5	3028	G
36	5	3030	G
36	5	3046	A
36	5	3049	A
36	5	3056	U
36	5	3057	U

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Mol	Chain	Res	Type
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C
36	5	3102	G
36	5	3104	U
36	5	3115	C
36	5	3119	U
36	5	3122	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3150	A
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3164	C
36	5	3165	A
36	5	3166	C
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3176	G
36	5	3177	G
36	5	3179	U
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3206	C
36	5	3207	U
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3227	A
36	5	3229	G

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Mol	Chain	Res	Type
36	5	3239	G
36	5	3243	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3270	U
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3281	U
36	5	3282	U
36	5	3284	G
36	5	3285	C
36	5	3286	G
36	5	3287	U
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3295	A
36	5	3304	U
36	5	3313	U
36	5	3316	A
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3332	U
36	5	3333	G
36	5	3342	A
36	5	3345	G
36	5	3348	G
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3377	G
36	5	3378	C

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Mol	Chain	Res	Type
36	5	3382	U
36	5	3383	G
36	5	3389	U
36	5	3393	U
36	5	3394	U
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	29	C
37	7	33	U
37	7	38	U
37	7	51	A
37	7	52	G
37	7	54	U
37	7	55	A
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	110	G
37	7	112	G
38	8	21	C
38	8	34	U
38	8	35	C
38	8	48	A
38	8	51	G
38	8	53	A
38	8	59	A
38	8	62	C
38	8	63	G
38	8	79	A
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	86	U

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Mol	Chain	Res	Type
38	8	87	G
38	8	90	U
38	8	95	G
38	8	96	A
38	8	97	A
38	8	102	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	116	G
38	8	122	U
38	8	124	G
38	8	125	U
38	8	151	C
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

All (269) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	73	U
1	2	103	A
1	2	114	C
1	2	126	A
1	2	130	C
1	2	131	C
1	2	139	C
1	2	144	U
1	2	158	U
1	2	217	A
1	2	218	A
1	2	240	U
1	2	280	U
1	2	321	C
1	2	322	G
1	2	400	A

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Mol	Chain	Res	Type
1	2	417	A
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	510	G
1	2	512	A
1	2	555	A
1	2	558	U
1	2	685	A
1	2	704	C
1	2	720	G
1	2	721	U
1	2	734	A
1	2	755	A
1	2	794	U
1	2	829	A
1	2	913	G
1	2	1058	U
1	2	1081	A
1	2	1157	A
1	2	1196	A
1	2	1207	C
1	2	1226	A
1	2	1234	A
1	2	1244	A
1	2	1250	U
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1521	G
1	2	1568	C
1	2	1573	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	43	A
36	1	65	A
36	1	169	U
36	1	210	U
36	1	217	U
36	1	239	G

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Mol	Chain	Res	Type
36	1	282	G
36	1	369	A
36	1	547	G
36	1	559	A
36	1	588	G
36	1	594	U
36	1	620	U
36	1	715	A
36	1	719	U
36	1	763	G
36	1	816	A
36	1	896	A
36	1	916	G
36	1	937	G
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1181	U
36	1	1196	C
36	1	1273	A
36	1	1307	G
36	1	1317	A
36	1	1329	U
36	1	1331	U
36	1	1352	A
36	1	1355	A
36	1	1481	A
36	1	1484	U
36	1	1514	G
36	1	1554	U
36	1	1556	C
36	1	1562	C
36	1	1568	U
36	1	1589	A
36	1	1716	U
36	1	1751	G
36	1	1816	A
36	1	1820	U
36	1	1841	A

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Mol	Chain	Res	Type
36	1	1842	A
36	1	1846	C
36	1	1849	C
36	1	2101	C
36	1	2112	U
36	1	2209	U
36	1	2249	G
36	1	2281	A
36	1	2297	U
36	1	2372	A
36	1	2374	C
36	1	2403	G
36	1	2418	G
36	1	2513	U
36	1	2537	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2593	A
36	1	2688	U
36	1	2689	A
36	1	2704	A
36	1	2728	G
36	1	2817	A
36	1	2818	U
36	1	3048	A
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3195	U
36	1	3207	U
36	1	3217	C
36	1	3218	A
36	1	3228	C
36	1	3269	U
36	1	3275	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3375	A
36	1	3377	G
38	4	85	G

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Mol	Chain	Res	Type
38	4	111	A
1	6	25	C
1	6	66	U
1	6	76	A
1	6	103	A
1	6	113	U
1	6	139	C
1	6	158	U
1	6	187	G
1	6	192	U
1	6	217	A
1	6	240	U
1	6	272	U
1	6	313	U
1	6	352	A
1	6	400	A
1	6	417	A
1	6	425	A
1	6	512	A
1	6	542	A
1	6	557	G
1	6	558	U
1	6	606	A
1	6	697	C
1	6	717	C
1	6	755	A
1	6	829	A
1	6	834	G
1	6	1051	G
1	6	1058	U
1	6	1097	U
1	6	1098	U
1	6	1137	A
1	6	1207	C
1	6	1227	A
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1388	A
1	6	1481	C
1	6	1491	U
1	6	1535	U

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Mol	Chain	Res	Type
1	6	1568	C
1	6	1572	G
1	6	1573	A
1	6	1615	C
1	6	1620	C
1	6	1657	U
1	6	1698	G
1	6	1700	C
36	5	43	A
36	5	93	C
36	5	210	U
36	5	217	U
36	5	238	A
36	5	283	G
36	5	397	A
36	5	438	A
36	5	588	G
36	5	594	U
36	5	715	A
36	5	765	C
36	5	816	A
36	5	896	A
36	5	916	G
36	5	960	U
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1160	C
36	5	1178	G
36	5	1181	U
36	5	1238	C
36	5	1241	U
36	5	1317	A
36	5	1329	U
36	5	1331	U
36	5	1352	A
36	5	1355	A
36	5	1370	G
36	5	1481	A
36	5	1514	G

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Mol	Chain	Res	Type
36	5	1554	U
36	5	1560	G
36	5	1580	A
36	5	1716	U
36	5	1750	A
36	5	1819	U
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2257	C
36	5	2282	U
36	5	2372	A
36	5	2374	C
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2572	C
36	5	2585	G
36	5	2728	G
36	5	2772	C
36	5	2801	A
36	5	2817	A
36	5	2818	U
36	5	2896	A
36	5	2971	A
36	5	3078	U
36	5	3154	C
36	5	3167	A
36	5	3195	U
36	5	3218	A
36	5	3228	C
36	5	3242	G
36	5	3275	U
36	5	3289	G
36	5	3317	U
36	5	3341	U
36	5	3357	U
38	8	111	A



## 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 2559 ligands modelled in this entry, 1424 are monoatomic - leaving 1135 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3K5	1	4221	-	62,63,63	1.11	1 (1%)	80,95,95	1.47	11 (13%)
86	OHX	2	2022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3K5	5	4249	-	62,63,63	0.58	1 (1%)	80,95,95	1.49	9 (11%)
86	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	Q2	503	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	306	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m6	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q1	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s4	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4208	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4220	-	-	0/0/0/0	0/0/0/0
88	3K5	1	4221	-	-	0/29/121/121	0/6/7/7
86	OHX	2	2022	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	3	214	-	-	0/0/0/0	0/0/0/0
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	4	236	-	-	0/0/0/0	0/0/0/0
86	OHX	4	237	-	-	0/0/0/0	0/0/0/0
86	OHX	4	238	-	-	0/0/0/0	0/0/0/0
86	OHX	4	239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3951	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3993	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4035	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4077	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4119	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4161	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4203	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
88	3K5	5	4249	-	-	0/29/121/121	0/6/7/7
86	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2205	-	-	0/0/0/0	0/0/0/0
86	OHX	7	217	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	230	-	-	0/0/0/0	0/0/0/0
86	OHX	8	231	-	-	0/0/0/0	0/0/0/0
86	OHX	8	232	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	406	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	304	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	205	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	203	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O2	201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	O3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	105	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	203	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	406	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	306	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	m6	203	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	m8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	503	-	-	0/0/0/0	0/0/0/0
86	OHX	q1	102	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s4	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
88	5	4249	3K5	O3-C15	-3.12	1.38	1.44
88	1	4221	3K5	O3-C15	8.12	1.60	1.44

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	5	4249	3K5	C16-C15-C17	-6.31	112.79	124.98
88	1	4221	3K5	O3-C15-C16	-3.82	55.88	59.72
88	5	4249	3K5	C4-C3-C15	-3.21	108.80	114.44
88	1	4221	3K5	C16-O3-C15	-2.86	56.77	61.04
88	1	4221	3K5	O14-C34-C33	-2.63	101.93	107.76
88	1	4221	3K5	O7-C24-O6	-2.48	101.25	108.09
88	5	4249	3K5	O3-C16-C15	-2.25	56.68	59.23
88	5	4249	3K5	C34-C35-C36	-2.19	104.82	109.80
88	5	4249	3K5	O14-C34-C33	-2.17	102.94	107.76
88	1	4221	3K5	C32-O12-C36	2.05	117.14	113.64
88	1	4221	3K5	O13-C35-C34	2.29	115.30	109.87
88	5	4249	3K5	O-C3-C15	2.33	111.87	107.32
88	1	4221	3K5	O4-C22-C21	2.68	116.61	110.63
88	1	4221	3K5	O9-C26-C27	2.72	113.81	107.76
88	1	4221	3K5	C16-C15-C17	2.75	130.29	124.98
88	5	4249	3K5	O3-C15-C16	3.39	63.14	59.72
88	1	4221	3K5	O14-C34-C35	3.65	115.86	107.76
88	5	4249	3K5	C3-C15-C17	4.24	111.30	102.82
88	5	4249	3K5	O14-C34-C35	5.75	120.52	107.76
88	1	4221	3K5	O3-C16-C15	7.14	67.35	59.23

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

507 monomers are involved in 787 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3874	OHX	1	0
86	1	3877	OHX	1	0
86	1	3879	OHX	1	0
86	1	3881	OHX	1	0
86	1	3883	OHX	1	0
86	1	3885	OHX	2	0
86	1	3887	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3888	OHX	2	0
86	1	3890	OHX	2	0
86	1	3891	OHX	2	0
86	1	3893	OHX	1	0
86	1	3896	OHX	1	0
86	1	3898	OHX	1	0
86	1	3899	OHX	1	0
86	1	3904	OHX	1	0
86	1	3905	OHX	1	0
86	1	3906	OHX	1	0
86	1	3907	OHX	1	0
86	1	3908	OHX	1	0
86	1	3912	OHX	1	0
86	1	3918	OHX	3	0
86	1	3921	OHX	1	0
86	1	3924	OHX	1	0
86	1	3931	OHX	1	0
86	1	3932	OHX	1	0
86	1	3933	OHX	1	0
86	1	3937	OHX	2	0
86	1	3939	OHX	2	0
86	1	3940	OHX	2	0
86	1	3945	OHX	1	0
86	1	3946	OHX	1	0
86	1	3947	OHX	1	0
86	1	3948	OHX	1	0
86	1	3952	OHX	1	0
86	1	3959	OHX	1	0
86	1	3962	OHX	1	0
86	1	3963	OHX	5	0
86	1	3965	OHX	6	0
86	1	3968	OHX	1	0
86	1	3969	OHX	2	0
86	1	3971	OHX	1	0
86	1	3973	OHX	1	0
86	1	3974	OHX	1	0
86	1	3977	OHX	7	0
86	1	3978	OHX	1	0
86	1	3980	OHX	1	0
86	1	3981	OHX	3	0
86	1	3982	OHX	1	0
86	1	3983	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3984	OHX	1	0
86	1	3985	OHX	1	0
86	1	3986	OHX	2	0
86	1	3987	OHX	1	0
86	1	3988	OHX	2	0
86	1	3989	OHX	1	0
86	1	3999	OHX	3	0
86	1	4002	OHX	1	0
86	1	4003	OHX	2	0
86	1	4007	OHX	1	0
86	1	4009	OHX	8	0
86	1	4012	OHX	2	0
86	1	4014	OHX	1	0
86	1	4016	OHX	1	0
86	1	4019	OHX	1	0
86	1	4023	OHX	1	0
86	1	4025	OHX	3	0
86	1	4029	OHX	1	0
86	1	4034	OHX	4	0
86	1	4036	OHX	1	0
86	1	4038	OHX	6	0
86	1	4039	OHX	1	0
86	1	4040	OHX	1	0
86	1	4043	OHX	2	0
86	1	4044	OHX	2	0
86	1	4045	OHX	1	0
86	1	4048	OHX	1	0
86	1	4049	OHX	3	0
86	1	4050	OHX	6	0
86	1	4052	OHX	1	0
86	1	4053	OHX	1	0
86	1	4060	OHX	5	0
86	1	4061	OHX	5	0
86	1	4062	OHX	3	0
86	1	4063	OHX	1	0
86	1	4065	OHX	2	0
86	1	4067	OHX	1	0
86	1	4068	OHX	1	0
86	1	4071	OHX	1	0
86	1	4077	OHX	1	0
86	1	4078	OHX	1	0
86	1	4079	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4080	OHX	1	0
86	1	4081	OHX	1	0
86	1	4083	OHX	1	0
86	1	4084	OHX	1	0
86	1	4085	OHX	4	0
86	1	4087	OHX	1	0
86	1	4089	OHX	3	0
86	1	4090	OHX	3	0
86	1	4092	OHX	1	0
86	1	4093	OHX	1	0
86	1	4099	OHX	1	0
86	1	4100	OHX	1	0
86	1	4101	OHX	1	0
86	1	4103	OHX	1	0
86	1	4104	OHX	1	0
86	1	4111	OHX	1	0
86	1	4112	OHX	1	0
86	1	4114	OHX	1	0
86	1	4123	OHX	1	0
86	1	4124	OHX	1	0
86	1	4125	OHX	1	0
86	1	4127	OHX	1	0
86	1	4130	OHX	1	0
86	1	4133	OHX	1	0
86	1	4137	OHX	3	0
86	1	4138	OHX	3	0
86	1	4140	OHX	1	0
86	1	4144	OHX	3	0
86	1	4145	OHX	5	0
86	1	4147	OHX	1	0
86	1	4149	OHX	2	0
86	1	4150	OHX	1	0
86	1	4152	OHX	5	0
86	1	4153	OHX	1	0
86	1	4156	OHX	4	0
86	1	4160	OHX	1	0
86	1	4161	OHX	3	0
86	1	4162	OHX	7	0
86	1	4165	OHX	1	0
86	1	4166	OHX	1	0
86	1	4169	OHX	5	0
86	1	4170	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4171	OHX	1	0
86	1	4173	OHX	1	0
86	1	4174	OHX	2	0
86	1	4178	OHX	8	0
86	1	4181	OHX	1	0
86	1	4186	OHX	1	0
86	1	4187	OHX	3	0
86	1	4189	OHX	1	0
86	1	4194	OHX	1	0
86	1	4195	OHX	1	0
86	1	4197	OHX	2	0
86	1	4199	OHX	1	0
86	1	4202	OHX	1	0
86	1	4204	OHX	6	0
86	1	4205	OHX	1	0
86	1	4207	OHX	1	0
86	1	4209	OHX	1	0
86	1	4210	OHX	3	0
86	1	4211	OHX	1	0
86	1	4213	OHX	1	0
86	1	4214	OHX	1	0
86	1	4215	OHX	1	0
88	1	4221	3K5	6	0
86	2	2022	OHX	1	0
86	2	2023	OHX	2	0
86	2	2025	OHX	2	0
86	2	2028	OHX	1	0
86	2	2030	OHX	8	0
86	2	2031	OHX	1	0
86	2	2035	OHX	2	0
86	2	2037	OHX	1	0
86	2	2038	OHX	2	0
86	2	2040	OHX	1	0
86	2	2041	OHX	1	0
86	2	2043	OHX	7	0
86	2	2044	OHX	1	0
86	2	2046	OHX	2	0
86	2	2047	OHX	1	0
86	2	2049	OHX	1	0
86	2	2050	OHX	1	0
86	2	2052	OHX	1	0
86	2	2056	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2057	OHX	1	0
86	2	2061	OHX	1	0
86	2	2063	OHX	1	0
86	2	2069	OHX	2	0
86	2	2070	OHX	1	0
86	2	2073	OHX	2	0
86	2	2074	OHX	4	0
86	2	2075	OHX	1	0
86	2	2081	OHX	1	0
86	2	2082	OHX	5	0
86	2	2083	OHX	1	0
86	2	2084	OHX	4	0
86	2	2085	OHX	1	0
86	2	2088	OHX	3	0
86	2	2089	OHX	6	0
86	2	2090	OHX	1	0
86	2	2092	OHX	1	0
86	2	2095	OHX	1	0
86	2	2098	OHX	7	0
86	2	2101	OHX	1	0
86	2	2103	OHX	1	0
86	2	2107	OHX	1	0
86	2	2108	OHX	1	0
86	2	2109	OHX	1	0
86	2	2110	OHX	4	0
86	2	2114	OHX	1	0
86	2	2120	OHX	4	0
86	2	2122	OHX	1	0
86	2	2124	OHX	1	0
86	2	2125	OHX	1	0
86	2	2126	OHX	1	0
86	2	2128	OHX	1	0
86	2	2129	OHX	1	0
86	2	2130	OHX	8	0
86	2	2131	OHX	1	0
86	2	2133	OHX	1	0
86	2	2135	OHX	2	0
86	2	2137	OHX	1	0
86	2	2140	OHX	1	0
86	2	2143	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	7	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2147	OHX	1	0
86	2	2149	OHX	1	0
86	2	2153	OHX	1	0
86	2	2154	OHX	1	0
86	2	2156	OHX	2	0
86	2	2159	OHX	1	0
86	2	2161	OHX	4	0
86	2	2164	OHX	1	0
86	2	2165	OHX	1	0
86	2	2167	OHX	1	0
86	2	2168	OHX	1	0
86	2	2172	OHX	1	0
86	2	2178	OHX	1	0
86	3	219	OHX	1	0
86	3	221	OHX	1	0
86	3	224	OHX	1	0
86	4	224	OHX	1	0
86	4	225	OHX	1	0
86	4	228	OHX	1	0
86	4	229	OHX	1	0
86	4	231	OHX	1	0
86	4	232	OHX	1	0
86	4	233	OHX	1	0
86	4	236	OHX	3	0
86	5	3900	OHX	3	0
86	5	3905	OHX	3	0
86	5	3907	OHX	1	0
86	5	3909	OHX	2	0
86	5	3910	OHX	1	0
86	5	3911	OHX	2	0
86	5	3913	OHX	1	0
86	5	3914	OHX	1	0
86	5	3915	OHX	3	0
86	5	3920	OHX	2	0
86	5	3922	OHX	1	0
86	5	3923	OHX	1	0
86	5	3930	OHX	2	0
86	5	3937	OHX	1	0
86	5	3939	OHX	1	0
86	5	3940	OHX	7	0
86	5	3942	OHX	1	0
86	5	3943	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3946	OHX	1	0
86	5	3947	OHX	1	0
86	5	3951	OHX	1	0
86	5	3952	OHX	1	0
86	5	3953	OHX	1	0
86	5	3954	OHX	2	0
86	5	3955	OHX	3	0
86	5	3956	OHX	1	0
86	5	3957	OHX	1	0
86	5	3958	OHX	1	0
86	5	3960	OHX	4	0
86	5	3963	OHX	1	0
86	5	3964	OHX	1	0
86	5	3967	OHX	1	0
86	5	3970	OHX	2	0
86	5	3971	OHX	6	0
86	5	3976	OHX	7	0
86	5	3981	OHX	2	0
86	5	3982	OHX	1	0
86	5	3984	OHX	1	0
86	5	3987	OHX	1	0
86	5	3989	OHX	4	0
86	5	3993	OHX	1	0
86	5	3994	OHX	1	0
86	5	3997	OHX	1	0
86	5	3998	OHX	1	0
86	5	3999	OHX	4	0
86	5	4000	OHX	1	0
86	5	4003	OHX	1	0
86	5	4004	OHX	1	0
86	5	4007	OHX	1	0
86	5	4008	OHX	7	0
86	5	4010	OHX	2	0
86	5	4012	OHX	1	0
86	5	4014	OHX	1	0
86	5	4016	OHX	2	0
86	5	4017	OHX	6	0
86	5	4019	OHX	3	0
86	5	4020	OHX	2	0
86	5	4023	OHX	1	0
86	5	4025	OHX	1	0
86	5	4027	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4029	OHX	2	0
86	5	4030	OHX	1	0
86	5	4031	OHX	1	0
86	5	4033	OHX	1	0
86	5	4035	OHX	1	0
86	5	4037	OHX	1	0
86	5	4045	OHX	1	0
86	5	4047	OHX	1	0
86	5	4048	OHX	1	0
86	5	4051	OHX	6	0
86	5	4055	OHX	1	0
86	5	4062	OHX	7	0
86	5	4064	OHX	1	0
86	5	4068	OHX	1	0
86	5	4070	OHX	1	0
86	5	4072	OHX	1	0
86	5	4075	OHX	1	0
86	5	4076	OHX	1	0
86	5	4077	OHX	3	0
86	5	4084	OHX	1	0
86	5	4085	OHX	1	0
86	5	4086	OHX	2	0
86	5	4087	OHX	2	0
86	5	4088	OHX	1	0
86	5	4089	OHX	2	0
86	5	4090	OHX	2	0
86	5	4093	OHX	1	0
86	5	4094	OHX	2	0
86	5	4096	OHX	1	0
86	5	4099	OHX	2	0
86	5	4102	OHX	1	0
86	5	4103	OHX	1	0
86	5	4104	OHX	1	0
86	5	4107	OHX	1	0
86	5	4108	OHX	1	0
86	5	4111	OHX	1	0
86	5	4114	OHX	1	0
86	5	4115	OHX	1	0
86	5	4116	OHX	1	0
86	5	4123	OHX	1	0
86	5	4125	OHX	2	0
86	5	4127	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4128	OHX	1	0
86	5	4130	OHX	1	0
86	5	4134	OHX	1	0
86	5	4135	OHX	2	0
86	5	4137	OHX	2	0
86	5	4138	OHX	1	0
86	5	4139	OHX	1	0
86	5	4140	OHX	6	0
86	5	4141	OHX	1	0
86	5	4143	OHX	1	0
86	5	4144	OHX	1	0
86	5	4150	OHX	1	0
86	5	4152	OHX	1	0
86	5	4156	OHX	1	0
86	5	4157	OHX	1	0
86	5	4159	OHX	1	0
86	5	4165	OHX	1	0
86	5	4178	OHX	1	0
86	5	4180	OHX	1	0
86	5	4181	OHX	1	0
86	5	4182	OHX	1	0
86	5	4184	OHX	1	0
86	5	4186	OHX	3	0
86	5	4188	OHX	2	0
86	5	4189	OHX	2	0
86	5	4190	OHX	1	0
86	5	4191	OHX	1	0
86	5	4192	OHX	1	0
86	5	4195	OHX	11	0
86	5	4196	OHX	7	0
86	5	4197	OHX	7	0
86	5	4198	OHX	1	0
86	5	4200	OHX	5	0
86	5	4201	OHX	1	0
86	5	4202	OHX	1	0
86	5	4205	OHX	1	0
86	5	4208	OHX	1	0
86	5	4211	OHX	2	0
86	5	4214	OHX	8	0
86	5	4216	OHX	1	0
86	5	4218	OHX	1	0
86	5	4220	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4221	OHX	2	0
86	5	4223	OHX	1	0
86	5	4224	OHX	1	0
86	5	4225	OHX	1	0
86	5	4226	OHX	1	0
86	5	4229	OHX	1	0
86	5	4231	OHX	6	0
86	5	4233	OHX	1	0
86	5	4236	OHX	1	0
86	5	4239	OHX	7	0
86	5	4241	OHX	1	0
86	5	4243	OHX	1	0
86	5	4245	OHX	1	0
88	5	4249	3K5	8	0
86	6	2049	OHX	1	0
86	6	2053	OHX	1	0
86	6	2054	OHX	1	0
86	6	2055	OHX	1	0
86	6	2058	OHX	1	0
86	6	2059	OHX	6	0
86	6	2061	OHX	1	0
86	6	2062	OHX	2	0
86	6	2065	OHX	1	0
86	6	2066	OHX	1	0
86	6	2067	OHX	1	0
86	6	2068	OHX	1	0
86	6	2070	OHX	1	0
86	6	2071	OHX	1	0
86	6	2072	OHX	1	0
86	6	2075	OHX	1	0
86	6	2077	OHX	1	0
86	6	2079	OHX	1	0
86	6	2083	OHX	2	0
86	6	2085	OHX	1	0
86	6	2086	OHX	1	0
86	6	2088	OHX	1	0
86	6	2090	OHX	1	0
86	6	2092	OHX	1	0
86	6	2093	OHX	1	0
86	6	2095	OHX	1	0
86	6	2096	OHX	1	0
86	6	2098	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2100	OHX	3	0
86	6	2102	OHX	1	0
86	6	2103	OHX	1	0
86	6	2105	OHX	1	0
86	6	2107	OHX	2	0
86	6	2108	OHX	1	0
86	6	2109	OHX	1	0
86	6	2111	OHX	1	0
86	6	2112	OHX	1	0
86	6	2114	OHX	1	0
86	6	2117	OHX	1	0
86	6	2119	OHX	2	0
86	6	2120	OHX	8	0
86	6	2121	OHX	1	0
86	6	2122	OHX	2	0
86	6	2123	OHX	1	0
86	6	2124	OHX	1	0
86	6	2125	OHX	5	0
86	6	2126	OHX	4	0
86	6	2128	OHX	1	0
86	6	2130	OHX	2	0
86	6	2137	OHX	2	0
86	6	2138	OHX	1	0
86	6	2143	OHX	2	0
86	6	2144	OHX	1	0
86	6	2146	OHX	1	0
86	6	2147	OHX	7	0
86	6	2149	OHX	1	0
86	6	2150	OHX	4	0
86	6	2151	OHX	1	0
86	6	2154	OHX	2	0
86	6	2159	OHX	2	0
86	6	2161	OHX	1	0
86	6	2162	OHX	1	0
86	6	2163	OHX	1	0
86	6	2165	OHX	1	0
86	6	2170	OHX	2	0
86	6	2171	OHX	9	0
86	6	2175	OHX	1	0
86	6	2176	OHX	1	0
86	6	2178	OHX	1	0
86	6	2179	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2180	OHX	1	0
86	6	2183	OHX	1	0
86	6	2184	OHX	1	0
86	6	2189	OHX	2	0
86	6	2190	OHX	3	0
86	6	2191	OHX	2	0
86	6	2193	OHX	1	0
86	6	2201	OHX	1	0
86	6	2203	OHX	1	0
86	6	2205	OHX	1	0
86	7	218	OHX	1	0
86	7	219	OHX	6	0
86	7	220	OHX	3	0
86	7	222	OHX	1	0
86	7	226	OHX	6	0
86	8	216	OHX	1	0
86	8	217	OHX	1	0
86	8	218	OHX	7	0
86	8	222	OHX	1	0
86	8	226	OHX	6	0
86	8	227	OHX	6	0
86	8	228	OHX	1	0
86	8	231	OHX	2	0
86	C3	201	OHX	2	0
86	C5	201	OHX	4	0
86	D9	102	OHX	1	0
86	L3	405	OHX	2	0
86	L4	403	OHX	2	0
86	M5	302	OHX	1	0
86	M7	205	OHX	1	0
86	M7	206	OHX	2	0
86	N1	201	OHX	1	0
86	N9	101	OHX	1	0
86	O1	201	OHX	6	0
86	O3	202	OHX	1	0
86	O7	104	OHX	5	0
86	O7	105	OHX	1	0
86	Q2	503	OHX	2	0

## 5.7 Other polymers ⓘ

There are no such residues in this entry.

## 5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

EDS failed to run properly - this section will therefore be empty.

### 6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

EDS failed to run properly - this section will therefore be empty.

### 6.3 Carbohydrates ⓘ

EDS failed to run properly - this section will therefore be empty.

### 6.4 Ligands ⓘ

EDS failed to run properly - this section will therefore be empty.

### 6.5 Other polymers ⓘ

EDS failed to run properly - this section will therefore be empty.