



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:07 PM GMT

PDB ID : 4U4Y
Title : Crystal structure of Pactamycin bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-24
Resolution : 3.20 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
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

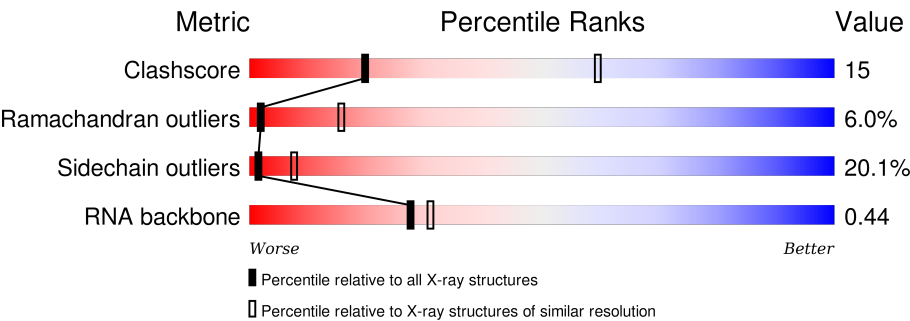
1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RNA backbone	2183	1079 (3.70-2.70)

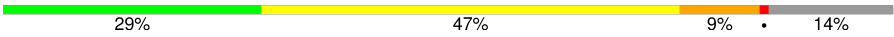





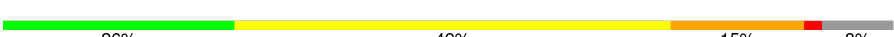

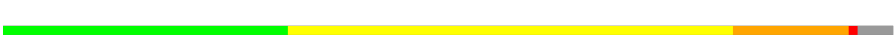

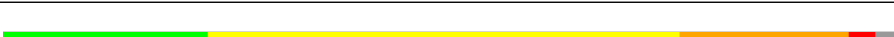


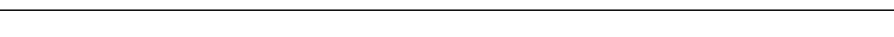
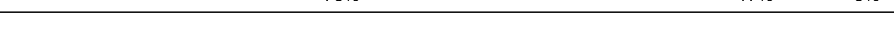
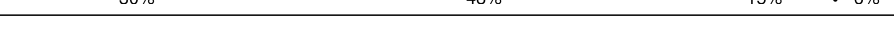

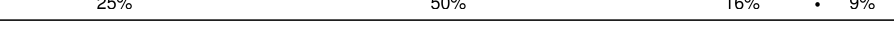

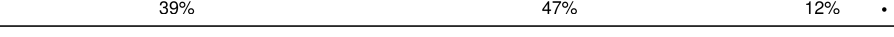

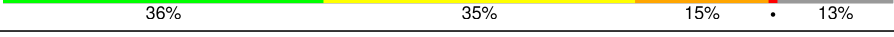



The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey 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>34%42%19%..</div></div>
1	6	1800	<div><div></div><div>34%43%19%.</div></div>
2	S0	251	<div><div></div><div>24%40%17%.18%</div></div>
2	s0	251	<div><div></div><div>62%18%.18%</div></div>
3	S1	254	<div><div></div><div>19%47%17%.16%</div></div>
3	s1	254	<div><div></div><div>63%21%.15%</div></div>


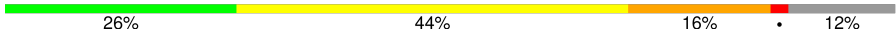

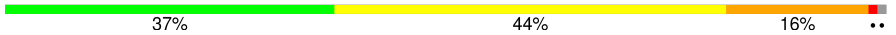

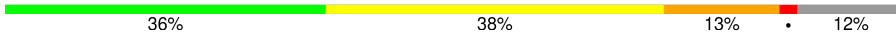

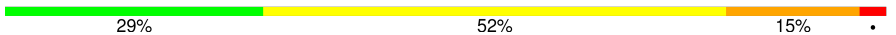

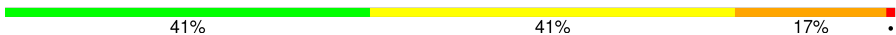



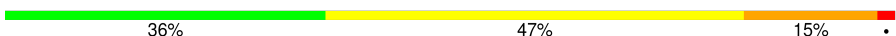











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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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



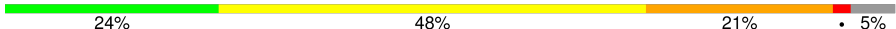

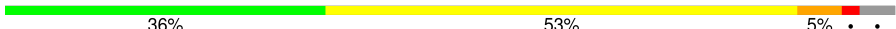

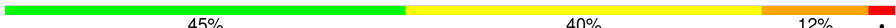


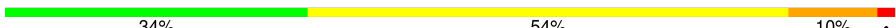



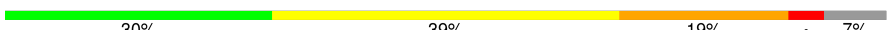
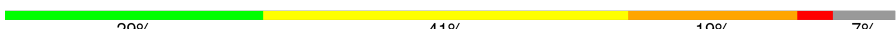

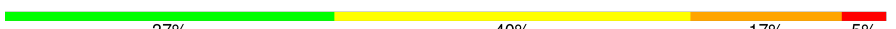
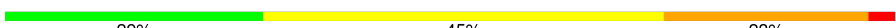

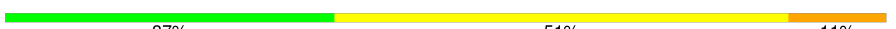





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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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



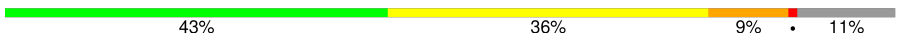



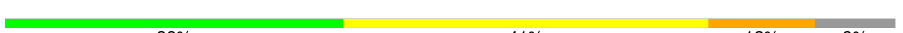


















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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253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


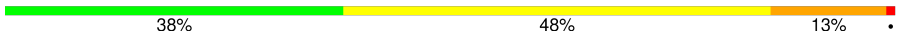



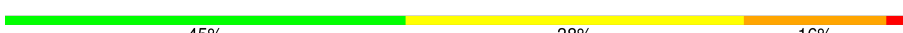





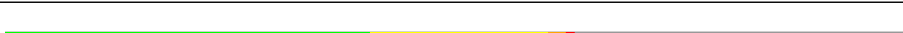













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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5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







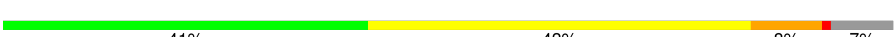

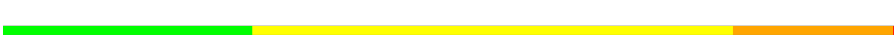

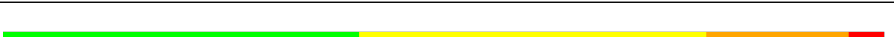


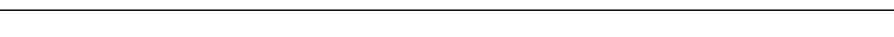
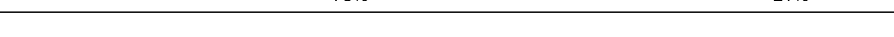
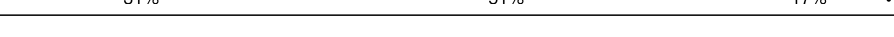



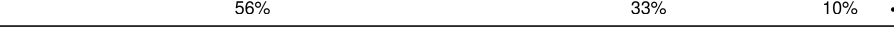





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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8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



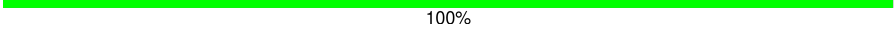
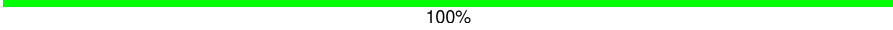
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Mol	Chain	Length	Quality of chain
67	O1	112	
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	120	
70	o4	120	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1	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	 81% 19%
80	e0	62	 71% 26% •
81	m2	160	 93% • 6%
82	p0	311	 39% 6% 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	3936	-	-	X	-
86	OHX	1	3955	-	-	X	-
86	OHX	1	3969	-	-	X	-
86	OHX	1	3973	-	-	X	-
86	OHX	1	4001	-	-	X	-
86	OHX	1	4026	-	-	X	-
86	OHX	1	4030	-	-	X	-
86	OHX	1	4043	-	-	X	-
86	OHX	1	4054	-	-	X	-
86	OHX	1	4083	-	-	X	-
86	OHX	1	4146	-	-	X	-
86	OHX	1	4154	-	-	X	-
86	OHX	1	4155	-	-	X	-
86	OHX	1	4162	-	-	X	-
86	OHX	1	4171	-	-	X	-
86	OHX	1	4197	-	-	X	-
86	OHX	2	2032	-	-	X	-
86	OHX	2	2045	-	-	X	-
86	OHX	2	2090	-	-	X	-
86	OHX	2	2096	-	-	X	-
86	OHX	2	2100	-	-	X	-
86	OHX	2	2110	-	-	X	-
86	OHX	2	2145	-	-	X	-
86	OHX	5	3943	-	-	X	-
86	OHX	5	3963	-	-	X	-
86	OHX	5	3974	-	-	X	-
86	OHX	5	3979	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	5	4002	-	-	X	-
86	OHX	5	4011	-	-	X	-
86	OHX	5	4021	-	-	X	-
86	OHX	5	4035	-	-	X	-
86	OHX	5	4055	-	-	X	-
86	OHX	5	4066	-	-	X	-
86	OHX	5	4143	-	-	X	-
86	OHX	5	4199	-	-	X	-
86	OHX	5	4200	-	-	X	-
86	OHX	5	4201	-	-	X	-
86	OHX	5	4217	-	-	X	-
86	OHX	5	4233	-	-	X	-
86	OHX	5	4237	-	-	X	-
86	OHX	5	4242	-	-	X	-
86	OHX	6	2059	-	-	X	-
86	OHX	6	2120	-	-	X	-
86	OHX	6	2125	-	-	X	-
86	OHX	6	2146	-	-	X	-
86	OHX	6	2149	-	-	X	-
86	OHX	6	2170	-	-	X	-
86	OHX	7	217	-	-	X	-
86	OHX	7	225	-	-	X	-
86	OHX	8	219	-	-	X	-
86	OHX	8	227	-	-	X	-
86	OHX	O7	104	-	-	X	-

2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411223 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	S	0	0	0
			1481	951	265	265				
9	s7	186	Total	C	N	O	S	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 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O4	121	LYS	-	expression tag	UNP P87262
o4	121	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			
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 chain 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 chain 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 chain 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		
85	N9	1	Total	Mg	0	0
			1	1		
85	n8	4	Total	Mg	0	0
			4	4		
85	o1	1	Total	Mg	0	0
			1	1		
85	N5	1	Total	Mg	0	0
			1	1		
85	6	147	Total	Mg	0	0
			147	147		
85	sM	2	Total	Mg	0	0
			2	2		
85	m5	4	Total	Mg	0	0
			4	4		
85	l3	2	Total	Mg	0	0
			2	2		
85	M1	1	Total	Mg	0	0
			1	1		
85	n0	2	Total	Mg	0	0
			2	2		
85	d6	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	2	124	Total 124	Mg 124	0	0
85	O3	1	Total 1	Mg 1	0	0
85	L4	2	Total 2	Mg 2	0	0
85	l7	2	Total 2	Mg 2	0	0
85	M5	2	Total 2	Mg 2	0	0
85	l4	1	Total 1	Mg 1	0	0
85	S2	2	Total 2	Mg 2	0	0
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	3	Total 3	Mg 3	0	0
85	q0	1	Total 1	Mg 1	0	0
85	SM	1	Total 1	Mg 1	0	0
85	c8	2	Total 2	Mg 2	0	0
85	M0	2	Total 2	Mg 2	0	0
85	c1	1	Total 1	Mg 1	0	0
85	5	504	Total 504	Mg 504	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

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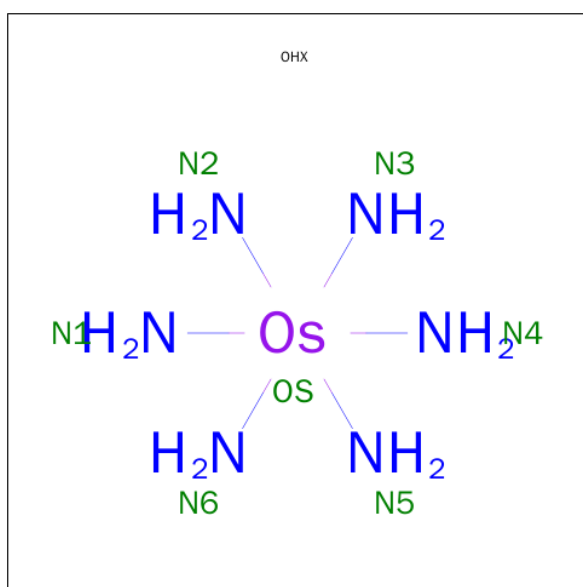
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	s2	1	Total 1	Mg 1	0	0
85	D0	1	Total 1	Mg 1	0	0
85	S8	1	Total 1	Mg 1	0	0
85	l2	1	Total 1	Mg 1	0	0
85	O2	1	Total 1	Mg 1	0	0
85	q3	2	Total 2	Mg 2	0	0
85	o3	1	Total 1	Mg 1	0	0
85	d3	2	Total 2	Mg 2	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	2	Total 2	Mg 2	0	0
85	4	21	Total 21	Mg 21	0	0
85	n6	1	Total 1	Mg 1	0	0
85	L2	1	Total 1	Mg 1	0	0
85	m1	2	Total 2	Mg 2	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	N8	4	Total 4	Mg 4	0	0
85	s1	1	Total 1	Mg 1	0	0
85	m6	2	Total 2	Mg 2	0	0
85	s8	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	c7	1	Total 1	Mg 1	0	0
85	7	14	Total 14	Mg 14	0	0
85	n3	2	Total 2	Mg 2	0	0
85	q1	1	Total 1	Mg 1	0	0
85	L3	2	Total 2	Mg 2	0	0
85	N6	1	Total 1	Mg 1	0	0
85	8	16	Total 16	Mg 16	0	0
85	M6	2	Total 2	Mg 2	0	0
85	N0	1	Total 1	Mg 1	0	0
85	3	14	Total 14	Mg 14	0	0

- 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		
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		
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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		
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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
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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
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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		
86	2	1	Total	N	Os	0	0
			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		

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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		
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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
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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
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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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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
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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		
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
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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		
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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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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
			7	6	1		
86	S6	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		

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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		
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
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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		
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86	1	1	Total	N	Os	0	0
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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
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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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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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86	1	1	Total	N	Os	0	0
			7	6	1		
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
			7	6	1		
86	1	1	Total	N	Os	0	0
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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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			7	6	1		
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		
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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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
			7	6	1		
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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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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86	1	1	Total	N	Os	0	0
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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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86	1	1	Total	N	Os	0	0
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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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86	1	1	Total	N	Os	0	0
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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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86	1	1	Total	N	Os	0	0
			7	6	1		
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	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	3	1	Total	N	Os	0	0
			7	6	1		
86	3	1	Total	N	Os	0	0
			7	6	1		
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
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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		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	M5	1	Total	N	Os	0	0
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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
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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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	s8	1	Total	N	Os	0	0
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86	s9	1	Total	N	Os	0	0
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86	c5	1	Total	N	Os	0	0
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86	d4	1	Total	N	Os	0	0
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86	d9	1	Total	N	Os	0	0
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86	sR	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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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			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		
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			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		
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
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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
			7	6	1		

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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
			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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86	5	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	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		
86	5	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		
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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		
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		
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			7	6	1		
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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		
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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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			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	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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			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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			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		

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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
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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		
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
			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	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
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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
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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
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86	7	1	Total	N	Os	0	0
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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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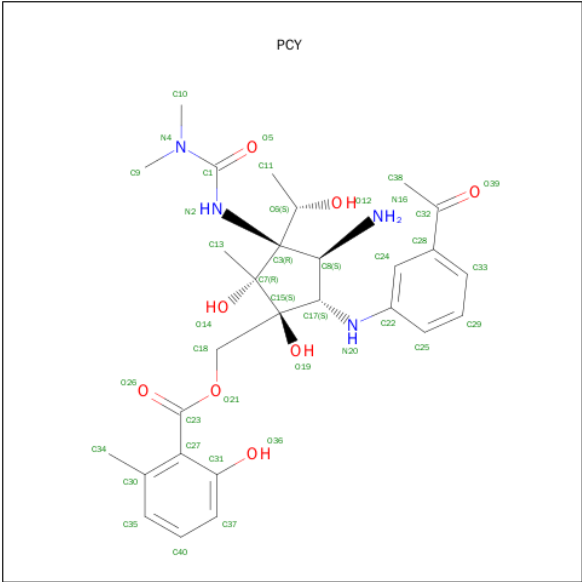
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
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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	14	1	Total	N	Os	0	0
			7	6	1		
86	14	1	Total	N	Os	0	0
			7	6	1		
86	15	1	Total	N	Os	0	0
			7	6	1		
86	15	1	Total	N	Os	0	0
			7	6	1		
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	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	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	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 Pactamycin (three-letter code: PCY) (formula: C₂₈H₃₈N₄O₈).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
87	2	1	Total	C	N	O	0	0
			40	28	4	8		
87	6	1	Total	C	N	O	0	0
			40	28	4	8		

- Molecule 88 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
88	q0	1	Total	Zn	0	0
			1	1		
88	D6	1	Total	Zn	0	0
			1	1		
88	Q2	1	Total	Zn	0	0
			1	1		
88	e1	1	Total	Zn	0	0
			1	1		
88	Q3	1	Total	Zn	0	0
			1	1		
88	D9	1	Total	Zn	0	0
			1	1		
88	E1	1	Total	Zn	0	0
			1	1		
88	Q0	1	Total	Zn	0	0
			1	1		
88	d7	1	Total	Zn	0	0
			1	1		
88	q3	1	Total	Zn	0	0
			1	1		

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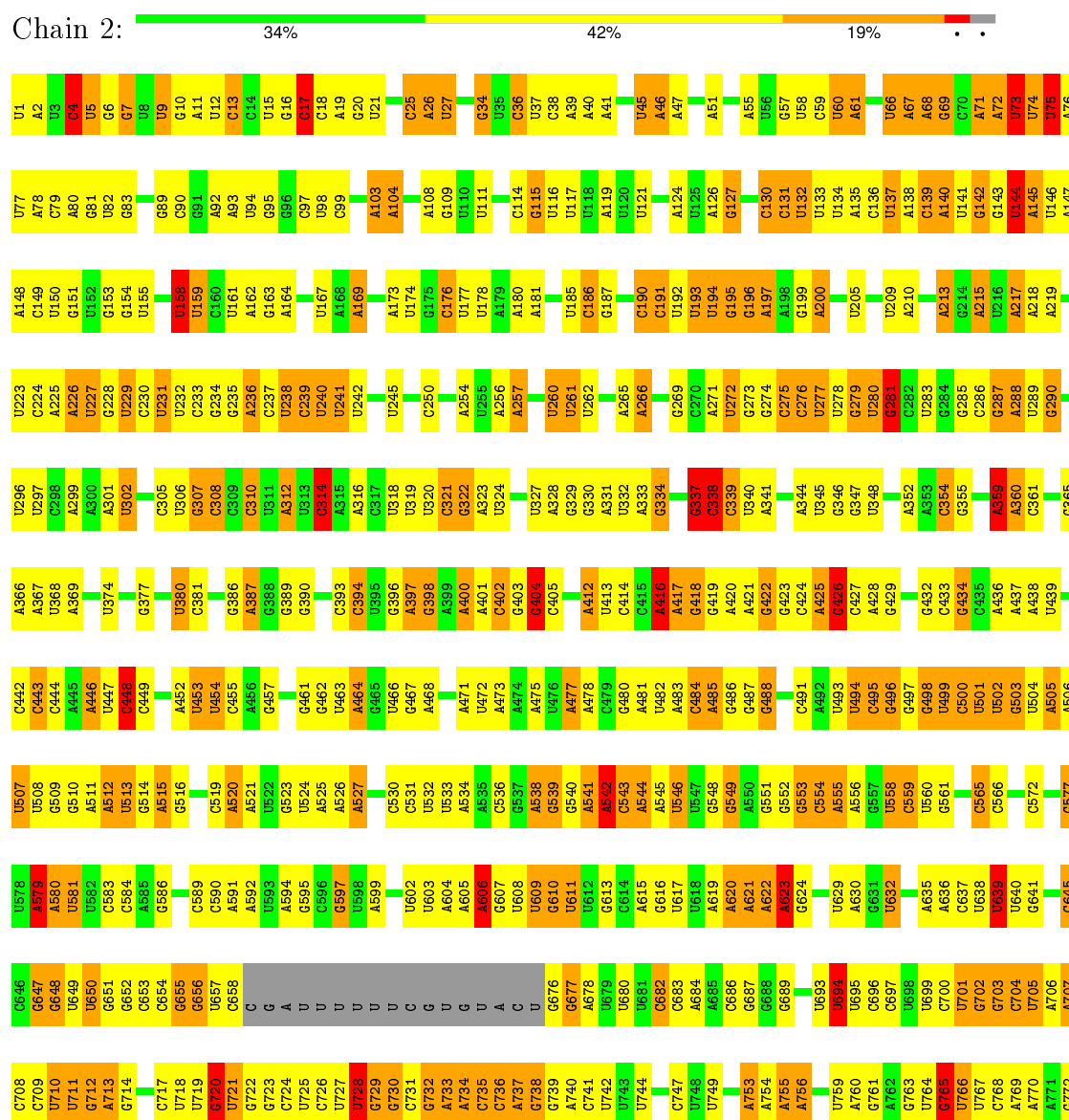
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
88	d9	1	Total 1	Zn 1	0	0
88	D7	1	Total 1	Zn 1	0	0
88	d6	1	Total 1	Zn 1	0	0
88	o7	1	Total 1	Zn 1	0	0
88	O7	1	Total 1	Zn 1	0	0
88	q2	1	Total 1	Zn 1	0	0

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 ($\text{RSRZ} > 2$). 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.

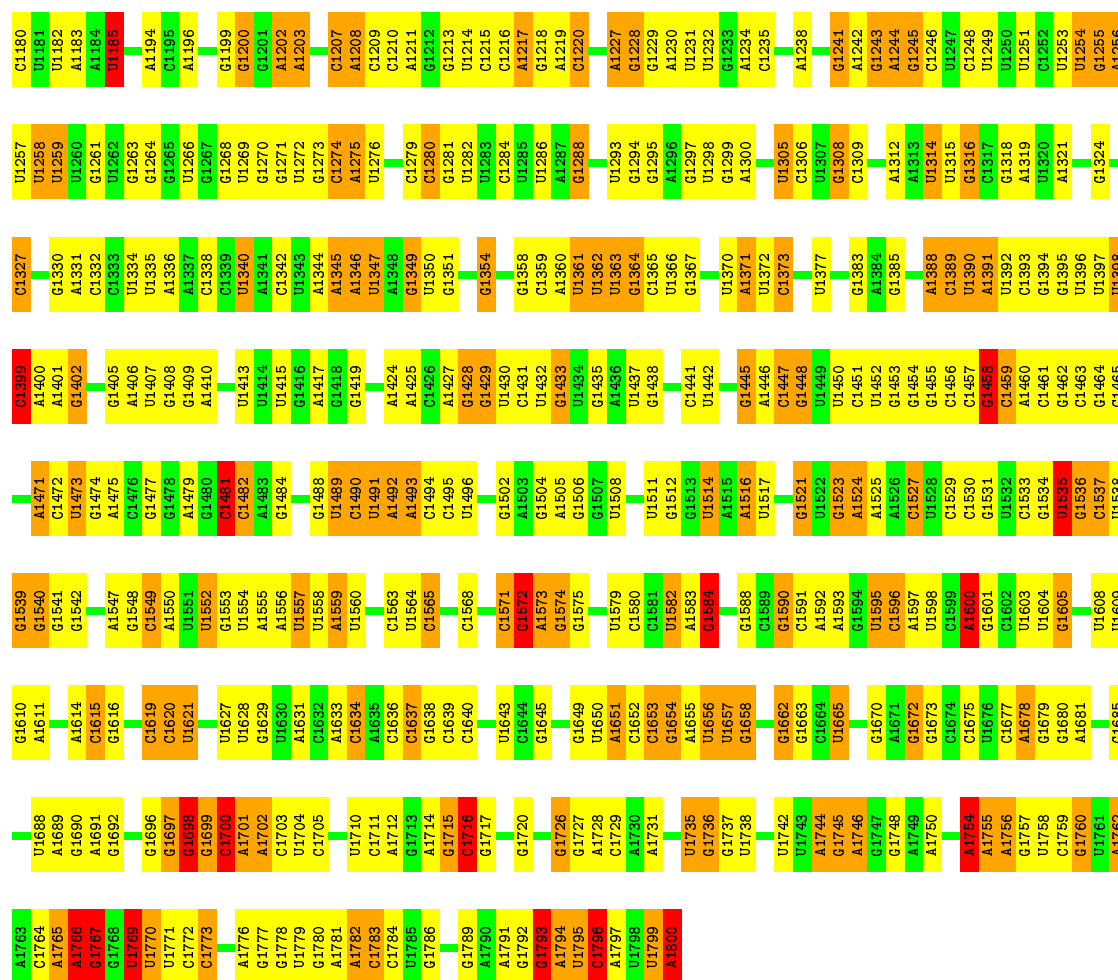
Note EDS failed to run properly.

- Molecule 1: 18S ribosomal RNA

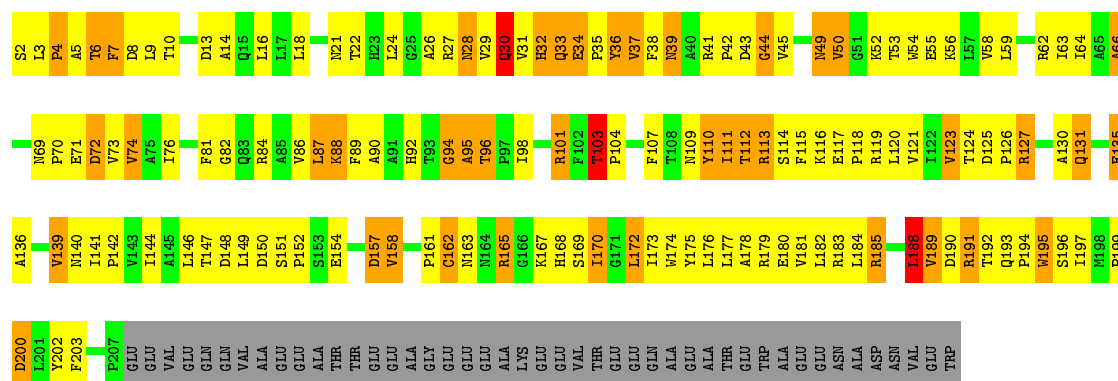




G1111	C1037	C969	A905	U833	A769	C691	A556	A492	A421	C346	C279	U208	C139	A72	U1
G1112	U1038	A970	A906	G834	A770	C691	G557	U493	G422	G346	U280	U209	C140	U73	A2
U1117	A1039	A971	A907	U835	A771	U694	U558	U494	G423	G347	U281	U210	U141	U74	C3
G1118	G1040	G972	U908	U836	G772	U694	U559	C495	G424	U348	C282	U211	U142	U75	U4
G1119	G1041	A973	U909	G837	G773	U695	U560	U496	A425	U349	U283	U212	U143	A76	U5
U1120	G1042	A974	C910	G838	A774	C696	G561	U497	G426	U350	U284	U213	U144	A77	U6
G1121	C1045	C975	U911	U839	G775	C697	G562	U498	C427	C351	C286	G214	U145	A78	G7
C1122	G1046	G976	U912	U840	G776	U698	U563	U499	G428	A352	C287	A215	C149	C79	U8
C1123	G1047	A978	G913	C842	U841	U699	G564	C500	A429	A353	U292	U216	U150	U82	U9
A1124	U843	U843	A915	C843	U843	U701	C565	U501	G432	C354	G291	U217	U151	U83	G10
A1125	U844	U844	U916	A844	A780	A706	G567	U502	G433	G357	U296	A219	G153	A84	G14
A1126	U845	U845	U917	G845	A781	A707	G568	U503	C433	U358	U297	A220	G154	A85	U15
G1127	G1053	A983	U918	G846	U782	U707	C569	U505	G434	A359	A221	A221	G155	A86	G16
C1128	U1054	G987	A919	A847	G783	U710	A370	A506	A437	A360	A222	A222	U156	C87	C17
U1129	U1055	U920	C988	C848	U784	U711	G371	U507	A438	C361	U223	U223	A157	C18	C18
G1130	U1056	U989	U921	C849	U785	U712	G372	U508	U439	G362	C224	C224	U158	G90	A19
U1131	U1057	C990	U922	C849	G786	G712	G574	G509	U439	G363	A301	A225	U159	G91	G20
A1133	U1058	G991	A923	C852	G787	A713	C575	G510	C444	A369	U302	A226	C160	A92	G21
C1134	U1059	A992	A926	A856	A788	G714	G576	A511	A445	A370	U303	U227	A161	A93	C25
U1135	U1060	G994	C927	U857	A789	U715	G577	A512	A446	A371	U304	G228	U162	U94	A26
A1137	C1066	A998	U928	G858	U792	C716	U578	U513	U447	G371	C305	U229	G163	G95	U27
A1138	C1067	A999	U929	G859	U793	C717	U579	U514	C448	G372	U306	C230	G96	G96	A28
A1139	C1068	U1000	A930	A859	U794	U718	A580	A515	C449	G373	U31	U231	C166	C97	U29
G1140	U1071	G1000	A931	A862	U795	G720	U581	G516	U450	U374	C308	U232	U167	U98	G30
G1141	C1072	A1001	C933	A863	U796	G721	U582	U517	A451	A377	C309	C233	A168	C99	G34
A1143	G1073	G1002	C934	U864	A799	G722	C583	A518	A452	A378	C310	G234	A169	A100	U35
G1146	G1074	U1003	U935	A865	A801	G723	C584	C519	U453	A379	C311	G235	U170	U101	U36
A1147	C1077	U1004	C936	A866	G801	C726	A585	A520	C455	G383	U312	A236	C172	U102	C36
A1148	U1078	C1005	C937	G867	G802	U727	G586	A521	C456	G384	U313	U240	A180	A103	U37
G1149	U1079	U1006	C938	G868	A804	G730	U588	U523	G459	A385	C314	U241	A181	C38	G38
A1150	U1080	U1007	C939	A869	U805	A733	C589	U524	A460	A386	U315	U242	A182	A105	A39
A1151	C1081	G1010	A941	G871	A806	A733	C590	A525	G461	A387	U316	U243	U178	A40	A41
G1154	C1082	C1011	C942	G872	U808	U738	A592	A526	U463	G390	U319	G246	A179	G42	G42
G1155	A1087	U1014	C943	U873	A809	G739	U593	U527	G467	C383	U320	A247	A180	U44	U44
C1156	A1088	U1015	A944	G876	G810	A740	A594	U530	A468	C394	U321	U248	A181	U45	U45
A1157	C1016	U1016	U945	G879	A811	C741	G595	U532	U469	A397	U322	U249	A182	A46	A46
C1158	A1091	U1017	U946	G880	A812	U745	C596	U533	U471	A398	U323	C250	U185	U118	A47
A1159	A1092	U1018	U947	G881	U813	A746	U600	A534	A472	A399	U324	U259	U186	A119	G48
A1160	A1093	A1019	C948	G882	A814	C747	U601	A535	U473	A400	U325	U260	U187	U121	U51
C1161	G1094	A1020	C950	A884	G815	U751	A604	C536	A474	A401	U326	U261	A188	G53	G53
A1163	U1095	C1021	A951	G885	A817	G752	A605	G537	U476	A402	U327	U262	C189	C94	C94
G1164	C1096	C1022	A952	U886	C818	A753	A606	A538	A477	C403	G329	G263	C190	A95	A95
G1165	U1097	U1023	U955	A887	C819	A754	U607	C539	C479	G404	A331	A265	U192	U56	U56
A1166	U1098	A1025	C956	U888	U820	A755	U609	C540	G490	C405	U332	A266	U193	G57	G57
G1167	G1100	A1026	C957	U889	U821	A756	G610	A542	U481	U406	A333	G289	U194	C59	C59
A1171	C1101	A1027	U958	G895	U822	A757	U611	C543	U482	A407	G334	G290	G195	U60	U60
G1172	G1102	U1029	U959	U896	G824	A758	U612	C544	A483	C408	U335	C270	G196	G63	G63
C1173	U1030	U1030	U960	C897	U825	U758	G613	A545	A484	C409	G336	A271	A197	U64	U64
C1174	U1031	U1031	U961	U888	U826	U759	G614	U546	A485	A410	G337	U272	A198	U132	U132
C1175	U1032	U1032	C962	G899	U827	A762	A615	U547	G486	C438	U338	G273	G199	U65	U65
U1175	C1105	G1033	A963	A900	U828	U765	G616	G548	G487	A416	C339	G274	A200	A67	A67
G1176	U1108	C1034	A966	G901	U829	U766	U617	G549	G488	A417	U340	C275	G201	A68	A68
G1179	G1109	G1035	A967	U902	U830	U767	U618	A550	C490	G418	A341	U276	A202	U137	U137
G1180	G1110	A1036	U968	G904	U832	C768	A620	A555	C491	A420	C343	U278	U207	G69	G69

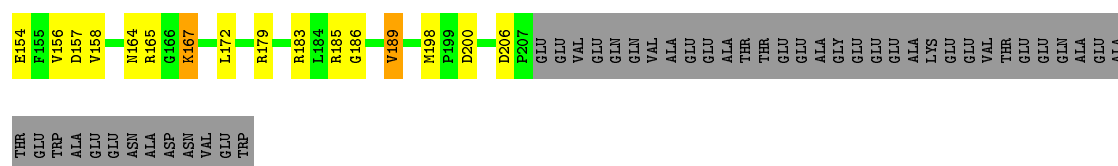


Chain S0: 24% 40% 17% 18%

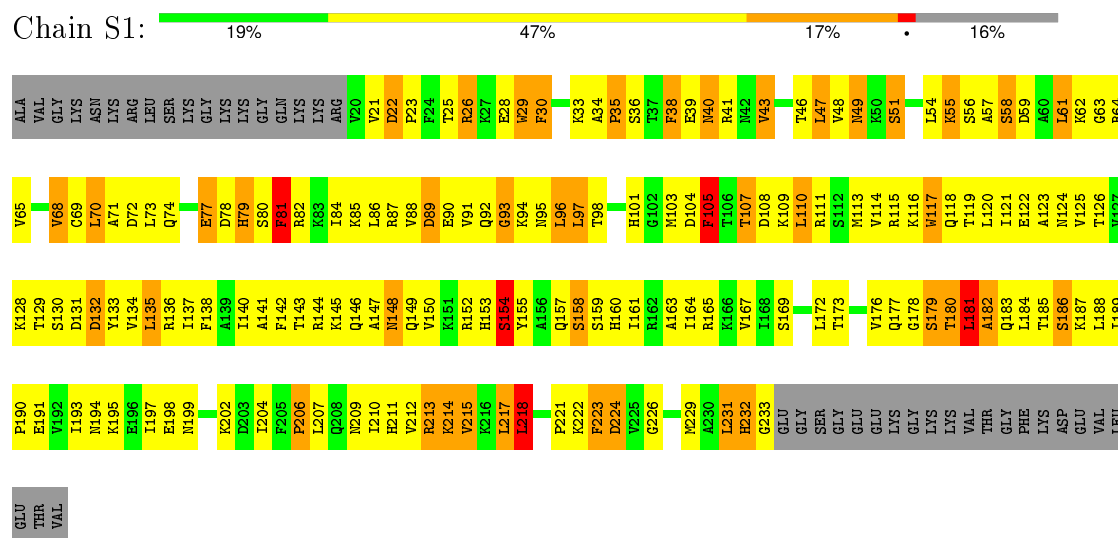


Chain s0: 62% 18% 18%

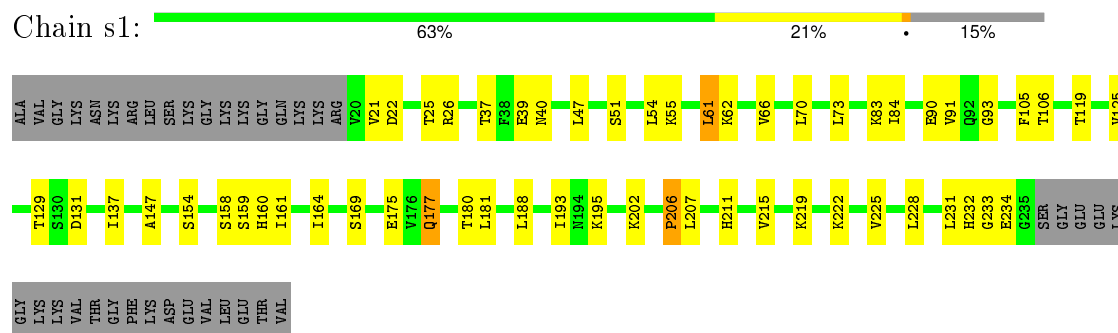




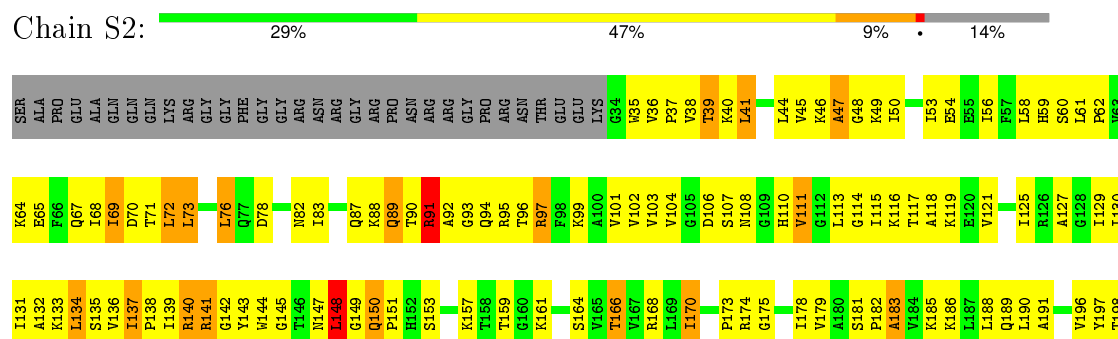
• Molecule 3: 40S ribosomal protein S1-A

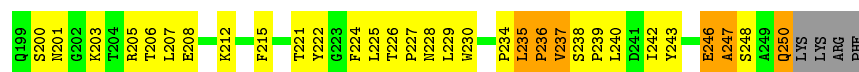


• Molecule 3: 40S ribosomal protein S1-A



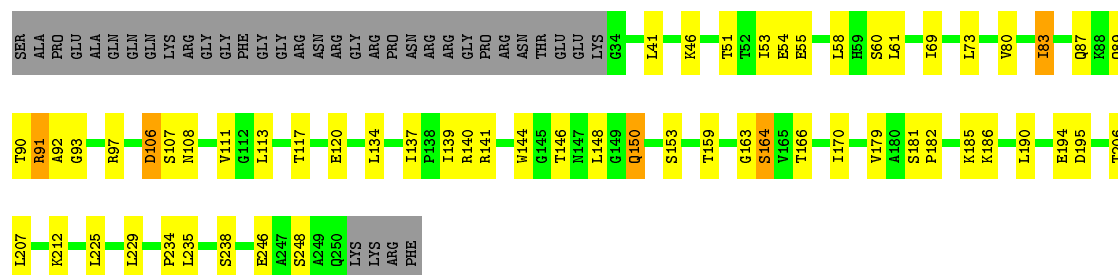
• Molecule 4: 40S ribosomal protein S2





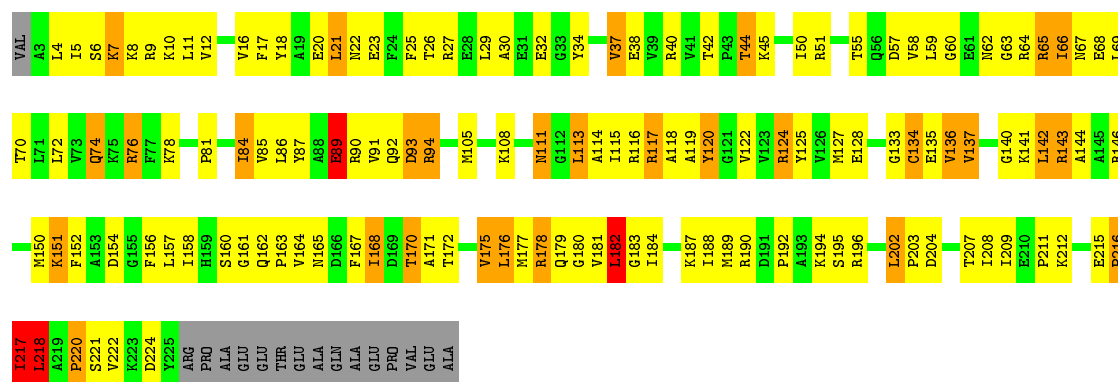
• Molecule 4: 40S ribosomal protein S2

Chain s2: 62% 22% 14%



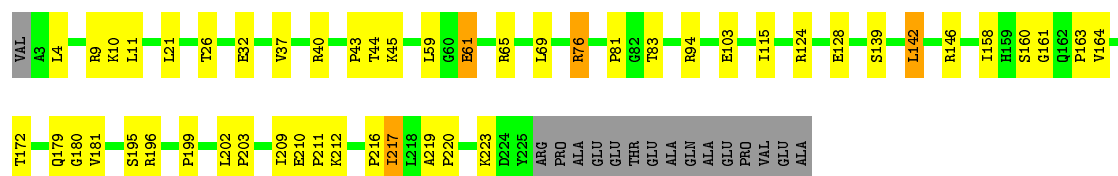
• Molecule 5: 40S ribosomal protein S3

Chain S3: 35% 44% 13% 7%



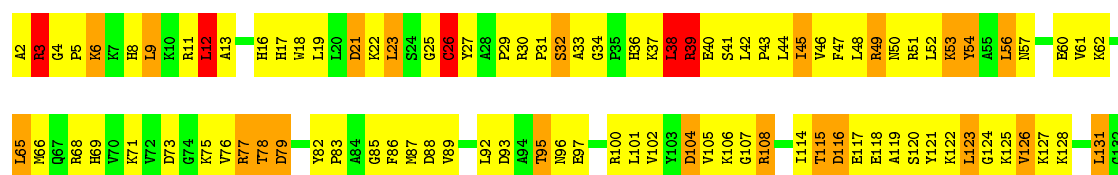
• Molecule 5: 40S ribosomal protein S3

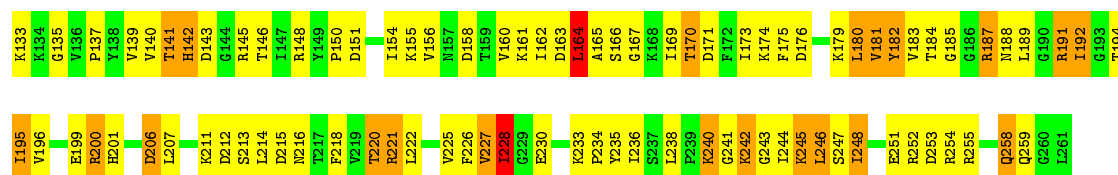
Chain s3: 72% 19% 7%



• Molecule 6: 40S ribosomal protein S4-A

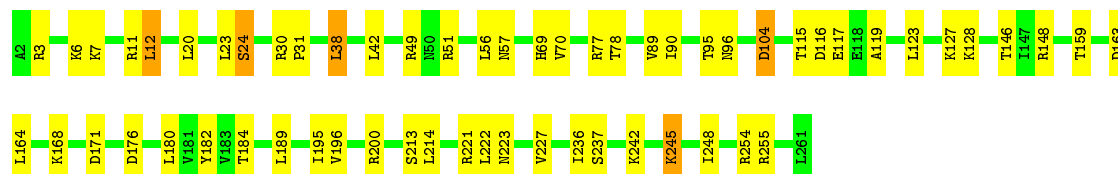
Chain S4: 29% 52% 17%





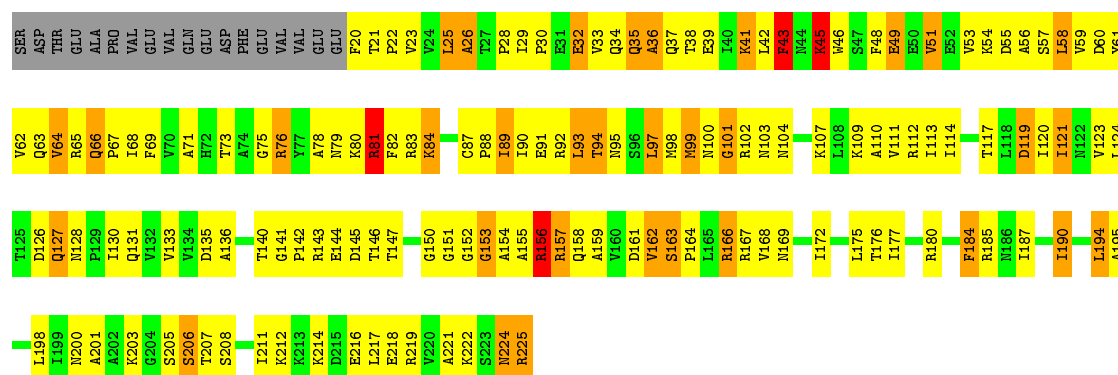
• Molecule 6: 40S ribosomal protein S4-A

Chain s4: 77% 21% •



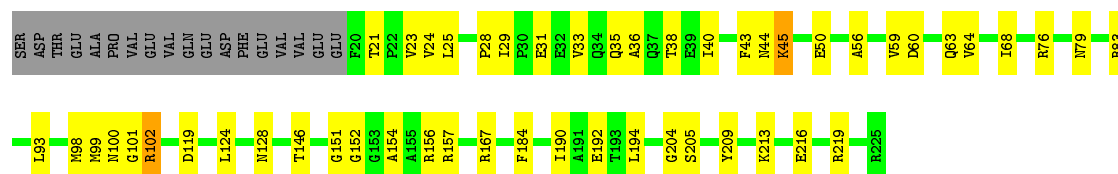
• Molecule 7: 40S ribosomal protein S5

Chain S5: 26% 49% 15% 8% •



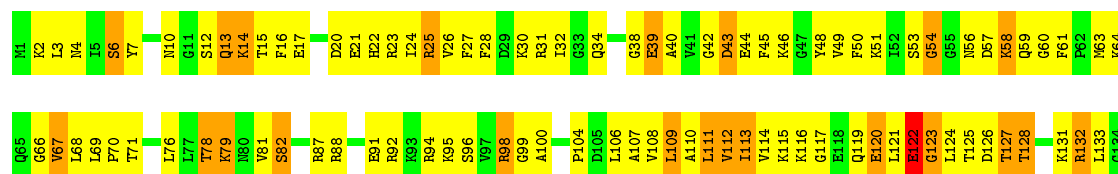
• Molecule 7: 40S ribosomal protein S5

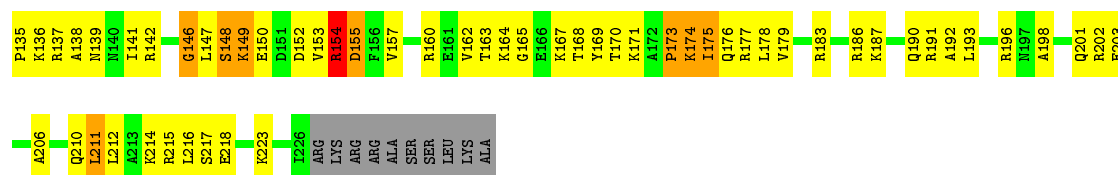
Chain s5: 69% 22% 8% •



• Molecule 8: 40S ribosomal protein S6-A

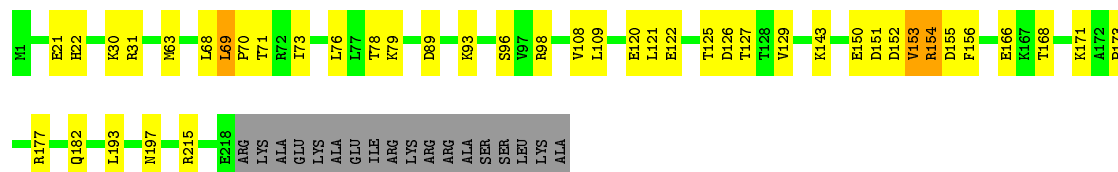
Chain S6: 32% 50% 13% • •





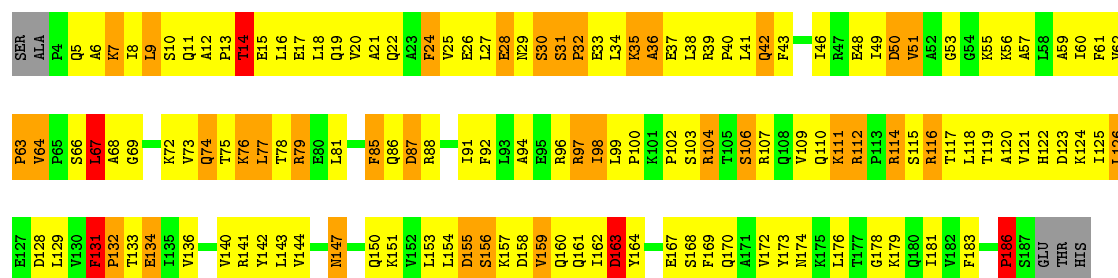
• Molecule 8: 40S ribosomal protein S6-A

Chain s6: 74% 17% 8%



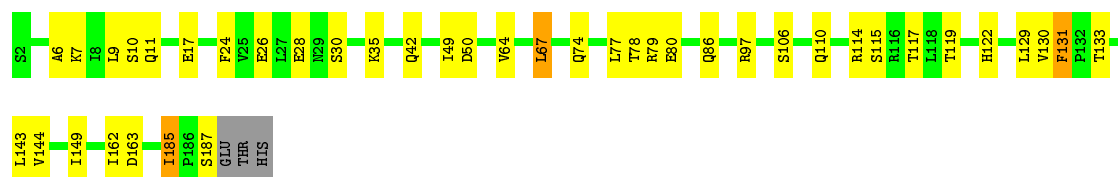
• Molecule 9: 40S ribosomal protein S7-A

Chain S7: 23% 53% 19%



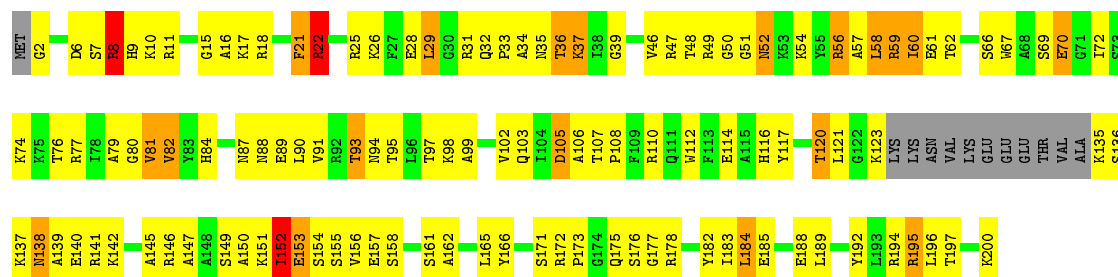
• Molecule 9: 40S ribosomal protein S7-A

Chain s7: 77% 20%

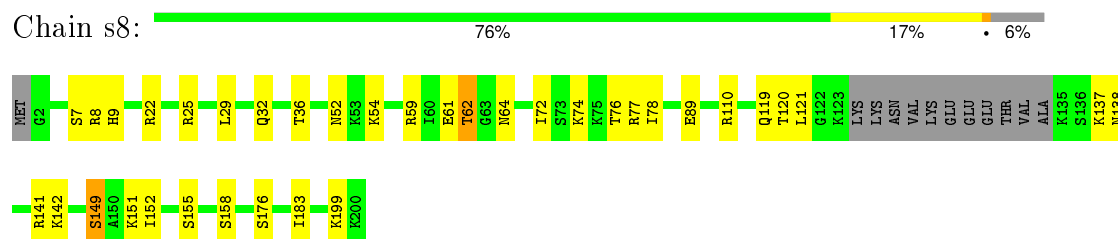


• Molecule 10: 40S ribosomal protein S8-A

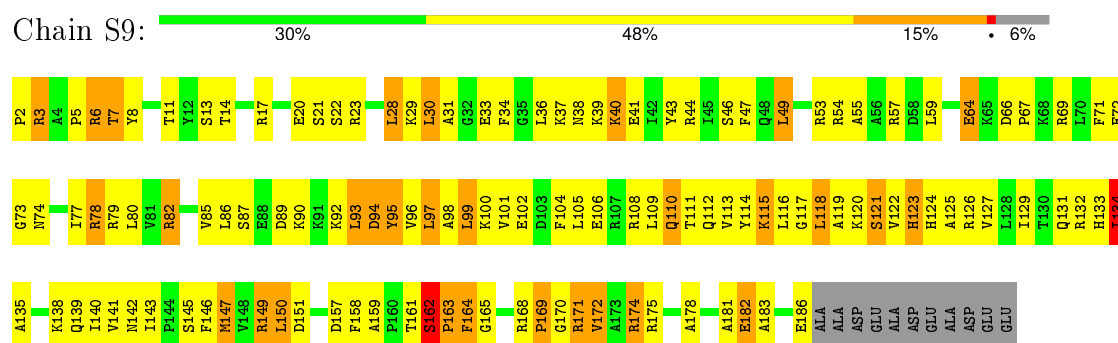
Chain S8: 33% 50% 10% 6%



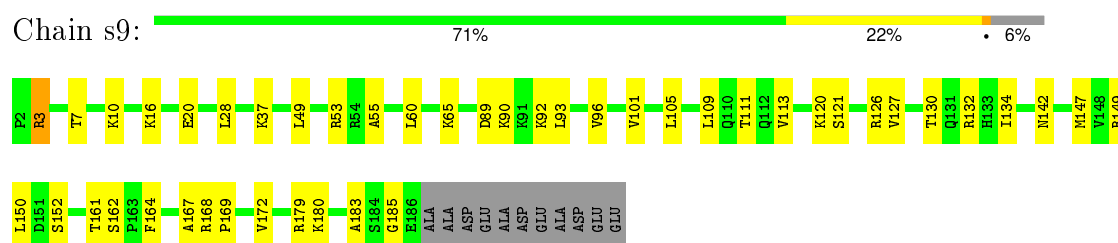
- Molecule 10: 40S ribosomal protein S8-A



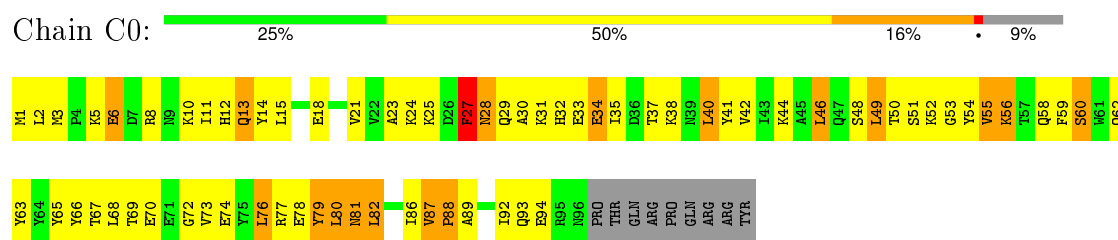
- Molecule 11: 40S ribosomal protein S9-A



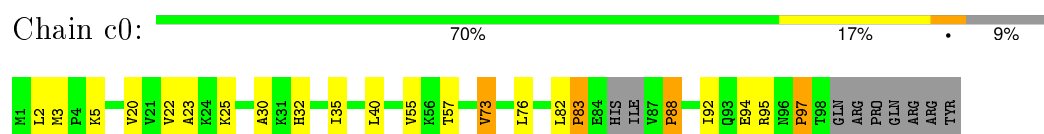
- Molecule 11: 40S ribosomal protein S9-A



- Molecule 12: 40S ribosomal protein S10-A




- Molecule 12: 40S ribosomal protein S10-A

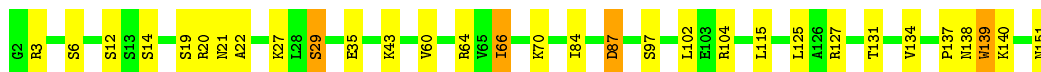


- Molecule 13: 40S ribosomal protein S11-A



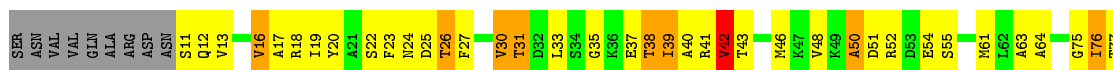
- Molecule 15: 40S ribosomal protein S13

Chain c3: 



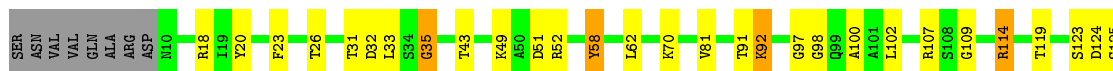
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 



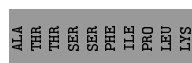
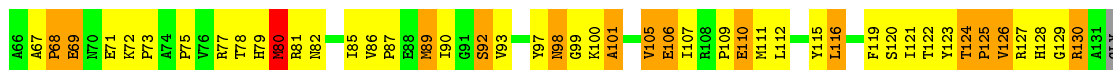
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 



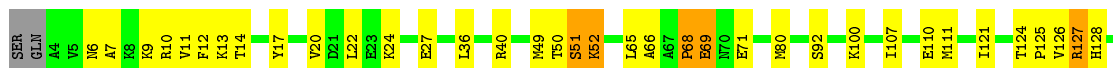
- Molecule 17: 40S ribosomal protein S15

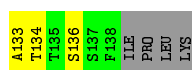
Chain C5: 



- Molecule 17: 40S ribosomal protein S15

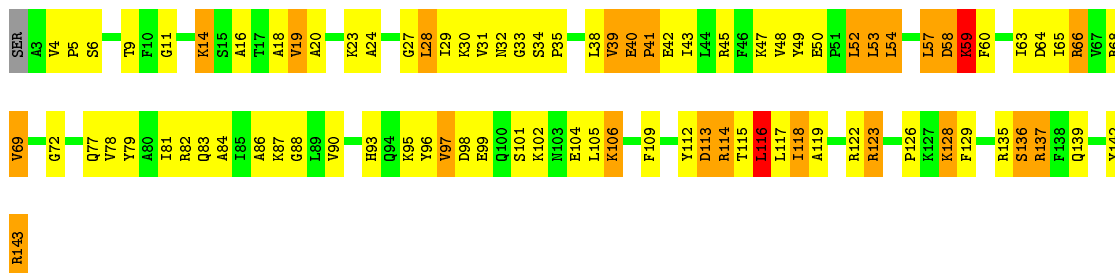
Chain c5: 





• Molecule 18: 40S ribosomal protein S16-A

Chain C6: 37% 44% 16% ..



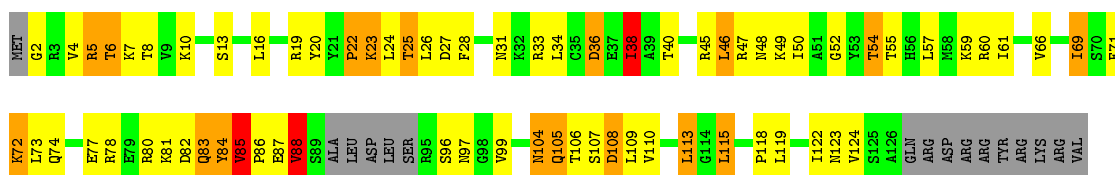
• Molecule 18: 40S ribosomal protein S16-A

Chain c6: 81% 19%



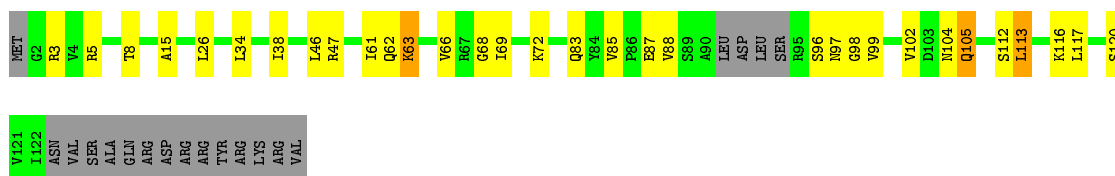
• Molecule 19: 40S ribosomal protein S17-A

Chain C7: 36% 38% 13% • 12%



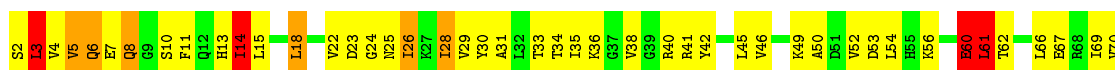
• Molecule 19: 40S ribosomal protein S17-A

Chain c7: 63% 21% • 14%



• Molecule 20: 40S ribosomal protein S18-A

Chain C8: 29% 52% 15% •





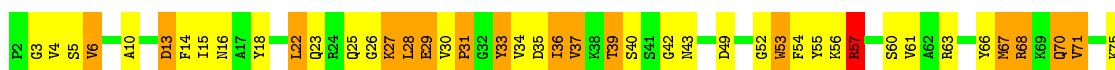
- Molecule 20: 40S ribosomal protein S18-A

Chain c8: 77% 20%



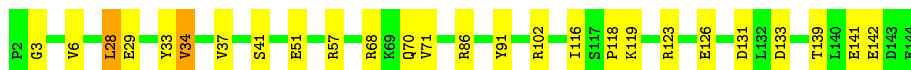
- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 41% 41% 17%



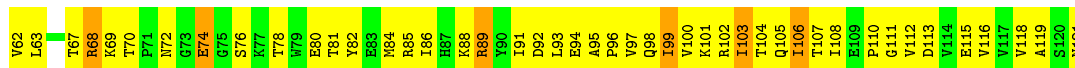
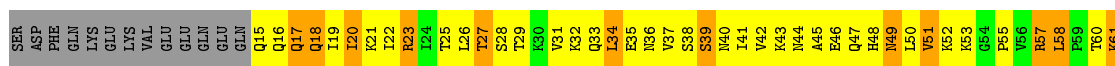
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 82% 17%



- Molecule 22: 40S ribosomal protein S20

Chain D0: 17% 58% 15% 11%

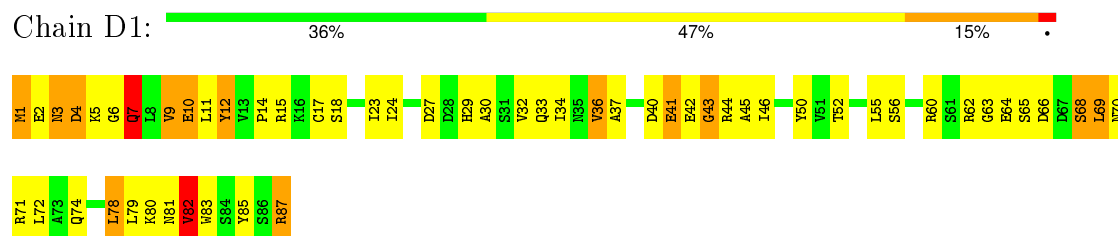


- Molecule 22: 40S ribosomal protein S20

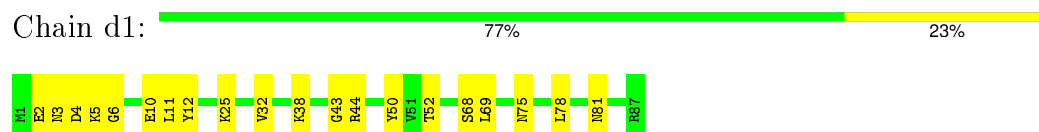
Chain d0: 60% 30% 8%



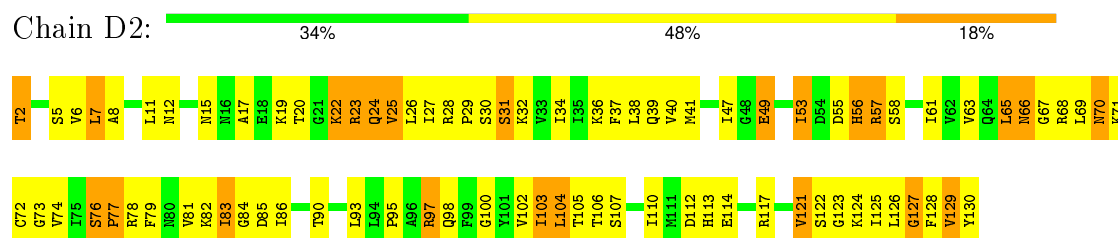
- Molecule 23: 40S ribosomal protein S21-A



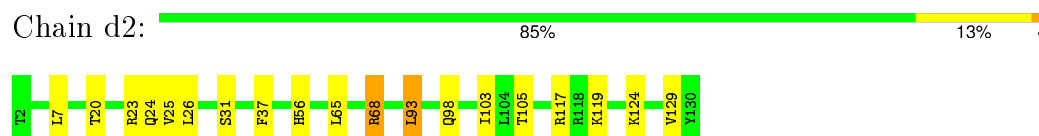
- Molecule 23: 40S ribosomal protein S21-A



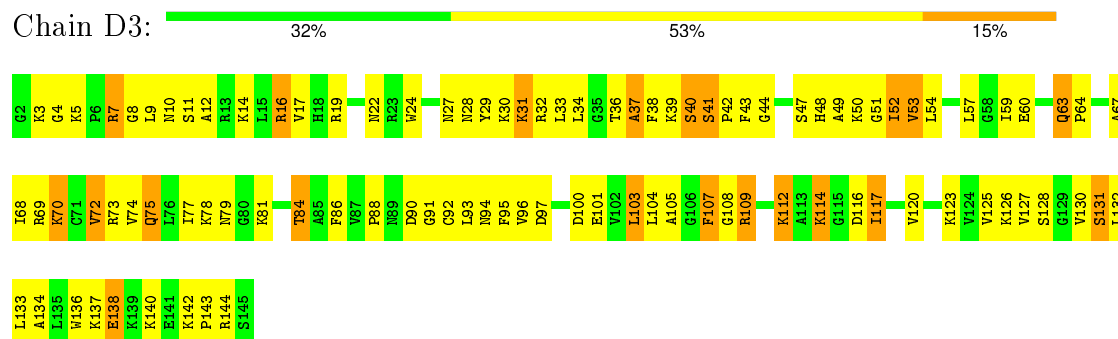
- Molecule 24: 40S ribosomal protein S22-A



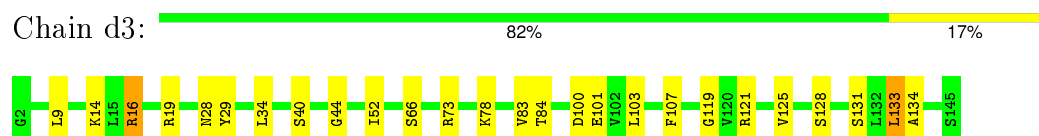
- Molecule 24: 40S ribosomal protein S22-A



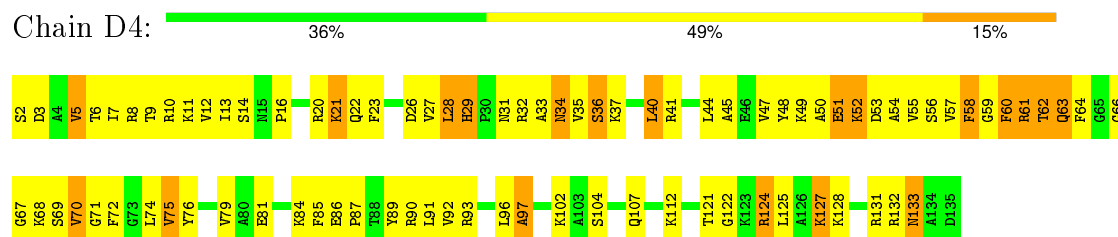
- Molecule 25: 40S ribosomal protein S23-A



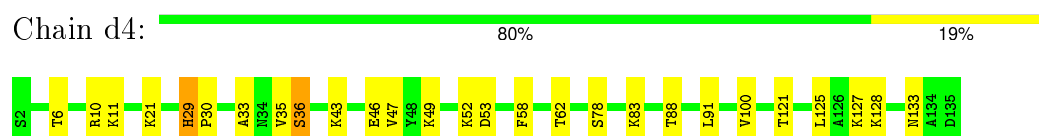
- Molecule 25: 40S ribosomal protein S23-A



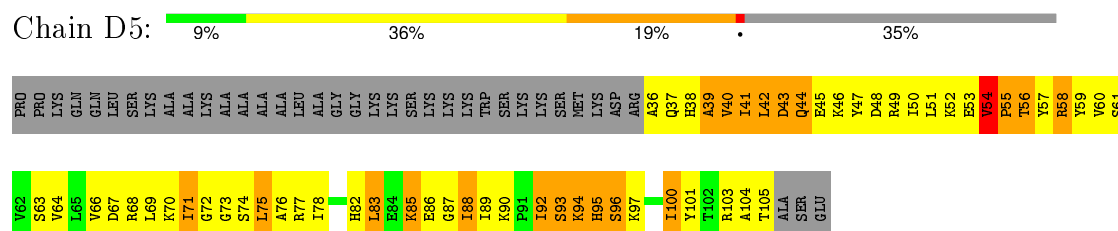
- Molecule 26: 40S ribosomal protein S24-A



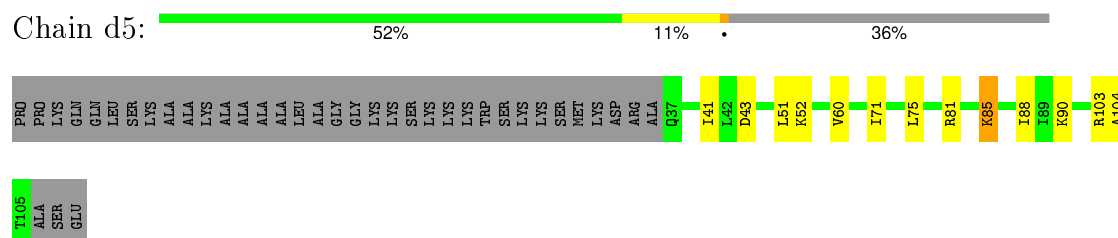
- Molecule 26: 40S ribosomal protein S24-A



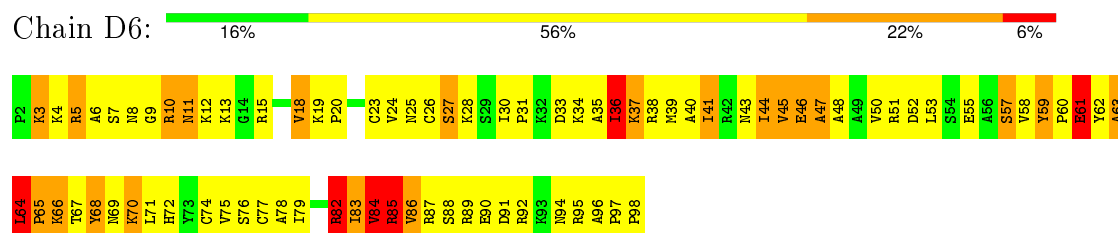
- Molecule 27: 40S ribosomal protein S25-A



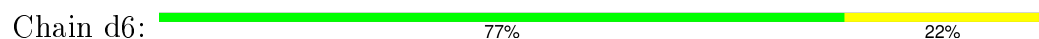
- Molecule 27: 40S ribosomal protein S25-A

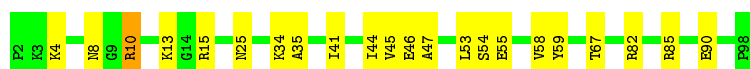


- Molecule 28: 40S ribosomal protein S26-B

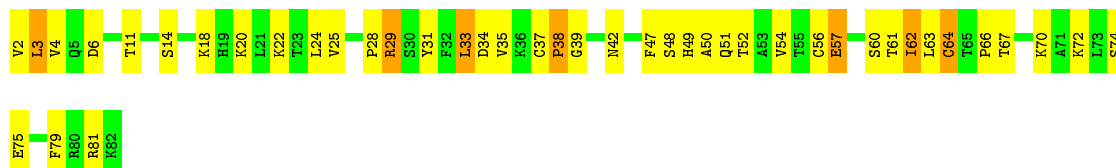


- Molecule 28: 40S ribosomal protein S26-B

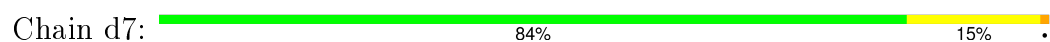




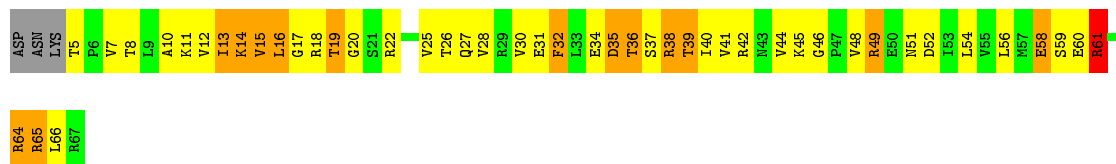
- Molecule 29: 40S ribosomal protein S27-A



- Molecule 29: 40S ribosomal protein S27-A



- Molecule 30: 40S ribosomal protein S28-A



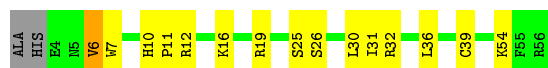
- Molecule 30: 40S ribosomal protein S28-A



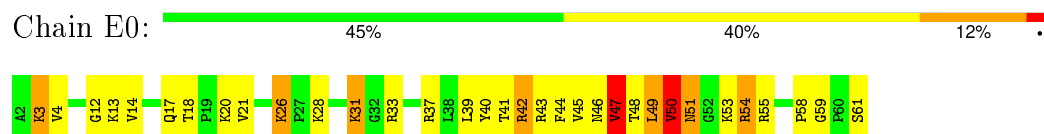
- Molecule 31: 40S ribosomal protein S29-A



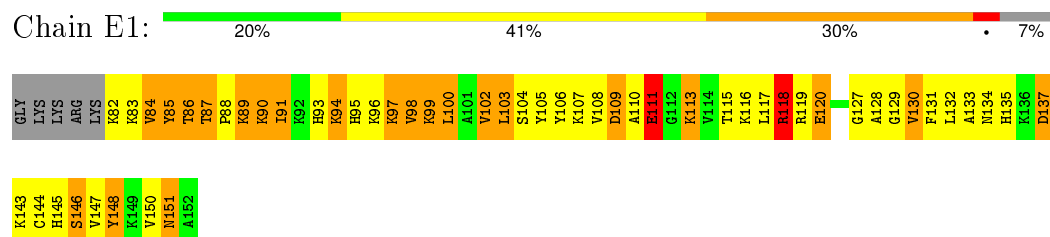
- Molecule 31: 40S ribosomal protein S29-A



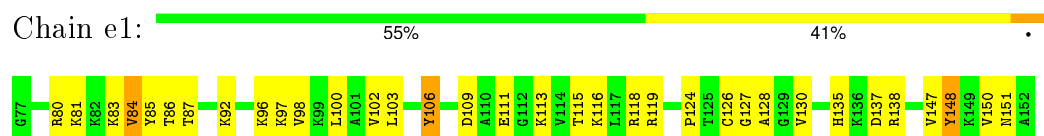
- Molecule 32: 40S ribosomal protein S30-A



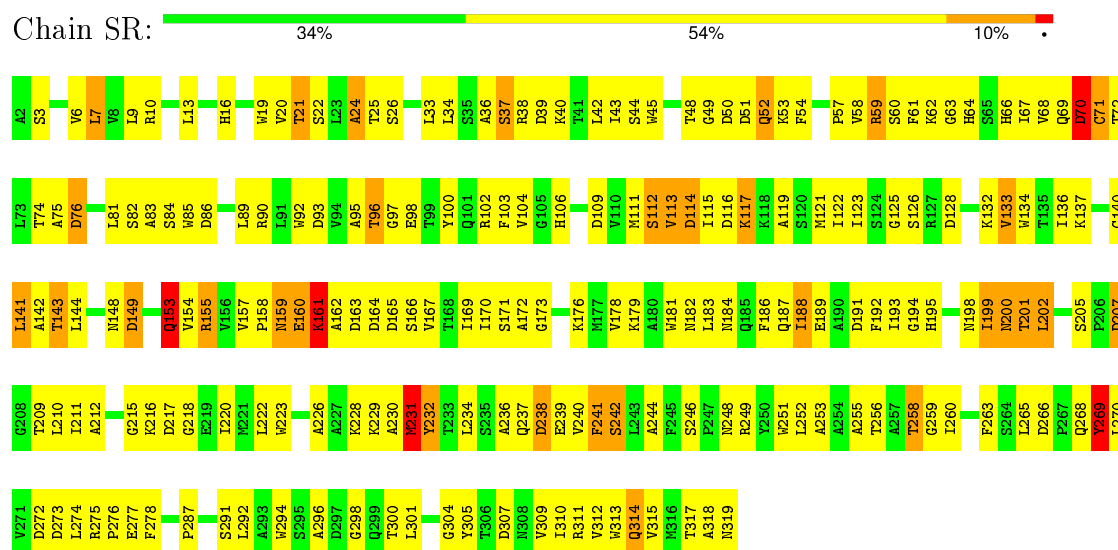
- Molecule 33: Ubiquitin-40S ribosomal protein S31



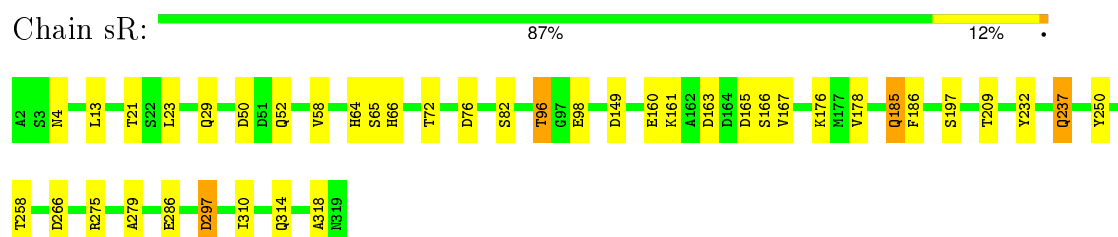
- Molecule 33: Ubiquitin-40S ribosomal protein S31



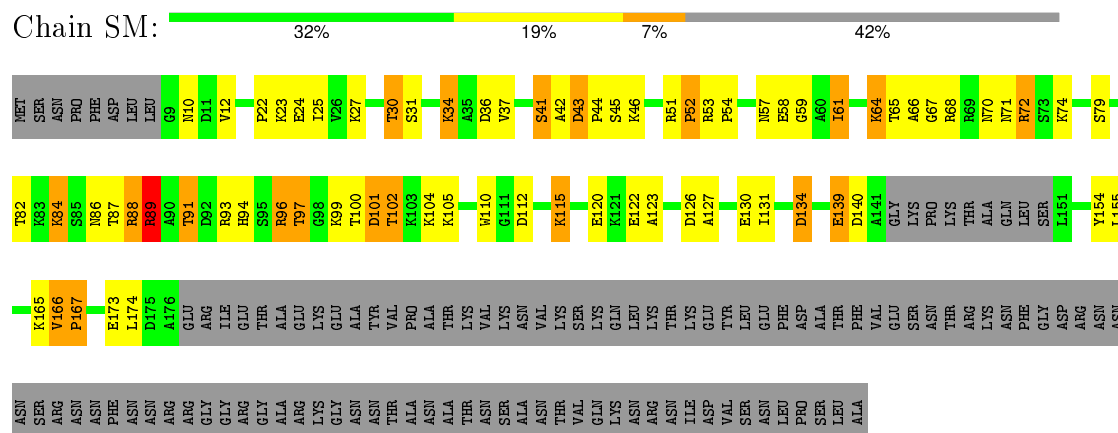
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein



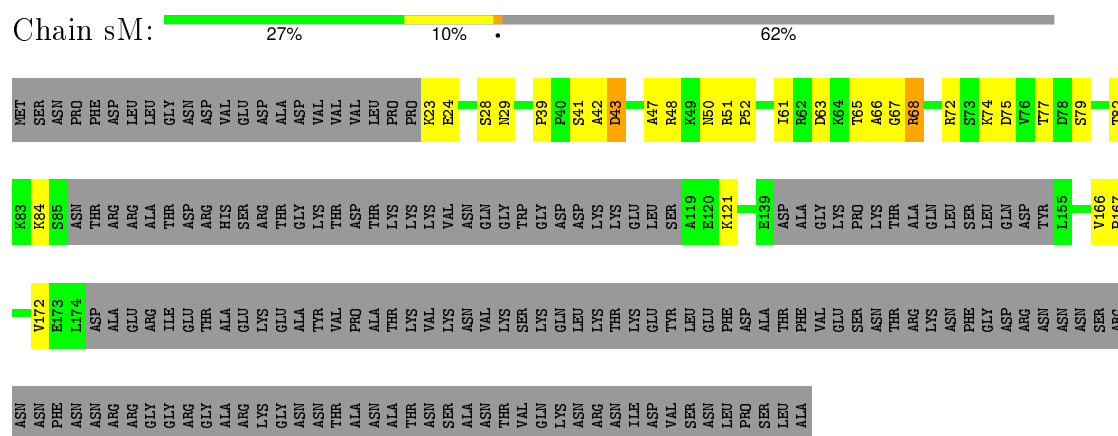
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein



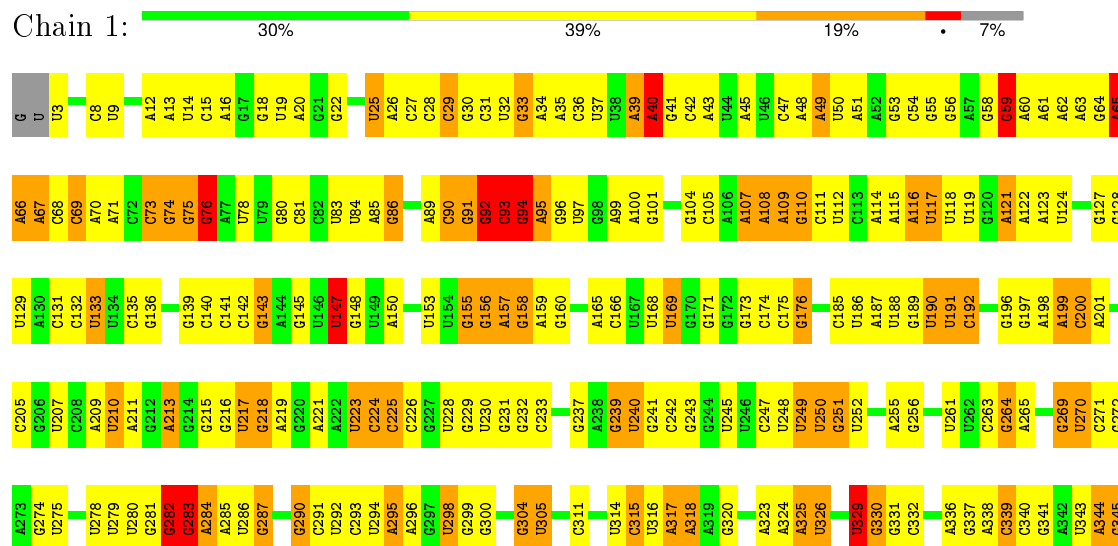
- Molecule 35: Suppressor protein STM1



- Molecule 35: Suppressor protein STM1

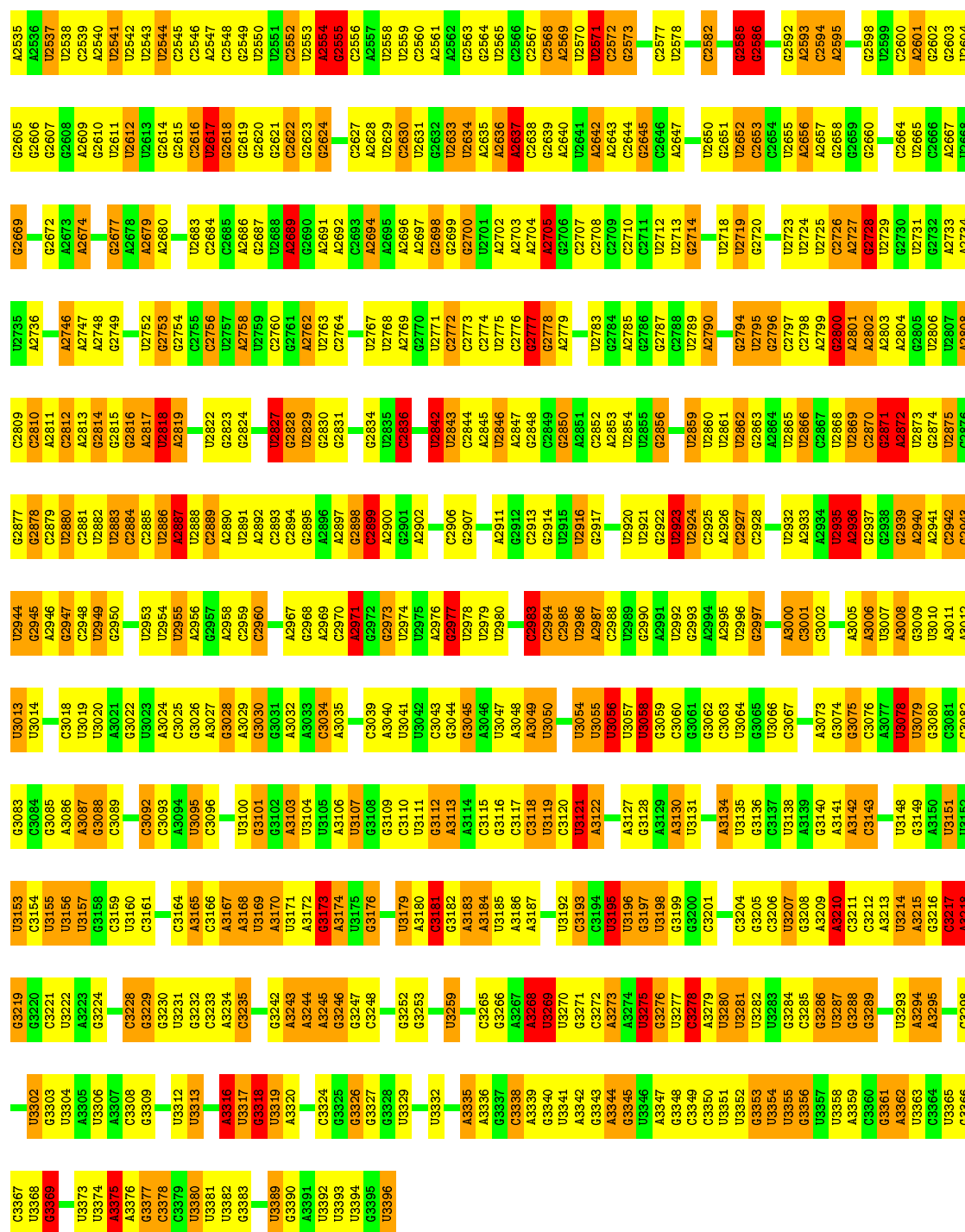


- Molecule 36: 25S ribosomal RNA



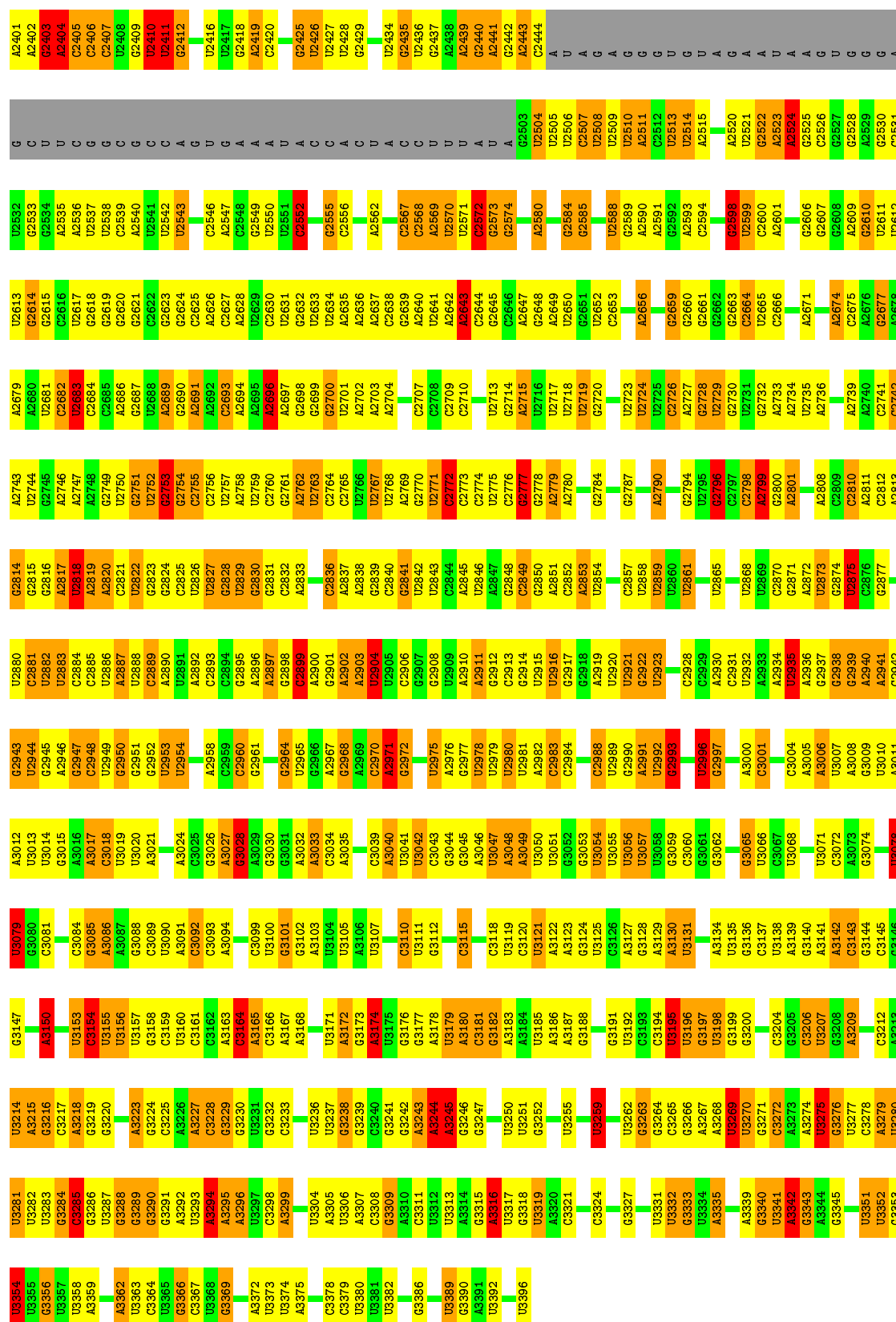


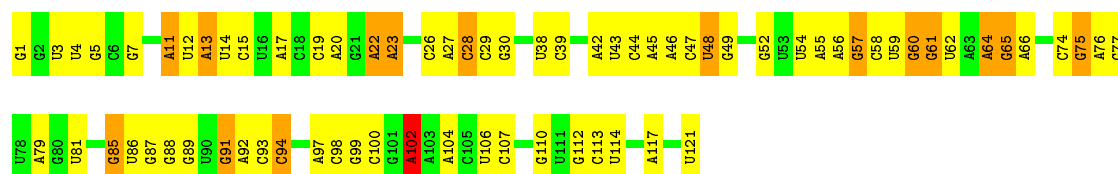




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G1236	U1162	G1097	G1029	U966	G833	G754	G687	U622	A553	A	A417	C346	U275	A201	C131
G1237	U1163	A1099	C1032	A967	U834	G759	G688	U623	A554	U	A418	G347	U276	C204	C132
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A1240	A1169	A1103	U1034	A970	A837	C765	A691	U627	U558	U	G420	A349	U280	G209	U134
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G1264	A1193	G1125	U1058	G994	U933	A792	A715	C650	G584	U509	U	A377	A306	C166	G166
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C1277	C1198	G1130	G1063	G999	G937	G799		C655	A589	G	U	A385		G241	G171
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G1295	U1208	A1143	A1075	G1010	U946	A810	C734	U664	G600	A529	G	A399	U326	U249	U182
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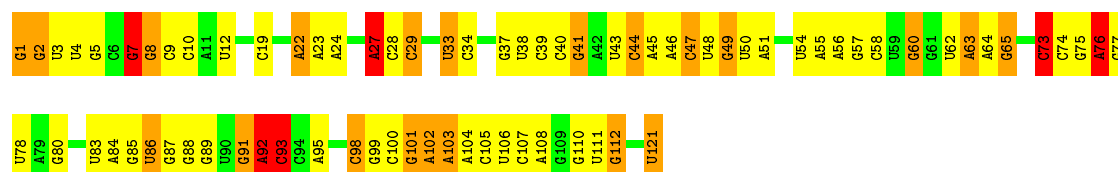
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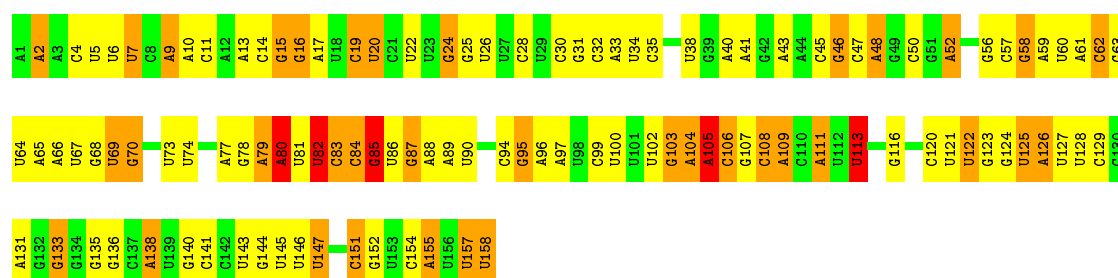
• Molecule 37: 5S ribosomal RNA

Chain 7: 



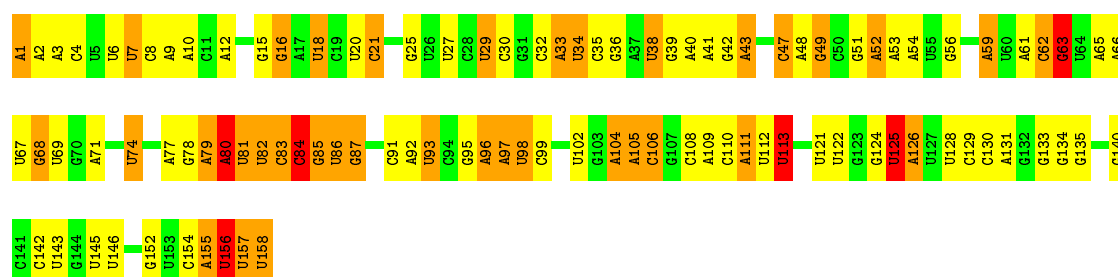
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 



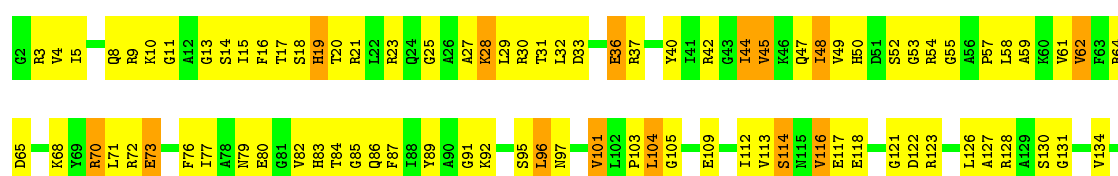
• Molecule 38: 5.8S ribosomal RNA

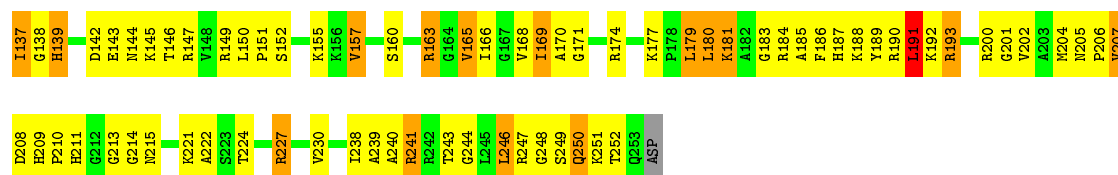
Chain 8: 



• Molecule 39: 60S ribosomal protein L2-A

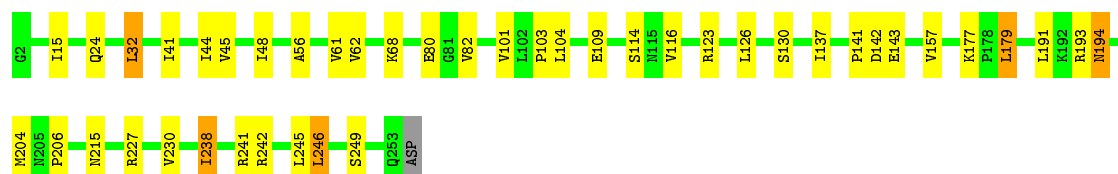
Chain L2: 





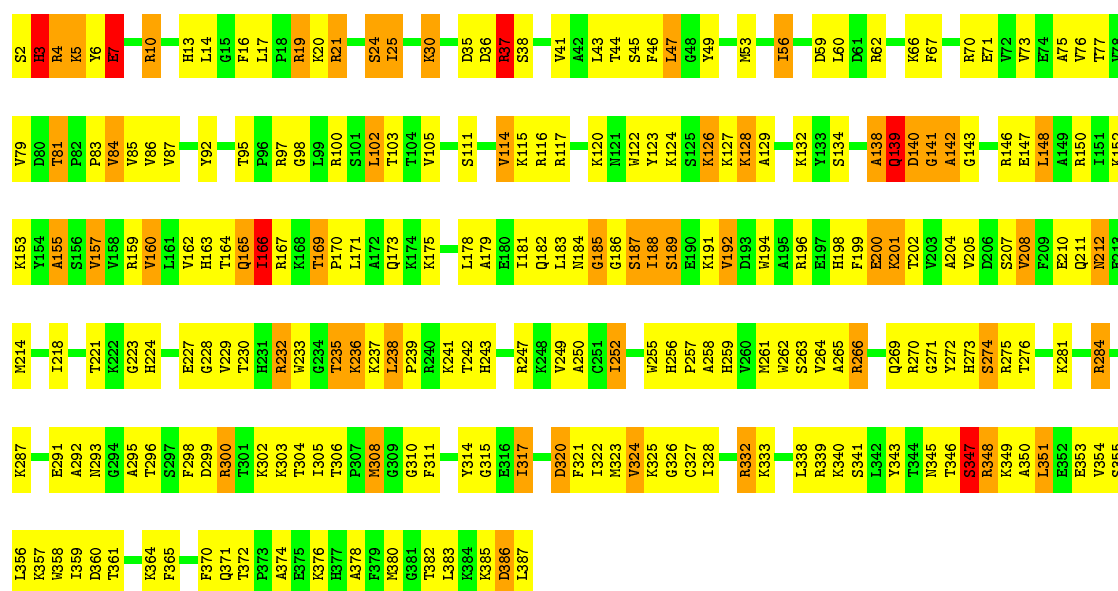
• Molecule 39: 60S ribosomal protein L2-A

Chain 12: 83% 15%



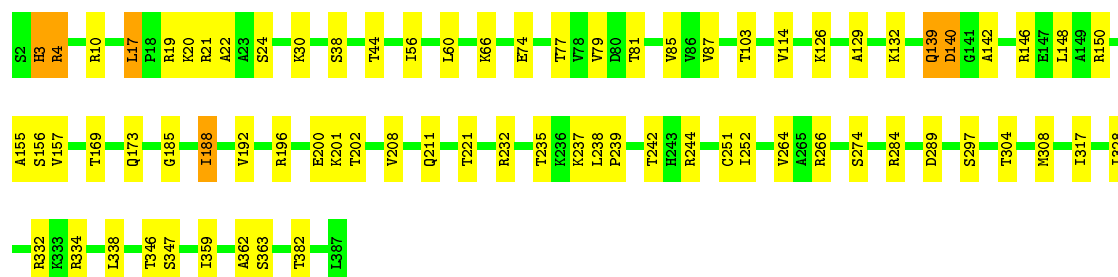
• Molecule 40: 60S ribosomal protein L3

Chain L3: 39% 46% 13%

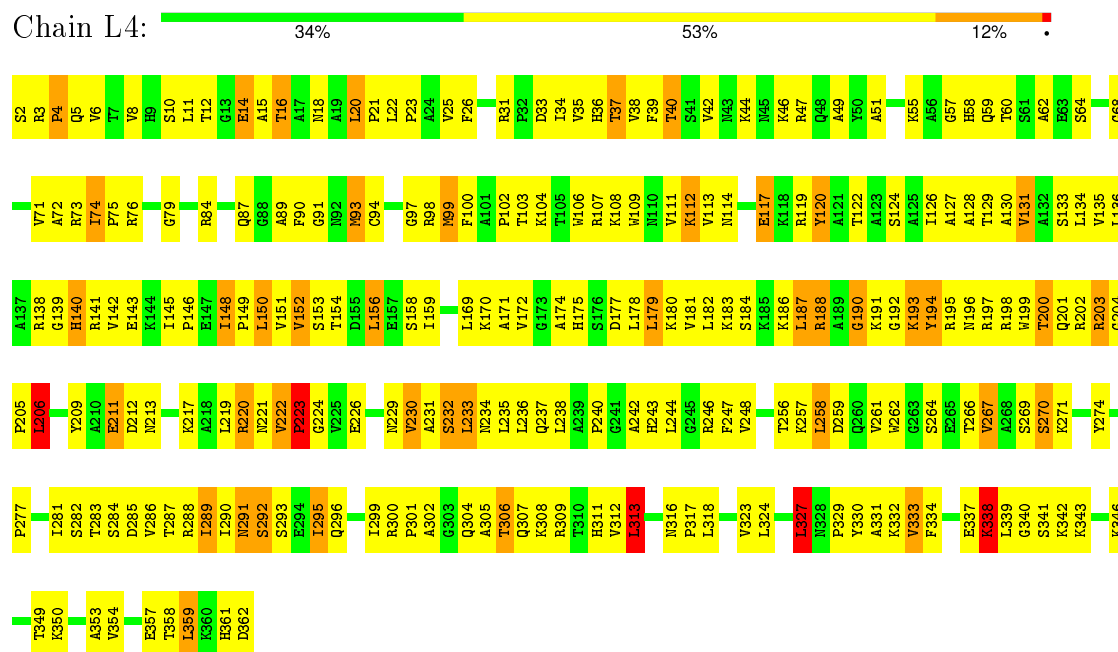


• Molecule 40: 60S ribosomal protein L3

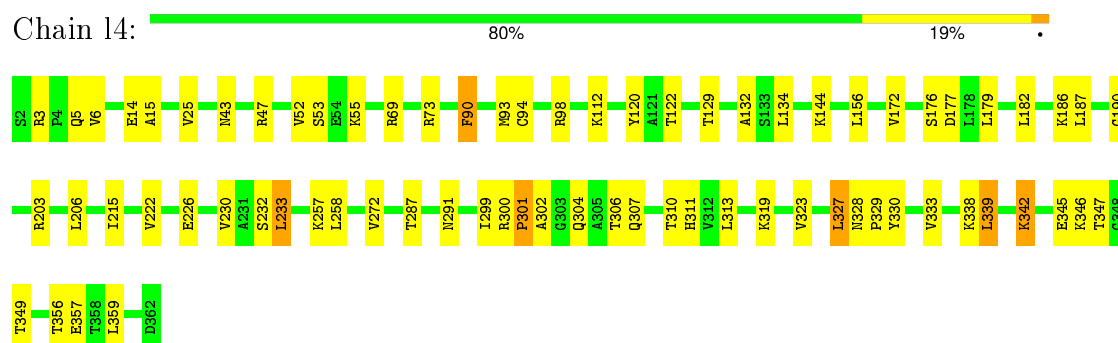
Chain 13: 81% 18%



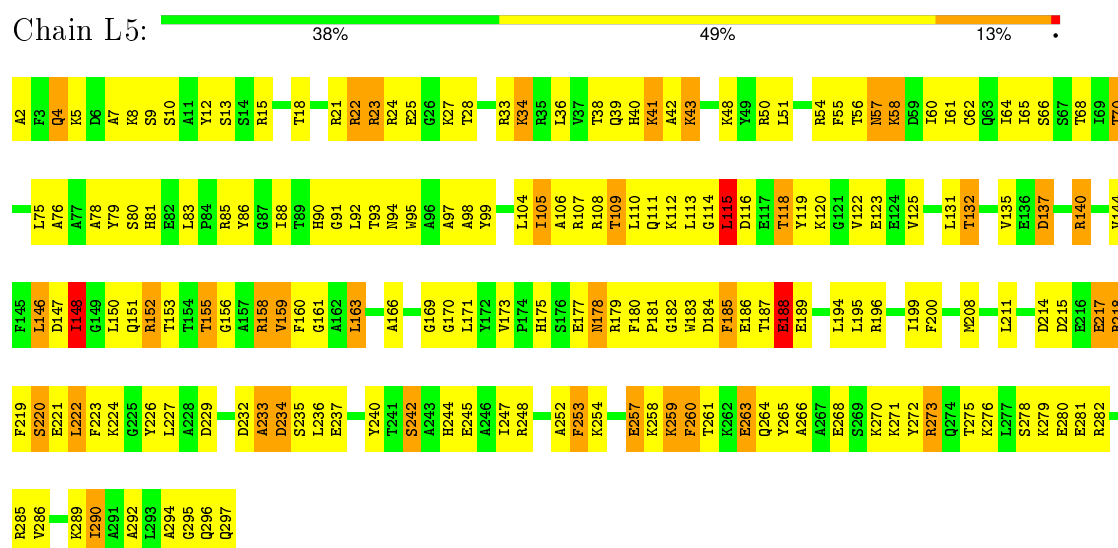
• Molecule 41: 60S ribosomal protein L4-A



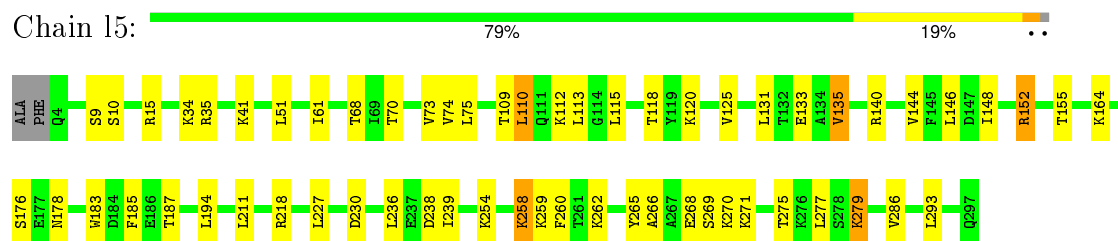
• Molecule 41: 60S ribosomal protein L4-A



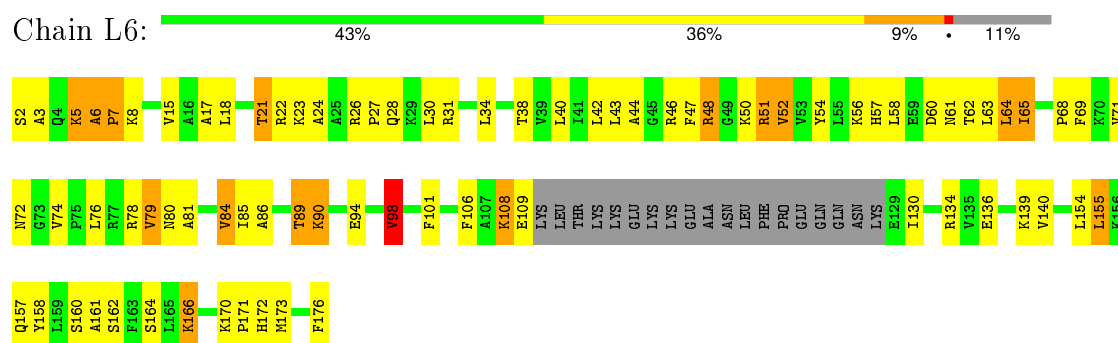
• Molecule 42: 60S ribosomal protein L5



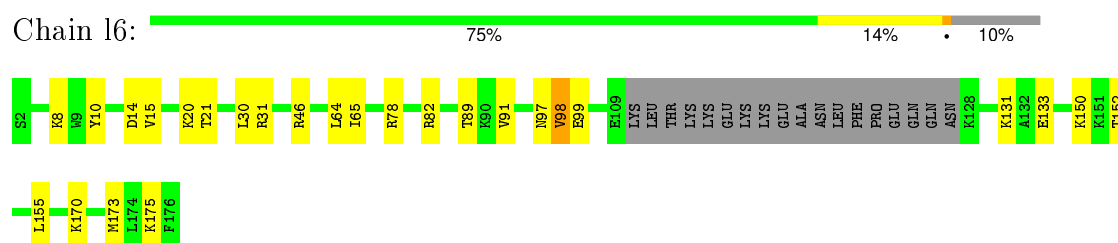
- Molecule 42: 60S ribosomal protein L5



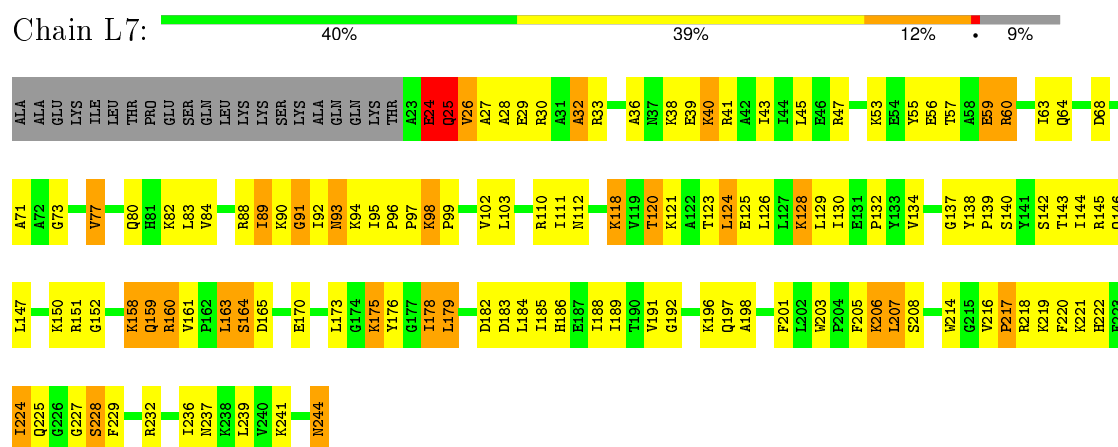
- Molecule 43: 60S ribosomal protein L6-A



- Molecule 43: 60S ribosomal protein L6-A

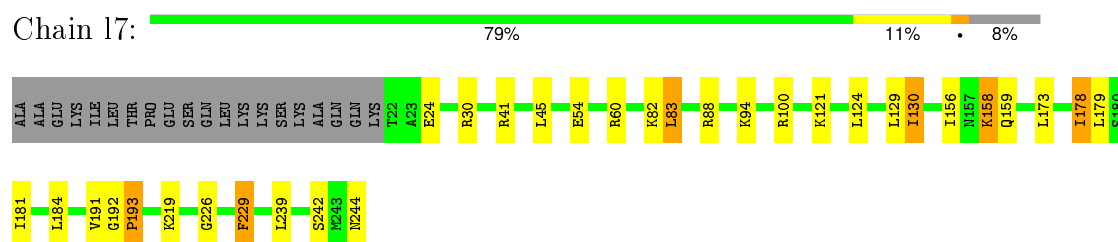


- Molecule 44: 60S ribosomal protein L7-A



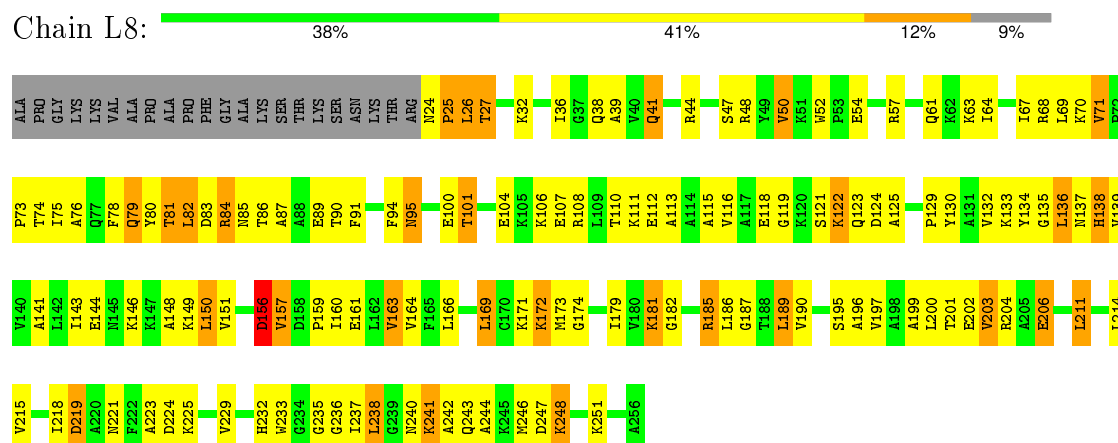
- Molecule 44: 60S ribosomal protein L7-A

Chain 17:



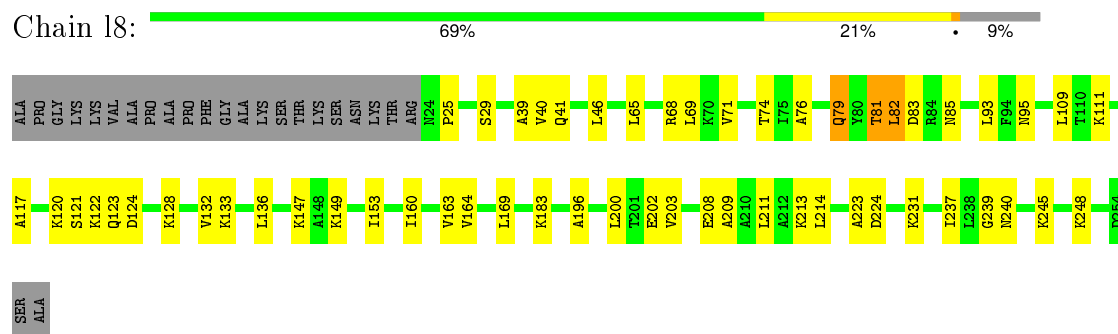
- Molecule 45: 60S ribosomal protein L8-A

Chain L8:



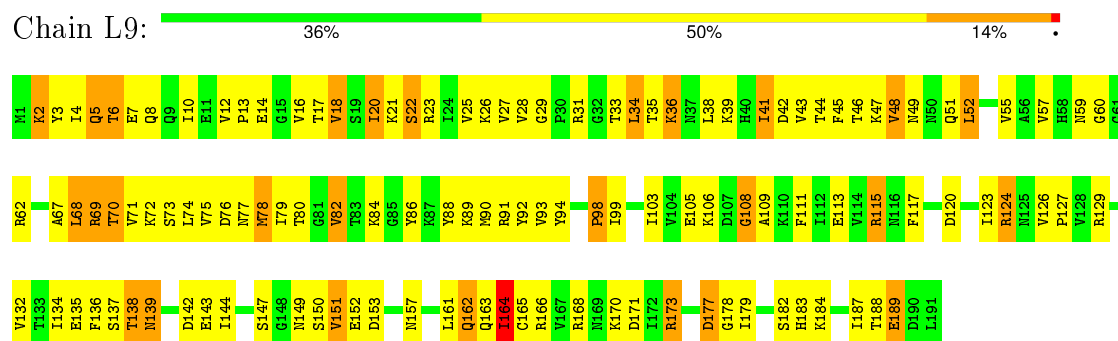
- Molecule 45: 60S ribosomal protein L8-A

Chain 18:

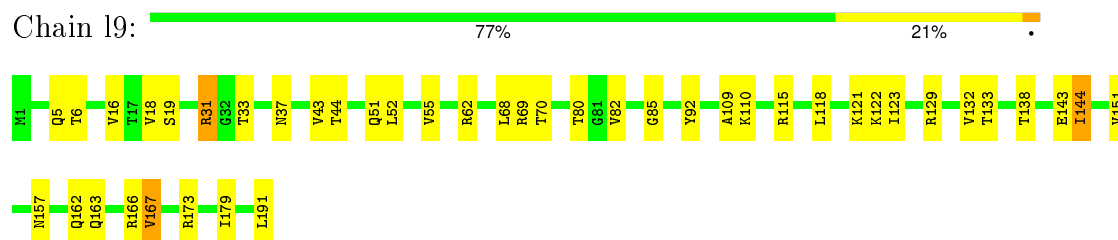


- Molecule 46: 60S ribosomal protein L9-A

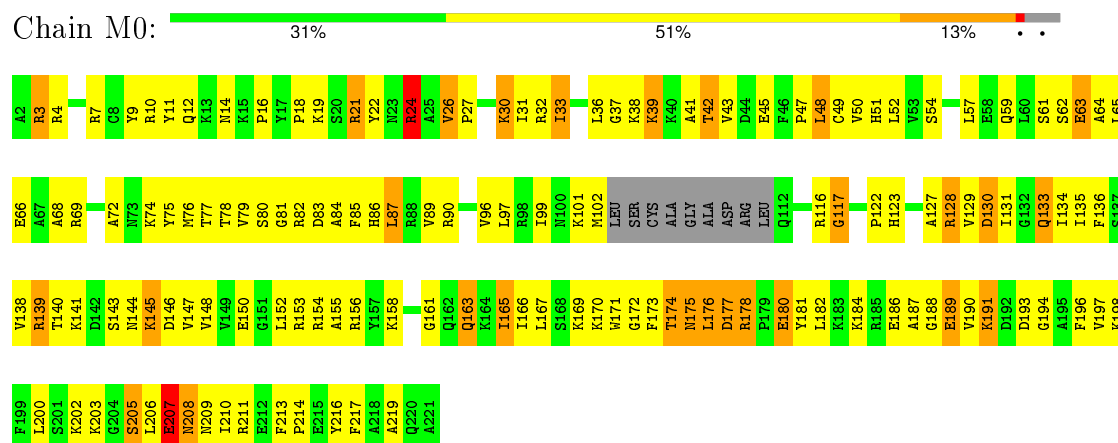
Chain L9:



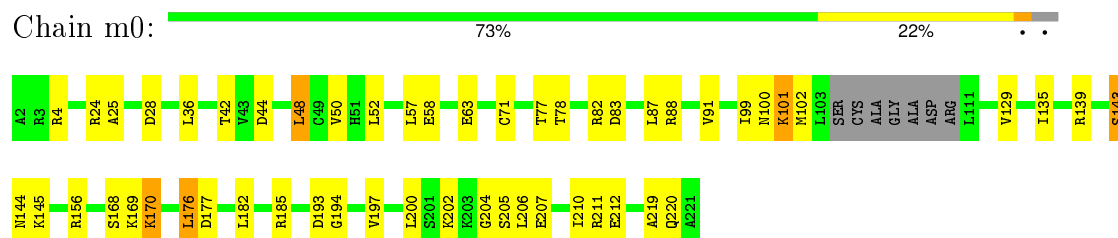
- Molecule 46: 60S ribosomal protein L9-A



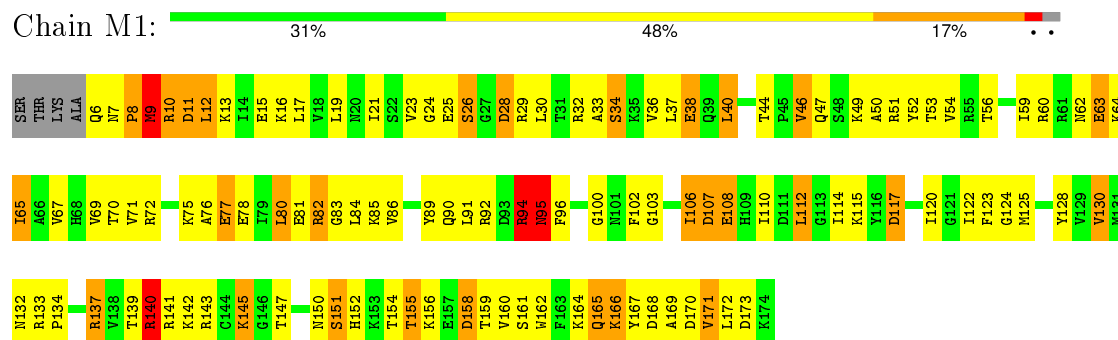
- Molecule 47: 60S ribosomal protein L10



- Molecule 47: 60S ribosomal protein L10

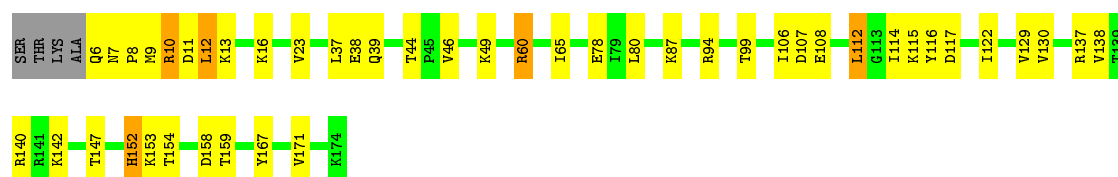


- Molecule 48: 60S ribosomal protein L11-B



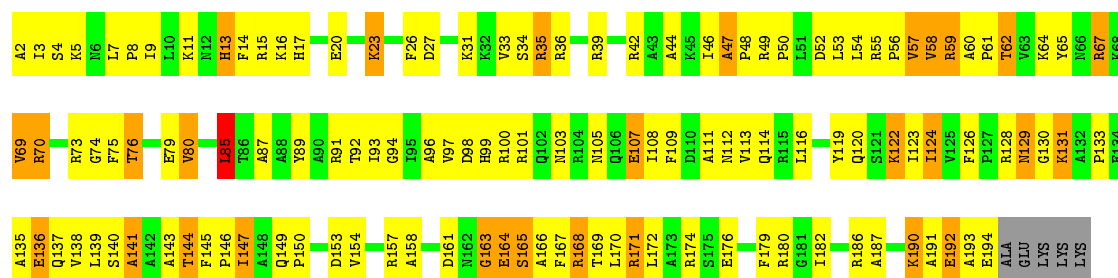
- Molecule 48: 60S ribosomal protein L11-B





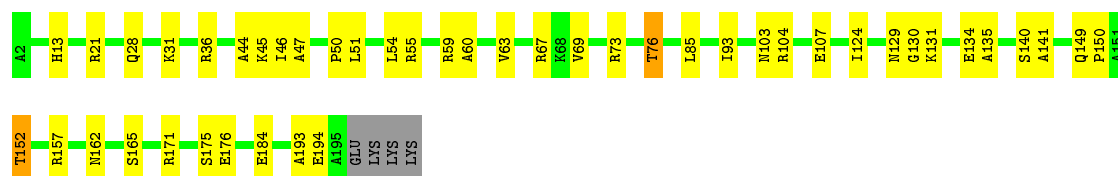
- Molecule 49: 60S ribosomal protein L13-A

Chain M3: 33% 49% 15% ..



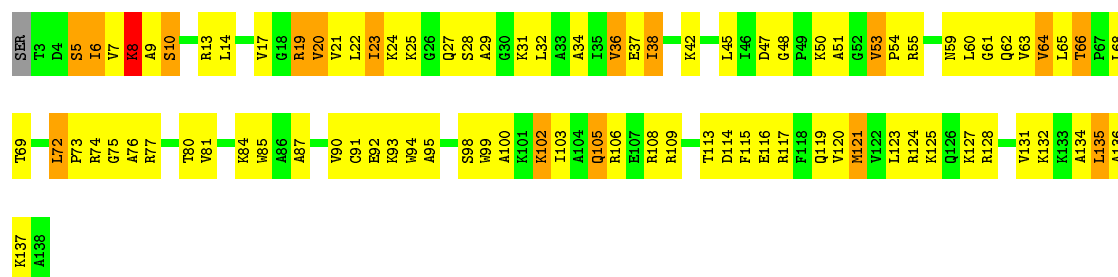
- Molecule 49: 60S ribosomal protein L13-A

Chain m3: 75% 22% ..



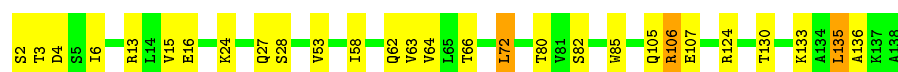
- Molecule 50: 60S ribosomal protein L14-A

Chain M4: 34% 53% 12% ..



- Molecule 50: 60S ribosomal protein L14-A

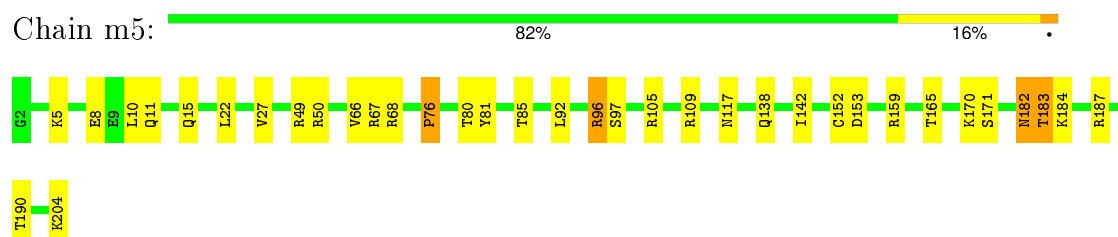
Chain m4: 80% 18% .



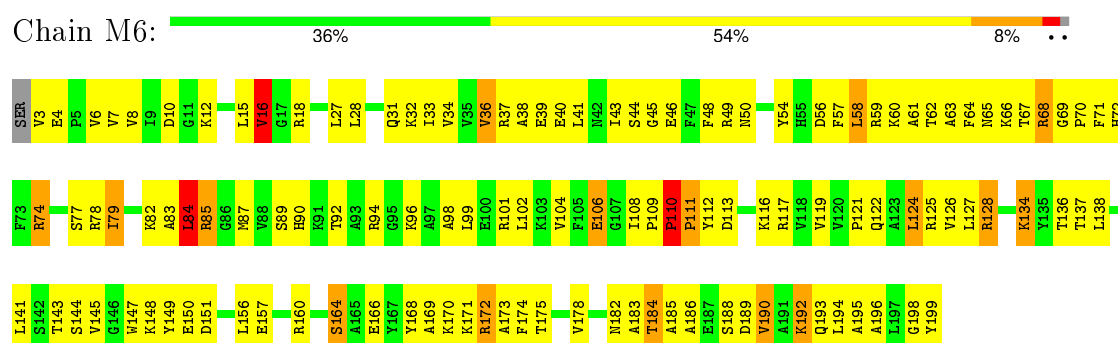
- Molecule 51: 60S ribosomal protein L15-A



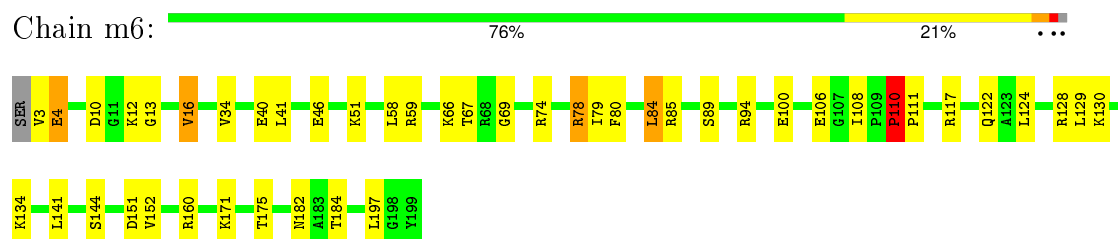
• Molecule 51: 60S ribosomal protein L15-A



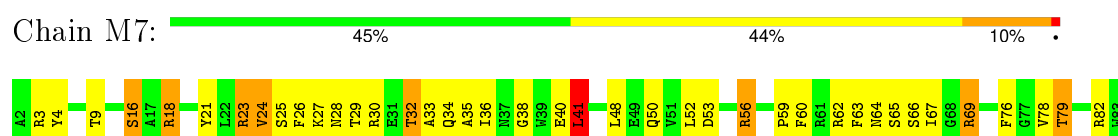
• Molecule 52: 60S ribosomal protein L16-A

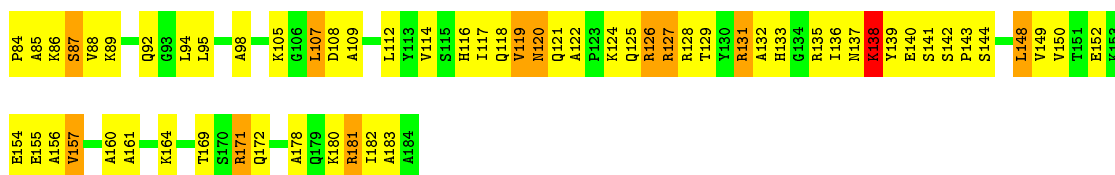


• Molecule 52: 60S ribosomal protein L16-A

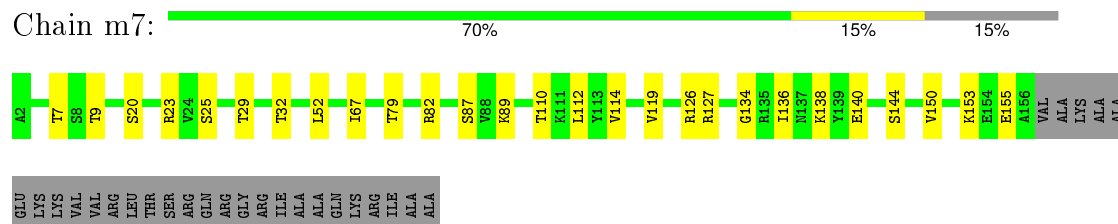


• Molecule 53: 60S ribosomal protein L17-A

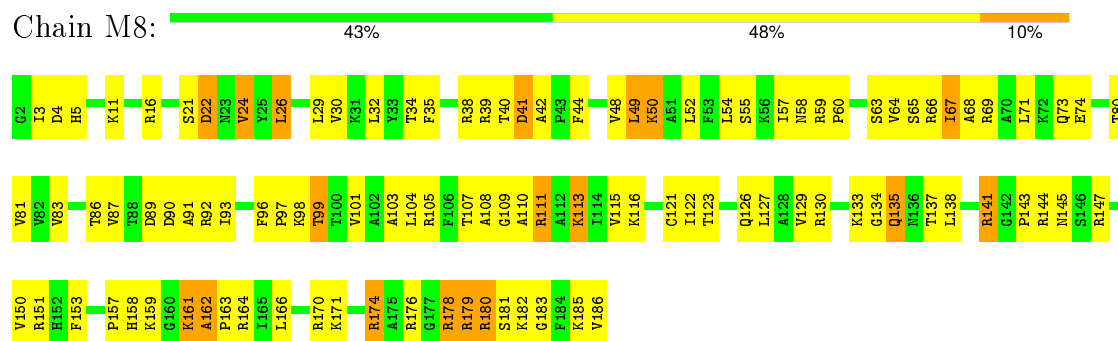




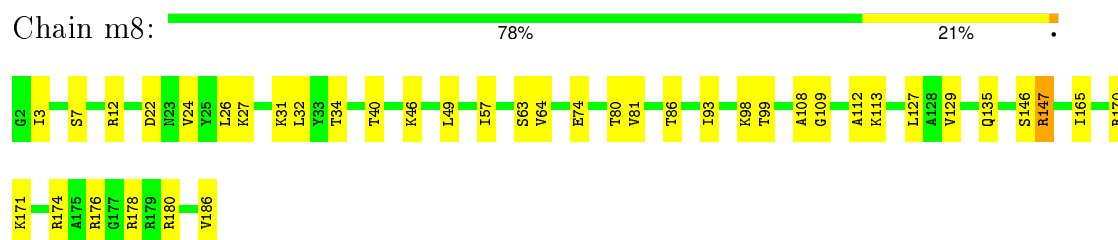
• Molecule 53: 60S ribosomal protein L17-A



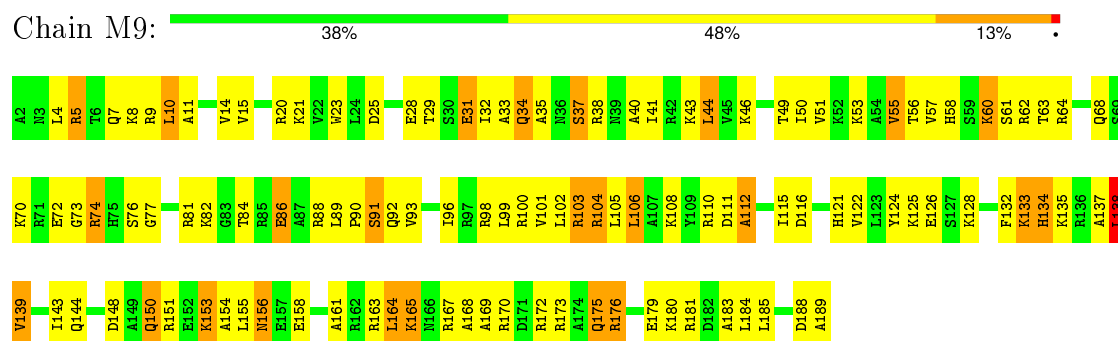
• Molecule 54: 60S ribosomal protein L18-A



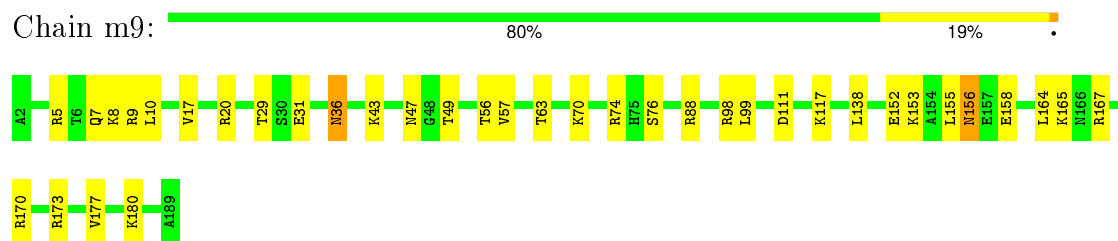
• Molecule 54: 60S ribosomal protein L18-A



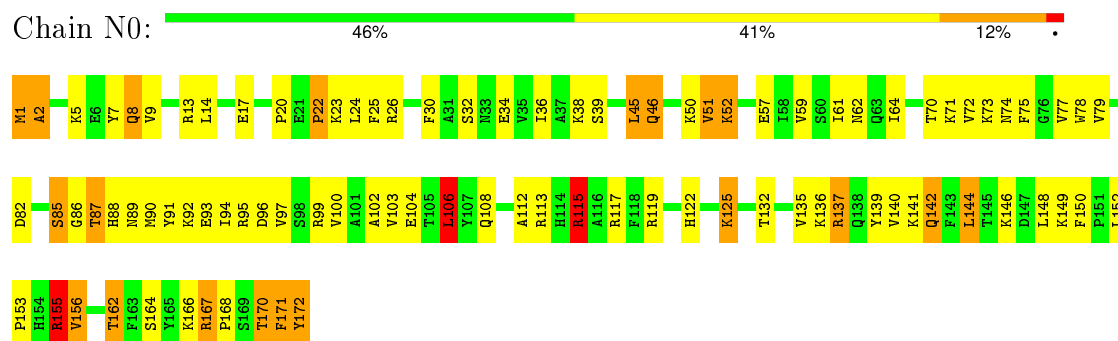
• Molecule 55: 60S ribosomal protein L19-A



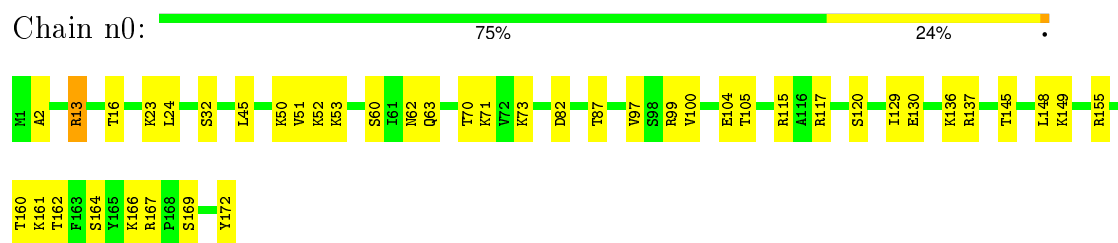
- Molecule 55: 60S ribosomal protein L19-A



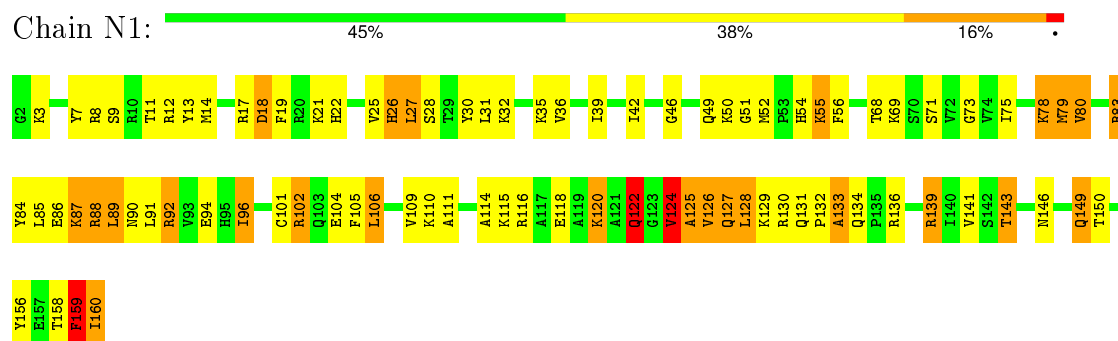
- Molecule 56: 60S ribosomal protein L20-A



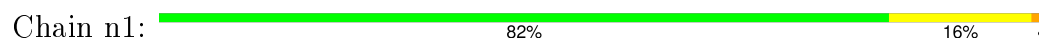
- Molecule 56: 60S ribosomal protein L20-A

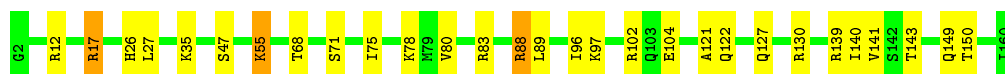


- Molecule 57: 60S ribosomal protein L21-A



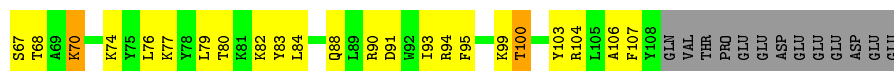
- Molecule 57: 60S ribosomal protein L21-A





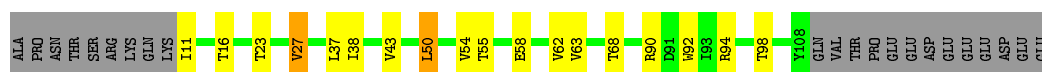
- Molecule 58: 60S ribosomal protein L22-A

Chain N2: 28% 46% 8% 17%



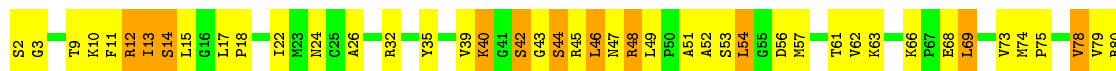
- Molecule 58: 60S ribosomal protein L22-A

Chain n2: 67% 13% 18%



- Molecule 59: 60S ribosomal protein L23-A

Chain N3: 43% 46% 11%



- Molecule 59: 60S ribosomal protein L23-A

Chain n3: 85% 15%



- Molecule 60: 60S ribosomal protein L24-A

Chain N4: 41% 20% 37%



- Molecule 60: 60S ribosomal protein L24-A

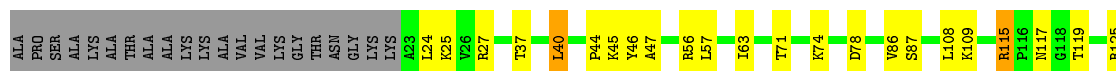
Chain n4: 74% 13% 13%



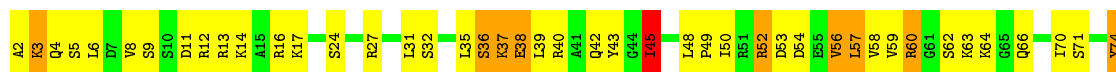
- Molecule 61: 60S ribosomal protein L25



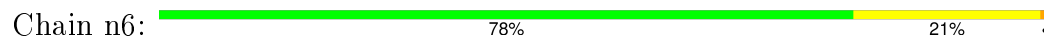
- Molecule 61: 60S ribosomal protein L25



- Molecule 62: 60S ribosomal protein L26-A

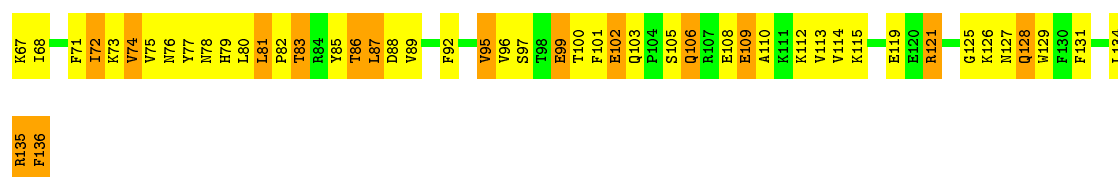


- Molecule 62: 60S ribosomal protein L26-A



- Molecule 63: 60S ribosomal protein L27-A





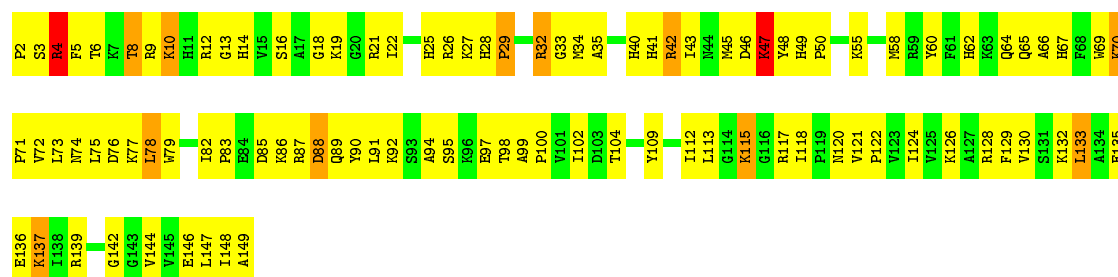
- Molecule 63: 60S ribosomal protein L27-A

Chain n7: 77% 22%



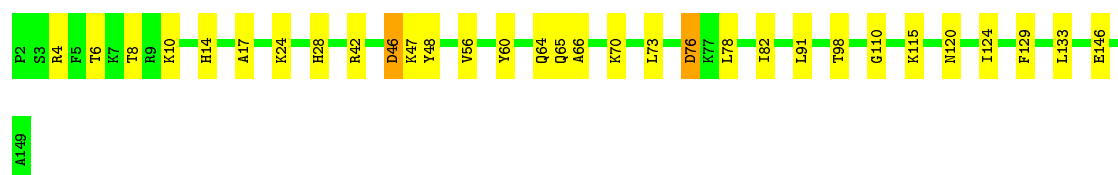
- Molecule 64: 60S ribosomal protein L28

Chain N8: 34% 57% 7%



- Molecule 64: 60S ribosomal protein L28

Chain n8: 79% 20%



- Molecule 65: 60S ribosomal protein L29

Chain N9: 40% 45% 16%



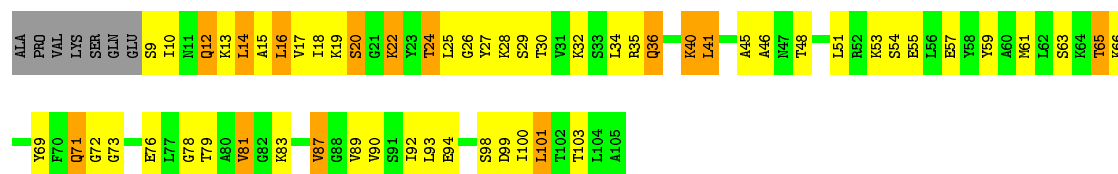
- Molecule 65: 60S ribosomal protein L29

Chain n9: 76% 17% 5%



- Molecule 66: 60S ribosomal protein L30

Chain O0: 



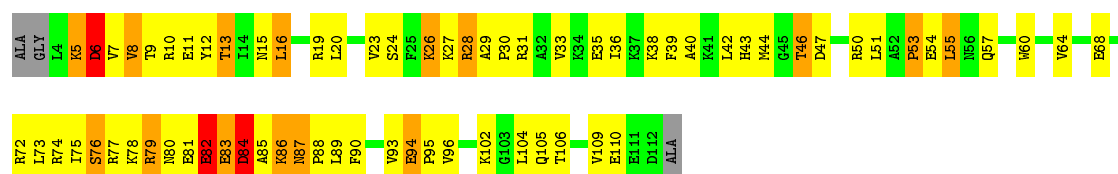
- Molecule 66: 60S ribosomal protein L30

Chain o0: 



- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 



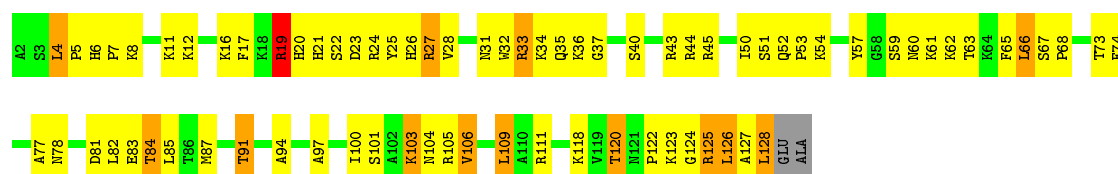
- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 



- Molecule 68: 60S ribosomal protein L32

Chain O2: 

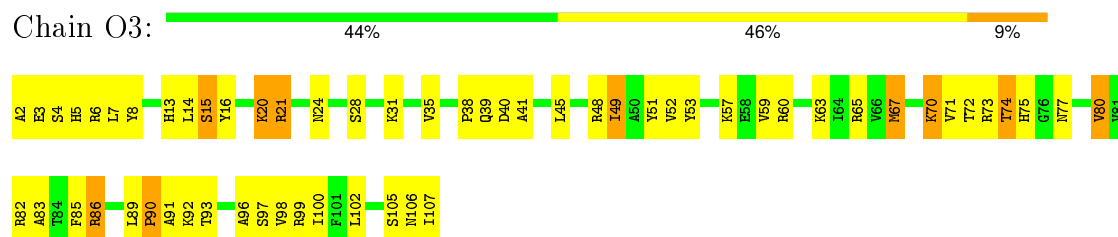


- Molecule 68: 60S ribosomal protein L32

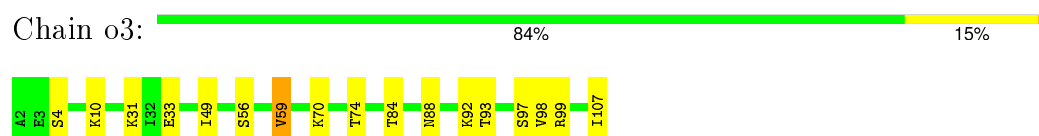
Chain o2: 



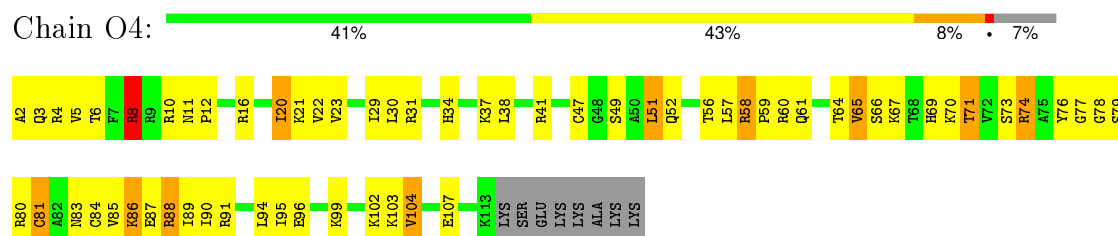
- Molecule 69: 60S ribosomal protein L33-A



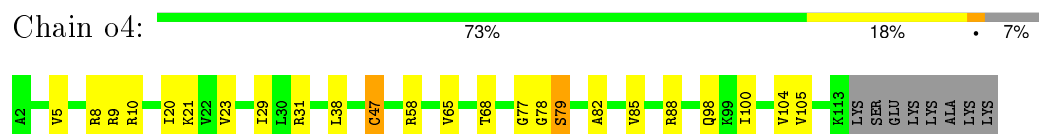
- Molecule 69: 60S ribosomal protein L33-A



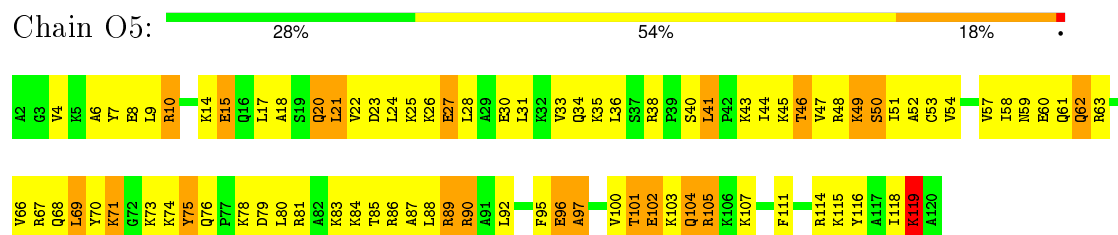
- Molecule 70: 60S ribosomal protein L34-A



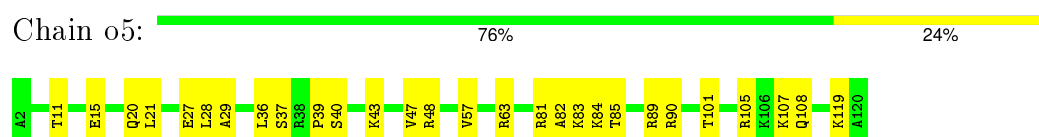
- Molecule 70: 60S ribosomal protein L34-A



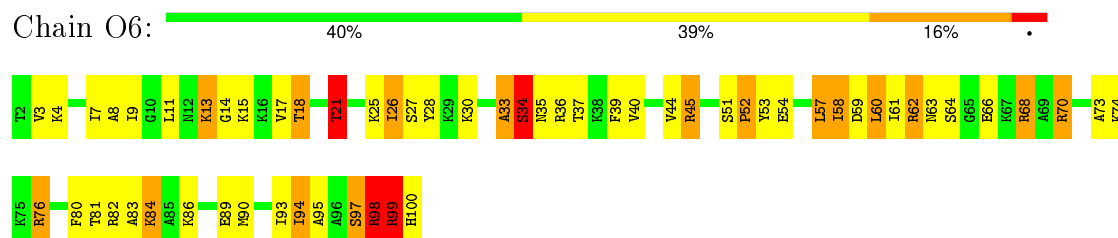
- Molecule 71: 60S ribosomal protein L35-A



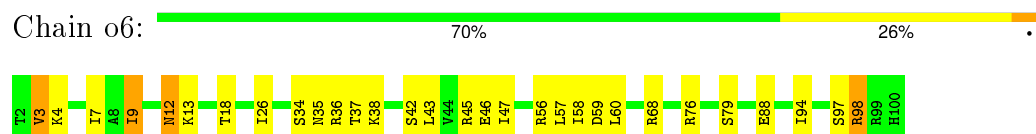
- Molecule 71: 60S ribosomal protein L35-A



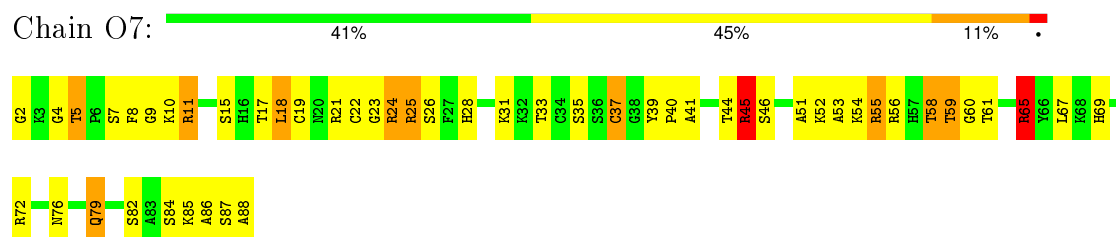
- Molecule 72: 60S ribosomal protein L36-A



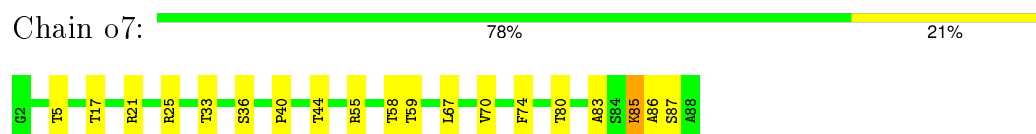
- Molecule 72: 60S ribosomal protein L36-A



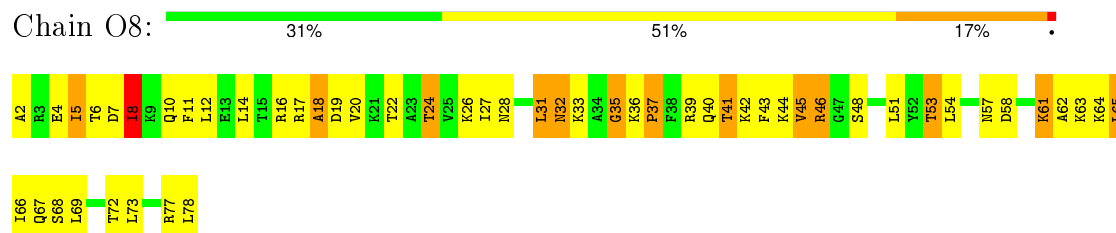
- Molecule 73: 60S ribosomal protein L37-A



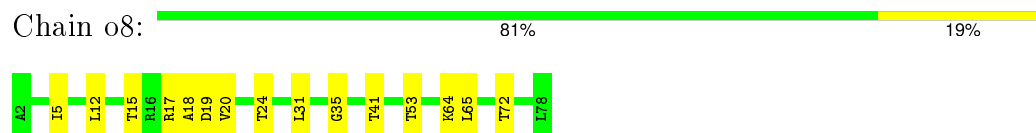
- Molecule 73: 60S ribosomal protein L37-A



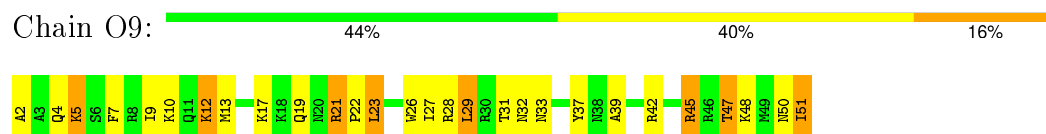
- Molecule 74: 60S ribosomal protein L38



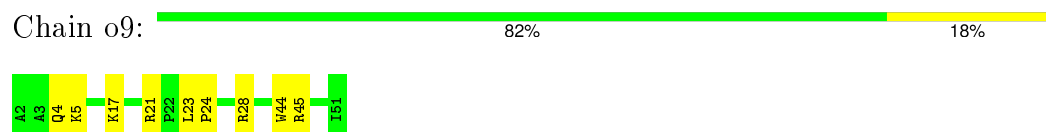
- Molecule 74: 60S ribosomal protein L38



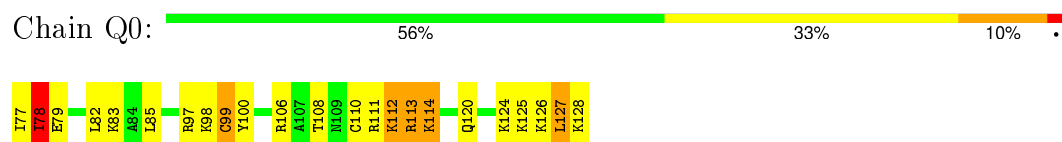
- Molecule 75: 60S ribosomal protein L39



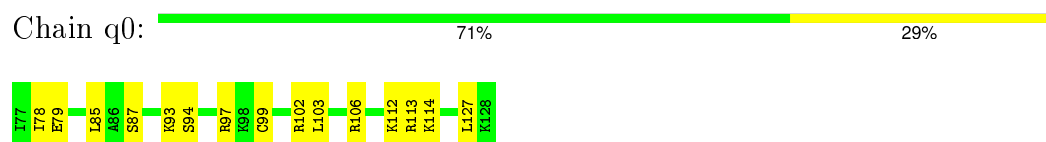
- Molecule 75: 60S ribosomal protein L39



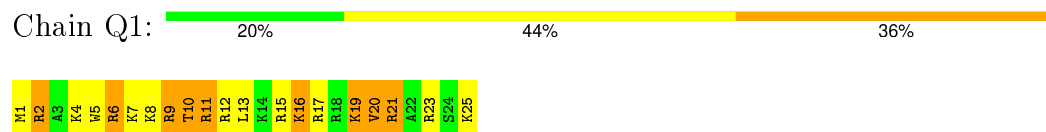
- Molecule 76: Ubiquitin-60S ribosomal protein L40



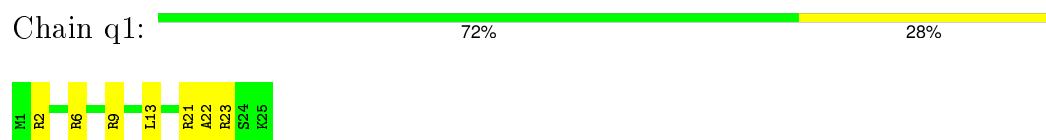
- Molecule 76: Ubiquitin-60S ribosomal protein L40



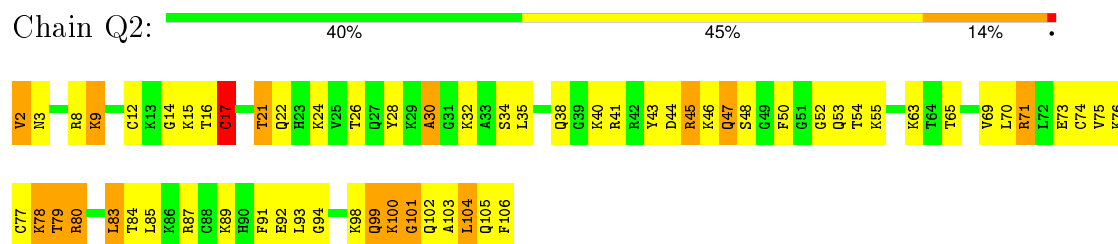
- Molecule 77: 60S ribosomal protein L41-A



- Molecule 77: 60S ribosomal protein L41-A

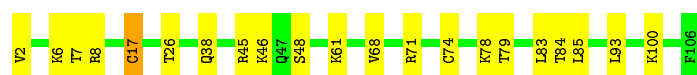


- Molecule 78: 60S ribosomal protein L42-A



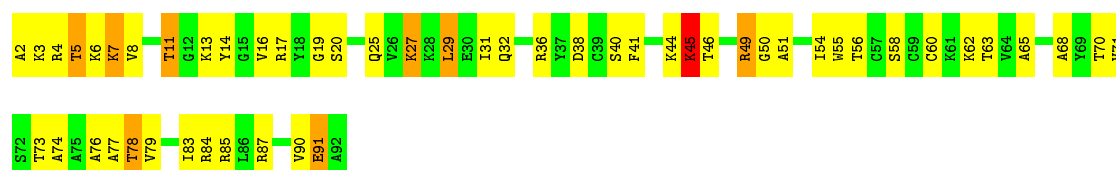
- Molecule 78: 60S ribosomal protein L42-A

Chain q2: 80% 19%




- Molecule 79: 60S ribosomal protein L43-A

Chain Q3:  43% 47% 9%



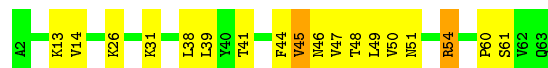
- Molecule 79: 60S ribosomal protein L43-A

Chain q3:  81% 19%



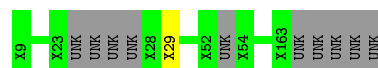
- Molecule 80: 40S ribosomal protein S30-A

Chain e0: 71% 26% .

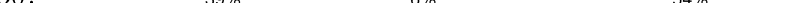


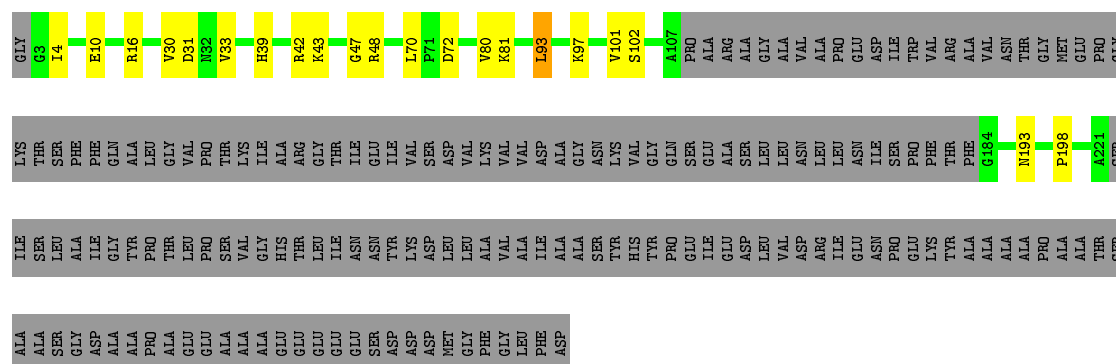
- Molecule 81: unknown protein chain m2

Chain m2:  93% • 6%



- Molecule 82: 60S acidic ribosomal protein P0

Chain p0: 



- Molecule 83: unknown protein chain p1

Chain p1:  100%

There are no outlier residues recorded for this chain.

- Molecule 84: unknown protein chain 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, α , β , γ	436.92Å 288.52Å 305.75Å 90.00° 99.04° 90.00°	Depositor
Resolution (Å)	267.96 – 3.20	Depositor
% Data completeness (in resolution range)	100.0 (267.96-3.20)	Depositor
R_{merge}	0.39	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.42 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.193 , 0.245	Depositor
Wilson B-factor (Å ²)	81.5	Xtriage
Anisotropy	0.087	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 1226437 reflections	Xtriage
Total number of atoms	411223	wwPDB-VP
Average B, all atoms (Å ²)	75.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.56% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical 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: ZN, PCY, 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	0.79	6/41698 (0.0%)	1.36	368/64972 (0.6%)
1	6	0.95	31/42765 (0.1%)	1.47	608/66634 (0.9%)
2	S0	0.48	0/1617	0.69	0/2215
2	s0	0.53	0/1623	0.71	0/2222
3	S1	0.42	0/1735	0.70	1/2335 (0.0%)
3	s1	0.51	0/1748	0.70	1/2352 (0.0%)
4	S2	0.54	0/1665	0.69	0/2263
4	s2	0.64	0/1665	0.82	0/2263
5	S3	0.51	0/1759	0.71	1/2368 (0.0%)
5	s3	0.48	0/1759	0.63	0/2368
6	S4	0.51	0/2109	0.74	1/2839 (0.0%)
6	s4	0.60	0/2109	0.82	2/2839 (0.1%)
7	S5	0.43	0/1629	0.62	0/2202
7	s5	0.49	0/1629	0.67	0/2202
8	S6	0.49	0/1823	0.68	0/2439
8	s6	0.62	0/1779	0.74	0/2379
9	S7	0.46	0/1506	0.67	0/2028
9	s7	0.51	0/1516	0.71	2/2043 (0.1%)
10	S8	0.58	0/1514	0.77	1/2021 (0.0%)
10	s8	0.67	0/1514	0.80	1/2021 (0.0%)
11	S9	0.51	0/1519	0.68	0/2035
11	s9	0.62	0/1519	0.80	1/2035 (0.0%)
12	C0	0.45	0/790	0.65	1/1069 (0.1%)
12	c0	0.40	0/777	0.66	3/1049 (0.3%)
13	C1	0.64	0/1240	0.78	1/1675 (0.1%)
13	c1	0.70	1/1194 (0.1%)	0.81	0/1610
14	C2	0.38	0/900	0.61	0/1224
14	c2	0.29	0/900	0.58	1/1224 (0.1%)
15	C3	0.54	0/1215	0.71	1/1638 (0.1%)
15	c3	0.60	0/1215	0.74	0/1638
16	C4	0.46	0/901	0.69	0/1217
16	c4	0.55	0/960	0.77	1/1290 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.48	0/998	0.69	0/1341
17	c5	0.51	0/1060	0.68	0/1426
18	C6	0.47	0/1125	0.71	2/1510 (0.1%)
18	c6	0.52	0/1131	0.73	0/1518
19	C7	0.46	0/935	0.67	0/1254
19	c7	0.53	0/914	0.73	0/1224
20	C8	0.48	0/1211	0.71	1/1628 (0.1%)
20	c8	0.52	0/1211	0.73	1/1628 (0.1%)
21	C9	0.47	0/1130	0.68	1/1517 (0.1%)
21	c9	0.56	0/1130	0.69	1/1517 (0.1%)
22	D0	0.48	0/865	0.68	0/1169
22	d0	0.53	0/892	0.68	0/1205
23	D1	0.51	0/693	0.67	0/935
23	d1	0.59	0/693	0.70	0/935
24	D2	0.53	0/1038	0.76	2/1395 (0.1%)
24	d2	0.66	0/1038	0.76	1/1395 (0.1%)
25	D3	0.65	0/1139	0.80	0/1518
25	d3	0.75	0/1139	0.87	1/1518 (0.1%)
26	D4	0.48	0/1087	0.67	0/1449
26	d4	0.59	0/1087	0.75	0/1449
27	D5	0.43	0/571	0.72	0/768
27	d5	0.49	0/566	0.75	0/761
28	D6	0.53	0/782	0.75	0/1047
28	d6	0.63	0/782	0.75	2/1047 (0.2%)
29	D7	0.47	0/620	0.71	0/838
29	d7	0.48	0/620	0.70	0/838
30	D8	0.40	0/499	0.64	0/670
30	d8	0.46	0/499	0.67	0/670
31	D9	0.55	0/452	0.80	1/600 (0.2%)
31	d9	0.57	0/452	0.68	0/600
32	E0	0.47	0/483	0.63	0/643
33	E1	0.47	0/577	0.76	0/770
33	e1	0.42	0/619	0.68	0/822
34	SR	0.44	0/2494	0.67	1/3393 (0.0%)
34	sR	0.42	0/2495	0.60	0/3395
35	SM	0.54	0/1113	0.76	2/1502 (0.1%)
35	sM	0.50	0/682	0.73	1/921 (0.1%)
36	1	1.21	245/75394 (0.3%)	1.71	2098/117545 (1.8%)
36	5	1.24	244/75414 (0.3%)	1.72	2161/117575 (1.8%)
37	3	1.00	5/2883 (0.2%)	1.48	35/4491 (0.8%)
37	7	1.20	3/2883 (0.1%)	1.74	84/4491 (1.9%)
38	4	1.17	3/3746 (0.1%)	1.66	91/5832 (1.6%)
38	8	1.05	3/3746 (0.1%)	1.57	70/5832 (1.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	L2	0.77	0/1948	0.86	2/2617 (0.1%)
39	l2	0.76	0/1946	0.91	4/2614 (0.2%)
40	L3	0.78	2/3146 (0.1%)	0.84	1/4228 (0.0%)
40	l3	0.90	1/3146 (0.0%)	0.94	5/4228 (0.1%)
41	L4	0.86	2/2800 (0.1%)	0.95	6/3790 (0.2%)
41	l4	0.77	1/2800 (0.0%)	0.89	3/3790 (0.1%)
42	L5	0.62	1/2425 (0.0%)	0.72	1/3271 (0.0%)
42	l5	0.77	0/2408	0.83	2/3248 (0.1%)
43	L6	0.79	0/1260	0.86	0/1694
43	l6	0.81	0/1269	0.88	1/1705 (0.1%)
44	L7	0.81	0/1821	0.91	4/2451 (0.2%)
44	l7	0.88	0/1828	0.91	3/2461 (0.1%)
45	L8	0.59	0/1836	0.68	0/2481
45	l8	0.55	0/1795	0.72	1/2429 (0.0%)
46	L9	0.66	0/1539	0.75	0/2073
46	l9	0.84	0/1539	0.83	0/2073
47	M0	0.77	1/1741 (0.1%)	0.82	2/2335 (0.1%)
47	m0	0.81	0/1758	0.88	2/2358 (0.1%)
48	M1	0.52	0/1374	0.73	1/1842 (0.1%)
48	m1	0.68	0/1374	0.85	3/1842 (0.2%)
49	M3	0.79	0/1568	0.91	4/2106 (0.2%)
49	m3	0.70	0/1573	0.87	2/2113 (0.1%)
50	M4	0.80	0/1068	0.81	0/1438
50	m4	0.88	0/1074	0.90	2/1446 (0.1%)
51	M5	0.79	0/1757	0.87	2/2354 (0.1%)
51	m5	0.67	0/1757	0.83	3/2354 (0.1%)
52	M6	0.86	0/1585	0.94	4/2128 (0.2%)
52	m6	1.08	3/1585 (0.2%)	1.03	7/2128 (0.3%)
53	M7	0.82	0/1443	0.86	4/1944 (0.2%)
53	m7	0.94	0/1250	0.89	0/1683
54	M8	0.81	0/1465	0.93	2/1965 (0.1%)
54	m8	0.77	0/1465	0.90	0/1965
55	M9	0.58	0/1538	0.72	1/2050 (0.0%)
55	m9	0.65	0/1538	0.71	1/2050 (0.0%)
56	N0	0.77	0/1481	0.86	5/1990 (0.3%)
56	n0	0.94	0/1481	0.96	4/1990 (0.2%)
57	N1	0.87	0/1300	0.85	0/1743
57	n1	0.87	1/1300 (0.1%)	0.88	4/1743 (0.2%)
58	N2	0.46	0/812	0.63	0/1099
58	n2	0.53	0/794	0.70	0/1076
59	N3	0.73	0/1018	0.80	0/1369
59	n3	0.90	0/1018	0.94	3/1369 (0.2%)
60	N4	0.61	0/712	0.70	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	n4	0.76	0/1052	0.77	0/1398
61	N5	0.67	0/979	0.88	4/1321 (0.3%)
61	n5	0.69	0/974	0.82	1/1314 (0.1%)
62	N6	0.73	0/1004	0.87	0/1341
62	n6	0.68	0/1004	0.84	0/1341
63	N7	0.56	0/1118	0.70	0/1497
63	n7	0.53	0/1118	0.66	0/1497
64	N8	0.86	0/1204	0.97	1/1612 (0.1%)
64	n8	0.78	0/1204	0.91	1/1612 (0.1%)
65	N9	0.75	0/473	0.84	0/629
65	n9	0.80	0/473	1.02	1/629 (0.2%)
66	O0	0.52	0/751	0.70	0/1008
66	o0	0.50	0/775	0.67	1/1040 (0.1%)
67	O1	0.69	0/890	0.78	0/1196
67	o1	0.83	0/897	0.89	2/1205 (0.2%)
68	O2	0.87	0/1041	0.94	1/1394 (0.1%)
68	o2	0.83	0/1041	0.91	0/1394
69	O3	0.91	0/868	0.87	1/1168 (0.1%)
69	o3	0.93	0/868	0.98	1/1168 (0.1%)
70	O4	0.72	1/890 (0.1%)	0.90	3/1189 (0.3%)
70	o4	0.61	0/890	0.84	1/1189 (0.1%)
71	O5	0.74	0/978	0.82	0/1301
71	o5	0.63	0/974	0.72	0/1297
72	O6	0.67	0/778	0.78	0/1034
72	o6	0.59	0/777	0.73	0/1033
73	O7	0.84	0/696	1.08	6/923 (0.7%)
73	o7	0.74	0/696	0.81	0/923
74	O8	0.51	0/618	0.70	0/826
74	o8	0.49	0/614	0.67	0/822
75	O9	0.82	0/443	0.87	0/588
75	o9	0.68	0/443	0.81	0/588
76	Q0	0.67	0/423	0.79	0/562
76	q0	0.96	1/423 (0.2%)	0.97	3/562 (0.5%)
77	Q1	0.66	0/234	0.81	0/300
77	q1	0.77	0/234	0.91	0/300
78	Q2	0.88	1/860 (0.1%)	0.86	0/1136
78	q2	0.80	1/860 (0.1%)	0.77	0/1136
79	Q3	0.75	0/701	0.86	1/934 (0.1%)
79	q3	0.72	0/701	0.80	0/934
80	e0	0.59	0/499	0.77	0/665
82	p0	0.49	0/1091	0.67	0/1472
All	All	0.95	557/430072 (0.1%)	1.36	5668/631360 (0.9%)

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
7	s5	0	2
9	S7	0	1
9	s7	0	2
10	S8	0	2
16	C4	0	2
16	c4	0	1
17	c5	0	1
18	c6	0	1
19	C7	0	2
19	c7	0	2
22	d0	0	1
25	d3	0	1
26	d4	0	1
27	D5	0	2
27	d5	0	1
28	D6	0	1
31	D9	0	1
34	SR	0	1
39	L2	0	1
39	l2	0	2
43	L6	0	1
44	l7	0	2
47	m0	0	1
51	m5	0	1
52	M6	0	1
52	m6	0	1
56	N0	0	1
64	n8	0	2
65	N9	0	1
65	n9	0	1
67	O1	0	1
67	o1	0	1
68	o2	0	2
73	o7	0	1
81	m2	0	1
All	All	0	46

All (557) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	13.06	2.04	1.82
36	5	1152	G	N9-C4	-11.97	1.28	1.38
78	q2	17	CYS	CB-SG	11.57	2.02	1.82
36	5	1152	G	N3-C4	-10.20	1.28	1.35
36	5	2971	A	N9-C4	9.62	1.43	1.37
36	1	3181	C	N3-C4	-9.18	1.27	1.33
36	1	2404	A	N3-C4	8.60	1.40	1.34
1	6	623	A	N9-C4	-8.40	1.32	1.37
36	1	2875	U	C2-N3	8.34	1.43	1.37
36	5	367	A	N9-C4	-8.19	1.32	1.37
36	1	1103	A	N3-C4	8.16	1.39	1.34
36	5	1143	A	N9-C4	-8.13	1.32	1.37
36	5	960	U	N1-C2	7.81	1.45	1.38
36	1	2946	A	N7-C5	-7.78	1.34	1.39
36	5	1152	G	C5-C6	-7.75	1.34	1.42
36	1	804	C	N1-C6	-7.71	1.32	1.37
36	5	917	A	N3-C4	-7.64	1.30	1.34
36	1	34	A	N9-C4	-7.61	1.33	1.37
1	6	46	A	N3-C4	-7.45	1.30	1.34
36	5	1307	G	C5-C4	-7.38	1.33	1.38
36	1	1116	G	N7-C5	-7.35	1.34	1.39
36	5	2943	G	N7-C5	-7.35	1.34	1.39
41	14	94	CYS	CB-SG	-7.28	1.69	1.82
36	5	642	U	C2-N3	-7.27	1.32	1.37
36	5	2363	A	N7-C5	-7.26	1.34	1.39
36	5	2874	G	C5-C6	7.25	1.49	1.42
1	6	1537	C	C2-N3	7.24	1.41	1.35
36	5	1189	C	N1-C6	-7.24	1.32	1.37
36	1	2358	A	N3-C4	-7.23	1.30	1.34
36	1	1159	A	N3-C4	-7.22	1.30	1.34
1	6	1800	A	N9-C4	7.20	1.42	1.37
36	1	2617	U	N3-C4	-7.18	1.31	1.38
36	5	2954	U	N1-C2	7.17	1.45	1.38
36	1	1153	A	N7-C5	-7.14	1.34	1.39
1	6	1744	A	N9-C4	-7.14	1.33	1.37
36	5	2799	A	C6-N1	-7.14	1.30	1.35
36	5	3218	A	C5-C6	-7.13	1.34	1.41
36	5	2358	A	N9-C4	-7.12	1.33	1.37
1	6	163	G	N9-C4	-7.11	1.32	1.38
36	1	2326	A	N9-C4	-7.08	1.33	1.37
1	6	163	G	N3-C4	-7.07	1.30	1.35
36	5	3047	U	C2-N3	-7.02	1.32	1.37
36	5	2335	G	C5-C4	-6.97	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1556	C	N1-C2	6.96	1.47	1.40
1	6	46	A	C6-N1	-6.96	1.30	1.35
36	5	40	A	N7-C5	-6.95	1.35	1.39
36	1	1153	A	N3-C4	-6.88	1.30	1.34
57	n1	104	GLU	CB-CG	6.88	1.65	1.52
36	5	1490	A	N7-C5	-6.87	1.35	1.39
52	m6	16	VAL	CB-CG2	-6.81	1.38	1.52
36	1	706	A	N9-C4	-6.75	1.33	1.37
1	2	992	A	N9-C4	-6.72	1.33	1.37
36	1	826	G	C5-C4	-6.70	1.33	1.38
36	1	1133	A	N9-C4	-6.70	1.33	1.37
36	1	1192	C	N1-C2	6.70	1.46	1.40
36	5	921	A	N7-C5	-6.70	1.35	1.39
36	1	49	A	N3-C4	-6.70	1.30	1.34
36	1	282	G	N7-C5	-6.67	1.35	1.39
36	5	3008	A	N9-C4	-6.64	1.33	1.37
36	1	913	A	N7-C5	-6.64	1.35	1.39
36	1	638	C	N1-C6	-6.63	1.33	1.37
36	5	420	G	C5-C4	-6.62	1.33	1.38
37	3	89	G	C5-C4	-6.62	1.33	1.38
36	5	2643	A	N9-C4	-6.61	1.33	1.37
36	1	1367	G	N7-C5	-6.58	1.35	1.39
36	1	3142	A	N3-C4	-6.58	1.30	1.34
36	1	2875	U	N1-C2	6.57	1.44	1.38
36	5	3006	A	N3-C4	-6.55	1.30	1.34
36	1	2276	G	N7-C5	-6.55	1.35	1.39
47	M0	127	ALA	CA-CB	-6.54	1.38	1.52
36	1	1150	A	N3-C4	-6.53	1.30	1.34
36	5	2610	G	N7-C5	-6.52	1.35	1.39
36	5	1200	A	N3-C4	-6.52	1.30	1.34
36	1	939	U	N1-C2	-6.51	1.32	1.38
36	1	1660	C	N1-C6	-6.48	1.33	1.37
36	1	1304	A	N9-C4	-6.47	1.33	1.37
36	1	928	C	N1-C6	-6.46	1.33	1.37
36	5	2996	U	N1-C2	6.46	1.44	1.38
36	5	1370	G	C6-N1	-6.46	1.35	1.39
36	1	287	G	N7-C5	-6.43	1.35	1.39
36	5	1338	C	N1-C6	-6.43	1.33	1.37
36	5	877	C	C4-N4	-6.41	1.28	1.33
36	5	953	G	C5-C4	-6.39	1.33	1.38
36	5	2626	A	N3-C4	-6.38	1.31	1.34
36	5	1112	A	N7-C5	-6.38	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	645	A	C6-N1	-6.37	1.31	1.35
36	1	638	C	N3-C4	-6.36	1.29	1.33
36	1	1158	A	N7-C5	-6.36	1.35	1.39
36	5	2913	C	N3-C4	-6.35	1.29	1.33
1	6	542	A	N7-C5	-6.33	1.35	1.39
36	1	2714	G	N9-C8	6.33	1.42	1.37
36	5	2659	G	N7-C5	-6.32	1.35	1.39
13	c1	128	CYS	CB-SG	-6.32	1.71	1.82
36	1	1850	A	N9-C4	-6.31	1.34	1.37
36	1	653	A	C6-N1	-6.30	1.31	1.35
38	4	15	G	C5-C4	-6.29	1.33	1.38
36	5	2141	U	N1-C2	-6.29	1.32	1.38
36	1	1429	G	N9-C8	-6.27	1.33	1.37
36	5	2404	A	N3-C4	6.27	1.38	1.34
36	1	345	G	N9-C8	-6.27	1.33	1.37
36	1	100	A	N3-C4	-6.26	1.31	1.34
36	5	2386	A	N7-C5	-6.25	1.35	1.39
36	1	1394	A	N9-C4	-6.25	1.34	1.37
36	1	656	A	C5-C4	-6.25	1.34	1.38
36	1	636	C	C4-C5	-6.24	1.38	1.43
36	5	981	U	N1-C2	6.24	1.44	1.38
36	5	2903	A	N9-C4	-6.23	1.34	1.37
40	L3	200	GLU	CG-CD	6.23	1.61	1.51
36	1	699	A	N9-C4	-6.22	1.34	1.37
36	5	869	G	C6-N1	-6.22	1.35	1.39
36	5	519	A	N7-C5	-6.21	1.35	1.39
36	5	872	U	N1-C6	-6.21	1.32	1.38
36	1	2305	G	N7-C5	-6.21	1.35	1.39
36	1	815	G	C6-N1	-6.20	1.35	1.39
36	5	367	A	N3-C4	-6.18	1.31	1.34
36	1	2419	A	N9-C4	-6.17	1.34	1.37
36	1	1793	C	N1-C6	-6.17	1.33	1.37
36	5	3141	A	N9-C8	-6.16	1.32	1.37
36	5	2134	G	C6-N1	-6.16	1.35	1.39
36	1	2616	C	N1-C6	-6.15	1.33	1.37
36	5	2639	G	N7-C5	-6.14	1.35	1.39
36	1	1308	A	N7-C5	-6.11	1.35	1.39
36	1	701	G	N3-C4	-6.11	1.31	1.35
36	1	920	A	N3-C4	-6.10	1.31	1.34
36	5	2954	U	C2-N3	6.10	1.42	1.37
36	1	504	A	N9-C4	-6.10	1.34	1.37
36	5	1143	A	N3-C4	-6.09	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	216	G	N7-C5	-6.08	1.35	1.39
70	O4	87	GLU	CG-CD	6.08	1.61	1.51
36	1	1153	A	C5-C4	-6.07	1.34	1.38
36	1	1153	A	C6-N1	-6.06	1.31	1.35
36	1	1399	A	N9-C4	-6.06	1.34	1.37
36	5	2703	A	N3-C4	-6.05	1.31	1.34
36	5	2954	U	C4-O4	6.05	1.28	1.23
36	1	1201	C	C2-N3	6.04	1.40	1.35
36	1	339	C	N3-C4	-6.03	1.29	1.33
36	1	409	A	C5-C4	-6.03	1.34	1.38
36	5	787	G	N7-C5	-6.03	1.35	1.39
36	5	2908	G	N3-C4	-6.02	1.31	1.35
36	1	1154	A	N7-C5	-6.02	1.35	1.39
36	1	1103	A	N7-C5	6.01	1.42	1.39
36	5	367	A	C5-C4	-6.01	1.34	1.38
36	1	1308	A	N3-C4	-6.01	1.31	1.34
36	1	2801	A	N3-C4	-6.00	1.31	1.34
36	1	2877	G	N3-C4	-5.99	1.31	1.35
36	5	2147	A	C5-C6	-5.99	1.35	1.41
36	1	2138	A	N9-C4	-5.98	1.34	1.37
36	1	1402	C	N3-C4	-5.98	1.29	1.33
36	5	923	C	N1-C6	-5.97	1.33	1.37
36	5	3218	A	N9-C4	-5.96	1.34	1.37
36	1	3130	A	N7-C5	-5.96	1.35	1.39
36	5	2279	A	N3-C4	-5.96	1.31	1.34
36	5	719	U	N1-C2	5.95	1.44	1.38
36	5	2335	G	N1-C2	-5.95	1.32	1.37
36	5	866	A	N9-C4	-5.95	1.34	1.37
36	1	3006	A	N9-C4	-5.94	1.34	1.37
36	1	2330	C	N1-C6	-5.93	1.33	1.37
36	5	1915	A	N9-C4	-5.93	1.34	1.37
36	1	699	A	N3-C4	-5.93	1.31	1.34
36	5	2911	A	N7-C5	-5.92	1.35	1.39
36	1	654	C	N1-C6	-5.92	1.33	1.37
36	1	659	G	C5-C4	-5.92	1.34	1.38
36	1	2647	A	N3-C4	-5.91	1.31	1.34
36	5	1332	A	C5-C4	-5.91	1.34	1.38
36	5	2726	C	N3-C4	-5.91	1.29	1.33
36	1	2621	G	N3-C4	-5.91	1.31	1.35
37	3	89	G	N9-C8	-5.91	1.33	1.37
36	5	859	G	N1-C2	-5.90	1.33	1.37
36	1	1606	U	N1-C2	-5.90	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2295	A	C5-C6	-5.90	1.35	1.41
36	5	1298	C	N3-C4	-5.89	1.29	1.33
36	1	34	A	N3-C4	-5.88	1.31	1.34
36	5	2627	C	N1-C6	-5.88	1.33	1.37
36	1	296	A	N9-C4	5.88	1.41	1.37
1	6	1765	A	N9-C4	-5.88	1.34	1.37
52	m6	80	PHE	CB-CG	-5.87	1.41	1.51
36	5	2392	C	C2-N3	-5.86	1.31	1.35
36	1	426	G	N1-C2	-5.86	1.33	1.37
36	5	649	A	N7-C5	-5.86	1.35	1.39
36	1	40	A	C8-N7	-5.83	1.27	1.31
36	5	2362	C	N3-C4	-5.83	1.29	1.33
36	1	980	A	C5-C4	5.83	1.42	1.38
36	5	1151	U	N1-C2	-5.83	1.33	1.38
36	5	2143	A	N9-C4	5.82	1.41	1.37
36	5	2910	A	N9-C4	-5.82	1.34	1.37
36	1	1143	A	N3-C4	-5.81	1.31	1.34
1	6	17	C	N3-C4	-5.81	1.29	1.33
36	5	576	C	N1-C6	-5.80	1.33	1.37
36	5	1177	G	N3-C4	-5.80	1.31	1.35
36	5	3209	A	C5-C4	5.80	1.42	1.38
36	5	2993	G	C5-C4	-5.79	1.34	1.38
36	1	1116	G	N9-C8	-5.79	1.33	1.37
36	1	3209	A	C5-C4	5.79	1.42	1.38
38	8	80	A	N9-C4	5.79	1.41	1.37
36	5	1902	G	N7-C5	-5.78	1.35	1.39
36	5	2341	A	C5-C4	-5.78	1.34	1.38
36	1	1143	A	N9-C4	-5.78	1.34	1.37
1	6	1655	A	C5-C4	-5.78	1.34	1.38
36	5	1178	G	N7-C5	-5.78	1.35	1.39
1	6	1773	C	C4-N4	5.78	1.39	1.33
36	1	925	A	N3-C4	-5.77	1.31	1.34
36	1	1395	G	C5-C4	-5.77	1.34	1.38
36	5	2819	A	N3-C4	-5.77	1.31	1.34
36	5	1148	G	N9-C8	-5.77	1.33	1.37
36	5	2941	A	N3-C4	-5.77	1.31	1.34
36	5	958	C	N1-C6	-5.76	1.33	1.37
36	1	2138	A	N3-C4	-5.75	1.31	1.34
1	6	437	A	N9-C4	-5.75	1.34	1.37
36	5	2147	A	C5-C4	-5.75	1.34	1.38
36	5	2943	G	C5-C6	-5.75	1.36	1.42
36	1	1137	C	N1-C6	-5.74	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	653	A	C5-C6	-5.73	1.35	1.41
36	1	2946	A	C5-C6	-5.73	1.35	1.41
36	5	3047	U	N3-C4	-5.73	1.33	1.38
36	1	2147	A	N9-C4	-5.73	1.34	1.37
36	5	609	G	N3-C4	-5.73	1.31	1.35
36	5	1304	A	N7-C5	-5.73	1.35	1.39
36	5	2286	U	C2-N3	-5.72	1.33	1.37
36	5	2934	A	C6-N1	-5.72	1.31	1.35
36	1	2326	A	N3-C4	-5.72	1.31	1.34
36	5	2364	G	N3-C4	-5.72	1.31	1.35
36	5	2703	A	N7-C5	-5.71	1.35	1.39
36	1	1452	A	N9-C4	-5.71	1.34	1.37
36	5	2954	U	N3-C4	5.70	1.43	1.38
36	5	2334	U	C4-O4	-5.70	1.19	1.23
36	1	627	U	N1-C2	-5.70	1.33	1.38
36	1	2357	A	N7-C5	-5.70	1.35	1.39
36	1	1406	A	C5-C6	-5.70	1.35	1.41
36	1	630	A	C6-N1	-5.69	1.31	1.35
36	5	1332	A	N7-C5	-5.69	1.35	1.39
36	1	707	U	N1-C2	-5.69	1.33	1.38
36	1	2971	A	N9-C4	5.68	1.41	1.37
36	5	2814	G	C5-C4	-5.68	1.34	1.38
36	5	3040	A	N7-C5	-5.67	1.35	1.39
36	5	2828	G	C6-N1	-5.66	1.35	1.39
40	L3	7	GLU	CG-CD	5.66	1.60	1.51
36	5	1149	G	N9-C8	-5.66	1.33	1.37
36	1	402	A	N3-C4	-5.65	1.31	1.34
36	1	884	A	N9-C4	-5.65	1.34	1.37
36	1	2714	G	N9-C4	-5.64	1.33	1.38
36	5	2354	C	N1-C6	-5.64	1.33	1.37
38	4	111	A	C5-C6	-5.64	1.35	1.41
36	1	716	A	C5-C6	-5.63	1.35	1.41
36	5	1103	A	N9-C4	5.63	1.41	1.37
1	6	1025	A	N3-C4	-5.62	1.31	1.34
36	5	423	A	N7-C5	-5.62	1.35	1.39
36	5	1332	A	N3-C4	-5.62	1.31	1.34
1	6	1537	C	N1-C6	5.61	1.40	1.37
36	5	631	U	C2-N3	-5.61	1.33	1.37
36	1	2401	A	C5-C4	5.60	1.42	1.38
36	1	3054	U	C4-O4	5.60	1.28	1.23
36	1	2355	G	N7-C5	-5.60	1.35	1.39
36	5	2617	U	N1-C2	-5.60	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1025	A	N9-C4	-5.59	1.34	1.37
36	5	1178	G	C5-C6	-5.59	1.36	1.42
36	5	1874	A	N9-C4	-5.59	1.34	1.37
36	5	2291	A	N9-C4	-5.59	1.34	1.37
36	1	1103	A	N9-C4	5.59	1.41	1.37
36	1	646	A	N7-C5	-5.59	1.35	1.39
36	1	940	G	N9-C8	-5.59	1.33	1.37
36	5	34	A	N3-C4	-5.58	1.31	1.34
52	m6	40	GLU	CG-CD	5.58	1.60	1.51
36	1	1902	G	N7-C5	-5.58	1.35	1.39
36	1	2939	G	C5-C4	-5.58	1.34	1.38
1	6	1537	C	C5-C6	5.57	1.38	1.34
36	5	3305	A	N7-C5	-5.57	1.35	1.39
36	1	407	A	N7-C5	-5.57	1.35	1.39
36	5	848	A	N3-C4	-5.57	1.31	1.34
36	1	2733	A	C5-C6	-5.57	1.36	1.41
36	5	818	C	N1-C2	-5.57	1.34	1.40
36	1	1429	G	C8-N7	-5.57	1.27	1.30
36	5	49	A	N9-C4	-5.57	1.34	1.37
36	5	2913	C	N1-C2	-5.56	1.34	1.40
36	1	1394	A	N3-C4	-5.56	1.31	1.34
36	1	2368	A	C6-N1	-5.56	1.31	1.35
76	q0	99	CYS	CB-SG	-5.55	1.72	1.81
36	1	1489	A	C5-C6	-5.55	1.36	1.41
36	1	3319	U	N1-C2	5.55	1.43	1.38
36	5	953	G	N7-C5	-5.55	1.35	1.39
36	1	505	G	N3-C4	-5.54	1.31	1.35
1	6	321	C	N1-C2	5.54	1.45	1.40
36	5	861	C	N1-C6	-5.54	1.33	1.37
36	1	66	A	N9-C4	-5.54	1.34	1.37
36	5	2913	C	N1-C6	-5.54	1.33	1.37
36	5	650	C	N1-C6	-5.53	1.33	1.37
36	1	505	G	C6-N1	-5.53	1.35	1.39
36	5	1103	A	N3-C4	5.53	1.38	1.34
36	1	2368	A	N3-C4	-5.53	1.31	1.34
1	6	1756	A	N3-C4	5.52	1.38	1.34
36	1	3173	G	C8-N7	-5.52	1.27	1.30
36	1	2893	C	N3-C4	-5.51	1.30	1.33
36	5	2729	U	C2-N3	-5.51	1.33	1.37
36	1	984	G	N7-C5	-5.51	1.35	1.39
36	5	1189	C	N1-C2	-5.50	1.34	1.40
36	5	2280	A	N9-C4	-5.50	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2686	A	N3-C4	-5.50	1.31	1.34
36	5	420	G	N9-C8	-5.50	1.33	1.37
36	5	652	G	C5-C4	-5.50	1.34	1.38
36	1	1425	U	N3-C4	-5.50	1.33	1.38
36	1	3316	A	N9-C4	-5.50	1.34	1.37
36	5	2874	G	C6-O6	5.50	1.29	1.24
37	3	89	G	N7-C5	-5.49	1.35	1.39
36	5	1307	G	P-O5'	-5.49	1.54	1.59
1	6	1119	G	N7-C5	-5.49	1.35	1.39
36	1	2619	G	C5-C4	-5.49	1.34	1.38
36	1	1416	C	N3-C4	-5.48	1.30	1.33
36	1	2157	G	N7-C5	-5.48	1.35	1.39
36	5	1462	A	N9-C4	-5.48	1.34	1.37
36	1	2363	A	N9-C4	-5.48	1.34	1.37
36	1	2333	C	N3-C4	-5.48	1.30	1.33
36	5	2632	G	C6-N1	-5.47	1.35	1.39
36	1	2287	C	N1-C6	-5.47	1.33	1.37
36	5	2385	G	N9-C4	-5.47	1.33	1.38
36	5	2910	A	N3-C4	-5.47	1.31	1.34
37	3	88	G	C6-N1	-5.46	1.35	1.39
36	5	2892	A	N7-C5	-5.46	1.35	1.39
36	1	2426	U	C2-N3	-5.46	1.33	1.37
36	1	2379	U	N1-C2	-5.46	1.33	1.38
36	5	719	U	C2-O2	5.46	1.27	1.22
1	2	1730	A	N9-C4	-5.45	1.34	1.37
41	L4	199	TRP	CB-CG	-5.45	1.40	1.50
36	1	3005	A	N7-C5	-5.45	1.35	1.39
36	5	3335	A	C5-C6	-5.44	1.36	1.41
36	1	1902	G	C5-C6	-5.44	1.36	1.42
36	1	3209	A	C6-N1	5.44	1.39	1.35
36	5	1302	A	N3-C4	-5.43	1.31	1.34
36	5	417	A	C5-C4	-5.43	1.34	1.38
36	1	923	C	N1-C6	-5.43	1.33	1.37
36	5	824	C	N3-C4	-5.43	1.30	1.33
36	1	3008	A	N9-C4	-5.43	1.34	1.37
36	5	924	G	C2-N3	-5.43	1.28	1.32
36	5	2874	G	C5-C4	5.43	1.42	1.38
36	5	49	A	N3-C4	-5.43	1.31	1.34
36	1	656	A	N7-C5	-5.42	1.35	1.39
36	1	2187	G	N7-C5	-5.42	1.35	1.39
36	1	672	A	C5-C6	-5.42	1.36	1.41
38	4	111	A	N7-C5	-5.41	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2286	U	N3-C4	-5.41	1.33	1.38
36	1	1103	A	C6-N1	5.41	1.39	1.35
36	5	872	U	N1-C2	-5.41	1.33	1.38
36	5	1452	A	C5-C6	-5.40	1.36	1.41
40	13	251	CYS	CB-SG	-5.40	1.73	1.81
36	1	1369	A	N7-C5	-5.39	1.36	1.39
36	5	1321	G	N9-C8	-5.39	1.34	1.37
36	1	2702	A	N7-C5	-5.39	1.36	1.39
36	5	426	G	C5-C4	-5.39	1.34	1.38
36	5	88	A	N9-C4	-5.38	1.34	1.37
36	1	636	C	N1-C6	-5.38	1.33	1.37
36	1	2409	G	C5-C4	-5.38	1.34	1.38
36	1	2615	G	C5-C6	-5.38	1.36	1.42
36	5	2610	G	C5-C4	-5.38	1.34	1.38
36	5	2941	A	N7-C5	-5.37	1.36	1.39
36	1	1415	U	C2-N3	-5.37	1.33	1.37
36	1	48	A	N7-C5	-5.36	1.36	1.39
36	1	343	U	N1-C6	-5.36	1.33	1.38
36	5	2137	U	N1-C6	-5.36	1.33	1.38
36	5	397	A	N3-C4	-5.36	1.31	1.34
36	1	1447	G	N3-C4	-5.36	1.31	1.35
36	1	2404	A	N7-C5	5.36	1.42	1.39
36	1	2180	G	N7-C5	-5.35	1.36	1.39
1	2	632	U	C2-N3	-5.35	1.34	1.37
36	5	2637	A	C5-C6	-5.34	1.36	1.41
36	5	824	C	N1-C6	-5.34	1.33	1.37
36	5	2303	A	N7-C5	-5.34	1.36	1.39
36	1	2657	A	N7-C5	-5.34	1.36	1.39
36	5	836	A	N9-C4	-5.34	1.34	1.37
36	5	657	A	N9-C4	-5.34	1.34	1.37
36	5	2627	C	N3-C4	-5.34	1.30	1.33
36	1	1332	A	N7-C5	-5.33	1.36	1.39
36	5	877	C	C4-C5	-5.33	1.38	1.43
36	1	1392	G	C5-C4	-5.33	1.34	1.38
36	1	504	A	N3-C4	-5.33	1.31	1.34
36	1	1367	G	C5-C4	-5.33	1.34	1.38
36	5	1145	G	N3-C4	-5.33	1.31	1.35
36	5	2650	U	C4-O4	-5.32	1.19	1.23
36	1	1140	G	N1-C2	-5.32	1.33	1.37
36	5	2318	U	C2-N3	-5.32	1.34	1.37
36	5	1159	A	N9-C4	-5.31	1.34	1.37
1	6	1124	A	N9-C4	-5.31	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2743	A	N9-C8	-5.31	1.33	1.37
36	5	657	A	C5-C6	-5.31	1.36	1.41
36	1	1133	A	N7-C5	-5.30	1.36	1.39
36	1	1406	A	N7-C5	-5.30	1.36	1.39
42	L5	62	CYS	CB-SG	-5.30	1.73	1.81
36	1	211	A	C6-N6	-5.30	1.29	1.33
36	5	2958	A	N9-C4	-5.29	1.34	1.37
36	5	2851	A	N3-C4	-5.29	1.31	1.34
41	L4	46	LYS	CE-NZ	5.29	1.62	1.49
36	1	61	A	N3-C4	-5.29	1.31	1.34
36	5	1133	A	N9-C4	-5.29	1.34	1.37
36	5	2138	A	N7-C5	-5.29	1.36	1.39
36	5	3316	A	N9-C4	-5.29	1.34	1.37
36	5	1133	A	N3-C4	-5.29	1.31	1.34
36	1	343	U	C2-N3	-5.28	1.34	1.37
36	1	1382	G	C5-C4	-5.28	1.34	1.38
36	5	890	C	N1-C6	-5.28	1.33	1.37
36	5	2329	C	N1-C6	-5.28	1.33	1.37
37	7	76	A	N9-C4	-5.28	1.34	1.37
1	6	119	A	N9-C4	-5.28	1.34	1.37
36	1	1313	G	N7-C5	-5.28	1.36	1.39
36	1	716	A	N9-C4	-5.27	1.34	1.37
36	1	29	C	N1-C6	-5.27	1.33	1.37
36	1	1099	A	N7-C5	-5.27	1.36	1.39
36	1	1377	G	N1-C2	-5.27	1.33	1.37
36	1	2404	A	C6-N1	5.27	1.39	1.35
36	5	1429	G	N9-C4	-5.27	1.33	1.38
36	1	915	A	N3-C4	-5.27	1.31	1.34
36	1	915	A	C6-N1	-5.27	1.31	1.35
36	5	2892	A	N3-C4	-5.27	1.31	1.34
36	5	1307	G	N9-C8	-5.26	1.34	1.37
36	1	2762	A	N3-C4	-5.26	1.31	1.34
36	5	922	U	N1-C2	5.26	1.43	1.38
36	5	1888	U	N1-C6	-5.26	1.33	1.38
36	5	2649	A	N7-C5	-5.26	1.36	1.39
36	1	189	G	C6-N1	-5.25	1.35	1.39
36	5	2640	A	N9-C4	-5.25	1.34	1.37
36	1	2692	A	N7-C5	-5.25	1.36	1.39
36	5	417	A	N3-C4	-5.25	1.31	1.34
1	2	119	A	N9-C4	-5.25	1.34	1.37
36	5	2138	A	N9-C4	-5.25	1.34	1.37
36	1	980	A	N9-C4	5.24	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2920	U	C2-N3	-5.24	1.34	1.37
1	6	65	A	N9-C4	-5.24	1.34	1.37
36	5	1851	G	N7-C5	-5.24	1.36	1.39
36	1	64	G	C6-N1	-5.23	1.35	1.39
36	5	2625	C	N1-C6	-5.23	1.34	1.37
36	1	92	G	C6-N1	-5.23	1.35	1.39
36	1	1099	A	C5-C6	-5.23	1.36	1.41
36	5	818	C	N3-C4	-5.23	1.30	1.33
37	7	103	A	C5-C6	-5.23	1.36	1.41
36	1	952	A	N7-C5	-5.23	1.36	1.39
36	5	2138	A	N3-C4	-5.22	1.31	1.34
36	5	2983	C	N1-C6	-5.22	1.34	1.37
37	7	89	G	N9-C8	-5.22	1.34	1.37
36	5	2333	C	N1-C6	-5.22	1.34	1.37
36	1	668	G	N7-C5	-5.21	1.36	1.39
36	1	2874	G	C5-C4	5.21	1.42	1.38
1	6	426	G	C6-N1	-5.21	1.35	1.39
1	6	538	A	N9-C4	5.20	1.41	1.37
36	1	1377	G	N3-C4	-5.20	1.31	1.35
36	1	2645	G	N9-C8	-5.20	1.34	1.37
36	5	2644	C	N1-C6	-5.20	1.34	1.37
36	1	865	U	C2-N3	-5.20	1.34	1.37
36	5	2873	U	C4-C5	5.20	1.48	1.43
36	5	980	A	N7-C5	5.19	1.42	1.39
36	1	1114	U	C2-N3	-5.19	1.34	1.37
36	1	2726	C	N3-C4	-5.19	1.30	1.33
36	1	2203	U	N1-C2	-5.19	1.33	1.38
36	1	1392	G	N7-C5	-5.18	1.36	1.39
36	1	3273	A	N3-C4	-5.18	1.31	1.34
36	5	1370	G	N1-C2	-5.18	1.33	1.37
36	5	1148	G	N7-C5	-5.18	1.36	1.39
36	1	2621	G	C5-C4	-5.18	1.34	1.38
37	3	66	A	N9-C4	-5.18	1.34	1.37
1	6	317	C	N1-C6	-5.18	1.34	1.37
36	1	2968	G	N3-C4	-5.18	1.31	1.35
36	5	3138	U	N1-C2	-5.18	1.33	1.38
36	1	653	A	N7-C5	-5.17	1.36	1.39
36	5	2980	U	C2-O2	-5.17	1.17	1.22
36	5	1177	G	C6-N1	-5.17	1.35	1.39
36	1	1377	G	N9-C4	-5.17	1.33	1.38
36	1	934	G	N7-C5	-5.17	1.36	1.39
36	1	2609	A	C6-N1	-5.17	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	65	A	N9-C4	-5.17	1.34	1.37
36	5	3017	A	N7-C5	-5.17	1.36	1.39
36	1	1153	A	C5-C6	-5.17	1.36	1.41
36	5	2982	A	N3-C4	-5.17	1.31	1.34
36	1	40	A	N7-C5	-5.16	1.36	1.39
36	1	1667	A	N3-C4	-5.16	1.31	1.34
36	5	609	G	C2-N3	-5.16	1.28	1.32
36	5	386	A	C6-N1	5.16	1.39	1.35
36	5	2305	G	N7-C5	-5.16	1.36	1.39
1	6	65	A	C5-C6	-5.16	1.36	1.41
36	1	1428	A	C5-C6	-5.15	1.36	1.41
36	1	2364	G	C5-C4	-5.15	1.34	1.38
36	1	317	A	N7-C5	-5.15	1.36	1.39
36	1	1156	C	N3-C4	-5.15	1.30	1.33
36	5	2858	U	C2-N3	-5.14	1.34	1.37
36	5	2937	G	C5-C4	-5.14	1.34	1.38
36	1	884	A	N7-C5	-5.14	1.36	1.39
36	1	423	A	N7-C5	-5.13	1.36	1.39
36	1	2368	A	N9-C4	-5.13	1.34	1.37
36	1	1330	A	N7-C5	-5.13	1.36	1.39
36	5	2279	A	N9-C4	-5.13	1.34	1.37
36	5	1870	C	N1-C6	-5.13	1.34	1.37
36	1	2760	C	N1-C6	-5.13	1.34	1.37
36	5	1309	U	N1-C2	-5.13	1.33	1.38
36	5	2139	A	N9-C4	-5.13	1.34	1.37
36	5	407	A	N7-C5	-5.12	1.36	1.39
1	2	377	G	N9-C4	-5.12	1.33	1.38
36	1	921	A	N7-C5	-5.12	1.36	1.39
36	1	2396	G	N7-C5	-5.12	1.36	1.39
36	5	1174	G	N3-C4	-5.11	1.31	1.35
36	5	2272	G	C6-N1	-5.11	1.35	1.39
36	1	1401	A	N7-C5	-5.11	1.36	1.39
38	8	106	C	N1-C6	-5.11	1.34	1.37
36	5	716	A	C5-C6	-5.11	1.36	1.41
36	1	1468	A	N9-C4	-5.10	1.34	1.37
36	5	1173	U	N1-C2	-5.10	1.33	1.38
36	5	1854	C	N3-C4	-5.10	1.30	1.33
36	5	2704	A	N9-C4	-5.10	1.34	1.37
36	5	1592	G	C6-O6	5.10	1.28	1.24
36	1	2797	C	N1-C6	-5.10	1.34	1.37
36	5	2647	A	N9-C4	-5.10	1.34	1.37
36	5	2993	G	C5-C6	-5.10	1.37	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2875	U	N1-C6	5.09	1.42	1.38
36	1	1164	G	N7-C5	-5.09	1.36	1.39
36	5	3275	U	N1-C2	5.09	1.43	1.38
36	1	1434	G	N9-C8	-5.09	1.34	1.37
36	1	1481	A	N7-C5	-5.08	1.36	1.39
36	5	2885	C	N1-C6	-5.08	1.34	1.37
36	5	2814	G	N7-C5	-5.08	1.36	1.39
36	1	402	A	C5-C4	-5.08	1.35	1.38
1	6	616	G	N7-C5	-5.08	1.36	1.39
36	1	958	C	N3-C4	-5.08	1.30	1.33
36	5	2903	A	N3-C4	-5.08	1.31	1.34
36	1	116	A	N7-C5	5.08	1.42	1.39
1	6	351	C	N1-C6	-5.08	1.34	1.37
36	5	642	U	N1-C2	-5.08	1.33	1.38
36	1	2605	G	C5-C4	-5.07	1.34	1.38
36	5	980	A	N9-C4	5.07	1.40	1.37
36	1	2363	A	N3-C4	-5.07	1.31	1.34
36	1	55	G	C5-C4	-5.07	1.34	1.38
36	1	1364	C	N1-C6	-5.07	1.34	1.37
38	8	41	A	N3-C4	-5.06	1.31	1.34
36	1	2598	G	C5-C4	-5.06	1.34	1.38
36	1	821	U	C2-N3	-5.06	1.34	1.37
36	1	1159	A	C6-N1	-5.06	1.32	1.35
36	1	1667	A	N9-C4	-5.05	1.34	1.37
36	5	3366	G	N7-C5	-5.05	1.36	1.39
36	5	2887	A	N3-C4	-5.05	1.31	1.34
36	5	2897	A	C5-C4	-5.05	1.35	1.38
36	5	34	A	C5-C4	-5.05	1.35	1.38
36	5	2326	A	N3-C4	-5.04	1.31	1.34
36	5	3245	A	C5-C6	-5.04	1.36	1.41
36	1	608	A	N7-C5	-5.04	1.36	1.39
36	1	2875	U	C2-O2	5.03	1.26	1.22
36	1	74	G	N7-C5	-5.03	1.36	1.39
36	1	1371	G	N9-C8	-5.03	1.34	1.37
36	5	2811	A	C6-N1	-5.03	1.32	1.35
36	5	820	A	N7-C5	-5.03	1.36	1.39
36	1	2167	A	N7-C5	-5.02	1.36	1.39
36	1	887	G	N9-C8	-5.02	1.34	1.37
36	1	2605	G	N9-C4	-5.02	1.33	1.38
36	5	1849	C	N1-C6	-5.02	1.34	1.37
36	1	1184	A	C6-N1	-5.02	1.32	1.35
36	1	2640	A	N3-C4	-5.01	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	973	A	N7-C5	-5.01	1.36	1.39
36	5	657	A	C5-C4	-5.01	1.35	1.38
36	5	1855	U	C2-N3	-5.01	1.34	1.37
36	1	2616	C	C4-C5	-5.01	1.39	1.43
1	2	1205	C	N1-C6	-5.01	1.34	1.37
36	5	3081	C	N3-C4	-5.01	1.30	1.33
36	5	1207	G	C5-C4	-5.01	1.34	1.38
36	5	1451	C	N1-C6	-5.01	1.34	1.37
36	5	2317	A	N3-C4	-5.00	1.31	1.34
36	5	3121	U	N1-C2	-5.00	1.34	1.38

All (5668) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	C2-N3-C4	-24.18	99.81	111.90
36	5	1152	G	N3-C4-C5	20.67	138.94	128.60
36	5	1152	G	N3-C4-N9	-18.57	114.86	126.00
36	1	1902	G	N1-C6-O6	17.91	130.65	119.90
36	5	2893	C	N3-C4-C5	-17.30	114.98	121.90
1	6	1773	C	N3-C4-C5	-17.02	115.09	121.90
36	1	1902	G	C5-C6-O6	-15.94	119.04	128.60
36	5	1152	G	C5-N7-C8	-15.76	96.42	104.30
36	5	922	U	N3-C2-O2	-15.47	111.37	122.20
1	6	163	G	N3-C4-N9	-15.03	116.98	126.00
36	5	960	U	N1-C2-O2	15.01	133.31	122.80
36	1	2617	U	C5-C4-O4	14.87	134.82	125.90
1	6	1537	C	C6-N1-C2	-14.38	114.55	120.30
36	5	38	U	O5'-P-OP2	-14.33	92.80	105.70
36	5	3005	A	O5'-P-OP2	-14.10	93.01	105.70
36	5	877	C	N3-C4-C5	14.02	127.51	121.90
36	5	3218	A	N1-C6-N6	14.00	127.00	118.60
36	1	2714	G	N3-C4-C5	13.84	135.52	128.60
36	5	1006	A	O5'-P-OP2	-13.76	93.32	105.70
36	5	3245	A	C5-N7-C8	-13.44	97.18	103.90
36	5	1152	G	N1-C6-O6	13.36	127.92	119.90
36	1	2945	G	O5'-P-OP2	-13.34	93.70	105.70
36	1	608	A	N1-C6-N6	13.28	126.57	118.60
36	1	2714	G	N3-C4-N9	-13.19	118.09	126.00
36	1	1902	G	C4-C5-N7	13.14	116.06	110.80
36	5	3245	A	N7-C8-N9	13.10	120.35	113.80
36	1	1365	G	C8-N9-C4	-12.95	101.22	106.40
36	5	1902	G	N1-C6-O6	12.93	127.66	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	211	A	O5'-P-OP1	-12.83	94.15	105.70
36	1	645	A	N1-C6-N6	-12.80	110.92	118.60
36	1	1902	G	C6-C5-N7	-12.70	122.78	130.40
36	1	1308	A	C8-N9-C4	-12.63	100.75	105.80
36	5	1305	U	O5'-P-OP1	-12.53	94.43	105.70
36	5	1116	G	O5'-P-OP1	-12.51	94.45	105.70
1	2	553	G	N1-C6-O6	12.46	127.38	119.90
36	1	670	C	N3-C4-C5	-12.32	116.97	121.90
36	1	86	G	O5'-P-OP2	-12.16	94.76	105.70
36	1	716	A	N1-C6-N6	12.10	125.86	118.60
36	1	369	A	C8-N9-C4	-12.06	100.98	105.80
36	5	2899	C	C6-N1-C2	-12.04	115.48	120.30
36	5	960	U	N3-C2-O2	-11.93	113.85	122.20
36	5	994	G	O5'-P-OP2	-11.90	94.99	105.70
36	5	2893	C	C6-N1-C2	-11.88	115.55	120.30
36	5	398	A	O5'-P-OP2	-11.86	95.03	105.70
36	1	406	G	O4'-C1'-N9	11.85	117.68	108.20
36	5	1152	G	C4-C5-N7	11.83	115.53	110.80
36	5	2818	U	O5'-P-OP1	-11.80	95.08	105.70
36	5	1178	G	C6-C5-N7	-11.77	123.34	130.40
36	5	874	U	O5'-P-OP1	-11.69	95.17	105.70
36	1	2996	U	C2-N1-C1'	11.61	131.63	117.70
36	5	2372	A	C8-N9-C4	-11.53	101.19	105.80
36	1	3306	U	N3-C4-O4	-11.53	111.33	119.40
36	1	2884	C	N3-C4-C5	11.51	126.50	121.90
36	5	3245	A	C8-N9-C4	-11.40	101.24	105.80
36	1	1367	G	N1-C6-O6	11.30	126.68	119.90
36	1	2871	G	O5'-P-OP2	-11.29	95.54	105.70
36	5	957	C	C6-N1-C2	-11.29	115.78	120.30
36	1	672	A	N1-C6-N6	11.21	125.33	118.60
36	5	2283	G	N1-C6-O6	11.20	126.62	119.90
1	2	623	A	O5'-P-OP1	-11.19	95.63	105.70
36	5	1847	A	O5'-P-OP2	-11.18	95.63	105.70
36	1	2618	G	N1-C6-O6	-11.13	113.22	119.90
36	5	2176	U	N3-C2-O2	-11.12	114.41	122.20
36	5	2874	G	C5-C6-O6	11.09	135.25	128.60
36	5	2345	A	N1-C6-N6	11.08	125.25	118.60
36	1	1433	A	O5'-P-OP1	-11.06	95.75	105.70
36	1	652	G	O5'-P-OP2	-11.04	95.76	105.70
36	5	642	U	O5'-P-OP2	-11.04	95.76	105.70
36	5	222	A	O5'-P-OP2	-11.04	95.77	105.70
1	6	1537	C	N3-C4-C5	-11.02	117.49	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3245	A	C2-N3-C4	-11.00	105.10	110.60
36	1	2946	A	N1-C6-N6	10.95	125.17	118.60
36	1	2870	C	C2-N1-C1'	-10.94	106.77	118.80
36	1	1192	C	N1-C2-O2	10.93	125.45	118.90
36	1	636	C	C5-C4-N4	-10.91	112.56	120.20
36	1	2617	U	N1-C2-N3	10.86	121.42	114.90
36	5	2283	G	C5-C6-O6	-10.85	122.09	128.60
1	2	1200	G	N1-C6-O6	10.83	126.40	119.90
1	6	901	G	C4-C5-N7	10.83	115.13	110.80
36	5	3006	A	N1-C2-N3	10.82	134.71	129.30
36	5	2726	C	C5-C4-N4	10.82	127.77	120.20
36	1	1099	A	N1-C6-N6	10.82	125.09	118.60
36	5	1452	A	N1-C6-N6	10.81	125.09	118.60
37	7	101	G	N1-C6-O6	10.81	126.39	119.90
36	1	718	G	C4-C5-N7	10.79	115.12	110.80
1	6	901	G	N1-C6-O6	10.76	126.36	119.90
36	1	1437	C	C6-N1-C2	-10.74	116.00	120.30
36	5	2726	C	C6-N1-C2	-10.72	116.01	120.30
36	1	1132	C	O5'-P-OP1	-10.70	96.07	105.70
36	5	719	U	N1-C2-O2	10.69	130.28	122.80
36	1	2355	G	N1-C6-O6	10.68	126.31	119.90
36	5	776	U	C5-C6-N1	-10.68	117.36	122.70
36	5	1592	G	C8-N9-C4	-10.67	102.13	106.40
36	1	282	G	C8-N9-C4	-10.62	102.15	106.40
36	1	716	A	N9-C4-C5	-10.60	101.56	105.80
36	5	1902	G	C5-C6-O6	-10.51	122.29	128.60
36	1	2400	G	C4-C5-N7	10.49	114.99	110.80
36	1	920	A	N1-C2-N3	10.42	134.51	129.30
36	1	939	U	N1-C2-O2	-10.42	115.50	122.80
36	5	784	A	N1-C6-N6	10.42	124.85	118.60
36	1	2808	A	N1-C6-N6	10.38	124.83	118.60
36	5	2816	G	C8-N9-C4	10.38	110.55	106.40
36	5	1152	G	N1-C2-N3	10.37	130.12	123.90
36	1	3306	U	C5-C4-O4	10.35	132.11	125.90
36	1	960	U	C2-N1-C1'	-10.35	105.28	117.70
36	1	645	A	C6-N1-C2	-10.33	112.40	118.60
36	1	2408	U	O5'-P-OP1	-10.29	96.44	105.70
36	1	636	C	N3-C4-C5	10.29	126.02	121.90
36	5	2954	U	C2-N1-C1'	10.29	130.05	117.70
36	5	776	U	N1-C2-N3	10.28	121.07	114.90
36	1	2827	U	C5-C4-O4	10.28	132.07	125.90
1	2	639	U	N3-C2-O2	-10.22	115.05	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	776	U	C4-C5-C6	10.18	125.81	119.70
36	1	3181	C	C5-C4-N4	10.15	127.31	120.20
1	6	1773	C	C4-C5-C6	10.11	122.45	117.40
36	5	3197	G	N3-C2-N2	-10.11	112.83	119.90
37	7	49	G	N1-C6-O6	10.07	125.94	119.90
36	1	2283	G	N1-C6-O6	10.07	125.94	119.90
1	2	1039	A	O4'-C1'-N9	10.04	116.23	108.20
1	6	163	G	N9-C4-C5	10.04	109.42	105.40
1	6	338	C	C6-N1-C2	-10.04	116.29	120.30
36	5	2385	G	N3-C4-C5	10.03	133.61	128.60
1	6	1773	C	N3-C4-N4	10.02	125.01	118.00
36	5	56	G	N1-C6-O6	-10.00	113.90	119.90
36	5	3197	G	N3-C4-N9	-9.99	120.00	126.00
36	1	340	C	N3-C4-C5	9.99	125.90	121.90
1	6	1000	C	N3-C2-O2	-9.98	114.91	121.90
1	6	338	C	C5-C6-N1	9.98	125.99	121.00
36	5	1392	G	C8-N9-C4	9.97	110.39	106.40
36	1	2996	U	C6-N1-C1'	-9.97	107.24	121.20
1	6	163	G	N3-C4-C5	9.97	133.59	128.60
36	1	2777	G	N1-C6-O6	-9.94	113.93	119.90
36	5	1302	A	C8-N9-C4	-9.94	101.83	105.80
36	1	585	A	O5'-P-OP2	-9.94	96.76	105.70
36	5	2928	C	C6-N1-C2	-9.94	116.33	120.30
36	5	3218	A	C4-C5-N7	9.93	115.67	110.70
36	5	1178	G	C4-C5-N7	9.92	114.77	110.80
36	1	3181	C	N3-C4-N4	-9.92	111.06	118.00
1	6	1473	U	N3-C2-O2	-9.91	115.26	122.20
36	5	820	A	C8-N9-C4	-9.90	101.84	105.80
36	5	2403	G	O5'-P-OP2	-9.88	96.81	105.70
36	1	895	A	O5'-P-OP1	-9.86	96.83	105.70
36	5	2335	G	C5-C6-N1	9.84	116.42	111.50
36	5	800	G	N3-C2-N2	-9.82	113.03	119.90
1	6	337	G	C6-C5-N7	-9.76	124.54	130.40
40	l3	4	ARG	NE-CZ-NH1	9.76	125.18	120.30
36	1	3013	U	O5'-P-OP2	-9.76	96.92	105.70
36	5	2726	C	N3-C2-O2	-9.72	115.10	121.90
36	5	922	U	N1-C2-O2	9.71	129.60	122.80
36	5	965	A	O5'-P-OP2	-9.70	96.97	105.70
36	1	2726	C	N3-C2-O2	-9.69	115.11	121.90
36	5	1308	A	OP1-P-OP2	-9.68	105.08	119.60
1	2	1773	C	C6-N1-C2	-9.67	116.43	120.30
36	1	718	G	C6-C5-N7	-9.66	124.60	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3306	U	N3-C2-O2	-9.66	115.44	122.20
36	5	927	C	N1-C2-O2	-9.66	113.11	118.90
36	5	2700	G	C5-C6-O6	-9.64	122.82	128.60
36	1	949	C	C6-N1-C2	-9.63	116.45	120.30
36	5	957	C	N3-C2-O2	-9.62	115.17	121.90
36	1	1495	U	N1-C2-N3	9.62	120.67	114.90
36	1	776	U	C4-C5-C6	9.60	125.46	119.70
36	5	1834	U	N3-C4-C5	-9.59	108.84	114.60
36	5	2943	G	C6-C5-N7	-9.59	124.65	130.40
36	1	1495	U	C5-C6-N1	-9.56	117.92	122.70
36	5	2886	U	N3-C2-O2	-9.56	115.50	122.20
36	5	86	G	O5'-P-OP2	-9.56	97.09	105.70
36	1	1838	G	N1-C6-O6	9.56	125.64	119.90
36	5	3245	A	C4-C5-N7	9.54	115.47	110.70
1	6	1000	C	C2-N1-C1'	9.53	129.28	118.80
36	5	1447	G	O5'-P-OP1	-9.53	97.13	105.70
1	6	647	G	N3-C4-N9	-9.52	120.28	126.00
36	1	1115	G	C8-N9-C4	-9.52	102.59	106.40
1	2	992	A	C2-N3-C4	-9.50	105.85	110.60
37	7	101	G	C6-C5-N7	-9.49	124.70	130.40
36	1	350	C	C6-N1-C2	-9.49	116.50	120.30
36	1	646	A	C8-N9-C4	-9.48	102.01	105.80
36	1	917	A	O5'-P-OP2	-9.48	97.17	105.70
36	1	2818	U	O5'-P-OP1	-9.47	97.18	105.70
36	1	1365	G	N3-C4-C5	-9.47	123.87	128.60
36	1	670	C	C6-N1-C2	-9.46	116.52	120.30
36	1	653	A	O5'-P-OP2	-9.45	97.20	105.70
1	6	901	G	C5-C6-O6	-9.44	122.94	128.60
1	2	830	U	N3-C2-O2	-9.43	115.60	122.20
36	1	645	A	N9-C4-C5	9.43	109.57	105.80
36	1	2831	G	N1-C6-O6	9.43	125.56	119.90
1	6	1700	C	N1-C2-O2	9.43	124.56	118.90
36	5	1143	A	C2-N3-C4	-9.42	105.89	110.60
36	5	1604	G	N3-C4-N9	9.41	131.65	126.00
36	5	648	C	O5'-P-OP1	-9.41	97.23	105.70
36	1	1308	A	N7-C8-N9	9.41	118.50	113.80
36	1	3278	C	N1-C2-O2	9.41	124.54	118.90
36	5	2943	G	C4-C5-N7	9.40	114.56	110.80
36	5	776	U	N3-C2-O2	-9.40	115.62	122.20
36	5	3204	C	C6-N1-C2	9.40	124.06	120.30
36	5	712	G	O5'-P-OP2	-9.39	97.25	105.70
36	5	3305	A	N1-C6-N6	9.39	124.23	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2945	G	O5'-P-OP2	-9.36	97.27	105.70
36	5	2619	G	C5-C6-O6	-9.36	122.99	128.60
36	1	406	G	O5'-P-OP2	-9.32	97.31	105.70
36	5	2334	U	O5'-P-OP2	-9.29	97.34	105.70
73	O7	65	ARG	NE-CZ-NH1	9.28	124.94	120.30
37	7	45	A	O5'-P-OP2	-9.26	97.37	105.70
36	1	3005	A	C8-N9-C4	-9.25	102.10	105.80
36	5	1112	A	C4-C5-C6	9.25	121.63	117.00
36	1	937	G	O5'-P-OP2	-9.24	97.39	105.70
36	5	3218	A	N9-C4-C5	-9.24	102.11	105.80
36	5	877	C	C5-C4-N4	-9.23	113.74	120.20
36	5	1851	G	N1-C6-O6	9.23	125.44	119.90
36	1	718	G	C5-N7-C8	-9.22	99.69	104.30
36	1	1364	C	N3-C4-C5	9.22	125.59	121.90
36	5	873	C	C6-N1-C2	-9.22	116.61	120.30
36	1	1428	A	N1-C6-N6	9.21	124.13	118.60
38	4	14	C	O5'-P-OP2	-9.21	97.41	105.70
36	5	1390	A	N1-C6-N6	-9.21	113.07	118.60
36	1	104	G	C5-C6-O6	-9.20	123.08	128.60
36	1	339	C	N3-C4-N4	-9.19	111.56	118.00
36	5	1302	A	N9-C4-C5	9.19	109.48	105.80
1	2	794	U	N1-C2-O2	9.19	129.23	122.80
36	5	2799	A	N1-C6-N6	-9.18	113.09	118.60
36	5	780	A	O5'-P-OP1	-9.18	97.44	105.70
36	5	2395	G	O5'-P-OP2	-9.18	97.44	105.70
36	1	1385	C	N1-C2-O2	-9.16	113.41	118.90
36	5	1879	A	C5-N7-C8	-9.16	99.32	103.90
36	5	2763	U	C5-C4-O4	-9.13	120.42	125.90
36	5	1143	A	N1-C2-N3	9.12	133.86	129.30
36	1	2756	C	C6-N1-C2	-9.10	116.66	120.30
1	6	314	C	C6-N1-C2	-9.10	116.66	120.30
1	2	1773	C	N3-C4-C5	-9.09	118.27	121.90
36	5	3245	A	C6-C5-N7	-9.09	125.94	132.30
37	7	101	G	C5-C6-O6	-9.08	123.15	128.60
38	8	12	A	N1-C6-N6	9.08	124.05	118.60
36	5	283	G	C4-C5-N7	9.07	114.43	110.80
1	6	901	G	C6-C5-N7	-9.06	124.96	130.40
36	5	1440	G	C4-C5-N7	-9.06	107.18	110.80
36	5	2808	A	N1-C6-N6	9.05	124.03	118.60
1	2	448	C	C6-N1-C2	-9.04	116.68	120.30
36	1	645	A	N1-C2-N3	9.04	133.82	129.30
36	5	3093	C	C6-N1-C2	9.03	123.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1302	A	O5'-P-OP1	-9.03	97.58	105.70
36	1	984	G	N3-C2-N2	9.03	126.22	119.90
36	5	1152	G	N7-C8-N9	9.02	117.61	113.10
36	1	197	G	C5-C6-O6	-9.02	123.19	128.60
36	5	1452	A	C5-C6-N6	-9.01	116.49	123.70
36	5	2272	G	O4'-C1'-N9	9.01	115.41	108.20
38	8	12	A	C5-C6-N6	-9.01	116.50	123.70
36	1	3181	C	N3-C2-O2	-9.00	115.60	121.90
36	1	1343	A	N1-C6-N6	8.99	124.00	118.60
36	5	1473	G	C8-N9-C4	8.99	110.00	106.40
36	1	2636	A	C8-N9-C4	-8.99	102.20	105.80
1	2	1745	G	N3-C4-N9	8.98	131.39	126.00
1	6	1700	C	C2-N1-C1'	8.97	128.67	118.80
36	1	344	A	O5'-P-OP1	-8.96	97.63	105.70
36	1	2621	G	N3-C2-N2	-8.96	113.63	119.90
3	S1	218	LEU	CA-CB-CG	8.96	135.91	115.30
38	4	113	U	C5-C6-N1	-8.96	118.22	122.70
36	1	1416	C	N3-C4-N4	-8.95	111.73	118.00
36	5	1110	U	N1-C2-O2	8.94	129.06	122.80
36	5	2821	C	N1-C2-O2	-8.94	113.53	118.90
36	1	421	G	C8-N9-C4	8.94	109.97	106.40
36	5	2928	C	C2-N1-C1'	8.94	128.63	118.80
36	5	2351	U	N1-C2-N3	8.93	120.26	114.90
36	5	1115	G	C4-N9-C1'	8.93	138.10	126.50
36	5	1481	A	C8-N9-C4	-8.92	102.23	105.80
36	1	397	A	N1-C6-N6	-8.91	113.26	118.60
36	1	2252	A	C8-N9-C4	-8.91	102.24	105.80
1	2	1212	G	N1-C6-O6	8.90	125.24	119.90
36	5	429	U	O5'-P-OP2	-8.90	97.69	105.70
1	2	553	G	C5-C6-O6	-8.90	123.26	128.60
36	1	1367	G	C5-C6-O6	-8.87	123.28	128.60
36	5	2980	U	N1-C2-N3	8.87	120.22	114.90
36	5	2400	G	C8-N9-C4	8.87	109.95	106.40
36	1	611	A	O5'-P-OP2	-8.85	97.73	105.70
36	5	2398	A	N1-C2-N3	8.85	133.72	129.30
36	1	421	G	N9-C4-C5	-8.84	101.86	105.40
36	5	2572	C	N1-C2-O2	8.84	124.20	118.90
36	5	1181	U	C5-C6-N1	-8.84	118.28	122.70
36	1	2870	C	N3-C4-C5	8.82	125.43	121.90
36	5	2632	G	O5'-P-OP1	-8.82	97.76	105.70
36	5	2908	G	N9-C4-C5	8.80	108.92	105.40
36	5	1902	G	C6-C5-N7	-8.80	125.12	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1604	G	C8-N9-C1'	-8.80	115.57	127.00
36	5	2310	U	O5'-P-OP2	-8.79	97.79	105.70
36	1	2247	G	N1-C6-O6	8.78	125.17	119.90
1	6	610	G	C8-N9-C1'	-8.78	115.59	127.00
36	5	1152	G	N3-C2-N2	-8.77	113.76	119.90
36	5	2983	C	C4-C5-C6	8.77	121.78	117.40
1	2	453	U	C2-N1-C1'	8.76	128.21	117.70
36	5	2887	A	O5'-P-OP1	-8.76	97.81	105.70
36	5	3144	G	C8-N9-C4	-8.76	102.89	106.40
36	1	2601	A	C8-N9-C4	8.76	109.30	105.80
38	8	96	A	C8-N9-C4	8.76	109.30	105.80
36	5	2908	G	C8-N9-C4	-8.75	102.90	106.40
1	6	1	U	O4'-C1'-N1	8.75	115.20	108.20
36	5	2343	C	O5'-P-OP2	-8.72	97.85	105.70
36	1	439	C	C2-N1-C1'	8.71	128.38	118.80
36	5	682	U	C2-N1-C1'	-8.71	107.25	117.70
1	2	554	C	N1-C2-O2	8.71	124.12	118.90
36	5	2971	A	C2-N3-C4	8.70	114.95	110.60
36	5	2983	C	O5'-P-OP1	-8.70	97.87	105.70
11	s9	3	ARG	NE-CZ-NH2	8.70	124.65	120.30
1	6	1129	U	C5-C4-O4	8.69	131.11	125.90
1	6	272	U	P-O3'-C3'	8.69	130.12	119.70
36	5	2400	G	C5-C6-O6	-8.68	123.39	128.60
36	1	2945	G	O5'-P-OP1	8.67	121.11	110.70
36	5	2345	A	C5-C6-N6	-8.67	116.76	123.70
36	5	3178	A	O5'-P-OP1	-8.67	97.89	105.70
36	1	2124	G	N1-C6-O6	8.67	125.10	119.90
36	5	705	A	O5'-P-OP2	-8.67	97.90	105.70
1	6	1629	G	O5'-P-OP2	-8.66	97.91	105.70
36	5	2945	G	O5'-P-OP1	8.66	121.09	110.70
36	5	1307	G	P-O3'-C3'	8.65	130.08	119.70
36	5	3154	C	C6-N1-C2	-8.65	116.84	120.30
36	1	1365	G	N7-C8-N9	8.65	117.42	113.10
36	1	2846	U	N3-C2-O2	-8.64	116.15	122.20
36	5	3218	A	C5-C6-N6	-8.64	116.79	123.70
38	8	80	A	C8-N9-C4	-8.64	102.34	105.80
1	2	577	G	C4-C5-N7	8.63	114.25	110.80
37	3	88	G	N1-C6-O6	-8.63	114.72	119.90
36	1	2968	G	C2-N3-C4	-8.62	107.59	111.90
1	6	390	G	O5'-P-OP2	-8.62	97.95	105.70
36	5	1042	U	N3-C4-C5	8.61	119.77	114.60
36	1	1849	C	N1-C2-O2	-8.61	113.73	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2359	C	N1-C2-O2	-8.60	113.74	118.90
36	5	2145	A	C6-N1-C2	-8.60	113.44	118.60
36	5	2186	U	N3-C2-O2	-8.59	116.19	122.20
36	5	881	C	N1-C2-O2	8.59	124.05	118.90
36	1	1216	C	C6-N1-C2	-8.58	116.87	120.30
36	1	339	C	C5-C4-N4	8.58	126.20	120.20
36	5	1152	G	C6-C5-N7	-8.57	125.26	130.40
36	5	966	U	N3-C2-O2	-8.57	116.20	122.20
36	1	3045	G	O5'-P-OP2	-8.56	97.99	105.70
1	2	1082	C	C6-N1-C2	-8.56	116.88	120.30
36	5	716	A	N1-C6-N6	8.56	123.73	118.60
36	5	2245	C	C6-N1-C2	-8.55	116.88	120.30
36	5	2820	A	N7-C8-N9	8.55	118.08	113.80
1	2	794	U	N3-C2-O2	-8.55	116.21	122.20
36	1	2400	G	C5-N7-C8	-8.55	100.03	104.30
36	5	2372	A	N7-C8-N9	8.55	118.08	113.80
36	1	3143	C	N3-C2-O2	8.55	127.88	121.90
36	1	969	C	N1-C2-O2	-8.55	113.77	118.90
36	5	2726	C	N3-C4-N4	-8.54	112.02	118.00
36	1	1158	A	C5-C6-N6	-8.54	116.87	123.70
36	1	2624	G	N1-C6-O6	8.54	125.02	119.90
36	5	1914	G	O5'-P-OP1	-8.54	98.02	105.70
36	1	1216	C	C5-C6-N1	8.53	125.26	121.00
36	1	984	G	N3-C4-C5	-8.52	124.34	128.60
38	4	24	G	C5-C6-O6	-8.51	123.50	128.60
36	1	54	C	N3-C4-C5	8.51	125.30	121.90
36	1	608	A	C6-C5-N7	-8.51	126.35	132.30
36	5	2996	U	N1-C2-O2	8.50	128.75	122.80
1	2	137	U	N3-C2-O2	-8.50	116.25	122.20
36	1	1829	G	C8-N9-C4	-8.50	103.00	106.40
36	1	1848	G	O5'-P-OP1	-8.50	98.05	105.70
36	1	2148	U	N3-C2-O2	8.50	128.15	122.20
36	5	426	G	C8-N9-C4	8.50	109.80	106.40
36	1	1447	G	N1-C6-O6	-8.50	114.80	119.90
36	1	2124	G	C5-C6-O6	-8.50	123.50	128.60
36	5	1834	U	C6-N1-C2	-8.50	115.90	121.00
36	5	3154	C	N1-C2-O2	8.50	124.00	118.90
36	1	2868	U	N1-C2-O2	8.49	128.74	122.80
36	1	940	G	O5'-P-OP1	-8.49	98.06	105.70
36	1	1481	A	C6-C5-N7	-8.48	126.36	132.30
36	1	1489	A	N1-C6-N6	8.48	123.69	118.60
1	6	610	G	C4-N9-C1'	8.48	137.53	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1370	G	N3-C4-N9	8.48	131.09	126.00
36	1	908	G	C5-C6-O6	-8.48	123.51	128.60
36	1	2714	G	C2-N3-C4	-8.48	107.66	111.90
36	5	3049	A	C8-N9-C4	8.48	109.19	105.80
36	1	1158	A	N1-C6-N6	8.46	123.68	118.60
36	1	3143	C	N1-C2-O2	-8.46	113.82	118.90
36	5	984	G	N3-C4-C5	-8.46	124.37	128.60
36	1	716	A	C4-C5-N7	8.46	114.93	110.70
36	5	2764	C	N3-C4-C5	8.45	125.28	121.90
36	1	2995	A	C8-N9-C4	8.45	109.18	105.80
1	6	144	U	N3-C2-O2	-8.45	116.29	122.20
36	1	2572	C	C2-N1-C1'	8.43	128.07	118.80
36	5	3218	A	C6-C5-N7	-8.43	126.40	132.30
36	1	2243	A	O5'-P-OP2	-8.42	98.12	105.70
36	5	2873	U	C4-C5-C6	8.41	124.75	119.70
36	1	1429	G	N3-C4-C5	-8.41	124.40	128.60
36	1	3362	A	N7-C8-N9	8.41	118.00	113.80
36	5	2893	C	N3-C4-N4	8.41	123.89	118.00
36	5	2385	G	O5'-P-OP1	-8.41	98.14	105.70
38	4	74	U	O5'-P-OP1	-8.40	98.14	105.70
36	1	647	A	C8-N9-C4	8.39	109.16	105.80
38	4	103	G	N3-C4-C5	-8.39	124.40	128.60
36	5	1184	A	N1-C6-N6	-8.39	113.57	118.60
36	1	952	A	C8-N9-C4	-8.39	102.45	105.80
36	5	2984	C	C2-N3-C4	-8.39	115.71	119.90
36	1	895	A	C4-C5-N7	8.38	114.89	110.70
36	5	578	A	N1-C6-N6	8.38	123.63	118.60
65	n9	23	LYS	C-N-CD	8.38	146.00	128.40
36	1	637	C	P-O3'-C3'	8.38	129.75	119.70
36	5	56	G	C5-C6-N1	8.37	115.69	111.50
36	1	2886	U	C5-C4-O4	-8.36	120.88	125.90
36	5	2145	A	N1-C6-N6	-8.36	113.58	118.60
36	5	1612	A	N1-C6-N6	-8.35	113.59	118.60
36	1	1166	G	C5-C6-O6	-8.35	123.59	128.60
36	1	1104	G	O5'-P-OP1	-8.34	98.19	105.70
36	5	2874	G	C4-C5-N7	-8.34	107.46	110.80
36	1	2311	G	O5'-P-OP1	-8.34	98.19	105.70
36	1	3206	C	N1-C2-O2	-8.34	113.90	118.90
36	5	1604	G	C4-N9-C1'	8.34	137.34	126.50
36	1	2714	G	C8-N9-C1'	8.33	137.83	127.00
1	6	151	G	N3-C4-N9	-8.33	121.00	126.00
38	8	18	U	O5'-P-OP2	-8.33	98.20	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1484	U	P-O3'-C3'	8.33	129.69	119.70
36	5	2893	C	C4-C5-C6	8.33	121.56	117.40
36	1	1741	A	C2-N3-C4	-8.32	106.44	110.60
36	5	945	C	C6-N1-C2	8.32	123.63	120.30
36	1	64	G	O5'-P-OP2	8.32	120.68	110.70
36	5	2978	U	O4'-C1'-N1	8.32	114.86	108.20
36	5	3078	U	N3-C2-O2	-8.32	116.38	122.20
36	1	1422	G	O5'-P-OP1	-8.32	98.22	105.70
1	6	1769	U	C6-N1-C2	8.32	125.99	121.00
36	5	2272	G	N1-C6-O6	-8.32	114.91	119.90
36	1	699	A	C2-N3-C4	-8.31	106.45	110.60
36	1	1902	G	C5-N7-C8	-8.31	100.15	104.30
36	1	500	C	C6-N1-C2	-8.30	116.98	120.30
36	5	2916	U	C4-C5-C6	8.30	124.68	119.70
36	5	838	G	C5-C6-O6	8.30	133.58	128.60
1	2	334	G	C2-N3-C4	-8.30	107.75	111.90
1	2	1291	G	N7-C8-N9	8.29	117.25	113.10
36	5	974	G	N3-C4-C5	-8.29	124.45	128.60
36	5	1903	U	O5'-P-OP2	8.29	120.65	110.70
36	1	3207	U	C2-N1-C1'	-8.29	107.76	117.70
36	1	913	A	C8-N9-C4	-8.28	102.49	105.80
36	1	1604	G	C8-N9-C4	-8.28	103.09	106.40
36	1	2819	A	O5'-P-OP2	-8.28	98.25	105.70
36	1	1364	C	C6-N1-C2	8.28	123.61	120.30
1	6	53	G	N3-C4-C5	-8.28	124.46	128.60
1	6	512	A	N1-C6-N6	8.28	123.57	118.60
36	5	3324	C	C6-N1-C2	8.28	123.61	120.30
36	1	1099	A	C5-C6-N6	-8.27	117.08	123.70
36	5	2760	C	N3-C4-C5	8.27	125.21	121.90
36	5	3050	U	C5-C4-O4	8.26	130.86	125.90
36	5	2136	C	C5-C6-N1	-8.26	116.87	121.00
36	1	1166	G	N1-C6-O6	8.25	124.85	119.90
36	1	421	G	N3-C4-N9	8.25	130.95	126.00
36	1	821	U	N3-C4-O4	-8.25	113.62	119.40
36	5	1158	A	N1-C6-N6	8.24	123.55	118.60
1	6	453	U	N3-C2-O2	-8.23	116.44	122.20
36	5	424	G	C5-C6-O6	-8.23	123.66	128.60
36	1	1154	A	C6-N1-C2	-8.23	113.66	118.60
36	5	2383	C	N1-C2-O2	-8.23	113.96	118.90
36	1	3362	A	C5-N7-C8	-8.22	99.79	103.90
36	1	2617	U	N3-C2-O2	-8.22	116.45	122.20
1	6	163	G	C2-N3-C4	-8.22	107.79	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1669	C	C6-N1-C2	8.21	123.59	120.30
1	2	577	G	C5-N7-C8	-8.21	100.19	104.30
36	1	1346	G	C2-N3-C4	-8.21	107.80	111.90
36	1	54	C	C6-N1-C2	8.20	123.58	120.30
38	8	84	C	C6-N1-C2	-8.19	117.02	120.30
36	5	3004	C	N3-C2-O2	8.19	127.63	121.90
36	5	2940	A	N1-C6-N6	8.18	123.51	118.60
1	2	1212	G	C5-C6-O6	-8.17	123.70	128.60
36	1	3217	C	C2-N1-C1'	8.17	127.79	118.80
36	5	2913	C	N1-C2-O2	-8.17	114.00	118.90
38	8	43	A	C8-N9-C4	-8.17	102.53	105.80
48	m1	112	LEU	CA-CB-CG	8.17	134.09	115.30
36	1	1116	G	C8-N9-C4	-8.16	103.13	106.40
36	1	1495	U	C4-C5-C6	8.16	124.60	119.70
36	1	1314	C	C6-N1-C2	-8.16	117.03	120.30
36	5	2353	G	C5-C6-O6	-8.16	123.70	128.60
36	5	2626	A	N1-C2-N3	8.16	133.38	129.30
36	1	2996	U	N1-C2-O2	8.16	128.51	122.80
36	5	1055	A	O5'-P-OP2	-8.16	98.36	105.70
36	1	608	A	C5-C6-N6	-8.15	117.18	123.70
36	5	923	C	C6-N1-C2	8.15	123.56	120.30
1	6	557	G	N3-C4-C5	-8.14	124.53	128.60
36	5	927	C	C5-C4-N4	-8.14	114.50	120.20
36	5	2700	G	N1-C6-O6	8.14	124.78	119.90
38	8	25	G	O5'-P-OP2	-8.14	98.38	105.70
36	1	105	C	C5-C4-N4	-8.12	114.51	120.20
36	1	3088	G	O5'-P-OP1	-8.12	98.39	105.70
36	1	3208	G	N9-C4-C5	8.12	108.65	105.40
36	5	580	C	C6-N1-C2	-8.12	117.05	120.30
36	5	3374	U	C6-N1-C2	8.12	125.87	121.00
38	8	80	A	N7-C8-N9	8.12	117.86	113.80
36	5	55	G	C8-N9-C4	8.12	109.65	106.40
36	5	3006	A	C2-N3-C4	-8.12	106.54	110.60
36	5	3154	C	C2-N1-C1'	8.12	127.73	118.80
36	1	1360	C	C6-N1-C2	8.11	123.54	120.30
70	O4	8	ARG	NE-CZ-NH1	8.10	124.35	120.30
36	1	2572	C	N1-C2-O2	8.10	123.76	118.90
36	1	50	U	N1-C2-N3	8.10	119.76	114.90
36	5	1154	A	C2-N3-C4	8.10	114.65	110.60
36	5	1200	A	C4-C5-C6	8.09	121.05	117.00
36	5	1187	C	N3-C4-C5	8.09	125.13	121.90
1	6	448	C	C6-N1-C2	-8.08	117.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2396	G	C8-N9-C4	-8.08	103.17	106.40
36	1	681	U	C5-C4-O4	-8.08	121.05	125.90
36	1	2777	G	C5-C6-O6	8.08	133.45	128.60
36	1	3344	A	N7-C8-N9	8.08	117.84	113.80
36	5	947	G	N3-C4-C5	-8.08	124.56	128.60
36	5	2293	C	N1-C2-O2	8.08	123.75	118.90
36	5	2278	C	C4-C5-C6	-8.07	113.36	117.40
36	1	1389	G	C5-C6-O6	-8.07	123.76	128.60
36	5	2144	A	O4'-C1'-N9	8.07	114.66	108.20
36	1	1149	G	C8-N9-C4	-8.06	103.17	106.40
1	6	387	A	O5'-P-OP2	-8.06	98.44	105.70
1	6	119	A	C2-N3-C4	-8.06	106.57	110.60
36	5	719	U	N3-C2-O2	-8.05	116.56	122.20
36	1	885	U	C5-C6-N1	-8.05	118.67	122.70
36	1	1447	G	N9-C4-C5	8.05	108.62	105.40
1	6	393	C	N3-C4-C5	8.05	125.12	121.90
36	1	439	C	N1-C2-O2	8.04	123.73	118.90
36	5	2893	C	N1-C2-O2	-8.04	114.07	118.90
1	6	4	C	N3-C4-C5	8.04	125.12	121.90
36	5	716	A	C5-C6-N6	-8.04	117.27	123.70
36	1	2376	G	N7-C8-N9	8.04	117.12	113.10
1	6	937	C	C6-N1-C2	-8.04	117.08	120.30
36	1	350	C	N3-C2-O2	-8.04	116.28	121.90
25	d3	16	ARG	NE-CZ-NH2	-8.03	116.28	120.30
1	2	1560	U	N3-C2-O2	-8.03	116.58	122.20
36	1	85	A	C2-N3-C4	-8.03	106.59	110.60
36	5	1124	U	N3-C4-C5	8.03	119.42	114.60
37	7	101	G	N9-C4-C5	-8.02	102.19	105.40
36	1	2615	G	C5-C6-O6	-8.02	123.79	128.60
36	5	1113	G	C2-N3-C4	-8.02	107.89	111.90
36	5	437	G	C8-N9-C4	-8.02	103.19	106.40
36	5	2660	G	O5'-P-OP2	-8.01	98.49	105.70
36	5	1390	A	N9-C4-C5	8.01	109.00	105.80
36	1	697	A	C8-N9-C4	8.01	109.00	105.80
36	1	2629	U	O5'-P-OP2	-8.01	98.50	105.70
1	6	1634	C	C2-N1-C1'	8.01	127.61	118.80
38	4	80	A	O5'-P-OP2	-8.00	98.50	105.70
36	5	1879	A	C4-C5-N7	8.00	114.70	110.70
1	6	1767	G	C8-N9-C4	8.00	109.60	106.40
36	5	2950	G	O4'-C1'-N9	8.00	114.60	108.20
36	1	1790	G	N1-C6-O6	8.00	124.70	119.90
36	5	1452	A	N9-C4-C5	-8.00	102.60	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1111	U	C5-C4-O4	-7.99	121.10	125.90
36	5	2715	A	C8-N9-C4	-7.99	102.60	105.80
36	1	2830	G	N3-C2-N2	-7.99	114.31	119.90
36	1	930	U	N1-C2-N3	7.99	119.69	114.90
36	1	2363	A	N9-C4-C5	7.98	108.99	105.80
36	5	1187	C	C6-N1-C2	7.98	123.49	120.30
36	1	2617	U	N3-C4-O4	-7.97	113.82	119.40
36	1	2873	U	N3-C2-O2	-7.97	116.62	122.20
1	6	1748	G	C8-N9-C4	7.96	109.58	106.40
1	6	542	A	N7-C8-N9	7.96	117.78	113.80
41	14	339	LEU	CA-CB-CG	7.96	133.60	115.30
36	1	1159	A	O5'-P-OP2	-7.96	98.54	105.70
36	5	938	C	C5-C4-N4	-7.96	114.63	120.20
36	5	2849	C	N3-C2-O2	7.95	127.47	121.90
36	5	2916	U	N3-C4-O4	7.95	124.96	119.40
36	1	2946	A	N9-C4-C5	-7.95	102.62	105.80
36	5	1010	G	O5'-P-OP2	-7.95	98.55	105.70
36	5	2965	U	N1-C2-O2	-7.95	117.24	122.80
36	1	1406	A	N1-C6-N6	7.94	123.37	118.60
36	1	1300	G	N1-C6-O6	7.94	124.67	119.90
36	1	2846	U	C5-C4-O4	7.94	130.66	125.90
36	1	922	U	N1-C2-O2	7.94	128.35	122.80
36	1	1604	G	C4-N9-C1'	7.93	136.81	126.50
36	5	411	U	N1-C2-O2	-7.93	117.25	122.80
36	5	2136	C	C4-C5-C6	7.92	121.36	117.40
36	5	2899	C	N1-C2-N3	7.92	124.75	119.20
37	7	85	G	OP1-P-OP2	-7.92	107.71	119.60
1	2	73	U	O4'-C1'-N1	7.92	114.54	108.20
1	6	542	A	C6-C5-N7	-7.92	126.76	132.30
36	1	670	C	C4-C5-C6	7.92	121.36	117.40
36	5	2393	G	C5-C6-O6	-7.92	123.85	128.60
36	5	2285	C	C6-N1-C2	-7.92	117.13	120.30
36	5	3218	A	C5-N7-C8	-7.92	99.94	103.90
36	1	663	C	C2-N3-C4	-7.92	115.94	119.90
36	1	363	G	C5-C6-O6	-7.91	123.85	128.60
36	1	770	G	O4'-C1'-N9	7.91	114.53	108.20
36	5	63	A	N1-C6-N6	7.91	123.35	118.60
36	5	3218	A	C2-N3-C4	-7.91	106.65	110.60
36	5	1481	A	N7-C8-N9	7.90	117.75	113.80
36	5	2704	A	O5'-P-OP1	-7.90	98.59	105.70
36	5	2619	G	N1-C6-O6	7.90	124.64	119.90
36	1	758	C	C6-N1-C2	-7.89	117.14	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3204	C	N3-C4-C5	7.89	125.06	121.90
1	6	139	C	N3-C2-O2	-7.89	116.38	121.90
36	1	2808	A	N9-C4-C5	-7.89	102.65	105.80
36	5	2117	A	N1-C6-N6	-7.88	113.87	118.60
36	5	776	U	C5-C4-O4	7.88	130.63	125.90
36	1	716	A	C8-N9-C4	7.88	108.95	105.80
1	6	405	C	O5'-P-OP2	-7.88	98.61	105.70
36	5	1869	C	N3-C4-C5	7.88	125.05	121.90
36	1	2726	C	N3-C4-N4	-7.87	112.49	118.00
36	5	1468	A	N1-C6-N6	7.87	123.32	118.60
37	7	104	A	O5'-P-OP2	-7.87	98.62	105.70
37	3	94	C	N1-C2-O2	-7.86	114.18	118.90
1	2	287	G	O4'-C1'-N9	7.86	114.49	108.20
36	1	369	A	N7-C8-N9	7.86	117.73	113.80
36	5	1452	A	C4-C5-N7	7.86	114.63	110.70
36	5	348	A	N1-C6-N6	7.85	123.31	118.60
36	1	2679	A	O4'-C1'-N9	7.85	114.48	108.20
1	6	609	U	C5-C4-O4	7.85	130.61	125.90
36	5	2336	U	C5-C4-O4	-7.85	121.19	125.90
38	8	111	A	N1-C6-N6	7.84	123.31	118.60
36	1	2870	C	C6-N1-C1'	7.84	130.21	120.80
36	1	1425	U	N3-C2-O2	-7.84	116.71	122.20
36	1	1429	G	C4-C5-N7	-7.84	107.66	110.80
36	1	1495	U	C2-N1-C1'	-7.84	108.29	117.70
36	1	1307	G	C6-C5-N7	7.83	135.10	130.40
52	m6	78	ARG	NE-CZ-NH1	7.83	124.22	120.30
1	2	830	U	N1-C2-O2	7.83	128.28	122.80
1	6	1100	G	N3-C4-C5	-7.83	124.69	128.60
36	5	2334	U	N1-C2-N3	7.83	119.59	114.90
36	5	2759	U	N3-C4-C5	-7.83	109.90	114.60
36	5	939	U	C5-C4-O4	-7.82	121.21	125.90
36	5	2751	G	C8-N9-C4	-7.82	103.27	106.40
36	5	437	G	N9-C4-C5	7.82	108.53	105.40
36	5	3004	C	N1-C2-O2	-7.82	114.21	118.90
36	1	709	A	C8-N9-C4	7.82	108.93	105.80
36	5	2954	U	O4'-C1'-N1	7.82	114.45	108.20
36	5	1178	G	N1-C6-O6	7.81	124.58	119.90
36	1	2418	G	OP1-P-O3'	7.80	122.37	105.20
36	5	1370	G	N3-C4-C5	-7.80	124.70	128.60
36	1	949	C	N1-C2-O2	-7.80	114.22	118.90
36	1	1902	G	N9-C4-C5	-7.80	102.28	105.40
36	1	843	A	N1-C6-N6	7.80	123.28	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2617	U	C4-C5-C6	7.80	124.38	119.70
36	1	2640	A	C6-N1-C2	-7.80	113.92	118.60
1	2	1745	G	N3-C4-C5	-7.79	124.70	128.60
36	5	2211	U	C4-C5-C6	7.79	124.38	119.70
1	2	75	U	N1-C2-O2	7.79	128.25	122.80
38	4	14	C	N3-C4-C5	7.79	125.02	121.90
36	5	784	A	C5-C6-N6	-7.79	117.47	123.70
38	4	111	A	N1-C6-N6	7.79	123.27	118.60
36	1	908	G	N1-C6-O6	7.79	124.57	119.90
36	1	1307	G	N1-C6-O6	-7.79	115.23	119.90
36	5	1199	C	C2-N3-C4	-7.79	116.01	119.90
36	5	41	G	C4-C5-N7	7.78	113.91	110.80
36	1	776	U	N1-C2-N3	7.78	119.57	114.90
36	1	3275	U	C5-C6-N1	7.78	126.59	122.70
36	5	716	A	C4-C5-N7	7.78	114.59	110.70
37	7	101	G	C4-C5-N7	7.78	113.91	110.80
36	5	1115	G	C8-N9-C4	-7.78	103.29	106.40
44	17	229	PHE	CB-CG-CD1	7.77	126.24	120.80
36	5	2928	C	N3-C2-O2	-7.77	116.46	121.90
36	5	1075	A	C8-N9-C4	7.77	108.91	105.80
36	1	792	G	O5'-P-OP1	7.77	120.02	110.70
36	5	1158	A	O5'-P-OP2	-7.76	98.71	105.70
36	5	716	A	N9-C4-C5	-7.76	102.70	105.80
36	1	2121	G	N1-C6-O6	-7.76	115.24	119.90
36	5	1126	G	C8-N9-C4	-7.76	103.30	106.40
36	5	2308	C	N1-C2-O2	-7.75	114.25	118.90
1	6	1137	A	C8-N9-C4	7.75	108.90	105.80
36	1	330	G	O5'-P-OP1	-7.75	98.73	105.70
36	1	33	G	O5'-P-OP1	-7.75	98.73	105.70
36	5	940	G	N1-C6-O6	7.75	124.55	119.90
36	1	3092	C	C6-N1-C2	7.75	123.40	120.30
36	5	2796	G	O5'-P-OP2	-7.74	98.73	105.70
36	1	2884	C	C6-N1-C2	7.74	123.39	120.30
36	5	216	G	N1-C6-O6	7.74	124.54	119.90
36	1	2827	U	N1-C2-N3	7.73	119.54	114.90
36	5	1892	G	N1-C6-O6	-7.73	115.26	119.90
36	1	3201	C	N3-C4-C5	-7.73	118.81	121.90
36	1	2174	G	N1-C6-O6	7.72	124.53	119.90
36	5	1380	G	N9-C4-C5	-7.72	102.31	105.40
36	1	608	A	N9-C4-C5	-7.72	102.71	105.80
1	6	29	U	N3-C2-O2	-7.72	116.80	122.20
1	6	755	A	C8-N9-C4	-7.72	102.71	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1886	A	O5'-P-OP2	-7.71	98.76	105.70
36	1	343	U	N1-C2-N3	7.71	119.52	114.90
36	5	2953	U	N3-C4-O4	7.71	124.79	119.40
36	5	2821	C	C2-N1-C1'	-7.70	110.33	118.80
1	6	371	G	N3-C4-C5	-7.70	124.75	128.60
36	5	1909	A	C8-N9-C4	7.70	108.88	105.80
36	1	1493	G	C5-C6-O6	-7.69	123.98	128.60
36	1	2417	U	N1-C2-O2	-7.69	117.42	122.80
36	5	1333	C	C6-N1-C2	-7.69	117.22	120.30
36	5	921	A	N1-C6-N6	-7.69	113.98	118.60
36	5	2726	C	N1-C2-N3	7.69	124.58	119.20
1	6	453	U	N1-C2-O2	7.68	128.18	122.80
36	5	361	A	N1-C6-N6	-7.68	113.99	118.60
36	1	2374	C	O5'-P-OP2	-7.68	98.79	105.70
36	1	2983	C	C5-C6-N1	-7.68	117.16	121.00
1	2	402	C	O5'-P-OP1	-7.68	98.79	105.70
36	1	143	G	N1-C6-O6	-7.67	115.30	119.90
36	5	3043	C	N3-C4-C5	7.67	124.97	121.90
36	1	1346	G	C5-C6-N1	-7.67	107.66	111.50
1	2	1200	G	C5-C6-O6	-7.67	124.00	128.60
1	6	308	C	C5-C6-N1	-7.67	117.17	121.00
36	1	2400	G	C6-C5-N7	-7.67	125.80	130.40
36	1	2647	A	C6-N1-C2	-7.67	114.00	118.60
36	1	65	A	O5'-P-OP2	-7.66	98.80	105.70
36	1	2153	U	N1-C2-N3	7.66	119.50	114.90
1	2	728	U	C2-N1-C1'	7.66	126.89	117.70
36	1	359	U	N3-C4-C5	-7.66	110.00	114.60
36	5	65	A	O5'-P-OP2	-7.66	98.81	105.70
36	5	655	C	C6-N1-C2	-7.66	117.24	120.30
36	5	2920	U	N1-C2-N3	7.66	119.49	114.90
1	2	1291	G	C5-N7-C8	-7.65	100.47	104.30
1	6	308	C	C2-N1-C1'	-7.65	110.38	118.80
36	5	2335	G	C2-N3-C4	7.65	115.72	111.90
36	1	2944	U	N1-C2-O2	7.65	128.15	122.80
36	1	2249	G	N1-C6-O6	-7.64	115.31	119.90
36	5	2993	G	C4-C5-N7	7.64	113.86	110.80
36	5	75	G	C5-C6-O6	-7.64	124.02	128.60
36	5	352	A	O5'-P-OP1	-7.64	98.83	105.70
36	5	3078	U	N1-C2-O2	7.64	128.15	122.80
36	1	2814	G	C5-C6-O6	-7.63	124.02	128.60
36	1	2983	C	C4-C5-C6	7.63	121.22	117.40
36	5	922	U	C5-C6-N1	-7.63	118.88	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1838	G	C6-C5-N7	-7.63	125.82	130.40
36	1	1849	C	O5'-P-OP1	-7.63	98.83	105.70
36	1	1428	A	C5-C6-N6	-7.63	117.60	123.70
36	1	1481	A	C4-N9-C1'	7.63	140.03	126.30
36	1	2872	A	C8-N9-C4	7.62	108.85	105.80
36	5	2639	G	N1-C6-O6	7.62	124.47	119.90
36	1	890	C	C6-N1-C2	-7.62	117.25	120.30
36	5	1152	G	C5-C6-N1	-7.62	107.69	111.50
1	6	901	G	N9-C4-C5	-7.62	102.35	105.40
36	1	923	C	N3-C4-C5	-7.61	118.86	121.90
36	1	965	A	OP1-P-O3'	7.60	121.93	105.20
36	1	2827	U	C2-N1-C1'	-7.60	108.58	117.70
1	6	387	A	N9-C4-C5	7.60	108.84	105.80
36	5	921	A	N9-C4-C5	7.60	108.84	105.80
36	5	216	G	C5-C6-O6	-7.60	124.04	128.60
36	1	2827	U	C6-N1-C1'	7.60	131.84	121.20
36	5	1367	G	C5-C6-N1	-7.60	107.70	111.50
36	5	2659	G	N1-C6-O6	7.60	124.46	119.90
36	1	1116	G	N3-C4-C5	-7.59	124.80	128.60
38	8	99	C	C6-N1-C2	7.59	123.34	120.30
36	1	1428	A	C4-C5-N7	7.59	114.50	110.70
1	6	1140	G	C5-C6-O6	-7.59	124.05	128.60
36	1	1846	C	N3-C4-C5	-7.59	118.86	121.90
36	5	1367	G	N1-C6-O6	7.59	124.45	119.90
36	5	877	C	C4-C5-C6	-7.59	113.61	117.40
37	7	108	A	N1-C6-N6	7.59	123.15	118.60
36	5	1851	G	C5-C6-O6	-7.58	124.05	128.60
1	2	448	C	N3-C4-C5	-7.58	118.87	121.90
36	1	2620	G	C8-N9-C4	7.58	109.43	106.40
1	2	765	G	O4'-C1'-N9	-7.58	102.14	108.20
1	2	1291	G	N1-C2-N3	7.58	128.44	123.90
36	1	2714	G	C4-N9-C1'	-7.58	116.65	126.50
36	5	1178	G	C5-C6-O6	-7.57	124.06	128.60
36	5	2984	C	N1-C2-O2	-7.57	114.36	118.90
36	5	2356	A	C5-C6-N1	-7.57	113.92	117.70
36	1	1386	A	C6-N1-C2	-7.56	114.06	118.60
1	2	579	A	N1-C2-N3	7.56	133.08	129.30
1	6	1000	C	C4-C5-C6	7.56	121.18	117.40
36	5	2730	G	N1-C6-O6	7.56	124.44	119.90
1	2	402	C	C6-N1-C2	7.56	123.32	120.30
1	6	310	C	N1-C2-O2	-7.55	114.37	118.90
36	5	373	A	O5'-P-OP1	-7.55	98.90	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	802	C	C6-N1-C2	-7.55	117.28	120.30
36	5	2128	C	C5-C4-N4	-7.55	114.91	120.20
36	5	3216	G	C5-C6-O6	-7.55	124.07	128.60
37	3	86	U	O5'-P-OP2	-7.55	98.91	105.70
36	5	607	A	N1-C6-N6	-7.55	114.07	118.60
36	5	750	G	C5-C6-O6	-7.55	124.07	128.60
36	1	1556	C	N3-C2-O2	-7.55	116.62	121.90
36	5	2295	A	C5-C6-N6	-7.55	117.66	123.70
36	1	708	G	C8-N9-C4	-7.54	103.38	106.40
36	5	1688	U	N3-C2-O2	-7.54	116.92	122.20
36	5	2116	G	C6-C5-N7	-7.54	125.87	130.40
36	5	2354	C	N1-C2-O2	-7.54	114.38	118.90
36	1	645	A	C8-N9-C4	-7.54	102.78	105.80
1	6	321	C	N3-C2-O2	-7.54	116.62	121.90
36	1	2756	C	C2-N1-C1'	7.53	127.09	118.80
36	5	2954	U	N3-C4-O4	7.53	124.67	119.40
36	1	1836	C	N1-C2-O2	7.53	123.42	118.90
36	1	2870	C	N3-C4-N4	-7.53	112.73	118.00
36	1	3005	A	N9-C4-C5	7.53	108.81	105.80
36	1	645	A	C5-C6-N1	7.53	121.46	117.70
36	1	2376	G	C8-N9-C4	-7.53	103.39	106.40
36	1	3362	A	C6-C5-N7	-7.53	127.03	132.30
36	5	97	U	N3-C2-O2	7.53	127.47	122.20
36	1	3206	C	C2-N1-C1'	-7.52	110.53	118.80
36	5	1495	U	N3-C4-C5	-7.52	110.09	114.60
36	1	1481	A	N1-C6-N6	7.52	123.11	118.60
36	5	2950	G	C8-N9-C4	-7.52	103.39	106.40
1	2	1733	C	N3-C4-N4	7.52	123.26	118.00
36	5	2870	C	N3-C4-C5	7.52	124.91	121.90
36	1	984	G	N1-C2-N2	-7.51	109.44	116.20
36	1	2418	G	N3-C4-C5	-7.51	124.84	128.60
36	5	927	C	O5'-P-OP1	-7.51	98.94	105.70
36	5	1506	A	N9-C4-C5	7.51	108.80	105.80
38	4	13	A	O5'-P-OP1	-7.50	98.95	105.70
36	5	1513	G	N3-C4-C5	-7.50	124.85	128.60
36	1	979	U	N3-C2-O2	-7.50	116.95	122.20
36	5	947	G	C2-N3-C4	7.50	115.65	111.90
1	6	158	U	P-O3'-C3'	7.50	128.69	119.70
36	1	631	U	C5-C4-O4	-7.49	121.40	125.90
36	5	3115	C	N1-C2-O2	-7.49	114.40	118.90
1	2	453	U	N3-C2-O2	-7.49	116.96	122.20
36	5	2278	C	C5-C6-N1	7.49	124.75	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	647	A	C4-C5-C6	7.48	120.74	117.00
36	1	3369	G	C5-C6-O6	-7.48	124.11	128.60
36	1	1112	A	O5'-P-OP2	-7.48	98.97	105.70
36	1	511	G	C8-N9-C4	-7.48	103.41	106.40
36	1	2935	U	N3-C4-C5	-7.48	110.11	114.60
36	5	2284	C	C5-C4-N4	-7.48	114.97	120.20
36	1	2959	C	N1-C2-O2	-7.48	114.41	118.90
36	1	1345	G	O5'-P-OP2	-7.47	98.97	105.70
70	O4	8	ARG	NE-CZ-NH2	-7.47	116.56	120.30
1	6	323	A	N1-C6-N6	-7.47	114.12	118.60
36	5	417	A	N1-C6-N6	-7.47	114.12	118.60
37	7	44	C	N1-C2-O2	-7.47	114.42	118.90
36	5	1321	G	C8-N9-C4	7.47	109.39	106.40
1	2	553	G	C6-C5-N7	-7.46	125.92	130.40
36	5	2396	G	N9-C4-C5	7.46	108.38	105.40
36	1	663	C	C5-C6-N1	-7.46	117.27	121.00
36	1	2726	C	C6-N1-C2	-7.45	117.32	120.30
36	5	1199	C	C5-C6-N1	-7.45	117.27	121.00
36	1	2283	G	C5-C6-O6	-7.45	124.13	128.60
36	1	1151	U	N3-C4-O4	7.45	124.62	119.40
36	5	1208	U	N3-C2-O2	-7.45	116.98	122.20
36	1	80	G	C5-C6-O6	-7.45	124.13	128.60
36	5	2393	G	N1-C6-O6	7.45	124.37	119.90
36	1	2196	C	C5-C6-N1	7.45	124.72	121.00
1	2	1118	G	N1-C6-O6	7.44	124.37	119.90
36	1	25	U	N3-C4-O4	7.44	124.61	119.40
36	1	1402	C	N3-C4-N4	-7.44	112.79	118.00
36	5	1931	U	N1-C2-N3	7.44	119.37	114.90
36	1	2797	C	O5'-P-OP1	-7.44	99.00	105.70
36	1	1307	G	N9-C4-C5	7.44	108.38	105.40
36	1	3001	C	C6-N1-C2	7.44	123.28	120.30
36	5	1124	U	C4-C5-C6	-7.44	115.23	119.70
36	5	2659	G	C5-C6-O6	-7.44	124.14	128.60
38	4	38	U	N3-C2-O2	-7.44	116.99	122.20
36	5	2710	C	N3-C4-C5	-7.44	118.92	121.90
36	5	3093	C	C5-C6-N1	-7.44	117.28	121.00
36	1	3206	C	C6-N1-C1'	7.44	129.73	120.80
1	6	323	A	C8-N9-C4	-7.44	102.83	105.80
36	1	1441	G	O5'-P-OP2	-7.43	99.01	105.70
1	2	1654	G	N3-C4-N9	7.43	130.46	126.00
36	1	640	U	N3-C4-O4	7.43	124.60	119.40
36	5	1380	G	C8-N9-C4	7.43	109.37	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	805	U	C6-N1-C2	-7.43	116.54	121.00
1	2	639	U	N1-C2-O2	7.42	128.00	122.80
36	1	2968	G	C5-C6-N1	-7.42	107.79	111.50
36	1	2893	C	N3-C4-C5	7.41	124.86	121.90
36	1	2374	C	C6-N1-C2	-7.41	117.34	120.30
37	3	88	G	N3-C4-C5	-7.41	124.89	128.60
36	5	2392	C	N3-C4-C5	7.41	124.86	121.90
1	2	75	U	N3-C2-O2	-7.41	117.02	122.20
36	5	796	U	N1-C2-N3	7.41	119.34	114.90
36	5	942	U	N3-C4-O4	7.40	124.58	119.40
36	1	1180	A	O4'-C1'-N9	-7.40	102.28	108.20
1	6	1700	C	C6-N1-C1'	-7.40	111.92	120.80
36	1	359	U	C4-C5-C6	7.39	124.14	119.70
36	1	1346	G	N1-C6-O6	7.39	124.34	119.90
36	1	921	A	C8-N9-C4	-7.39	102.84	105.80
36	1	1838	G	C4-C5-N7	7.39	113.76	110.80
36	1	422	A	N1-C6-N6	-7.39	114.17	118.60
36	5	2147	A	N1-C6-N6	7.39	123.03	118.60
36	5	2935	U	O5'-P-OP2	-7.39	99.05	105.70
36	1	726	G	C8-N9-C4	-7.39	103.44	106.40
36	1	54	C	N3-C4-N4	-7.38	112.83	118.00
36	5	3362	A	N7-C8-N9	7.38	117.49	113.80
36	5	913	A	C8-N9-C4	-7.38	102.85	105.80
1	2	555	A	C8-N9-C4	-7.38	102.85	105.80
1	6	542	A	N1-C6-N6	7.38	123.03	118.60
36	5	2609	A	O5'-P-OP2	-7.38	99.06	105.70
36	1	2884	C	C4-C5-C6	-7.38	113.71	117.40
1	2	1486	G	C8-N9-C4	-7.38	103.45	106.40
36	1	645	A	C4-C5-N7	-7.37	107.01	110.70
36	1	2978	U	O4'-C1'-N1	7.37	114.10	108.20
36	5	2600	C	C6-N1-C2	-7.37	117.35	120.30
1	2	1280	C	N3-C4-C5	-7.37	118.95	121.90
36	1	695	C	C6-N1-C2	7.37	123.25	120.30
36	1	2700	G	N1-C6-O6	7.37	124.32	119.90
38	4	120	C	N1-C2-O2	-7.37	114.48	118.90
1	6	858	G	O4'-C1'-N9	7.37	114.09	108.20
36	1	895	A	C5-N7-C8	-7.37	100.22	103.90
36	1	2692	A	C8-N9-C4	-7.37	102.85	105.80
36	5	3143	C	N1-C2-O2	-7.37	114.48	118.90
36	1	3110	C	C6-N1-C2	-7.36	117.36	120.30
36	5	942	U	N1-C2-O2	-7.36	117.65	122.80
1	2	1761	U	C6-N1-C2	-7.36	116.58	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2621	G	N3-C2-N2	-7.36	114.75	119.90
36	5	641	C	C6-N1-C2	-7.35	117.36	120.30
36	5	1419	A	O5'-P-OP2	-7.35	99.08	105.70
36	1	709	A	N7-C8-N9	-7.35	110.12	113.80
36	5	2751	G	N7-C8-N9	7.34	116.77	113.10
36	1	211	A	C2-N3-C4	-7.33	106.93	110.60
36	5	2941	A	N9-C4-C5	7.33	108.73	105.80
36	5	2375	G	N1-C6-O6	-7.33	115.50	119.90
36	5	653	A	O5'-P-OP1	-7.33	99.10	105.70
36	5	1375	G	C2-N3-C4	7.33	115.56	111.90
36	1	39	A	O5'-P-OP2	-7.33	99.11	105.70
36	1	1154	A	C4-C5-C6	7.33	120.66	117.00
36	1	2946	A	C5-C6-N6	-7.33	117.84	123.70
36	5	1336	U	O5'-P-OP2	-7.32	99.11	105.70
36	1	2245	C	N3-C4-C5	-7.32	118.97	121.90
36	5	2799	A	C5-C6-N6	7.32	129.55	123.70
36	1	1349	G	N3-C4-N9	7.31	130.39	126.00
36	1	2700	G	C6-C5-N7	-7.31	126.01	130.40
1	2	610	G	C8-N9-C1'	-7.31	117.49	127.00
36	5	1390	A	C8-N9-C4	-7.31	102.88	105.80
36	5	1846	C	C6-N1-C2	7.31	123.22	120.30
36	5	3362	A	O4'-C1'-N9	7.31	114.05	108.20
36	1	1741	A	N1-C2-N3	7.31	132.95	129.30
37	7	87	G	C5-C6-O6	-7.31	124.22	128.60
36	5	2820	A	C8-N9-C4	-7.30	102.88	105.80
36	5	92	G	N3-C4-N9	7.30	130.38	126.00
37	7	103	A	N1-C6-N6	7.30	122.98	118.60
36	1	2196	C	C6-N1-C2	-7.30	117.38	120.30
36	1	3362	A	O4'-C1'-N9	7.30	114.04	108.20
36	5	1203	A	O5'-P-OP1	-7.30	99.13	105.70
36	5	2611	U	O5'-P-OP2	-7.30	99.13	105.70
36	5	1367	G	C4-C5-C6	7.29	123.18	118.80
36	5	2572	C	N3-C2-O2	-7.29	116.79	121.90
36	1	661	G	C8-N9-C4	-7.29	103.48	106.40
36	5	881	C	C5-C6-N1	7.29	124.65	121.00
1	6	47	A	O5'-P-OP1	-7.29	99.14	105.70
36	5	2709	C	N3-C4-C5	7.29	124.82	121.90
36	5	3305	A	C5-C6-N6	-7.29	117.87	123.70
36	1	672	A	C5-C6-N6	-7.29	117.87	123.70
36	1	678	G	N3-C2-N2	-7.29	114.80	119.90
1	6	913	G	N1-C6-O6	7.29	124.27	119.90
36	5	640	U	N3-C4-O4	7.29	124.50	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3209	A	O4'-C1'-N9	7.29	114.03	108.20
36	5	2399	A	C5-C6-N6	-7.28	117.87	123.70
36	1	2811	A	C6-N1-C2	-7.28	114.23	118.60
36	1	2400	G	N1-C6-O6	7.28	124.27	119.90
1	6	405	C	C6-N1-C2	7.28	123.21	120.30
36	5	1365	G	C8-N9-C4	-7.28	103.49	106.40
36	1	2395	G	O5'-P-OP2	-7.28	99.15	105.70
36	5	2405	C	N3-C2-O2	-7.28	116.81	121.90
36	5	2881	C	N3-C4-C5	7.27	124.81	121.90
36	1	2877	G	C4-C5-N7	-7.27	107.89	110.80
36	1	3344	A	C8-N9-C4	-7.27	102.89	105.80
38	4	20	U	O5'-P-OP2	-7.27	99.16	105.70
36	1	3201	C	C6-N1-C2	-7.27	117.39	120.30
36	5	2176	U	C2-N1-C1'	7.27	126.42	117.70
36	5	2993	G	C5-C6-O6	-7.27	124.24	128.60
1	6	826	U	C5-C6-N1	7.26	126.33	122.70
36	5	2858	U	N3-C2-O2	-7.26	117.11	122.20
36	5	2317	A	O5'-P-OP2	-7.26	99.16	105.70
36	1	1418	A	O5'-P-OP2	-7.26	99.16	105.70
36	5	1307	G	C2-N3-C4	7.26	115.53	111.90
38	4	79	A	C8-N9-C4	-7.26	102.90	105.80
36	5	663	C	C6-N1-C2	-7.26	117.40	120.30
36	5	869	G	N1-C6-O6	-7.26	115.54	119.90
36	5	961	C	N3-C4-C5	-7.26	119.00	121.90
36	1	189	G	N3-C4-C5	-7.26	124.97	128.60
36	1	127	G	N1-C6-O6	7.25	124.25	119.90
36	1	2153	U	C6-N1-C2	-7.25	116.65	121.00
36	1	1481	A	C5-N7-C8	-7.25	100.27	103.90
36	1	1383	G	C5-C6-O6	-7.25	124.25	128.60
36	5	804	C	N3-C4-C5	-7.25	119.00	121.90
1	6	577	G	C5-N7-C8	-7.25	100.68	104.30
36	1	3054	U	N3-C2-O2	-7.24	117.13	122.20
38	8	8	C	C6-N1-C2	-7.24	117.40	120.30
38	4	109	A	N1-C6-N6	7.24	122.94	118.60
36	1	776	U	C5-C6-N1	-7.24	119.08	122.70
36	1	1117	G	O5'-P-OP1	-7.24	99.19	105.70
36	1	2891	U	C5-C4-O4	-7.24	121.56	125.90
1	6	1000	C	C6-N1-C1'	-7.24	112.12	120.80
36	5	1361	U	N1-C2-O2	-7.24	117.73	122.80
36	1	2846	U	N1-C2-O2	7.24	127.86	122.80
36	5	2988	C	C2-N3-C4	-7.23	116.28	119.90
1	2	310	C	N3-C4-C5	-7.23	119.01	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1934	G	C8-N9-C4	-7.23	103.51	106.40
36	5	2140	U	N1-C2-N3	7.23	119.24	114.90
36	1	358	G	C5-C6-O6	-7.22	124.27	128.60
1	6	1773	C	C6-N1-C2	-7.22	117.41	120.30
1	6	609	U	N3-C4-O4	-7.22	114.34	119.40
36	5	1592	G	C5-C6-O6	7.22	132.93	128.60
36	5	3154	C	N3-C2-O2	-7.22	116.85	121.90
36	1	895	A	C2-N3-C4	-7.22	106.99	110.60
36	5	890	C	O5'-P-OP2	-7.21	99.22	105.70
36	5	1324	U	O5'-P-OP2	-7.21	99.21	105.70
36	5	844	G	C8-N9-C4	7.21	109.28	106.40
36	1	983	A	C6-N1-C2	-7.20	114.28	118.60
36	5	820	A	N7-C8-N9	7.20	117.40	113.80
1	6	1634	C	C6-N1-C2	-7.20	117.42	120.30
36	5	960	U	N3-C4-O4	-7.20	114.36	119.40
1	2	1389	C	N1-C2-O2	7.19	123.22	118.90
36	1	3101	G	C8-N9-C4	7.19	109.28	106.40
36	1	651	G	N3-C4-C5	-7.19	125.00	128.60
36	1	1906	G	C6-C5-N7	-7.19	126.08	130.40
1	6	1782	A	O5'-P-OP1	-7.19	99.23	105.70
37	7	49	G	C5-C6-O6	-7.19	124.29	128.60
36	1	1149	G	N9-C4-C5	7.19	108.28	105.40
36	5	2857	C	C5-C4-N4	-7.19	115.17	120.20
36	5	3214	U	C5-C4-O4	7.19	130.21	125.90
36	1	2827	U	N3-C4-O4	-7.18	114.37	119.40
1	6	272	U	N3-C2-O2	-7.18	117.17	122.20
36	5	784	A	N9-C4-C5	-7.18	102.93	105.80
36	1	959	C	C6-N1-C2	7.18	123.17	120.30
36	1	1325	U	C5-C4-O4	7.18	130.21	125.90
36	1	2869	U	OP2-P-O3'	7.18	121.00	105.20
36	5	2121	G	O5'-P-OP2	-7.18	99.24	105.70
36	5	3188	G	N1-C6-O6	-7.18	115.59	119.90
36	1	1371	G	C5-C6-N1	7.17	115.09	111.50
36	5	873	C	N3-C4-C5	-7.17	119.03	121.90
36	1	608	A	C4-C5-C6	7.17	120.58	117.00
1	6	310	C	N3-C4-C5	-7.17	119.03	121.90
36	1	1481	A	O5'-P-OP1	7.16	119.30	110.70
36	1	2884	C	C5-C4-N4	-7.16	115.19	120.20
36	5	592	A	C8-N9-C4	7.16	108.67	105.80
36	1	648	C	C2-N1-C1'	7.16	126.68	118.80
36	5	1155	C	N3-C4-C5	7.16	124.77	121.90
36	1	331	G	N1-C6-O6	-7.16	115.60	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2651	G	C4-C5-N7	-7.16	107.94	110.80
1	6	988	A	O5'-P-OP2	-7.16	99.26	105.70
36	1	1829	G	N9-C4-C5	7.16	108.26	105.40
1	6	453	U	C2-N1-C1'	7.16	126.29	117.70
36	5	1592	G	N7-C8-N9	7.16	116.68	113.10
36	5	2827	U	O4'-C1'-N1	7.16	113.92	108.20
36	1	340	C	C2-N3-C4	-7.15	116.33	119.90
36	1	1192	C	C2-N1-C1'	7.15	126.67	118.80
36	1	1412	G	C8-N9-C4	-7.15	103.54	106.40
36	5	3245	A	N1-C2-N3	7.15	132.87	129.30
36	1	3278	C	N3-C2-O2	-7.14	116.90	121.90
1	6	425	A	N1-C6-N6	-7.14	114.31	118.60
36	5	2186	U	N1-C2-O2	7.14	127.80	122.80
36	5	2650	U	C2-N3-C4	-7.14	122.72	127.00
36	5	2897	A	C6-N1-C2	-7.14	114.31	118.60
36	1	2916	U	N1-C2-N3	-7.14	110.62	114.90
1	6	1560	U	N3-C2-O2	-7.14	117.20	122.20
36	5	2849	C	N1-C2-O2	-7.14	114.62	118.90
36	5	1724	U	O4'-C1'-N1	7.13	113.91	108.20
36	5	2752	U	O5'-P-OP2	-7.13	99.28	105.70
50	m4	72	LEU	CA-CB-CG	7.13	131.71	115.30
36	5	1152	G	C5-C6-O6	-7.13	124.32	128.60
36	1	669	U	C5-C6-N1	-7.13	119.14	122.70
36	1	939	U	N3-C2-O2	7.13	127.19	122.20
36	1	1124	U	OP1-P-O3'	7.12	120.87	105.20
36	5	1516	C	N3-C4-C5	7.12	124.75	121.90
1	2	794	U	C2-N1-C1'	7.12	126.25	117.70
36	1	3207	U	C6-N1-C1'	7.12	131.17	121.20
1	2	1756	A	N7-C8-N9	7.12	117.36	113.80
36	1	2368	A	O5'-P-OP2	-7.12	99.29	105.70
36	5	1112	A	C6-C5-N7	-7.12	127.32	132.30
1	2	694	U	C2-N1-C1'	7.12	126.24	117.70
36	1	1165	A	C8-N9-C4	7.12	108.65	105.80
36	5	2873	U	C5-C6-N1	-7.11	119.14	122.70
36	5	1604	G	N3-C4-C5	-7.11	125.05	128.60
36	5	2610	G	O5'-P-OP1	7.11	119.23	110.70
36	1	2980	U	N1-C2-N3	7.11	119.17	114.90
36	5	609	G	N3-C2-N2	-7.11	114.92	119.90
1	2	597	G	N3-C4-C5	-7.11	125.05	128.60
36	1	2758	A	C8-N9-C4	7.11	108.64	105.80
36	5	2808	A	C4-C5-N7	7.11	114.25	110.70
36	1	2728	G	O5'-P-OP2	-7.10	99.31	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	310	C	C6-N1-C2	-7.10	117.46	120.30
1	2	577	G	N1-C6-O6	7.10	124.16	119.90
36	1	937	G	C8-N9-C4	7.10	109.24	106.40
38	4	40	A	C5-C6-N6	-7.10	118.02	123.70
36	5	645	A	N1-C2-N3	7.10	132.85	129.30
36	1	80	G	C6-N1-C2	-7.10	120.84	125.10
36	5	2398	A	C6-N1-C2	-7.10	114.34	118.60
36	5	2941	A	C8-N9-C4	-7.10	102.96	105.80
36	1	646	A	N7-C8-N9	7.09	117.35	113.80
36	5	2207	A	O4'-C1'-N9	7.09	113.88	108.20
36	5	2684	C	O5'-P-OP2	-7.09	99.32	105.70
36	5	2351	U	C6-N1-C2	-7.09	116.75	121.00
36	5	96	G	N1-C6-O6	7.08	124.15	119.90
36	5	2338	C	N3-C4-N4	7.08	122.96	118.00
36	5	2631	U	O5'-P-OP2	-7.08	99.33	105.70
36	1	890	C	N3-C2-O2	-7.08	116.94	121.90
36	1	651	G	N3-C4-N9	7.08	130.25	126.00
36	1	718	G	N7-C8-N9	7.08	116.64	113.10
36	1	1468	A	N1-C2-N3	7.08	132.84	129.30
1	6	371	G	N3-C4-N9	7.07	130.24	126.00
47	m0	48	LEU	CA-CB-CG	7.07	131.56	115.30
36	5	2851	A	C8-N9-C4	7.07	108.63	105.80
36	1	1441	G	C8-N9-C4	-7.07	103.57	106.40
36	1	2154	U	C5-C6-N1	7.07	126.23	122.70
36	1	3092	C	C2-N1-C1'	-7.07	111.03	118.80
36	1	1891	A	C8-N9-C4	7.07	108.63	105.80
38	4	28	C	C6-N1-C2	-7.06	117.47	120.30
36	1	1507	G	C5-C6-O6	-7.06	124.36	128.60
36	5	1115	G	N7-C8-N9	7.06	116.63	113.10
36	5	2407	C	O5'-P-OP2	-7.06	99.35	105.70
37	7	92	A	C8-N9-C4	7.06	108.62	105.80
36	5	1149	G	N1-C6-O6	7.06	124.13	119.90
38	4	38	U	N1-C2-O2	7.05	127.74	122.80
36	1	948	C	N1-C2-O2	-7.05	114.67	118.90
36	1	3209	A	N1-C6-N6	7.05	122.83	118.60
36	5	2353	G	N1-C6-O6	7.05	124.13	119.90
36	5	3049	A	N7-C8-N9	-7.05	110.28	113.80
1	2	1749	A	C2-N3-C4	-7.05	107.08	110.60
1	6	1742	U	O5'-P-OP2	-7.05	99.36	105.70
36	1	1152	G	O4'-C1'-N9	7.04	113.84	108.20
36	5	2632	G	N3-C4-C5	-7.04	125.08	128.60
1	2	942	G	N1-C6-O6	-7.04	115.67	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	967	A	N1-C2-N3	7.04	132.82	129.30
36	5	1132	C	O5'-P-OP1	-7.04	99.36	105.70
36	1	1389	G	C4-C5-N7	7.04	113.61	110.80
1	6	687	G	N3-C4-N9	-7.04	121.78	126.00
36	5	2373	A	O5'-P-OP1	-7.04	99.37	105.70
36	5	2830	G	OP2-P-O3'	7.03	120.67	105.20
36	1	859	G	N9-C4-C5	-7.03	102.59	105.40
36	1	1419	A	O5'-P-OP1	7.03	119.14	110.70
36	5	809	G	N1-C6-O6	7.03	124.12	119.90
36	1	2252	A	N7-C8-N9	7.03	117.31	113.80
36	1	702	C	N1-C2-O2	-7.03	114.69	118.90
38	4	108	C	C6-N1-C2	-7.03	117.49	120.30
1	2	1600	A	C5-C6-N1	-7.02	114.19	117.70
36	1	1171	G	O5'-P-OP1	-7.02	99.38	105.70
36	1	2868	U	N3-C2-O2	-7.02	117.29	122.20
36	1	3208	G	C4-C5-N7	-7.02	107.99	110.80
36	5	522	A	O5'-P-OP1	-7.02	99.38	105.70
36	5	1513	G	C8-N9-C4	-7.02	103.59	106.40
36	5	885	U	C5-C4-O4	-7.02	121.69	125.90
36	5	922	U	N3-C4-O4	-7.02	114.49	119.40
52	m6	41	LEU	CB-CG-CD2	-7.02	99.07	111.00
1	2	1272	U	N3-C2-O2	-7.01	117.29	122.20
36	5	3110	C	N1-C2-O2	-7.01	114.69	118.90
36	1	614	C	C5-C4-N4	-7.01	115.29	120.20
36	1	2937	G	N7-C8-N9	-7.01	109.59	113.10
36	5	1179	A	C4-C5-C6	7.01	120.51	117.00
36	1	2174	G	C5-C6-O6	-7.01	124.39	128.60
36	5	1834	U	C5-C4-O4	7.01	130.10	125.90
36	1	2169	G	N1-C6-O6	-7.01	115.69	119.90
36	1	2986	U	N1-C2-N3	7.01	119.10	114.90
1	6	10	G	C5-C6-O6	7.01	132.80	128.60
1	6	987	G	C5-C6-O6	-7.01	124.40	128.60
36	5	1150	A	O5'-P-OP2	-7.01	99.39	105.70
37	7	112	G	C8-N9-C4	-7.01	103.60	106.40
36	1	1316	C	N3-C4-N4	7.00	122.90	118.00
36	5	672	A	N1-C6-N6	7.00	122.80	118.60
36	5	2649	A	C8-N9-C4	-7.00	103.00	105.80
36	1	396	A	O5'-P-OP1	-7.00	99.40	105.70
36	5	1793	C	N3-C4-C5	-7.00	119.10	121.90
1	6	1764	C	C6-N1-C2	7.00	123.10	120.30
36	1	59	G	C6-C5-N7	-6.99	126.20	130.40
36	1	1373	A	C6-N1-C2	-6.99	114.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3057	U	C5-C4-O4	6.99	130.09	125.90
36	1	3369	G	N1-C6-O6	6.99	124.09	119.90
38	4	105	A	C8-N9-C4	-6.99	103.00	105.80
36	1	2409	G	N3-C4-C5	-6.99	125.11	128.60
36	5	3195	U	OP1-P-O3'	6.99	120.58	105.20
36	1	361	A	N1-C6-N6	-6.99	114.41	118.60
36	5	87	U	C5-C6-N1	6.99	126.19	122.70
36	5	1163	A	O5'-P-OP2	-6.99	99.41	105.70
36	5	1615	C	C6-N1-C2	-6.99	117.50	120.30
36	5	835	G	O4'-C1'-N9	6.98	113.79	108.20
36	5	2341	A	N7-C8-N9	-6.98	110.31	113.80
36	1	65	A	P-O3'-C3'	6.98	128.08	119.70
36	1	954	U	N1-C2-O2	-6.98	117.91	122.80
36	1	2615	G	C4-C5-N7	6.98	113.59	110.80
38	4	94	C	C6-N1-C2	6.98	123.09	120.30
36	5	2572	C	C2-N1-C1'	6.98	126.48	118.80
1	2	507	U	C2-N1-C1'	6.97	126.07	117.70
36	5	2761	G	C5-C6-O6	-6.97	124.42	128.60
38	8	86	U	C5-C6-N1	6.97	126.19	122.70
36	1	1361	U	O5'-P-OP1	-6.97	99.42	105.70
36	1	645	A	N3-C4-C5	-6.97	121.92	126.80
36	1	2369	G	N3-C4-C5	-6.97	125.11	128.60
36	5	2659	G	C6-C5-N7	-6.97	126.22	130.40
35	SM	167	PRO	N-CA-CB	6.97	111.66	103.30
1	6	438	A	N1-C6-N6	6.97	122.78	118.60
36	5	559	A	C8-N9-C4	-6.97	103.01	105.80
36	5	1000	C	C6-N1-C2	6.97	123.09	120.30
1	2	137	U	N1-C2-O2	6.97	127.68	122.80
36	5	1548	C	N1-C2-O2	-6.97	114.72	118.90
36	1	104	G	N1-C6-O6	6.97	124.08	119.90
36	1	429	U	O5'-P-OP1	-6.97	99.43	105.70
36	5	1181	U	C4-C5-C6	6.97	123.88	119.70
36	1	37	U	N1-C2-N3	6.96	119.08	114.90
1	6	1537	C	C6-N1-C1'	6.96	129.15	120.80
36	1	672	A	N9-C4-C5	-6.96	103.02	105.80
36	1	2194	G	C6-C5-N7	-6.96	126.22	130.40
1	6	163	G	C8-N9-C4	-6.96	103.62	106.40
1	6	1000	C	C2-N3-C4	-6.96	116.42	119.90
36	5	649	A	C8-N9-C4	-6.96	103.02	105.80
36	1	1116	G	C4-C5-C6	6.96	122.97	118.80
36	5	218	G	O5'-P-OP2	-6.96	99.44	105.70
36	5	1592	G	N9-C4-C5	6.96	108.18	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	S3	182	LEU	CA-CB-CG	6.95	131.29	115.30
36	5	1399	A	N1-C6-N6	6.95	122.77	118.60
36	1	716	A	C5-C6-N6	-6.95	118.14	123.70
36	1	1307	G	P-O3'-C3'	6.95	128.04	119.70
37	3	99	G	O5'-P-OP2	-6.95	99.44	105.70
38	4	40	A	N1-C6-N6	6.95	122.77	118.60
1	6	1750	A	O5'-P-OP2	-6.95	99.44	105.70
36	5	1161	G	C5-C6-N1	6.95	114.97	111.50
36	5	2379	U	O5'-P-OP1	6.95	119.04	110.70
37	7	104	A	O5'-P-OP1	6.95	119.04	110.70
36	1	2550	U	N3-C2-O2	-6.95	117.34	122.20
36	1	2710	C	N1-C2-O2	-6.95	114.73	118.90
1	6	542	A	O4'-C1'-N9	6.95	113.76	108.20
36	1	1495	U	C5-C4-O4	6.95	130.07	125.90
1	6	120	U	N3-C2-O2	-6.95	117.34	122.20
1	2	580	A	C8-N9-C4	-6.95	103.02	105.80
36	1	1846	C	N1-C2-O2	-6.94	114.73	118.90
36	5	1112	A	N1-C6-N6	6.94	122.77	118.60
1	6	902	G	C5-C6-N1	-6.94	108.03	111.50
36	1	318	A	O5'-P-OP1	-6.94	99.45	105.70
36	5	2944	U	C6-N1-C2	-6.94	116.84	121.00
36	1	295	A	C8-N9-C4	-6.94	103.03	105.80
36	1	790	U	C5-C4-O4	6.94	130.06	125.90
36	1	2634	U	N1-C2-N3	6.93	119.06	114.90
36	5	2285	C	C5-C6-N1	6.93	124.47	121.00
36	5	3195	U	P-O3'-C3'	6.93	128.02	119.70
1	6	988	A	C8-N9-C4	-6.93	103.03	105.80
36	5	2954	U	C6-N1-C1'	-6.93	111.50	121.20
1	2	314	C	O5'-P-OP1	-6.93	99.47	105.70
36	5	411	U	N3-C2-O2	6.93	127.05	122.20
36	1	614	C	N3-C4-C5	6.93	124.67	121.90
36	5	645	A	C6-N1-C2	-6.93	114.44	118.60
36	5	1506	A	C8-N9-C4	-6.93	103.03	105.80
36	1	638	C	N3-C2-O2	-6.92	117.05	121.90
36	5	346	C	N1-C2-O2	6.92	123.05	118.90
1	6	622	A	O5'-P-OP2	6.92	119.00	110.70
36	5	1848	G	N1-C6-O6	6.92	124.05	119.90
36	5	2886	U	N1-C2-N3	6.92	119.05	114.90
1	2	1200	G	N3-C2-N2	-6.92	115.06	119.90
36	1	1103	A	N9-C4-C5	-6.92	103.03	105.80
1	6	1634	C	N3-C2-O2	-6.92	117.06	121.90
37	3	48	U	N3-C2-O2	-6.92	117.36	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	32	C	N3-C2-O2	6.92	126.74	121.90
36	5	2772	C	P-O3'-C3'	6.92	128.00	119.70
36	1	960	U	C5-C6-N1	-6.91	119.24	122.70
36	5	2128	C	N3-C4-N4	6.91	122.84	118.00
36	1	3219	G	O5'-P-OP2	-6.91	99.48	105.70
36	1	1943	C	C6-N1-C2	-6.91	117.54	120.30
36	1	2422	C	O5'-P-OP1	-6.91	99.48	105.70
1	6	17	C	C6-N1-C2	-6.91	117.54	120.30
1	2	554	C	C2-N1-C1'	6.91	126.40	118.80
38	8	111	A	O5'-P-OP2	-6.91	99.49	105.70
36	1	695	C	N3-C4-C5	6.90	124.66	121.90
36	1	1120	A	N1-C6-N6	-6.90	114.46	118.60
36	1	1513	G	C6-N1-C2	-6.90	120.96	125.10
36	5	1392	G	N7-C8-N9	-6.90	109.65	113.10
36	1	979	U	C6-N1-C2	-6.90	116.86	121.00
36	1	908	G	N1-C2-N2	6.90	122.41	116.20
36	5	1115	G	C6-C5-N7	-6.90	126.26	130.40
36	1	743	C	C6-N1-C2	6.90	123.06	120.30
36	1	3269	U	C5-C4-O4	6.90	130.04	125.90
36	1	1156	C	C5-C6-N1	-6.90	117.55	121.00
36	1	2355	G	C6-C5-N7	-6.90	126.26	130.40
36	1	3184	A	C8-N9-C4	6.90	108.56	105.80
36	1	658	G	C8-N9-C1'	-6.89	118.04	127.00
36	1	2174	G	C4-C5-N7	6.89	113.56	110.80
36	1	2314	U	C5-C4-O4	-6.89	121.76	125.90
36	5	700	C	C6-N1-C2	6.89	123.06	120.30
1	6	57	G	N3-C4-C5	-6.89	125.15	128.60
36	5	2419	A	C8-N9-C4	-6.89	103.04	105.80
36	1	1115	G	N7-C8-N9	6.89	116.55	113.10
36	1	3183	A	N1-C6-N6	6.89	122.73	118.60
1	2	1733	C	N3-C4-C5	-6.89	119.14	121.90
36	1	28	C	C6-N1-C2	6.89	123.06	120.30
36	1	984	G	N3-C4-N9	6.89	130.13	126.00
1	6	65	A	N1-C6-N6	6.89	122.73	118.60
36	5	3362	A	C2-N3-C4	-6.89	107.16	110.60
36	1	1495	U	C6-N1-C1'	6.89	130.84	121.20
36	1	2314	U	N3-C4-O4	6.89	124.22	119.40
38	8	68	G	C6-C5-N7	-6.89	126.27	130.40
36	5	1192	C	N3-C2-O2	-6.88	117.08	121.90
36	5	1657	C	N1-C2-O2	6.88	123.03	118.90
36	5	2868	U	N1-C2-O2	6.88	127.62	122.80
36	1	2960	C	C5-C6-N1	-6.88	117.56	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1361	U	C2-N1-C1'	6.88	125.95	117.70
36	1	54	C	C5-C6-N1	-6.88	117.56	121.00
36	1	931	C	C2-N3-C4	-6.88	116.46	119.90
36	1	1313	G	C5-C6-O6	-6.88	124.47	128.60
1	2	423	G	N1-C6-O6	-6.88	115.78	119.90
36	1	2174	G	C5-N7-C8	-6.88	100.86	104.30
36	1	2879	C	N1-C2-O2	-6.88	114.78	118.90
36	1	661	G	C5-C6-O6	6.87	132.72	128.60
36	5	1524	A	C8-N9-C4	6.87	108.55	105.80
36	5	3172	A	C2-N3-C4	-6.87	107.17	110.60
1	6	577	G	C4-C5-N7	6.87	113.55	110.80
36	5	372	A	O5'-P-OP2	-6.87	99.52	105.70
36	5	3362	A	C5-N7-C8	-6.87	100.47	103.90
36	5	217	U	OP1-P-O3'	6.87	120.30	105.20
36	5	682	U	C6-N1-C1'	6.87	130.81	121.20
1	2	610	G	C4-N9-C1'	6.86	135.42	126.50
36	1	3212	C	C6-N1-C2	6.86	123.05	120.30
1	6	901	G	C5-N7-C8	-6.86	100.87	104.30
36	5	1208	U	C5-C4-O4	6.86	130.02	125.90
36	1	2130	G	C5-C6-O6	6.86	132.72	128.60
36	1	1513	G	N3-C4-C5	-6.86	125.17	128.60
36	1	632	G	N9-C4-C5	-6.86	102.66	105.40
1	2	864	U	N3-C2-O2	-6.85	117.40	122.20
1	6	577	G	N7-C8-N9	6.85	116.53	113.10
1	6	1097	U	P-O3'-C3'	6.85	127.92	119.70
36	1	1435	A	O5'-P-OP2	6.85	118.92	110.70
36	1	2363	A	N1-C6-N6	-6.85	114.49	118.60
36	5	610	G	C8-N9-C4	-6.85	103.66	106.40
1	2	637	C	C6-N1-C2	6.85	123.04	120.30
36	1	721	G	C8-N9-C4	-6.85	103.66	106.40
36	1	2798	C	N3-C4-C5	-6.85	119.16	121.90
1	6	1634	C	N1-C2-O2	6.85	123.01	118.90
36	5	984	G	N3-C4-N9	6.85	130.11	126.00
36	5	1151	U	N3-C2-O2	6.85	126.99	122.20
36	1	2329	C	O5'-P-OP2	-6.85	99.54	105.70
36	1	957	C	O5'-P-OP2	-6.84	99.54	105.70
1	6	1614	A	N1-C6-N6	6.84	122.71	118.60
36	5	859	G	N3-C2-N2	6.84	124.69	119.90
36	5	3209	A	N7-C8-N9	6.84	117.22	113.80
36	5	1160	C	N1-C2-O2	-6.84	114.80	118.90
36	5	2354	C	N3-C2-O2	6.84	126.69	121.90
1	2	1568	C	P-O3'-C3'	6.84	127.91	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1100	U	C2-N3-C4	-6.84	122.90	127.00
36	5	1932	A	O5'-P-OP1	-6.84	99.55	105.70
36	1	2114	C	O5'-P-OP2	-6.84	99.55	105.70
36	1	362	U	O5'-P-OP1	-6.83	99.55	105.70
36	1	2777	G	C4-C5-N7	-6.83	108.07	110.80
36	5	521	A	N1-C6-N6	-6.83	114.50	118.60
36	5	922	U	N1-C2-N3	6.83	119.00	114.90
36	1	3269	U	O5'-P-OP2	-6.83	99.55	105.70
36	5	2191	U	N3-C4-O4	-6.83	114.62	119.40
1	2	377	G	N3-C4-C5	6.83	132.01	128.60
36	1	635	G	C5-C6-O6	-6.83	124.50	128.60
73	O7	65	ARG	NE-CZ-NH2	-6.83	116.89	120.30
36	1	2987	A	N1-C6-N6	6.83	122.70	118.60
36	1	3217	C	N1-C2-O2	6.82	122.99	118.90
36	5	2379	U	O5'-P-OP2	-6.82	99.56	105.70
36	5	3124	G	N3-C2-N2	-6.82	115.12	119.90
38	8	29	U	O5'-P-OP2	-6.82	99.56	105.70
36	1	644	G	C5-C6-N1	-6.82	108.09	111.50
36	5	3020	U	N3-C4-O4	6.82	124.17	119.40
36	1	671	U	O5'-P-OP2	-6.81	99.57	105.70
36	1	1353	U	N3-C2-O2	-6.81	117.43	122.20
36	1	1481	A	C8-N9-C1'	-6.81	115.44	127.70
36	5	1592	G	C5-C6-N1	-6.81	108.09	111.50
36	5	2992	U	C5-C6-N1	6.81	126.11	122.70
36	5	3374	U	N3-C4-C5	6.81	118.69	114.60
36	1	2197	C	C6-N1-C2	6.81	123.02	120.30
36	1	2870	C	C6-N1-C2	6.81	123.02	120.30
36	5	350	C	C6-N1-C2	-6.81	117.58	120.30
36	5	2183	A	N1-C6-N6	6.81	122.68	118.60
36	5	2399	A	N1-C6-N6	6.81	122.68	118.60
36	1	2714	G	C4-C5-C6	-6.80	114.72	118.80
36	1	32	U	O5'-P-OP2	-6.80	99.58	105.70
36	1	1480	G	N1-C6-O6	6.80	123.98	119.90
38	4	9	A	O5'-P-OP2	-6.80	99.58	105.70
36	5	1851	G	C6-C5-N7	-6.80	126.32	130.40
36	5	2385	G	C4-N9-C1'	-6.80	117.66	126.50
36	5	2617	U	N1-C2-O2	-6.80	118.04	122.80
36	1	2866	U	N1-C2-O2	6.80	127.56	122.80
36	1	835	G	O4'-C1'-N9	6.80	113.64	108.20
36	1	3034	C	N1-C2-O2	6.80	122.98	118.90
37	7	87	G	N1-C6-O6	6.80	123.98	119.90
36	1	859	G	N3-C4-N9	6.80	130.08	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	20	G	N1-C6-O6	6.79	123.98	119.90
1	6	696	C	O4'-C1'-N1	6.79	113.64	108.20
36	5	425	G	C8-N9-C4	6.79	109.12	106.40
36	1	984	G	C6-C5-N7	-6.79	126.33	130.40
36	1	3319	U	P-O3'-C3'	6.79	127.85	119.70
36	5	665	A	N1-C6-N6	6.79	122.67	118.60
36	5	1151	U	N3-C4-O4	6.79	124.15	119.40
36	5	3197	G	N3-C4-C5	6.79	131.99	128.60
36	5	1110	U	N3-C2-O2	-6.79	117.45	122.20
36	1	2968	G	N1-C6-O6	6.79	123.97	119.90
36	1	3207	U	C5-C4-O4	6.79	129.97	125.90
36	5	940	G	C5-C6-O6	-6.78	124.53	128.60
1	2	597	G	C4-N9-C1'	6.78	135.31	126.50
36	1	1366	A	C8-N9-C4	-6.78	103.09	105.80
36	1	2886	U	N3-C4-O4	6.78	124.15	119.40
36	5	1500	G	C8-N9-C4	6.78	109.11	106.40
36	5	2186	U	C5-C4-O4	6.78	129.97	125.90
1	2	1432	U	C6-N1-C2	6.78	125.07	121.00
36	1	2643	A	C8-N9-C4	6.78	108.51	105.80
1	6	1473	U	C5-C4-O4	6.78	129.97	125.90
36	5	2114	C	OP1-P-OP2	6.78	129.77	119.60
36	1	821	U	C5-C4-O4	6.78	129.97	125.90
36	5	1124	U	N3-C4-O4	-6.78	114.66	119.40
36	5	2142	A	C5-C6-N1	6.77	121.09	117.70
36	5	3141	A	C4-C5-C6	6.77	120.39	117.00
36	5	1321	G	N9-C4-C5	-6.77	102.69	105.40
1	2	1300	A	O5'-P-OP1	-6.77	99.61	105.70
36	1	67	A	O5'-P-OP1	-6.77	99.61	105.70
36	1	394	G	C8-N9-C4	-6.77	103.69	106.40
36	1	498	A	N1-C6-N6	-6.77	114.54	118.60
36	1	2808	A	C6-C5-N7	-6.77	127.56	132.30
36	1	2877	G	N9-C4-C5	6.77	108.11	105.40
1	6	139	C	C6-N1-C2	-6.77	117.59	120.30
1	6	687	G	N3-C2-N2	-6.77	115.16	119.90
1	6	1129	U	N3-C4-O4	-6.77	114.66	119.40
36	5	940	G	N3-C2-N2	-6.77	115.16	119.90
36	5	1483	G	O4'-C1'-N9	6.77	113.61	108.20
36	5	2968	G	N1-C6-O6	-6.77	115.84	119.90
1	2	1189	A	C8-N9-C4	6.77	108.51	105.80
36	1	1411	C	N3-C4-C5	6.77	124.61	121.90
1	6	577	G	N1-C6-O6	6.76	123.96	119.90
36	1	870	G	O5'-P-OP2	-6.76	99.61	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	960	U	N3-C4-O4	-6.76	114.67	119.40
36	1	1429	G	C6-N1-C2	-6.76	121.04	125.10
36	1	2343	C	N3-C4-C5	6.76	124.61	121.90
36	1	983	A	N1-C2-N3	6.76	132.68	129.30
36	5	437	G	N3-C2-N2	-6.76	115.17	119.90
36	5	1164	G	C8-N9-C4	6.76	109.10	106.40
36	5	3144	G	N3-C4-C5	-6.76	125.22	128.60
36	1	112	U	N3-C2-O2	-6.76	117.47	122.20
36	1	2369	G	C2-N3-C4	6.76	115.28	111.90
36	1	112	U	N1-C2-O2	6.75	127.53	122.80
36	1	2639	G	N1-C2-N3	6.75	127.95	123.90
36	1	439	C	C6-N1-C1'	-6.75	112.70	120.80
36	1	697	A	N9-C4-C5	-6.75	103.10	105.80
36	5	2283	G	O5'-P-OP2	-6.75	99.63	105.70
36	5	3362	A	C8-N9-C4	-6.75	103.10	105.80
36	5	821	U	N1-C2-N3	6.75	118.95	114.90
36	1	25	U	N3-C4-C5	-6.74	110.55	114.60
37	3	57	G	N1-C6-O6	-6.74	115.85	119.90
36	1	1849	C	N3-C2-O2	6.74	126.62	121.90
36	5	2661	G	N3-C4-C5	-6.74	125.23	128.60
36	1	221	A	C8-N9-C4	-6.74	103.10	105.80
1	6	172	C	C6-N1-C2	-6.74	117.60	120.30
36	5	838	G	N1-C6-O6	-6.74	115.86	119.90
36	1	2917	G	C2-N3-C4	6.74	115.27	111.90
1	6	1769	U	N3-C2-O2	6.74	126.92	122.20
36	5	1361	U	C6-N1-C2	-6.74	116.96	121.00
36	5	2663	G	O5'-P-OP2	-6.73	99.64	105.70
36	5	50	U	O5'-P-OP1	-6.73	99.64	105.70
36	5	922	U	C5-C4-O4	6.73	129.94	125.90
36	5	2691	A	C8-N9-C4	-6.73	103.11	105.80
36	5	1372	C	C6-N1-C2	6.73	122.99	120.30
36	5	1856	C	C6-N1-C2	-6.73	117.61	120.30
36	5	2756	C	OP2-P-O3'	6.73	120.00	105.20
36	5	2953	U	C5-C4-O4	-6.73	121.86	125.90
36	1	2423	U	O5'-P-OP2	-6.72	99.65	105.70
1	2	1595	U	O4'-C1'-N1	6.72	113.58	108.20
36	1	2651	G	C5-C6-O6	6.72	132.63	128.60
36	1	3045	G	C2-N3-C4	6.72	115.26	111.90
36	1	3057	U	N3-C4-O4	-6.72	114.69	119.40
1	6	371	G	C4-N9-C1'	6.72	135.24	126.50
1	6	1596	C	N3-C2-O2	-6.72	117.19	121.90
36	5	1367	G	C6-C5-N7	-6.72	126.37	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1150	G	C8-N9-C4	6.72	109.09	106.40
36	5	1155	C	O5'-P-OP1	-6.72	99.65	105.70
36	5	2639	G	C6-C5-N7	-6.72	126.37	130.40
36	5	2901	G	O5'-P-OP2	-6.72	99.65	105.70
36	1	2993	G	N9-C4-C5	-6.72	102.71	105.40
37	3	102	A	N1-C6-N6	6.72	122.63	118.60
36	1	81	C	C2-N3-C4	-6.72	116.54	119.90
36	1	2660	G	C5-C6-O6	-6.72	124.57	128.60
1	6	163	G	N3-C2-N2	-6.72	115.20	119.90
38	8	74	U	C5-C4-O4	-6.72	121.87	125.90
1	2	1493	A	O4'-C1'-N9	6.71	113.57	108.20
36	1	2937	G	C8-N9-C4	6.71	109.09	106.40
36	5	927	C	N3-C2-O2	6.71	126.60	121.90
36	5	1140	G	OP1-P-O3'	6.71	119.97	105.20
36	5	3177	G	C5-C6-O6	6.71	132.63	128.60
36	5	2710	C	N1-C2-O2	-6.71	114.87	118.90
1	6	1002	G	C5-C6-O6	-6.71	124.57	128.60
36	5	1370	G	N1-C2-N2	-6.71	110.16	116.20
36	5	3262	U	O5'-P-OP2	-6.71	99.66	105.70
36	1	968	G	C6-C5-N7	-6.71	126.38	130.40
36	1	3373	U	C5-C6-N1	-6.71	119.34	122.70
36	5	128	G	N1-C6-O6	6.71	123.92	119.90
36	5	337	G	C8-N9-C4	-6.71	103.72	106.40
36	5	2715	A	O5'-P-OP2	-6.71	99.66	105.70
36	1	2417	U	C2-N3-C4	-6.70	122.98	127.00
36	1	3103	A	O5'-P-OP2	-6.70	99.67	105.70
37	3	48	U	N1-C2-O2	6.70	127.49	122.80
36	1	1481	A	N7-C8-N9	6.70	117.15	113.80
36	1	2946	A	C4-C5-N7	6.70	114.05	110.70
51	M5	12	ARG	NE-CZ-NH1	-6.70	116.95	120.30
36	5	2429	G	C8-N9-C4	-6.70	103.72	106.40
36	5	3335	A	N1-C6-N6	6.70	122.62	118.60
1	6	296	U	O5'-P-OP1	6.70	118.73	110.70
36	5	995	U	O5'-P-OP1	-6.70	99.67	105.70
37	7	108	A	C5-C6-N6	-6.70	118.34	123.70
1	2	145	A	C8-N9-C4	-6.69	103.12	105.80
36	5	2350	C	O5'-P-OP1	6.69	118.73	110.70
38	8	109	A	C5-C6-N1	6.69	121.05	117.70
36	1	108	A	N1-C6-N6	-6.69	114.59	118.60
36	1	652	G	N1-C2-N2	-6.69	110.18	116.20
36	5	2403	G	O5'-P-OP1	6.69	118.73	110.70
36	1	2946	A	C6-C5-N7	-6.69	127.62	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2138	A	C5-N7-C8	-6.69	100.56	103.90
36	1	3217	C	N3-C2-O2	-6.69	117.22	121.90
36	1	920	A	C6-N1-C2	-6.69	114.59	118.60
36	1	3181	C	C6-N1-C2	-6.69	117.62	120.30
36	1	3344	A	O4'-C1'-N9	6.69	113.55	108.20
36	1	1789	G	C8-N9-C4	6.68	109.07	106.40
36	1	2798	C	C6-N1-C2	-6.68	117.63	120.30
36	5	3086	A	O5'-P-OP1	-6.68	99.69	105.70
1	2	992	A	N3-C4-C5	6.68	131.48	126.80
36	1	2983	C	C5-C4-N4	6.68	124.88	120.20
1	6	75	U	N1-C2-O2	6.68	127.48	122.80
1	6	512	A	C5-C6-N6	-6.68	118.36	123.70
36	5	1329	U	C2-N1-C1'	6.68	125.72	117.70
36	1	627	U	N3-C2-O2	6.68	126.87	122.20
36	1	1097	G	C8-N9-C4	-6.68	103.73	106.40
1	6	99	C	N3-C2-O2	-6.67	117.23	121.90
36	5	2751	G	C5-N7-C8	-6.67	100.96	104.30
36	1	1343	A	C5-C6-N6	-6.67	118.36	123.70
36	1	1901	A	N1-C6-N6	-6.67	114.60	118.60
36	1	2728	G	N3-C4-N9	6.67	130.00	126.00
36	5	3144	G	N7-C8-N9	6.67	116.44	113.10
36	1	1279	C	C6-N1-C2	-6.67	117.63	120.30
36	5	1043	C	N3-C2-O2	-6.67	117.23	121.90
36	5	2650	U	N3-C4-C5	6.67	118.60	114.60
37	7	37	G	N3-C4-N9	6.67	130.00	126.00
1	2	1329	A	N1-C6-N6	6.67	122.60	118.60
36	1	1131	G	C4-C5-N7	6.67	113.47	110.80
36	5	1127	G	O5'-P-OP2	-6.67	99.70	105.70
36	5	2798	C	N3-C4-N4	-6.67	113.33	118.00
1	2	1560	U	C5-C4-O4	6.67	129.90	125.90
36	5	1060	U	N3-C4-O4	-6.66	114.74	119.40
36	1	2728	G	C2-N3-C4	6.66	115.23	111.90
36	1	34	A	C5-N7-C8	-6.66	100.57	103.90
1	2	1241	G	O4'-C1'-N9	6.66	113.53	108.20
36	1	800	G	N3-C2-N2	-6.66	115.24	119.90
36	5	2174	G	N1-C6-O6	6.66	123.89	119.90
36	1	1382	G	C8-N9-C4	6.65	109.06	106.40
36	5	3293	U	C6-N1-C2	6.65	124.99	121.00
1	2	1596	C	N3-C2-O2	-6.65	117.24	121.90
36	1	372	A	O5'-P-OP2	-6.65	99.71	105.70
36	5	2940	A	C5-C6-N6	-6.65	118.38	123.70
36	5	831	G	C2-N3-C4	6.65	115.22	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2400	G	N9-C4-C5	-6.65	102.74	105.40
36	1	2147	A	C8-N9-C4	6.65	108.46	105.80
1	6	65	A	C2-N3-C4	-6.65	107.28	110.60
36	1	290	G	C8-N9-C4	-6.65	103.74	106.40
36	1	646	A	C2-N3-C4	-6.65	107.28	110.60
36	1	1425	U	N1-C2-N3	6.65	118.89	114.90
1	6	337	G	C4-N9-C1'	6.65	135.14	126.50
36	5	2824	G	C5-C6-O6	-6.65	124.61	128.60
36	5	2874	G	N1-C6-O6	-6.65	115.91	119.90
36	5	3223	A	N1-C6-N6	-6.65	114.61	118.60
36	1	659	G	C2-N3-C4	6.64	115.22	111.90
36	5	2841	G	OP1-P-OP2	6.64	129.57	119.60
36	1	915	A	N1-C6-N6	-6.64	114.61	118.60
36	1	1149	G	O4'-C1'-N9	6.64	113.51	108.20
1	6	542	A	C8-N9-C4	-6.64	103.14	105.80
36	1	648	C	O5'-P-OP1	-6.64	99.72	105.70
36	1	2756	C	N3-C4-N4	6.64	122.65	118.00
36	1	53	G	N3-C4-N9	6.64	129.98	126.00
36	1	107	A	N1-C6-N6	6.64	122.58	118.60
37	3	12	U	N3-C2-O2	6.64	126.84	122.20
1	6	75	U	N3-C2-O2	-6.64	117.56	122.20
36	5	2345	A	N9-C4-C5	-6.63	103.15	105.80
38	8	20	U	O5'-P-OP1	6.63	118.66	110.70
1	6	383	G	C8-N9-C4	-6.63	103.75	106.40
36	5	921	A	C8-N9-C4	-6.63	103.15	105.80
38	8	109	A	C5-C6-N6	-6.63	118.39	123.70
36	5	2831	G	C5-C6-O6	-6.63	124.62	128.60
36	1	590	G	C4-C5-N7	6.63	113.45	110.80
36	1	646	A	N1-C2-N3	6.63	132.61	129.30
36	1	424	G	C8-N9-C4	6.63	109.05	106.40
36	1	1296	C	C6-N1-C2	-6.63	117.65	120.30
38	8	125	U	N1-C2-O2	6.62	127.44	122.80
36	1	669	U	C6-N1-C2	6.62	124.97	121.00
36	5	2628	A	C6-N1-C2	-6.62	114.63	118.60
36	1	3107	U	O5'-P-OP2	-6.62	99.74	105.70
24	d2	93	LEU	CA-CB-CG	6.62	130.53	115.30
36	1	3214	U	O4'-C1'-N1	6.62	113.50	108.20
36	1	788	C	C2-N1-C1'	-6.62	111.52	118.80
36	1	1838	G	C5-C6-O6	-6.62	124.63	128.60
1	2	728	U	N1-C2-O2	6.62	127.43	122.80
36	5	2314	U	C5-C4-O4	-6.62	121.93	125.90
36	5	2696	A	OP2-P-O3'	6.62	119.76	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1149	G	C4-C5-C6	6.62	122.77	118.80
36	1	66	A	O5'-P-OP1	-6.61	99.75	105.70
36	1	1103	A	O5'-P-OP2	6.61	118.64	110.70
36	5	2623	G	N9-C4-C5	-6.61	102.75	105.40
36	5	2943	G	N1-C6-O6	6.61	123.87	119.90
1	2	1041	G	C8-N9-C4	-6.61	103.76	106.40
36	1	708	G	N7-C8-N9	6.61	116.41	113.10
36	5	2899	C	C2-N1-C1'	6.61	126.07	118.80
37	7	47	C	C2-N3-C4	-6.61	116.60	119.90
1	2	61	A	C5-N7-C8	-6.60	100.60	103.90
36	1	946	U	N1-C2-N3	6.60	118.86	114.90
36	1	1144	U	C5-C6-N1	-6.60	119.40	122.70
36	5	1378	U	C6-N1-C2	6.60	124.96	121.00
36	5	2341	A	C8-N9-C4	6.60	108.44	105.80
36	5	879	U	N1-C2-N3	6.60	118.86	114.90
31	D9	36	LEU	CA-CB-CG	6.60	130.48	115.30
36	1	3076	C	C6-N1-C2	-6.60	117.66	120.30
36	5	1481	A	P-O3'-C3'	6.60	127.62	119.70
36	1	1604	G	N7-C8-N9	6.60	116.40	113.10
44	L7	160	ARG	NE-CZ-NH2	-6.60	117.00	120.30
36	5	1848	G	C5-C6-O6	-6.60	124.64	128.60
36	5	2412	G	N3-C4-C5	-6.60	125.30	128.60
36	5	2976	A	N1-C6-N6	-6.60	114.64	118.60
36	1	1520	G	N7-C8-N9	-6.59	109.80	113.10
36	1	2298	U	N3-C4-O4	-6.59	114.78	119.40
1	6	1109	G	O5'-P-OP1	-6.59	99.77	105.70
36	5	1321	G	C8-N9-C1'	-6.59	118.43	127.00
36	5	3309	G	N3-C4-C5	-6.59	125.30	128.60
12	C0	88	PRO	N-CA-CB	6.59	111.21	103.30
36	1	1360	C	O5'-P-OP1	-6.59	99.77	105.70
36	5	2234	G	C5-C6-O6	-6.59	124.65	128.60
36	5	3335	A	C6-C5-N7	-6.59	127.69	132.30
36	1	1300	G	C5-C6-O6	-6.59	124.65	128.60
36	5	871	U	N1-C2-N3	6.59	118.85	114.90
36	1	895	A	N7-C8-N9	6.58	117.09	113.80
36	1	1390	A	N1-C2-N3	6.58	132.59	129.30
1	6	630	A	N1-C6-N6	6.58	122.55	118.60
36	5	2211	U	C5-C4-O4	6.58	129.85	125.90
36	5	2920	U	N1-C2-O2	-6.58	118.19	122.80
36	1	2629	U	O5'-P-OP1	6.58	118.60	110.70
36	5	942	U	N3-C2-O2	6.58	126.81	122.20
1	2	1778	G	C5-C6-O6	6.58	132.55	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1520	G	C5-N7-C8	6.58	107.59	104.30
36	5	2358	A	C8-N9-C4	6.58	108.43	105.80
1	2	447	U	C6-N1-C2	-6.58	117.06	121.00
36	1	388	G	N3-C2-N2	-6.58	115.30	119.90
36	1	685	G	N1-C6-O6	6.58	123.84	119.90
36	1	1428	A	C5-N7-C8	-6.58	100.61	103.90
36	5	227	G	O5'-P-OP2	-6.58	99.78	105.70
36	5	1189	C	N1-C2-O2	-6.57	114.96	118.90
36	5	1591	G	C8-N9-C4	-6.57	103.77	106.40
36	1	3195	U	N3-C2-O2	-6.57	117.60	122.20
49	m3	21	ARG	NE-CZ-NH1	-6.57	117.02	120.30
36	1	968	G	N3-C4-C5	-6.57	125.32	128.60
1	2	1486	G	N7-C8-N9	6.56	116.38	113.10
38	4	24	G	N1-C6-O6	6.56	123.84	119.90
36	1	290	G	N9-C4-C5	6.56	108.03	105.40
36	5	1786	G	N1-C6-O6	-6.56	115.96	119.90
37	7	104	A	N1-C6-N6	6.56	122.54	118.60
36	1	639	G	N1-C6-O6	6.56	123.84	119.90
36	1	658	G	C4-N9-C1'	6.56	135.03	126.50
36	1	1156	C	C2-N3-C4	-6.56	116.62	119.90
36	5	1115	G	C8-N9-C1'	-6.56	118.47	127.00
38	4	113	U	N1-C2-N3	6.56	118.83	114.90
1	6	1100	G	N3-C4-N9	6.56	129.93	126.00
36	5	3008	A	N1-C2-N3	6.56	132.58	129.30
36	1	2572	C	N3-C2-O2	-6.56	117.31	121.90
1	2	969	C	N1-C2-O2	-6.55	114.97	118.90
1	6	385	A	N1-C6-N6	-6.55	114.67	118.60
1	6	1019	A	C8-N9-C4	6.55	108.42	105.80
36	5	1894	U	N1-C2-O2	-6.55	118.21	122.80
36	5	1460	A	N1-C6-N6	6.55	122.53	118.60
36	5	2426	U	C5-C4-O4	6.55	129.83	125.90
36	1	229	G	N3-C2-N2	-6.55	115.31	119.90
36	5	1042	U	N3-C4-O4	-6.55	114.81	119.40
36	5	1520	G	C5-C6-O6	-6.55	124.67	128.60
38	8	33	A	N1-C6-N6	6.55	122.53	118.60
36	1	405	U	C5-C4-O4	-6.55	121.97	125.90
36	1	726	G	O5'-P-OP1	-6.55	99.81	105.70
36	1	1103	A	O5'-P-OP1	-6.55	99.81	105.70
36	5	2271	A	N7-C8-N9	-6.55	110.53	113.80
36	5	2385	G	C8-N9-C4	6.55	109.02	106.40
1	2	1654	G	N1-C2-N2	-6.55	110.31	116.20
36	1	2550	U	C5-C4-O4	6.55	129.83	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	216	G	C8-N9-C4	-6.55	103.78	106.40
36	1	961	C	C4-C5-C6	6.55	120.67	117.40
73	O7	45	ARG	NE-CZ-NH1	-6.55	117.03	120.30
36	5	2816	G	N9-C4-C5	-6.54	102.78	105.40
55	M9	138	LEU	CA-CB-CG	6.54	130.35	115.30
36	5	2315	G	O5'-P-OP1	-6.54	99.81	105.70
36	1	650	C	OP2-P-O3'	6.54	119.59	105.20
36	1	2309	A	N1-C6-N6	6.54	122.52	118.60
36	1	2869	U	O5'-P-OP1	-6.54	99.81	105.70
36	5	656	A	C8-N9-C4	6.54	108.42	105.80
36	1	188	U	N3-C4-C5	-6.54	110.68	114.60
36	1	197	G	C4-C5-N7	6.54	113.42	110.80
36	5	1152	G	C8-N9-C1'	6.54	135.50	127.00
36	1	997	A	C4-C5-C6	6.54	120.27	117.00
36	1	324	A	N1-C2-N3	6.53	132.57	129.30
36	1	426	G	N3-C4-N9	6.53	129.92	126.00
36	1	1429	G	C2-N3-C4	6.53	115.17	111.90
36	5	2382	G	N1-C6-O6	-6.53	115.98	119.90
36	5	2719	U	C2-N1-C1'	-6.53	109.86	117.70
36	1	581	U	OP2-P-O3'	6.53	119.56	105.20
36	1	1187	C	C6-N1-C2	6.53	122.91	120.30
36	1	614	C	C6-N1-C2	6.52	122.91	120.30
36	1	820	A	C8-N9-C4	-6.52	103.19	105.80
36	1	1481	A	C4-C5-N7	6.52	113.96	110.70
36	1	2244	A	O5'-P-OP2	-6.52	99.83	105.70
36	1	2306	C	N3-C4-N4	-6.52	113.44	118.00
36	5	2799	A	N9-C4-C5	6.52	108.41	105.80
36	5	2190	U	N1-C2-N3	6.52	118.81	114.90
36	5	1445	U	C2-N3-C4	-6.52	123.09	127.00
36	1	2816	G	C5-C6-O6	-6.51	124.69	128.60
36	1	1346	G	N3-C4-C5	6.51	131.86	128.60
36	1	1506	A	N1-C6-N6	-6.51	114.69	118.60
36	1	356	C	O5'-P-OP2	-6.51	99.84	105.70
36	1	2842	U	N1-C2-O2	6.51	127.36	122.80
1	6	557	G	N1-C6-O6	-6.51	116.00	119.90
36	5	927	C	N3-C4-N4	6.51	122.56	118.00
36	1	50	U	C6-N1-C2	-6.51	117.10	121.00
36	1	2355	G	C5-C6-N1	-6.51	108.25	111.50
36	5	1154	A	N9-C4-C5	6.51	108.40	105.80
36	5	3197	G	N9-C4-C5	6.51	108.00	105.40
38	8	54	A	N1-C6-N6	6.51	122.50	118.60
36	5	1192	C	N3-C4-C5	6.50	124.50	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1941	C	C6-N1-C2	-6.50	117.70	120.30
36	5	2411	U	C5-C6-N1	-6.50	119.45	122.70
12	c0	97	PRO	N-CA-CB	6.50	111.10	103.30
36	5	220	G	O5'-P-OP2	-6.50	99.85	105.70
36	5	1876	U	C5-C6-N1	-6.50	119.45	122.70
36	5	2943	G	N9-C4-C5	-6.50	102.80	105.40
36	1	197	G	N1-C6-O6	6.50	123.80	119.90
36	1	394	G	N9-C4-C5	6.50	108.00	105.40
35	sM	167	PRO	N-CA-CB	6.50	111.10	103.30
36	5	2327	U	C5-C6-N1	-6.50	119.45	122.70
38	8	20	U	O5'-P-OP2	-6.50	99.85	105.70
1	2	581	U	C2-N1-C1'	6.50	125.49	117.70
36	5	2356	A	C6-N1-C2	6.50	122.50	118.60
36	1	1317	A	C2-N3-C4	6.49	113.85	110.60
36	1	2601	A	N7-C8-N9	-6.49	110.55	113.80
1	6	1463	C	C6-N1-C2	6.49	122.90	120.30
1	6	1765	A	C8-N9-C4	6.49	108.40	105.80
36	5	2245	C	N3-C4-C5	-6.49	119.30	121.90
36	5	2645	G	C5-C6-N1	6.49	114.75	111.50
36	1	993	G	N3-C4-C5	-6.49	125.35	128.60
36	1	1154	A	N1-C2-N3	6.49	132.55	129.30
1	6	1022	C	O5'-P-OP1	-6.49	99.86	105.70
36	5	1313	G	O5'-P-OP2	-6.49	99.86	105.70
36	5	1321	G	N1-C6-O6	6.49	123.80	119.90
36	1	1412	G	OP1-P-OP2	-6.49	109.87	119.60
36	1	2859	U	O5'-P-OP1	-6.49	99.86	105.70
36	1	196	G	N9-C4-C5	-6.48	102.81	105.40
36	1	1428	A	C6-C5-N7	-6.48	127.76	132.30
36	1	1713	G	N3-C4-C5	6.48	131.84	128.60
36	1	2726	C	N1-C2-N3	6.48	123.74	119.20
1	6	321	C	N1-C2-O2	6.48	122.79	118.90
36	5	2759	U	C4-C5-C6	6.48	123.59	119.70
10	S8	29	LEU	CA-CB-CG	6.48	130.21	115.30
1	6	1619	C	C6-N1-C2	-6.48	117.71	120.30
36	5	2399	A	C8-N9-C4	6.48	108.39	105.80
36	5	1468	A	C6-C5-N7	-6.48	127.77	132.30
1	2	377	G	N3-C2-N2	-6.48	115.36	119.90
18	C6	40	GLU	C-N-CD	-6.48	106.35	120.60
1	6	558	U	P-O3'-C3'	6.48	127.47	119.70
1	6	1162	C	C6-N1-C2	-6.48	117.71	120.30
36	5	739	G	O5'-P-OP1	-6.48	99.87	105.70
36	5	2385	G	C2-N3-C4	-6.48	108.66	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	272	U	C2-N1-C1'	6.48	125.47	117.70
36	5	1302	A	O5'-P-OP2	6.48	118.47	110.70
36	5	2435	G	N1-C6-O6	6.48	123.79	119.90
36	1	1103	A	C8-N9-C4	6.47	108.39	105.80
36	5	2304	C	C6-N1-C2	-6.47	117.71	120.30
36	5	2624	G	C6-C5-N7	-6.47	126.52	130.40
37	7	49	G	C8-N9-C4	6.47	108.99	106.40
36	1	2618	G	C5-C6-O6	6.47	132.48	128.60
36	5	2267	C	N3-C4-C5	6.47	124.49	121.90
59	n3	87	ARG	NE-CZ-NH2	-6.47	117.06	120.30
1	2	354	C	C6-N1-C2	-6.47	117.71	120.30
56	N0	115	ARG	NE-CZ-NH2	-6.47	117.07	120.30
36	1	2899	C	N3-C2-O2	-6.46	117.38	121.90
36	1	3362	A	C4-C5-N7	6.46	113.93	110.70
36	5	1158	A	C5-C6-N6	-6.46	118.53	123.70
1	2	377	G	N3-C4-N9	-6.46	122.12	126.00
36	1	810	A	C6-N1-C2	-6.46	114.72	118.60
36	1	1370	G	C8-N9-C4	-6.46	103.82	106.40
1	6	1745	G	N3-C4-N9	6.46	129.88	126.00
36	5	1639	C	C6-N1-C2	-6.46	117.72	120.30
36	1	2610	G	C5-C6-O6	-6.46	124.73	128.60
36	5	1160	C	C2-N1-C1'	-6.46	111.70	118.80
36	5	2836	C	C4-C5-C6	6.46	120.63	117.40
36	5	3105	U	C2-N3-C4	-6.46	123.13	127.00
36	5	433	A	N1-C2-N3	6.46	132.53	129.30
36	5	2948	C	O5'-P-OP1	6.46	118.45	110.70
1	2	590	C	C2-N1-C1'	6.45	125.90	118.80
36	1	1585	C	N3-C4-C5	6.45	124.48	121.90
36	1	3212	C	O5'-P-OP1	6.45	118.44	110.70
36	5	656	A	O5'-P-OP2	-6.45	99.89	105.70
36	5	891	G	OP1-P-OP2	-6.45	109.92	119.60
36	1	2352	A	O5'-P-OP2	-6.45	99.89	105.70
36	1	3306	U	N1-C2-O2	6.45	127.31	122.80
36	5	350	C	N3-C2-O2	-6.45	117.39	121.90
36	1	2138	A	C8-N9-C4	-6.45	103.22	105.80
1	2	1199	G	C4-N9-C1'	6.45	134.88	126.50
1	2	1778	G	N1-C6-O6	-6.44	116.03	119.90
36	1	2393	G	C5-C6-O6	-6.44	124.73	128.60
36	5	884	A	N1-C6-N6	6.44	122.47	118.60
36	5	3216	G	N1-C6-O6	6.44	123.77	119.90
1	2	1744	A	O5'-P-OP1	-6.44	99.90	105.70
1	2	1761	U	P-O3'-C3'	6.44	127.43	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	637	C	O4'-C1'-N1	6.44	113.35	108.20
36	1	1367	G	C6-C5-N7	-6.44	126.53	130.40
36	5	1134	G	O5'-P-OP2	-6.44	99.90	105.70
21	C9	57	ARG	NE-CZ-NH1	6.44	123.52	120.30
36	1	721	G	N7-C8-N9	6.44	116.32	113.10
36	5	2345	A	C6-C5-N7	-6.44	127.79	132.30
36	5	2626	A	N9-C4-C5	6.44	108.38	105.80
36	5	639	G	O5'-P-OP1	6.44	118.42	110.70
13	C1	91	LEU	CA-CB-CG	6.43	130.10	115.30
36	1	1906	G	N1-C6-O6	6.43	123.76	119.90
36	1	3009	G	O5'-P-OP2	-6.43	99.91	105.70
36	5	2146	C	C6-N1-C2	6.43	122.87	120.30
36	1	2406	C	C6-N1-C2	6.43	122.87	120.30
36	1	2643	A	N9-C4-C5	-6.43	103.23	105.80
36	1	1495	U	N1-C2-O2	-6.43	118.30	122.80
36	5	1506	A	N1-C6-N6	-6.43	114.74	118.60
24	D2	93	LEU	CA-CB-CG	6.43	130.08	115.30
36	5	2774	C	C6-N1-C2	-6.43	117.73	120.30
36	1	2586	G	O5'-P-OP2	-6.42	99.92	105.70
36	1	2942	C	OP1-P-OP2	-6.42	109.96	119.60
36	1	2958	A	C5-C6-N1	6.42	120.91	117.70
36	5	91	G	C5-C6-O6	-6.42	124.75	128.60
36	5	429	U	C5-C6-N1	-6.42	119.49	122.70
36	1	1198	C	N1-C2-O2	-6.42	115.05	118.90
36	1	3362	A	N1-C6-N6	6.42	122.45	118.60
1	6	422	G	C8-N9-C4	-6.42	103.83	106.40
36	5	2364	G	N3-C4-N9	-6.42	122.15	126.00
36	1	2846	U	N3-C4-O4	-6.42	114.91	119.40
36	5	1542	G	C8-N9-C4	-6.42	103.83	106.40
36	1	780	A	C8-N9-C4	-6.42	103.23	105.80
36	5	1929	G	OP1-P-OP2	-6.42	109.97	119.60
1	6	163	G	C8-N9-C1'	6.42	135.34	127.00
36	1	155	G	N1-C6-O6	-6.42	116.05	119.90
1	6	1269	U	C6-N1-C2	-6.42	117.15	121.00
36	1	1099	A	C6-C5-N7	-6.41	127.81	132.30
36	1	2806	U	N1-C2-O2	-6.41	118.31	122.80
36	1	790	U	N1-C2-N3	6.41	118.75	114.90
36	1	1414	G	N1-C6-O6	6.41	123.75	119.90
1	6	3	U	C6-N1-C2	6.41	124.85	121.00
36	1	933	A	O5'-P-OP2	-6.41	99.93	105.70
36	1	2622	C	C6-N1-C2	-6.41	117.74	120.30
36	1	1343	A	C4-C5-N7	6.41	113.90	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	340	C	O5'-P-OP2	-6.41	99.94	105.70
36	5	2764	C	C5-C4-N4	-6.41	115.72	120.20
61	N5	113	LEU	CB-CG-CD2	-6.40	100.11	111.00
36	5	2406	C	N1-C2-O2	-6.40	115.06	118.90
36	5	1412	G	C8-N9-C4	-6.40	103.84	106.40
1	2	555	A	P-O3'-C3'	6.40	127.38	119.70
1	6	1112	G	C5-C6-N1	6.40	114.70	111.50
36	5	1390	A	C5-C6-N6	6.40	128.82	123.70
36	1	2620	G	N3-C2-N2	-6.40	115.42	119.90
37	7	98	C	O5'-P-OP2	-6.40	99.94	105.70
37	3	98	C	C2-N1-C1'	-6.40	111.76	118.80
1	6	303	U	C5-C4-O4	6.40	129.74	125.90
36	5	1476	G	C8-N9-C4	6.40	108.96	106.40
36	5	2964	G	O5'-P-OP2	-6.40	99.94	105.70
1	6	1600	A	C2-N3-C4	-6.40	107.40	110.60
36	5	346	C	N3-C2-O2	-6.40	117.42	121.90
36	5	864	G	N3-C4-C5	-6.39	125.40	128.60
36	1	3369	G	C4-C5-N7	6.39	113.36	110.80
1	6	339	C	N1-C2-O2	-6.39	115.06	118.90
36	1	2624	G	N7-C8-N9	6.39	116.30	113.10
1	6	976	G	C4-C5-N7	6.39	113.36	110.80
37	7	105	C	N3-C4-C5	-6.39	119.34	121.90
36	1	979	U	O4'-C1'-N1	6.38	113.31	108.20
36	1	1294	A	N1-C6-N6	-6.38	114.77	118.60
36	1	1379	G	N1-C2-N2	-6.38	110.45	116.20
36	1	1556	C	N1-C2-O2	6.38	122.73	118.90
36	1	2374	C	C4-C5-C6	6.38	120.59	117.40
36	5	388	G	N1-C6-O6	6.38	123.73	119.90
36	1	1368	U	O5'-P-OP1	-6.38	99.96	105.70
36	1	1789	G	C5-C6-O6	-6.38	124.77	128.60
1	6	385	A	C5-C6-N6	6.38	128.81	123.70
1	2	51	A	C8-N9-C4	6.38	108.35	105.80
36	1	1392	G	C2-N3-C4	6.38	115.09	111.90
36	1	2325	G	C8-N9-C4	-6.38	103.85	106.40
36	1	2416	U	N3-C4-O4	6.38	123.87	119.40
38	8	47	C	C5-C6-N1	-6.38	117.81	121.00
47	M0	24	ARG	NE-CZ-NH1	6.38	123.49	120.30
36	1	632	G	N3-C4-N9	6.38	129.83	126.00
36	5	942	U	C5-C4-O4	-6.38	122.07	125.90
36	5	2808	A	C6-C5-N7	-6.38	127.84	132.30
36	1	2640	A	C5-C6-N6	-6.38	118.60	123.70
1	6	610	G	N3-C4-N9	6.38	129.83	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1547	G	C8-N9-C4	6.38	108.95	106.40
36	1	232	G	C6-C5-N7	-6.38	126.58	130.40
38	4	99	C	C6-N1-C2	6.38	122.85	120.30
38	4	140	G	C8-N9-C4	-6.38	103.85	106.40
36	1	642	U	C5-C4-O4	6.37	129.72	125.90
36	5	2759	U	N1-C2-N3	6.37	118.72	114.90
36	1	3369	G	C6-C5-N7	-6.37	126.58	130.40
1	6	272	U	N1-C2-O2	6.37	127.26	122.80
36	5	1115	G	N1-C2-N2	-6.37	110.47	116.20
36	1	64	G	N1-C6-O6	-6.37	116.08	119.90
36	1	416	A	C8-N9-C4	6.37	108.35	105.80
1	6	542	A	C4-N9-C1'	6.37	137.76	126.30
36	5	644	G	C4-C5-N7	-6.37	108.25	110.80
36	5	1872	C	N3-C2-O2	-6.37	117.44	121.90
36	5	3046	A	C2-N3-C4	-6.37	107.42	110.60
36	1	716	A	C6-C5-N7	-6.36	127.85	132.30
36	1	1201	C	N3-C4-N4	6.36	122.45	118.00
36	5	634	C	C6-N1-C2	-6.36	117.75	120.30
36	5	1047	A	C5-C6-N6	-6.36	118.61	123.70
55	m9	5	ARG	NE-CZ-NH1	6.36	123.48	120.30
36	1	3078	U	N3-C2-O2	-6.36	117.75	122.20
36	1	1891	A	C2-N3-C4	-6.36	107.42	110.60
36	5	938	C	N3-C4-C5	6.36	124.44	121.90
36	5	2911	A	N1-C2-N3	-6.36	126.12	129.30
36	5	3028	G	O5'-P-OP1	-6.36	99.97	105.70
36	1	2283	G	N3-C2-N2	-6.36	115.45	119.90
36	1	3375	A	O5'-P-OP1	-6.36	99.98	105.70
37	7	22	A	O5'-P-OP1	-6.36	99.98	105.70
37	7	93	C	O5'-P-OP1	6.36	118.33	110.70
36	1	3373	U	C6-N1-C2	6.36	124.81	121.00
1	6	647	G	N9-C4-C5	6.36	107.94	105.40
1	2	144	U	N3-C2-O2	-6.35	117.75	122.20
36	1	2746	A	N1-C6-N6	-6.35	114.79	118.60
1	6	337	G	C4-C5-N7	6.35	113.34	110.80
36	5	3214	U	N3-C2-O2	-6.35	117.75	122.20
36	1	2704	A	C2-N3-C4	-6.35	107.42	110.60
36	1	718	G	N1-C6-O6	6.35	123.71	119.90
1	2	359	A	C8-N9-C4	6.35	108.34	105.80
36	1	1351	U	C2-N1-C1'	6.35	125.31	117.70
36	5	871	U	C5-C4-O4	6.35	129.71	125.90
36	1	2093	A	C2-N3-C4	6.34	113.77	110.60
36	1	2403	G	N3-C4-N9	6.34	129.81	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	647	G	N3-C4-C5	6.34	131.77	128.60
36	5	530	G	N1-C6-O6	-6.34	116.09	119.90
36	5	2283	G	C4-C5-N7	6.34	113.34	110.80
36	1	960	U	C6-N1-C1'	6.34	130.08	121.20
37	7	121	U	C2-N1-C1'	6.34	125.31	117.70
36	1	859	G	C6-C5-N7	-6.34	126.60	130.40
36	5	2635	A	O5'-P-OP2	-6.34	99.99	105.70
36	1	1425	U	C5-C4-O4	6.34	129.70	125.90
36	5	2709	C	C6-N1-C2	6.34	122.83	120.30
1	2	338	C	C6-N1-C2	-6.34	117.77	120.30
36	5	1164	G	N7-C8-N9	-6.34	109.93	113.10
36	5	2833	A	C8-N9-C4	6.34	108.33	105.80
1	2	1202	A	C8-N9-C4	-6.33	103.27	105.80
36	1	1364	C	OP2-P-O3'	6.33	119.14	105.20
36	1	1380	G	O5'-P-OP1	6.33	118.30	110.70
36	1	1480	G	C5-C6-O6	-6.33	124.80	128.60
36	1	1495	U	C2-N3-C4	-6.33	123.20	127.00
36	1	2669	G	C8-N9-C4	6.33	108.93	106.40
36	5	343	U	O5'-P-OP1	-6.33	100.00	105.70
36	5	809	G	C5-C6-O6	-6.33	124.80	128.60
36	5	810	A	C2-N3-C4	6.33	113.77	110.60
36	5	2811	A	N1-C6-N6	-6.33	114.80	118.60
38	4	19	C	C6-N1-C2	-6.33	117.77	120.30
36	1	2960	C	C2-N3-C4	-6.33	116.73	119.90
20	c8	116	LEU	CA-CB-CG	6.33	129.86	115.30
36	5	859	G	C5-C6-N1	6.33	114.67	111.50
36	1	3029	A	C8-N9-C4	-6.33	103.27	105.80
36	5	2412	G	N3-C4-N9	6.33	129.80	126.00
36	1	104	G	N3-C4-N9	6.33	129.80	126.00
36	1	417	A	O5'-P-OP2	-6.33	100.01	105.70
36	1	2865	U	N3-C4-C5	6.33	118.40	114.60
36	1	3022	G	O4'-C1'-N9	6.33	113.26	108.20
36	5	2305	G	C8-N9-C4	-6.33	103.87	106.40
36	1	54	C	C2-N3-C4	-6.33	116.74	119.90
36	1	1834	U	N3-C4-C5	-6.33	110.80	114.60
36	1	2197	C	N1-C2-N3	-6.33	114.77	119.20
1	2	1307	U	C2-N1-C1'	6.32	125.29	117.70
36	1	1381	A	OP1-P-O3'	6.32	119.11	105.20
1	6	542	A	C5-N7-C8	-6.32	100.74	103.90
36	5	1144	U	N1-C2-O2	-6.32	118.37	122.80
36	5	1115	G	N3-C4-C5	-6.32	125.44	128.60
36	1	2148	U	N1-C2-O2	-6.32	118.38	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2246	G	N3-C2-N2	-6.32	115.47	119.90
36	5	2920	U	C2-N3-C4	-6.32	123.21	127.00
36	5	3137	C	N3-C4-N4	-6.32	113.58	118.00
36	1	1392	G	N3-C4-C5	-6.32	125.44	128.60
36	1	1634	G	C8-N9-C4	-6.32	103.87	106.40
36	1	702	C	C5-C4-N4	-6.32	115.78	120.20
36	5	1862	U	O5'-P-OP1	-6.32	100.01	105.70
36	5	1879	A	N1-C6-N6	6.32	122.39	118.60
36	1	955	U	C2-N1-C1'	-6.32	110.12	117.70
1	6	151	G	C6-C5-N7	6.32	134.19	130.40
36	5	1370	G	C5-C6-N1	6.32	114.66	111.50
36	5	2851	A	N1-C2-N3	6.32	132.46	129.30
36	1	424	G	N7-C8-N9	-6.31	109.94	113.10
36	1	2689	A	N1-C6-N6	-6.31	114.81	118.60
36	5	1053	A	N1-C6-N6	-6.31	114.81	118.60
38	8	68	G	C4-N9-C1'	6.31	134.70	126.50
36	1	142	C	C5-C6-N1	6.31	124.16	121.00
36	5	948	C	C6-N1-C2	6.31	122.82	120.30
36	5	1909	A	O5'-P-OP2	-6.31	100.02	105.70
36	5	2857	C	N3-C4-C5	6.31	124.42	121.90
36	1	2850	G	C5-C6-O6	-6.30	124.82	128.60
36	5	1117	G	O5'-P-OP1	-6.30	100.03	105.70
36	1	1120	A	N1-C2-N3	6.30	132.45	129.30
38	8	98	U	N3-C4-C5	-6.30	110.82	114.60
1	2	577	G	C5-C6-O6	-6.30	124.82	128.60
36	1	1838	G	N9-C4-C5	-6.30	102.88	105.40
36	1	3362	A	C2-N3-C4	-6.30	107.45	110.60
36	5	2639	G	C5-C6-O6	-6.30	124.82	128.60
36	1	217	U	OP1-P-O3'	6.30	119.06	105.20
36	1	2764	C	C5-C6-N1	6.30	124.15	121.00
38	4	57	C	C6-N1-C2	6.30	122.82	120.30
36	5	873	C	P-O3'-C3'	6.30	127.26	119.70
36	5	961	C	C4-C5-C6	6.30	120.55	117.40
1	2	1761	U	C5-C4-O4	6.30	129.68	125.90
36	5	3343	G	N3-C4-N9	6.30	129.78	126.00
36	1	2943	G	C6-C5-N7	-6.30	126.62	130.40
36	5	3079	U	C5-C4-O4	6.29	129.68	125.90
36	1	420	G	N1-C6-O6	6.29	123.67	119.90
36	1	1177	G	N3-C2-N2	-6.29	115.50	119.90
36	5	632	G	N3-C4-C5	-6.29	125.45	128.60
36	5	2755	C	O5'-P-OP1	-6.29	100.04	105.70
36	1	3118	C	N3-C4-C5	-6.29	119.38	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	297	G	O4'-C1'-N9	6.29	113.23	108.20
36	5	2156	C	C6-N1-C2	6.29	122.81	120.30
36	1	968	G	N3-C4-N9	6.29	129.77	126.00
36	1	1366	A	C5-N7-C8	-6.29	100.76	103.90
36	1	2777	G	N9-C4-C5	6.29	107.91	105.40
1	6	1039	A	O4'-C1'-N9	6.29	113.23	108.20
36	5	2245	C	N3-C2-O2	-6.29	117.50	121.90
36	1	805	G	C8-N9-C4	6.28	108.91	106.40
1	6	1104	U	OP2-P-O3'	6.28	119.02	105.20
1	6	1129	U	C2-N1-C1'	-6.28	110.16	117.70
36	1	343	U	C6-N1-C2	-6.28	117.23	121.00
36	1	676	G	C8-N9-C4	-6.28	103.89	106.40
36	1	916	G	P-O3'-C3'	6.28	127.23	119.70
36	1	2424	A	N1-C2-N3	-6.28	126.16	129.30
1	2	581	U	C5-C6-N1	6.28	125.84	122.70
36	1	644	G	C8-N9-C4	-6.28	103.89	106.40
36	1	1416	C	N3-C4-C5	6.28	124.41	121.90
1	6	65	A	C4-C5-N7	6.28	113.84	110.70
1	6	609	U	C5-C6-N1	-6.28	119.56	122.70
36	5	998	A	O5'-P-OP1	-6.28	100.05	105.70
36	1	3344	A	C5-N7-C8	-6.27	100.76	103.90
1	6	1139	A	N1-C6-N6	-6.27	114.83	118.60
36	1	1116	G	OP2-P-O3'	6.27	119.00	105.20
56	n0	13	ARG	NE-CZ-NH1	6.27	123.44	120.30
38	4	103	G	C8-N9-C4	-6.27	103.89	106.40
1	6	438	A	N9-C4-C5	-6.27	103.29	105.80
1	6	1764	C	N3-C4-C5	6.27	124.41	121.90
36	5	984	G	C4-C5-C6	6.27	122.56	118.80
36	5	2116	G	N1-C6-O6	6.27	123.66	119.90
36	5	2808	A	N9-C4-C5	-6.27	103.29	105.80
36	5	2617	U	N3-C4-C5	-6.27	110.84	114.60
1	2	1199	G	C8-N9-C1'	-6.27	118.86	127.00
36	1	2191	U	O5'-P-OP2	-6.27	100.06	105.70
36	1	2639	G	C6-C5-N7	-6.27	126.64	130.40
36	5	2623	G	C8-N9-C4	6.27	108.91	106.40
36	1	2624	G	C6-C5-N7	-6.26	126.64	130.40
36	1	2831	G	C5-C6-N1	-6.26	108.37	111.50
36	1	2937	G	C4-C5-N7	-6.26	108.29	110.80
1	6	65	A	N9-C4-C5	-6.26	103.29	105.80
36	5	1834	U	N1-C2-N3	6.26	118.66	114.90
1	2	429	G	C8-N9-C4	-6.26	103.89	106.40
36	1	1099	A	N9-C4-C5	-6.26	103.30	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1933	A	O5'-P-OP1	-6.26	100.06	105.70
36	1	2298	U	O5'-P-OP2	-6.26	100.06	105.70
36	1	2624	G	C5-C6-O6	-6.26	124.84	128.60
36	5	1149	G	N9-C1'-C2'	-6.26	105.11	112.00
36	5	1199	C	C4-C5-C6	6.26	120.53	117.40
36	5	2143	A	C8-N9-C4	-6.26	103.30	105.80
36	5	2899	C	N3-C2-O2	-6.26	117.52	121.90
36	5	424	G	C4-C5-N7	6.26	113.30	110.80
36	5	807	A	N1-C6-N6	6.26	122.36	118.60
36	5	2350	C	C6-N1-C2	-6.26	117.80	120.30
36	1	1437	C	C2-N1-C1'	6.26	125.68	118.80
1	6	1087	A	C2-N3-C4	-6.26	107.47	110.60
1	6	1481	C	N3-C2-O2	-6.26	117.52	121.90
36	5	417	A	OP2-P-O3'	6.26	118.97	105.20
36	1	970	A	C5-N7-C8	-6.25	100.77	103.90
36	1	1116	G	C6-C5-N7	-6.25	126.65	130.40
36	1	1586	G	O5'-P-OP2	-6.25	100.07	105.70
36	5	817	A	C2-N3-C4	6.25	113.73	110.60
36	5	2400	G	N3-C4-C5	6.25	131.73	128.60
52	M6	84	LEU	CB-CG-CD2	-6.25	100.37	111.00
36	5	2411	U	N3-C4-C5	6.25	118.35	114.60
36	5	2821	C	N3-C2-O2	6.25	126.28	121.90
36	1	2403	G	O5'-P-OP1	-6.25	100.07	105.70
36	5	98	G	N3-C4-C5	6.25	131.73	128.60
36	5	881	C	C2-N1-C1'	6.25	125.68	118.80
36	5	2816	G	N7-C8-N9	-6.25	109.97	113.10
36	5	69	C	C6-N1-C2	-6.25	117.80	120.30
36	5	879	U	N3-C4-O4	6.25	123.78	119.40
36	5	1884	A	N1-C6-N6	6.25	122.35	118.60
36	1	919	U	O5'-P-OP1	6.25	118.20	110.70
36	1	1373	A	OP2-P-O3'	6.25	118.95	105.20
37	3	30	G	N3-C4-C5	-6.25	125.47	128.60
1	6	1535	U	C5-C6-N1	-6.25	119.58	122.70
36	5	2729	U	N1-C2-O2	6.25	127.17	122.80
36	5	1338	C	N3-C4-N4	6.25	122.37	118.00
36	5	2730	G	C5-C6-O6	-6.25	124.85	128.60
36	1	3184	A	N7-C8-N9	-6.24	110.68	113.80
38	4	113	U	C4-C5-C6	6.24	123.45	119.70
36	5	1770	G	C4-N9-C1'	6.24	134.62	126.50
1	2	390	G	N3-C2-N2	-6.24	115.53	119.90
36	1	809	G	C8-N9-C4	6.24	108.90	106.40
36	5	2750	U	N1-C2-O2	-6.24	118.43	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	933	A	N1-C2-N3	6.24	132.42	129.30
36	1	942	U	C2-N3-C4	-6.24	123.26	127.00
36	1	2197	C	C5-C4-N4	-6.24	115.83	120.20
1	6	59	C	C6-N1-C2	6.24	122.80	120.30
36	5	933	A	C6-N1-C2	-6.24	114.86	118.60
36	5	938	C	C4-C5-C6	-6.24	114.28	117.40
36	5	1336	U	O5'-P-OP1	6.24	118.19	110.70
1	2	1773	C	N3-C4-N4	6.24	122.37	118.00
36	1	2812	C	C5-C6-N1	-6.24	117.88	121.00
1	6	351	C	N3-C4-N4	6.24	122.36	118.00
1	2	1258	U	N3-C2-O2	-6.23	117.84	122.20
36	1	2374	C	N3-C2-O2	-6.23	117.54	121.90
1	6	128	U	C5-C6-N1	-6.23	119.58	122.70
59	n3	87	ARG	NE-CZ-NH1	6.23	123.42	120.30
1	6	1535	U	N3-C2-O2	-6.23	117.84	122.20
36	5	3197	G	N1-C2-N2	6.23	121.81	116.20
1	6	1698	G	P-O3'-C3'	6.23	127.18	119.70
36	5	513	G	N1-C6-O6	-6.23	116.16	119.90
36	1	2355	G	C4-C5-C6	6.23	122.54	118.80
1	6	163	G	C5-C6-O6	6.23	132.34	128.60
36	5	1199	C	C6-N1-C2	6.23	122.79	120.30
1	2	831	U	C6-N1-C2	-6.23	117.26	121.00
36	1	37	U	N1-C2-O2	-6.23	118.44	122.80
36	1	1868	G	C8-N9-C4	-6.23	103.91	106.40
36	1	2374	C	N1-C2-N3	6.23	123.56	119.20
36	1	2714	G	C5-N7-C8	-6.22	101.19	104.30
1	6	992	A	O5'-P-OP1	-6.22	100.10	105.70
36	5	2849	C	N3-C4-N4	6.22	122.36	118.00
41	l4	327	LEU	CA-CB-CG	6.22	129.62	115.30
51	m5	183	THR	N-CA-C	6.22	127.81	111.00
36	1	51	A	N7-C8-N9	6.22	116.91	113.80
36	1	942	U	C5-C4-O4	-6.22	122.17	125.90
38	4	13	A	C8-N9-C4	-6.22	103.31	105.80
36	5	813	G	C8-N9-C4	-6.22	103.91	106.40
36	5	1637	A	N1-C6-N6	-6.22	114.87	118.60
36	5	2977	G	OP2-P-O3'	6.22	118.89	105.20
36	1	1792	C	N1-C2-O2	-6.22	115.17	118.90
1	6	113	U	O5'-P-OP2	-6.22	100.10	105.70
1	6	1665	U	C5-C6-N1	-6.22	119.59	122.70
36	5	3380	U	C5-C4-O4	6.22	129.63	125.90
36	5	2887	A	C4-C5-C6	6.22	120.11	117.00
36	5	3150	A	C2-N3-C4	-6.22	107.49	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1404	G	C8-N9-C4	6.22	108.89	106.40
1	6	421	A	C8-N9-C4	6.22	108.29	105.80
36	5	1869	C	C4-C5-C6	-6.22	114.29	117.40
36	1	1151	U	N3-C4-C5	-6.21	110.87	114.60
36	5	1113	G	C5-C6-N1	-6.21	108.39	111.50
36	5	3141	A	N1-C2-N3	6.21	132.41	129.30
36	1	1053	A	O5'-P-OP2	-6.21	100.11	105.70
36	1	1517	G	N1-C6-O6	-6.21	116.17	119.90
1	6	119	A	N1-C2-N3	6.21	132.41	129.30
1	6	523	G	C8-N9-C4	6.21	108.88	106.40
1	6	577	G	C6-C5-N7	-6.21	126.67	130.40
1	6	1150	G	N3-C4-C5	6.21	131.71	128.60
36	5	85	A	N1-C6-N6	-6.21	114.87	118.60
36	5	1307	G	C2'-C3'-O3'	6.21	123.64	113.70
36	5	2331	C	N3-C4-C5	-6.21	119.42	121.90
36	1	1859	A	O5'-P-OP2	-6.21	100.11	105.70
1	6	351	C	C2-N1-C1'	6.21	125.63	118.80
36	5	11	A	O5'-P-OP2	-6.21	100.11	105.70
36	5	43	A	N1-C6-N6	6.21	122.32	118.60
36	5	2375	G	N9-C4-C5	6.21	107.88	105.40
36	1	2800	G	N1-C2-N2	-6.20	110.62	116.20
36	1	2808	A	O4'-C1'-N9	-6.20	103.24	108.20
36	5	2147	A	C8-N9-C4	6.20	108.28	105.80
36	1	699	A	N1-C2-N3	6.20	132.40	129.30
36	1	1351	U	N1-C2-O2	6.20	127.14	122.80
36	1	1389	G	N1-C6-O6	6.20	123.62	119.90
36	1	2687	G	N1-C6-O6	-6.20	116.18	119.90
36	1	2823	G	N3-C2-N2	-6.20	115.56	119.90
1	6	308	C	C6-N1-C1'	6.20	128.24	120.80
36	5	645	A	C8-N9-C4	-6.20	103.32	105.80
36	1	1371	G	C8-N9-C4	6.20	108.88	106.40
36	1	2836	C	C4-C5-C6	6.20	120.50	117.40
36	5	938	C	C6-N1-C2	6.20	122.78	120.30
36	1	1381	A	O5'-P-OP2	6.20	118.14	110.70
36	1	2610	G	C6-C5-N7	-6.20	126.68	130.40
36	1	2719	U	N1-C2-O2	-6.20	118.46	122.80
36	5	1285	G	C8-N9-C4	6.20	108.88	106.40
36	5	2145	A	C5-C6-N1	6.20	120.80	117.70
36	5	2820	A	C5-C6-N6	-6.20	118.74	123.70
36	5	2820	A	C5-N7-C8	-6.20	100.80	103.90
36	5	834	U	C6-N1-C2	6.19	124.72	121.00
1	2	1274	C	C6-N1-C2	-6.19	117.82	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	69	C	N3-C4-C5	-6.19	119.42	121.90
1	6	1109	G	C8-N9-C4	-6.19	103.92	106.40
36	1	343	U	O5'-P-OP2	-6.19	100.13	105.70
36	1	667	C	N3-C4-N4	-6.19	113.67	118.00
36	1	1430	U	O5'-P-OP2	-6.19	100.13	105.70
36	1	2138	A	C2-N3-C4	-6.19	107.50	110.60
1	6	90	C	N3-C2-O2	-6.19	117.57	121.90
36	5	939	U	N3-C2-O2	6.19	126.53	122.20
36	1	2651	G	N3-C4-N9	-6.19	122.29	126.00
36	5	3308	C	N1-C2-O2	-6.19	115.19	118.90
36	1	30	G	N1-C2-N3	6.19	127.61	123.90
36	1	1365	G	N1-C2-N2	-6.19	110.63	116.20
36	1	1489	A	C6-C5-N7	-6.19	127.97	132.30
36	1	1507	G	N1-C6-O6	6.19	123.61	119.90
36	5	1392	G	N9-C4-C5	-6.19	102.92	105.40
70	O4	51	LEU	CA-CB-CG	6.19	129.53	115.30
36	5	346	C	C2-N1-C1'	6.19	125.61	118.80
1	2	783	G	N9-C4-C5	-6.18	102.93	105.40
36	1	1581	C	N1-C2-O2	6.18	122.61	118.90
36	1	2200	U	C6-N1-C2	-6.18	117.29	121.00
36	5	1305	U	N3-C4-O4	6.18	123.73	119.40
36	5	2980	U	C6-N1-C2	-6.18	117.29	121.00
36	5	3245	A	N1-C6-N6	6.18	122.31	118.60
37	7	44	C	N3-C2-O2	6.18	126.23	121.90
67	o1	51	LEU	CA-CB-CG	6.18	129.53	115.30
36	1	104	G	C4-C5-N7	6.18	113.27	110.80
36	1	3367	C	N3-C4-C5	6.18	124.37	121.90
36	1	104	G	C6-C5-N7	-6.18	126.69	130.40
36	5	641	C	C5-C6-N1	6.18	124.09	121.00
36	5	1589	A	C5-C6-N6	-6.18	118.76	123.70
36	1	114	A	O5'-P-OP1	-6.18	100.14	105.70
36	1	420	G	C5-C6-O6	-6.18	124.89	128.60
36	1	421	G	C5-C6-O6	-6.18	124.89	128.60
37	3	61	G	C4-C5-N7	6.18	113.27	110.80
1	6	681	U	N3-C2-O2	-6.17	117.88	122.20
37	7	12	U	C5-C4-O4	-6.17	122.19	125.90
36	1	331	G	C2-N3-C4	6.17	114.99	111.90
38	4	15	G	C5-C6-N1	6.17	114.59	111.50
36	5	339	C	C6-N1-C2	-6.17	117.83	120.30
36	1	511	G	N7-C8-N9	6.17	116.19	113.10
36	1	1190	A	C6-C5-N7	-6.17	127.98	132.30
36	5	1048	A	C2-N3-C4	-6.17	107.51	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1298	C	C6-N1-C2	-6.17	117.83	120.30
36	5	3001	C	C4-C5-C6	6.17	120.49	117.40
36	1	1585	C	O5'-P-OP1	-6.17	100.15	105.70
36	5	960	U	N3-C4-C5	6.17	118.30	114.60
36	1	2585	G	N3-C4-C5	-6.17	125.52	128.60
36	1	3034	C	O5'-P-OP2	-6.17	100.15	105.70
36	1	3235	C	C6-N1-C2	-6.17	117.83	120.30
1	6	1019	A	N7-C8-N9	-6.17	110.72	113.80
36	5	404	G	O5'-P-OP2	-6.17	100.15	105.70
36	5	1178	G	C5-N7-C8	-6.17	101.22	104.30
1	6	1472	C	C2-N1-C1'	-6.17	112.02	118.80
36	1	953	G	N3-C4-N9	-6.16	122.30	126.00
36	5	370	U	N3-C2-O2	-6.16	117.89	122.20
36	5	684	G	N1-C6-O6	6.16	123.60	119.90
36	5	1377	G	C5-C6-O6	-6.16	124.90	128.60
36	1	2376	G	N3-C4-C5	-6.16	125.52	128.60
36	5	2683	U	N1-C2-O2	6.16	127.11	122.80
37	7	84	A	C8-N9-C4	-6.16	103.33	105.80
1	2	1633	A	N1-C6-N6	-6.16	114.90	118.60
36	1	2830	G	N1-C6-O6	6.16	123.60	119.90
1	6	323	A	N9-C4-C5	6.16	108.26	105.80
1	6	400	A	N1-C6-N6	6.16	122.30	118.60
36	5	1154	A	N1-C6-N6	-6.16	114.90	118.60
36	5	1430	U	C6-N1-C2	6.16	124.70	121.00
36	5	1788	C	C6-N1-C2	-6.16	117.84	120.30
36	1	1124	U	C5-C6-N1	6.16	125.78	122.70
36	1	2984	C	C5-C4-N4	6.16	124.51	120.20
36	5	2400	G	N1-C6-O6	6.16	123.59	119.90
36	1	2643	A	O5'-P-OP1	-6.15	100.16	105.70
36	5	1181	U	N1-C2-N3	6.15	118.59	114.90
36	1	810	A	C5-C6-N1	6.15	120.78	117.70
36	1	952	A	N9-C4-C5	6.15	108.26	105.80
36	1	2191	U	N1-C2-O2	6.15	127.11	122.80
36	5	1181	U	N3-C2-O2	-6.15	117.89	122.20
36	5	1368	U	C5-C4-O4	-6.15	122.21	125.90
1	2	1600	A	C2-N3-C4	-6.15	107.53	110.60
1	6	65	A	N3-C4-C5	6.15	131.10	126.80
1	6	1340	U	N1-C2-O2	6.15	127.11	122.80
36	5	2176	U	N1-C2-N3	6.15	118.59	114.90
1	2	13	C	O5'-P-OP2	-6.15	100.17	105.70
1	6	354	C	C5-C6-N1	6.15	124.07	121.00
69	o3	99	ARG	NE-CZ-NH1	-6.15	117.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1342	C	N3-C4-C5	6.15	124.36	121.90
20	C8	3	LEU	CA-CB-CG	6.14	129.43	115.30
36	1	2279	A	N9-C4-C5	-6.14	103.34	105.80
36	1	2309	A	C5-C6-N6	-6.14	118.78	123.70
1	6	151	G	C4-N9-C1'	-6.14	118.51	126.50
36	1	2193	U	N1-C2-O2	6.14	127.10	122.80
36	5	1440	G	C5-C6-O6	6.14	132.29	128.60
36	5	3308	C	C4-C5-C6	6.14	120.47	117.40
1	2	312	A	N1-C6-N6	-6.14	114.92	118.60
36	5	952	A	O5'-P-OP2	-6.14	100.17	105.70
36	1	1820	U	P-O3'-C3'	6.14	127.07	119.70
1	2	334	G	N3-C4-C5	6.14	131.67	128.60
1	2	359	A	C4-C5-C6	-6.14	113.93	117.00
36	1	912	G	OP2-P-O3'	6.14	118.70	105.20
36	1	2409	G	C8-N9-C4	-6.14	103.95	106.40
36	1	2879	C	N3-C4-C5	-6.14	119.44	121.90
1	6	1796	C	N3-C4-N4	-6.14	113.70	118.00
36	5	91	G	N9-C4-C5	-6.14	102.94	105.40
36	5	1205	A	C5-C6-N1	6.14	120.77	117.70
36	5	1007	U	N1-C2-O2	-6.13	118.51	122.80
36	1	2917	G	N3-C4-C5	-6.13	125.53	128.60
36	5	683	U	N3-C4-C5	-6.13	110.92	114.60
37	7	47	C	C5-C6-N1	-6.13	117.93	121.00
36	1	1360	C	N3-C2-O2	6.13	126.19	121.90
36	1	56	G	C5-C6-O6	-6.13	124.92	128.60
36	1	1163	A	N1-C2-N3	6.13	132.36	129.30
36	1	2403	G	N9-C4-C5	-6.13	102.95	105.40
1	6	44	U	N1-C2-O2	-6.13	118.51	122.80
36	1	331	G	C5-C6-N1	6.13	114.56	111.50
36	5	146	U	N3-C4-O4	-6.13	115.11	119.40
36	5	2524	A	O4'-C1'-N9	6.13	113.10	108.20
36	1	343	U	N3-C4-C5	-6.12	110.92	114.60
36	1	1049	C	C6-N1-C2	-6.12	117.85	120.30
36	5	806	A	O5'-P-OP1	-6.12	100.19	105.70
1	2	933	A	C8-N9-C4	-6.12	103.35	105.80
1	2	1012	U	C2-N3-C4	6.12	130.67	127.00
36	5	1496	C	C2-N1-C1'	6.12	125.54	118.80
36	5	2147	A	N9-C4-C5	-6.12	103.35	105.80
36	5	2295	A	C4-C5-N7	6.12	113.76	110.70
36	5	3374	U	C5-C6-N1	-6.12	119.64	122.70
36	1	1201	C	C5-C4-N4	-6.12	115.91	120.20
36	1	3054	U	C5-C4-O4	6.12	129.57	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1643	U	C2-N3-C4	-6.12	123.33	127.00
36	5	1130	A	C2-N3-C4	6.12	113.66	110.60
36	5	2278	C	N3-C4-C5	6.12	124.35	121.90
36	1	843	A	C2-N3-C4	-6.12	107.54	110.60
36	5	2157	G	N9-C4-C5	-6.12	102.95	105.40
36	5	3018	C	O5'-P-OP2	-6.12	100.19	105.70
36	5	2687	G	N3-C4-N9	6.12	129.67	126.00
36	1	2639	G	C8-N9-C1'	-6.12	119.05	127.00
36	1	189	G	N1-C6-O6	-6.11	116.23	119.90
36	1	2660	G	C4-C5-N7	6.11	113.25	110.80
1	6	1737	G	C5-C6-O6	-6.11	124.93	128.60
36	1	810	A	C8-N9-C4	-6.11	103.36	105.80
36	5	283	G	C5-C6-O6	-6.11	124.93	128.60
36	5	684	G	C5-C6-O6	-6.11	124.93	128.60
36	5	2287	C	C2-N3-C4	-6.11	116.84	119.90
36	5	1897	G	C5-C6-O6	-6.11	124.94	128.60
36	5	3118	C	C6-N1-C2	-6.11	117.86	120.30
37	7	89	G	C5-C6-N1	6.11	114.55	111.50
48	m1	60	ARG	NE-CZ-NH2	6.11	123.36	120.30
36	1	859	G	C8-N9-C1'	-6.11	119.06	127.00
1	2	1291	G	C2-N3-C4	-6.11	108.85	111.90
36	1	1192	C	C6-N1-C1'	-6.11	113.47	120.80
36	1	1419	A	C5'-C4'-O4'	6.11	116.43	109.10
36	5	1405	U	C2-N3-C4	-6.11	123.34	127.00
36	5	1446	A	C8-N9-C4	6.11	108.24	105.80
36	5	1492	G	N1-C6-O6	-6.11	116.24	119.90
36	5	2794	G	O5'-P-OP2	-6.11	100.20	105.70
36	1	573	C	C6-N1-C2	6.10	122.74	120.30
1	6	1793	G	C4-C5-N7	-6.10	108.36	110.80
36	5	2689	A	O4'-C1'-N9	6.10	113.08	108.20
36	5	1017	C	C2-N1-C1'	6.10	125.51	118.80
36	5	2349	U	C6-N1-C2	-6.10	117.34	121.00
1	2	602	U	O5'-P-OP1	-6.10	100.21	105.70
36	1	1724	U	O4'-C1'-N1	6.10	113.08	108.20
1	6	29	U	C5-C4-O4	6.10	129.56	125.90
36	5	645	A	N9-C4-C5	6.10	108.24	105.80
36	5	3362	A	N1-C2-N3	6.10	132.35	129.30
1	2	1486	G	C5-N7-C8	-6.10	101.25	104.30
36	1	2241	U	C5-C4-O4	6.10	129.56	125.90
36	1	2783	U	OP1-P-O3'	6.10	118.61	105.20
36	5	1125	U	OP1-P-OP2	-6.10	110.45	119.60
36	1	1884	A	C8-N9-C4	6.10	108.24	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1307	G	N9-C4-C5	6.10	107.84	105.40
36	5	2338	C	N3-C4-C5	-6.10	119.46	121.90
36	5	2615	G	N9-C4-C5	-6.10	102.96	105.40
36	5	2808	A	C5-C6-N6	-6.10	118.82	123.70
1	2	985	G	C5-C6-O6	-6.09	124.94	128.60
36	1	1140	G	N3-C2-N2	6.09	124.17	119.90
36	1	1337	A	C5-C6-N1	6.09	120.75	117.70
36	1	2572	C	C6-N1-C1'	-6.09	113.48	120.80
36	5	2286	U	N3-C2-O2	-6.09	117.93	122.20
36	1	681	U	N3-C4-O4	6.09	123.66	119.40
36	1	1414	G	C5-C6-O6	-6.09	124.94	128.60
36	1	2174	G	C6-C5-N7	-6.09	126.75	130.40
36	5	3136	G	C2-N3-C4	-6.09	108.85	111.90
1	2	1157	A	P-O3'-C3'	6.09	127.01	119.70
36	5	283	G	C5-N7-C8	-6.09	101.25	104.30
36	5	3137	C	OP1-P-O3'	6.09	118.60	105.20
1	6	1129	U	C6-N1-C1'	6.09	129.72	121.20
36	5	3270	U	O5'-P-OP1	-6.09	100.22	105.70
36	1	695	C	C5-C6-N1	-6.09	117.96	121.00
36	1	1929	G	N9-C4-C5	-6.09	102.97	105.40
36	1	2343	C	OP2-P-O3'	6.09	118.59	105.20
36	5	879	U	C2-N1-C1'	6.09	125.00	117.70
36	5	1490	A	C8-N9-C4	-6.09	103.36	105.80
36	1	93	C	C6-N1-C2	-6.08	117.87	120.30
36	5	2419	A	N7-C8-N9	6.08	116.84	113.80
36	1	3277	U	N3-C2-O2	-6.08	117.94	122.20
36	5	649	A	C2-N3-C4	6.08	113.64	110.60
36	5	2385	G	N3-C4-N9	-6.08	122.35	126.00
36	5	2717	U	N1-C2-O2	-6.08	118.54	122.80
1	2	969	C	N3-C2-O2	6.08	126.16	121.90
36	1	395	A	C8-N9-C4	-6.08	103.37	105.80
36	5	504	A	C8-N9-C4	6.08	108.23	105.80
36	5	2327	U	C6-N1-C2	6.08	124.65	121.00
36	1	941	G	C5-C6-N1	6.08	114.54	111.50
36	1	1138	U	N1-C2-N3	6.08	118.55	114.90
36	5	3294	A	N9-C4-C5	6.08	108.23	105.80
36	1	636	C	C2-N3-C4	-6.08	116.86	119.90
36	5	2172	A	N1-C6-N6	6.08	122.25	118.60
36	5	2320	A	C5-C6-N1	-6.08	114.66	117.70
36	1	785	G	C2-N3-C4	6.08	114.94	111.90
36	1	2335	G	N1-C6-O6	-6.08	116.25	119.90
12	c0	83	PRO	N-CA-CB	6.08	110.59	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	392	G	C5-C6-O6	-6.08	124.95	128.60
36	1	2412	G	C5-C6-O6	-6.08	124.95	128.60
36	1	1141	C	N3-C4-N4	6.07	122.25	118.00
36	1	2817	A	C5-C6-N1	6.07	120.74	117.70
1	6	393	C	C5-C4-N4	-6.07	115.95	120.20
1	6	352	A	N7-C8-N9	-6.07	110.76	113.80
36	1	2980	U	C4-C5-C6	6.07	123.34	119.70
36	5	406	G	O4'-C1'-N9	6.07	113.06	108.20
36	5	2197	C	C6-N1-C2	6.07	122.73	120.30
36	1	1507	G	N3-C2-N2	-6.07	115.65	119.90
1	2	1196	A	P-O3'-C3'	6.07	126.98	119.70
36	1	2418	G	N3-C4-N9	6.07	129.64	126.00
36	1	3092	C	O4'-C1'-N1	6.07	113.05	108.20
36	5	414	U	N3-C4-O4	6.07	123.65	119.40
36	5	1443	G	C8-N9-C4	6.07	108.83	106.40
36	5	2943	G	C5-N7-C8	-6.07	101.27	104.30
36	1	1366	A	N7-C8-N9	6.07	116.83	113.80
36	1	2133	U	C2-N1-C1'	-6.07	110.42	117.70
36	1	3049	A	C8-N9-C4	6.07	108.23	105.80
36	5	92	G	C5-C6-N1	6.07	114.53	111.50
36	5	1846	C	C2-N3-C4	-6.07	116.87	119.90
37	7	103	A	C5-C6-N6	-6.07	118.85	123.70
36	1	2554	A	P-O3'-C3'	6.06	126.98	119.70
36	1	3212	C	C2-N1-C1'	-6.06	112.13	118.80
36	5	934	G	N3-C4-N9	6.06	129.64	126.00
36	1	1192	C	N3-C2-O2	-6.06	117.66	121.90
36	1	2395	G	C5-C6-N1	6.06	114.53	111.50
36	5	800	G	C6-N1-C2	-6.06	121.46	125.10
36	1	2705	A	C2-N3-C4	6.06	113.63	110.60
38	4	85	G	C4-C5-N7	6.06	113.22	110.80
36	5	1937	U	C5-C6-N1	-6.06	119.67	122.70
36	5	2817	A	C2-N3-C4	6.06	113.63	110.60
36	1	32	U	C5-C6-N1	-6.06	119.67	122.70
1	6	1472	C	N3-C4-N4	-6.06	113.76	118.00
37	7	112	G	C5-C6-O6	6.06	132.23	128.60
36	1	3298	C	C6-N1-C2	6.06	122.72	120.30
36	1	959	C	N3-C4-C5	6.05	124.32	121.90
36	5	1480	G	O4'-C1'-N9	6.05	113.04	108.20
36	5	2211	U	N3-C2-O2	-6.05	117.96	122.20
36	5	3054	U	N3-C4-C5	-6.05	110.97	114.60
36	1	287	G	C6-C5-N7	-6.05	126.77	130.40
1	6	1118	G	C2-N3-C4	-6.05	108.87	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	369	A	N3-C4-C5	-6.05	122.56	126.80
36	5	2635	A	N1-C6-N6	-6.05	114.97	118.60
36	5	2808	A	O5'-P-OP2	-6.05	100.25	105.70
36	5	3305	A	N9-C4-C5	-6.05	103.38	105.80
1	2	694	U	N1-C2-O2	6.05	127.03	122.80
36	5	998	A	OP2-P-O3'	6.05	118.50	105.20
36	5	3009	G	N3-C4-C5	-6.05	125.58	128.60
36	1	670	C	N1-C2-N3	6.05	123.43	119.20
36	1	2831	G	C6-C5-N7	-6.04	126.77	130.40
36	1	2983	C	N1-C2-N3	6.04	123.43	119.20
1	6	805	U	N3-C4-C5	-6.04	110.97	114.60
36	5	1846	C	C5-C6-N1	-6.04	117.98	121.00
1	2	779	U	O4'-C1'-N1	6.04	113.03	108.20
36	1	2617	U	C5-C6-N1	-6.04	119.68	122.70
1	6	634	G	N1-C6-O6	6.04	123.53	119.90
36	1	218	G	O5'-P-OP1	-6.04	100.26	105.70
36	1	895	A	C6-C5-N7	-6.04	128.07	132.30
36	1	942	U	N1-C2-O2	-6.04	118.57	122.80
36	1	1133	A	C5-C6-N6	-6.04	118.87	123.70
36	5	1200	A	N3-C4-C5	-6.04	122.57	126.80
36	5	41	G	C5-C6-O6	-6.04	124.98	128.60
1	2	794	U	P-O3'-C3'	6.04	126.94	119.70
1	2	992	A	N1-C2-N3	6.04	132.32	129.30
1	2	1756	A	N1-C6-N6	6.04	122.22	118.60
36	1	2306	C	N3-C2-O2	-6.04	117.68	121.90
36	1	80	G	C5-C6-N1	6.03	114.52	111.50
49	M3	70	ARG	NE-CZ-NH1	-6.03	117.28	120.30
1	6	338	C	C2-N1-C1'	6.03	125.44	118.80
36	5	201	A	C2-N3-C4	-6.03	107.58	110.60
36	5	693	A	O5'-P-OP2	6.03	117.94	110.70
36	5	1057	A	C5-N7-C8	-6.03	100.88	103.90
36	1	2694	A	O5'-P-OP1	-6.03	100.27	105.70
1	6	543	C	C6-N1-C2	-6.03	117.89	120.30
36	5	2644	C	O5'-P-OP1	-6.03	100.27	105.70
36	1	1182	A	C8-N9-C4	6.03	108.21	105.80
36	5	1902	G	N3-C2-N2	-6.03	115.68	119.90
1	6	151	G	N3-C2-N2	-6.03	115.68	119.90
36	5	1859	A	O5'-P-OP2	-6.03	100.28	105.70
36	5	2248	C	OP1-P-O3'	6.03	118.45	105.20
1	6	1726	G	OP2-P-O3'	6.02	118.45	105.20
36	5	2397	A	C8-N9-C4	6.02	108.21	105.80
36	1	199	A	O4'-C1'-N9	6.02	113.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	435	C	C6-N1-C2	6.02	122.71	120.30
36	1	1364	C	C2-N3-C4	-6.02	116.89	119.90
36	1	2874	G	C5-C6-N1	-6.02	108.49	111.50
36	5	593	C	OP2-P-O3'	6.02	118.45	105.20
36	1	672	A	C4-C5-N7	6.02	113.71	110.70
36	5	2097	U	C5-C6-N1	6.02	125.71	122.70
36	1	1114	U	O5'-P-OP2	-6.02	100.28	105.70
36	5	2191	U	C5-C4-O4	6.02	129.51	125.90
37	7	121	U	N3-C2-O2	-6.02	117.99	122.20
36	1	1412	G	N7-C8-N9	6.02	116.11	113.10
36	1	2639	G	N1-C2-N2	-6.02	110.78	116.20
36	1	3101	G	N7-C8-N9	-6.02	110.09	113.10
1	2	1727	G	N3-C4-C5	-6.02	125.59	128.60
36	5	2351	U	N3-C2-O2	-6.02	117.99	122.20
36	5	3174	A	C5-N7-C8	-6.02	100.89	103.90
36	1	2612	U	N3-C4-C5	6.01	118.21	114.60
38	4	24	G	C4-C5-N7	6.01	113.21	110.80
36	5	1042	U	C6-N1-C2	6.01	124.61	121.00
36	1	947	G	C8-N9-C1'	-6.01	119.19	127.00
36	5	889	U	N3-C4-C5	6.01	118.21	114.60
36	5	1327	C	N3-C4-C5	6.01	124.30	121.90
36	5	2838	A	C5-C6-N6	-6.01	118.89	123.70
36	5	1184	A	N9-C4-C5	6.01	108.20	105.80
36	5	1900	A	OP1-P-OP2	6.01	128.62	119.60
36	5	2981	U	C2-N1-C1'	6.01	124.91	117.70
36	5	3339	A	N1-C6-N6	6.01	122.20	118.60
36	1	589	A	N7-C8-N9	-6.01	110.80	113.80
36	5	28	C	C6-N1-C2	6.01	122.70	120.30
1	6	1514	U	C5-C4-O4	6.01	129.50	125.90
36	5	91	G	N1-C6-O6	6.01	123.50	119.90
36	5	1855	U	N1-C2-N3	6.00	118.50	114.90
36	5	2884	C	C5-C4-N4	-6.00	116.00	120.20
36	1	2305	G	C5-C6-O6	-6.00	125.00	128.60
1	6	405	C	C5-C6-N1	-6.00	118.00	121.00
37	7	1	G	C6-C5-N7	-6.00	126.80	130.40
36	1	1520	G	C8-N9-C4	6.00	108.80	106.40
44	L7	163	LEU	CA-CB-CG	-6.00	101.50	115.30
1	6	93	A	O5'-P-OP2	-6.00	100.30	105.70
1	6	782	U	C2-N1-C1'	6.00	124.90	117.70
1	6	864	U	N3-C2-O2	-6.00	118.00	122.20
1	6	1574	G	N1-C6-O6	-6.00	116.30	119.90
36	5	53	G	N1-C6-O6	-6.00	116.30	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	645	A	C4-C5-N7	-6.00	107.70	110.70
36	5	3285	C	N1-C2-O2	6.00	122.50	118.90
36	1	2993	G	N3-C4-N9	6.00	129.60	126.00
1	6	1473	U	N1-C2-N3	6.00	118.50	114.90
36	5	1443	G	C8-N9-C1'	-6.00	119.20	127.00
36	1	117	U	N1-C2-O2	-6.00	118.60	122.80
36	1	1300	G	C6-C5-N7	-6.00	126.80	130.40
36	1	1671	C	C6-N1-C2	-6.00	117.90	120.30
36	5	88	A	C8-N9-C4	6.00	108.20	105.80
36	1	2953	U	N3-C4-O4	6.00	123.60	119.40
39	L2	191	LEU	CA-CB-CG	-6.00	101.51	115.30
36	5	805	G	C8-N9-C4	6.00	108.80	106.40
36	5	2332	A	C8-N9-C4	6.00	108.20	105.80
36	5	3043	C	C6-N1-C2	6.00	122.70	120.30
1	6	973	A	C4-C5-C6	6.00	120.00	117.00
36	5	1716	U	P-O3'-C3'	6.00	126.89	119.70
36	5	2798	C	C2-N1-C1'	-6.00	112.20	118.80
1	2	1027	A	N1-C6-N6	5.99	122.20	118.60
1	6	1185	U	N3-C2-O2	-5.99	118.00	122.20
36	5	2186	U	O5'-P-OP2	-5.99	100.31	105.70
36	5	2917	G	N3-C4-N9	5.99	129.60	126.00
36	1	2309	A	N9-C4-C5	-5.99	103.40	105.80
36	1	296	A	C2-N3-C4	5.99	113.59	110.60
36	1	3326	G	C8-N9-C4	5.99	108.80	106.40
36	1	54	C	C2-N1-C1'	-5.99	112.21	118.80
36	1	984	G	C4-C5-C6	5.99	122.39	118.80
36	1	2610	G	C4-C5-N7	5.99	113.20	110.80
36	1	2728	G	N3-C4-C5	-5.99	125.61	128.60
37	7	77	G	C5-C6-O6	-5.99	125.01	128.60
36	1	2300	G	N9-C4-C5	5.99	107.80	105.40
36	1	776	U	C5-C4-O4	5.99	129.49	125.90
36	5	2147	A	C5-C6-N6	-5.99	118.91	123.70
1	2	1756	A	C5-N7-C8	-5.98	100.91	103.90
36	5	3004	C	N3-C4-N4	5.98	122.19	118.00
1	2	728	U	N3-C2-O2	-5.98	118.01	122.20
36	1	2400	G	C2-N3-C4	-5.98	108.91	111.90
1	6	543	C	C5-C6-N1	5.98	123.99	121.00
36	5	417	A	C5-C6-N1	5.98	120.69	117.70
36	5	1473	G	N7-C8-N9	-5.98	110.11	113.10
36	5	2375	G	C5-C6-O6	5.98	132.19	128.60
36	1	2802	A	OP2-P-O3'	5.98	118.36	105.20
53	M7	138	LYS	CD-CE-NZ	5.98	125.45	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	776	U	C2-N3-C4	-5.98	123.41	127.00
36	5	1710	C	N3-C4-C5	5.98	124.29	121.90
36	5	938	C	N3-C2-O2	5.98	126.08	121.90
1	2	1456	C	N3-C2-O2	-5.98	117.72	121.90
36	5	218	G	OP1-P-OP2	5.98	128.57	119.60
36	5	1192	C	N1-C2-O2	5.98	122.49	118.90
36	5	1886	A	N1-C2-N3	-5.98	126.31	129.30
36	5	1909	A	N7-C8-N9	-5.98	110.81	113.80
36	5	3372	A	C8-N9-C4	-5.97	103.41	105.80
38	8	39	G	N3-C4-C5	-5.97	125.61	128.60
38	8	86	U	C6-N1-C2	-5.97	117.42	121.00
36	1	2406	C	N3-C2-O2	5.97	126.08	121.90
36	5	1939	G	OP2-P-O3'	5.97	118.34	105.20
36	5	2943	G	C5-C6-O6	-5.97	125.02	128.60
36	1	2891	U	N3-C4-O4	5.97	123.58	119.40
36	5	1049	C	C5-C6-N1	5.97	123.99	121.00
36	5	1881	A	C5-C6-N6	-5.97	118.92	123.70
36	1	39	A	O5'-P-OP1	5.97	117.86	110.70
1	6	1748	G	OP2-P-O3'	5.97	118.33	105.20
36	5	2176	U	N1-C2-O2	5.97	126.98	122.80
36	5	2621	G	N1-C2-N2	5.97	121.57	116.20
36	5	1464	G	N9-C4-C5	-5.97	103.01	105.40
37	7	75	G	C6-C5-N7	-5.97	126.82	130.40
36	1	1790	G	C5-C6-N1	-5.97	108.52	111.50
36	1	1791	C	C5-C6-N1	-5.97	118.02	121.00
36	1	3218	A	N9-C4-C5	5.97	108.19	105.80
1	6	151	G	C8-N9-C1'	5.97	134.75	127.00
36	5	1345	G	N1-C6-O6	5.97	123.48	119.90
36	1	590	G	C5-C6-O6	-5.96	125.02	128.60
36	5	200	C	N3-C4-N4	5.96	122.18	118.00
36	5	567	G	C6-C5-N7	-5.96	126.82	130.40
36	5	2615	G	O5'-P-OP2	-5.96	100.33	105.70
36	5	1365	G	N7-C8-N9	5.96	116.08	113.10
36	1	2434	U	C5-C4-O4	5.96	129.48	125.90
1	6	1537	C	C4-C5-C6	5.96	120.38	117.40
37	7	12	U	C4-C5-C6	-5.96	116.12	119.70
36	1	652	G	N3-C2-N2	5.96	124.07	119.90
1	6	1781	A	C5-C6-N1	-5.96	114.72	117.70
36	1	397	A	C5-C6-N1	5.96	120.68	117.70
36	1	688	G	C6-C5-N7	-5.96	126.83	130.40
36	1	1513	G	C5-C6-N1	5.96	114.48	111.50
1	2	829	A	C2-N3-C4	5.96	113.58	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1663	G	C8-N9-C4	-5.96	104.02	106.40
36	5	2617	U	N1-C2-N3	5.96	118.47	114.90
36	5	2825	C	C6-N1-C2	5.96	122.68	120.30
1	2	554	C	C6-N1-C1'	-5.95	113.66	120.80
36	1	634	C	C5-C6-N1	-5.95	118.02	121.00
1	6	1428	G	O5'-P-OP1	-5.95	100.34	105.70
1	6	1473	U	C6-N1-C2	-5.95	117.43	121.00
36	5	1157	G	N1-C6-O6	-5.95	116.33	119.90
36	5	810	A	N1-C2-N3	-5.95	126.32	129.30
36	1	358	G	N9-C4-C5	-5.95	103.02	105.40
36	1	981	U	C5-C6-N1	5.95	125.67	122.70
36	1	2137	U	N1-C2-O2	5.95	126.97	122.80
36	5	1155	C	C4-C5-C6	-5.95	114.42	117.40
36	1	359	U	N1-C2-N3	5.95	118.47	114.90
36	1	619	A	N9-C4-C5	-5.95	103.42	105.80
36	1	1500	G	C5-C6-O6	-5.95	125.03	128.60
36	1	3181	C	N1-C2-O2	5.95	122.47	118.90
36	5	718	G	O4'-C1'-N9	5.95	112.96	108.20
36	5	1666	G	C8-N9-C4	5.95	108.78	106.40
36	5	2272	G	C5-C6-O6	5.95	132.17	128.60
36	5	3216	G	C6-C5-N7	-5.95	126.83	130.40
1	2	1654	G	N3-C4-C5	-5.95	125.63	128.60
36	1	1854	C	N1-C2-O2	5.95	122.47	118.90
36	1	1406	A	C6-C5-N7	-5.95	128.14	132.30
36	1	1556	C	P-O3'-C3'	5.95	126.83	119.70
36	5	224	C	N1-C2-O2	5.95	122.47	118.90
36	5	875	G	N1-C6-O6	-5.95	116.33	119.90
36	5	2411	U	C6-N1-C2	5.95	124.57	121.00
36	5	3136	G	N1-C2-N2	-5.95	110.85	116.20
36	5	2752	U	O5'-P-OP1	5.94	117.83	110.70
36	1	1456	A	OP1-P-O3'	5.94	118.27	105.20
36	1	2814	G	O5'-P-OP2	5.94	117.83	110.70
38	4	113	U	N3-C2-O2	-5.94	118.04	122.20
51	M5	22	LEU	CA-CB-CG	5.94	128.97	115.30
1	6	404	G	O5'-P-OP1	-5.94	100.35	105.70
36	5	1464	G	N3-C4-N9	5.94	129.56	126.00
36	5	2677	G	N1-C6-O6	5.94	123.47	119.90
36	5	2870	C	O4'-C1'-N1	5.94	112.95	108.20
36	1	913	A	N9-C4-C5	5.94	108.18	105.80
49	M3	141	ALA	N-CA-C	-5.94	94.96	111.00
36	5	2765	C	C5-C6-N1	5.94	123.97	121.00
36	5	2819	A	O5'-P-OP2	-5.94	100.35	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	197	G	C6-C5-N7	-5.94	126.84	130.40
36	1	624	G	C8-N9-C4	-5.94	104.02	106.40
36	1	2814	G	N1-C6-O6	5.94	123.46	119.90
1	6	1354	G	C4-N9-C1'	5.94	134.22	126.50
37	7	85	G	O5'-P-OP2	5.94	117.83	110.70
36	1	1151	U	N1-C2-O2	-5.94	118.64	122.80
1	6	85	A	C8-N9-C4	-5.94	103.42	105.80
1	6	1679	G	N1-C6-O6	-5.94	116.34	119.90
36	5	770	G	C8-N9-C4	5.94	108.78	106.40
36	1	587	U	N1-C2-O2	-5.94	118.64	122.80
36	1	2400	G	C5-C6-O6	-5.94	125.04	128.60
37	7	1	G	C4-N9-C1'	5.94	134.22	126.50
36	1	1371	G	C2-N3-C4	5.93	114.87	111.90
36	1	2726	C	C5-C4-N4	5.93	124.35	120.20
36	1	2823	G	N9-C4-C5	5.93	107.77	105.40
36	1	3380	U	O5'-P-OP2	-5.93	100.36	105.70
36	5	2666	C	N1-C2-O2	-5.93	115.34	118.90
36	1	1382	G	N7-C8-N9	-5.93	110.13	113.10
36	1	2169	G	N3-C4-C5	-5.93	125.63	128.60
36	5	417	A	C6-N1-C2	-5.93	115.04	118.60
36	5	1149	G	C5-C6-O6	-5.93	125.04	128.60
36	1	207	U	N1-C2-O2	-5.93	118.65	122.80
36	1	2723	U	N1-C2-O2	-5.93	118.65	122.80
36	1	2369	G	C5-C6-N1	5.93	114.47	111.50
41	L4	139	GLY	N-CA-C	-5.93	98.28	113.10
36	5	607	A	N9-C4-C5	5.93	108.17	105.80
36	5	2288	G	C8-N9-C1'	-5.93	119.29	127.00
36	5	2361	A	C8-N9-C4	-5.93	103.43	105.80
36	5	3004	C	C5-C4-N4	-5.93	116.05	120.20
36	5	3120	C	C5-C4-N4	5.93	124.35	120.20
36	1	42	C	OP2-P-O3'	5.93	118.24	105.20
36	1	2385	G	N3-C4-C5	5.93	131.56	128.60
36	1	3269	U	N3-C2-O2	-5.93	118.05	122.20
1	6	99	C	N1-C2-O2	5.93	122.46	118.90
36	5	585	A	O5'-P-OP2	-5.93	100.36	105.70
36	1	92	G	N1-C6-O6	-5.92	116.34	119.90
36	1	2980	U	C6-N1-C2	-5.92	117.44	121.00
1	6	795	U	N3-C2-O2	-5.92	118.05	122.20
36	5	514	G	C5-C6-O6	-5.92	125.05	128.60
36	5	2148	U	N1-C2-O2	-5.92	118.65	122.80
36	5	3001	C	C5-C6-N1	-5.92	118.04	121.00
38	8	125	U	C2-N1-C1'	5.92	124.81	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	386	A	N1-C6-N6	5.92	122.15	118.60
36	5	3197	G	O5'-P-OP2	5.92	117.81	110.70
1	2	73	U	OP1-P-O3'	5.92	118.22	105.20
36	1	124	U	N1-C2-O2	5.92	126.94	122.80
36	1	2943	G	N1-C6-O6	5.92	123.45	119.90
36	5	1285	G	N7-C8-N9	-5.92	110.14	113.10
36	5	1445	U	N1-C2-O2	-5.92	118.66	122.80
40	l3	4	ARG	NE-CZ-NH2	-5.92	117.34	120.30
1	2	1215	C	C6-N1-C2	-5.92	117.93	120.30
36	1	427	C	N1-C2-O2	-5.92	115.35	118.90
36	1	2816	G	O4'-C1'-N9	5.92	112.93	108.20
36	1	2968	G	N3-C4-C5	5.92	131.56	128.60
1	6	610	G	N3-C4-C5	-5.92	125.64	128.60
36	5	1284	C	C6-N1-C2	-5.92	117.93	120.30
36	5	2820	A	N1-C6-N6	5.92	122.15	118.60
37	7	84	A	OP1-P-O3'	5.92	118.21	105.20
36	1	2130	G	N1-C6-O6	-5.91	116.35	119.90
36	1	2407	C	C5-C4-N4	-5.91	116.06	120.20
36	1	2418	G	C4-N9-C1'	5.91	134.19	126.50
36	1	2617	U	C6-N1-C2	-5.91	117.45	121.00
36	1	2960	C	N3-C4-C5	5.91	124.27	121.90
36	5	961	C	C2-N1-C1'	5.91	125.31	118.80
36	1	1378	U	C2-N1-C1'	5.91	124.80	117.70
36	1	2400	G	N9-C4-C5	-5.91	103.03	105.40
44	L7	207	LEU	CB-CG-CD1	-5.91	100.95	111.00
37	7	10	C	C6-N1-C1'	-5.91	113.71	120.80
36	1	664	U	C5-C4-O4	-5.91	122.35	125.90
36	1	1131	G	O5'-P-OP2	-5.91	100.38	105.70
36	1	3268	A	C4-C5-C6	5.91	119.96	117.00
36	5	2396	G	N3-C2-N2	-5.91	115.76	119.90
36	1	1396	C	C6-N1-C2	5.91	122.66	120.30
36	1	3215	A	C2-N3-C4	-5.91	107.65	110.60
36	5	1300	G	C5-C6-O6	-5.91	125.05	128.60
36	5	1405	U	N1-C2-N3	5.91	118.44	114.90
36	5	2358	A	N3-C4-C5	5.91	130.94	126.80
36	1	3055	U	C5-C4-O4	-5.91	122.36	125.90
36	5	410	U	N3-C4-C5	-5.91	111.06	114.60
36	5	3144	G	N1-C2-N3	5.91	127.44	123.90
36	1	282	G	C2'-C3'-O3'	5.91	123.15	113.70
36	1	2639	G	C4-N9-C1'	5.91	134.18	126.50
36	5	2626	A	C2-N3-C4	-5.91	107.65	110.60
36	1	2383	C	C5-C4-N4	-5.90	116.07	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1643	U	C2-N1-C1'	-5.90	110.62	117.70
36	1	2883	U	C5-C6-N1	5.90	125.65	122.70
36	1	171	G	N1-C6-O6	5.90	123.44	119.90
1	6	1100	G	C2-N3-C4	5.90	114.85	111.90
1	6	1140	G	C5-C6-N1	5.90	114.45	111.50
36	5	2295	A	C5-C6-N1	5.90	120.65	117.70
36	5	2896	A	O5'-P-OP2	-5.90	100.39	105.70
36	1	332	C	C5-C6-N1	-5.90	118.05	121.00
36	1	934	G	C4-N9-C1'	5.90	134.17	126.50
36	5	2305	G	C6-C5-N7	-5.90	126.86	130.40
36	5	947	G	N3-C4-N9	5.90	129.54	126.00
36	5	2434	U	C5-C4-O4	5.90	129.44	125.90
36	5	3060	C	C4-C5-C6	-5.90	114.45	117.40
36	1	305	U	N3-C2-O2	-5.89	118.07	122.20
36	1	1390	A	C6-N1-C2	-5.89	115.06	118.60
36	1	2610	G	N1-C6-O6	5.89	123.44	119.90
36	1	1100	U	C5-C6-N1	-5.89	119.75	122.70
36	1	2397	A	O5'-P-OP2	-5.89	100.40	105.70
1	6	101	U	N1-C2-O2	5.89	126.92	122.80
1	6	418	G	O5'-P-OP1	-5.89	100.40	105.70
36	5	1825	G	N9-C4-C5	5.89	107.76	105.40
36	5	2411	U	C2-N3-C4	-5.89	123.47	127.00
1	2	121	U	N3-C2-O2	-5.89	118.08	122.20
36	1	652	G	N3-C4-N9	5.89	129.53	126.00
36	1	1097	G	P-O3'-C3'	5.89	126.77	119.70
1	2	879	G	O5'-P-OP2	-5.89	100.40	105.70
1	2	1269	U	C2-N1-C1'	5.89	124.77	117.70
36	1	2163	C	N1-C2-O2	-5.89	115.37	118.90
36	1	2336	U	N3-C2-O2	-5.89	118.08	122.20
36	5	749	C	C6-N1-C2	-5.89	117.94	120.30
36	5	1376	C	OP1-P-OP2	5.89	128.43	119.60
36	5	2116	G	C4-C5-C6	5.89	122.33	118.80
36	1	339	C	OP1-P-OP2	-5.89	110.77	119.60
36	1	2118	C	C5-C6-N1	5.89	123.94	121.00
36	1	2306	C	C6-N1-C2	-5.89	117.94	120.30
38	4	113	U	C2-N3-C4	-5.89	123.47	127.00
1	2	639	U	C2-N1-C1'	5.88	124.76	117.70
1	2	1736	G	O5'-P-OP2	-5.88	100.40	105.70
36	1	584	G	N9-C4-C5	5.88	107.75	105.40
36	1	1131	G	N9-C4-C5	-5.88	103.05	105.40
36	1	2639	G	N3-C4-N9	5.88	129.53	126.00
36	5	189	G	N1-C6-O6	-5.88	116.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1115	G	N3-C4-N9	5.88	129.53	126.00
36	1	47	C	N1-C2-O2	-5.88	115.37	118.90
36	1	1307	G	C4-C5-N7	-5.88	108.45	110.80
36	1	2247	G	C5-C6-O6	-5.88	125.07	128.60
36	1	2358	A	C8-N9-C4	5.88	108.15	105.80
1	6	1539	G	N3-C4-N9	-5.88	122.47	126.00
36	5	2159	U	N3-C2-O2	-5.88	118.08	122.20
36	5	2245	C	C2-N1-C1'	5.88	125.27	118.80
36	1	426	G	N3-C4-C5	-5.88	125.66	128.60
36	1	2790	A	O5'-P-OP2	-5.88	100.41	105.70
36	1	3204	C	N1-C2-O2	5.88	122.43	118.90
1	6	53	G	C4-C5-C6	5.88	122.33	118.80
1	6	1091	A	N1-C2-N3	5.88	132.24	129.30
36	1	1151	U	C5-C6-N1	5.88	125.64	122.70
36	1	1308	A	C4-C5-C6	5.88	119.94	117.00
1	6	647	G	N3-C2-N2	-5.88	115.79	119.90
36	5	694	C	N1-C2-N3	5.88	123.31	119.20
36	5	881	C	C2-N3-C4	5.88	122.84	119.90
36	5	1398	U	C5-C4-O4	5.88	129.43	125.90
36	5	3065	G	O5'-P-OP1	-5.88	100.41	105.70
36	1	958	C	C2-N3-C4	-5.87	116.96	119.90
1	6	48	G	O5'-P-OP2	-5.87	100.41	105.70
36	5	996	A	N1-C6-N6	-5.87	115.08	118.60
36	1	373	A	OP2-P-O3'	5.87	118.12	105.20
36	1	716	A	C2-N3-C4	-5.87	107.66	110.60
36	1	2206	G	C5-C6-O6	-5.87	125.08	128.60
36	5	1446	A	N7-C8-N9	-5.87	110.86	113.80
36	5	1497	C	O5'-P-OP1	-5.87	100.42	105.70
36	5	2220	A	C8-N9-C4	-5.87	103.45	105.80
38	8	81	U	P-O3'-C3'	5.87	126.75	119.70
56	n0	82	ASP	CB-CG-OD1	-5.87	113.02	118.30
1	2	1432	U	C5-C6-N1	-5.87	119.77	122.70
1	6	75	U	C2-N1-C1'	5.87	124.74	117.70
1	6	1539	G	N3-C4-C5	5.87	131.53	128.60
36	5	1182	A	C8-N9-C4	5.87	108.15	105.80
36	1	346	C	C5-C6-N1	-5.87	118.07	121.00
36	1	1546	A	C2-N3-C4	5.87	113.53	110.60
36	1	1789	G	N9-C4-C5	-5.87	103.05	105.40
1	6	938	G	O5'-P-OP2	-5.87	100.42	105.70
36	5	504	A	N9-C4-C5	-5.87	103.45	105.80
36	5	3099	C	C4-C5-C6	5.87	120.33	117.40
36	5	3154	C	C5-C6-N1	5.87	123.93	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1007	U	C5-C4-O4	-5.87	122.38	125.90
36	1	1589	A	O4'-C1'-N9	-5.87	103.51	108.20
36	1	2603	G	C4-C5-N7	5.87	113.15	110.80
36	5	822	G	O5'-P-OP1	-5.87	100.42	105.70
36	5	1863	G	C5-C6-N1	5.87	114.43	111.50
36	1	1320	C	N3-C4-C5	-5.87	119.55	121.90
36	5	2984	C	N1-C2-N3	5.87	123.31	119.20
36	1	2634	U	C2-N3-C4	-5.86	123.48	127.00
36	1	2967	A	C8-N9-C4	5.86	108.15	105.80
1	6	1340	U	N3-C2-O2	-5.86	118.10	122.20
56	n0	99	ARG	NE-CZ-NH1	-5.86	117.37	120.30
36	1	2924	U	C5-C6-N1	-5.86	119.77	122.70
36	5	2627	C	N3-C2-O2	-5.86	117.80	121.90
36	1	2806	U	N1-C2-N3	5.86	118.42	114.90
36	5	2383	C	N3-C4-C5	-5.86	119.56	121.90
1	2	874	C	N3-C2-O2	5.86	126.00	121.90
36	5	2984	C	C5-C6-N1	-5.86	118.07	121.00
1	2	1596	C	N1-C2-O2	5.86	122.41	118.90
36	1	1103	A	P-O3'-C3'	5.86	126.73	119.70
36	1	1493	G	O4'-C1'-N9	5.86	112.89	108.20
36	1	2922	G	OP1-P-O3'	5.86	118.09	105.20
36	5	691	A	C2-N3-C4	-5.86	107.67	110.60
36	5	811	U	C2-N3-C4	-5.86	123.48	127.00
1	6	269	G	C8-N9-C4	5.86	108.74	106.40
12	c0	88	PRO	N-CA-CB	5.86	110.33	103.30
36	5	2888	U	N1-C2-O2	5.86	126.90	122.80
36	1	345	G	C4-C5-C6	5.85	122.31	118.80
36	1	2284	C	C2-N1-C1'	5.85	125.24	118.80
36	1	3344	A	C2-N3-C4	-5.85	107.67	110.60
36	5	96	G	C2-N3-C4	-5.85	108.97	111.90
36	5	961	C	C6-N1-C2	-5.85	117.96	120.30
36	1	344	A	N1-C6-N6	-5.85	115.09	118.60
36	1	2636	A	N7-C8-N9	5.85	116.73	113.80
37	3	102	A	C8-N9-C4	5.85	108.14	105.80
36	1	1152	G	OP1-P-OP2	5.85	128.38	119.60
36	1	1851	G	C8-N9-C4	-5.85	104.06	106.40
36	1	2984	C	C6-N1-C2	-5.85	117.96	120.30
38	4	74	U	N1-C2-O2	-5.85	118.70	122.80
36	1	1468	A	C2-N3-C4	-5.85	107.67	110.60
36	1	1951	C	C2-N1-C1'	5.85	125.23	118.80
1	6	1150	G	C2-N3-C4	-5.85	108.98	111.90
36	5	2632	G	OP1-P-O3'	5.85	118.07	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	41	G	C8-N9-C4	5.85	108.74	106.40
1	2	1782	A	C5-C6-N6	5.85	128.38	123.70
52	M6	172	ARG	NE-CZ-NH2	-5.85	117.38	120.30
36	5	2851	A	C2-N3-C4	-5.85	107.68	110.60
37	7	103	A	N9-C4-C5	-5.85	103.46	105.80
1	2	99	C	N3-C2-O2	-5.85	117.81	121.90
36	1	1386	A	C5-C6-N6	-5.85	119.02	123.70
1	2	1600	A	N1-C6-N6	5.84	122.11	118.60
36	1	14	U	O5'-P-OP2	-5.84	100.44	105.70
36	1	2823	G	C4-C5-N7	-5.84	108.46	110.80
1	6	18	C	C6-N1-C2	-5.84	117.96	120.30
36	5	205	C	N1-C2-O2	5.84	122.41	118.90
1	2	443	C	C6-N1-C2	-5.84	117.96	120.30
1	2	61	A	N7-C8-N9	5.84	116.72	113.80
1	2	720	G	P-O3'-C3'	5.84	126.71	119.70
6	S4	3	ARG	NE-CZ-NH1	-5.84	117.38	120.30
36	1	3244	A	O5'-P-OP2	-5.84	100.44	105.70
36	5	2724	U	N3-C2-O2	-5.84	118.11	122.20
1	2	1740	A	N1-C6-N6	5.84	122.10	118.60
36	5	1115	G	OP1-P-O3'	5.84	118.05	105.20
36	5	1208	U	N1-C2-N3	5.84	118.40	114.90
36	5	2611	U	C4-C5-C6	5.84	123.20	119.70
36	5	2700	G	C6-C5-N7	-5.84	126.90	130.40
36	5	2899	C	O5'-P-OP1	5.84	117.71	110.70
36	1	2976	A	C5-C6-N6	-5.84	119.03	123.70
1	6	371	G	C8-N9-C1'	-5.84	119.41	127.00
36	1	64	G	C5-C6-O6	5.84	132.10	128.60
38	8	20	U	N1-C2-O2	-5.84	118.71	122.80
36	5	2724	U	C6-N1-C2	-5.83	117.50	121.00
36	1	2222	A	N9-C4-C5	5.83	108.13	105.80
36	1	2403	G	OP1-P-O3'	5.83	118.03	105.20
1	6	539	G	N3-C4-N9	-5.83	122.50	126.00
1	2	380	U	N1-C2-O2	5.83	126.88	122.80
36	1	176	G	N3-C4-N9	5.83	129.50	126.00
36	1	658	G	C4-C5-C6	5.83	122.30	118.80
36	1	901	G	N1-C6-O6	5.83	123.40	119.90
36	1	1316	C	N1-C2-O2	-5.83	115.40	118.90
41	L4	206	LEU	CA-CB-CG	5.83	128.71	115.30
36	5	614	C	C6-N1-C2	5.83	122.63	120.30
36	5	2283	G	N3-C2-N2	-5.83	115.82	119.90
36	1	155	G	N3-C2-N2	5.83	123.98	119.90
36	1	295	A	N7-C8-N9	5.83	116.71	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1159	A	O5'-P-OP1	5.83	117.69	110.70
36	1	2373	A	C8-N9-C4	-5.83	103.47	105.80
38	4	85	G	C6-C5-N7	-5.83	126.90	130.40
1	6	337	G	N1-C6-O6	5.83	123.40	119.90
36	5	519	A	N1-C6-N6	5.83	122.10	118.60
36	5	767	U	O4'-C1'-N1	5.83	112.86	108.20
36	5	2811	A	N1-C2-N3	5.83	132.22	129.30
36	5	3006	A	C6-N1-C2	-5.83	115.10	118.60
36	1	1184	A	N9-C4-C5	5.83	108.13	105.80
1	6	387	A	C4-C5-N7	-5.83	107.79	110.70
1	6	1280	C	N3-C4-C5	-5.83	119.57	121.90
36	1	648	C	C6-N1-C1'	-5.82	113.81	120.80
36	1	2664	C	C6-N1-C2	-5.82	117.97	120.30
36	5	275	U	C5-C4-O4	5.82	129.39	125.90
36	5	2404	A	O4'-C1'-N9	5.82	112.86	108.20
37	7	46	A	OP2-P-O3'	5.82	118.01	105.20
38	8	140	G	C5-C6-N1	-5.82	108.59	111.50
36	1	233	C	C6-N1-C2	5.82	122.63	120.30
1	6	767	U	N3-C2-O2	-5.82	118.12	122.20
36	5	1420	C	OP2-P-O3'	5.82	118.01	105.20
1	2	577	G	C6-C5-N7	-5.82	126.91	130.40
36	5	1429	G	C2-N3-C4	-5.82	108.99	111.90
36	5	1866	C	C5-C4-N4	-5.82	116.13	120.20
36	5	1925	U	C5-C6-N1	5.82	125.61	122.70
36	1	707	U	N1-C2-O2	-5.82	118.73	122.80
36	1	968	G	C5-C6-O6	-5.82	125.11	128.60
36	1	1196	C	C6-N1-C2	5.82	122.63	120.30
1	6	1700	C	N3-C2-O2	-5.82	117.83	121.90
36	5	1304	A	C8-N9-C4	-5.82	103.47	105.80
1	2	302	U	C5-C6-N1	5.82	125.61	122.70
1	2	1559	A	O4'-C1'-N9	5.82	112.85	108.20
36	1	1925	U	N1-C2-O2	-5.82	118.73	122.80
36	1	2165	G	O5'-P-OP2	-5.82	100.46	105.70
36	1	2621	G	N9-C4-C5	5.82	107.73	105.40
36	1	2866	U	C2-N1-C1'	5.82	124.68	117.70
36	1	3214	U	C5-C4-O4	5.82	129.39	125.90
36	1	3217	C	C6-N1-C1'	-5.82	113.82	120.80
36	5	964	G	C8-N9-C4	-5.82	104.07	106.40
36	5	2197	C	N3-C4-C5	5.82	124.23	121.90
36	5	3174	A	N7-C8-N9	5.82	116.71	113.80
36	1	221	A	N9-C4-C5	5.82	108.13	105.80
36	1	1355	A	P-O3'-C3'	5.82	126.68	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	448	C	OP1-P-O3'	5.82	118.00	105.20
36	5	75	G	N1-C6-O6	5.82	123.39	119.90
36	5	281	G	N3-C2-N2	-5.82	115.83	119.90
36	5	1119	C	OP2-P-O3'	5.81	117.99	105.20
36	5	1209	G	C5-C6-O6	-5.81	125.11	128.60
36	1	2142	A	N3-C4-C5	-5.81	122.73	126.80
36	1	2585	G	C2-N3-C4	5.81	114.81	111.90
1	6	608	U	N3-C2-O2	-5.81	118.13	122.20
36	5	1323	G	C8-N9-C4	-5.81	104.08	106.40
36	5	1790	G	C4-C5-C6	5.81	122.29	118.80
36	5	1838	G	OP1-P-O3'	5.81	117.99	105.20
36	5	2937	G	C6-C5-N7	-5.81	126.91	130.40
36	5	2944	U	C5-C6-N1	5.81	125.61	122.70
44	17	83	LEU	CA-CB-CG	5.81	128.67	115.30
36	1	1011	A	C8-N9-C4	5.81	108.12	105.80
1	6	308	C	C4-C5-C6	5.81	120.31	117.40
36	5	704	U	N3-C4-O4	5.81	123.47	119.40
36	5	2435	G	C4-C5-N7	5.81	113.12	110.80
1	2	403	G	O5'-P-OP2	-5.81	100.47	105.70
36	1	1845	G	C8-N9-C4	-5.81	104.08	106.40
42	L5	115	LEU	CA-CB-CG	5.81	128.66	115.30
36	5	1900	A	O5'-P-OP1	-5.81	100.47	105.70
1	2	323	A	C8-N9-C4	-5.81	103.48	105.80
1	6	334	G	N3-C2-N2	5.81	123.97	119.90
36	5	2679	A	C8-N9-C4	5.81	108.12	105.80
36	5	3042	U	N1-C2-N3	5.81	118.38	114.90
36	5	2552	C	C2-N1-C1'	5.81	125.19	118.80
1	2	1654	G	C6-C5-N7	-5.80	126.92	130.40
36	5	2892	A	C6-C5-N7	-5.80	128.24	132.30
1	2	1789	G	C8-N9-C1'	-5.80	119.46	127.00
1	6	1677	C	N1-C2-O2	-5.80	115.42	118.90
36	1	909	G	C8-N9-C4	5.80	108.72	106.40
36	1	3079	U	C2-N1-C1'	-5.80	110.74	117.70
36	5	2145	A	N1-C2-N3	5.80	132.20	129.30
36	5	2376	G	C8-N9-C4	-5.80	104.08	106.40
36	5	2371	G	C8-N9-C4	5.80	108.72	106.40
36	5	2666	C	N3-C4-C5	-5.80	119.58	121.90
36	5	3306	U	C5-C4-O4	-5.80	122.42	125.90
36	5	1047	A	C5-C6-N1	5.80	120.60	117.70
36	1	417	A	C5-C6-N6	-5.80	119.06	123.70
36	1	2300	G	OP2-P-O3'	5.80	117.95	105.20
36	1	2429	G	N1-C6-O6	-5.80	116.42	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	425	A	O5'-P-OP1	5.80	117.66	110.70
1	6	1002	G	N1-C6-O6	5.80	123.38	119.90
1	6	1269	U	N3-C2-O2	-5.80	118.14	122.20
36	5	922	U	C4-C5-C6	5.80	123.18	119.70
36	5	1306	G	C5-C6-O6	-5.80	125.12	128.60
36	5	2163	C	N3-C2-O2	-5.80	117.84	121.90
36	5	2361	A	OP2-P-O3'	5.80	117.95	105.20
36	1	51	A	C8-N9-C4	-5.79	103.48	105.80
1	6	350	U	C5-C6-N1	-5.79	119.80	122.70
36	5	966	U	N1-C2-O2	5.79	126.86	122.80
36	5	1902	G	C4-C5-C6	5.79	122.28	118.80
36	5	2801	A	C8-N9-C4	5.79	108.12	105.80
36	5	3006	A	C5-N7-C8	-5.79	101.00	103.90
1	6	609	U	N3-C2-O2	-5.79	118.14	122.20
36	5	410	U	O5'-P-OP1	-5.79	100.49	105.70
36	5	2222	A	OP2-P-O3'	5.79	117.95	105.20
36	5	2735	U	C6-N1-C2	-5.79	117.52	121.00
36	1	153	U	N3-C4-C5	-5.79	111.12	114.60
36	5	187	A	C6-N1-C2	-5.79	115.12	118.60
36	5	388	G	C5-C6-O6	-5.79	125.12	128.60
36	5	903	U	OP1-P-O3'	5.79	117.94	105.20
36	5	2971	A	N3-C4-N9	5.79	132.03	127.40
36	5	3174	A	O4'-C1'-N9	5.79	112.83	108.20
1	2	416	A	C8-N9-C4	5.79	108.12	105.80
36	1	3028	G	C4-C5-N7	5.79	113.12	110.80
36	5	3343	G	N3-C2-N2	5.79	123.95	119.90
37	7	86	U	O5'-P-OP2	-5.79	100.49	105.70
1	2	1291	G	C6-C5-N7	-5.79	126.93	130.40
36	1	363	G	N1-C6-O6	5.79	123.37	119.90
36	1	1344	G	N9-C4-C5	-5.79	103.08	105.40
49	M3	85	LEU	CA-CB-CG	5.79	128.61	115.30
1	6	1736	G	N1-C6-O6	5.79	123.37	119.90
36	5	2883	U	N3-C2-O2	-5.79	118.15	122.20
37	7	101	G	N3-C4-N9	5.79	129.47	126.00
36	5	1367	G	C4-N9-C1'	5.79	134.02	126.50
36	1	1041	U	C6-N1-C2	5.79	124.47	121.00
1	6	1	U	N3-C2-O2	-5.79	118.15	122.20
36	5	2112	U	C6-N1-C2	-5.79	117.53	121.00
36	5	2299	A	O5'-P-OP2	-5.79	100.49	105.70
36	1	25	U	C4-C5-C6	5.78	123.17	119.70
36	1	2700	G	C5-C6-O6	-5.78	125.13	128.60
37	3	48	U	C2-N1-C1'	5.78	124.64	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1472	C	C5-C4-N4	5.78	124.25	120.20
36	5	2940	A	C6-C5-N7	-5.78	128.25	132.30
36	5	3285	C	C2-N1-C1'	5.78	125.16	118.80
36	5	2346	C	N1-C2-O2	-5.78	115.43	118.90
1	2	615	A	C5-C6-N1	5.78	120.59	117.70
36	1	1509	A	C2-N3-C4	-5.78	107.71	110.60
36	5	888	A	C8-N9-C4	-5.78	103.49	105.80
67	o1	90	PHE	CB-CA-C	-5.78	98.84	110.40
36	1	2111	G	C5-C6-O6	5.78	132.07	128.60
57	n1	88	ARG	NE-CZ-NH1	-5.78	117.41	120.30
36	1	3210	A	O5'-P-OP2	-5.78	100.50	105.70
36	5	1889	G	C2-N3-C4	5.78	114.79	111.90
37	7	73	C	C5-C6-N1	5.78	123.89	121.00
1	2	55	A	C8-N9-C4	-5.78	103.49	105.80
36	1	959	C	C5-C4-N4	-5.78	116.16	120.20
56	n0	13	ARG	NE-CZ-NH2	-5.78	117.41	120.30
36	1	941	G	OP1-P-O3'	5.77	117.90	105.20
36	1	961	C	C2-N3-C4	-5.77	117.01	119.90
1	2	1456	C	C6-N1-C2	-5.77	117.99	120.30
36	1	1503	A	C2-N3-C4	-5.77	107.71	110.60
36	1	2733	A	C5-C6-N6	-5.77	119.08	123.70
1	6	350	U	N1-C2-N3	5.77	118.36	114.90
36	5	1147	G	N3-C2-N2	-5.77	115.86	119.90
36	5	1309	U	N1-C2-N3	5.77	118.36	114.90
36	5	2354	C	N3-C4-C5	-5.77	119.59	121.90
36	1	1343	A	N9-C4-C5	-5.77	103.49	105.80
36	1	105	C	N3-C4-N4	5.77	122.04	118.00
36	1	2758	A	N7-C8-N9	-5.77	110.92	113.80
36	1	3109	G	C8-N9-C4	5.77	108.71	106.40
36	5	2340	U	O5'-P-OP1	-5.77	100.51	105.70
36	5	3392	U	C5-C4-O4	5.77	129.36	125.90
36	1	1008	U	C2-N1-C1'	-5.77	110.78	117.70
36	1	1640	G	N3-C4-N9	5.77	129.46	126.00
36	1	2409	G	C6-C5-N7	-5.77	126.94	130.40
36	5	1662	G	N1-C6-O6	5.77	123.36	119.90
36	5	1724	U	N1-C2-N3	5.77	118.36	114.90
36	5	2173	U	C5-C4-O4	5.77	129.36	125.90
1	2	338	C	N1-C2-O2	-5.77	115.44	118.90
36	5	3311	C	N3-C4-C5	-5.77	119.59	121.90
36	5	859	G	C4-C5-N7	5.76	113.11	110.80
36	5	864	G	C2-N3-C4	5.76	114.78	111.90
36	5	3118	C	C5-C6-N1	5.76	123.88	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	139	C	P-O3'-C3'	5.76	126.61	119.70
36	1	593	C	C2-N1-C1'	5.76	125.14	118.80
36	1	1893	A	C2-N3-C4	-5.76	107.72	110.60
36	5	269	G	C8-N9-C4	5.76	108.70	106.40
36	5	1872	C	N1-C2-O2	5.76	122.36	118.90
36	5	2425	G	C8-N9-C4	-5.76	104.09	106.40
36	5	2886	U	C4-C5-C6	5.76	123.16	119.70
36	5	3050	U	N3-C4-O4	-5.76	115.37	119.40
37	3	86	U	OP1-P-O3'	5.76	117.87	105.20
37	3	98	C	N1-C2-O2	-5.76	115.44	118.90
36	5	1178	G	N9-C4-C5	-5.76	103.10	105.40
1	6	1793	G	N1-C6-O6	-5.76	116.44	119.90
36	5	815	G	C4-N9-C1'	5.76	133.99	126.50
36	5	1112	A	C6-N1-C2	-5.76	115.14	118.60
36	1	1313	G	C4-C5-N7	5.76	113.10	110.80
36	1	2605	G	OP1-P-OP2	-5.76	110.97	119.60
36	5	3050	U	N3-C2-O2	-5.76	118.17	122.20
45	18	69	LEU	CA-CB-CG	5.76	128.54	115.30
36	1	980	A	C5-C6-N1	-5.75	114.82	117.70
36	5	1117	G	N1-C6-O6	-5.75	116.45	119.90
36	1	1114	U	C5-C4-O4	5.75	129.35	125.90
36	1	2376	G	C5-N7-C8	-5.75	101.42	104.30
38	4	111	A	C6-C5-N7	-5.75	128.27	132.30
1	6	565	C	C6-N1-C2	5.75	122.60	120.30
36	1	1796	G	C8-N9-C4	-5.75	104.10	106.40
36	1	2418	G	C2-N3-C4	5.75	114.78	111.90
39	L2	25	GLY	N-CA-C	-5.75	98.72	113.10
36	1	718	G	N9-C4-C5	-5.75	103.10	105.40
36	1	2130	G	C4-C5-N7	-5.75	108.50	110.80
36	1	3344	A	C6-C5-N7	-5.75	128.28	132.30
36	5	1468	A	C4-C5-C6	5.75	119.88	117.00
1	2	747	C	C2-N1-C1'	5.75	125.12	118.80
36	1	1175	C	C5-C6-N1	-5.75	118.13	121.00
36	5	2821	C	C6-N1-C2	5.75	122.60	120.30
36	5	2934	A	N1-C6-N6	-5.75	115.15	118.60
36	5	3243	A	C4-C5-C6	5.75	119.87	117.00
36	1	2337	C	C6-N1-C2	-5.75	118.00	120.30
36	1	2633	U	N3-C2-O2	-5.75	118.18	122.20
1	6	467	G	N3-C4-N9	5.75	129.45	126.00
36	5	1431	G	C4-C5-N7	-5.75	108.50	110.80
36	1	1190	A	C4-N9-C1'	5.75	136.64	126.30
36	5	622	A	N1-C6-N6	5.75	122.05	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1396	C	C6-N1-C2	5.75	122.60	120.30
36	5	1419	A	O5'-P-OP1	5.75	117.59	110.70
1	2	551	G	C8-N9-C4	-5.74	104.10	106.40
36	1	2332	A	N1-C6-N6	5.74	122.05	118.60
36	1	3062	G	C5-C6-O6	-5.74	125.15	128.60
36	5	1210	U	N3-C4-O4	-5.74	115.38	119.40
36	5	2256	A	C8-N9-C4	5.74	108.10	105.80
1	6	1767	G	N3-C4-C5	5.74	131.47	128.60
36	5	974	G	N3-C4-N9	5.74	129.44	126.00
36	5	2283	G	N9-C4-C5	-5.74	103.10	105.40
1	2	1537	C	C5-C6-N1	5.74	123.87	121.00
36	1	1099	A	C4-C5-N7	5.74	113.57	110.70
36	1	1116	G	N1-C6-O6	5.74	123.34	119.90
36	5	1226	G	N9-C4-C5	-5.74	103.10	105.40
36	5	1490	A	C6-C5-N7	-5.74	128.28	132.30
36	5	3043	C	C2-N3-C4	-5.74	117.03	119.90
36	5	3188	G	C4-C5-N7	-5.74	108.50	110.80
36	5	784	A	C6-C5-N7	-5.74	128.28	132.30
36	5	2379	U	C5-C6-N1	-5.74	119.83	122.70
36	5	2614	G	C8-N9-C1'	-5.74	119.54	127.00
36	5	2757	U	N3-C4-O4	5.74	123.42	119.40
36	5	2960	C	C2-N3-C4	-5.74	117.03	119.90
36	1	3109	G	O5'-P-OP2	5.74	117.58	110.70
36	5	631	U	N3-C4-O4	-5.74	115.38	119.40
36	5	1912	U	N3-C2-O2	5.74	126.22	122.20
1	2	597	G	C8-N9-C1'	-5.74	119.55	127.00
1	2	1370	U	P-O3'-C3'	5.74	126.58	119.70
36	1	1868	G	N7-C8-N9	5.74	115.97	113.10
36	1	1931	U	C2-N1-C1'	-5.74	110.82	117.70
38	4	48	A	C5-C6-N6	-5.74	119.11	123.70
36	5	2917	G	C6-C5-N7	-5.74	126.96	130.40
36	1	1116	G	C6-N1-C2	-5.73	121.66	125.10
1	6	957	G	N1-C6-O6	5.73	123.34	119.90
36	5	40	A	N7-C8-N9	5.73	116.67	113.80
36	5	97	U	OP2-P-O3'	5.73	117.81	105.20
36	5	658	G	C8-N9-C4	-5.73	104.11	106.40
36	5	1493	G	O4'-C1'-N9	5.73	112.79	108.20
1	6	337	G	C8-N9-C1'	-5.73	119.55	127.00
1	6	350	U	N1-C2-O2	-5.73	118.79	122.80
1	6	630	A	C2-N3-C4	-5.73	107.73	110.60
36	5	2339	C	N3-C2-O2	-5.73	117.89	121.90
36	1	1489	A	C5-C6-N6	-5.73	119.12	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2112	U	C2-N1-C1'	5.73	124.57	117.70
36	1	2279	A	C8-N9-C4	5.73	108.09	105.80
36	5	2713	U	N3-C2-O2	-5.73	118.19	122.20
36	5	3366	G	N3-C4-C5	-5.73	125.74	128.60
36	1	957	C	N1-C2-O2	-5.73	115.46	118.90
36	1	2719	U	C2-N1-C1'	-5.73	110.83	117.70
38	4	32	C	C2-N1-C1'	-5.73	112.50	118.80
1	2	830	U	C2-N1-C1'	5.72	124.57	117.70
36	1	947	G	C4-N9-C1'	5.72	133.94	126.50
36	1	1175	C	C2-N3-C4	-5.72	117.04	119.90
38	4	50	C	C6-N1-C2	-5.72	118.01	120.30
36	5	2531	C	C2-N1-C1'	5.72	125.10	118.80
36	5	3209	A	C8-N9-C4	-5.72	103.51	105.80
36	1	2636	A	N9-C4-C5	5.72	108.09	105.80
1	6	409	C	N1-C2-O2	-5.72	115.47	118.90
38	8	38	U	C4-C5-C6	5.72	123.13	119.70
36	1	70	A	C2-N3-C4	-5.72	107.74	110.60
1	6	579	A	P-O3'-C3'	5.72	126.56	119.70
36	5	568	G	C5-C6-O6	-5.72	125.17	128.60
36	5	2419	A	C2-N3-C4	-5.72	107.74	110.60
36	5	2886	U	C5-C4-O4	5.72	129.33	125.90
36	1	931	C	N3-C4-C5	5.72	124.19	121.90
1	6	1124	A	C8-N9-C4	5.72	108.09	105.80
36	5	1151	U	O5'-P-OP2	-5.72	100.55	105.70
36	1	1308	A	N9-C4-C5	5.72	108.09	105.80
1	2	507	U	N1-C2-O2	5.71	126.80	122.80
36	1	967	A	OP2-P-O3'	5.71	117.77	105.20
1	6	1002	G	C6-C5-N7	-5.71	126.97	130.40
1	6	1552	U	N3-C2-O2	5.71	126.20	122.20
1	2	377	G	C4-N9-C1'	-5.71	119.07	126.50
36	1	29	C	N3-C4-C5	5.71	124.19	121.90
36	5	2868	U	C5-C6-N1	5.71	125.56	122.70
36	1	3210	A	N1-C6-N6	-5.71	115.17	118.60
36	5	410	U	N3-C4-O4	5.71	123.40	119.40
36	5	2113	A	C8-N9-C4	5.71	108.08	105.80
37	7	10	C	C2-N1-C1'	5.71	125.08	118.80
36	5	941	G	OP1-P-O3'	5.71	117.76	105.20
36	5	1598	G	C8-N9-C4	5.71	108.68	106.40
36	1	2355	G	N3-C2-N2	-5.71	115.90	119.90
36	1	2630	C	N3-C4-C5	-5.71	119.62	121.90
36	5	2211	U	N3-C4-C5	-5.71	111.17	114.60
36	5	2611	U	O5'-P-OP1	5.71	117.55	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3207	U	C2-N1-C1'	-5.71	110.85	117.70
36	1	652	G	N3-C4-C5	-5.71	125.75	128.60
38	4	151	C	N3-C4-C5	-5.71	119.62	121.90
36	5	1659	U	N3-C2-O2	-5.71	118.21	122.20
36	5	2899	C	N3-C4-C5	-5.71	119.62	121.90
36	5	3060	C	C5-C6-N1	5.71	123.85	121.00
1	2	694	U	C5-C6-N1	5.71	125.55	122.70
36	1	2374	C	N3-C4-C5	-5.71	119.62	121.90
36	1	663	C	C6-N1-C2	5.70	122.58	120.30
36	1	1322	U	N3-C2-O2	5.70	126.19	122.20
38	4	47	C	C5-C6-N1	-5.70	118.15	121.00
36	5	398	A	OP1-P-OP2	5.70	128.16	119.60
36	5	666	A	C6-N1-C2	-5.70	115.18	118.60
38	4	140	G	N3-C2-N2	-5.70	115.91	119.90
36	5	2183	A	C5-C6-N6	-5.70	119.14	123.70
36	5	3137	C	C2-N1-C1'	-5.70	112.53	118.80
36	1	939	U	C5'-C4'-O4'	-5.70	102.26	109.10
36	5	75	G	O5'-P-OP2	-5.70	100.57	105.70
36	5	3183	A	N1-C6-N6	5.70	122.02	118.60
36	1	32	U	O5'-P-OP1	5.70	117.54	110.70
36	5	2618	G	C5-C6-N1	5.70	114.35	111.50
36	5	3145	C	C6-N1-C2	5.70	122.58	120.30
36	5	3269	U	P-O3'-C3'	5.70	126.54	119.70
36	1	2725	U	C5-C4-O4	5.70	129.32	125.90
36	1	2968	G	C6-C5-N7	-5.70	126.98	130.40
36	5	974	G	C2-N3-C4	5.70	114.75	111.90
36	5	2719	U	C6-N1-C1'	5.70	129.18	121.20
1	2	5	U	N3-C2-O2	-5.70	118.21	122.20
36	1	1190	A	N1-C6-N6	5.70	122.02	118.60
36	1	2237	C	N1-C2-O2	5.70	122.32	118.90
36	1	2379	U	O5'-P-OP2	-5.70	100.58	105.70
36	5	2377	G	N3-C2-N2	5.70	123.89	119.90
36	5	3343	G	N1-C2-N2	-5.70	111.07	116.20
36	5	1370	G	C6-N1-C2	-5.69	121.68	125.10
36	5	2136	C	C2-N3-C4	-5.69	117.05	119.90
36	5	2145	A	N9-C4-C5	5.69	108.08	105.80
1	2	73	U	P-O3'-C3'	5.69	126.53	119.70
36	1	2385	G	N1-C6-O6	5.69	123.31	119.90
37	3	61	G	N1-C6-O6	5.69	123.32	119.90
36	5	69	C	N3-C4-C5	-5.69	119.62	121.90
36	5	3129	A	C5-C6-N1	5.69	120.55	117.70
1	2	426	G	C4-N9-C1'	5.69	133.90	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2996	U	C5-C6-N1	5.69	125.55	122.70
38	4	111	A	C5-C6-N6	-5.69	119.15	123.70
36	5	3015	G	C4-C5-N7	-5.69	108.52	110.80
36	5	3204	C	C5-C6-N1	-5.69	118.16	121.00
1	2	941	A	N1-C6-N6	5.69	122.01	118.60
1	6	1540	G	N1-C6-O6	-5.69	116.49	119.90
36	1	585	A	C2-N3-C4	-5.69	107.76	110.60
36	1	1180	A	N9-C4-C5	5.69	108.08	105.80
36	1	1846	C	C6-N1-C2	-5.69	118.03	120.30
36	1	3057	U	N1-C2-N3	5.69	118.31	114.90
48	M1	112	LEU	CA-CB-CG	5.69	128.38	115.30
1	6	25	C	N1-C2-O2	-5.69	115.49	118.90
36	5	1181	U	C5-C4-O4	5.69	129.31	125.90
36	5	1375	G	C8-N9-C4	-5.69	104.12	106.40
36	5	2824	G	N3-C2-N2	-5.69	115.92	119.90
51	m5	96	ARG	NE-CZ-NH2	-5.69	117.46	120.30
36	1	1665	C	C5-C4-N4	-5.69	116.22	120.20
36	1	3006	A	C2-N3-C4	-5.69	107.76	110.60
36	5	281	G	C5-C6-O6	-5.69	125.19	128.60
36	5	671	U	C5-C6-N1	-5.69	119.86	122.70
36	5	796	U	N3-C2-O2	-5.69	118.22	122.20
36	5	936	A	P-O3'-C3'	5.69	126.52	119.70
36	1	2373	A	O5'-P-OP1	-5.68	100.58	105.70
36	5	922	U	C2-N3-C4	-5.68	123.59	127.00
36	5	1149	G	C6-C5-N7	-5.68	126.99	130.40
36	5	2297	U	O5'-P-OP2	-5.68	100.58	105.70
36	5	2647	A	C5-C6-N1	5.68	120.54	117.70
1	2	831	U	N3-C2-O2	-5.68	118.22	122.20
36	1	1918	C	C6-N1-C2	-5.68	118.03	120.30
36	1	2413	A	C5-C6-N1	5.68	120.54	117.70
1	6	323	A	O5'-P-OP2	-5.68	100.59	105.70
36	5	43	A	O4'-C1'-N9	5.68	112.75	108.20
36	5	70	A	C8-N9-C4	-5.68	103.53	105.80
36	5	2895	G	N3-C4-C5	-5.68	125.76	128.60
36	1	2811	A	N1-C2-N3	5.68	132.14	129.30
36	5	2930	A	C5-C6-N1	5.68	120.54	117.70
36	1	1154	A	N3-C4-C5	-5.68	122.83	126.80
36	1	1336	U	OP2-P-O3'	5.68	117.70	105.20
36	1	2984	C	N1-C2-N3	5.68	123.18	119.20
36	5	2410	U	O5'-P-OP1	-5.68	100.59	105.70
36	5	2435	G	C5-C6-O6	-5.68	125.19	128.60
36	5	3093	C	N1-C2-O2	-5.68	115.49	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1212	G	C6-C5-N7	-5.68	126.99	130.40
36	1	2815	G	C8-N9-C4	5.68	108.67	106.40
36	1	3112	G	OP1-P-O3'	5.68	117.69	105.20
1	6	447	U	N1-C2-N3	5.68	118.31	114.90
1	6	555	A	C8-N9-C4	-5.68	103.53	105.80
36	5	819	U	OP2-P-O3'	5.68	117.69	105.20
38	8	111	A	C5-C6-N6	-5.68	119.16	123.70
1	2	1202	A	C2-N3-C4	5.68	113.44	110.60
36	1	2541	U	P-O3'-C3'	5.68	126.51	119.70
36	1	2604	U	N3-C2-O2	-5.68	118.23	122.20
36	1	2624	G	C8-N9-C4	-5.68	104.13	106.40
38	4	40	A	C6-C5-N7	-5.68	128.33	132.30
36	5	332	C	N3-C2-O2	-5.68	117.93	121.90
36	5	640	U	N1-C2-O2	-5.68	118.83	122.80
36	5	977	C	N1-C2-O2	5.68	122.31	118.90
1	6	387	A	N1-C6-N6	-5.67	115.19	118.60
36	5	1112	A	N3-C4-C5	-5.67	122.83	126.80
36	5	2615	G	C6-C5-N7	-5.67	127.00	130.40
36	1	3179	U	N3-C4-O4	-5.67	115.43	119.40
1	6	634	G	C5-C6-O6	-5.67	125.20	128.60
36	5	361	A	C4-C5-N7	-5.67	107.86	110.70
1	2	778	G	C5-C6-O6	-5.67	125.20	128.60
36	1	1115	G	OP1-P-O3'	5.67	117.68	105.20
1	6	187	G	P-O3'-C3'	5.67	126.51	119.70
36	5	426	G	N7-C8-N9	-5.67	110.26	113.10
36	5	1389	G	C5-C6-O6	-5.67	125.20	128.60
36	5	1449	A	O5'-P-OP1	5.67	117.50	110.70
36	5	2724	U	N1-C2-N3	5.67	118.30	114.90
36	5	3164	C	O4'-C1'-N1	5.67	112.74	108.20
38	8	111	A	C6-C5-N7	-5.67	128.33	132.30
1	2	308	C	C2-N3-C4	-5.67	117.06	119.90
36	1	895	A	C8-N9-C4	-5.67	103.53	105.80
36	1	2923	U	C5-C4-O4	-5.67	122.50	125.90
36	5	2919	A	N1-C2-N3	5.67	132.13	129.30
1	2	412	A	N1-C6-N6	5.67	122.00	118.60
1	2	973	A	O5'-P-OP2	-5.67	100.60	105.70
36	1	2114	C	OP1-P-OP2	5.67	128.10	119.60
1	6	646	C	C6-N1-C2	-5.67	118.03	120.30
1	2	1558	U	N3-C2-O2	-5.67	118.23	122.20
36	1	611	A	O5'-P-OP1	5.67	117.50	110.70
36	1	1789	G	C5-C6-N1	5.67	114.33	111.50
36	5	2715	A	N9-C4-C5	5.67	108.07	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2820	A	C2-N3-C4	5.67	113.43	110.60
1	2	241	U	O5'-P-OP2	-5.67	100.60	105.70
36	1	107	A	N9-C4-C5	-5.67	103.53	105.80
36	1	701	G	OP2-P-O3'	5.67	117.66	105.20
36	1	2935	U	C6-N1-C2	-5.67	117.60	121.00
36	5	3092	C	O4'-C1'-N1	5.67	112.73	108.20
1	2	297	U	N3-C2-O2	-5.66	118.23	122.20
1	2	1200	G	N1-C2-N2	5.66	121.30	116.20
36	1	2647	A	N1-C2-N3	5.66	132.13	129.30
36	5	1589	A	C5-C6-N1	5.66	120.53	117.70
36	5	1879	A	C6-C5-N7	-5.66	128.34	132.30
36	5	2334	U	N3-C2-O2	-5.66	118.24	122.20
36	5	2700	G	N3-C4-N9	5.66	129.40	126.00
36	1	908	G	O4'-C1'-N9	-5.66	103.67	108.20
38	4	94	C	N3-C4-C5	5.66	124.17	121.90
36	5	2615	G	N3-C4-N9	5.66	129.40	126.00
36	1	949	C	N3-C4-C5	-5.66	119.64	121.90
36	5	573	C	N1-C2-O2	-5.66	115.50	118.90
36	5	1302	A	N7-C8-N9	5.66	116.63	113.80
36	5	3015	G	OP2-P-O3'	5.66	117.65	105.20
36	5	3004	C	C6-N1-C2	5.66	122.56	120.30
36	1	53	G	N3-C4-C5	-5.65	125.77	128.60
36	1	906	A	C8-N9-C4	-5.65	103.54	105.80
36	5	1464	G	C5-C6-O6	-5.65	125.21	128.60
36	5	2293	C	C2-N1-C1'	5.65	125.02	118.80
36	5	2634	U	C2-N3-C4	-5.65	123.61	127.00
36	5	2715	A	OP2-P-O3'	5.65	117.63	105.20
36	1	3197	G	N3-C4-C5	5.65	131.42	128.60
36	5	3259	U	N1-C2-O2	-5.65	118.85	122.80
36	1	2148	U	C5-C4-O4	-5.65	122.51	125.90
1	6	17	C	O5'-P-OP2	-5.65	100.62	105.70
1	6	1111	G	C6-C5-N7	-5.65	127.01	130.40
1	6	1652	C	N3-C4-C5	5.65	124.16	121.90
36	5	1106	G	C2-N3-C4	5.65	114.72	111.90
36	5	1437	C	C2-N1-C1'	5.65	125.01	118.80
36	5	2645	G	C2-N3-C4	5.65	114.72	111.90
36	5	3319	U	C2-N1-C1'	5.65	124.48	117.70
41	14	134	LEU	CA-CB-CG	5.65	128.29	115.30
1	2	1745	G	C5-C6-O6	-5.65	125.21	128.60
36	5	561	C	C6-N1-C2	-5.65	118.04	120.30
1	2	296	U	N3-C2-O2	5.64	126.15	122.20
36	1	1458	U	C5-C6-N1	-5.64	119.88	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1746	A	O5'-P-OP1	-5.64	100.62	105.70
36	5	92	G	N9-C4-C5	-5.64	103.14	105.40
36	5	341	G	N3-C4-C5	5.64	131.42	128.60
36	5	1496	C	N1-C2-O2	5.64	122.29	118.90
37	7	83	U	C5-C4-O4	5.64	129.29	125.90
36	1	325	A	OP1-P-O3'	5.64	117.61	105.20
36	1	949	C	OP2-P-O3'	5.64	117.61	105.20
36	1	1314	C	C5-C6-N1	5.64	123.82	121.00
36	1	2124	G	C6-C5-N7	-5.64	127.01	130.40
36	1	2893	C	N3-C4-N4	-5.64	114.05	118.00
1	6	305	C	N1-C2-O2	-5.64	115.51	118.90
36	5	80	G	C5-C6-O6	-5.64	125.21	128.60
36	5	1113	G	N1-C2-N3	5.64	127.29	123.90
36	5	2169	G	C5-C6-N1	5.64	114.32	111.50
36	5	3188	G	C5-C6-O6	5.64	131.99	128.60
36	1	2879	C	N3-C2-O2	5.64	125.85	121.90
53	M7	131	ARG	NE-CZ-NH1	-5.64	117.48	120.30
36	5	3305	A	C6-C5-N7	-5.64	128.35	132.30
36	1	369	A	C2-N3-C4	5.64	113.42	110.60
36	1	665	A	C5-C6-N1	5.64	120.52	117.70
36	5	1113	G	N3-C4-N9	-5.64	122.62	126.00
36	5	2305	G	N7-C8-N9	5.64	115.92	113.10
36	1	2624	G	C4-C5-N7	5.64	113.06	110.80
36	1	2169	G	C2-N3-C4	5.64	114.72	111.90
36	5	128	G	C6-C5-N7	-5.64	127.02	130.40
36	1	200	C	C2-N3-C4	-5.63	117.08	119.90
36	1	2306	C	C5-C4-N4	5.63	124.14	120.20
36	5	2699	G	C5-C6-O6	-5.63	125.22	128.60
38	8	10	A	N1-C6-N6	5.63	121.98	118.60
36	1	329	U	C6-N1-C2	-5.63	117.62	121.00
36	1	1604	G	C8-N9-C1'	-5.63	119.68	127.00
1	6	858	G	C4-C5-N7	5.63	113.05	110.80
36	5	2393	G	N1-C2-N2	5.63	121.27	116.20
1	2	453	U	N1-C2-O2	5.63	126.74	122.80
36	1	1405	U	C6-N1-C2	5.63	124.38	121.00
36	1	3362	A	C8-N9-C4	-5.63	103.55	105.80
1	6	547	U	N3-C4-O4	-5.63	115.46	119.40
36	5	2189	U	O5'-P-OP1	-5.63	100.63	105.70
37	7	78	U	O5'-P-OP2	-5.63	100.63	105.70
36	1	1385	C	N3-C2-O2	5.63	125.84	121.90
36	1	2325	G	O5'-P-OP2	-5.63	100.63	105.70
36	5	915	A	C2-N3-C4	5.63	113.42	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3093	C	C2-N1-C1'	-5.63	112.61	118.80
36	5	58	G	C8-N9-C4	-5.63	104.15	106.40
36	5	1229	G	C8-N9-C4	5.63	108.65	106.40
36	5	2643	A	C5-N7-C8	-5.63	101.09	103.90
36	5	2661	G	C5-C6-N1	5.63	114.31	111.50
36	1	994	G	N3-C4-C5	-5.63	125.79	128.60
36	1	2720	G	N3-C4-N9	5.63	129.38	126.00
36	1	2976	A	C5-C6-N1	5.63	120.51	117.70
36	5	989	A	C5-C6-N1	5.63	120.51	117.70
36	5	1723	A	C8-N9-C4	-5.63	103.55	105.80
36	5	3174	A	C6-C5-N7	-5.63	128.36	132.30
36	1	2276	G	C8-N9-C4	-5.62	104.15	106.40
36	1	3044	G	N1-C6-O6	-5.62	116.53	119.90
36	5	1910	A	OP2-P-O3'	5.62	117.58	105.20
1	2	380	U	N3-C2-O2	-5.62	118.26	122.20
36	1	324	A	C6-N1-C2	-5.62	115.23	118.60
36	1	2101	C	P-O3'-C3'	5.62	126.45	119.70
36	5	2619	G	C4-C5-N7	5.62	113.05	110.80
36	5	3026	G	C5-C6-O6	-5.62	125.23	128.60
36	1	1484	U	C2-N1-C1'	5.62	124.44	117.70
54	M8	178	ARG	NE-CZ-NH1	-5.62	117.49	120.30
1	6	1000	C	N1-C2-O2	5.62	122.27	118.90
36	5	2816	G	OP1-P-O3'	5.62	117.57	105.20
36	1	3316	A	N3-C4-C5	5.62	130.73	126.80
36	1	2812	C	C6-N1-C2	5.62	122.55	120.30
36	1	3275	U	C6-N1-C2	-5.62	117.63	121.00
36	1	421	G	C8-N9-C1'	-5.62	119.70	127.00
36	1	778	U	N3-C4-O4	-5.62	115.47	119.40
36	1	2937	G	N3-C2-N2	-5.62	115.97	119.90
1	2	457	G	N3-C4-C5	-5.62	125.79	128.60
36	1	1709	C	N1-C2-O2	-5.62	115.53	118.90
38	4	109	A	C5-C6-N6	-5.62	119.21	123.70
73	O7	11	ARG	NE-CZ-NH1	-5.62	117.49	120.30
36	5	2119	A	C8-N9-C4	-5.62	103.55	105.80
36	5	2357	A	C5-C6-N1	5.62	120.51	117.70
36	5	2858	U	C6-N1-C2	-5.62	117.63	121.00
1	6	1672	G	C4-N9-C1'	5.61	133.80	126.50
1	6	1782	A	C5-C6-N6	5.61	128.19	123.70
36	5	607	A	C5-C6-N6	5.61	128.19	123.70
36	5	962	A	C5-C6-N6	-5.61	119.21	123.70
36	5	1803	C	C6-N1-C2	5.61	122.55	120.30
36	5	2861	U	O5'-P-OP2	5.61	117.44	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1115	G	P-O3'-C3'	5.61	126.43	119.70
36	1	1901	A	C5-C6-N1	5.61	120.50	117.70
36	1	2309	A	C8-N9-C4	5.61	108.04	105.80
1	6	151	G	N9-C4-C5	5.61	107.64	105.40
1	6	429	G	N1-C2-N3	5.61	127.27	123.90
36	5	607	A	C8-N9-C4	-5.61	103.56	105.80
36	5	671	U	C6-N1-C2	5.61	124.37	121.00
36	5	2356	A	C2-N3-C4	-5.61	107.80	110.60
36	5	2964	G	O4'-C1'-N9	5.61	112.69	108.20
64	n8	73	LEU	CA-CB-CG	5.61	128.20	115.30
36	1	188	U	C4-C5-C6	5.61	123.06	119.70
1	2	1212	G	C4-C5-N7	5.61	113.04	110.80
36	1	942	U	OP1-P-OP2	-5.61	111.19	119.60
36	1	1050	U	N1-C2-O2	5.61	126.72	122.80
36	1	1308	A	N1-C2-N3	5.61	132.10	129.30
1	6	542	A	C4-C5-N7	5.61	113.50	110.70
36	5	1348	U	O4'-C1'-N1	5.61	112.69	108.20
1	2	811	A	N3-C4-C5	-5.61	122.88	126.80
1	2	1004	U	N3-C2-O2	-5.61	118.28	122.20
36	1	2316	G	N3-C4-N9	5.61	129.36	126.00
36	1	2936	A	O5'-P-OP1	-5.61	100.66	105.70
1	6	590	C	C6-N1-C2	-5.61	118.06	120.30
36	5	880	G	C8-N9-C4	5.61	108.64	106.40
1	2	1490	C	C6-N1-C2	-5.60	118.06	120.30
36	1	922	U	N3-C2-O2	-5.60	118.28	122.20
36	1	1383	G	N1-C6-O6	5.60	123.26	119.90
36	5	2723	U	O5'-P-OP2	-5.60	100.66	105.70
1	2	448	C	C5-C6-N1	5.60	123.80	121.00
1	2	1426	C	C4-C5-C6	-5.60	114.60	117.40
36	1	2899	C	C4-C5-C6	5.60	120.20	117.40
36	5	2399	A	C6-N1-C2	-5.60	115.24	118.60
36	1	716	A	C5-N7-C8	-5.60	101.10	103.90
1	6	66	U	P-O3'-C3'	5.60	126.42	119.70
36	5	45	A	C6-N1-C2	-5.60	115.24	118.60
36	5	2639	G	C4-C5-C6	5.60	122.16	118.80
36	5	2831	G	C5-C6-N1	5.60	114.30	111.50
38	8	113	U	N3-C2-O2	-5.60	118.28	122.20
36	1	155	G	C5-C6-N1	5.60	114.30	111.50
36	1	967	A	C2-N3-C4	-5.60	107.80	110.60
36	1	1101	G	N3-C4-N9	-5.60	122.64	126.00
36	1	1396	C	N3-C4-C5	5.60	124.14	121.90
1	6	935	U	N3-C4-C5	-5.60	111.24	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1051	G	N1-C6-O6	-5.60	116.54	119.90
36	5	947	G	C4-N9-C1'	5.60	133.78	126.50
36	5	3129	A	C8-N9-C4	5.60	108.04	105.80
36	1	589	A	C8-N9-C4	5.60	108.04	105.80
38	4	2	A	OP2-P-O3'	5.60	117.51	105.20
1	6	53	G	C4-N9-C1'	5.60	133.78	126.50
36	5	1189	C	N3-C2-O2	5.60	125.82	121.90
36	5	1637	A	N9-C4-C5	5.60	108.04	105.80
36	5	2916	U	N3-C4-C5	-5.60	111.24	114.60
36	1	3212	C	O5'-P-OP2	-5.59	100.67	105.70
1	6	1584	G	OP1-P-O3'	5.59	117.51	105.20
1	6	1678	A	N1-C6-N6	5.59	121.96	118.60
36	1	1344	G	N1-C6-O6	5.59	123.26	119.90
36	5	3024	A	C8-N9-C4	-5.59	103.56	105.80
1	6	1481	C	N1-C2-O2	5.59	122.25	118.90
3	s1	61	LEU	CA-CB-CG	5.59	128.16	115.30
36	5	2624	G	C5-C6-N1	-5.59	108.70	111.50
38	8	4	C	N1-C2-O2	5.59	122.25	118.90
1	2	176	C	N1-C2-O2	5.59	122.25	118.90
36	1	158	G	C2-N3-C4	-5.59	109.11	111.90
36	1	2651	G	N9-C4-C5	5.59	107.64	105.40
36	5	3143	C	N3-C2-O2	5.59	125.81	121.90
54	M8	180	ARG	NE-CZ-NH2	-5.59	117.51	120.30
1	6	403	G	C2-N3-C4	-5.59	109.11	111.90
36	5	536	U	C5-C6-N1	-5.59	119.91	122.70
1	2	1428	G	N3-C4-C5	5.59	131.39	128.60
36	1	85	A	C5-C6-N1	-5.59	114.91	117.70
36	1	980	A	C4-C5-C6	5.59	119.79	117.00
36	1	1116	G	O5'-P-OP1	-5.59	100.67	105.70
36	1	3344	A	N1-C2-N3	5.59	132.09	129.30
36	5	1306	G	C5-N7-C8	-5.59	101.51	104.30
36	5	2148	U	N3-C2-O2	5.59	126.11	122.20
36	5	3179	U	N3-C4-O4	5.59	123.31	119.40
1	2	1745	G	C2-N3-C4	5.58	114.69	111.90
36	1	1150	A	N9-C4-C5	5.58	108.03	105.80
36	5	3123	A	C8-N9-C4	5.58	108.03	105.80
1	2	377	G	N1-C2-N2	5.58	121.22	116.20
36	1	1157	G	OP2-P-O3'	5.58	117.48	105.20
36	1	2618	G	C5-C6-N1	5.58	114.29	111.50
36	1	2785	A	O5'-P-OP2	-5.58	100.67	105.70
1	6	426	G	O5'-P-OP2	-5.58	100.67	105.70
36	5	715	A	O4'-C1'-N9	5.58	112.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1364	C	OP2-P-O3'	5.58	117.48	105.20
1	2	158	U	P-O3'-C3'	5.58	126.40	119.70
36	1	577	C	C4-C5-C6	5.58	120.19	117.40
36	1	1897	G	N1-C6-O6	5.58	123.25	119.90
36	1	1905	G	N3-C4-N9	-5.58	122.65	126.00
36	1	2892	A	O5'-P-OP2	-5.58	100.68	105.70
1	6	1640	C	C2-N1-C1'	5.58	124.94	118.80
1	6	1766	A	O5'-P-OP2	-5.58	100.68	105.70
38	8	7	U	O5'-P-OP2	-5.58	100.68	105.70
36	1	2939	G	C5-N7-C8	5.58	107.09	104.30
1	6	43	A	O5'-P-OP1	-5.58	100.68	105.70
36	5	1112	A	C5-C6-N6	-5.58	119.24	123.70
36	5	1152	G	C8-N9-C4	-5.58	104.17	106.40
36	5	2961	G	O5'-P-OP1	5.58	117.40	110.70
36	5	397	A	N9-C4-C5	5.58	108.03	105.80
36	5	408	A	C6-N1-C2	-5.58	115.25	118.60
36	5	534	U	O5'-P-OP2	-5.58	100.68	105.70
36	5	1652	G	C5-N7-C8	5.58	107.09	104.30
36	1	1305	U	O5'-P-OP1	-5.58	100.68	105.70
1	2	1241	G	C4-C5-N7	5.58	113.03	110.80
36	1	1115	G	C4-N9-C1'	5.58	133.75	126.50
36	1	1120	A	C6-N1-C2	-5.58	115.25	118.60
36	1	1791	C	N1-C2-O2	-5.58	115.56	118.90
36	5	1176	C	N3-C4-C5	5.58	124.13	121.90
36	5	2190	U	C6-N1-C2	-5.58	117.65	121.00
36	1	2122	G	N3-C4-N9	-5.57	122.66	126.00
1	6	866	G	C8-N9-C4	5.57	108.63	106.40
36	5	935	U	N3-C4-O4	5.57	123.30	119.40
36	5	2166	A	N1-C6-N6	5.57	121.94	118.60
36	1	2651	G	C6-C5-N7	5.57	133.74	130.40
1	2	901	G	O4'-C1'-N9	5.57	112.66	108.20
36	5	1123	U	C4-C5-C6	5.57	123.04	119.70
21	c9	57	ARG	NE-CZ-NH2	-5.57	117.52	120.30
36	5	96	G	C5-C6-O6	-5.57	125.26	128.60
36	5	716	A	C5-N7-C8	-5.57	101.11	103.90
36	5	807	A	OP1-P-O3'	5.57	117.45	105.20
36	1	41	G	OP2-P-O3'	5.57	117.45	105.20
36	1	650	C	O4'-C1'-N1	-5.57	103.75	108.20
36	1	895	A	N1-C6-N6	5.57	121.94	118.60
36	1	1344	G	C4-C5-N7	5.57	113.03	110.80
36	1	2351	U	N3-C2-O2	-5.57	118.30	122.20
36	1	2600	C	N3-C2-O2	-5.57	118.00	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	105	A	N7-C8-N9	5.57	116.58	113.80
36	5	212	G	OP1-P-O3'	5.57	117.45	105.20
36	5	1128	U	C2-N3-C4	-5.57	123.66	127.00
70	o4	10	ARG	NE-CZ-NH2	-5.57	117.52	120.30
36	1	2598	G	C2-N3-C4	5.57	114.68	111.90
16	c4	35	GLY	N-CA-C	5.57	127.01	113.10
36	5	831	G	N1-C2-N3	-5.57	120.56	123.90
36	5	2659	G	N9-C4-C5	-5.57	103.17	105.40
36	5	2817	A	N1-C6-N6	5.57	121.94	118.60
1	6	512	A	C4-C5-N7	5.56	113.48	110.70
1	6	1614	A	C4-C5-N7	5.56	113.48	110.70
36	5	1598	G	C5-C6-N1	5.56	114.28	111.50
36	1	284	A	O4'-C1'-N9	5.56	112.65	108.20
36	1	397	A	C6-N1-C2	-5.56	115.26	118.60
36	1	964	G	N3-C2-N2	-5.56	116.01	119.90
36	1	3002	C	C6-N1-C2	5.56	122.53	120.30
1	6	1537	C	N1-C2-O2	-5.56	115.56	118.90
36	5	43	A	C5-C6-N6	-5.56	119.25	123.70
36	5	919	U	C6-N1-C2	-5.56	117.66	121.00
36	1	672	A	C6-C5-N7	-5.56	128.41	132.30
36	1	1425	U	OP1-P-O3'	5.56	117.43	105.20
36	1	2304	C	N3-C4-C5	-5.56	119.68	121.90
36	1	2179	C	OP2-P-O3'	5.56	117.43	105.20
36	1	2399	A	C5-C6-N6	-5.56	119.25	123.70
56	N0	115	ARG	NE-CZ-NH1	5.56	123.08	120.30
36	5	1825	G	C4-C5-N7	-5.56	108.58	110.80
1	2	778	G	C4-C5-N7	5.56	113.02	110.80
36	1	3193	C	C6-N1-C2	-5.56	118.08	120.30
38	4	64	U	N3-C2-O2	-5.56	118.31	122.20
1	6	1081	A	O4'-C1'-N9	5.56	112.64	108.20
1	2	1199	G	C6-C5-N7	-5.55	127.07	130.40
38	4	147	U	C2-N1-C1'	5.55	124.36	117.70
36	5	410	U	N1-C2-O2	-5.55	118.91	122.80
36	5	2377	G	N1-C6-O6	-5.55	116.57	119.90
36	5	3204	C	C2-N3-C4	-5.55	117.12	119.90
36	5	3309	G	C5-C6-O6	5.55	131.93	128.60
1	2	111	U	N1-C2-N3	5.55	118.23	114.90
1	2	1611	A	N7-C8-N9	5.55	116.58	113.80
1	2	1633	A	N9-C4-C5	5.55	108.02	105.80
36	1	1371	G	N3-C4-N9	5.55	129.33	126.00
36	1	1940	G	N1-C2-N2	-5.55	111.20	116.20
1	6	125	U	N3-C2-O2	5.55	126.09	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1539	G	O5'-P-OP1	-5.55	100.70	105.70
36	5	1371	G	N1-C6-O6	-5.55	116.57	119.90
36	1	2760	C	N3-C4-N4	5.55	121.88	118.00
36	1	2808	A	C5-C6-N1	-5.55	114.92	117.70
36	5	895	A	C2-N3-C4	-5.55	107.83	110.60
36	5	1869	C	N3-C4-N4	-5.55	114.12	118.00
1	6	136	C	C2-N1-C1'	5.55	124.90	118.80
38	8	33	A	C5-C6-N6	-5.55	119.26	123.70
36	1	131	C	C6-N1-C2	-5.54	118.08	120.30
1	6	1662	G	C8-N9-C4	5.54	108.62	106.40
36	5	2145	A	N3-C4-C5	-5.54	122.92	126.80
37	7	88	G	N1-C6-O6	-5.54	116.57	119.90
36	1	608	A	N3-C4-N9	5.54	131.83	127.40
36	1	730	C	C6-N1-C2	5.54	122.52	120.30
36	1	1433	A	C8-N9-C4	-5.54	103.58	105.80
36	1	2131	A	OP1-P-O3'	5.54	117.39	105.20
1	6	287	G	C5-C6-O6	-5.54	125.27	128.60
1	6	438	A	O4'-C1'-N9	-5.54	103.76	108.20
1	6	914	G	C5-C6-O6	-5.54	125.27	128.60
1	6	1091	A	C2-N3-C4	-5.54	107.83	110.60
36	5	1361	U	C5-C6-N1	5.54	125.47	122.70
36	5	1652	G	C4-C5-N7	-5.54	108.58	110.80
36	5	2287	C	C6-N1-C2	-5.54	118.08	120.30
36	5	2991	A	N1-C6-N6	-5.54	115.27	118.60
36	1	91	G	C5-C6-N1	5.54	114.27	111.50
36	1	292	U	N1-C2-N3	5.54	118.22	114.90
36	5	1396	C	OP2-P-O3'	5.54	117.39	105.20
36	5	2403	G	N3-C4-N9	5.54	129.32	126.00
36	5	2404	A	O5'-P-OP1	5.54	117.35	110.70
1	6	755	A	N7-C8-N9	5.54	116.57	113.80
1	6	1121	C	O5'-P-OP2	-5.54	100.71	105.70
36	1	2862	U	O5'-P-OP2	-5.54	100.72	105.70
36	1	189	G	C5-C6-N1	5.54	114.27	111.50
36	1	1128	U	N3-C4-C5	5.54	117.92	114.60
36	1	1346	G	N3-C2-N2	-5.54	116.02	119.90
36	5	2971	A	N3-C4-C5	-5.54	122.92	126.80
36	1	142	C	C5-C4-N4	-5.54	116.33	120.20
36	1	2247	G	C6-C5-N7	-5.54	127.08	130.40
36	5	2970	C	O5'-P-OP1	-5.54	100.72	105.70
76	q0	103	LEU	CB-CG-CD2	-5.54	101.59	111.00
36	1	1003	A	N1-C6-N6	5.53	121.92	118.60
1	6	1134	C	C6-N1-C2	-5.53	118.09	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2790	A	O5'-P-OP2	-5.53	100.72	105.70
36	5	2818	U	N3-C4-C5	5.53	117.92	114.60
36	1	100	A	C4-C5-C6	5.53	119.77	117.00
36	1	320	G	O5'-P-OP2	-5.53	100.72	105.70
1	6	813	U	C2-N1-C1'	5.53	124.34	117.70
6	s4	51	ARG	NE-CZ-NH1	-5.53	117.53	120.30
36	5	2123	G	O5'-P-OP1	-5.53	100.72	105.70
1	2	579	A	P-O3'-C3'	5.53	126.34	119.70
36	1	943	U	N1-C2-N3	5.53	118.22	114.90
36	1	1113	G	C8-N9-C4	-5.53	104.19	106.40
36	1	1365	G	N9-C4-C5	5.53	107.61	105.40
37	3	98	C	C5-C6-N1	-5.53	118.23	121.00
38	4	40	A	C4-C5-N7	5.53	113.47	110.70
1	6	614	C	C2-N3-C4	5.53	122.67	119.90
36	5	1316	C	N1-C2-O2	-5.53	115.58	118.90
36	5	2120	A	O5'-P-OP2	-5.53	100.72	105.70
1	2	1291	G	C4-C5-N7	5.53	113.01	110.80
36	1	278	U	N3-C4-O4	5.53	123.27	119.40
36	1	811	U	O5'-P-OP2	-5.53	100.72	105.70
36	5	2808	A	C5-N7-C8	-5.53	101.14	103.90
36	1	84	U	C6-N1-C2	5.53	124.32	121.00
1	6	337	G	C4-C5-C6	5.53	122.12	118.80
36	5	631	U	C5-C4-O4	5.53	129.22	125.90
36	1	589	A	C5-N7-C8	5.53	106.66	103.90
36	1	2917	G	C5-C6-O6	-5.53	125.28	128.60
36	5	1392	G	N3-C4-N9	5.53	129.31	126.00
36	5	1863	G	N1-C6-O6	-5.53	116.58	119.90
36	1	107	A	C5-C6-N6	-5.52	119.28	123.70
36	1	1514	G	C5-C6-N1	5.52	114.26	111.50
36	5	1547	G	O5'-P-OP1	-5.52	100.73	105.70
36	5	2334	U	C6-N1-C2	-5.52	117.69	121.00
36	1	1932	A	C5-C6-N6	-5.52	119.28	123.70
68	O2	19	ARG	NE-CZ-NH2	5.52	123.06	120.30
1	6	1200	G	N1-C6-O6	5.52	123.21	119.90
36	5	875	G	O5'-P-OP2	-5.52	100.73	105.70
36	5	2938	G	OP2-P-O3'	5.52	117.35	105.20
36	1	287	G	C4-C5-C6	5.52	122.11	118.80
36	1	859	G	N3-C2-N2	5.52	123.76	119.90
36	1	863	C	N1-C2-O2	-5.52	115.59	118.90
36	1	1294	A	O4'-C1'-N9	5.52	112.62	108.20
36	1	1550	C	N1-C2-O2	-5.52	115.59	118.90
36	1	1581	C	N3-C2-O2	-5.52	118.04	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1948	G	N1-C6-O6	5.52	123.21	119.90
1	6	558	U	C2-N1-C1'	5.52	124.32	117.70
1	6	647	G	C8-N9-C1'	5.52	134.18	127.00
36	5	1380	G	C5-C6-O6	-5.52	125.29	128.60
36	5	2271	A	C8-N9-C4	5.52	108.01	105.80
36	5	2364	G	N9-C4-C5	5.52	107.61	105.40
36	5	3177	G	C5-N7-C8	5.52	107.06	104.30
1	6	557	G	P-O3'-C3'	5.52	126.32	119.70
28	d6	10	ARG	NE-CZ-NH2	5.52	123.06	120.30
36	5	1424	C	N3-C2-O2	5.52	125.76	121.90
36	5	1433	A	O4'-C1'-N9	-5.52	103.79	108.20
36	5	2350	C	OP1-P-OP2	-5.52	111.32	119.60
36	1	678	G	N1-C6-O6	5.52	123.21	119.90
36	5	1476	G	N3-C4-C5	5.52	131.36	128.60
1	6	351	C	C6-N1-C1'	-5.51	114.18	120.80
36	5	1457	U	O5'-P-OP1	-5.51	100.74	105.70
36	5	2290	C	C5-C4-N4	-5.51	116.34	120.20
36	5	2392	C	C2-N3-C4	-5.51	117.14	119.90
36	5	3101	G	O5'-P-OP1	-5.51	100.74	105.70
36	1	2933	A	C4-C5-C6	-5.51	114.24	117.00
37	3	102	A	N9-C4-C5	-5.51	103.59	105.80
36	5	878	G	C8-N9-C4	-5.51	104.19	106.40
36	1	780	A	N1-C2-N3	5.51	132.06	129.30
36	1	933	A	C6-N1-C2	-5.51	115.29	118.60
36	1	1160	C	N3-C4-C5	-5.51	119.69	121.90
36	5	1321	G	C5-C6-N1	-5.51	108.74	111.50
36	5	2687	G	N3-C4-C5	-5.51	125.84	128.60
36	5	2832	C	O5'-P-OP2	-5.51	100.74	105.70
1	2	422	G	C6-C5-N7	-5.51	127.09	130.40
1	2	986	G	N3-C4-N9	5.51	129.31	126.00
36	1	1370	G	C5-C6-N1	5.51	114.25	111.50
36	5	416	A	N1-C6-N6	5.51	121.91	118.60
36	5	1891	A	C6-N1-C2	-5.51	115.29	118.60
36	5	3216	G	C8-N9-C1'	-5.51	119.84	127.00
36	1	189	G	N3-C4-N9	5.51	129.30	126.00
36	1	663	C	N1-C2-O2	-5.51	115.60	118.90
36	1	2894	C	N3-C2-O2	-5.51	118.05	121.90
36	1	2935	U	C5-C6-N1	5.51	125.45	122.70
1	6	151	G	N3-C4-C5	5.51	131.35	128.60
36	5	2291	A	OP1-P-OP2	-5.51	111.34	119.60
42	15	152	ARG	NE-CZ-NH2	-5.51	117.55	120.30
36	1	2281	A	C8-N9-C4	5.50	108.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1510	G	N3-C4-N9	5.50	129.30	126.00
36	1	2242	A	C4-C5-C6	5.50	119.75	117.00
1	6	1537	C	C2-N3-C4	5.50	122.65	119.90
36	5	1178	G	N3-C4-N9	5.50	129.30	126.00
36	5	2157	G	C8-N9-C4	5.50	108.60	106.40
36	5	2391	G	C5-C6-N1	5.50	114.25	111.50
36	5	2753	G	N7-C8-N9	5.50	115.85	113.10
36	5	2951	G	O5'-P-OP1	-5.50	100.75	105.70
1	2	1274	C	C5-C4-N4	5.50	124.05	120.20
37	3	61	G	C5-N7-C8	-5.50	101.55	104.30
36	5	2753	G	C8-N9-C4	-5.50	104.20	106.40
37	7	77	G	N1-C6-O6	5.50	123.20	119.90
36	1	1380	G	N3-C4-C5	5.50	131.35	128.60
1	6	1293	U	C5-C6-N1	-5.50	119.95	122.70
36	5	534	U	N1-C2-O2	5.50	126.65	122.80
36	5	2885	C	C2-N3-C4	-5.50	117.15	119.90
36	1	1365	G	N1-C6-O6	-5.50	116.60	119.90
36	5	408	A	N1-C2-N3	5.50	132.05	129.30
36	5	873	C	O5'-P-OP1	5.50	117.30	110.70
36	5	1335	C	N1-C2-O2	-5.50	115.60	118.90
36	5	1460	A	C5-C6-N6	-5.50	119.30	123.70
38	8	54	A	C4-C5-N7	5.50	113.45	110.70
42	15	110	LEU	CA-CB-CG	5.50	127.94	115.30
36	1	1128	U	N1-C2-O2	5.50	126.65	122.80
36	5	1909	A	N9-C4-C5	-5.50	103.60	105.80
1	2	1745	G	C6-C5-N7	-5.50	127.10	130.40
36	1	304	G	N3-C2-N2	-5.50	116.05	119.90
36	5	1196	C	C6-N1-C1'	-5.50	114.20	120.80
52	m6	69	GLY	N-CA-C	-5.50	99.36	113.10
36	1	1060	U	C5-C6-N1	-5.49	119.95	122.70
36	1	1402	C	C5-C4-N4	5.49	124.05	120.20
36	1	1898	G	N1-C6-O6	5.49	123.20	119.90
36	1	3172	A	C8-N9-C4	5.49	108.00	105.80
37	3	28	C	N3-C4-N4	5.49	121.84	118.00
36	5	348	A	N9-C4-C5	-5.49	103.60	105.80
36	5	1402	C	OP2-P-O3'	5.49	117.29	105.20
1	6	583	C	C2-N1-C1'	5.49	124.84	118.80
1	6	1745	G	C5-C6-N1	5.49	114.25	111.50
36	5	3197	G	C8-N9-C1'	5.49	134.14	127.00
1	2	786	C	C6-N1-C2	-5.49	118.10	120.30
36	1	906	A	C6-N1-C2	-5.49	115.31	118.60
36	1	2187	G	C4-C5-C6	5.49	122.09	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	892	U	C2-N1-C1'	-5.49	111.11	117.70
36	5	1839	A	O5'-P-OP1	-5.49	100.76	105.70
36	5	2799	A	C4-C5-N7	-5.49	107.95	110.70
36	5	2821	C	C5-C6-N1	-5.49	118.25	121.00
36	1	1313	G	N1-C6-O6	5.49	123.19	119.90
1	6	6	G	N1-C6-O6	5.49	123.19	119.90
1	6	1308	G	C6-C5-N7	-5.49	127.11	130.40
1	6	1600	A	N1-C6-N6	5.49	121.89	118.60
36	5	1852	G	N7-C8-N9	5.49	115.84	113.10
36	5	2634	U	C5-C4-O4	-5.49	122.61	125.90
36	5	3305	A	C4-C5-N7	5.49	113.44	110.70
36	1	2733	A	C4-C5-N7	5.49	113.44	110.70
1	6	335	U	N3-C2-O2	-5.49	118.36	122.20
36	5	1147	G	C5-C6-O6	-5.49	125.31	128.60
37	7	88	G	N3-C4-C5	-5.49	125.86	128.60
36	5	368	G	C8-N9-C4	-5.48	104.21	106.40
36	1	908	G	N3-C2-N2	-5.48	116.06	119.90
1	6	1000	C	O4'-C1'-N1	5.48	112.59	108.20
1	6	1100	G	C5-C6-N1	5.48	114.24	111.50
36	5	859	G	C8-N9-C4	-5.48	104.21	106.40
36	1	356	C	O5'-P-OP1	5.48	117.28	110.70
36	1	2376	G	C6-N1-C2	-5.48	121.81	125.10
36	1	2618	G	C6-C5-N7	5.48	133.69	130.40
1	6	1560	U	N1-C2-O2	5.48	126.64	122.80
36	5	283	G	C6-C5-N7	-5.48	127.11	130.40
36	1	2720	G	C8-N9-C1'	-5.48	119.88	127.00
36	1	2983	C	N3-C4-N4	-5.48	114.17	118.00
36	1	3209	A	N9-C4-C5	-5.48	103.61	105.80
36	1	944	C	C5-C6-N1	5.48	123.74	121.00
36	1	1518	U	C5-C6-N1	-5.48	119.96	122.70
69	O3	67	MET	CG-SD-CE	-5.48	91.44	100.20
1	6	565	C	C2-N3-C4	-5.48	117.16	119.90
36	5	2552	C	N1-C2-O2	5.48	122.19	118.90
36	5	2888	U	C2-N1-C1'	5.48	124.27	117.70
1	2	1733	C	C2-N3-C4	5.48	122.64	119.90
36	1	142	C	C2-N1-C1'	5.48	124.82	118.80
36	1	719	U	C6-N1-C2	5.48	124.28	121.00
36	1	3172	A	O5'-P-OP1	5.48	117.27	110.70
36	5	2336	U	C5-C6-N1	5.48	125.44	122.70
36	5	3141	A	C4-C5-N7	-5.48	107.96	110.70
36	1	619	A	C8-N9-C4	5.47	107.99	105.80
36	1	1442	U	N3-C4-O4	5.47	123.23	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2414	G	C5-C6-O6	5.47	131.88	128.60
36	1	2418	G	C8-N9-C1'	-5.47	119.88	127.00
36	1	2731	U	OP2-P-O3'	5.47	117.24	105.20
38	4	38	U	C2-N1-C1'	5.47	124.27	117.70
1	6	542	A	C4-C5-C6	5.47	119.74	117.00
36	5	2887	A	N1-C6-N6	5.47	121.88	118.60
36	5	2887	A	C6-C5-N7	-5.47	128.47	132.30
1	2	1536	G	N3-C4-N9	5.47	129.28	126.00
36	1	1454	A	O5'-P-OP1	-5.47	100.77	105.70
36	1	3374	U	C5-C4-O4	-5.47	122.62	125.90
1	6	273	G	O5'-P-OP1	-5.47	100.77	105.70
36	5	792	G	C2-N3-C4	-5.47	109.16	111.90
36	5	961	C	N3-C4-N4	5.47	121.83	118.00
36	5	1370	G	N1-C2-N3	5.47	127.18	123.90
36	5	1930	A	N1-C6-N6	5.47	121.88	118.60
36	1	369	A	N9-C4-C5	5.47	107.99	105.80
36	1	640	U	C5-C4-O4	-5.47	122.62	125.90
36	1	960	U	C6-N1-C2	5.47	124.28	121.00
36	1	999	G	C5-C6-O6	-5.47	125.32	128.60
1	6	317	C	C5-C6-N1	-5.47	118.27	121.00
36	5	2754	G	N1-C2-N2	-5.47	111.28	116.20
1	6	343	C	N1-C2-O2	-5.47	115.62	118.90
1	6	999	U	C4-C5-C6	-5.47	116.42	119.70
36	5	922	U	O5'-P-OP2	-5.47	100.78	105.70
36	1	2300	G	C8-N9-C4	-5.47	104.21	106.40
36	1	2944	U	N3-C2-O2	-5.47	118.37	122.20
36	1	2949	U	N1-C2-N3	-5.47	111.62	114.90
37	3	15	C	C6-N1-C2	5.47	122.49	120.30
36	5	2376	G	N7-C8-N9	5.47	115.83	113.10
15	C3	22	ALA	C-N-CD	-5.46	108.58	120.60
36	1	3324	C	C6-N1-C2	5.46	122.48	120.30
1	6	453	U	C5-C4-O4	5.46	129.18	125.90
36	5	2286	U	N3-C4-O4	-5.46	115.58	119.40
36	5	2287	C	N1-C2-N3	5.46	123.03	119.20
36	5	2400	G	C4-C5-N7	5.46	112.99	110.80
36	5	2837	A	O5'-P-OP1	-5.46	100.78	105.70
1	2	1082	C	N3-C2-O2	-5.46	118.08	121.90
36	1	97	U	OP2-P-O3'	5.46	117.22	105.20
36	1	2556	C	C6-N1-C2	5.46	122.48	120.30
36	5	2295	A	N1-C2-N3	-5.46	126.57	129.30
36	5	2360	C	N3-C4-N4	5.46	121.82	118.00
36	5	2661	G	N3-C4-N9	5.46	129.28	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3209	A	C6-C5-N7	-5.46	128.48	132.30
36	1	1310	G	C8-N9-C4	-5.46	104.22	106.40
1	6	1572	G	N7-C8-N9	5.46	115.83	113.10
36	5	2675	C	O5'-P-OP1	-5.46	100.78	105.70
1	2	829	A	P-O3'-C3'	5.46	126.25	119.70
38	4	108	C	C2-N1-C1'	5.46	124.81	118.80
1	6	1697	G	N3-C4-C5	-5.46	125.87	128.60
36	5	599	C	N1-C2-O2	-5.46	115.62	118.90
36	5	906	A	C6-N1-C2	-5.46	115.32	118.60
36	5	1879	A	O5'-P-OP1	5.46	117.25	110.70
36	5	3321	C	C6-N1-C2	5.46	122.48	120.30
36	1	1056	U	C5-C6-N1	5.46	125.43	122.70
36	1	1517	G	O5'-P-OP2	-5.46	100.79	105.70
36	1	2637	A	O5'-P-OP1	-5.46	100.79	105.70
1	6	1572	G	C8-N9-C4	-5.46	104.22	106.40
36	1	983	A	C4-C5-C6	5.46	119.73	117.00
36	1	1789	G	C4-C5-N7	5.46	112.98	110.80
36	1	2246	G	N1-C2-N2	5.46	121.11	116.20
36	1	2760	C	N1-C2-O2	-5.46	115.63	118.90
36	5	699	A	C2-N3-C4	-5.46	107.87	110.60
36	5	1561	G	O4'-C1'-N9	5.46	112.56	108.20
36	5	1858	A	N7-C8-N9	5.46	116.53	113.80
36	5	2317	A	C8-N9-C4	-5.46	103.62	105.80
36	5	2398	A	C4-C5-C6	5.46	119.73	117.00
36	5	2630	C	OP2-P-O3'	5.46	117.21	105.20
36	5	2861	U	N3-C4-O4	-5.46	115.58	119.40
36	5	2932	U	C2-N3-C4	-5.46	123.73	127.00
39	12	242	ARG	NE-CZ-NH2	-5.46	117.57	120.30
36	5	1060	U	C5-C6-N1	-5.46	119.97	122.70
36	5	2363	A	C6-C5-N7	-5.46	128.48	132.30
36	1	1429	G	C5-N7-C8	5.45	107.03	104.30
53	M7	41	LEU	CA-CB-CG	5.45	127.84	115.30
1	6	1735	U	N3-C2-O2	-5.45	118.38	122.20
36	5	1440	G	C5-N7-C8	5.45	107.03	104.30
36	5	1720	U	C5-C6-N1	-5.45	119.97	122.70
36	5	3188	G	N9-C4-C5	5.45	107.58	105.40
36	5	3209	A	C5-N7-C8	-5.45	101.17	103.90
1	2	1657	U	C5-C4-O4	5.45	129.17	125.90
36	1	368	G	C2-N3-C4	-5.45	109.17	111.90
36	5	665	A	C5-C6-N6	-5.45	119.34	123.70
40	13	251	CYS	CA-CB-SG	-5.45	104.19	114.00
36	1	115	A	N9-C4-C5	5.45	107.98	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	148	G	N1-C6-O6	5.45	123.17	119.90
36	1	2364	G	C6-N1-C2	-5.45	121.83	125.10
36	1	2640	A	C5-C6-N1	5.45	120.42	117.70
36	1	3218	A	N1-C6-N6	-5.45	115.33	118.60
36	5	710	A	C5-C6-N1	5.45	120.42	117.70
36	5	974	G	C5-C6-N1	5.45	114.23	111.50
36	5	2893	C	C2-N3-C4	5.45	122.62	119.90
36	5	2906	C	O5'-P-OP1	5.45	117.24	110.70
36	5	2940	A	C4-C5-C6	5.45	119.73	117.00
36	1	877	C	C5-C4-N4	-5.45	116.39	120.20
36	1	2282	U	C2-N3-C4	-5.45	123.73	127.00
36	5	280	U	O5'-P-OP2	-5.45	100.80	105.70
36	5	585	A	C2-N3-C4	-5.45	107.88	110.60
36	5	722	G	C5-C6-O6	5.45	131.87	128.60
36	5	1834	U	C4-C5-C6	5.45	122.97	119.70
36	1	3302	U	C5-C6-N1	-5.45	119.98	122.70
36	5	977	C	N3-C2-O2	-5.45	118.09	121.90
36	5	1177	G	N1-C6-O6	-5.45	116.63	119.90
36	1	872	U	O5'-P-OP2	-5.45	100.80	105.70
36	1	910	G	C5-C6-N1	-5.45	108.78	111.50
36	1	973	A	C2-N3-C4	-5.45	107.88	110.60
36	1	1468	A	OP1-P-OP2	5.45	127.77	119.60
36	1	3205	G	C2-N3-C4	-5.45	109.18	111.90
1	6	1493	A	N1-C6-N6	5.45	121.87	118.60
36	5	289	A	C6-N1-C2	-5.45	115.33	118.60
36	5	425	G	N7-C8-N9	-5.45	110.38	113.10
36	5	2754	G	N3-C2-N2	5.45	123.71	119.90
1	6	1305	U	N1-C2-O2	-5.44	118.99	122.80
36	5	421	G	C8-N9-C4	-5.44	104.22	106.40
36	5	889	U	C5-C4-O4	-5.44	122.63	125.90
36	5	1159	A	N3-C4-C5	5.44	130.61	126.80
36	1	1131	G	C5-C6-O6	-5.44	125.33	128.60
36	1	1875	G	N7-C8-N9	-5.44	110.38	113.10
36	5	2759	U	C6-N1-C2	-5.44	117.73	121.00
37	7	2	G	C8-N9-C4	-5.44	104.22	106.40
1	2	89	G	C8-N9-C4	5.44	108.58	106.40
36	1	124	U	N3-C2-O2	-5.44	118.39	122.20
36	1	283	G	O4'-C1'-N9	-5.44	103.85	108.20
1	6	354	C	C6-N1-C2	-5.44	118.12	120.30
36	5	408	A	O5'-P-OP1	-5.44	100.80	105.70
36	5	1312	C	C6-N1-C2	-5.44	118.12	120.30
36	5	1461	A	C8-N9-C4	5.44	107.98	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1786	G	C5-C6-N1	5.44	114.22	111.50
36	5	2887	A	C6-N1-C2	-5.44	115.34	118.60
1	6	978	A	N9-C4-C5	5.44	107.97	105.80
36	5	3311	C	N1-C2-O2	-5.44	115.64	118.90
36	1	90	C	O5'-P-OP2	-5.44	100.81	105.70
36	1	2215	A	C8-N9-C4	5.44	107.97	105.80
36	5	1126	G	N9-C4-C5	5.44	107.58	105.40
36	5	1148	G	C5-C6-O6	-5.44	125.34	128.60
36	5	2345	A	C4-C5-N7	5.44	113.42	110.70
1	2	942	G	C5-C6-N1	5.43	114.22	111.50
36	1	785	G	N3-C4-C5	-5.43	125.88	128.60
36	1	797	U	OP2-P-O3'	5.43	117.16	105.20
56	N0	106	LEU	CA-CB-CG	5.43	127.80	115.30
61	N5	113	LEU	CA-CB-CG	5.43	127.80	115.30
1	6	1398	U	N3-C2-O2	-5.43	118.40	122.20
36	5	1239	C	C5-C6-N1	5.43	123.72	121.00
36	5	1304	A	C2-N3-C4	5.43	113.32	110.60
36	5	1462	A	C2-N3-C4	-5.43	107.88	110.60
36	5	3351	U	N3-C2-O2	-5.43	118.40	122.20
37	7	92	A	N1-C6-N6	5.43	121.86	118.60
36	1	2322	C	OP2-P-O3'	5.43	117.15	105.20
38	4	4	C	N1-C2-O2	-5.43	115.64	118.90
1	6	36	C	C6-N1-C2	5.43	122.47	120.30
36	5	386	A	N9-C4-C5	-5.43	103.63	105.80
36	5	964	G	N7-C8-N9	5.43	115.82	113.10
36	5	2158	A	N1-C6-N6	-5.43	115.34	118.60
36	5	2659	G	C4-C5-N7	5.43	112.97	110.80
52	m6	84	LEU	CA-CB-CG	-5.43	102.80	115.30
36	1	3318	G	C4-N9-C1'	5.43	133.56	126.50
1	2	240	U	OP2-P-O3'	5.43	117.14	105.20
36	1	332	C	C4-C5-C6	5.43	120.11	117.40
36	1	1343	A	C6-C5-N7	-5.43	128.50	132.30
36	1	2192	C	C5-C6-N1	-5.43	118.28	121.00
1	6	467	G	N3-C4-C5	-5.43	125.89	128.60
1	6	542	A	P-O3'-C3'	5.43	126.22	119.70
1	6	1672	G	C6-C5-N7	-5.43	127.14	130.40
36	5	3177	G	C4-C5-N7	-5.43	108.63	110.80
52	m6	10	ASP	CB-CG-OD1	5.43	123.19	118.30
1	2	608	U	N1-C2-N3	5.43	118.16	114.90
36	5	796	U	C5-C4-O4	5.43	129.16	125.90
36	5	3006	A	C8-N9-C4	-5.43	103.63	105.80
36	1	105	C	C2-N3-C4	-5.43	117.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Q3	29	LEU	CA-CB-CG	-5.43	102.82	115.30
1	6	1600	A	C4-C5-N7	5.43	113.41	110.70
36	5	919	U	N1-C2-N3	5.43	118.16	114.90
36	5	984	G	C6-C5-N7	-5.43	127.14	130.40
1	2	747	C	C6-N1-C2	-5.42	118.13	120.30
1	2	1756	A	C8-N9-C4	-5.42	103.63	105.80
36	1	628	A	N1-C2-N3	5.42	132.01	129.30
38	4	46	G	N1-C6-O6	-5.42	116.64	119.90
36	5	682	U	N1-C2-O2	-5.42	119.00	122.80
36	5	2334	U	O5'-P-OP1	5.42	117.21	110.70
1	2	988	A	C2-N3-C4	-5.42	107.89	110.60
36	1	155	G	N3-C4-N9	5.42	129.25	126.00
36	1	933	A	C4-C5-C6	5.42	119.71	117.00
36	1	1421	G	OP1-P-OP2	-5.42	111.47	119.60
36	1	1429	G	N3-C4-N9	5.42	129.25	126.00
36	1	1929	G	C8-N9-C4	5.42	108.57	106.40
36	5	2257	C	C6-N1-C2	-5.42	118.13	120.30
1	2	1662	G	C5-C6-N1	5.42	114.21	111.50
36	1	695	C	N3-C4-N4	-5.42	114.21	118.00
36	1	1055	A	O5'-P-OP1	-5.42	100.82	105.70
1	6	767	U	C6-N1-C2	-5.42	117.75	121.00
36	1	820	A	N9-C4-C5	5.42	107.97	105.80
36	1	1083	G	N3-C4-C5	-5.42	125.89	128.60
36	1	1884	A	N9-C4-C5	-5.42	103.63	105.80
36	1	648	C	C5-C4-N4	-5.42	116.41	120.20
36	1	1795	U	C2-N1-C1'	5.42	124.20	117.70
36	1	2279	A	O4'-C1'-N9	5.42	112.53	108.20
1	6	569	C	N3-C4-C5	-5.42	119.73	121.90
36	5	1163	A	N1-C6-N6	-5.42	115.35	118.60
36	5	2820	A	OP2-P-O3'	5.42	117.12	105.20
36	1	930	U	N1-C2-O2	-5.42	119.01	122.80
1	6	404	G	N9-C4-C5	5.42	107.57	105.40
1	6	941	A	N1-C6-N6	-5.42	115.35	118.60
1	6	1349	G	N1-C6-O6	5.42	123.15	119.90
36	5	2178	A	C8-N9-C4	5.42	107.97	105.80
36	5	2329	C	C2-N3-C4	-5.42	117.19	119.90
36	5	2664	C	N3-C2-O2	5.42	125.69	121.90
36	1	3208	G	N1-C6-O6	-5.42	116.65	119.90
36	5	40	A	C6-C5-N7	-5.42	128.51	132.30
36	5	590	G	C5-C6-O6	-5.42	125.35	128.60
36	5	852	U	OP2-P-O3'	5.42	117.11	105.20
1	2	1486	G	N3-C4-N9	-5.41	122.75	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	958	C	N3-C4-C5	5.41	124.06	121.90
37	3	38	U	N3-C2-O2	5.41	125.99	122.20
1	6	780	A	N1-C2-N3	5.41	132.01	129.30
36	5	845	G	OP1-P-O3'	5.41	117.11	105.20
38	8	74	U	N3-C4-O4	5.41	123.19	119.40
36	1	881	C	N3-C4-C5	5.41	124.06	121.90
36	1	2881	C	N1-C2-O2	5.41	122.15	118.90
64	N8	4	ARG	NE-CZ-NH1	-5.41	117.59	120.30
36	5	1189	C	N3-C4-N4	5.41	121.79	118.00
36	5	2234	G	C8-N9-C4	5.41	108.56	106.40
36	5	2365	C	C6-N1-C2	5.41	122.47	120.30
36	5	2435	G	N9-C4-C5	-5.41	103.23	105.40
1	2	542	A	O4'-C1'-N9	5.41	112.53	108.20
1	2	1765	A	O5'-P-OP1	-5.41	100.83	105.70
36	1	955	U	N3-C4-O4	-5.41	115.61	119.40
36	1	1520	G	C2-N3-C4	5.41	114.61	111.90
36	1	2373	A	C5'-C4'-O4'	-5.41	102.61	109.10
1	6	385	A	C4-C5-N7	-5.41	108.00	110.70
36	5	2134	G	C4-N9-C1'	5.41	133.53	126.50
36	5	2896	A	C8-N9-C4	5.41	107.96	105.80
1	2	1503	A	C5-N7-C8	-5.41	101.20	103.90
36	1	1180	A	C4-C5-C6	5.41	119.70	117.00
36	1	1851	G	C6-C5-N7	-5.41	127.16	130.40
36	1	2308	C	C6-N1-C2	5.41	122.46	120.30
36	1	2617	U	N3-C4-C5	-5.41	111.35	114.60
44	L7	129	LEU	CB-CG-CD1	-5.41	101.81	111.00
1	6	337	G	N7-C8-N9	5.41	115.81	113.10
1	6	634	G	O5'-P-OP2	-5.41	100.83	105.70
1	6	687	G	C8-N9-C1'	5.41	134.03	127.00
36	5	224	C	N3-C2-O2	-5.41	118.11	121.90
36	5	2310	U	O5'-P-OP1	5.41	117.19	110.70
36	1	2173	U	C6-N1-C2	-5.41	117.76	121.00
36	5	787	G	N1-C6-O6	5.41	123.14	119.90
1	2	312	A	C8-N9-C4	-5.41	103.64	105.80
1	2	1273	G	C8-N9-C4	-5.41	104.24	106.40
36	1	143	G	C5-C6-N1	5.41	114.20	111.50
36	1	1184	A	C8-N9-C4	-5.41	103.64	105.80
36	1	1480	G	C4-C5-N7	5.41	112.96	110.80
1	6	1028	C	N3-C4-C5	5.41	124.06	121.90
36	5	746	A	N1-C2-N3	5.41	132.00	129.30
36	5	1820	U	O4'-C1'-N1	5.41	112.52	108.20
1	2	92	A	N1-C6-N6	-5.40	115.36	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1098	A	C8-N9-C4	-5.40	103.64	105.80
1	6	1800	A	C8-N9-C4	-5.40	103.64	105.80
36	1	368	G	N9-C4-C5	-5.40	103.24	105.40
36	1	2430	A	C4-C5-C6	5.40	119.70	117.00
36	1	3101	G	C5-C6-N1	5.40	114.20	111.50
36	5	1183	C	OP2-P-O3'	5.40	117.08	105.20
36	5	1534	A	C6-N1-C2	-5.40	115.36	118.60
36	5	2659	G	N3-C4-N9	5.40	129.24	126.00
36	5	2765	C	C6-N1-C2	-5.40	118.14	120.30
1	2	1273	G	N9-C4-C5	5.40	107.56	105.40
36	1	930	U	C2-N3-C4	-5.40	123.76	127.00
36	1	970	A	N7-C8-N9	5.40	116.50	113.80
36	1	1041	U	C5-C6-N1	-5.40	120.00	122.70
36	1	1157	G	C4-C5-N7	-5.40	108.64	110.80
37	3	57	G	C5-C6-O6	5.40	131.84	128.60
1	6	1141	G	C8-N9-C4	5.40	108.56	106.40
36	5	75	G	N3-C4-N9	5.40	129.24	126.00
36	5	424	G	N1-C6-O6	5.40	123.14	119.90
36	5	583	G	N1-C6-O6	-5.40	116.66	119.90
36	5	3085	G	OP1-P-O3'	5.40	117.08	105.20
38	8	68	G	N1-C6-O6	5.40	123.14	119.90
47	M0	57	LEU	CA-CB-CG	5.40	127.72	115.30
1	2	1171	A	N1-C6-N6	-5.40	115.36	118.60
36	1	59	G	N1-C6-O6	5.40	123.14	119.90
36	1	1891	A	N9-C4-C5	-5.40	103.64	105.80
36	1	2190	U	OP2-P-O3'	5.40	117.07	105.20
36	1	2419	A	C5-N7-C8	-5.40	101.20	103.90
1	6	687	G	C6-C5-N7	5.40	133.64	130.40
36	5	55	G	N7-C8-N9	-5.40	110.40	113.10
36	5	1147	G	N1-C6-O6	5.40	123.14	119.90
36	5	2339	C	O5'-P-OP1	-5.40	100.84	105.70
36	5	2890	A	C4-C5-C6	5.40	119.70	117.00
38	8	4	C	N3-C2-O2	-5.40	118.12	121.90
36	1	3056	U	C2-N1-C1'	-5.40	111.22	117.70
1	2	254	A	C8-N9-C4	5.39	107.96	105.80
36	1	2237	C	C6-N1-C2	5.39	122.46	120.30
36	1	2856	G	N1-C6-O6	5.39	123.14	119.90
38	4	14	C	C2-N3-C4	-5.39	117.20	119.90
41	L4	190	GLY	N-CA-C	5.39	126.58	113.10
36	5	1331	U	C5-C6-N1	-5.39	120.00	122.70
1	2	1196	A	C8-N9-C4	-5.39	103.64	105.80
36	5	809	G	N9-C4-C5	-5.39	103.24	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1208	U	C6-N1-C2	-5.39	117.76	121.00
36	5	2116	G	C5-C6-N1	-5.39	108.80	111.50
36	5	2195	C	N1-C2-O2	-5.39	115.66	118.90
36	1	388	G	C8-N9-C4	-5.39	104.24	106.40
36	1	2242	A	N1-C6-N6	5.39	121.83	118.60
36	1	2888	U	C5-C4-O4	-5.39	122.67	125.90
36	1	3309	G	C8-N9-C4	-5.39	104.24	106.40
36	5	1303	A	N1-C6-N6	5.39	121.83	118.60
36	1	1166	G	C8-N9-C4	5.39	108.56	106.40
36	5	2377	G	N3-C4-N9	5.39	129.23	126.00
36	1	836	A	C6-N1-C2	-5.39	115.37	118.60
36	1	1421	G	OP2-P-O3'	5.39	117.05	105.20
38	4	40	A	C5-N7-C8	-5.39	101.21	103.90
36	5	805	G	N7-C8-N9	-5.39	110.41	113.10
36	5	2116	G	C4-N9-C1'	5.39	133.50	126.50
1	2	266	A	C8-N9-C4	5.38	107.95	105.80
36	1	1620	U	C2-N1-C1'	5.38	124.16	117.70
36	5	2103	U	N3-C2-O2	-5.38	118.43	122.20
36	5	2292	U	C4-C5-C6	5.38	122.93	119.70
36	1	1174	G	C8-N9-C1'	-5.38	120.00	127.00
36	5	1460	A	C5-N7-C8	-5.38	101.21	103.90
36	1	915	A	N1-C2-N3	5.38	131.99	129.30
36	1	2777	G	N3-C4-C5	-5.38	125.91	128.60
36	1	3216	G	N9-C4-C5	5.38	107.55	105.40
36	5	583	G	C4-C5-N7	-5.38	108.65	110.80
36	5	677	A	C2-N3-C4	-5.38	107.91	110.60
36	5	912	G	C5-C6-N1	5.38	114.19	111.50
36	5	1790	G	C4-N9-C1'	5.38	133.50	126.50
36	1	2640	A	C4-N9-C1'	5.38	135.98	126.30
1	6	353	A	C2-N3-C4	5.38	113.29	110.60
1	6	569	C	C4-C5-C6	5.38	120.09	117.40
50	m4	106	ARG	NE-CZ-NH1	5.38	122.99	120.30
36	1	3377	G	OP2-P-O3'	5.38	117.03	105.20
1	2	337	G	C6-C5-N7	-5.38	127.17	130.40
36	1	498	A	C5-C6-N6	5.38	128.00	123.70
36	1	646	A	C4-C5-C6	5.38	119.69	117.00
36	1	3375	A	C8-N9-C4	-5.38	103.65	105.80
36	5	66	A	N1-C6-N6	5.38	121.83	118.60
36	5	1323	G	N3-C4-C5	-5.38	125.91	128.60
48	m1	12	LEU	CA-CB-CG	5.38	127.67	115.30
1	6	426	G	N1-C6-O6	-5.38	116.67	119.90
36	5	1879	A	N7-C8-N9	5.38	116.49	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	647	G	N3-C4-N9	-5.37	122.78	126.00
1	2	934	C	C2-N1-C1'	5.37	124.71	118.80
36	1	584	G	C8-N9-C4	-5.37	104.25	106.40
36	1	922	U	C2-N1-C1'	5.37	124.15	117.70
36	1	2877	G	N3-C2-N2	-5.37	116.14	119.90
1	6	1472	C	C6-N1-C1'	5.37	127.25	120.80
36	5	1646	G	C5-C6-O6	-5.37	125.38	128.60
36	5	2850	G	C5-C6-O6	-5.37	125.38	128.60
36	1	879	U	C5-C4-O4	5.37	129.12	125.90
1	6	1031	U	C6-N1-C2	5.37	124.22	121.00
36	5	1741	A	C8-N9-C4	-5.37	103.65	105.80
36	5	2174	G	C5-C6-O6	-5.37	125.38	128.60
36	5	145	G	N3-C4-N9	-5.37	122.78	126.00
36	5	968	G	C8-N9-C1'	-5.37	120.02	127.00
36	5	1513	G	N7-C8-N9	5.37	115.78	113.10
36	1	2984	C	N3-C4-N4	-5.37	114.24	118.00
36	1	343	U	OP2-P-O3'	5.37	117.00	105.20
36	1	1365	G	N3-C2-N2	5.37	123.66	119.90
36	1	2624	G	C5-N7-C8	-5.37	101.62	104.30
36	5	798	G	C8-N9-C4	-5.37	104.25	106.40
36	5	1200	A	C6-N1-C2	-5.37	115.38	118.60
36	1	2808	A	C4-C5-N7	5.36	113.38	110.70
1	6	307	G	C4-C5-N7	-5.36	108.66	110.80
1	6	565	C	C5-C6-N1	-5.36	118.32	121.00
1	6	957	G	C5-C6-N1	-5.36	108.82	111.50
36	5	2908	G	N3-C2-N2	-5.36	116.15	119.90
36	1	3000	A	C8-N9-C4	5.36	107.94	105.80
1	6	577	G	C8-N9-C4	-5.36	104.25	106.40
1	2	1685	G	C8-N9-C4	-5.36	104.26	106.40
36	1	53	G	C8-N9-C1'	-5.36	120.03	127.00
36	1	785	G	N3-C4-N9	5.36	129.22	126.00
36	1	1124	U	N3-C4-O4	-5.36	115.65	119.40
38	4	48	A	N1-C6-N6	5.36	121.82	118.60
1	6	1020	A	C8-N9-C4	-5.36	103.66	105.80
1	6	1051	G	N9-C4-C5	5.36	107.54	105.40
6	s4	38	LEU	CA-CB-CG	5.36	127.63	115.30
36	5	414	U	N1-C2-O2	-5.36	119.05	122.80
36	5	838	G	C2-N3-C4	-5.36	109.22	111.90
36	5	1888	U	C2-N3-C4	-5.36	123.78	127.00
36	5	1893	A	C8-N9-C4	5.36	107.94	105.80
36	5	2211	U	N1-C2-N3	5.36	118.12	114.90
36	5	2344	U	N3-C2-O2	-5.36	118.45	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	201	A	C5-N7-C8	-5.36	101.22	103.90
36	5	2757	U	N1-C2-O2	-5.36	119.05	122.80
36	5	3311	C	C6-N1-C2	-5.36	118.16	120.30
38	8	54	A	C5-N7-C8	-5.36	101.22	103.90
36	1	1307	G	C5-C6-O6	5.36	131.81	128.60
36	1	2339	C	OP1-P-O3'	5.36	116.99	105.20
36	1	2642	A	C5-C6-N1	-5.36	115.02	117.70
52	M6	16	VAL	CB-CA-C	-5.36	101.22	111.40
36	5	101	G	O4'-C1'-N9	5.36	112.49	108.20
36	5	861	C	C6-N1-C2	5.36	122.44	120.30
36	5	890	C	O5'-P-OP1	5.36	117.13	110.70
36	5	3144	G	N9-C4-C5	5.36	107.54	105.40
36	1	816	A	C8-N9-C4	-5.36	103.66	105.80
36	1	865	U	OP2-P-O3'	5.36	116.98	105.20
36	1	1180	A	C4-C5-N7	-5.36	108.02	110.70
1	6	1764	C	N3-C4-N4	-5.36	114.25	118.00
36	5	971	G	C6-N1-C2	-5.36	121.89	125.10
36	5	1348	U	C6-N1-C2	-5.36	117.79	121.00
36	5	1378	U	N3-C4-C5	5.36	117.81	114.60
36	5	2420	C	N1-C2-O2	-5.36	115.69	118.90
38	8	96	A	N7-C8-N9	-5.36	111.12	113.80
1	6	455	C	C5-C4-N4	-5.35	116.45	120.20
36	5	214	G	N7-C8-N9	-5.35	110.42	113.10
36	5	1169	A	O5'-P-OP2	-5.35	100.88	105.70
36	5	2693	C	C2-N1-C1'	-5.35	112.91	118.80
1	2	720	G	OP1-P-O3'	5.35	116.98	105.20
1	2	1121	C	N3-C4-N4	-5.35	114.25	118.00
36	1	1392	G	C5-N7-C8	5.35	106.98	104.30
36	1	1660	C	N1-C2-O2	-5.35	115.69	118.90
36	1	2165	G	N1-C6-O6	5.35	123.11	119.90
36	5	3206	C	N3-C2-O2	-5.35	118.15	121.90
38	8	20	U	N1-C2-N3	5.35	118.11	114.90
36	1	2723	U	C5-C4-O4	-5.35	122.69	125.90
1	6	308	C	N3-C4-N4	-5.35	114.25	118.00
36	5	1376	C	O5'-P-OP2	-5.35	100.89	105.70
1	2	7	G	N1-C6-O6	-5.35	116.69	119.90
1	2	811	A	C8-N9-C4	-5.35	103.66	105.80
1	2	1205	C	C6-N1-C1'	-5.35	114.38	120.80
36	1	78	U	N1-C2-N3	5.35	118.11	114.90
36	1	942	U	N3-C4-O4	5.35	123.14	119.40
36	1	1481	A	C4-C5-C6	5.35	119.67	117.00
1	6	1662	G	N7-C8-N9	-5.35	110.42	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2283	G	C8-N9-C4	5.35	108.54	106.40
36	5	2645	G	N1-C6-O6	-5.35	116.69	119.90
36	5	3049	A	C6-N1-C2	5.35	121.81	118.60
36	1	50	U	N3-C2-O2	-5.35	118.46	122.20
36	1	2959	C	OP2-P-O3'	5.35	116.96	105.20
1	6	1574	G	C4-C5-N7	-5.35	108.66	110.80
36	5	128	G	C8-N9-C1'	-5.35	120.05	127.00
36	5	694	C	C4-C5-C6	5.35	120.07	117.40
36	5	1392	G	C8-N9-C1'	-5.35	120.05	127.00
36	5	2194	G	N1-C2-N2	-5.35	111.39	116.20
1	6	297	U	N3-C4-O4	5.35	123.14	119.40
1	6	1126	G	C5-C6-O6	5.35	131.81	128.60
36	5	866	A	N1-C6-N6	5.35	121.81	118.60
36	1	53	G	N1-C2-N2	-5.34	111.39	116.20
36	1	205	C	C5-C6-N1	-5.34	118.33	121.00
36	1	2836	C	N3-C4-C5	-5.34	119.76	121.90
36	5	1051	U	OP1-P-O3'	5.34	116.96	105.20
36	5	1604	G	N9-C4-C5	-5.34	103.26	105.40
36	1	1176	C	N1-C2-O2	-5.34	115.69	118.90
36	1	1379	G	N1-C2-N3	5.34	127.11	123.90
36	1	1405	U	N3-C4-C5	5.34	117.81	114.60
36	5	1494	U	C2-N1-C1'	-5.34	111.29	117.70
36	5	2989	U	C5-C6-N1	-5.34	120.03	122.70
36	1	609	G	O5'-P-OP2	-5.34	100.89	105.70
36	1	894	G	OP1-P-O3'	5.34	116.95	105.20
36	1	1545	A	C8-N9-C4	-5.34	103.66	105.80
37	3	117	A	C2-N3-C4	-5.34	107.93	110.60
41	L4	327	LEU	CA-CB-CG	5.34	127.58	115.30
1	6	514	G	C8-N9-C4	5.34	108.53	106.40
36	5	824	C	N3-C2-O2	-5.34	118.16	121.90
36	5	882	A	N1-C2-N3	5.34	131.97	129.30
36	1	2425	G	O5'-P-OP1	5.34	117.11	110.70
36	5	2205	U	O4'-C1'-N1	5.34	112.47	108.20
1	2	9	U	O5'-P-OP1	-5.34	100.90	105.70
1	6	1791	A	N1-C6-N6	5.34	121.80	118.60
36	5	1371	G	C5-C6-N1	5.34	114.17	111.50
36	5	1452	A	C6-C5-N7	-5.34	128.56	132.30
36	5	1491	A	C4-C5-C6	5.34	119.67	117.00
36	5	343	U	OP1-P-O3'	5.33	116.94	105.20
36	5	2144	A	OP1-P-O3'	5.33	116.94	105.20
1	2	394	C	N1-C2-O2	5.33	122.10	118.90
73	O7	67	LEU	CA-CB-CG	5.33	127.57	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1549	C	C4-C5-C6	5.33	120.07	117.40
36	5	997	A	C8-N9-C4	-5.33	103.67	105.80
36	5	1481	A	O4'-C1'-N9	5.33	112.47	108.20
36	5	2719	U	N1-C2-O2	-5.33	119.07	122.80
36	5	2815	G	N7-C8-N9	-5.33	110.43	113.10
36	5	2874	G	C5-C6-N1	-5.33	108.83	111.50
38	8	1	A	O5'-P-OP2	-5.33	100.90	105.70
38	8	34	U	N1-C2-N3	5.33	118.10	114.90
38	8	56	G	C5-C6-O6	-5.33	125.40	128.60
36	1	2222	A	C8-N9-C4	-5.33	103.67	105.80
1	6	989	U	O5'-P-OP1	-5.33	100.90	105.70
1	6	1745	G	C5-C6-O6	-5.33	125.40	128.60
36	5	91	G	C4-C5-N7	5.33	112.93	110.80
52	M6	172	ARG	NE-CZ-NH1	5.33	122.97	120.30
36	5	48	A	O5'-P-OP2	-5.33	100.90	105.70
36	5	1770	G	C8-N9-C1'	-5.33	120.07	127.00
18	C6	40	GLU	C-N-CA	5.33	144.38	122.00
36	1	429	U	N1-C2-O2	5.33	126.53	122.80
36	1	1316	C	N3-C4-C5	-5.33	119.77	121.90
36	1	3135	U	C5-C6-N1	-5.33	120.03	122.70
37	3	61	G	C5-C6-O6	-5.33	125.40	128.60
36	5	800	G	N1-C2-N2	5.33	121.00	116.20
36	5	2690	G	C4-C5-N7	5.33	112.93	110.80
36	5	2975	U	N1-C2-O2	5.33	126.53	122.80
36	5	3027	A	N1-C6-N6	5.33	121.80	118.60
36	5	3209	A	N1-C6-N6	5.33	121.80	118.60
38	8	156	U	C2-N1-C1'	5.33	124.09	117.70
1	2	73	U	N3-C2-O2	-5.33	118.47	122.20
36	1	145	G	C5-C6-O6	-5.33	125.40	128.60
36	1	3215	A	C8-N9-C4	5.33	107.93	105.80
1	6	561	G	C8-N9-C4	-5.33	104.27	106.40
36	5	1054	A	O5'-P-OP2	-5.33	100.91	105.70
36	5	2134	G	N1-C2-N2	-5.33	111.41	116.20
36	5	2323	G	OP1-P-OP2	-5.33	111.61	119.60
36	1	1169	A	C8-N9-C4	-5.33	103.67	105.80
36	1	2388	U	OP2-P-O3'	5.33	116.92	105.20
36	5	659	G	P-O3'-C3'	5.33	126.09	119.70
36	5	3299	A	O5'-P-OP1	-5.33	100.91	105.70
36	1	1445	U	C2-N1-C1'	-5.32	111.31	117.70
36	1	1483	G	N1-C6-O6	-5.32	116.71	119.90
36	1	1876	U	C2-N1-C1'	5.32	124.09	117.70
36	1	2314	U	N3-C2-O2	5.32	125.93	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	858	G	C4-N9-C1'	5.32	133.42	126.50
1	6	1653	C	C4-C5-C6	5.32	120.06	117.40
36	5	283	G	C4-N9-C1'	5.32	133.42	126.50
36	5	622	A	N9-C4-C5	-5.32	103.67	105.80
36	5	873	C	O5'-P-OP2	-5.32	100.91	105.70
36	5	966	U	C6-N1-C2	-5.32	117.81	121.00
36	5	1790	G	C6-C5-N7	-5.32	127.21	130.40
36	1	1827	C	C6-N1-C2	-5.32	118.17	120.30
37	3	85	G	OP2-P-O3'	5.32	116.91	105.20
38	4	46	G	N3-C4-C5	-5.32	125.94	128.60
1	6	144	U	N1-C2-N3	5.32	118.09	114.90
1	6	475	A	N1-C6-N6	5.32	121.79	118.60
36	5	2167	A	N3-C4-C5	-5.32	123.08	126.80
36	1	127	G	C5-C6-O6	-5.32	125.41	128.60
36	1	906	A	N3-C4-C5	-5.32	123.08	126.80
36	1	1101	G	C6-C5-N7	5.32	133.59	130.40
36	1	2842	U	N3-C2-O2	-5.32	118.48	122.20
38	4	13	A	N7-C8-N9	5.32	116.46	113.80
36	5	1312	C	N1-C2-O2	-5.32	115.71	118.90
36	5	1710	C	C6-N1-C2	5.32	122.43	120.30
36	1	894	G	C6-C5-N7	-5.32	127.21	130.40
36	1	1310	G	N1-C6-O6	-5.32	116.71	119.90
36	5	2129	U	O5'-P-OP1	-5.32	100.91	105.70
36	5	2434	U	N1-C2-N3	5.32	118.09	114.90
36	1	2104	A	C8-N9-C4	5.32	107.93	105.80
36	1	2165	G	C5-C6-O6	-5.32	125.41	128.60
36	1	2369	G	C6-N1-C2	-5.32	121.91	125.10
36	1	2388	U	N1-C2-O2	-5.32	119.08	122.80
36	1	2880	U	OP2-P-O3'	5.32	116.90	105.20
36	5	583	G	C5-C6-O6	5.32	131.79	128.60
36	5	609	G	N3-C4-N9	-5.32	122.81	126.00
36	5	934	G	C4-N9-C1'	5.32	133.41	126.50
36	5	2764	C	C4-C5-C6	-5.32	114.74	117.40
37	7	85	G	OP2-P-O3'	5.32	116.90	105.20
1	2	281	G	N1-C6-O6	-5.32	116.71	119.90
36	1	1948	G	C6-C5-N7	-5.32	127.21	130.40
1	6	747	C	N1-C2-O2	-5.32	115.71	118.90
1	6	956	C	C6-N1-C2	5.32	122.43	120.30
36	5	2132	C	C6-N1-C2	-5.32	118.17	120.30
36	1	808	A	C6-N1-C2	-5.31	115.41	118.60
36	1	2710	C	N3-C2-O2	5.31	125.62	121.90
1	6	1014	G	N1-C2-N2	-5.31	111.42	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2399	A	N9-C4-C5	-5.31	103.67	105.80
36	5	2615	G	C4-C5-N7	5.31	112.93	110.80
1	2	396	G	N9-C1'-C2'	-5.31	106.16	112.00
41	L4	313	LEU	CA-CB-CG	5.31	127.52	115.30
1	6	1097	U	N1-C2-N3	5.31	118.09	114.90
36	5	1161	G	C2-N3-C4	5.31	114.56	111.90
36	5	1405	U	C5-C6-N1	-5.31	120.04	122.70
36	5	1519	G	N1-C6-O6	5.31	123.09	119.90
36	5	1680	G	N3-C4-N9	-5.31	122.81	126.00
36	5	2164	A	C8-N9-C4	-5.31	103.67	105.80
37	7	2	G	N7-C8-N9	5.31	115.76	113.10
36	1	2976	A	C6-N1-C2	-5.31	115.41	118.60
14	c2	58	LEU	CA-CB-CG	5.31	127.51	115.30
36	5	400	G	N3-C4-N9	-5.31	122.81	126.00
36	5	1199	C	N1-C2-O2	-5.31	115.71	118.90
36	5	2928	C	N3-C4-N4	5.31	121.72	118.00
36	5	2983	C	OP1-P-OP2	5.31	127.57	119.60
38	8	32	C	N1-C2-O2	-5.31	115.71	118.90
38	8	38	U	N1-C2-N3	5.31	118.09	114.90
36	1	2878	G	C8-N9-C4	5.31	108.52	106.40
36	5	1169	A	N1-C2-N3	5.31	131.96	129.30
36	5	1792	C	O5'-P-OP2	-5.31	100.92	105.70
36	5	2293	C	N3-C2-O2	-5.31	118.18	121.90
36	1	726	G	N7-C8-N9	5.31	115.75	113.10
36	1	931	C	C5-C6-N1	-5.31	118.35	121.00
36	1	1179	A	C2-N3-C4	-5.31	107.95	110.60
1	6	616	G	C2-N3-C4	5.31	114.55	111.90
36	5	339	C	N1-C2-O2	-5.31	115.72	118.90
36	5	3197	G	C6-C5-N7	5.31	133.59	130.40
57	n1	55	LYS	CD-CE-NZ	-5.31	99.49	111.70
1	6	1373	C	N1-C2-O2	5.31	122.08	118.90
36	5	911	C	C5-C6-N1	-5.31	118.35	121.00
36	5	1379	G	C8-N9-C1'	-5.31	120.10	127.00
36	5	1379	G	N3-C4-N9	5.31	129.18	126.00
36	5	1594	A	N9-C4-C5	5.31	107.92	105.80
36	1	1795	U	N1-C2-O2	5.30	126.51	122.80
1	6	1565	C	N3-C4-C5	5.30	124.02	121.90
36	5	815	G	N3-C4-C5	-5.30	125.95	128.60
36	5	1345	G	N3-C4-C5	5.30	131.25	128.60
1	6	144	U	C6-N1-C2	-5.30	117.82	121.00
1	6	352	A	C8-N9-C4	5.30	107.92	105.80
1	6	622	A	O5'-P-OP1	-5.30	100.93	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	s7	131	PHE	C-N-CD	5.30	139.54	128.40
36	5	1116	G	OP2-P-O3'	5.30	116.87	105.20
36	1	228	U	N1-C2-N3	5.30	118.08	114.90
36	1	325	A	C5-C6-N1	5.30	120.35	117.70
36	1	2130	G	N1-C2-N2	-5.30	111.43	116.20
36	1	2537	U	P-O3'-C3'	5.30	126.06	119.70
36	1	2653	C	N3-C4-N4	-5.30	114.29	118.00
36	5	1749	A	C8-N9-C4	5.30	107.92	105.80
36	1	702	C	N3-C4-N4	5.30	121.71	118.00
36	1	1515	A	OP2-P-O3'	5.30	116.86	105.20
36	1	2811	A	C5-C6-N1	5.30	120.35	117.70
1	6	139	C	O4'-C1'-N1	5.30	112.44	108.20
36	5	895	A	C8-N9-C4	5.30	107.92	105.80
36	5	1592	G	N3-C4-C5	-5.30	125.95	128.60
36	5	1603	A	N1-C2-N3	5.30	131.95	129.30
36	5	2318	U	N3-C4-O4	-5.30	115.69	119.40
36	5	2372	A	C5-N7-C8	-5.30	101.25	103.90
1	2	213	A	C8-N9-C4	5.30	107.92	105.80
36	1	954	U	N1-C2-N3	5.30	118.08	114.90
36	1	2621	G	N1-C2-N2	5.30	120.97	116.20
36	1	3338	C	C6-N1-C2	-5.30	118.18	120.30
1	6	259	U	OP2-P-O3'	5.30	116.86	105.20
1	6	351	C	C5-C4-N4	-5.30	116.49	120.20
36	5	1214	U	C5-C6-N1	5.30	125.35	122.70
36	5	1329	U	N3-C2-O2	-5.30	118.49	122.20
36	5	2861	U	C5-C4-O4	5.30	129.08	125.90
36	5	2954	U	N3-C4-C5	-5.30	111.42	114.60
36	1	282	G	N7-C8-N9	5.30	115.75	113.10
36	1	1371	G	N7-C8-N9	-5.30	110.45	113.10
36	1	2800	G	O5'-P-OP1	5.30	117.06	110.70
36	1	3157	U	N3-C4-O4	-5.30	115.69	119.40
1	6	1117	U	N3-C4-O4	5.30	123.11	119.40
36	5	652	G	C5-C6-O6	-5.30	125.42	128.60
36	5	876	A	N1-C2-N3	5.30	131.95	129.30
37	7	93	C	N3-C2-O2	-5.30	118.19	121.90
36	1	1346	G	N3-C4-N9	-5.29	122.82	126.00
49	M3	67	ARG	NE-CZ-NH1	-5.29	117.65	120.30
1	6	247	A	N1-C6-N6	5.29	121.78	118.60
36	5	1043	C	O5'-P-OP1	5.29	117.05	110.70
36	5	2376	G	C5-N7-C8	-5.29	101.65	104.30
37	7	77	G	N9-C4-C5	-5.29	103.28	105.40
36	1	3130	A	C4-C5-C6	5.29	119.65	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	56	G	C8-N9-C4	5.29	108.52	106.40
36	5	411	U	C2-N1-C1'	-5.29	111.35	117.70
36	5	947	G	C8-N9-C1'	-5.29	120.12	127.00
36	5	1210	U	C5-C4-O4	5.29	129.08	125.90
36	5	3182	G	OP1-P-OP2	-5.29	111.66	119.60
37	7	22	A	N1-C6-N6	5.29	121.78	118.60
36	1	2419	A	OP2-P-O3'	5.29	116.84	105.20
36	1	2555	G	O5'-P-OP2	-5.29	100.94	105.70
1	6	1210	C	C6-N1-C2	-5.29	118.18	120.30
1	6	1481	C	OP1-P-O3'	5.29	116.84	105.20
36	5	217	U	C5-C6-N1	-5.29	120.06	122.70
36	5	816	A	N9-C4-C5	5.29	107.92	105.80
36	5	944	C	OP2-P-O3'	5.29	116.84	105.20
36	5	1628	C	C6-N1-C2	-5.29	118.18	120.30
36	5	2334	U	C2-N3-C4	-5.29	123.83	127.00
36	5	2633	U	C5-C6-N1	-5.29	120.05	122.70
36	5	3354	U	N3-C2-O2	-5.29	118.50	122.20
38	8	36	G	O5'-P-OP1	-5.29	100.94	105.70
36	1	2138	A	N7-C8-N9	5.29	116.44	113.80
36	1	3058	U	C2-N1-C1'	5.29	124.05	117.70
61	n5	115	ARG	NE-CZ-NH1	5.29	122.94	120.30
1	2	1608	U	O5'-P-OP1	-5.29	100.94	105.70
36	1	802	C	O5'-P-OP2	5.29	117.05	110.70
36	5	1239	C	C2-N1-C1'	5.29	124.62	118.80
36	5	2234	G	C6-N1-C2	-5.29	121.93	125.10
36	5	2772	C	OP2-P-O3'	5.29	116.84	105.20
36	1	2636	A	N1-C6-N6	-5.29	115.43	118.60
36	1	2796	G	N7-C8-N9	5.29	115.74	113.10
36	1	2899	C	C2-N1-C1'	5.29	124.61	118.80
36	5	706	A	C8-N9-C4	5.29	107.92	105.80
36	5	1160	C	C2-N3-C4	-5.29	117.26	119.90
36	5	3295	A	OP2-P-O3'	5.29	116.83	105.20
1	2	1241	G	C4-N9-C1'	5.29	133.37	126.50
36	1	937	G	OP1-P-OP2	5.29	127.53	119.60
36	1	994	G	N3-C4-N9	5.29	129.17	126.00
36	1	2753	G	C2-N3-C4	5.29	114.54	111.90
36	1	2772	C	O4'-C1'-N1	5.29	112.43	108.20
36	1	3034	C	C6-N1-C2	-5.29	118.19	120.30
38	4	96	A	N1-C6-N6	5.29	121.77	118.60
1	6	217	A	P-O3'-C3'	5.29	126.04	119.70
1	6	1361	U	C6-N1-C1'	-5.29	113.80	121.20
36	5	92	G	C5-C6-O6	-5.29	125.43	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1788	C	O5'-P-OP2	-5.29	100.94	105.70
36	5	2816	G	C5-C6-O6	-5.29	125.43	128.60
36	5	3044	G	C8-N9-C4	-5.29	104.29	106.40
38	8	93	U	N1-C2-N3	5.29	118.07	114.90
76	q0	102	ARG	NE-CZ-NH1	-5.29	117.66	120.30
36	1	71	A	N9-C4-C5	5.28	107.91	105.80
36	1	619	A	N1-C6-N6	5.28	121.77	118.60
36	1	793	C	C6-N1-C2	-5.28	118.19	120.30
36	1	1657	C	C2-N3-C4	5.28	122.54	119.90
36	1	2193	U	N3-C2-O2	-5.28	118.50	122.20
36	1	2866	U	N3-C2-O2	-5.28	118.50	122.20
36	5	1881	A	N1-C6-N6	5.28	121.77	118.60
36	5	2690	G	C5-C6-O6	-5.28	125.43	128.60
36	5	2702	A	C4-C5-C6	5.28	119.64	117.00
36	5	3296	A	O5'-P-OP2	-5.28	100.95	105.70
36	1	325	A	C6-N1-C2	-5.28	115.43	118.60
36	1	1716	U	P-O3'-C3'	5.28	126.04	119.70
36	1	2774	C	C2-N3-C4	-5.28	117.26	119.90
1	6	1003	A	O5'-P-OP2	5.28	117.04	110.70
36	5	2134	G	N1-C6-O6	-5.28	116.73	119.90
36	5	2292	U	N3-C4-O4	5.28	123.10	119.40
36	5	3272	C	N1-C2-O2	-5.28	115.73	118.90
36	1	644	G	O5'-P-OP1	-5.28	100.95	105.70
36	1	2412	G	N1-C6-O6	5.28	123.07	119.90
40	L3	4	ARG	NE-CZ-NH2	-5.28	117.66	120.30
36	5	3033	A	N1-C6-N6	5.28	121.77	118.60
36	1	961	C	C5-C6-N1	-5.28	118.36	121.00
36	1	1435	A	OP1-P-OP2	-5.28	111.68	119.60
36	1	1604	G	N3-C4-C5	-5.28	125.96	128.60
36	1	1838	G	C5-N7-C8	-5.28	101.66	104.30
1	6	1619	C	C5-C6-N1	5.28	123.64	121.00
36	1	27	C	OP1-P-OP2	5.28	127.52	119.60
36	1	1140	G	N1-C2-N2	-5.28	111.45	116.20
36	1	1798	A	C2-N3-C4	-5.28	107.96	110.60
36	1	2950	G	O4'-C1'-N9	5.28	112.42	108.20
1	6	334	G	N9-C4-C5	-5.28	103.29	105.40
1	6	1274	C	N1-C2-O2	5.28	122.07	118.90
36	5	88	A	N7-C8-N9	-5.28	111.16	113.80
36	5	1908	A	C8-N9-C4	-5.28	103.69	105.80
1	2	453	U	C6-N1-C1'	-5.28	113.81	121.20
1	2	1182	U	N1-C2-O2	5.28	126.49	122.80
36	1	680	G	O5'-P-OP2	-5.28	100.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1578	C	C2-N1-C1'	5.28	124.60	118.80
36	1	2637	A	C8-N9-C4	-5.28	103.69	105.80
36	1	3303	G	O4'-C1'-N9	5.28	112.42	108.20
56	N0	155	ARG	NE-CZ-NH1	-5.28	117.66	120.30
36	5	2283	G	N3-C4-C5	5.28	131.24	128.60
37	7	27	A	OP1-P-O3'	5.28	116.81	105.20
38	8	96	A	N9-C4-C5	-5.28	103.69	105.80
36	1	941	G	C8-N9-C4	-5.27	104.29	106.40
36	1	2174	G	N7-C8-N9	5.27	115.74	113.10
36	1	2409	G	C4-C5-C6	5.27	121.96	118.80
38	4	100	U	C2-N1-C1'	5.27	124.03	117.70
36	5	1668	G	C6-C5-N7	-5.27	127.24	130.40
1	2	404	G	N9-C4-C5	-5.27	103.29	105.40
36	1	3215	A	N3-C4-C5	5.27	130.49	126.80
1	6	584	C	N1-C2-O2	5.27	122.06	118.90
36	5	1003	A	OP1-P-O3'	5.27	116.80	105.20
36	5	1193	A	C4-C5-C6	5.27	119.64	117.00
36	5	1380	G	C4-C5-N7	5.27	112.91	110.80
36	5	3099	C	C5-C6-N1	-5.27	118.36	121.00
36	1	1506	A	O5'-P-OP2	-5.27	100.96	105.70
1	6	1582	U	C5-C6-N1	-5.27	120.06	122.70
1	2	1093	A	C8-N9-C4	5.27	107.91	105.80
36	1	3183	A	OP2-P-O3'	5.27	116.79	105.20
36	5	957	C	N1-C2-N3	5.27	122.89	119.20
36	1	793	C	N1-C2-O2	-5.27	115.74	118.90
36	1	1373	A	N1-C2-N3	5.27	131.93	129.30
36	1	2363	A	OP2-P-O3'	5.27	116.79	105.20
36	1	3062	G	N1-C6-O6	5.27	123.06	119.90
36	1	651	G	OP2-P-O3'	5.26	116.78	105.20
36	5	1113	G	N3-C4-C5	5.26	131.23	128.60
36	5	3100	U	N3-C2-O2	-5.26	118.52	122.20
38	8	63	G	N1-C6-O6	-5.26	116.74	119.90
36	1	1333	C	O5'-P-OP2	-5.26	100.96	105.70
1	6	543	C	N3-C4-N4	-5.26	114.32	118.00
36	5	1837	U	OP2-P-O3'	5.26	116.78	105.20
36	5	2744	U	C6-N1-C2	-5.26	117.84	121.00
36	5	3091	A	N1-C6-N6	-5.26	115.44	118.60
1	2	142	G	N3-C4-N9	-5.26	122.84	126.00
1	2	783	G	C8-N9-C4	5.26	108.50	106.40
36	1	984	G	C4-N9-C1'	5.26	133.34	126.50
36	1	2640	A	C5-N7-C8	-5.26	101.27	103.90
1	6	1058	U	P-O3'-C3'	5.26	126.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1672	G	N3-C4-N9	5.26	129.16	126.00
9	s7	67	LEU	CA-CB-CG	5.26	127.40	115.30
36	5	1106	G	N3-C4-C5	-5.26	125.97	128.60
36	1	59	G	C4-C5-N7	5.26	112.90	110.80
36	1	1143	A	N1-C2-N3	5.26	131.93	129.30
36	1	1213	G	C5'-C4'-O4'	-5.26	102.79	109.10
36	1	1411	C	OP1-P-O3'	5.26	116.77	105.20
36	1	2355	G	C5-C6-O6	-5.26	125.44	128.60
36	1	2371	G	O5'-P-OP2	-5.26	100.97	105.70
1	6	114	C	C2-N1-C1'	5.26	124.58	118.80
1	6	606	A	C8-N9-C4	5.26	107.90	105.80
36	5	82	C	N3-C4-C5	-5.26	119.80	121.90
36	5	931	C	N3-C4-C5	5.26	124.00	121.90
36	5	1133	A	N9-C4-C5	5.26	107.90	105.80
36	5	1723	A	N1-C6-N6	-5.26	115.44	118.60
1	6	557	G	C4-N9-C1'	5.26	133.34	126.50
1	6	1124	A	N9-C4-C5	-5.26	103.70	105.80
1	6	1672	G	C8-N9-C1'	-5.26	120.17	127.00
36	5	2826	U	O5'-P-OP2	-5.26	100.97	105.70
24	D2	127	GLY	N-CA-C	5.26	126.24	113.10
36	1	627	U	N1-C2-O2	-5.26	119.12	122.80
36	1	1144	U	C2-N3-C4	-5.26	123.85	127.00
36	1	1406	A	C5-C6-N6	-5.26	119.50	123.70
36	1	2958	A	OP2-P-O3'	5.26	116.76	105.20
36	1	3268	A	N1-C2-N3	5.26	131.93	129.30
1	6	1614	A	C5-N7-C8	-5.26	101.27	103.90
36	5	2648	G	C5-C6-N1	5.26	114.13	111.50
36	5	3039	C	C6-N1-C2	-5.26	118.20	120.30
37	7	83	U	N3-C4-O4	-5.26	115.72	119.40
36	1	3172	A	O5'-P-OP2	-5.25	100.97	105.70
38	4	28	C	OP2-P-O3'	5.25	116.76	105.20
36	5	388	G	C6-C5-N7	-5.25	127.25	130.40
1	2	772	G	N1-C6-O6	5.25	123.05	119.90
35	SM	134	ASP	CB-CG-OD2	5.25	123.03	118.30
36	1	1834	U	C4-C5-C6	5.25	122.85	119.70
36	1	1916	U	C2-N3-C4	-5.25	123.85	127.00
36	1	2154	U	C2-N1-C1'	5.25	124.00	117.70
36	1	3195	U	N1-C2-O2	5.25	126.48	122.80
38	4	16	G	O4'-C1'-N9	5.25	112.40	108.20
1	6	1140	G	O5'-P-OP1	-5.25	100.97	105.70
36	5	425	G	O5'-P-OP1	5.25	117.00	110.70
36	5	1004	U	O5'-P-OP1	-5.25	100.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2874	G	C5-C6-O6	5.25	131.75	128.60
36	5	665	A	C6-C5-N7	-5.25	128.62	132.30
36	5	2758	A	O4'-C1'-N9	5.25	112.40	108.20
36	5	2965	U	N3-C2-O2	5.25	125.88	122.20
1	2	1453	G	C4-N9-C1'	-5.25	119.67	126.50
36	1	1615	C	C4-C5-C6	5.25	120.03	117.40
36	1	2643	A	N1-C6-N6	5.25	121.75	118.60
36	5	1380	G	N1-C6-O6	5.25	123.05	119.90
36	1	1379	G	C8-N9-C4	5.25	108.50	106.40
36	5	676	G	OP2-P-O3'	5.25	116.75	105.20
36	5	1158	A	O5'-P-OP1	5.25	117.00	110.70
1	2	1273	G	O5'-P-OP1	-5.25	100.98	105.70
36	1	155	G	N3-C4-C5	-5.25	125.98	128.60
36	1	501	A	OP2-P-O3'	5.25	116.74	105.20
36	1	701	G	N3-C2-N2	-5.25	116.23	119.90
1	6	18	C	N3-C4-C5	-5.25	119.80	121.90
1	6	1123	C	C5-C6-N1	5.25	123.62	121.00
36	5	204	A	N1-C6-N6	5.25	121.75	118.60
36	5	437	G	N3-C4-N9	-5.25	122.85	126.00
36	5	3293	U	C5-C6-N1	-5.25	120.08	122.70
36	5	811	U	C5-C6-N1	-5.25	120.08	122.70
36	5	1495	U	O4'-C1'-N1	5.25	112.40	108.20
36	5	1615	C	N3-C2-O2	-5.25	118.23	121.90
36	5	2108	C	N1-C2-O2	-5.25	115.75	118.90
1	2	17	C	C6-N1-C2	-5.24	118.20	120.30
1	2	21	U	C5-C6-N1	5.24	125.32	122.70
36	1	817	A	N1-C6-N6	-5.24	115.45	118.60
36	1	1141	C	N1-C2-O2	-5.24	115.75	118.90
36	1	2300	G	N3-C2-N2	-5.24	116.23	119.90
36	5	804	C	N3-C4-N4	5.24	121.67	118.00
36	5	838	G	N1-C2-N2	-5.24	111.48	116.20
36	5	1329	U	C6-N1-C1'	-5.24	113.86	121.20
36	5	1431	G	C6-C5-N7	5.24	133.55	130.40
36	5	2383	C	C4-C5-C6	5.24	120.02	117.40
36	5	2865	U	N1-C2-O2	5.24	126.47	122.80
36	5	3129	A	N1-C2-N3	-5.24	126.68	129.30
38	8	110	C	OP2-P-O3'	5.24	116.73	105.20
1	2	1324	G	N3-C4-N9	-5.24	122.86	126.00
36	1	1305	U	C5-C4-O4	5.24	129.04	125.90
36	1	3127	A	C5-C6-N6	-5.24	119.51	123.70
1	6	512	A	C6-C5-N7	-5.24	128.63	132.30
36	5	2288	G	C4-N9-C1'	5.24	133.31	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	339	C	C6-N1-C2	-5.24	118.20	120.30
1	2	1745	G	N3-C2-N2	5.24	123.57	119.90
36	1	35	A	N1-C6-N6	5.24	121.74	118.60
36	1	2234	G	O5'-P-OP1	-5.24	100.98	105.70
1	6	1744	A	C8-N9-C4	5.24	107.90	105.80
36	5	639	G	O5'-P-OP2	-5.24	100.98	105.70
36	5	2134	G	N3-C2-N2	5.24	123.57	119.90
1	2	501	U	OP1-P-O3'	5.24	116.72	105.20
1	2	1600	A	N9-C4-C5	-5.24	103.70	105.80
36	1	1905	G	N3-C4-C5	5.24	131.22	128.60
38	4	4	C	C5-C4-N4	-5.24	116.53	120.20
36	5	945	C	C5-C6-N1	-5.24	118.38	121.00
1	2	398	G	C8-N9-C4	-5.24	104.31	106.40
36	5	784	A	C4-C5-N7	5.24	113.32	110.70
36	5	2777	G	P-O3'-C3'	5.24	125.98	119.70
36	1	86	G	N9-C4-C5	5.24	107.49	105.40
36	1	218	G	OP1-P-OP2	5.24	127.45	119.60
36	1	941	G	C5-C6-O6	-5.24	125.46	128.60
37	3	81	U	C6-N1-C2	5.24	124.14	121.00
1	6	939	A	C5-C6-N6	-5.24	119.51	123.70
36	5	439	C	C6-N1-C2	-5.24	118.20	120.30
36	5	1306	G	N3-C2-N2	-5.24	116.23	119.90
36	5	2724	U	N3-C4-C5	-5.24	111.46	114.60
36	1	89	A	N1-C6-N6	-5.23	115.46	118.60
36	1	100	A	N1-C2-N3	5.23	131.92	129.30
36	5	1355	A	P-O3'-C3'	5.23	125.98	119.70
36	5	2293	C	N3-C4-C5	5.23	123.99	121.90
1	2	1620	C	C6-N1-C2	-5.23	118.21	120.30
36	1	76	G	C8-N9-C4	-5.23	104.31	106.40
36	1	609	G	C2-N3-C4	5.23	114.52	111.90
36	1	632	G	N3-C2-N2	5.23	123.56	119.90
36	1	1049	C	C2-N1-C1'	5.23	124.56	118.80
36	1	2627	C	C2-N3-C4	-5.23	117.28	119.90
36	1	3000	A	N7-C8-N9	-5.23	111.18	113.80
37	3	13	A	C5'-C4'-C3'	-5.23	107.63	116.00
1	6	63	G	C5-C6-O6	-5.23	125.46	128.60
36	5	96	G	N3-C4-C5	5.23	131.22	128.60
36	5	1321	G	C6-C5-N7	-5.23	127.26	130.40
36	5	2372	A	P-O3'-C3'	5.23	125.98	119.70
1	2	1340	U	N3-C2-O2	-5.23	118.54	122.20
1	2	1777	G	OP2-P-O3'	5.23	116.71	105.20
36	1	108	A	C5-C6-N1	5.23	120.31	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2247	G	N3-C2-N2	-5.23	116.24	119.90
36	1	2378	C	N3-C4-N4	5.23	121.66	118.00
36	1	2848	G	C5-C6-N1	5.23	114.11	111.50
36	1	2973	G	N1-C6-O6	5.23	123.04	119.90
1	6	1540	G	C5-C6-O6	5.23	131.74	128.60
36	5	2314	U	N3-C4-O4	5.23	123.06	119.40
36	5	2385	G	N1-C6-O6	5.23	123.04	119.90
36	1	646	A	C6-C5-N7	-5.23	128.64	132.30
36	1	2859	U	N1-C2-O2	-5.23	119.14	122.80
36	5	1487	G	N3-C4-C5	-5.23	125.99	128.60
1	2	635	A	N1-C6-N6	5.23	121.74	118.60
36	1	153	U	C6-N1-C2	-5.23	117.86	121.00
36	1	1880	U	N3-C2-O2	5.23	125.86	122.20
1	6	273	G	C4-C5-N7	5.23	112.89	110.80
36	5	1108	U	C5-C4-O4	5.23	129.04	125.90
36	5	1115	G	P-O3'-C3'	5.23	125.97	119.70
36	5	2584	G	OP2-P-O3'	5.23	116.70	105.20
38	8	125	U	N3-C2-O2	-5.23	118.54	122.20
36	1	2298	U	C5-C6-N1	-5.23	120.09	122.70
36	1	2728	G	C5-C6-O6	-5.23	125.47	128.60
36	5	945	C	C6-N1-C1'	-5.23	114.53	120.80
36	5	960	U	OP2-P-O3'	5.23	116.70	105.20
36	5	1307	G	N1-C6-O6	-5.23	116.77	119.90
1	2	1134	C	C6-N1-C2	-5.22	118.21	120.30
1	2	1535	U	C2-N1-C1'	5.22	123.97	117.70
36	1	196	G	C5-C6-O6	-5.22	125.47	128.60
36	1	2184	U	C5-C6-N1	5.22	125.31	122.70
36	1	2402	A	O4'-C1'-N9	5.22	112.38	108.20
36	1	2582	C	N3-C2-O2	-5.22	118.24	121.90
36	1	2640	A	C6-C5-N7	-5.22	128.64	132.30
1	6	1123	C	C5-C4-N4	-5.22	116.54	120.20
36	5	644	G	N9-C4-C5	5.22	107.49	105.40
36	5	2307	G	N3-C2-N2	5.22	123.56	119.90
36	5	3130	A	C6-N1-C2	-5.22	115.47	118.60
37	7	88	G	C5-C6-O6	5.22	131.74	128.60
1	2	1591	C	N3-C2-O2	-5.22	118.24	121.90
36	1	2325	G	C6-C5-N7	-5.22	127.27	130.40
36	5	3374	U	N3-C4-O4	-5.22	115.74	119.40
36	1	881	C	N1-C2-O2	5.22	122.03	118.90
36	1	907	G	N3-C4-N9	5.22	129.13	126.00
36	1	2156	C	C5-C6-N1	-5.22	118.39	121.00
1	6	1640	C	C5-C4-N4	-5.22	116.55	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1370	G	O5'-P-OP1	-5.22	101.00	105.70
36	5	2743	A	C4-C5-C6	5.22	119.61	117.00
36	1	1416	C	C5-C4-N4	5.22	123.85	120.20
36	1	1495	U	O4'-C1'-N1	5.22	112.38	108.20
38	4	88	A	N1-C6-N6	5.22	121.73	118.60
36	5	424	G	O5'-P-OP2	-5.22	101.00	105.70
1	2	1747	G	N1-C6-O6	5.22	123.03	119.90
1	6	245	U	O5'-P-OP1	-5.22	101.00	105.70
1	6	541	A	P-O3'-C3'	-5.22	113.44	119.70
36	5	91	G	C8-N9-C4	5.22	108.49	106.40
36	5	1495	U	OP1-P-O3'	5.22	116.68	105.20
36	5	2859	U	N1-C2-N3	5.22	118.03	114.90
1	2	4	C	C2-N1-C1'	5.22	124.54	118.80
1	2	1611	A	C5-N7-C8	-5.22	101.29	103.90
36	1	2121	G	C5-C6-O6	5.22	131.73	128.60
36	1	2184	U	OP2-P-O3'	5.22	116.68	105.20
1	6	536	C	C6-N1-C2	-5.22	118.21	120.30
1	6	1735	U	N1-C2-O2	5.22	126.45	122.80
36	5	934	G	C8-N9-C1'	-5.22	120.22	127.00
36	5	1891	A	N1-C2-N3	5.22	131.91	129.30
39	12	246	LEU	CA-CB-CG	5.22	127.30	115.30
36	1	22	G	N9-C4-C5	5.21	107.49	105.40
36	1	1920	U	N3-C2-O2	-5.21	118.55	122.20
36	1	2604	U	OP1-P-O3'	5.21	116.67	105.20
1	6	314	C	C2-N1-C1'	5.21	124.54	118.80
36	5	128	G	C5-C6-O6	-5.21	125.47	128.60
36	1	2298	U	C5-C4-O4	5.21	129.03	125.90
1	6	911	U	C6-N1-C2	-5.21	117.87	121.00
36	5	1064	A	P-O3'-C3'	5.21	125.96	119.70
36	1	43	A	N1-C6-N6	-5.21	115.47	118.60
36	1	338	A	OP2-P-O3'	5.21	116.66	105.20
36	1	1447	G	C5-C6-O6	5.21	131.73	128.60
36	1	1788	C	C5-C4-N4	-5.21	116.55	120.20
36	1	2235	C	N1-C2-O2	5.21	122.03	118.90
36	1	2727	A	N1-C6-N6	-5.21	115.47	118.60
36	1	2827	U	C5-C6-N1	-5.21	120.09	122.70
38	4	111	A	C4-C5-C6	5.21	119.61	117.00
36	5	2598	G	N1-C6-O6	5.21	123.03	119.90
36	5	2931	C	OP1-P-O3'	5.21	116.67	105.20
36	1	73	C	N1-C2-O2	-5.21	115.77	118.90
36	1	1595	U	C2-N1-C1'	-5.21	111.45	117.70
36	1	1741	A	C6-C5-N7	-5.21	128.65	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2253	G	C8-N9-C4	-5.21	104.32	106.40
36	1	101	G	N3-C2-N2	-5.21	116.25	119.90
36	1	1449	A	C5-C6-N1	5.21	120.31	117.70
36	1	3075	G	O5'-P-OP1	-5.21	101.01	105.70
36	1	3361	G	N3-C4-N9	5.21	129.13	126.00
53	M7	135	ARG	NE-CZ-NH2	-5.21	117.70	120.30
1	6	687	G	C4-N9-C1'	-5.21	119.73	126.50
36	5	907	G	N9-C4-C5	-5.21	103.32	105.40
36	5	1411	C	N1-C2-O2	-5.21	115.78	118.90
1	2	1734	U	C2-N1-C1'	-5.21	111.45	117.70
36	1	359	U	N3-C4-O4	5.21	123.04	119.40
36	1	587	U	N1-C2-N3	5.21	118.02	114.90
36	1	2270	A	OP1-P-OP2	5.21	127.41	119.60
36	5	87	U	C6-N1-C2	-5.21	117.88	121.00
36	5	96	G	C4-C5-N7	5.21	112.88	110.80
36	5	1510	G	N1-C2-N3	5.21	127.02	123.90
39	12	179	LEU	CA-CB-CG	5.21	127.27	115.30
1	2	1768	G	C4-N9-C1'	-5.21	119.73	126.50
36	1	693	A	C8-N9-C4	-5.21	103.72	105.80
36	1	2935	U	C2-N3-C4	5.21	130.12	127.00
36	5	1178	G	C4-N9-C1'	5.21	133.27	126.50
1	2	359	A	C4-N9-C1'	-5.20	116.93	126.30
36	1	843	A	C6-C5-N7	-5.20	128.66	132.30
36	1	1190	A	C4-C5-C6	5.20	119.60	117.00
36	1	1646	G	O4'-C1'-N9	5.20	112.36	108.20
1	6	29	U	C4-C5-C6	5.20	122.82	119.70
1	6	1527	C	O5'-P-OP2	-5.20	101.02	105.70
36	5	2895	G	N3-C4-N9	5.20	129.12	126.00
36	5	923	C	C5-C4-N4	-5.20	116.56	120.20
36	1	290	G	N3-C4-N9	-5.20	122.88	126.00
1	6	1112	G	O5'-P-OP2	5.20	116.94	110.70
36	5	2204	C	C6-N1-C2	-5.20	118.22	120.30
36	5	2363	A	N1-C6-N6	5.20	121.72	118.60
36	5	3020	U	C5-C4-O4	-5.20	122.78	125.90
36	5	3129	A	C4-C5-C6	-5.20	114.40	117.00
1	2	90	C	N3-C4-C5	-5.20	119.82	121.90
36	1	673	U	N3-C4-O4	-5.20	115.76	119.40
36	1	981	U	C6-N1-C2	-5.20	117.88	121.00
36	1	1118	C	N1-C2-O2	-5.20	115.78	118.90
36	1	2156	C	C6-N1-C2	5.20	122.38	120.30
37	3	30	G	N3-C4-N9	5.20	129.12	126.00
36	5	530	G	C6-C5-N7	5.20	133.52	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1076	C	N3-C2-O2	-5.20	118.26	121.90
36	5	1370	G	N1-C6-O6	-5.20	116.78	119.90
36	5	2294	U	N1-C2-N3	5.20	118.02	114.90
36	5	2306	C	OP2-P-O3'	5.20	116.64	105.20
36	5	2367	A	N1-C6-N6	-5.20	115.48	118.60
36	5	2531	C	O4'-C1'-N1	5.20	112.36	108.20
1	6	297	U	C5-C6-N1	5.20	125.30	122.70
1	6	975	C	O5'-P-OP2	-5.20	101.02	105.70
36	5	2649	A	N7-C8-N9	5.20	116.40	113.80
36	1	424	G	O5'-P-OP2	-5.20	101.03	105.70
36	1	799	G	N1-C2-N2	-5.20	111.52	116.20
36	1	1407	A	N1-C6-N6	-5.20	115.48	118.60
36	1	1741	A	C5-N7-C8	-5.20	101.30	103.90
38	4	32	C	N3-C4-C5	5.20	123.98	121.90
38	4	89	A	C8-N9-C4	5.20	107.88	105.80
36	5	1667	A	N9-C4-C5	-5.20	103.72	105.80
36	5	1844	C	N1-C2-O2	-5.20	115.78	118.90
36	1	799	G	N1-C2-N3	5.19	127.02	123.90
36	1	50	U	C5-C4-O4	5.19	129.02	125.90
36	1	1069	C	C6-N1-C2	-5.19	118.22	120.30
36	1	2310	U	C5-C4-O4	5.19	129.02	125.90
38	4	109	A	N9-C4-C5	-5.19	103.72	105.80
36	5	406	G	N1-C6-O6	-5.19	116.78	119.90
36	5	1482	A	O5'-P-OP2	-5.19	101.03	105.70
37	7	78	U	C6-N1-C2	-5.19	117.88	121.00
39	12	238	ILE	CG1-CB-CG2	-5.19	99.98	111.40
1	2	360	A	N1-C6-N6	5.19	121.71	118.60
36	1	589	A	C4-C5-N7	-5.19	108.11	110.70
36	1	920	A	C2-N3-C4	-5.19	108.00	110.60
36	1	1124	U	N1-C2-O2	5.19	126.43	122.80
36	1	2960	C	C6-N1-C2	5.19	122.38	120.30
1	6	1037	C	C6-N1-C2	5.19	122.38	120.30
1	6	1354	G	N7-C8-N9	5.19	115.69	113.10
36	5	98	G	N3-C4-N9	-5.19	122.89	126.00
36	5	1496	C	C6-N1-C1'	-5.19	114.57	120.80
36	5	2693	C	N3-C4-C5	5.19	123.98	121.90
36	5	2968	G	C4-C5-N7	-5.19	108.72	110.80
38	8	3	A	C5-C6-N1	5.19	120.30	117.70
36	5	885	U	N3-C4-O4	5.19	123.03	119.40
1	2	507	U	N3-C2-O2	-5.19	118.57	122.20
1	2	1241	G	C6-C5-N7	-5.19	127.29	130.40
36	1	601	U	N1-C2-O2	5.19	126.43	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1279	C	C5-C6-N1	5.19	123.59	121.00
36	1	2130	G	N1-C2-N3	5.19	127.01	123.90
36	1	2132	C	O5'-P-OP2	-5.19	101.03	105.70
38	4	13	A	C6-C5-N7	-5.19	128.67	132.30
1	6	416	A	C2-N3-C4	-5.19	108.01	110.60
36	5	214	G	C8-N9-C4	5.19	108.47	106.40
36	5	776	U	O4'-C1'-N1	5.19	112.35	108.20
36	5	984	G	C4-N9-C1'	5.19	133.24	126.50
36	5	1392	G	OP2-P-O3'	5.19	116.61	105.20
36	5	1790	G	N3-C4-C5	-5.19	126.01	128.60
36	5	3309	G	N1-C2-N2	-5.19	111.53	116.20
36	5	3309	G	N1-C6-O6	-5.19	116.79	119.90
36	1	1878	G	O4'-C1'-N9	-5.19	104.05	108.20
1	6	308	C	C5-C4-N4	5.19	123.83	120.20
1	6	353	A	N1-C6-N6	-5.19	115.49	118.60
1	6	1389	C	C2-N1-C1'	5.19	124.50	118.80
36	5	1098	A	N1-C6-N6	5.19	121.71	118.60
36	5	1160	C	C5-C6-N1	-5.19	118.41	121.00
36	5	1589	A	C2-N3-C4	5.19	113.19	110.60
1	2	1118	G	C5-C6-O6	-5.18	125.49	128.60
1	6	400	A	C5-C6-N6	-5.18	119.55	123.70
1	6	1058	U	OP1-P-O3'	5.18	116.60	105.20
1	6	1407	U	O5'-P-OP1	-5.18	101.03	105.70
36	5	342	A	C2-N3-C4	5.18	113.19	110.60
36	5	1475	A	N1-C2-N3	5.18	131.89	129.30
36	5	2167	A	C2-N3-C4	5.18	113.19	110.60
36	5	3027	A	N1-C2-N3	5.18	131.89	129.30
36	1	665	A	N1-C6-N6	-5.18	115.49	118.60
36	1	2124	G	C4-C5-N7	5.18	112.87	110.80
36	5	530	G	O4'-C1'-N9	5.18	112.34	108.20
36	5	690	A	C8-N9-C4	5.18	107.87	105.80
36	5	2134	G	C8-N9-C1'	-5.18	120.26	127.00
36	5	2617	U	O5'-P-OP2	-5.18	101.03	105.70
36	5	2887	A	O4'-C1'-N9	-5.18	104.05	108.20
1	2	334	G	N9-C4-C5	-5.18	103.33	105.40
36	5	888	A	C5-N7-C8	-5.18	101.31	103.90
36	5	2917	G	C4-N9-C1'	5.18	133.24	126.50
36	5	2941	A	OP1-P-O3'	5.18	116.60	105.20
36	1	857	G	C5-C6-N1	-5.18	108.91	111.50
36	1	1298	C	O5'-P-OP1	-5.18	101.04	105.70
36	1	2796	G	C8-N9-C4	-5.18	104.33	106.40
1	6	541	A	OP1-P-O3'	5.18	116.59	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	878	G	C6-C5-N7	-5.18	127.29	130.40
40	13	334	ARG	NE-CZ-NH1	-5.18	117.71	120.30
36	5	2377	G	N1-C2-N2	-5.18	111.54	116.20
36	5	2388	U	N3-C4-O4	5.18	123.03	119.40
1	2	1636	C	C6-N1-C2	-5.18	118.23	120.30
36	1	884	A	N1-C6-N6	5.18	121.70	118.60
36	1	1525	G	C8-N9-C4	-5.18	104.33	106.40
36	1	2887	A	C4-C5-N7	5.18	113.29	110.70
36	1	2940	A	C6-N1-C2	-5.18	115.49	118.60
36	1	3368	U	C2-N1-C1'	-5.18	111.49	117.70
1	6	448	C	N3-C4-C5	-5.18	119.83	121.90
36	5	424	G	N1-C2-N3	-5.18	120.79	123.90
36	5	2627	C	C6-N1-C2	-5.18	118.23	120.30
36	5	2699	G	N3-C4-N9	5.18	129.11	126.00
36	5	3062	G	C2-N3-C4	5.18	114.49	111.90
36	5	3200	G	N1-C6-O6	5.18	123.00	119.90
38	8	140	G	N1-C6-O6	5.18	123.01	119.90
36	5	116	A	O4'-C1'-N9	5.17	112.34	108.20
36	5	1825	G	C5-C6-O6	5.17	131.71	128.60
36	5	3131	U	N1-C2-O2	5.17	126.42	122.80
1	2	606	A	N1-C6-N6	5.17	121.70	118.60
36	1	158	G	C6-C5-N7	-5.17	127.30	130.40
36	1	2618	G	C4-C5-N7	-5.17	108.73	110.80
36	5	40	A	N1-C6-N6	5.17	121.70	118.60
36	5	41	G	OP2-P-O3'	5.17	116.58	105.20
36	5	1187	C	N1-C2-O2	5.17	122.00	118.90
36	5	2287	C	N1-C2-O2	-5.17	115.80	118.90
36	5	2650	U	N1-C2-O2	-5.17	119.18	122.80
36	5	3180	A	C6-N1-C2	-5.17	115.50	118.60
36	1	176	G	C4-N9-C1'	5.17	133.22	126.50
36	1	368	G	N3-C2-N2	5.17	123.52	119.90
36	1	2660	G	N3-C4-N9	5.17	129.10	126.00
1	6	1123	C	O5'-P-OP1	-5.17	101.05	105.70
36	5	1471	U	N3-C4-O4	-5.17	115.78	119.40
36	5	2875	U	P-O3'-C3'	-5.17	113.50	119.70
1	2	1600	A	P-O3'-C3'	5.17	125.90	119.70
36	1	1226	G	N3-C4-C5	5.17	131.18	128.60
36	1	2571	U	N3-C2-O2	-5.17	118.58	122.20
36	1	2650	U	OP1-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	N3-C2-O2	-5.17	118.58	122.20
36	1	359	U	C6-N1-C2	-5.17	117.90	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	917	A	O5'-P-OP1	5.17	116.90	110.70
38	4	32	C	C6-N1-C1'	5.17	127.00	120.80
1	6	1639	C	N3-C4-C5	5.17	123.97	121.90
36	5	366	A	C2-N3-C4	-5.17	108.02	110.60
36	5	1513	G	N3-C4-N9	5.17	129.10	126.00
36	5	2700	G	C4-C5-N7	5.17	112.87	110.80
37	7	83	U	C2-N1-C1'	-5.17	111.50	117.70
36	1	1417	G	C8-N9-C4	5.17	108.47	106.40
1	6	1514	U	N3-C4-O4	-5.17	115.78	119.40
36	5	1542	G	N7-C8-N9	5.17	115.68	113.10
36	5	1695	U	N3-C2-O2	-5.17	118.58	122.20
36	5	2246	G	C2-N3-C4	5.17	114.48	111.90
36	1	35	A	C4-C5-N7	5.16	113.28	110.70
36	1	1179	A	OP2-P-O3'	5.16	116.56	105.20
36	1	2795	U	OP1-P-OP2	5.16	127.34	119.60
36	1	3271	G	N1-C6-O6	5.16	123.00	119.90
1	6	1484	G	N3-C4-C5	-5.16	126.02	128.60
36	5	3060	C	C5-C4-N4	-5.16	116.58	120.20
36	5	3099	C	C6-N1-C2	5.16	122.36	120.30
36	1	1351	U	N3-C2-O2	-5.16	118.59	122.20
36	1	2147	A	C5-C6-N1	5.16	120.28	117.70
57	n1	17	ARG	NE-CZ-NH2	-5.16	117.72	120.30
36	1	794	U	O5'-P-OP2	-5.16	101.06	105.70
36	1	2939	G	OP2-P-O3'	5.16	116.55	105.20
1	6	72	A	C8-N9-C4	-5.16	103.73	105.80
1	6	1000	C	N1-C2-N3	5.16	122.81	119.20
36	5	86	G	O4'-C1'-N9	5.16	112.33	108.20
36	5	2981	U	N3-C2-O2	-5.16	118.59	122.20
36	5	3373	U	N1-C2-N3	5.16	118.00	114.90
37	7	104	A	C5-C6-N1	-5.16	115.12	117.70
36	1	3134	A	N9-C4-C5	-5.16	103.74	105.80
36	1	3140	G	N3-C4-N9	5.16	129.09	126.00
1	6	606	A	N9-C4-C5	-5.16	103.74	105.80
1	6	1137	A	N9-C4-C5	-5.16	103.74	105.80
1	6	1361	U	N1-C2-O2	5.16	126.41	122.80
1	6	1550	A	C5-N7-C8	-5.16	101.32	103.90
36	5	20	A	N1-C6-N6	5.16	121.70	118.60
36	5	934	G	N3-C4-C5	-5.16	126.02	128.60
36	5	1192	C	C2-N1-C1'	5.16	124.47	118.80
37	7	75	G	C4-C5-C6	5.16	121.89	118.80
36	1	765	C	N1-C2-O2	5.16	121.99	118.90
36	1	2366	C	O5'-P-OP2	-5.16	101.06	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	1	G	C4-C5-N7	5.16	112.86	110.80
36	5	2407	C	C5-C4-N4	-5.16	116.59	120.20
36	1	1522	U	N3-C4-O4	5.16	123.01	119.40
36	5	973	A	C5-C6-N6	-5.16	119.58	123.70
36	5	1017	C	N1-C2-O2	5.16	121.99	118.90
36	5	2703	A	N9-C4-C5	5.16	107.86	105.80
36	5	2817	A	OP2-P-O3'	5.16	116.54	105.20
36	5	3088	G	N1-C6-O6	5.16	122.99	119.90
1	6	1458	G	C4-N9-C1'	5.15	133.20	126.50
36	5	1612	A	C5-C6-N6	5.15	127.82	123.70
36	5	1877	U	N3-C4-O4	5.15	123.01	119.40
36	5	2284	C	N3-C4-C5	5.15	123.96	121.90
36	5	2687	G	C5-C6-N1	5.15	114.08	111.50
1	2	1739	C	OP2-P-O3'	5.15	116.54	105.20
36	1	198	A	C8-N9-C4	-5.15	103.74	105.80
36	1	205	C	C2-N3-C4	-5.15	117.32	119.90
1	6	75	U	O4'-C1'-N1	5.15	112.32	108.20
1	6	937	C	N3-C4-C5	-5.15	119.84	121.90
1	6	1266	U	C5-C6-N1	5.15	125.28	122.70
36	5	838	G	N1-C2-N3	5.15	126.99	123.90
36	5	1368	U	N3-C2-O2	5.15	125.81	122.20
36	1	960	U	O4'-C1'-N1	5.15	112.32	108.20
36	1	1329	U	OP1-P-O3'	5.15	116.53	105.20
36	1	3034	C	N3-C2-O2	-5.15	118.30	121.90
1	6	410	A	C5-C6-N1	5.15	120.28	117.70
36	5	1284	C	C5-C6-N1	5.15	123.58	121.00
36	5	3057	U	C5-C4-O4	-5.15	122.81	125.90
37	7	63	A	C8-N9-C4	5.15	107.86	105.80
1	2	1121	C	C2-N3-C4	-5.15	117.33	119.90
36	1	3269	U	P-O3'-C3'	5.15	125.88	119.70
37	3	94	C	N3-C2-O2	5.15	125.50	121.90
1	6	1140	G	C2-N3-C4	5.15	114.47	111.90
36	5	2988	C	C5-C6-N1	-5.15	118.42	121.00
36	1	857	G	N1-C6-O6	5.15	122.99	119.90
36	1	2110	G	O5'-P-OP1	-5.15	101.07	105.70
36	1	2621	G	C4-C5-N7	-5.15	108.74	110.80
1	6	455	C	N3-C4-N4	5.15	121.60	118.00
36	5	883	A	O5'-P-OP2	5.15	116.88	110.70
36	5	892	U	C5-C4-O4	5.15	128.99	125.90
36	5	2350	C	N3-C2-O2	-5.15	118.30	121.90
1	2	1756	A	C5-C6-N6	-5.15	119.58	123.70
36	5	1303	A	C5-C6-N6	-5.15	119.58	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1793	C	O5'-P-OP1	-5.15	101.07	105.70
36	5	2739	A	C8-N9-C4	5.15	107.86	105.80
36	5	3115	C	N1-C2-N3	5.15	122.80	119.20
1	2	1536	G	C4-N9-C1'	5.14	133.19	126.50
1	2	1774	G	N3-C4-C5	-5.14	126.03	128.60
36	1	1844	C	C5-C6-N1	-5.14	118.43	121.00
36	1	2407	C	C2-N3-C4	-5.14	117.33	119.90
38	4	61	A	OP2-P-O3'	5.14	116.52	105.20
1	6	1552	U	N1-C2-O2	-5.14	119.20	122.80
36	5	915	A	N3-C4-C5	-5.14	123.20	126.80
36	5	933	A	N1-C2-N3	5.14	131.87	129.30
36	5	2295	A	N1-C6-N6	5.14	121.69	118.60
1	2	34	G	N1-C6-O6	-5.14	116.81	119.90
36	1	519	A	N1-C6-N6	5.14	121.69	118.60
38	4	102	U	C5-C6-N1	5.14	125.27	122.70
1	6	363	G	C8-N9-C4	5.14	108.46	106.40
1	6	416	A	N1-C6-N6	5.14	121.69	118.60
36	5	622	A	C8-N9-C4	5.14	107.86	105.80
36	5	630	A	C2-N3-C4	-5.14	108.03	110.60
36	5	833	G	N1-C2-N3	5.14	126.99	123.90
36	5	2628	A	C5-C6-N1	5.14	120.27	117.70
36	1	1157	G	C5-C6-O6	5.14	131.69	128.60
36	1	2977	G	C2-N3-C4	5.14	114.47	111.90
36	1	3326	G	N7-C8-N9	-5.14	110.53	113.10
1	2	1536	G	C8-N9-C1'	-5.14	120.32	127.00
36	1	1114	U	N1-C2-O2	5.14	126.40	122.80
36	1	2850	G	C6-C5-N7	-5.14	127.32	130.40
36	5	723	U	C6-N1-C2	-5.14	117.92	121.00
36	5	2617	U	C6-N1-C2	-5.14	117.92	121.00
38	8	32	C	N3-C2-O2	5.14	125.50	121.90
36	1	725	G	OP1-P-O3'	5.14	116.50	105.20
36	5	1178	G	C4-C5-C6	5.14	121.88	118.80
1	2	1168	U	OP1-P-O3'	5.14	116.50	105.20
1	2	1291	G	N1-C6-O6	5.14	122.98	119.90
1	2	1598	U	N1-C2-O2	-5.14	119.20	122.80
1	2	1731	A	C8-N9-C4	5.14	107.86	105.80
36	1	1000	C	C6-N1-C1'	-5.14	114.64	120.80
36	1	1361	U	C5-C4-O4	-5.14	122.82	125.90
36	1	2733	A	N1-C6-N6	5.14	121.68	118.60
38	4	13	A	C5-C6-N6	-5.14	119.59	123.70
36	5	1112	A	C4-N9-C1'	5.14	135.54	126.30
36	5	1147	G	N1-C2-N2	5.14	120.82	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1378	U	C5-C6-N1	-5.14	120.13	122.70
36	5	1779	C	C6-N1-C2	5.14	122.35	120.30
1	2	426	G	C8-N9-C1'	-5.13	120.32	127.00
1	2	610	G	C6-C5-N7	-5.13	127.32	130.40
36	1	95	A	OP1-P-O3'	5.13	116.50	105.20
36	1	1530	U	N1-C1'-C2'	-5.13	106.35	112.00
36	1	2142	A	C2-N3-C4	5.13	113.17	110.60
36	1	3318	G	C6-C5-N7	-5.13	127.32	130.40
1	6	1614	A	O4'-C1'-N9	5.13	112.31	108.20
36	5	359	U	OP2-P-O3'	5.13	116.50	105.20
36	5	1200	A	N1-C2-N3	5.13	131.87	129.30
36	5	3011	A	OP1-P-O3'	5.13	116.50	105.20
47	m0	88	ARG	NE-CZ-NH1	-5.13	117.73	120.30
1	2	312	A	N9-C4-C5	5.13	107.85	105.80
1	2	747	C	N1-C2-O2	5.13	121.98	118.90
36	1	70	A	N1-C2-N3	5.13	131.87	129.30
36	1	147	U	N1-C2-N3	5.13	117.98	114.90
1	6	1535	U	N1-C2-N3	5.13	117.98	114.90
36	5	1366	A	C5-C6-N6	5.13	127.81	123.70
38	8	68	G	C8-N9-C1'	-5.13	120.33	127.00
36	1	1381	A	O5'-P-OP1	-5.13	101.08	105.70
36	1	1449	A	C6-N1-C2	-5.13	115.52	118.60
36	1	1466	G	C8-N9-C1'	-5.13	120.33	127.00
36	1	3277	U	P-O3'-C3'	5.13	125.86	119.70
38	4	108	C	N3-C4-C5	-5.13	119.85	121.90
1	6	1573	A	P-O3'-C3'	5.13	125.86	119.70
1	6	1633	A	N1-C6-N6	-5.13	115.52	118.60
1	6	1782	A	C5-C6-N1	-5.13	115.14	117.70
36	5	273	A	C8-N9-C4	5.13	107.85	105.80
36	5	2281	A	OP1-P-O3'	5.13	116.49	105.20
36	1	358	G	C5-C6-N1	5.13	114.06	111.50
36	1	678	G	C5-C6-O6	-5.13	125.52	128.60
36	1	1001	G	N1-C6-O6	5.13	122.98	119.90
36	1	1169	A	C4-C5-C6	5.13	119.56	117.00
38	4	7	U	N1-C2-O2	-5.13	119.21	122.80
1	6	615	A	N1-C2-N3	5.13	131.87	129.30
36	5	3207	U	C6-N1-C1'	5.13	128.38	121.20
66	o0	41	LEU	CA-CB-CG	5.13	127.10	115.30
1	2	1768	G	C8-N9-C1'	5.13	133.67	127.00
36	1	2631	U	N3-C4-C5	5.13	117.68	114.60
1	6	423	G	N3-C2-N2	-5.13	116.31	119.90
1	6	904	G	C6-C5-N7	-5.13	127.32	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1077	U	N1-C2-O2	-5.13	119.21	122.80
36	1	2287	C	N1-C2-O2	-5.13	115.82	118.90
36	1	2400	G	N3-C4-C5	5.13	131.16	128.60
38	4	82	U	P-O3'-C3'	5.13	125.85	119.70
1	6	1767	G	N7-C8-N9	-5.13	110.54	113.10
36	5	75	G	N9-C4-C5	-5.13	103.35	105.40
36	5	2361	A	C5-C6-N1	5.13	120.26	117.70
36	5	2767	U	C5-C4-O4	5.13	128.98	125.90
51	m5	187	ARG	NE-CZ-NH1	-5.13	117.74	120.30
52	m6	141	LEU	CB-CG-CD2	-5.13	102.28	111.00
1	2	549	G	C8-N9-C4	-5.12	104.35	106.40
36	1	94	G	C2-N3-C4	-5.12	109.34	111.90
36	1	1660	C	N3-C4-N4	5.12	121.59	118.00
1	6	568	G	N1-C6-O6	-5.12	116.83	119.90
36	5	1226	G	N1-C6-O6	5.12	122.97	119.90
36	5	2848	G	C6-C5-N7	-5.12	127.33	130.40
36	1	1821	U	C5-C4-O4	-5.12	122.83	125.90
36	1	1888	U	C5-C6-N1	-5.12	120.14	122.70
38	4	73	U	N3-C4-C5	5.12	117.67	114.60
1	6	362	G	N1-C2-N2	-5.12	111.59	116.20
1	6	1288	G	O5'-P-OP2	-5.12	101.09	105.70
36	5	951	A	C5-N7-C8	-5.12	101.34	103.90
36	5	1200	A	P-O3'-C3'	5.12	125.85	119.70
36	5	1316	C	N3-C4-C5	-5.12	119.85	121.90
36	5	1352	A	P-O3'-C3'	5.12	125.85	119.70
36	5	1855	U	N3-C2-O2	-5.12	118.61	122.20
36	5	2550	U	C5-C4-O4	5.12	128.97	125.90
36	5	2763	U	N3-C2-O2	5.12	125.79	122.20
36	5	3220	G	N1-C2-N3	5.12	126.97	123.90
36	1	707	U	C2-N1-C1'	-5.12	111.55	117.70
36	1	2987	A	C6-C5-N7	-5.12	128.71	132.30
36	5	672	A	C6-C5-N7	-5.12	128.72	132.30
36	5	1059	G	N3-C4-N9	5.12	129.07	126.00
36	5	1475	A	C2-N3-C4	-5.12	108.04	110.60
36	5	1914	G	O5'-P-OP2	5.12	116.85	110.70
36	5	2107	A	O5'-P-OP1	-5.12	101.09	105.70
1	2	1789	G	N3-C4-N9	5.12	129.07	126.00
36	1	2344	U	O5'-P-OP1	5.12	116.84	110.70
36	5	3006	A	C6-C5-N7	-5.12	128.72	132.30
1	2	1273	G	N1-C6-O6	-5.12	116.83	119.90
36	1	943	U	N1-C2-O2	-5.12	119.22	122.80
1	6	10	G	N9-C4-C5	5.12	107.45	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	54	C	N3-C4-C5	5.12	123.95	121.90
1	6	103	A	C8-N9-C4	-5.12	103.75	105.80
1	6	402	C	C5-C4-N4	-5.12	116.62	120.20
36	5	533	A	O5'-P-OP1	-5.12	101.09	105.70
36	5	1294	A	C5-C6-N1	5.12	120.26	117.70
36	5	3140	G	C4-C5-N7	5.12	112.85	110.80
36	1	2419	A	N7-C8-N9	5.12	116.36	113.80
1	6	311	U	N3-C4-C5	-5.12	111.53	114.60
1	6	1651	A	O5'-P-OP2	-5.12	101.09	105.70
37	7	8	G	N3-C4-C5	-5.12	126.04	128.60
1	2	323	A	N7-C8-N9	5.12	116.36	113.80
36	1	1360	C	N1-C2-O2	-5.12	115.83	118.90
36	1	1447	G	C2-N3-C4	5.12	114.46	111.90
36	1	2921	U	N1-C2-N3	5.12	117.97	114.90
1	6	913	G	C5-C6-O6	-5.12	125.53	128.60
1	6	1465	C	N1-C2-O2	-5.12	115.83	118.90
36	5	1482	A	C6-N1-C2	-5.12	115.53	118.60
44	17	229	PHE	CB-CG-CD2	-5.12	117.22	120.80
1	2	1100	G	C8-N9-C4	-5.11	104.35	106.40
36	1	1515	A	C4-C5-C6	5.11	119.56	117.00
36	1	1904	C	O5'-P-OP1	5.11	116.84	110.70
36	1	2369	G	C5-C6-O6	-5.11	125.53	128.60
36	1	2726	C	C2-N3-C4	-5.11	117.34	119.90
36	1	2993	G	C5-C6-O6	-5.11	125.53	128.60
36	1	3028	G	C6-C5-N7	-5.11	127.33	130.40
1	6	959	U	C5-C4-O4	-5.11	122.83	125.90
1	6	1183	A	C8-N9-C4	-5.11	103.75	105.80
1	6	1746	A	N9-C4-C5	5.11	107.85	105.80
1	6	1765	A	O5'-P-OP1	-5.11	101.10	105.70
36	5	809	G	C4-C5-N7	5.11	112.85	110.80
36	1	2873	U	N1-C2-O2	5.11	126.38	122.80
36	5	2377	G	C5-C6-N1	5.11	114.06	111.50
36	1	1107	C	C5-C4-N4	-5.11	116.62	120.20
36	1	1307	G	N3-C4-N9	-5.11	122.93	126.00
36	1	1443	G	N7-C8-N9	5.11	115.66	113.10
1	6	314	C	N3-C4-N4	5.11	121.58	118.00
36	5	75	G	C4-C5-N7	5.11	112.84	110.80
36	5	884	A	C5-C6-N6	-5.11	119.61	123.70
52	m6	78	ARG	NE-CZ-NH2	-5.11	117.75	120.30
36	1	944	C	C6-N1-C2	-5.11	118.26	120.30
1	6	1457	C	O4'-C1'-N1	5.11	112.29	108.20
36	1	1189	C	N1-C2-O2	-5.11	115.83	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2856	G	C5-C6-O6	-5.11	125.54	128.60
36	1	3142	A	N1-C2-N3	5.11	131.85	129.30
1	6	904	G	N3-C4-N9	5.11	129.06	126.00
1	6	1127	G	N1-C2-N3	5.11	126.97	123.90
36	5	39	A	N1-C6-N6	5.11	121.66	118.60
36	5	821	U	C2-N3-C4	-5.11	123.94	127.00
36	5	1723	A	N9-C4-C5	5.11	107.84	105.80
36	5	1866	C	O4'-C1'-N1	-5.11	104.11	108.20
36	5	2882	U	N1-C2-N3	5.11	117.97	114.90
43	16	173	MET	CB-CG-SD	-5.11	97.08	112.40
1	2	423	G	C4-C5-N7	-5.11	108.76	110.80
36	1	213	A	C5-N7-C8	-5.11	101.35	103.90
36	1	1187	C	N3-C4-N4	-5.11	114.43	118.00
36	1	1344	G	OP2-P-O3'	5.11	116.43	105.20
36	1	2246	G	N9-C4-C5	5.11	107.44	105.40
1	6	1399	C	N1-C2-O2	5.11	121.96	118.90
36	5	96	G	C5-N7-C8	-5.11	101.75	104.30
36	5	2147	A	N7-C8-N9	-5.11	111.25	113.80
36	1	2154	U	C6-N1-C2	-5.10	117.94	121.00
36	1	2367	A	C4-C5-C6	5.10	119.55	117.00
36	5	1890	U	C6-N1-C2	-5.10	117.94	121.00
36	1	395	A	N9-C4-C5	5.10	107.84	105.80
36	1	1399	A	O5'-P-OP2	-5.10	101.11	105.70
36	1	2836	C	C5-C4-N4	5.10	123.77	120.20
1	6	1327	C	OP2-P-O3'	5.10	116.42	105.20
36	5	41	G	C5-N7-C8	-5.10	101.75	104.30
36	5	1876	U	C2-N3-C4	-5.10	123.94	127.00
36	5	1888	U	C4-C5-C6	5.10	122.76	119.70
36	5	2158	A	C5-C6-N1	5.10	120.25	117.70
36	5	2365	C	C5-C6-N1	-5.10	118.45	121.00
36	5	2632	G	N3-C4-N9	5.10	129.06	126.00
36	5	3215	A	N1-C6-N6	5.10	121.66	118.60
36	5	3223	A	C5-C6-N1	5.10	120.25	117.70
36	5	3308	C	OP2-P-O3'	5.10	116.42	105.20
37	7	101	G	C8-N9-C1'	-5.10	120.37	127.00
76	q0	97	ARG	NE-CZ-NH1	-5.10	117.75	120.30
36	1	1434	G	N3-C4-N9	5.10	129.06	126.00
36	1	2313	A	C5-N7-C8	-5.10	101.35	103.90
36	1	2760	C	N3-C4-C5	-5.10	119.86	121.90
1	6	935	U	C6-N1-C2	-5.10	117.94	121.00
36	5	1900	A	C5-C6-N1	5.10	120.25	117.70
36	5	2420	C	N3-C2-O2	5.10	125.47	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	411	U	N3-C4-C5	-5.10	111.54	114.60
36	1	1129	A	N1-C6-N6	5.10	121.66	118.60
36	1	2146	C	N3-C4-N4	-5.10	114.43	118.00
36	5	392	G	C5-C6-O6	-5.10	125.54	128.60
36	5	1170	A	OP2-P-O3'	5.10	116.42	105.20
36	5	3137	C	C6-N1-C1'	5.10	126.92	120.80
1	2	1027	A	C6-C5-N7	-5.10	128.73	132.30
36	1	145	G	C4-C5-N7	5.10	112.84	110.80
36	1	793	C	C5-C4-N4	-5.10	116.63	120.20
36	1	994	G	N1-C6-O6	-5.10	116.84	119.90
36	1	1556	C	C4-C5-C6	5.10	119.95	117.40
36	1	2200	U	N1-C2-N3	5.10	117.96	114.90
1	6	630	A	N9-C4-C5	-5.10	103.76	105.80
1	6	1021	C	N3-C4-C5	-5.10	119.86	121.90
36	5	2970	C	C4-C5-C6	5.10	119.95	117.40
36	1	921	A	N9-C4-C5	5.10	107.84	105.80
36	1	2287	C	C4-C5-C6	5.10	119.95	117.40
1	6	681	U	N1-C2-O2	5.10	126.37	122.80
36	5	196	G	N3-C2-N2	5.10	123.47	119.90
1	2	307	G	C8-N9-C4	5.09	108.44	106.40
36	1	667	C	N3-C4-C5	5.09	123.94	121.90
36	1	1507	G	O5'-P-OP2	-5.09	101.11	105.70
36	1	1587	A	C6-N1-C2	5.09	121.66	118.60
36	1	2789	U	N1-C2-N3	5.09	117.96	114.90
36	1	3355	U	C2-N1-C1'	5.09	123.81	117.70
36	5	859	G	N3-C4-N9	5.09	129.06	126.00
36	5	1001	G	C5-C6-O6	-5.09	125.54	128.60
36	5	2110	G	C4-C5-N7	5.09	112.84	110.80
36	5	1057	A	C4-C5-N7	5.09	113.25	110.70
36	5	2151	C	C6-N1-C2	5.09	122.34	120.30
36	1	1545	A	N7-C8-N9	5.09	116.35	113.80
36	1	1760	A	C8-N9-C4	-5.09	103.76	105.80
36	1	2359	C	C2-N3-C4	-5.09	117.35	119.90
36	1	2395	G	OP2-P-O3'	5.09	116.40	105.20
1	6	616	G	C8-N9-C4	-5.09	104.36	106.40
1	6	951	A	C8-N9-C4	5.09	107.84	105.80
1	6	1773	C	N1-C2-O2	-5.09	115.84	118.90
36	5	576	C	N3-C4-N4	5.09	121.56	118.00
36	5	1592	G	C4-C5-C6	5.09	121.86	118.80
36	5	2352	A	C4-C5-C6	5.09	119.55	117.00
36	1	1380	G	C2-N3-C4	-5.09	109.36	111.90
36	1	1587	A	C4-C5-C6	-5.09	114.45	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2953	U	N1-C2-O2	-5.09	119.24	122.80
38	4	85	G	C5-C6-O6	-5.09	125.55	128.60
1	6	272	U	OP2-P-O3'	5.09	116.40	105.20
10	s8	8	ARG	NE-CZ-NH2	-5.09	117.75	120.30
36	5	1120	A	OP2-P-O3'	5.09	116.39	105.20
36	5	2416	U	N1-C2-N3	5.09	117.95	114.90
36	1	155	G	N1-C2-N2	-5.09	111.62	116.20
36	1	388	G	N9-C4-C5	5.09	107.44	105.40
36	1	1547	G	N3-C4-N9	5.09	129.05	126.00
36	5	1429	G	C5-N7-C8	-5.09	101.76	104.30
36	1	370	U	C6-N1-C2	-5.09	117.95	121.00
36	1	786	A	C5-N7-C8	5.09	106.44	103.90
36	1	788	C	O5'-P-OP1	-5.09	101.12	105.70
36	1	2409	G	C6-N1-C2	-5.09	122.05	125.10
36	1	3041	U	C6-N1-C2	-5.09	117.95	121.00
1	6	162	A	N1-C6-N6	-5.09	115.55	118.60
1	6	338	C	N3-C4-N4	5.09	121.56	118.00
1	6	459	G	C5-C6-N1	-5.09	108.96	111.50
36	5	2142	A	C6-N1-C2	-5.09	115.55	118.60
36	5	2913	C	N3-C2-O2	5.09	125.46	121.90
1	2	1291	G	C8-N9-C4	-5.08	104.37	106.40
36	5	996	A	OP2-P-O3'	5.08	116.39	105.20
36	5	1641	U	C6-N1-C2	5.08	124.05	121.00
1	2	1547	A	N1-C6-N6	-5.08	115.55	118.60
36	1	104	G	N9-C4-C5	-5.08	103.37	105.40
36	1	153	U	C4-C5-C6	5.08	122.75	119.70
36	1	635	G	C6-N1-C2	-5.08	122.05	125.10
36	1	718	G	C5-C6-O6	-5.08	125.55	128.60
36	1	982	C	C5-C6-N1	-5.08	118.46	121.00
36	1	2920	U	C2-N3-C4	-5.08	123.95	127.00
36	1	3252	G	C8-N9-C4	5.08	108.43	106.40
36	5	824	C	C4-C5-C6	5.08	119.94	117.40
36	5	1300	G	OP1-P-O3'	5.08	116.38	105.20
36	5	1892	G	C5-C6-N1	5.08	114.04	111.50
36	5	3125	U	O5'-P-OP1	-5.08	101.13	105.70
36	1	2627	C	N1-C2-O2	-5.08	115.85	118.90
36	1	2995	A	C2-N3-C4	-5.08	108.06	110.60
36	5	75	G	C6-C5-N7	-5.08	127.35	130.40
36	5	739	G	N1-C6-O6	-5.08	116.85	119.90
1	2	624	G	N1-C6-O6	-5.08	116.85	119.90
36	1	427	C	N3-C4-C5	-5.08	119.87	121.90
36	1	2817	A	C5-C6-N6	-5.08	119.64	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1112	A	N3-C4-N9	5.08	131.46	127.40
36	5	2361	A	C6-N1-C2	-5.08	115.55	118.60
36	1	2698	G	C5-C6-N1	5.08	114.04	111.50
36	1	2983	C	O4'-C1'-N1	5.08	112.26	108.20
1	6	1605	G	C8-N9-C4	-5.08	104.37	106.40
36	5	404	G	C4-N9-C1'	5.08	133.10	126.50
36	5	2704	A	OP1-P-OP2	5.08	127.22	119.60
36	5	3342	A	N1-C2-N3	5.08	131.84	129.30
1	2	610	G	N1-C6-O6	5.08	122.95	119.90
34	SR	161	LYS	N-CA-C	5.08	124.71	111.00
36	1	368	G	C4-C5-N7	5.08	112.83	110.80
36	1	1269	U	C2-N1-C1'	5.08	123.79	117.70
36	1	2924	U	N1-C2-O2	-5.08	119.25	122.80
36	5	1432	C	O5'-P-OP2	-5.08	101.13	105.70
36	5	1851	G	C4-C5-N7	5.08	112.83	110.80
37	7	51	A	C8-N9-C4	-5.08	103.77	105.80
36	1	404	G	C5-C6-N1	-5.08	108.96	111.50
36	1	1002	A	C4-C5-C6	-5.08	114.46	117.00
36	1	1198	C	N1-C2-N3	5.08	122.75	119.20
36	1	1834	U	N1-C2-N3	5.08	117.95	114.90
36	1	1888	U	N1-C2-N3	5.08	117.95	114.90
36	1	2180	G	O5'-P-OP1	-5.08	101.13	105.70
1	6	163	G	C5-C6-N1	-5.08	108.96	111.50
1	6	540	G	C2-N3-C4	5.08	114.44	111.90
36	5	2677	G	C5-C6-O6	-5.08	125.56	128.60
37	7	22	A	C4-N9-C1'	5.08	135.44	126.30
36	1	693	A	N7-C8-N9	5.07	116.34	113.80
36	1	1127	G	C5-C6-O6	-5.07	125.56	128.60
36	1	1396	C	N3-C2-O2	5.07	125.45	121.90
36	1	1493	G	C6-N1-C2	-5.07	122.06	125.10
36	1	1795	U	N3-C2-O2	-5.07	118.65	122.20
1	6	687	G	N9-C4-C5	5.07	107.43	105.40
36	5	210	U	C5-C6-N1	-5.07	120.16	122.70
36	5	957	C	N1-C2-O2	5.07	121.94	118.90
36	5	2117	A	C5-C6-N6	5.07	127.76	123.70
1	2	1235	C	C2-N1-C1'	-5.07	113.22	118.80
36	1	1551	C	N1-C2-O2	5.07	121.94	118.90
36	1	2968	G	O5'-P-OP1	-5.07	101.14	105.70
36	1	2993	G	C4-C5-N7	5.07	112.83	110.80
1	6	1596	C	C6-N1-C2	-5.07	118.27	120.30
1	6	1678	A	C6-C5-N7	-5.07	128.75	132.30
36	5	2345	A	C8-N9-C4	5.07	107.83	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	647	G	N9-C4-C5	5.07	107.43	105.40
36	1	91	G	C5-C6-O6	-5.07	125.56	128.60
36	1	337	G	N1-C2-N2	5.07	120.76	116.20
36	1	1585	C	C6-N1-C2	5.07	122.33	120.30
37	3	61	G	C6-C5-N7	-5.07	127.36	130.40
1	6	1002	G	C4-C5-N7	5.07	112.83	110.80
36	5	659	G	OP2-P-O3'	5.07	116.36	105.20
36	5	1116	G	N3-C4-C5	-5.07	126.06	128.60
36	5	1154	A	C8-N9-C4	-5.07	103.77	105.80
36	5	2914	G	C4-N9-C1'	5.07	133.09	126.50
36	5	2916	U	OP1-P-O3'	5.07	116.36	105.20
36	1	91	G	N3-C4-N9	5.07	129.04	126.00
36	1	2395	G	C5-C6-O6	-5.07	125.56	128.60
1	6	334	G	N1-C2-N2	-5.07	111.64	116.20
36	5	586	C	N3-C2-O2	5.07	125.45	121.90
1	2	901	G	C4-N9-C1'	5.07	133.09	126.50
36	1	1489	A	C4-C5-N7	5.07	113.23	110.70
36	1	2617	U	C6-N1-C1'	5.07	128.29	121.20
1	6	1672	G	N3-C4-C5	-5.07	126.07	128.60
28	d6	10	ARG	NE-CZ-NH1	-5.07	117.77	120.30
36	5	56	G	C6-C5-N7	5.07	133.44	130.40
36	5	957	C	C2-N1-C1'	5.07	124.37	118.80
36	5	985	U	C6-N1-C2	5.07	124.04	121.00
36	5	1047	A	C5-N7-C8	-5.07	101.37	103.90
36	5	2619	G	C5-N7-C8	-5.07	101.77	104.30
36	5	2787	G	OP1-P-OP2	5.07	127.20	119.60
36	5	2815	G	C5-N7-C8	5.07	106.83	104.30
36	5	2980	U	C2-N3-C4	-5.07	123.96	127.00
36	5	3006	A	N7-C8-N9	5.07	116.33	113.80
36	1	34	A	N7-C8-N9	5.07	116.33	113.80
36	1	80	G	N3-C4-N9	5.07	129.04	126.00
36	1	649	A	N1-C6-N6	-5.07	115.56	118.60
36	1	709	A	O5'-P-OP2	5.07	116.78	110.70
36	1	1892	G	C5-C6-O6	-5.07	125.56	128.60
61	N5	133	LEU	CA-CB-CG	5.07	126.95	115.30
1	6	813	U	C6-N1-C1'	-5.07	114.11	121.20
36	5	438	A	C8-N9-C4	5.07	107.83	105.80
49	m3	46	ILE	CG1-CB-CG2	-5.07	100.25	111.40
1	2	1767	G	O4'-C1'-N9	5.06	112.25	108.20
36	1	59	G	OP1-P-O3'	5.06	116.34	105.20
36	1	2334	U	O5'-P-OP2	-5.06	101.14	105.70
1	6	1746	A	C8-N9-C4	-5.06	103.77	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1157	G	C5-C6-O6	5.06	131.64	128.60
36	5	1604	G	C6-C5-N7	-5.06	127.36	130.40
36	5	2277	C	OP2-P-O3'	5.06	116.34	105.20
37	7	39	C	N3-C4-C5	5.06	123.93	121.90
1	2	572	C	O5'-P-OP1	-5.06	101.14	105.70
1	6	901	G	O4'-C1'-N9	5.06	112.25	108.20
1	6	1595	U	O4'-C1'-N1	5.06	112.25	108.20
1	6	1672	G	C4-C5-C6	5.06	121.84	118.80
36	5	645	A	N3-C4-C5	-5.06	123.26	126.80
36	5	921	A	C5-C6-N6	5.06	127.75	123.70
36	5	1603	A	C8-N9-C4	-5.06	103.78	105.80
36	5	2142	A	OP1-P-OP2	-5.06	112.00	119.60
36	5	2552	C	N3-C2-O2	-5.06	118.36	121.90
36	5	2763	U	N3-C4-C5	5.06	117.64	114.60
36	5	2950	G	OP1-P-O3'	5.06	116.34	105.20
36	5	3131	U	C4-C5-C6	-5.06	116.66	119.70
37	7	103	A	C4-C5-N7	5.06	113.23	110.70
38	8	43	A	N9-C4-C5	5.06	107.83	105.80
36	1	799	G	C2-N3-C4	-5.06	109.37	111.90
36	1	1130	A	N1-C6-N6	5.06	121.64	118.60
36	5	831	G	C5-C6-O6	-5.06	125.56	128.60
36	5	1157	G	OP2-P-O3'	5.06	116.33	105.20
36	5	2363	A	C4-C5-C6	5.06	119.53	117.00
1	2	1560	U	C6-N1-C2	-5.06	117.96	121.00
36	1	1904	C	C5-C6-N1	5.06	123.53	121.00
36	1	2378	C	C5-C4-N4	-5.06	116.66	120.20
36	1	2950	G	C5-C6-N1	5.06	114.03	111.50
1	6	1716	C	O4'-C1'-N1	5.06	112.25	108.20
36	5	363	G	OP1-P-O3'	5.06	116.33	105.20
36	5	672	A	C5-C6-N6	-5.06	119.65	123.70
36	5	1620	U	C2-N1-C1'	5.06	123.77	117.70
36	5	3278	C	N3-C4-N4	5.06	121.54	118.00
59	n3	89	ASP	CB-CG-OD1	-5.06	113.75	118.30
1	2	453	U	C6-N1-C2	-5.06	117.97	121.00
36	1	326	U	N3-C4-O4	5.06	122.94	119.40
36	1	805	G	OP1-P-O3'	5.06	116.32	105.20
37	3	65	G	C8-N9-C4	5.06	108.42	106.40
36	5	1456	A	OP1-P-O3'	5.06	116.33	105.20
36	5	1496	C	O5'-P-OP2	-5.06	101.15	105.70
36	5	2798	C	OP1-P-O3'	5.06	116.33	105.20
36	5	2983	C	N1-C2-O2	-5.06	115.87	118.90
36	5	3182	G	C4-C5-N7	-5.06	108.78	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	75	G	O5'-P-OP1	5.06	116.77	110.70
36	1	1314	C	C2-N1-C1'	5.06	124.36	118.80
36	1	2192	C	C4-C5-C6	5.06	119.93	117.40
36	1	2407	C	N3-C4-N4	5.06	121.54	118.00
1	6	433	C	C2-N1-C1'	5.06	124.36	118.80
36	5	974	G	C6-N1-C2	-5.06	122.07	125.10
36	5	3309	G	N3-C4-N9	5.06	129.03	126.00
1	2	1796	C	C4-C5-C6	5.05	119.93	117.40
36	1	68	C	N3-C2-O2	-5.05	118.36	121.90
36	1	410	U	C5-C6-N1	5.05	125.23	122.70
36	1	1116	G	N9-C4-C5	5.05	107.42	105.40
36	1	1143	A	C2-N3-C4	-5.05	108.07	110.60
36	1	1166	G	N9-C4-C5	-5.05	103.38	105.40
36	1	1405	U	C2-N3-C4	-5.05	123.97	127.00
36	1	1414	G	C6-C5-N7	-5.05	127.37	130.40
36	1	2585	G	C8-N9-C4	-5.05	104.38	106.40
36	1	2817	A	OP2-P-O3'	5.05	116.32	105.20
36	1	2968	G	C4-C5-N7	5.05	112.82	110.80
38	4	16	G	C8-N9-C4	5.05	108.42	106.40
38	4	65	A	C5-N7-C8	-5.05	101.37	103.90
1	6	576	G	C5-C6-O6	-5.05	125.57	128.60
1	6	1354	G	C8-N9-C4	-5.05	104.38	106.40
1	6	1535	U	C2-N3-C4	-5.05	123.97	127.00
36	5	614	C	C2-N1-C1'	-5.05	113.24	118.80
36	5	822	G	N3-C4-C5	5.05	131.13	128.60
36	5	1513	G	C2-N3-C4	5.05	114.43	111.90
36	5	2801	A	N7-C8-N9	-5.05	111.27	113.80
38	8	47	C	C2-N3-C4	-5.05	117.37	119.90
40	l3	17	LEU	CA-CB-CG	5.05	126.92	115.30
36	1	225	C	C6-N1-C2	-5.05	118.28	120.30
36	1	1127	G	N1-C6-O6	5.05	122.93	119.90
1	6	273	G	C6-C5-N7	-5.05	127.37	130.40
36	5	586	C	N1-C2-O2	-5.05	115.87	118.90
36	5	2130	G	N9-C1'-C2'	-5.05	106.44	112.00
36	5	2231	C	O4'-C1'-N1	5.05	112.24	108.20
36	5	2639	G	C8-N9-C4	-5.05	104.38	106.40
36	5	2919	A	C5-C6-N1	-5.05	115.17	117.70
36	1	225	C	C2-N1-C1'	5.05	124.36	118.80
36	1	659	G	N3-C4-C5	-5.05	126.08	128.60
36	1	3006	A	N1-C2-N3	5.05	131.83	129.30
36	1	3340	G	C8-N9-C4	-5.05	104.38	106.40
41	L4	212	ASP	CB-CG-OD1	5.05	122.85	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	341	G	N3-C4-N9	-5.05	122.97	126.00
36	5	1083	G	OP1-P-OP2	5.05	127.18	119.60
36	5	2333	C	C5-C4-N4	-5.05	116.66	120.20
36	5	2777	G	OP1-P-O3'	5.05	116.31	105.20
36	1	573	C	C5-C6-N1	-5.05	118.47	121.00
36	1	2985	C	C6-N1-C2	-5.05	118.28	120.30
36	1	3050	U	N1-C2-O2	5.05	126.33	122.80
1	6	49	C	N3-C4-C5	5.05	123.92	121.90
1	6	813	U	N1-C2-O2	5.05	126.33	122.80
36	5	2888	U	C6-N1-C1'	-5.05	114.13	121.20
38	8	12	A	C4-C5-N7	5.05	113.22	110.70
38	8	68	G	C4-C5-C6	5.05	121.83	118.80
36	1	1420	C	OP2-P-O3'	5.05	116.31	105.20
38	4	30	C	O5'-P-OP1	-5.05	101.16	105.70
38	4	41	A	N1-C2-N3	5.05	131.82	129.30
1	2	831	U	C2-N1-C1'	5.05	123.75	117.70
1	6	87	C	C6-N1-C2	-5.05	118.28	120.30
1	6	826	U	C6-N1-C2	-5.05	117.97	121.00
36	5	750	G	N1-C6-O6	5.05	122.93	119.90
36	5	810	A	C5-C6-N1	5.05	120.22	117.70
36	5	964	G	OP2-P-O3'	5.05	116.30	105.20
36	5	1846	C	N3-C4-C5	5.05	123.92	121.90
36	5	2904	U	N1-C2-N3	5.05	117.93	114.90
36	5	3021	A	C2-N3-C4	5.05	113.12	110.60
36	5	3136	G	N1-C2-N3	5.05	126.93	123.90
1	6	426	G	C4-N9-C1'	5.04	133.06	126.50
36	1	693	A	C4-C5-C6	5.04	119.52	117.00
36	1	1151	U	C6-N1-C2	-5.04	117.97	121.00
36	1	2968	G	C5-N7-C8	-5.04	101.78	104.30
36	1	3095	U	O5'-P-OP1	-5.04	101.16	105.70
1	6	136	C	N1-C2-O2	5.04	121.93	118.90
1	6	1305	U	N1-C2-N3	5.04	117.93	114.90
36	5	195	U	N1-C2-N3	5.04	117.93	114.90
36	5	3372	A	N7-C8-N9	5.04	116.32	113.80
36	1	1307	G	C8-N9-C1'	5.04	133.55	127.00
36	1	1876	U	N3-C4-O4	5.04	122.93	119.40
36	1	2376	G	C5-C6-N1	5.04	114.02	111.50
36	5	418	A	N1-C6-N6	5.04	121.62	118.60
36	5	2140	U	C6-N1-C2	-5.04	117.97	121.00
36	1	675	C	C6-N1-C2	-5.04	118.28	120.30
36	5	2937	G	N1-C6-O6	5.04	122.92	119.90
1	2	401	A	OP2-P-O3'	5.04	116.29	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	336	A	N3-C4-N9	5.04	131.43	127.40
36	1	695	C	C2-N3-C4	-5.04	117.38	119.90
36	1	2953	U	N3-C4-C5	-5.04	111.58	114.60
36	1	3121	U	N1-C2-N3	5.04	117.92	114.90
36	5	58	G	N7-C8-N9	5.04	115.62	113.10
36	5	93	C	O5'-P-OP1	-5.04	101.17	105.70
36	5	951	A	N7-C8-N9	5.04	116.32	113.80
36	5	1054	A	C8-N9-C4	5.04	107.81	105.80
36	5	3209	A	C4-N9-C1'	5.04	135.37	126.30
37	7	12	U	N3-C4-C5	5.04	117.62	114.60
36	1	780	A	N9-C4-C5	5.04	107.81	105.80
36	1	1410	U	OP2-P-O3'	5.04	116.28	105.20
36	1	2332	A	C2-N3-C4	-5.04	108.08	110.60
36	1	2986	U	C6-N1-C2	-5.04	117.98	121.00
1	2	1768	G	C4-C5-N7	-5.04	108.78	110.80
36	1	90	C	C2-N1-C1'	5.04	124.34	118.80
36	1	285	A	C5-C6-N6	-5.04	119.67	123.70
36	1	1332	A	N7-C8-N9	5.04	116.32	113.80
36	1	1343	A	C5-N7-C8	-5.04	101.38	103.90
36	1	1405	U	N3-C2-O2	5.04	125.72	122.20
36	1	1836	C	N3-C2-O2	-5.04	118.38	121.90
36	1	2429	G	C5-C6-O6	5.04	131.62	128.60
36	1	2787	G	C8-N9-C4	-5.04	104.39	106.40
36	1	3079	U	C6-N1-C1'	5.04	128.25	121.20
36	1	3079	U	O5'-P-OP1	-5.04	101.17	105.70
73	O7	18	LEU	CB-CG-CD2	-5.04	102.44	111.00
1	6	1094	G	C2-N3-C4	5.04	114.42	111.90
36	5	1152	G	C4-N9-C1'	-5.04	119.95	126.50
36	5	1912	U	C6-N1-C2	5.04	124.02	121.00
36	1	1227	C	C5-C6-N1	5.03	123.52	121.00
36	1	1371	G	N1-C6-O6	-5.03	116.88	119.90
36	5	1117	G	OP2-P-O3'	5.03	116.27	105.20
36	5	1158	A	C6-C5-N7	-5.03	128.78	132.30
57	n1	17	ARG	NE-CZ-NH1	5.03	122.82	120.30
1	2	551	G	N7-C8-N9	5.03	115.62	113.10
36	1	36	C	N3-C4-C5	-5.03	119.89	121.90
36	1	1156	C	N3-C4-N4	-5.03	114.48	118.00
36	1	1371	G	N3-C4-C5	-5.03	126.08	128.60
36	1	2257	C	O4'-C1'-N1	5.03	112.22	108.20
36	5	971	G	C5-N7-C8	5.03	106.82	104.30
36	5	1849	C	C5-C4-N4	-5.03	116.68	120.20
36	1	796	U	N1-C2-N3	5.03	117.92	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2147	A	O5'-P-OP1	-5.03	101.17	105.70
36	1	2242	A	O4'-C1'-N9	-5.03	104.18	108.20
38	4	113	U	C5-C4-O4	5.03	128.92	125.90
1	6	524	U	N1-C2-N3	5.03	117.92	114.90
1	6	1651	A	P-O3'-C3'	5.03	125.74	119.70
1	6	1697	G	N3-C4-N9	5.03	129.02	126.00
36	5	2140	U	N1-C2-O2	-5.03	119.28	122.80
1	2	1365	C	C6-N1-C2	-5.03	118.29	120.30
36	1	2194	G	C4-N9-C1'	5.03	133.04	126.50
36	1	3218	A	C5-C6-N6	5.03	127.72	123.70
1	6	1754	A	N9-C4-C5	5.03	107.81	105.80
36	1	633	C	C5-C6-N1	-5.03	118.49	121.00
36	1	1592	G	OP2-P-O3'	5.03	116.26	105.20
36	1	2372	A	OP1-P-O3'	5.03	116.26	105.20
36	1	2582	C	N1-C2-O2	5.03	121.92	118.90
36	5	55	G	OP2-P-O3'	5.03	116.26	105.20
36	5	635	G	C4-C5-N7	5.03	112.81	110.80
36	5	1858	A	O4'-C1'-N9	5.03	112.22	108.20
36	5	2143	A	N3-C4-C5	-5.03	123.28	126.80
36	5	2342	U	OP2-P-O3'	5.03	116.26	105.20
37	7	1	G	C8-N9-C1'	-5.03	120.46	127.00
37	7	22	A	C8-N9-C1'	-5.03	118.65	127.70
36	1	633	C	N1-C2-O2	-5.03	115.89	118.90
36	1	889	U	C2-N3-C4	-5.03	123.98	127.00
36	1	1742	U	N3-C4-O4	5.03	122.92	119.40
36	1	2151	C	C5-C6-N1	5.03	123.51	121.00
36	5	946	U	C4-C5-C6	5.03	122.72	119.70
36	5	1292	C	O5'-P-OP1	-5.03	101.18	105.70
36	5	1524	A	N7-C8-N9	-5.03	111.29	113.80
36	5	2134	G	N3-C4-C5	-5.03	126.09	128.60
36	5	2352	A	N1-C2-N3	5.03	131.81	129.30
36	5	2988	C	N1-C2-O2	-5.03	115.88	118.90
36	5	3380	U	C6-N1-C2	-5.03	117.98	121.00
36	1	1490	A	C5-N7-C8	-5.02	101.39	103.90
36	1	1934	G	N7-C8-N9	5.02	115.61	113.10
36	1	2828	G	C4-N9-C1'	5.02	133.03	126.50
1	6	1697	G	C4-N9-C1'	5.02	133.03	126.50
36	5	3294	A	N1-C6-N6	-5.02	115.58	118.60
1	2	1789	G	C4-N9-C1'	5.02	133.03	126.50
36	1	1101	G	N9-C4-C5	5.02	107.41	105.40
36	1	1349	G	N9-C4-C5	-5.02	103.39	105.40
36	1	1606	U	C2-N1-C1'	-5.02	111.67	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1925	U	N3-C2-O2	5.02	125.72	122.20
36	1	2870	C	C2-N3-C4	-5.02	117.39	119.90
36	5	1108	U	N1-C2-N3	5.02	117.91	114.90
36	5	2889	C	N3-C4-C5	5.02	123.91	121.90
36	5	3110	C	C2-N3-C4	-5.02	117.39	119.90
37	7	77	G	N3-C4-N9	5.02	129.01	126.00
36	1	600	G	C4-N9-C1'	5.02	133.03	126.50
38	4	138	A	N1-C2-N3	5.02	131.81	129.30
36	5	986	U	N3-C2-O2	-5.02	118.69	122.20
36	5	987	U	N3-C2-O2	-5.02	118.69	122.20
36	5	3137	C	C5-C4-N4	5.02	123.72	120.20
38	8	2	A	N1-C6-N6	-5.02	115.59	118.60
36	1	1326	A	C8-N9-C4	5.02	107.81	105.80
36	1	1475	A	C5-C6-N1	5.02	120.21	117.70
1	6	913	G	N9-C4-C5	-5.02	103.39	105.40
36	5	1328	C	C4-C5-C6	5.02	119.91	117.40
36	5	3216	G	N3-C4-N9	5.02	129.01	126.00
1	2	1778	G	N9-C4-C5	5.02	107.41	105.40
36	1	2417	U	C5-C6-N1	-5.02	120.19	122.70
1	6	768	C	C6-N1-C2	5.02	122.31	120.30
36	5	86	G	O5'-P-OP1	5.02	116.72	110.70
36	5	703	G	O5'-P-OP1	-5.02	101.18	105.70
36	5	3244	A	OP1-P-OP2	5.02	127.13	119.60
37	7	7	G	C2-N3-C4	5.02	114.41	111.90
38	8	16	G	N1-C6-O6	5.02	122.91	119.90
36	1	413	U	C5-C6-N1	-5.02	120.19	122.70
36	1	671	U	OP2-P-O3'	5.02	116.24	105.20
36	1	1158	A	N9-C4-C5	-5.02	103.79	105.80
36	1	1472	U	C6-N1-C2	5.02	124.01	121.00
36	1	2906	C	N1-C2-N3	5.02	122.71	119.20
36	1	2917	G	C5-C6-N1	5.02	114.01	111.50
37	7	91	G	C5-C6-N1	5.02	114.01	111.50
36	1	647	A	N7-C8-N9	-5.01	111.29	113.80
56	N0	167	ARG	C-N-CD	5.01	138.93	128.40
1	6	96	G	N3-C4-C5	-5.01	126.09	128.60
36	5	1086	C	C2-N3-C4	5.01	122.41	119.90
36	5	3115	C	C2-N3-C4	-5.01	117.39	119.90
36	5	3366	G	C4-N9-C1'	5.01	133.02	126.50
36	5	637	C	O5'-P-OP2	-5.01	101.19	105.70
36	5	888	A	C4-C5-N7	5.01	113.21	110.70
36	5	2205	U	C2-N1-C1'	5.01	123.72	117.70
36	5	2892	A	C8-N9-C4	-5.01	103.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2207	A	O4'-C1'-N9	5.01	112.21	108.20
36	5	1205	A	C5-C6-N6	-5.01	119.69	123.70
36	5	2664	C	N1-C2-O2	-5.01	115.89	118.90
36	5	3335	A	C4-C5-N7	5.01	113.21	110.70
36	1	2177	G	C5-C6-N1	5.01	114.00	111.50
36	1	2404	A	C5-C6-N1	5.01	120.20	117.70
36	1	2572	C	C6-N1-C2	-5.01	118.30	120.30
36	1	3101	G	C2-N3-C4	5.01	114.40	111.90
1	6	29	U	N1-C2-N3	5.01	117.91	114.90
1	6	978	A	N1-C6-N6	-5.01	115.59	118.60
1	6	1025	A	C8-N9-C4	5.01	107.80	105.80
1	6	1055	U	C6-N1-C2	-5.01	117.99	121.00
1	6	1629	G	OP2-P-O3'	5.01	116.22	105.20
36	5	359	U	N1-C2-O2	-5.01	119.29	122.80
36	5	912	G	N1-C6-O6	-5.01	116.89	119.90
36	5	1476	G	C2-N3-C4	-5.01	109.39	111.90
36	5	2981	U	C5-C4-O4	-5.01	122.89	125.90
36	1	2278	C	C5-C6-N1	5.01	123.50	121.00
36	1	3269	U	N3-C4-O4	-5.01	115.89	119.40
36	5	1416	C	N3-C4-C5	5.01	123.90	121.90
1	2	1212	G	N9-C4-C5	-5.01	103.40	105.40
36	1	687	U	C5-C4-O4	5.01	128.90	125.90
36	1	2327	U	C5-C6-N1	5.01	125.20	122.70
36	1	3028	G	N3-C4-N9	5.01	129.00	126.00
1	6	20	G	C5-C6-O6	-5.01	125.60	128.60
36	5	882	A	C6-N1-C2	-5.01	115.60	118.60
36	5	1192	C	C2-N3-C4	-5.01	117.40	119.90
36	5	1213	G	C5-C6-N1	5.01	114.00	111.50
36	5	1399	A	N9-C4-C5	-5.01	103.80	105.80
1	2	36	C	C6-N1-C2	5.00	122.30	120.30
36	1	999	G	N9-C4-C5	-5.00	103.40	105.40
36	1	2634	U	C5-C6-N1	-5.00	120.20	122.70
36	5	2189	U	N3-C4-O4	5.00	122.90	119.40
1	2	124	A	O5'-P-OP2	-5.00	101.20	105.70
1	2	549	G	N7-C8-N9	5.00	115.60	113.10
1	2	647	G	N3-C2-N2	-5.00	116.40	119.90
1	2	1773	C	C5-C6-N1	5.00	123.50	121.00
36	1	709	A	C5-N7-C8	5.00	106.40	103.90
36	1	902	G	N1-C6-O6	5.00	122.90	119.90
36	1	942	U	O5'-P-OP1	5.00	116.70	110.70
36	1	1325	U	C2-N1-C1'	-5.00	111.70	117.70
61	N5	38	LEU	CA-CB-CG	5.00	126.81	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	504	A	N1-C2-N3	-5.00	126.80	129.30
36	5	567	G	N3-C4-N9	5.00	129.00	126.00
36	5	1162	U	C5-C4-O4	5.00	128.90	125.90
36	5	2892	A	C4-C5-C6	5.00	119.50	117.00
36	1	75	G	C6-C5-N7	-5.00	127.40	130.40
36	1	1002	A	C8-N9-C4	5.00	107.80	105.80
36	1	2794	G	C6-N1-C2	-5.00	122.10	125.10
36	1	2865	U	OP2-P-O3'	5.00	116.20	105.20
1	6	564	G	C8-N9-C4	-5.00	104.40	106.40
1	6	1736	G	C5-C6-N1	-5.00	109.00	111.50
36	5	861	C	N3-C4-C5	-5.00	119.90	121.90
36	5	2316	G	OP2-P-O3'	5.00	116.20	105.20

There are no chirality outliers.

All (46) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	123	SER	Peptide
16	C4	124	ASP	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
28	D6	84	VAL	Peptide
31	D9	9	SER	Peptide
39	L2	19	HIS	Peptide
43	L6	51	ARG	Peptide
52	M6	110	PRO	Peptide
56	N0	22	PRO	Peptide
65	N9	20	GLY	Peptide
67	O1	5	LYS	Peptide
9	S7	131	PHE	Peptide
10	S8	79	ALA	Peptide
10	S8	8	ARG	Peptide
34	SR	71	CYS	Peptide
16	c4	124	ASP	Peptide
17	c5	52	LYS	Peptide
18	c6	41	PRO	Peptide
19	c7	66	VAL	Peptide
19	c7	96	SER	Peptide
22	d0	70	THR	Peptide
25	d3	44	GLY	Peptide

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Mol	Chain	Res	Type	Group
26	d4	29	HIS	Peptide
27	d5	85	LYS	Peptide
39	l2	141	PRO	Peptide
39	l2	143	GLU	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
47	m0	168	SER	Peptide
81	m2	29	UNK	Peptide
51	m5	182	ASN	Peptide
52	m6	110	PRO	Peptide
64	n8	46	ASP	Peptide
64	n8	66	ALA	Peptide
65	n9	19	ASN	Peptide
67	o1	90	PHE	Peptide
68	o2	15	LYS	Peptide
68	o2	4	LEU	Peptide
73	o7	83	ALA	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	Peptide
9	s7	30	SER	Peptide

5.2 Too-close contacts ⓘ

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	960	1
1	6	38238	0	19240	859	0
2	S0	1577	0	1567	144	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	181	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	132	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	136	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	175	0
6	s4	2068	0	2154	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	S5	1609	0	1675	177	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1878	164	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	144	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	121	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	153	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	75	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	104	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	52	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	100	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	96	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	106	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	99	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	70	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	122	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	89	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	85	0
22	d0	882	0	939	0	0
23	D1	684	0	672	66	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	85	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	90	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	87	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	69	0
27	d5	558	0	598	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	D6	769	0	814	122	0
28	d6	769	0	814	0	0
29	D7	610	0	631	35	0
29	d7	610	0	632	0	0
30	D8	497	0	535	47	0
30	d8	497	0	535	0	0
31	D9	442	0	428	34	0
31	d9	442	0	428	0	0
32	E0	475	0	525	40	0
33	E1	566	0	602	61	0
33	e1	608	0	656	0	0
34	SR	2441	0	2397	182	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	80	0
35	sM	679	0	603	0	0
36	1	67355	0	33845	1215	0
36	5	67376	0	33856	1184	0
37	3	2579	0	1304	57	0
37	7	2579	0	1303	49	0
38	4	3353	0	1695	66	1
38	8	3353	0	1695	73	0
39	L2	1914	0	1981	162	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	232	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	224	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	190	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	77	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	123	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	143	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1735	145	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	111	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	147	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	90	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	134	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	122	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	91	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	97	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	118	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	92	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	99	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	40	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	73	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	20	0
60	n4	1038	0	1071	0	1
61	N5	964	0	1025	69	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	66	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	99	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	116	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	40	0
65	n9	462	0	491	0	0
66	O0	743	0	797	56	0
66	o0	767	0	816	0	0
67	O1	876	0	912	47	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	74	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	63	0
69	o3	850	0	880	0	0
70	O4	880	0	945	71	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
70	o4	880	0	945	0	0
71	O5	969	0	1078	93	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	69	0
72	o6	770	0	846	0	0
73	O7	681	0	683	48	0
73	o7	681	0	683	0	0
74	O8	612	0	682	46	0
74	o8	608	0	671	0	0
75	O9	436	0	475	37	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	24	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	22	0
77	q1	233	0	284	0	0
78	Q2	847	0	917	55	0
78	q2	847	0	918	0	0
79	Q3	694	0	734	53	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	m2	750	0	174	0	0
82	p0	1076	0	1040	0	1
83	p1	235	0	51	0	0
84	p2	230	0	54	0	0
85	1	471	0	0	0	0
85	2	124	0	0	0	0
85	3	14	0	0	0	0
85	4	21	0	0	0	0
85	5	504	0	0	0	0
85	6	147	0	0	0	0
85	7	14	0	0	0	0
85	8	16	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0
85	L2	1	0	0	0	0
85	L3	2	0	0	0	0
85	L4	2	0	0	0	0
85	L5	1	0	0	0	0
85	L7	3	0	0	0	0
85	L8	1	0	0	0	0
85	M0	2	0	0	0	0
85	M1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	M3	3	0	0	0	0
85	M5	2	0	0	0	0
85	M6	2	0	0	0	0
85	M7	4	0	0	0	0
85	M9	3	0	0	0	0
85	N0	1	0	0	0	0
85	N3	2	0	0	0	0
85	N5	1	0	0	0	0
85	N6	1	0	0	0	0
85	N8	4	0	0	0	0
85	N9	1	0	0	0	0
85	O2	1	0	0	0	0
85	O3	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	S8	1	0	0	0	0
85	SM	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	d3	2	0	0	0	0
85	d6	1	0	0	0	0
85	l2	1	0	0	0	0
85	l3	2	0	0	0	0
85	l4	1	0	0	0	0
85	l5	2	0	0	0	0
85	l7	2	0	0	0	0
85	l8	1	0	0	0	0
85	m1	2	0	0	0	0
85	m5	4	0	0	0	0
85	m6	2	0	0	0	0
85	m7	5	0	0	0	0
85	n0	2	0	0	0	0
85	n3	2	0	0	0	0
85	n6	1	0	0	0	0
85	n8	4	0	0	0	0
85	o1	1	0	0	0	0
85	o3	1	0	0	0	0
85	o4	1	0	0	0	0
85	q0	1	0	0	0	0
85	q1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	q3	2	0	0	0	0
85	s1	1	0	0	0	0
85	s2	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2457	0	0	209	0
86	2	1078	0	0	113	0
86	3	84	0	0	2	0
86	4	119	0	0	13	0
86	5	2464	0	0	205	0
86	6	1106	0	0	111	0
86	7	84	0	0	8	0
86	8	112	0	0	15	0
86	C3	7	0	0	2	0
86	C5	7	0	0	3	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	1	0
86	L4	7	0	0	1	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	O3	7	0	0	2	0
86	O7	7	0	0	6	0
86	Q2	7	0	0	2	0
86	S6	7	0	0	0	0
86	S8	7	0	0	0	0
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	14	0	0	0	0
86	l4	14	0	0	0	0
86	l5	21	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0
86	m5	7	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	14	0	0	0	0
86	o2	7	0	0	0	0
86	o3	7	0	0	0	0
86	o7	14	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	s9	7	0	0	0	0
86	sR	7	0	0	0	0
87	2	40	0	37	5	0
87	6	40	0	37	1	0
88	D6	1	0	0	0	0
88	D7	1	0	0	0	0
88	D9	1	0	0	0	0
88	E1	1	0	0	0	0
88	O7	1	0	0	0	0
88	Q0	1	0	0	0	0
88	Q2	1	0	0	0	0
88	Q3	1	0	0	0	0
88	d6	1	0	0	0	0
88	d7	1	0	0	0	0
88	d9	1	0	0	0	0
88	e1	1	0	0	0	0
88	o7	1	0	0	0	0
88	q0	1	0	0	0	0
88	q2	1	0	0	0	0
88	q3	1	0	0	0	0
All	All	411223	0	297358	10229	2

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 15.

All (10229) 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	2.04	1.48
40:L3:296:THR:HG22	40:L3:298:PHE:H	5.12	1.05
1:6:1011:G:OP2	86:6:2120:OHX:N3	1.90	1.03
1:2:1339:C:O2'	1:2:1341:A:N7	1.94	1.01
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.29	1.00
51:M5:188:ARG:NH2	36:5:31:C:OP2	122.13	1.00
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.49	0.99
36:5:3274:A:H3'	36:5:3275:U:H5''	1.42	0.99
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.05	0.98
50:M4:113:THR:HB	50:M4:116:GLU:HG3	1.44	0.98
36:5:2273:G:O6	86:5:4199:OHX:N5	1.97	0.98
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.22	0.97
36:5:3194:C:O2	36:5:3197:G:N2	1.99	0.96
36:5:2836:C:H5	36:5:2852:C:H42	1.14	0.94
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	1.95	0.94
17:C5:43:ARG:NH2	1:6:1552:U:OP2	404.48	0.94
1:2:320:U:H3'	1:2:321:C:H5''	1.49	0.94
36:1:2356:A:H61	36:1:2983:C:H5	1.16	0.93
36:1:2443:A:N6	36:1:2504:U:O4	2.01	0.93
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.58	0.92
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.99	0.92
36:1:439:C:H3'	36:1:440:A:H8	1.34	0.92
64:N8:21:ARG:NH2	36:5:640:U:OP1	183.02	0.92
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.22	0.92
36:5:2620:G:O6	86:5:4242:OHX:N4	2.03	0.92
25:D3:64:PRO:O	86:6:2158:OHX:N2	361.48	0.92
70:O4:8:ARG:HG2	70:O4:8:ARG:HH11	1.35	0.91
11:S9:90:LYS:HB2	11:S9:95:TYR:HD1	1.35	0.91
1:2:1585:U:H3	1:2:1611:A:H2	1.15	0.91
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.03	0.91
1:6:1588:G:H1	1:6:1608:U:H3	1.12	0.91
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.04	0.91
1:2:1508:U:O4	86:2:2032:OHX:N5	2.04	0.91
50:M4:132:LYS:HD3	36:5:3230:G:H4'	288.49	0.90
56:N0:13:ARG:HH11	56:N0:13:ARG:HG3	4.22	0.90
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.82	0.90
63:N7:97:SER:HB3	63:N7:99:GLU:HG2	4.83	0.90
52:M6:110:PRO:O	52:M6:112:TYR:N	3.11	0.90
36:1:2208:A:N1	86:1:4042:OHX:N2	2.20	0.89
36:5:437:G:H22	36:5:622:A:H61	1.20	0.89
34:SR:82:SER:HG	34:SR:92:TRP:HE1	2.13	0.89
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.38	0.89
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.22	0.89
61:N5:42:ARG:HD2	36:5:14:U:H1'	103.83	0.89
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.05	0.89
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.87	0.89
36:1:3134:A:OP1	86:1:3898:OHX:N4	2.05	0.88
41:L4:300:ARG:HH11	41:L4:300:ARG:HG2	3.28	0.88
41:L4:329:PRO:O	41:L4:331:ALA:N	3.48	0.88
39:L2:193:ARG:NH2	36:5:2181:C:OP1	198.10	0.88
11:S9:149:ARG:HH11	11:S9:149:ARG:HG2	4.58	0.88
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.47	0.88
1:2:992:A:H2	1:2:1012:U:H3	1.17	0.88
46:L9:12:VAL:HB	46:L9:51:GLN:HA	2.08	0.87
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.08	0.87
4:S2:168:ARG:NE	1:6:1098:U:OP2	385.60	0.87
12:C0:11:ILE:HD11	12:C0:42:VAL:HA	2.59	0.87
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.06	0.87
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.07	0.86
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.78	0.86
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.09	0.86
9:S7:50:ASP:HB3	9:S7:56:LYS:HG2	1.58	0.86
3:S1:35:PRO:HA	3:S1:41:ARG:HH21	1.39	0.86
63:N7:3:LYS:HE3	63:N7:5:LEU:HD21	11.12	0.86
64:N8:6:THR:HG23	64:N8:8:THR:HG23	2.26	0.86
52:M6:18:ARG:NH2	36:5:1318:A:OP1	277.82	0.86
75:O9:4:GLN:HE21	36:5:1833:G:H21	127.38	0.86
78:Q2:100:LYS:H	78:Q2:100:LYS:HE2	1.40	0.86
10:S8:138:ASN:HA	10:S8:141:ARG:HD3	5.32	0.85
36:1:1898:G:OP2	86:1:3928:OHX:N4	2.09	0.85
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	4.45	0.85
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.41	0.85
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.57	0.85
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.09	0.85
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.78	0.85
4:S2:108:ASN:O	4:S2:108:ASN:ND2	4.50	0.85
41:L4:3:ARG:HH11	41:L4:22:LEU:HD12	1.40	0.85
36:1:356:C:OP2	86:1:4141:OHX:N1	2.09	0.85
38:8:16:G:O6	86:8:218:OHX:N6	2.10	0.85
54:M8:66:ARG:NH2	36:5:744:A:OP1	167.03	0.85
63:N7:67:LYS:NZ	36:5:1630:U:OP1	198.74	0.85
36:1:2818:U:H6	36:1:2818:U:H5'	1.41	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:46:THR:HG23	67:O1:47:ASP:H	3.56	0.85
36:1:1362:G:H4'	44:L7:159:GLN:O	1.77	0.84
55:M9:5:ARG:NH2	36:5:1471:U:OP1	122.78	0.84
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.58	0.84
2:S0:162:CYS:SG	2:S0:163:ASN:N	2.49	0.84
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	2.63	0.84
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.89	0.84
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.79	0.84
13:C1:95:PRO:O	13:C1:98:ASN:N	2.10	0.84
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.09	0.84
8:S6:192:ALA:HB1	8:S6:196:ARG:HH12	1.41	0.84
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.57	0.84
36:1:3344:A:H2	36:1:3361:G:H21	1.20	0.84
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	1.94	0.84
51:M5:179:LYS:NZ	36:5:287:G:OP1	127.84	0.84
1:2:701:U:H3	1:2:737:A:H61	1.24	0.84
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.97	0.84
24:D2:55:ASP:O	24:D2:57:ARG:N	2.81	0.84
36:5:3153:U:H4'	36:5:3154:C:H5'	1.57	0.84
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.11	0.84
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.41	0.84
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.10	0.83
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.61	0.83
1:2:740:A:H2'	1:2:741:C:H5''	1.57	0.83
46:L9:22:SER:OG	46:L9:23:ARG:N	2.08	0.83
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.12	0.83
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.11	0.83
34:SR:171:SER:HG	34:SR:181:TRP:HE1	1.96	0.83
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.10	0.83
39:L2:224:THR:HG21	36:5:2201:G:H21	222.92	0.83
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.12	0.83
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	2.11	0.83
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.11	0.83
36:5:1239:C:H42	36:5:1249:G:H1	1.27	0.83
3:S1:72:ASP:OD1	16:C4:114:ARG:NH1	3.84	0.83
36:1:1064:A:N6	36:1:1096:U:O4	2.12	0.83
36:1:1233:G:H1	36:1:1255:C:H42	1.26	0.83
11:S9:126:ARG:NH1	1:6:475:A:OP2	424.30	0.83
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.44	0.82
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.44	0.82
7:S5:35:GLN:O	7:S5:37:GLN:N	2.23	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	3.60	0.82
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	2.68	0.82
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.60	0.82
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.29	0.82
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.62	0.82
78:Q2:73:GLU:OE2	78:Q2:80:ARG:NH2	2.12	0.82
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.60	0.82
54:M8:71:LEU:HD13	54:M8:99:THR:HG21	1.61	0.82
50:M4:24:LYS:NZ	50:M4:61:GLY:O	2.10	0.82
28:D6:79:ILE:HA	28:D6:84:VAL:HB	1.61	0.82
36:1:2836:C:H5	36:1:2852:C:H42	1.24	0.82
1:6:990:C:OP2	86:6:2120:OHX:N2	2.12	0.82
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.12	0.82
48:M1:137:ARG:NH1	37:7:28:C:OP1	303.03	0.82
11:S9:64:GLU:OE1	11:S9:69:ARG:NH2	5.78	0.82
1:2:471:A:OP2	86:2:2077:OHX:N4	2.12	0.82
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.50	0.82
36:5:2439:A:H61	36:5:2508:U:H3	1.24	0.82
16:C4:51:ASP:OD1	1:6:902:G:N1	283.55	0.82
12:C0:27:PHE:HB3	12:C0:40:LEU:HD22	1.61	0.82
1:6:1385:G:N7	86:6:2121:OHX:N6	2.27	0.82
36:5:510:G:O6	86:5:4023:OHX:N2	2.13	0.81
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.44	0.81
1:6:471:A:OP2	86:6:2102:OHX:N5	2.13	0.81
1:2:140:A:N6	1:2:281:G:OP1	2.12	0.81
36:1:1015:U:O4	36:1:1035:G:N1	2.13	0.81
9:S7:131:PHE:O	9:S7:133:THR:N	2.13	0.81
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.97	0.81
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.39	0.81
27:D5:85:LYS:HG3	27:D5:86:GLU:H	1.95	0.81
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	1.61	0.81
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.42	0.81
37:3:4:U:H2'	37:3:5:G:C8	2.16	0.81
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.13	0.81
21:C9:57:ARG:NH1	1:6:1479:A:OP1	393.95	0.81
16:C4:123:SER:HB2	1:6:885:G:H21	286.56	0.81
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.62	0.81
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.63	0.81
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	3.15	0.81
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.46	0.81
73:O7:24:ARG:NH1	36:5:361:A:OP1	121.08	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:754:A:N6	1:6:793:A:N7	2.30	0.80
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.45	0.80
36:1:2940:A:N7	40:L3:2:SER:N	2.29	0.80
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.06	0.80
36:1:1951:C:H42	36:1:2095:G:H1	1.26	0.80
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.12	0.80
49:M3:58:VAL:HG13	36:5:75:G:H5"	88.28	0.80
1:6:1000:C:N4	1:6:1003:A:OP2	2.14	0.80
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.15	0.80
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.15	0.80
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.15	0.80
36:5:25:U:O4	86:5:3907:OHX:N6	2.15	0.80
1:2:223:U:H3	1:2:838:G:H1	1.28	0.80
36:1:1565:G:N2	36:1:1574:C:O2	2.14	0.80
18:C6:58:ASP:O	18:C6:60:PHE:N	2.13	0.80
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.14	0.80
47:M0:174:THR:HG23	47:M0:175:ASN:O	4.33	0.80
19:C7:104:ASN:O	19:C7:106:THR:N	3.70	0.80
36:5:2996:U:OP1	36:5:2996:U:H4'	1.81	0.80
1:2:823:G:H3'	1:2:824:G:H8	1.46	0.80
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.43	0.80
1:2:895:G:H1	1:2:917:U:H3	1.28	0.80
1:2:1202:A:OP1	86:2:2112:OHX:N1	2.14	0.80
1:2:1488:G:H3'	1:2:1515:A:H61	1.46	0.80
1:2:1592:A:H2'	1:2:1593:A:H8	1.47	0.80
1:2:237:C:H5"	1:2:238:U:H5'	1.64	0.79
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	282.01	0.79
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	2.79	0.79
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.15	0.79
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.69	0.79
51:M5:38:ARG:NH2	38:8:143:U:OP1	108.76	0.79
36:1:1233:G:N2	36:1:1255:C:N3	2.29	0.79
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.48	0.79
13:C1:128:CYS:O	13:C1:129:ARG:HB3	4.51	0.79
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.81	0.79
26:D4:122:GLY:O	26:D4:125:LEU:N	2.57	0.79
36:1:300:G:O6	86:1:4150:OHX:N1	2.15	0.79
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.64	0.79
36:5:272:G:OP2	86:5:4074:OHX:N6	2.16	0.79
36:1:924:G:OP1	86:1:4143:OHX:N5	2.15	0.79
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.16	0.79
86:1:4079:OHX:N1	72:O6:28:TYR:O	2.15	0.79
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.47	0.79
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.15	0.79
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.52	0.79
1:2:190:C:N4	1:2:196:G:O6	2.15	0.79
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.16	0.79
1:6:895:G:H1	1:6:917:U:H3	1.25	0.79
1:6:699:U:H3	1:6:739:G:H1	1.29	0.79
1:2:741:C:O2	9:S7:107:ARG:NH1	2.15	0.79
36:1:3166:C:H42	36:1:3284:G:H1	1.29	0.79
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.48	0.79
54:M8:38:ARG:NH2	36:5:1348:U:OP2	189.38	0.79
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.01	0.78
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	3.58	0.78
1:2:1291:G:H8	1:2:1291:G:O5'	1.65	0.78
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.64	0.78
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.63	0.78
1:6:578:U:H4'	1:6:579:A:H5'	1.64	0.78
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.83	0.78
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.70	0.78
60:N4:47:ARG:HG2	60:N4:54:LEU:HD12	7.67	0.78
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	4.57	0.78
1:2:1105:C:H41	25:D3:4:GLY:HA2	1.48	0.78
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.16	0.78
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.66	0.78
36:5:2207:A:H62	36:5:2236:G:H1	1.31	0.78
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.17	0.78
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.16	0.78
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.36	0.78
1:2:9:U:O4	86:2:2154:OHX:N6	2.17	0.78
62:N6:125:LYS:HD2	71:O5:71:LYS:HB3	54.12	0.78
40:L3:139:GLN:O	40:L3:141:GLY:N	2.22	0.78
36:1:1363:A:OP2	86:1:4043:OHX:N6	2.17	0.78
8:S6:126:ASP:OD1	8:S6:127:THR:N	4.57	0.78
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.17	0.78
38:4:62:C:O2	86:4:230:OHX:N5	2.16	0.78
36:5:3274:A:H3'	36:5:3275:U:C5'	2.13	0.78
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.17	0.78
86:1:3955:OHX:N3	44:L7:217:PRO:O	2.17	0.78
78:Q2:17:CYS:HG	78:Q2:74:CYS:HG	1.25	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1466:G:O6	86:1:3876:OHX:N4	2.16	0.77
46:L9:75:VAL:HA	46:L9:78:MET:HG3	1.65	0.77
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.24	0.77
72:O6:26:ILE:HD12	36:5:155:G:H1'	88.16	0.77
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.65	0.77
36:5:658:G:OP1	86:5:4092:OHX:N5	2.18	0.77
46:L9:105:GLU:HG3	46:L9:109:ALA:H	1.49	0.77
39:L2:3:ARG:HB2	39:L2:207:VAL:HG12	2.90	0.77
36:1:1740:U:H1'	36:1:1741:A:H2	1.49	0.77
1:2:1203:A:OP2	86:2:2112:OHX:N5	2.18	0.77
41:L4:73:ARG:NH2	36:5:2814:G:OP1	173.23	0.77
52:M6:160:ARG:NH2	36:5:3182:G:OP1	281.74	0.77
10:S8:10:LYS:NZ	1:6:339:C:OP2	284.03	0.77
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	4.92	0.77
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.65	0.77
42:L5:279:LYS:HD2	42:L5:282:ARG:HH12	3.60	0.77
36:1:3376:A:OP2	86:1:3903:OHX:N5	2.18	0.77
36:5:1878:G:OP1	86:5:3958:OHX:N5	2.17	0.77
8:S6:164:LYS:N	8:S6:167:LYS:O	2.14	0.77
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	3.11	0.77
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.49	0.77
3:S1:154:SER:OG	3:S1:154:SER:O	2.13	0.77
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.82	0.77
11:S9:129:ILE:HG12	11:S9:134:ILE:HG12	4.72	0.77
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.65	0.77
10:S8:89:GLU:O	10:S8:93:THR:OG1	2.02	0.77
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.32	0.77
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	1.66	0.77
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.15	0.77
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.67	0.77
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.66	0.77
37:3:17:A:OP1	42:L5:2:ALA:N	2.18	0.77
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.50	0.76
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.67	0.76
56:N0:82:ASP:OD1	56:N0:87:THR:HB	1.85	0.76
10:S8:50:GLY:HA2	1:6:397:A:O3'	315.92	0.76
36:5:1070:U:O4	86:5:4111:OHX:N6	2.17	0.76
59:N3:40:LYS:HG3	59:N3:57:MET:HG2	1.67	0.76
73:O7:87:SER:O	86:O7:104:OHX:N3	2.18	0.76
19:C7:59:LYS:NZ	1:6:1392:U:OP1	426.64	0.76
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.30	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:74:U:O2	86:8:223:OHX:N5	2.17	0.76
6:S4:187:ARG:O	6:S4:189:LEU:N	2.19	0.76
44:L7:25:GLN:HG2	44:L7:29:GLU:HG2	1.67	0.76
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.67	0.76
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.68	0.76
1:2:1642:G:O6	86:2:2024:OHX:N6	2.18	0.76
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.70	0.76
38:4:79:A:H2'	38:4:80:A:H1'	1.67	0.76
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.00	0.76
22:D0:105:GLN:HA	22:D0:108:ILE:HG12	5.17	0.76
67:O1:44:MET:O	67:O1:46:THR:N	3.37	0.76
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.19	0.76
72:O6:59:ASP:O	72:O6:63:ASN:ND2	4.68	0.76
36:1:562:C:H2'	36:1:563:U:H6	1.50	0.76
34:SR:70:ASP:OD2	34:SR:155:ARG:NH2	2.18	0.76
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.66	0.76
36:1:3166:C:N3	36:1:3284:G:N2	2.30	0.76
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.19	0.76
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.89	0.76
36:1:807:A:H61	36:1:934:G:H22	1.33	0.76
20:C8:143:ARG:NH2	1:6:1462:G:N7	339.93	0.76
13:C1:6:THR:HB	13:C1:9:SER:HB3	1.68	0.76
36:1:2185:G:O2'	36:1:2314:U:OP2	2.02	0.76
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.19	0.76
39:L2:28:LYS:HB3	39:L2:123:ARG:HD3	4.77	0.76
13:C1:139:VAL:HG12	13:C1:140:VAL:H	1.49	0.76
42:L5:68:THR:HG22	42:L5:70:THR:H	1.48	0.76
44:L7:217:PRO:O	86:5:4002:OHX:N3	261.14	0.76
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.18	0.76
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.67	0.76
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	1.50	0.76
66:O0:29:SER:HA	66:O0:32:LYS:HD3	1.68	0.76
8:S6:87:ARG:NH1	1:6:159:U:O2'	322.49	0.76
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.19	0.76
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.03	0.76
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.68	0.76
1:2:559:C:N4	1:2:586:G:O6	2.15	0.76
1:2:138:A:O2'	8:S6:149:LYS:NZ	2.18	0.76
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.18	0.76
36:1:58:G:OP1	51:M5:157:LYS:NZ	2.17	0.76
1:6:538:A:H2	1:6:540:G:H22	1.31	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:26:THR:O	36:5:1065:A:N6	212.09	0.75
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.50	0.75
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.61	0.75
50:M4:113:THR:HG23	50:M4:116:GLU:H	4.25	0.75
34:SR:93:ASP:HB2	34:SR:100:TYR:HE1	2.12	0.75
1:2:1592:A:H2'	1:2:1593:A:C8	2.21	0.75
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.43	0.75
55:M9:35:ALA:O	55:M9:37:SER:N	3.74	0.75
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.68	0.75
28:D6:10:ARG:HB2	28:D6:34:LYS:HG3	1.68	0.75
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.50	0.75
1:6:219:A:N6	1:6:843:U:O2	2.19	0.75
36:5:90:C:H2'	36:5:91:G:H5'	1.67	0.75
53:M7:25:SER:O	53:M7:29:THR:HG23	4.88	0.75
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.92	0.75
36:1:1507:G:C8	53:M7:129:THR:HG22	2.20	0.75
40:L3:37:ARG:HG2	40:L3:187:SER:H	4.29	0.75
16:C4:38:THR:HG21	1:6:895:G:H21	263.84	0.75
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.89	0.75
39:L2:70:ARG:HH11	39:L2:72:ARG:HE	5.14	0.75
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.68	0.75
42:L5:56:THR:O	42:L5:58:LYS:N	2.18	0.75
50:M4:105:GLN:NE2	52:M6:198:GLY:O	2.20	0.75
48:M1:94:ARG:O	48:M1:96:PHE:N	2.46	0.75
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.99	0.75
36:5:1555:U:O4	36:5:1557:A:N6	2.19	0.75
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.69	0.75
86:5:3943:OHX:N2	86:5:4233:OHX:N4	2.35	0.75
1:6:830:U:H2'	1:6:831:U:H5'	1.68	0.75
7:S5:200:ASN:HB2	7:S5:208:SER:HB3	2.35	0.75
1:2:542:A:H8	1:2:543:C:H5'	1.52	0.74
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.52	0.74
19:C7:10:LYS:NZ	1:6:1401:A:O3'	407.96	0.74
36:1:2169:G:O6	86:1:3909:OHX:N4	2.20	0.74
36:5:2584:G:H5'	36:5:2585:G:OP2	1.87	0.74
49:M3:187:ALA:HA	49:M3:190:LYS:HB3	1.67	0.74
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.52	0.74
64:N8:77:LYS:O	64:N8:79:TRP:N	2.55	0.74
3:S1:157:GLN:O	3:S1:159:SER:N	2.19	0.74
1:6:301:A:OP2	86:6:2092:OHX:N1	2.20	0.74
36:1:1758:G:H1	36:1:1767:C:H42	1.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:90:LYS:HB2	11:S9:95:TYR:CD1	2.22	0.74
56:N0:13:ARG:NH1	37:7:73:C:O2	307.87	0.74
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	1.69	0.74
86:5:3943:OHX:N1	86:5:4233:OHX:N3	2.35	0.74
20:C8:117:LYS:HE2	20:C8:128:PHE:HB2	1.70	0.74
74:O8:18:ALA:O	74:O8:20:VAL:N	3.56	0.74
33:E1:119:ARG:NH2	33:E1:120:GLU:O	9.16	0.74
36:1:1844:C:H2'	36:1:1845:G:H5''	1.68	0.74
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.21	0.74
16:C4:54:GLU:OE1	1:6:901:G:N2	282.18	0.74
36:1:1507:G:N7	53:M7:129:THR:HG22	2.03	0.74
36:1:1952:G:H3'	36:1:1953:G:H5''	1.70	0.74
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.21	0.74
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.95	0.74
40:L3:185:GLY:O	40:L3:191:LYS:HE2	3.71	0.74
11:S9:157:ASP:OD1	11:S9:158:PHE:N	4.26	0.74
86:5:3943:OHX:N1	86:5:4233:OHX:N4	2.35	0.74
36:5:1414:G:O6	86:5:4147:OHX:N1	2.19	0.74
36:1:1454:A:H5''	36:1:1455:U:H5'	1.70	0.74
86:2:2032:OHX:N4	86:2:2145:OHX:N2	2.36	0.74
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.53	0.74
1:6:25:C:O2	86:6:2107:OHX:N5	2.21	0.74
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.30	0.74
7:S5:123:VAL:O	27:D5:58:ARG:NH1	2.21	0.74
57:N1:130:ARG:NH1	36:5:1098:A:OP2	255.20	0.74
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.70	0.74
36:5:2818:U:H6	36:5:2818:U:H5'	1.53	0.74
1:6:1488:G:O2'	1:6:1494:C:O2	2.05	0.74
28:D6:87:ARG:NH2	28:D6:91:ASP:O	3.17	0.74
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.21	0.74
8:S6:87:ARG:NH2	1:6:161:U:OP2	316.26	0.74
86:5:3943:OHX:N5	86:5:4233:OHX:N6	2.36	0.74
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.68	0.74
36:1:1592:G:OP2	70:O4:37:LYS:NZ	2.16	0.74
1:6:770:A:OP2	86:6:2138:OHX:N3	2.20	0.74
36:1:3214:U:H2'	50:M4:121:MET:HE2	1.68	0.74
39:L2:70:ARG:HH22	36:5:2522:G:H1	175.13	0.74
36:5:980:A:H2'	36:5:981:U:C2	2.22	0.74
1:6:1670:G:N7	86:6:2189:OHX:N4	2.36	0.74
1:6:542:A:H2'	1:6:542:A:OP1	1.87	0.73
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.13	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:8:ARG:O	57:N1:11:THR:OG1	2.06	0.73
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	5.16	0.73
36:1:1196:C:O2	86:1:3991:OHX:N2	2.21	0.73
1:2:565:C:O2	86:2:2040:OHX:N5	2.20	0.73
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.39	0.73
1:6:822:U:H2'	1:6:823:G:H5''	1.68	0.73
46:L9:62:ARG:NH2	36:5:3115:C:OP1	331.12	0.73
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	6.52	0.73
49:M3:165:SER:O	49:M3:167:PHE:N	2.21	0.73
15:C3:67:THR:O	15:C3:69:ASN:N	2.20	0.73
10:S8:48:THR:HG21	10:S8:54:LYS:HD3	4.44	0.73
37:3:60:G:H2'	37:3:61:G:H8	1.53	0.73
1:6:1636:C:H4'	1:6:1637:C:H5'	1.69	0.73
1:6:151:G:H1	1:6:163:G:H1	1.36	0.73
19:C7:27:ASP:OD1	34:SR:38:ARG:NH2	2.21	0.73
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.21	0.73
1:6:1362:U:H1'	1:6:1363:U:H5	1.52	0.73
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.22	0.73
27:D5:55:PRO:O	27:D5:57:TYR:N	2.18	0.73
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.66	0.73
36:1:816:A:H5'	36:1:906:A:H61	1.53	0.73
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.54	0.73
42:L5:279:LYS:NZ	37:7:110:G:OP2	326.20	0.73
38:8:68:G:O6	86:8:229:OHX:N6	2.22	0.73
5:S3:168:ILE:HD13	5:S3:187:LYS:HE3	1.69	0.73
12:C0:87:VAL:O	12:C0:89:ALA:N	5.18	0.73
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.69	0.73
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.19	0.73
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.80	0.73
62:N6:112:ASP:HB2	62:N6:115:ARG:H	1.53	0.73
3:S1:144:ARG:HG2	3:S1:206:PRO:HB3	2.43	0.73
48:M1:60:ARG:NH1	78:Q2:104:LEU:O	2.46	0.73
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.71	0.73
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.70	0.73
39:L2:70:ARG:HD2	39:L2:72:ARG:HE	5.53	0.73
36:5:3364:C:OP1	86:5:3943:OHX:N1	2.22	0.73
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.70	0.73
1:2:712:G:N1	1:2:726:C:O2	2.20	0.73
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.71	0.73
1:6:826:U:O4	86:6:2065:OHX:N3	2.20	0.73
74:O8:42:LYS:NZ	36:5:1750:A:OP2	141.66	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:121:THR:OG1	1:6:149:C:OP1	337.27	0.73
10:S8:110:ARG:NH2	36:5:3354:U:O4	241.25	0.73
36:1:1878:G:OP1	86:1:3924:OHX:N4	2.22	0.73
36:1:439:C:H3'	36:1:440:A:C8	2.20	0.72
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	3.27	0.72
56:N0:8:GLN:HG2	56:N0:62:ASN:HB2	1.71	0.72
5:S3:175:VAL:HG13	5:S3:182:LEU:HD13	1.71	0.72
50:M4:23:ILE:HA	50:M4:63:VAL:HG23	1.70	0.72
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	2.26	0.72
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.21	0.72
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	2.02	0.72
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.53	0.72
70:O4:99:LYS:O	70:O4:103:LYS:HG2	1.90	0.72
10:S8:36:THR:HB	10:S8:57:ALA:O	1.90	0.72
51:M5:84:PRO:HA	51:M5:87:GLN:HG3	4.14	0.72
11:S9:96:VAL:HA	11:S9:99:LEU:HD23	1.71	0.72
36:1:1887:A:OP2	86:1:3889:OHX:N4	2.22	0.72
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.70	0.72
36:5:2975:U:OP1	86:5:4089:OHX:N3	2.23	0.72
33:E1:146:SER:HB3	1:6:1234:A:H4'	435.34	0.72
1:6:1767:G:OP1	1:6:1770:U:H4'	1.88	0.72
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.23	0.72
36:1:3195:U:O2'	36:1:3197:G:N2	2.22	0.72
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.22	0.72
86:5:3943:OHX:N2	86:5:4233:OHX:N6	2.36	0.72
36:1:3358:U:H2'	36:1:3359:A:O4'	1.90	0.72
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.48	0.72
1:2:579:A:C8	5:S3:178:ARG:HD2	2.24	0.72
48:M1:37:LEU:HD12	48:M1:67:VAL:HG23	1.71	0.72
3:S1:181:LEU:O	3:S1:184:LEU:N	2.22	0.72
37:3:60:G:H2'	37:3:61:G:C8	2.24	0.72
36:1:371:G:O6	86:1:4179:OHX:N4	2.23	0.72
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	3.42	0.72
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.72	0.72
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.76	0.72
36:5:23:A:OP1	86:5:3907:OHX:N4	2.22	0.72
57:N1:71:SER:HB2	57:N1:91:LEU:O	1.90	0.72
41:L4:288:ARG:O	41:L4:291:ASN:N	3.17	0.72
26:D4:29:HIS:O	26:D4:31:ASN:N	3.60	0.72
3:S1:144:ARG:NH2	3:S1:207:LEU:O	2.68	0.72
7:S5:144:GLU:OE1	7:S5:225:ARG:NH1	4.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1308:A:C8	36:1:1308:A:OP2	2.42	0.72
36:5:343:U:OP2	86:5:3925:OHX:N3	2.22	0.72
1:2:1067:C:H2'	1:2:1068:C:H6	1.55	0.72
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	1.71	0.72
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.23	0.72
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.72	0.72
36:5:1565:G:N1	36:5:1574:C:N3	2.37	0.72
57:N1:71:SER:HB3	57:N1:92:ARG:HA	2.25	0.72
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.71	0.72
1:6:485:A:H61	1:6:502:U:H3	1.38	0.72
15:C3:131:THR:HG22	15:C3:132:VAL:HG13	1.72	0.72
41:L4:193:LYS:NZ	38:8:21:C:OP1	109.31	0.72
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.21	0.72
62:N6:36:SER:HB2	62:N6:37:LYS:HE2	2.40	0.72
21:C9:84:LYS:NZ	1:6:1563:C:OP1	380.29	0.72
86:2:2032:OHX:N6	86:2:2145:OHX:N5	2.38	0.72
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.37	0.72
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.22	0.72
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.13	0.72
36:1:1808:G:O6	86:1:3979:OHX:N3	2.22	0.72
1:2:45:U:O2'	1:2:46:A:H2'	1.90	0.72
18:C6:82:ARG:NH1	18:C6:114:ARG:O	2.60	0.72
36:5:1170:A:OP2	86:5:4002:OHX:N4	2.23	0.72
59:N3:120:LYS:H	59:N3:137:VAL:HG23	2.85	0.72
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.85	0.72
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.05	0.72
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.22	0.72
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.86	0.72
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	3.96	0.71
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.23	0.71
72:O6:28:TYR:O	86:5:4190:OHX:N2	104.46	0.71
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.58	0.71
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.08	0.71
56:N0:90:MET:HG2	36:5:1213:G:H4'	320.08	0.71
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	1.91	0.71
39:L2:64:ARG:HH22	45:L8:38:GLN:HA	2.54	0.71
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.23	0.71
1:6:823:G:H2'	1:6:824:G:O4'	1.90	0.71
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.24	0.71
47:M0:85:PHE:HA	47:M0:140:THR:HG22	2.27	0.71
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:679:U:O4	86:1:3970:OHX:N1	2.23	0.71
79:Q3:36:ARG:HH22	36:5:1725:C:H5''	228.67	0.71
36:5:2403:G:N2	36:5:2404:A:N7	2.37	0.71
1:2:583:C:OP1	86:2:2027:OHX:N3	2.23	0.71
86:2:2032:OHX:N4	86:2:2145:OHX:N1	2.38	0.71
86:2:2032:OHX:N3	86:2:2145:OHX:N5	2.38	0.71
36:1:2107:A:H2	36:1:3344:A:C8	2.09	0.71
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.55	0.71
15:C3:124:ARG:NH2	1:6:967:A:OP2	319.76	0.71
76:Q0:127:LEU:HD22	76:Q0:128:LYS:H	1.54	0.71
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	1.73	0.71
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	2.61	0.71
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	1.55	0.71
39:L2:213:GLY:HA3	36:5:2967:A:H5''	205.68	0.71
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.22	0.71
38:4:70:G:O6	86:O7:104:OHX:N4	2.23	0.71
13:C1:6:THR:O	13:C1:8:GLN:N	2.23	0.71
57:N1:129:LYS:NZ	36:5:1097:G:OP1	245.85	0.71
36:5:150:A:H2'	36:5:151:A:H5'	1.73	0.71
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	3.30	0.71
36:5:1940:G:H21	36:5:3362:A:H8	1.36	0.71
1:2:1542:G:N2	1:2:1569:A:OP2	2.23	0.71
79:Q3:4:ARG:NH2	36:5:838:G:O6	237.08	0.71
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.08	0.71
1:6:1680:G:O6	86:6:2188:OHX:N4	2.23	0.71
11:S9:163:PRO:O	11:S9:165:GLY:N	2.24	0.71
1:6:915:A:OP1	86:6:2070:OHX:N6	2.23	0.71
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	1.73	0.71
1:2:1672:G:H2'	1:2:1673:G:C8	2.25	0.71
69:O3:86:ARG:HH12	36:5:498:A:H5'	217.19	0.71
1:2:1720:G:O6	86:2:2083:OHX:N5	2.23	0.71
8:S6:154:ARG:HD3	1:6:78:A:C8	341.78	0.71
64:N8:4:ARG:NH2	36:5:1427:U:OP2	135.97	0.71
71:O5:85:THR:HG22	71:O5:88:LEU:H	2.20	0.71
1:6:800:U:H2'	1:6:801:G:H8	1.55	0.71
36:5:3055:U:O2'	36:5:3057:U:OP1	2.08	0.71
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.45	0.71
2:S0:167:LYS:HB3	2:S0:168:HIS:HD2	1.56	0.71
41:L4:143:GLU:O	86:L4:403:OHX:N2	2.24	0.71
3:S1:125:VAL:HG21	3:S1:173:THR:HG22	1.72	0.71
10:S8:62:THR:HA	10:S8:76:THR:O	2.52	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:82:PRO:O	20:C8:84:TRP:N	2.23	0.71
36:5:3343:G:H21	36:5:3362:A:H2	1.38	0.70
36:1:1597:C:H2'	36:1:1598:G:H8	1.56	0.70
1:6:1698:G:O2'	1:6:1699:G:O5'	2.08	0.70
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.56	0.70
36:5:2227:C:H2'	36:5:2228:A:H5''	1.73	0.70
35:SM:68:ARG:NH2	1:6:1460:A:OP2	334.01	0.70
36:1:2248:C:OP2	86:1:3879:OHX:N3	2.24	0.70
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.73	0.70
1:6:75:U:O2'	1:6:76:A:O4'	2.09	0.70
1:2:1290:U:H2'	1:2:1291:G:C8	2.26	0.70
1:2:1291:G:H22	1:2:1324:G:H1	1.40	0.70
48:M1:164:LYS:HE3	48:M1:171:VAL:HB	1.73	0.70
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.82	0.70
1:2:1745:G:O6	86:2:2087:OHX:N6	2.25	0.70
1:6:550:A:OP2	86:6:2049:OHX:N2	2.24	0.70
32:E0:26:LYS:NZ	1:6:588:U:OP2	418.88	0.70
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	3.52	0.70
86:2:2032:OHX:N3	86:2:2145:OHX:N1	2.39	0.70
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.89	0.70
5:S3:44:THR:HG22	5:S3:45:LYS:HG3	1.72	0.70
36:1:25:U:O4	86:1:3868:OHX:N4	2.23	0.70
73:O7:69:HIS:HB3	73:O7:72:ARG:HH21	2.40	0.70
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.94	0.70
24:D2:2:THR:N	1:6:1034:C:HO2'	338.77	0.70
34:SR:172:ALA:HB2	34:SR:202:LEU:HD13	1.73	0.70
1:6:833:U:O4	86:6:2100:OHX:N5	2.24	0.70
36:1:269:G:H5''	51:M5:14:LYS:HE2	1.74	0.70
56:N0:155:ARG:HH21	56:N0:155:ARG:HG2	1.56	0.70
40:L3:171:LEU:O	86:L3:404:OHX:N6	2.24	0.70
42:L5:177:GLU:O	42:L5:179:ARG:N	2.21	0.70
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	1.96	0.70
36:1:2767:U:OP2	86:1:4132:OHX:N2	2.24	0.70
31:D9:6:VAL:O	31:D9:8:PHE:N	4.57	0.70
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.24	0.70
1:2:1341:A:O2'	34:SR:102:ARG:NH2	2.24	0.70
86:5:3943:OHX:N5	86:5:4233:OHX:N3	2.39	0.70
51:M5:102:ALA:O	51:M5:106:VAL:HG12	1.90	0.70
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.55	0.70
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.24	0.70
54:M8:151:ARG:NH1	36:5:781:G:OP1	160.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1681:A:H2	1:6:1720:G:H21	1.38	0.70
64:N8:9:ARG:NH2	36:5:1431:G:N7	149.47	0.70
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.34	0.70
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	1.72	0.70
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	3.09	0.70
28:D6:26:CYS:HB2	28:D6:28:LYS:H	4.18	0.70
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.92	0.70
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.40	0.70
1:6:846:G:H2'	1:6:847:A:C8	2.27	0.70
1:2:1649:G:N7	86:2:2052:OHX:N1	2.40	0.70
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	1.73	0.70
36:5:1345:G:N7	86:5:4066:OHX:N5	2.40	0.70
3:S1:51:SER:HA	3:S1:57:ALA:H	1.55	0.70
9:S7:30:SER:HB2	9:S7:34:LEU:HD12	4.56	0.70
48:M1:60:ARG:HG3	48:M1:60:ARG:HH21	4.73	0.70
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.76	0.70
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.08	0.70
19:C7:8:THR:HG21	1:6:1330:G:H21	420.41	0.70
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.74	0.70
36:5:1662:G:O6	86:5:3920:OHX:N1	2.25	0.70
1:2:1557:U:OP2	1:2:1559:A:O2'	2.09	0.70
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.27	0.69
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.46	0.69
9:S7:104:ARG:NH1	1:6:745:U:O4	353.72	0.69
20:C8:41:ARG:HD3	1:6:1565:C:OP1	370.55	0.69
66:O0:53:LYS:HE3	66:O0:69:TYR:HE2	4.95	0.69
1:2:820:U:H2'	1:2:821:U:H4'	1.73	0.69
1:2:1585:U:N3	1:2:1611:A:H2	1.90	0.69
19:C7:23:LYS:H	34:SR:216:LYS:HE2	1.57	0.69
3:S1:160:HIS:O	3:S1:163:ALA:N	2.89	0.69
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.71	0.69
51:M5:106:VAL:HG11	51:M5:132:VAL:HG21	1.73	0.69
13:C1:138:ASN:O	13:C1:138:ASN:ND2	2.23	0.69
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.73	0.69
73:O7:88:ALA:O	86:O7:104:OHX:N1	2.24	0.69
1:6:846:G:H2'	1:6:847:A:H8	1.56	0.69
78:Q2:50:PHE:O	86:Q2:503:OHX:N2	2.25	0.69
36:5:2234:G:O6	86:5:3963:OHX:N1	2.24	0.69
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.25	0.69
47:M0:77:THR:HG22	47:M0:82:ARG:HA	2.06	0.69
34:SR:200:ASN:ND2	34:SR:240:VAL:O	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.25	0.69
49:M3:15:ARG:NH2	36:5:96:G:OP1	155.06	0.69
1:2:1542:G:N2	1:2:1568:C:H1'	2.07	0.69
37:7:19:C:N4	37:7:60:G:O6	2.19	0.69
52:M6:68:ARG:NH1	36:5:2988:C:OP1	218.72	0.69
1:6:1130:G:OP2	86:6:2112:OHX:N1	2.24	0.69
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.81	0.69
36:1:1919:G:N7	86:1:4011:OHX:N5	2.40	0.69
55:M9:135:LYS:NZ	36:5:1949:G:OP2	225.49	0.69
36:1:2233:A:OP2	86:1:4042:OHX:N5	2.25	0.69
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.53	0.69
47:M0:3:ARG:NH2	36:5:2854:U:OP2	292.09	0.69
36:5:1355:A:H1'	36:5:1356:U:OP2	1.92	0.69
62:N6:91:ASN:OD1	62:N6:92:GLY:N	3.47	0.69
1:6:922:G:H2'	1:6:923:A:C8	2.28	0.69
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.26	0.69
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.75	0.69
2:S0:167:LYS:HD3	2:S0:168:HIS:H	4.03	0.69
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.74	0.69
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	1.91	0.69
46:L9:73:SER:HA	46:L9:76:ASP:HB2	2.43	0.69
51:M5:49:ARG:NH2	36:5:115:A:OP1	101.35	0.69
56:N0:70:THR:O	56:N0:70:THR:OG1	2.60	0.69
86:2:2032:OHX:N6	86:2:2145:OHX:N2	2.41	0.69
36:1:1015:U:O2'	36:1:1017:C:OP2	2.08	0.69
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.74	0.69
79:Q3:6:LYS:HD3	79:Q3:7:LYS:HE3	4.98	0.69
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	3.01	0.69
36:5:776:U:H5	36:5:2719:U:O2	1.75	0.69
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.25	0.69
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	1.74	0.69
1:2:513:U:H2'	1:2:514:G:C8	2.27	0.69
7:S5:97:LEU:O	7:S5:99:MET:N	3.32	0.69
57:N1:28:SER:OG	37:7:9:C:OP1	268.57	0.69
40:L3:274:SER:OG	36:5:3139:A:OP1	229.15	0.69
45:L8:161:GLU:OE1	51:M5:26:ARG:NH1	2.38	0.69
36:1:2123:G:N7	86:1:4198:OHX:N2	2.41	0.69
5:S3:220:PRO:O	5:S3:221:SER:OG	2.31	0.69
1:6:230:C:N3	1:6:235:G:N2	2.34	0.69
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.24	0.69
66:O0:9:SER:OG	66:O0:10:ILE:N	2.32	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:484:C:H42	1:6:503:G:H22	1.40	0.69
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	3.25	0.69
41:L4:232:SER:OG	41:L4:233:LEU:N	2.24	0.69
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.73	0.69
63:N7:95:VAL:HG23	63:N7:96:VAL:HG23	6.27	0.69
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.75	0.69
36:1:2107:A:H2	36:1:3344:A:H8	1.41	0.69
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.26	0.69
42:L5:268:GLU:O	42:L5:270:LYS:N	4.21	0.69
1:2:484:C:H42	1:2:503:G:H22	1.40	0.69
58:N2:94:ARG:NH2	36:5:1757:A:OP1	127.19	0.69
72:O6:70:ARG:HH11	72:O6:84:LYS:HD3	1.58	0.69
41:L4:226:GLU:OE2	41:L4:246:ARG:NH2	2.26	0.69
11:S9:133:HIS:NE2	1:6:513:U:OP1	448.43	0.69
1:6:542:A:C8	1:6:543:C:H2'	2.27	0.69
20:C8:128:PHE:HD2	35:SM:61:ILE:HG22	1.58	0.69
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.75	0.69
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.25	0.69
1:6:1533:C:H4'	1:6:1539:G:N1	2.08	0.69
1:6:1649:G:N7	86:6:2109:OHX:N2	2.41	0.69
36:5:3279:A:H2'	36:5:3280:U:H5'	1.75	0.69
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.84	0.68
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.26	0.68
36:1:1454:A:OP2	86:1:4208:OHX:N6	2.26	0.68
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.58	0.68
36:1:2310:U:OP1	86:1:4138:OHX:N1	2.26	0.68
36:1:2794:G:N7	86:1:3931:OHX:N2	2.41	0.68
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.74	0.68
4:S2:179:VAL:O	4:S2:198:THR:OG1	2.10	0.68
34:SR:133:VAL:O	34:SR:141:LEU:N	2.49	0.68
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	1.80	0.68
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	282.42	0.68
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	1.79	0.68
72:O6:33:ALA:O	72:O6:34:SER:HB3	1.92	0.68
36:5:2732:G:OP2	86:5:4219:OHX:N1	2.25	0.68
1:6:1041:G:OP1	86:6:2174:OHX:N4	2.26	0.68
10:S8:31:ARG:NH2	1:6:333:A:OP1	298.53	0.68
21:C9:127:ASN:OD1	21:C9:130:ARG:NH1	9.09	0.68
1:2:1152:A:O2'	28:D6:85:ARG:HG3	1.94	0.68
37:3:49:G:O6	42:L5:58:LYS:NZ	2.19	0.68
17:C5:15:HIS:HB3	17:C5:22:LEU:HD13	5.69	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:80:THR:HG21	36:5:560:G:H5'	355.98	0.68
14:C2:54:ARG:NE	33:E1:127:GLY:O	2.26	0.68
38:8:79:A:H3'	38:8:80:A:C8	2.28	0.68
1:6:1714:A:H2'	1:6:1715:G:O4'	1.93	0.68
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	2.11	0.68
36:5:3165:A:H61	36:5:3285:C:H42	1.40	0.68
1:6:1508:U:O4	86:6:2054:OHX:N4	2.25	0.68
43:L6:154:LEU:HD23	43:L6:157:GLN:HB2	1.75	0.68
36:1:1230:G:H1	36:1:1279:C:H42	1.40	0.68
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.26	0.68
68:O2:59:SER:OG	36:5:1405:U:OP2	186.35	0.68
36:1:3343:G:H21	36:1:3362:A:H2	1.41	0.68
37:7:64:A:H5'	37:7:65:G:H5''	1.74	0.68
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.92	0.68
36:1:3050:U:OP2	86:1:4180:OHX:N4	2.26	0.68
17:C5:77:ARG:NH1	1:6:1241:G:OP2	385.24	0.68
30:D8:36:THR:OG1	30:D8:37:SER:N	2.23	0.68
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.29	0.68
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.26	0.68
1:2:1349:G:H1	1:2:1376:C:H42	1.41	0.68
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.58	0.68
36:1:3199:G:OP1	46:L9:21:LYS:NZ	2.20	0.68
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.73	0.68
26:D4:10:ARG:HD2	1:6:778:G:O6	430.71	0.68
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.26	0.68
8:S6:175:ILE:HB	8:S6:178:LEU:HD22	2.68	0.68
36:1:2754:G:OP2	86:1:4004:OHX:N6	2.27	0.68
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	2.08	0.68
36:5:1716:U:H6	36:5:1716:U:H5'	1.58	0.68
7:S5:120:ILE:HG12	27:D5:100:ILE:HD11	1.76	0.68
36:5:1790:G:O6	86:5:4198:OHX:N4	2.26	0.68
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.08	0.68
38:4:22:U:OP1	62:N6:12:ARG:NH2	2.26	0.68
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.57	0.68
1:6:833:U:O4	86:6:2100:OHX:N2	2.27	0.68
36:1:837:A:OP1	79:Q3:5:THR:OG1	2.11	0.68
58:N2:14:THR:HG23	58:N2:66:VAL:HG22	2.70	0.68
62:N6:45:ILE:HD11	62:N6:122:LYS:HB2	3.06	0.68
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	5.42	0.68
36:1:2255:A:OP1	86:1:3930:OHX:N3	2.26	0.68
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:265:TYR:OH	37:7:121:U:OP2	314.06	0.68
51:M5:90:ASN:ND2	36:5:2425:G:OP2	168.30	0.68
1:2:1606:C:H2'	1:2:1607:G:C8	2.29	0.68
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.76	0.68
36:5:2971:A:H3'	36:5:2971:A:N3	2.09	0.68
51:M5:140:LYS:O	51:M5:144:ARG:HG3	1.94	0.68
40:L3:320:ASP:OD2	40:L3:320:ASP:N	2.19	0.68
36:5:3287:U:H2'	36:5:3288:G:H5'	1.75	0.68
34:SR:33:LEU:HB3	34:SR:45:TRP:HB2	1.76	0.68
46:L9:36:LYS:HB3	46:L9:78:MET:HE1	3.03	0.68
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	2.56	0.68
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.27	0.68
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.75	0.68
36:5:2248:C:OP2	86:5:3979:OHX:N6	2.27	0.68
11:S9:108:ARG:NH1	11:S9:110:GLN:OE1	3.49	0.68
53:M7:28:ASN:O	53:M7:32:THR:HG22	1.94	0.68
36:1:1238:C:N4	36:1:1245:A:OP2	2.26	0.68
8:S6:7:TYR:CD2	8:S6:113:ILE:HG21	2.29	0.68
36:1:3148:U:O4	86:1:4108:OHX:N2	2.26	0.68
36:5:1934:G:O6	86:5:3916:OHX:N2	2.26	0.68
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	2.09	0.68
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	2.14	0.68
36:5:1024:G:N2	36:5:1026:A:OP2	2.27	0.68
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.84	0.68
1:6:837:G:O6	86:6:2100:OHX:N1	2.27	0.68
34:SR:123:ILE:HD12	34:SR:154:VAL:HG23	2.93	0.68
1:2:104:A:OP2	1:2:308:C:N4	2.26	0.68
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.75	0.68
36:1:2120:A:OP2	86:1:4006:OHX:N2	2.27	0.68
1:2:1681:A:H2'	1:2:1682:U:H5'	1.76	0.68
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.86	0.68
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.92	0.68
60:N4:62:GLY:O	60:N4:64:THR:OG1	2.12	0.68
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.21	0.67
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	2.92	0.67
36:5:3299:A:H61	36:5:3315:G:H1	1.42	0.67
36:1:410:U:O4	86:1:4055:OHX:N2	2.28	0.67
18:C6:14:LYS:O	18:C6:123:ARG:NH1	2.27	0.67
34:SR:117:LYS:H	34:SR:117:LYS:HD2	1.59	0.67
34:SR:256:THR:N	34:SR:259:GLY:O	2.40	0.67
36:1:1456:A:N7	67:O1:26:LYS:NZ	2.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:83:LEU:HD22	42:L5:88:ILE:HD12	1.76	0.67
34:SR:42:LEU:HD11	34:SR:68:VAL:HG11	1.76	0.67
28:D6:10:ARG:HG2	1:6:1797:A:OP2	333.16	0.67
28:D6:95:ARG:HG2	1:6:1797:A:H5'	343.96	0.67
36:1:1740:U:H1'	36:1:1741:A:C2	2.29	0.67
36:5:90:C:C2'	36:5:91:G:H5'	2.24	0.67
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	2.13	0.67
1:2:1564:U:H2'	1:2:1565:C:H6	1.59	0.67
36:1:1942:U:HO2'	36:1:3345:G:HO2'	1.38	0.67
1:2:480:G:N2	1:2:509:G:H1'	2.08	0.67
49:M3:179:PHE:HD1	49:M3:182:ILE:HD12	5.04	0.67
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.26	0.67
17:C5:98:ASN:ND2	17:C5:100:LYS:O	2.26	0.67
49:M3:59:ARG:NH1	36:5:73:C:N3	95.82	0.67
48:M1:81:GLU:HA	48:M1:84:LEU:HB2	1.76	0.67
1:2:1625:C:OP1	4:S2:91:ARG:NH2	2.27	0.67
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.76	0.67
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.76	0.67
36:5:2584:G:H8	36:5:2584:G:H5''	1.58	0.67
10:S8:105:ASP:OD1	10:S8:106:ALA:N	4.07	0.67
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	2.01	0.67
1:2:7:G:N7	4:S2:205:ARG:NH1	2.41	0.67
36:1:239:G:O2'	36:1:240:U:OP1	2.12	0.67
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.75	0.67
39:L2:209:HIS:HD2	39:L2:211:HIS:H	1.41	0.67
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.76	0.67
75:O9:9:ILE:HD11	75:O9:51:ILE:HD13	1.75	0.67
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.75	0.67
28:D6:58:VAL:HG22	28:D6:59:TYR:H	1.91	0.67
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.93	0.67
8:S6:122:GLU:O	8:S6:124:LEU:N	2.24	0.67
36:5:2211:U:O4	86:5:3963:OHX:N4	2.28	0.67
36:5:900:G:H1'	36:5:1589:A:N6	2.08	0.67
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	2.22	0.67
48:M1:92:ARG:HG3	48:M1:95:ASN:HD21	1.60	0.67
36:5:2568:C:N4	36:5:2574:G:O6	2.27	0.67
1:6:40:A:O2'	86:6:2107:OHX:N4	2.27	0.67
36:1:1170:A:OP2	86:1:3955:OHX:N5	2.26	0.67
19:C7:26:LEU:HD13	19:C7:59:LYS:HG3	4.14	0.67
1:2:108:A:H2'	1:2:109:G:C8	2.29	0.67
36:1:1686:U:OP1	58:N2:42:LYS:NZ	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1734:G:O6	86:5:3970:OHX:N5	2.28	0.67
1:2:1240:U:OP2	86:2:2144:OHX:N1	2.26	0.67
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.77	0.67
21:C9:102:ARG:NH2	1:6:1502:G:N7	406.39	0.67
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.72	0.67
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	294.70	0.67
17:C5:47:ARG:NH2	1:6:1555:A:OP2	404.26	0.67
50:M4:128:ARG:NH2	36:5:3214:U:OP2	282.24	0.67
13:C1:95:PRO:O	13:C1:97:TYR:N	2.28	0.67
55:M9:101:VAL:O	55:M9:104:ARG:NH1	2.27	0.67
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.43	0.67
1:2:1533:C:H4'	1:2:1539:G:N1	2.09	0.67
1:6:140:A:N6	1:6:281:G:OP1	2.27	0.67
40:L3:323:MET:HE1	40:L3:356:LEU:HD11	2.23	0.67
36:5:437:G:H22	36:5:622:A:N6	1.93	0.67
23:D1:1:MET:HG3	23:D1:10:GLU:HB3	1.76	0.67
1:2:542:A:C8	1:2:543:C:H3'	2.30	0.67
65:N9:17:HIS:HA	65:N9:20:GLY:HA3	4.83	0.67
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.30	0.67
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.34	0.67
64:N8:133:LEU:HD13	64:N8:137:LYS:HG3	1.76	0.67
5:S3:29:LEU:HD21	5:S3:69:LEU:HD21	3.81	0.67
36:1:1103:A:H4'	36:1:1103:A:OP2	1.93	0.67
37:3:60:G:OP2	86:3:226:OHX:N3	2.26	0.67
1:6:486:G:H22	1:6:501:U:H3	1.42	0.67
1:2:1564:U:H2'	1:2:1565:C:C6	2.30	0.67
1:2:1680:G:O6	86:2:2111:OHX:N5	2.28	0.67
4:S2:101:VAL:HG22	4:S2:115:ILE:HG12	1.76	0.67
1:6:1665:U:O4	86:6:2123:OHX:N6	2.28	0.67
78:Q2:41:ARG:NH1	36:5:284:A:OP2	157.40	0.67
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.76	0.67
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	3.17	0.67
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.76	0.67
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.77	0.67
86:2:2037:OHX:N2	10:S8:17:LYS:O	2.28	0.67
36:5:3192:U:O4	86:5:4144:OHX:N6	2.27	0.67
1:2:931:C:O2'	3:S1:118:GLN:O	2.12	0.67
1:6:1238:A:OP2	86:6:2096:OHX:N1	2.28	0.67
4:S2:243:TYR:HB3	4:S2:246:GLU:HG3	2.05	0.67
1:6:755:A:HO2'	1:6:756:A:H8	1.42	0.67
67:O1:84:ASP:OD1	67:O1:84:ASP:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	5.25	0.67
34:SR:178:VAL:HG13	34:SR:202:LEU:HD12	1.75	0.67
36:1:3165:A:H61	36:1:3285:C:H42	1.43	0.67
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.59	0.67
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.21	0.67
72:O6:97:SER:O	72:O6:99:ARG:N	2.28	0.67
1:6:312:A:H4'	1:6:313:U:H5''	1.75	0.67
50:M4:37:GLU:OE1	56:N0:72:VAL:HB	3.59	0.67
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.08	0.67
37:7:23:A:H2'	37:7:24:A:C8	2.30	0.67
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.24	0.67
1:2:38:C:H2'	1:2:39:A:H5'	1.77	0.67
86:1:3936:OHX:N5	86:1:4197:OHX:N6	2.43	0.67
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	2.90	0.66
36:5:1249:G:H2'	36:5:1250:G:H8	1.60	0.66
39:L2:209:HIS:CD2	39:L2:211:HIS:H	2.12	0.66
1:2:959:U:C6	15:C3:61:THR:HB	2.30	0.66
53:M7:62:ARG:O	86:M7:205:OHX:N1	2.27	0.66
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.75	0.66
1:2:1041:G:H2'	1:2:1042:G:C8	2.30	0.66
1:2:1657:U:H4'	1:2:1658:G:O5'	1.94	0.66
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.28	0.66
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	5.08	0.66
1:2:1160:A:H2'	1:2:1161:C:H6	1.60	0.66
36:1:1374:G:O6	64:N8:10:LYS:NZ	2.26	0.66
8:S6:12:SER:HB2	8:S6:124:LEU:HD12	1.77	0.66
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.77	0.66
57:N1:35:LYS:NZ	36:5:1084:A:OP1	236.05	0.66
55:M9:62:ARG:NH2	36:5:3068:U:OP2	173.01	0.66
36:5:3066:U:O4	86:5:4105:OHX:N4	2.28	0.66
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.28	0.66
1:6:196:G:O2'	1:6:197:A:OP2	2.13	0.66
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.29	0.66
1:6:484:C:H42	1:6:503:G:H1	1.43	0.66
36:5:1887:A:OP1	86:5:4114:OHX:N6	2.28	0.66
69:O3:2:ALA:HB2	36:5:3216:G:OP2	267.10	0.66
1:6:987:G:O6	86:6:2119:OHX:N4	2.29	0.66
41:L4:8:VAL:HB	41:L4:16:THR:HG21	3.01	0.66
1:2:1537:C:N3	86:2:2153:OHX:N3	2.43	0.66
1:6:1579:U:OP1	86:6:2181:OHX:N4	2.29	0.66
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	1.92	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.28	0.66
33:E1:134:ASN:H	1:6:1251:U:H4'	443.49	0.66
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.03	0.66
68:O2:33:ARG:NH1	36:5:944:C:H4'	162.82	0.66
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.99	0.66
30:D8:8:THR:HG1	30:D8:59:SER:HG	2.14	0.66
36:5:410:U:O4	86:5:4102:OHX:N1	2.28	0.66
58:N2:90:ARG:O	58:N2:91:ASP:HB2	1.95	0.66
36:1:2924:U:O4	86:1:4015:OHX:N1	2.28	0.66
86:N9:102:OHX:N2	36:5:1066:G:OP1	224.40	0.66
36:5:430:U:OP2	86:5:3984:OHX:N5	2.29	0.66
1:2:331:A:H5'	10:S8:33:PRO:HA	1.78	0.66
67:O1:33:VAL:HG13	67:O1:51:LEU:HD11	3.03	0.66
36:5:742:G:N7	86:5:4003:OHX:N4	2.44	0.66
62:N6:2:ALA:N	36:5:212:G:OP2	77.97	0.66
36:5:3195:U:H1'	36:5:3196:U:OP1	1.95	0.66
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	2.75	0.66
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.29	0.66
2:S0:59:LEU:HD11	23:D1:78:LEU:HD12	1.77	0.66
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.42	0.66
37:7:91:G:H2'	37:7:92:A:C8	2.30	0.66
26:D4:11:LYS:NZ	1:6:775:G:N7	414.79	0.66
13:C1:21:ASN:N	13:C1:21:ASN:OD1	2.31	0.66
16:C4:112:ILE:HB	28:D6:57:SER:HB3	1.76	0.66
36:5:3276:G:OP2	36:5:3276:G:H2'	1.95	0.66
36:5:2836:C:H5	36:5:2852:C:N4	1.91	0.66
42:L5:285:ARG:NH1	37:7:62:U:O3'	342.27	0.66
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.28	0.66
47:M0:4:ARG:NH1	36:5:2828:G:O2'	265.37	0.66
54:M8:153:PHE:O	54:M8:161:LYS:HG2	3.07	0.66
40:L3:284:ARG:HB2	40:L3:284:ARG:HH11	1.60	0.66
1:6:1726:G:N7	86:6:2146:OHX:N5	2.44	0.66
41:L4:89:ALA:O	41:L4:91:GLY:N	2.25	0.66
42:L5:208:MET:HG2	42:L5:223:PHE:CZ	2.31	0.66
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.78	0.66
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.28	0.66
46:L9:76:ASP:O	46:L9:80:THR:HG22	3.59	0.66
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.47	0.66
12:C0:29:GLN:NE2	12:C0:31:LYS:O	4.66	0.66
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	2.66	0.66
25:D3:53:VAL:HG23	25:D3:100:ASP:O	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:94:ALA:HB1	64:N8:121:VAL:HA	1.78	0.66
87:2:2178:PCY:H383	87:2:2178:PCY:H37	1.77	0.66
1:6:1294:G:O6	86:6:2068:OHX:N5	2.29	0.66
1:2:823:G:H3'	1:2:824:G:C8	2.30	0.66
1:2:1229:G:HO2'	1:2:1255:G:N2	1.94	0.66
18:C6:6:SER:HB2	18:C6:23:LYS:HB3	3.14	0.66
36:1:2636:A:H5''	36:1:2637:A:H5'	1.78	0.66
1:6:518:A:O2'	1:6:534:A:N6	2.28	0.66
1:6:1171:A:H2'	1:6:1172:G:C8	2.30	0.66
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.59	0.66
56:N0:13:ARG:NH1	56:N0:13:ARG:HG3	4.68	0.66
1:2:1795:U:O2	28:D6:10:ARG:HD2	1.96	0.66
1:2:1796:C:H6	28:D6:7:SER:HG	1.41	0.66
11:S9:59:LEU:HD23	11:S9:69:ARG:HA	3.73	0.66
36:1:156:G:OP2	72:O6:25:LYS:HB3	1.96	0.66
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	2.30	0.66
1:6:845:G:H2'	1:6:846:G:H8	1.61	0.66
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.75	0.66
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.78	0.66
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	6.76	0.66
1:6:647:G:H1	1:6:687:G:H1	1.44	0.66
36:1:1790:G:O6	86:1:4167:OHX:N4	2.29	0.66
23:D1:41:GLU:CD	23:D1:41:GLU:H	2.31	0.66
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	2.07	0.66
10:S8:192:TYR:O	10:S8:196:LEU:HB2	1.95	0.66
57:N1:92:ARG:NH1	36:5:2736:A:OP1	236.86	0.66
6:S4:187:ARG:HH22	1:6:753:A:H62	376.12	0.66
47:M0:99:ILE:HD13	47:M0:101:LYS:HB2	5.59	0.66
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.40	0.66
23:D1:62:ARG:HH12	24:D2:20:THR:HG22	3.61	0.66
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.69	0.66
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.60	0.66
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.79	0.66
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.61	0.66
36:5:2311:G:OP2	86:5:4199:OHX:N1	2.29	0.65
1:2:694:U:H3	9:S7:98:ILE:HD12	1.59	0.65
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.29	0.65
36:5:1541:G:OP2	86:5:4093:OHX:N4	2.29	0.65
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	5.64	0.65
1:6:542:A:H8	1:6:543:C:H5'	1.62	0.65
36:1:1062:A:H5''	36:1:1063:G:H5'	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:287:LYS:HA	40:L3:320:ASP:HB3	1.77	0.65
36:1:1493:G:O6	75:O9:2:ALA:N	2.28	0.65
1:6:1417:A:OP1	86:6:2086:OHX:N4	2.30	0.65
46:L9:41:ILE:HG23	46:L9:43:VAL:HG13	1.77	0.65
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.86	0.65
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.28	0.65
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.63	0.65
21:C9:22:LEU:HB3	21:C9:55:TYR:HD1	1.61	0.65
1:2:699:U:OP2	1:2:733:A:N6	2.29	0.65
9:S7:133:THR:O	9:S7:134:GLU:HB2	1.96	0.65
1:6:500:C:O2'	1:6:501:U:O4'	2.14	0.65
1:6:73:U:H2'	1:6:74:U:C6	2.31	0.65
1:6:922:G:H2'	1:6:923:A:H8	1.62	0.65
1:6:1280:C:H2'	1:6:1281:G:H8	1.61	0.65
65:N9:12:GLN:OE1	65:N9:15:LYS:HE2	3.18	0.65
50:M4:92:GLU:OE2	50:M4:92:GLU:N	2.21	0.65
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.25	0.65
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.78	0.65
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.03	0.65
3:S1:222:LYS:O	3:S1:224:ASP:N	2.29	0.65
29:D7:61:THR:OG1	29:D7:62:ILE:N	3.52	0.65
1:2:1428:G:H5'	1:2:1428:G:H8	1.61	0.65
51:M5:173:GLY:O	51:M5:183:THR:HG23	1.96	0.65
11:S9:149:ARG:O	11:S9:151:ASP:N	2.29	0.65
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.83	0.65
1:2:1291:G:H5'	4:S2:119:LYS:HE2	1.78	0.65
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.27	0.65
40:L3:347:SER:O	40:L3:349:LYS:N	2.28	0.65
1:6:1133:A:H2'	1:6:1134:C:O4'	1.96	0.65
54:M8:3:ILE:HD12	54:M8:5:HIS:HE1	1.61	0.65
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.24	0.65
66:O0:13:LYS:HB3	66:O0:100:ILE:HG23	1.78	0.65
42:L5:78:ALA:HB1	42:L5:104:LEU:HD23	1.79	0.65
4:S2:228:ASN:ND2	23:D1:1:MET:HB3	2.12	0.65
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.28	0.65
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.10	0.65
15:C3:33:VAL:HA	15:C3:36:GLN:HB2	1.78	0.65
6:S4:38:LEU:O	6:S4:40:GLU:N	2.29	0.65
1:6:1039:A:O2'	1:6:1040:G:OP2	2.14	0.65
1:2:1483:A:H2'	1:2:1484:G:C8	2.32	0.65
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:98:VAL:HG13	33:E1:99:LYS:H	1.62	0.65
8:S6:163:THR:HA	8:S6:168:THR:HA	1.77	0.65
1:2:527:A:OP2	86:2:2054:OHX:N4	2.29	0.65
1:6:1208:A:N1	1:6:1455:G:N2	2.45	0.65
36:1:3199:G:H5''	50:M4:6:ILE:HG21	1.79	0.65
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.18	0.65
1:2:1228:G:H1	14:C2:67:THR:HB	1.61	0.65
56:N0:50:LYS:NZ	37:7:76:A:O2'	302.98	0.65
1:2:1756:A:O5'	1:2:1756:A:H8	1.79	0.65
24:D2:122:SER:OG	24:D2:123:GLY:N	2.29	0.65
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.25	0.65
36:1:2842:U:OP1	36:1:2844:C:N4	2.28	0.65
86:2:2040:OHX:N1	25:D3:64:PRO:O	2.30	0.65
1:2:1100:G:H1'	24:D2:76:SER:HB3	1.79	0.65
1:2:639:U:OP1	9:S7:117:THR:OG1	2.15	0.65
34:SR:164:ASP:O	34:SR:166:SER:N	2.48	0.65
1:2:780:A:H8	26:D4:8:ARG:HB3	1.60	0.65
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.78	0.65
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.30	0.65
1:2:732:G:O6	86:2:2130:OHX:N5	2.30	0.65
38:8:1:A:OP1	86:8:217:OHX:N5	2.29	0.65
2:S0:41:ARG:HD2	2:S0:42:PRO:O	1.96	0.65
68:O2:4:LEU:HD23	68:O2:91:THR:HG23	1.79	0.65
57:N1:101:CYS:SG	57:N1:102:ARG:N	3.54	0.65
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.78	0.65
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.23	0.65
36:1:1724:U:H1'	36:1:1725:C:C6	2.32	0.65
23:D1:3:ASN:ND2	23:D1:6:GLY:O	2.23	0.65
3:S1:35:PRO:HB3	3:S1:231:LEU:HD11	4.09	0.65
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.61	0.65
40:L3:228:GLY:O	40:L3:232:ARG:HB3	2.60	0.65
48:M1:59:ILE:HG21	48:M1:65:ILE:HD11	1.78	0.65
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.32	0.65
1:2:73:U:H4'	1:2:74:U:OP1	1.96	0.65
70:O4:81:CYS:O	70:O4:83:ASN:N	2.31	0.65
30:D8:22:ARG:HD2	1:6:1619:C:C2	343.96	0.65
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.29	0.65
36:1:2850:G:O6	86:1:4074:OHX:N6	2.30	0.65
58:N2:59:ASP:HB3	58:N2:62:VAL:HB	1.78	0.65
1:2:720:G:H1'	1:2:721:U:H5'	1.78	0.65
36:1:1924:U:OP1	77:Q1:25:LYS:NZ	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.79	0.65
3:S1:48:VAL:HG21	3:S1:61:LEU:HB2	5.74	0.65
48:M1:62:ASN:ND2	78:Q2:101:GLY:O	2.30	0.65
3:S1:131:ASP:O	3:S1:133:TYR:N	2.29	0.65
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	1.89	0.65
19:C7:5:ARG:NH1	1:6:1402:G:OP2	409.81	0.65
2:S0:35:PRO:HB3	23:D1:87:ARG:HH21	1.61	0.65
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.52	0.65
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	3.62	0.65
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.79	0.65
54:M8:170:ARG:O	54:M8:171:LYS:HB2	2.42	0.65
12:C0:56:LYS:N	12:C0:67:THR:O	3.01	0.65
1:6:193:U:C2	1:6:195:G:H1'	2.31	0.65
19:C7:34:LEU:HD22	19:C7:38:ILE:HD12	3.27	0.65
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.32	0.65
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	2.52	0.65
36:5:2211:U:H5	36:5:2234:G:O6	1.80	0.65
36:5:1025:A:H3'	36:5:1026:A:H4'	1.79	0.65
72:O6:95:ALA:HA	72:O6:99:ARG:HD3	1.79	0.65
86:2:2134:OHX:N6	10:S8:52:ASN:OD1	2.30	0.65
36:1:864:G:OP2	86:1:3880:OHX:N5	2.30	0.65
64:N8:47:LYS:O	64:N8:49:HIS:N	2.96	0.65
36:1:3115:C:O2'	36:1:3117:C:N4	2.26	0.65
36:1:1553:U:H4'	36:1:1554:U:H5'	1.79	0.65
21:C9:39:THR:HA	21:C9:100:ILE:HD13	2.88	0.65
63:N7:135:ARG:O	36:5:2555:G:N2	210.87	0.65
69:O3:86:ARG:O	86:O3:202:OHX:N1	2.30	0.65
64:N8:28:HIS:CD2	64:N8:32:ARG:HG3	2.32	0.65
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.32	0.65
37:7:86:U:O2	86:7:218:OHX:N4	2.29	0.65
36:5:2762:A:OP2	86:5:3990:OHX:N5	2.29	0.65
1:2:1239:U:O4	86:2:2048:OHX:N2	2.30	0.65
1:2:199:G:HO2'	1:2:200:A:H8	1.44	0.65
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	2.66	0.64
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.57	0.64
36:1:2180:G:P	39:L2:174:ARG:HH22	2.21	0.64
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.62	0.64
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	4.69	0.64
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.43	0.64
42:L5:146:LEU:HB3	36:5:2746:A:H2	260.86	0.64
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	3.94	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:52:ARG:O	62:N6:54:ASP:N	2.30	0.64
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.79	0.64
34:SR:106:HIS:ND1	34:SR:128:ASP:OD2	3.86	0.64
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.79	0.64
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	1.96	0.64
1:2:932:U:OP2	3:S1:155:TYR:OH	2.15	0.64
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	2.03	0.64
1:2:649:U:O2'	1:2:650:U:O5'	2.14	0.64
49:M3:165:SER:HG	49:M3:168:ARG:H	2.38	0.64
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	2.67	0.64
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.77	0.64
36:5:174:C:H42	36:5:244:G:H1	1.45	0.64
1:2:1783:C:H2'	1:2:1784:C:H6	1.62	0.64
36:1:612:U:OP1	43:L6:21:THR:HB	1.97	0.64
54:M8:16:ARG:HH12	54:M8:55:SER:HB3	1.61	0.64
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	2.66	0.64
36:1:2573:G:O6	86:1:3995:OHX:N3	2.31	0.64
36:5:2779:A:H8	36:5:2779:A:H5'	1.61	0.64
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.79	0.64
1:6:868:G:H1	1:6:960:U:H3	1.45	0.64
36:5:1724:U:H1'	36:5:1725:C:C6	2.33	0.64
19:C7:4:VAL:HG22	1:6:1402:G:H5'	401.38	0.64
49:M3:2:ALA:N	64:N8:33:GLY:O	4.40	0.64
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	2.13	0.64
36:1:1010:G:N2	47:M0:193:ASP:OD2	2.30	0.64
70:O4:3:GLN:HB3	70:O4:30:LEU:HD12	1.79	0.64
36:1:2808:A:O2'	36:1:2969:A:OP1	2.12	0.64
36:1:979:U:O2'	36:1:980:A:N7	2.25	0.64
1:2:520:A:H2'	1:2:521:A:C8	2.32	0.64
36:1:3160:U:H2'	36:1:3161:C:C6	2.32	0.64
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	2.01	0.64
11:S9:129:ILE:HA	11:S9:134:ILE:HD11	3.11	0.64
1:2:901:G:N2	16:C4:54:GLU:OE1	2.31	0.64
36:5:2236:G:OP1	86:5:4248:OHX:N3	2.31	0.64
36:1:2960:C:OP1	86:1:3999:OHX:N4	2.30	0.64
54:M8:40:THR:O	54:M8:42:ALA:N	2.29	0.64
62:N6:71:SER:HB3	62:N6:83:ASP:HB3	1.79	0.64
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.60	0.64
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.78	0.64
46:L9:22:SER:HG	46:L9:23:ARG:H	1.44	0.64
12:C0:46:LEU:O	12:C0:50:THR:HG23	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1563:C:OP1	21:C9:84:LYS:NZ	2.20	0.64
2:S0:50:VAL:H	19:C7:109:LEU:HD21	2.88	0.64
24:D2:104:LEU:HB2	24:D2:124:LYS:O	1.96	0.64
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.32	0.64
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.62	0.64
64:N8:88:ASP:OD1	64:N8:88:ASP:N	2.27	0.64
9:S7:162:ILE:O	9:S7:164:TYR:N	3.50	0.64
16:C4:12:GLN:HG3	16:C4:111:ARG:HG3	1.80	0.64
10:S8:8:ARG:NH2	10:S8:22:ARG:HE	5.57	0.64
76:Q0:78:ILE:HG12	76:Q0:83:LYS:HG3	1.78	0.64
1:2:322:G:OP1	86:2:2092:OHX:N4	2.30	0.64
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.07	0.64
86:5:4021:OHX:N5	86:5:4217:OHX:N1	2.45	0.64
67:O1:12:TYR:O	67:O1:72:ARG:HD2	1.98	0.64
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	1.97	0.64
86:1:3909:OHX:N6	51:M5:32:GLN:O	2.30	0.64
5:S3:70:THR:HG22	5:S3:86:LEU:HD22	1.79	0.64
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	2.54	0.64
36:5:1631:C:H5''	36:5:1632:A:H5''	1.80	0.64
1:6:1350:U:H2'	1:6:1351:G:C8	2.31	0.64
1:6:1542:G:N2	1:6:1568:C:H1'	2.11	0.64
36:5:437:G:N2	36:5:622:A:H61	1.95	0.64
36:1:662:U:OP1	64:N8:8:THR:HG21	1.98	0.64
34:SR:236:ALA:O	34:SR:238:ASP:N	2.78	0.64
6:S4:170:THR:OG1	6:S4:171:ASP:N	2.28	0.64
62:N6:35:LEU:HD21	62:N6:48:LEU:HD12	1.80	0.64
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.78	0.64
25:D3:126:LYS:HB3	25:D3:131:SER:H	2.13	0.64
1:2:1097:U:O4	4:S2:201:ASN:ND2	2.31	0.64
1:2:1199:G:H8	22:D0:68:ARG:HG3	1.61	0.64
1:2:1370:U:O4	86:2:2122:OHX:N1	2.30	0.64
11:S9:157:ASP:OD2	11:S9:158:PHE:N	2.31	0.64
44:L7:158:LYS:O	44:L7:160:ARG:N	2.31	0.64
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.31	0.64
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.31	0.64
14:C2:46:ARG:NH2	1:6:1253:U:OP2	455.48	0.64
1:6:825:U:O2'	1:6:826:U:H6	1.80	0.64
29:D7:37:CYS:O	29:D7:39:GLY:N	2.30	0.64
1:2:872:G:O6	86:2:2127:OHX:N3	2.31	0.64
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.30	0.64
44:L7:25:GLN:NE2	44:L7:25:GLN:O	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1482:C:OP2	1:6:1521:G:N1	2.31	0.64
4:S2:38:VAL:N	4:S2:65:GLU:OE1	3.05	0.64
5:S3:164:VAL:HG22	5:S3:168:ILE:HG12	3.03	0.64
1:6:488:G:H21	1:6:499:U:H3	1.45	0.64
36:1:1942:U:O2'	36:1:3345:G:O2'	2.07	0.64
36:5:409:A:OP2	86:5:4102:OHX:N3	2.30	0.64
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	4.19	0.64
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.31	0.64
53:M7:41:LEU:HD22	53:M7:41:LEU:O	1.98	0.64
1:2:1061:A:H2'	1:2:1062:A:H5'	1.79	0.64
36:1:1383:G:O6	86:1:3878:OHX:N3	2.31	0.64
36:5:1037:C:H2'	36:5:1038:C:H6	1.63	0.64
63:N7:36:HIS:HD2	63:N7:74:VAL:HG11	2.84	0.64
1:2:480:G:H22	1:2:509:G:H1'	1.63	0.64
1:2:732:G:O2'	1:2:733:A:O4'	2.15	0.64
9:S7:174:ASN:O	9:S7:178:GLY:N	2.31	0.64
71:O5:38:ARG:HD2	71:O5:41:LEU:HD22	1.80	0.64
36:1:1947:G:H1	36:1:2101:C:H42	1.46	0.64
1:6:417:A:H4'	1:6:418:G:O5'	1.98	0.64
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.63	0.64
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.27	0.63
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.73	0.63
38:4:85:G:O6	62:N6:112:ASP:HB3	1.97	0.63
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.81	0.63
1:6:1408:G:H2'	1:6:1409:G:O4'	1.98	0.63
36:1:3286:G:H3'	36:1:3287:U:H5''	1.80	0.63
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.19	0.63
12:C0:32:HIS:HD2	12:C0:35:ILE:HB	1.62	0.63
10:S8:137:LYS:O	10:S8:140:GLU:N	3.39	0.63
7:S5:58:LEU:HD11	7:S5:167:ARG:HH12	2.80	0.63
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.08	0.63
48:M1:139:THR:O	48:M1:139:THR:OG1	2.09	0.63
29:D7:29:ARG:NH1	29:D7:29:ARG:HG3	2.11	0.63
69:O3:85:PHE:O	86:O3:202:OHX:N2	4.23	0.63
41:L4:232:SER:HA	36:5:694:C:O2'	97.00	0.63
1:2:4:C:O2'	11:S9:17:ARG:NH1	2.32	0.63
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.79	0.63
56:N0:9:VAL:HG22	56:N0:61:ILE:HD13	1.80	0.63
40:L3:7:GLU:HG2	36:5:2915:U:C5	258.70	0.63
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.31	0.63
66:O0:73:GLY:O	66:O0:76:GLU:HG2	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:136:LEU:HD22	51:M5:3:ALA:HB2	2.31	0.63
36:1:3060:C:OP1	86:1:4037:OHX:N4	2.30	0.63
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.43	0.63
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.80	0.63
52:M6:157:GLU:OE2	52:M6:160:ARG:NH1	2.32	0.63
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.69	0.63
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.79	0.63
1:2:328:A:OP2	13:C1:56:LYS:NZ	2.29	0.63
64:N8:94:ALA:HB2	64:N8:121:VAL:HG22	1.80	0.63
46:L9:70:THR:HG21	36:5:3122:A:N1	325.72	0.63
21:C9:52:GLY:O	21:C9:54:PHE:N	2.28	0.63
7:S5:76:ARG:O	7:S5:83:ARG:NH2	2.31	0.63
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	3.51	0.63
4:S2:37:PRO:HG3	4:S2:46:LYS:HD2	4.30	0.63
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	3.54	0.63
10:S8:136:SER:HB3	10:S8:139:ALA:HB3	1.80	0.63
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.42	0.63
36:1:2218:G:H2'	36:1:2219:A:C8	2.32	0.63
36:5:408:A:N6	38:8:15:G:H1'	2.14	0.63
37:3:121:U:H5''	42:L5:265:TYR:HE1	1.63	0.63
6:S4:163:ASP:O	6:S4:165:ALA:N	2.31	0.63
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.22	0.63
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.81	0.63
38:8:104:A:H3'	38:8:105:A:H5''	1.81	0.63
2:S0:193:GLN:O	2:S0:195:TRP:N	2.32	0.63
36:5:2112:U:H4'	36:5:2113:A:H5'	1.79	0.63
18:C6:66:ARG:HH21	18:C6:68:ARG:HG2	4.61	0.63
34:SR:160:GLU:O	34:SR:162:ALA:N	2.28	0.63
1:6:385:A:H2'	1:6:386:G:C8	2.33	0.63
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.28	0.63
51:M5:65:ARG:HG2	51:M5:127:TYR:CD1	2.35	0.63
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.25	0.63
45:L8:108:ARG:O	45:L8:111:LYS:N	2.98	0.63
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.80	0.63
1:2:1760:G:H2'	1:2:1761:U:H5'	1.79	0.63
36:1:801:A:O2'	86:1:3978:OHX:N2	2.32	0.63
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.33	0.63
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.14	0.63
36:1:2718:U:OP2	86:1:3980:OHX:N3	2.30	0.63
36:5:2507:C:O2'	36:5:2508:U:OP1	2.15	0.63
36:5:2233:A:OP2	86:5:3963:OHX:N5	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.28	0.63
20:C8:90:ASN:O	20:C8:92:ILE:N	2.30	0.63
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	1.80	0.63
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	3.53	0.63
1:2:829:A:O2'	1:2:830:U:OP2	2.12	0.63
45:L8:129:PRO:HB3	36:5:121:A:C2	101.74	0.63
63:N7:55:LYS:O	63:N7:57:HIS:N	3.14	0.63
1:6:1150:G:O6	86:6:2114:OHX:N5	2.31	0.63
36:5:2103:U:H2'	36:5:2104:A:H8	1.64	0.63
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	1.95	0.63
36:1:2264:U:OP2	86:1:3983:OHX:N5	2.31	0.63
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.45	0.63
36:1:2768:U:H2'	36:1:2769:A:H8	1.64	0.63
36:1:2554:A:H62	79:Q3:62:LYS:HE3	1.64	0.63
30:D8:38:ARG:HH12	30:D8:40:ILE:HD11	1.64	0.63
36:1:2560:C:O2	86:1:3923:OHX:N1	2.32	0.63
1:2:348:U:O4	86:2:2128:OHX:N5	2.31	0.63
68:O2:31:ASN:N	68:O2:31:ASN:OD1	3.08	0.63
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	2.60	0.63
36:5:2258:U:OP2	86:5:3949:OHX:N4	2.32	0.63
1:2:992:A:OP1	86:2:2036:OHX:N2	2.32	0.63
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.78	0.63
4:S2:115:ILE:HD11	4:S2:212:LYS:HD2	2.76	0.63
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	2.32	0.63
16:C4:11:SER:OG	16:C4:12:GLN:N	4.50	0.63
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.68	0.63
36:1:1798:A:H2'	36:1:1799:A:C8	2.34	0.63
1:6:918:U:H2'	1:6:919:A:H8	1.63	0.63
11:S9:82:ARG:HH11	11:S9:149:ARG:HD2	5.54	0.63
8:S6:2:LYS:HB2	8:S6:108:VAL:HG22	1.80	0.63
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.53	0.63
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.33	0.63
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.14	0.63
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	4.66	0.63
17:C5:53:PRO:O	17:C5:56:PHE:HB3	1.99	0.63
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.36	0.63
1:6:982:U:OP1	86:6:2075:OHX:N2	2.32	0.63
36:1:425:G:O6	86:1:3872:OHX:N6	2.31	0.63
51:M5:13:LYS:O	51:M5:16:SER:OG	2.09	0.63
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.79	0.63
2:S0:76:ILE:HG12	2:S0:98:ILE:HG13	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:72:THR:HG22	34:SR:81:LEU:HB2	2.20	0.63
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	3.97	0.63
53:M7:139:TYR:CE2	36:5:2355:G:H4'	148.19	0.63
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.81	0.63
7:S5:225:ARG:HB2	30:D8:61:ARG:HD3	4.45	0.63
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.50	0.63
36:5:2209:U:H4'	36:5:2210:G:OP1	1.98	0.63
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.32	0.63
28:D6:24:VAL:HG21	28:D6:71:LEU:HD12	1.81	0.63
36:5:1804:A:H2'	36:5:1805:C:C6	2.34	0.63
36:5:3227:A:H2'	36:5:3228:C:H5'	1.81	0.63
1:2:1535:U:O2'	1:2:1536:G:N3	2.29	0.63
41:L4:200:THR:HG22	41:L4:202:ARG:HH21	4.75	0.63
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.88	0.63
36:5:1831:U:H2'	36:5:1832:C:H6	1.64	0.63
37:7:3:U:H2'	37:7:4:U:H6	1.62	0.63
50:M4:77:ARG:O	50:M4:81:VAL:HG23	1.98	0.63
36:5:1023:C:H42	36:5:1029:G:H22	1.47	0.63
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.49	0.63
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	4.00	0.63
86:5:4021:OHX:N6	86:5:4217:OHX:N2	2.47	0.62
3:S1:181:LEU:O	3:S1:183:GLN:N	2.32	0.62
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.14	0.62
36:1:1278:A:O2'	36:1:1279:C:O5'	2.17	0.62
10:S8:52:ASN:OD1	86:6:2136:OHX:N3	311.78	0.62
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.28	0.62
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.81	0.62
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.38	0.62
36:5:1861:G:OP2	86:5:3996:OHX:N2	2.32	0.62
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.29	0.62
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.81	0.62
75:O9:4:GLN:HE21	36:5:1833:G:N2	127.11	0.62
36:1:1362:G:H2'	36:1:1363:A:C8	2.34	0.62
28:D6:75:VAL:O	28:D6:79:ILE:N	2.29	0.62
24:D2:15:ASN:ND2	24:D2:72:CYS:O	4.72	0.62
36:1:3353:G:O2'	36:1:3356:G:OP2	2.16	0.62
6:S4:38:LEU:O	6:S4:41:SER:OG	3.09	0.62
1:2:16:G:H2'	1:2:17:C:C6	2.34	0.62
53:M7:50:GLN:OE1	53:M7:56:ARG:HD3	1.98	0.62
36:5:2960:C:OP1	86:5:3973:OHX:N5	2.32	0.62
15:C3:64:ARG:HG3	15:C3:70:LYS:HD2	5.20	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:209:THR:HG22	34:SR:226:ALA:HB2	3.06	0.62
36:1:1580:A:H5'	36:1:2522:G:C5	2.34	0.62
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.98	0.62
48:M1:106:ILE:HD13	48:M1:125:MET:HB3	3.23	0.62
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.26	0.62
42:L5:107:ARG:NH1	42:L5:169:GLY:O	2.32	0.62
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.64	0.62
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.36	0.62
27:D5:74:SER:OG	1:6:1534:G:OP2	345.85	0.62
1:6:1280:C:H2'	1:6:1281:G:C8	2.33	0.62
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.99	0.62
36:5:173:G:HO2'	36:5:174:C:H6	1.47	0.62
1:2:301:A:OP2	86:2:2065:OHX:N2	2.31	0.62
1:2:1410:A:H5''	18:C6:118:ILE:HD13	1.81	0.62
4:S2:132:ALA:O	4:S2:135:SER:OG	2.36	0.62
36:5:1152:G:H22	36:5:1199:C:N4	1.97	0.62
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.79	0.62
51:M5:183:THR:O	51:M5:183:THR:OG1	2.98	0.62
1:2:1478:G:OP1	21:C9:39:THR:HG21	1.98	0.62
86:5:4021:OHX:N5	86:5:4217:OHX:N2	2.48	0.62
39:L2:3:ARG:HD3	36:5:911:C:H42	180.07	0.62
27:D5:89:ILE:HB	27:D5:101:TYR:HB3	1.79	0.62
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.82	0.62
36:1:2554:A:C8	36:1:2554:A:H5'	2.35	0.62
70:O4:65:VAL:HG12	70:O4:70:LYS:HE2	2.66	0.62
9:S7:7:LYS:NZ	55:M9:188:ASP:OD2	7.91	0.62
1:2:833:U:H5'	1:2:834:G:H5''	1.81	0.62
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.31	0.62
1:6:1273:G:H4'	1:6:1274:C:H5''	1.81	0.62
54:M8:176:ARG:HG3	36:5:2763:U:H5'	182.74	0.62
22:D0:101:LYS:O	22:D0:104:THR:OG1	2.71	0.62
63:N7:95:VAL:HG11	63:N7:113:VAL:HG21	4.23	0.62
36:1:1940:G:H21	36:1:3362:A:H8	1.47	0.62
1:6:484:C:N4	1:6:503:G:H1	1.98	0.62
50:M4:135:LEU:HD11	52:M6:178:VAL:HG22	1.82	0.62
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.81	0.62
45:L8:122:LYS:C	45:L8:124:ASP:H	2.73	0.62
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.82	0.62
6:S4:45:ILE:HG13	6:S4:61:VAL:HG21	3.67	0.62
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	2.50	0.62
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:46:LYS:NZ	36:5:1766:G:H8	101.10	0.62
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.64	0.62
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.27	0.62
28:D6:60:PRO:O	28:D6:62:TYR:N	2.33	0.62
51:M5:35:VAL:HG13	51:M5:65:ARG:HB3	1.80	0.62
48:M1:34:SER:HA	48:M1:67:VAL:HG21	1.80	0.62
34:SR:238:ASP:N	34:SR:238:ASP:OD1	2.33	0.62
5:S3:70:THR:HG22	5:S3:86:LEU:HB2	1.81	0.62
12:C0:32:HIS:CD2	12:C0:35:ILE:HB	2.34	0.62
36:1:514:G:N3	41:L4:341:SER:OG	2.33	0.62
61:N5:117:ASN:OD1	61:N5:119:THR:OG1	2.71	0.62
14:C2:81:ASP:O	14:C2:83:GLU:N	2.85	0.62
36:1:1674:G:OP2	86:1:3944:OHX:N2	2.32	0.62
36:1:499:G:OP1	69:O3:48:ARG:NH2	2.33	0.62
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.82	0.62
7:S5:43:PHE:HZ	7:S5:90:ILE:HG21	1.65	0.62
1:2:320:U:H3'	1:2:321:C:C5'	2.29	0.62
67:O1:43:HIS:O	67:O1:44:MET:HE2	4.73	0.62
1:2:1160:A:H2'	1:2:1161:C:C6	2.35	0.62
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	2.00	0.62
69:O3:92:LYS:NZ	36:5:630:A:O2'	212.22	0.62
36:1:2112:U:H4'	36:1:2113:A:H5'	1.81	0.62
36:1:3066:U:O4	86:1:4134:OHX:N5	2.32	0.62
1:6:539:G:OP2	1:6:539:G:H8	1.83	0.62
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	3.85	0.62
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	3.36	0.62
36:1:1103:A:N6	36:1:1363:A:H1'	2.15	0.62
1:2:1291:G:N2	1:2:1324:G:H22	1.98	0.62
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.64	0.62
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.29	0.62
52:M6:72:HIS:O	52:M6:74:ARG:HD3	1.99	0.62
40:L3:223:GLY:HA2	40:L3:271:GLY:HA3	1.80	0.62
86:8:219:OHX:N2	86:8:227:OHX:N1	2.48	0.62
48:M1:151:SER:O	48:M1:152:HIS:HB2	3.03	0.62
45:L8:224:ASP:N	45:L8:224:ASP:OD1	3.06	0.62
1:2:827:C:H2'	1:2:828:U:H6	1.64	0.62
7:S5:94:THR:HG22	7:S5:114:ILE:CG1	2.67	0.62
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	1.82	0.62
16:C4:81:VAL:HG13	16:C4:115:ILE:HG23	3.24	0.62
36:5:299:G:N7	86:5:4190:OHX:N1	2.47	0.62
12:C0:72:GLY:O	12:C0:74:GLU:N	3.05	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:16:LEU:HB2	30:D8:27:GLN:O	2.00	0.62
1:2:656:G:O2'	1:2:657:U:O4'	2.16	0.62
43:L6:46:ARG:HG3	43:L6:46:ARG:HH11	2.63	0.62
36:5:3269:U:O2	36:5:3271:G:N1	2.32	0.62
5:S3:72:LEU:HD22	12:C0:65:TYR:HB3	2.36	0.62
36:1:1229:G:H1	36:1:1280:C:H42	1.46	0.62
39:L2:109:GLU:HG2	39:L2:138:GLY:HA2	1.82	0.62
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.37	0.62
1:2:66:U:C5	8:S6:173:PRO:HG3	2.35	0.62
7:S5:112:ARG:HD3	27:D5:95:HIS:HE2	2.24	0.62
42:L5:270:LYS:HB3	37:7:1:G:O2'	323.26	0.62
33:E1:127:GLY:O	33:E1:129:GLY:N	2.27	0.62
36:1:3087:A:OP1	86:1:4180:OHX:N5	2.33	0.62
45:L8:68:ARG:HA	45:L8:236:GLY:O	4.54	0.62
36:5:2103:U:H2'	36:5:2104:A:C8	2.35	0.62
71:O5:21:LEU:HD13	71:O5:25:LYS:HD2	3.48	0.62
1:6:921:U:O4	86:6:2178:OHX:N3	2.33	0.62
1:2:759:U:OP1	86:2:2159:OHX:N1	2.33	0.62
3:S1:111:ARG:HG3	28:D6:68:TYR:HB2	1.81	0.62
1:2:978:A:H2'	1:2:979:A:O4'	1.99	0.62
36:5:1580:A:O2'	36:5:1581:C:OP2	2.17	0.62
27:D5:43:ASP:O	27:D5:46:LYS:N	2.32	0.62
1:6:1662:G:O6	86:6:2062:OHX:N6	2.33	0.62
36:1:364:G:OP1	41:L4:60:THR:HG23	2.00	0.62
18:C6:93:HIS:HD1	18:C6:101:SER:HG	1.46	0.62
1:2:209:U:H5'	10:S8:171:SER:HB3	1.82	0.62
20:C8:2:SER:HB3	20:C8:4:VAL:HG22	8.64	0.61
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.14	0.61
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.35	0.61
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.82	0.61
27:D5:46:LYS:HG2	27:D5:70:LYS:HE3	1.80	0.61
36:5:2580:A:O2'	86:5:4130:OHX:N1	2.32	0.61
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	1.82	0.61
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.32	0.61
10:S8:18:ARG:NH1	1:6:105:A:OP1	306.28	0.61
1:2:1140:G:OP2	86:2:2066:OHX:N6	2.33	0.61
1:6:678:A:N7	1:6:679:U:N3	2.48	0.61
26:D4:27:VAL:HG11	26:D4:35:VAL:HG11	1.81	0.61
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.64	0.61
39:L2:207:VAL:HG21	36:5:916:G:C6	187.54	0.61
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:3:ARG:HG2	1:6:399:A:H4'	321.04	0.61
86:1:3936:OHX:N1	86:1:4197:OHX:N4	2.48	0.61
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.81	0.61
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.33	0.61
39:L2:250:GLN:HG2	39:L2:251:LYS:H	3.81	0.61
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.17	0.61
4:S2:228:ASN:HD22	23:D1:1:MET:HB3	1.66	0.61
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.35	0.61
36:5:3354:U:O2	36:5:3354:U:H5''	2.00	0.61
56:N0:155:ARG:NH1	36:5:3206:C:O2	312.27	0.61
36:5:1765:U:OP1	36:5:1765:U:H4'	2.00	0.61
53:M7:24:VAL:HG12	53:M7:86:LYS:HD3	2.86	0.61
36:1:2677:G:H2'	36:1:2679:A:H2	1.66	0.61
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.05	0.61
1:2:702:G:O6	1:2:737:A:N6	2.33	0.61
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	1.65	0.61
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.82	0.61
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	2.89	0.61
86:1:3936:OHX:N5	86:1:4197:OHX:N2	2.47	0.61
45:L8:122:LYS:O	45:L8:124:ASP:N	3.27	0.61
64:N8:22:ILE:HD13	36:5:1114:U:H5''	193.14	0.61
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.66	0.61
26:D4:51:GLU:O	26:D4:53:ASP:N	3.28	0.61
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	2.64	0.61
1:6:848:C:H2'	1:6:849:C:C6	2.35	0.61
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.05	0.61
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.00	0.61
6:S4:187:ARG:NH2	1:6:753:A:H62	375.38	0.61
1:6:538:A:H8	1:6:543:C:H41	1.43	0.61
68:O2:124:GLY:O	68:O2:126:LEU:N	2.67	0.61
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.82	0.61
36:5:1387:G:OP1	86:5:4201:OHX:N3	2.33	0.61
46:L9:4:ILE:HG23	46:L9:5:GLN:H	2.14	0.61
36:1:368:G:OP1	86:1:3881:OHX:N1	2.34	0.61
57:N1:18:ASP:OD2	86:N1:201:OHX:N3	2.34	0.61
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	2.63	0.61
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.66	0.61
36:1:2528:G:N7	86:1:4182:OHX:N3	2.47	0.61
36:1:3246:G:O6	86:1:4106:OHX:N4	2.34	0.61
59:N3:62:VAL:CG2	59:N3:74:MET:HE1	2.30	0.61
34:SR:291:SER:HB2	34:SR:304:GLY:HA3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:9:LEU:O	9:S7:10:SER:OG	4.31	0.61
43:L6:78:ARG:NH1	36:5:3272:C:OP2	248.10	0.61
36:1:562:C:H2'	36:1:563:U:C6	2.33	0.61
36:1:2422:C:O2	51:M5:87:GLN:NE2	2.34	0.61
41:L4:42:VAL:O	41:L4:44:LYS:N	2.77	0.61
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.34	0.61
1:2:1199:G:O6	22:D0:67:THR:HG23	2.00	0.61
14:C2:89:ILE:HD13	14:C2:90:LYS:H	1.66	0.61
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.36	0.61
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.83	0.61
1:6:1159:C:N3	86:6:2137:OHX:N5	2.48	0.61
73:O7:58:THR:HG22	73:O7:59:THR:H	2.17	0.61
49:M3:13:HIS:NE2	36:5:98:G:N7	139.82	0.61
46:L9:49:ASN:OD1	46:L9:51:GLN:N	2.53	0.61
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.15	0.61
63:N7:74:VAL:HG23	63:N7:101:PHE:HE1	1.66	0.61
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.65	0.61
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.34	0.61
13:C1:21:ASN:ND2	13:C1:31:THR:HA	2.41	0.61
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.82	0.61
4:S2:185:LYS:HD3	4:S2:189:GLN:HE21	3.83	0.61
36:5:159:A:H61	36:5:262:U:H3	1.48	0.61
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.30	0.61
10:S8:90:LEU:HD23	10:S8:95:THR:HB	2.73	0.61
26:D4:20:ARG:HD2	26:D4:74:LEU:HD13	2.84	0.61
1:6:1754:A:H4'	1:6:1755:A:O5'	2.01	0.61
1:2:116:U:H2'	1:2:117:U:C6	2.36	0.61
36:1:2356:A:N6	36:1:2983:C:H5	1.95	0.61
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.81	0.61
1:2:397:A:O3'	10:S8:50:GLY:HA2	2.01	0.61
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.31	0.61
65:N9:21:ILE:O	65:N9:22:LYS:HD2	4.91	0.61
7:S5:117:THR:HG22	7:S5:121:ILE:HD11	1.81	0.61
36:1:1688:U:H2'	36:1:1689:U:C6	2.35	0.61
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	5.93	0.61
25:D3:42:PRO:HA	25:D3:81:LYS:HD2	2.17	0.61
36:1:3116:G:N2	36:1:3116:G:OP1	2.33	0.61
21:C9:126:GLU:HA	21:C9:129:GLN:HG3	1.83	0.61
36:5:112:U:O2'	36:5:113:C:OP2	2.18	0.61
63:N7:29:HIS:HB2	63:N7:40:HIS:O	3.44	0.61
64:N8:135:GLU:HG2	64:N8:139:ARG:HG3	3.90	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:87:ARG:HD2	1:6:1797:A:N1	345.87	0.61
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.16	0.61
48:M1:94:ARG:C	48:M1:96:PHE:H	2.04	0.61
42:L5:22:ARG:HA	42:L5:25:GLU:HG3	3.14	0.61
36:5:2572:C:O2'	36:5:2573:G:OP2	2.17	0.61
49:M3:9:ILE:HG13	64:N8:49:HIS:CE1	2.71	0.61
1:2:843:U:H2'	1:2:844:A:C8	2.35	0.61
1:6:1057:U:O2'	1:6:1059:U:OP1	2.14	0.61
64:N8:18:GLY:O	36:5:1370:G:H5''	175.51	0.61
36:5:2444:C:N4	36:5:2504:U:O4	2.33	0.61
36:5:2256:A:OP2	36:5:2256:A:H2'	2.01	0.61
28:D6:84:VAL:O	28:D6:86:VAL:N	2.33	0.61
12:C0:80:LEU:HB2	12:C0:82:LEU:HG	1.81	0.61
36:1:3182:G:OP1	52:M6:160:ARG:NH2	2.34	0.61
36:1:1307:G:H5''	52:M6:60:LYS:NZ	2.16	0.61
36:1:2767:U:O2'	78:Q2:30:ALA:O	2.18	0.61
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.25	0.61
37:3:121:U:OP2	42:L5:265:TYR:OH	2.14	0.61
41:L4:338:LYS:O	41:L4:340:GLY:N	2.31	0.61
36:1:3138:U:OP2	40:L3:30:LYS:HE3	2.01	0.61
46:L9:113:GLU:OE1	46:L9:115:ARG:NE	2.83	0.61
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	3.10	0.61
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.71	0.61
47:M0:76:MET:HE3	47:M0:148:VAL:HG13	1.83	0.61
33:E1:151:ASN:O	33:E1:151:ASN:ND2	2.34	0.61
20:C8:134:ARG:O	20:C8:136:GLN:N	3.21	0.61
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.83	0.61
36:1:847:A:H2'	36:1:848:A:C8	2.36	0.61
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.83	0.60
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.51	0.60
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.64	0.60
1:6:542:A:C8	1:6:543:C:H5'	2.36	0.60
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.12	0.60
17:C5:21:ASP:O	17:C5:25:LEU:N	3.60	0.60
36:5:3280:U:O2'	36:5:3281:U:H5''	2.01	0.60
54:M8:3:ILE:HD12	54:M8:5:HIS:CE1	2.36	0.60
1:2:75:U:N3	1:2:76:A:N3	2.49	0.60
37:7:3:U:H2'	37:7:4:U:C6	2.36	0.60
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.81	0.60
38:4:16:G:O6	86:4:222:OHX:N3	2.34	0.60
39:L2:42:ARG:HG3	39:L2:89:TYR:CE1	2.74	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1806:A:OP2	86:5:4024:OHX:N5	2.34	0.60
1:2:1588:G:H1	1:2:1608:U:H3	1.49	0.60
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.29	0.60
15:C3:92:ILE:HA	15:C3:122:ILE:HD11	2.29	0.60
1:6:1765:A:OP2	86:6:2126:OHX:N4	2.33	0.60
67:O1:8:VAL:HG12	67:O1:9:THR:H	2.27	0.60
71:O5:95:PHE:O	71:O5:97:ALA:N	2.34	0.60
7:S5:73:THR:HG21	18:C6:114:ARG:HE	5.53	0.60
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.82	0.60
36:1:1564:U:H2'	36:1:1565:G:C8	2.37	0.60
7:S5:102:ARG:HG3	7:S5:103:ASN:ND2	2.16	0.60
1:6:800:U:H2'	1:6:801:G:C8	2.37	0.60
5:S3:42:THR:OG1	5:S3:45:LYS:O	3.45	0.60
36:1:3087:A:P	86:1:4180:OHX:N5	2.74	0.60
36:5:2573:G:O6	86:5:4195:OHX:N6	2.34	0.60
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.82	0.60
36:5:3155:U:OP1	86:5:4226:OHX:N4	2.34	0.60
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	1.83	0.60
25:D3:108:GLY:HA2	1:6:600:U:OP2	358.47	0.60
36:1:209:A:N3	41:L4:221:ASN:ND2	2.49	0.60
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.83	0.60
1:2:1449:U:H2'	1:2:1450:U:C6	2.36	0.60
40:L3:147:GLU:OE1	40:L3:150:ARG:NH1	4.61	0.60
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.61	0.60
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.01	0.60
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.83	0.60
1:2:154:G:O6	26:D4:128:LYS:NZ	2.32	0.60
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.35	0.60
1:2:559:C:N3	1:2:586:G:N1	2.48	0.60
8:S6:176:GLN:HG2	1:6:169:A:H5'	329.33	0.60
36:1:1789:G:O6	86:1:4167:OHX:N2	2.35	0.60
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.47	0.60
7:S5:216:GLU:OE2	7:S5:219:ARG:NH2	2.34	0.60
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.84	0.60
36:5:2198:A:OP2	86:5:4193:OHX:N4	2.33	0.60
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	1.84	0.60
21:C9:111:ILE:HG13	21:C9:113:ILE:HG12	4.03	0.60
1:2:990:C:O2'	16:C4:127:ARG:HG2	2.02	0.60
24:D2:25:VAL:HG22	24:D2:65:LEU:HD21	1.82	0.60
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	1.92	0.60
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:8:VAL:O	79:Q3:11:THR:HG22	2.01	0.60
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.55	0.60
42:L5:64:ILE:HD12	42:L5:109:THR:HG21	1.83	0.60
36:5:1152:G:N2	36:5:1200:A:H61	1.98	0.60
20:C8:42:TYR:HE2	20:C8:73:MET:HG2	2.43	0.60
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	2.06	0.60
13:C1:4:GLU:HG3	13:C1:5:LEU:HD22	5.00	0.60
36:1:345:G:OP1	36:1:1429:G:N1	2.31	0.60
4:S2:159:THR:HG21	1:6:1097:U:O3'	384.25	0.60
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.82	0.60
36:5:3353:G:O2'	36:5:3356:G:OP2	2.19	0.60
1:2:1362:U:H1'	1:2:1363:U:C5	2.36	0.60
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.00	0.60
1:6:1590:G:H2'	1:6:1591:C:H6	1.65	0.60
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	4.57	0.60
63:N7:2:ALA:O	63:N7:4:PHE:N	2.33	0.60
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.70	0.60
3:S1:180:THR:H	3:S1:183:GLN:HB2	6.28	0.60
71:O5:71:LYS:HA	71:O5:71:LYS:NZ	2.15	0.60
36:5:917:A:OP2	86:5:4224:OHX:N3	2.34	0.60
79:Q3:4:ARG:NH1	36:5:837:A:OP2	238.26	0.60
36:5:2425:G:H2'	36:5:2426:U:O4'	2.01	0.60
39:L2:209:HIS:HD2	39:L2:211:HIS:N	1.99	0.60
60:N4:4:GLU:HG3	60:N4:30:ARG:NH1	3.96	0.60
36:1:979:U:H1'	36:1:980:A:C4	2.36	0.60
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.39	0.60
86:2:2159:OHX:N5	11:S9:8:TYR:O	2.34	0.60
1:2:209:U:H2'	1:2:210:A:C8	2.36	0.60
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.65	0.60
24:D2:67:GLY:O	24:D2:69:LEU:N	3.57	0.60
36:1:962:A:N1	36:1:2814:G:O2'	2.30	0.60
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.06	0.60
55:M9:70:LYS:O	55:M9:73:GLY:N	2.34	0.60
36:1:716:A:N6	64:N8:117:ARG:HG3	2.16	0.60
36:1:2376:G:H2'	36:1:2377:G:C8	2.36	0.60
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.83	0.60
36:5:1781:C:H2'	36:5:1782:U:C6	2.36	0.60
64:N8:21:ARG:NH1	36:5:1369:A:OP1	184.09	0.60
3:S1:125:VAL:HG11	3:S1:173:THR:HG22	2.88	0.60
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.34	0.60
19:C7:60:ARG:HG3	19:C7:66:VAL:HG21	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:78:A:H4'	8:S6:157:VAL:HG11	1.83	0.60
86:1:3936:OHX:N1	86:1:4197:OHX:N2	2.49	0.60
86:1:3936:OHX:N3	86:1:4197:OHX:N4	2.50	0.60
36:1:3095:U:H2'	36:1:3096:C:H6	1.66	0.60
71:O5:45:LYS:O	71:O5:49:LYS:HG2	5.06	0.60
15:C3:151:ASN:O	86:C3:201:OHX:N3	5.68	0.60
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.34	0.60
36:5:3237:U:H2'	36:5:3238:G:O4'	2.02	0.60
36:5:1015:U:O3'	36:5:1016:C:H2'	2.01	0.60
36:1:1365:G:OP2	86:1:3964:OHX:N6	2.35	0.60
32:E0:59:GLY:O	32:E0:61:SER:N	3.42	0.60
69:O3:60:ARG:HD3	36:5:3275:U:C4	214.33	0.60
36:1:2207:A:O2'	36:1:2208:A:H5'	2.02	0.60
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.34	0.60
24:D2:6:VAL:HG12	24:D2:34:ILE:HD11	1.82	0.60
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.82	0.60
8:S6:153:VAL:O	8:S6:155:ASP:N	2.60	0.60
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.32	0.60
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.47	0.60
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.02	0.60
7:S5:109:LYS:HE2	1:6:1474:G:P	365.26	0.60
55:M9:172:ARG:NH1	1:6:852:C:OP1	322.90	0.60
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.36	0.60
2:S0:109:ASN:HD22	1:6:1294:G:H1'	414.24	0.60
1:6:647:G:H22	1:6:687:G:N2	1.98	0.60
18:C6:42:GLU:HA	18:C6:45:ARG:HB2	1.83	0.60
36:1:230:U:H2'	36:1:231:G:O4'	2.02	0.60
33:E1:87:THR:O	1:6:1445:G:N1	378.20	0.60
42:L5:278:SER:N	42:L5:281:GLU:OE2	2.80	0.60
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	3.40	0.60
36:5:1786:G:H2'	36:5:1787:A:C8	2.37	0.60
36:5:408:A:H61	38:8:15:G:H1'	1.66	0.60
36:1:2898:G:H5''	36:1:2899:C:H5'	1.83	0.60
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.01	0.60
56:N0:137:ARG:NH1	36:5:1213:G:OP1	326.87	0.60
1:6:158:U:O2'	1:6:159:U:H3'	2.01	0.60
1:2:477:A:H2'	1:2:478:A:H8	1.67	0.60
8:S6:155:ASP:OD2	8:S6:155:ASP:N	2.32	0.60
36:1:1597:C:H2'	36:1:1598:G:C8	2.37	0.60
1:2:818:C:N4	1:2:819:G:O6	2.34	0.60
1:2:1358:G:H2'	1:2:1359:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:122:THR:OG1	1:6:1454:G:O3'	369.82	0.60
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	1.82	0.60
43:L6:46:ARG:CG	43:L6:46:ARG:HH11	2.97	0.60
1:6:1160:A:H2'	1:6:1161:C:C6	2.36	0.60
16:C4:103:ARG:NH2	28:D6:52:ASP:OD1	2.35	0.60
1:6:1202:A:OP1	86:6:2130:OHX:N2	2.33	0.60
41:L4:179:LEU:O	41:L4:183:LYS:HG2	2.01	0.60
1:6:1645:G:H22	1:6:1756:A:H2	1.48	0.60
1:6:626:U:H2'	1:6:627:C:H6	1.67	0.60
36:1:2927:C:H2'	36:1:2928:C:C6	2.37	0.60
36:5:2520:A:H2'	36:5:2521:U:C6	2.36	0.60
1:2:256:A:H2'	1:2:257:A:O4'	2.01	0.60
55:M9:167:ARG:HH11	55:M9:167:ARG:HB3	4.37	0.60
76:Q0:77:ILE:HG13	76:Q0:78:ILE:H	4.99	0.60
36:5:618:C:O2'	36:5:621:A:N3	2.34	0.60
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	1.97	0.60
1:6:1699:G:H22	1:6:1702:A:H5''	1.65	0.60
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	2.07	0.60
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.82	0.60
1:6:176:C:OP1	86:6:2095:OHX:N6	2.35	0.60
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.31	0.60
55:M9:23:TRP:HE3	55:M9:51:VAL:HG13	1.67	0.60
61:N5:103:TYR:O	61:N5:105:VAL:HG23	5.09	0.60
65:N9:50:THR:HB	36:5:1073:U:H1'	207.16	0.60
33:E1:117:LEU:HB3	33:E1:118:ARG:HH11	1.67	0.60
1:2:491:C:H42	1:2:496:G:H1	1.49	0.60
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.84	0.60
1:6:269:G:H1	1:6:286:C:H42	1.48	0.60
36:1:619:A:H5''	36:1:620:U:OP1	2.00	0.60
11:S9:142:ASN:HD22	11:S9:142:ASN:C	4.41	0.60
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.97	0.60
36:5:2897:A:H2'	36:5:2899:C:H5''	1.84	0.60
10:S8:10:LYS:HG2	13:C1:133:LYS:HE2	3.57	0.60
74:O8:2:ALA:HB1	36:5:1747:G:H21	145.56	0.60
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.54	0.60
72:O6:62:ARG:HH12	72:O6:98:ARG:HD3	1.66	0.60
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.35	0.60
36:1:3268:A:OP2	53:M7:181:ARG:NH1	2.35	0.60
47:M0:72:ALA:HB2	47:M0:155:ALA:HB2	2.04	0.60
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.85	0.60
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:60:LEU:HD13	72:O6:64:SER:HB3	1.84	0.60
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.84	0.60
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.67	0.60
1:2:359:A:C2	25:D3:38:PHE:HB3	2.36	0.60
9:S7:35:LYS:O	9:S7:37:GLU:N	2.28	0.59
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.13	0.59
1:2:1316:G:HO2'	1:2:1401:A:HO2'	1.47	0.59
4:S2:179:VAL:HG23	4:S2:197:TYR:HA	3.73	0.59
36:1:215:G:OP1	62:N6:12:ARG:HD2	2.02	0.59
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.84	0.59
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.05	0.59
71:O5:95:PHE:CG	36:5:136:G:H5'	61.73	0.59
36:1:2984:C:H2'	36:1:2985:C:H6	1.66	0.59
36:1:3316:A:O2'	36:1:3317:U:OP2	2.17	0.59
78:Q2:45:ARG:NH2	36:5:283:G:OP2	147.74	0.59
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.65	0.59
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.01	0.59
36:5:3197:G:H2'	36:5:3198:U:H5''	1.83	0.59
67:O1:46:THR:HG23	67:O1:47:ASP:N	3.13	0.59
27:D5:82:HIS:O	27:D5:85:LYS:HB2	3.86	0.59
38:4:79:A:O3'	38:4:80:A:H4'	2.01	0.59
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.35	0.59
86:1:3936:OHX:N3	86:1:4197:OHX:N6	2.50	0.59
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.76	0.59
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.84	0.59
36:1:3074:G:OP1	86:1:4037:OHX:N1	2.34	0.59
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.56	0.59
72:O6:57:LEU:O	72:O6:61:ILE:HG13	3.40	0.59
36:1:1488:G:H5''	36:1:1838:G:O6	2.02	0.59
6:S4:131:LEU:HD11	6:S4:135:GLY:HA2	1.84	0.59
36:1:2986:U:H2'	36:1:2987:A:C8	2.37	0.59
1:6:872:G:H2'	1:6:873:U:O4'	2.02	0.59
43:L6:56:LYS:HG2	43:L6:57:HIS:N	2.82	0.59
74:O8:58:ASP:HB3	74:O8:61:LYS:HB2	3.28	0.59
1:2:25:C:O2	86:2:2085:OHX:N1	2.35	0.59
49:M3:129:ASN:OD1	49:M3:130:GLY:N	5.16	0.59
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.83	0.59
51:M5:42:PRO:HG3	51:M5:61:ILE:HG13	2.33	0.59
49:M3:50:PRO:O	49:M3:52:ASP:N	3.71	0.59
36:1:223:U:O4	86:1:4195:OHX:N5	2.34	0.59
6:S4:23:LEU:HD21	1:6:772:G:H5''	389.48	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3290:G:N7	86:5:4101:OHX:N5	2.49	0.59
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.84	0.59
9:S7:78:THR:HA	9:S7:81:LEU:HB2	2.98	0.59
36:1:2899:C:C5	46:L9:171:ASP:HA	2.38	0.59
86:1:3955:OHX:N6	44:L7:217:PRO:O	2.35	0.59
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.76	0.59
53:M7:129:THR:HG23	53:M7:131:ARG:HD3	5.30	0.59
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	4.62	0.59
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	3.12	0.59
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	1.84	0.59
36:5:3228:C:O2'	36:5:3229:G:OP2	2.15	0.59
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.17	0.59
36:5:2724:U:O4	86:5:3960:OHX:N1	2.35	0.59
38:8:125:U:O2'	38:8:126:A:H5'	2.03	0.59
36:1:2699:G:OP2	86:1:3904:OHX:N1	2.35	0.59
31:D9:19:ARG:NH2	1:6:1597:A:OP1	407.78	0.59
36:1:1035:G:H3'	36:1:1036:A:H8	1.67	0.59
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	2.03	0.59
9:S7:115:SER:O	1:6:856:A:N6	361.09	0.59
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.35	0.59
44:L7:144:ILE:HD12	44:L7:189:ILE:HD12	2.35	0.59
38:8:124:G:OP2	86:8:226:OHX:N2	2.35	0.59
71:O5:68:GLN:C	71:O5:70:TYR:H	2.06	0.59
36:5:1919:G:N7	86:5:4072:OHX:N4	2.50	0.59
1:2:1600:A:H4'	1:2:1601:G:OP1	2.00	0.59
36:1:733:G:O2'	36:1:735:A:N6	2.23	0.59
36:1:1495:U:H5	36:1:1835:A:N1	2.00	0.59
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.83	0.59
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.65	0.59
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.71	0.59
63:N7:46:ILE:HD11	63:N7:49:TYR:CD2	3.53	0.59
53:M7:178:ALA:O	53:M7:182:ILE:HB	2.03	0.59
36:1:270:U:O2'	36:1:318:A:H1'	2.03	0.59
1:2:651:G:N7	86:2:2105:OHX:N6	2.50	0.59
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.84	0.59
54:M8:108:ALA:O	54:M8:110:ALA:N	3.40	0.59
1:2:770:A:OP2	86:2:2138:OHX:N6	2.35	0.59
11:S9:112:GLN:HA	11:S9:115:LYS:HB2	2.63	0.59
27:D5:61:SER:H	27:D5:64:VAL:HB	1.67	0.59
49:M3:192:GLU:O	49:M3:194:GLU:N	2.70	0.59
5:S3:32:GLU:HG2	5:S3:57:ASP:HB2	3.87	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1748:G:O6	86:2:2106:OHX:N4	2.35	0.59
67:O1:80:ASN:HA	67:O1:90:PHE:CE2	5.80	0.59
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.29	0.59
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.43	0.59
9:S7:25:VAL:O	9:S7:28:GLU:HB2	2.03	0.59
3:S1:47:LEU:HD12	3:S1:47:LEU:H	2.30	0.59
4:S2:45:VAL:HG13	4:S2:72:LEU:HD13	3.18	0.59
5:S3:141:LYS:HE3	5:S3:179:GLN:HG3	1.83	0.59
52:M6:56:ASP:O	52:M6:59:ARG:HG3	5.13	0.59
50:M4:38:ILE:HD12	56:N0:148:LEU:HD13	6.56	0.59
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	2.19	0.59
2:S0:31:VAL:HG21	1:6:1040:G:H5''	383.15	0.59
36:5:1595:U:C2	36:5:1596:C:C5	2.91	0.59
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.28	0.59
4:S2:161:LYS:HE3	4:S2:164:SER:H	4.74	0.59
36:1:599:C:OP1	41:L4:332:LYS:HE3	2.03	0.59
21:C9:5:SER:OG	21:C9:6:VAL:N	2.34	0.59
7:S5:150:GLY:O	7:S5:152:GLY:N	2.60	0.59
1:6:546:U:H2'	1:6:547:U:C6	2.37	0.59
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	3.65	0.59
6:S4:86:PHE:CE1	6:S4:87:MET:HG2	2.37	0.59
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.35	0.59
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.82	0.59
1:6:485:A:C5	1:6:486:G:H1'	2.37	0.59
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.59	0.59
1:2:931:C:OP1	28:D6:70:LYS:NZ	2.29	0.59
36:1:1577:G:H2'	36:1:1578:C:O4'	2.02	0.59
59:N3:129:VAL:O	59:N3:133:SER:OG	2.18	0.59
39:L2:79:ASN:O	39:L2:82:VAL:HG13	2.02	0.59
36:1:1409:G:N7	86:1:4065:OHX:N3	2.51	0.59
1:6:1690:G:H1	1:6:1711:C:H42	1.50	0.59
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.02	0.59
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.35	0.59
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.35	0.59
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.84	0.59
36:5:1789:G:N7	86:5:4198:OHX:N2	2.49	0.59
70:O4:22:VAL:HG12	70:O4:30:LEU:HD22	1.85	0.59
49:M3:124:ILE:HD11	49:M3:126:PHE:CZ	2.37	0.59
41:L4:220:ARG:HD2	36:5:211:A:OP1	77.86	0.59
34:SR:115:ILE:HG12	34:SR:119:ALA:HA	2.59	0.59
1:6:1244:A:H3'	1:6:1244:A:N3	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:54:VAL:O	48:M1:56:THR:N	2.33	0.59
10:S8:69:SER:OG	10:S8:185:GLU:OE2	2.87	0.59
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.03	0.59
46:L9:166:ARG:NH2	46:L9:168:ARG:HH12	11.55	0.59
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.03	0.59
1:6:217:A:O2'	1:6:218:A:O5'	2.16	0.59
36:1:1635:G:N2	36:1:1638:A:OP2	2.30	0.59
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.38	0.59
35:SM:84:LYS:HD3	35:SM:86:ASN:HB2	1.85	0.59
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.28	0.59
9:S7:109:VAL:HG22	9:S7:110:GLN:HB2	3.23	0.59
86:1:4001:OHX:N3	86:1:4171:OHX:N5	2.51	0.59
1:2:1015:U:OP1	86:2:2046:OHX:N3	2.36	0.59
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	1.84	0.59
36:1:2298:U:O4	36:1:2923:U:H5	1.85	0.59
59:N3:42:SER:OG	59:N3:43:GLY:N	2.33	0.59
17:C5:111:MET:HG3	20:C8:119:ILE:HG13	3.78	0.59
36:1:271:C:O2	72:O6:82:ARG:NH2	2.34	0.59
40:L3:75:ALA:HB2	36:5:3049:A:C2	246.94	0.59
7:S5:43:PHE:N	7:S5:46:TRP:O	3.18	0.59
20:C8:138:THR:OG1	1:6:1459:C:OP2	350.97	0.59
22:D0:105:GLN:HG3	22:D0:106:ILE:H	1.67	0.59
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.35	0.59
78:Q2:46:LYS:O	86:Q2:503:OHX:N6	2.36	0.59
39:L2:5:ILE:HG12	39:L2:8:GLN:HG3	1.85	0.59
47:M0:177:ASP:N	47:M0:177:ASP:OD2	3.39	0.59
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.92	0.59
5:S3:64:ARG:HH21	5:S3:65:ARG:HD2	7.01	0.59
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.38	0.59
20:C8:33:THR:HA	20:C8:38:VAL:HG22	3.54	0.59
36:5:1596:C:H2'	36:5:1597:C:C6	2.38	0.59
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.02	0.59
42:L5:278:SER:O	42:L5:280:GLU:N	3.19	0.59
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	3.69	0.59
41:L4:257:LYS:O	41:L4:261:VAL:HG23	2.03	0.59
36:1:2440:G:H1	36:1:2507:C:H42	1.51	0.59
1:2:1248:C:H2'	1:2:1249:U:H6	1.67	0.59
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.49	0.59
1:6:720:G:N2	1:6:720:G:OP2	2.35	0.59
36:1:1286:A:O2'	36:1:1287:A:OP2	2.14	0.59
1:2:1637:C:O2'	35:SM:94:HIS:NE2	2.25	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.50	0.59
52:M6:7:VAL:HG23	52:M6:31:GLN:NE2	3.19	0.59
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.03	0.58
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.67	0.58
1:2:788:A:H3'	6:S4:108:ARG:HH22	1.68	0.58
36:1:1171:G:O6	86:1:3955:OHX:N2	2.36	0.58
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.51	0.58
1:6:486:G:O6	1:6:488:G:N2	2.35	0.58
62:N6:37:LYS:H	62:N6:37:LYS:HE2	1.67	0.58
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	1.67	0.58
2:S0:112:THR:HG23	2:S0:115:PHE:H	2.39	0.58
21:C9:28:LEU:HB2	21:C9:30:VAL:HG13	1.85	0.58
11:S9:36:LEU:O	32:E0:33:ARG:HG3	2.02	0.58
45:L8:186:LEU:HA	45:L8:189:LEU:HD23	1.83	0.58
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	2.43	0.58
8:S6:43:ASP:OD1	8:S6:43:ASP:N	2.36	0.58
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.84	0.58
41:L4:229:ASN:OD1	41:L4:231:ALA:N	2.58	0.58
48:M1:155:THR:O	48:M1:159:THR:HG23	5.42	0.58
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.27	0.58
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.07	0.58
36:1:3043:C:P	59:N3:48:ARG:HH22	2.26	0.58
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.38	0.58
57:N1:130:ARG:O	36:5:1098:A:O2'	257.93	0.58
6:S4:227:VAL:O	6:S4:228:ILE:HG12	2.02	0.58
5:S3:42:THR:OG1	5:S3:44:THR:O	5.15	0.58
7:S5:55:ASP:O	7:S5:57:SER:N	3.73	0.58
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.71	0.58
46:L9:163:GLN:O	46:L9:166:ARG:HG3	3.01	0.58
15:C3:72:MET:HA	15:C3:75:LEU:HD13	3.08	0.58
36:1:3085:G:OP2	86:1:3884:OHX:N2	2.37	0.58
36:1:2318:U:O4	86:1:4038:OHX:N2	2.36	0.58
1:6:711:U:H5'	1:6:712:G:OP2	2.02	0.58
36:1:1915:A:H2'	36:1:1916:U:C6	2.38	0.58
36:1:1069:C:H2'	36:1:1070:U:H6	1.68	0.58
38:4:103:G:O6	86:4:226:OHX:N4	2.36	0.58
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.87	0.58
19:C7:71:PHE:CE1	19:C7:74:GLN:HB2	5.43	0.58
68:O2:34:LYS:O	68:O2:36:LYS:NZ	2.34	0.58
57:N1:132:PRO:O	57:N1:134:GLN:HG2	2.86	0.58
42:L5:122:VAL:HG23	42:L5:123:GLU:H	2.98	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:68:PRO:HD2	43:L6:71:VAL:HG21	2.18	0.58
18:C6:57:LEU:H	18:C6:57:LEU:HD12	4.38	0.58
86:5:4021:OHX:N3	86:5:4217:OHX:N1	2.51	0.58
10:S8:11:ARG:NH1	10:S8:15:GLY:O	3.16	0.58
1:6:1735:U:O4	86:6:2123:OHX:N5	2.37	0.58
24:D2:20:THR:HB	24:D2:22:LYS:HD3	2.59	0.58
1:2:814:A:OP1	55:M9:170:ARG:NH2	2.35	0.58
36:5:304:G:N3	36:5:304:G:H5'	2.17	0.58
59:N3:2:SER:OG	59:N3:3:GLY:N	4.22	0.58
36:1:1752:A:OP2	86:1:4046:OHX:N5	2.36	0.58
36:1:1024:G:N7	86:1:4164:OHX:N6	2.50	0.58
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	2.10	0.58
1:2:734:A:H5''	1:2:735:C:OP1	2.03	0.58
8:S6:67:VAL:CG2	8:S6:99:GLY:HA2	2.63	0.58
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	1.85	0.58
1:2:851:U:H2'	1:2:852:C:C6	2.38	0.58
62:N6:8:VAL:HG11	36:5:228:U:H5''	66.38	0.58
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.03	0.58
36:5:1329:U:O2'	36:5:1330:A:O5'	2.21	0.58
36:1:2947:G:H4'	36:1:2947:G:OP2	2.02	0.58
36:5:10:C:O2'	36:5:1558:A:N6	2.33	0.58
44:L7:222:HIS:ND1	44:L7:224:ILE:HG12	2.18	0.58
1:6:1424:A:H2'	1:6:1425:A:O4'	2.04	0.58
36:5:2299:A:OP2	86:5:3961:OHX:N1	2.37	0.58
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.36	0.58
45:L8:133:LYS:HG3	45:L8:201:THR:HG23	1.84	0.58
78:Q2:63:LYS:HD2	78:Q2:87:ARG:NH1	2.18	0.58
39:L2:118:GLU:HG3	39:L2:126:LEU:HD21	2.24	0.58
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.37	0.58
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.85	0.58
52:M6:3:VAL:HG13	52:M6:4:GLU:OE1	2.03	0.58
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.68	0.58
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	2.69	0.58
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.84	0.58
69:O3:67:MET:HE3	69:O3:89:LEU:HD22	1.84	0.58
10:S8:61:GLU:HG3	10:S8:77:ARG:HE	6.79	0.58
36:1:3113:A:H4'	46:L9:69:ARG:HB3	1.84	0.58
36:5:1831:U:H2'	36:5:1832:C:C6	2.38	0.58
17:C5:115:TYR:OH	1:6:1556:A:OP1	388.66	0.58
36:1:600:G:N7	86:1:4095:OHX:N1	2.50	0.58
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:339:C:OP1	36:5:1380:G:O2'	2.21	0.58
36:5:1614:C:H2'	36:5:1615:C:H6	1.67	0.58
40:L3:47:LEU:HD21	40:L3:179:ALA:HB3	2.74	0.58
71:O5:83:LYS:HA	38:8:38:U:C5	66.40	0.58
40:L3:205:VAL:HA	40:L3:208:VAL:HG23	2.51	0.58
29:D7:35:VAL:HG11	29:D7:63:LEU:HD21	1.85	0.58
40:L3:53:MET:HE2	40:L3:327:CYS:HB3	2.79	0.58
63:N7:77:TYR:HD2	66:O0:35:ARG:HD2	2.37	0.58
27:D5:104:ALA:O	27:D5:105:THR:OG1	4.60	0.58
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.38	0.58
36:1:2102:U:H2'	36:1:2103:U:C6	2.38	0.58
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.37	0.58
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.04	0.58
24:D2:53:ILE:HD13	29:D7:24:LEU:HD11	2.52	0.58
36:1:900:G:H1'	36:1:1589:A:N6	2.19	0.58
33:E1:102:VAL:O	33:E1:104:SER:N	2.36	0.58
5:S3:22:ASN:OD1	5:S3:34:TYR:OH	2.41	0.58
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.92	0.58
86:1:3966:OHX:N1	38:4:31:G:OP2	2.37	0.58
47:M0:26:VAL:HG11	47:M0:96:VAL:HG21	2.88	0.58
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.89	0.58
1:6:1098:U:H6	1:6:1098:U:H5''	1.69	0.58
1:2:1178:G:H2'	1:2:1179:G:O4'	2.04	0.58
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.42	0.58
1:2:694:U:H3'	1:2:695:U:C6	2.39	0.58
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.09	0.58
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.03	0.58
4:S2:38:VAL:HG13	4:S2:39:THR:HG23	1.85	0.58
14:C2:126:TRP:O	14:C2:128:ALA:N	2.37	0.58
49:M3:101:ARG:HB2	36:5:76:G:N7	85.11	0.58
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.29	0.58
36:1:2768:U:H2'	36:1:2769:A:C8	2.38	0.58
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.69	0.58
1:2:25:C:H4'	1:2:25:C:OP2	2.03	0.58
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	1.86	0.58
12:C0:24:LYS:HD2	12:C0:63:TYR:CZ	3.98	0.58
69:O3:73:ARG:HG3	69:O3:82:ARG:HD2	2.25	0.58
1:2:530:C:O2	26:D4:61:ARG:NH2	2.36	0.58
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.86	0.58
48:M1:124:GLY:HA3	36:5:2674:A:C2	329.11	0.58
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2669:G:N7	86:1:4069:OHX:N4	2.52	0.58
36:5:955:U:H2'	36:5:956:U:C6	2.38	0.58
20:C8:126:ARG:HG2	20:C8:133:VAL:HA	1.85	0.58
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.85	0.58
9:S7:125:ILE:O	9:S7:129:LEU:N	2.32	0.58
8:S6:173:PRO:HG3	1:6:66:U:C5	334.75	0.58
1:2:916:U:H3	16:C4:41:ARG:NH2	2.01	0.58
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	1.84	0.58
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.95	0.58
5:S3:179:GLN:NE2	1:6:1438:G:O2'	395.65	0.58
74:O8:63:LYS:HG2	74:O8:64:LYS:HD2	1.86	0.58
1:2:959:U:H6	15:C3:61:THR:HB	1.69	0.58
16:C4:112:ILE:H	28:D6:57:SER:HA	1.69	0.58
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.85	0.58
13:C1:5:LEU:O	13:C1:7:VAL:N	2.30	0.58
36:5:528:U:H2'	36:5:529:A:H8	1.69	0.58
36:1:829:U:H3	36:1:895:A:H62	1.52	0.58
1:2:1504:G:H2'	1:2:1505:A:C8	2.39	0.58
36:5:566:G:N7	86:5:4131:OHX:N5	2.51	0.58
36:5:953:G:H2'	36:5:1117:G:H5''	1.85	0.58
36:1:108:A:O2'	36:1:109:A:H2'	2.03	0.58
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	2.76	0.58
1:6:1010:C:OP2	86:6:2170:OHX:N3	2.36	0.58
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.04	0.58
1:2:197:A:H61	10:S8:138:ASN:ND2	2.02	0.58
9:S7:114:ARG:O	9:S7:117:THR:HB	3.36	0.58
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.18	0.58
1:2:886:U:O2	16:C4:123:SER:N	2.33	0.58
13:C1:8:GLN:HE22	13:C1:14:GLN:H	3.90	0.58
37:3:22:A:H2'	37:3:23:A:C8	2.39	0.58
25:D3:96:VAL:HB	25:D3:127:VAL:HG21	5.94	0.58
36:5:1804:A:H2'	36:5:1805:C:H6	1.68	0.58
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.38	0.58
36:5:181:U:H1'	36:5:236:G:H22	1.68	0.58
36:5:1952:G:H1	36:5:2094:C:H42	1.52	0.58
1:6:1657:U:O2'	1:6:1658:G:OP2	2.18	0.58
36:1:597:G:H2'	36:1:598:A:H8	1.69	0.58
1:2:855:A:C2	1:2:857:U:H1'	2.38	0.58
36:1:249:U:H1'	36:1:250:U:O2	2.03	0.58
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.77	0.58
36:1:1443:G:O6	86:1:3974:OHX:N3	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.31	0.58
40:L3:71:GLU:OE1	40:L3:357:LYS:NZ	2.34	0.58
17:C5:82:ASN:ND2	1:6:1555:A:O2'	393.57	0.58
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.14	0.58
41:L4:3:ARG:NH1	41:L4:22:LEU:HD12	2.15	0.58
1:2:1153:G:H5'	28:D6:85:ARG:HD3	1.86	0.58
35:SM:23:LYS:HZ2	35:SM:24:GLU:H	8.00	0.58
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	2.76	0.58
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.85	0.58
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.38	0.58
75:O9:2:ALA:N	36:5:1493:G:O6	121.03	0.58
77:Q1:2:ARG:HG2	77:Q1:4:LYS:HG2	1.84	0.58
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.18	0.58
9:S7:66:SER:O	9:S7:69:GLY:N	2.61	0.58
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.38	0.58
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.39	0.58
60:N4:38:SER:O	60:N4:42:GLN:HG3	2.25	0.58
1:2:1320:U:O2	1:2:1322:A:H5'	2.04	0.58
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	2.74	0.57
20:C8:145:ARG:HG3	35:SM:68:ARG:NH2	4.69	0.57
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NH1	2.02	0.57
4:S2:41:LEU:HD12	4:S2:68:ILE:HD13	1.86	0.57
27:D5:92:ILE:HG23	27:D5:100:ILE:HG22	1.86	0.57
42:L5:260:PHE:CE2	37:7:121:U:H5'	321.78	0.57
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.03	0.57
6:S4:77:ARG:HD3	6:S4:82:TYR:CZ	2.39	0.57
8:S6:49:VAL:HG11	8:S6:115:LYS:HE2	3.01	0.57
22:D0:22:ILE:HD12	22:D0:118:VAL:HG23	1.86	0.57
7:S5:58:LEU:HD11	7:S5:167:ARG:NH1	3.05	0.57
59:N3:54:LEU:HD11	59:N3:119:GLY:HA3	1.85	0.57
86:8:219:OHX:N2	86:8:227:OHX:N4	2.51	0.57
47:M0:76:MET:HE2	47:M0:148:VAL:HA	3.31	0.57
36:5:601:U:H2'	36:5:602:A:O4'	2.04	0.57
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.04	0.57
1:2:1670:G:N7	86:2:2124:OHX:N5	2.52	0.57
39:L2:103:PRO:O	39:L2:105:GLY:N	2.94	0.57
36:5:3341:U:H5''	36:5:3342:A:OP2	2.04	0.57
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.34	0.57
1:6:213:A:OP2	86:6:2149:OHX:N1	2.38	0.57
68:O2:35:GLN:HB2	68:O2:43:ARG:HB2	1.86	0.57
86:5:3979:OHX:N4	86:5:4199:OHX:N3	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:299:ILE:CG2	54:M8:39:ARG:HE	4.06	0.57
1:2:886:U:O2'	16:C4:121:VAL:O	2.21	0.57
3:S1:105:PHE:H	3:S1:214:LYS:HE2	1.69	0.57
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.86	0.57
1:6:339:C:H2'	1:6:340:U:H6	1.69	0.57
51:M5:114:ARG:HG2	51:M5:137:PRO:HG3	2.25	0.57
56:N0:62:ASN:N	56:N0:62:ASN:OD1	3.34	0.57
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	4.26	0.57
42:L5:85:ARG:NH2	42:L5:252:ALA:O	5.00	0.57
34:SR:307:ASP:OD2	34:SR:311:ARG:NH2	2.45	0.57
1:2:71:A:H2'	1:2:72:A:O4'	2.03	0.57
36:5:174:C:N4	36:5:244:G:H1	2.02	0.57
36:5:1152:G:H8	36:5:1152:G:O5'	1.87	0.57
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.37	0.57
71:O5:83:LYS:HA	38:8:38:U:H5	65.56	0.57
1:2:1650:U:H2'	1:2:1651:A:C8	2.39	0.57
34:SR:26:SER:OG	34:SR:75:ALA:O	3.08	0.57
7:S5:153:GLY:O	7:S5:155:ALA:N	2.37	0.57
1:2:1683:C:O2'	1:2:1684:U:O5'	2.21	0.57
36:1:603:A:H2'	36:1:604:G:O4'	2.04	0.57
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	3.21	0.57
36:1:2296:A:OP1	86:1:4147:OHX:N2	2.37	0.57
36:1:1815:U:O2'	36:1:1816:A:OP2	2.20	0.57
36:1:2689:A:N3	36:1:2689:A:H2'	2.19	0.57
11:S9:186:GLU:OE1	11:S9:186:GLU:N	2.37	0.57
50:M4:109:ARG:HD3	52:M6:199:TYR:CZ	3.24	0.57
36:1:1933:A:OP2	86:1:3882:OHX:N6	2.38	0.57
41:L4:295:ILE:HG22	41:L4:299:ILE:HD11	2.71	0.57
1:6:1458:G:H5'	1:6:1459:C:OP2	2.04	0.57
38:4:68:G:OP2	86:O7:104:OHX:N6	2.36	0.57
11:S9:2:PRO:HD2	1:6:461:G:OP1	360.71	0.57
36:1:816:A:H5'	36:1:906:A:N6	2.20	0.57
50:M4:13:ARG:HD2	50:M4:65:LEU:O	2.93	0.57
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.85	0.57
36:5:1716:U:O2'	36:5:1717:U:O5'	2.20	0.57
47:M0:76:MET:CE	47:M0:148:VAL:HG13	2.34	0.57
1:6:1765:A:OP1	86:6:2126:OHX:N2	2.38	0.57
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	1.68	0.57
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	1.86	0.57
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.91	0.57
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2827:U:O4	86:5:3902:OHX:N6	2.38	0.57
36:5:2278:C:OP1	86:5:4090:OHX:N6	2.37	0.57
15:C3:21:ASN:N	15:C3:21:ASN:OD1	2.53	0.57
1:6:1783:C:H2'	1:6:1784:C:H6	1.68	0.57
37:7:55:A:H2'	37:7:56:A:O4'	2.04	0.57
36:5:507:U:H2'	36:5:508:U:C6	2.39	0.57
7:S5:42:LEU:HD21	7:S5:45:LYS:HD2	1.85	0.57
36:1:1094:U:H1'	36:1:1096:U:H2'	1.86	0.57
28:D6:10:ARG:HD3	28:D6:34:LYS:HA	2.49	0.57
86:5:4021:OHX:N6	86:5:4217:OHX:N4	2.52	0.57
36:1:1014:U:H2'	36:1:1015:U:H5''	1.87	0.57
46:L9:105:GLU:HA	46:L9:109:ALA:HB3	1.86	0.57
36:1:147:U:O4	45:L8:157:VAL:HA	2.05	0.57
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.04	0.57
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.37	0.57
16:C4:103:ARG:HH22	28:D6:48:ALA:HB1	4.13	0.57
9:S7:51:VAL:HG23	9:S7:53:GLY:H	5.22	0.57
39:L2:243:THR:OG1	36:5:2244:A:H5''	228.56	0.57
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.38	0.57
3:S1:119:THR:HB	3:S1:143:THR:HG23	1.93	0.57
3:S1:58:SER:HA	3:S1:62:LYS:HD3	1.86	0.57
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	4.05	0.57
1:2:694:U:H5''	1:2:695:U:H5	1.69	0.57
36:1:1093:A:N3	36:1:1096:U:N3	2.52	0.57
9:S7:32:PRO:HD2	9:S7:34:LEU:HB2	1.87	0.57
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.39	0.57
1:2:1486:G:H1'	1:2:1592:A:O2'	2.04	0.57
5:S3:144:ALA:HB2	1:6:579:A:N1	393.02	0.57
1:6:831:U:O2'	1:6:832:U:O5'	2.21	0.57
1:2:778:G:H3'	1:2:780:A:H2	1.69	0.57
5:S3:45:LYS:HD2	5:S3:85:VAL:HG21	1.87	0.57
51:M5:67:ARG:O	51:M5:68:ARG:HB3	4.65	0.57
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.04	0.57
37:7:91:G:H2'	37:7:92:A:H8	1.69	0.57
46:L9:70:THR:HB	36:5:3112:G:O2'	330.56	0.57
1:2:1760:G:C2'	1:2:1761:U:H5'	2.34	0.57
30:D8:27:GLN:HE22	30:D8:64:ARG:HD2	6.54	0.57
86:1:4001:OHX:N6	86:1:4171:OHX:N1	2.53	0.57
57:N1:131:GLN:HG3	57:N1:132:PRO:HD2	2.58	0.57
50:M4:84:LYS:O	50:M4:87:ALA:HB3	2.03	0.57
36:5:2841:G:OP2	86:5:4138:OHX:N1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:701:G:H2'	36:5:702:C:C6	2.39	0.57
36:1:595:G:N1	36:1:609:G:H5''	2.19	0.57
68:O2:11:LYS:O	68:O2:12:LYS:HB2	3.05	0.57
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.91	0.57
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.17	0.57
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.87	0.57
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.11	0.57
1:2:1266:U:H2'	1:2:1267:G:C8	2.39	0.57
36:1:1352:A:H4'	36:1:1353:U:OP1	2.02	0.57
3:S1:40:ASN:ND2	3:S1:40:ASN:O	2.38	0.57
44:L7:125:GLU:HA	44:L7:128:LYS:HG3	1.87	0.57
71:O5:31:LEU:O	71:O5:35:LYS:N	2.61	0.57
36:1:742:G:N7	86:1:3972:OHX:N1	2.53	0.57
45:L8:187:GLY:HA2	45:L8:195:SER:HB2	2.05	0.57
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.40	0.57
36:1:2107:A:C2	36:1:3344:A:H8	2.23	0.57
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.71	0.57
8:S6:67:VAL:HG23	8:S6:100:ALA:H	1.69	0.57
1:2:1166:A:H5''	7:S5:101:GLY:H	1.69	0.57
17:C5:22:LEU:HD13	17:C5:26:LEU:HD11	1.85	0.57
36:1:2636:A:H5''	36:1:2637:A:C5'	2.34	0.57
41:L4:183:LYS:HE3	36:5:1386:A:N7	120.52	0.57
6:S4:86:PHE:HE2	6:S4:102:VAL:HG23	2.60	0.57
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.86	0.57
10:S8:58:LEU:O	10:S8:59:ARG:HB2	2.05	0.57
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.04	0.57
39:L2:139:HIS:HB3	39:L2:146:THR:HA	1.86	0.57
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.39	0.57
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	5.41	0.57
35:SM:52:PRO:O	35:SM:54:PRO:HD3	4.61	0.57
36:1:841:A:OP2	86:1:4174:OHX:N2	2.37	0.57
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.37	0.57
36:5:595:G:H1	36:5:609:G:H5''	1.69	0.57
36:1:743:C:N3	54:M8:141:ARG:NH1	2.53	0.57
18:C6:50:GLU:CD	18:C6:114:ARG:HH11	2.07	0.57
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	1.87	0.57
1:2:542:A:C8	1:2:543:C:H5'	2.37	0.57
8:S6:13:GLN:OE1	1:6:151:G:N2	312.27	0.57
2:S0:41:ARG:HG2	2:S0:42:PRO:HD2	2.17	0.57
36:1:249:U:O2'	36:1:250:U:N3	2.36	0.57
1:2:622:A:H4'	1:2:623:A:OP1	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:86:THR:O	45:L8:90:THR:HG23	5.27	0.57
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.05	0.57
11:S9:74:ASN:HA	11:S9:77:ILE:HD12	1.87	0.57
26:D4:81:GLU:HA	26:D4:84:LYS:HG2	1.86	0.57
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.69	0.57
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.21	0.57
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	4.87	0.57
1:6:66:U:H4'	1:6:67:A:OP1	2.03	0.57
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.19	0.57
24:D2:38:LEU:HD23	24:D2:41:MET:HE3	1.86	0.57
1:6:578:U:O2	86:6:2153:OHX:N3	2.38	0.57
19:C7:20:TYR:CD1	19:C7:38:ILE:HD11	2.40	0.57
8:S6:70:PRO:C	8:S6:98:ARG:HH11	2.06	0.57
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.38	0.57
1:6:1697:G:H8	1:6:1705:C:C2	2.23	0.57
46:L9:77:ASN:HA	46:L9:80:THR:HG23	3.36	0.57
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.87	0.57
42:L5:265:TYR:HE1	37:7:121:U:H5''	317.75	0.57
5:S3:62:ASN:O	5:S3:62:ASN:ND2	5.65	0.57
36:1:3082:C:H2'	36:1:3083:G:C8	2.40	0.57
36:5:1110:U:H2'	36:5:1111:U:C6	2.40	0.57
33:E1:82:LYS:O	33:E1:84:VAL:N	4.92	0.57
55:M9:110:ARG:NH1	36:5:1719:G:OP1	236.94	0.57
36:1:1194:G:OP1	86:1:3960:OHX:N1	2.37	0.57
43:L6:48:ARG:NH2	36:5:3276:G:O2'	241.52	0.57
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	1.85	0.57
28:D6:10:ARG:HD2	1:6:1795:U:H3	328.94	0.57
37:3:4:U:H2'	37:3:5:G:H8	1.66	0.57
46:L9:10:ILE:HD13	46:L9:75:VAL:HB	1.86	0.57
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.86	0.57
41:L4:283:THR:HG21	41:L4:288:ARG:HH12	7.56	0.57
1:6:513:U:H2'	1:6:514:G:C8	2.40	0.57
36:1:1650:G:O6	86:1:4137:OHX:N2	2.37	0.57
63:N7:74:VAL:HG23	63:N7:101:PHE:CE1	2.39	0.57
34:SR:258:THR:HG22	34:SR:275:ARG:HD3	1.87	0.57
36:5:1717:U:H2'	36:5:1718:G:C8	2.39	0.57
36:1:73:C:C2	49:M3:59:ARG:HD3	2.40	0.57
1:6:191:C:O2'	1:6:192:U:O5'	2.20	0.57
86:6:2059:OHX:N2	86:6:2146:OHX:N4	2.53	0.57
18:C6:23:LYS:HG3	18:C6:64:ASP:HB2	1.86	0.57
36:5:22:G:H1'	38:8:104:A:N3	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.87	0.57
46:L9:4:ILE:HG23	46:L9:5:GLN:N	2.64	0.57
73:O7:58:THR:O	73:O7:61:THR:HG23	2.05	0.57
40:L3:247:ARG:NH1	36:5:1888:U:OP1	212.66	0.57
1:2:83:G:OP2	86:2:2067:OHX:N5	2.38	0.57
32:E0:55:ARG:NH1	1:6:557:G:OP1	418.03	0.57
36:1:624:G:OP2	86:1:4131:OHX:N3	2.37	0.57
11:S9:38:ASN:HB2	11:S9:41:GLU:H	1.70	0.57
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.69	0.57
16:C4:121:VAL:O	1:6:886:U:O2'	287.60	0.57
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.39	0.57
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	3.14	0.57
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.70	0.57
57:N1:124:VAL:HG12	57:N1:125:ALA:H	2.68	0.57
1:6:647:G:N2	1:6:687:G:H22	2.02	0.57
36:1:1723:A:N1	36:1:1788:C:O2'	2.33	0.57
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.36	0.57
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.32	0.57
1:6:595:G:H2'	1:6:596:C:C6	2.40	0.57
36:5:2279:A:O5'	36:5:2280:A:H5'	2.05	0.57
36:5:1204:A:H2'	36:5:1205:A:H5'	1.87	0.57
52:M6:190:VAL:O	52:M6:194:LEU:HD12	2.05	0.57
41:L4:299:ILE:HG21	54:M8:39:ARG:HH21	3.37	0.56
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.17	0.56
47:M0:202:LYS:HD3	37:7:64:A:N1	346.24	0.56
1:2:789:A:OP1	6:S4:108:ARG:NH2	2.38	0.56
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.33	0.56
1:2:7:G:O6	4:S2:205:ARG:NH2	2.38	0.56
21:C9:30:VAL:HG12	21:C9:54:PHE:CD2	2.40	0.56
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.05	0.56
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	2.07	0.56
36:1:2986:U:H2'	36:1:2987:A:H8	1.70	0.56
51:M5:74:PRO:O	51:M5:75:VAL:HG22	2.05	0.56
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.44	0.56
75:O9:26:TRP:HA	75:O9:29:LEU:HD23	3.70	0.56
51:M5:149:ASN:OD1	86:M5:303:OHX:N2	2.38	0.56
60:N4:5:ILE:HD12	60:N4:10:GLY:HA2	1.87	0.56
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	2.02	0.56
1:2:176:C:OP1	86:2:2074:OHX:N3	2.38	0.56
1:2:1329:A:O5'	1:2:1329:A:H8	1.88	0.56
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:83:LEU:HD13	42:L5:88:ILE:HG13	4.82	0.56
49:M3:87:ALA:O	49:M3:91:ARG:HG3	2.05	0.56
1:2:1428:G:H5'	1:2:1428:G:C8	2.39	0.56
17:C5:71:GLU:HG2	17:C5:72:LYS:H	1.69	0.56
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.91	0.56
62:N6:74:TYR:CZ	62:N6:77:LYS:HD2	5.09	0.56
18:C6:109:PHE:O	18:C6:113:ASP:N	2.96	0.56
36:5:3155:U:OP1	86:5:4226:OHX:N2	2.37	0.56
68:O2:12:LYS:HD3	68:O2:57:TYR:O	2.04	0.56
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.27	0.56
36:1:62:A:H2'	36:1:63:A:H8	1.70	0.56
36:5:2921:U:H2'	36:5:2923:U:H5''	1.85	0.56
36:1:92:G:OP2	36:1:93:C:H5''	2.05	0.56
36:5:2509:U:H2'	36:5:2510:U:H5''	1.87	0.56
1:2:531:C:OP2	86:2:2071:OHX:N4	2.37	0.56
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.37	0.56
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.86	0.56
36:1:1704:A:HO2'	36:1:1705:U:H5	1.53	0.56
36:5:1796:G:H5''	36:5:1797:A:OP1	2.05	0.56
21:C9:118:PRO:C	21:C9:120:GLY:H	2.73	0.56
1:6:947:U:H2'	1:6:948:G:C8	2.40	0.56
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.38	0.56
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	4.18	0.56
86:5:3979:OHX:N2	86:5:4199:OHX:N1	2.54	0.56
2:S0:49:ASN:CB	2:S0:52:LYS:HG3	2.36	0.56
11:S9:29:LYS:O	11:S9:33:GLU:HG2	3.93	0.56
36:1:2818:U:C6	36:1:2818:U:H5'	2.30	0.56
11:S9:143:ILE:HD12	1:6:767:U:C5	424.32	0.56
12:C0:8:ARG:HD2	12:C0:12:HIS:HE1	1.69	0.56
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.04	0.56
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.39	0.56
52:M6:12:LYS:HG2	52:M6:40:GLU:HB3	4.37	0.56
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	3.16	0.56
36:5:979:U:H1'	36:5:980:A:C4	2.41	0.56
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	1.87	0.56
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.19	0.56
41:L4:42:VAL:C	41:L4:44:LYS:H	2.43	0.56
17:C5:33:PHE:O	17:C5:36:LEU:HD22	4.07	0.56
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.36	0.56
49:M3:179:PHE:CD1	49:M3:182:ILE:HD12	5.69	0.56
1:2:109:G:H1	1:2:305:C:H42	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.36	0.56
22:D0:18:GLN:O	22:D0:96:PRO:HB3	4.05	0.56
41:L4:339:LEU:HA	41:L4:342:LYS:HB3	4.58	0.56
10:S8:114:GLU:OE2	10:S8:121:LEU:N	3.36	0.56
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.05	0.56
36:5:3035:A:OP2	86:5:4051:OHX:N5	2.39	0.56
1:6:320:U:H2'	1:6:321:C:C2	2.40	0.56
1:6:1603:U:H2'	1:6:1604:U:H6	1.68	0.56
41:L4:112:LYS:O	36:5:790:U:H4'	123.43	0.56
43:L6:2:SER:N	36:5:1385:C:O2	136.06	0.56
36:1:2371:G:O6	86:1:3870:OHX:N3	2.38	0.56
58:N2:104:ARG:HH12	58:N2:106:ALA:HB2	4.57	0.56
7:S5:205:SER:O	7:S5:207:THR:N	2.32	0.56
15:C3:46:THR:O	15:C3:50:ILE:HG13	2.28	0.56
9:S7:75:THR:O	9:S7:79:ARG:HB2	2.30	0.56
62:N6:111:LEU:HD23	62:N6:116:LYS:HG3	1.88	0.56
26:D4:55:VAL:HG12	26:D4:75:VAL:HG22	6.78	0.56
34:SR:20:VAL:HG11	34:SR:310:ILE:HG23	3.34	0.56
1:2:452:A:H3'	1:2:453:U:C5	2.40	0.56
1:6:1672:G:H2'	1:6:1673:G:C8	2.40	0.56
1:6:453:U:O4	86:6:2061:OHX:N4	2.38	0.56
51:M5:190:THR:O	51:M5:194:GLN:HG2	2.05	0.56
18:C6:82:ARG:NH2	18:C6:114:ARG:HB2	2.86	0.56
50:M4:124:ARG:NH2	36:5:3212:C:OP2	290.82	0.56
36:1:2503:G:H1'	36:1:2504:U:H5	1.69	0.56
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.41	0.56
36:5:1070:U:C4	36:5:1071:U:C4	2.93	0.56
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.68	0.56
22:D0:33:GLN:OE1	22:D0:33:GLN:N	2.34	0.56
49:M3:174:ARG:NH1	72:O6:9:ILE:HG21	2.20	0.56
1:2:819:G:N2	1:2:820:U:O4	2.39	0.56
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.05	0.56
27:D5:51:LEU:HD12	27:D5:51:LEU:H	2.66	0.56
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.88	0.56
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.30	0.56
1:6:784:C:H2'	1:6:785:U:H6	1.71	0.56
16:C4:19:ILE:HD11	16:C4:105:LEU:HD21	1.87	0.56
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.37	0.56
36:1:781:G:O6	86:1:3938:OHX:N5	2.39	0.56
36:5:371:G:O6	86:5:4205:OHX:N5	2.39	0.56
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.20	0.56
36:1:2592:G:H4'	36:1:2594:C:C2	2.40	0.56
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.41	0.56
34:SR:84:SER:OG	34:SR:85:TRP:N	2.58	0.56
47:M0:141:LYS:O	47:M0:144:ASN:N	2.68	0.56
36:5:1249:G:H2'	36:5:1250:G:C8	2.40	0.56
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.99	0.56
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	4.02	0.56
1:2:1165:G:C6	1:2:1166:A:C6	2.94	0.56
36:1:1231:A:OP2	86:1:4084:OHX:N5	2.38	0.56
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.86	0.56
39:L2:204:MET:HG2	39:L2:208:ASP:HB2	4.73	0.56
36:1:2392:C:H5''	36:1:2393:G:OP2	2.06	0.56
68:O2:19:ARG:HB3	68:O2:22:SER:HB3	1.88	0.56
51:M5:16:SER:O	51:M5:20:ARG:HG2	2.49	0.56
49:M3:191:ALA:O	49:M3:193:ALA:N	2.35	0.56
73:O7:28:HIS:CE1	73:O7:31:LYS:HG3	3.35	0.56
39:L2:147:ARG:HA	39:L2:157:VAL:HA	2.33	0.56
28:D6:37:LYS:NZ	1:6:933:A:OP2	322.06	0.56
1:6:1524:A:H2'	1:6:1525:A:C8	2.41	0.56
58:N2:18:ASP:OD2	58:N2:20:SER:OG	2.67	0.56
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.68	0.56
36:5:816:A:H5''	36:5:920:A:H62	1.70	0.56
1:6:1017:U:H2'	1:6:1018:U:C6	2.40	0.56
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.86	0.56
38:4:124:G:H3'	38:4:125:U:C5'	2.35	0.56
36:5:1409:G:O6	86:5:4162:OHX:N6	2.39	0.56
69:O3:53:TYR:OH	36:5:431:U:OP1	213.44	0.56
58:N2:82:LYS:NZ	36:5:1686:U:O4	163.74	0.56
36:1:952:A:OP1	65:N9:14:ARG:NH2	2.38	0.56
28:D6:36:ILE:HD12	28:D6:78:ALA:HB1	1.86	0.56
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.46	0.56
44:L7:89:ILE:HG22	44:L7:220:PHE:HE1	1.69	0.56
65:N9:9:ALA:O	65:N9:12:GLN:HB2	2.64	0.56
1:2:1783:C:H2'	1:2:1784:C:C6	2.40	0.56
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.07	0.56
26:D4:20:ARG:NH1	26:D4:22:GLN:OE1	2.34	0.56
21:C9:118:PRO:O	21:C9:120:GLY:N	2.74	0.56
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	1.88	0.56
24:D2:90:THR:HG21	24:D2:113:HIS:ND1	3.50	0.56
78:Q2:105:GLN:HB3	78:Q2:106:PHE:CE1	4.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:90:GLN:OE1	48:M1:172:LEU:HD11	2.06	0.56
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.05	0.56
41:L4:264:SER:OG	41:L4:267:VAL:HG13	2.05	0.56
36:5:1365:G:OP2	86:5:4029:OHX:N3	2.39	0.56
1:6:1081:A:H8	1:6:1081:A:OP2	1.88	0.56
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.88	0.56
36:5:1567:U:H2'	36:5:1568:U:H4'	1.87	0.56
47:M0:81:GLY:O	47:M0:83:ASP:N	3.03	0.56
49:M3:103:ASN:OD1	49:M3:103:ASN:N	3.48	0.56
36:1:2338:C:OP1	40:L3:236:LYS:HE2	2.05	0.56
5:S3:167:PHE:HA	5:S3:190:ARG:HD3	1.87	0.56
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.82	0.56
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.25	0.56
42:L5:270:LYS:HG3	42:L5:273:ARG:HB2	4.95	0.56
8:S6:48:TYR:OH	8:S6:119:GLN:O	2.20	0.56
49:M3:70:ARG:NH2	36:5:103:G:OP1	95.12	0.56
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.71	0.56
86:6:2059:OHX:N1	86:6:2146:OHX:N4	2.54	0.56
1:6:1227:A:H4'	1:6:1228:G:H5'	1.87	0.56
17:C5:122:THR:HG21	1:6:1455:G:OP1	370.82	0.56
12:C0:56:LYS:HG3	12:C0:67:THR:HB	1.88	0.56
54:M8:116:LYS:NZ	64:N8:88:ASP:OD2	2.32	0.56
42:L5:61:ILE:HD13	42:L5:79:TYR:HE1	3.17	0.56
1:6:1783:C:H2'	1:6:1784:C:C6	2.41	0.56
38:4:136:G:OP1	61:N5:48:SER:OG	2.15	0.56
36:1:3375:A:O2'	36:1:3378:C:OP2	2.17	0.56
9:S7:136:VAL:N	9:S7:153:LEU:O	2.59	0.56
34:SR:165:ASP:O	34:SR:184:ASN:ND2	2.35	0.56
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.38	0.56
9:S7:46:ILE:HG12	9:S7:60:ILE:HA	1.88	0.56
28:D6:44:ILE:HD13	28:D6:64:LEU:HD22	1.88	0.56
6:S4:187:ARG:NH2	1:6:753:A:N7	374.79	0.56
12:C0:2:LEU:HD22	1:6:1258:U:H4'	435.19	0.56
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.88	0.56
1:2:1370:U:O4	86:2:2122:OHX:N5	2.38	0.56
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.71	0.56
36:1:3169:U:H2'	36:1:3170:A:O4'	2.05	0.56
33:E1:86:THR:HG23	33:E1:87:THR:H	4.35	0.56
16:C4:107:ARG:NH2	28:D6:52:ASP:OD1	4.40	0.56
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.05	0.56
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:70:LYS:HA	45:L8:235:GLY:HA3	3.29	0.56
36:5:3241:G:H2'	36:5:3245:A:C8	2.41	0.56
10:S8:142:LYS:O	10:S8:145:ALA:N	2.83	0.56
36:1:1108:U:H2'	36:1:1109:U:C6	2.40	0.56
38:8:47:C:H1'	38:8:61:A:H2'	1.86	0.56
10:S8:56:ARG:HH22	1:6:332:U:P	288.41	0.56
3:S1:113:MET:HE3	3:S1:211:HIS:NE2	3.93	0.56
48:M1:137:ARG:HD3	37:7:28:C:OP1	305.33	0.56
3:S1:157:GLN:HB2	3:S1:160:HIS:CG	2.41	0.56
36:1:1845:G:H5'	36:1:1845:G:H8	1.70	0.56
8:S6:154:ARG:HD3	1:6:78:A:H8	341.90	0.56
45:L8:75:ILE:HD11	51:M5:22:LEU:HD22	1.87	0.56
1:2:38:C:C2'	1:2:39:A:H5'	2.35	0.56
21:C9:101:ASN:O	21:C9:104:VAL:N	2.38	0.56
5:S3:60:GLY:HA3	5:S3:65:ARG:HB2	1.87	0.56
1:2:1338:C:H1'	1:2:1410:A:C4	2.41	0.56
18:C6:115:THR:OG1	18:C6:116:LEU:N	2.38	0.56
1:2:1600:A:O2'	1:2:1602:C:N4	2.39	0.56
86:7:217:OHX:N3	86:7:225:OHX:N6	2.53	0.56
76:Q0:99:CYS:HB2	76:Q0:114:LYS:HD2	4.39	0.56
49:M3:73:ARG:NH1	36:5:110:G:OP2	75.69	0.56
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	2.01	0.56
36:1:3338:C:H2'	36:1:3339:A:C8	2.40	0.56
40:L3:230:THR:HA	40:L3:235:THR:HG22	2.16	0.56
1:6:1297:G:N2	1:6:1300:A:OP2	2.32	0.56
53:M7:138:LYS:NZ	36:5:2356:A:OP1	149.29	0.56
53:M7:169:THR:OG1	53:M7:171:ARG:NH1	2.39	0.56
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.60	0.56
63:N7:95:VAL:O	63:N7:100:THR:OG1	2.18	0.56
3:S1:58:SER:HA	3:S1:61:LEU:HD23	5.26	0.56
65:N9:14:ARG:NH1	65:N9:18:ARG:HD3	3.59	0.56
47:M0:175:ASN:CG	47:M0:176:LEU:H	4.97	0.56
1:6:833:U:OP2	86:6:2201:OHX:N5	2.39	0.56
63:N7:121:ARG:HD2	63:N7:126:LYS:HE3	1.88	0.56
74:O8:18:ALA:C	74:O8:20:VAL:H	2.88	0.56
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.83	0.56
10:S8:76:THR:HG21	10:S8:105:ASP:O	5.96	0.56
1:6:1699:G:C2	1:6:1701:A:H5''	2.41	0.56
36:5:1661:G:H2'	36:5:1662:G:C8	2.40	0.56
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.39	0.56
36:1:2254:U:H2'	36:1:2261:G:N2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.06	0.56
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.87	0.56
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.98	0.56
41:L4:330:TYR:HA	41:L4:333:VAL:HG13	2.49	0.56
57:N1:78:LYS:HE3	36:5:2728:G:O6	219.26	0.56
50:M4:103:ILE:HG23	50:M4:106:ARG:HH21	4.38	0.56
17:C5:86:VAL:H	17:C5:89:MET:HE3	4.16	0.56
62:N6:39:LEU:HD21	62:N6:107:THR:O	2.70	0.56
61:N5:60:TYR:OH	71:O5:26:LYS:HG2	2.05	0.56
43:L6:136:GLU:O	43:L6:140:VAL:HG23	2.45	0.56
36:1:3231:U:H2'	36:1:3232:G:H8	1.71	0.56
71:O5:59:ASN:O	71:O5:63:ARG:HG2	3.89	0.56
71:O5:4:VAL:HB	71:O5:9:LEU:HD11	3.39	0.56
45:L8:146:LYS:HD3	45:L8:173:MET:O	5.37	0.56
28:D6:90:GLU:CD	28:D6:90:GLU:H	2.79	0.56
48:M1:132:ASN:HA	48:M1:154:THR:HG21	1.87	0.56
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.57	0.55
47:M0:210:ILE:HG13	47:M0:217:PHE:CE2	4.27	0.55
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.89	0.55
6:S4:191:ARG:HH11	6:S4:245:LYS:HD3	1.71	0.55
12:C0:13:GLN:HG3	12:C0:14:TYR:N	2.21	0.55
1:6:488:G:N2	1:6:499:U:H3	2.03	0.55
17:C5:79:HIS:O	17:C5:81:ARG:N	2.39	0.55
36:1:2273:G:O6	86:1:4138:OHX:N5	2.39	0.55
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.54	0.55
45:L8:148:ALA:HA	45:L8:201:THR:HG22	2.14	0.55
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.39	0.55
63:N7:23:VAL:HB	63:N7:43:VAL:HB	1.88	0.55
34:SR:40:LYS:HG2	34:SR:66:HIS:O	2.06	0.55
16:C4:84:ARG:NH1	16:C4:85:ALA:O	2.38	0.55
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.64	0.55
36:5:2949:U:O2'	36:5:2950:G:H5'	2.06	0.55
52:M6:41:LEU:HB3	52:M6:138:LEU:HB2	1.88	0.55
63:N7:127:ASN:O	63:N7:129:TRP:N	2.40	0.55
34:SR:33:LEU:O	34:SR:45:TRP:N	2.34	0.55
28:D6:10:ARG:HD3	28:D6:34:LYS:O	2.06	0.55
6:S4:187:ARG:NH1	1:6:753:A:N7	375.46	0.55
1:2:138:A:N6	1:2:266:A:H61	2.04	0.55
12:C0:1:MET:HG3	12:C0:2:LEU:H	2.67	0.55
7:S5:121:ILE:HG13	7:S5:195:ALA:HB1	3.26	0.55
51:M5:172:ARG:HD2	36:5:30:G:O5'	111.51	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.77	0.55
11:S9:53:ARG:HH21	11:S9:53:ARG:HB3	3.53	0.55
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	2.61	0.55
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.06	0.55
3:S1:137:ILE:HD11	3:S1:172:LEU:HD22	2.50	0.55
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.88	0.55
36:1:3006:A:C2	36:1:3141:A:C4	2.95	0.55
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.45	0.55
41:L4:33:ASP:OD1	41:L4:33:ASP:N	3.05	0.55
3:S1:103:MET:H	3:S1:215:VAL:HG13	2.52	0.55
10:S8:153:GLU:HB3	10:S8:156:VAL:HG23	3.26	0.55
36:5:2528:G:N7	86:5:4208:OHX:N3	2.54	0.55
54:M8:21:SER:OG	54:M8:22:ASP:N	2.64	0.55
18:C6:135:ARG:NH1	1:6:1583:A:OP1	384.44	0.55
1:2:702:G:C2	1:2:703:G:H1'	2.41	0.55
24:D2:55:ASP:HB3	29:D7:25:VAL:HG22	2.56	0.55
71:O5:86:ARG:HG3	71:O5:90:ARG:HH21	2.14	0.55
22:D0:28:SER:OG	22:D0:111:GLY:O	2.94	0.55
49:M3:174:ARG:HB2	72:O6:9:ILE:HD12	1.88	0.55
7:S5:99:MET:HG3	7:S5:180:ARG:NH2	2.21	0.55
1:2:93:A:H1'	6:S4:3:ARG:HB3	1.88	0.55
36:1:3122:A:N1	46:L9:70:THR:HG21	2.21	0.55
45:L8:67:ILE:HG22	45:L8:237:ILE:HB	1.88	0.55
20:C8:36:LYS:NZ	1:6:1568:C:OP1	336.58	0.55
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	3.22	0.55
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.39	0.55
38:4:125:U:HO2'	38:4:126:A:P	2.28	0.55
1:6:245:U:O4	86:6:2122:OHX:N4	2.39	0.55
45:L8:171:LYS:NZ	45:L8:223:ALA:O	2.61	0.55
1:2:591:A:H2'	1:2:592:A:C8	2.41	0.55
1:6:154:G:H1	1:6:160:C:H42	1.54	0.55
30:D8:5:THR:O	30:D8:7:VAL:HG12	6.78	0.55
40:L3:120:LYS:NZ	36:5:3001:C:OP1	205.25	0.55
43:L6:64:LEU:O	43:L6:65:ILE:HD13	5.11	0.55
8:S6:31:ARG:HG2	8:S6:31:ARG:HH11	3.32	0.55
1:6:1776:A:H2'	1:6:1777:G:C8	2.40	0.55
86:6:2120:OHX:N6	86:6:2170:OHX:N3	2.54	0.55
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.34	0.55
86:5:3974:OHX:N3	86:5:4242:OHX:N5	2.55	0.55
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.40	0.55
1:2:896:U:O4	1:2:914:G:O2'	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3183:A:H2'	36:1:3184:A:H8	1.70	0.55
1:6:830:U:C2'	1:6:831:U:H5'	2.35	0.55
74:O8:17:ARG:O	74:O8:19:ASP:N	2.39	0.55
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.40	0.55
36:1:1834:U:OP1	75:O9:5:LYS:HE2	2.06	0.55
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.63	0.55
21:C9:30:VAL:HG12	21:C9:54:PHE:HD2	1.72	0.55
47:M0:194:GLY:HA3	36:5:1010:G:N3	338.05	0.55
1:2:1199:G:C8	22:D0:68:ARG:HG3	2.40	0.55
55:M9:88:ARG:NH1	36:5:2103:U:OP1	213.82	0.55
1:2:833:U:OP2	86:2:2141:OHX:N4	2.38	0.55
57:N1:54:HIS:CD2	36:5:2724:U:H4'	229.86	0.55
36:1:3231:U:H2'	36:1:3232:G:C8	2.42	0.55
2:S0:200:ASP:HA	2:S0:203:PHE:CE1	2.42	0.55
36:5:192:C:H2'	36:5:193:C:C6	2.41	0.55
42:L5:289:LYS:O	42:L5:292:ALA:HB3	3.04	0.55
36:5:1688:U:H2'	36:5:1689:U:C6	2.42	0.55
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.39	0.55
36:1:1668:G:C6	36:1:1669:C:C4	2.95	0.55
40:L3:296:THR:HG22	40:L3:298:PHE:N	5.78	0.55
7:S5:68:ILE:HG13	18:C6:114:ARG:HH22	1.71	0.55
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	2.01	0.55
17:C5:43:ARG:O	17:C5:47:ARG:HG3	2.06	0.55
9:S7:43:PHE:CE1	9:S7:46:ILE:HG13	2.42	0.55
36:5:581:U:O4	86:5:4023:OHX:N6	2.39	0.55
3:S1:173:THR:O	3:S1:177:GLN:HB2	6.24	0.55
1:2:1105:C:H41	25:D3:4:GLY:CA	2.17	0.55
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.36	0.55
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.40	0.55
36:5:1307:G:C2	36:5:1308:A:C2	2.95	0.55
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.33	0.55
1:2:549:G:OP2	86:2:2027:OHX:N2	2.39	0.55
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.50	0.55
40:L3:128:LYS:HG3	36:5:3294:A:H5'	198.77	0.55
36:5:2228:A:H2'	36:5:2229:A:C8	2.41	0.55
34:SR:218:GLY:HA2	34:SR:238:ASP:O	2.07	0.55
48:M1:155:THR:HG23	48:M1:158:ASP:HB2	1.88	0.55
36:5:1236:G:N2	36:5:1244:A:OP1	2.38	0.55
36:1:1033:U:H2'	36:1:1034:U:C6	2.41	0.55
24:D2:82:LYS:H	24:D2:85:ASP:HB2	1.70	0.55
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:155:U:H4'	8:S6:59:GLN:H	1.72	0.55
17:C5:10:ARG:O	17:C5:12:PHE:N	2.39	0.55
23:D1:42:GLU:O	23:D1:44:ARG:N	2.33	0.55
1:6:25:C:OP2	1:6:25:C:H4'	2.05	0.55
42:L5:279:LYS:HD2	42:L5:282:ARG:NH1	4.20	0.55
73:O7:88:ALA:O	86:O7:104:OHX:N4	2.39	0.55
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.20	0.55
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.07	0.55
59:N3:120:LYS:HD3	59:N3:121:GLU:HG3	1.88	0.55
1:6:76:A:H3'	86:6:2191:OHX:N1	2.22	0.55
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.06	0.55
86:6:2059:OHX:N2	86:6:2146:OHX:N6	2.55	0.55
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.22	0.55
17:C5:122:THR:CG2	1:6:1558:U:H3	368.15	0.55
6:S4:50:ASN:O	6:S4:53:LYS:NZ	2.30	0.55
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.41	0.55
1:6:1738:U:O4	86:6:2062:OHX:N5	2.39	0.55
19:C7:7:LYS:N	1:6:1316:G:OP1	411.28	0.55
6:S4:95:THR:HG23	6:S4:97:GLU:HG2	7.20	0.55
36:5:2829:U:H5''	36:5:2830:G:OP2	2.06	0.55
37:3:77:G:N2	37:3:102:A:OP2	2.27	0.55
6:S4:252:ARG:NH2	6:S4:253:ASP:OD1	2.39	0.55
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.82	0.55
1:2:81:G:OP2	86:2:2140:OHX:N5	2.40	0.55
36:5:2697:A:H2'	36:5:2698:G:C8	2.41	0.55
36:5:847:A:H2'	36:5:848:A:C8	2.42	0.55
59:N3:128:ARG:HB3	59:N3:128:ARG:NH2	3.91	0.55
32:E0:49:LEU:HD12	32:E0:51:ASN:H	1.71	0.55
7:S5:35:GLN:C	7:S5:37:GLN:H	2.23	0.55
1:2:788:A:H2'	6:S4:19:LEU:HD22	1.89	0.55
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.89	0.55
4:S2:41:LEU:HD11	4:S2:56:ILE:HD13	3.36	0.55
1:6:151:G:H22	1:6:163:G:N2	2.04	0.55
8:S6:211:LEU:O	8:S6:215:ARG:HB2	2.06	0.55
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.22	0.55
44:L7:132:PRO:HA	44:L7:229:PHE:CE2	2.77	0.55
38:8:133:G:O6	86:8:225:OHX:N6	2.39	0.55
27:D5:44:GLN:O	27:D5:44:GLN:NE2	4.16	0.55
39:L2:181:LYS:HB3	36:5:860:G:C5	213.40	0.55
40:L3:92:TYR:CE1	40:L3:159:ARG:HD2	2.45	0.55
43:L6:65:ILE:O	43:L6:76:LEU:HA	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.42	0.55
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	1.89	0.55
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.39	0.55
1:6:976:G:O6	86:6:2079:OHX:N6	2.39	0.55
36:1:2257:C:H2'	36:1:2258:U:O4'	2.05	0.55
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	3.11	0.55
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.19	0.55
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.60	0.55
1:2:603:U:H2'	1:2:604:A:H8	1.72	0.55
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.88	0.55
3:S1:211:HIS:CD2	3:S1:211:HIS:N	3.03	0.55
10:S8:196:LEU:HD22	10:S8:200:LYS:HD3	7.61	0.55
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.39	0.55
71:O5:57:VAL:HA	71:O5:60:GLU:HG3	4.69	0.55
1:6:1564:U:H2'	1:6:1565:C:C6	2.42	0.55
40:L3:129:ALA:O	36:5:3150:A:H5'	212.44	0.55
30:D8:32:PHE:O	30:D8:34:GLU:N	3.63	0.55
1:6:918:U:H2'	1:6:919:A:C8	2.41	0.55
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.06	0.55
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.67	0.55
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	3.96	0.55
1:2:623:A:OP2	86:2:2156:OHX:N4	2.40	0.55
1:6:591:A:H2'	1:6:592:A:C8	2.42	0.55
36:1:2970:C:H4'	36:1:2971:A:N1	2.22	0.55
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	7.04	0.55
62:N6:57:LEU:HD22	62:N6:58:VAL:N	2.64	0.55
65:N9:38:LYS:NZ	36:5:1076:C:O3'	218.92	0.55
1:2:1207:C:H42	1:2:1456:C:H5	1.55	0.55
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.42	0.55
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.85	0.55
36:5:835:G:O2'	36:5:857:G:N2	2.28	0.55
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.59	0.55
36:5:3259:U:H6	36:5:3259:U:H5'	1.72	0.55
36:5:3284:G:OP2	36:5:3284:G:H8	1.89	0.55
36:1:709:A:P	54:M8:179:ARG:HH22	2.30	0.55
15:C3:20:ARG:NE	1:6:862:A:OP1	356.96	0.55
70:O4:52:GLN:HG2	36:5:1639:C:H5'	197.58	0.55
49:M3:58:VAL:CG1	36:5:75:G:H5''	87.75	0.55
38:4:85:G:C8	38:4:85:G:H3'	2.42	0.55
21:C9:92:LYS:HE3	21:C9:94:ILE:HD11	4.29	0.55
56:N0:148:LEU:HD12	56:N0:149:LYS:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:2:ALA:HB1	36:5:1747:G:N2	145.65	0.55
1:6:484:C:H42	1:6:503:G:N2	2.04	0.55
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.37	0.55
23:D1:40:ASP:HB2	23:D1:41:GLU:OE2	4.13	0.55
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.49	0.55
1:6:1350:U:H2'	1:6:1351:G:H8	1.69	0.55
62:N6:74:TYR:CE2	62:N6:77:LYS:HD2	5.43	0.55
86:8:219:OHX:N6	86:8:227:OHX:N4	2.55	0.55
36:1:3136:G:OP2	86:1:4098:OHX:N6	2.39	0.55
39:L2:126:LEU:HD13	39:L2:150:LEU:HD21	1.88	0.55
9:S7:103:SER:OG	9:S7:106:SER:N	2.85	0.55
36:5:668:G:OP1	86:5:4141:OHX:N1	2.39	0.55
1:2:1017:U:H2'	1:2:1018:U:C6	2.42	0.55
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.30	0.55
36:5:2938:G:C2'	36:5:2939:G:H5'	2.37	0.55
46:L9:129:ARG:HB3	46:L9:132:VAL:CG1	3.28	0.55
42:L5:180:PHE:HB3	42:L5:195:LEU:HD13	1.89	0.55
4:S2:59:HIS:CE1	4:S2:238:SER:HA	3.77	0.55
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.57	0.55
36:1:726:G:C5'	36:1:726:G:H8	2.20	0.55
59:N3:75:PRO:HB2	59:N3:103:ALA:O	2.07	0.55
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.42	0.55
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.64	0.55
36:1:2404:A:N3	36:1:2404:A:H2'	2.21	0.55
58:N2:29:ASP:OD2	58:N2:83:TYR:OH	2.24	0.55
41:L4:99:MET:CE	41:L4:103:THR:H	2.88	0.55
59:N3:79:VAL:HG22	59:N3:99:ALA:O	2.07	0.55
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.42	0.55
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.07	0.55
9:S7:11:GLN:HG3	9:S7:12:ALA:H	1.72	0.55
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.22	0.55
37:3:3:U:H2'	37:3:4:U:C6	2.41	0.55
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.88	0.55
1:2:1523:G:O6	21:C9:71:VAL:HG11	2.07	0.55
38:4:85:G:H3'	38:4:85:G:H8	1.72	0.55
1:2:1542:G:H22	1:2:1568:C:H1'	1.71	0.55
41:L4:152:VAL:HG11	41:L4:156:LEU:HD12	1.88	0.55
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	2.06	0.55
44:L7:150:LYS:HG2	44:L7:151:ARG:HG3	1.88	0.55
12:C0:31:LYS:HA	12:C0:37:THR:O	2.55	0.55
14:C2:119:SER:OG	1:6:1228:G:OP1	466.45	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:65:LEU:HD23	6:S4:78:THR:HA	1.89	0.55
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.71	0.55
86:8:219:OHX:N6	86:8:227:OHX:N3	2.55	0.55
57:N1:17:ARG:HH11	57:N1:17:ARG:HB3	4.46	0.55
1:2:843:U:H2'	1:2:844:A:H8	1.71	0.55
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	3.08	0.55
36:1:2728:G:O6	57:N1:78:LYS:HE3	2.06	0.55
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	3.26	0.55
11:S9:178:ALA:HA	11:S9:181:ALA:HB3	4.05	0.55
36:1:39:A:H5''	64:N8:35:ALA:HB2	1.88	0.55
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.88	0.55
9:S7:142:TYR:HE1	24:D2:39:GLN:HE21	1.54	0.55
36:5:2123:G:N7	86:5:4099:OHX:N1	2.55	0.55
36:5:128:G:H2'	36:5:129:U:O4'	2.06	0.55
1:2:1742:U:OP1	25:D3:39:LYS:HD3	2.07	0.55
15:C3:2:GLY:N	1:6:866:G:OP1	335.15	0.55
50:M4:47:ASP:OD1	50:M4:55:ARG:HB2	2.34	0.54
1:2:1507:G:O6	86:2:2145:OHX:N5	2.40	0.54
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.69	0.54
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.82	0.54
3:S1:62:LYS:HD2	3:S1:91:VAL:HG21	1.87	0.54
36:1:2108:C:H1'	36:1:3344:A:C8	2.42	0.54
34:SR:159:ASN:O	34:SR:161:LYS:N	4.48	0.54
12:C0:53:GLY:O	12:C0:55:VAL:N	2.33	0.54
1:2:538:A:H8	1:2:543:C:N4	2.05	0.54
70:O4:95:ILE:O	70:O4:99:LYS:HB2	2.07	0.54
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.40	0.54
54:M8:96:PHE:CG	54:M8:97:PRO:HD2	2.77	0.54
40:L3:62:ARG:HH12	40:L3:349:LYS:NZ	2.04	0.54
36:1:863:C:H2'	36:1:864:G:O4'	2.07	0.54
36:1:2810:C:OP1	86:1:4081:OHX:N6	2.40	0.54
36:5:1696:A:OP2	86:5:4186:OHX:N6	2.40	0.54
17:C5:85:ILE:HD13	17:C5:111:MET:HB3	3.20	0.54
32:E0:50:VAL:HA	32:E0:53:LYS:O	2.07	0.54
34:SR:253:ALA:O	34:SR:292:LEU:HD11	2.07	0.54
52:M6:182:ASN:O	52:M6:185:ALA:N	3.94	0.54
36:1:2878:G:H5''	40:L3:5:LYS:HE2	1.90	0.54
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.22	0.54
36:5:1119:C:OP2	86:5:3987:OHX:N2	2.40	0.54
86:5:3992:OHX:N4	38:8:112:U:O2	2.40	0.54
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:137:ASN:OD1	61:N5:137:ASN:N	2.38	0.54
16:C4:13:VAL:HG22	16:C4:77:THR:HG23	1.90	0.54
36:1:2686:A:OP2	86:1:3896:OHX:N2	2.40	0.54
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.96	0.54
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.41	0.54
1:6:991:G:OP2	86:6:2170:OHX:N2	2.40	0.54
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	3.37	0.54
3:S1:61:LEU:O	3:S1:62:LYS:NZ	2.36	0.54
36:1:3295:A:OP2	40:L3:126:LYS:N	2.40	0.54
21:C9:117:SER:HB2	21:C9:123:ARG:HB3	3.17	0.54
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.40	0.54
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	4.09	0.54
39:L2:57:PRO:HD2	39:L2:170:ALA:HB3	2.05	0.54
6:S4:179:LYS:N	6:S4:194:THR:O	2.40	0.54
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.70	0.54
1:2:827:C:H2'	1:2:828:U:C6	2.41	0.54
4:S2:178:ILE:O	4:S2:185:LYS:NZ	2.39	0.54
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	4.55	0.54
36:1:1204:A:H2	36:1:2834:G:N3	2.06	0.54
36:5:549:U:H2'	36:5:550:A:C8	2.42	0.54
1:6:363:G:OP1	86:6:2111:OHX:N1	2.41	0.54
65:N9:58:LYS:NZ	65:N9:58:LYS:HA	4.31	0.54
36:1:2861:U:H2'	36:1:2862:U:O4'	2.07	0.54
7:S5:29:ILE:HG22	7:S5:34:GLN:HG2	1.89	0.54
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.90	0.54
1:2:1478:G:H8	1:2:1478:G:OP2	1.90	0.54
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.64	0.54
27:D5:85:LYS:HB3	27:D5:87:GLY:HA2	6.79	0.54
26:D4:37:LYS:HE3	1:6:523:G:OP2	414.36	0.54
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.34	0.54
1:6:152:U:C2	1:6:163:G:N2	2.76	0.54
47:M0:63:GLU:HB2	36:5:2853:A:H5'	297.79	0.54
36:1:1276:U:OP1	86:1:4084:OHX:N4	2.41	0.54
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.13	0.54
42:L5:233:ALA:O	42:L5:235:SER:N	2.40	0.54
6:S4:174:LYS:O	6:S4:179:LYS:HD2	2.07	0.54
66:O0:40:LYS:HB3	66:O0:101:LEU:HD21	1.89	0.54
27:D5:44:GLN:HA	27:D5:47:TYR:HB3	3.09	0.54
36:1:582:G:O6	86:1:4171:OHX:N2	2.40	0.54
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	1.89	0.54
15:C3:41:ALA:HB2	15:C3:50:ILE:HD11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:81:VAL:HG22	54:M8:101:VAL:HG22	1.89	0.54
1:2:1385:G:N7	86:2:2132:OHX:N3	2.55	0.54
1:2:488:G:N7	1:2:498:G:N2	2.55	0.54
36:5:264:G:O2'	36:5:265:A:OP2	2.21	0.54
1:2:652:G:H1	1:2:682:C:H42	1.55	0.54
36:5:3366:G:H2'	36:5:3367:C:C6	2.42	0.54
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.62	0.54
64:N8:85:ASP:N	64:N8:85:ASP:OD1	3.76	0.54
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.41	0.54
36:5:1032:C:H5'	36:5:1033:U:OP2	2.07	0.54
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	2.03	0.54
36:1:2206:G:OP2	36:1:2206:G:H8	1.90	0.54
1:6:1388:A:H4'	1:6:1389:C:O5'	2.07	0.54
1:2:705:U:H2'	1:2:706:A:C8	2.42	0.54
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.71	0.54
2:S0:140:ASN:HD22	4:S2:62:PRO:HD3	5.31	0.54
48:M1:60:ARG:CG	48:M1:60:ARG:HH21	4.72	0.54
1:6:1697:G:H8	1:6:1705:C:N3	2.04	0.54
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.89	0.54
36:5:2211:U:OP2	86:5:4223:OHX:N1	2.41	0.54
48:M1:91:LEU:HD22	48:M1:95:ASN:HD22	1.73	0.54
49:M3:79:GLU:OE1	49:M3:101:ARG:NH2	2.41	0.54
1:2:76:A:H2'	1:2:80:A:H62	1.72	0.54
36:5:1037:C:H2'	36:5:1038:C:C6	2.42	0.54
20:C8:42:TYR:HA	20:C8:85:PHE:HE1	1.73	0.54
36:5:1017:C:OP1	36:5:1017:C:H2'	2.07	0.54
41:L4:145:ILE:O	41:L4:145:ILE:HG13	2.08	0.54
39:L2:30:ARG:HB2	39:L2:36:GLU:OE2	2.07	0.54
1:6:947:U:H2'	1:6:948:G:H8	1.71	0.54
36:5:1157:G:H2'	36:5:1158:A:O4'	2.07	0.54
11:S9:13:SER:HB2	11:S9:47:PHE:CD1	2.43	0.54
58:N2:56:VAL:HG22	58:N2:65:VAL:HG13	1.89	0.54
36:1:272:G:OP2	86:1:4028:OHX:N3	2.40	0.54
64:N8:67:HIS:NE2	36:5:71:A:OP2	119.70	0.54
10:S8:87:ASN:ND2	1:6:341:A:H4'	257.81	0.54
63:N7:115:LYS:O	63:N7:119:GLU:HB2	2.88	0.54
36:1:1240:A:H3'	36:1:1241:U:H5'	1.89	0.54
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.32	0.54
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.73	0.54
36:1:1489:A:OP1	70:O4:10:ARG:NH1	2.40	0.54
36:1:3335:A:H2'	36:1:3336:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	2.60	0.54
86:6:2120:OHX:N6	86:6:2170:OHX:N5	2.55	0.54
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.10	0.54
34:SR:153:GLN:HB3	34:SR:202:LEU:HD22	1.87	0.54
3:S1:62:LYS:O	3:S1:64:ARG:N	2.41	0.54
53:M7:23:ARG:HE	53:M7:125:GLN:HG3	1.71	0.54
42:L5:279:LYS:HG2	42:L5:282:ARG:NH2	2.23	0.54
42:L5:153:THR:HG23	42:L5:160:PHE:CZ	2.43	0.54
17:C5:33:PHE:HA	17:C5:36:LEU:HD23	1.88	0.54
5:S3:64:ARG:O	5:S3:68:GLU:HG3	2.07	0.54
36:1:1040:A:N3	47:M0:198:LYS:NZ	2.55	0.54
36:1:2554:A:H5''	39:L2:85:GLY:O	2.07	0.54
49:M3:124:ILE:O	49:M3:124:ILE:HG12	2.07	0.54
40:L3:95:THR:OG1	40:L3:98:GLY:O	2.18	0.54
13:C1:5:LEU:HD23	13:C1:7:VAL:H	6.01	0.54
36:1:2987:A:O2'	40:L3:259:HIS:HB3	2.08	0.54
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.90	0.54
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.42	0.54
36:5:180:C:H2'	36:5:181:U:H6	1.73	0.54
36:1:595:G:H1	36:1:609:G:H5''	1.72	0.54
1:6:377:G:O6	86:6:2111:OHX:N4	2.41	0.54
68:O2:17:PHE:CD1	68:O2:53:PRO:HD3	2.66	0.54
40:L3:262:TRP:HE1	52:M6:66:LYS:HZ3	1.55	0.54
1:6:694:U:H3'	1:6:695:U:O2	2.08	0.54
36:1:497:C:H2'	36:1:498:A:O4'	2.08	0.54
36:1:3233:C:H2'	36:1:3234:A:C8	2.42	0.54
79:Q3:38:ASP:HA	79:Q3:45:LYS:HA	1.90	0.54
1:2:485:A:H2'	1:2:486:G:O4'	2.08	0.54
13:C1:79:LYS:HB3	1:6:346:G:H5'	282.15	0.54
8:S6:20:ASP:O	8:S6:23:ARG:N	2.84	0.54
1:2:1252:C:O4'	33:E1:133:ALA:HB2	2.06	0.54
34:SR:90:ARG:HE	34:SR:102:ARG:HE	3.06	0.54
3:S1:88:VAL:HG11	3:S1:96:LEU:HD12	1.90	0.54
1:2:705:U:H2'	1:2:706:A:H8	1.71	0.54
86:5:4021:OHX:N3	86:5:4217:OHX:N4	2.56	0.54
42:L5:279:LYS:HG2	42:L5:282:ARG:NH1	2.23	0.54
1:2:164:A:H5'	8:S6:112:VAL:HG21	1.89	0.54
32:E0:26:LYS:HZ1	1:6:588:U:P	419.33	0.54
36:5:1659:U:H2'	36:5:1660:C:C6	2.43	0.54
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.39	0.54
1:2:330:G:H2'	1:2:331:A:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.39	0.54
36:1:2763:U:H5'	54:M8:176:ARG:HG3	1.88	0.54
21:C9:126:GLU:H	21:C9:126:GLU:CD	2.11	0.54
1:6:1058:U:H4'	1:6:1059:U:OP1	2.07	0.54
47:M0:76:MET:HE3	47:M0:148:VAL:HA	1.90	0.54
36:1:2984:C:H2'	36:1:2985:C:C6	2.42	0.54
36:5:3289:G:H4'	36:5:3290:G:OP1	2.08	0.54
36:5:528:U:H2'	36:5:529:A:C8	2.42	0.54
1:6:1762:A:H1'	1:6:1783:C:OP1	2.07	0.54
43:L6:24:ALA:N	36:5:607:A:OP1	247.52	0.54
10:S8:70:GLU:OE2	10:S8:117:TYR:OH	2.92	0.54
36:1:1796:G:H5''	36:1:1797:A:OP1	2.07	0.54
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.40	0.54
28:D6:4:LYS:NZ	1:6:1794:A:OP2	341.06	0.54
45:L8:238:LEU:HD23	45:L8:242:ALA:HB1	3.92	0.54
49:M3:3:ILE:HG21	64:N8:45:MET:HE3	5.42	0.54
34:SR:21:THR:HA	34:SR:291:SER:OG	2.07	0.54
44:L7:158:LYS:HG2	44:L7:203:TRP:HH2	1.72	0.54
6:S4:11:ARG:HB2	6:S4:27:TYR:C	3.20	0.54
1:6:151:G:N2	1:6:163:G:N2	2.56	0.54
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.49	0.54
44:L7:214:TRP:CE2	44:L7:219:LYS:HD2	2.42	0.54
55:M9:105:LEU:HD12	55:M9:135:LYS:HG3	1.89	0.54
36:1:1054:A:H5''	36:1:2637:A:H61	1.72	0.54
17:C5:68:PRO:HG2	17:C5:71:GLU:OE2	2.07	0.54
7:S5:61:TYR:O	7:S5:168:VAL:HG21	2.07	0.54
36:1:1765:U:H5''	55:M9:43:LYS:CE	2.38	0.54
1:6:1590:G:H2'	1:6:1591:C:C6	2.42	0.54
36:5:2947:G:H4'	36:5:2947:G:OP2	2.07	0.54
34:SR:182:ASN:O	34:SR:186:PHE:HA	2.07	0.54
40:L3:346:THR:O	40:L3:348:ARG:N	2.41	0.54
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.24	0.54
1:6:1691:A:H2'	1:6:1692:G:C8	2.43	0.54
38:4:7:U:O4	86:4:224:OHX:N3	2.41	0.54
79:Q3:70:THR:OG1	79:Q3:71:VAL:N	3.26	0.54
36:1:528:U:H2'	36:1:529:A:C8	2.42	0.54
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.41	0.54
28:D6:6:ALA:H	1:6:1796:C:H5	346.07	0.54
54:M8:185:LYS:HD3	54:M8:186:VAL:HG23	4.37	0.54
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.73	0.54
48:M1:60:ARG:HB2	48:M1:63:GLU:HG3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:44:ARG:HH22	36:5:269:G:P	125.98	0.54
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.08	0.54
1:2:1041:G:OP1	86:2:2148:OHX:N5	2.40	0.54
1:2:1229:G:HO2'	1:2:1255:G:H22	1.53	0.54
20:C8:50:ALA:HB2	20:C8:72:ILE:HD12	2.09	0.54
20:C8:46:VAL:HG22	20:C8:72:ILE:HG22	2.12	0.54
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.89	0.54
36:5:1017:C:H42	36:5:2671:A:P	2.31	0.54
16:C4:103:ARG:HH12	28:D6:48:ALA:HB3	3.57	0.54
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.90	0.54
33:E1:109:ASP:O	33:E1:111:GLU:N	2.41	0.54
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.08	0.54
36:5:2513:U:H1'	36:5:2514:U:C6	2.43	0.54
26:D4:62:THR:HA	26:D4:69:SER:HA	1.89	0.54
36:5:770:G:N7	86:5:4096:OHX:N6	2.55	0.54
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.38	0.54
1:6:1495:C:OP1	86:6:2110:OHX:N4	2.41	0.54
1:2:1011:G:OP2	86:2:2091:OHX:N6	2.41	0.54
19:C7:36:ASP:OD2	19:C7:36:ASP:N	2.41	0.54
34:SR:269:TYR:CG	34:SR:270:LEU:N	2.75	0.54
18:C6:50:GLU:O	18:C6:54:LEU:HB2	2.08	0.54
86:5:3974:OHX:N4	86:5:4242:OHX:N2	2.56	0.54
34:SR:37:SER:OG	34:SR:38:ARG:N	3.42	0.54
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.37	0.54
12:C0:55:VAL:HA	12:C0:68:LEU:HA	2.82	0.54
1:2:542:A:H5''	1:2:544:A:N7	2.23	0.54
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.41	0.54
36:5:2187:G:OP2	86:5:3973:OHX:N4	2.41	0.54
4:S2:186:LYS:O	4:S2:189:GLN:HB2	2.97	0.54
37:3:79:A:C2	37:3:102:A:C4	2.95	0.54
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.90	0.54
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	2.98	0.54
1:2:936:G:N7	28:D6:15:ARG:NH1	2.56	0.54
54:M8:58:ASN:HB3	54:M8:144:ARG:NH2	2.66	0.54
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.47	0.54
1:2:1490:C:H4'	1:2:1491:U:OP1	2.07	0.54
1:6:1091:A:H4'	1:6:1092:A:O5'	2.08	0.54
36:5:3078:U:H4'	36:5:3079:U:O5'	2.08	0.54
69:O3:39:GLN:CD	69:O3:39:GLN:H	2.11	0.54
19:C7:108:ASP:N	19:C7:108:ASP:OD1	2.40	0.54
36:5:2612:U:H2'	36:5:2613:U:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:24:ALA:HA	18:C6:63:ILE:HA	1.90	0.54
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.22	0.54
71:O5:87:ALA:O	71:O5:90:ARG:N	2.90	0.54
57:N1:9:SER:O	57:N1:11:THR:HG23	2.84	0.54
49:M3:174:ARG:HG3	72:O6:9:ILE:HD11	5.49	0.54
5:S3:140:GLY:HA3	5:S3:182:LEU:HD22	4.86	0.54
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.72	0.54
1:2:78:A:O4'	8:S6:154:ARG:HG3	2.08	0.54
86:5:4066:OHX:N1	86:5:4143:OHX:N2	2.56	0.54
42:L5:260:PHE:HB3	42:L5:264:GLN:HB2	2.75	0.54
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	2.43	0.54
36:5:1599:G:OP1	86:5:4137:OHX:N4	2.41	0.54
24:D2:11:LEU:HD11	24:D2:37:PHE:CE2	3.40	0.54
36:5:1235:U:H4'	36:5:1236:G:H5'	1.89	0.54
1:6:1087:A:H5'	1:6:1298:U:O4	2.07	0.54
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.12	0.54
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.70	0.54
36:1:128:G:H2'	36:1:129:U:O4'	2.08	0.54
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.28	0.54
1:6:86:A:OP2	86:6:2187:OHX:N1	2.42	0.54
36:1:658:G:OP1	86:1:4044:OHX:N4	2.41	0.54
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.90	0.54
1:6:881:A:OP2	86:6:2108:OHX:N5	2.41	0.54
36:1:2373:A:OP2	36:1:2373:A:H3'	2.08	0.54
36:1:2093:A:H3'	36:1:2093:A:N3	2.23	0.54
86:6:2120:OHX:N2	86:6:2170:OHX:N1	2.56	0.53
86:6:2120:OHX:N2	86:6:2170:OHX:N5	2.57	0.53
86:5:3979:OHX:N6	86:5:4199:OHX:N3	2.56	0.53
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.55	0.53
50:M4:121:MET:HG3	36:5:3214:U:C4	283.72	0.53
36:1:2898:G:H5''	36:1:2899:C:C5'	2.38	0.53
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.90	0.53
46:L9:45:PHE:CD1	46:L9:55:VAL:HG12	2.43	0.53
86:6:2059:OHX:N1	86:6:2146:OHX:N3	2.57	0.53
24:D2:106:THR:HG21	24:D2:121:VAL:HG23	4.02	0.53
36:1:2808:A:H4'	36:1:2809:C:O5'	2.08	0.53
1:2:1595:U:N3	1:2:1600:A:H2	2.06	0.53
17:C5:90:ILE:HG21	17:C5:109:PRO:HG3	4.78	0.53
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.08	0.53
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.44	0.53
36:1:1498:A:H2'	36:1:1499:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1595:U:N3	1:6:1600:A:H2	2.06	0.53
75:O9:27:ILE:HD13	38:8:52:A:H62	77.88	0.53
36:5:186:U:OP2	86:5:3910:OHX:N4	2.41	0.53
49:M3:27:ASP:OD1	49:M3:31:LYS:HE2	2.08	0.53
43:L6:176:PHE:H	50:M4:117:ARG:NH2	5.60	0.53
55:M9:133:LYS:HG2	55:M9:134:HIS:CD2	2.43	0.53
31:D9:21:CYS:CB	31:D9:39:CYS:HB3	2.99	0.53
1:6:1182:U:H3	1:6:1185:U:H5''	1.73	0.53
28:D6:92:ARG:HD2	1:6:1796:C:OP2	345.39	0.53
3:S1:104:ASP:OD2	3:S1:214:LYS:HE3	4.02	0.53
73:O7:45:ARG:NH2	36:5:361:A:O3'	124.52	0.53
12:C0:73:VAL:O	12:C0:77:ARG:HB2	2.52	0.53
42:L5:40:HIS:CD2	57:N1:69:LYS:HA	2.43	0.53
36:5:1877:U:OP2	86:5:3958:OHX:N1	2.41	0.53
36:1:1349:G:O2'	36:1:1350:A:O4'	2.19	0.53
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.46	0.53
46:L9:8:GLN:NE2	46:L9:69:ARG:HG2	2.23	0.53
6:S4:86:PHE:CE2	6:S4:102:VAL:HG23	3.29	0.53
36:1:1915:A:H5''	55:M9:84:THR:HG22	1.90	0.53
39:L2:150:LEU:HB3	39:L2:151:PRO:HD2	1.89	0.53
36:1:1162:U:H1'	68:O2:12:LYS:HE2	1.90	0.53
1:2:1266:U:H2'	1:2:1267:G:H8	1.73	0.53
36:1:1108:U:H2'	36:1:1109:U:H6	1.73	0.53
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.43	0.53
86:2:2045:OHX:N4	86:2:2100:OHX:N6	2.56	0.53
1:2:1397:U:C5	1:2:1399:C:C2	2.95	0.53
45:L8:78:PHE:O	45:L8:80:TYR:N	2.39	0.53
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.08	0.53
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.03	0.53
1:6:656:G:H2'	1:6:657:U:C6	2.44	0.53
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.09	0.53
86:5:3979:OHX:N4	86:5:4199:OHX:N1	2.57	0.53
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	4.50	0.53
8:S6:173:PRO:O	1:6:79:C:H4'	345.41	0.53
36:1:75:G:H5''	49:M3:58:VAL:HG13	1.90	0.53
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.79	0.53
1:2:780:A:C8	26:D4:8:ARG:HB3	2.42	0.53
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.47	0.53
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.89	0.53
51:M5:44:ARG:HB3	51:M5:47:LYS:HB3	2.11	0.53
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	3.55	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:124:LYS:O	14:C2:126:TRP:N	2.39	0.53
36:5:2971:A:H5''	36:5:2972:G:O5'	2.09	0.53
1:2:199:G:O2'	1:2:200:A:H8	1.91	0.53
1:2:862:A:N7	15:C3:64:ARG:NH2	2.54	0.53
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.46	0.53
36:1:1712:G:N1	36:1:1731:A:OP2	2.37	0.53
16:C4:85:ALA:H	16:C4:119:THR:HG23	1.73	0.53
1:2:836:U:H2'	1:2:837:G:C8	2.43	0.53
1:6:1324:G:N7	86:6:2103:OHX:N2	2.55	0.53
1:2:953:G:H2'	1:2:954:G:C8	2.44	0.53
36:5:3327:G:O6	86:5:3959:OHX:N1	2.41	0.53
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.79	0.53
86:1:3969:OHX:N3	86:1:4155:OHX:N1	2.56	0.53
46:L9:170:LYS:HE3	36:5:2902:A:OP1	320.12	0.53
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.90	0.53
36:1:3224:G:O6	86:1:3890:OHX:N4	2.42	0.53
72:O6:68:ARG:O	72:O6:68:ARG:HD2	2.84	0.53
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	1.90	0.53
70:O4:86:LYS:O	70:O4:90:ILE:HG12	2.08	0.53
62:N6:11:ASP:HB3	62:N6:14:LYS:HB2	1.90	0.53
36:1:2227:C:OP1	78:Q2:32:LYS:NZ	2.35	0.53
47:M0:24:ARG:HB2	47:M0:24:ARG:HH11	1.72	0.53
36:1:2208:A:N1	86:1:4042:OHX:N4	2.57	0.53
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.07	0.53
71:O5:71:LYS:HZ2	71:O5:71:LYS:HA	1.74	0.53
14:C2:57:ALA:HB3	14:C2:85:LYS:HE2	1.89	0.53
38:4:69:U:OP2	86:O7:104:OHX:N3	2.42	0.53
2:S0:56:LYS:HZ3	2:S0:158:VAL:HA	1.73	0.53
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	2.50	0.53
6:S4:123:LEU:HD12	6:S4:161:LYS:HA	1.90	0.53
66:O0:34:LEU:HD23	66:O0:59:TYR:CB	2.38	0.53
36:1:2186:U:OP2	39:L2:200:ARG:NH2	2.39	0.53
36:5:990:U:O4	86:5:4185:OHX:N6	2.42	0.53
11:S9:57:ARG:HG3	11:S9:97:LEU:HD21	1.90	0.53
17:C5:65:LEU:O	17:C5:67:ALA:N	2.75	0.53
27:D5:38:HIS:HE1	27:D5:70:LYS:HD2	1.74	0.53
17:C5:115:TYR:OH	1:6:1556:A:H5''	386.72	0.53
40:L3:81:THR:HG1	40:L3:321:PHE:HA	1.71	0.53
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.18	0.53
58:N2:104:ARG:NH1	58:N2:106:ALA:HB2	4.23	0.53
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.80	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:129:U:H2'	36:5:130:A:C8	2.44	0.53
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.95	0.53
1:2:1776:A:H2'	1:2:1777:G:C8	2.43	0.53
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.89	0.53
1:6:819:G:O2'	1:6:821:U:OP2	2.26	0.53
36:1:1176:C:H2'	36:1:1177:G:N2	2.23	0.53
41:L4:327:LEU:H	41:L4:327:LEU:HD22	1.83	0.53
74:O8:8:ILE:H	74:O8:8:ILE:HD12	2.21	0.53
44:L7:56:GLU:HA	44:L7:59:GLU:HB3	1.90	0.53
36:1:539:C:H2'	36:1:540:U:H6	1.72	0.53
1:6:489:C:O2'	1:6:490:C:O4'	2.26	0.53
68:O2:60:ASN:OD1	68:O2:62:LYS:HB2	2.08	0.53
86:6:2120:OHX:N4	86:6:2170:OHX:N3	2.56	0.53
36:5:621:A:H2'	36:5:622:A:C8	2.43	0.53
1:2:740:A:C2'	1:2:741:C:H5''	2.33	0.53
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.08	0.53
74:O8:20:VAL:HG11	74:O8:45:VAL:HG12	1.90	0.53
36:1:770:G:N7	86:1:4094:OHX:N6	2.57	0.53
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.65	0.53
72:O6:95:ALA:O	72:O6:99:ARG:HB3	2.08	0.53
23:D1:3:ASN:HB3	23:D1:7:GLN:O	2.51	0.53
1:2:1518:C:OP1	86:2:2122:OHX:N5	2.40	0.53
36:1:3377:G:H21	40:L3:332:ARG:HH21	1.56	0.53
1:6:217:A:O2'	1:6:218:A:H8	1.91	0.53
73:O7:55:ARG:NH1	36:5:353:G:O6	113.10	0.53
36:5:1817:G:OP1	86:5:4181:OHX:N1	2.41	0.53
4:S2:139:ILE:HG22	4:S2:141:ARG:HD2	1.90	0.53
42:L5:119:TYR:OH	42:L5:135:VAL:HG12	2.09	0.53
34:SR:9:LEU:HG	34:SR:10:ARG:N	2.24	0.53
59:N3:89:ASP:OD1	59:N3:91:VAL:HG13	2.08	0.53
36:1:2616:C:H2'	36:1:2617:U:H5'	1.90	0.53
36:1:3289:G:N7	86:1:4130:OHX:N4	2.57	0.53
21:C9:15:ILE:HD13	21:C9:60:SER:HA	2.21	0.53
36:1:304:G:H5'	36:1:304:G:N3	2.24	0.53
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.36	0.53
6:S4:56:LEU:HG	6:S4:60:GLU:OE1	2.76	0.53
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.41	0.53
36:1:1078:U:O4	86:1:3963:OHX:N2	2.41	0.53
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.09	0.53
71:O5:69:LEU:HD23	71:O5:69:LEU:H	2.87	0.53
36:1:2320:A:H2	79:Q3:16:VAL:HG12	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:783:A:OP2	86:5:4194:OHX:N6	2.41	0.53
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.44	0.53
1:2:694:U:N3	9:S7:98:ILE:HD12	2.23	0.53
36:5:1238:C:H2'	36:5:1239:C:O4'	2.09	0.53
1:2:894:U:H2'	1:2:895:G:C8	2.44	0.53
1:6:1391:A:H2'	1:6:1392:U:H6	1.73	0.53
36:5:1554:U:H4'	36:5:1555:U:OP1	2.09	0.53
33:E1:103:LEU:HD23	33:E1:105:TYR:HD2	3.82	0.53
5:S3:162:GLN:O	5:S3:164:VAL:N	2.79	0.53
36:5:1940:G:N2	36:5:3362:A:H8	2.04	0.53
1:2:1166:A:H2'	1:2:1167:G:O4'	2.09	0.53
42:L5:260:PHE:HD1	42:L5:264:GLN:HE22	1.57	0.53
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.28	0.53
36:1:1686:U:O2	36:1:1688:U:H1'	2.08	0.53
1:2:1657:U:C2	86:2:2090:OHX:N1	2.76	0.53
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.24	0.53
86:8:219:OHX:N5	86:8:227:OHX:N1	2.56	0.53
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.09	0.53
86:7:217:OHX:N4	86:7:225:OHX:N2	2.57	0.53
36:1:2948:C:O2'	40:L3:242:THR:HG22	2.09	0.53
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.09	0.53
36:5:167:U:H2'	36:5:168:U:C6	2.43	0.53
36:1:871:U:H2'	36:1:872:U:C6	2.44	0.53
36:1:2358:A:H2'	36:1:2359:C:O4'	2.08	0.53
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.09	0.53
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.44	0.53
1:2:793:A:H5''	1:2:794:U:C5	2.43	0.53
36:1:2213:A:N1	36:1:2429:G:H1'	2.24	0.53
36:1:1658:G:H2'	36:1:1659:U:C6	2.44	0.53
7:S5:20:PHE:CE1	7:S5:22:PRO:HA	2.81	0.53
34:SR:70:ASP:HB2	34:SR:112:SER:HA	1.90	0.53
34:SR:21:THR:HG23	34:SR:37:SER:HA	2.45	0.53
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.08	0.53
1:2:1796:C:H5	28:D6:6:ALA:H	1.57	0.53
54:M8:180:ARG:HH11	54:M8:185:LYS:HB3	1.74	0.53
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.43	0.53
27:D5:57:TYR:CE2	27:D5:68:ARG:HD3	5.20	0.53
42:L5:260:PHE:HD1	42:L5:264:GLN:NE2	2.07	0.53
1:2:312:A:C2	1:2:314:C:H2'	2.44	0.53
36:1:981:U:O2'	36:1:982:C:OP1	2.24	0.53
66:O0:40:LYS:HD3	66:O0:93:LEU:O	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:126:PRO:HG2	2:S0:151:SER:HB2	3.20	0.53
69:O3:73:ARG:HD3	69:O3:82:ARG:HH11	3.29	0.53
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	2.23	0.53
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.67	0.53
68:O2:32:TRP:CE2	68:O2:53:PRO:HD2	2.44	0.53
67:O1:83:GLU:O	67:O1:85:ALA:N	3.72	0.53
36:1:279:U:H2'	36:1:280:U:C6	2.44	0.53
8:S6:214:LYS:HB3	8:S6:218:GLU:OE1	5.79	0.53
20:C8:18:LEU:HD22	20:C8:70:VAL:HG13	1.91	0.53
36:5:993:G:OP1	86:5:3911:OHX:N6	2.42	0.53
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	1.91	0.53
51:M5:153:ASP:OD2	51:M5:155:VAL:HG23	2.09	0.53
36:5:830:A:H5'	36:5:831:G:OP2	2.09	0.53
36:1:551:A:OP2	36:1:551:A:H2'	2.08	0.53
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.90	0.53
36:1:3329:U:H5''	40:L3:308:MET:HE3	1.91	0.53
36:1:2503:G:HO2'	36:1:2504:U:H5	1.57	0.53
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.27	0.53
49:M3:167:PHE:O	49:M3:170:LEU:HB2	2.90	0.53
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.44	0.53
52:M6:60:LYS:HZ2	36:5:1307:G:H5''	251.50	0.53
47:M0:30:LYS:HD2	47:M0:63:GLU:OE1	2.09	0.53
72:O6:54:GLU:OE2	72:O6:86:LYS:NZ	2.42	0.53
41:L4:316:ASN:HD21	44:L7:150:LYS:HD2	1.74	0.53
64:N8:47:LYS:HE2	64:N8:48:TYR:CE2	2.44	0.53
36:1:1872:C:H5'	55:M9:58:HIS:HB2	1.91	0.53
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	3.02	0.53
29:D7:63:LEU:O	29:D7:74:SER:HB2	2.76	0.53
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.49	0.53
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.60	0.53
47:M0:21:ARG:O	47:M0:24:ARG:HG3	2.09	0.53
7:S5:143:ARG:NH1	7:S5:218:GLU:OE2	3.26	0.53
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.09	0.53
25:D3:114:LYS:HE2	1:6:571:G:H5'	364.43	0.53
1:2:599:A:H5'	25:D3:123:LYS:NZ	2.24	0.53
36:1:1620:U:H2'	36:1:1621:A:C8	2.44	0.53
41:L4:312:VAL:HG23	41:L4:313:LEU:HB2	2.24	0.53
9:S7:49:ILE:O	9:S7:57:ALA:N	2.41	0.53
52:M6:34:VAL:HG11	52:M6:112:TYR:CE1	3.03	0.53
9:S7:118:LEU:HD11	9:S7:122:HIS:NE2	3.63	0.53
36:1:1064:A:H4'	36:1:1065:A:O5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.41	0.53
1:2:768:C:C2	11:S9:143:ILE:HG12	2.43	0.53
28:D6:30:ILE:HD11	28:D6:34:LYS:HB3	3.76	0.53
16:C4:31:THR:HA	16:C4:38:THR:HA	2.97	0.53
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.74	0.53
37:3:49:G:N7	42:L5:58:LYS:HG3	2.24	0.53
2:S0:140:ASN:ND2	4:S2:62:PRO:HD3	4.55	0.53
1:2:579:A:OP1	5:S3:179:GLN:NE2	2.40	0.53
63:N7:135:ARG:HH21	63:N7:135:ARG:CB	3.69	0.53
8:S6:120:GLU:HA	8:S6:125:THR:HG21	2.77	0.53
36:1:239:G:O6	86:1:4032:OHX:N3	2.41	0.53
75:O9:10:LYS:HA	75:O9:13:MET:HE3	1.89	0.53
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.24	0.53
87:2:2178:PCY:H383	87:2:2178:PCY:C37	2.38	0.53
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.07	0.53
36:1:3095:U:H2'	36:1:3096:C:C6	2.43	0.53
69:O3:52:VAL:HG21	69:O3:99:ARG:NH1	3.03	0.53
36:5:1586:G:OP1	86:5:3992:OHX:N3	2.42	0.53
15:C3:31:GLU:HA	15:C3:34:ILE:HD12	4.00	0.53
1:2:1475:A:H2'	1:2:1476:C:O4'	2.09	0.53
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.97	0.53
5:S3:8:LYS:HE2	22:D0:61:LYS:HD3	1.90	0.53
36:1:2402:A:OP2	86:1:4087:OHX:N6	2.41	0.53
41:L4:39:PHE:CG	41:L4:242:ALA:HB2	2.44	0.53
9:S7:119:THR:OG1	1:6:639:U:OP2	367.62	0.53
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.08	0.53
36:5:1770:G:H5'	36:5:1771:C:OP2	2.08	0.53
36:5:850:U:H2'	36:5:851:C:C6	2.44	0.53
36:5:132:C:H2'	36:5:133:U:H5''	1.90	0.53
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	2.23	0.53
47:M0:171:TRP:HB3	47:M0:174:THR:HG21	2.29	0.53
1:2:1150:G:H4'	1:2:1151:A:OP2	2.07	0.53
51:M5:36:ILE:HG12	51:M5:64:VAL:HG23	2.99	0.53
22:D0:37:VAL:HG21	22:D0:112:VAL:HG11	3.97	0.53
8:S6:50:PHE:CG	8:S6:111:LEU:HD13	2.44	0.53
36:1:2273:G:O2'	36:1:2274:U:P	2.67	0.53
86:5:4066:OHX:N3	86:5:4143:OHX:N4	2.57	0.53
34:SR:274:LEU:HD13	34:SR:313:TRP:CE2	2.44	0.53
36:1:1231:A:OP2	86:1:4084:OHX:N6	2.42	0.53
36:1:2734:A:OP1	86:1:4004:OHX:N3	2.42	0.53
64:N8:27:LYS:O	64:N8:28:HIS:HB2	4.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:109:LEU:O	19:C7:113:LEU:HB2	2.91	0.53
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	2.17	0.53
40:L3:44:THR:OG1	40:L3:182:GLN:O	2.85	0.53
35:SM:51:ARG:HB2	35:SM:52:PRO:HD2	1.90	0.53
16:C4:19:ILE:HB	16:C4:83:ILE:HG13	1.91	0.53
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.14	0.53
8:S6:20:ASP:O	8:S6:24:ILE:HG13	2.09	0.53
1:6:318:U:O4	86:6:2160:OHX:N4	2.41	0.53
36:5:1519:G:H2'	36:5:1520:G:H8	1.74	0.53
12:C0:6:GLU:O	12:C0:10:LYS:HG3	2.08	0.53
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.91	0.53
48:M1:8:PRO:HD2	48:M1:10:ARG:H	1.74	0.53
36:5:3053:G:O6	86:5:4173:OHX:N6	2.41	0.53
54:M8:87:VAL:O	54:M8:107:THR:HG23	2.19	0.53
53:M7:154:GLU:HA	53:M7:155:GLU:OE2	6.95	0.53
26:D4:91:LEU:HB3	26:D4:97:ALA:HB3	2.66	0.53
35:SM:134:ASP:O	35:SM:134:ASP:OD1	2.26	0.53
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.41	0.52
46:L9:71:VAL:O	46:L9:75:VAL:HG23	2.09	0.52
17:C5:22:LEU:HD23	17:C5:23:GLU:H	5.15	0.52
36:5:3163:A:N6	36:5:3288:G:O6	2.42	0.52
36:1:1688:U:H2'	36:1:1689:U:H6	1.73	0.52
10:S8:99:ALA:HB3	1:6:329:G:H5'	271.52	0.52
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.90	0.52
70:O4:67:LYS:HA	70:O4:70:LYS:HE3	1.91	0.52
48:M1:133:ARG:NH1	48:M1:152:HIS:O	2.39	0.52
43:L6:172:HIS:CD2	43:L6:173:MET:HG2	2.67	0.52
39:L2:30:ARG:O	39:L2:163:ARG:NH2	2.27	0.52
48:M1:16:LYS:HG3	48:M1:130:VAL:HG13	3.06	0.52
24:D2:82:LYS:O	24:D2:83:ILE:HG22	2.10	0.52
6:S4:54:TYR:OH	6:S4:97:GLU:OE2	2.24	0.52
86:2:2045:OHX:N1	86:2:2100:OHX:N3	2.56	0.52
86:1:3969:OHX:N6	86:1:4155:OHX:N4	2.58	0.52
40:L3:261:MET:HE2	52:M6:63:ALA:C	2.30	0.52
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.47	0.52
45:L8:121:SER:O	45:L8:123:GLN:N	2.44	0.52
79:Q3:56:THR:HG22	79:Q3:63:THR:OG1	2.09	0.52
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.34	0.52
36:1:1338:C:OP2	86:1:4196:OHX:N2	2.42	0.52
20:C8:45:LEU:HD13	21:C9:36:ILE:HA	1.90	0.52
36:5:3084:C:H2'	36:5:3085:G:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1074:U:O2'	36:1:1075:A:H2'	2.10	0.52
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.24	0.52
4:S2:143:TYR:CD2	4:S2:147:ASN:HA	4.43	0.52
36:1:380:U:H2'	36:1:381:U:H6	1.73	0.52
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.73	0.52
36:1:2897:A:H2'	36:1:2899:C:H5''	1.89	0.52
1:2:1291:G:N2	1:2:1324:G:H1	2.06	0.52
1:6:515:A:H2'	1:6:516:G:O4'	2.10	0.52
14:C2:46:ARG:HA	33:E1:103:LEU:HD12	1.90	0.52
22:D0:33:GLN:O	22:D0:37:VAL:HG23	2.90	0.52
56:N0:8:GLN:HB3	56:N0:64:ILE:HD11	1.90	0.52
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.90	0.52
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.42	0.52
1:2:1681:A:H1'	8:S6:66:GLY:HA3	1.90	0.52
68:O2:19:ARG:HH22	36:5:1433:A:P	165.24	0.52
5:S3:64:ARG:NH2	5:S3:65:ARG:HD2	6.88	0.52
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.50	0.52
1:6:1270:G:H1'	1:6:1447:C:O2	2.08	0.52
36:5:2279:A:H2'	36:5:2288:G:O6	2.10	0.52
41:L4:140:HIS:CD2	41:L4:247:PHE:H	2.77	0.52
41:L4:99:MET:HE3	41:L4:103:THR:H	2.01	0.52
36:5:2274:U:OP2	86:5:3985:OHX:N6	2.42	0.52
36:5:3027:A:H2'	36:5:3028:G:O4'	2.08	0.52
36:5:3047:U:C2'	36:5:3048:A:H5'	2.39	0.52
50:M4:8:LYS:HE3	50:M4:10:SER:N	2.24	0.52
36:5:2115:G:H22	36:5:2120:A:H1'	1.73	0.52
52:M6:156:LEU:HD13	36:5:3243:A:C8	265.02	0.52
36:5:2240:G:H2'	36:5:2241:U:O4'	2.09	0.52
36:5:2400:G:OP1	86:5:4110:OHX:N1	2.42	0.52
3:S1:146:GLN:O	3:S1:148:ASN:N	2.37	0.52
36:1:174:C:H2'	36:1:175:C:C6	2.44	0.52
36:1:674:G:O4'	41:L4:117:GLU:HG3	2.10	0.52
1:6:491:C:N4	1:6:496:G:O6	2.42	0.52
1:2:918:U:H2'	1:2:919:A:H8	1.73	0.52
7:S5:37:GLN:NE2	18:C6:53:LEU:HD13	2.24	0.52
7:S5:90:ILE:HD11	7:S5:130:ILE:HG13	1.91	0.52
1:2:736:C:H2'	1:2:737:A:H5'	1.92	0.52
28:D6:82:ARG:O	28:D6:84:VAL:HG12	2.10	0.52
46:L9:105:GLU:HG3	46:L9:109:ALA:N	2.22	0.52
10:S8:10:LYS:HG3	1:6:323:A:OP2	287.68	0.52
1:6:1391:A:H2'	1:6:1392:U:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:541:A:O2'	1:2:542:A:H4'	2.08	0.52
7:S5:117:THR:O	7:S5:121:ILE:HD12	3.96	0.52
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.10	0.52
1:6:484:C:N4	1:6:503:G:H22	2.07	0.52
20:C8:88:ARG:NH2	20:C8:91:ASP:OD2	2.43	0.52
36:5:3163:A:O2'	36:5:3164:C:H5'	2.10	0.52
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	1.92	0.52
17:C5:68:PRO:O	86:C5:201:OHX:N5	6.56	0.52
36:1:2218:G:H2'	36:1:2219:A:H8	1.73	0.52
20:C8:69:ILE:HG22	20:C8:73:MET:HE2	1.92	0.52
61:N5:82:LEU:HD11	61:N5:135:ILE:HD12	3.53	0.52
8:S6:131:LYS:O	60:N4:82:ILE:HA	2.09	0.52
78:Q2:65:THR:OG1	78:Q2:87:ARG:HG2	2.08	0.52
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.43	0.52
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.09	0.52
1:2:1280:C:H2'	1:2:1281:G:C8	2.44	0.52
8:S6:21:GLU:O	8:S6:25:ARG:HB2	2.10	0.52
33:E1:109:ASP:HB2	33:E1:113:LYS:HG2	1.91	0.52
36:5:2514:U:OP1	36:5:2514:U:H6	1.92	0.52
8:S6:206:ALA:O	8:S6:210:GLN:HG3	2.16	0.52
1:6:166:C:OP2	86:6:2169:OHX:N4	2.42	0.52
28:D6:18:VAL:HG11	28:D6:33:ASP:HB3	1.91	0.52
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.43	0.52
1:6:1511:U:H2'	1:6:1512:G:C8	2.45	0.52
58:N2:19:VAL:O	58:N2:23:THR:OG1	2.33	0.52
36:5:2101:C:O2'	36:5:2102:U:OP1	2.28	0.52
53:M7:16:SER:HB2	53:M7:149:VAL:HG22	3.04	0.52
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.28	0.52
1:6:1271:G:H2'	1:6:1272:U:O4'	2.09	0.52
34:SR:241:PHE:O	34:SR:255:ALA:HB3	2.09	0.52
6:S4:2:ALA:O	6:S4:4:GLY:N	2.39	0.52
36:1:3259:U:H6	36:1:3259:U:H5'	1.74	0.52
36:1:1458:U:H3	36:1:1474:A:H61	1.57	0.52
40:L3:152:LYS:HD3	40:L3:189:SER:HA	2.34	0.52
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.34	0.52
9:S7:21:ALA:HA	9:S7:24:PHE:HB2	1.89	0.52
7:S5:161:ASP:HB2	30:D8:54:LEU:HD21	1.90	0.52
8:S6:179:VAL:HA	8:S6:183:ARG:HH11	2.29	0.52
56:N0:155:ARG:HH21	56:N0:155:ARG:CG	2.22	0.52
44:L7:214:TRP:CD2	44:L7:219:LYS:HD2	2.45	0.52
17:C5:19:GLY:N	20:C8:93:THR:O	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:73:C:O2	49:M3:59:ARG:HD3	2.09	0.52
64:N8:75:LEU:HD12	64:N8:137:LYS:HD2	3.18	0.52
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.10	0.52
9:S7:141:ARG:NH2	24:D2:49:GLU:OE1	2.42	0.52
54:M8:176:ARG:NH1	64:N8:46:ASP:OD1	2.42	0.52
86:8:219:OHX:N5	86:8:227:OHX:N3	2.57	0.52
27:D5:36:ALA:O	27:D5:38:HIS:N	2.39	0.52
45:L8:94:PHE:CE2	45:L8:200:LEU:HG	2.44	0.52
36:1:3006:A:H2'	36:1:3007:U:O4'	2.08	0.52
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.69	0.52
1:2:918:U:H2'	1:2:919:A:C8	2.44	0.52
1:6:223:U:H2'	1:6:224:C:C6	2.45	0.52
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	1.91	0.52
6:S4:146:THR:HG21	1:6:123:G:H21	341.99	0.52
71:O5:7:TYR:CE1	71:O5:8:GLU:HG3	2.90	0.52
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.45	0.52
36:1:2251:G:H2'	36:1:2252:A:H5''	1.91	0.52
20:C8:26:ILE:HD11	20:C8:31:ALA:N	2.25	0.52
29:D7:18:LYS:HE3	29:D7:22:LYS:O	2.09	0.52
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.63	0.52
36:1:2278:C:H2'	36:1:2279:A:H5''	1.90	0.52
62:N6:79:ALA:HB1	62:N6:98:ASN:HB3	1.91	0.52
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	252.75	0.52
1:2:901:G:H22	16:C4:54:GLU:CD	2.12	0.52
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.42	0.52
5:S3:150:MET:HE3	35:SM:110:TRP:HB3	1.91	0.52
53:M7:67:ILE:HG13	53:M7:82:ARG:CZ	2.39	0.52
27:D5:55:PRO:HG3	27:D5:88:ILE:HG21	5.86	0.52
51:M5:22:LEU:O	51:M5:26:ARG:HG3	2.15	0.52
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.42	0.52
36:1:2843:U:H5''	36:1:2844:C:OP2	2.08	0.52
54:M8:86:THR:HB	54:M8:105:ARG:HB2	2.66	0.52
19:C7:4:VAL:HA	1:6:1402:G:OP1	405.37	0.52
1:2:1064:G:H2'	1:2:1065:A:C8	2.44	0.52
27:D5:43:ASP:O	27:D5:44:GLN:HB3	4.19	0.52
36:1:1722:U:OP1	55:M9:100:ARG:NH1	2.37	0.52
1:2:1600:A:HO2'	1:2:1602:C:N4	2.08	0.52
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.92	0.52
59:N3:92:PHE:CE1	36:5:3051:U:H1'	246.91	0.52
34:SR:13:LEU:HD12	34:SR:310:ILE:HB	1.92	0.52
28:D6:35:ALA:O	28:D6:37:LYS:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1530:U:OP1	86:5:3992:OHX:N1	2.42	0.52
86:2:2045:OHX:N1	86:2:2100:OHX:N5	2.58	0.52
22:D0:61:LYS:HG3	22:D0:86:ILE:HB	1.91	0.52
36:1:830:A:OP1	86:1:4008:OHX:N4	2.42	0.52
36:5:1240:A:H2'	36:5:1241:U:H5'	1.92	0.52
61:N5:113:LEU:HD22	36:5:1522:U:H3'	102.12	0.52
15:C3:142:GLU:HB2	15:C3:145:THR:HG23	1.89	0.52
30:D8:18:ARG:HD3	30:D8:25:VAL:O	2.10	0.52
44:L7:152:GLY:O	44:L7:163:LEU:HG	2.10	0.52
1:6:1:U:O2'	1:6:370:A:H5'	2.10	0.52
6:S4:47:PHE:O	6:S4:51:ARG:HB3	3.73	0.52
19:C7:52:GLY:HA3	1:6:1389:C:O2'	424.02	0.52
1:2:374:U:OP1	13:C1:96:LYS:NZ	2.37	0.52
28:D6:60:PRO:C	28:D6:62:TYR:H	2.12	0.52
3:S1:81:PHE:HD2	3:S1:82:ARG:H	1.58	0.52
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.38	0.52
41:L4:206:LEU:HB2	41:L4:246:ARG:HD3	4.04	0.52
1:2:1291:G:C8	1:2:1291:G:O5'	2.55	0.52
12:C0:13:GLN:HG3	12:C0:14:TYR:H	1.75	0.52
57:N1:50:LYS:HB3	57:N1:92:ARG:NH1	2.25	0.52
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.82	0.52
39:L2:70:ARG:HH11	39:L2:72:ARG:NE	4.90	0.52
27:D5:71:ILE:CG2	27:D5:73:GLY:H	6.85	0.52
36:5:1307:G:O2'	36:5:1308:A:OP2	2.28	0.52
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.35	0.52
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.91	0.52
75:O9:9:ILE:O	75:O9:13:MET:HB2	2.09	0.52
1:6:1208:A:H5''	1:6:1209:C:OP2	2.10	0.52
36:1:979:U:O3'	36:1:980:A:C8	2.63	0.52
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.60	0.52
70:O4:66:SER:HB3	70:O4:69:HIS:CE1	2.44	0.52
66:O0:99:ASP:O	66:O0:101:LEU:N	2.70	0.52
1:6:1244:A:O2'	1:6:1245:G:O5'	2.25	0.52
36:5:1615:C:H2'	36:5:1616:U:C6	2.44	0.52
9:S7:66:SER:O	9:S7:68:ALA:N	2.68	0.52
16:C4:108:SER:OG	16:C4:108:SER:O	2.67	0.52
26:D4:62:THR:HB	26:D4:69:SER:OG	2.13	0.52
34:SR:10:ARG:NH1	34:SR:51:ASP:OD2	3.62	0.52
3:S1:145:LYS:HA	3:S1:149:GLN:HE22	3.28	0.52
44:L7:92:ILE:HD11	54:M8:4:ASP:H	1.74	0.52
36:1:391:A:OP2	86:1:4146:OHX:N1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2299:A:OP1	86:1:3943:OHX:N1	2.43	0.52
66:O0:66:LYS:H	66:O0:66:LYS:HD2	2.69	0.52
52:M6:128:ARG:HH11	52:M6:128:ARG:HB3	3.48	0.52
36:1:2174:G:H8	36:1:2174:G:OP1	1.93	0.52
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.38	0.52
10:S8:184:LEU:HB3	10:S8:189:LEU:HB2	2.56	0.52
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.76	0.52
3:S1:33:LYS:HD3	3:S1:232:HIS:ND1	7.91	0.52
36:1:1064:A:H5''	36:1:1066:G:O4'	2.10	0.52
28:D6:84:VAL:HG13	28:D6:85:ARG:HH21	1.74	0.52
34:SR:159:ASN:ND2	34:SR:164:ASP:H	4.44	0.52
22:D0:28:SER:OG	22:D0:29:THR:N	2.41	0.52
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.23	0.52
36:5:1564:U:H2'	36:5:1565:G:C8	2.45	0.52
1:6:485:A:N6	1:6:486:G:N3	2.57	0.52
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.39	0.52
17:C5:18:ARG:HD3	20:C8:90:ASN:OD1	2.10	0.52
36:1:2794:G:H1'	36:1:2795:U:C6	2.44	0.52
8:S6:7:TYR:CD1	8:S6:125:THR:HA	3.97	0.52
39:L2:200:ARG:NH1	36:5:2146:C:OP1	213.96	0.52
36:1:1375:G:O6	64:N8:10:LYS:HE2	2.09	0.52
1:2:72:A:C2	1:2:73:U:N3	2.78	0.52
25:D3:95:PHE:HE2	25:D3:136:TRP:HA	2.57	0.52
7:S5:55:ASP:C	7:S5:57:SER:H	4.49	0.52
61:N5:82:LEU:HD11	61:N5:135:ILE:HG21	1.90	0.52
15:C3:75:LEU:H	15:C3:75:LEU:HD12	2.65	0.52
36:5:3358:U:H2'	36:5:3359:A:C8	2.45	0.52
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.41	0.52
1:2:1615:C:O2'	1:2:1616:G:OP2	2.27	0.52
36:5:830:A:O2'	36:5:1866:C:H2'	2.10	0.52
1:6:493:U:HO2'	1:6:494:U:H6	1.58	0.52
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	2.35	0.52
4:S2:88:LYS:O	4:S2:89:GLN:NE2	5.55	0.52
6:S4:166:SER:OG	6:S4:167:GLY:N	2.42	0.52
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.08	0.52
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.41	0.52
36:5:517:G:H1	36:5:573:C:H42	1.56	0.52
1:2:463:U:H2'	1:2:464:A:H8	1.74	0.52
7:S5:23:VAL:HG11	18:C6:57:LEU:HB3	1.92	0.52
63:N7:99:GLU:HG3	63:N7:100:THR:N	3.33	0.52
52:M6:110:PRO:O	52:M6:111:PRO:C	3.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2207:A:C2'	36:1:2208:A:H5'	2.40	0.52
36:5:406:G:H1'	38:8:16:G:N2	2.24	0.52
9:S7:16:LEU:HA	9:S7:19:GLN:HG3	1.91	0.52
1:2:1796:C:H5	28:D6:6:ALA:N	2.08	0.52
47:M0:210:ILE:HG13	47:M0:217:PHE:CD2	5.06	0.52
36:1:157:A:C8	72:O6:26:ILE:HG12	2.45	0.52
1:6:512:A:H2'	1:6:513:U:H6	1.74	0.52
42:L5:58:LYS:N	42:L5:58:LYS:HD3	2.24	0.52
1:6:832:U:OP2	86:6:2201:OHX:N6	2.43	0.52
36:1:1454:A:H5''	36:1:1455:U:C5'	2.38	0.52
49:M3:170:LEU:HB3	72:O6:9:ILE:HD11	1.91	0.52
36:1:269:G:P	51:M5:44:ARG:HH22	2.32	0.52
1:6:1067:C:H2'	1:6:1068:C:C6	2.44	0.52
36:5:1578:C:H2'	36:5:1579:C:H6	1.74	0.52
20:C8:3:LEU:HD23	20:C8:5:VAL:HG22	1.92	0.52
36:1:92:G:H5''	36:1:94:G:N7	2.24	0.52
6:S4:95:THR:O	6:S4:97:GLU:N	2.53	0.52
70:O4:57:LEU:HB3	70:O4:61:GLN:HG3	3.94	0.52
86:2:2045:OHX:N4	86:2:2100:OHX:N3	2.58	0.52
61:N5:67:ILE:HD12	61:N5:83:VAL:HG12	1.92	0.52
44:L7:111:ILE:O	44:L7:112:ASN:HB2	2.09	0.52
39:L2:188:LYS:HD3	39:L2:189:TYR:CZ	2.72	0.52
36:5:1131:G:C4	36:5:2373:A:C2	2.98	0.52
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.15	0.52
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	2.31	0.52
36:5:3317:U:O2'	86:5:4140:OHX:N6	2.43	0.52
41:L4:211:GLU:OE2	41:L4:213:ASN:ND2	2.42	0.52
36:5:736:A:C5	36:5:737:G:H1'	2.45	0.52
1:6:909:U:H2'	1:6:910:C:C6	2.44	0.52
14:C2:28:LEU:HD22	14:C2:32:LEU:HG	2.43	0.52
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.10	0.52
40:L3:211:GLN:O	40:L3:212:ASN:ND2	2.43	0.52
1:2:94:U:H4'	6:S4:6:LYS:HA	1.90	0.52
7:S5:32:GLU:CD	7:S5:32:GLU:H	2.14	0.52
10:S8:2:GLY:N	1:6:393:C:OP2	292.53	0.52
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.32	0.52
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.74	0.52
25:D3:63:GLN:HG3	25:D3:64:PRO:HA	1.92	0.52
39:L2:19:HIS:CD2	39:L2:193:ARG:HA	3.54	0.52
1:2:736:C:C2'	1:2:737:A:H5'	2.40	0.52
1:6:542:A:N7	1:6:543:C:H2'	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:778:G:H22	26:D4:10:ARG:NH2	2.08	0.52
52:M6:59:ARG:HD3	36:5:1307:G:OP1	255.39	0.52
39:L2:213:GLY:CA	36:5:2967:A:H5''	206.14	0.52
7:S5:100:ASN:O	7:S5:102:ARG:N	2.42	0.52
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	3.59	0.52
56:N0:155:ARG:NH2	56:N0:155:ARG:HG2	2.21	0.52
51:M5:68:ARG:HA	51:M5:98:LEU:HD21	2.06	0.52
5:S3:74:GLN:HE22	5:S3:81:PRO:HA	1.75	0.52
1:2:526:A:H2'	1:2:527:A:O4'	2.10	0.52
36:5:420:G:O5'	36:5:420:G:OP2	2.28	0.52
70:O4:81:CYS:SG	70:O4:84:CYS:SG	3.24	0.52
1:2:676:G:O6	1:2:677:G:N2	2.43	0.52
57:N1:17:ARG:HH11	57:N1:17:ARG:CB	3.75	0.52
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.42	0.52
36:1:1069:C:H2'	36:1:1070:U:C6	2.44	0.52
36:1:726:G:H1'	36:1:744:A:H61	1.75	0.52
28:D6:15:ARG:NH1	1:6:936:G:N7	320.62	0.52
36:1:2748:A:H1'	42:L5:36:LEU:HD23	1.91	0.52
36:1:729:C:H2'	36:1:730:C:H6	1.74	0.52
36:1:1581:C:H2'	36:1:1582:C:H5'	1.91	0.52
6:S4:234:PRO:HG3	6:S4:238:LEU:HD11	2.47	0.52
36:1:2707:C:H2'	36:1:2708:C:H6	1.74	0.52
13:C1:40:LEU:HD22	1:6:246:G:N2	326.50	0.52
36:5:1815:U:O2'	36:5:1816:A:OP2	2.25	0.52
36:1:329:U:OP2	86:1:4041:OHX:N4	2.43	0.52
36:1:3119:U:OP2	86:1:3888:OHX:N4	2.42	0.52
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	2.04	0.52
75:O9:7:PHE:HB3	38:8:113:U:H5''	108.58	0.52
36:1:3278:C:H2'	36:1:3278:C:O2	2.08	0.52
6:S4:213:SER:O	6:S4:214:LEU:HD12	2.50	0.52
1:6:383:G:N7	86:6:2148:OHX:N5	2.58	0.52
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.70	0.52
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.09	0.52
86:1:4030:OHX:N4	86:1:4043:OHX:N1	2.58	0.52
1:6:1003:A:H4'	1:6:1004:U:O5'	2.10	0.52
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	1.92	0.52
1:6:828:U:N3	1:6:829:A:N7	2.58	0.52
1:6:829:A:OP1	1:6:829:A:H4'	2.10	0.52
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.35	0.52
36:5:150:A:C2'	36:5:151:A:H5'	2.38	0.52
49:M3:15:ARG:CZ	36:5:96:G:H5'	153.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2635:A:H4'	36:1:2636:A:O5'	2.10	0.52
36:5:419:G:N7	86:8:217:OHX:N3	2.58	0.52
16:C4:107:ARG:NH2	16:C4:107:ARG:HB2	5.18	0.52
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.41	0.52
36:5:3241:G:H2'	36:5:3245:A:H8	1.73	0.52
43:L6:136:GLU:O	43:L6:139:LYS:N	2.39	0.52
36:5:3166:C:H42	36:5:3284:G:H1	1.57	0.52
8:S6:32:ILE:HG23	8:S6:53:SER:HA	1.91	0.52
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	292.27	0.52
1:2:1417:A:OP1	86:2:2072:OHX:N5	2.43	0.52
36:1:1484:U:O5'	36:1:1484:U:H6	1.92	0.52
50:M4:121:MET:HE1	36:5:3215:A:O5'	276.87	0.51
3:S1:69:CYS:O	3:S1:72:ASP:HB2	2.10	0.51
53:M7:29:THR:HG22	53:M7:87:SER:OG	4.30	0.51
1:2:1795:U:OP1	28:D6:86:VAL:HG23	2.10	0.51
1:2:1514:U:H5'	1:2:1515:A:O4'	2.10	0.51
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	3.63	0.51
51:M5:143:ARG:HE	71:O5:92:LEU:HD23	1.74	0.51
8:S6:63:MET:HE1	8:S6:106:LEU:CD1	2.40	0.51
11:S9:99:LEU:HD12	11:S9:100:LYS:H	1.75	0.51
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.11	0.51
1:6:1696:G:O2'	1:6:1698:G:N7	2.32	0.51
1:6:333:A:C6	1:6:334:G:C6	2.98	0.51
1:2:330:G:OP2	10:S8:172:ARG:NH1	2.43	0.51
74:O8:32:ASN:OD1	74:O8:36:LYS:N	4.54	0.51
17:C5:67:ALA:O	17:C5:69:GLU:N	2.43	0.51
1:2:1064:G:O6	86:2:2163:OHX:N6	2.43	0.51
2:S0:76:ILE:HB	2:S0:123:VAL:HG23	1.91	0.51
4:S2:178:ILE:HD12	4:S2:189:GLN:HG3	1.92	0.51
38:4:104:A:C8	38:4:105:A:C8	2.98	0.51
58:N2:20:SER:O	58:N2:24:GLU:HG2	2.56	0.51
24:D2:82:LYS:O	24:D2:84:GLY:N	2.38	0.51
1:2:749:U:H3	1:2:800:U:H3	1.58	0.51
21:C9:66:TYR:HB2	21:C9:124:ILE:HD13	2.86	0.51
1:2:1393:C:H2'	1:2:1394:G:O4'	2.10	0.51
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	4.91	0.51
1:6:1345:A:O2'	1:6:1346:A:H5'	2.10	0.51
1:6:1071:U:H2'	1:6:1072:C:C6	2.45	0.51
36:5:2213:A:H2'	36:5:2214:A:C8	2.45	0.51
36:1:1819:U:O4	86:1:4039:OHX:N6	2.43	0.51
63:N7:8:GLY:HA2	63:N7:25:ILE:O	3.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.25	0.51
64:N8:147:LEU:HD12	72:O6:7:ILE:HD11	5.34	0.51
3:S1:33:LYS:O	3:S1:98:THR:OG1	5.33	0.51
17:C5:126:VAL:HG22	17:C5:127:ARG:H	2.63	0.51
55:M9:5:ARG:HH11	55:M9:5:ARG:HG3	2.30	0.51
36:1:2335:G:N2	36:1:2339:C:O2'	2.43	0.51
1:2:823:G:O2'	1:2:824:G:OP1	2.28	0.51
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.43	0.51
1:6:829:A:H5''	1:6:829:A:H8	1.74	0.51
1:2:1400:A:H4'	19:C7:60:ARG:HH22	1.75	0.51
33:E1:97:LYS:NZ	1:6:1232:U:O4	439.75	0.51
36:5:687:U:H2'	36:5:688:G:C8	2.45	0.51
1:2:1359:C:OP1	21:C9:130:ARG:NH1	2.43	0.51
1:2:1349:G:H1	1:2:1376:C:N4	2.05	0.51
62:N6:12:ARG:HG2	36:5:215:G:OP1	88.60	0.51
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	2.70	0.51
1:2:73:U:H1'	1:2:74:U:H5'	1.92	0.51
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.82	0.51
16:C4:99:GLN:OE1	16:C4:99:GLN:N	2.42	0.51
64:N8:13:GLY:HA2	36:5:943:U:H3'	164.71	0.51
71:O5:83:LYS:O	71:O5:89:ARG:NE	2.73	0.51
7:S5:146:THR:HG23	7:S5:221:ALA:HA	1.92	0.51
36:1:1194:G:H2'	36:1:1195:A:C8	2.45	0.51
21:C9:70:GLN:HG3	21:C9:120:GLY:O	2.57	0.51
86:7:217:OHX:N1	86:7:225:OHX:N5	2.58	0.51
36:5:3283:U:H2'	36:5:3284:G:C8	2.45	0.51
1:6:880:C:OP2	86:6:2108:OHX:N2	2.43	0.51
1:2:836:U:H2'	1:2:837:G:H8	1.75	0.51
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.10	0.51
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.11	0.51
1:2:802:G:H21	24:D2:107:SER:HB3	1.74	0.51
36:1:1440:G:O6	86:1:3922:OHX:N1	2.43	0.51
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	2.27	0.51
36:1:3106:A:H2'	36:1:3107:U:O4'	2.10	0.51
36:1:3018:C:H2'	36:1:3019:U:O4'	2.10	0.51
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.80	0.51
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.27	0.51
9:S7:150:GLN:HB3	9:S7:181:ILE:HD12	1.91	0.51
1:2:1175:U:H2'	1:2:1176:G:C8	2.45	0.51
50:M4:31:LYS:HG2	50:M4:51:ALA:HB1	1.92	0.51
1:6:209:U:H2'	1:6:210:A:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	3.63	0.51
9:S7:98:ILE:HG13	9:S7:121:VAL:HG21	1.92	0.51
4:S2:90:THR:N	4:S2:93:GLY:O	2.41	0.51
14:C2:44:GLY:O	14:C2:46:ARG:N	3.01	0.51
22:D0:42:VAL:HG23	22:D0:91:ILE:HD13	1.92	0.51
36:5:1564:U:H2'	36:5:1565:G:H8	1.75	0.51
51:M5:5:LYS:HZ1	72:O6:37:THR:HG22	1.74	0.51
1:6:189:C:O2'	1:6:190:C:H5'	2.10	0.51
21:C9:26:GLY:O	21:C9:28:LEU:HG	2.09	0.51
55:M9:86:GLU:OE2	55:M9:91:SER:OG	2.18	0.51
54:M8:16:ARG:NH1	54:M8:55:SER:HB3	2.24	0.51
40:L3:7:GLU:HG2	36:5:2915:U:H5	257.91	0.51
18:C6:83:GLN:HG3	18:C6:115:THR:HG22	7.32	0.51
20:C8:52:VAL:HG13	20:C8:61:LEU:HD21	3.11	0.51
41:L4:333:VAL:O	41:L4:337:GLU:HG3	3.34	0.51
1:2:1226:A:O2'	1:2:1227:A:OP1	2.26	0.51
86:1:4001:OHX:N3	86:1:4171:OHX:N3	2.58	0.51
45:L8:94:PHE:HB3	45:L8:189:LEU:CD1	2.41	0.51
40:L3:81:THR:OG1	40:L3:321:PHE:HA	2.09	0.51
68:O2:35:GLN:HB3	68:O2:43:ARG:HB2	2.73	0.51
33:E1:84:VAL:HG23	33:E1:85:TYR:HD1	4.78	0.51
1:6:1688:U:H2'	1:6:1689:A:C8	2.45	0.51
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.91	0.51
78:Q2:2:VAL:HG23	78:Q2:91:PHE:HD1	2.29	0.51
45:L8:211:LEU:HD12	45:L8:215:VAL:HG23	1.91	0.51
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.91	0.51
16:C4:136:ARG:NH1	1:6:1769:U:O2	302.42	0.51
36:5:8:C:H2'	36:5:9:U:O4'	2.10	0.51
36:5:1103:A:H3'	36:5:1104:G:H5'	1.93	0.51
10:S8:178:ARG:NH1	1:6:207:U:O2	288.91	0.51
2:S0:21:ASN:HB3	2:S0:24:LEU:HD13	1.92	0.51
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.52	0.51
36:1:1094:U:O2	36:1:1096:U:O2'	2.25	0.51
36:1:2943:G:OP2	40:L3:2:SER:HB2	2.10	0.51
19:C7:104:ASN:ND2	19:C7:105:GLN:OE1	5.48	0.51
42:L5:279:LYS:HE3	42:L5:282:ARG:HH12	1.75	0.51
36:1:1350:A:O2'	36:1:1351:U:H5'	2.10	0.51
71:O5:85:THR:HB	71:O5:88:LEU:HB2	1.93	0.51
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.92	0.51
33:E1:119:ARG:O	33:E1:132:LEU:N	2.86	0.51
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.10	0.51
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	4.07	0.51
17:C5:14:THR:OG1	17:C5:15:HIS:O	2.24	0.51
17:C5:16:SER:HA	17:C5:20:VAL:O	2.10	0.51
51:M5:58:GLY:HA3	51:M5:142:ILE:HD13	1.92	0.51
67:O1:78:LYS:HG2	67:O1:79:ARG:HH21	1.75	0.51
2:S0:31:VAL:HA	2:S0:34:GLU:OE2	7.38	0.51
11:S9:114:TYR:HE1	11:S9:121:SER:N	2.07	0.51
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.54	0.51
9:S7:141:ARG:NH1	9:S7:143:LEU:HD21	2.26	0.51
36:5:1560:G:H2'	36:5:1561:G:C8	2.44	0.51
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	3.14	0.51
43:L6:42:LEU:HD22	43:L6:79:VAL:HG21	2.23	0.51
41:L4:99:MET:CE	41:L4:102:PRO:HA	3.27	0.51
66:O0:27:TYR:OH	66:O0:55:GLU:OE1	2.23	0.51
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.11	0.51
57:N1:14:MET:HE1	57:N1:55:LYS:O	2.20	0.51
55:M9:44:LEU:HD12	55:M9:49:THR:HB	1.93	0.51
36:5:996:A:H2'	36:5:997:A:O4'	2.10	0.51
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	2.63	0.51
6:S4:173:ILE:HD11	6:S4:235:TYR:CD1	2.69	0.51
9:S7:59:ALA:HA	9:S7:91:ILE:HG22	1.92	0.51
36:5:554:A:OP2	36:5:554:A:H8	1.93	0.51
42:L5:114:GLY:O	42:L5:116:ASP:N	2.39	0.51
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.10	0.51
1:2:454:U:H3'	1:2:455:C:C6	2.45	0.51
35:SM:97:THR:HG22	35:SM:99:LYS:HG2	1.92	0.51
15:C3:3:ARG:NE	15:C3:3:ARG:HA	2.75	0.51
86:5:3979:OHX:N2	86:5:4199:OHX:N5	2.59	0.51
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.62	0.51
1:6:768:C:H2'	1:6:769:A:O4'	2.10	0.51
1:6:793:A:H3'	1:6:794:U:H5'	1.90	0.51
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	2.06	0.51
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.10	0.51
36:5:1208:U:H6	36:5:3115:C:H42	1.59	0.51
41:L4:152:VAL:HG22	41:L4:172:VAL:HG21	2.90	0.51
6:S4:241:GLY:O	6:S4:243:GLY:N	2.43	0.51
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.47	0.51
49:M3:98:ASP:OD1	49:M3:100:ARG:HG2	4.11	0.51
14:C2:43:ARG:NH1	1:6:1227:A:N1	462.71	0.51
46:L9:44:THR:HG22	36:5:3186:A:C2	328.34	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1645:G:H22	1:2:1756:A:H2	1.58	0.51
2:S0:37:VAL:HG12	2:S0:38:PHE:H	1.75	0.51
39:L2:80:GLU:HG2	79:Q3:76:ALA:HB1	2.93	0.51
21:C9:63:ARG:HG2	21:C9:67:MET:HE1	1.92	0.51
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.44	0.51
36:1:3013:U:H2'	36:1:3014:U:C6	2.45	0.51
44:L7:64:GLN:HG3	44:L7:68:ASP:OD2	2.11	0.51
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.09	0.51
1:2:1578:U:O2'	1:2:1579:U:H5'	2.10	0.51
36:1:3192:U:H2'	36:1:3193:C:C6	2.46	0.51
34:SR:69:GLN:HG2	34:SR:111:MET:HE3	2.18	0.51
36:1:2533:G:O6	36:1:2546:C:N4	2.40	0.51
41:L4:269:SER:OG	41:L4:269:SER:O	2.23	0.51
36:1:975:C:H2'	36:1:976:U:C6	2.45	0.51
67:O1:24:SER:HB2	67:O1:27:LYS:HD2	3.81	0.51
1:6:272:U:O2'	1:6:273:G:OP2	2.25	0.51
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	2.41	0.51
34:SR:36:ALA:HB1	34:SR:68:VAL:HB	2.32	0.51
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	2.66	0.51
28:D6:86:VAL:HG12	1:6:1795:U:OP1	343.59	0.51
39:L2:174:ARG:NH2	36:5:2179:C:O3'	213.89	0.51
40:L3:169:THR:CG2	40:L3:171:LEU:H	2.62	0.51
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.50	0.51
1:2:355:G:OP2	86:2:2037:OHX:N4	2.44	0.51
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.72	0.51
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.77	0.51
51:M5:172:ARG:HH11	36:5:30:G:P	108.29	0.51
1:6:328:A:H2'	1:6:329:G:O4'	2.10	0.51
54:M8:170:ARG:HA	54:M8:174:ARG:HD2	2.64	0.51
36:1:2554:A:N6	79:Q3:62:LYS:HE3	2.24	0.51
36:5:1581:C:OP2	36:5:1581:C:H4'	2.10	0.51
27:D5:42:LEU:HD22	27:D5:47:TYR:HB2	6.88	0.51
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.44	0.51
36:5:873:C:H5''	36:5:874:U:O5'	2.10	0.51
14:C2:32:LEU:O	14:C2:36:LEU:N	2.44	0.51
61:N5:57:LEU:HD22	61:N5:62:VAL:HG22	4.03	0.51
36:5:3110:C:H2'	36:5:3111:U:C6	2.46	0.51
3:S1:116:LYS:HB3	3:S1:117:TRP:CD1	5.34	0.51
61:N5:75:LYS:HD2	61:N5:123:TYR:CE1	2.45	0.51
26:D4:7:ILE:HD13	26:D4:40:LEU:HD13	1.93	0.51
25:D3:14:LYS:HA	25:D3:17:VAL:HG12	4.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.11	0.51
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.45	0.51
4:S2:54:GLU:OE2	4:S2:110:HIS:NE2	2.43	0.51
1:2:147:A:H2'	1:2:148:A:O4'	2.10	0.51
1:2:1613:U:H2'	1:2:1614:A:H5''	1.92	0.51
52:M6:192:LYS:O	52:M6:195:ALA:HB3	2.09	0.51
59:N3:66:LYS:HB2	59:N3:69:LEU:HD22	1.91	0.51
36:5:1536:G:N7	86:5:3923:OHX:N2	2.58	0.51
36:1:3:U:C2	38:4:157:U:C2	2.98	0.51
51:M5:187:ARG:HG2	51:M5:188:ARG:N	2.23	0.51
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.06	0.51
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	3.36	0.51
21:C9:39:THR:O	21:C9:96:ALA:HB1	3.39	0.51
3:S1:77:GLU:O	3:S1:80:SER:OG	4.28	0.51
1:2:885:G:H21	16:C4:123:SER:HB2	1.75	0.51
12:C0:54:TYR:CD2	12:C0:72:GLY:HA2	3.76	0.51
5:S3:211:PRO:HG3	19:C7:20:TYR:CZ	2.45	0.51
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	2.84	0.51
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.75	0.51
1:6:825:U:O2'	1:6:826:U:P	2.69	0.51
68:O2:126:LEU:O	68:O2:128:LEU:N	2.44	0.51
36:1:2273:G:O2'	36:1:2274:U:OP2	2.28	0.51
39:L2:201:GLY:O	39:L2:204:MET:HB2	3.16	0.51
58:N2:50:LEU:HB3	58:N2:54:VAL:HG22	1.91	0.51
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.31	0.51
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.91	0.51
61:N5:135:ILE:O	61:N5:139:ILE:HG13	5.52	0.51
39:L2:83:HIS:CD2	79:Q3:41:PHE:HZ	2.28	0.51
4:S2:121:VAL:N	35:SM:120:GLU:OE2	2.40	0.51
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.21	0.51
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.76	0.51
36:1:790:U:H4'	41:L4:112:LYS:O	2.10	0.51
36:1:437:G:H2'	36:1:438:A:C8	2.46	0.51
10:S8:116:HIS:O	10:S8:146:ARG:NH1	2.42	0.51
36:1:539:C:H2'	36:1:540:U:C6	2.46	0.51
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.92	0.51
1:2:463:U:H2'	1:2:464:A:C8	2.46	0.51
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.92	0.51
36:1:1826:C:H2'	36:1:1827:C:H6	1.75	0.51
78:Q2:99:GLN:OE1	78:Q2:102:GLN:NE2	2.44	0.51
64:N8:122:PRO:HB3	64:N8:142:GLY:O	2.51	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:121:U:H2'	38:4:122:U:C6	2.46	0.51
1:2:217:A:OP1	1:2:217:A:H2'	2.11	0.51
1:6:938:G:N2	1:6:941:A:OP2	2.41	0.51
36:5:2255:A:OP2	36:5:2261:G:N2	2.34	0.51
36:1:939:U:H5'	36:1:939:U:H6	1.76	0.51
40:L3:83:PRO:HG3	40:L3:204:ALA:HB2	3.76	0.51
51:M5:187:ARG:HA	51:M5:190:THR:HG23	1.91	0.51
23:D1:1:MET:HB3	23:D1:10:GLU:HB3	4.32	0.51
1:2:66:U:H5'	8:S6:173:PRO:HA	1.93	0.51
37:3:3:U:H2'	37:3:4:U:H6	1.74	0.51
36:1:917:A:OP2	86:1:4143:OHX:N2	2.43	0.51
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.22	0.51
32:E0:28:LYS:HD3	1:6:542:A:N1	430.72	0.51
36:1:1063:G:C6	57:N1:109:VAL:HG22	2.45	0.51
36:5:2818:U:C6	36:5:2818:U:H5'	2.40	0.51
59:N3:120:LYS:H	59:N3:137:VAL:CG2	3.15	0.51
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.93	0.51
7:S5:101:GLY:C	7:S5:103:ASN:H	2.76	0.51
25:D3:53:VAL:HG13	25:D3:72:VAL:HB	2.44	0.51
71:O5:44:ILE:O	71:O5:47:VAL:HG12	2.10	0.51
10:S8:80:GLY:HA2	10:S8:102:VAL:HB	1.93	0.51
86:1:4001:OHX:N6	86:1:4171:OHX:N5	2.58	0.51
36:5:1953:G:O6	36:5:2094:C:N4	2.43	0.51
40:L3:247:ARG:NH2	36:5:2341:A:OP1	219.59	0.51
36:5:2510:U:O2'	36:5:2511:A:H5''	2.11	0.51
38:4:125:U:O2'	38:4:126:A:OP2	2.28	0.51
49:M3:73:ARG:NH2	36:5:77:A:N7	80.64	0.51
1:2:592:A:OP1	11:S9:39:LYS:HG3	2.10	0.51
1:2:1280:C:H2'	1:2:1281:G:H8	1.76	0.51
17:C5:30:THR:O	17:C5:34:VAL:HG13	2.11	0.51
36:5:2254:U:H2'	36:5:2261:G:N2	2.26	0.51
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	2.98	0.51
38:8:83:C:H4'	38:8:85:G:N3	2.25	0.51
2:S0:131:GLN:HE22	2:S0:135:GLU:HG3	4.84	0.51
36:1:2157:G:O6	39:L2:152:SER:HB3	2.10	0.51
1:2:1367:G:N7	86:2:2110:OHX:N6	2.59	0.51
11:S9:146:PHE:HZ	1:6:765:G:N1	432.07	0.51
36:1:412:G:C6	36:1:413:U:C4	2.99	0.51
46:L9:23:ARG:NH2	46:L9:39:LYS:O	2.44	0.51
27:D5:93:SER:OG	27:D5:94:LYS:N	2.42	0.51
24:D2:41:MET:HG2	24:D2:129:VAL:HG11	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:25:GLN:HA	44:L7:28:ALA:HB3	1.92	0.51
36:5:1063:G:OP2	36:5:1097:G:H5''	2.11	0.51
36:1:1844:C:C2'	36:1:1845:G:H5''	2.40	0.51
8:S6:14:LYS:HG2	8:S6:16:PHE:CE2	4.66	0.51
79:Q3:4:ARG:HD2	36:5:837:A:OP2	239.32	0.51
7:S5:180:ARG:HG3	1:6:1473:U:H3	351.59	0.51
51:M5:98:LEU:HD22	51:M5:128:LYS:HZ1	4.80	0.51
1:2:852:C:OP1	55:M9:172:ARG:HD3	2.11	0.51
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	5.98	0.51
34:SR:169:ILE:HD13	34:SR:183:LEU:HD11	1.92	0.51
36:5:1716:U:H5'	36:5:1716:U:C6	2.41	0.51
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.91	0.51
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.45	0.51
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	3.56	0.51
36:1:2156:C:OP2	39:L2:241:ARG:NH2	2.44	0.51
71:O5:49:LYS:NZ	38:8:63:G:O2'	52.95	0.51
43:L6:56:LYS:NZ	43:L6:101:PHE:O	2.94	0.51
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	2.78	0.51
1:2:1250:U:O2'	1:2:1251:U:OP1	2.27	0.51
1:2:1615:C:P	7:S5:81:ARG:HH21	2.34	0.51
42:L5:90:HIS:NE2	42:L5:229:ASP:OD2	2.71	0.51
36:5:2911:A:H4'	36:5:2912:G:C8	2.46	0.51
26:D4:44:LEU:HA	26:D4:47:VAL:HG13	4.61	0.51
36:1:3000:A:H2'	36:1:3001:C:C6	2.45	0.51
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.34	0.51
1:6:620:A:C2	1:6:621:A:C2	2.99	0.51
1:2:641:G:H1	1:2:693:U:H3	1.59	0.51
36:1:2954:U:O5'	36:1:2954:U:H6	1.93	0.51
3:S1:121:ILE:HD13	3:S1:161:ILE:HG23	2.56	0.51
63:N7:21:LYS:NZ	63:N7:47:GLU:O	2.63	0.51
64:N8:16:SER:HA	36:5:942:U:C4	171.10	0.51
40:L3:325:LYS:HG2	40:L3:326:GLY:N	3.09	0.51
40:L3:298:PHE:CE1	40:L3:357:LYS:HE2	5.15	0.51
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.93	0.51
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	1.93	0.51
41:L4:295:ILE:HG23	41:L4:299:ILE:HD11	1.92	0.51
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.11	0.51
6:S4:187:ARG:C	6:S4:189:LEU:H	2.14	0.51
1:2:1257:U:H2'	12:C0:2:LEU:HD12	1.93	0.51
8:S6:141:ILE:HD13	8:S6:153:VAL:HG11	1.93	0.51
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	2.66	0.51
45:L8:108:ARG:O	45:L8:111:LYS:HB2	2.11	0.51
1:2:549:G:H1	1:2:589:C:H42	1.58	0.51
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.93	0.51
55:M9:168:ALA:HB1	55:M9:172:ARG:NH1	2.26	0.51
36:1:1245:A:H3'	36:1:1246:G:H5''	1.93	0.51
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.44	0.51
36:5:247:C:C2	36:5:248:U:H1'	2.46	0.51
21:C9:108:LEU:HA	21:C9:111:ILE:HG22	1.93	0.51
36:5:978:G:N2	36:5:1104:G:C5	2.79	0.51
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.46	0.51
36:1:975:C:H2'	36:1:976:U:H6	1.76	0.51
68:O2:83:GLU:OE2	68:O2:111:ARG:NE	2.43	0.51
52:M6:77:SER:HB2	52:M6:104:VAL:HG12	1.93	0.51
40:L3:358:TRP:CH2	40:L3:360:ASP:HB2	2.46	0.51
1:2:1622:G:H2'	1:2:1623:C:C6	2.45	0.51
39:L2:54:ARG:HG2	39:L2:55:GLY:H	1.76	0.51
28:D6:45:VAL:HG11	28:D6:53:LEU:HG	2.94	0.51
1:2:481:A:H61	1:2:505:A:H62	1.59	0.51
66:O0:45:ALA:O	66:O0:48:THR:HG22	2.10	0.51
36:1:2284:C:H5''	36:1:2285:C:OP2	2.11	0.51
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.11	0.51
68:O2:26:HIS:O	68:O2:28:VAL:N	2.44	0.51
40:L3:306:THR:HG22	40:L3:310:GLY:HA2	1.91	0.51
57:N1:111:ALA:O	57:N1:115:LYS:HG2	2.11	0.51
1:2:161:U:H2'	1:2:162:A:H8	1.75	0.51
61:N5:25:LYS:HD2	61:N5:25:LYS:H	1.76	0.51
13:C1:75:VAL:CG1	13:C1:119:VAL:HA	2.40	0.51
37:7:106:U:H2'	37:7:107:C:C6	2.46	0.51
1:6:1305:U:OP2	1:6:1306:C:N4	2.27	0.51
50:M4:113:THR:CG2	50:M4:116:GLU:HB2	5.24	0.50
34:SR:21:THR:O	34:SR:36:ALA:HB3	2.11	0.50
24:D2:77:PRO:HG2	24:D2:79:PHE:CZ	2.45	0.50
1:6:794:U:H4'	1:6:795:U:OP2	2.10	0.50
1:6:1004:U:H4'	1:6:1005:A:OP2	2.11	0.50
12:C0:12:HIS:NE2	12:C0:49:LEU:HD21	2.25	0.50
1:6:339:C:H2'	1:6:340:U:C6	2.47	0.50
19:C7:34:LEU:HD23	19:C7:38:ILE:HG21	1.93	0.50
13:C1:8:GLN:NE2	13:C1:14:GLN:H	4.00	0.50
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.92	0.50
36:5:2211:U:C5	36:5:2234:G:O6	2.63	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:77:ARG:NH1	36:1:1025:A:O4'	2.44	0.50
1:6:755:A:O2'	1:6:756:A:H8	1.92	0.50
34:SR:207:ASP:OD1	34:SR:209:THR:OG1	2.60	0.50
36:5:1015:U:O2'	36:5:1017:C:OP1	2.29	0.50
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	12.75	0.50
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.11	0.50
36:5:604:G:N7	86:5:4168:OHX:N2	2.59	0.50
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	2.13	0.50
37:3:28:C:N4	37:3:29:C:N3	2.59	0.50
36:1:2505:U:H2'	36:1:2506:U:C6	2.47	0.50
47:M0:187:ALA:HB3	47:M0:189:GLU:HG3	3.69	0.50
36:5:985:U:H2'	36:5:986:U:H6	1.76	0.50
47:M0:49:CYS:HB2	47:M0:172:GLY:HA2	2.32	0.50
1:2:1492:A:N3	1:2:1493:A:C8	2.79	0.50
36:5:928:C:H2'	36:5:929:A:C8	2.46	0.50
36:1:2544:U:H2'	36:1:2545:C:C6	2.47	0.50
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.36	0.50
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.10	0.50
38:4:67:U:H5''	73:O7:84:SER:O	2.10	0.50
36:5:2775:U:H2'	36:5:2776:C:H6	1.76	0.50
71:O5:73:LYS:HD2	71:O5:73:LYS:N	4.84	0.50
86:5:4055:OHX:N5	86:5:4200:OHX:N6	2.59	0.50
38:4:10:A:H2'	38:4:11:C:C6	2.46	0.50
36:1:3242:G:N2	36:1:3245:A:H5''	2.26	0.50
40:L3:138:ALA:O	40:L3:140:ASP:N	2.67	0.50
36:1:2777:G:H5''	36:1:2778:G:OP1	2.11	0.50
56:N0:85:SER:OG	36:5:1294:A:H5''	302.97	0.50
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.27	0.50
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.11	0.50
7:S5:43:PHE:HA	7:S5:68:ILE:O	2.11	0.50
3:S1:34:ALA:N	3:S1:41:ARG:O	2.35	0.50
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.60	0.50
9:S7:31:SER:HA	9:S7:35:LYS:HB2	2.68	0.50
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	3.25	0.50
8:S6:57:ASP:HA	8:S6:107:ALA:H	1.77	0.50
33:E1:96:LYS:HG3	33:E1:97:LYS:N	4.73	0.50
15:C3:62:GLN:HB2	15:C3:65:VAL:HG23	1.93	0.50
1:2:164:A:N3	8:S6:13:GLN:NE2	2.54	0.50
1:2:387:A:H5''	1:2:389:G:OP2	2.11	0.50
42:L5:268:GLU:C	42:L5:270:LYS:H	3.46	0.50
36:5:3279:A:C2'	36:5:3280:U:H5'	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.46	0.50
11:S9:121:SER:HB3	11:S9:124:HIS:HB3	4.32	0.50
40:L3:143:GLY:O	40:L3:147:GLU:HG2	2.09	0.50
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.59	0.50
9:S7:75:THR:OG1	9:S7:76:LYS:N	2.43	0.50
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.65	0.50
55:M9:98:ARG:HD3	55:M9:133:LYS:O	3.53	0.50
63:N7:14:VAL:HG21	70:O4:90:ILE:HD11	1.92	0.50
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	3.05	0.50
34:SR:69:GLN:N	34:SR:83:ALA:O	2.41	0.50
45:L8:159:PRO:HG3	51:M5:43:THR:O	4.31	0.50
68:O2:94:ALA:O	68:O2:120:THR:HG23	2.11	0.50
36:5:1556:C:O5'	36:5:2169:G:N2	2.45	0.50
70:O4:85:VAL:O	70:O4:89:ILE:HG13	2.11	0.50
12:C0:52:LYS:HE2	1:6:1220:C:H5'	445.63	0.50
36:5:579:G:O2'	36:5:580:C:H5'	2.10	0.50
36:5:32:U:O5'	36:5:32:U:H6	1.94	0.50
36:1:191:U:H2'	36:1:192:C:H6	1.76	0.50
51:M5:104:GLU:O	51:M5:108:ARG:HG3	2.18	0.50
1:6:1491:U:OP1	1:6:1492:A:H5''	2.11	0.50
1:6:291:G:H2'	1:6:292:U:C6	2.46	0.50
1:6:1098:U:C6	1:6:1098:U:H5''	2.47	0.50
63:N7:3:LYS:CE	63:N7:5:LEU:HD21	11.01	0.50
1:2:701:U:H3	1:2:737:A:N6	2.00	0.50
1:2:1796:C:C5	28:D6:6:ALA:N	2.80	0.50
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.45	0.50
12:C0:15:LEU:HD22	12:C0:46:LEU:HD11	1.92	0.50
42:L5:279:LYS:HG2	42:L5:282:ARG:HH12	1.76	0.50
1:2:545:A:H4'	1:2:546:U:OP1	2.11	0.50
1:6:1255:G:H4'	1:6:1256:A:OP1	2.11	0.50
14:C2:40:GLY:O	14:C2:124:LYS:HD3	4.32	0.50
36:5:900:G:H1'	36:5:1589:A:H61	1.76	0.50
45:L8:141:ALA:HA	45:L8:144:GLU:OE2	2.48	0.50
17:C5:65:LEU:O	86:C5:201:OHX:N1	2.45	0.50
56:N0:7:TYR:CD1	56:N0:61:ILE:HD11	2.46	0.50
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.92	0.50
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.11	0.50
78:Q2:65:THR:OG1	78:Q2:87:ARG:HD3	3.44	0.50
34:SR:25:THR:OG1	34:SR:26:SER:N	2.95	0.50
39:L2:243:THR:HG23	36:5:2242:A:H5'	233.52	0.50
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.57	0.50
34:SR:7:LEU:HD23	34:SR:315:VAL:HG22	1.93	0.50
36:1:1587:A:OP1	86:4:225:OHX:N6	2.44	0.50
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.26	0.50
8:S6:216:LEU:HD21	1:6:242:U:OP1	340.67	0.50
6:S4:125:LYS:O	6:S4:141:THR:HA	2.37	0.50
35:SM:88:ARG:HD2	35:SM:89:ARG:HA	1.94	0.50
1:2:1792:G:O5'	28:D6:3:LYS:HA	2.12	0.50
36:1:1547:G:P	51:M5:105:ARG:HH11	2.34	0.50
55:M9:156:ASN:N	55:M9:156:ASN:OD1	2.43	0.50
51:M5:175:ASN:O	51:M5:184:LYS:HB2	2.11	0.50
36:1:2105:G:O2'	36:1:2106:A:H5'	2.12	0.50
40:L3:122:TRP:CH2	40:L3:127:LYS:HD2	2.46	0.50
86:5:3974:OHX:N1	86:5:4242:OHX:N2	2.59	0.50
3:S1:30:PHE:HD1	3:S1:96:LEU:HD22	1.77	0.50
35:SM:64:LYS:O	35:SM:65:THR:OG1	2.23	0.50
56:N0:73:LYS:NZ	56:N0:97:VAL:O	2.96	0.50
57:N1:84:TYR:CZ	65:N9:23:LYS:HE2	5.34	0.50
36:1:1556:C:O2	36:1:2169:G:C2	2.65	0.50
27:D5:71:ILE:HG22	27:D5:75:LEU:HD12	1.92	0.50
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	5.09	0.50
33:E1:144:CYS:O	33:E1:146:SER:N	2.49	0.50
1:2:579:A:H8	5:S3:178:ARG:HD2	1.71	0.50
36:5:1308:A:OP2	36:5:1308:A:H8	1.94	0.50
69:O3:13:HIS:NE2	69:O3:28:SER:HB3	2.48	0.50
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.27	0.50
36:1:239:G:HO2'	36:1:240:U:P	2.34	0.50
1:2:1657:U:C4	86:2:2090:OHX:N4	2.79	0.50
1:2:1657:U:C5	86:2:2090:OHX:N2	2.80	0.50
7:S5:158:GLN:OE1	7:S5:159:ALA:N	4.28	0.50
22:D0:45:ALA:HB1	22:D0:50:LEU:HD22	1.93	0.50
42:L5:107:ARG:NH2	42:L5:110:LEU:HD23	2.26	0.50
1:2:1410:A:H5''	18:C6:118:ILE:CD1	2.40	0.50
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.47	0.50
1:6:1756:A:H2'	1:6:1757:G:H8	1.77	0.50
36:1:735:A:H2'	36:1:736:A:C8	2.46	0.50
40:L3:92:TYR:HE1	40:L3:159:ARG:HD2	1.76	0.50
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.46	0.50
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.54	0.50
26:D4:52:LYS:O	26:D4:54:ALA:N	2.70	0.50
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:150:TRP:O	51:M5:153:ASP:HB2	2.75	0.50
36:1:2278:C:C2'	36:1:2279:A:H5''	2.40	0.50
31:D9:16:LYS:HG2	1:6:1596:C:OP1	401.36	0.50
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.48	0.50
36:5:3033:A:H2'	36:5:3034:C:C6	2.47	0.50
45:L8:84:ARG:NH1	45:L8:84:ARG:HB3	2.27	0.50
1:2:1437:U:H5'	5:S3:176:LEU:HD23	1.92	0.50
1:2:1301:U:H2'	1:2:1302:U:O4'	2.11	0.50
1:6:1431:C:H1'	1:6:1437:U:O4	2.11	0.50
1:6:17:C:H2'	1:6:18:C:H6	1.76	0.50
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.47	0.50
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	2.24	0.50
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.93	0.50
1:2:1182:U:O2	1:2:1182:U:H2'	2.11	0.50
58:N2:27:VAL:HG21	58:N2:107:PHE:CE1	2.46	0.50
36:1:2153:U:OP1	39:L2:246:LEU:HB2	2.10	0.50
13:C1:72:THR:HG22	13:C1:124:THR:HA	2.04	0.50
1:2:280:U:O2'	1:2:281:G:OP2	2.22	0.50
63:N7:99:GLU:HG3	63:N7:100:THR:HG23	7.00	0.50
36:1:2828:G:P	47:M0:7:ARG:HH12	2.34	0.50
48:M1:143:ARG:NH2	37:7:5:G:OP1	293.04	0.50
1:2:1291:G:H21	1:2:1324:G:H22	1.59	0.50
42:L5:279:LYS:HG2	42:L5:282:ARG:HH22	1.76	0.50
1:6:542:A:H1'	1:6:543:C:H5'	1.92	0.50
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.75	0.50
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	2.03	0.50
42:L5:155:THR:HA	42:L5:179:ARG:HA	1.93	0.50
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	1.94	0.50
55:M9:132:PHE:CE2	55:M9:138:LEU:HD23	2.46	0.50
30:D8:44:VAL:HG11	30:D8:48:VAL:HG21	3.20	0.50
1:2:1566:U:H2'	1:2:1567:U:H6	1.77	0.50
22:D0:72:ASN:N	22:D0:72:ASN:OD1	2.45	0.50
66:O0:17:VAL:HG11	66:O0:92:ILE:HD12	1.92	0.50
6:S4:137:PRO:HB2	6:S4:150:PRO:HD2	2.82	0.50
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	2.89	0.50
36:5:118:U:O2	36:5:121:A:H5'	2.12	0.50
6:S4:126:VAL:HG22	6:S4:156:VAL:HA	1.98	0.50
2:S0:185:ARG:H	23:D1:45:ALA:H	1.59	0.50
24:D2:23:ARG:HH11	24:D2:66:ASN:HA	3.20	0.50
36:5:1015:U:O2'	36:5:1016:C:H3'	2.12	0.50
9:S7:51:VAL:HG22	9:S7:55:LYS:O	3.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1603:U:H2'	1:6:1604:U:C6	2.44	0.50
63:N7:87:LEU:HB2	63:N7:127:ASN:OD1	2.11	0.50
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	2.97	0.50
8:S6:95:LYS:NZ	1:6:160:C:O3'	309.08	0.50
36:5:1818:U:H2'	36:5:1819:U:H6	1.75	0.50
39:L2:215:ASN:HB2	36:5:2968:G:N7	217.72	0.50
1:6:738:G:O6	86:6:2073:OHX:N4	2.45	0.50
38:4:133:G:O6	86:4:231:OHX:N5	2.44	0.50
36:1:1528:G:N3	36:1:1588:A:H2	2.10	0.50
36:5:2659:G:O6	86:5:3908:OHX:N4	2.44	0.50
36:5:1439:U:H2'	36:5:1440:G:O4'	2.11	0.50
1:6:897:C:HO2'	1:6:898:A:H8	1.59	0.50
47:M0:161:GLY:O	47:M0:163:GLN:NE2	2.43	0.50
36:5:2124:G:O2'	36:5:2125:A:H5'	2.11	0.50
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.76	0.50
36:1:2209:U:O2'	36:1:2210:G:OP1	2.26	0.50
50:M4:121:MET:O	50:M4:125:LYS:HG3	3.27	0.50
17:C5:126:VAL:HG22	17:C5:127:ARG:N	2.67	0.50
36:1:2712:U:H2'	36:1:2713:U:C6	2.47	0.50
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.16	0.50
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	2.00	0.50
3:S1:169:SER:O	3:S1:173:THR:HG23	2.24	0.50
12:C0:72:GLY:O	12:C0:76:LEU:HD22	2.11	0.50
41:L4:93:MET:H	41:L4:93:MET:HE2	4.16	0.50
1:2:538:A:H8	1:2:543:C:C4	2.29	0.50
36:5:1096:U:H4'	36:5:1097:G:O5'	2.12	0.50
42:L5:155:THR:HG22	42:L5:179:ARG:NH1	2.55	0.50
1:2:819:G:N3	1:2:820:U:H5	2.10	0.50
46:L9:76:ASP:O	46:L9:80:THR:HG23	2.11	0.50
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.06	0.50
36:1:3121:U:H1'	36:1:3122:A:H5''	1.94	0.50
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.42	0.50
1:2:830:U:C2	1:2:831:U:C5	2.99	0.50
12:C0:58:GLN:O	12:C0:65:TYR:N	2.90	0.50
36:5:595:G:C8	36:5:609:G:C6	2.99	0.50
86:7:217:OHX:N3	86:7:225:OHX:N5	2.60	0.50
36:1:2971:A:N3	36:1:2971:A:H3'	2.26	0.50
58:N2:43:VAL:O	58:N2:45:GLY:N	2.44	0.50
45:L8:215:VAL:O	45:L8:219:ASP:HB2	2.18	0.50
39:L2:54:ARG:HG2	39:L2:55:GLY:N	2.26	0.50
1:6:263:C:H4'	1:6:292:U:H5'	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:25:ASP:HB3	55:M9:28:GLU:HB2	2.61	0.50
56:N0:39:SER:OG	37:7:98:C:OP1	286.45	0.50
36:5:2664:C:O2'	36:5:2665:U:H5'	2.12	0.50
25:D3:137:LYS:O	25:D3:138:GLU:HB2	2.12	0.50
1:2:413:U:H2'	1:2:414:C:C6	2.47	0.50
1:2:229:U:H2'	1:2:230:C:C6	2.46	0.50
36:1:651:G:O2'	36:1:1435:A:OP1	2.25	0.50
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.11	0.50
36:1:1477:A:OP1	36:1:3075:G:O2'	2.29	0.50
1:2:647:G:H22	1:2:687:G:H1	1.59	0.50
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.12	0.50
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	5.10	0.50
86:1:4030:OHX:N6	86:1:4043:OHX:N3	2.60	0.50
36:5:1239:C:N3	36:5:1249:G:N2	2.57	0.50
36:5:1470:U:OP1	86:5:3958:OHX:N6	2.45	0.50
1:2:544:A:H5''	1:2:545:A:OP2	2.12	0.50
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.11	0.50
39:L2:70:ARG:HD2	39:L2:72:ARG:NE	5.55	0.50
48:M1:160:VAL:HG13	48:M1:171:VAL:HG21	1.94	0.50
67:O1:26:LYS:NZ	36:5:1456:A:N7	167.14	0.50
48:M1:95:ASN:O	48:M1:102:PHE:HA	2.12	0.50
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.32	0.50
22:D0:70:THR:HG23	1:6:1280:C:O2'	389.65	0.50
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.27	0.50
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.77	0.50
27:D5:59:TYR:CE2	27:D5:61:SER:HB3	2.46	0.50
32:E0:55:ARG:NH2	1:6:558:U:OP2	418.04	0.50
36:5:3242:G:H5''	36:5:3245:A:C8	2.47	0.50
6:S4:95:THR:OG1	6:S4:97:GLU:OE2	2.95	0.50
1:6:1595:U:N3	1:6:1600:A:C2	2.80	0.50
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.94	0.50
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.56	0.50
64:N8:16:SER:HA	36:5:942:U:N3	170.06	0.50
1:6:241:U:H2'	1:6:242:U:C6	2.47	0.50
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	1.93	0.50
1:6:404:G:H2'	1:6:405:C:C6	2.47	0.50
55:M9:9:ARG:NH2	36:5:1602:A:O3'	108.37	0.50
1:6:992:A:OP1	1:6:1786:G:H5'	2.10	0.50
1:6:1395:G:O6	86:6:2088:OHX:N3	2.45	0.50
67:O1:53:PRO:O	67:O1:57:GLN:HG3	2.12	0.50
1:2:739:G:O6	86:2:2098:OHX:N4	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:170:LYS:O	52:M6:173:ALA:HB3	2.11	0.50
1:2:707:A:H2'	1:2:708:C:H5''	1.92	0.50
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	3.83	0.50
9:S7:56:LYS:HD3	9:S7:88:ARG:NH1	4.23	0.50
1:2:195:G:H2'	1:2:196:G:H5'	1.94	0.50
20:C8:139:LYS:HE2	1:6:1459:C:N4	350.98	0.50
36:1:1362:G:OP1	86:1:4030:OHX:N6	2.44	0.50
9:S7:77:LEU:O	9:S7:81:LEU:HG	2.12	0.50
1:2:901:G:C6	1:2:902:G:C6	2.99	0.50
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.92	0.50
1:6:564:G:O6	86:6:2153:OHX:N5	2.45	0.50
4:S2:225:LEU:HD21	4:S2:230:TRP:HD1	2.75	0.50
33:E1:120:GLU:HA	33:E1:131:PHE:HA	1.94	0.50
36:1:1307:G:H5''	52:M6:60:LYS:HZ2	1.75	0.50
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.12	0.50
74:O8:46:ARG:HA	74:O8:51:LEU:HD12	1.92	0.50
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.33	0.50
36:1:2261:G:O2'	36:1:2263:C:N4	2.45	0.50
28:D6:24:VAL:HG11	28:D6:71:LEU:HD12	1.94	0.50
36:1:1334:U:H1'	44:L7:208:SER:HB2	1.93	0.50
36:5:3195:U:O2'	36:5:3196:U:H5'	2.12	0.50
1:2:74:U:O2'	1:2:75:U:OP2	2.27	0.50
27:D5:38:HIS:ND1	27:D5:70:LYS:HG2	6.44	0.50
11:S9:37:LYS:HB3	32:E0:33:ARG:HB2	1.93	0.50
36:5:2946:A:H5''	36:5:2947:G:H5'	1.93	0.50
73:O7:10:LYS:NZ	36:5:819:U:OP1	165.11	0.50
86:2:2097:OHX:N6	13:C1:19:ILE:HD13	2.27	0.50
1:6:784:C:H2'	1:6:785:U:C6	2.47	0.50
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.60	0.50
36:1:2777:G:H5'	36:1:2779:A:OP2	2.12	0.50
36:1:2884:C:H2'	36:1:2885:C:H6	1.77	0.50
21:C9:139:THR:O	21:C9:142:GLU:HG3	5.35	0.50
57:N1:3:LYS:HE3	36:5:2642:A:OP2	233.16	0.50
53:M7:65:SER:O	53:M7:66:SER:HB2	2.47	0.50
36:1:953:G:N2	36:1:1116:G:H2'	2.26	0.50
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.44	0.50
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	3.18	0.50
1:2:532:U:H4'	26:D4:66:GLY:HA2	1.94	0.50
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.69	0.50
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.47	0.50
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.65	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2295:A:H5'	59:N3:61:THR:HG21	1.94	0.50
11:S9:94:ASP:N	11:S9:94:ASP:OD1	2.44	0.50
8:S6:38:GLY:O	8:S6:40:ALA:N	2.45	0.50
36:1:634:C:H5'	69:O3:21:ARG:O	2.12	0.50
32:E0:41:THR:HA	32:E0:45:VAL:HB	1.92	0.50
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	3.15	0.50
10:S8:35:ASN:O	10:S8:37:LYS:HD3	2.12	0.50
2:S0:29:VAL:O	2:S0:30:GLN:HB3	3.84	0.50
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.93	0.50
64:N8:3:SER:O	64:N8:6:THR:HB	3.99	0.50
64:N8:3:SER:O	64:N8:6:THR:HG22	2.12	0.50
9:S7:122:HIS:HD2	9:S7:179:LYS:NZ	7.04	0.50
65:N9:14:ARG:CZ	65:N9:18:ARG:HD3	3.64	0.50
2:S0:58:VAL:O	2:S0:62:ARG:HB2	2.51	0.50
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.25	0.50
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.42	0.50
37:7:110:G:C6	37:7:111:U:C4	3.00	0.50
2:S0:144:ILE:HD13	2:S0:158:VAL:HG11	4.07	0.50
54:M8:147:ARG:NH2	36:5:670:C:OP1	164.02	0.50
36:5:1308:A:C8	36:5:1308:A:OP2	2.65	0.50
47:M0:33:ILE:HD11	47:M0:36:LEU:HD21	1.92	0.50
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.11	0.50
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.68	0.50
37:7:92:A:H5''	37:7:93:C:OP2	2.12	0.50
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.92	0.50
36:1:1947:G:H1	36:1:2101:C:N4	2.09	0.50
1:2:1000:C:H2'	1:2:1002:G:OP2	2.12	0.50
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	2.03	0.50
86:1:4206:OHX:N4	38:4:16:G:OP1	2.45	0.50
64:N8:83:PRO:HG2	64:N8:86:LYS:HD2	5.79	0.50
1:2:584:C:H1'	32:E0:18:THR:HG21	1.93	0.50
86:1:3969:OHX:N3	86:1:4155:OHX:N4	2.59	0.50
41:L4:269:SER:O	41:L4:271:LYS:N	2.38	0.50
36:1:700:C:OP1	49:M3:65:TYR:OH	2.21	0.50
55:M9:179:GLU:O	55:M9:183:ALA:HB2	2.12	0.50
36:5:3103:A:OP2	86:5:4159:OHX:N4	2.45	0.50
36:1:3176:G:H1'	69:O3:3:GLU:OE1	2.11	0.50
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.30	0.50
36:1:761:A:C2	36:1:771:A:H1'	2.47	0.50
54:M8:83:VAL:O	54:M8:103:ALA:HA	2.12	0.50
36:5:439:C:H1'	36:5:440:A:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.11	0.50
65:N9:7:HIS:O	36:5:1135:A:H5'	227.99	0.50
43:L6:5:LYS:O	43:L6:6:ALA:HB3	2.12	0.50
36:5:3331:U:H2'	36:5:3332:U:O4'	2.11	0.50
36:5:2225:U:H2'	36:5:2226:U:C6	2.46	0.50
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.31	0.50
43:L6:108:LYS:O	43:L6:109:GLU:HG2	2.12	0.50
36:1:2228:A:H2'	36:1:2229:A:C8	2.47	0.50
1:2:287:G:O2'	1:2:288:A:OP2	2.29	0.50
36:5:3198:U:H4'	36:5:3199:G:OP2	2.12	0.49
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.12	0.49
34:SR:70:ASP:OD1	34:SR:71:CYS:N	3.19	0.49
2:S0:163:ASN:HB3	2:S0:169:SER:CB	3.03	0.49
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.41	0.49
46:L9:22:SER:OG	46:L9:39:LYS:HE3	2.11	0.49
10:S8:10:LYS:HG2	13:C1:133:LYS:CE	3.07	0.49
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.43	0.49
42:L5:21:ARG:HH11	42:L5:21:ARG:HG2	2.12	0.49
36:5:3298:C:H2'	36:5:3299:A:O4'	2.12	0.49
1:2:1410:A:H2'	1:2:1411:A:O4'	2.10	0.49
1:2:25:C:HO2'	1:2:366:A:HO2'	1.56	0.49
36:1:223:U:OP1	36:1:225:C:N4	2.44	0.49
6:S4:22:LYS:HG2	6:S4:23:LEU:HD13	1.93	0.49
36:1:736:A:H2'	36:1:737:G:O4'	2.12	0.49
1:6:217:A:C8	1:6:218:A:C8	3.00	0.49
1:2:1637:C:HO2'	35:SM:94:HIS:CD2	2.28	0.49
20:C8:127:HIS:CD2	20:C8:133:VAL:HG11	3.71	0.49
36:5:529:A:H2'	36:5:530:G:O4'	2.10	0.49
36:1:595:G:C8	36:1:609:G:C6	3.00	0.49
16:C4:20:TYR:CD1	16:C4:84:ARG:HD3	2.46	0.49
16:C4:13:VAL:H	16:C4:77:THR:HG1	1.60	0.49
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	4.27	0.49
1:6:1595:U:H3	1:6:1600:A:H2	1.58	0.49
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.08	0.49
2:S0:71:GLU:O	2:S0:96:THR:OG1	5.04	0.49
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.03	0.49
1:2:647:G:N2	1:2:687:G:H1	2.09	0.49
1:2:654:C:H3'	1:2:655:G:H5''	1.93	0.49
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	3.79	0.49
1:2:1294:G:O6	86:2:2078:OHX:N4	2.45	0.49
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:15:GLN:HG2	72:O6:52:PRO:HG2	2.75	0.49
36:1:3010:U:OP2	86:1:4200:OHX:N5	2.44	0.49
36:1:2138:A:HO2'	73:O7:2:GLY:N	2.10	0.49
31:D9:15:GLY:C	31:D9:17:GLY:H	2.55	0.49
36:1:2097:U:H2'	36:1:2098:C:C6	2.47	0.49
13:C1:28:SER:O	13:C1:29:LYS:HB3	2.12	0.49
1:2:795:U:C5	1:2:796:A:C8	2.99	0.49
1:6:905:A:N1	1:6:998:A:O2'	2.45	0.49
1:2:1516:A:O2'	1:2:1517:U:H5'	2.12	0.49
1:2:987:G:C2	39:L2:249:SER:HB2	2.47	0.49
12:C0:25:LYS:NZ	1:6:1435:G:N7	420.52	0.49
1:2:340:U:H2'	1:2:341:A:C8	2.47	0.49
1:2:729:G:H2'	1:2:729:G:N3	2.27	0.49
57:N1:86:GLU:OE1	57:N1:88:ARG:NH1	2.60	0.49
5:S3:136:VAL:HG12	5:S3:152:PHE:HB2	1.94	0.49
37:7:57:G:H3'	37:7:58:C:H6	1.77	0.49
21:C9:137:ALA:O	21:C9:141:GLU:HG2	2.12	0.49
86:5:3974:OHX:N1	86:5:4242:OHX:N5	2.59	0.49
52:M6:8:VAL:HG22	52:M6:34:VAL:HG13	2.43	0.49
36:1:1639:C:O2'	36:1:1640:G:H5'	2.12	0.49
47:M0:38:LYS:NZ	47:M0:45:GLU:OE1	3.31	0.49
24:D2:77:PRO:O	24:D2:79:PHE:N	2.44	0.49
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.94	0.49
9:S7:20:VAL:O	9:S7:24:PHE:N	2.91	0.49
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.77	0.49
1:6:837:G:H2'	1:6:838:G:C8	2.47	0.49
20:C8:117:LYS:O	20:C8:120:ARG:HD2	3.85	0.49
33:E1:119:ARG:HH11	33:E1:139:LEU:HD21	1.76	0.49
27:D5:58:ARG:HB3	27:D5:103:ARG:NH1	6.95	0.49
36:1:1591:G:OP1	70:O4:16:ARG:NH1	2.46	0.49
36:1:1308:A:H8	36:1:1308:A:OP2	1.91	0.49
7:S5:109:LYS:HE2	1:6:1474:G:OP2	365.37	0.49
1:2:957:G:O2'	29:D7:49:HIS:HD2	1.95	0.49
36:5:1757:A:H2'	36:5:1758:G:C8	2.47	0.49
36:5:2567:C:H2'	36:5:2568:C:H5'	1.94	0.49
1:2:1773:C:H2'	1:2:1774:G:C8	2.47	0.49
47:M0:4:ARG:NH2	36:5:1128:U:OP1	265.88	0.49
36:5:3121:U:H1'	36:5:3122:A:H5''	1.93	0.49
22:D0:118:VAL:HG22	22:D0:119:ALA:N	2.27	0.49
53:M7:124:LYS:HB3	53:M7:140:GLU:HG2	3.14	0.49
22:D0:99:ILE:HD11	22:D0:103:ILE:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1595:U:H1'	36:5:1596:C:C6	2.47	0.49
50:M4:123:LEU:HD13	52:M6:194:LEU:HG	1.93	0.49
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.46	0.49
73:O7:31:LYS:O	73:O7:33:THR:HG22	3.35	0.49
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.95	0.49
36:5:1440:G:N7	86:5:3965:OHX:N6	2.61	0.49
59:N3:84:SER:HA	59:N3:94:TYR:HB3	1.95	0.49
36:1:873:C:H5''	36:1:874:U:O5'	2.12	0.49
11:S9:7:THR:HG21	1:6:758:U:OP1	384.17	0.49
30:D8:15:VAL:O	30:D8:17:GLY:N	2.43	0.49
64:N8:2:PRO:HD2	64:N8:5:PHE:CD2	3.06	0.49
41:L4:51:ALA:HB3	38:8:27:U:H4'	110.70	0.49
36:5:1741:A:C6	36:5:1742:U:C2	3.00	0.49
56:N0:13:ARG:NH1	56:N0:13:ARG:CG	4.21	0.49
11:S9:3:ARG:HH21	11:S9:3:ARG:CG	3.92	0.49
42:L5:50:ARG:NH2	42:L5:147:ASP:OD2	2.45	0.49
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.12	0.49
1:2:896:U:H1'	16:C4:38:THR:HG21	1.95	0.49
1:2:1489:U:H5'	1:2:1494:C:H1'	1.95	0.49
36:5:2207:A:N6	36:5:2236:G:H1	2.05	0.49
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.38	0.49
55:M9:169:ALA:HA	55:M9:172:ARG:HD2	1.94	0.49
36:5:1947:G:H5''	36:5:1948:G:OP2	2.11	0.49
55:M9:104:ARG:NH1	36:5:1949:G:OP1	223.46	0.49
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	2.16	0.49
77:Q1:21:ARG:HH11	1:6:1654:G:P	283.31	0.49
36:1:3111:U:H2'	36:1:3112:G:O4'	2.12	0.49
63:N7:54:THR:H	63:N7:57:HIS:CD2	2.64	0.49
57:N1:78:LYS:HB3	57:N1:87:LYS:HG3	1.94	0.49
36:1:2319:U:O4	86:1:4038:OHX:N2	2.45	0.49
36:5:181:U:H1'	36:5:236:G:N2	2.26	0.49
1:6:212:U:OP2	86:6:2125:OHX:N1	2.46	0.49
54:M8:89:ASP:HB3	36:5:677:A:OP1	134.78	0.49
48:M1:8:PRO:CG	48:M1:9:MET:H	3.07	0.49
36:5:2402:A:OP2	86:5:4110:OHX:N3	2.46	0.49
36:1:2747:A:H2'	36:1:2748:A:C8	2.48	0.49
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.77	0.49
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.94	0.49
36:5:1363:A:OP2	86:5:4200:OHX:N3	2.46	0.49
36:5:2726:C:O2'	36:5:2727:A:H2'	2.12	0.49
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1119:G:O6	86:2:2147:OHX:N1	2.46	0.49
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	1.94	0.49
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.11	0.49
30:D8:13:ILE:HG22	30:D8:14:LYS:HD3	1.94	0.49
1:2:516:G:N2	1:2:536:C:O2	2.24	0.49
47:M0:150:GLU:HG3	47:M0:154:ARG:HD2	3.96	0.49
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.27	0.49
36:5:1282:G:H2'	36:5:1283:C:O4'	2.12	0.49
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.39	0.49
74:O8:7:ASP:HB3	74:O8:10:GLN:HB3	1.93	0.49
1:2:1509:C:H2'	1:2:1510:U:O4'	2.12	0.49
28:D6:41:ILE:HD13	28:D6:41:ILE:H	1.76	0.49
59:N3:80:ARG:HD3	59:N3:117:PRO:O	2.41	0.49
50:M4:113:THR:HG22	50:M4:116:GLU:OE1	5.54	0.49
1:2:140:A:H61	1:2:281:G:P	2.32	0.49
41:L4:299:ILE:HG22	54:M8:39:ARG:HE	4.14	0.49
3:S1:51:SER:HA	3:S1:57:ALA:N	2.26	0.49
2:S0:163:ASN:O	2:S0:165:ARG:N	2.96	0.49
9:S7:30:SER:CB	9:S7:34:LEU:HD12	4.24	0.49
3:S1:129:THR:HG23	3:S1:135:LEU:HD21	1.93	0.49
86:1:3955:OHX:N4	44:L7:217:PRO:HA	2.28	0.49
1:6:1429:G:H2'	1:6:1430:U:C6	2.47	0.49
1:2:461:G:H2'	1:2:462:G:C8	2.47	0.49
33:E1:97:LYS:NZ	1:6:1253:U:O4	441.11	0.49
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	4.20	0.49
79:Q3:3:LYS:NZ	79:Q3:6:LYS:HA	2.27	0.49
61:N5:115:ARG:HH11	61:N5:115:ARG:CG	2.60	0.49
86:6:2059:OHX:N5	86:6:2146:OHX:N3	2.60	0.49
14:C2:61:VAL:HA	14:C2:89:ILE:HG22	1.93	0.49
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.94	0.49
6:S4:194:THR:O	6:S4:195:ILE:HB	2.13	0.49
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.05	0.49
54:M8:181:SER:HB3	36:5:2790:A:OP2	184.69	0.49
1:2:1504:G:C6	1:2:1505:A:C6	3.01	0.49
37:7:95:A:OP2	86:7:225:OHX:N1	2.45	0.49
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.48	0.49
1:2:481:A:H61	1:2:505:A:N6	2.10	0.49
66:O0:45:ALA:O	66:O0:48:THR:OG1	5.32	0.49
36:1:1215:U:H2'	36:1:1216:C:H5''	1.93	0.49
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.81	0.49
36:1:1795:U:H2'	39:L2:50:HIS:CD2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:964:G:OP1	86:1:3961:OHX:N2	2.45	0.49
42:L5:9:SER:OG	42:L5:10:SER:N	2.44	0.49
13:C1:17:PRO:HB2	13:C1:18:HIS:CD2	4.90	0.49
39:L2:59:ALA:O	39:L2:61:VAL:HG23	2.12	0.49
1:6:1110:G:N2	1:6:1136:U:H1'	2.27	0.49
1:6:104:A:H61	1:6:308:C:H5'	1.78	0.49
40:L3:41:VAL:HG22	40:L3:186:GLY:H	1.78	0.49
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.12	0.49
86:1:4030:OHX:N4	86:1:4043:OHX:N3	2.59	0.49
9:S7:107:ARG:HH22	1:6:741:C:H2'	346.64	0.49
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.11	0.49
1:6:322:G:OP1	86:6:2106:OHX:N5	2.45	0.49
1:2:542:A:H8	1:2:543:C:H3'	1.78	0.49
8:S6:27:PHE:O	8:S6:30:LYS:HG2	2.12	0.49
15:C3:56:ASP:OD2	29:D7:51:GLN:N	5.03	0.49
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.80	0.49
46:L9:77:ASN:HA	46:L9:80:THR:CG2	3.97	0.49
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.11	0.49
1:6:1228:G:H4'	1:6:1228:G:OP2	2.12	0.49
36:1:3112:G:O2'	46:L9:70:THR:HB	2.13	0.49
1:2:1214:U:OP1	1:2:1246:C:H1'	2.11	0.49
2:S0:76:ILE:HA	2:S0:98:ILE:HB	1.95	0.49
36:1:716:A:C6	64:N8:117:ARG:HG3	2.46	0.49
55:M9:23:TRP:CE3	55:M9:51:VAL:HG13	2.45	0.49
6:S4:21:ASP:OD2	6:S4:21:ASP:N	3.50	0.49
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.45	0.49
59:N3:133:SER:O	86:6:2117:OHX:N3	296.71	0.49
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.46	0.49
36:1:608:A:H5'	36:1:609:G:OP2	2.12	0.49
13:C1:101:GLU:CD	25:D3:16:ARG:HH22	3.24	0.49
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.87	0.49
86:7:217:OHX:N1	86:7:225:OHX:N2	2.61	0.49
18:C6:129:PHE:HE1	22:D0:78:THR:HA	1.78	0.49
1:2:488:G:N2	1:2:500:C:O2	2.46	0.49
64:N8:85:ASP:OD1	64:N8:86:LYS:HG2	2.12	0.49
86:2:2045:OHX:N2	86:2:2100:OHX:N5	2.60	0.49
6:S4:57:ASN:HB2	6:S4:60:GLU:HG3	2.53	0.49
57:N1:13:TYR:O	86:5:3911:OHX:N4	262.40	0.49
25:D3:114:LYS:HE2	1:6:571:G:C5'	364.48	0.49
48:M1:8:PRO:HD2	48:M1:10:ARG:HG3	2.25	0.49
36:1:1547:G:OP1	51:M5:105:ARG:HD3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.78	0.49
49:M3:122:LYS:HG3	71:O5:119:LYS:O	5.77	0.49
50:M4:34:ALA:HB2	50:M4:85:TRP:HZ3	1.77	0.49
36:5:330:G:OP2	86:5:4049:OHX:N1	2.45	0.49
53:M7:4:TYR:CZ	53:M7:18:ARG:HG3	3.12	0.49
10:S8:103:GLN:HG3	10:S8:166:TYR:CD1	2.47	0.49
36:5:1621:A:H2'	36:5:1622:U:C6	2.47	0.49
38:8:145:U:H2'	38:8:146:U:C6	2.47	0.49
25:D3:91:GLY:O	25:D3:93:LEU:N	2.42	0.49
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.95	0.49
36:5:378:A:N7	36:5:391:A:H2	2.10	0.49
54:M8:145:ASN:ND2	36:5:746:A:OP1	178.18	0.49
7:S5:42:LEU:HB2	7:S5:45:LYS:HD2	4.88	0.49
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.12	0.49
66:O0:32:LYS:O	66:O0:36:GLN:HG3	4.62	0.49
36:5:979:U:C2	36:5:980:A:N3	2.81	0.49
5:S3:163:PRO:O	5:S3:167:PHE:N	2.46	0.49
3:S1:120:LEU:HD11	3:S1:140:ILE:HD11	1.95	0.49
33:E1:140:TYR:HE1	33:E1:146:SER:O	2.14	0.49
1:2:1234:A:H4'	33:E1:146:SER:HB3	1.94	0.49
29:D7:50:ALA:O	29:D7:51:GLN:HB2	2.12	0.49
36:1:1238:C:H41	36:1:1245:A:P	2.34	0.49
8:S6:7:TYR:HD2	8:S6:113:ILE:HG21	1.76	0.49
42:L5:208:MET:HB2	42:L5:233:ALA:HB2	1.94	0.49
36:5:173:G:N1	36:5:246:U:C2	2.81	0.49
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	5.70	0.49
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.27	0.49
4:S2:178:ILE:H	4:S2:178:ILE:HD12	4.53	0.49
38:8:62:C:H4'	38:8:63:G:O5'	2.12	0.49
1:2:491:C:N3	1:2:496:G:N2	2.45	0.49
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.95	0.49
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	5.16	0.49
36:5:595:G:N1	36:5:609:G:H5''	2.27	0.49
1:2:591:A:H2'	1:2:592:A:H8	1.78	0.49
67:O1:15:ASN:O	67:O1:19:ARG:HG3	2.55	0.49
41:L4:129:THR:O	41:L4:148:ILE:HD11	4.90	0.49
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.43	0.49
8:S6:202:ARG:NH2	1:6:127:G:N7	331.09	0.49
70:O4:5:VAL:HG13	70:O4:6:THR:N	2.74	0.49
1:2:560:U:H2'	1:2:561:G:H8	1.77	0.49
22:D0:62:VAL:HG22	22:D0:85:ARG:HG2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:115:ALA:O	45:L8:119:GLY:N	2.50	0.49
61:N5:76:VAL:HG22	61:N5:81:ILE:O	2.13	0.49
36:5:2882:U:H2'	36:5:2883:U:C6	2.47	0.49
1:2:1039:A:O2'	1:2:1040:G:OP2	2.26	0.49
46:L9:103:ILE:HG13	46:L9:136:PHE:CZ	2.47	0.49
31:D9:24:CYS:HB3	31:D9:42:CYS:SG	3.12	0.49
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.36	0.49
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.42	0.49
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.55	0.49
36:5:1576:G:C8	36:5:1577:G:C8	3.00	0.49
35:SM:31:SER:OG	36:1:2667:A:OP1	2.22	0.49
36:5:1879:A:H2'	36:5:1879:A:N3	2.28	0.49
26:D4:49:LYS:N	26:D4:49:LYS:HD3	3.44	0.49
36:1:659:G:H2'	36:1:1432:C:H42	1.77	0.49
13:C1:118:GLN:O	13:C1:121:ASP:HB2	2.99	0.49
34:SR:113:VAL:HG13	34:SR:114:ASP:H	1.77	0.49
1:2:79:C:H4'	8:S6:173:PRO:O	2.12	0.49
1:6:66:U:O2'	1:6:67:A:H5''	2.12	0.49
36:1:2939:G:OP2	40:L3:2:SER:O	2.31	0.49
34:SR:161:LYS:HE3	34:SR:164:ASP:HB3	1.93	0.49
5:S3:209:ILE:HG23	19:C7:38:ILE:O	3.97	0.49
57:N1:83:ARG:HB2	65:N9:22:LYS:HE3	5.13	0.49
27:D5:66:VAL:HG22	27:D5:71:ILE:HG22	6.07	0.49
36:1:3353:G:O2'	36:1:3354:U:OP1	2.31	0.49
1:2:819:G:O6	1:2:853:G:C6	2.65	0.49
52:M6:68:ARG:NH1	36:5:2988:C:P	217.48	0.49
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	4.50	0.49
1:6:116:U:H2'	1:6:117:U:C6	2.47	0.49
34:SR:237:GLN:HB2	34:SR:238:ASP:OD1	2.13	0.49
1:2:4:C:OP1	4:S2:200:SER:OG	2.30	0.49
74:O8:69:LEU:HD12	74:O8:73:LEU:HD23	1.95	0.49
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.28	0.49
57:N1:101:CYS:HB3	36:5:990:U:H1'	252.64	0.49
1:6:138:A:H2'	1:6:139:C:H5'	1.95	0.49
39:L2:238:ILE:O	39:L2:240:ALA:N	2.97	0.49
86:5:4011:OHX:N4	86:5:4201:OHX:N1	2.60	0.49
61:N5:80:ASN:HD21	61:N5:126:LEU:HB2	1.76	0.49
36:1:619:A:H4'	36:1:620:U:O4'	2.12	0.49
1:2:422:G:N7	86:2:2109:OHX:N5	2.60	0.49
1:2:773:C:H5''	6:S4:21:ASP:HB2	1.95	0.49
5:S3:94:ARG:NH1	35:SM:130:GLU:OE2	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.30	0.49
36:1:438:A:O2'	36:1:495:G:H4'	2.12	0.49
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.24	0.49
40:L3:261:MET:HG2	52:M6:64:PHE:HA	1.94	0.49
39:L2:185:ALA:O	39:L2:188:LYS:HB3	2.31	0.49
36:1:1582:C:O2'	36:1:1583:A:O5'	2.27	0.49
15:C3:123:HIS:CE1	15:C3:141:TYR:HD2	2.31	0.49
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.17	0.49
72:O6:53:TYR:CD1	72:O6:76:ARG:HG2	2.47	0.49
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.13	0.49
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.93	0.49
63:N7:17:ARG:HG2	70:O4:73:SER:HB3	1.94	0.49
1:2:1183:A:C5	1:2:1184:A:C6	3.01	0.49
38:4:154:C:H2'	38:4:155:A:O4'	2.13	0.49
1:2:911:U:O2'	1:2:915:A:H1'	2.12	0.49
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.12	0.49
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.30	0.49
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.27	0.49
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.12	0.49
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.50	0.49
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.25	0.49
24:D2:34:ILE:O	24:D2:38:LEU:HG	2.87	0.49
42:L5:290:ILE:HG23	47:M0:210:ILE:HD11	3.16	0.49
1:6:538:A:C8	1:6:543:C:N4	2.73	0.49
65:N9:23:LYS:CD	65:N9:24:PRO:HD3	2.41	0.49
6:S4:26:CYS:HB2	6:S4:27:TYR:CE2	5.39	0.49
1:2:778:G:H22	26:D4:10:ARG:CZ	2.26	0.49
27:D5:40:VAL:HA	27:D5:75:LEU:HD13	3.73	0.49
1:6:1637:C:H6	1:6:1637:C:H5''	1.77	0.49
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	1.94	0.49
62:N6:37:LYS:HG2	62:N6:38:GLU:H	1.76	0.49
40:L3:4:ARG:HG3	40:L3:6:TYR:O	4.83	0.49
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.08	0.49
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	2.05	0.49
49:M3:91:ARG:NH2	49:M3:97:VAL:O	2.85	0.49
21:C9:52:GLY:C	21:C9:54:PHE:H	2.12	0.49
1:2:1059:U:O2'	1:2:1060:U:N3	2.45	0.49
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.42	0.49
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	5.28	0.49
32:E0:33:ARG:NH2	1:6:478:A:H5'	438.25	0.49
36:1:3338:C:H2'	36:1:3339:A:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:726:G:H1'	36:1:744:A:N6	2.27	0.49
8:S6:214:LYS:HA	8:S6:217:SER:OG	2.12	0.49
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	2.85	0.49
42:L5:111:GLN:C	42:L5:113:LEU:H	2.16	0.49
64:N8:2:PRO:HG2	64:N8:5:PHE:CD2	2.47	0.49
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.48	0.49
35:SM:41:SER:O	35:SM:43:ASP:N	2.37	0.49
36:5:2406:C:H2'	36:5:2407:C:C6	2.48	0.49
5:S3:124:ARG:O	5:S3:128:GLU:HB2	2.55	0.49
36:5:2158:A:H5'	36:5:2160:G:O4'	2.12	0.49
39:L2:14:SER:O	39:L2:17:THR:HG23	2.84	0.49
7:S5:64:VAL:CG1	7:S5:89:ILE:HD11	4.40	0.49
36:5:286:U:H2'	36:5:287:G:C8	2.47	0.49
26:D4:60:PHE:O	1:6:523:G:H5'	413.64	0.49
36:1:1573:G:H2'	36:1:1573:G:N3	2.28	0.49
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.77	0.49
57:N1:42:ILE:HG12	57:N1:96:ILE:HD11	1.95	0.49
36:1:1170:A:H2'	36:1:1171:G:O4'	2.13	0.49
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.48	0.49
42:L5:68:THR:HG22	42:L5:70:THR:N	2.24	0.49
57:N1:79:MET:HA	57:N1:84:TYR:HA	1.94	0.49
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.13	0.49
58:N2:100:THR:HA	36:5:1677:G:OP1	141.17	0.49
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	1.95	0.49
51:M5:98:LEU:HD13	36:5:290:G:OP1	137.33	0.49
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	1.99	0.49
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	1.94	0.49
1:2:15:U:H2'	1:2:16:G:O4'	2.13	0.49
74:O8:66:ILE:HG21	74:O8:77:ARG:NH2	2.28	0.49
1:6:193:U:C4	1:6:195:G:C8	3.00	0.49
36:5:244:G:C6	36:5:245:U:C4	3.01	0.49
1:2:1450:U:H2'	1:2:1451:C:C6	2.48	0.49
36:1:210:U:C2	36:1:230:U:H4'	2.48	0.49
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.89	0.49
9:S7:51:VAL:HG11	9:S7:168:SER:OG	2.12	0.49
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.12	0.49
1:2:866:G:OP1	15:C3:2:GLY:HA3	2.12	0.49
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.12	0.49
50:M4:134:ALA:O	50:M4:136:ALA:N	2.89	0.49
39:L2:179:LEU:O	39:L2:184:ARG:HG3	2.12	0.49
36:1:677:A:H4'	36:1:678:G:O5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:776:U:C5	36:1:2719:U:O2	2.66	0.49
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.36	0.49
15:C3:84:ILE:H	15:C3:84:ILE:HD13	4.10	0.49
61:N5:63:ILE:HA	61:N5:86:VAL:HG23	2.37	0.49
53:M7:85:ALA:O	53:M7:89:LYS:HB2	3.36	0.49
36:5:2397:A:H8	36:5:2941:A:N1	2.10	0.49
36:1:2563:G:H5''	45:L8:27:THR:HG23	1.94	0.49
72:O6:21:THR:O	72:O6:21:THR:OG1	2.30	0.49
62:N6:108:LYS:HD3	62:N6:108:LYS:HA	4.30	0.49
15:C3:73:ARG:HD3	1:6:859:A:C6	331.13	0.49
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.69	0.49
1:2:868:G:H1	1:2:960:U:H3	1.61	0.49
36:1:2713:U:H3'	78:Q2:9:LYS:O	2.12	0.49
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.95	0.49
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.86	0.49
36:5:3181:C:H2'	36:5:3182:G:C8	2.48	0.49
23:D1:32:VAL:HG12	23:D1:55:LEU:HB2	3.86	0.49
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.93	0.49
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.27	0.49
8:S6:64:LYS:NZ	8:S6:82:SER:O	2.89	0.49
15:C3:65:VAL:O	15:C3:67:THR:N	3.49	0.49
21:C9:84:LYS:HD2	21:C9:86:ARG:HG2	1.94	0.49
36:5:1948:G:C2	36:5:1949:G:C8	3.01	0.49
26:D4:34:ASN:ND2	1:6:532:U:O2	428.73	0.49
2:S0:70:PRO:O	2:S0:95:ALA:N	2.30	0.49
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	1.94	0.49
1:2:830:U:H2'	1:2:830:U:O2	2.13	0.49
53:M7:24:VAL:HG12	53:M7:86:LYS:CD	3.53	0.49
1:2:494:U:O2'	1:2:495:C:O5'	2.30	0.49
21:C9:63:ARG:HH12	1:6:1481:C:P	406.52	0.49
36:1:3054:U:OP2	86:1:3884:OHX:N3	2.45	0.49
36:5:955:U:H2'	36:5:956:U:H6	1.76	0.49
36:1:789:A:H2'	36:1:790:U:C6	2.48	0.49
36:5:874:U:H5''	36:5:2950:G:OP1	2.13	0.49
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.13	0.49
15:C3:20:ARG:HH11	15:C3:20:ARG:HG3	4.08	0.49
36:1:437:G:H8	36:1:437:G:O5'	1.96	0.49
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.47	0.49
8:S6:203:GLU:O	8:S6:206:ALA:N	2.45	0.49
36:5:1242:G:H2'	36:5:1243:G:O4'	2.12	0.49
1:2:927:C:H2'	1:2:928:U:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2255:A:H5'	36:5:2261:G:N2	2.28	0.49
36:5:1194:G:OP1	86:5:4014:OHX:N6	2.46	0.49
40:L3:117:ARG:NH2	40:L3:175:LYS:HG2	2.92	0.49
54:M8:111:ARG:O	54:M8:115:VAL:HG23	2.51	0.49
72:O6:11:LEU:HA	72:O6:11:LEU:HD13	1.61	0.49
61:N5:141:TYR:O	61:N5:142:ILE:HG13	4.14	0.49
37:3:113:C:H2'	37:3:114:U:O4'	2.13	0.49
36:1:2997:G:O4'	36:1:3396:U:H5'	2.13	0.49
36:5:1650:G:N7	86:5:4182:OHX:N3	2.61	0.49
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	3.03	0.49
38:4:107:G:OP2	86:4:234:OHX:N2	2.46	0.49
4:S2:206:THR:HG21	1:6:14:C:OP2	376.66	0.49
56:N0:146:LYS:HA	36:5:534:U:O2	351.47	0.49
36:5:2093:A:H3'	36:5:2093:A:N3	2.27	0.49
6:S4:71:LYS:HB2	6:S4:75:LYS:O	2.12	0.49
56:N0:108:GLN:NE2	36:5:1322:U:O2	294.07	0.49
11:S9:149:ARG:NE	1:6:765:G:N7	430.39	0.48
3:S1:49:ASN:O	3:S1:57:ALA:HB2	2.13	0.48
9:S7:15:GLU:HG3	9:S7:16:LEU:N	4.66	0.48
1:2:916:U:H3	16:C4:41:ARG:HH22	1.60	0.48
22:D0:58:LEU:HD22	1:6:1516:A:H5''	444.95	0.48
1:6:831:U:HO2'	1:6:832:U:C5'	2.25	0.48
33:E1:143:LYS:HD3	1:6:1254:U:OP1	457.95	0.48
52:M6:60:LYS:NZ	36:5:1307:G:H5''	252.09	0.48
1:6:74:U:N3	1:6:76:A:H5''	2.28	0.48
48:M1:92:ARG:HG3	48:M1:95:ASN:ND2	2.26	0.48
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.25	0.48
45:L8:81:THR:OG1	45:L8:82:LEU:N	2.51	0.48
33:E1:88:PRO:HB2	33:E1:89:LYS:NZ	8.67	0.48
1:2:1638:G:OP1	35:SM:94:HIS:HE1	1.96	0.48
47:M0:27:PRO:HD2	47:M0:122:PRO:HB2	1.94	0.48
47:M0:19:LYS:HG3	47:M0:26:VAL:HG22	3.87	0.48
3:S1:185:THR:O	3:S1:189:ILE:HD12	3.66	0.48
40:L3:236:LYS:HG3	40:L3:237:LYS:H	2.29	0.48
1:2:603:U:H2'	1:2:604:A:C8	2.47	0.48
48:M1:7:ASN:OD1	48:M1:10:ARG:HD2	2.12	0.48
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.95	0.48
44:L7:138:TYR:O	44:L7:237:ASN:ND2	2.47	0.48
42:L5:263:GLU:O	42:L5:266:ALA:HB3	2.13	0.48
36:1:3369:G:N1	40:L3:380:MET:O	2.40	0.48
42:L5:34:LYS:HA	57:N1:27:LEU:HD11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:160:ARG:CD	60:N4:84:GLY:HA3	2.43	0.48
49:M3:57:VAL:HG13	49:M3:147:ILE:HG23	1.94	0.48
36:1:656:A:H2'	36:1:657:A:C8	2.48	0.48
5:S3:113:LEU:HD21	5:S3:117:ARG:NH1	2.28	0.48
31:D9:46:LYS:O	31:D9:50:ILE:HG13	3.00	0.48
63:N7:95:VAL:O	63:N7:100:THR:HG21	3.22	0.48
34:SR:82:SER:OG	34:SR:92:TRP:NE1	2.64	0.48
1:2:190:C:O2'	1:2:191:C:H5'	2.13	0.48
36:1:1103:A:N3	36:1:1103:A:H2'	2.27	0.48
36:1:2108:C:O2'	36:1:3362:A:N6	2.46	0.48
3:S1:183:GLN:O	3:S1:187:LYS:N	2.46	0.48
41:L4:93:MET:CE	41:L4:93:MET:H	3.96	0.48
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.37	0.48
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.94	0.48
22:D0:58:LEU:HD13	22:D0:88:LYS:HE3	4.00	0.48
56:N0:167:ARG:HG3	56:N0:168:PRO:HD2	1.94	0.48
65:N9:23:LYS:HD2	65:N9:24:PRO:HG3	3.08	0.48
43:L6:40:LEU:HB3	43:L6:84:VAL:HG13	2.99	0.48
27:D5:58:ARG:HA	27:D5:103:ARG:HB2	5.64	0.48
7:S5:119:ASP:O	7:S5:123:VAL:HG23	2.96	0.48
66:O0:53:LYS:HE2	36:5:2552:C:H5	241.74	0.48
42:L5:270:LYS:C	42:L5:272:TYR:H	2.94	0.48
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.78	0.48
47:M0:169:LYS:O	47:M0:170:LYS:HB2	4.71	0.48
13:C1:122:ILE:H	13:C1:144:ALA:CB	2.25	0.48
36:1:981:U:HO2'	36:1:982:C:P	2.36	0.48
22:D0:96:PRO:HG2	22:D0:99:ILE:HD11	7.35	0.48
46:L9:163:GLN:O	46:L9:165:CYS:N	2.46	0.48
86:1:4001:OHX:N3	86:1:4171:OHX:N1	2.61	0.48
24:D2:112:ASP:OD1	24:D2:114:GLU:HB3	3.18	0.48
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	2.33	0.48
36:1:789:A:H2'	36:1:790:U:H6	1.78	0.48
47:M0:81:GLY:C	47:M0:83:ASP:H	2.66	0.48
1:6:1087:A:H2'	1:6:1088:A:C8	2.48	0.48
1:6:407:A:H2'	1:6:408:C:C6	2.47	0.48
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	2.47	0.48
50:M4:8:LYS:HE3	50:M4:10:SER:H	1.78	0.48
13:C1:40:LEU:HD22	1:6:246:G:C2	327.53	0.48
36:1:1818:U:H2'	36:1:1819:U:O4'	2.14	0.48
1:6:209:U:H2'	1:6:210:A:C8	2.47	0.48
36:1:191:U:H2'	36:1:192:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:67:A:C2	1:2:69:G:H1'	2.48	0.48
44:L7:207:LEU:O	36:5:1334:U:H5'	241.89	0.48
5:S3:18:TYR:HD2	31:D9:49:ASP:O	1.96	0.48
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.41	0.48
36:5:1450:G:OP1	86:5:4228:OHX:N4	2.46	0.48
3:S1:114:VAL:HG11	1:6:930:A:H2'	310.40	0.48
76:Q0:125:LYS:NZ	36:5:2898:G:O6	329.87	0.48
49:M3:99:HIS:CD2	49:M3:99:HIS:H	2.61	0.48
47:M0:143:SER:O	47:M0:143:SER:OG	3.33	0.48
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.20	0.48
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	3.16	0.48
10:S8:32:GLN:NE2	1:6:1675:C:H1'	277.50	0.48
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.27	0.48
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	1.96	0.48
3:S1:91:VAL:HG23	3:S1:96:LEU:HB3	4.12	0.48
20:C8:140:THR:O	20:C8:143:ARG:HD3	2.89	0.48
43:L6:31:ARG:HH12	69:O3:107:ILE:HG22	5.79	0.48
1:2:896:U:O2'	16:C4:38:THR:HG21	2.13	0.48
36:1:155:G:H5''	36:1:156:G:C8	2.48	0.48
36:1:564:G:H2'	36:1:565:U:C6	2.47	0.48
8:S6:15:THR:HG23	1:6:152:U:O2'	310.96	0.48
38:8:68:G:H1	38:8:91:C:H42	1.61	0.48
5:S3:179:GLN:OE1	5:S3:180:GLY:N	4.79	0.48
11:S9:17:ARG:HD2	11:S9:20:GLU:OE1	2.13	0.48
25:D3:53:VAL:O	25:D3:73:ARG:O	2.31	0.48
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.53	0.48
7:S5:162:VAL:HG23	7:S5:166:ARG:HB3	1.95	0.48
36:5:1578:C:H2'	36:5:1579:C:C6	2.47	0.48
1:6:848:C:H2'	1:6:849:C:H6	1.76	0.48
36:1:1662:G:N2	36:1:1788:C:O2	2.46	0.48
1:2:27:U:OP1	86:2:2085:OHX:N6	2.45	0.48
49:M3:50:PRO:HB2	49:M3:140:SER:O	2.47	0.48
36:5:3160:U:H2'	36:5:3161:C:C6	2.48	0.48
36:1:3082:C:H2'	36:1:3083:G:H8	1.75	0.48
36:1:2320:A:C2	79:Q3:16:VAL:HG12	2.48	0.48
1:2:927:C:H1'	16:C4:125:SER:HB2	1.95	0.48
36:1:2505:U:H2'	36:1:2506:U:H6	1.77	0.48
36:5:1438:U:H2'	36:5:1439:U:C6	2.48	0.48
1:6:1394:G:O2'	1:6:1395:G:H5'	2.13	0.48
46:L9:137:SER:HB3	46:L9:143:GLU:HB3	1.95	0.48
1:2:1003:A:C4	1:2:1005:A:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:231:U:H2'	1:6:232:U:H5''	1.96	0.48
36:5:712:G:H2'	36:5:713:U:C6	2.47	0.48
36:5:1624:G:H2'	36:5:1625:A:H8	1.78	0.48
65:N9:39:PHE:O	65:N9:43:HIS:N	2.84	0.48
36:5:72:C:C2	36:5:74:G:H1'	2.48	0.48
1:2:226:A:H2'	1:2:227:U:H5'	1.95	0.48
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.45	0.48
36:5:863:C:OP1	86:5:3917:OHX:N3	2.46	0.48
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.96	0.48
52:M6:46:GLU:HG2	52:M6:49:ARG:HG3	1.95	0.48
36:1:2683:U:H2'	36:1:2684:C:C6	2.48	0.48
36:5:93:C:H4'	36:5:94:G:H5''	1.95	0.48
70:O4:20:ILE:HD11	70:O4:34:HIS:CE1	2.48	0.48
49:M3:163:GLY:HA2	64:N8:139:ARG:NH1	2.28	0.48
1:2:542:A:H2'	1:2:543:C:H5'	1.95	0.48
1:2:1401:A:OP1	19:C7:60:ARG:NH1	2.45	0.48
22:D0:26:LEU:HD11	22:D0:37:VAL:HG12	1.94	0.48
1:2:1067:C:H2'	1:2:1068:C:C6	2.44	0.48
36:5:123:A:C6	36:5:150:A:C5	3.01	0.48
86:5:4066:OHX:N3	86:5:4143:OHX:N6	2.61	0.48
36:1:2854:U:P	47:M0:3:ARG:HH22	2.37	0.48
48:M1:95:ASN:OD1	48:M1:95:ASN:N	2.47	0.48
25:D3:50:LYS:NZ	25:D3:101:GLU:OE1	4.71	0.48
12:C0:33:GLU:O	12:C0:34:GLU:HB2	2.14	0.48
18:C6:83:GLN:HE22	18:C6:119:ALA:HA	1.78	0.48
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.48	0.48
41:L4:58:HIS:O	41:L4:60:THR:N	2.90	0.48
49:M3:126:PHE:CD2	71:O5:115:LYS:HG2	2.71	0.48
36:1:1114:U:H5''	64:N8:22:ILE:HD12	1.95	0.48
44:L7:24:GLU:C	44:L7:26:VAL:H	2.17	0.48
51:M5:60:VAL:O	51:M5:61:ILE:HD13	2.13	0.48
1:6:419:G:N7	86:6:2117:OHX:N1	2.62	0.48
1:2:1248:C:H2'	1:2:1249:U:C6	2.47	0.48
33:E1:100:LEU:HB3	33:E1:102:VAL:HG22	1.95	0.48
36:5:869:G:H2'	36:5:870:G:O4'	2.13	0.48
73:O7:55:ARG:NH1	36:5:353:G:N7	110.88	0.48
36:5:1688:U:H2'	36:5:1689:U:H6	1.78	0.48
36:5:1077:U:H2'	36:5:1078:U:C6	2.48	0.48
10:S8:147:ALA:HA	10:S8:150:ALA:HB2	2.40	0.48
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.13	0.48
9:S7:126:LEU:HD13	9:S7:173:TYR:CE2	3.16	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1596:C:O2'	1:6:1598:U:H5	1.96	0.48
2:S0:26:ALA:HB1	2:S0:29:VAL:HG13	1.95	0.48
40:L3:380:MET:HE3	36:5:3369:G:C6	226.43	0.48
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.96	0.48
64:N8:19:LYS:HD2	64:N8:25:HIS:ND1	2.84	0.48
39:L2:20:THR:HG22	39:L2:23:ARG:CZ	6.45	0.48
36:5:1701:C:H2'	36:5:1702:U:O4'	2.14	0.48
36:1:1615:C:OP1	86:1:4178:OHX:N3	2.46	0.48
53:M7:53:ASP:O	86:M7:206:OHX:N6	3.87	0.48
55:M9:60:LYS:O	55:M9:64:ARG:HG3	2.42	0.48
46:L9:84:LYS:O	46:L9:187:ILE:HB	2.13	0.48
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.13	0.48
58:N2:34:ALA:O	58:N2:38:ILE:HG12	2.13	0.48
1:2:417:A:H4'	1:2:418:G:O5'	2.13	0.48
44:L7:41:ARG:NH1	36:5:598:A:OP1	262.54	0.48
63:N7:16:GLY:O	63:N7:18:TYR:N	3.20	0.48
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	2.02	0.48
4:S2:97:ARG:HB2	4:S2:118:ALA:O	2.89	0.48
13:C1:47:THR:OG1	13:C1:114:ALA:O	2.27	0.48
36:5:787:G:H2'	36:5:788:C:C6	2.49	0.48
2:S0:81:PHE:HB3	2:S0:170:ILE:HD12	3.95	0.48
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.13	0.48
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.69	0.48
39:L2:224:THR:HG21	36:5:2201:G:N2	223.60	0.48
4:S2:90:THR:O	4:S2:92:ALA:N	2.49	0.48
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.27	0.48
13:C1:139:VAL:O	13:C1:140:VAL:HB	2.13	0.48
36:1:1507:G:N3	36:1:1507:G:H5'	2.28	0.48
53:M7:131:ARG:HH11	53:M7:131:ARG:HG3	2.96	0.48
1:2:461:G:OP1	11:S9:2:PRO:HG2	2.13	0.48
27:D5:40:VAL:C	27:D5:75:LEU:HD11	2.34	0.48
70:O4:37:LYS:NZ	36:5:1592:G:OP2	158.62	0.48
22:D0:26:LEU:O	22:D0:89:ARG:N	2.46	0.48
1:2:1332:C:O5'	1:2:1332:C:H6	1.96	0.48
36:1:290:G:H2'	36:1:291:C:C6	2.49	0.48
1:6:845:G:H2'	1:6:846:G:C8	2.44	0.48
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.95	0.48
10:S8:172:ARG:NH1	1:6:330:G:OP2	281.03	0.48
40:L3:62:ARG:HH12	40:L3:349:LYS:HZ2	1.61	0.48
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.32	0.48
1:6:1557:U:OP2	1:6:1559:A:O2'	2.19	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:46:ILE:HD13	63:N7:68:ILE:CG2	2.42	0.48
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.56	0.48
48:M1:133:ARG:HB3	48:M1:134:PRO:HD2	2.28	0.48
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.95	0.48
36:1:317:A:C2	36:1:318:A:C4	3.02	0.48
1:2:1451:C:H2'	1:2:1452:U:H6	1.78	0.48
40:L3:81:THR:HB	40:L3:205:VAL:HG21	1.95	0.48
5:S3:37:VAL:HG12	5:S3:50:ILE:HA	3.19	0.48
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.96	0.48
36:1:62:A:H2'	36:1:63:A:C8	2.48	0.48
36:5:2696:A:H2'	36:5:2697:A:C8	2.47	0.48
52:M6:121:PRO:O	52:M6:124:LEU:HB2	2.63	0.48
36:1:745:C:H5''	54:M8:145:ASN:ND2	2.28	0.48
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.78	0.48
39:L2:14:SER:C	39:L2:16:PHE:H	2.17	0.48
63:N7:13:VAL:HB	63:N7:18:TYR:O	2.13	0.48
45:L8:172:LYS:HD3	72:O6:39:PHE:CE1	2.48	0.48
1:2:581:U:OP1	35:SM:104:LYS:HE3	2.14	0.48
18:C6:90:VAL:HG21	18:C6:106:LYS:HG3	4.10	0.48
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.13	0.48
36:5:2964:G:N7	86:5:3983:OHX:N6	2.61	0.48
21:C9:3:GLY:H	1:6:1360:A:H4'	427.16	0.48
1:6:1370:U:H4'	1:6:1371:A:H4'	1.96	0.48
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.62	0.48
38:4:146:U:H2'	38:4:147:U:C6	2.49	0.48
36:5:2610:G:O6	86:5:4174:OHX:N3	2.47	0.48
1:6:1015:U:OP1	86:6:2055:OHX:N3	2.46	0.48
1:2:276:C:O2'	1:2:277:U:H5''	2.14	0.48
34:SR:81:LEU:HD21	34:SR:122:ILE:HD13	1.94	0.48
39:L2:222:ALA:HB1	39:L2:224:THR:HG22	5.81	0.48
1:2:1765:A:H8	1:2:1768:G:H22	1.62	0.48
9:S7:133:THR:HG21	9:S7:159:VAL:HA	3.21	0.48
36:1:1573:G:N2	36:1:1574:C:O2'	2.46	0.48
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	4.79	0.48
72:O6:25:LYS:HB3	36:5:156:G:OP2	88.84	0.48
71:O5:92:LEU:HB3	71:O5:96:GLU:O	2.14	0.48
1:2:446:A:N6	1:2:461:G:H21	2.12	0.48
26:D4:9:THR:HG21	26:D4:48:TYR:OH	2.14	0.48
15:C3:19:SER:OG	15:C3:22:ALA:HB2	3.50	0.48
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.14	0.48
1:6:1714:A:C5	1:6:1715:G:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:62:ALA:C	74:O8:64:LYS:H	3.46	0.48
5:S3:58:VAL:O	5:S3:66:ILE:HG12	2.13	0.48
28:D6:24:VAL:HG21	28:D6:71:LEU:CD1	2.42	0.48
4:S2:47:ALA:O	4:S2:49:LYS:N	2.45	0.48
44:L7:40:LYS:HE2	44:L7:170:GLU:OE1	4.90	0.48
64:N8:28:HIS:ND1	64:N8:32:ARG:HG2	4.98	0.48
64:N8:32:ARG:HH11	64:N8:32:ARG:HG2	1.78	0.48
49:M3:128:ARG:HG3	71:O5:114:ARG:NH2	4.99	0.48
36:1:1934:G:N7	86:1:3882:OHX:N2	2.62	0.48
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.95	0.48
36:1:841:A:H5'	55:M9:125:LYS:O	2.12	0.48
1:2:1432:U:H4'	1:2:1433:G:O5'	2.14	0.48
68:O2:32:TRP:CZ2	68:O2:52:GLN:HB3	2.98	0.48
1:2:1142:A:H2'	1:2:1143:A:C8	2.48	0.48
28:D6:18:VAL:HG21	28:D6:33:ASP:OD1	2.14	0.48
52:M6:188:SER:O	52:M6:192:LYS:HG2	2.13	0.48
36:1:3242:G:H21	36:1:3245:A:H5''	1.78	0.48
24:D2:97:ARG:HB3	24:D2:97:ARG:HE	1.36	0.48
25:D3:93:LEU:O	25:D3:93:LEU:HG	2.12	0.48
36:1:578:A:H5''	36:1:579:G:O5'	2.14	0.48
1:6:53:G:H2'	1:6:54:C:O4'	2.12	0.48
51:M5:93:LYS:HG3	36:5:289:A:C2	146.94	0.48
1:2:763:G:C6	1:2:764:U:C4	3.02	0.48
25:D3:67:ALA:O	25:D3:68:ILE:HD13	5.29	0.48
71:O5:67:ARG:HG3	71:O5:80:LEU:HD13	2.85	0.48
25:D3:52:ILE:HD12	25:D3:75:GLN:HB3	2.25	0.48
69:O3:97:SER:HB2	36:5:3174:A:OP1	241.48	0.48
36:1:3103:A:OP2	86:1:4166:OHX:N1	2.46	0.48
36:1:2379:U:H2'	36:1:2380:U:H6	1.79	0.48
14:C2:26:ASP:O	14:C2:30:VAL:HG23	2.13	0.48
54:M8:157:PRO:O	54:M8:159:LYS:HG2	2.14	0.48
36:1:2816:G:C8	36:1:2869:U:H3'	2.48	0.48
36:1:1653:G:H2'	36:1:1654:A:O4'	2.13	0.48
58:N2:80:THR:HG22	58:N2:84:LEU:HD12	6.01	0.48
18:C6:4:VAL:HB	18:C6:5:PRO:HD2	1.95	0.48
7:S5:37:GLN:CG	18:C6:53:LEU:HD13	2.91	0.48
86:5:3979:OHX:N6	86:5:4199:OHX:N5	2.62	0.48
50:M4:121:MET:HE1	36:5:3215:A:C5'	276.28	0.48
39:L2:193:ARG:NH2	36:5:2181:C:H5''	196.45	0.48
1:2:1179:G:O6	20:C8:139:LYS:HE3	2.14	0.48
3:S1:36:SER:O	3:S1:38:PHE:N	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:475:A:H2'	1:6:476:U:O4'	2.14	0.48
1:2:1203:A:C5	1:2:1556:A:C2	3.01	0.48
26:D4:124:ARG:O	26:D4:127:LYS:HB3	4.26	0.48
3:S1:130:SER:OG	3:S1:179:SER:O	4.95	0.48
1:2:1105:C:N4	25:D3:4:GLY:HA2	2.24	0.48
41:L4:74:ILE:HG13	41:L4:75:PRO:HD2	4.66	0.48
36:5:916:G:H5'	36:5:917:A:OP1	2.13	0.48
74:O8:17:ARG:O	74:O8:20:VAL:HG23	2.13	0.48
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.48	0.48
40:L3:169:THR:CG2	40:L3:171:LEU:HG	2.60	0.48
42:L5:153:THR:HG23	42:L5:160:PHE:HZ	1.79	0.48
51:M5:68:ARG:HG3	36:5:291:C:OP1	145.30	0.48
52:M6:68:ARG:HH12	36:5:2988:C:P	216.63	0.48
6:S4:114:ILE:HD11	6:S4:119:ALA:HA	2.50	0.48
34:SR:117:LYS:H	34:SR:117:LYS:CD	2.27	0.48
1:2:4:C:O2	1:2:20:G:N2	2.35	0.48
39:L2:200:ARG:HG3	36:5:2147:A:OP1	208.54	0.48
47:M0:99:ILE:CD1	47:M0:101:LYS:HB2	5.72	0.48
44:L7:96:PRO:HG2	44:L7:99:PRO:HG2	3.55	0.48
38:8:104:A:C8	38:8:105:A:C8	3.01	0.48
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.99	0.48
9:S7:7:LYS:HE3	9:S7:7:LYS:HB2	4.62	0.48
57:N1:18:ASP:HB2	57:N1:21:LYS:HB2	3.07	0.48
36:5:1783:U:H2'	36:5:1784:G:C8	2.49	0.48
15:C3:148:ALA:O	86:C3:201:OHX:N4	6.15	0.48
38:8:126:A:O2'	38:8:128:U:OP2	2.29	0.48
47:M0:19:LYS:HB2	47:M0:26:VAL:HG21	2.69	0.48
41:L4:145:ILE:HD13	41:L4:150:LEU:HD12	2.92	0.48
73:O7:28:HIS:ND1	73:O7:31:LYS:HB2	2.29	0.48
1:2:488:G:H4'	1:2:488:G:OP1	2.13	0.48
1:2:505:A:N3	1:2:505:A:H2'	2.28	0.48
63:N7:20:GLY:HA3	63:N7:136:PHE:HE1	1.79	0.48
55:M9:154:ALA:O	55:M9:156:ASN:N	3.95	0.48
36:5:2370:G:H2'	36:5:2371:G:O4'	2.13	0.48
1:6:700:C:H2'	1:6:701:U:C6	2.49	0.48
54:M8:182:LYS:HE2	64:N8:55:LYS:O	2.14	0.48
43:L6:26:ARG:HB3	43:L6:27:PRO:HD2	1.94	0.48
36:5:2217:U:H2'	36:5:2218:G:H8	1.79	0.48
36:5:3074:G:OP1	86:5:4119:OHX:N4	2.47	0.48
52:M6:172:ARG:HD2	36:5:3191:G:OP2	309.48	0.48
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.80	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:125:LEU:HD23	15:C3:125:LEU:HA	2.04	0.48
1:2:1274:C:N3	35:SM:96:ARG:NH1	2.62	0.48
36:1:1471:U:H2'	36:1:1472:U:C6	2.49	0.48
34:SR:85:TRP:HA	34:SR:109:ASP:HA	1.96	0.48
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.96	0.48
3:S1:51:SER:OG	3:S1:57:ALA:HB3	2.14	0.48
28:D6:85:ARG:H	28:D6:85:ARG:HE	1.62	0.48
1:2:523:G:H5''	26:D4:59:GLY:O	2.13	0.48
16:C4:18:ARG:HG3	16:C4:82:LYS:HB3	4.09	0.48
36:1:911:C:N4	39:L2:3:ARG:HD3	2.29	0.48
8:S6:167:LYS:HD3	8:S6:169:TYR:CZ	2.49	0.48
71:O5:88:LEU:HA	71:O5:88:LEU:HD23	1.73	0.48
47:M0:191:LYS:O	47:M0:197:VAL:HG22	2.97	0.48
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.48	0.48
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	1.96	0.48
20:C8:92:ILE:HD13	20:C8:92:ILE:O	2.13	0.48
36:5:1659:U:O4	86:5:4198:OHX:N4	2.47	0.48
2:S0:10:THR:OG1	2:S0:13:ASP:OD2	2.31	0.48
1:2:186:C:H3'	1:2:187:G:H8	1.78	0.48
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.38	0.48
54:M8:121:CYS:O	54:M8:122:ILE:HD13	2.14	0.48
56:N0:1:MET:N	56:N0:32:SER:OG	6.84	0.48
73:O7:31:LYS:O	73:O7:33:THR:HG23	2.13	0.48
48:M1:100:GLY:HA3	48:M1:154:THR:HB	2.81	0.48
36:1:3019:U:C4	36:1:3020:U:C4	3.02	0.48
40:L3:83:PRO:O	40:L3:165:GLN:NE2	2.46	0.48
86:5:4055:OHX:N5	86:5:4200:OHX:N2	2.61	0.48
11:S9:174:ARG:HE	11:S9:174:ARG:HA	1.79	0.48
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.16	0.48
36:1:2869:U:H5''	36:1:2870:C:OP2	2.14	0.48
36:5:2546:C:H2'	36:5:2547:A:C8	2.48	0.48
45:L8:54:GLU:HG2	45:L8:57:ARG:HH21	1.78	0.48
45:L8:130:TYR:CD2	45:L8:204:ARG:HG3	3.92	0.48
36:5:1276:U:H2'	36:5:1277:C:C6	2.49	0.48
36:1:2558:U:O2'	36:1:2559:U:H5'	2.13	0.48
69:O3:15:SER:OG	69:O3:16:TYR:N	3.53	0.48
36:5:251:G:N3	36:5:251:G:H5'	2.29	0.48
4:S2:99:LYS:HG3	4:S2:117:THR:HG22	1.94	0.48
36:1:2221:G:N2	36:1:2224:A:OP2	2.36	0.48
36:1:1936:A:H2'	36:1:1937:U:O4'	2.13	0.48
36:5:1484:U:O2	36:5:1875:G:N2	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	2.09	0.48
40:L3:35:ASP:OD2	40:L3:37:ARG:NH1	2.38	0.48
36:5:618:C:H2'	36:5:619:A:C8	2.48	0.48
49:M3:44:ALA:O	49:M3:47:ALA:N	3.13	0.48
1:6:577:G:H3'	1:6:577:G:H8	1.77	0.48
37:7:73:C:H6	37:7:73:C:H3'	1.78	0.48
34:SR:22:SER:HB2	34:SR:70:ASP:HA	1.95	0.48
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.95	0.48
24:D2:76:SER:HA	24:D2:77:PRO:C	5.00	0.48
11:S9:55:ALA:O	11:S9:59:LEU:HD12	2.75	0.48
1:2:883:C:H2'	1:2:884:A:H8	1.77	0.48
47:M0:207:GLU:O	47:M0:209:ASN:N	2.46	0.48
1:6:1347:U:O2	1:6:1516:A:H2'	2.14	0.48
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.79	0.48
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.14	0.48
1:2:710:U:H2'	1:2:711:U:H5'	1.94	0.48
7:S5:87:CYS:SG	7:S5:92:ARG:HG3	2.79	0.48
41:L4:195:ARG:O	41:L4:196:ASN:HB2	2.19	0.48
20:C8:91:ASP:O	20:C8:93:THR:N	2.46	0.48
42:L5:270:LYS:HE3	42:L5:273:ARG:HA	8.81	0.48
34:SR:133:VAL:HG23	34:SR:142:ALA:HB3	1.96	0.48
36:1:2186:U:H2'	36:1:2187:G:O4'	2.13	0.48
1:6:1166:A:H2'	1:6:1167:G:O4'	2.13	0.48
36:5:626:U:O4	86:5:3984:OHX:N4	2.46	0.48
36:5:1764:U:H3'	36:5:1765:U:H5''	1.96	0.48
36:1:3067:C:H5''	55:M9:58:HIS:CD2	2.48	0.48
49:M3:17:HIS:O	49:M3:20:GLU:HB2	2.14	0.48
86:5:4011:OHX:N6	86:5:4201:OHX:N2	2.62	0.48
26:D4:20:ARG:HE	26:D4:22:GLN:HG2	3.32	0.48
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.94	0.48
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.78	0.48
45:L8:89:GLU:HG2	45:L8:214:LEU:HD11	4.59	0.48
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	3.02	0.48
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.14	0.48
10:S8:2:GLY:HA2	1:6:1729:C:O2'	287.67	0.48
36:1:2544:U:H2'	36:1:2545:C:H6	1.79	0.48
15:C3:18:TYR:CZ	24:D2:56:HIS:CE1	3.02	0.48
36:5:3054:U:OP2	86:5:3906:OHX:N6	2.47	0.48
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.14	0.48
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.14	0.48
36:5:252:U:H4'	36:5:253:A:C5'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1029:U:O4	86:2:2167:OHX:N3	2.47	0.48
5:S3:203:PRO:HB3	1:6:1332:C:H4'	428.65	0.48
1:6:1263:G:H2'	1:6:1264:G:O4'	2.14	0.48
36:5:2953:U:H2'	36:5:2954:U:H2'	1.95	0.48
36:1:12:A:OP1	86:4:237:OHX:N6	2.47	0.48
55:M9:150:GLN:HA	55:M9:153:LYS:HB3	3.13	0.48
37:3:93:C:O2'	37:3:94:C:H5'	2.14	0.48
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.14	0.48
55:M9:56:THR:HG23	36:5:1873:U:P	153.05	0.48
52:M6:54:TYR:CE2	52:M6:58:LEU:HD22	2.49	0.48
1:6:1588:G:OP1	86:6:2124:OHX:N2	2.47	0.48
34:SR:67:ILE:O	34:SR:84:SER:OG	2.24	0.48
47:M0:85:PHE:CA	47:M0:140:THR:HG22	2.90	0.48
23:D1:1:MET:HE3	23:D1:10:GLU:HG3	1.95	0.48
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	4.53	0.48
1:2:1767:G:OP1	1:2:1770:U:H4'	2.14	0.48
28:D6:84:VAL:HG22	28:D6:85:ARG:N	2.28	0.48
1:6:901:G:C2	1:6:902:G:C6	3.02	0.48
36:5:1543:G:O6	86:5:4202:OHX:N1	2.46	0.48
37:3:64:A:N6	47:M0:202:LYS:HD3	2.29	0.48
12:C0:54:TYR:O	12:C0:69:THR:N	2.73	0.48
4:S2:90:THR:C	4:S2:92:ALA:H	2.19	0.48
6:S4:185:GLY:H	6:S4:189:LEU:HB2	1.79	0.48
2:S0:157:ASP:OD2	2:S0:157:ASP:N	3.27	0.48
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	1.95	0.48
1:6:542:A:H1'	1:6:543:C:OP1	2.14	0.48
1:2:1253:U:H4'	33:E1:143:LYS:CA	2.44	0.48
8:S6:122:GLU:OE1	8:S6:122:GLU:HA	2.13	0.48
45:L8:108:ARG:O	45:L8:112:GLU:HG3	2.13	0.48
13:C1:110:HIS:HB3	13:C1:138:ASN:ND2	2.92	0.48
74:O8:12:LEU:HD21	74:O8:65:LEU:HD21	3.09	0.48
1:2:1533:C:H4'	1:2:1539:G:H1	1.78	0.48
34:SR:220:ILE:HD12	34:SR:263:PHE:HE2	1.78	0.48
57:N1:39:ILE:HD11	57:N1:102:ARG:HD3	1.95	0.48
36:1:980:A:H2'	36:1:981:U:C1'	2.44	0.48
1:6:139:C:O2'	1:6:176:C:O2	2.19	0.48
53:M7:41:LEU:HD23	53:M7:95:LEU:HD22	1.99	0.48
36:5:1560:G:O2'	36:5:1561:G:OP1	2.26	0.48
36:1:2395:G:H4'	40:L3:258:ALA:HB1	1.95	0.48
34:SR:115:ILE:HG13	34:SR:121:MET:O	2.94	0.48
40:L3:81:THR:CG2	40:L3:81:THR:O	3.83	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:48:SER:OG	61:N5:49:LYS:N	3.98	0.48
36:1:353:G:N7	73:O7:55:ARG:HD3	2.29	0.48
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	3.65	0.48
36:1:3313:U:H4'	40:L3:173:GLN:OE1	2.13	0.48
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.96	0.48
2:S0:32:HIS:CD2	23:D1:63:GLY:HA3	9.33	0.48
1:6:961:U:H2'	1:6:962:C:H6	1.79	0.48
1:2:61:A:H8	1:2:269:G:O2'	1.97	0.48
1:2:1114:G:O2'	1:2:1130:G:O6	2.31	0.48
36:5:2304:C:C5	36:5:2305:G:C6	3.01	0.48
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.30	0.48
64:N8:128:ARG:HB3	72:O6:8:ALA:HB1	3.36	0.48
42:L5:5:LYS:HA	42:L5:5:LYS:HD2	1.70	0.48
36:5:2440:G:H2'	36:5:2441:A:C8	2.49	0.48
40:L3:77:THR:OG1	40:L3:324:VAL:HG12	2.13	0.47
40:L3:35:ASP:OD1	40:L3:184:ASN:O	2.48	0.47
31:D9:14:TYR:OH	1:6:1553:G:O2'	403.81	0.47
28:D6:9:GLY:O	28:D6:10:ARG:HG3	2.43	0.47
79:Q3:44:LYS:O	79:Q3:46:THR:N	2.47	0.47
26:D4:60:PHE:HA	26:D4:70:VAL:O	2.14	0.47
26:D4:124:ARG:HH11	26:D4:124:ARG:HB3	1.79	0.47
40:L3:20:LYS:HB2	36:5:2991:A:P	213.58	0.47
36:1:3181:C:H2'	36:1:3182:G:O4'	2.14	0.47
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.30	0.47
19:C7:20:TYR:CZ	19:C7:38:ILE:HD11	2.49	0.47
49:M3:186:ARG:O	49:M3:190:LYS:HB3	2.13	0.47
62:N6:112:ASP:HB2	62:N6:115:ARG:HB2	2.17	0.47
35:SM:36:ASP:OD1	48:M1:53:THR:OG1	3.18	0.47
1:2:711:U:H1'	1:2:712:G:C8	2.49	0.47
36:5:1724:U:O2	36:5:1725:C:C2	2.67	0.47
36:5:3343:G:N2	36:5:3362:A:H2	2.10	0.47
1:2:273:G:H1	1:2:283:U:H3	1.61	0.47
6:S4:100:ARG:NH2	6:S4:122:LYS:HA	2.49	0.47
5:S3:69:LEU:HD12	5:S3:69:LEU:HA	4.56	0.47
2:S0:193:GLN:C	2:S0:195:TRP:H	2.18	0.47
1:2:1761:U:O2'	1:2:1762:A:OP2	2.25	0.47
20:C8:46:VAL:HG21	20:C8:73:MET:HG3	2.86	0.47
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	3.40	0.47
43:L6:30:LEU:HD21	43:L6:57:HIS:CE1	2.49	0.47
1:2:1595:U:N3	1:2:1600:A:C2	2.81	0.47
19:C7:71:PHE:CE1	19:C7:73:LEU:HB3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:15:GLU:OE2	48:M1:132:ASN:ND2	2.47	0.47
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.42	0.47
1:6:492:A:H2'	1:6:493:U:H5''	1.96	0.47
36:5:2213:A:H2	36:5:2601:A:N3	2.12	0.47
86:5:4055:OHX:N1	86:5:4200:OHX:N2	2.61	0.47
64:N8:2:PRO:HD2	64:N8:5:PHE:HD2	2.27	0.47
36:5:2883:U:OP2	86:5:4061:OHX:N4	2.46	0.47
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.46	0.47
46:L9:47:LYS:NZ	50:M4:5:SER:H	2.12	0.47
1:2:61:A:C8	1:2:269:G:O2'	2.65	0.47
1:2:97:C:H2'	1:2:98:U:C6	2.48	0.47
48:M1:17:LEU:HB3	48:M1:76:ALA:HB1	2.97	0.47
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.14	0.47
39:L2:187:HIS:ND1	39:L2:190:ARG:NH2	2.61	0.47
36:1:955:U:H2'	36:1:956:U:C6	2.50	0.47
52:M6:126:VAL:HG21	36:5:3185:U:C6	299.94	0.47
54:M8:109:GLY:O	54:M8:113:LYS:HB2	3.26	0.47
55:M9:68:GLN:NE2	55:M9:72:GLU:OE2	4.50	0.47
1:2:1220:C:OP1	12:C0:48:SER:OG	2.22	0.47
1:2:968:U:H5''	1:2:1033:C:O2'	2.13	0.47
49:M3:39:ARG:NH1	36:5:107:A:OP1	74.22	0.47
69:O3:57:LYS:HB3	69:O3:57:LYS:HE3	2.31	0.47
36:1:942:U:O5'	36:1:942:U:H6	1.97	0.47
6:S4:176:ASP:OD2	6:S4:176:ASP:N	3.09	0.47
5:S3:224:ASP:OD1	34:SR:228:LYS:HG2	4.61	0.47
68:O2:63:THR:O	68:O2:66:LEU:HG	2.14	0.47
34:SR:49:GLY:HA2	34:SR:54:PHE:CD1	3.23	0.47
36:1:1938:U:O4	86:1:3911:OHX:N2	2.47	0.47
25:D3:60:GLU:CD	32:E0:3:LYS:HB2	3.50	0.47
51:M5:183:THR:HA	51:M5:187:ARG:HB2	2.33	0.47
18:C6:5:PRO:HA	18:C6:96:TYR:CZ	2.49	0.47
1:2:1100:G:O2'	24:D2:76:SER:N	2.48	0.47
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.42	0.47
63:N7:10:VAL:HG23	63:N7:86:THR:HA	1.94	0.47
8:S6:13:GLN:CD	1:6:151:G:H21	312.67	0.47
1:6:1066:C:H2'	1:6:1067:C:H6	1.79	0.47
68:O2:123:LYS:O	68:O2:126:LEU:HB2	2.14	0.47
1:6:74:U:H5''	1:6:75:U:OP2	2.14	0.47
63:N7:26:VAL:HG22	63:N7:42:LEU:O	2.15	0.47
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.14	0.47
62:N6:91:ASN:O	62:N6:93:ALA:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.79	0.47
38:8:77:A:H2'	38:8:78:G:O4'	2.14	0.47
55:M9:77:GLY:O	55:M9:81:ARG:HD3	2.13	0.47
2:S0:66:ALA:HB1	23:D1:50:TYR:HD1	3.22	0.47
68:O2:4:LEU:CD2	68:O2:91:THR:HG23	2.43	0.47
7:S5:164:PRO:HA	7:S5:167:ARG:HG3	2.80	0.47
61:N5:92:LYS:HG3	36:5:1831:U:P	101.08	0.47
63:N7:46:ILE:HD11	63:N7:49:TYR:CG	3.32	0.47
36:1:3008:A:OP2	52:M6:74:ARG:NH1	2.47	0.47
1:6:1203:A:OP2	86:6:2130:OHX:N4	2.48	0.47
1:2:495:C:H3'	1:2:496:G:O4'	2.14	0.47
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.14	0.47
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.95	0.47
36:1:2244:A:H5"	39:L2:243:THR:OG1	2.13	0.47
36:1:92:G:H5'	36:1:93:C:O5'	2.13	0.47
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.14	0.47
1:2:1250:U:HO2'	1:2:1251:U:P	2.38	0.47
36:1:2616:C:C2'	36:1:2617:U:H5'	2.45	0.47
20:C8:23:ASP:O	20:C8:26:ILE:HG23	2.14	0.47
9:S7:173:TYR:CD1	9:S7:181:ILE:HB	2.49	0.47
36:5:3128:G:OP2	86:5:4159:OHX:N3	2.47	0.47
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.44	0.47
36:1:199:A:C4	36:1:201:A:C8	3.03	0.47
36:1:1210:U:H2'	36:1:1211:U:H6	1.79	0.47
1:2:629:U:OP1	15:C3:127:ARG:NH2	2.47	0.47
1:6:1158:C:H42	1:6:1163:A:H61	1.62	0.47
1:2:1125:A:C5	1:2:1126:G:H1'	2.49	0.47
36:1:2853:A:O3'	47:M0:64:ALA:HB2	2.14	0.47
36:1:2812:C:H2'	36:1:2813:A:H8	1.79	0.47
1:6:1451:C:H2'	1:6:1452:U:H6	1.79	0.47
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.62	0.47
36:1:1599:G:OP1	86:1:4083:OHX:N5	2.47	0.47
36:1:1445:U:H5"	36:1:1446:A:OP2	2.12	0.47
46:L9:17:THR:O	46:L9:17:THR:OG1	2.75	0.47
67:O1:86:LYS:HA	67:O1:86:LYS:HD2	1.63	0.47
36:1:1922:A:H2'	36:1:1923:C:O4'	2.15	0.47
36:1:1480:G:H4'	36:1:1481:A:OP1	2.13	0.47
69:O3:60:ARG:NH2	36:5:619:A:OP1	212.15	0.47
19:C7:33:ARG:HH22	34:SR:85:TRP:HB3	1.80	0.47
24:D2:76:SER:OG	25:D3:7:ARG:HG2	2.14	0.47
20:C8:129:TRP:O	35:SM:68:ARG:HB2	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1018:G:H8	36:1:1018:G:OP2	1.97	0.47
10:S8:9:HIS:CD2	10:S8:10:LYS:HB2	2.49	0.47
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.49	0.47
1:6:219:A:O2'	1:6:220:A:O5'	2.32	0.47
48:M1:47:GLN:OE1	48:M1:64:LYS:HD3	2.94	0.47
36:5:3362:A:C2	36:5:3363:U:C2	3.01	0.47
7:S5:92:ARG:HB3	7:S5:172:ILE:CD1	2.43	0.47
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.60	0.47
86:5:4066:OHX:N5	86:5:4143:OHX:N6	2.62	0.47
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.49	0.47
36:1:3087:A:H5''	40:L3:365:PHE:CD1	2.49	0.47
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	2.83	0.47
5:S3:70:THR:CG2	5:S3:86:LEU:HB2	2.50	0.47
18:C6:38:LEU:HD21	21:C9:10:ALA:HB2	3.50	0.47
30:D8:8:THR:HB	30:D8:56:LEU:HB2	1.95	0.47
64:N8:28:HIS:CE1	64:N8:32:ARG:HG2	4.46	0.47
6:S4:44:LEU:HG	6:S4:82:TYR:HB3	1.96	0.47
38:8:104:A:C3'	38:8:105:A:H5''	2.43	0.47
45:L8:190:VAL:HG12	45:L8:190:VAL:O	3.66	0.47
1:2:1636:C:H4'	1:2:1637:C:H5''	1.96	0.47
36:5:2128:C:OP1	86:5:4090:OHX:N3	2.47	0.47
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.13	0.47
1:2:623:A:OP1	86:2:2156:OHX:N2	2.48	0.47
43:L6:54:TYR:CE2	43:L6:63:LEU:HD22	2.49	0.47
64:N8:86:LYS:O	64:N8:89:GLN:HB2	2.14	0.47
37:3:52:G:H21	48:M1:9:MET:HE3	1.79	0.47
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	3.64	0.47
43:L6:5:LYS:HD2	43:L6:5:LYS:HA	3.66	0.47
36:1:3174:A:OP1	69:O3:97:SER:OG	2.21	0.47
52:M6:168:TYR:HE1	52:M6:172:ARG:NH1	2.97	0.47
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.95	0.47
36:1:2601:A:H2'	36:1:2602:G:H8	1.79	0.47
36:1:407:A:C2	38:4:17:A:H1'	2.48	0.47
36:1:132:C:H2'	36:1:133:U:H5''	1.95	0.47
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.72	0.47
38:4:52:A:H4'	75:O9:19:GLN:HA	1.95	0.47
55:M9:122:VAL:O	55:M9:126:GLU:HB2	2.14	0.47
36:5:570:A:H2'	36:5:571:U:O4'	2.14	0.47
36:1:1809:A:H2'	36:1:1810:A:O4'	2.15	0.47
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.43	0.47
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:229:VAL:HG21	40:L3:249:VAL:CG1	5.63	0.47
40:L3:296:THR:HB	40:L3:299:ASP:H	3.57	0.47
11:S9:149:ARG:NH1	11:S9:149:ARG:HG2	4.82	0.47
1:2:1459:C:N4	20:C8:139:LYS:HG3	2.29	0.47
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.49	0.47
1:2:1488:G:H5'	1:2:1489:U:OP1	2.13	0.47
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.15	0.47
36:1:298:U:H5'	36:1:299:G:H5'	1.96	0.47
36:1:315:C:OP2	72:O6:28:TYR:OH	2.29	0.47
38:4:78:G:H2'	38:4:79:A:C8	2.49	0.47
11:S9:133:HIS:CD2	11:S9:162:SER:HB2	2.49	0.47
8:S6:122:GLU:HB3	8:S6:123:GLY:H	1.60	0.47
45:L8:111:LYS:HD2	45:L8:112:GLU:N	4.94	0.47
36:1:2767:U:O4	86:1:4036:OHX:N6	2.48	0.47
37:7:8:G:C6	37:7:9:C:C4	3.02	0.47
4:S2:179:VAL:HG21	4:S2:197:TYR:HD1	2.46	0.47
1:2:103:A:H4'	1:2:104:A:OP2	2.13	0.47
34:SR:117:LYS:NZ	34:SR:157:VAL:O	2.46	0.47
36:1:1493:G:C6	75:O9:13:MET:HE1	2.48	0.47
36:5:2568:C:O2'	36:5:2569:A:O5'	2.29	0.47
41:L4:8:VAL:CG2	41:L4:20:LEU:HD11	2.45	0.47
1:6:1579:U:H2'	1:6:1580:C:C6	2.49	0.47
18:C6:40:GLU:HA	18:C6:42:GLU:H	1.79	0.47
36:5:173:G:H1'	36:5:174:C:H5'	1.96	0.47
36:1:3073:A:H2'	36:1:3074:G:O4'	2.15	0.47
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.44	0.47
36:1:1260:A:H1'	36:1:1280:C:H1'	1.96	0.47
49:M3:126:PHE:CD1	49:M3:133:PRO:HG2	2.49	0.47
10:S8:84:HIS:NE2	10:S8:90:LEU:HD13	2.92	0.47
16:C4:103:ARG:NH2	28:D6:48:ALA:O	3.93	0.47
36:5:2520:A:H2'	36:5:2521:U:H6	1.78	0.47
62:N6:60:ARG:HD3	62:N6:60:ARG:HA	1.57	0.47
36:5:956:U:H2'	36:5:957:C:C6	2.49	0.47
38:4:124:G:OP2	86:4:232:OHX:N4	2.48	0.47
1:6:1777:G:O2'	1:6:1778:G:H5'	2.14	0.47
26:D4:14:SER:HA	26:D4:21:LYS:HG3	1.97	0.47
36:1:2278:C:OP1	86:1:3954:OHX:N3	2.48	0.47
36:5:2397:A:H2'	36:5:2873:U:O4'	2.14	0.47
36:5:2533:G:N2	36:5:2546:C:O2	2.37	0.47
1:6:83:G:OP2	86:6:2097:OHX:N4	2.47	0.47
7:S5:51:VAL:HG13	7:S5:131:GLN:HB2	3.07	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:17:GLU:O	56:N0:20:PRO:HD3	2.14	0.47
28:D6:11:ASN:HB3	1:6:934:C:C6	333.78	0.47
44:L7:36:ALA:HA	44:L7:39:GLU:HG3	1.95	0.47
1:6:585:A:H2'	1:6:586:G:C8	2.49	0.47
34:SR:132:LYS:HG2	34:SR:143:THR:HG23	1.96	0.47
36:5:189:G:H2'	36:5:224:C:OP1	2.13	0.47
38:4:108:C:H2'	38:4:109:A:O4'	2.14	0.47
1:6:276:C:H1'	1:6:277:U:H5	1.80	0.47
36:1:3035:A:OP2	86:1:4073:OHX:N4	2.48	0.47
1:2:426:G:N2	1:2:427:C:C2	2.81	0.47
1:6:369:A:O2'	1:6:371:G:OP2	2.31	0.47
36:5:1802:C:H6	36:5:1802:C:O5'	1.97	0.47
55:M9:57:VAL:HG22	36:5:1690:C:H4'	157.04	0.47
36:1:59:G:H2'	38:4:33:A:O2'	2.14	0.47
36:1:8:C:H2'	36:1:9:U:O4'	2.15	0.47
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	2.49	0.47
40:L3:35:ASP:HA	40:L3:184:ASN:ND2	3.05	0.47
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.96	0.47
52:M6:8:VAL:HA	52:M6:34:VAL:O	2.39	0.47
3:S1:97:LEU:HD13	3:S1:98:THR:N	2.30	0.47
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	2.24	0.47
28:D6:5:ARG:NH2	1:6:1793:G:O2'	336.35	0.47
1:2:902:G:H8	1:2:902:G:O5'	1.96	0.47
14:C2:87:PRO:HA	14:C2:140:PHE:HE1	2.05	0.47
48:M1:53:THR:HG23	48:M1:60:ARG:HA	2.05	0.47
17:C5:29:SER:OG	17:C5:32:ASP:OD2	3.66	0.47
20:C8:112:ASP:O	20:C8:115:ARG:N	2.47	0.47
1:6:1533:C:H4'	1:6:1539:G:C6	2.50	0.47
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.14	0.47
5:S3:68:GLU:OE2	12:C0:67:THR:HG23	2.14	0.47
42:L5:55:PHE:CE2	42:L5:158:ARG:HG3	2.49	0.47
36:5:1152:G:N2	36:5:1199:C:N4	2.61	0.47
5:S3:17:PHE:O	5:S3:20:GLU:N	3.64	0.47
36:1:1563:C:O2	36:1:1577:G:N2	2.32	0.47
11:S9:127:VAL:HG12	11:S9:131:GLN:NE2	3.58	0.47
69:O3:75:HIS:HB2	69:O3:82:ARG:HG3	2.96	0.47
36:5:529:A:O2'	36:5:530:G:H5'	2.14	0.47
54:M8:133:LYS:HB2	54:M8:135:GLN:HE22	2.16	0.47
1:6:992:A:H5'	1:6:992:A:H8	1.79	0.47
1:6:1393:C:H2'	1:6:1394:G:C8	2.49	0.47
36:5:767:U:H1'	36:5:768:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:83:LEU:HD22	44:L7:84:VAL:N	2.48	0.47
36:1:2623:G:H2'	36:1:2624:G:H8	1.79	0.47
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.50	0.47
36:1:3393:U:H2'	36:1:3394:U:H6	1.79	0.47
36:1:3393:U:H2'	36:1:3394:U:C6	2.50	0.47
1:6:1268:G:H1'	1:6:1448:G:H5''	1.97	0.47
1:6:1175:U:H2'	1:6:1176:G:C8	2.50	0.47
66:O0:71:GLN:HA	66:O0:71:GLN:OE1	4.65	0.47
36:1:385:A:H2'	36:1:386:A:C8	2.49	0.47
36:5:619:A:OP2	36:5:619:A:H8	1.98	0.47
36:1:2443:A:O2'	36:1:2444:C:OP2	2.27	0.47
3:S1:41:ARG:NH1	3:S1:232:HIS:HB3	2.30	0.47
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.48	0.47
1:6:40:A:H2'	1:6:41:A:O4'	2.14	0.47
3:S1:70:LEU:HA	3:S1:73:LEU:HG	1.96	0.47
28:D6:10:ARG:CB	28:D6:10:ARG:HH21	4.59	0.47
1:2:882:U:H2'	1:2:883:C:C6	2.50	0.47
36:5:314:U:H2'	36:5:315:C:C6	2.50	0.47
5:S3:116:ARG:HB2	5:S3:116:ARG:NH1	5.28	0.47
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.56	0.47
39:L2:29:LEU:HA	39:L2:76:PHE:HE1	1.79	0.47
11:S9:135:ALA:HB2	11:S9:159:ALA:HB2	1.96	0.47
53:M7:139:TYR:CZ	36:5:2355:G:H4'	147.37	0.47
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.64	0.47
36:5:1565:G:N2	36:5:1566:A:H1'	2.30	0.47
36:5:2227:C:C2'	36:5:2228:A:H5''	2.44	0.47
74:O8:2:ALA:N	36:5:1613:A:OP1	139.46	0.47
36:5:2970:C:H4'	36:5:2971:A:N1	2.29	0.47
6:S4:114:ILE:HB	6:S4:118:GLU:OE2	2.15	0.47
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	1.94	0.47
1:6:351:C:H4'	1:6:352:A:OP2	2.14	0.47
40:L3:284:ARG:HB2	40:L3:284:ARG:NH1	2.27	0.47
86:6:2059:OHX:N5	86:6:2146:OHX:N6	2.63	0.47
1:6:647:G:H22	1:6:687:G:H22	1.62	0.47
36:5:1152:G:C8	36:5:1152:G:O5'	2.68	0.47
10:S8:81:VAL:H	10:S8:102:VAL:HA	1.79	0.47
13:C1:93:TYR:HB2	13:C1:100:TYR:CD1	2.49	0.47
63:N7:23:VAL:HA	63:N7:45:GLY:HA3	3.44	0.47
36:1:726:G:H5'	36:1:726:G:H8	1.78	0.47
63:N7:14:VAL:HG22	70:O4:86:LYS:HG2	1.96	0.47
20:C8:23:ASP:HB3	20:C8:26:ILE:HD11	6.21	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:27:ARG:HA	2:S0:44:GLY:O	2.14	0.47
1:2:226:A:C6	1:2:227:U:N3	2.82	0.47
36:5:864:G:OP2	86:5:3917:OHX:N4	2.48	0.47
36:1:1481:A:OP1	36:1:1481:A:C4'	2.60	0.47
36:5:414:U:O4	86:5:3938:OHX:N6	2.48	0.47
37:3:11:A:H8	42:L5:18:THR:HG1	1.62	0.47
52:M6:148:LYS:HE2	36:5:3135:U:OP1	258.63	0.47
36:5:3041:U:H2'	36:5:3042:U:H6	1.80	0.47
36:5:3041:U:H2'	36:5:3042:U:C6	2.50	0.47
43:L6:166:LYS:HA	43:L6:166:LYS:HD3	1.68	0.47
43:L6:166:LYS:HE2	69:O3:4:SER:OG	3.00	0.47
36:5:1155:C:H2'	36:5:1156:C:H6	1.79	0.47
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	2.62	0.47
37:3:39:C:N3	48:M1:70:THR:HG23	2.29	0.47
72:O6:89:GLU:O	72:O6:93:ILE:HG13	3.93	0.47
49:M3:180:ARG:HH11	49:M3:180:ARG:HG2	1.80	0.47
78:Q2:78:LYS:HG2	78:Q2:79:THR:N	2.55	0.47
18:C6:5:PRO:HG2	18:C6:24:ALA:CB	2.44	0.47
7:S5:94:THR:HB	7:S5:114:ILE:HG13	1.97	0.47
7:S5:43:PHE:H	7:S5:46:TRP:H	2.33	0.47
18:C6:47:LYS:HZ1	18:C6:114:ARG:NE	2.13	0.47
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.97	0.47
4:S2:140:ARG:HH12	4:S2:228:ASN:HD21	1.62	0.47
49:M3:163:GLY:HA2	64:N8:139:ARG:HH12	1.79	0.47
13:C1:99:ARG:HD3	25:D3:8:GLY:O	2.14	0.47
36:1:436:A:H8	36:1:436:A:O5'	1.97	0.47
73:O7:65:ARG:NH2	38:8:102:U:O4	84.93	0.47
1:2:1765:A:H8	1:2:1768:G:N2	2.13	0.47
1:2:888:U:H1'	16:C4:126:THR:HG21	1.96	0.47
36:1:915:A:C5	36:1:917:A:H1'	2.50	0.47
40:L3:21:ARG:HG3	36:5:2991:A:OP1	210.72	0.47
40:L3:139:GLN:OE1	40:L3:142:ALA:HB3	2.30	0.47
44:L7:217:PRO:O	86:5:4002:OHX:N6	260.56	0.47
36:1:2736:A:H1'	57:N1:90:ASN:HD22	1.80	0.47
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.97	0.47
63:N7:128:GLN:O	63:N7:131:PHE:N	3.03	0.47
1:6:1489:U:H5'	1:6:1494:C:H1'	1.96	0.47
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	1.54	0.47
36:5:3362:A:H2'	36:5:3363:U:O4'	2.14	0.47
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	3.03	0.47
8:S6:175:ILE:HG12	8:S6:175:ILE:H	1.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:88:ARG:CZ	44:L7:103:LEU:HD13	2.45	0.47
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.50	0.47
1:6:1685:G:H1	1:6:1716:C:H42	1.61	0.47
36:5:3165:A:N6	36:5:3285:C:H42	2.10	0.47
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.85	0.47
1:2:354:C:H5''	10:S8:16:ALA:HB2	1.96	0.47
1:2:327:U:H2'	1:2:328:A:C8	2.50	0.47
25:D3:53:VAL:O	25:D3:74:VAL:HA	2.14	0.47
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.15	0.47
42:L5:85:ARG:HH12	42:L5:254:LYS:H	1.93	0.47
36:1:2842:U:O2'	36:1:2843:U:OP1	2.31	0.47
1:2:74:U:H1'	1:2:75:U:H5''	1.96	0.47
22:D0:67:THR:HG22	22:D0:68:ARG:O	2.15	0.47
1:2:1388:A:C5	1:2:1411:A:C6	3.02	0.47
49:M3:126:PHE:HZ	49:M3:135:ALA:HB3	1.79	0.47
86:5:4011:OHX:N3	86:5:4201:OHX:N5	2.62	0.47
71:O5:49:LYS:O	71:O5:52:ALA:N	3.18	0.47
57:N1:78:LYS:HE2	36:5:2724:U:OP1	223.65	0.47
11:S9:131:GLN:C	11:S9:132:ARG:HG2	2.55	0.47
39:L2:116:VAL:HG22	39:L2:126:LEU:HD12	1.96	0.47
40:L3:81:THR:HG23	40:L3:81:THR:O	4.50	0.47
36:1:1815:U:O2'	36:1:1816:A:P	2.73	0.47
1:6:1673:G:O5'	1:6:1673:G:H8	1.97	0.47
28:D6:38:ARG:HE	28:D6:83:ILE:HG13	1.79	0.47
66:O0:28:LYS:HB2	36:5:1730:G:N7	239.32	0.47
36:1:3375:A:O2'	36:1:3378:C:H5'	2.14	0.47
61:N5:49:LYS:HB2	61:N5:49:LYS:HE2	1.80	0.47
63:N7:45:GLY:HA3	63:N7:71:PHE:CE2	2.50	0.47
16:C4:84:ARG:HG3	16:C4:85:ALA:O	3.58	0.47
24:D2:81:VAL:HG12	24:D2:82:LYS:O	4.87	0.47
36:5:2830:G:H1'	36:5:2861:U:C2	2.49	0.47
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	3.77	0.47
1:2:1085:G:N2	1:2:1088:A:OP2	2.37	0.47
86:1:3969:OHX:N5	86:1:4155:OHX:N1	2.63	0.47
44:L7:59:GLU:O	44:L7:63:ILE:HG13	2.15	0.47
1:2:463:U:C2	1:2:464:A:C8	3.03	0.47
10:S8:176:SER:HB2	10:S8:178:ARG:HG2	3.02	0.47
1:2:577:G:N1	35:SM:99:LYS:O	2.44	0.47
51:M5:184:LYS:C	51:M5:186:GLY:H	2.77	0.47
1:6:1393:C:H2'	1:6:1394:G:H8	1.80	0.47
13:C1:27:THR:HB	13:C1:28:SER:H	3.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:166:TYR:O	10:S8:183:ILE:HD12	6.38	0.47
34:SR:296:ALA:O	34:SR:298:GLY:N	3.60	0.47
36:1:541:U:O4	86:1:4192:OHX:N2	2.48	0.47
41:L4:10:SER:OG	41:L4:14:GLU:HG3	5.90	0.47
36:1:530:G:N7	86:1:3917:OHX:N6	2.63	0.47
75:O9:12:LYS:HE2	75:O9:12:LYS:HB3	1.48	0.47
36:1:3026:G:O6	86:1:3937:OHX:N4	2.47	0.47
36:5:1828:A:H2'	36:5:1829:G:C8	2.49	0.47
58:N2:32:SER:HA	58:N2:35:LYS:HB3	1.97	0.47
2:S0:125:ASP:OD1	2:S0:127:ARG:HB3	2.13	0.47
1:2:1158:C:OP2	86:2:2170:OHX:N5	2.47	0.47
36:1:2190:U:C4	36:1:2191:U:C4	3.03	0.47
1:6:114:C:H6	1:6:114:C:H5'	1.80	0.47
1:6:914:G:H5'	1:6:914:G:C8	2.50	0.47
86:1:3913:OHX:N5	51:M5:204:LYS:O	2.48	0.47
36:1:40:A:N7	64:N8:29:PRO:O	2.48	0.47
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.14	0.47
9:S7:39:ARG:CZ	55:M9:189:ALA:HB2	8.10	0.47
1:6:156:A:H2'	1:6:157:A:O4'	2.15	0.47
36:5:734:C:H2'	36:5:735:A:O4'	2.15	0.47
42:L5:182:GLY:HA2	42:L5:194:LEU:HD13	1.96	0.47
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.45	0.47
4:S2:69:ILE:HG12	4:S2:133:LYS:HB3	2.19	0.47
36:5:1936:A:H2'	36:5:1937:U:O4'	2.15	0.47
36:1:2630:C:H1'	36:1:2758:A:N3	2.30	0.47
36:5:1093:A:OP1	36:5:1093:A:H4'	2.15	0.47
41:L4:219:LEU:O	41:L4:222:VAL:HG13	2.14	0.47
47:M0:12:GLN:HA	47:M0:59:GLN:NE2	2.45	0.47
1:2:310:C:H4'	25:D3:33:LEU:HD23	1.97	0.47
1:2:1497:U:C4	1:2:1511:U:O2	2.67	0.47
1:2:1497:U:OP2	86:2:2032:OHX:N1	2.47	0.47
36:1:2206:G:C2	36:1:2207:A:C8	3.03	0.47
3:S1:61:LEU:O	3:S1:64:ARG:HG3	4.63	0.47
63:N7:3:LYS:HD3	66:O0:35:ARG:O	3.49	0.47
1:2:694:U:H3'	1:2:695:U:H6	1.76	0.47
8:S6:196:ARG:HB2	8:S6:196:ARG:NH1	2.29	0.47
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.48	0.47
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.15	0.47
1:6:578:U:H4'	1:6:579:A:C5'	2.42	0.47
8:S6:167:LYS:HD3	8:S6:169:TYR:CE2	2.50	0.47
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:512:A:H2'	1:6:513:U:C6	2.50	0.47
1:6:219:A:C6	1:6:843:U:H1'	2.50	0.47
8:S6:64:LYS:HZ1	8:S6:81:VAL:HG22	1.80	0.47
36:1:1063:G:N7	36:1:1097:G:H2'	2.29	0.47
10:S8:48:THR:HG21	10:S8:54:LYS:HB2	1.96	0.47
38:4:83:C:H1'	38:4:85:G:H21	1.80	0.47
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.15	0.47
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.46	0.47
36:5:2971:A:H5''	36:5:2972:G:C5'	2.45	0.47
77:Q1:4:LYS:HD2	77:Q1:5:TRP:CZ3	2.50	0.47
5:S3:70:THR:O	5:S3:74:GLN:N	2.35	0.47
53:M7:62:ARG:NH1	36:5:412:G:OP1	160.16	0.47
1:6:647:G:N2	1:6:687:G:N2	2.60	0.47
62:N6:52:ARG:NH1	38:8:71:A:O2'	35.90	0.47
46:L9:27:VAL:HG11	46:L9:79:ILE:HA	1.95	0.47
1:6:417:A:H5'	1:6:418:G:C5	2.50	0.47
20:C8:141:THR:HG21	1:6:1174:C:OP2	353.67	0.47
22:D0:21:LYS:HA	22:D0:94:GLU:HG2	1.97	0.47
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.49	0.47
9:S7:110:GLN:HB3	9:S7:110:GLN:HE21	3.82	0.47
42:L5:187:THR:O	42:L5:189:GLU:N	2.47	0.47
1:6:1776:A:H2'	1:6:1777:G:H8	1.80	0.47
1:2:346:G:H5'	13:C1:79:LYS:HE2	1.97	0.47
23:D1:17:CYS:HA	23:D1:24:ILE:HD11	1.97	0.47
34:SR:69:GLN:O	34:SR:83:ALA:HB3	2.15	0.47
1:6:1799:U:H4'	1:6:1800:A:H2'	1.96	0.47
36:5:2775:U:H2'	36:5:2776:C:C6	2.50	0.47
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	2.89	0.47
73:O7:2:GLY:N	36:5:2138:A:HO2'	174.39	0.47
36:1:1216:C:C5'	36:1:1216:C:H6	2.27	0.47
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.75	0.47
49:M3:57:VAL:N	49:M3:112:ASN:OD1	2.45	0.47
45:L8:57:ARG:O	45:L8:61:GLN:HG3	3.04	0.47
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	2.46	0.47
1:6:82:U:H2'	1:6:83:G:O4'	2.15	0.47
36:1:1317:A:O2'	36:1:1318:A:H3'	2.14	0.47
11:S9:116:LEU:HG	11:S9:117:GLY:H	2.88	0.47
59:N3:35:TYR:HB2	59:N3:63:LYS:HD3	1.97	0.47
41:L4:108:LYS:HE3	41:L4:111:VAL:HG22	4.21	0.47
36:1:627:U:H2'	36:1:628:A:C8	2.50	0.47
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:91:G:C6	37:3:92:A:C6	3.03	0.47
36:1:1540:U:OP1	86:1:4017:OHX:N1	2.48	0.47
49:M3:116:LEU:O	49:M3:120:GLN:HB2	2.55	0.47
1:6:1758:U:H2'	1:6:1759:C:C6	2.50	0.47
37:3:19:C:H2'	37:3:20:A:H8	1.79	0.47
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.61	0.47
3:S1:48:VAL:HG12	3:S1:49:ASN:O	2.66	0.47
75:O9:4:GLN:HA	36:5:1833:G:O2'	119.91	0.47
17:C5:129:GLY:O	17:C5:130:ARG:HB2	2.63	0.47
36:1:3294:A:H2'	36:1:3295:A:O4'	2.15	0.47
9:S7:6:ALA:O	9:S7:8:ILE:N	3.22	0.47
1:2:1151:A:H2'	1:2:1152:A:H8	1.78	0.47
26:D4:37:LYS:O	26:D4:41:ARG:HG3	2.14	0.47
6:S4:184:THR:C	6:S4:189:LEU:HD13	2.78	0.47
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.18	0.47
8:S6:64:LYS:NZ	8:S6:81:VAL:HG22	2.29	0.47
1:2:1253:U:H4'	33:E1:143:LYS:N	2.30	0.47
36:5:1573:G:C6	36:5:1574:C:H1'	2.49	0.47
41:L4:193:LYS:O	41:L4:198:ARG:HG2	4.01	0.47
49:M3:157:ARG:NH2	64:N8:124:ILE:HG21	3.99	0.47
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.14	0.47
38:8:79:A:H2'	38:8:80:A:O4'	2.15	0.47
1:2:1773:C:H2'	1:2:1774:G:H8	1.80	0.47
44:L7:198:ALA:O	44:L7:201:PHE:HB3	2.41	0.47
46:L9:41:ILE:HG22	46:L9:43:VAL:HG12	4.52	0.47
46:L9:41:ILE:HD11	46:L9:67:ALA:HB1	1.97	0.47
36:1:121:A:C6	45:L8:129:PRO:HG3	2.50	0.47
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.15	0.47
86:5:4011:OHX:N3	86:5:4201:OHX:N1	2.63	0.47
36:1:2376:G:C6	36:1:2377:G:O6	2.68	0.47
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.65	0.47
41:L4:142:VAL:HB	41:L4:145:ILE:HG12	2.06	0.47
55:M9:110:ARG:C	55:M9:112:ALA:H	2.59	0.47
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.79	0.47
36:5:65:A:C4	36:5:110:G:N7	2.83	0.47
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.34	0.47
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.36	0.47
36:1:1240:A:H61	36:1:1244:A:C5'	2.27	0.47
86:2:2045:OHX:N2	86:2:2100:OHX:N6	2.62	0.47
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	2.10	0.47
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:192:LYS:HG2	52:M6:192:LYS:H	1.48	0.47
36:5:2776:C:H5''	36:5:2777:G:O5'	2.14	0.47
36:5:1440:G:H2'	36:5:1441:G:C8	2.50	0.47
1:2:1347:U:O2	1:2:1516:A:H5'	2.15	0.47
1:2:899:G:O2'	1:2:915:A:N1	2.45	0.47
1:2:1009:U:H2'	1:2:1010:C:C6	2.50	0.47
20:C8:14:ILE:HA	20:C8:22:VAL:O	2.15	0.47
1:6:521:A:H2'	1:6:522:U:O4'	2.14	0.47
36:1:107:A:H1'	36:1:325:A:N3	2.30	0.47
18:C6:78:VAL:O	18:C6:81:ILE:HG12	2.79	0.47
1:2:11:A:O2'	1:2:12:U:H5'	2.14	0.47
41:L4:55:LYS:HE2	41:L4:55:LYS:HB3	4.28	0.47
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.49	0.47
2:S0:147:THR:O	2:S0:161:PRO:HA	2.92	0.47
36:1:2503:G:H1'	36:1:2504:U:C5	2.50	0.47
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.37	0.47
34:SR:22:SER:HB3	34:SR:70:ASP:HA	1.96	0.47
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.80	0.47
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.48	0.47
5:S3:160:SER:OG	5:S3:161:GLY:N	3.13	0.47
38:4:83:C:H1'	38:4:85:G:N2	2.30	0.47
45:L8:112:GLU:O	45:L8:116:VAL:HB	2.15	0.47
1:6:1698:G:H1'	1:6:1699:G:OP1	2.15	0.47
15:C3:56:ASP:OD1	29:D7:52:THR:OG1	2.29	0.47
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.89	0.47
46:L9:86:TYR:CD2	46:L9:151:VAL:HG22	2.89	0.47
72:O6:34:SER:OG	72:O6:37:THR:HG23	2.15	0.47
36:5:3165:A:H61	36:5:3285:C:N4	2.10	0.47
1:2:1349:G:H2'	1:2:1350:U:C6	2.50	0.47
2:S0:179:ARG:HD3	2:S0:183:ARG:NH1	2.29	0.47
74:O8:4:GLU:HG3	74:O8:5:ILE:N	2.99	0.47
1:6:282:C:H2'	1:6:283:U:O4'	2.14	0.47
1:2:314:C:N3	1:2:354:C:N4	2.48	0.47
2:S0:112:THR:OG1	2:S0:113:ARG:N	2.48	0.47
36:1:121:A:C2	45:L8:129:PRO:HB3	2.50	0.47
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.73	0.47
15:C3:94:LYS:HZ2	1:6:952:A:H5''	300.92	0.47
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.72	0.47
49:M3:105:ASN:CG	49:M3:108:ILE:HG12	2.91	0.47
64:N8:71:PRO:HG2	64:N8:109:TYR:HA	1.96	0.47
36:1:1916:U:H2'	36:1:1917:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2298:U:O4	36:5:2923:U:H5	1.98	0.47
52:M6:41:LEU:HD23	52:M6:138:LEU:HD22	1.97	0.47
50:M4:34:ALA:HB2	50:M4:85:TRP:CZ3	2.50	0.47
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.30	0.47
1:6:1759:C:H2'	1:6:1760:G:O4'	2.15	0.47
40:L3:86:VAL:HA	40:L3:162:VAL:HG12	3.03	0.47
25:D3:48:HIS:HB3	25:D3:104:LEU:O	2.14	0.47
6:S4:127:LYS:N	6:S4:140:VAL:O	2.62	0.47
36:1:1134:G:C2	36:1:1135:A:C8	3.03	0.47
36:1:90:C:H2'	36:1:91:G:H5'	1.97	0.47
5:S3:194:LYS:O	5:S3:196:ARG:N	2.48	0.47
48:M1:103:GLY:HA3	48:M1:128:TYR:CD2	2.51	0.47
32:E0:20:LYS:HD2	32:E0:21:VAL:H	5.55	0.47
16:C4:23:PHE:HD1	16:C4:96:PRO:HD3	1.78	0.47
39:L2:247:ARG:NH1	1:6:993:A:H2	254.86	0.47
36:1:274:G:H2'	36:1:275:U:O4'	2.15	0.47
18:C6:52:LEU:HD22	18:C6:60:PHE:CE1	3.30	0.46
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	2.08	0.46
3:S1:97:LEU:HB3	3:S1:232:HIS:CD2	4.60	0.46
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.45	0.46
17:C5:128:HIS:HA	1:6:1180:C:O2'	335.32	0.46
17:C5:127:ARG:O	17:C5:130:ARG:NH1	5.04	0.46
1:2:703:G:H2'	1:2:704:C:H5'	1.96	0.46
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.15	0.46
36:1:299:G:N7	86:1:4079:OHX:N2	2.63	0.46
48:M1:139:THR:O	48:M1:140:ARG:HD2	2.14	0.46
42:L5:279:LYS:HG2	42:L5:282:ARG:CZ	2.45	0.46
57:N1:129:LYS:HE2	36:5:1095:U:O4'	248.87	0.46
36:5:20:A:O2'	36:5:21:G:H5'	2.15	0.46
1:6:1231:U:O5'	1:6:1259:U:H1'	2.15	0.46
11:S9:85:VAL:CG1	11:S9:99:LEU:HD11	2.45	0.46
45:L8:108:ARG:O	45:L8:110:THR:N	3.52	0.46
29:D7:67:THR:OG1	29:D7:70:LYS:O	2.29	0.46
74:O8:5:ILE:HA	74:O8:5:ILE:HD12	3.65	0.46
36:1:410:U:O4	86:1:4055:OHX:N5	2.48	0.46
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.47	0.46
68:O2:33:ARG:HH11	36:5:944:C:H4'	163.01	0.46
12:C0:30:ALA:O	12:C0:31:LYS:HB2	3.63	0.46
1:2:1756:A:O5'	1:2:1756:A:C8	2.66	0.46
41:L4:334:PHE:HA	41:L4:339:LEU:HD12	1.97	0.46
27:D5:43:ASP:C	27:D5:45:GLU:H	2.88	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:50:PRO:HB3	49:M3:138:VAL:O	2.70	0.46
11:S9:123:HIS:O	11:S9:127:VAL:HG23	2.16	0.46
16:C4:97:GLY:O	16:C4:99:GLN:N	3.95	0.46
32:E0:55:ARG:HB2	32:E0:58:PRO:HG3	1.97	0.46
36:5:1081:U:O2'	36:5:1082:U:O5'	2.32	0.46
1:2:1281:G:OP1	22:D0:78:THR:HG21	2.14	0.46
86:1:3969:OHX:N5	86:1:4155:OHX:N2	2.62	0.46
56:N0:23:LYS:HA	57:N1:146:ASN:HD21	3.15	0.46
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.16	0.46
6:S4:141:THR:O	6:S4:143:ASP:N	2.48	0.46
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	2.05	0.46
36:5:3127:A:H2'	36:5:3128:G:O4'	2.15	0.46
59:N3:94:TYR:CZ	60:N4:21:PHE:HB2	2.77	0.46
36:1:1614:C:H2'	36:1:1615:C:H6	1.80	0.46
36:5:571:U:H2'	36:5:572:A:H8	1.79	0.46
16:C4:61:MET:O	16:C4:64:ALA:N	2.48	0.46
1:6:373:G:N7	86:6:2185:OHX:N3	2.62	0.46
1:6:1154:G:N7	86:6:2135:OHX:N2	2.63	0.46
41:L4:353:ALA:O	41:L4:357:GLU:HG3	2.15	0.46
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	2.05	0.46
36:1:637:C:H1'	36:1:638:C:C6	2.51	0.46
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.46	0.46
36:5:44:U:H5''	36:5:45:A:OP2	2.14	0.46
1:6:29:U:H2'	1:6:30:G:H8	1.80	0.46
20:C8:102:ALA:O	20:C8:105:VAL:HG12	2.15	0.46
5:S3:55:THR:HG23	5:S3:90:ARG:HG2	1.97	0.46
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.71	0.46
48:M1:83:GLY:HA2	48:M1:86:VAL:HG23	1.97	0.46
1:6:1450:U:OP2	86:6:2128:OHX:N4	2.48	0.46
24:D2:117:ARG:HA	24:D2:117:ARG:HD2	1.80	0.46
6:S4:240:LYS:N	6:S4:240:LYS:HE2	2.30	0.46
1:2:1360:A:C4	1:2:1361:U:H1'	2.50	0.46
36:1:2435:G:N7	36:1:2593:A:H2'	2.30	0.46
3:S1:164:ILE:HG12	3:S1:204:ILE:HG21	3.62	0.46
40:L3:296:THR:HG21	40:L3:356:LEU:HB2	1.97	0.46
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.46	0.46
31:D9:19:ARG:NH2	1:6:1597:A:P	407.42	0.46
47:M0:42:THR:HG23	47:M0:45:GLU:HB2	2.03	0.46
11:S9:149:ARG:H	11:S9:149:ARG:HG2	2.03	0.46
49:M3:164:GLU:O	49:M3:166:ALA:N	2.40	0.46
13:C1:96:LYS:NZ	1:6:374:U:OP1	348.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:131:LEU:HA	20:C8:145:ARG:HH12	1.80	0.46
36:1:1103:A:H1'	36:1:1104:G:P	2.55	0.46
16:C4:115:ILE:O	28:D6:65:PRO:HG3	3.80	0.46
28:D6:44:ILE:HD12	28:D6:67:THR:HG22	8.61	0.46
40:L3:21:ARG:NH2	36:5:3309:G:O6	199.82	0.46
8:S6:126:ASP:OD1	8:S6:127:THR:HG22	3.98	0.46
41:L4:74:ILE:HG21	41:L4:94:CYS:SG	2.56	0.46
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.15	0.46
36:1:561:C:H2'	36:1:562:C:C6	2.50	0.46
1:2:542:A:H5''	1:2:544:A:C8	2.51	0.46
26:D4:10:ARG:HD3	1:6:780:A:N3	432.81	0.46
15:C3:19:SER:HG	15:C3:22:ALA:HB2	3.17	0.46
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.65	0.46
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	1.97	0.46
69:O3:85:PHE:CD1	69:O3:89:LEU:HD21	3.04	0.46
14:C2:40:GLY:O	14:C2:124:LYS:N	2.47	0.46
62:N6:12:ARG:HD3	36:5:215:G:H5''	88.37	0.46
12:C0:32:HIS:CG	12:C0:33:GLU:H	3.47	0.46
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.51	0.46
20:C8:132:ARG:HB3	20:C8:136:GLN:HG3	1.97	0.46
1:2:1788:G:P	16:C4:127:ARG:HH12	2.37	0.46
41:L4:99:MET:HE3	41:L4:102:PRO:HA	2.85	0.46
64:N8:85:ASP:O	64:N8:89:GLN:HG3	2.15	0.46
1:6:496:G:O6	1:6:497:G:N2	2.47	0.46
36:5:2255:A:H5'	36:5:2261:G:H22	1.80	0.46
36:1:956:U:OP1	86:1:4124:OHX:N1	2.48	0.46
36:5:656:A:H2'	36:5:657:A:C8	2.50	0.46
1:2:12:U:H2'	1:2:13:C:C6	2.51	0.46
1:6:1334:U:H2'	1:6:1335:U:C6	2.50	0.46
49:M3:23:LYS:HE3	51:M5:196:THR:HG21	6.53	0.46
36:5:196:G:C2	36:5:199:A:C8	3.03	0.46
36:1:1802:C:H2'	36:1:1803:C:C6	2.51	0.46
36:5:308:A:H5'	36:5:2223:A:O2'	2.15	0.46
49:M3:131:LYS:HB3	49:M3:131:LYS:HE2	1.59	0.46
1:2:730:G:H2'	1:2:730:G:N3	2.30	0.46
71:O5:105:ARG:HB2	71:O5:105:ARG:HE	4.82	0.46
1:6:445:A:H2'	1:6:445:A:N3	2.29	0.46
45:L8:248:LYS:N	45:L8:248:LYS:HD2	2.30	0.46
49:M3:80:VAL:HG13	49:M3:85:LEU:O	2.14	0.46
14:C2:29:LYS:HE2	14:C2:100:TRP:CD1	2.50	0.46
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.19	0.46
36:1:3230:G:H4'	50:M4:132:LYS:HD3	1.96	0.46
50:M4:121:MET:HE1	36:5:3215:A:H5'	276.81	0.46
86:1:4030:OHX:N2	86:1:4043:OHX:N1	2.63	0.46
36:1:3197:G:H2'	36:1:3198:U:H5''	1.96	0.46
36:1:1014:U:C2'	36:1:1015:U:H5''	2.46	0.46
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	4.27	0.46
26:D4:60:PHE:CD1	26:D4:71:GLY:HA3	2.50	0.46
26:D4:122:GLY:O	26:D4:125:LEU:HB3	2.15	0.46
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.83	0.46
12:C0:15:LEU:HD11	12:C0:68:LEU:HD13	3.94	0.46
11:S9:172:VAL:HG13	1:6:512:A:OP2	456.37	0.46
33:E1:116:LYS:NZ	33:E1:120:GLU:OE2	2.38	0.46
36:1:1952:G:H5'	36:1:1953:G:OP2	2.14	0.46
27:D5:56:THR:O	27:D5:103:ARG:NH2	5.82	0.46
69:O3:67:MET:HE1	69:O3:90:PRO:CD	2.46	0.46
36:1:2307:G:O2'	36:1:2310:U:OP2	2.33	0.46
36:1:1245:A:C3'	36:1:1246:G:H5''	2.45	0.46
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.99	0.46
22:D0:80:GLU:OE1	31:D9:44:ARG:NH1	2.56	0.46
1:6:1172:G:H2'	1:6:1173:C:C6	2.51	0.46
40:L3:350:ALA:O	40:L3:351:LEU:HG	2.16	0.46
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.81	0.46
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.15	0.46
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.23	0.46
34:SR:199:ILE:HA	34:SR:215:GLY:HA3	1.97	0.46
62:N6:5:SER:HB3	62:N6:8:VAL:HG12	1.97	0.46
11:S9:121:SER:HB3	11:S9:124:HIS:CB	4.78	0.46
2:S0:126:PRO:CG	2:S0:151:SER:HB2	4.09	0.46
36:1:1286:A:N3	36:1:1287:A:H1'	2.30	0.46
3:S1:137:ILE:HD12	3:S1:172:LEU:HD22	1.97	0.46
23:D1:64:GLU:OE2	29:D7:2:VAL:HG13	2.90	0.46
36:5:1109:U:H2'	36:5:1110:U:O4'	2.15	0.46
1:2:452:A:OP2	86:2:2039:OHX:N5	2.48	0.46
86:7:217:OHX:N4	86:7:225:OHX:N6	2.64	0.46
40:L3:262:TRP:HE1	52:M6:66:LYS:NZ	2.12	0.46
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.21	0.46
3:S1:158:SER:H	3:S1:161:ILE:HG13	1.79	0.46
86:5:4055:OHX:N3	86:5:4200:OHX:N6	2.63	0.46
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.15	0.46
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1573:A:O5'	1:2:1573:A:H8	1.98	0.46
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	1.96	0.46
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	1.97	0.46
34:SR:134:TRP:CZ3	34:SR:140:CYS:HB2	2.78	0.46
1:2:1353:U:H2'	1:2:1354:G:H8	1.79	0.46
36:5:1549:U:H2'	36:5:1550:C:C6	2.50	0.46
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.95	0.46
36:1:158:G:H2'	36:1:159:A:H8	1.80	0.46
36:1:2401:A:O3'	41:L4:68:GLY:HA2	2.15	0.46
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.51	0.46
66:O0:51:LEU:HA	66:O0:51:LEU:HD12	1.56	0.46
34:SR:179:LYS:NZ	34:SR:191:ASP:OD1	2.33	0.46
40:L3:59:ASP:OD1	40:L3:71:GLU:HG2	2.57	0.46
1:6:577:G:H3'	1:6:577:G:C8	2.50	0.46
1:2:992:A:H2	1:2:1012:U:N3	1.98	0.46
3:S1:56:SER:HB3	3:S1:59:ASP:OD2	7.55	0.46
11:S9:3:ARG:H	11:S9:3:ARG:HD3	2.52	0.46
36:1:1094:U:H1'	36:1:1096:U:C2'	2.45	0.46
36:1:314:U:H2'	36:1:315:C:C6	2.51	0.46
1:2:514:G:O2'	1:2:515:A:H5''	2.15	0.46
48:M1:96:PHE:O	48:M1:156:LYS:NZ	4.13	0.46
26:D4:2:SER:N	26:D4:32:ARG:HD3	4.45	0.46
5:S3:190:ARG:HH12	5:S3:195:SER:HA	2.40	0.46
38:4:82:U:O2	38:4:83:C:C5	2.69	0.46
79:Q3:11:THR:HG21	79:Q3:27:LYS:HB2	3.29	0.46
49:M3:61:PRO:C	49:M3:62:THR:HG23	2.35	0.46
6:S4:62:LYS:HD2	6:S4:66:MET:HG2	3.86	0.46
1:2:1535:U:H1'	1:2:1536:G:C2	2.51	0.46
61:N5:92:LYS:HD3	61:N5:110:VAL:HG12	5.47	0.46
36:1:2916:U:H5	36:1:2935:U:HO2'	1.62	0.46
26:D4:50:ALA:O	26:D4:51:GLU:HB3	2.66	0.46
1:6:1282:U:OP1	86:6:2137:OHX:N4	2.49	0.46
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.73	0.46
39:L2:77:ILE:HD13	39:L2:128:ARG:HB3	1.97	0.46
41:L4:179:LEU:HD13	41:L4:183:LYS:HG3	2.61	0.46
36:1:900:G:H1'	36:1:1589:A:H61	1.79	0.46
36:5:1657:C:C5	36:5:1797:A:H5''	2.50	0.46
63:N7:43:VAL:O	63:N7:72:ILE:HA	2.15	0.46
1:2:604:A:OP2	86:2:2166:OHX:N5	2.49	0.46
64:N8:45:MET:HE2	64:N8:45:MET:HA	4.88	0.46
36:5:1895:A:O2'	36:5:3053:G:H4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:939:U:OP2	64:N8:26:ARG:NH2	2.39	0.46
36:1:1595:U:C2	36:1:1596:C:C5	3.03	0.46
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.80	0.46
36:1:655:C:H2'	36:1:656:A:H8	1.80	0.46
36:5:3232:G:N2	36:5:3255:U:O2	2.41	0.46
1:6:276:C:O2'	1:6:277:U:OP2	2.29	0.46
1:6:1248:C:H2'	1:6:1249:U:C6	2.51	0.46
36:5:1262:G:H5''	36:5:1263:A:OP2	2.15	0.46
1:6:629:U:H1'	1:6:971:A:N1	2.31	0.46
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.15	0.46
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.40	0.46
36:1:1849:C:H6	36:1:1849:C:H5'	1.79	0.46
44:L7:206:LYS:HB3	44:L7:206:LYS:HE3	1.80	0.46
46:L9:74:LEU:HD23	46:L9:74:LEU:HA	1.67	0.46
25:D3:130:VAL:HG23	25:D3:130:VAL:O	2.64	0.46
1:2:809:A:N6	1:2:810:G:O6	2.48	0.46
56:N0:89:ASN:OD1	57:N1:156:TYR:N	2.43	0.46
49:M3:47:ALA:O	49:M3:137:GLN:NE2	2.93	0.46
1:2:321:C:H4'	1:2:322:G:OP2	2.15	0.46
23:D1:81:ASN:N	23:D1:81:ASN:OD1	2.74	0.46
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.43	0.46
3:S1:41:ARG:HH12	3:S1:232:HIS:HB3	1.81	0.46
36:1:3151:U:H4'	36:1:3294:A:H1'	1.96	0.46
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.15	0.46
36:1:3165:A:H2'	36:1:3166:C:C6	2.50	0.46
40:L3:221:THR:HB	40:L3:273:HIS:O	2.16	0.46
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	2.38	0.46
18:C6:69:VAL:HB	18:C6:77:GLN:OE1	2.16	0.46
1:2:138:A:H62	1:2:266:A:H61	1.62	0.46
1:6:151:G:N2	1:6:163:G:H22	2.13	0.46
41:L4:359:LEU:HA	56:N0:8:GLN:OE1	2.63	0.46
62:N6:36:SER:O	62:N6:40:ARG:N	2.43	0.46
7:S5:101:GLY:O	7:S5:103:ASN:N	3.23	0.46
69:O3:67:MET:HE1	69:O3:90:PRO:HD3	1.97	0.46
34:SR:200:ASN:O	34:SR:201:THR:HB	2.14	0.46
1:2:328:A:H2'	1:2:329:G:O4'	2.16	0.46
1:6:1294:G:C6	1:6:1295:G:N7	2.83	0.46
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	1.97	0.46
36:1:979:U:H1'	36:1:980:A:C5	2.51	0.46
34:SR:195:HIS:CD2	34:SR:199:ILE:HD13	2.50	0.46
55:M9:43:LYS:HD2	55:M9:43:LYS:HA	4.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2112:U:O5'	36:1:2112:U:H6	1.98	0.46
24:D2:17:ALA:HB2	24:D2:25:VAL:HG13	1.97	0.46
21:C9:63:ARG:O	21:C9:67:MET:HG3	4.78	0.46
36:1:1285:G:O2'	36:1:1286:A:OP2	2.26	0.46
59:N3:13:ILE:HD12	59:N3:85:TRP:CG	2.89	0.46
36:1:706:A:H4'	36:1:781:G:O2'	2.16	0.46
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.49	0.46
1:2:1245:G:N2	33:E1:95:HIS:HE2	2.13	0.46
77:Q1:8:LYS:O	77:Q1:12:ARG:HG3	2.75	0.46
36:5:736:A:H2'	36:5:737:G:O4'	2.16	0.46
9:S7:140:VAL:HG22	9:S7:150:GLN:HG3	1.98	0.46
32:E0:37:ARG:O	32:E0:41:THR:OG1	3.58	0.46
5:S3:119:ALA:HB1	5:S3:136:VAL:HG11	1.97	0.46
36:1:873:C:O5'	36:1:874:U:H4'	2.15	0.46
1:2:1013:A:H2'	1:2:1014:G:O4'	2.16	0.46
67:O1:81:GLU:O	67:O1:82:GLU:HG3	2.15	0.46
36:5:231:G:C2	36:5:232:G:C8	3.04	0.46
36:1:3088:G:H2'	36:1:3089:C:O4'	2.15	0.46
1:2:854:U:O4	55:M9:173:ARG:NH2	2.43	0.46
36:1:2726:C:O2'	36:1:2727:A:H2'	2.16	0.46
1:2:142:G:N2	1:2:174:U:H1'	2.30	0.46
48:M1:51:ARG:NH2	36:5:2682:C:OP2	304.13	0.46
9:S7:158:ASP:O	9:S7:160:GLN:N	2.48	0.46
38:8:157:U:O2'	38:8:158:U:H5'	2.16	0.46
1:6:913:G:C8	36:5:2205:U:C4	3.04	0.46
6:S4:42:LEU:HD12	6:S4:101:LEU:HD22	4.52	0.46
15:C3:27:LYS:H	15:C3:27:LYS:CD	2.27	0.46
68:O2:6:HIS:HA	68:O2:7:PRO:HD2	2.87	0.46
36:5:2796:G:H5''	36:5:2798:C:O4'	2.15	0.46
68:O2:61:LYS:HD3	36:5:1339:C:OP1	194.28	0.46
56:N0:86:GLY:O	56:N0:88:HIS:NE2	2.49	0.46
36:5:1469:C:O2'	36:5:1509:A:H2	1.99	0.46
1:6:1185:U:C2	1:6:1458:G:N7	2.83	0.46
35:SM:68:ARG:HH21	1:6:1460:A:P	333.67	0.46
45:L8:104:GLU:O	45:L8:107:GLU:N	3.41	0.46
1:6:885:G:H2'	1:6:886:U:C6	2.51	0.46
36:5:314:U:O4	86:5:4192:OHX:N5	2.49	0.46
1:2:1291:G:N2	1:2:1324:G:N2	2.62	0.46
53:M7:67:ILE:HG23	53:M7:82:ARG:HD2	3.72	0.46
1:6:828:U:H2'	1:6:829:A:H5''	1.97	0.46
38:8:67:U:O4	86:8:229:OHX:N3	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.85	0.46
6:S4:37:LYS:NZ	6:S4:40:GLU:OE1	5.07	0.46
36:5:123:A:H5'	36:5:124:U:OP2	2.15	0.46
56:N0:155:ARG:HD3	56:N0:172:TYR:CD2	2.50	0.46
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.29	0.46
17:C5:21:ASP:O	17:C5:24:LYS:N	3.35	0.46
8:S6:121:LEU:HB2	8:S6:125:THR:HB	4.07	0.46
6:S4:100:ARG:HH21	6:S4:122:LYS:HA	2.16	0.46
46:L9:55:VAL:O	46:L9:68:LEU:HD21	3.33	0.46
36:1:3160:U:H2'	36:1:3161:C:H6	1.76	0.46
36:1:118:U:O2	36:1:121:A:H5'	2.15	0.46
33:E1:88:PRO:HA	33:E1:89:LYS:HA	4.82	0.46
1:2:25:C:OP2	1:2:26:A:H2'	2.15	0.46
36:5:599:C:H2'	36:5:600:G:O4'	2.15	0.46
25:D3:16:ARG:H	25:D3:16:ARG:HG3	1.55	0.46
36:5:3358:U:H2'	36:5:3359:A:H8	1.81	0.46
33:E1:94:LYS:HB3	33:E1:95:HIS:H	1.55	0.46
26:D4:62:THR:HG23	1:6:531:C:O2	422.10	0.46
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.51	0.46
86:5:4055:OHX:N1	86:5:4200:OHX:N4	2.64	0.46
59:N3:11:PHE:HB2	59:N3:88:ARG:NH1	2.79	0.46
5:S3:124:ARG:HB3	35:SM:127:ALA:HB2	1.97	0.46
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.48	0.46
36:1:263:C:H2'	36:1:264:G:O4'	2.16	0.46
48:M1:28:ASP:OD2	48:M1:32:ARG:HD3	7.30	0.46
86:1:3957:OHX:N1	86:1:4139:OHX:N4	2.64	0.46
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	3.01	0.46
38:8:154:C:H2'	38:8:155:A:O4'	2.16	0.46
1:6:463:U:OP1	86:6:2203:OHX:N1	2.49	0.46
36:5:322:U:H5''	36:5:323:A:OP1	2.14	0.46
10:S8:56:ARG:NH2	1:6:332:U:OP2	287.37	0.46
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.49	0.46
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.50	0.46
41:L4:23:PRO:O	41:L4:25:VAL:N	2.49	0.46
1:2:702:G:O2'	1:2:703:G:O4'	2.32	0.46
3:S1:72:ASP:OD2	28:D6:59:TYR:OH	2.28	0.46
1:2:887:A:H2'	1:2:888:U:C6	2.50	0.46
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.30	0.46
37:3:61:G:H2'	37:3:62:U:H6	1.80	0.46
63:N7:36:HIS:HA	63:N7:38:PHE:CE1	2.50	0.46
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.76	0.46
86:5:4066:OHX:N1	86:5:4143:OHX:N4	2.63	0.46
66:O0:53:LYS:HE3	66:O0:69:TYR:CE2	5.38	0.46
17:C5:22:LEU:O	17:C5:26:LEU:HD13	2.16	0.46
4:S2:246:GLU:HG2	4:S2:246:GLU:H	1.77	0.46
2:S0:66:ALA:HB1	23:D1:50:TYR:CD1	3.71	0.46
39:L2:131:GLY:H	39:L2:169:ILE:HG22	2.25	0.46
1:2:1346:A:H8	1:2:1370:U:O2	1.99	0.46
36:1:256:G:H4'	71:O5:111:PHE:HZ	1.80	0.46
10:S8:81:VAL:HG21	10:S8:95:THR:O	2.84	0.46
10:S8:81:VAL:HG11	10:S8:94:ASN:HA	1.97	0.46
13:C1:2:SER:O	13:C1:3:THR:OG1	4.23	0.46
86:1:4001:OHX:N5	86:1:4171:OHX:N5	2.64	0.46
40:L3:46:PHE:CE2	40:L3:205:VAL:HG22	2.50	0.46
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.42	0.46
39:L2:36:GLU:O	39:L2:91:GLY:HA2	2.16	0.46
36:1:594:U:H2'	36:1:609:G:O6	2.16	0.46
13:C1:101:GLU:OE1	13:C1:103:ARG:NH2	2.82	0.46
41:L4:57:GLY:HA3	41:L4:98:ARG:HB2	1.98	0.46
86:1:3969:OHX:N6	86:1:4155:OHX:N2	2.63	0.46
1:6:493:U:H2'	1:6:494:U:H5''	1.97	0.46
10:S8:184:LEU:HD23	10:S8:189:LEU:HA	3.08	0.46
8:S6:4:ASN:HB3	8:S6:110:ALA:HA	2.52	0.46
36:5:7:C:H2'	36:5:8:C:C6	2.51	0.46
36:1:2882:U:H2'	36:1:2883:U:C6	2.50	0.46
1:2:986:G:H2'	1:2:987:G:O4'	2.15	0.46
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.36	0.46
1:6:961:U:H2'	1:6:962:C:C6	2.51	0.46
26:D4:76:TYR:OH	26:D4:86:GLU:OE2	2.21	0.46
1:2:1009:U:H2'	1:2:1010:C:H6	1.79	0.46
36:1:1020:G:H5'	36:1:1021:G:OP2	2.15	0.46
40:L3:13:HIS:HB3	40:L3:16:PHE:HD1	2.27	0.46
1:6:97:C:O2'	1:6:426:G:H5'	2.16	0.46
41:L4:62:ALA:HB1	41:L4:76:ARG:O	2.16	0.46
36:1:773:G:H8	36:1:773:G:O5'	1.99	0.46
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.48	0.46
36:5:717:C:H2'	36:5:718:G:O4'	2.16	0.46
1:6:1432:U:H4'	1:6:1433:G:H5''	1.97	0.46
36:5:1908:A:H2'	36:5:1909:A:O4'	2.15	0.46
1:6:249:U:H3'	1:6:250:C:C5'	2.46	0.46
47:M0:62:SER:O	47:M0:65:LEU:HB2	2.72	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:37:TYR:CE1	75:O9:39:ALA:HA	2.51	0.46
4:S2:60:SER:O	23:D1:29:HIS:ND1	2.45	0.46
59:N3:39:VAL:HG22	59:N3:52:ALA:HB2	1.98	0.46
1:2:539:G:OP2	1:2:539:G:H8	1.99	0.46
50:M4:20:VAL:O	50:M4:66:THR:HG23	2.18	0.46
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.15	0.46
20:C8:67:GLU:O	20:C8:71:GLN:HG3	5.07	0.46
34:SR:36:ALA:N	34:SR:71:CYS:SG	2.89	0.46
1:2:1101:G:H5''	24:D2:76:SER:HB2	1.97	0.46
41:L4:3:ARG:HA	41:L4:4:PRO:HD2	1.57	0.46
36:1:2656:A:C8	36:1:2658:G:C8	3.04	0.46
1:2:1796:C:C6	28:D6:5:ARG:HG2	2.51	0.46
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	2.79	0.46
67:O1:50:ARG:O	67:O1:93:VAL:HG23	3.26	0.46
26:D4:122:GLY:C	26:D4:124:ARG:N	3.10	0.46
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.53	0.46
3:S1:176:VAL:HG22	3:S1:184:LEU:HD22	5.11	0.46
12:C0:46:LEU:HA	12:C0:49:LEU:HB2	2.18	0.46
5:S3:7:LYS:HE3	22:D0:88:LYS:HE2	1.97	0.46
6:S4:187:ARG:NH1	1:6:753:A:OP2	377.47	0.46
39:L2:122:ASP:C	39:L2:123:ARG:HG3	2.70	0.46
1:6:538:A:H2	1:6:540:G:N2	2.08	0.46
1:2:1308:G:C2	1:2:1309:C:C2	3.04	0.46
68:O2:44:ARG:NH1	36:5:1145:G:OP1	208.44	0.46
70:O4:103:LYS:HA	70:O4:103:LYS:HD3	1.57	0.46
6:S4:29:PRO:O	6:S4:30:ARG:HB3	4.63	0.46
86:5:4066:OHX:N5	86:5:4143:OHX:N2	2.64	0.46
36:5:2209:U:O4	86:5:3963:OHX:N4	2.49	0.46
36:1:1491:A:N7	75:O9:2:ALA:HB1	2.31	0.46
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.15	0.46
54:M8:26:LEU:O	54:M8:30:VAL:HG23	2.16	0.46
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.16	0.46
43:L6:130:ILE:HG12	36:5:3269:U:C5	249.93	0.46
15:C3:98:VAL:HG22	1:6:952:A:H5'	293.70	0.46
33:E1:88:PRO:HB2	33:E1:89:LYS:HZ2	8.28	0.46
36:1:2724:U:H4'	57:N1:54:HIS:CD2	2.51	0.46
39:L2:101:VAL:HB	39:L2:165:VAL:HG12	3.01	0.46
46:L9:166:ARG:HH21	46:L9:168:ARG:HH12	11.27	0.46
36:5:2947:G:N2	36:5:2948:C:C2	2.84	0.46
36:5:1615:C:H2'	36:5:1616:U:H6	1.78	0.46
1:2:623:A:OP1	86:2:2156:OHX:N1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	2.46	0.46
49:M3:123:ILE:HG22	71:O5:118:ILE:HG12	2.84	0.46
36:1:1210:U:H2'	36:1:1211:U:C6	2.51	0.46
43:L6:164:SER:HB3	43:L6:166:LYS:HE3	1.96	0.46
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.46	0.46
66:O0:15:ALA:O	66:O0:19:LYS:HG2	2.54	0.46
12:C0:44:LYS:HD3	12:C0:44:LYS:HA	1.62	0.46
38:4:43:A:OP1	86:4:236:OHX:N5	2.49	0.46
24:D2:7:LEU:HD23	24:D2:7:LEU:HA	1.77	0.46
30:D8:19:THR:HB	30:D8:20:GLY:H	2.55	0.46
36:5:3056:U:OP2	86:5:3942:OHX:N2	2.49	0.46
34:SR:148:ASN:O	34:SR:149:ASP:HB2	3.44	0.46
47:M0:213:PHE:N	47:M0:214:PRO:HD3	2.31	0.46
20:C8:8:GLN:O	20:C8:10:SER:N	3.52	0.46
32:E0:42:ARG:HB3	32:E0:42:ARG:HH11	1.80	0.46
1:2:1096:C:H2'	1:2:1096:C:O2	2.15	0.46
52:M6:99:LEU:HA	52:M6:99:LEU:HD23	1.76	0.46
17:C5:116:LEU:HD23	17:C5:116:LEU:HA	1.80	0.46
36:1:3217:C:H2'	36:1:3217:C:O2	2.14	0.46
1:2:425:A:H5'	1:2:425:A:H8	1.80	0.46
36:5:102:C:O5'	36:5:102:C:H6	1.99	0.46
69:O3:41:ALA:HB3	69:O3:74:THR:HG22	1.97	0.46
44:L7:55:TYR:OH	44:L7:186:HIS:HD2	2.61	0.46
7:S5:73:THR:HG23	18:C6:114:ARG:HD2	1.98	0.46
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.55	0.46
1:2:1553:G:N2	1:2:1555:A:H3'	2.31	0.46
43:L6:161:ALA:HB2	36:5:3215:A:H1'	276.88	0.46
11:S9:149:ARG:CZ	1:6:765:G:C5	429.69	0.46
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.49	0.46
28:D6:62:TYR:CG	28:D6:63:ALA:N	3.03	0.46
50:M4:59:ASN:O	50:M4:62:GLN:HG2	5.23	0.46
21:C9:57:ARG:NH2	21:C9:80:TYR:CG	3.13	0.46
12:C0:54:TYR:O	12:C0:68:LEU:HD12	2.71	0.46
13:C1:139:VAL:HG12	13:C1:140:VAL:N	2.24	0.46
14:C2:46:ARG:HD3	1:6:1255:G:O6	455.52	0.46
33:E1:131:PHE:HB2	1:6:1253:U:OP1	457.10	0.46
26:D4:29:HIS:CD2	26:D4:29:HIS:N	4.22	0.46
36:1:1807:G:H5'	63:N7:135:ARG:NH2	2.31	0.46
1:2:1718:G:H2'	1:2:1719:A:O4'	2.16	0.46
17:C5:100:LYS:HG3	17:C5:101:ALA:N	3.92	0.46
1:6:312:A:N6	1:6:352:A:N3	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1228:G:H2'	1:6:1228:G:N3	2.31	0.46
1:2:1060:U:H2'	1:2:1061:A:O4'	2.16	0.46
63:N7:54:THR:HG22	63:N7:57:HIS:NE2	5.39	0.46
1:2:333:A:H2'	1:2:334:G:C8	2.51	0.46
11:S9:142:ASN:OD1	26:D4:64:PHE:HZ	2.66	0.46
36:1:1577:G:H2'	36:1:1578:C:C1'	2.45	0.46
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.51	0.46
52:M6:4:GLU:N	52:M6:4:GLU:OE1	2.49	0.46
41:L4:181:VAL:HG12	41:L4:182:LEU:N	2.31	0.46
34:SR:44:SER:O	34:SR:58:VAL:HG22	2.16	0.46
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.50	0.46
37:3:52:G:H21	48:M1:9:MET:CE	2.29	0.46
17:C5:99:GLY:O	1:6:1211:A:H1'	376.59	0.46
61:N5:142:ILE:HD13	61:N5:142:ILE:HA	1.78	0.46
46:L9:84:LYS:O	46:L9:188:THR:HG23	2.16	0.46
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.51	0.46
13:C1:80:MET:HE1	1:6:324:U:O2'	288.59	0.46
46:L9:2:LYS:NZ	46:L9:59:ASN:HD21	2.13	0.46
36:5:2846:U:O2'	86:5:4052:OHX:N1	2.49	0.46
36:1:415:G:H2'	36:1:416:A:C8	2.50	0.46
40:L3:49:TYR:OH	40:L3:166:ILE:HD12	2.16	0.46
36:1:2139:A:H62	73:O7:4:GLY:HA3	1.81	0.46
36:5:913:A:H2	36:5:2134:G:N3	2.14	0.46
1:6:357:G:OP2	86:6:2074:OHX:N6	2.48	0.46
36:1:168:U:H2'	36:1:169:U:C6	2.51	0.46
1:2:611:U:OP2	25:D3:5:LYS:HE2	2.16	0.46
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.46	0.46
67:O1:54:GLU:OE2	67:O1:54:GLU:N	2.47	0.46
50:M4:113:THR:HG22	50:M4:116:GLU:HB2	5.06	0.46
34:SR:109:ASP:O	34:SR:126:SER:OG	2.16	0.46
36:5:286:U:H2'	36:5:287:G:H8	1.81	0.46
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.97	0.46
3:S1:176:VAL:O	3:S1:177:GLN:NE2	2.48	0.46
10:S8:9:HIS:C	10:S8:9:HIS:ND1	3.86	0.46
53:M7:127:ARG:NH2	36:5:1508:C:OP1	138.52	0.46
8:S6:27:PHE:C	8:S6:30:LYS:HG2	2.36	0.46
5:S3:140:GLY:HA3	5:S3:182:LEU:HB3	1.98	0.46
36:5:1940:G:H2'	36:5:1941:C:O4'	2.16	0.46
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.21	0.46
44:L7:89:ILE:HD12	44:L7:214:TRP:HH2	1.80	0.46
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1654:G:O2'	1:6:1746:A:N6	2.49	0.46
1:2:5:U:C2	1:2:20:G:N2	2.83	0.46
5:S3:66:ILE:O	5:S3:70:THR:HG23	2.16	0.46
1:6:1279:C:H2'	1:6:1280:C:O4'	2.16	0.46
34:SR:252:LEU:N	34:SR:263:PHE:O	2.91	0.46
3:S1:222:LYS:HD3	3:S1:222:LYS:HA	2.30	0.46
7:S5:55:ASP:OD1	7:S5:57:SER:OG	5.11	0.46
27:D5:70:LYS:HA	27:D5:70:LYS:HD2	1.63	0.46
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.90	0.46
36:1:2366:C:H5'	40:L3:259:HIS:HE2	1.80	0.46
1:2:1602:C:H2'	1:2:1603:U:O4'	2.15	0.46
39:L2:79:ASN:ND2	39:L2:165:VAL:HG23	3.08	0.46
36:5:603:A:C5	36:5:604:G:H1'	2.51	0.46
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	2.62	0.46
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.16	0.46
36:5:1819:U:O4	86:5:4050:OHX:N3	2.49	0.46
42:L5:195:LEU:O	42:L5:199:ILE:HG13	2.58	0.46
1:2:1474:G:H2'	1:2:1475:A:C8	2.51	0.46
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.64	0.46
36:1:2749:G:OP1	42:L5:48:LYS:NZ	2.49	0.46
1:2:1785:U:OP1	16:C4:136:ARG:NH1	2.42	0.46
49:M3:64:LYS:HD3	49:M3:65:TYR:CZ	4.54	0.46
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.16	0.46
7:S5:128:ASN:O	7:S5:131:GLN:HB3	2.16	0.46
28:D6:11:ASN:HB3	1:6:934:C:H6	332.95	0.46
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.42	0.46
1:2:142:G:O5'	1:2:142:G:H8	1.99	0.46
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.16	0.46
86:5:4035:OHX:N6	86:5:4237:OHX:N5	2.64	0.46
1:6:526:A:N6	1:6:527:A:C6	2.83	0.46
36:1:2269:U:H2'	36:1:2271:A:OP2	2.16	0.46
38:4:131:A:H5''	61:N5:93:TYR:CE2	2.51	0.46
52:M6:83:ALA:O	52:M6:87:MET:HG3	3.31	0.46
86:1:4054:OHX:N4	86:1:4162:OHX:N1	2.64	0.46
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.16	0.46
71:O5:20:GLN:O	71:O5:23:ASP:HB2	2.15	0.46
1:6:1308:G:H2'	1:6:1309:C:C6	2.51	0.46
52:M6:84:LEU:HD22	52:M6:102:LEU:HD22	2.53	0.46
1:6:869:A:H2'	1:6:870:C:O4'	2.16	0.46
1:6:1592:A:H2'	1:6:1593:A:C8	2.51	0.46
16:C4:129:LYS:HE2	86:6:2170:OHX:N2	281.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.57	0.45
63:N7:97:SER:CB	63:N7:99:GLU:HG2	4.39	0.45
49:M3:166:ALA:N	64:N8:135:GLU:OE1	3.95	0.45
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.60	0.45
36:5:3153:U:H1'	36:5:3154:C:C6	2.51	0.45
27:D5:94:LYS:HG2	27:D5:95:HIS:HB3	1.98	0.45
10:S8:196:LEU:HD12	10:S8:196:LEU:HA	1.71	0.45
12:C0:27:PHE:O	12:C0:28:ASN:HB2	2.80	0.45
5:S3:142:LEU:HB2	35:SM:110:TRP:CE2	2.51	0.45
23:D1:65:SER:O	23:D1:69:LEU:HB2	2.49	0.45
39:L2:29:LEU:HD12	39:L2:123:ARG:HA	3.16	0.45
45:L8:156:ASP:O	45:L8:157:VAL:HB	2.16	0.45
36:5:1555:U:H5	36:5:1557:A:N7	2.14	0.45
36:5:2584:G:C8	36:5:2584:G:H5''	2.44	0.45
8:S6:137:ARG:NH1	1:6:144:U:H5	312.84	0.45
15:C3:22:ALA:HB1	15:C3:23:PRO:C	2.36	0.45
15:C3:23:PRO:HB2	15:C3:26:PHE:H	1.81	0.45
44:L7:77:VAL:HG21	57:N1:139:ARG:HD3	3.17	0.45
36:1:1807:G:C6	36:1:1808:G:N1	2.84	0.45
45:L8:100:GLU:CD	45:L8:108:ARG:HH12	3.02	0.45
10:S8:39:GLY:N	10:S8:60:ILE:O	2.34	0.45
55:M9:105:LEU:HD13	55:M9:138:LEU:HD12	1.98	0.45
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.64	0.45
38:8:78:G:H2'	38:8:79:A:O4'	2.15	0.45
49:M3:59:ARG:HD3	36:5:73:C:C2	94.18	0.45
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	2.84	0.45
36:1:979:U:H1'	36:1:980:A:C8	2.51	0.45
4:S2:35:TRP:CZ3	4:S2:46:LYS:HB2	2.99	0.45
20:C8:61:LEU:HB3	20:C8:66:LEU:HD21	3.09	0.45
3:S1:111:ARG:CG	28:D6:68:TYR:HB2	2.45	0.45
36:1:848:A:H2'	36:1:849:C:O4'	2.16	0.45
36:5:3159:C:H2'	36:5:3160:U:C6	2.51	0.45
35:SM:120:GLU:C	35:SM:122:GLU:H	3.70	0.45
64:N8:73:LEU:HD11	64:N8:78:LEU:HA	3.34	0.45
39:L2:92:LYS:HA	39:L2:103:PRO:CD	2.82	0.45
86:6:2125:OHX:N2	86:6:2149:OHX:N4	2.63	0.45
9:S7:55:LYS:HE2	9:S7:55:LYS:HB3	4.25	0.45
5:S3:127:MET:HE1	5:S3:133:GLY:HA2	1.98	0.45
16:C4:108:SER:O	16:C4:110:LEU:N	3.49	0.45
76:Q0:113:ARG:HG3	76:Q0:113:ARG:O	2.72	0.45
45:L8:91:PHE:O	45:L8:95:ASN:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.67	0.45
36:5:1276:U:H2'	36:5:1277:C:H6	1.80	0.45
36:1:158:G:H2'	36:1:159:A:C8	2.51	0.45
1:2:808:U:H2'	1:2:809:A:C8	2.50	0.45
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.98	0.45
12:C0:44:LYS:HG3	1:6:1217:A:H5''	430.48	0.45
15:C3:103:GLU:HA	15:C3:106:ARG:NH2	2.31	0.45
1:2:1746:A:H2'	1:2:1747:G:O4'	2.16	0.45
1:6:1103:U:O2'	1:6:1104:U:H5'	2.16	0.45
36:1:3326:G:H2'	36:1:3327:G:H8	1.81	0.45
36:5:2282:U:O2	36:5:2310:U:H4'	2.16	0.45
10:S8:72:ILE:HD13	10:S8:112:TRP:CD2	2.50	0.45
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.96	0.45
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.16	0.45
36:5:69:C:H2'	36:5:70:A:O4'	2.16	0.45
1:2:404:G:P	8:S6:88:ARG:HH12	2.40	0.45
18:C6:30:LYS:NZ	1:6:1365:C:O3'	428.20	0.45
18:C6:30:LYS:HZ3	1:6:1366:U:P	429.26	0.45
66:O0:46:ALA:HB2	66:O0:72:GLY:H	1.80	0.45
16:C4:43:THR:OG1	1:6:900:A:OP1	278.73	0.45
36:1:1340:G:H2'	36:1:1341:U:H6	1.81	0.45
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.50	0.45
18:C6:136:SER:C	18:C6:137:ARG:HE	2.94	0.45
45:L8:32:LYS:HA	45:L8:32:LYS:HD3	4.35	0.45
20:C8:116:LEU:H	20:C8:116:LEU:HD22	3.53	0.45
74:O8:78:LEU:HA	74:O8:78:LEU:HD13	1.58	0.45
36:5:621:A:H2'	36:5:622:A:H8	1.81	0.45
69:O3:60:ARG:HD3	36:5:3275:U:O4	213.39	0.45
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.29	0.45
7:S5:30:PRO:O	7:S5:33:VAL:HB	2.16	0.45
7:S5:64:VAL:O	7:S5:65:ARG:HB2	2.17	0.45
34:SR:70:ASP:CB	34:SR:112:SER:HA	2.45	0.45
36:1:1639:C:H5'	70:O4:52:GLN:HG3	1.99	0.45
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.19	0.45
1:2:66:U:O3'	8:S6:171:LYS:NZ	2.49	0.45
28:D6:6:ALA:C	28:D6:8:ASN:H	2.19	0.45
1:2:1202:A:N3	1:2:1202:A:H3'	2.31	0.45
12:C0:79:TYR:HD1	12:C0:79:TYR:O	1.99	0.45
37:3:48:U:O4	42:L5:58:LYS:HE2	2.16	0.45
20:C8:120:ARG:HE	35:SM:61:ILE:HG21	6.23	0.45
27:D5:54:VAL:HA	27:D5:57:TYR:CD1	3.03	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:47:LYS:HE3	51:M5:51:LEU:HD11	2.08	0.45
1:6:1696:G:N2	1:6:1704:U:H3	2.14	0.45
36:5:686:G:H1	36:5:694:C:H42	1.65	0.45
9:S7:96:ARG:HB3	1:6:856:A:N6	366.08	0.45
1:2:17:C:H2'	1:2:18:C:C6	2.51	0.45
21:C9:52:GLY:HA2	21:C9:55:TYR:HD2	1.80	0.45
54:M8:49:LEU:O	54:M8:49:LEU:HD22	2.15	0.45
6:S4:65:LEU:HD23	6:S4:79:ASP:H	1.82	0.45
36:5:1597:C:H2'	36:5:1598:G:H8	1.81	0.45
18:C6:113:ASP:HA	18:C6:116:LEU:HD23	1.97	0.45
86:5:4011:OHX:N6	86:5:4201:OHX:N5	2.64	0.45
26:D4:56:SER:O	26:D4:74:LEU:N	2.43	0.45
1:2:1545:A:H2'	1:2:1546:G:H8	1.81	0.45
20:C8:136:GLN:HG2	20:C8:136:GLN:H	1.33	0.45
55:M9:167:ARG:HA	55:M9:170:ARG:HB3	1.98	0.45
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.80	0.45
42:L5:184:ASP:HB3	42:L5:187:THR:O	2.16	0.45
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	2.20	0.45
30:D8:5:THR:O	30:D8:7:VAL:N	3.47	0.45
37:3:28:C:H1'	37:3:55:A:H61	1.81	0.45
6:S4:212:ASP:C	6:S4:214:LEU:H	2.51	0.45
1:2:454:U:H5''	1:2:455:C:H5	1.81	0.45
38:4:11:C:OP2	86:4:238:OHX:N1	2.50	0.45
36:5:2659:G:H4'	36:5:2751:G:O2'	2.16	0.45
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	2.46	0.45
44:L7:39:GLU:HG3	44:L7:43:ILE:HD12	7.67	0.45
52:M6:119:VAL:HG23	56:N0:164:SER:HB3	1.98	0.45
1:2:398:G:OP2	10:S8:47:ARG:NH1	2.49	0.45
11:S9:182:GLU:HG3	11:S9:183:ALA:N	2.36	0.45
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.16	0.45
1:6:8:U:O2'	86:6:2071:OHX:N2	2.49	0.45
1:6:1147:A:H2'	1:6:1148:C:O4'	2.16	0.45
1:6:1054:U:H2'	1:6:1055:U:O4'	2.17	0.45
41:L4:292:SER:OG	41:L4:293:SER:N	2.49	0.45
55:M9:8:LYS:NZ	36:5:1473:G:OP2	125.18	0.45
25:D3:134:ALA:HB1	25:D3:140:LYS:HB2	2.56	0.45
69:O3:7:LEU:HD23	69:O3:7:LEU:HA	1.70	0.45
42:L5:92:LEU:HD23	42:L5:92:LEU:HA	2.29	0.45
42:L5:271:LYS:HA	42:L5:271:LYS:HD3	4.44	0.45
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	2.62	0.45
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1313:G:O6	86:5:4163:OHX:N6	2.49	0.45
2:S0:119:ARG:HB3	2:S0:119:ARG:NH1	2.32	0.45
7:S5:35:GLN:HB3	7:S5:36:ALA:H	1.44	0.45
1:2:1511:U:H2'	1:2:1512:G:C8	2.52	0.45
49:M3:161:ASP:HB2	64:N8:144:VAL:HG11	2.27	0.45
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	4.33	0.45
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.49	0.45
10:S8:82:VAL:HG22	10:S8:196:LEU:HD21	3.29	0.45
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.42	0.45
36:1:1018:G:N7	36:1:1035:G:N2	2.65	0.45
51:M5:66:VAL:O	51:M5:127:TYR:HA	2.54	0.45
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	2.90	0.45
36:1:3183:A:H2'	36:1:3184:A:C8	2.49	0.45
36:1:3181:C:O2'	52:M6:164:SER:HB3	2.16	0.45
51:M5:154:PRO:O	51:M5:157:LYS:HG3	3.17	0.45
68:O2:122:PRO:O	68:O2:123:LYS:HB2	4.36	0.45
1:6:72:A:H5'	1:6:73:U:OP2	2.16	0.45
51:M5:98:LEU:HD23	51:M5:128:LYS:HG3	4.64	0.45
34:SR:133:VAL:CG2	34:SR:142:ALA:HB3	2.47	0.45
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.70	0.45
2:S0:110:TYR:O	2:S0:112:THR:N	2.53	0.45
21:C9:97:SER:OG	1:6:1504:G:OP1	395.15	0.45
66:O0:99:ASP:O	66:O0:103:THR:HG23	2.16	0.45
41:L4:337:GLU:O	41:L4:339:LEU:N	2.49	0.45
25:D3:42:PRO:O	25:D3:79:ASN:ND2	2.48	0.45
13:C1:22:ASN:OD1	13:C1:24:LYS:HB2	2.52	0.45
46:L9:90:MET:O	46:L9:91:ARG:HD2	3.13	0.45
36:5:3340:G:H4'	36:5:3341:U:OP1	2.17	0.45
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.40	0.45
36:1:1110:U:H2'	36:1:1111:U:C6	2.51	0.45
36:5:1818:U:H2'	36:5:1819:U:C6	2.50	0.45
69:O3:6:ARG:HG3	69:O3:8:TYR:CE1	3.14	0.45
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.51	0.45
34:SR:74:THR:O	34:SR:76:ASP:N	2.71	0.45
3:S1:117:TRP:HE1	3:S1:152:ARG:NE	2.14	0.45
1:6:697:C:OP2	86:6:2073:OHX:N5	2.50	0.45
39:L2:248:GLY:O	39:L2:249:SER:HB2	4.54	0.45
5:S3:117:ARG:HH21	35:SM:126:ASP:CB	6.84	0.45
36:5:1155:C:H2'	36:5:1156:C:C6	2.52	0.45
34:SR:296:ALA:C	34:SR:298:GLY:H	2.82	0.45
51:M5:204:LYS:NZ	36:5:683:U:OP1	108.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.51	0.45
86:1:4054:OHX:N6	86:1:4162:OHX:N5	2.64	0.45
36:1:1397:C:C2'	36:1:1398:U:H5'	2.47	0.45
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	2.01	0.45
36:5:1018:G:H2'	36:5:1019:G:O4'	2.16	0.45
1:6:808:U:H2'	1:6:809:A:C8	2.51	0.45
19:C7:87:GLU:HG2	19:C7:88:VAL:O	2.15	0.45
49:M3:35:ARG:NH1	36:5:685:G:OP1	82.39	0.45
40:L3:41:VAL:CG2	40:L3:186:GLY:H	2.29	0.45
18:C6:58:ASP:OD2	18:C6:59:LYS:HE2	2.16	0.45
7:S5:20:PHE:CD2	7:S5:35:GLN:HG3	2.51	0.45
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.52	0.45
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.47	0.45
39:L2:19:HIS:ND1	36:5:823:C:H5'	180.24	0.45
24:D2:76:SER:HG	25:D3:7:ARG:HG2	1.81	0.45
1:2:473:A:H4'	1:2:768:C:O2	2.17	0.45
11:S9:143:ILE:HG21	1:6:768:C:H1'	420.84	0.45
3:S1:134:VAL:HG12	3:S1:218:LEU:HB2	6.55	0.45
40:L3:2:SER:N	36:5:2943:G:C8	236.42	0.45
40:L3:3:HIS:ND1	40:L3:3:HIS:C	2.69	0.45
12:C0:46:LEU:HA	12:C0:46:LEU:HD13	1.80	0.45
42:L5:282:ARG:HD3	37:7:63:A:OP2	335.83	0.45
4:S2:230:TRP:CE2	24:D2:68:ARG:HD3	3.09	0.45
49:M3:168:ARG:O	49:M3:168:ARG:HG3	2.14	0.45
36:1:269:G:O6	86:1:4078:OHX:N3	2.49	0.45
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	1.97	0.45
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	1.97	0.45
1:2:387:A:OP2	1:2:387:A:H8	1.98	0.45
42:L5:95:TRP:O	42:L5:98:ALA:HB3	2.21	0.45
37:3:7:G:H5''	42:L5:22:ARG:HD3	1.98	0.45
37:3:7:G:OP2	42:L5:22:ARG:NH2	2.49	0.45
6:S4:88:ASP:HA	6:S4:122:LYS:HZ1	1.81	0.45
1:2:1584:G:H5'	18:C6:123:ARG:H	1.82	0.45
39:L2:209:HIS:CG	39:L2:210:PRO:HD2	2.86	0.45
1:2:314:C:C2	1:2:355:G:C2	3.04	0.45
1:6:197:A:H2'	1:6:198:A:C8	2.52	0.45
25:D3:73:ARG:HG2	25:D3:84:THR:HB	2.60	0.45
44:L7:40:LYS:HB2	44:L7:40:LYS:HE3	1.62	0.45
36:5:420:G:OP1	36:5:420:G:OP2	2.34	0.45
7:S5:166:ARG:HB2	30:D8:46:GLY:HA3	1.99	0.45
7:S5:56:ALA:O	7:S5:57:SER:OG	2.26	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1597:C:H2'	36:5:1598:G:C8	2.51	0.45
55:M9:46:LYS:HZ1	36:5:1766:G:H8	100.30	0.45
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.68	0.45
36:5:209:A:H4'	36:5:211:A:C8	2.51	0.45
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.49	0.45
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.28	0.45
44:L7:224:ILE:HG12	44:L7:224:ILE:H	1.43	0.45
36:5:1204:A:C2'	36:5:1205:A:H5'	2.45	0.45
9:S7:111:LYS:H	1:6:810:G:N2	341.51	0.45
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.45
36:5:553:U:C2'	36:5:554:A:H5'	2.46	0.45
36:5:2263:C:OP1	86:5:3957:OHX:N2	2.49	0.45
38:8:145:U:H2'	38:8:146:U:O4'	2.16	0.45
72:O6:11:LEU:HD22	72:O6:11:LEU:N	2.32	0.45
55:M9:20:ARG:HG2	36:5:1875:G:OP2	137.37	0.45
36:1:2622:C:C2'	36:1:2623:G:H5'	2.47	0.45
36:1:90:C:O2'	36:1:282:G:OP1	2.33	0.45
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.19	0.45
55:M9:31:GLU:O	55:M9:34:GLN:HG3	2.16	0.45
50:M4:98:SER:O	50:M4:102:LYS:HB2	2.15	0.45
1:2:306:U:H2'	1:2:307:G:C8	2.51	0.45
36:1:501:A:H2'	36:1:502:U:C6	2.51	0.45
41:L4:180:LYS:HB3	41:L4:180:LYS:HE2	1.73	0.45
36:1:1734:G:H2'	36:1:1735:G:O4'	2.17	0.45
36:1:176:G:H1	36:1:242:C:N4	2.14	0.45
36:5:3266:G:C6	36:5:3267:A:C6	3.04	0.45
47:M0:152:LEU:HA	47:M0:152:LEU:HD23	1.82	0.45
8:S6:193:LEU:HD23	8:S6:193:LEU:HA	1.77	0.45
78:Q2:38:GLN:HA	78:Q2:38:GLN:HE21	2.07	0.45
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.65	0.45
45:L8:206:GLU:HG3	45:L8:206:GLU:H	1.42	0.45
50:M4:42:LYS:HE2	50:M4:42:LYS:HB3	4.58	0.45
35:SM:72:ARG:NH1	1:6:1460:A:O3'	326.74	0.45
36:5:406:G:N3	38:8:16:G:C2	2.85	0.45
21:C9:40:SER:HB2	21:C9:96:ALA:HA	2.79	0.45
3:S1:77:GLU:C	3:S1:79:HIS:H	2.19	0.45
15:C3:40:TYR:C	15:C3:42:ARG:H	2.19	0.45
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.81	0.45
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.78	0.45
1:2:884:A:H2'	1:2:885:G:C8	2.50	0.45
3:S1:212:VAL:O	3:S1:214:LYS:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:294:ALA:C	42:L5:296:GLN:H	2.19	0.45
68:O2:81:ASP:O	68:O2:84:THR:OG1	3.54	0.45
25:D3:69:ARG:NH2	1:6:568:G:N7	366.31	0.45
1:2:1521:G:O2'	1:2:1523:G:OP2	2.12	0.45
51:M5:138:GLN:HA	51:M5:143:ARG:NH1	2.32	0.45
36:1:1556:C:O2	36:1:1556:C:H5''	2.16	0.45
1:6:72:A:H2'	1:6:73:U:C1'	2.46	0.45
42:L5:21:ARG:HA	42:L5:24:ARG:NH2	2.31	0.45
51:M5:22:LEU:HD12	51:M5:22:LEU:HA	2.84	0.45
1:6:116:U:O2	1:6:333:A:H2	2.00	0.45
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.57	0.45
1:2:775:G:N7	26:D4:11:LYS:NZ	2.64	0.45
36:1:980:A:H2'	36:1:981:U:N1	2.31	0.45
1:6:1542:G:H22	1:6:1568:C:H1'	1.78	0.45
39:L2:241:ARG:HG2	36:5:2155:G:OP1	221.84	0.45
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.71	0.45
14:C2:132:GLU:HG2	14:C2:132:GLU:H	1.82	0.45
24:D2:102:VAL:H	24:D2:113:HIS:CD2	4.76	0.45
69:O3:8:TYR:CD2	69:O3:99:ARG:HG2	3.10	0.45
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.28	0.45
1:2:1143:A:O2'	1:2:1144:U:H5'	2.17	0.45
1:2:1066:C:O3'	3:S1:149:GLN:HG3	2.17	0.45
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.26	0.45
39:L2:52:SER:HB3	39:L2:191:LEU:HD12	7.45	0.45
36:5:2261:G:O2'	36:5:2263:C:N4	2.49	0.45
1:6:17:C:H2'	1:6:18:C:C6	2.52	0.45
35:SM:43:ASP:HA	35:SM:44:PRO:HD3	2.39	0.45
43:L6:47:PHE:CD1	43:L6:74:VAL:HG22	2.51	0.45
2:S0:32:HIS:ND1	2:S0:32:HIS:C	2.70	0.45
42:L5:178:ASN:N	42:L5:178:ASN:OD1	2.58	0.45
41:L4:169:LEU:HD11	41:L4:219:LEU:HD21	1.99	0.45
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.49	0.45
42:L5:242:SER:O	42:L5:245:GLU:HB2	2.68	0.45
13:C1:67:ARG:N	13:C1:67:ARG:HD3	2.31	0.45
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	1.98	0.45
52:M6:28:LEU:HD22	52:M6:94:ARG:NH2	2.85	0.45
1:2:812:A:C8	1:2:858:G:N2	2.85	0.45
36:5:731:U:O5'	36:5:731:U:H6	1.99	0.45
36:1:160:G:H1	36:1:261:U:H3	1.64	0.45
62:N6:16:ARG:NH1	36:5:216:G:OP1	84.57	0.45
1:6:1275:A:OP2	1:6:1275:A:H8	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:76:LEU:HA	4:S2:76:LEU:HD12	1.70	0.45
1:2:638:U:OP2	24:D2:32:LYS:HD3	2.17	0.45
36:5:3134:A:OP1	86:5:3926:OHX:N5	2.50	0.45
12:C0:51:SER:OG	1:6:1219:A:N3	432.26	0.45
1:6:1031:U:H4'	1:6:1032:G:OP2	2.17	0.45
9:S7:107:ARG:NH1	1:6:741:C:O2'	345.12	0.45
59:N3:45:ARG:O	59:N3:46:LEU:C	2.59	0.45
20:C8:2:SER:N	27:D5:78:ILE:HG13	2.31	0.45
21:C9:57:ARG:HH22	21:C9:80:TYR:HB3	2.29	0.45
16:C4:126:THR:HG21	1:6:888:U:H1'	275.34	0.45
16:C4:18:ARG:HH21	16:C4:31:THR:HG21	6.02	0.45
1:2:154:G:H5'	8:S6:108:VAL:HG21	1.99	0.45
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.99	0.45
2:S0:59:LEU:HA	2:S0:59:LEU:HD12	1.76	0.45
36:5:1064:A:H4'	36:5:1065:A:O5'	2.15	0.45
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.99	0.45
49:M3:158:ALA:O	64:N8:124:ILE:HD11	2.46	0.45
7:S5:177:ILE:HD12	7:S5:180:ARG:HH22	6.42	0.45
1:2:386:G:O2'	1:2:387:A:H5'	2.17	0.45
1:2:1609:U:OP2	18:C6:14:LYS:NZ	2.50	0.45
74:O8:64:LYS:HG3	74:O8:65:LEU:N	5.10	0.45
28:D6:24:VAL:HG12	28:D6:72:HIS:O	2.16	0.45
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.01	0.45
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	2.02	0.45
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.31	0.45
24:D2:86:ILE:HD11	24:D2:122:SER:OG	8.31	0.45
58:N2:50:LEU:O	58:N2:52:ASN:N	2.70	0.45
62:N6:82:VAL:O	62:N6:84:LYS:N	3.09	0.45
7:S5:59:VAL:C	7:S5:61:TYR:H	2.37	0.45
7:S5:80:LYS:HB2	7:S5:83:ARG:HH12	1.82	0.45
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.51	0.45
48:M1:150:ASN:O	48:M1:152:HIS:N	2.46	0.45
1:6:626:U:H2'	1:6:627:C:C6	2.49	0.45
45:L8:94:PHE:CZ	45:L8:200:LEU:HG	2.52	0.45
52:M6:32:LYS:HA	52:M6:101:ARG:HB3	1.99	0.45
36:5:600:G:N2	36:5:603:A:OP2	2.49	0.45
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.52	0.45
36:5:3242:G:H5''	36:5:3245:A:H8	1.79	0.45
71:O5:63:ARG:HG2	71:O5:63:ARG:H	3.23	0.45
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.55	0.45
6:S4:246:LEU:HD23	6:S4:254:ARG:CZ	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:88:LEU:HD22	15:C3:88:LEU:O	2.17	0.45
43:L6:50:LYS:HG2	43:L6:74:VAL:HG21	1.98	0.45
36:5:1276:U:OP2	86:5:4007:OHX:N1	2.49	0.45
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.62	0.45
36:5:5:G:C2	38:8:155:A:C2	3.05	0.45
35:SM:46:LYS:HA	36:5:1018:G:H4'	325.95	0.45
36:1:945:C:H2'	36:1:946:U:C6	2.52	0.45
55:M9:4:LEU:HD22	55:M9:7:GLN:HG3	5.25	0.45
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.99	0.45
1:6:1609:U:H2'	1:6:1610:G:O4'	2.17	0.45
36:1:95:A:C5	36:1:96:G:H1'	2.52	0.45
41:L4:31:ARG:HB3	41:L4:34:ILE:HG13	2.27	0.45
49:M3:33:VAL:HG12	49:M3:34:SER:N	2.30	0.45
36:5:1915:A:H2'	36:5:1916:U:C6	2.52	0.45
1:2:143:G:H2'	1:2:144:U:H5''	1.97	0.45
36:5:3089:C:H2'	36:5:3090:U:O4'	2.17	0.45
36:5:59:G:H2'	38:8:33:A:O2'	2.16	0.45
42:L5:140:ARG:HH21	36:5:1080:A:P	229.63	0.45
54:M8:11:LYS:HE3	54:M8:11:LYS:HB2	1.80	0.45
1:2:1738:U:H2'	1:2:1739:C:C6	2.52	0.45
61:N5:50:ALA:HB2	71:O5:79:ASP:HB2	5.54	0.45
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.42	0.45
67:O1:46:THR:O	67:O1:87:ASN:ND2	8.57	0.45
36:5:1238:C:O2'	36:5:1239:C:OP1	2.26	0.45
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HH11	5.41	0.45
37:7:27:A:C2	37:7:28:C:C2	3.05	0.45
43:L6:58:LEU:HD12	43:L6:78:ARG:HD3	2.32	0.45
72:O6:25:LYS:HG3	72:O6:28:TYR:HE2	1.82	0.45
46:L9:38:LEU:HD23	46:L9:38:LEU:HA	1.74	0.45
41:L4:282:SER:OG	41:L4:283:THR:N	3.39	0.45
72:O6:59:ASP:O	72:O6:63:ASN:HB2	2.17	0.45
36:1:1063:G:C6	36:1:1097:G:C5	3.05	0.45
15:C3:28:LEU:HD23	15:C3:28:LEU:HA	1.82	0.45
15:C3:33:VAL:HG21	15:C3:66:ILE:HD11	2.62	0.45
1:2:1541:G:C5	1:2:1542:G:C6	3.05	0.45
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.50	0.45
1:2:272:U:O2'	1:2:273:G:O4'	2.30	0.45
41:L4:318:LEU:HD23	41:L4:318:LEU:HA	1.59	0.45
23:D1:5:LYS:O	23:D1:7:GLN:N	3.47	0.45
37:3:45:A:H2'	37:3:46:A:C8	2.51	0.45
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:85:PHE:C	20:C8:86:LEU:HD12	2.37	0.45
36:5:628:A:H2'	36:5:629:U:O4'	2.17	0.45
48:M1:150:ASN:C	48:M1:152:HIS:H	2.20	0.45
11:S9:127:VAL:HG21	1:6:478:A:H4'	442.97	0.45
1:2:1636:C:C2	1:2:1638:G:C5	3.05	0.45
36:5:602:A:H2'	36:5:603:A:C8	2.52	0.45
86:1:4131:OHX:N5	86:1:4163:OHX:N6	2.64	0.45
68:O2:103:LYS:O	68:O2:106:VAL:HG13	2.22	0.45
70:O4:58:ARG:O	70:O4:61:GLN:HG2	3.38	0.45
4:S2:147:ASN:O	23:D1:4:ASP:N	2.37	0.45
86:1:4026:OHX:N2	86:1:4146:OHX:N5	2.64	0.45
15:C3:119:GLU:O	15:C3:123:HIS:ND1	2.99	0.45
1:2:412:A:H2'	1:2:413:U:H6	1.81	0.45
1:6:1135:U:H2'	1:6:1136:U:C6	2.52	0.45
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.27	0.45
1:6:1332:C:H42	1:6:1419:G:H1	1.64	0.45
2:S0:53:THR:HA	2:S0:161:PRO:HG2	1.99	0.45
15:C3:27:LYS:H	15:C3:27:LYS:HE3	1.81	0.45
36:1:3011:A:C5	40:L3:13:HIS:CD2	3.04	0.45
50:M4:20:VAL:HG22	50:M4:68:LEU:O	3.86	0.45
66:O0:12:GLN:O	66:O0:15:ALA:HB3	2.43	0.45
36:5:428:A:H2'	36:5:429:U:C6	2.52	0.45
36:5:2916:U:H5	36:5:2935:U:HO2'	1.60	0.45
24:D2:70:ASN:HB2	24:D2:130:TYR:O	3.94	0.45
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.94	0.45
2:S0:2:SER:O	2:S0:4:PRO:HD3	2.16	0.45
42:L5:15:ARG:CZ	36:5:1003:A:H1'	291.39	0.45
13:C1:58:CYS:HA	13:C1:59:PRO:HD2	1.83	0.45
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.34	0.45
1:6:804:A:H2'	1:6:805:U:H6	1.82	0.45
1:2:1781:A:H2'	1:2:1782:A:O4'	2.16	0.45
36:1:2827:U:O4	86:1:3865:OHX:N4	2.49	0.45
74:O8:40:GLN:HG3	74:O8:57:ASN:OD1	3.20	0.45
12:C0:38:LYS:HB2	12:C0:41:TYR:CD2	3.64	0.45
5:S3:51:ARG:HA	5:S3:89:GLU:HB2	3.89	0.45
39:L2:142:ASP:N	39:L2:142:ASP:OD2	2.49	0.45
56:N0:166:LYS:HB2	56:N0:166:LYS:HE3	4.60	0.45
57:N1:160:ILE:HA	57:N1:160:ILE:HD13	1.73	0.45
36:1:1345:G:H5''	36:1:1345:G:H8	1.81	0.45
36:1:2195:C:O5'	36:1:2195:C:H6	2.00	0.45
36:1:2800:G:O6	64:N8:42:ARG:NH2	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:120:VAL:O	50:M4:124:ARG:HB2	3.05	0.45
50:M4:73:PRO:HG2	50:M4:76:ALA:HB2	2.96	0.45
36:1:2444:C:H3'	36:1:2445:A:H5''	1.99	0.45
49:M3:161:ASP:OD2	64:N8:139:ARG:NH1	3.74	0.45
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.26	0.45
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.99	0.45
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	3.41	0.45
37:7:28:C:H2'	37:7:29:C:O4'	2.16	0.45
86:5:4093:OHX:N3	86:5:4202:OHX:N1	2.65	0.45
24:D2:6:VAL:CG1	24:D2:29:PRO:HD2	2.40	0.45
1:2:1556:A:C5	1:2:1560:U:C2	3.05	0.45
11:S9:133:HIS:O	11:S9:159:ALA:N	5.49	0.45
41:L4:119:ARG:HA	41:L4:122:THR:HG23	3.39	0.45
38:4:85:G:C8	38:4:85:G:C3'	3.00	0.45
48:M1:53:THR:HG23	48:M1:59:ILE:O	2.16	0.45
1:6:1234:A:HO2'	1:6:1235:C:H6	1.64	0.45
33:E1:148:TYR:HA	33:E1:148:TYR:HD1	2.17	0.45
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	2.59	0.45
7:S5:93:LEU:HD23	7:S5:172:ILE:HG23	2.28	0.45
36:1:341:G:N7	41:L4:195:ARG:NH2	2.63	0.45
17:C5:28:MET:O	17:C5:29:SER:HB3	2.17	0.45
64:N8:75:LEU:HD13	64:N8:118:ILE:HD13	1.97	0.45
1:6:350:U:H5''	1:6:352:A:H5'	1.99	0.45
44:L7:98:LYS:HB3	44:L7:99:PRO:HD3	2.65	0.45
6:S4:34:GLY:HA3	6:S4:83:PRO:CG	2.82	0.45
6:S4:46:VAL:O	6:S4:50:ASN:N	2.77	0.45
1:2:649:U:O2'	1:2:650:U:H6	2.00	0.45
47:M0:90:ARG:NH2	47:M0:134:ILE:HD12	3.62	0.45
20:C8:76:PRO:C	20:C8:78:HIS:H	3.42	0.45
45:L8:134:TYR:CD2	45:L8:190:VAL:HG21	2.52	0.45
42:L5:278:SER:O	42:L5:281:GLU:HG2	4.91	0.45
36:1:3316:A:OP1	36:1:3318:G:N2	2.48	0.45
62:N6:103:LYS:NZ	36:5:221:A:N6	80.07	0.45
36:1:1915:A:H2'	36:1:1916:U:H6	1.81	0.45
5:S3:26:THR:O	5:S3:30:ALA:HB2	3.67	0.45
63:N7:45:GLY:HA3	63:N7:71:PHE:CZ	2.52	0.45
54:M8:57:ILE:HD13	36:5:671:U:OP2	161.96	0.45
3:S1:145:LYS:HA	3:S1:149:GLN:NE2	3.58	0.45
36:1:1581:C:O2	36:1:1582:C:H5'	2.16	0.45
49:M3:153:ASP:OD2	49:M3:154:VAL:N	2.47	0.45
1:2:848:C:H2'	1:2:849:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:11:THR:O	29:D7:14:SER:N	3.35	0.45
40:L3:36:ASP:OD1	40:L3:38:SER:OG	2.32	0.45
37:3:106:U:H2'	37:3:107:C:C6	2.52	0.45
36:1:2633:U:H2'	36:1:2634:U:O4'	2.17	0.45
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.17	0.45
5:S3:217:ILE:HB	5:S3:218:LEU:H	1.89	0.45
43:L6:17:ALA:O	36:5:592:A:H5'	214.37	0.45
1:6:63:G:H4'	1:6:170:U:C5	2.52	0.45
36:5:1500:G:H2'	36:5:1501:U:O4'	2.17	0.45
40:L3:76:VAL:HA	40:L3:326:GLY:H	1.82	0.45
50:M4:116:GLU:O	50:M4:120:VAL:HG23	2.17	0.45
1:2:1597:A:C8	31:D9:14:TYR:CD2	3.05	0.45
47:M0:144:ASN:O	47:M0:147:VAL:N	2.50	0.45
39:L2:193:ARG:NH1	36:5:2174:G:OP2	191.66	0.45
11:S9:129:ILE:HA	11:S9:134:ILE:CD1	2.79	0.45
17:C5:130:ARG:HH12	35:SM:71:ASN:HA	2.25	0.45
35:SM:72:ARG:NH1	1:6:1460:A:O2'	324.64	0.45
1:6:67:A:O2'	1:6:69:G:OP1	2.10	0.45
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.29	0.45
36:5:2943:G:N7	36:5:2944:U:C5	2.85	0.45
36:5:916:G:N7	36:5:924:G:C5	2.85	0.45
15:C3:22:ALA:HB1	15:C3:23:PRO:O	2.17	0.45
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.17	0.45
40:L3:10:ARG:CZ	40:L3:14:LEU:HD21	2.47	0.45
1:2:393:C:H2'	1:2:394:C:C6	2.52	0.45
2:S0:167:LYS:HE3	2:S0:168:HIS:CD2	2.52	0.45
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.31	0.45
17:C5:22:LEU:CA	17:C5:25:LEU:HD12	3.00	0.45
20:C8:91:ASP:OD1	20:C8:92:ILE:HG22	4.65	0.45
36:5:2572:C:HO2'	36:5:2573:G:P	2.38	0.45
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.45	0.45
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.43	0.45
10:S8:97:THR:HB	1:6:329:G:O3'	272.08	0.45
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.47	0.45
44:L7:96:PRO:HA	44:L7:97:PRO:HD3	2.03	0.45
36:5:419:G:O3'	36:5:420:G:OP2	2.33	0.45
49:M3:92:THR:HG21	71:O5:111:PHE:HB3	2.82	0.45
45:L8:134:TYR:CD1	45:L8:190:VAL:HG11	3.46	0.45
36:5:1560:G:C6	36:5:1580:A:N6	2.85	0.45
20:C8:3:LEU:HD23	20:C8:5:VAL:HG23	3.33	0.45
64:N8:22:ILE:H	64:N8:22:ILE:HD12	3.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:92:TYR:CD1	46:L9:179:ILE:HG12	2.52	0.45
43:L6:65:ILE:HA	43:L6:65:ILE:HD12	4.54	0.45
36:1:726:G:C5'	36:1:726:G:C8	3.00	0.45
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	2.79	0.45
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.98	0.45
65:N9:5:LYS:HE3	36:5:1135:A:OP1	226.31	0.45
40:L3:173:GLN:HG3	40:L3:175:LYS:H	1.82	0.45
1:2:1114:G:O6	86:2:2075:OHX:N5	2.49	0.45
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.31	0.45
1:6:250:C:H6	1:6:250:C:H5'	1.82	0.45
1:6:805:U:C2'	1:6:806:A:H5'	2.46	0.45
7:S5:214:LYS:O	7:S5:217:LEU:HB2	2.16	0.45
52:M6:183:ALA:O	52:M6:186:ALA:HB3	2.48	0.45
36:1:2700:G:O2'	36:1:2705:A:N1	2.43	0.45
26:D4:58:PHE:CE2	26:D4:72:PHE:HB3	2.84	0.45
43:L6:155:LEU:O	43:L6:158:TYR:HB3	2.37	0.45
36:5:3224:G:C2	36:5:3225:C:C6	3.05	0.45
1:2:1201:G:N2	1:2:1599:C:H2'	2.32	0.45
1:2:1442:U:H2'	1:2:1443:U:C6	2.52	0.45
1:6:841:U:H2'	1:6:842:C:C6	2.52	0.45
1:6:906:A:H2'	1:6:907:A:C8	2.51	0.45
1:6:817:A:H2'	1:6:818:C:C6	2.52	0.45
22:D0:36:ASN:HA	22:D0:39:SER:HB3	4.15	0.45
58:N2:79:LEU:HD23	58:N2:79:LEU:HA	1.83	0.45
46:L9:31:ARG:HG2	46:L9:149:ASN:HD21	1.82	0.45
1:2:1735:U:O4	86:2:2136:OHX:N2	2.50	0.45
1:2:552:G:C6	1:2:553:G:C6	3.05	0.45
42:L5:224:LYS:HB2	42:L5:224:LYS:HE3	2.32	0.45
34:SR:63:GLY:HA3	34:SR:90:ARG:NH1	2.52	0.45
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.37	0.45
7:S5:91:GLU:OE2	7:S5:107:LYS:NZ	2.35	0.45
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	1.98	0.45
37:3:64:A:O5'	47:M0:206:LEU:HB2	2.16	0.45
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.17	0.45
71:O5:85:THR:HG22	71:O5:88:LEU:N	2.96	0.45
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	2.06	0.45
1:2:778:G:H22	26:D4:10:ARG:NH1	2.15	0.45
69:O3:89:LEU:HA	69:O3:90:PRO:HD3	1.84	0.45
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.64	0.45
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.17	0.45
1:2:400:A:O5'	10:S8:25:ARG:HD3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:86:TYR:CZ	46:L9:151:VAL:HG22	3.29	0.45
20:C8:91:ASP:C	20:C8:93:THR:H	2.20	0.45
31:D9:44:ARG:NH2	1:6:1280:C:H5'	401.13	0.45
1:6:517:U:H2'	1:6:518:A:O4'	2.17	0.45
70:O4:22:VAL:CG1	70:O4:30:LEU:HD22	2.46	0.45
18:C6:11:GLY:HA3	18:C6:83:GLN:HB3	1.99	0.45
36:1:109:A:H4'	36:1:110:G:OP1	2.17	0.45
5:S3:127:MET:HG2	5:S3:154:ASP:OD2	2.17	0.45
36:5:3000:A:H2'	36:5:3001:C:C6	2.52	0.45
34:SR:58:VAL:HG23	34:SR:59:ARG:HB2	1.99	0.45
8:S6:20:ASP:OD2	8:S6:22:HIS:HB2	3.46	0.45
36:1:2902:A:P	46:L9:170:LYS:HE3	2.57	0.45
36:1:330:G:OP2	86:1:4041:OHX:N2	2.49	0.45
36:1:2533:G:C2	36:1:2547:A:C2	3.05	0.45
36:5:578:A:H5''	36:5:579:G:O5'	2.17	0.45
32:E0:46:ASN:OD1	32:E0:47:VAL:N	2.49	0.45
2:S0:27:ARG:C	2:S0:29:VAL:N	2.70	0.45
36:1:534:U:H1'	56:N0:146:LYS:HG3	1.97	0.45
36:5:733:G:H2'	36:5:735:A:OP2	2.17	0.45
45:L8:139:VAL:HG12	45:L8:143:ILE:HD11	2.73	0.45
1:6:969:C:H4'	1:6:1104:U:O2'	2.16	0.45
1:2:143:G:N7	8:S6:177:ARG:NH2	2.65	0.45
24:D2:95:PRO:HD3	24:D2:130:TYR:CD1	3.02	0.45
64:N8:42:ARG:NH2	36:5:2799:A:N3	194.29	0.45
36:5:2819:A:C2'	36:5:2820:A:H5'	2.47	0.45
1:6:348:U:O4	86:6:2162:OHX:N4	2.49	0.45
63:N7:24:VAL:HG23	63:N7:44:ALA:HB3	1.99	0.45
4:S2:82:ASN:C	4:S2:83:ILE:HG12	3.45	0.45
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	3.40	0.45
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	3.04	0.45
7:S5:157:ARG:N	7:S5:157:ARG:HE	4.20	0.45
36:5:1301:A:H4'	36:5:1302:A:O5'	2.17	0.45
36:5:1841:A:O2'	36:5:1842:A:H5''	2.17	0.45
36:5:2693:C:H42	36:5:2700:G:H1	1.63	0.45
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	1.56	0.45
1:6:1523:G:H5'	1:6:1523:G:N3	2.32	0.45
22:D0:43:LYS:O	22:D0:47:GLN:HB2	2.34	0.45
64:N8:95:SER:HB2	64:N8:97:GLU:OE2	4.45	0.45
36:5:622:A:H2'	36:5:623:U:O4'	2.17	0.44
49:M3:46:ILE:HA	49:M3:46:ILE:HD13	1.66	0.44
11:S9:33:GLU:O	11:S9:122:VAL:HG11	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:98:ASN:ND2	24:D2:79:PHE:CD1	2.82	0.44
1:6:1207:C:H42	1:6:1456:C:H5	1.64	0.44
17:C5:129:GLY:HA3	35:SM:74:LYS:HD2	5.47	0.44
35:SM:70:ASN:O	35:SM:74:LYS:HD3	2.17	0.44
78:Q2:9:LYS:HE2	78:Q2:22:GLN:NE2	2.33	0.44
53:M7:30:ARG:HD3	53:M7:30:ARG:C	2.50	0.44
3:S1:70:LEU:HD12	3:S1:82:ARG:HB2	1.99	0.44
1:2:1794:A:H1'	28:D6:79:ILE:HD13	1.99	0.44
1:2:1796:C:H4'	1:2:1797:A:OP2	2.17	0.44
36:5:155:G:H5''	36:5:156:G:C8	2.52	0.44
37:3:110:G:OP2	42:L5:279:LYS:HG3	2.17	0.44
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.52	0.44
8:S6:14:LYS:HB3	8:S6:124:LEU:HD13	3.78	0.44
76:Q0:127:LEU:HA	76:Q0:127:LEU:HD23	1.81	0.44
7:S5:99:MET:HA	7:S5:104:ASN:ND2	2.53	0.44
50:M4:65:LEU:HG	56:N0:172:TYR:OH	2.27	0.44
79:Q3:11:THR:CG2	79:Q3:27:LYS:HB2	3.55	0.44
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.22	0.44
1:2:18:C:C4	1:2:19:A:N7	2.85	0.44
1:6:190:C:O2'	1:6:191:C:H5'	2.17	0.44
1:2:524:U:H1'	1:2:527:A:N7	2.32	0.44
1:2:73:U:O2'	1:2:74:U:C2	2.70	0.44
45:L8:68:ARG:HG2	45:L8:68:ARG:H	2.09	0.44
36:1:1932:A:H5'	36:1:1933:A:OP2	2.17	0.44
45:L8:90:THR:HG22	45:L8:214:LEU:HD23	3.57	0.44
1:2:452:A:H3'	1:2:453:U:C6	2.52	0.44
48:M1:90:GLN:OE1	48:M1:172:LEU:HD21	3.54	0.44
48:M1:7:ASN:N	48:M1:8:PRO:HD3	3.03	0.44
79:Q3:56:THR:HG22	79:Q3:63:THR:CG2	2.47	0.44
1:6:393:C:H2'	1:6:394:C:C6	2.51	0.44
55:M9:40:ALA:O	55:M9:44:LEU:HG	4.77	0.44
49:M3:64:LYS:HD3	49:M3:65:TYR:CE1	4.14	0.44
15:C3:88:LEU:HD23	15:C3:88:LEU:HA	2.44	0.44
1:6:1727:G:H2'	1:6:1728:A:C8	2.52	0.44
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.52	0.44
36:5:1155:C:O2'	36:5:1197:A:N1	2.38	0.44
43:L6:69:PHE:CZ	36:5:3267:A:H2'	260.72	0.44
1:2:858:G:OP1	9:S7:116:ARG:NH2	2.50	0.44
7:S5:126:ASP:HB3	7:S5:127:GLN:H	1.47	0.44
76:Q0:110:CYS:SG	76:Q0:112:LYS:HB2	2.57	0.44
36:1:2333:C:H2'	36:1:2334:U:O4'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:482:U:H2'	1:2:483:A:H8	1.82	0.44
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.98	0.44
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.72	0.44
36:1:1509:A:O2'	36:1:1510:G:H5'	2.17	0.44
27:D5:50:ILE:HG12	27:D5:69:LEU:HD21	13.69	0.44
64:N8:82:ILE:HG22	64:N8:87:ARG:HG3	3.20	0.44
1:2:438:A:H1'	1:2:466:U:O2	2.17	0.44
17:C5:60:LEU:HD23	17:C5:60:LEU:HA	3.09	0.44
22:D0:32:LYS:H	22:D0:32:LYS:HD2	4.40	0.44
47:M0:51:HIS:O	47:M0:165:ILE:HA	2.44	0.44
36:1:1478:C:H2'	36:1:1479:U:H6	1.82	0.44
36:5:3295:A:H2'	36:5:3296:A:C8	2.52	0.44
70:O4:20:ILE:HA	70:O4:20:ILE:HD12	1.71	0.44
34:SR:96:THR:HG23	34:SR:98:GLU:H	4.16	0.44
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.64	0.44
47:M0:50:VAL:HG13	47:M0:167:LEU:HA	3.36	0.44
41:L4:258:LEU:HD12	41:L4:258:LEU:HA	1.82	0.44
2:S0:21:ASN:ND2	2:S0:24:LEU:HD22	3.63	0.44
24:D2:31:SER:HB3	24:D2:34:ILE:HG13	3.09	0.44
67:O1:40:ALA:HA	67:O1:75:ILE:HD13	2.47	0.44
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	6.54	0.44
51:M5:38:ARG:NH1	38:8:142:C:OP1	112.76	0.44
46:L9:20:ILE:HG23	46:L9:25:VAL:HA	2.00	0.44
22:D0:27:THR:HB	22:D0:88:LYS:HG2	2.54	0.44
42:L5:70:THR:OG1	42:L5:70:THR:O	4.27	0.44
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.52	0.44
8:S6:63:MET:HE1	8:S6:106:LEU:HD11	2.00	0.44
1:6:460:A:H3'	1:6:461:G:H8	1.81	0.44
8:S6:27:PHE:O	8:S6:30:LYS:HG3	3.15	0.44
41:L4:49:ALA:HB2	49:M3:26:PHE:CZ	2.53	0.44
42:L5:51:LEU:HB2	42:L5:144:VAL:CG1	2.56	0.44
29:D7:49:HIS:CE1	29:D7:70:LYS:HG2	2.51	0.44
5:S3:84:ILE:HD13	5:S3:85:VAL:H	1.82	0.44
41:L4:151:VAL:HG12	41:L4:152:VAL:H	2.86	0.44
17:C5:37:ALA:HB1	17:C5:38:PRO:HD2	1.99	0.44
2:S0:179:ARG:O	2:S0:183:ARG:HG3	2.16	0.44
1:2:1565:C:H2'	1:2:1566:U:O4'	2.16	0.44
59:N3:54:LEU:HA	59:N3:78:VAL:HG12	3.27	0.44
57:N1:17:ARG:CG	57:N1:17:ARG:HH11	2.92	0.44
62:N6:103:LYS:NZ	36:5:217:U:O2	79.06	0.44
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	2.54	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	2.56	0.44
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.47	0.44
36:5:920:A:OP1	36:5:922:U:H5	1.99	0.44
36:1:544:C:H1'	36:1:548:G:H22	1.82	0.44
36:1:2948:C:H2'	36:1:2949:U:C6	2.53	0.44
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	2.26	0.44
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.16	0.44
36:5:1556:C:H2'	36:5:2169:G:N1	2.32	0.44
55:M9:175:GLN:O	55:M9:179:GLU:N	2.44	0.44
24:D2:105:THR:HG23	24:D2:110:ILE:CG1	4.20	0.44
1:6:904:G:H2'	1:6:905:A:O4'	2.17	0.44
36:5:1621:A:H2'	36:5:1622:U:H6	1.82	0.44
61:N5:136:ALA:HB1	61:N5:141:TYR:CE1	2.52	0.44
36:1:1492:G:O3'	75:O9:48:LYS:NZ	2.50	0.44
36:5:92:G:OP2	36:5:93:C:H5''	2.17	0.44
1:6:914:G:OP2	1:6:914:G:H8	2.00	0.44
55:M9:4:LEU:HD21	55:M9:33:ALA:HA	3.11	0.44
64:N8:82:ILE:HD13	64:N8:102:ILE:HG12	4.54	0.44
36:5:324:A:H2'	36:5:325:A:C8	2.52	0.44
36:5:3010:U:OP2	86:5:4246:OHX:N4	2.50	0.44
36:5:541:U:O4	86:5:4013:OHX:N3	2.51	0.44
36:5:1366:A:C2	36:5:1367:G:C4	3.06	0.44
21:C9:25:GLN:HG2	21:C9:27:LYS:H	1.82	0.44
36:5:78:U:O2'	36:5:79:U:H5'	2.16	0.44
36:1:826:G:OP1	36:1:1590:G:O2'	2.27	0.44
36:1:718:G:C2	36:1:721:G:H1'	2.52	0.44
36:5:119:U:H4'	36:5:120:G:H3'	1.98	0.44
78:Q2:24:LYS:HB2	78:Q2:24:LYS:HE3	4.71	0.44
4:S2:250:GLN:CD	4:S2:250:GLN:H	2.19	0.44
1:2:215:A:H8	1:2:215:A:OP2	2.00	0.44
27:D5:52:LYS:HB3	27:D5:52:LYS:HE2	4.53	0.44
36:1:2571:U:H2'	36:1:2571:U:OP1	2.17	0.44
6:S4:200:ARG:HG2	6:S4:201:HIS:N	3.67	0.44
45:L8:137:ASN:ND2	51:M5:4:TYR:CE1	2.83	0.44
36:1:661:G:OP2	64:N8:12:ARG:NH2	2.50	0.44
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	1.98	0.44
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	2.12	0.44
3:S1:35:PRO:CB	3:S1:231:LEU:HD11	4.28	0.44
1:2:960:U:H2'	1:2:961:U:H6	1.82	0.44
28:D6:20:PRO:HA	28:D6:31:PRO:HA	2.30	0.44
37:3:43:U:H4'	48:M1:140:ARG:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:168:ARG:HA	49:M3:171:ARG:HB2	1.99	0.44
1:6:1700:C:O2	1:6:1700:C:H2'	2.16	0.44
56:N0:155:ARG:HB2	56:N0:172:TYR:HB2	2.18	0.44
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.75	0.44
42:L5:95:TRP:CZ2	42:L5:161:GLY:HA2	2.52	0.44
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	285.43	0.44
22:D0:82:TYR:OH	31:D9:44:ARG:HD2	4.41	0.44
62:N6:2:ALA:N	36:5:213:A:H5''	81.13	0.44
1:6:1557:U:O2'	1:6:1558:U:H2'	2.17	0.44
58:N2:67:SER:OG	58:N2:68:THR:N	2.51	0.44
2:S0:35:PRO:C	2:S0:37:VAL:H	2.21	0.44
6:S4:32:SER:OG	6:S4:79:ASP:OD2	3.15	0.44
47:M0:193:ASP:CG	47:M0:198:LYS:HE3	2.38	0.44
70:O4:22:VAL:HG11	70:O4:30:LEU:HD13	2.92	0.44
1:2:1199:G:H1	31:D9:31:ILE:CD1	2.30	0.44
47:M0:130:ASP:OD1	47:M0:131:ILE:N	3.63	0.44
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.17	0.44
41:L4:234:ASN:OD1	41:L4:234:ASN:C	2.81	0.44
71:O5:21:LEU:HD22	71:O5:25:LYS:HD2	2.00	0.44
53:M7:24:VAL:HG13	53:M7:86:LYS:HG2	1.99	0.44
86:5:4011:OHX:N4	86:5:4201:OHX:N2	2.65	0.44
25:D3:37:ALA:O	25:D3:41:SER:HB3	2.37	0.44
2:S0:126:PRO:HG2	2:S0:151:SER:HB3	1.99	0.44
16:C4:107:ARG:HH21	16:C4:107:ARG:HB2	4.56	0.44
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.96	0.44
5:S3:34:TYR:OH	5:S3:37:VAL:HG22	2.18	0.44
36:1:1814:A:H4'	36:1:1815:U:O4'	2.16	0.44
36:5:2922:G:H5''	36:5:2923:U:OP2	2.17	0.44
5:S3:134:CYS:SG	5:S3:135:GLU:N	3.26	0.44
26:D4:52:LYS:O	26:D4:55:VAL:HG22	4.44	0.44
14:C2:132:GLU:HA	14:C2:135:MET:HB2	1.98	0.44
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.99	0.44
64:N8:35:ALA:HB2	36:5:39:A:H5''	167.91	0.44
70:O4:10:ARG:HD2	36:5:1489:A:OP1	130.06	0.44
36:5:238:A:H2'	36:5:239:G:O4'	2.16	0.44
3:S1:117:TRP:HE1	1:6:1799:U:H5''	336.84	0.44
1:2:1623:C:H2'	1:2:1624:C:C6	2.51	0.44
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.26	0.44
4:S2:203:LYS:HG2	4:S2:206:THR:HG22	4.83	0.44
45:L8:61:GLN:HA	45:L8:64:ILE:HD12	1.99	0.44
55:M9:68:GLN:O	55:M9:72:GLU:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:19:C:H2'	37:3:20:A:C8	2.53	0.44
48:M1:32:ARG:O	48:M1:36:VAL:HG23	2.17	0.44
8:S6:39:GLU:HB2	8:S6:46:LYS:HG3	2.39	0.44
26:D4:112:LYS:NZ	1:6:57:G:OP1	346.52	0.44
1:2:753:A:OP1	6:S4:220:THR:HG22	2.18	0.44
1:6:15:U:H2'	1:6:16:G:O4'	2.17	0.44
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	1.99	0.44
1:2:856:A:H62	9:S7:97:ARG:H	1.65	0.44
40:L3:291:GLU:CB	40:L3:302:LYS:HE2	5.04	0.44
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.50	0.44
1:2:1147:A:H2'	1:2:1148:C:C6	2.52	0.44
67:O1:36:ILE:O	67:O1:39:PHE:N	2.50	0.44
63:N7:80:LEU:HD23	63:N7:80:LEU:HA	2.36	0.44
36:5:2442:G:N1	36:5:2443:A:N7	2.65	0.44
34:SR:102:ARG:O	34:SR:104:VAL:HG23	3.60	0.44
36:5:618:C:H2'	36:5:619:A:N7	2.33	0.44
9:S7:56:LYS:HD3	9:S7:88:ARG:HH12	4.23	0.44
44:L7:159:GLN:O	44:L7:160:ARG:HB3	2.18	0.44
9:S7:12:ALA:H	9:S7:13:PRO:HD2	1.83	0.44
28:D6:10:ARG:NH1	28:D6:36:ILE:HA	2.32	0.44
40:L3:19:ARG:HG3	40:L3:273:HIS:CE1	2.52	0.44
6:S4:248:ILE:HG12	11:S9:71:PHE:CE2	6.05	0.44
12:C0:72:GLY:C	12:C0:74:GLU:H	2.94	0.44
1:2:1482:C:H4'	18:C6:77:GLN:HE22	1.82	0.44
8:S6:6:SER:OG	8:S6:112:VAL:HG22	2.16	0.44
53:M7:48:LEU:HA	53:M7:48:LEU:HD23	2.00	0.44
7:S5:113:ILE:O	7:S5:117:THR:OG1	2.14	0.44
7:S5:194:LEU:HD22	7:S5:194:LEU:HA	1.83	0.44
41:L4:192:GLY:HA2	41:L4:195:ARG:CG	4.29	0.44
73:O7:69:HIS:HB3	73:O7:72:ARG:NH2	2.33	0.44
14:C2:50:LYS:O	14:C2:54:ARG:HG2	4.38	0.44
21:C9:10:ALA:O	21:C9:13:ASP:HB2	3.72	0.44
1:6:189:C:C2'	1:6:190:C:H5'	2.48	0.44
36:5:741:U:H2'	36:5:742:G:O4'	2.17	0.44
47:M0:129:VAL:HG22	47:M0:133:GLN:HG2	3.09	0.44
41:L4:330:TYR:HB2	44:L7:45:LEU:HD23	3.99	0.44
36:1:1225:A:H1'	36:1:3116:G:N2	2.31	0.44
36:5:3155:U:HO2'	36:5:3156:U:H6	1.65	0.44
54:M8:122:ILE:HD11	54:M8:130:ARG:NH1	3.89	0.44
79:Q3:74:ALA:O	79:Q3:77:ALA:HB3	2.90	0.44
59:N3:15:LEU:HA	59:N3:53:SER:HB3	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:84:LYS:HD2	26:D4:85:PHE:CZ	2.53	0.44
36:5:370:U:H5''	36:5:371:G:OP2	2.17	0.44
71:O5:9:LEU:HD22	71:O5:17:LEU:HD23	1.99	0.44
45:L8:169:LEU:HD22	45:L8:173:MET:HG2	1.99	0.44
66:O0:55:GLU:HA	70:O4:94:LEU:HD11	2.50	0.44
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.17	0.44
32:E0:17:GLN:OE1	1:6:563:U:H4'	384.28	0.44
51:M5:150:TRP:CZ3	51:M5:151:ILE:HG12	2.53	0.44
36:1:281:G:C6	36:1:282:G:C6	3.06	0.44
65:N9:32:LEU:HD12	36:5:749:C:H5''	200.98	0.44
1:2:553:G:H8	1:2:553:G:O5'	2.00	0.44
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.50	0.44
37:3:97:A:O4'	44:L7:225:GLN:NE2	2.50	0.44
61:N5:87:SER:OG	61:N5:89:LYS:N	3.04	0.44
1:2:1522:U:OP1	86:2:2060:OHX:N3	2.51	0.44
1:2:127:G:C8	8:S6:198:ALA:HB1	2.53	0.44
55:M9:128:LYS:HE3	36:5:1721:U:O4	234.49	0.44
1:2:1325:A:H2'	1:2:1326:A:C8	2.52	0.44
1:2:605:A:OP2	1:2:606:A:O2'	2.28	0.44
59:N3:93:LEU:HA	60:N4:20:LEU:O	2.45	0.44
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.28	0.44
36:5:1214:U:H2'	36:5:1215:U:C6	2.52	0.44
1:2:1524:A:C6	1:2:1525:A:C6	3.06	0.44
42:L5:152:ARG:HB2	42:L5:152:ARG:HH11	4.35	0.44
34:SR:314:GLN:HE21	34:SR:314:GLN:HB2	4.23	0.44
1:6:1082:C:OP2	1:6:1082:C:H3'	2.16	0.44
40:L3:75:ALA:O	40:L3:326:GLY:N	2.50	0.44
18:C6:112:TYR:O	18:C6:114:ARG:HG2	7.08	0.44
63:N7:100:THR:O	63:N7:106:GLN:HB3	2.17	0.44
39:L2:19:HIS:CE1	36:5:823:C:H5'	179.95	0.44
9:S7:118:LEU:HD12	9:S7:118:LEU:O	4.44	0.44
9:S7:129:LEU:HD23	9:S7:129:LEU:HA	1.96	0.44
67:O1:10:ARG:HH12	67:O1:44:MET:CG	5.16	0.44
51:M5:179:LYS:O	36:5:287:G:H5'	125.01	0.44
46:L9:21:LYS:HG3	46:L9:22:SER:N	2.32	0.44
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.17	0.44
36:1:1701:C:H2'	36:1:1702:U:O4'	2.17	0.44
42:L5:120:LYS:HG3	42:L5:120:LYS:H	2.65	0.44
44:L7:25:GLN:HE21	44:L7:29:GLU:H	1.65	0.44
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.44	0.44
33:E1:103:LEU:HD23	33:E1:105:TYR:CD2	4.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1591:G:H2'	36:5:1592:G:H5'	1.98	0.44
4:S2:53:ILE:O	4:S2:56:ILE:N	2.51	0.44
51:M5:44:ARG:NH2	36:5:269:G:OP1	124.55	0.44
10:S8:105:ASP:O	10:S8:107:THR:HG23	2.17	0.44
17:C5:33:PHE:CZ	17:C5:112:LEU:HD22	2.72	0.44
1:6:1535:U:HO2'	1:6:1536:G:P	2.40	0.44
51:M5:5:LYS:HA	51:M5:5:LYS:HD3	2.96	0.44
8:S6:48:TYR:CD1	8:S6:113:ILE:HD11	2.53	0.44
36:5:2572:C:O2'	36:5:2573:G:P	2.76	0.44
1:2:1657:U:C4	86:2:2090:OHX:N2	2.85	0.44
36:5:409:A:H2'	36:5:410:U:O4'	2.17	0.44
14:C2:67:THR:O	14:C2:68:GLU:HB2	2.33	0.44
4:S2:175:GLY:O	11:S9:53:ARG:NH1	3.05	0.44
36:5:1764:U:H3'	36:5:1765:U:C5'	2.47	0.44
1:2:1535:U:H4'	1:2:1535:U:OP1	2.18	0.44
9:S7:141:ARG:HD2	9:S7:151:LYS:CE	2.48	0.44
36:1:1787:A:N6	36:1:1788:C:C4	2.86	0.44
21:C9:111:ILE:HG23	21:C9:113:ILE:HG12	1.98	0.44
36:1:599:C:H2'	36:1:600:G:O4'	2.17	0.44
40:L3:205:VAL:C	40:L3:207:SER:N	3.00	0.44
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.05	0.44
36:5:1081:U:H3'	36:5:1081:U:H6	1.82	0.44
46:L9:170:LYS:HD3	46:L9:170:LYS:HA	1.92	0.44
41:L4:158:SER:HA	41:L4:213:ASN:HB2	2.00	0.44
4:S2:116:LYS:HB2	4:S2:131:ILE:HD12	2.09	0.44
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.55	0.44
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.53	0.44
24:D2:5:SER:HB2	1:6:1101:G:O2'	353.99	0.44
67:O1:16:LEU:O	67:O1:20:LEU:N	2.57	0.44
1:2:1325:A:C2	1:2:1326:A:C5	3.06	0.44
1:6:5:U:H2'	1:6:6:G:H8	1.83	0.44
1:2:380:U:H5	11:S9:5:PRO:CB	2.30	0.44
36:5:2322:C:OP1	86:5:4160:OHX:N6	2.51	0.44
44:L7:147:LEU:HD22	44:L7:205:PHE:CD1	3.23	0.44
1:6:46:A:N6	1:6:433:C:H4'	2.33	0.44
36:5:1641:U:O2'	36:5:1642:A:H3'	2.18	0.44
40:L3:97:ARG:NH1	36:5:3244:A:C2	245.51	0.44
29:D7:31:TYR:CD2	29:D7:48:SER:HB3	2.53	0.44
36:5:1912:U:N3	36:5:2122:G:OP2	2.49	0.44
1:6:58:U:O2'	1:6:451:A:N3	2.41	0.44
11:S9:6:ARG:HA	11:S9:6:ARG:HD3	1.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:138:ARG:HD2	41:L4:243:HIS:O	2.17	0.44
13:C1:105:LYS:HD2	1:6:306:U:P	323.82	0.44
50:M4:45:LEU:HD21	50:M4:55:ARG:NH1	2.32	0.44
36:1:2442:G:H2'	36:1:2443:A:H5''	1.99	0.44
36:1:2445:A:N6	36:1:2503:G:H1	2.15	0.44
13:C1:95:PRO:O	13:C1:96:LYS:C	2.55	0.44
67:O1:44:MET:HB3	67:O1:77:ARG:CZ	4.38	0.44
36:1:2339:C:OP2	59:N3:48:ARG:HG2	2.17	0.44
28:D6:61:GLU:HG3	28:D6:62:TYR:O	3.85	0.44
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	2.00	0.44
3:S1:129:THR:OG1	3:S1:131:ASP:O	2.86	0.44
12:C0:15:LEU:O	12:C0:15:LEU:HD22	5.21	0.44
42:L5:40:HIS:HB3	42:L5:43:LYS:HE2	1.99	0.44
46:L9:36:LYS:HB3	46:L9:78:MET:SD	2.58	0.44
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.52	0.44
36:1:1349:G:H22	36:1:1355:A:N6	2.15	0.44
1:2:1481:C:O2'	1:2:1482:C:O5'	2.24	0.44
1:2:477:A:N7	1:2:538:A:N1	2.65	0.44
1:2:1316:G:O2'	1:2:1401:A:O2'	2.25	0.44
22:D0:35:GLU:HA	22:D0:38:SER:HB3	2.00	0.44
5:S3:160:SER:OG	1:6:1331:A:N6	414.76	0.44
48:M1:59:ILE:CG2	48:M1:65:ILE:HD11	2.47	0.44
63:N7:73:LYS:HG2	63:N7:74:VAL:O	4.67	0.44
1:6:486:G:H4'	1:6:486:G:OP1	2.18	0.44
44:L7:73:GLY:O	57:N1:143:THR:HB	2.37	0.44
49:M3:59:ARG:HG2	36:5:73:C:O2'	95.23	0.44
36:1:1334:U:H2'	36:1:1335:C:C6	2.52	0.44
25:D3:50:LYS:HB2	25:D3:103:LEU:HD23	2.00	0.44
1:6:648:G:C2	1:6:687:G:C2	3.04	0.44
1:2:732:G:H2'	1:2:732:G:N3	2.33	0.44
36:5:172:G:C6	36:5:247:C:N4	2.86	0.44
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	5.84	0.44
36:5:2257:C:H6	36:5:2257:C:O5'	2.00	0.44
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.51	0.44
52:M6:10:ASP:OD2	52:M6:37:ARG:NH2	3.07	0.44
1:6:1590:G:OP2	86:6:2156:OHX:N6	2.51	0.44
61:N5:103:TYR:HE1	61:N5:139:ILE:HG12	3.87	0.44
57:N1:131:GLN:HA	57:N1:132:PRO:HD3	1.83	0.44
40:L3:81:THR:HG21	40:L3:322:ILE:HD13	4.90	0.44
56:N0:30:PHE:CD2	56:N0:103:VAL:HG21	2.53	0.44
1:2:81:G:C6	1:2:82:U:N3	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:543:C:H3'	36:1:544:C:C6	2.53	0.44
36:1:2948:C:H2'	36:1:2949:U:H6	1.82	0.44
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.45	0.44
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.99	0.44
38:4:121:U:H2'	38:4:122:U:H6	1.83	0.44
4:S2:203:LYS:O	4:S2:206:THR:HG23	4.29	0.44
55:M9:20:ARG:HD2	36:5:1874:A:OP2	142.06	0.44
68:O2:27:ARG:HB3	36:5:655:C:OP1	162.77	0.44
36:1:772:U:H2'	36:1:773:G:C8	2.53	0.44
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.17	0.44
36:1:160:G:O6	86:1:4194:OHX:N6	2.51	0.44
1:2:1382:A:H5''	22:D0:60:THR:HG23	1.98	0.44
36:1:1678:G:C4	36:1:1679:A:C8	3.05	0.44
48:M1:21:ILE:HG22	48:M1:23:VAL:HG23	2.79	0.44
36:5:2250:G:O6	86:5:3948:OHX:N6	2.50	0.44
40:L3:45:SER:OG	40:L3:181:ILE:HG23	2.18	0.44
3:S1:191:GLU:HB2	3:S1:194:ASN:HB2	2.00	0.44
38:8:121:U:O2'	38:8:122:U:H5'	2.17	0.44
40:L3:102:LEU:O	36:5:3147:G:H4'	242.17	0.44
8:S6:148:SER:O	8:S6:150:GLU:N	2.44	0.44
16:C4:90:ARG:O	16:C4:92:LYS:N	3.88	0.44
1:2:432:G:H2'	1:2:433:C:O4'	2.17	0.44
36:1:3078:U:H2'	36:1:3078:U:O2	2.17	0.44
45:L8:150:LEU:HD23	45:L8:150:LEU:HA	1.63	0.44
68:O2:65:PHE:HA	36:5:1403:C:O3'	177.63	0.44
1:2:648:G:O6	1:2:686:C:N4	2.26	0.44
31:D9:30:LEU:HD21	31:D9:37:ASN:HA	2.00	0.44
47:M0:139:ARG:HB3	47:M0:173:PHE:CE1	2.52	0.44
20:C8:142:GLY:O	20:C8:145:ARG:HD2	2.42	0.44
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.52	0.44
8:S6:196:ARG:HB2	8:S6:196:ARG:CZ	2.46	0.44
36:1:2656:A:C4	36:1:2658:G:N7	2.86	0.44
1:2:1478:G:N2	1:2:1530:C:C2	2.86	0.44
9:S7:74:GLN:O	9:S7:77:LEU:N	3.04	0.44
54:M8:71:LEU:HD23	54:M8:71:LEU:HA	1.85	0.44
12:C0:12:HIS:CD2	12:C0:79:TYR:HD2	2.35	0.44
57:N1:68:THR:HG22	57:N1:71:SER:O	5.79	0.44
4:S2:90:THR:C	4:S2:92:ALA:N	2.71	0.44
13:C1:131:ILE:HA	13:C1:131:ILE:HD13	1.68	0.44
9:S7:96:ARG:HH12	9:S7:128:ASP:CG	2.19	0.44
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	4.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2255:A:H5'	36:1:2261:G:H22	1.81	0.44
1:6:228:G:H1	1:6:236:A:H61	1.66	0.44
36:5:1026:A:N3	36:5:1026:A:H2'	2.33	0.44
74:O8:12:LEU:HA	74:O8:12:LEU:HD13	4.25	0.44
47:M0:177:ASP:O	47:M0:180:GLU:N	3.21	0.44
1:2:1680:G:OP2	1:2:1680:G:H8	2.01	0.44
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	1.99	0.44
41:L4:20:LEU:HD22	41:L4:256:THR:CG2	2.47	0.44
41:L4:316:ASN:ND2	44:L7:150:LYS:HD2	2.33	0.44
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.79	0.44
54:M8:170:ARG:NH2	64:N8:58:MET:O	2.50	0.44
10:S8:8:ARG:NH2	10:S8:21:PHE:H	2.15	0.44
25:D3:126:LYS:HG2	25:D3:131:SER:HA	1.99	0.44
30:D8:65:ARG:HG3	30:D8:66:LEU:N	2.32	0.44
70:O4:67:LYS:HB2	36:5:1821:U:C2	167.23	0.44
41:L4:236:LEU:HA	41:L4:236:LEU:HD23	2.14	0.44
6:S4:45:ILE:HD12	6:S4:61:VAL:HG21	1.99	0.44
1:6:1151:A:H4'	1:6:1766:A:C5	2.52	0.44
38:4:104:A:H3'	38:4:105:A:C5'	2.48	0.44
36:1:1752:A:OP2	86:1:4046:OHX:N3	2.51	0.44
41:L4:181:VAL:HG12	41:L4:182:LEU:H	1.82	0.44
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.51	0.44
33:E1:82:LYS:HE2	1:6:1447:C:C6	381.83	0.44
1:6:558:U:H4'	1:6:558:U:OP1	2.17	0.44
36:1:517:G:P	44:L7:60:ARG:HH22	2.41	0.44
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.06	0.44
42:L5:99:TYR:CG	42:L5:199:ILE:HG23	3.06	0.44
1:2:346:G:O6	86:2:2126:OHX:N5	2.50	0.44
42:L5:119:TYR:CZ	42:L5:135:VAL:HG12	2.52	0.44
42:L5:48:LYS:HZ3	36:5:2749:G:P	243.46	0.44
1:2:162:A:C2	1:2:163:G:C5	3.05	0.44
11:S9:170:GLY:O	11:S9:171:ARG:HD2	5.97	0.44
61:N5:79:GLY:O	61:N5:81:ILE:HD12	2.37	0.44
46:L9:103:ILE:HD11	46:L9:134:ILE:HG22	1.99	0.44
52:M6:46:GLU:HG3	52:M6:48:PHE:H	1.81	0.44
45:L8:172:LYS:C	45:L8:174:GLY:H	2.21	0.44
86:1:4083:OHX:N2	86:1:4153:OHX:N4	2.66	0.44
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	2.59	0.44
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.99	0.44
86:5:4035:OHX:N3	86:5:4237:OHX:N1	2.66	0.44
36:1:787:G:H2'	36:1:788:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1441:C:C4	1:6:1442:U:C4	3.06	0.44
1:2:760:A:H2'	1:2:761:G:O4'	2.18	0.44
1:2:1230:A:C8	1:2:1256:A:C6	3.06	0.44
1:2:158:U:O2'	1:2:159:U:H3'	2.17	0.44
57:N1:128:LEU:H	57:N1:128:LEU:HD12	1.83	0.44
9:S7:161:GLN:H	9:S7:161:GLN:HG2	1.64	0.44
36:1:999:G:O2'	36:1:1000:C:H5'	2.18	0.44
1:2:1469:A:H2'	1:2:1470:C:C6	2.53	0.44
36:1:2697:A:H2'	36:1:2698:G:C8	2.52	0.44
40:L3:76:VAL:HG21	40:L3:323:MET:HE3	2.96	0.44
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.83	0.44
1:2:1561:U:OP1	86:2:2176:OHX:N3	2.51	0.44
1:6:336:G:H2'	1:6:338:C:H5	1.83	0.44
86:5:4190:OHX:N1	86:5:4192:OHX:N4	2.66	0.44
12:C0:49:LEU:HB3	12:C0:55:VAL:HG11	1.99	0.44
12:C0:77:ARG:HA	12:C0:82:LEU:CD1	2.47	0.44
51:M5:114:ARG:NH2	51:M5:157:LYS:HG2	3.38	0.44
53:M7:127:ARG:HB3	53:M7:139:TYR:O	2.18	0.44
8:S6:14:LYS:HZ3	8:S6:123:GLY:H	1.65	0.44
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	2.09	0.44
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.22	0.44
73:O7:69:HIS:ND1	73:O7:72:ARG:NH2	2.66	0.44
1:6:1715:G:N1	1:6:1716:C:N4	2.65	0.44
36:5:2971:A:H4'	36:5:2972:G:OP2	2.17	0.44
39:L2:204:MET:HG3	36:5:914:A:C2	196.19	0.44
36:1:213:A:H5''	62:N6:2:ALA:HA	1.99	0.44
18:C6:23:LYS:CG	18:C6:64:ASP:HB2	2.48	0.44
10:S8:6:ASP:OD1	10:S8:8:ARG:HG3	5.27	0.44
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.18	0.44
63:N7:58:GLY:O	63:N7:62:VAL:HG23	2.17	0.44
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.68	0.44
57:N1:87:LYS:HE3	57:N1:87:LYS:HB3	4.34	0.44
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.18	0.44
24:D2:90:THR:HG21	24:D2:113:HIS:CE1	3.36	0.44
51:M5:156:HIS:HB3	51:M5:159:ARG:HD2	3.35	0.44
6:S4:246:LEU:HD12	6:S4:246:LEU:N	2.33	0.44
41:L4:271:LYS:O	41:L4:274:TYR:HB3	2.87	0.44
28:D6:41:ILE:HG12	28:D6:41:ILE:O	2.18	0.44
36:5:378:A:OP2	86:5:4203:OHX:N6	2.50	0.44
49:M3:23:LYS:HE3	49:M3:23:LYS:HB2	3.94	0.44
36:1:1175:C:O2	52:M6:87:MET:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:731:U:H2'	36:5:732:C:H6	1.82	0.44
7:S5:140:THR:HA	7:S5:214:LYS:HD2	1.99	0.44
36:1:718:G:O6	36:1:751:A:H1'	2.17	0.44
15:C3:96:VAL:O	15:C3:100:LYS:HG3	5.02	0.44
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.65	0.44
58:N2:77:LYS:HD2	58:N2:95:PHE:CD1	5.73	0.44
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.17	0.44
7:S5:95:ASN:O	7:S5:98:MET:HG2	2.18	0.44
1:6:654:C:H2'	1:6:655:G:C8	2.53	0.44
36:1:3056:U:H1'	36:1:3058:U:O5'	2.17	0.44
1:2:131:C:O2'	1:2:132:U:OP1	2.34	0.44
36:1:3024:A:H5''	36:1:3025:C:OP2	2.17	0.44
36:5:2308:C:O2	86:5:4239:OHX:N1	2.50	0.44
36:1:3228:C:H4'	36:1:3229:G:O5'	2.16	0.44
8:S6:44:GLU:CD	8:S6:44:GLU:H	2.21	0.44
38:4:143:U:H2'	38:4:144:G:O4'	2.17	0.44
36:1:2775:U:H2'	36:1:2776:C:C6	2.53	0.44
36:5:1778:G:O2'	36:5:1780:G:OP2	2.31	0.44
31:D9:43:PHE:O	31:D9:47:ALA:N	2.50	0.44
36:5:2267:C:H2'	36:5:2268:U:C6	2.53	0.44
37:3:87:G:OP1	44:L7:221:LYS:NZ	2.51	0.44
11:S9:113:VAL:CG2	11:S9:134:ILE:HG21	3.41	0.44
15:C3:42:ARG:C	15:C3:44:GLY:H	2.69	0.44
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.18	0.44
6:S4:187:ARG:HH22	1:6:753:A:N6	375.33	0.44
23:D1:30:ALA:O	23:D1:60:ARG:HD3	3.05	0.44
29:D7:28:PRO:C	29:D7:29:ARG:HG2	2.38	0.44
1:2:1310:U:O2	1:2:1316:G:C2	2.71	0.44
1:2:1400:A:H4'	19:C7:60:ARG:NH2	2.32	0.44
68:O2:109:LEU:HD23	68:O2:109:LEU:HA	2.55	0.44
5:S3:161:GLY:O	5:S3:164:VAL:HB	2.17	0.44
36:1:1878:G:H5''	36:1:1878:G:N3	2.33	0.44
1:6:1680:G:O6	86:6:2188:OHX:N1	2.51	0.44
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.30	0.44
1:6:1685:G:H1	1:6:1716:C:N4	2.15	0.44
36:5:1716:U:HO2'	36:5:1717:U:P	2.41	0.44
2:S0:179:ARG:HH11	2:S0:183:ARG:NH1	2.16	0.44
1:6:199:G:HO2'	1:6:200:A:H8	1.66	0.44
1:2:1228:G:OP1	14:C2:119:SER:HB3	2.17	0.44
36:1:3118:C:C4'	76:Q0:106:ARG:HH22	2.29	0.44
20:C8:35:ILE:HB	20:C8:38:VAL:HG13	3.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1764:U:H3'	36:1:1765:U:C4'	2.48	0.44
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.82	0.44
34:SR:205:SER:OG	34:SR:207:ASP:OD1	2.19	0.44
57:N1:17:ARG:HD2	36:5:2701:U:P	266.82	0.44
72:O6:57:LEU:HD11	72:O6:73:ALA:HB2	2.10	0.44
55:M9:99:LEU:O	55:M9:103:ARG:HG3	4.94	0.44
36:1:225:C:H2'	36:1:226:C:H6	1.83	0.44
21:C9:14:PHE:CE2	21:C9:63:ARG:HG3	2.53	0.44
55:M9:110:ARG:O	55:M9:112:ALA:N	2.49	0.44
60:N4:5:ILE:O	60:N4:5:ILE:HG13	2.17	0.44
26:D4:52:LYS:C	26:D4:54:ALA:H	2.35	0.44
19:C7:16:LEU:HA	19:C7:16:LEU:HD23	1.84	0.44
1:2:1251:U:H4'	33:E1:133:ALA:HB1	2.00	0.44
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.17	0.44
9:S7:48:GLU:C	9:S7:49:ILE:HG12	3.03	0.44
36:5:240:U:O2'	36:5:241:G:H8	2.01	0.44
36:5:1536:G:O6	86:5:3923:OHX:N2	2.51	0.44
63:N7:136:PHE:CD2	70:O4:76:TYR:HE2	2.36	0.44
79:Q3:2:ALA:HB2	36:5:853:G:N7	250.95	0.44
44:L7:139:PRO:HA	44:L7:237:ASN:HD21	1.83	0.44
7:S5:131:GLN:NE2	7:S5:135:ASP:OD2	4.12	0.44
1:6:29:U:H2'	1:6:30:G:C8	2.53	0.44
36:1:2421:U:O2'	78:Q2:52:GLY:HA3	2.18	0.44
38:4:19:C:H2'	38:4:20:U:O4'	2.17	0.44
36:5:162:G:H2'	36:5:163:C:C6	2.53	0.44
5:S3:5:ILE:CG2	5:S3:10:LYS:HB3	4.72	0.44
1:6:479:C:O2	1:6:510:G:N2	2.51	0.44
5:S3:170:THR:HG22	5:S3:171:ALA:H	1.82	0.44
36:5:908:G:H4'	36:5:909:G:O5'	2.18	0.44
47:M0:208:ASN:HB3	47:M0:211:ARG:HH11	5.04	0.44
36:5:2427:U:H2'	36:5:2428:U:C6	2.53	0.44
52:M6:171:LYS:O	52:M6:174:PHE:N	2.80	0.44
1:6:103:A:H8	1:6:103:A:H2'	1.64	0.44
49:M3:7:LEU:HA	49:M3:7:LEU:HD23	1.70	0.44
36:1:361:A:H5'	73:O7:35:SER:OG	2.17	0.44
1:2:365:G:N7	86:2:2107:OHX:N5	2.65	0.44
36:1:293:C:H2'	36:1:294:U:O4'	2.18	0.44
60:N4:63:ILE:HG23	60:N4:66:GLU:CB	2.48	0.44
36:5:2273:G:O6	86:5:3979:OHX:N2	2.51	0.43
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	2.87	0.43
63:N7:4:PHE:CE2	66:O0:35:ARG:HA	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:128:HIS:O	17:C5:130:ARG:HG2	2.17	0.43
35:SM:64:LYS:O	35:SM:66:ALA:N	3.89	0.43
78:Q2:73:GLU:CD	78:Q2:80:ARG:HH21	2.20	0.43
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.51	0.43
43:L6:85:ILE:HG23	69:O3:107:ILE:HG12	4.71	0.43
1:2:1494:C:H2'	1:2:1495:C:C6	2.53	0.43
36:1:69:C:N4	36:1:314:U:H4'	2.33	0.43
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.99	0.43
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.17	0.43
2:S0:63:ILE:HG12	23:D1:36:VAL:HG23	1.99	0.43
39:L2:29:LEU:HA	39:L2:76:PHE:CE1	2.53	0.43
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	2.57	0.43
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.17	0.43
33:E1:97:LYS:HE2	1:6:1231:U:C5	438.81	0.43
1:6:149:C:H2'	1:6:150:U:H6	1.83	0.43
36:1:1307:G:C5	52:M6:60:LYS:HD3	2.53	0.43
3:S1:150:VAL:HG23	1:6:1067:C:H5''	354.61	0.43
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	1.97	0.43
8:S6:175:ILE:HG12	1:6:78:A:H1'	339.38	0.43
36:1:2193:U:O2	36:1:2193:U:H2'	2.17	0.43
1:6:93:A:C6	1:6:398:G:C6	3.06	0.43
36:1:1927:G:OP2	79:Q3:6:LYS:N	2.37	0.43
34:SR:157:VAL:HA	34:SR:158:PRO:HD2	2.35	0.43
39:L2:201:GLY:CA	39:L2:204:MET:HG3	2.47	0.43
74:O8:43:PHE:CE1	74:O8:65:LEU:HD13	2.53	0.43
4:S2:115:ILE:HD13	4:S2:208:GLU:HG2	1.99	0.43
1:2:526:A:C6	1:2:527:A:C5	3.06	0.43
23:D1:2:GLU:HG3	23:D1:3:ASN:H	4.26	0.43
1:2:1238:A:OP2	86:2:2048:OHX:N2	2.51	0.43
53:M7:95:LEU:HA	53:M7:95:LEU:HD23	1.83	0.43
36:1:2553:U:O2'	70:O4:91:ARG:NE	2.40	0.43
70:O4:70:LYS:HD2	36:5:1804:A:H5'	170.74	0.43
6:S4:158:ASP:OD1	6:S4:174:LYS:HA	2.18	0.43
36:5:629:U:H2'	36:5:630:A:C8	2.53	0.43
26:D4:27:VAL:O	26:D4:28:LEU:HD12	6.05	0.43
38:4:15:G:C6	38:4:16:G:N1	2.86	0.43
42:L5:278:SER:O	42:L5:281:GLU:HB2	2.18	0.43
8:S6:78:THR:HG22	8:S6:79:LYS:N	2.56	0.43
46:L9:92:TYR:CG	46:L9:142:ASP:HB3	2.77	0.43
9:S7:55:LYS:NZ	9:S7:87:ASP:HA	3.00	0.43
36:5:1729:A:H4'	36:5:1730:G:OP2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:99:MET:HE3	41:L4:103:THR:N	2.85	0.43
36:1:1204:A:C2	36:1:2834:G:N3	2.85	0.43
15:C3:31:GLU:H	15:C3:31:GLU:CD	5.04	0.43
36:5:1021:G:N1	36:5:1032:C:O2	2.50	0.43
1:2:1247:U:H5''	33:E1:94:LYS:O	2.18	0.43
67:O1:35:GLU:O	67:O1:38:LYS:HB3	2.18	0.43
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	1.99	0.43
52:M6:121:PRO:HD2	56:N0:162:THR:O	2.21	0.43
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.51	0.43
3:S1:117:TRP:NE1	3:S1:152:ARG:CZ	2.81	0.43
54:M8:83:VAL:O	54:M8:83:VAL:HG12	2.83	0.43
4:S2:137:ILE:HD12	4:S2:215:PHE:CE2	5.21	0.43
1:2:275:C:H2'	1:2:276:C:C5	2.53	0.43
51:M5:204:LYS:O	86:5:3980:OHX:N4	124.82	0.43
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.83	0.43
49:M3:143:ALA:O	49:M3:146:PRO:HD3	2.17	0.43
1:2:1653:C:N4	1:2:1654:G:C6	2.86	0.43
86:1:3973:OHX:N1	86:1:4154:OHX:N4	2.66	0.43
52:M6:45:GLY:O	52:M6:136:THR:OG1	2.36	0.43
1:2:1629:G:H2'	1:2:1630:U:H6	1.83	0.43
36:1:972:A:H2'	36:1:973:A:O4'	2.18	0.43
36:5:2993:G:C6	36:5:3142:A:C4	3.06	0.43
1:2:1620:C:OP2	86:2:2164:OHX:N6	2.50	0.43
39:L2:205:ASN:HB3	39:L2:206:PRO:HD2	2.32	0.43
1:2:1145:U:C4	1:2:1146:G:N7	2.86	0.43
22:D0:25:THR:HB	22:D0:115:GLU:HG2	5.51	0.43
1:2:1241:G:C6	1:2:1242:A:C6	3.05	0.43
1:2:892:A:C6	1:2:893:U:C4	3.06	0.43
40:L3:123:TYR:CZ	40:L3:124:LYS:HD3	2.90	0.43
1:6:1006:C:H5''	1:6:1007:C:OP2	2.17	0.43
37:7:43:U:C4	37:7:44:C:C4	3.05	0.43
36:1:1158:A:O5'	36:1:1158:A:H8	2.01	0.43
40:L3:243:HIS:NE2	36:5:878:G:O6	195.09	0.43
36:1:2871:G:H5''	36:1:2872:A:H5'	2.00	0.43
73:O7:60:GLY:N	38:8:42:G:OP1	88.42	0.43
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.51	0.43
36:1:1016:C:O2	36:1:1028:U:N3	2.51	0.43
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.18	0.43
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.79	0.43
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.87	0.43
37:3:87:G:O2'	56:N0:119:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:111:PRO:O	52:M6:113:ASP:N	2.50	0.43
23:D1:70:ASN:HD22	23:D1:82:VAL:CG1	2.31	0.43
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	2.00	0.43
27:D5:95:HIS:CG	27:D5:96:SER:N	2.84	0.43
38:8:142:C:H2'	38:8:143:U:C6	2.53	0.43
13:C1:130:PRO:O	1:6:336:G:H5'	300.07	0.43
41:L4:74:ILE:HG23	41:L4:75:PRO:O	5.55	0.43
10:S8:51:GLY:H	1:6:397:A:H5''	313.34	0.43
56:N0:71:LYS:HG2	56:N0:73:LYS:HD3	4.12	0.43
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.27	0.43
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.83	0.43
57:N1:105:PHE:CE2	36:5:1062:A:H4'	245.24	0.43
57:N1:130:ARG:HD3	36:5:1098:A:OP2	256.08	0.43
36:1:770:G:OP1	49:M3:171:ARG:HD2	2.18	0.43
12:C0:18:GLU:O	12:C0:89:ALA:HB2	2.18	0.43
70:O4:96:GLU:O	70:O4:99:LYS:HB2	3.07	0.43
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	8.12	0.43
1:2:579:A:C2	5:S3:143:ARG:NE	2.86	0.43
36:1:1307:G:OP2	52:M6:59:ARG:NH1	2.51	0.43
55:M9:151:ARG:O	55:M9:155:LEU:HG	4.79	0.43
7:S5:117:THR:O	7:S5:121:ILE:HG13	2.18	0.43
42:L5:21:ARG:NH2	37:7:8:G:O6	289.35	0.43
36:1:3087:A:H5''	40:L3:365:PHE:CE1	2.52	0.43
8:S6:120:GLU:HG3	8:S6:125:THR:CG2	2.48	0.43
6:S4:73:ASP:H	6:S4:89:VAL:HG12	3.44	0.43
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	4.81	0.43
21:C9:54:PHE:CE1	21:C9:104:VAL:HG23	2.52	0.43
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.53	0.43
1:2:525:A:C6	1:2:526:A:C6	3.06	0.43
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	5.11	0.43
42:L5:148:ILE:HG12	42:L5:159:VAL:HG11	2.00	0.43
36:1:612:U:H2'	36:1:613:G:H8	1.83	0.43
36:1:1831:U:OP2	61:N5:92:LYS:HD3	2.18	0.43
49:M3:89:TYR:O	49:M3:92:THR:N	2.47	0.43
36:5:1806:A:H2'	36:5:1807:G:O4'	2.18	0.43
36:5:1781:C:H2'	36:5:1782:U:H6	1.81	0.43
11:S9:142:ASN:ND2	11:S9:142:ASN:C	4.18	0.43
6:S4:230:GLU:HB2	6:S4:233:LYS:CB	2.47	0.43
16:C4:117:ASP:OD1	16:C4:118:VAL:N	2.51	0.43
68:O2:103:LYS:HG3	68:O2:104:ASN:H	2.46	0.43
4:S2:141:ARG:H	4:S2:141:ARG:HG2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:163:LEU:O	44:L7:165:ASP:N	2.49	0.43
6:S4:212:ASP:O	6:S4:214:LEU:N	3.01	0.43
38:8:82:U:H2'	38:8:83:C:H5'	1.99	0.43
6:S4:145:ARG:NH1	6:S4:162:ILE:HG21	2.33	0.43
32:E0:44:PHE:O	32:E0:45:VAL:HB	4.52	0.43
1:2:796:A:OP2	86:2:2058:OHX:N6	2.51	0.43
1:6:998:A:H2	87:6:2204:PCY:H111	1.82	0.43
39:L2:50:HIS:CD2	36:5:1795:U:H2'	199.02	0.43
36:1:1481:A:H2'	36:1:1858:A:N3	2.33	0.43
38:8:157:U:H3'	38:8:158:U:H3'	2.00	0.43
46:L9:3:TYR:N	46:L9:3:TYR:CD2	2.86	0.43
13:C1:80:MET:HE2	1:6:325:G:C4'	287.17	0.43
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.18	0.43
1:6:63:G:C6	1:6:64:U:C5	3.06	0.43
1:2:839:U:H2'	1:2:840:U:H5'	2.00	0.43
3:S1:23:PRO:HB3	3:S1:26:ARG:CZ	2.48	0.43
17:C5:48:GLY:O	17:C5:50:THR:N	3.49	0.43
9:S7:26:GLU:HG2	9:S7:27:LEU:HD23	5.18	0.43
17:C5:92:SER:H	17:C5:107:ILE:HG12	3.74	0.43
3:S1:195:LYS:O	3:S1:199:ASN:ND2	2.33	0.43
1:2:1498:G:O2'	1:2:1499:G:H5'	2.17	0.43
1:6:1157:A:OP2	86:6:2142:OHX:N1	2.51	0.43
40:L3:214:MET:HB3	40:L3:214:MET:HE3	2.33	0.43
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.52	0.43
36:5:637:C:C2	36:5:638:C:C5	3.06	0.43
1:2:1044:U:H2'	1:2:1045:C:C6	2.53	0.43
36:1:2567:C:O2'	36:1:2568:C:H5'	2.18	0.43
2:S0:124:THR:HA	2:S0:146:LEU:HB2	2.07	0.43
36:1:2577:C:H2'	36:1:2578:U:O4'	2.18	0.43
60:N4:57:LYS:HB2	60:N4:57:LYS:HE3	1.75	0.43
15:C3:102:LEU:HA	15:C3:102:LEU:HD23	1.78	0.43
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	2.08	0.43
79:Q3:83:ILE:HA	79:Q3:83:ILE:HD13	1.88	0.43
1:2:1727:G:H2'	1:2:1728:A:C8	2.53	0.43
44:L7:53:LYS:O	44:L7:57:THR:HG23	2.61	0.43
46:L9:89:LYS:HG3	46:L9:183:HIS:HB3	2.00	0.43
1:2:1340:U:O4'	1:2:1378:U:H5'	2.18	0.43
36:5:1232:C:C5	36:5:1261:G:H2'	2.53	0.43
36:1:3047:U:O2'	36:1:3048:A:H5'	2.18	0.43
7:S5:71:ALA:O	7:S5:91:GLU:HG3	2.18	0.43
34:SR:96:THR:HG23	34:SR:98:GLU:HB3	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	2.53	0.43
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.13	0.43
2:S0:54:TRP:O	2:S0:58:VAL:HG23	2.63	0.43
24:D2:28:ARG:HA	24:D2:29:PRO:HA	1.63	0.43
36:1:1212:A:H2'	36:1:1213:G:H5''	2.00	0.43
72:O6:27:SER:HG	36:5:156:G:P	89.28	0.43
1:2:543:C:O2	1:2:543:C:H5''	2.19	0.43
49:M3:190:LYS:HE2	49:M3:190:LYS:HB2	1.48	0.43
26:D4:26:ASP:OD1	26:D4:68:LYS:HE3	2.19	0.43
1:2:712:G:H2'	1:2:713:A:O4'	2.19	0.43
63:N7:135:ARG:HG2	63:N7:135:ARG:NH2	2.33	0.43
36:5:2228:A:H2'	36:5:2229:A:H8	1.83	0.43
42:L5:160:PHE:CD2	42:L5:179:ARG:HB3	2.53	0.43
78:Q2:47:GLN:OE1	78:Q2:54:THR:OG1	2.31	0.43
36:5:1716:U:H3'	36:5:1716:U:P	2.57	0.43
39:L2:201:GLY:O	39:L2:204:MET:HG3	2.18	0.43
34:SR:222:LEU:HG	34:SR:232:TYR:HE2	1.82	0.43
18:C6:99:GLU:O	18:C6:102:LYS:N	3.04	0.43
1:6:1504:G:H2'	1:6:1505:A:C8	2.53	0.43
36:5:1580:A:HO2'	36:5:1581:C:P	2.39	0.43
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.18	0.43
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.53	0.43
71:O5:49:LYS:HE3	71:O5:49:LYS:HB3	3.95	0.43
11:S9:139:GLN:NE2	26:D4:64:PHE:O	2.48	0.43
51:M5:178:HIS:CD2	36:5:304:G:C6	123.49	0.43
1:2:1466:G:OP1	18:C6:139:GLN:HB3	2.18	0.43
1:2:1237:G:H1	1:2:1248:C:H42	1.65	0.43
46:L9:91:ARG:HG3	46:L9:91:ARG:HH21	1.83	0.43
5:S3:50:ILE:N	5:S3:87:TYR:O	2.46	0.43
44:L7:121:LYS:HD2	44:L7:125:GLU:HG2	2.00	0.43
36:1:29:C:H4'	36:1:62:A:H4'	1.98	0.43
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.18	0.43
69:O3:51:TYR:CE2	69:O3:53:TYR:HB3	2.92	0.43
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	2.00	0.43
32:E0:50:VAL:O	32:E0:51:ASN:HB2	4.59	0.43
36:5:3366:G:C6	36:5:3367:C:N4	2.86	0.43
54:M8:57:ILE:HG21	54:M8:57:ILE:HD13	1.66	0.43
1:2:1088:A:H4'	1:2:1143:A:H5'	2.00	0.43
62:N6:14:LYS:HE3	36:5:335:G:OP2	77.32	0.43
1:6:491:C:H42	1:6:497:G:H21	1.65	0.43
9:S7:170:GLN:HA	9:S7:181:ILE:HG22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:6:ALA:HA	43:L6:7:PRO:HD2	1.48	0.43
25:D3:59:ILE:CD1	32:E0:4:VAL:HG13	2.48	0.43
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.83	0.43
36:1:659:G:H2'	36:1:1432:C:N4	2.32	0.43
1:2:67:A:O3'	1:2:68:A:H3'	2.18	0.43
1:2:224:C:H2'	1:2:225:A:C8	2.53	0.43
36:1:1615:C:H2'	36:1:1616:U:C6	2.54	0.43
1:2:416:A:H4'	1:2:417:A:OP2	2.18	0.43
1:6:276:C:H1'	1:6:277:U:C5	2.53	0.43
7:S5:156:ARG:HA	7:S5:157:ARG:HE	3.47	0.43
7:S5:156:ARG:HG3	7:S5:156:ARG:H	1.61	0.43
21:C9:25:GLN:HB2	21:C9:25:GLN:HE21	1.58	0.43
13:C1:105:LYS:HD2	1:6:306:U:OP1	323.53	0.43
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.39	0.43
36:5:796:U:H2'	36:5:797:U:C6	2.53	0.43
36:5:2822:U:H2'	36:5:2823:G:O4'	2.19	0.43
1:6:1095:U:O4	86:6:2179:OHX:N2	2.51	0.43
65:N9:28:LYS:HD2	65:N9:29:TYR:H	1.82	0.43
16:C4:128:LYS:HD3	28:D6:27:SER:OG	3.46	0.43
52:M6:57:PHE:CZ	52:M6:82:LYS:HE3	5.32	0.43
1:2:645:C:H42	1:2:689:G:H1	1.65	0.43
18:C6:20:ALA:HB2	18:C6:84:ALA:HB1	2.71	0.43
21:C9:99:SER:O	21:C9:103:LYS:HB2	2.18	0.43
32:E0:39:LEU:HA	32:E0:39:LEU:HD12	4.45	0.43
36:5:1510:G:H8	36:5:1510:G:O5'	2.01	0.43
75:O9:28:ARG:H	75:O9:28:ARG:HG2	1.96	0.43
11:S9:11:THR:HG23	1:6:472:U:H5"	398.78	0.43
11:S9:22:SER:OG	11:S9:23:ARG:N	4.08	0.43
36:1:951:A:C4	36:1:1369:A:C2	3.06	0.43
50:M4:128:ARG:HG2	50:M4:132:LYS:HG3	2.00	0.43
34:SR:34:LEU:HD23	34:SR:71:CYS:HB3	2.00	0.43
63:N7:5:LEU:HD22	63:N7:77:TYR:HE2	5.58	0.43
20:C8:145:ARG:HB3	20:C8:146:ALA:H	1.37	0.43
41:L4:246:ARG:O	41:L4:248:VAL:HG23	3.19	0.43
1:6:1002:G:C6	1:6:1003:A:N7	2.86	0.43
43:L6:78:ARG:NH2	43:L6:106:PHE:HB2	2.33	0.43
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	2.48	0.43
13:C1:129:ARG:HH21	1:6:336:G:P	296.61	0.43
37:3:64:A:N7	47:M0:209:ASN:ND2	2.67	0.43
3:S1:178:GLY:HA3	3:S1:187:LYS:NZ	2.34	0.43
2:S0:157:ASP:O	2:S0:158:VAL:C	2.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:538:A:C8	1:2:543:C:C4	3.06	0.43
1:6:538:A:C8	1:6:543:C:C5	3.06	0.43
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.51	0.43
1:6:1363:U:O2'	1:6:1364:G:H5'	2.17	0.43
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.22	0.43
7:S5:176:THR:OG1	7:S5:177:ILE:N	2.51	0.43
1:6:1535:U:O2'	1:6:1536:G:P	2.76	0.43
13:C1:127:GLN:HG3	13:C1:137:PHE:CZ	2.53	0.43
36:1:1230:G:H2'	36:1:1231:A:H8	1.82	0.43
36:1:1262:G:C6	36:1:1278:A:N6	2.87	0.43
6:S4:161:LYS:HB3	6:S4:170:THR:O	5.34	0.43
66:O0:30:THR:O	66:O0:34:LEU:N	3.14	0.43
4:S2:242:ILE:HA	4:S2:242:ILE:HD12	1.75	0.43
72:O6:99:ARG:HB3	72:O6:100:HIS:H	1.46	0.43
25:D3:73:ARG:HE	25:D3:84:THR:HG22	1.85	0.43
13:C1:142:VAL:HG12	13:C1:144:ALA:H	1.84	0.43
79:Q3:73:THR:HG23	79:Q3:76:ALA:H	1.83	0.43
13:C1:77:SER:HB3	13:C1:85:VAL:HB	2.03	0.43
36:5:1027:A:N7	36:5:1029:G:C2	2.86	0.43
36:5:1200:A:H5'	36:5:1201:C:O5'	2.18	0.43
45:L8:82:LEU:HD21	45:L8:218:ILE:HG12	2.01	0.43
1:6:1203:A:C4	1:6:1556:A:C2	3.07	0.43
45:L8:182:GLY:O	45:L8:186:LEU:HG	2.18	0.43
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.33	0.43
16:C4:119:THR:HG1	16:C4:119:THR:H	1.57	0.43
43:L6:52:VAL:HG11	43:L6:65:ILE:HG23	4.23	0.43
24:D2:82:LYS:C	24:D2:84:GLY:H	2.20	0.43
36:1:725:G:H3'	36:1:726:G:H5''	1.99	0.43
11:S9:44:ARG:O	11:S9:47:PHE:HB3	2.26	0.43
54:M8:57:ILE:HG22	54:M8:58:ASN:N	2.33	0.43
58:N2:23:THR:HA	58:N2:28:PHE:HB3	2.01	0.43
86:1:4026:OHX:N4	86:1:4146:OHX:N3	2.66	0.43
36:1:1819:U:O4	86:1:4039:OHX:N4	2.50	0.43
36:5:997:A:H4'	37:7:80:G:H5'	2.00	0.43
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.87	0.43
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.65	0.43
35:SM:89:ARG:C	35:SM:91:THR:H	2.20	0.43
45:L8:84:ARG:O	45:L8:87:ALA:HB3	2.74	0.43
59:N3:22:ILE:HG12	59:N3:35:TYR:HA	2.01	0.43
5:S3:105:MET:HG3	5:S3:122:VAL:HG21	1.99	0.43
1:6:1592:A:C2	1:6:1605:G:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:96:VAL:HG13	15:C3:100:LYS:HE3	6.56	0.43
47:M0:37:GLY:O	47:M0:39:LYS:N	2.51	0.43
36:1:586:C:OP1	69:O3:70:LYS:NZ	2.26	0.43
36:1:1694:U:N3	36:1:1695:U:C4	2.87	0.43
36:1:2907:G:OP1	86:1:4187:OHX:N1	2.52	0.43
35:SM:101:ASP:HB3	35:SM:102:THR:H	1.67	0.43
19:C7:81:LYS:HB3	19:C7:81:LYS:HE3	2.47	0.43
54:M8:166:LEU:HA	54:M8:166:LEU:HD23	1.78	0.43
36:1:1667:A:O5'	36:1:1667:A:H8	2.01	0.43
51:M5:10:LEU:O	51:M5:10:LEU:HD22	2.18	0.43
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.18	0.43
37:7:48:U:O2	37:7:50:U:C4	2.72	0.43
14:C2:98:GLY:O	14:C2:102:GLY:N	2.80	0.43
1:2:193:U:H2'	1:2:194:U:H2'	2.01	0.43
40:L3:186:GLY:O	40:L3:191:LYS:HE2	2.19	0.43
36:5:2309:A:H4'	86:5:4199:OHX:N4	2.34	0.43
49:M3:46:ILE:HG23	49:M3:46:ILE:HD12	2.03	0.43
31:D9:19:ARG:HH22	1:6:1597:A:P	406.57	0.43
3:S1:59:ASP:HA	3:S1:62:LYS:NZ	2.33	0.43
54:M8:66:ARG:NH2	54:M8:143:PRO:HG3	2.33	0.43
78:Q2:9:LYS:HB2	78:Q2:9:LYS:HE3	1.81	0.43
3:S1:70:LEU:HD13	3:S1:79:HIS:CG	3.92	0.43
1:2:1150:G:O2'	1:2:1768:G:N2	2.51	0.43
1:2:1151:A:H4'	1:2:1766:A:C5	2.54	0.43
1:2:1765:A:C8	1:2:1768:G:N2	2.83	0.43
1:6:512:A:C8	1:6:512:A:H3'	2.54	0.43
1:6:512:A:O2'	1:6:513:U:H5'	2.18	0.43
1:6:542:A:H1'	1:6:543:C:P	2.58	0.43
51:M5:112:ASN:O	51:M5:138:GLN:NE2	3.30	0.43
65:N9:23:LYS:HA	65:N9:23:LYS:HD2	1.64	0.43
4:S2:38:VAL:HG12	4:S2:65:GLU:OE1	2.19	0.43
27:D5:55:PRO:C	27:D5:57:TYR:H	2.14	0.43
5:S3:192:PRO:O	5:S3:195:SER:OG	4.19	0.43
1:2:1053:G:C2	1:2:1067:C:C2	3.07	0.43
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.19	0.43
1:2:1566:U:O2'	1:2:1567:U:H5'	2.19	0.43
44:L7:170:GLU:HG3	44:L7:179:LEU:HB3	2.00	0.43
40:L3:351:LEU:HD23	40:L3:351:LEU:HA	1.65	0.43
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.30	0.43
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.23	0.43
36:1:3159:C:H2'	36:1:3160:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:200:THR:HG23	41:L4:201:GLN:N	2.32	0.43
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	3.31	0.43
1:2:1466:G:O2'	1:2:1602:C:OP1	2.35	0.43
21:C9:14:PHE:HE1	21:C9:136:ALA:HB2	1.84	0.43
43:L6:22:ARG:C	43:L6:23:LYS:HG2	2.39	0.43
36:1:1719:G:H2'	36:1:1720:U:O4'	2.18	0.43
37:3:28:C:N4	37:3:29:C:C2	2.87	0.43
36:5:3375:A:OP2	86:5:3959:OHX:N3	2.51	0.43
54:M8:90:ASP:O	54:M8:92:ARG:N	2.51	0.43
36:5:2101:C:HO2'	36:5:2102:U:P	2.41	0.43
20:C8:26:ILE:HD12	20:C8:31:ALA:HA	4.06	0.43
24:D2:24:GLN:HA	24:D2:63:VAL:O	2.46	0.43
36:5:1620:U:H2'	36:5:1621:A:C8	2.52	0.43
5:S3:108:LYS:O	5:S3:111:ASN:N	2.50	0.43
64:N8:128:ARG:HB3	72:O6:8:ALA:CB	3.43	0.43
7:S5:49:GLU:O	7:S5:51:VAL:HG23	2.17	0.43
48:M1:85:LYS:HA	48:M1:89:TYR:CE2	2.52	0.43
36:1:3326:G:C4	36:1:3327:G:C8	3.06	0.43
55:M9:8:LYS:O	55:M9:11:ALA:HB3	2.18	0.43
64:N8:95:SER:O	64:N8:99:ALA:HB2	2.18	0.43
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.53	0.43
41:L4:153:SER:OG	41:L4:154:THR:N	2.50	0.43
36:1:587:U:C2'	36:1:588:G:H5'	2.48	0.43
36:1:1770:G:C6	36:1:1771:C:C4	3.07	0.43
13:C1:54:ILE:HD13	13:C1:54:ILE:HA	2.94	0.43
40:L3:370:PHE:CE2	40:L3:376:LYS:HG3	3.02	0.43
36:1:1882:G:O2'	36:1:1883:A:H5'	2.19	0.43
1:2:1445:G:C5	33:E1:91:ILE:HB	2.54	0.43
1:2:1079:U:H2'	1:2:1080:U:C6	2.54	0.43
36:5:2875:U:H3	36:5:2952:G:H1	1.65	0.43
36:5:752:C:H2'	36:5:753:C:C6	2.53	0.43
3:S1:92:GLN:HG3	3:S1:92:GLN:O	2.32	0.43
66:O0:14:LEU:HD23	66:O0:14:LEU:HA	2.17	0.43
34:SR:188:ILE:HD12	34:SR:188:ILE:HA	1.85	0.43
1:2:912:U:OP1	1:2:913:G:O2'	2.28	0.43
36:1:2443:A:N6	36:1:2503:G:C2	2.86	0.43
3:S1:41:ARG:NH2	3:S1:232:HIS:HB3	2.34	0.43
17:C5:127:ARG:O	17:C5:129:GLY:N	4.44	0.43
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.29	0.43
28:D6:85:ARG:N	28:D6:85:ARG:HE	2.17	0.43
24:D2:15:ASN:OD1	24:D2:71:LYS:HA	3.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:2:SER:N	36:5:2940:A:N7	238.55	0.43
43:L6:80:ASN:HB2	36:5:3272:C:O2	249.16	0.43
36:5:2897:A:H2'	36:5:2899:C:C5'	2.48	0.43
14:C2:52:LEU:HD22	14:C2:57:ALA:HB2	2.00	0.43
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.19	0.43
36:1:1591:G:H5''	70:O4:37:LYS:HZ2	1.84	0.43
8:S6:27:PHE:CZ	8:S6:111:LEU:HD11	2.53	0.43
36:1:2310:U:OP1	86:1:4138:OHX:N2	2.51	0.43
36:1:1278:A:HO2'	36:1:1279:C:H6	1.64	0.43
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	2.00	0.43
73:O7:18:LEU:HD21	75:O9:51:ILE:CG2	2.49	0.43
36:5:63:A:H8	36:5:63:A:O5'	2.01	0.43
36:5:1128:U:H2'	36:5:1129:A:O4'	2.19	0.43
42:L5:222:LEU:O	42:L5:223:PHE:HB2	2.19	0.43
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.80	0.43
46:L9:94:TYR:HB3	46:L9:99:ILE:HG13	2.26	0.43
62:N6:5:SER:HB3	62:N6:8:VAL:HG22	5.24	0.43
1:2:348:U:OP1	13:C1:85:VAL:HG11	2.19	0.43
36:1:3066:U:H2'	36:1:3067:C:C6	2.53	0.43
39:L2:181:LYS:HB3	36:5:860:G:C6	214.36	0.43
36:1:3281:U:H2'	36:1:3282:U:C6	2.53	0.43
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.19	0.43
36:1:781:G:N7	86:1:3938:OHX:N5	2.66	0.43
10:S8:146:ARG:O	10:S8:147:ALA:HB3	2.19	0.43
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.99	0.43
7:S5:81:ARG:HD2	1:6:1615:C:H3'	374.35	0.43
36:1:1458:U:H3	36:1:1474:A:N6	2.17	0.43
86:1:4026:OHX:N6	86:1:4146:OHX:N5	2.66	0.43
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	2.00	0.43
36:1:3242:G:C2	36:1:3245:A:C8	3.07	0.43
4:S2:144:TRP:O	24:D2:97:ARG:HG3	2.19	0.43
36:1:3039:C:OP1	59:N3:88:ARG:NH2	2.51	0.43
79:Q3:51:ALA:HA	36:5:1795:U:C4	208.13	0.43
1:2:1183:A:N1	17:C5:99:GLY:HA3	2.33	0.43
46:L9:137:SER:OG	46:L9:143:GLU:HG2	4.39	0.43
36:1:655:C:H2'	36:1:656:A:C8	2.53	0.43
1:6:1162:C:H5''	1:6:1163:A:OP2	2.19	0.43
24:D2:5:SER:O	24:D2:7:LEU:N	3.46	0.43
86:1:4054:OHX:N4	86:1:4162:OHX:N3	2.66	0.43
9:S7:99:LEU:HA	9:S7:100:PRO:HD2	2.49	0.43
46:L9:34:LEU:HD21	46:L9:149:ASN:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:877:C:C2'	36:5:878:G:H5'	2.48	0.43
1:2:1445:G:C6	33:E1:91:ILE:HB	2.53	0.43
73:O7:19:CYS:O	73:O7:23:GLY:N	2.49	0.43
36:5:3017:A:H2'	36:5:3018:C:C6	2.53	0.43
36:1:3365:U:H2'	36:1:3366:G:C8	2.53	0.43
45:L8:202:GLU:O	45:L8:203:VAL:HB	2.47	0.43
1:2:1660:A:H2'	1:2:1661:U:C6	2.53	0.43
62:N6:64:LYS:O	62:N6:66:GLN:N	3.62	0.43
7:S5:141:GLY:HA2	7:S5:142:PRO:HD3	2.01	0.43
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.19	0.43
26:D4:3:ASP:C	26:D4:5:VAL:H	2.21	0.43
37:3:57:G:H3'	37:3:58:C:C6	2.54	0.43
36:1:139:G:H2'	36:1:140:C:C6	2.53	0.43
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.35	0.43
1:2:1351:G:C2	1:2:1375:A:C2	3.06	0.43
1:2:442:C:H2'	1:2:443:C:H6	1.83	0.43
36:5:2767:U:H2'	36:5:2768:U:C6	2.53	0.43
36:1:123:A:C6	36:1:150:A:C5	3.07	0.43
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.56	0.43
36:5:926:A:H2'	36:5:927:C:C6	2.53	0.43
36:1:424:G:O2'	68:O2:23:ASP:OD2	2.25	0.43
1:2:1604:U:C4	1:2:1605:G:N7	2.87	0.43
59:N3:68:GLU:N	59:N3:68:GLU:OE1	2.40	0.43
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.63	0.43
79:Q3:29:LEU:HA	79:Q3:29:LEU:HD23	1.75	0.43
36:1:2887:A:H2'	36:1:2887:A:N3	2.33	0.43
2:S0:87:LEU:HD13	2:S0:87:LEU:HA	2.85	0.43
34:SR:61:PHE:CE1	34:SR:97:GLY:HA2	3.03	0.43
67:O1:46:THR:O	67:O1:47:ASP:HB3	4.72	0.43
16:C4:114:ARG:HA	28:D6:62:TYR:OH	2.18	0.43
20:C8:4:VAL:HG11	27:D5:82:HIS:ND1	3.12	0.43
1:6:1125:A:N7	1:6:1126:G:H1'	2.34	0.43
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	2.01	0.43
14:C2:52:LEU:HA	14:C2:85:LYS:HZ1	1.84	0.43
36:1:561:C:H2'	36:1:562:C:H6	1.82	0.43
36:5:1529:A:OP2	36:5:1592:G:N2	2.49	0.43
1:2:549:G:H1	1:2:589:C:N4	2.17	0.43
42:L5:21:ARG:NH1	42:L5:21:ARG:HG2	2.62	0.43
30:D8:26:THR:HB	30:D8:44:VAL:CG2	2.48	0.43
51:M5:5:LYS:NZ	72:O6:37:THR:HG22	2.33	0.43
34:SR:231:MET:HB3	34:SR:232:TYR:H	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3186:A:N3	46:L9:44:THR:OG1	2.52	0.43
1:2:1370:U:H1'	1:2:1371:A:OP2	2.18	0.43
1:2:872:G:H2'	1:2:873:U:O4'	2.19	0.43
55:M9:43:LYS:NZ	36:5:1765:U:H5'	93.66	0.43
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.54	0.43
18:C6:118:ILE:HG22	1:6:1410:A:H5''	416.85	0.43
36:1:2155:G:OP1	39:L2:241:ARG:HG2	2.18	0.43
45:L8:122:LYS:C	45:L8:124:ASP:N	2.99	0.43
36:5:3352:U:O4'	36:5:3353:G:C2	2.72	0.43
40:L3:332:ARG:NH1	40:L3:332:ARG:HG2	2.33	0.43
49:M3:128:ARG:O	49:M3:130:GLY:N	2.51	0.43
36:5:3291:G:H2'	36:5:3292:A:C8	2.53	0.43
46:L9:117:PHE:HE1	46:L9:178:GLY:HA2	1.82	0.43
50:M4:106:ARG:NH1	36:5:3209:A:N1	297.30	0.43
1:2:213:A:OP2	86:2:2117:OHX:N2	2.52	0.43
86:6:2125:OHX:N5	86:6:2149:OHX:N3	2.66	0.43
59:N3:85:TRP:O	59:N3:92:PHE:HA	2.33	0.43
8:S6:31:ARG:N	8:S6:34:GLN:OE1	3.71	0.43
69:O3:6:ARG:HD2	69:O3:8:TYR:O	2.19	0.43
33:E1:94:LYS:HA	33:E1:94:LYS:HD3	1.83	0.43
48:M1:9:MET:O	48:M1:11:ASP:N	3.55	0.43
15:C3:123:HIS:HE1	15:C3:141:TYR:HD2	1.66	0.43
36:5:996:A:C2	36:5:1054:A:C4	3.06	0.43
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.32	0.43
1:2:161:U:H2'	1:2:162:A:C8	2.54	0.43
36:5:812:G:N7	86:5:4044:OHX:N2	2.66	0.43
36:5:812:G:C2	36:5:929:A:C2	3.07	0.43
36:5:1438:U:H2'	36:5:1439:U:H6	1.83	0.43
31:D9:46:LYS:HA	31:D9:46:LYS:HD3	1.74	0.43
36:5:2218:G:H2'	36:5:2219:A:H8	1.83	0.43
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	2.91	0.43
41:L4:34:ILE:O	41:L4:38:VAL:HG23	2.19	0.43
36:5:27:C:O2'	36:5:327:A:N3	2.50	0.43
16:C4:50:ALA:O	16:C4:52:ARG:N	2.48	0.43
49:M3:149:GLN:HB2	49:M3:149:GLN:HE21	4.32	0.43
36:1:3279:A:C2'	36:1:3280:U:H5'	2.48	0.43
51:M5:99:ARG:HD3	51:M5:167:THR:HB	2.00	0.43
36:5:1378:U:OP1	86:5:4027:OHX:N3	2.51	0.43
36:1:1159:A:O2'	36:1:1160:C:H5''	2.18	0.43
36:5:1663:C:H1'	36:5:1722:U:O4	2.19	0.43
36:1:1461:A:C2'	36:1:1462:A:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1650:U:H2'	1:6:1651:A:C8	2.53	0.43
61:N5:108:LEU:HD22	61:N5:108:LEU:HA	2.45	0.43
56:N0:14:LEU:HD23	56:N0:14:LEU:HA	2.23	0.43
36:5:83:U:H2'	36:5:84:U:O4'	2.19	0.43
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.54	0.43
36:1:2585:G:N3	38:4:151:C:H5	2.17	0.43
36:1:1940:G:H2'	36:1:1941:C:O4'	2.19	0.43
36:1:2943:G:H2'	36:1:2944:U:O4'	2.19	0.43
16:C4:37:GLU:HA	1:6:895:G:O2'	259.03	0.43
47:M0:202:LYS:HD3	37:7:64:A:C2	345.90	0.43
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	2.01	0.43
1:2:338:C:P	13:C1:133:LYS:HG3	2.59	0.43
44:L7:29:GLU:HA	44:L7:32:ALA:HB3	2.01	0.43
71:O5:101:THR:HG23	71:O5:102:GLU:N	2.75	0.43
36:1:1307:G:H1'	36:1:1308:A:C8	2.53	0.43
59:N3:120:LYS:N	59:N3:137:VAL:HG23	3.55	0.43
58:N2:17:VAL:HG22	58:N2:103:TYR:HB2	2.43	0.43
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.52	0.43
37:7:1:G:C2	37:7:2:G:C8	3.07	0.43
6:S4:118:GLU:C	6:S4:120:SER:N	3.14	0.43
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.77	0.43
2:S0:31:VAL:N	2:S0:149:LEU:O	2.40	0.43
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.74	0.43
36:1:1039:U:H2'	36:1:1040:A:C8	2.54	0.43
25:D3:92:CYS:C	25:D3:94:ASN:N	2.72	0.43
36:1:1763:U:H5'	36:1:1764:U:OP2	2.18	0.43
22:D0:98:GLN:O	22:D0:102:ARG:HB3	3.58	0.43
36:5:1597:C:C4'	36:5:1696:A:H1'	2.49	0.43
26:D4:27:VAL:HG12	26:D4:28:LEU:N	3.18	0.43
46:L9:166:ARG:HH21	46:L9:168:ARG:NH1	11.14	0.43
64:N8:73:LEU:HB2	64:N8:109:TYR:CE2	2.71	0.43
71:O5:89:ARG:HD2	38:8:38:U:C4	67.93	0.43
54:M8:122:ILE:HG21	54:M8:122:ILE:HD13	4.13	0.43
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.19	0.43
10:S8:114:GLU:OE2	10:S8:121:LEU:HB2	4.09	0.43
7:S5:203:LYS:HA	7:S5:203:LYS:HD2	1.85	0.43
4:S2:59:HIS:CD2	4:S2:239:PRO:HD2	2.53	0.43
40:L3:239:PRO:O	40:L3:242:THR:HG23	2.19	0.43
1:6:1692:G:H1	1:6:1710:U:H3	1.66	0.43
36:5:2642:A:O2'	36:5:2643:A:H5'	2.19	0.43
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:45:VAL:H	32:E0:47:VAL:HG23	5.36	0.43
36:5:832:G:C2	36:5:863:C:C2	3.06	0.43
46:L9:188:THR:HG22	46:L9:189:GLU:N	4.78	0.43
55:M9:10:LEU:HD12	55:M9:10:LEU:HA	1.90	0.43
1:6:83:G:N7	86:6:2097:OHX:N1	2.67	0.43
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	2.01	0.43
1:2:482:U:H2'	1:2:483:A:C8	2.54	0.43
36:1:717:C:N4	36:1:718:G:C2	2.87	0.43
1:2:58:U:O4	86:2:2047:OHX:N1	2.52	0.43
36:5:493:G:N2	36:5:494:G:H1'	2.34	0.43
36:1:2516:U:O2'	36:1:2595:A:N6	2.45	0.43
8:S6:96:SER:OG	1:6:420:A:OP1	297.53	0.43
36:5:531:G:H2'	36:5:532:A:O4'	2.19	0.43
36:1:1347:U:O4'	41:L4:305:ALA:HA	2.18	0.43
1:6:716:C:H42	1:6:722:G:H1	1.67	0.43
36:1:3218:A:C4	69:O3:5:HIS:CE1	3.06	0.43
36:1:3030:G:N7	86:1:4072:OHX:N6	2.67	0.43
1:6:834:G:O2'	1:6:835:U:OP1	2.32	0.43
36:1:2875:U:H6	36:1:2875:U:H3'	1.84	0.43
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.71	0.43
11:S9:168:ARG:HB3	11:S9:169:PRO:O	3.61	0.43
36:1:2405:C:O2	36:1:2819:A:N1	2.52	0.43
36:1:1100:U:OP2	44:L7:196:LYS:HE2	2.19	0.43
1:6:950:C:H2'	1:6:951:A:C8	2.54	0.43
56:N0:25:PHE:HA	57:N1:149:GLN:O	2.35	0.43
18:C6:82:ARG:HH12	18:C6:114:ARG:HB3	1.84	0.43
34:SR:95:ALA:O	34:SR:96:THR:HB	3.37	0.43
47:M0:45:GLU:O	47:M0:141:LYS:HE3	3.76	0.43
11:S9:29:LYS:HA	32:E0:40:TYR:CE2	2.54	0.43
41:L4:22:LEU:CD1	41:L4:26:PHE:HB2	2.45	0.43
3:S1:70:LEU:HD13	3:S1:71:ALA:N	2.33	0.43
1:2:1149:G:H1'	1:2:1765:A:C4	2.53	0.43
3:S1:180:THR:N	3:S1:183:GLN:HB2	5.65	0.43
1:2:788:A:H3'	6:S4:108:ARG:NH2	2.31	0.43
46:L9:38:LEU:HD13	46:L9:71:VAL:HG22	3.38	0.43
41:L4:93:MET:HB2	36:5:658:G:N2	146.13	0.43
36:1:1349:G:H5'	41:L4:291:ASN:OD1	2.19	0.43
1:2:514:G:HO2'	1:2:515:A:H8	1.66	0.43
19:C7:60:ARG:NH1	1:6:1401:A:OP1	412.49	0.43
27:D5:103:ARG:HG2	27:D5:104:ALA:N	4.95	0.43
4:S2:65:GLU:O	4:S2:68:ILE:HB	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:111:LEU:O	8:S6:112:VAL:HB	2.18	0.43
38:8:68:G:H2'	38:8:69:U:O4'	2.19	0.43
48:M1:60:ARG:H	48:M1:63:GLU:HG3	1.83	0.43
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.49	0.43
44:L7:103:LEU:HG	44:L7:130:ILE:HD11	4.99	0.43
6:S4:122:LYS:HD2	6:S4:164:LEU:HD21	2.28	0.43
48:M1:84:LEU:HA	48:M1:84:LEU:HD23	1.87	0.43
1:6:281:G:C6	1:6:282:C:C4	3.07	0.43
44:L7:150:LYS:HG2	44:L7:151:ARG:CG	2.49	0.43
47:M0:99:ILE:CG2	47:M0:123:HIS:HB2	2.49	0.43
14:C2:43:ARG:HG3	1:6:1227:A:H2	464.23	0.43
64:N8:49:HIS:N	64:N8:50:PRO:HD3	2.92	0.43
70:O4:64:THR:O	70:O4:65:VAL:HG23	2.18	0.43
43:L6:46:ARG:NH2	36:5:3268:A:OP1	247.87	0.43
5:S3:76:ARG:HD2	5:S3:76:ARG:HA	4.35	0.43
49:M3:16:LYS:O	36:5:48:A:OP2	135.71	0.43
33:E1:86:THR:OG1	33:E1:88:PRO:HD2	6.42	0.43
42:L5:278:SER:C	42:L5:280:GLU:H	2.90	0.43
61:N5:139:ILE:HG22	71:O5:33:VAL:HG21	6.71	0.43
40:L3:259:HIS:CE1	36:5:2366:C:H5'	219.92	0.43
11:S9:123:HIS:N	11:S9:123:HIS:HD1	2.16	0.43
48:M1:155:THR:OG1	48:M1:158:ASP:HB2	2.73	0.43
45:L8:89:GLU:O	45:L8:214:LEU:HD21	2.19	0.43
71:O5:15:GLU:HA	71:O5:18:ALA:HB3	2.30	0.43
41:L4:264:SER:OG	41:L4:267:VAL:HG12	2.97	0.43
40:L3:236:LYS:HD2	36:5:2340:U:OP1	235.07	0.43
1:2:1207:C:N4	1:2:1456:C:H5	2.17	0.43
4:S2:59:HIS:NE2	4:S2:238:SER:HA	2.50	0.43
36:1:494:G:O2'	36:1:495:G:OP2	2.32	0.43
8:S6:28:PHE:CZ	8:S6:104:PRO:HG3	2.54	0.43
17:C5:75:PRO:HA	17:C5:93:VAL:HB	3.03	0.43
32:E0:13:LYS:NZ	32:E0:17:GLN:OE1	2.51	0.43
36:1:2902:A:OP1	36:1:3032:A:H1'	2.18	0.43
36:1:610:G:C8	41:L4:312:VAL:HG21	2.54	0.43
36:5:1519:G:H2'	36:5:1520:G:C8	2.53	0.43
38:4:87:G:OP2	71:O5:7:TYR:OH	2.32	0.43
36:5:1241:U:O2'	36:5:1242:G:O5'	2.34	0.43
36:1:2510:U:O2'	36:1:2511:A:H5''	2.18	0.43
86:2:2096:OHX:N6	86:2:2110:OHX:N5	2.66	0.43
28:D6:46:GLU:HB2	28:D6:47:ALA:H	1.47	0.43
36:1:2105:G:C2'	36:1:2106:A:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:230:C:H2'	1:2:231:U:H5''	2.01	0.43
1:2:647:G:N2	1:2:687:G:H22	2.17	0.43
1:2:1184:A:H2	1:2:1454:G:N3	2.16	0.43
17:C5:99:GLY:O	1:6:1453:G:N2	377.63	0.43
4:S2:229:LEU:HD23	23:D1:23:ILE:HD11	2.18	0.43
36:5:3:U:H3	38:8:156:U:H3	1.66	0.43
1:2:398:G:P	10:S8:47:ARG:HH12	2.42	0.43
76:Q0:112:LYS:HZ3	36:5:3107:U:P	305.52	0.43
65:N9:28:LYS:HD2	65:N9:28:LYS:HA	2.60	0.43
13:C1:54:ILE:HG23	13:C1:55:ASP:N	2.32	0.43
19:C7:2:GLY:N	1:6:1312:A:N7	395.01	0.43
1:2:289:U:H2'	1:2:290:G:O4'	2.18	0.43
21:C9:61:VAL:HG22	21:C9:76:LEU:HD13	2.00	0.43
1:2:755:A:HO2'	1:2:756:A:P	2.42	0.43
40:L3:311:PHE:CE2	40:L3:317:ILE:HG13	2.54	0.43
36:1:2236:G:OP1	86:1:4117:OHX:N6	2.52	0.43
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.39	0.43
59:N3:18:PRO:HA	59:N3:51:ALA:HA	2.14	0.43
1:6:613:G:H4'	1:6:614:C:OP1	2.18	0.43
36:1:1414:G:N7	86:1:4121:OHX:N2	2.66	0.43
1:6:1078:C:H2'	1:6:1079:U:H6	1.84	0.43
65:N9:51:ALA:O	65:N9:54:LEU:N	3.04	0.43
21:C9:43:ASN:HB3	1:6:1477:G:OP1	374.86	0.43
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	8.90	0.43
41:L4:113:VAL:HG12	41:L4:114:ASN:N	2.61	0.43
49:M3:139:LEU:HD23	49:M3:139:LEU:HA	1.90	0.43
17:C5:124:THR:OG1	17:C5:124:THR:O	3.88	0.43
65:N9:52:LYS:HB2	65:N9:52:LYS:HE2	1.79	0.43
86:6:2120:OHX:N4	86:6:2170:OHX:N1	2.66	0.43
51:M5:190:THR:HB	51:M5:193:ARG:NH2	2.34	0.43
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.36	0.43
41:L4:301:PRO:O	41:L4:302:ALA:HB2	4.26	0.43
17:C5:126:VAL:O	17:C5:127:ARG:CB	2.85	0.43
8:S6:136:LYS:HG3	8:S6:173:PRO:HB3	2.30	0.43
11:S9:143:ILE:HG22	11:S9:145:SER:H	1.83	0.43
9:S7:131:PHE:HB3	9:S7:132:PRO:HD3	2.01	0.43
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.49	0.43
36:1:565:U:H2'	36:1:566:G:H8	1.84	0.43
8:S6:137:ARG:NH2	1:6:169:A:OP2	319.28	0.43
4:S2:41:LEU:HA	4:S2:41:LEU:HD22	1.66	0.43
36:5:1800:A:H2'	36:5:1801:U:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:96:VAL:O	11:S9:99:LEU:HB3	3.68	0.43
36:1:670:C:P	54:M8:147:ARG:NH2	2.91	0.43
48:M1:37:LEU:HD22	48:M1:37:LEU:HA	2.60	0.43
1:6:1699:G:H2'	1:6:1700:C:H5'	2.01	0.43
52:M6:68:ARG:H	52:M6:68:ARG:HG2	1.50	0.43
1:2:5:U:N3	1:2:20:G:C2	2.87	0.43
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.18	0.43
44:L7:173:LEU:O	44:L7:178:ILE:HB	2.47	0.43
1:2:720:G:H2'	1:2:720:G:N3	2.34	0.43
6:S4:79:ASP:OD1	6:S4:82:TYR:N	2.52	0.43
6:S4:34:GLY:HA3	6:S4:83:PRO:HG2	2.55	0.43
10:S8:8:ARG:HH21	10:S8:22:ARG:HE	4.99	0.43
1:2:1062:A:OP2	86:2:2163:OHX:N4	2.52	0.43
7:S5:164:PRO:HA	7:S5:167:ARG:HB2	2.01	0.43
6:S4:180:LEU:HA	6:S4:194:THR:H	1.84	0.43
14:C2:66:VAL:HG11	14:C2:71:ILE:HD13	3.25	0.43
46:L9:5:GLN:C	46:L9:6:THR:HG22	3.09	0.43
55:M9:99:LEU:O	55:M9:99:LEU:HD22	2.19	0.43
6:S4:86:PHE:CD1	6:S4:87:MET:HG2	2.54	0.43
60:N4:9:SER:HA	60:N4:52:THR:HG22	2.27	0.43
34:SR:182:ASN:ND2	34:SR:184:ASN:OD1	3.84	0.43
34:SR:111:MET:HE3	34:SR:111:MET:HB3	2.28	0.43
1:2:1369:U:O4	86:2:2096:OHX:N5	2.51	0.43
1:2:226:A:C2'	1:2:227:U:H5'	2.49	0.43
36:5:703:G:O2'	36:5:787:G:H4'	2.19	0.43
4:S2:99:LYS:HA	4:S2:117:THR:HB	3.08	0.43
41:L4:222:VAL:HA	41:L4:223:PRO:HD2	1.81	0.43
5:S3:55:THR:CG2	5:S3:90:ARG:HG2	2.49	0.43
1:2:1735:U:H2'	1:2:1736:G:O4'	2.19	0.43
1:2:1629:G:H2'	1:2:1630:U:C6	2.53	0.43
40:L3:123:TYR:CE1	40:L3:124:LYS:HG2	2.54	0.43
15:C3:105:ASN:HB3	1:6:879:G:O2'	276.55	0.43
3:S1:93:GLY:C	3:S1:95:ASN:H	2.68	0.43
17:C5:105:VAL:HG12	17:C5:106:GLU:O	2.93	0.43
36:1:1226:G:H2'	36:1:1227:C:C6	2.54	0.43
36:1:3380:U:H2'	36:1:3381:U:C6	2.54	0.43
36:1:1415:U:H2'	36:1:1416:C:O4'	2.19	0.43
36:5:183:G:H2'	36:5:184:U:O4'	2.19	0.43
16:C4:131:GLY:O	16:C4:133:ARG:N	2.52	0.43
36:5:644:G:H2'	36:5:2372:A:N7	2.34	0.43
36:1:715:A:C8	64:N8:115:LYS:HG3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.43	0.43
39:L2:112:ILE:HD12	79:Q3:79:VAL:HG22	1.99	0.43
29:D7:34:ASP:O	29:D7:79:PHE:HA	2.41	0.43
36:1:622:A:C5	36:1:623:U:C5	3.07	0.43
36:5:759:U:H2'	36:5:760:G:H5'	2.01	0.43
57:N1:116:ARG:O	57:N1:120:LYS:N	2.52	0.43
1:6:665:U:N3	1:6:668:C:O2	2.52	0.43
6:S4:242:LYS:N	6:S4:242:LYS:HD2	2.34	0.43
36:1:1344:G:H1	36:1:1360:C:H42	1.67	0.43
42:L5:217:GLU:HG2	42:L5:218:ARG:N	2.33	0.43
34:SR:278:PHE:CZ	34:SR:287:PRO:HG2	2.53	0.43
36:1:3167:A:H5'	36:1:3168:A:OP2	2.19	0.43
36:5:495:G:H2'	36:5:496:C:O4'	2.19	0.42
7:S5:65:ARG:HA	7:S5:66:GLN:C	2.39	0.42
49:M3:44:ALA:O	49:M3:46:ILE:N	3.31	0.42
24:D2:79:PHE:O	24:D2:125:ILE:HG22	2.19	0.42
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.18	0.42
3:S1:97:LEU:HD13	3:S1:98:THR:H	1.84	0.42
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.19	0.42
24:D2:72:CYS:HB3	24:D2:129:VAL:HG13	2.00	0.42
63:N7:51:LEU:CD2	63:N7:52:LYS:HZ2	7.21	0.42
34:SR:164:ASP:C	34:SR:166:SER:H	2.22	0.42
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	2.00	0.42
68:O2:78:ASN:H	68:O2:81:ASP:HB2	2.35	0.42
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.19	0.42
8:S6:68:LEU:HD13	8:S6:68:LEU:HA	2.05	0.42
20:C8:120:ARG:HH21	35:SM:61:ILE:CD1	2.31	0.42
15:C3:23:PRO:HD2	15:C3:26:PHE:HB2	2.93	0.42
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.29	0.42
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.25	0.42
7:S5:97:LEU:HD11	7:S5:194:LEU:HG	2.00	0.42
1:6:75:U:O2	1:6:76:A:C8	2.72	0.42
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.53	0.42
55:M9:105:LEU:CD1	55:M9:135:LYS:HG3	2.49	0.42
34:SR:123:ILE:HD13	34:SR:169:ILE:HG21	2.01	0.42
28:D6:70:LYS:C	28:D6:71:LEU:HD22	2.40	0.42
1:2:1657:U:O4	36:1:2126:A:OP1	2.37	0.42
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.19	0.42
1:2:904:G:N7	87:2:2178:PCY:N16	2.67	0.42
36:5:2111:G:H4'	36:5:2112:U:OP2	2.19	0.42
63:N7:55:LYS:C	63:N7:57:HIS:H	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.18	0.42
36:5:112:U:O2'	36:5:113:C:P	2.76	0.42
1:2:1545:A:H2'	1:2:1546:G:C8	2.54	0.42
61:N5:40:LEU:HB3	61:N5:41:ALA:H	3.59	0.42
9:S7:109:VAL:HG22	9:S7:110:GLN:H	1.83	0.42
36:1:1222:G:O2'	36:1:1285:G:N1	2.32	0.42
62:N6:39:LEU:HD12	62:N6:43:TYR:HE2	3.84	0.42
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.28	0.42
36:5:128:G:O6	86:5:3933:OHX:N4	2.52	0.42
36:1:1177:G:N7	69:O3:20:LYS:HD3	2.34	0.42
51:M5:159:ARG:HB2	51:M5:164:LEU:HB2	2.89	0.42
4:S2:149:GLY:H	23:D1:4:ASP:HB2	4.01	0.42
1:6:246:G:C6	1:6:247:A:C6	3.07	0.42
8:S6:53:SER:O	8:S6:110:ALA:O	2.37	0.42
59:N3:66:LYS:HG3	59:N3:69:LEU:HD22	3.66	0.42
86:2:2096:OHX:N4	86:2:2110:OHX:N2	2.67	0.42
11:S9:171:ARG:HA	11:S9:171:ARG:HE	2.60	0.42
36:5:1440:G:H2'	36:5:1441:G:H8	1.83	0.42
40:L3:275:ARG:NH1	36:5:3045:G:O3'	235.44	0.42
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	2.00	0.42
5:S3:108:LYS:O	5:S3:113:LEU:HB2	2.91	0.42
52:M6:54:TYR:CD2	52:M6:58:LEU:HD22	2.61	0.42
36:1:2601:A:H2'	36:1:2602:G:C8	2.54	0.42
36:1:325:A:H5'	36:1:326:U:OP2	2.19	0.42
1:2:142:G:O5'	1:2:142:G:C8	2.71	0.42
1:2:404:G:H2'	1:2:405:C:C6	2.54	0.42
44:L7:197:GLN:N	44:L7:197:GLN:OE1	2.42	0.42
36:1:1478:C:H2'	36:1:1479:U:C6	2.53	0.42
36:1:717:C:N4	36:1:718:G:N1	2.67	0.42
52:M6:136:THR:HG22	52:M6:137:THR:N	2.41	0.42
37:7:49:G:H4'	37:7:50:U:O5'	2.19	0.42
1:2:755:A:H2'	1:2:756:A:C8	2.53	0.42
57:N1:73:GLY:HA2	57:N1:89:LEU:O	2.35	0.42
1:6:221:A:C2'	1:6:222:A:H5'	2.49	0.42
1:6:225:A:N6	1:6:226:A:H62	2.17	0.42
36:1:2427:U:H2'	36:1:2428:U:C6	2.53	0.42
28:D6:43:ASN:OD1	28:D6:43:ASN:N	3.65	0.42
37:3:100:C:OP2	56:N0:52:LYS:HE3	2.18	0.42
10:S8:88:ASN:O	10:S8:91:VAL:HB	2.44	0.42
36:5:2140:U:O2'	36:5:2978:U:H5'	2.19	0.42
36:5:293:C:H2'	36:5:294:U:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:27:LYS:HD3	60:N4:29:PHE:CZ	2.54	0.42
1:6:43:A:C2	1:6:378:A:C5	3.07	0.42
36:5:3264:G:N2	36:5:3265:C:H1'	2.33	0.42
8:S6:109:LEU:HA	8:S6:109:LEU:HD23	1.79	0.42
36:1:1127:G:O5'	36:1:1127:G:H8	2.02	0.42
1:6:1214:U:H2'	1:6:1215:C:O4'	2.18	0.42
78:Q2:77:CYS:SG	78:Q2:79:THR:HG22	6.16	0.42
41:L4:296:GLN:HA	41:L4:299:ILE:HG12	2.01	0.42
64:N8:6:THR:CG2	64:N8:8:THR:HG23	2.83	0.42
20:C8:143:ARG:C	20:C8:145:ARG:H	4.03	0.42
11:S9:3:ARG:NH1	1:6:40:A:OP1	373.99	0.42
11:S9:102:GLU:OE2	11:S9:102:GLU:N	2.86	0.42
3:S1:136:ARG:CZ	3:S1:218:LEU:HD11	4.38	0.42
3:S1:29:TRP:HE1	3:S1:47:LEU:HG	1.83	0.42
86:5:4214:OHX:N4	86:5:4224:OHX:N3	2.67	0.42
1:6:752:A:O2'	1:6:753:A:H5'	2.19	0.42
51:M5:114:ARG:HH11	51:M5:114:ARG:HG3	2.20	0.42
27:D5:83:LEU:O	27:D5:89:ILE:HG12	3.75	0.42
1:6:301:A:H2'	1:6:302:U:O4'	2.18	0.42
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	2.98	0.42
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.74	0.42
79:Q3:36:ARG:NH2	36:5:1725:C:H5''	229.02	0.42
53:M7:84:PRO:O	53:M7:88:VAL:HG23	2.42	0.42
1:2:1586:A:H2'	1:2:1587:A:O4'	2.19	0.42
36:5:498:A:H2'	36:5:499:G:C8	2.55	0.42
17:C5:81:ARG:HD2	17:C5:97:TYR:O	2.63	0.42
15:C3:52:VAL:HG22	15:C3:55:ARG:NH2	2.34	0.42
34:SR:201:THR:HG21	34:SR:242:SER:HA	2.78	0.42
10:S8:26:LYS:O	10:S8:28:GLU:N	2.84	0.42
49:M3:61:PRO:HD3	49:M3:70:ARG:HH21	2.63	0.42
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.19	0.42
56:N0:115:ARG:NH2	36:5:1320:C:O2	290.59	0.42
33:E1:98:VAL:HG12	33:E1:99:LYS:N	3.52	0.42
7:S5:167:ARG:HH11	7:S5:167:ARG:HB3	3.98	0.42
34:SR:173:GLY:O	34:SR:199:ILE:HG13	2.18	0.42
36:1:119:U:C2	45:L8:138:HIS:CE1	3.07	0.42
70:O4:65:VAL:HG13	70:O4:69:HIS:HB2	2.41	0.42
4:S2:114:GLY:HA3	4:S2:132:ALA:HB2	2.01	0.42
27:D5:41:ILE:HG23	27:D5:42:LEU:N	2.33	0.42
86:1:4098:OHX:N2	40:L3:30:LYS:O	2.51	0.42
15:C3:118:ILE:O	15:C3:122:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:24:GLU:O	44:L7:26:VAL:N	2.51	0.42
9:S7:68:ALA:O	9:S7:72:LYS:HG3	2.19	0.42
1:2:616:G:C2	1:2:622:A:N7	2.87	0.42
56:N0:103:VAL:O	56:N0:106:LEU:HB3	2.67	0.42
36:5:370:U:H4'	36:5:404:G:H5'	2.01	0.42
6:S4:92:LEU:HB2	6:S4:95:THR:CG2	4.68	0.42
48:M1:166:LYS:C	48:M1:168:ASP:H	2.63	0.42
52:M6:182:ASN:O	52:M6:184:THR:N	4.06	0.42
30:D8:49:ARG:HG2	30:D8:52:ASP:OD2	2.56	0.42
18:C6:9:THR:HG21	18:C6:87:LYS:O	2.90	0.42
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.54	0.42
36:5:1771:C:H2'	36:5:1772:U:O4'	2.19	0.42
40:L3:261:MET:HE2	52:M6:63:ALA:O	2.19	0.42
45:L8:123:GLN:C	45:L8:125:ALA:H	3.14	0.42
55:M9:82:LYS:HE3	36:5:2115:G:O2'	208.20	0.42
4:S2:89:GLN:HG2	1:6:1146:G:O2'	372.62	0.42
63:N7:20:GLY:HA2	70:O4:89:ILE:HD13	2.51	0.42
6:S4:143:ASP:OD2	6:S4:145:ARG:HD2	2.19	0.42
11:S9:28:LEU:HB3	32:E0:44:PHE:HZ	4.75	0.42
31:D9:15:GLY:O	31:D9:17:GLY:N	3.21	0.42
25:D3:33:LEU:HD23	25:D3:33:LEU:HA	4.06	0.42
1:2:142:G:N2	1:2:173:A:C2	2.84	0.42
86:5:4035:OHX:N4	86:5:4237:OHX:N1	2.67	0.42
86:5:4035:OHX:N6	86:5:4237:OHX:N2	2.67	0.42
19:C7:85:VAL:HG12	19:C7:87:GLU:H	1.84	0.42
86:1:3973:OHX:N5	86:1:4154:OHX:N6	2.67	0.42
1:2:1079:U:H2'	1:2:1080:U:O4'	2.19	0.42
36:1:1462:A:C6	36:1:1463:U:C4	3.07	0.42
1:6:420:A:H2'	1:6:421:A:O4'	2.19	0.42
1:6:1078:C:H2'	1:6:1079:U:C6	2.53	0.42
1:2:1295:G:C6	1:2:1296:A:N7	2.87	0.42
36:1:1769:G:N7	86:1:4168:OHX:N2	2.67	0.42
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	2.02	0.42
1:6:9:U:O4	86:6:2145:OHX:N3	2.52	0.42
36:1:1310:G:O6	86:1:4025:OHX:N1	2.52	0.42
17:C5:78:THR:OG1	17:C5:80:MET:HB2	2.19	0.42
7:S5:175:LEU:HD22	7:S5:198:LEU:HD23	2.00	0.42
36:5:2152:A:H1'	36:5:2243:A:C2	2.54	0.42
1:2:632:U:OP1	13:C1:102:LYS:HG3	2.18	0.42
39:L2:44:ILE:HG23	39:L2:87:PHE:CD1	2.55	0.42
44:L7:93:ASN:N	44:L7:93:ASN:OD1	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:106:LEU:HD23	57:N1:106:LEU:HA	4.35	0.42
36:1:2407:C:H2'	36:1:2408:U:C6	2.53	0.42
21:C9:128:GLY:O	21:C9:131:ASP:N	3.39	0.42
36:1:3047:U:O2'	40:L3:53:MET:HE1	2.19	0.42
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	2.48	0.42
47:M0:145:LYS:HD3	47:M0:167:LEU:HD21	2.01	0.42
2:S0:22:THR:HG21	2:S0:173:ILE:HD11	2.60	0.42
11:S9:34:PHE:CE1	11:S9:105:LEU:HB3	2.54	0.42
9:S7:31:SER:O	9:S7:33:GLU:N	4.24	0.42
78:Q2:71:ARG:NH1	78:Q2:80:ARG:HD3	3.30	0.42
28:D6:85:ARG:HE	28:D6:85:ARG:CA	2.32	0.42
86:5:4023:OHX:N4	86:5:4217:OHX:N3	2.68	0.42
36:1:1035:G:C6	36:1:1036:A:C6	3.07	0.42
46:L9:171:ASP:HA	36:5:2899:C:C5	324.18	0.42
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.84	0.42
42:L5:40:HIS:HE1	42:L5:42:ALA:HB3	4.17	0.42
46:L9:38:LEU:HD13	46:L9:71:VAL:HG13	2.00	0.42
36:1:911:C:H42	39:L2:3:ARG:HD3	1.84	0.42
1:6:322:G:O4'	1:6:323:A:H8	2.01	0.42
4:S2:225:LEU:CD2	4:S2:230:TRP:HD1	3.24	0.42
5:S3:162:GLN:N	5:S3:163:PRO:HD2	2.76	0.42
30:D8:61:ARG:HB3	30:D8:61:ARG:CZ	4.74	0.42
36:1:371:G:H4'	36:1:396:A:N1	2.34	0.42
41:L4:11:LEU:HD13	41:L4:159:ILE:HD11	2.02	0.42
13:C1:46:LYS:HD2	13:C1:46:LYS:HA	2.75	0.42
20:C8:112:ASP:OD2	1:6:1547:A:H5'	358.40	0.42
27:D5:74:SER:HA	27:D5:77:ARG:NH2	2.34	0.42
36:5:3299:A:N6	36:5:3315:G:H1	2.12	0.42
1:2:109:G:H1	1:2:305:C:N4	2.17	0.42
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.88	0.42
36:5:2746:A:H2'	36:5:2747:A:O4'	2.20	0.42
64:N8:27:LYS:O	64:N8:28:HIS:CB	3.61	0.42
1:2:932:U:H4'	1:2:933:A:O4'	2.19	0.42
36:5:2257:C:H2'	36:5:2258:U:O4'	2.19	0.42
36:5:1597:C:H5'	36:5:1696:A:H1'	2.01	0.42
59:N3:78:VAL:HG23	59:N3:78:VAL:H	1.61	0.42
10:S8:84:HIS:CD2	10:S8:90:LEU:HD13	2.96	0.42
61:N5:103:TYR:O	61:N5:138:ARG:NH1	2.52	0.42
49:M3:193:ALA:O	49:M3:194:GLU:HG2	2.19	0.42
1:6:546:U:H2'	1:6:547:U:H6	1.83	0.42
5:S3:22:ASN:O	5:S3:26:THR:OG1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:250:U:C5	36:1:251:G:N7	2.87	0.42
26:D4:84:LYS:HG3	26:D4:85:PHE:N	2.33	0.42
5:S3:134:CYS:N	5:S3:157:LEU:HD11	2.34	0.42
15:C3:46:THR:HG23	15:C3:49:GLN:NE2	3.07	0.42
26:D4:45:ALA:HB1	26:D4:52:LYS:H	2.90	0.42
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.18	0.42
66:O0:78:GLY:CA	66:O0:87:VAL:HG13	2.48	0.42
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.44	0.42
45:L8:78:PHE:CD2	45:L8:179:ILE:HD13	2.84	0.42
59:N3:89:ASP:OD1	59:N3:89:ASP:N	2.95	0.42
1:2:1076:A:O5'	28:D6:13:LYS:HB3	2.19	0.42
28:D6:12:LYS:HB3	28:D6:13:LYS:H	4.45	0.42
36:5:3033:A:H2'	36:5:3034:C:H6	1.83	0.42
52:M6:48:PHE:CE1	36:5:1191:U:C2	287.95	0.42
36:1:2223:A:C6	36:1:2224:A:C6	3.08	0.42
36:5:655:C:H2'	36:5:656:A:C8	2.54	0.42
16:C4:22:SER:OG	16:C4:23:PHE:N	2.50	0.42
38:8:157:U:C5	38:8:158:U:H5	2.37	0.42
5:S3:118:ALA:O	5:S3:122:VAL:HG23	3.01	0.42
36:5:958:C:OP1	36:5:2799:A:H3'	2.19	0.42
75:O9:45:ARG:NH2	36:5:1841:A:N3	127.16	0.42
8:S6:56:ASN:ND2	8:S6:60:GLY:O	2.51	0.42
36:5:2810:C:OP1	86:5:4079:OHX:N3	2.52	0.42
36:1:2973:G:N7	86:1:4097:OHX:N2	2.67	0.42
36:5:587:U:C2'	36:5:588:G:H5'	2.49	0.42
38:4:24:G:N2	38:4:25:G:H1'	2.34	0.42
3:S1:182:ALA:O	3:S1:186:SER:OG	2.33	0.42
28:D6:25:ASN:HB3	28:D6:77:CYS:SG	2.59	0.42
29:D7:33:LEU:HD23	29:D7:81:ARG:HA	3.95	0.42
1:6:1620:C:H2'	1:6:1621:U:H6	1.85	0.42
1:6:1529:C:H2'	1:6:1530:C:C6	2.54	0.42
62:N6:86:THR:HG22	62:N6:96:PRO:HA	2.01	0.42
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.95	0.42
1:2:260:U:H3'	1:2:261:U:H5''	2.00	0.42
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.64	0.42
36:1:3302:U:H3	36:1:3312:U:H3	1.65	0.42
36:1:532:A:H2	36:1:560:G:H22	1.66	0.42
55:M9:143:ILE:HG22	55:M9:144:GLN:N	2.57	0.42
43:L6:8:LYS:HB2	43:L6:8:LYS:HE2	1.72	0.42
52:M6:106:GLU:H	52:M6:106:GLU:HG2	1.58	0.42
72:O6:35:ASN:OD1	72:O6:35:ASN:N	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	3.25	0.42
36:5:1317:A:OP1	86:5:4097:OHX:N1	2.52	0.42
78:Q2:16:THR:OG1	78:Q2:17:CYS:N	2.93	0.42
31:D9:21:CYS:HA	31:D9:30:LEU:HD21	3.71	0.42
1:6:577:G:N1	86:6:2158:OHX:N4	2.67	0.42
3:S1:43:VAL:HG11	3:S1:68:VAL:HG21	3.76	0.42
1:2:639:U:P	9:S7:117:THR:HG1	2.41	0.42
9:S7:117:THR:O	9:S7:121:VAL:HG23	2.91	0.42
38:8:15:G:C6	38:8:16:G:N1	2.88	0.42
67:O1:10:ARG:NE	36:5:3386:G:H5'	157.14	0.42
36:1:3195:U:O2'	36:1:3196:U:H5'	2.19	0.42
43:L6:85:ILE:HG23	69:O3:107:ILE:HG21	3.28	0.42
26:D4:124:ARG:NH1	26:D4:124:ARG:HB3	2.35	0.42
72:O6:26:ILE:HG13	72:O6:26:ILE:H	1.85	0.42
36:1:2736:A:H1'	57:N1:90:ASN:ND2	2.35	0.42
1:6:1390:U:O2'	1:6:1391:A:C8	2.73	0.42
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.52	0.42
56:N0:167:ARG:HG3	56:N0:168:PRO:CD	2.50	0.42
11:S9:163:PRO:HB2	11:S9:164:PHE:H	1.72	0.42
19:C7:66:VAL:HB	19:C7:69:ILE:HG13	2.72	0.42
4:S2:61:LEU:HA	4:S2:62:PRO:HD2	1.77	0.42
47:M0:36:LEU:HD13	47:M0:87:LEU:HD13	2.01	0.42
6:S4:18:TRP:HH2	6:S4:31:PRO:HD3	2.27	0.42
1:6:75:U:O2'	1:6:76:A:O5'	2.28	0.42
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.20	0.42
17:C5:15:HIS:NE2	17:C5:17:TYR:HA	2.34	0.42
30:D8:35:ASP:OD1	30:D8:36:THR:N	3.89	0.42
54:M8:65:SER:HA	54:M8:93:ILE:HD13	2.01	0.42
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.19	0.42
36:5:2147:A:H2'	36:5:2148:U:O4'	2.19	0.42
75:O9:50:ASN:O	75:O9:51:ILE:HB	2.32	0.42
31:D9:44:ARG:HH22	1:6:1280:C:H5'	401.02	0.42
2:S0:109:ASN:OD1	2:S0:111:ILE:HB	2.19	0.42
50:M4:92:GLU:HA	50:M4:95:ALA:HB3	2.02	0.42
36:5:1027:A:C8	36:5:1029:G:C2	3.07	0.42
64:N8:132:LYS:NZ	64:N8:136:GLU:OE2	2.40	0.42
69:O3:48:ARG:NH1	69:O3:48:ARG:HG2	2.34	0.42
86:2:2097:OHX:N1	86:2:2117:OHX:N2	2.67	0.42
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	2.24	0.42
56:N0:102:ALA:O	56:N0:103:VAL:C	2.94	0.42
55:M9:134:HIS:CE1	55:M9:137:ALA:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.75	0.42
44:L7:163:LEU:HA	44:L7:163:LEU:HD23	1.65	0.42
4:S2:89:GLN:HA	4:S2:94:GLN:HA	2.73	0.42
1:2:641:G:H8	1:2:641:G:O5'	2.03	0.42
36:1:2954:U:C6	36:1:2954:U:O5'	2.72	0.42
2:S0:86:VAL:HG12	2:S0:174:TRP:CE2	3.13	0.42
36:1:2534:G:N2	36:1:2545:C:N3	2.59	0.42
63:N7:136:PHE:CZ	70:O4:89:ILE:HG12	3.82	0.42
47:M0:153:ARG:HG2	47:M0:156:ARG:HH21	3.32	0.42
45:L8:113:ALA:C	45:L8:115:ALA:H	3.54	0.42
86:1:3957:OHX:N1	86:1:4139:OHX:N3	2.68	0.42
86:1:4054:OHX:N2	86:1:4162:OHX:N1	2.68	0.42
1:2:380:U:C5	11:S9:5:PRO:HG3	2.55	0.42
40:L3:97:ARG:NH1	36:5:3244:A:N1	246.42	0.42
36:1:3229:G:P	50:M4:137:LYS:HZ1	2.41	0.42
86:1:3973:OHX:N5	86:1:4154:OHX:N2	2.66	0.42
13:C1:54:ILE:HD12	13:C1:54:ILE:HG23	4.52	0.42
19:C7:77:GLU:CG	19:C7:80:ARG:HH21	9.53	0.42
28:D6:66:LYS:H	28:D6:66:LYS:HD3	1.84	0.42
38:4:60:U:P	61:N5:61:LYS:HZ1	2.43	0.42
36:1:532:A:O2'	36:1:533:A:H5'	2.18	0.42
68:O2:74:PHE:CD2	68:O2:85:LEU:HD21	2.55	0.42
1:2:205:U:O4	86:2:2068:OHX:N3	2.52	0.42
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	1.85	0.42
36:1:2118:C:H2'	36:1:2119:A:O4'	2.19	0.42
36:5:2409:G:H4'	36:5:2410:U:OP2	2.19	0.42
65:N9:59:LYS:HE3	65:N9:59:LYS:HB2	4.74	0.42
37:7:33:U:H2'	37:7:34:C:O4'	2.20	0.42
36:1:913:A:H2	36:1:2134:G:N3	2.18	0.42
36:5:2168:A:C6	36:5:2170:U:H1'	2.54	0.42
36:1:641:C:OP1	64:N8:21:ARG:HB3	2.18	0.42
39:L2:53:GLY:O	39:L2:192:LYS:NZ	3.50	0.42
1:2:1389:C:OP1	19:C7:48:ASN:ND2	2.51	0.42
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.63	0.42
3:S1:70:LEU:HD22	3:S1:74:GLN:HB2	2.25	0.42
11:S9:108:ARG:HH21	11:S9:145:SER:HB3	3.34	0.42
1:2:1796:C:N1	28:D6:5:ARG:HG2	2.34	0.42
3:S1:104:ASP:OD2	3:S1:214:LYS:NZ	2.43	0.42
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.19	0.42
34:SR:159:ASN:HA	34:SR:159:ASN:HD22	1.69	0.42
44:L7:217:PRO:HA	86:5:4002:OHX:N5	263.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3182:G:C6	36:1:3183:A:C5	3.08	0.42
1:6:119:A:H1'	1:6:397:A:C5	2.55	0.42
39:L2:31:THR:N	39:L2:123:ARG:HH21	3.94	0.42
1:2:545:A:OP1	32:E0:31:LYS:HG3	2.19	0.42
63:N7:10:VAL:HB	63:N7:83:THR:HG21	2.01	0.42
36:5:980:A:H2'	36:5:981:U:N1	2.35	0.42
36:1:639:G:P	68:O2:40:SER:HB2	2.59	0.42
51:M5:84:PRO:HA	51:M5:87:GLN:OE1	2.19	0.42
50:M4:38:ILE:HD13	50:M4:38:ILE:HG21	1.70	0.42
13:C1:57:LYS:HB2	13:C1:110:HIS:NE2	2.35	0.42
47:M0:63:GLU:H	47:M0:63:GLU:HG2	1.64	0.42
21:C9:127:ASN:O	21:C9:130:ARG:HB3	2.60	0.42
1:6:198:A:C2'	1:6:199:G:H5'	2.49	0.42
87:2:2178:PCY:H17	87:2:2178:PCY:H24	1.76	0.42
46:L9:67:ALA:HA	46:L9:70:THR:HG23	2.02	0.42
1:2:1483:A:C6	1:2:1484:G:C6	3.08	0.42
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	2.00	0.42
1:2:1002:G:N1	1:2:1761:U:OP1	2.46	0.42
41:L4:184:SER:HB2	41:L4:202:ARG:HG2	2.02	0.42
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.45	0.42
36:5:3237:U:C2	36:5:3251:U:C2	3.08	0.42
49:M3:107:GLU:OE1	72:O6:18:THR:HG23	2.36	0.42
45:L8:186:LEU:O	45:L8:189:LEU:HB3	3.83	0.42
45:L8:200:LEU:HA	45:L8:200:LEU:HD23	1.90	0.42
41:L4:209:TYR:CE2	41:L4:229:ASN:HB2	2.65	0.42
70:O4:60:ARG:HG2	70:O4:60:ARG:O	2.20	0.42
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	2.02	0.42
86:6:2125:OHX:N6	86:6:2149:OHX:N3	2.68	0.42
59:N3:53:SER:N	59:N3:56:ASP:OD2	2.61	0.42
36:5:1449:A:C2	36:5:2356:A:C4	3.08	0.42
73:O7:52:LYS:HA	73:O7:55:ARG:HD2	2.00	0.42
1:2:1615:C:N4	7:S5:78:ALA:O	2.49	0.42
36:1:1621:A:H2'	36:1:1622:U:C6	2.54	0.42
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.71	0.42
4:S2:148:LEU:HD22	23:D1:4:ASP:OD2	2.20	0.42
38:8:113:U:O2	38:8:113:U:H3'	2.20	0.42
6:S4:212:ASP:OD2	6:S4:216:ASN:HB2	2.20	0.42
3:S1:116:LYS:HE2	3:S1:117:TRP:HZ3	1.84	0.42
1:2:1675:C:H1'	10:S8:32:GLN:HE22	1.84	0.42
36:1:3128:G:OP2	86:1:4166:OHX:N2	2.53	0.42
5:S3:105:MET:HB3	5:S3:184:ILE:HD13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:68:LEU:HD13	50:M4:93:LYS:HB2	4.39	0.42
86:1:4054:OHX:N2	86:1:4162:OHX:N5	2.67	0.42
36:5:958:C:H5'	36:5:2799:A:H2'	2.01	0.42
5:S3:215:GLU:HA	5:S3:216:PRO:HD2	2.26	0.42
36:1:2568:C:O2'	36:1:2569:A:O4'	2.22	0.42
1:2:1340:U:C2	1:2:1378:U:H4'	2.54	0.42
1:2:472:U:H5''	11:S9:11:THR:HG23	2.01	0.42
41:L4:304:GLN:C	41:L4:306:THR:H	2.50	0.42
64:N8:74:ASN:HB3	64:N8:115:LYS:H	1.85	0.42
22:D0:63:LEU:HB2	22:D0:84:MET:HB3	2.68	0.42
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	2.09	0.42
2:S0:114:SER:O	2:S0:116:LYS:HG2	2.18	0.42
57:N1:31:LEU:HA	57:N1:31:LEU:HD23	1.81	0.42
75:O9:47:THR:O	75:O9:47:THR:HG22	2.20	0.42
20:C8:109:LEU:HA	20:C8:109:LEU:HD12	1.79	0.42
36:1:3153:U:H3	36:1:3293:U:H3	1.67	0.42
36:5:3223:A:C5	36:5:3263:G:C6	3.07	0.42
53:M7:169:THR:HG21	69:O3:60:ARG:HH11	1.84	0.42
18:C6:4:VAL:HG13	18:C6:5:PRO:HD2	4.34	0.42
18:C6:52:LEU:HB2	18:C6:53:LEU:HD23	2.39	0.42
41:L4:299:ILE:H	41:L4:299:ILE:HG12	1.96	0.42
3:S1:34:ALA:HB2	3:S1:43:VAL:HG22	2.02	0.42
35:SM:68:ARG:HE	35:SM:68:ARG:HB3	2.48	0.42
11:S9:55:ALA:O	11:S9:59:LEU:HG	2.19	0.42
9:S7:133:THR:HG22	9:S7:157:LYS:O	3.65	0.42
86:5:4093:OHX:N5	86:5:4202:OHX:N1	2.68	0.42
26:D4:127:LYS:HG3	26:D4:128:LYS:N	2.34	0.42
47:M0:210:ILE:HG23	47:M0:217:PHE:CE2	2.55	0.42
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.88	0.42
3:S1:183:GLN:N	3:S1:183:GLN:OE1	5.22	0.42
1:2:1105:C:H2'	1:2:1106:U:C6	2.55	0.42
1:2:789:A:H2	6:S4:248:ILE:HG21	1.85	0.42
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	2.02	0.42
12:C0:3:MET:SD	12:C0:8:ARG:NH1	2.93	0.42
1:6:1390:U:O2'	1:6:1391:A:N7	2.53	0.42
52:M6:127:LEU:HD22	56:N0:156:VAL:HG12	2.00	0.42
65:N9:21:ILE:O	65:N9:22:LYS:C	3.23	0.42
8:S6:63:MET:HA	8:S6:98:ARG:O	2.32	0.42
1:6:836:U:C2	1:6:837:G:C8	3.08	0.42
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.20	0.42
1:6:151:G:H2'	1:6:152:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:6:SER:CB	8:S6:112:VAL:HG22	2.50	0.42
33:E1:144:CYS:HB3	33:E1:147:VAL:HG22	2.01	0.42
1:6:587:C:H2'	1:6:588:U:O4'	2.20	0.42
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.62	0.42
47:M0:74:LYS:HB2	47:M0:74:LYS:NZ	2.68	0.42
79:Q3:3:LYS:HZ2	79:Q3:6:LYS:HA	1.84	0.42
8:S6:7:TYR:OH	8:S6:116:LYS:HD3	3.59	0.42
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	2.01	0.42
6:S4:121:TYR:CD2	6:S4:161:LYS:HE3	2.54	0.42
36:5:2568:C:N4	36:5:2574:G:C6	2.86	0.42
77:Q1:7:LYS:HE2	77:Q1:11:ARG:NH1	2.86	0.42
36:5:213:A:H61	36:5:227:G:C2'	2.33	0.42
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.18	0.42
65:N9:8:THR:OG1	65:N9:9:ALA:N	2.80	0.42
34:SR:276:PRO:HG3	34:SR:311:ARG:HD3	2.02	0.42
47:M0:133:GLN:HG3	47:M0:134:ILE:N	2.33	0.42
36:1:2217:U:H2'	36:1:2218:G:H8	1.84	0.42
36:1:2553:U:H4'	36:1:2554:A:OP2	2.20	0.42
37:3:46:A:C6	37:3:47:C:C4	3.08	0.42
20:C8:75:ASN:O	20:C8:78:HIS:HB2	3.76	0.42
4:S2:186:LYS:HD3	4:S2:186:LYS:HA	1.93	0.42
1:2:1526:A:N1	1:2:1608:U:O2'	2.47	0.42
1:6:269:G:H1	1:6:286:C:N4	2.16	0.42
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.54	0.42
11:S9:37:LYS:HE2	1:6:594:A:OP2	413.80	0.42
36:5:370:U:O4	36:5:371:G:C6	2.72	0.42
39:L2:147:ARG:HH12	39:L2:155:LYS:HD3	4.56	0.42
36:5:2697:A:H2'	36:5:2698:G:H8	1.83	0.42
36:5:127:G:H2'	36:5:128:G:C8	2.54	0.42
1:2:1281:G:H2'	1:2:1282:U:H6	1.85	0.42
2:S0:177:LEU:HA	2:S0:177:LEU:HD23	1.79	0.42
1:2:1086:A:H5'	1:2:1087:A:OP2	2.19	0.42
46:L9:88:TYR:CZ	46:L9:184:LYS:HD3	4.39	0.42
36:1:2213:A:H2'	36:1:2214:A:C8	2.55	0.42
36:5:992:A:O2'	36:5:993:G:H5'	2.18	0.42
34:SR:111:MET:N	34:SR:125:GLY:O	2.70	0.42
38:8:82:U:H1'	38:8:87:G:H4'	2.00	0.42
4:S2:174:ARG:HH12	11:S9:94:ASP:HB3	1.85	0.42
1:2:310:C:H4'	25:D3:33:LEU:CD2	2.49	0.42
11:S9:116:LEU:HD12	11:S9:116:LEU:HA	2.42	0.42
36:5:541:U:H2'	36:5:542:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:23:VAL:HG11	48:M1:29:ARG:HG2	2.00	0.42
36:1:1681:U:H2'	36:1:1682:U:O4'	2.20	0.42
36:5:815:G:C6	36:5:906:A:C4	3.08	0.42
4:S2:44:LEU:HD23	4:S2:44:LEU:HA	2.23	0.42
28:D6:51:ARG:NH2	30:D8:60:GLU:OE1	6.90	0.42
36:1:2890:A:N1	36:1:2913:C:N3	2.68	0.42
36:5:1000:C:C2	36:5:1045:C:N4	2.87	0.42
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.18	0.42
36:1:2652:U:C5	36:1:2653:C:C5	3.07	0.42
36:5:707:U:H1'	36:5:754:G:O2'	2.20	0.42
15:C3:91:LEU:HD23	15:C3:91:LEU:HA	1.87	0.42
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.84	0.42
44:L7:216:VAL:HG11	44:L7:227:GLY:CA	3.90	0.42
25:D3:7:ARG:HH11	25:D3:7:ARG:HB2	1.85	0.42
20:C8:145:ARG:CG	35:SM:68:ARG:HH12	4.95	0.42
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.60	0.42
36:1:2828:G:C6	36:1:2829:U:C2	3.08	0.42
1:6:884:A:H2'	1:6:885:G:C8	2.55	0.42
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	2.01	0.42
1:6:1000:C:H5	1:6:1002:G:H3'	1.83	0.42
1:2:895:G:O2'	16:C4:38:THR:N	2.44	0.42
72:O6:27:SER:OG	36:5:156:G:OP2	90.95	0.42
36:1:1465:A:H5''	36:1:1466:G:OP2	2.19	0.42
6:S4:25:GLY:HA3	1:6:447:U:O2'	376.04	0.42
78:Q2:104:LEU:HD12	78:Q2:104:LEU:HA	1.60	0.42
51:M5:18:VAL:HG13	51:M5:19:LEU:CD1	4.32	0.42
36:1:1806:A:H2'	36:1:1807:G:O4'	2.20	0.42
40:L3:169:THR:HG23	40:L3:171:LEU:HG	2.28	0.42
44:L7:103:LEU:HA	44:L7:103:LEU:HD23	1.82	0.42
19:C7:6:THR:OG1	19:C7:8:THR:HG23	4.41	0.42
36:1:1230:G:H1	36:1:1279:C:N4	2.12	0.42
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.54	0.42
67:O1:94:GLU:HB2	67:O1:95:PRO:HD2	2.63	0.42
36:5:2568:C:O2'	36:5:2569:A:P	2.78	0.42
1:6:775:G:C2'	1:6:776:G:H5'	2.50	0.42
13:C1:21:ASN:HD22	13:C1:31:THR:HA	1.84	0.42
66:O0:17:VAL:CG2	66:O0:100:ILE:HG12	2.50	0.42
45:L8:67:ILE:CG2	45:L8:237:ILE:HB	2.50	0.42
1:2:876:G:H1'	1:2:944:A:O4'	2.20	0.42
47:M0:193:ASP:OD1	36:5:1010:G:N2	337.61	0.42
36:1:3060:C:H1'	36:1:3332:U:H1'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:62:THR:O	20:C8:66:LEU:HD23	4.90	0.42
69:O3:48:ARG:HD2	69:O3:48:ARG:HA	4.48	0.42
36:5:1560:G:HO2'	36:5:1561:G:P	2.41	0.42
24:D2:23:ARG:NH1	24:D2:65:LEU:O	2.53	0.42
35:SM:120:GLU:O	35:SM:122:GLU:N	3.89	0.42
1:2:1237:G:H1	1:2:1248:C:N4	2.17	0.42
7:S5:203:LYS:O	7:S5:205:SER:N	3.66	0.42
37:3:55:A:H2'	37:3:56:A:O4'	2.20	0.42
1:2:1017:U:H2'	1:2:1018:U:H6	1.85	0.42
36:1:494:G:OP1	36:1:494:G:H3'	2.19	0.42
6:S4:246:LEU:HB2	6:S4:251:GLU:CG	2.48	0.42
48:M1:11:ASP:O	48:M1:12:LEU:HB3	4.76	0.42
1:2:163:G:H5'	8:S6:54:GLY:HA3	2.01	0.42
61:N5:24:LEU:HB3	61:N5:25:LYS:H	2.34	0.42
10:S8:32:GLN:OE1	1:6:1727:G:N2	275.11	0.42
11:S9:116:LEU:HG	11:S9:117:GLY:N	2.91	0.42
1:6:1358:G:H2'	1:6:1359:C:C6	2.54	0.42
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.52	0.42
36:5:324:A:O5'	36:5:324:A:H8	2.03	0.42
40:L3:43:LEU:HG	40:L3:181:ILE:HG21	2.50	0.42
16:C4:91:THR:O	16:C4:92:LYS:HD2	2.20	0.42
36:1:2907:G:OP1	86:1:4145:OHX:N4	2.53	0.42
6:S4:206:ASP:O	6:S4:221:ARG:HA	2.76	0.42
50:M4:127:LYS:O	50:M4:131:VAL:HG23	3.54	0.42
38:4:84:C:H1'	62:N6:113:LYS:HG2	2.01	0.42
36:1:592:A:C5	36:1:593:C:C5	3.08	0.42
45:L8:73:PRO:HD3	45:L8:233:TRP:CG	2.55	0.42
40:L3:372:THR:OG1	40:L3:374:ALA:HB3	2.19	0.42
38:8:129:C:H2'	38:8:130:C:H6	1.85	0.42
36:5:1196:C:OP1	86:5:4236:OHX:N6	2.53	0.42
1:2:1413:U:H4'	1:2:1414:U:OP2	2.20	0.42
6:S4:33:ALA:O	1:6:121:U:H1'	352.16	0.42
36:5:1211:U:H1'	36:5:1295:G:N2	2.35	0.42
22:D0:46:GLU:HG2	22:D0:52:LYS:HZ3	1.85	0.42
55:M9:165:LYS:HB2	55:M9:165:LYS:HE3	1.86	0.42
45:L8:85:ASN:N	45:L8:85:ASN:OD1	4.32	0.42
13:C1:30:ARG:HG2	13:C1:30:ARG:H	4.95	0.42
5:S3:4:LEU:HA	5:S3:4:LEU:HD22	2.20	0.42
6:S4:48:LEU:HD12	6:S4:48:LEU:HA	2.74	0.42
36:1:3063:C:O2'	36:1:3064:U:H5'	2.19	0.42
79:Q3:13:LYS:HD2	79:Q3:14:TYR:CZ	3.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3006:A:H2'	36:5:3007:U:O4'	2.19	0.42
34:SR:102:ARG:NH1	1:6:1342:C:H5'	462.16	0.42
6:S4:49:ARG:HH12	1:6:448:C:P	378.23	0.42
40:L3:24:SER:OG	40:L3:25:ILE:N	2.91	0.42
47:M0:38:LYS:CG	47:M0:41:ALA:HB2	3.03	0.42
1:2:1460:A:C4	17:C5:128:HIS:CD2	3.07	0.42
41:L4:22:LEU:HD22	41:L4:26:PHE:HB2	3.95	0.42
36:5:1629:U:O2'	36:5:1630:U:O5'	2.34	0.42
86:1:4030:OHX:N2	86:1:4043:OHX:N5	2.68	0.42
36:1:3198:U:H1'	46:L9:21:LYS:HB2	2.02	0.42
9:S7:6:ALA:HB1	9:S7:9:LEU:HB2	2.02	0.42
2:S0:9:LEU:CD1	2:S0:14:ALA:HB2	2.75	0.42
1:2:886:U:C4	1:2:887:A:N7	2.88	0.42
3:S1:214:LYS:NZ	1:6:886:U:OP1	288.16	0.42
24:D2:30:SER:HA	24:D2:34:ILE:HD12	2.02	0.42
28:D6:64:LEU:HA	28:D6:65:PRO:HD3	1.69	0.42
12:C0:70:GLU:O	12:C0:73:VAL:HB	2.20	0.42
44:L7:217:PRO:HG2	44:L7:218:ARG:H	1.85	0.42
36:1:1741:A:C2	36:1:1742:U:C4	3.07	0.42
1:6:219:A:O2'	1:6:220:A:O4'	2.37	0.42
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.28	0.42
6:S4:26:CYS:HB2	6:S4:27:TYR:CD2	5.39	0.42
1:2:1232:U:O4	33:E1:97:LYS:HD3	2.20	0.42
36:1:1656:A:OP2	70:O4:37:LYS:HE3	2.19	0.42
4:S2:61:LEU:HD23	4:S2:61:LEU:HA	1.79	0.42
8:S6:12:SER:CB	8:S6:124:LEU:HA	2.50	0.42
69:O3:91:ALA:C	69:O3:93:THR:H	2.45	0.42
15:C3:52:VAL:HG22	15:C3:55:ARG:HH22	1.85	0.42
62:N6:90:VAL:C	62:N6:92:GLY:H	2.23	0.42
1:2:502:U:H2'	1:2:503:G:O4'	2.20	0.42
7:S5:184:PHE:CD1	7:S5:185:ARG:HG3	3.84	0.42
34:SR:274:LEU:C	34:SR:275:ARG:HG2	4.05	0.42
36:5:2572:C:OP2	36:5:2572:C:H2'	2.20	0.42
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	311.46	0.42
37:7:92:A:C5	37:7:93:C:H1'	2.54	0.42
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.20	0.42
1:2:75:U:H2'	1:2:76:A:O4'	2.20	0.42
22:D0:44:ASN:OD1	22:D0:103:ILE:HD11	3.48	0.42
27:D5:39:ALA:HA	27:D5:70:LYS:O	2.20	0.42
1:6:105:A:H2'	1:6:106:U:O4'	2.20	0.42
53:M7:94:LEU:HB3	53:M7:148:LEU:CD2	3.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:103:ARG:HH12	28:D6:48:ALA:CB	4.25	0.42
62:N6:60:ARG:NH2	36:5:190:U:H2'	83.88	0.42
43:L6:171:PRO:C	43:L6:173:MET:H	2.22	0.42
13:C1:19:ILE:HD13	86:6:2125:OHX:N3	295.83	0.42
13:C1:93:TYR:HD1	13:C1:100:TYR:CZ	2.38	0.42
25:D3:10:ASN:C	25:D3:12:ALA:H	2.23	0.42
52:M6:41:LEU:HB3	52:M6:138:LEU:HD22	2.02	0.42
43:L6:76:LEU:HA	43:L6:76:LEU:HD23	1.84	0.42
36:5:848:A:C4	36:5:849:C:H1'	2.55	0.42
54:M8:67:ILE:HG22	54:M8:68:ALA:N	2.34	0.42
9:S7:38:LEU:HA	9:S7:38:LEU:HD23	1.94	0.42
45:L8:50:VAL:HG22	45:L8:52:TRP:CD1	3.37	0.42
36:5:1047:A:C6	36:5:1048:A:C6	3.08	0.42
45:L8:247:ASP:O	45:L8:251:LYS:HB2	2.20	0.42
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.19	0.42
44:L7:118:LYS:HG3	44:L7:191:VAL:HG11	2.21	0.42
42:L5:113:LEU:HA	42:L5:113:LEU:HD12	2.01	0.42
36:1:2547:A:C2	36:1:2548:C:H1'	2.54	0.42
38:4:66:A:H2'	38:4:67:U:C6	2.55	0.42
58:N2:27:VAL:HG21	58:N2:107:PHE:HE1	1.83	0.42
36:1:2883:U:H2'	36:1:2884:C:C6	2.55	0.42
1:2:1119:G:C6	1:2:1120:U:C4	3.08	0.42
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.52	0.42
53:M7:53:ASP:O	86:M7:206:OHX:N3	2.52	0.42
25:D3:67:ALA:C	25:D3:68:ILE:HD13	5.52	0.42
49:M3:116:LEU:HA	49:M3:116:LEU:HD23	1.89	0.42
48:M1:38:GLU:O	48:M1:40:LEU:N	2.88	0.42
5:S3:216:PRO:HB2	5:S3:217:ILE:H	1.60	0.42
46:L9:34:LEU:HD21	46:L9:149:ASN:CB	2.48	0.42
3:S1:191:GLU:O	3:S1:194:ASN:HB2	2.19	0.42
1:6:1035:G:O6	86:6:2179:OHX:N5	2.53	0.42
36:1:185:C:H2'	36:1:186:U:H6	1.84	0.42
36:5:1838:G:H4'	36:5:1839:A:N3	2.34	0.42
1:6:1042:G:N2	1:6:1077:C:O2	2.53	0.42
54:M8:44:PHE:O	54:M8:48:VAL:HG23	2.19	0.42
36:1:2512:C:N4	36:1:2513:U:O4	2.52	0.42
1:2:1115:U:O3'	77:Q1:17:ARG:NH2	2.52	0.42
2:S0:117:GLU:OE1	4:S2:40:LYS:HG3	2.19	0.42
25:D3:22:ASN:ND2	1:6:1108:G:O6	335.95	0.42
1:2:420:A:H2'	1:2:421:A:O4'	2.20	0.42
56:N0:78:TRP:HB2	56:N0:125:LYS:H	3.10	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:97:LEU:HD23	14:C2:97:LEU:HA	2.61	0.42
1:2:1312:A:H8	1:2:1312:A:OP1	2.03	0.42
66:O0:25:LEU:CD2	66:O0:90:VAL:HG22	2.50	0.42
41:L4:302:ALA:HB2	54:M8:39:ARG:HH12	2.46	0.42
1:6:1458:G:C2	1:6:1459:C:C4	3.08	0.42
21:C9:37:VAL:CG1	21:C9:100:ILE:HD11	3.07	0.42
11:S9:105:LEU:HD12	11:S9:105:LEU:HA	2.95	0.42
3:S1:104:ASP:OD2	3:S1:105:PHE:N	2.52	0.42
3:S1:105:PHE:H	3:S1:214:LYS:CE	2.31	0.42
1:2:838:G:O6	86:2:2038:OHX:N4	2.53	0.42
47:M0:205:SER:OG	47:M0:205:SER:O	2.98	0.42
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.53	0.42
14:C2:58:LEU:HA	14:C2:85:LYS:HZ1	7.11	0.42
55:M9:37:SER:OG	55:M9:38:ARG:N	2.52	0.42
3:S1:163:ALA:O	3:S1:167:VAL:HG23	2.68	0.42
15:C3:22:ALA:HB1	15:C3:23:PRO:CA	2.49	0.42
15:C3:36:GLN:O	15:C3:39:LYS:HB3	3.99	0.42
50:M4:21:VAL:HG23	50:M4:63:VAL:HG21	2.02	0.42
7:S5:144:GLU:OE1	7:S5:225:ARG:NH2	2.48	0.42
1:6:1701:A:N7	1:6:1702:A:N3	2.68	0.42
39:L2:5:ILE:CG1	39:L2:8:GLN:HG3	2.49	0.42
5:S3:66:ILE:HA	5:S3:69:LEU:HB2	2.67	0.42
1:6:199:G:O2'	1:6:200:A:H8	2.03	0.42
1:2:329:G:H5''	10:S8:98:LYS:HB3	2.01	0.42
10:S8:98:LYS:HD2	10:S8:172:ARG:HG3	2.65	0.42
1:6:648:G:C4	1:6:687:G:N2	2.88	0.42
17:C5:122:THR:HG22	1:6:1558:U:H3	368.35	0.42
5:S3:59:LEU:HG	5:S3:60:GLY:O	2.20	0.42
54:M8:178:ARG:HD3	54:M8:178:ARG:HA	1.74	0.42
36:1:1553:U:C4'	36:1:1554:U:H5'	2.48	0.42
36:5:173:G:H22	36:5:246:U:H1'	1.84	0.42
9:S7:162:ILE:HB	9:S7:169:PHE:CE2	2.55	0.42
36:5:22:G:O2'	38:8:40:A:N1	2.45	0.42
45:L8:81:THR:HG21	45:L8:181:LYS:HD2	2.02	0.42
1:2:333:A:C6	1:2:334:G:C6	3.08	0.42
36:1:846:A:H2'	36:1:847:A:O4'	2.19	0.42
25:D3:38:PHE:HB3	1:6:359:A:C2	326.17	0.42
36:1:3316:A:H2	36:1:3389:U:H5'	1.85	0.42
41:L4:229:ASN:O	41:L4:230:VAL:C	2.58	0.42
51:M5:149:ASN:O	51:M5:152:CYS:HB2	2.20	0.42
64:N8:126:LYS:HB3	64:N8:148:ILE:HG21	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1817:G:O2'	36:5:1818:U:P	2.78	0.42
36:1:2403:G:N2	36:1:2404:A:H62	2.17	0.42
36:5:1020:G:H2'	36:5:1021:G:O4'	2.19	0.42
49:M3:27:ASP:O	49:M3:31:LYS:HB2	2.86	0.42
36:5:1913:A:N3	36:5:2120:A:H2'	2.34	0.42
20:C8:24:GLY:O	20:C8:26:ILE:N	2.47	0.42
36:1:2437:G:N2	36:1:2511:A:H1'	2.34	0.42
28:D6:50:VAL:HA	28:D6:53:LEU:HB2	2.42	0.42
86:5:4055:OHX:N3	86:5:4200:OHX:N4	2.67	0.42
36:5:3232:G:H2'	36:5:3233:C:O4'	2.20	0.42
36:5:1691:U:H2'	36:5:1692:U:C6	2.55	0.42
86:1:4054:OHX:N6	86:1:4162:OHX:N3	2.68	0.42
36:1:1340:G:H2'	36:1:1341:U:C6	2.55	0.42
46:L9:31:ARG:HB3	46:L9:149:ASN:OD1	4.17	0.42
1:2:1147:A:H2'	1:2:1148:C:H6	1.84	0.42
35:SM:102:THR:HG23	35:SM:105:LYS:H	1.85	0.42
36:5:3263:G:O6	86:5:4120:OHX:N2	2.53	0.42
1:6:1405:G:H2'	1:6:1406:A:C8	2.55	0.42
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.77	0.42
1:2:1355:C:H2'	1:2:1356:U:O4'	2.20	0.42
36:5:2771:U:H2'	36:5:2772:C:C6	2.54	0.42
36:1:1186:G:N3	56:N0:112:ALA:HB1	2.35	0.42
20:C8:101:LEU:O	20:C8:104:ASN:HB3	2.19	0.42
36:5:3071:U:H2'	36:5:3072:C:O4'	2.19	0.42
1:2:150:U:H2'	1:2:151:G:O4'	2.20	0.42
15:C3:16:ILE:HA	15:C3:17:PRO:HD3	1.86	0.42
20:C8:108:LYS:HA	20:C8:111:ASP:HB2	2.02	0.42
1:6:390:G:H5''	1:6:390:G:N3	2.35	0.42
13:C1:26:LYS:HD3	13:C1:26:LYS:HA	1.76	0.42
9:S7:163:ASP:OD1	9:S7:163:ASP:N	3.68	0.42
45:L8:24:ASN:HB3	45:L8:25:PRO:HD2	3.14	0.42
1:2:1379:C:H1'	18:C6:19:VAL:HG21	2.01	0.42
40:L3:188:ILE:HG13	40:L3:188:ILE:H	1.57	0.42
23:D1:82:VAL:HG12	23:D1:83:TRP:N	2.34	0.42
36:1:3361:G:O6	86:1:4159:OHX:N6	2.53	0.42
36:1:2836:C:H5	36:1:2852:C:N4	2.05	0.42
16:C4:121:VAL:HA	16:C4:122:PRO:HD3	2.29	0.42
43:L6:80:ASN:OD1	43:L6:81:ALA:N	2.53	0.42
6:S4:104:ASP:HB3	6:S4:105:VAL:H	1.33	0.42
1:6:751:G:H2'	1:6:752:A:C8	2.55	0.42
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	3.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:514:G:HO2'	1:6:515:A:H8	1.67	0.42
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.84	0.42
36:1:1508:C:C6	36:1:1880:U:H1'	2.54	0.42
8:S6:30:LYS:HE3	8:S6:30:LYS:HB3	2.22	0.42
11:S9:93:LEU:HD12	11:S9:93:LEU:HA	2.77	0.42
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG3	4.90	0.42
8:S6:178:LEU:O	8:S6:183:ARG:NH1	3.47	0.42
17:C5:81:ARG:NH1	17:C5:120:SER:HB3	2.29	0.42
15:C3:48:SER:O	15:C3:52:VAL:HG23	3.54	0.42
78:Q2:47:GLN:NE2	78:Q2:53:GLN:OE1	3.59	0.42
10:S8:26:LYS:HZ3	10:S8:29:LEU:HD13	1.85	0.42
66:O0:9:SER:O	66:O0:10:ILE:HD12	4.60	0.42
36:1:2383:C:H2'	36:1:2384:A:H5'	2.01	0.42
1:2:5:U:H2'	1:2:6:G:H8	1.84	0.42
1:6:197:A:H2'	1:6:198:A:H8	1.85	0.42
41:L4:316:ASN:C	41:L4:316:ASN:OD1	2.88	0.42
44:L7:173:LEU:HD12	44:L7:173:LEU:HA	2.12	0.42
36:5:1644:C:OP1	36:5:1821:U:H2'	2.20	0.42
1:6:1757:G:O6	86:6:2046:OHX:N4	2.52	0.42
55:M9:163:ARG:O	55:M9:167:ARG:HG2	3.99	0.42
1:2:767:U:C5	11:S9:142:ASN:OD1	2.72	0.42
1:2:767:U:H5	11:S9:142:ASN:H	1.67	0.42
1:2:422:G:OP1	86:2:2043:OHX:N6	2.53	0.42
36:5:2946:A:C5'	36:5:2947:G:H5'	2.50	0.42
24:D2:103:ILE:O	24:D2:103:ILE:HD13	2.19	0.42
59:N3:13:ILE:HG13	59:N3:14:SER:N	2.76	0.42
1:2:558:U:OP2	32:E0:55:ARG:NH1	2.53	0.42
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	2.08	0.42
43:L6:52:VAL:CG1	43:L6:65:ILE:HG23	4.74	0.42
1:2:487:G:H3'	1:2:488:G:H5''	2.02	0.42
36:5:2902:A:H5'	36:5:3032:A:H1'	2.02	0.42
68:O2:20:HIS:HB2	68:O2:50:ILE:HD11	2.49	0.42
36:1:1581:C:H2'	36:1:1582:C:C5'	2.50	0.42
7:S5:41:LYS:HB3	7:S5:67:PRO:HG2	2.01	0.42
1:2:927:C:H1'	16:C4:125:SER:CB	2.49	0.42
1:6:955:A:H2'	1:6:956:C:O4'	2.19	0.42
1:6:706:A:H2'	1:6:707:A:O4'	2.20	0.42
36:5:2882:U:H2'	36:5:2883:U:H6	1.85	0.42
36:1:1793:C:C4	39:L2:179:LEU:HD13	2.55	0.42
15:C3:84:ILE:HB	15:C3:88:LEU:HD12	2.01	0.42
38:4:106:C:O2'	86:4:234:OHX:N4	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:183:TRP:CH2	42:L5:188:GLU:HA	2.55	0.42
36:1:40:A:C2	64:N8:40:HIS:CE1	3.08	0.42
46:L9:31:ARG:HG2	46:L9:149:ASN:ND2	2.34	0.42
49:M3:144:THR:C	49:M3:146:PRO:HD3	3.03	0.42
25:D3:44:GLY:H	25:D3:78:LYS:NZ	2.17	0.42
1:6:876:G:H1'	1:6:944:A:O4'	2.20	0.42
36:1:1123:U:H2'	36:1:1124:U:H5'	2.02	0.42
61:N5:45:LYS:HG2	71:O5:75:TYR:CD2	2.54	0.42
59:N3:12:ARG:HB2	36:5:3040:A:H5''	268.48	0.42
36:5:197:G:N2	36:5:372:A:C8	2.88	0.42
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.76	0.42
49:M3:14:PHE:CZ	36:5:665:A:H1'	132.98	0.42
36:5:1397:C:O2'	36:5:1398:U:H5'	2.20	0.42
36:1:1908:A:H2'	36:1:1909:A:O4'	2.19	0.42
36:5:2436:U:H6	36:5:2436:U:O5'	2.02	0.42
1:2:177:U:H1'	8:S6:191:ARG:NH1	2.34	0.42
56:N0:45:LEU:HD13	56:N0:45:LEU:HA	1.81	0.42
42:L5:4:GLN:N	42:L5:4:GLN:OE1	2.53	0.42
36:1:143:G:H4'	38:4:145:U:OP1	2.20	0.42
36:1:1004:U:C4	36:1:1005:G:N7	2.88	0.42
47:M0:10:ARG:HG2	47:M0:11:TYR:CD1	2.55	0.42
36:1:2163:C:O2'	39:L2:11:GLY:HA3	2.19	0.42
40:L3:77:THR:HG21	40:L3:327:CYS:HA	2.60	0.41
28:D6:10:ARG:HB3	28:D6:34:LYS:HA	2.01	0.41
19:C7:104:ASN:O	19:C7:107:SER:HB3	2.19	0.41
5:S3:142:LEU:O	5:S3:144:ALA:N	2.50	0.41
42:L5:41:LYS:HA	42:L5:41:LYS:HE2	2.02	0.41
57:N1:68:THR:HG23	57:N1:69:LYS:N	4.73	0.41
4:S2:227:PRO:HA	4:S2:230:TRP:CD2	2.55	0.41
53:M7:67:ILE:N	53:M7:67:ILE:HD13	3.29	0.41
1:6:1474:G:H2'	1:6:1475:A:C8	2.55	0.41
72:O6:84:LYS:HE3	36:5:309:U:OP1	146.83	0.41
62:N6:126:LEU:HB3	62:N6:127:GLU:OE2	7.94	0.41
37:7:24:A:H8	37:7:24:A:O5'	2.03	0.41
41:L4:317:PRO:HB3	41:L4:324:LEU:HA	3.04	0.41
34:SR:251:TRP:HA	34:SR:263:PHE:O	2.20	0.41
1:2:1228:G:H4'	1:2:1229:G:OP2	2.20	0.41
14:C2:67:THR:C	14:C2:69:ALA:H	2.23	0.41
24:D2:106:THR:HG22	24:D2:122:SER:C	2.92	0.41
30:D8:22:ARG:HA	30:D8:22:ARG:HD3	1.89	0.41
9:S7:62:VAL:HA	9:S7:63:PRO:HD3	2.10	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:65:LEU:C	17:C5:67:ALA:H	2.23	0.41
36:5:1037:C:C2	36:5:1038:C:C5	3.08	0.41
7:S5:57:SER:O	7:S5:59:VAL:N	2.43	0.41
20:C8:85:PHE:HB3	20:C8:86:LEU:HD12	2.01	0.41
3:S1:107:THR:O	3:S1:111:ARG:HB2	2.20	0.41
2:S0:126:PRO:O	2:S0:130:ALA:HB2	2.20	0.41
36:5:1782:U:H2'	36:5:1783:U:H6	1.85	0.41
61:N5:105:VAL:CG1	61:N5:126:LEU:HD22	4.00	0.41
6:S4:131:LEU:HD22	6:S4:131:LEU:HA	1.87	0.41
36:5:1614:C:O2'	36:5:1615:C:H5'	2.19	0.41
36:5:2128:C:H2'	36:5:2129:U:O4'	2.20	0.41
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	2.63	0.41
39:L2:145:LYS:HB3	39:L2:157:VAL:HG23	2.01	0.41
1:2:318:U:O4	86:2:2126:OHX:N5	2.53	0.41
1:2:10:G:N7	1:2:1633:A:C2	2.88	0.41
1:2:792:U:H2'	1:2:793:A:O4'	2.20	0.41
44:L7:191:VAL:HG12	44:L7:191:VAL:O	2.20	0.41
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	4.34	0.41
34:SR:7:LEU:HA	34:SR:315:VAL:HA	2.02	0.41
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	2.02	0.41
39:L2:247:ARG:HH12	1:6:993:A:H2	254.66	0.41
34:SR:191:ASP:HB3	34:SR:193:ILE:HD11	2.02	0.41
66:O0:18:ILE:HD13	66:O0:81:VAL:O	2.20	0.41
36:1:1312:C:O2	52:M6:87:MET:HE2	2.19	0.41
1:6:654:C:H2'	1:6:655:G:H8	1.85	0.41
36:5:909:G:O2'	86:5:4078:OHX:N2	2.53	0.41
1:6:717:C:O2'	1:6:718:U:OP1	2.34	0.41
18:C6:28:LEU:C	18:C6:29:ILE:HG13	2.60	0.41
18:C6:29:ILE:HA	18:C6:65:ILE:HB	2.01	0.41
71:O5:40:SER:HB2	38:8:49:G:O2'	55.52	0.41
51:M5:7:LEU:HB3	51:M5:46:ASP:HB3	3.09	0.41
36:5:1502:C:N3	36:5:1513:G:O6	2.53	0.41
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.12	0.41
1:6:1314:U:OP2	86:6:2183:OHX:N4	2.53	0.41
1:6:1336:A:OP1	86:6:2177:OHX:N1	2.53	0.41
36:1:698:U:H2'	36:1:699:A:O4'	2.21	0.41
1:2:969:C:H4'	1:2:1104:U:O2'	2.19	0.41
56:N0:46:GLN:HG3	56:N0:51:VAL:O	2.19	0.41
36:5:35:A:O2'	36:5:36:C:H5'	2.19	0.41
29:D7:72:LYS:HE2	29:D7:72:LYS:HB2	1.87	0.41
40:L3:60:LEU:HD23	40:L3:67:PHE:O	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:46:GLY:HA2	57:N1:52:MET:HE3	2.26	0.41
36:5:567:G:H2'	36:5:568:G:C8	2.54	0.41
3:S1:124:ASN:HD22	3:S1:138:PHE:HE1	1.68	0.41
36:1:1532:C:H2'	36:1:1533:U:C6	2.55	0.41
70:O4:2:ALA:HB1	36:5:1481:A:H61	156.74	0.41
1:2:344:A:C6	1:2:345:U:C4	3.08	0.41
36:5:969:C:O5'	36:5:969:C:H6	2.03	0.41
1:6:1243:G:N3	1:6:1243:G:H5''	2.35	0.41
1:6:271:A:H8	1:6:271:A:H5''	1.85	0.41
1:2:636:A:H1'	24:D2:58:SER:OG	2.19	0.41
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.19	0.41
1:2:367:A:C6	1:2:368:U:C4	3.07	0.41
7:S5:36:ALA:HB3	7:S5:45:LYS:NZ	2.35	0.41
36:5:2249:G:OP1	86:5:4199:OHX:N6	2.53	0.41
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.21	0.41
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	2.02	0.41
36:1:1104:G:O5'	36:1:1104:G:H8	2.04	0.41
1:2:704:C:OP2	1:2:704:C:H3'	2.20	0.41
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	2.02	0.41
28:D6:79:ILE:HA	28:D6:84:VAL:CB	2.40	0.41
51:M5:65:ARG:HD2	51:M5:129:TYR:CE1	2.55	0.41
47:M0:206:LEU:HD12	47:M0:206:LEU:HA	1.85	0.41
36:1:566:G:N7	86:1:4000:OHX:N4	2.68	0.41
48:M1:94:ARG:C	48:M1:96:PHE:N	2.72	0.41
26:D4:9:THR:O	26:D4:10:ARG:HG3	2.20	0.41
10:S8:54:LYS:HE3	10:S8:175:GLN:OE1	4.42	0.41
48:M1:59:ILE:HD12	48:M1:65:ILE:HD11	2.61	0.41
48:M1:34:SER:HA	48:M1:67:VAL:HG11	3.43	0.41
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.26	0.41
10:S8:61:GLU:HG2	10:S8:62:THR:N	2.92	0.41
51:M5:106:VAL:O	51:M5:109:ARG:N	2.52	0.41
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.60	0.41
8:S6:120:GLU:HG3	8:S6:125:THR:HG22	2.37	0.41
13:C1:74:THR:HB	13:C1:122:ILE:HD13	4.69	0.41
45:L8:236:GLY:O	45:L8:237:ILE:HB	4.67	0.41
36:1:2809:C:N3	36:1:2810:C:H1'	2.35	0.41
1:2:1370:U:H4'	1:2:1371:A:C5'	2.50	0.41
20:C8:40:ARG:HH11	20:C8:40:ARG:HG2	4.29	0.41
1:6:1159:C:H5''	1:6:1160:A:H5'	2.01	0.41
36:1:2984:C:C2	36:1:2985:C:C5	3.08	0.41
40:L3:250:ALA:HB1	36:5:2947:G:N3	219.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:60:ARG:HH21	36:5:1616:U:H5''	143.15	0.41
17:C5:123:TYR:OH	20:C8:126:ARG:NH1	3.12	0.41
86:6:2125:OHX:N2	86:6:2149:OHX:N1	2.68	0.41
36:5:789:A:H2'	36:5:790:U:C6	2.55	0.41
16:C4:85:ALA:HB3	16:C4:119:THR:HG21	2.01	0.41
43:L6:65:ILE:HG12	43:L6:79:VAL:HG12	6.99	0.41
36:1:542:G:H2'	36:1:543:C:C6	2.54	0.41
36:1:550:A:N6	36:1:551:A:H62	2.18	0.41
86:2:2096:OHX:N3	86:2:2110:OHX:N5	2.68	0.41
1:6:1744:A:N6	1:6:1745:G:C6	2.88	0.41
38:8:145:U:H2'	38:8:146:U:H6	1.83	0.41
61:N5:141:TYR:O	61:N5:142:ILE:HD13	2.20	0.41
52:M6:46:GLU:HB3	52:M6:134:LYS:HB3	3.74	0.41
86:1:4083:OHX:N5	86:1:4153:OHX:N1	2.68	0.41
68:O2:61:LYS:HE3	36:5:1340:G:OP2	192.88	0.41
1:2:1217:A:H4'	12:C0:44:LYS:HE3	2.02	0.41
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.58	0.41
36:5:1514:G:C6	36:5:1841:A:C5	3.08	0.41
41:L4:304:GLN:O	41:L4:305:ALA:HB3	2.21	0.41
36:5:2812:C:H2'	36:5:2813:A:H8	1.85	0.41
36:1:2197:C:C2	36:1:2241:U:C4	3.08	0.41
51:M5:97:SER:O	51:M5:100:ALA:HB3	2.39	0.41
36:1:1321:G:C6	36:1:1322:U:C4	3.08	0.41
73:O7:53:ALA:HA	73:O7:56:ARG:HH11	2.14	0.41
25:D3:86:PHE:O	25:D3:88:PRO:HD3	2.20	0.41
59:N3:26:ALA:O	59:N3:115:THR:HG22	2.19	0.41
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.20	0.41
48:M1:75:LYS:O	48:M1:78:GLU:HB2	2.20	0.41
36:1:3221:C:C4	36:1:3222:U:C5	3.08	0.41
1:6:926:A:H2'	1:6:927:C:C6	2.55	0.41
49:M3:172:LEU:HA	49:M3:172:LEU:HD23	1.77	0.41
63:N7:92:PHE:CD1	63:N7:92:PHE:N	3.16	0.41
36:5:2390:A:O5'	36:5:2390:A:H8	2.03	0.41
1:2:36:C:H2'	1:2:37:U:O4'	2.19	0.41
36:1:3269:U:O2'	86:1:4193:OHX:N4	2.53	0.41
36:5:2715:A:C2	36:5:2753:G:C6	3.08	0.41
36:1:1506:A:C2	36:1:1513:G:C2	3.08	0.41
40:L3:188:ILE:HD12	40:L3:189:SER:N	2.24	0.41
1:2:1555:A:P	17:C5:47:ARG:NH2	2.94	0.41
11:S9:87:SER:HG	11:S9:95:TYR:HE1	1.66	0.41
16:C4:81:VAL:HG11	16:C4:102:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:300:G:O6	86:5:4192:OHX:N2	2.53	0.41
3:S1:178:GLY:HA3	3:S1:187:LYS:HZ3	1.85	0.41
57:N1:68:THR:HG21	36:5:2736:A:O2'	224.15	0.41
46:L9:126:VAL:HA	46:L9:127:PRO:HD2	1.91	0.41
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.23	0.41
37:3:26:C:H5'	42:L5:56:THR:HB	2.02	0.41
6:S4:26:CYS:SG	1:6:461:G:H5''	365.27	0.41
1:6:1255:G:O2'	1:6:1256:A:O5'	2.32	0.41
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.22	0.41
30:D8:42:ARG:NH2	30:D8:58:GLU:O	4.97	0.41
41:L4:188:ARG:O	41:L4:193:LYS:HE2	2.21	0.41
59:N3:87:ARG:HH12	59:N3:137:VAL:HG21	2.13	0.41
1:6:1696:G:H1'	1:6:1705:C:N4	2.35	0.41
36:1:2193:U:H5'	36:1:2194:G:H5'	2.02	0.41
28:D6:26:CYS:HB2	28:D6:28:LYS:HB2	4.54	0.41
1:2:852:C:N3	1:2:853:G:C2	2.89	0.41
8:S6:142:ARG:O	8:S6:146:GLY:N	2.69	0.41
51:M5:49:ARG:HH21	36:5:115:A:P	100.03	0.41
36:5:686:G:H2'	36:5:687:U:O4'	2.20	0.41
36:1:1277:C:O2'	36:1:1278:A:OP2	2.30	0.41
54:M8:93:ILE:HG23	36:5:784:A:C6	152.08	0.41
74:O8:65:LEU:O	74:O8:68:SER:HB2	2.20	0.41
46:L9:41:ILE:O	46:L9:41:ILE:HD13	2.21	0.41
42:L5:85:ARG:HH12	42:L5:253:PHE:HA	1.85	0.41
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.56	0.41
47:M0:194:GLY:O	47:M0:196:PHE:N	4.73	0.41
36:5:1023:C:N4	36:5:1029:G:H22	2.15	0.41
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.21	0.41
20:C8:83:ALA:HA	20:C8:86:LEU:HD13	2.02	0.41
1:6:1273:G:O5'	1:6:1274:C:H3'	2.20	0.41
27:D5:42:LEU:HD12	27:D5:42:LEU:H	1.86	0.41
79:Q3:17:ARG:NH1	36:5:860:G:OP1	220.12	0.41
57:N1:17:ARG:HD3	57:N1:22:HIS:HA	4.20	0.41
4:S2:183:ALA:O	4:S2:186:LYS:N	2.52	0.41
36:5:113:C:C2	36:5:319:A:C2	3.09	0.41
41:L4:338:LYS:C	41:L4:340:GLY:H	2.21	0.41
36:1:3243:A:O2'	36:1:3244:A:H8	2.03	0.41
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.20	0.41
14:C2:131:ASP:OD1	14:C2:132:GLU:HG2	2.20	0.41
3:S1:189:ILE:HB	3:S1:190:PRO:HD3	2.03	0.41
36:5:1235:U:C4'	36:5:1236:G:H5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	2.26	0.41
40:L3:238:LEU:HD12	40:L3:238:LEU:HA	1.87	0.41
36:5:3078:U:O2'	86:5:4196:OHX:N1	2.53	0.41
32:E0:13:LYS:HD2	32:E0:17:GLN:OE1	5.38	0.41
7:S5:82:PHE:CE2	30:D8:49:ARG:HB3	2.55	0.41
36:1:1658:G:H2'	36:1:1659:U:H6	1.84	0.41
1:2:1487:A:OP2	5:S3:8:LYS:NZ	2.51	0.41
3:S1:146:GLN:H	3:S1:149:GLN:NE2	3.95	0.41
86:2:2096:OHX:N6	86:2:2110:OHX:N2	2.68	0.41
36:1:2534:G:O6	86:1:3994:OHX:N4	2.53	0.41
47:M0:156:ARG:HD3	47:M0:163:GLN:O	3.37	0.41
1:2:412:A:H2'	1:2:413:U:C6	2.56	0.41
9:S7:39:ARG:NH2	55:M9:185:LEU:HD22	2.89	0.41
36:5:1549:U:H2'	36:5:1550:C:H6	1.85	0.41
41:L4:138:ARG:CZ	41:L4:138:ARG:HB3	2.50	0.41
48:M1:23:VAL:CG1	48:M1:29:ARG:HG2	2.50	0.41
86:1:3973:OHX:N1	86:1:4154:OHX:N2	2.68	0.41
36:1:1016:C:H1'	36:1:1028:U:C2	2.55	0.41
1:2:1032:G:C6	1:2:1104:U:C4	3.07	0.41
3:S1:138:PHE:N	3:S1:138:PHE:CD2	3.19	0.41
36:5:1481:A:O4'	36:5:1481:A:OP1	2.37	0.41
36:1:2419:A:H1'	36:1:2804:A:O4'	2.20	0.41
47:M0:182:LEU:HD22	47:M0:186:GLU:OE2	2.20	0.41
61:N5:68:THR:HG21	71:O5:36:LEU:HD11	2.02	0.41
1:2:825:U:H3	1:2:847:A:H61	1.68	0.41
1:6:1142:A:H2'	1:6:1143:A:O4'	2.20	0.41
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.55	0.41
36:1:3100:U:O2'	36:1:3101:G:OP2	2.30	0.41
74:O8:27:ILE:HD13	74:O8:41:THR:HB	2.21	0.41
1:6:353:A:C4	1:6:354:C:C6	3.08	0.41
4:S2:78:ASP:HB3	4:S2:104:VAL:HG12	3.46	0.41
36:5:2598:G:H2'	36:5:2599:U:H6	1.85	0.41
36:1:3210:A:H2'	36:1:3211:C:C6	2.55	0.41
1:6:38:C:H2'	1:6:39:A:H5'	2.02	0.41
56:N0:74:ASN:OD1	56:N0:95:ARG:HD2	2.20	0.41
5:S3:63:GLY:O	5:S3:67:ASN:HB2	2.57	0.41
36:5:2137:U:C6	36:5:2141:U:C4	3.08	0.41
36:1:2866:U:O5'	36:1:2866:U:H6	2.04	0.41
36:1:3275:U:H6	36:1:3275:U:O5'	2.03	0.41
16:C4:76:ILE:HD12	16:C4:76:ILE:HA	1.84	0.41
1:6:201:G:H2'	1:6:202:A:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:20:LYS:NZ	1:6:959:U:OP2	348.05	0.41
43:L6:44:ALA:O	43:L6:48:ARG:HB3	3.10	0.41
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.43	0.41
34:SR:24:ALA:O	34:SR:33:LEU:HD12	3.30	0.41
2:S0:55:GLU:HG2	23:D1:79:LEU:HD22	2.01	0.41
1:2:1460:A:OP2	35:SM:68:ARG:HD3	2.20	0.41
1:2:639:U:O2	9:S7:118:LEU:HB2	2.21	0.41
41:L4:25:VAL:HG22	41:L4:262:TRP:HB2	2.25	0.41
26:D4:59:GLY:O	26:D4:60:PHE:HB2	2.21	0.41
42:L5:296:GLN:O	42:L5:297:GLN:HB3	3.98	0.41
36:1:67:A:O2'	36:1:315:C:O2	2.38	0.41
46:L9:105:GLU:OE2	46:L9:108:GLY:HA2	2.20	0.41
20:C8:120:ARG:HG3	35:SM:61:ILE:HG21	6.53	0.41
57:N1:104:GLU:HG3	57:N1:105:PHE:N	4.13	0.41
5:S3:190:ARG:NH1	5:S3:195:SER:HA	3.04	0.41
11:S9:99:LEU:HA	11:S9:99:LEU:HD13	1.84	0.41
7:S5:225:ARG:HG3	30:D8:61:ARG:HD2	2.02	0.41
6:S4:181:VAL:HA	6:S4:227:VAL:O	2.21	0.41
36:1:25:U:O4	86:1:3868:OHX:N3	2.54	0.41
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.20	0.41
36:5:2569:A:C8	36:5:2570:U:C4	3.08	0.41
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.21	0.41
1:2:329:G:H5'	10:S8:99:ALA:HB3	2.02	0.41
21:C9:77:ASN:OD1	21:C9:101:ASN:ND2	2.53	0.41
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.94	0.41
39:L2:80:GLU:H	39:L2:170:ALA:HB2	3.84	0.41
6:S4:194:THR:OG1	6:S4:211:LYS:O	2.26	0.41
20:C8:76:PRO:HG2	20:C8:86:LEU:HD21	2.03	0.41
1:2:677:G:H2'	1:2:678:A:C8	2.56	0.41
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.88	0.41
36:1:86:G:C5	49:M3:13:HIS:ND1	2.88	0.41
47:M0:72:ALA:O	47:M0:76:MET:HG3	2.20	0.41
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	2.02	0.41
36:1:1578:C:H3'	36:1:1579:C:C6	2.55	0.41
15:C3:47:PRO:HG2	15:C3:72:MET:HG3	4.81	0.41
48:M1:107:ASP:O	48:M1:108:GLU:HG2	4.24	0.41
41:L4:182:LEU:HA	41:L4:182:LEU:HD12	3.44	0.41
41:L4:264:SER:C	41:L4:266:THR:H	2.31	0.41
26:D4:14:SER:O	26:D4:16:PRO:HD3	2.21	0.41
8:S6:23:ARG:NH2	8:S6:42:GLY:HA2	3.37	0.41
10:S8:150:ALA:O	10:S8:152:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:238:LEU:HD12	45:L8:238:LEU:HA	1.87	0.41
55:M9:28:GLU:O	55:M9:32:ILE:HG13	2.26	0.41
36:5:2225:U:H2'	36:5:2226:U:H6	1.85	0.41
59:N3:83:LYS:HE3	59:N3:84:SER:O	3.87	0.41
15:C3:83:GLU:HG3	15:C3:84:ILE:H	2.71	0.41
49:M3:176:GLU:HG2	72:O6:11:LEU:HD21	2.03	0.41
51:M5:93:LYS:HG3	36:5:289:A:N3	145.86	0.41
36:5:1690:C:C4	36:5:1691:U:C4	3.08	0.41
36:1:3392:U:H2'	36:1:3393:U:H6	1.86	0.41
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.35	0.41
1:2:553:G:C6	1:2:554:C:N3	2.89	0.41
67:O1:20:LEU:HD23	67:O1:20:LEU:HA	1.77	0.41
1:6:432:G:H2'	1:6:433:C:O4'	2.20	0.41
52:M6:171:LYS:O	52:M6:175:THR:HG23	3.13	0.41
6:S4:206:ASP:N	6:S4:206:ASP:OD1	2.53	0.41
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.79	0.41
36:5:423:A:C6	36:5:424:G:C6	3.08	0.41
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	2.02	0.41
36:5:2718:U:O4	86:5:4231:OHX:N6	2.54	0.41
36:5:1498:A:H2'	36:5:1499:C:C6	2.56	0.41
1:6:56:U:O4	1:6:92:A:H4'	2.21	0.41
69:O3:38:PRO:HD3	69:O3:77:ASN:O	2.20	0.41
36:1:739:G:O6	86:1:3915:OHX:N3	2.53	0.41
36:1:2611:U:H2'	36:1:2612:U:C6	2.55	0.41
44:L7:94:LYS:O	44:L7:95:ILE:HD13	2.43	0.41
78:Q2:21:THR:HG21	78:Q2:76:LYS:HD2	6.19	0.41
1:6:1045:C:C2	1:6:1074:G:C2	3.08	0.41
86:5:4086:OHX:N5	37:7:102:A:OP1	2.53	0.41
5:S3:202:LEU:O	5:S3:204:ASP:N	3.09	0.41
36:1:2889:C:C6	36:1:2936:A:H1'	2.55	0.41
36:1:812:G:N7	86:1:3981:OHX:N1	2.68	0.41
36:1:926:A:H2'	36:1:927:C:C6	2.55	0.41
42:L5:211:LEU:HD13	42:L5:219:PHE:HA	2.74	0.41
25:D3:29:TYR:O	25:D3:32:ARG:N	2.81	0.41
36:1:806:A:C4	36:1:936:A:C2	3.08	0.41
36:1:660:A:H5''	41:L4:100:PHE:CD1	2.55	0.41
17:C5:43:ARG:NH1	1:6:1553:G:N7	402.34	0.41
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	2.02	0.41
52:M6:109:PRO:O	52:M6:110:PRO:O	2.60	0.41
47:M0:144:ASN:O	47:M0:145:LYS:C	2.58	0.41
3:S1:41:ARG:HH22	3:S1:232:HIS:HB3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:196:G:O2'	1:2:197:A:P	2.78	0.41
36:1:563:U:H2'	36:1:564:G:C8	2.56	0.41
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.42	0.41
1:6:219:A:N6	1:6:843:U:C2	2.87	0.41
74:O8:16:ARG:O	74:O8:18:ALA:N	3.29	0.41
33:E1:143:LYS:N	1:6:1253:U:H4'	450.51	0.41
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.21	0.41
2:S0:136:ALA:HB1	2:S0:141:ILE:HB	2.02	0.41
36:5:1563:C:H2'	36:5:1564:U:O4'	2.20	0.41
79:Q3:36:ARG:HH12	36:5:1725:C:C5'	226.89	0.41
40:L3:171:LEU:HD21	40:L3:314:TYR:CE2	3.21	0.41
46:L9:164:ILE:HA	46:L9:164:ILE:HD13	1.89	0.41
36:1:1306:G:C6	52:M6:62:THR:HA	2.55	0.41
17:C5:17:TYR:CG	17:C5:18:ARG:N	3.48	0.41
7:S5:163:SER:HB2	30:D8:48:VAL:CG2	2.50	0.41
36:5:2732:G:H2'	36:5:2733:A:O4'	2.20	0.41
1:6:117:U:H2'	1:6:118:U:H6	1.86	0.41
66:O0:16:LEU:HA	66:O0:16:LEU:HD22	1.80	0.41
1:2:1609:U:H2'	1:2:1610:G:O4'	2.21	0.41
1:2:4:C:P	4:S2:200:SER:HG	2.43	0.41
36:5:2568:C:C4	36:5:2574:G:C6	3.09	0.41
64:N8:10:LYS:HA	64:N8:10:LYS:HD2	1.82	0.41
1:2:1228:G:N1	14:C2:67:THR:HB	2.32	0.41
1:2:1388:A:HO2'	1:2:1411:A:H2	1.68	0.41
20:C8:56:LYS:HB3	20:C8:60:GLU:HG3	2.03	0.41
20:C8:76:PRO:O	20:C8:81:ILE:HB	2.21	0.41
39:L2:238:ILE:HG22	39:L2:239:ALA:N	2.77	0.41
71:O5:21:LEU:HD21	71:O5:51:ILE:HG23	2.01	0.41
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.20	0.41
1:6:1160:A:H2'	1:6:1161:C:H6	1.83	0.41
36:1:3316:A:C6	36:1:3389:U:C2	3.08	0.41
36:5:1221:A:H3'	36:5:1222:G:H5'	2.02	0.41
45:L8:195:SER:O	45:L8:196:ALA:HB3	2.20	0.41
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.41	0.41
38:4:124:G:H1	38:4:129:C:H42	1.68	0.41
36:5:1567:U:H2'	36:5:1568:U:C4'	2.50	0.41
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.19	0.41
6:S4:95:THR:HG22	26:D4:16:PRO:HB2	2.03	0.41
36:5:1077:U:H2'	36:5:1078:U:H6	1.85	0.41
1:6:862:A:C2	1:6:963:A:C4	3.09	0.41
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1131:G:C4	36:1:2373:A:C2	3.08	0.41
7:S5:81:ARG:HG2	7:S5:82:PHE:CE2	4.83	0.41
36:1:1047:A:C6	36:1:1048:A:C6	3.08	0.41
86:1:4026:OHX:N2	86:1:4146:OHX:N1	2.68	0.41
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.75	0.41
71:O5:58:ILE:O	71:O5:61:GLN:HB2	3.15	0.41
55:M9:10:LEU:O	55:M9:14:VAL:HG23	2.70	0.41
1:6:561:G:C2	1:6:585:A:C2	3.09	0.41
68:O2:5:PRO:O	68:O2:6:HIS:CD2	4.72	0.41
47:M0:200:LEU:HB2	47:M0:213:PHE:CD1	3.26	0.41
2:S0:119:ARG:HE	4:S2:240:LEU:HD23	3.88	0.41
67:O1:74:ARG:HH12	67:O1:109:VAL:HG11	1.84	0.41
36:1:1770:G:H5'	36:1:1771:C:OP2	2.20	0.41
1:6:716:C:H2'	1:6:717:C:O4'	2.21	0.41
36:1:715:A:H8	64:N8:115:LYS:HG3	1.85	0.41
53:M7:120:ASN:HB2	53:M7:121:GLN:H	1.52	0.41
36:5:3223:A:C6	36:5:3263:G:C6	3.09	0.41
36:1:1090:G:H2'	36:1:1091:A:H8	1.85	0.41
67:O1:88:PRO:C	67:O1:89:LEU:HD12	2.40	0.41
36:1:2245:C:H4'	39:L2:221:LYS:O	2.21	0.41
36:5:342:A:C2	36:5:368:G:C8	3.08	0.41
36:5:998:A:O2'	36:5:999:G:H5'	2.20	0.41
52:M6:147:TRP:CH2	52:M6:150:GLU:HA	2.65	0.41
36:5:2877:G:OP1	86:5:4054:OHX:N4	2.53	0.41
9:S7:18:LEU:O	9:S7:22:GLN:HB2	2.21	0.41
42:L5:118:THR:H	42:L5:118:THR:HG22	1.97	0.41
7:S5:79:ASN:OD1	7:S5:79:ASN:N	2.53	0.41
62:N6:6:LEU:HA	62:N6:6:LEU:HD23	1.71	0.41
72:O6:94:ILE:HD13	72:O6:94:ILE:HA	4.37	0.41
43:L6:72:ASN:HB3	43:L6:160:SER:HA	2.24	0.41
63:N7:77:TYR:C	63:N7:79:HIS:H	2.23	0.41
9:S7:107:ARG:NH2	1:6:741:C:O2	349.31	0.41
59:N3:45:ARG:O	59:N3:47:ASN:N	2.54	0.41
11:S9:30:LEU:HD23	11:S9:30:LEU:HA	2.56	0.41
1:2:1765:A:H5'	1:2:1767:G:N7	2.35	0.41
47:M0:207:GLU:C	47:M0:209:ASN:H	2.23	0.41
3:S1:184:LEU:O	3:S1:188:LEU:HG	2.20	0.41
1:2:1324:G:OP2	86:2:2084:OHX:N1	2.54	0.41
1:2:1105:C:H2'	1:2:1106:U:H6	1.84	0.41
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.19	0.41
5:S3:209:ILE:HA	5:S3:209:ILE:HD12	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:127:LEU:HA	52:M6:127:LEU:HD23	1.81	0.41
63:N7:126:LYS:O	63:N7:128:GLN:N	2.44	0.41
68:O2:100:ILE:CD1	36:5:1388:U:H4'	136.65	0.41
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	1.77	0.41
1:6:149:C:H2'	1:6:150:U:C6	2.56	0.41
36:1:1307:G:C2	36:1:1308:A:C2	3.08	0.41
7:S5:84:LYS:CD	7:S5:92:ARG:HH12	2.98	0.41
55:M9:104:ARG:HH21	55:M9:108:LYS:HE3	1.85	0.41
36:5:740:G:C6	36:5:741:U:C4	3.09	0.41
53:M7:69:ARG:NH1	36:5:2389:C:H1'	190.09	0.41
36:1:2842:U:HO2'	36:1:2843:U:P	2.42	0.41
36:1:2555:G:O2'	70:O4:88:ARG:HB2	2.21	0.41
58:N2:59:ASP:OD1	58:N2:60:GLY:N	4.19	0.41
5:S3:60:GLY:O	5:S3:62:ASN:N	2.82	0.41
31:D9:31:ILE:HA	31:D9:31:ILE:HD13	1.91	0.41
7:S5:166:ARG:HD3	30:D8:45:LYS:CG	2.50	0.41
7:S5:166:ARG:HD2	30:D8:46:GLY:HA2	2.01	0.41
36:1:1764:U:H3'	36:1:1765:U:H4'	2.01	0.41
1:2:834:G:C6	1:2:835:U:C4	3.09	0.41
5:S3:76:ARG:HG2	12:C0:65:TYR:CE1	5.34	0.41
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.56	0.41
21:C9:126:GLU:H	21:C9:126:GLU:HG2	3.13	0.41
1:6:1766:A:H5''	86:6:2126:OHX:N3	2.35	0.41
25:D3:24:TRP:HE3	25:D3:30:LYS:HD2	2.02	0.41
36:5:1656:A:H4'	36:5:1657:C:O5'	2.20	0.41
59:N3:49:LEU:HA	59:N3:49:LEU:HD23	1.80	0.41
16:C4:117:ASP:OD1	16:C4:119:THR:OG1	2.26	0.41
64:N8:148:ILE:HG13	64:N8:149:ALA:N	2.36	0.41
36:5:127:G:H2'	36:5:128:G:H8	1.86	0.41
1:2:682:C:H2'	1:2:683:C:O4'	2.20	0.41
1:2:1087:A:H2'	1:2:1088:A:C8	2.55	0.41
36:5:1913:A:H8	36:5:1913:A:O5'	2.03	0.41
3:S1:146:GLN:H	3:S1:149:GLN:HE21	4.73	0.41
8:S6:53:SER:O	8:S6:110:ALA:HB3	2.21	0.41
1:2:1417:A:O2'	18:C6:128:LYS:HE2	2.21	0.41
21:C9:66:TYR:HA	21:C9:124:ILE:HG21	2.02	0.41
36:5:1556:C:H2'	36:5:2169:G:C6	2.55	0.41
36:5:2641:U:H5''	36:5:2642:A:OP1	2.20	0.41
1:2:1381:U:H1'	1:2:1516:A:N6	2.35	0.41
21:C9:138:GLN:HA	21:C9:141:GLU:HG2	2.02	0.41
40:L3:229:VAL:HG21	40:L3:249:VAL:HG12	6.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2623:G:H2'	36:1:2624:G:C8	2.55	0.41
1:2:11:A:C2'	1:2:12:U:H5'	2.50	0.41
41:L4:358:THR:HA	41:L4:361:HIS:HB2	2.02	0.41
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.94	0.41
36:5:3018:C:C4	36:5:3019:U:C4	3.08	0.41
49:M3:149:GLN:HA	49:M3:150:PRO:HD3	1.82	0.41
20:C8:101:LEU:HA	20:C8:101:LEU:HD23	1.95	0.41
7:S5:206:SER:O	7:S5:212:LYS:HE3	2.20	0.41
40:L3:163:HIS:ND1	40:L3:164:THR:O	2.53	0.41
36:1:3185:U:O2'	56:N0:170:THR:OG1	2.29	0.41
41:L4:12:THR:HA	41:L4:171:ALA:HB1	2.03	0.41
1:2:765:G:H4'	1:2:766:U:OP1	2.20	0.41
36:5:3389:U:O4	86:5:4250:OHX:N6	2.53	0.41
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.56	0.41
36:1:2168:A:C6	36:1:2170:U:H1'	2.56	0.41
21:C9:33:TYR:HD1	21:C9:34:VAL:H	2.82	0.41
1:6:180:A:H2'	1:6:181:A:O4'	2.19	0.41
56:N0:75:PHE:O	56:N0:94:ILE:N	2.51	0.41
13:C1:107:VAL:HA	13:C1:108:PRO:HD2	1.95	0.41
3:S1:128:LYS:HE2	3:S1:132:ASP:HB3	2.02	0.41
1:2:1345:A:H2'	1:2:1348:A:H62	1.85	0.41
53:M7:34:GLN:OE1	36:5:413:U:H5''	155.07	0.41
6:S4:183:VAL:HG21	6:S4:218:PHE:HE1	1.94	0.41
71:O5:30:GLU:O	71:O5:34:GLN:HG3	2.68	0.41
36:5:417:A:H2'	36:5:418:A:C8	2.55	0.41
36:5:3275:U:H4'	36:5:3276:G:OP2	2.17	0.41
50:M4:72:LEU:HA	50:M4:73:PRO:HD3	1.88	0.41
36:5:2180:G:C6	36:5:2181:C:N4	2.88	0.41
63:N7:77:TYR:CD2	66:O0:35:ARG:HD2	3.06	0.41
8:S6:171:LYS:NZ	1:6:67:A:OP1	348.49	0.41
36:1:1094:U:H1'	36:1:1096:U:O2'	2.21	0.41
9:S7:17:GLU:OE2	9:S7:46:ILE:N	3.26	0.41
1:2:1151:A:H2'	1:2:1152:A:C8	2.55	0.41
73:O7:45:ARG:HH11	73:O7:45:ARG:HD2	1.87	0.41
44:L7:241:LYS:NZ	36:5:576:C:OP1	276.47	0.41
36:1:561:C:O2'	36:1:562:C:H5'	2.20	0.41
36:1:1758:G:N2	36:1:1768:U:C2	2.89	0.41
20:C8:120:ARG:HD2	35:SM:61:ILE:CD1	2.50	0.41
74:O8:14:LEU:C	74:O8:16:ARG:H	2.55	0.41
1:2:778:G:O6	26:D4:10:ARG:HG3	2.21	0.41
1:6:168:A:C6	1:6:169:A:N6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1877:U:OP2	86:1:3924:OHX:N2	2.54	0.41
70:O4:99:LYS:HG2	70:O4:103:LYS:NZ	2.35	0.41
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.81	0.41
6:S4:38:LEU:C	6:S4:40:GLU:H	2.22	0.41
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.21	0.41
42:L5:51:LEU:HB2	42:L5:144:VAL:HG13	2.02	0.41
40:L3:4:ARG:NH1	40:L3:6:TYR:O	2.92	0.41
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.56	0.41
55:M9:132:PHE:CZ	55:M9:138:LEU:HD23	2.55	0.41
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.50	0.41
8:S6:119:GLN:HG3	8:S6:120:GLU:N	2.36	0.41
36:1:2259:A:OP2	86:1:3930:OHX:N2	2.53	0.41
40:L3:287:LYS:HA	40:L3:287:LYS:HD3	1.91	0.41
42:L5:88:ILE:HD12	42:L5:240:TYR:CE1	4.34	0.41
39:L2:4:VAL:CG1	39:L2:8:GLN:HB2	2.51	0.41
61:N5:114:VAL:HB	75:O9:10:LYS:NZ	2.35	0.41
68:O2:33:ARG:HD3	68:O2:33:ARG:HA	2.32	0.41
46:L9:44:THR:HG22	36:5:3186:A:N3	327.73	0.41
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	3.20	0.41
1:6:138:A:N6	1:6:266:A:H61	2.18	0.41
12:C0:32:HIS:HB3	12:C0:34:GLU:O	5.15	0.41
1:2:347:G:OP1	13:C1:77:SER:OG	2.24	0.41
51:M5:23:GLN:HG2	51:M5:122:ASN:OD1	2.86	0.41
22:D0:96:PRO:HB2	22:D0:97:VAL:H	2.89	0.41
18:C6:86:ALA:HB1	18:C6:109:PHE:CE2	2.56	0.41
45:L8:81:THR:O	45:L8:82:LEU:HB2	4.43	0.41
36:5:3238:G:N2	36:5:3250:U:H1'	2.35	0.41
36:1:190:U:C4	36:1:224:C:H1'	2.55	0.41
71:O5:68:GLN:C	71:O5:70:TYR:N	2.73	0.41
40:L3:205:VAL:C	40:L3:207:SER:H	2.71	0.41
26:D4:61:ARG:NH2	1:6:530:C:O2	410.75	0.41
36:1:65:A:C8	36:1:110:G:O6	2.73	0.41
36:1:2242:A:H5''	39:L2:244:GLY:HA3	2.01	0.41
5:S3:222:VAL:HG11	34:SR:230:ALA:H	1.84	0.41
66:O0:87:VAL:HG23	66:O0:89:VAL:H	2.04	0.41
36:5:1157:G:C2	36:5:1158:A:H1'	2.55	0.41
4:S2:235:LEU:HA	4:S2:236:PRO:HD2	1.94	0.41
4:S2:88:LYS:HD3	4:S2:89:GLN:H	5.33	0.41
86:2:2096:OHX:N4	86:2:2110:OHX:N1	2.68	0.41
32:E0:41:THR:O	32:E0:46:ASN:HB3	3.35	0.41
76:Q0:82:LEU:HA	76:Q0:82:LEU:HD23	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:104:SER:HB3	26:D4:107:GLN:CG	2.50	0.41
37:3:11:A:N6	42:L5:13:SER:O	2.53	0.41
55:M9:184:LEU:O	55:M9:185:LEU:HD23	3.89	0.41
36:1:282:G:H3'	36:1:282:G:C8	2.56	0.41
36:5:2542:U:H1'	36:5:2543:U:C5	2.55	0.41
26:D4:89:TYR:HE1	26:D4:93:ARG:NH1	3.40	0.41
13:C1:80:MET:CE	1:6:324:U:O2'	288.25	0.41
13:C1:80:MET:HB2	13:C1:80:MET:HE2	1.92	0.41
36:5:685:G:N2	36:5:696:C:C2	2.88	0.41
1:2:1665:U:O4	86:2:2136:OHX:N4	2.53	0.41
76:Q0:112:LYS:NZ	36:5:3107:U:P	305.70	0.41
15:C3:89:TYR:CE2	15:C3:150:VAL:HG22	2.55	0.41
36:5:1256:G:O6	36:5:1261:G:N2	2.54	0.41
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	2.55	0.41
1:2:1031:U:H4'	1:2:1032:G:OP2	2.21	0.41
47:M0:188:GLY:O	47:M0:190:VAL:N	2.44	0.41
6:S4:8:HIS:CD2	1:6:95:G:H4'	353.57	0.41
1:2:1111:G:C6	1:2:1112:G:C4	3.09	0.41
36:5:441:U:H2'	36:5:442:G:C8	2.56	0.41
40:L3:199:PHE:C	40:L3:201:LYS:H	2.23	0.41
52:M6:141:LEU:O	52:M6:144:SER:HB3	2.20	0.41
75:O9:31:THR:O	75:O9:32:ASN:HB2	2.21	0.41
36:1:426:G:C6	36:1:427:C:N4	2.89	0.41
36:1:3027:A:H2'	36:1:3028:G:O4'	2.21	0.41
36:1:1520:G:O2'	61:N5:71:THR:HG21	2.20	0.41
36:1:1549:U:H2'	36:1:1550:C:C6	2.56	0.41
36:5:1950:U:H2'	36:5:1951:C:C6	2.56	0.41
36:5:1570:U:O2'	36:5:1571:A:O4'	2.34	0.41
36:1:1113:G:OP2	86:1:4071:OHX:N1	2.54	0.41
75:O9:23:LEU:HD22	75:O9:23:LEU:HA	1.78	0.41
41:L4:187:LEU:HD23	41:L4:187:LEU:HA	1.79	0.41
9:S7:155:ASP:O	9:S7:186:PRO:HG3	2.20	0.41
38:8:29:U:H2'	38:8:30:C:H6	1.86	0.41
41:L4:128:ALA:HB1	41:L4:134:LEU:HD12	2.16	0.41
36:1:3348:G:H2'	36:1:3349:C:C6	2.55	0.41
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.58	0.41
36:1:3213:A:C2'	36:1:3214:U:H5'	2.51	0.41
1:6:1185:U:O2'	1:6:1456:C:H5''	2.21	0.41
2:S0:173:ILE:H	2:S0:173:ILE:HG12	1.76	0.41
36:1:3043:C:P	59:N3:48:ARG:NH2	2.92	0.41
11:S9:143:ILE:HD13	1:6:768:C:C2	419.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:96:ALA:C	28:D6:98:PRO:HD2	2.40	0.41
36:5:23:A:H2'	36:5:24:G:O4'	2.21	0.41
73:O7:46:SER:OG	86:5:3907:OHX:N2	111.65	0.41
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.21	0.41
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.56	0.41
36:1:1213:G:C2	36:1:1293:U:C2	3.08	0.41
48:M1:139:THR:CG2	48:M1:147:THR:HA	2.42	0.41
5:S3:115:ILE:H	5:S3:115:ILE:HG13	4.20	0.41
53:M7:64:ASN:O	53:M7:67:ILE:HG12	4.25	0.41
1:2:1482:C:OP2	1:2:1521:G:N1	2.52	0.41
71:O5:84:LYS:HB3	71:O5:85:THR:H	1.53	0.41
39:L2:70:ARG:NH1	39:L2:72:ARG:HH21	6.99	0.41
1:6:836:U:H2'	1:6:837:G:C8	2.56	0.41
1:2:1317:C:O2	1:2:1400:A:H2	2.03	0.41
2:S0:72:ASP:HB2	2:S0:118:PRO:HA	2.02	0.41
1:2:448:C:C2	1:2:449:C:C5	3.09	0.41
6:S4:16:HIS:C	6:S4:18:TRP:H	2.24	0.41
1:2:1719:A:N6	1:2:1720:G:C2	2.87	0.41
13:C1:46:LYS:HE2	1:6:846:G:H21	310.43	0.41
86:1:3945:OHX:N2	52:M6:67:THR:HG21	2.36	0.41
36:5:3279:A:N6	36:5:3280:U:C4	2.89	0.41
36:1:1246:G:H8	36:1:1246:G:OP1	2.03	0.41
75:O9:9:ILE:HG22	75:O9:13:MET:CE	2.51	0.41
46:L9:68:LEU:HA	46:L9:68:LEU:HD23	1.75	0.41
36:5:2573:G:H2'	36:5:2574:G:O4'	2.20	0.41
72:O6:97:SER:OG	72:O6:98:ARG:N	2.51	0.41
36:5:3065:G:O6	86:5:4105:OHX:N6	2.54	0.41
47:M0:99:ILE:HG13	47:M0:99:ILE:H	4.39	0.41
23:D1:46:ILE:HG13	23:D1:46:ILE:H	1.67	0.41
76:Q0:106:ARG:NH1	76:Q0:106:ARG:HB2	4.34	0.41
7:S5:162:VAL:HG22	7:S5:167:ARG:HD3	4.11	0.41
36:5:2112:U:C4'	36:5:2113:A:H5'	2.50	0.41
18:C6:32:ASN:OD1	18:C6:68:ARG:HA	3.29	0.41
10:S8:194:ARG:HD2	10:S8:195:ARG:NH1	3.78	0.41
22:D0:17:GLN:OE1	22:D0:96:PRO:HB2	2.21	0.41
36:5:1598:G:O2'	36:5:1599:G:H5'	2.21	0.41
20:C8:60:GLU:HB2	20:C8:61:LEU:H	1.62	0.41
20:C8:86:LEU:HA	20:C8:99:HIS:ND1	5.11	0.41
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.86	0.41
39:L2:137:ILE:HG13	39:L2:138:GLY:N	3.92	0.41
1:2:1545:A:OP2	20:C8:136:GLN:NE2	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:108:ILE:O	49:M3:111:ALA:HB3	2.21	0.41
6:S4:23:LEU:HD13	6:S4:23:LEU:N	2.51	0.41
40:L3:178:LEU:HD12	40:L3:179:ALA:H	1.84	0.41
36:5:1798:A:H2'	36:5:1799:A:C8	2.55	0.41
54:M8:67:ILE:HG12	54:M8:81:VAL:HG21	2.03	0.41
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.52	0.41
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	2.03	0.41
15:C3:3:ARG:NH1	15:C3:3:ARG:HG2	4.69	0.41
61:N5:72:ALA:O	61:N5:75:LYS:HB2	2.46	0.41
36:1:1547:G:P	51:M5:105:ARG:NH1	2.93	0.41
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.78	0.41
1:2:738:G:O6	86:2:2098:OHX:N1	2.54	0.41
1:2:1648:A:H4'	32:E0:4:VAL:HG21	2.03	0.41
21:C9:135:ILE:HA	21:C9:138:GLN:HB2	2.01	0.41
1:2:1211:A:H1'	17:C5:99:GLY:O	2.21	0.41
36:1:2191:U:H2'	36:1:2192:C:O4'	2.21	0.41
40:L3:291:GLU:HB2	40:L3:302:LYS:HE2	4.83	0.41
1:2:761:G:H4'	11:S9:72:GLU:OE1	2.20	0.41
19:C7:81:LYS:HE3	19:C7:81:LYS:HB2	1.90	0.41
36:1:140:C:O2'	36:1:141:C:H5'	2.20	0.41
64:N8:72:VAL:HG11	64:N8:113:LEU:HD11	2.02	0.41
38:8:43:A:OP1	86:8:228:OHX:N3	2.53	0.41
36:1:835:G:N3	36:1:857:G:C2	2.89	0.41
36:5:1060:U:H2'	36:5:1061:A:H8	1.86	0.41
2:S0:6:THR:C	2:S0:8:ASP:H	2.24	0.41
38:4:5:U:H2'	38:4:6:U:O4'	2.21	0.41
36:1:1331:U:OP2	36:1:1332:A:N6	2.49	0.41
56:N0:59:VAL:HG13	57:N1:141:VAL:HG21	3.16	0.41
36:1:2369:G:H2'	36:1:2370:G:O4'	2.19	0.41
36:5:2590:A:C5	36:5:2591:A:C8	3.09	0.41
1:2:245:U:O4	86:2:2094:OHX:N5	2.54	0.41
1:6:1571:C:H5''	1:6:1572:G:OP2	2.21	0.41
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	2.03	0.41
64:N8:43:ILE:HG21	64:N8:43:ILE:HD13	1.76	0.41
36:1:1295:G:H2'	36:1:1296:C:C6	2.56	0.41
1:6:604:A:OP2	86:6:2150:OHX:N4	2.54	0.41
36:5:3275:U:H3'	36:5:3276:G:C5	2.56	0.41
36:5:620:U:H5''	36:5:621:A:H8	1.85	0.41
7:S5:43:PHE:N	7:S5:46:TRP:H	2.78	0.41
7:S5:73:THR:O	7:S5:75:GLY:N	2.78	0.41
17:C5:43:ARG:HD3	1:6:1553:G:O6	397.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:279:G:N7	1:2:281:G:C8	2.89	0.41
36:1:3215:A:H5'	50:M4:121:MET:HE1	2.02	0.41
34:SR:85:TRP:N	34:SR:85:TRP:CD1	2.89	0.41
36:5:822:G:C6	36:5:823:C:C4	3.09	0.41
23:D1:9:VAL:HG13	23:D1:10:GLU:N	2.52	0.41
3:S1:62:LYS:HZ3	3:S1:62:LYS:HB2	1.86	0.41
63:N7:41:ALA:HB2	63:N7:77:TYR:HE1	1.86	0.41
1:6:1179:G:C6	1:6:1180:C:N3	2.89	0.41
1:2:704:C:H4'	1:2:705:U:OP1	2.21	0.41
1:2:735:C:O2'	1:2:736:C:OP2	2.32	0.41
1:2:40:A:H2'	1:2:41:A:O4'	2.21	0.41
1:2:1530:C:OP2	27:D5:95:HIS:CD2	2.74	0.41
59:N3:45:ARG:HB3	59:N3:48:ARG:HG3	2.02	0.41
28:D6:58:VAL:HG22	28:D6:59:TYR:N	2.36	0.41
3:S1:70:LEU:HG	3:S1:84:ILE:HD11	3.81	0.41
3:S1:38:PHE:HB3	3:S1:73:LEU:HD12	2.45	0.41
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	1.86	0.41
78:Q2:73:GLU:HG3	78:Q2:80:ARG:NH1	4.97	0.41
28:D6:89:ARG:O	28:D6:92:ARG:HB2	2.21	0.41
9:S7:16:LEU:O	9:S7:20:VAL:HG23	2.47	0.41
9:S7:30:SER:HB2	9:S7:34:LEU:O	2.21	0.41
28:D6:10:ARG:CG	28:D6:10:ARG:HH21	3.08	0.41
48:M1:137:ARG:HG2	37:7:28:C:H5''	309.88	0.41
27:D5:85:LYS:HB3	27:D5:87:GLY:CA	6.84	0.41
36:5:2741:C:H2'	36:5:2742:C:O4'	2.21	0.41
24:D2:15:ASN:O	24:D2:19:LYS:HG3	2.62	0.41
36:5:2943:G:H2'	36:5:2944:U:O4'	2.21	0.41
1:6:895:G:C5	1:6:896:U:C4	3.09	0.41
3:S1:131:ASP:OD1	3:S1:131:ASP:N	4.12	0.41
3:S1:179:SER:HB3	3:S1:183:GLN:OE1	2.19	0.41
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	2.02	0.41
5:S3:115:ILE:HD12	5:S3:116:ARG:H	4.64	0.41
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.40	0.41
19:C7:19:ARG:HG3	19:C7:20:TYR:CE1	2.55	0.41
14:C2:85:LYS:C	14:C2:87:PRO:HD3	3.41	0.41
71:O5:100:VAL:HG13	71:O5:101:THR:O	3.34	0.41
45:L8:156:ASP:HB2	45:L8:157:VAL:H	1.60	0.41
1:6:538:A:C8	1:6:543:C:H5	2.39	0.41
51:M5:143:ARG:NH2	71:O5:90:ARG:O	2.53	0.41
70:O4:78:GLY:O	70:O4:80:ARG:N	4.88	0.41
1:2:1232:U:H4'	12:C0:2:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:130:VAL:O	33:E1:131:PHE:HB2	4.53	0.41
8:S6:137:ARG:O	8:S6:141:ILE:HD12	2.20	0.41
1:6:150:U:H2'	1:6:151:G:O4'	2.21	0.41
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	3.56	0.41
13:C1:13:PHE:CD2	13:C1:15:LYS:HD2	2.56	0.41
36:1:639:G:OP1	68:O2:37:GLY:HA3	2.20	0.41
5:S3:141:LYS:H	5:S3:141:LYS:HG2	2.75	0.41
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	2.03	0.41
1:2:45:U:O2	1:2:434:G:H1'	2.21	0.41
1:2:434:G:N7	86:2:2049:OHX:N4	2.68	0.41
36:1:1807:G:H5'	63:N7:135:ARG:HH22	1.85	0.41
36:1:1807:G:C6	36:1:1808:G:C6	3.08	0.41
1:2:1673:G:C5	1:2:1674:C:C5	3.08	0.41
1:6:799:A:H2'	1:6:800:U:O4'	2.20	0.41
10:S8:76:THR:CG2	10:S8:105:ASP:HB3	3.35	0.41
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	2.03	0.41
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.66	0.41
36:5:114:A:H2'	36:5:115:A:O4'	2.20	0.41
17:C5:16:SER:HB3	17:C5:21:ASP:OD1	2.21	0.41
1:6:1534:G:H4'	1:6:1536:G:O6	2.21	0.41
36:5:2733:A:H2'	36:5:2734:A:O4'	2.21	0.41
34:SR:274:LEU:HD22	34:SR:313:TRP:CD1	3.19	0.41
3:S1:101:HIS:C	3:S1:217:LEU:HD13	2.41	0.41
36:1:73:C:C4	72:O6:15:LYS:HD3	2.56	0.41
73:O7:18:LEU:HD11	75:O9:51:ILE:HG22	3.05	0.41
1:6:188:A:H3'	1:6:189:C:H6	1.86	0.41
59:N3:82:ALA:HA	59:N3:95:PHE:O	2.21	0.41
34:SR:232:TYR:OH	34:SR:265:LEU:HD22	5.92	0.41
1:6:532:U:H2'	1:6:533:U:O4'	2.20	0.41
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.56	0.41
42:L5:104:LEU:HD21	42:L5:108:ARG:NH2	2.36	0.41
42:L5:148:ILE:HG21	42:L5:148:ILE:HD13	1.78	0.41
1:2:72:A:C3'	1:2:73:U:H5''	2.51	0.41
1:2:186:C:H3'	1:2:187:G:C8	2.55	0.41
36:5:1152:G:H8	36:5:1152:G:P	2.44	0.41
41:L4:341:SER:O	41:L4:342:LYS:CB	4.19	0.41
5:S3:20:GLU:OE2	5:S3:76:ARG:NH2	2.52	0.41
36:5:1560:G:O2'	36:5:1561:G:P	2.79	0.41
1:2:116:U:O2	1:2:333:A:H2	2.04	0.41
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.21	0.41
41:L4:217:LYS:HE2	41:L4:220:ARG:HH22	2.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:217:LYS:HE2	41:L4:220:ARG:NH2	2.72	0.41
52:M6:125:ARG:HH11	52:M6:125:ARG:HD3	1.76	0.41
17:C5:115:TYR:CZ	1:6:1556:A:H5''	385.88	0.41
26:D4:63:GLN:HG3	26:D4:64:PHE:O	2.55	0.41
61:N5:38:LEU:HD13	61:N5:40:LEU:HD22	3.86	0.41
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.53	0.41
36:1:223:U:HO2'	36:1:224:C:P	2.44	0.41
46:L9:165:CYS:SG	46:L9:179:ILE:HD12	2.61	0.41
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	2.03	0.41
46:L9:91:ARG:NH2	46:L9:91:ARG:HG3	2.35	0.41
64:N8:13:GLY:O	68:O2:36:LYS:HE2	2.63	0.41
47:M0:26:VAL:HA	47:M0:27:PRO:HD2	1.85	0.41
36:1:597:G:H2'	36:1:598:A:C8	2.51	0.41
36:5:2859:U:O2'	86:5:3902:OHX:N2	2.54	0.41
68:O2:57:TYR:CE1	36:5:1162:U:H4'	199.44	0.41
71:O5:28:LEU:O	71:O5:31:LEU:N	3.44	0.41
55:M9:110:ARG:HA	55:M9:115:ILE:HG22	2.02	0.41
56:N0:1:MET:O	56:N0:2:ALA:HB2	2.21	0.41
36:1:1713:G:O6	66:O0:28:LYS:HD3	2.20	0.41
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.21	0.41
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	2.26	0.41
36:5:1817:G:O2'	36:5:1818:U:OP2	2.36	0.41
37:3:27:A:H2'	37:3:28:C:C6	2.56	0.41
16:C4:77:THR:O	16:C4:110:LEU:HD23	2.71	0.41
1:2:1594:G:H5''	31:D9:33:LYS:HG3	2.03	0.41
36:1:304:G:N1	64:N8:62:HIS:CE1	2.89	0.41
36:1:1075:A:C6	65:N9:45:HIS:CE1	3.09	0.41
1:6:492:A:HO2'	1:6:496:G:H1	1.66	0.41
44:L7:92:ILE:HA	44:L7:92:ILE:HD12	1.60	0.41
36:1:729:C:H2'	36:1:730:C:C6	2.56	0.41
15:C3:3:ARG:NH1	1:6:955:A:OP1	328.14	0.41
38:4:122:U:H2'	38:4:123:G:H8	1.85	0.41
36:1:3000:A:C2	36:1:3149:G:C5	3.08	0.41
36:1:2284:C:N4	36:1:2308:C:OP2	2.51	0.41
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.20	0.41
25:D3:59:ILE:HD12	32:E0:4:VAL:HG13	2.02	0.41
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.20	0.41
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	4.58	0.41
36:5:252:U:H4'	36:5:253:A:H5'	2.03	0.41
46:L9:46:THR:HG22	46:L9:47:LYS:O	2.21	0.41
2:S0:32:HIS:O	2:S0:32:HIS:ND1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4083:OHX:N4	55:M9:14:VAL:O	2.54	0.41
64:N8:40:HIS:CD2	64:N8:41:HIS:CE1	3.08	0.41
9:S7:39:ARG:NH1	55:M9:189:ALA:HB2	7.24	0.41
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.08	0.41
61:N5:93:TYR:CE2	38:8:131:A:H5''	105.90	0.41
36:1:1080:A:OP1	42:L5:140:ARG:NH2	2.54	0.41
1:6:805:U:H2'	1:6:806:A:H5'	2.03	0.41
65:N9:32:LEU:HD23	65:N9:32:LEU:HA	1.97	0.41
1:2:466:U:C4	1:2:467:G:C5	3.09	0.41
9:S7:97:ARG:NH1	9:S7:97:ARG:HG2	3.04	0.41
35:SM:102:THR:CG2	35:SM:105:LYS:HB2	2.51	0.41
44:L7:196:LYS:HE2	36:5:1100:U:OP2	247.60	0.41
4:S2:44:LEU:HD21	4:S2:247:ALA:HB2	2.05	0.41
79:Q3:19:GLY:O	79:Q3:20:SER:C	2.80	0.41
36:5:975:C:H2'	36:5:976:U:H6	1.86	0.41
36:5:3013:U:H2'	36:5:3014:U:C6	2.56	0.41
36:5:2903:A:H2'	36:5:2904:U:O4'	2.20	0.41
56:N0:26:ARG:HB3	57:N1:150:THR:HB	4.63	0.41
36:1:2655:U:H2'	78:Q2:3:ASN:O	2.20	0.41
36:1:1149:G:H5''	36:1:1150:A:C5'	2.51	0.41
36:1:1609:C:H2'	36:1:1610:G:C8	2.56	0.41
41:L4:286:VAL:HA	41:L4:289:ILE:HG13	2.02	0.41
1:2:1321:A:OP2	2:S0:101:ARG:NH2	2.46	0.41
36:1:1496:C:C2	36:1:1521:G:N2	2.89	0.41
36:5:2769:A:H2'	36:5:2770:G:O4'	2.21	0.41
31:D9:25:SER:HB3	86:D9:102:OHX:N3	2.36	0.41
36:1:507:U:O2'	36:1:1166:G:H4'	2.21	0.41
37:3:85:G:O6	86:3:216:OHX:N4	2.54	0.41
1:2:607:G:H5'	1:2:613:G:N2	2.36	0.41
36:5:1120:A:C2	36:5:1139:G:C2	3.09	0.41
66:O0:63:SER:OG	66:O0:65:THR:OG1	2.15	0.41
40:L3:252:ILE:HA	40:L3:252:ILE:HD12	1.93	0.41
6:S4:148:ARG:HG2	6:S4:148:ARG:H	2.68	0.41
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.60	0.41
42:L5:257:GLU:OE2	42:L5:257:GLU:N	4.56	0.41
1:2:239:C:H6	1:2:239:C:H2'	1.62	0.41
36:5:2683:U:O2	36:5:2683:U:H2'	2.21	0.41
44:L7:188:ILE:HA	44:L7:188:ILE:HD13	2.13	0.41
36:1:727:G:H2'	36:1:728:G:O4'	2.20	0.41
36:5:2523:A:H4'	36:5:2524:A:OP2	2.19	0.41
41:L4:281:ILE:HD12	54:M8:29:LEU:HG	2.14	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:879:U:O2	36:5:2357:A:H1'	2.21	0.41
61:N5:53:HIS:ND1	61:N5:54:TYR:O	2.57	0.41
36:1:1944:U:H2'	36:1:1945:A:C8	2.55	0.41
1:6:1046:G:C6	1:6:1047:G:N7	2.89	0.41
1:2:59:C:H1'	1:2:60:U:C5	2.56	0.41
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	2.35	0.41
63:N7:108:GLU:O	63:N7:112:LYS:HG3	2.20	0.41
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.70	0.41
86:5:4033:OHX:N1	86:5:4081:OHX:N2	2.68	0.41
36:5:1731:A:C5	36:5:1732:U:C5	3.09	0.41
60:N4:50:ALA:HB3	36:5:3333:G:O2'	221.55	0.41
39:L2:62:VAL:HA	39:L2:73:GLU:HA	2.30	0.41
43:L6:34:LEU:HD23	43:L6:86:ALA:HB2	2.59	0.41
36:1:2564:G:C6	36:1:2565:U:C4	3.08	0.41
70:O4:38:LEU:HG	70:O4:38:LEU:H	3.74	0.41
1:2:728:U:H2'	1:2:728:U:O2	2.21	0.41
71:O5:24:LEU:HD23	71:O5:24:LEU:HA	1.68	0.41
13:C1:111:VAL:O	13:C1:111:VAL:HG13	2.29	0.41
7:S5:224:ASN:HA	7:S5:224:ASN:HD22	1.51	0.41
11:S9:54:ARG:HB3	11:S9:54:ARG:HE	2.08	0.41
36:5:937:G:N3	36:5:963:G:H1'	2.36	0.41
36:5:698:U:H2'	36:5:699:A:O4'	2.20	0.41
36:1:1571:A:H2'	36:1:1572:U:O4'	2.19	0.41
1:2:285:G:N2	1:2:286:C:C2	2.89	0.41
11:S9:118:LEU:H	11:S9:118:LEU:HD12	4.27	0.41
9:S7:56:LYS:HB2	9:S7:88:ARG:HD3	2.03	0.41
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.56	0.41
63:N7:4:PHE:CE1	63:N7:82:PRO:HG3	2.57	0.41
35:SM:64:LYS:CD	35:SM:64:LYS:H	2.33	0.41
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	2.03	0.41
1:2:1560:U:C4	1:2:1561:U:C4	3.09	0.41
56:N0:93:GLU:OE1	56:N0:135:VAL:HG13	2.27	0.41
2:S0:120:LEU:HD12	2:S0:121:VAL:N	2.35	0.41
36:1:1650:G:H5''	39:L2:70:ARG:HB3	2.03	0.41
26:D4:29:HIS:HB2	26:D4:67:GLY:HA2	6.06	0.41
15:C3:26:PHE:CE2	15:C3:66:ILE:HD12	4.71	0.41
15:C3:65:VAL:HG23	15:C3:66:ILE:CG2	5.67	0.41
8:S6:12:SER:C	8:S6:13:GLN:HG2	2.41	0.41
44:L7:90:LYS:HD3	44:L7:220:PHE:CZ	3.23	0.41
7:S5:185:ARG:C	1:6:1535:U:H5	336.05	0.41
72:O6:51:SER:OG	72:O6:54:GLU:HG3	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:135:VAL:CG1	51:M5:142:ILE:HG12	2.51	0.41
36:1:409:A:OP2	86:1:4055:OHX:N5	2.53	0.41
1:2:1240:U:O4	17:C5:59:LYS:NZ	2.50	0.41
5:S3:74:GLN:NE2	5:S3:81:PRO:HA	2.34	0.41
41:L4:16:THR:HG23	41:L4:18:ASN:N	2.88	0.41
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.67	0.41
1:6:519:C:C4	1:6:534:A:C8	3.09	0.41
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.70	0.41
1:6:1541:G:C6	1:6:1542:G:C6	3.09	0.41
36:1:118:U:C5	36:1:119:U:C4	3.09	0.41
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.21	0.41
34:SR:205:SER:OG	34:SR:210:LEU:HB2	2.21	0.41
39:L2:241:ARG:HA	36:5:2203:U:H4'	221.29	0.41
22:D0:104:THR:HG22	22:D0:116:VAL:HG21	2.02	0.41
45:L8:82:LEU:HA	45:L8:82:LEU:HD13	1.89	0.41
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.77	0.41
46:L9:92:TYR:N	46:L9:92:TYR:CD1	2.88	0.41
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.21	0.41
10:S8:114:GLU:HG2	10:S8:120:THR:HA	2.03	0.41
36:5:2921:U:H5''	36:5:2922:G:OP2	2.20	0.41
21:C9:70:GLN:OE1	21:C9:119:LYS:HE3	2.21	0.41
17:C5:86:VAL:O	17:C5:89:MET:HG3	2.21	0.41
54:M8:57:ILE:C	54:M8:59:ARG:H	2.23	0.41
46:L9:170:LYS:HE3	36:5:2902:A:P	320.95	0.41
86:1:4026:OHX:N4	86:1:4146:OHX:N1	2.69	0.41
7:S5:41:LYS:HA	7:S5:41:LYS:HD2	1.88	0.41
36:5:553:U:H2'	36:5:554:A:O4'	2.21	0.41
44:L7:68:ASP:O	44:L7:71:ALA:HB3	2.54	0.41
86:2:2096:OHX:N3	86:2:2110:OHX:N1	2.68	0.41
8:S6:160:ARG:HD3	60:N4:84:GLY:HA3	2.02	0.41
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	2.03	0.41
1:2:1274:C:H5	35:SM:96:ARG:H	1.69	0.41
36:5:107:A:C2	36:5:108:A:C4	3.08	0.41
36:1:1134:G:O2'	36:1:2642:A:N3	2.45	0.41
36:1:3279:A:N6	36:1:3280:U:O4	2.54	0.41
1:2:260:U:H3'	1:2:261:U:C5'	2.51	0.41
36:5:2349:U:H5'	36:5:2391:G:OP1	2.21	0.41
36:1:2413:A:H2'	36:1:2414:G:C8	2.56	0.41
38:8:6:U:H2'	38:8:7:U:C6	2.56	0.41
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	2.56	0.41
54:M8:50:LYS:O	54:M8:52:LEU:N	3.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:968:G:H2'	36:1:969:C:C6	2.56	0.41
1:2:1215:C:OP1	86:2:2151:OHX:N4	2.55	0.41
38:8:92:A:H2'	38:8:93:U:O4'	2.21	0.41
38:8:97:A:C2	38:8:98:U:C2	3.09	0.41
36:5:279:U:H2'	36:5:280:U:H6	1.86	0.41
36:1:994:G:N2	36:1:995:U:O4	2.51	0.41
1:2:1334:U:H2'	1:2:1335:U:H6	1.85	0.41
36:5:1013:G:C2	36:5:1014:U:H1'	2.56	0.41
1:2:1635:A:H8	1:2:1635:A:O5'	2.04	0.41
1:6:1340:U:O2	1:6:1340:U:H2'	2.21	0.41
62:N6:24:SER:OG	62:N6:75:ARG:NH1	2.65	0.41
55:M9:158:GLU:O	55:M9:161:ALA:HB3	2.21	0.41
18:C6:60:PHE:HA	18:C6:63:ILE:HG13	2.59	0.40
34:SR:96:THR:HG22	34:SR:97:GLY:O	2.21	0.40
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.46	0.40
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.55	0.40
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	6.02	0.40
9:S7:10:SER:HB3	9:S7:43:PHE:O	2.21	0.40
13:C1:129:ARG:NH2	1:6:336:G:OP1	296.70	0.40
25:D3:69:ARG:HD3	25:D3:117:ILE:HG12	2.03	0.40
39:L2:3:ARG:HD3	36:5:911:C:N4	179.68	0.40
19:C7:20:TYR:CZ	19:C7:38:ILE:HB	5.49	0.40
1:6:1429:G:C5	1:6:1430:U:C4	3.09	0.40
1:2:1309:C:H2'	1:2:1310:U:O4'	2.21	0.40
1:2:461:G:H2'	1:2:462:G:H8	1.83	0.40
1:2:1067:C:O2'	1:2:1068:C:H5'	2.21	0.40
10:S8:61:GLU:HG3	10:S8:62:THR:HG23	2.02	0.40
13:C1:46:LYS:HE2	1:6:846:G:N2	310.53	0.40
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.54	0.40
27:D5:77:ARG:NH2	1:6:1533:C:OP2	352.60	0.40
36:1:1246:G:H2'	36:1:1247:U:O4'	2.21	0.40
39:L2:113:VAL:HG12	39:L2:166:ILE:HD13	2.02	0.40
47:M0:169:LYS:NZ	57:N1:159:PHE:H	2.19	0.40
4:S2:115:ILE:HD13	4:S2:208:GLU:OE1	2.78	0.40
44:L7:151:ARG:HH11	44:L7:244:ASN:HD22	1.67	0.40
1:2:327:U:H2'	1:2:328:A:H8	1.86	0.40
53:M7:69:ARG:HG2	53:M7:79:THR:OG1	4.01	0.40
25:D3:73:ARG:HA	25:D3:84:THR:HA	2.02	0.40
44:L7:179:LEU:HD22	44:L7:183:ASP:OD2	2.21	0.40
7:S5:76:ARG:HD2	18:C6:122:ARG:HE	2.98	0.40
1:2:831:U:H2'	1:2:831:U:O2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:59:VAL:HG22	62:N6:103:LYS:O	6.01	0.40
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.97	0.40
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.67	0.40
36:5:603:A:H2'	36:5:604:G:O4'	2.21	0.40
56:N0:77:VAL:HG11	56:N0:106:LEU:HG	2.37	0.40
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.21	0.40
36:1:1109:U:H2'	36:1:1110:U:C6	2.56	0.40
34:SR:44:SER:O	34:SR:58:VAL:HG13	2.73	0.40
70:O4:58:ARG:HG2	70:O4:58:ARG:HH11	1.86	0.40
36:1:3288:G:O2'	36:1:3289:G:OP2	2.29	0.40
36:5:167:U:H2'	36:5:168:U:H6	1.84	0.40
36:1:279:U:H2'	36:1:280:U:H6	1.85	0.40
36:5:1772:U:H5''	36:5:1773:C:H5'	2.03	0.40
55:M9:44:LEU:HD13	55:M9:44:LEU:HA	1.86	0.40
36:1:2534:G:C2	36:1:2535:A:N7	2.89	0.40
36:5:1556:C:H2'	36:5:2169:G:H1	1.86	0.40
1:6:1491:U:H4'	1:6:1492:A:H5'	2.02	0.40
47:M0:68:ALA:HA	47:M0:158:LYS:HG3	2.03	0.40
55:M9:25:ASP:HB3	55:M9:32:ILE:HD11	3.00	0.40
36:1:650:C:H2'	36:1:651:G:C8	2.57	0.40
38:4:107:G:C2	38:4:116:G:C5	3.09	0.40
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.46	0.40
36:1:2379:U:H2'	36:1:2380:U:C6	2.56	0.40
1:6:1158:C:H42	1:6:1163:A:N6	2.18	0.40
1:6:1176:G:C6	1:6:1464:G:C6	3.09	0.40
66:O0:18:ILE:HG22	66:O0:19:LYS:HG2	5.08	0.40
42:L5:220:SER:O	42:L5:224:LYS:HB2	2.21	0.40
64:N8:97:GLU:O	64:N8:98:THR:HG23	2.72	0.40
64:N8:82:ILE:HA	64:N8:82:ILE:HD12	4.34	0.40
8:S6:148:SER:OG	8:S6:150:GLU:OE1	2.39	0.40
1:2:1653:C:C4	1:2:1654:G:C6	3.09	0.40
18:C6:28:LEU:O	18:C6:29:ILE:HG13	2.92	0.40
29:D7:64:CYS:HA	29:D7:72:LYS:O	2.20	0.40
36:1:3120:C:H3'	76:Q0:111:ARG:HH21	1.86	0.40
36:5:589:A:H1'	36:5:1337:A:H5''	2.03	0.40
36:1:2160:G:H2'	36:1:2161:G:C8	2.56	0.40
1:2:621:A:N3	1:2:1107:G:H1'	2.36	0.40
39:L2:49:VAL:HG13	39:L2:58:LEU:HB2	2.85	0.40
42:L5:132:THR:HG21	42:L5:170:GLY:C	2.42	0.40
36:1:2925:C:H2'	36:1:2926:A:O4'	2.21	0.40
36:5:2315:G:H2'	36:5:2316:G:H8	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:609:U:H4'	1:2:610:G:O5'	2.21	0.40
42:L5:8:LYS:HG2	42:L5:12:TYR:CD2	3.80	0.40
36:1:3055:U:H6	36:1:3055:U:O5'	2.04	0.40
54:M8:54:LEU:HD23	54:M8:54:LEU:HA	1.53	0.40
1:6:1527:C:H6	1:6:1527:C:O5'	2.05	0.40
79:Q3:91:GLU:H	79:Q3:91:GLU:HG2	2.13	0.40
36:1:3155:U:H3'	36:1:3156:U:H4'	2.03	0.40
1:6:1584:G:H22	1:6:1611:A:P	2.41	0.40
36:5:1393:A:C8	36:5:1418:A:C6	3.09	0.40
4:S2:142:GLY:HA2	23:D1:1:MET:CE	8.73	0.40
13:C1:96:LYS:HD3	13:C1:97:TYR:CZ	4.22	0.40
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.53	0.40
36:1:287:G:OP1	51:M5:179:LYS:HD3	2.21	0.40
24:D2:57:ARG:N	24:D2:57:ARG:HD2	2.36	0.40
28:D6:44:ILE:CD1	28:D6:44:ILE:H	2.11	0.40
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.21	0.40
42:L5:40:HIS:HB3	42:L5:43:LYS:HD2	3.95	0.40
46:L9:109:ALA:HB1	46:L9:111:PHE:CE2	2.56	0.40
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.48	0.40
1:2:542:A:N1	32:E0:28:LYS:HE2	2.37	0.40
57:N1:80:VAL:HG13	57:N1:85:LEU:HG	2.33	0.40
53:M7:129:THR:HG23	53:M7:139:TYR:CG	2.56	0.40
26:D4:32:ARG:O	26:D4:33:ALA:HB2	4.35	0.40
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.47	0.40
1:6:486:G:N7	1:6:488:G:C2	2.90	0.40
41:L4:193:LYS:HA	41:L4:198:ARG:HA	2.02	0.40
1:2:434:G:N2	1:2:436:A:H3'	2.36	0.40
1:2:393:C:H4'	1:2:1673:G:O2'	2.21	0.40
1:2:393:C:H2'	1:2:394:C:H6	1.86	0.40
1:2:1503:A:C6	20:C8:84:TRP:CD1	3.09	0.40
47:M0:3:ARG:NH2	47:M0:63:GLU:HG3	2.36	0.40
9:S7:96:ARG:NH1	9:S7:124:LYS:HB3	2.36	0.40
49:M3:61:PRO:HD3	49:M3:70:ARG:NH2	2.89	0.40
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	2.50	0.40
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	3.66	0.40
87:2:2178:PCY:O21	87:2:2178:PCY:C22	2.69	0.40
1:6:648:G:C2	1:6:687:G:N3	2.89	0.40
1:6:686:C:H2'	1:6:687:G:O4'	2.21	0.40
34:SR:305:TYR:HB2	34:SR:311:ARG:NH1	3.04	0.40
10:S8:21:PHE:O	10:S8:22:ARG:HG2	2.21	0.40
34:SR:176:LYS:C	34:SR:199:ILE:HD11	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:162:ALA:O	34:SR:163:ASP:HB3	2.21	0.40
30:D8:39:THR:O	30:D8:40:ILE:HD12	4.89	0.40
15:C3:70:LYS:H	15:C3:70:LYS:HG2	2.26	0.40
1:2:1337:A:H5'	1:2:1338:C:OP2	2.20	0.40
1:2:1226:A:HO2'	1:2:1227:A:P	2.43	0.40
39:L2:250:GLN:HB2	39:L2:251:LYS:H	1.58	0.40
41:L4:220:ARG:HG3	41:L4:221:ASN:N	2.92	0.40
36:5:283:G:O6	36:5:304:G:H1'	2.20	0.40
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.21	0.40
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	2.19	0.40
1:6:1080:U:O2'	1:6:1081:A:H5'	2.21	0.40
1:2:499:U:C2	1:2:500:C:C5	3.08	0.40
1:2:1433:G:N2	31:D9:45:GLU:OE1	2.54	0.40
36:1:2373:A:N3	36:1:2824:G:O2'	2.44	0.40
43:L6:176:PHE:H	50:M4:117:ARG:HH22	4.88	0.40
47:M0:22:TYR:CE1	36:5:1048:A:H2'	269.50	0.40
1:2:1777:G:O6	77:Q1:8:LYS:NZ	2.42	0.40
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.91	0.40
61:N5:79:GLY:C	61:N5:81:ILE:HD12	2.84	0.40
26:D4:49:LYS:HD2	26:D4:49:LYS:N	2.36	0.40
1:2:225:A:H2'	1:2:226:A:C8	2.56	0.40
36:5:2218:G:H2'	36:5:2219:A:C8	2.56	0.40
42:L5:183:TRP:CZ3	42:L5:185:PHE:HA	7.16	0.40
1:6:1592:A:H2'	1:6:1593:A:H8	1.84	0.40
48:M1:38:GLU:C	48:M1:40:LEU:H	2.60	0.40
36:1:685:G:OP1	49:M3:35:ARG:HG2	2.21	0.40
1:2:1044:U:H2'	1:2:1045:C:H6	1.86	0.40
37:7:47:C:H2'	37:7:48:U:H6	1.87	0.40
36:5:531:G:N2	36:5:562:C:C2	2.90	0.40
40:L3:311:PHE:HE2	40:L3:317:ILE:HG13	1.89	0.40
28:D6:43:ASN:OD1	28:D6:66:LYS:HG3	2.20	0.40
36:1:2407:C:H2'	36:1:2408:U:H6	1.86	0.40
36:5:422:A:C2	36:5:2363:A:H4'	2.56	0.40
38:4:77:A:OP2	86:4:228:OHX:N2	2.54	0.40
36:5:1706:C:H2'	36:5:1707:A:O4'	2.21	0.40
62:N6:63:LYS:HE3	62:N6:97:ILE:HD13	2.02	0.40
36:5:807:A:N7	36:5:2411:U:O2'	2.40	0.40
63:N7:105:SER:O	63:N7:109:GLU:N	3.47	0.40
36:5:177:U:OP2	86:5:4017:OHX:N6	2.54	0.40
78:Q2:70:LEU:N	78:Q2:83:LEU:O	2.96	0.40
37:3:75:G:O2'	37:3:104:A:N6	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:383:G:H2'	36:5:385:A:OP2	2.20	0.40
49:M3:53:LEU:HD12	49:M3:96:ALA:HB2	2.44	0.40
56:N0:38:LYS:HB2	56:N0:38:LYS:HE3	2.43	0.40
57:N1:26:HIS:ND1	57:N1:26:HIS:O	2.52	0.40
15:C3:99:ARG:HH11	15:C3:99:ARG:HD3	1.75	0.40
48:M1:77:GLU:HG2	48:M1:77:GLU:H	1.38	0.40
1:6:811:A:C2	1:6:858:G:H1'	2.56	0.40
36:1:1748:G:C6	36:1:1749:A:C6	3.09	0.40
1:6:1771:U:H2'	1:6:1772:C:C6	2.56	0.40
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.53	0.40
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.56	0.40
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	2.03	0.40
3:S1:58:SER:C	3:S1:62:LYS:HZ2	2.25	0.40
20:C8:139:LYS:HE2	1:6:1459:C:H42	350.81	0.40
35:SM:65:THR:C	35:SM:67:GLY:H	4.89	0.40
47:M0:176:LEU:HB2	47:M0:181:TYR:HB2	2.02	0.40
11:S9:30:LEU:HA	11:S9:30:LEU:HD22	1.81	0.40
9:S7:24:PHE:HE1	9:S7:77:LEU:HD11	2.86	0.40
28:D6:94:ASN:OD1	28:D6:96:ALA:HB3	2.54	0.40
1:2:823:G:C6	1:2:850:A:C2	3.10	0.40
77:Q1:15:ARG:O	77:Q1:19:LYS:HD2	2.21	0.40
5:S3:116:ARG:HG2	35:SM:123:ALA:HB3	9.36	0.40
39:L2:207:VAL:HG23	39:L2:207:VAL:H	1.96	0.40
36:1:1742:U:H2'	36:1:1743:G:O4'	2.21	0.40
63:N7:10:VAL:HB	63:N7:83:THR:CG2	2.52	0.40
1:6:838:G:C6	1:6:839:U:C4	3.09	0.40
20:C8:120:ARG:HH21	35:SM:61:ILE:HD13	1.85	0.40
22:D0:26:LEU:HB3	22:D0:34:LEU:HD21	2.03	0.40
36:1:1878:G:C2'	36:1:1879:A:H5'	2.52	0.40
21:C9:84:LYS:HB3	21:C9:94:ILE:HD13	2.02	0.40
41:L4:126:ILE:HG13	41:L4:238:LEU:CD1	2.95	0.40
41:L4:238:LEU:HA	41:L4:238:LEU:HD23	1.62	0.40
42:L5:261:THR:O	42:L5:264:GLN:N	2.71	0.40
36:5:914:A:O2'	36:5:2146:C:H4'	2.21	0.40
46:L9:55:VAL:HB	46:L9:68:LEU:HD21	3.12	0.40
44:L7:47:ARG:NH2	44:L7:179:LEU:HD11	2.83	0.40
30:D8:22:ARG:HD3	30:D8:22:ARG:N	2.91	0.40
11:S9:53:ARG:HD3	11:S9:97:LEU:O	5.02	0.40
62:N6:83:ASP:O	62:N6:84:LYS:CB	2.69	0.40
1:6:130:C:H4'	1:6:176:C:OP1	2.22	0.40
18:C6:31:VAL:O	18:C6:32:ASN:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:115:THR:HB	18:C6:118:ILE:O	2.21	0.40
20:C8:60:GLU:H	20:C8:60:GLU:HG2	1.53	0.40
61:N5:126:LEU:HD12	61:N5:132:ALA:HB2	2.03	0.40
61:N5:135:ILE:HD11	61:N5:138:ARG:NH1	2.36	0.40
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.66	0.40
36:5:956:U:H2'	36:5:957:C:H6	1.86	0.40
1:6:1656:U:H5''	1:6:1657:U:H5''	2.03	0.40
36:1:1162:U:H4'	68:O2:57:TYR:CE1	2.56	0.40
55:M9:90:PRO:HG2	55:M9:93:VAL:HG23	2.64	0.40
50:M4:36:VAL:HG12	50:M4:75:GLY:HA2	2.15	0.40
36:1:2403:G:H21	36:1:2404:A:N6	2.20	0.40
66:O0:27:TYR:HA	66:O0:89:VAL:HG11	2.59	0.40
15:C3:54:LEU:HD23	15:C3:54:LEU:HA	1.96	0.40
1:6:1298:U:H2'	1:6:1299:G:O4'	2.22	0.40
31:D9:34:TYR:HB2	31:D9:36:LEU:HD22	2.83	0.40
47:M0:21:ARG:HG3	47:M0:22:TYR:CE2	4.43	0.40
36:1:785:G:N1	54:M8:89:ASP:O	2.47	0.40
36:1:1659:U:H2'	36:1:1660:C:C6	2.56	0.40
58:N2:28:PHE:HD2	58:N2:30:PRO:HG3	2.52	0.40
36:5:1243:G:H8	36:5:1243:G:OP2	2.04	0.40
36:5:1556:C:C5	36:5:2169:G:C4	3.10	0.40
1:6:1490:C:H4'	1:6:1491:U:OP1	2.20	0.40
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.21	0.40
52:M6:54:TYR:CD2	52:M6:145:VAL:HG11	2.57	0.40
36:1:664:U:H5'	41:L4:107:ARG:HA	2.04	0.40
5:S3:183:GLY:O	5:S3:184:ILE:HD13	5.77	0.40
36:1:168:U:H2'	36:1:169:U:H6	1.87	0.40
2:S0:3:LEU:HA	2:S0:4:PRO:HD2	2.14	0.40
48:M1:25:GLU:HG3	48:M1:26:SER:O	2.31	0.40
8:S6:61:PHE:CE1	8:S6:96:SER:HB2	2.91	0.40
36:5:183:G:H2'	36:5:184:U:C6	2.56	0.40
21:C9:128:GLY:O	21:C9:132:LEU:HB2	2.20	0.40
36:5:1569:U:H5'	36:5:1570:U:C6	2.56	0.40
73:O7:11:ARG:HB3	36:5:817:A:C2	141.99	0.40
36:5:1055:A:H4'	37:7:100:C:O2	2.21	0.40
61:N5:127:THR:O	61:N5:129:ASP:N	2.54	0.40
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	2.03	0.40
86:2:2076:OHX:N3	86:2:2160:OHX:N5	2.69	0.40
53:M7:98:ALA:HB1	53:M7:150:VAL:HG22	2.62	0.40
36:5:374:A:N3	36:5:376:G:H5''	2.37	0.40
36:5:386:A:C5	36:5:387:A:H1'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:306:A:C2	36:5:2784:G:H1'	2.57	0.40
35:SM:30:THR:HG21	36:1:2665:U:H4'	2.03	0.40
45:L8:26:LEU:HA	45:L8:26:LEU:HD23	4.33	0.40
17:C5:13:LYS:HA	17:C5:13:LYS:HD2	1.96	0.40
55:M9:164:LEU:HD22	55:M9:164:LEU:HA	1.95	0.40
42:L5:276:LYS:HE3	42:L5:276:LYS:HB2	4.33	0.40
25:D3:133:LEU:HA	25:D3:133:LEU:HD22	2.06	0.40
48:M1:80:LEU:O	48:M1:80:LEU:HD22	2.38	0.40
1:6:1397:U:C5	1:6:1399:C:C2	3.09	0.40
7:S5:66:GLN:CD	7:S5:66:GLN:H	2.23	0.40
1:2:1553:G:O6	17:C5:43:ARG:HD3	2.21	0.40
34:SR:81:LEU:HB3	34:SR:113:VAL:HG21	2.36	0.40
47:M0:85:PHE:CB	47:M0:140:THR:HG22	3.01	0.40
49:M3:161:ASP:OD2	64:N8:139:ARG:HD3	2.22	0.40
20:C8:142:GLY:O	20:C8:145:ARG:NH2	3.65	0.40
1:2:694:U:O2	1:2:694:U:H2'	2.21	0.40
41:L4:3:ARG:HB2	41:L4:21:PRO:HB2	3.17	0.40
1:2:704:C:N3	1:2:734:A:H2	2.20	0.40
21:C9:117:SER:HB2	21:C9:123:ARG:HD2	4.33	0.40
1:2:896:U:C1'	16:C4:38:THR:HG21	2.50	0.40
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.55	0.40
40:L3:221:THR:O	40:L3:272:TYR:HA	2.41	0.40
40:L3:139:GLN:C	40:L3:141:GLY:H	2.77	0.40
36:1:19:U:O2'	51:M5:112:ASN:HB2	2.21	0.40
8:S6:98:ARG:HD2	8:S6:99:GLY:N	4.68	0.40
36:1:1804:A:H2'	36:1:1805:C:C6	2.57	0.40
63:N7:88:ASP:CG	63:N7:89:VAL:N	2.75	0.40
27:D5:40:VAL:HG12	27:D5:72:GLY:HA3	5.77	0.40
36:1:1063:G:C8	57:N1:105:PHE:HE2	2.39	0.40
38:8:66:A:H2'	38:8:67:U:H6	1.86	0.40
5:S3:162:GLN:C	5:S3:164:VAL:H	2.66	0.40
3:S1:122:GLU:HG3	3:S1:140:ILE:HG13	2.03	0.40
68:O2:40:SER:HB2	36:5:639:G:OP1	187.70	0.40
72:O6:4:LYS:HD2	72:O6:13:LYS:O	2.22	0.40
86:1:3948:OHX:N1	86:1:4036:OHX:N5	2.68	0.40
51:M5:98:LEU:O	51:M5:102:ALA:N	3.12	0.40
25:D3:77:ILE:H	25:D3:77:ILE:HG13	2.51	0.40
72:O6:51:SER:H	72:O6:54:GLU:HB2	2.19	0.40
51:M5:142:ILE:O	51:M5:144:ARG:O	2.40	0.40
1:2:1336:A:O2'	18:C6:123:ARG:HG2	2.21	0.40
1:2:18:C:C2	1:2:19:A:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:70:THR:HB	22:D0:72:ASN:O	4.84	0.40
41:L4:91:GLY:O	41:L4:97:GLY:HA3	2.22	0.40
65:N9:11:ASN:O	65:N9:15:LYS:HG3	2.49	0.40
70:O4:84:CYS:O	70:O4:88:ARG:HB2	5.04	0.40
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.03	0.40
39:L2:80:GLU:N	39:L2:168:VAL:O	2.48	0.40
30:D8:64:ARG:HB3	30:D8:65:ARG:H	1.64	0.40
17:C5:51:SER:CB	17:C5:53:PRO:HD2	6.17	0.40
9:S7:143:LEU:HD13	9:S7:143:LEU:HA	4.28	0.40
36:1:255:A:O2'	36:1:256:G:H5'	2.21	0.40
1:2:1409:G:N2	1:2:1411:A:H3'	2.36	0.40
20:C8:83:ALA:CA	20:C8:86:LEU:HD13	2.50	0.40
53:M7:182:ILE:HG22	53:M7:183:ALA:N	2.37	0.40
36:5:1114:U:OP2	86:5:4008:OHX:N5	2.54	0.40
13:C1:3:THR:HG22	13:C1:4:GLU:N	2.37	0.40
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.21	0.40
61:N5:139:ILE:HD11	71:O5:33:VAL:HG21	2.02	0.40
36:1:2366:C:H5'	40:L3:259:HIS:NE2	2.37	0.40
36:1:2724:U:H4'	57:N1:54:HIS:NE2	2.36	0.40
57:N1:78:LYS:HB2	57:N1:87:LYS:HG3	3.22	0.40
36:1:1495:U:C5	36:1:1835:A:N1	2.85	0.40
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.64	0.40
71:O5:83:LYS:HD2	38:8:38:U:H6	68.48	0.40
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.67	0.40
36:1:608:A:C4	43:L6:22:ARG:NH1	2.89	0.40
39:L2:104:LEU:HB3	39:L2:146:THR:HG21	2.03	0.40
47:M0:81:GLY:C	47:M0:83:ASP:N	3.12	0.40
36:1:2257:C:H2'	36:1:2258:U:C6	2.56	0.40
45:L8:78:PHE:O	45:L8:79:GLN:HB3	2.43	0.40
51:M5:150:TRP:HE3	51:M5:156:HIS:CD2	3.59	0.40
36:1:551:A:C4	36:1:552:G:C8	3.10	0.40
36:1:173:G:C6	36:1:174:C:C4	3.09	0.40
66:O0:41:LEU:HD23	66:O0:66:LYS:HB2	2.85	0.40
2:S0:86:VAL:O	2:S0:89:PHE:N	2.55	0.40
1:2:1492:A:C4	1:2:1493:A:C8	3.09	0.40
46:L9:103:ILE:HD11	46:L9:134:ILE:CG2	2.51	0.40
78:Q2:55:LYS:HD2	36:5:92:G:O2'	175.70	0.40
38:4:45:C:OP1	75:O9:12:LYS:HE3	2.21	0.40
36:1:637:C:H2'	36:1:637:C:H6	1.57	0.40
38:8:156:U:C4	38:8:157:U:C5	3.09	0.40
1:2:812:A:C5	1:2:858:G:C2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:130:C:O2'	1:2:131:C:OP1	2.28	0.40
34:SR:187:GLN:HG2	34:SR:188:ILE:N	3.79	0.40
61:N5:108:LEU:HA	61:N5:108:LEU:HD23	1.88	0.40
7:S5:133:VAL:HA	7:S5:198:LEU:HD22	3.44	0.40
36:5:2151:C:H2'	36:5:2152:A:O4'	2.22	0.40
2:S0:107:PHE:CE2	2:S0:116:LYS:HB2	3.30	0.40
36:5:2390:A:H2'	36:5:2391:G:O4'	2.22	0.40
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	2.56	0.40
61:N5:106:ASP:O	61:N5:127:THR:HG23	2.28	0.40
34:SR:294:TRP:CE2	34:SR:301:LEU:HD13	2.71	0.40
36:1:890:C:O2	36:1:2324:A:H2	2.04	0.40
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.90	0.40
14:C2:127:GLY:HA2	35:SM:166:VAL:O	5.58	0.40
86:1:4066:OHX:N1	86:1:4113:OHX:N2	2.69	0.40
20:C8:28:ILE:O	20:C8:29:VAL:C	2.76	0.40
36:1:402:A:C6	53:M7:21:TYR:CE2	3.09	0.40
38:4:46:G:N2	38:4:58:G:C4	2.90	0.40
36:5:810:A:H2'	36:5:811:U:H6	1.86	0.40
42:L5:163:LEU:HD11	42:L5:175:HIS:CB	2.51	0.40
40:L3:383:LEU:N	40:L3:386:ASP:OD2	2.44	0.40
36:5:2997:G:N7	86:5:4184:OHX:N3	2.70	0.40
52:M6:166:GLU:O	52:M6:169:ALA:N	2.54	0.40
35:SM:112:ASP:HB3	35:SM:115:LYS:HG3	2.03	0.40
11:S9:150:LEU:HD12	11:S9:150:LEU:HA	2.12	0.40
68:O2:8:LYS:HE2	68:O2:8:LYS:HB3	3.74	0.40
36:1:3248:C:O5'	36:1:3248:C:H6	2.04	0.40
23:D1:72:LEU:HA	23:D1:72:LEU:HD23	1.90	0.40
6:S4:115:THR:OG1	6:S4:116:ASP:N	2.54	0.40
36:1:2955:U:OP2	36:1:2977:G:N2	2.54	0.40
1:2:1:U:C4	1:2:369:A:C6	3.09	0.40
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.72	0.40
7:S5:114:ILE:HA	7:S5:114:ILE:HD13	2.46	0.40
34:SR:24:ALA:HB2	34:SR:72:THR:HA	2.03	0.40
9:S7:50:ASP:HB3	9:S7:56:LYS:CG	2.39	0.40
41:L4:26:PHE:CE2	41:L4:258:LEU:HD23	2.95	0.40
9:S7:14:THR:HG22	9:S7:17:GLU:OE1	3.04	0.40
1:2:1796:C:OP2	28:D6:92:ARG:HD3	2.22	0.40
36:5:2439:A:H8	36:5:2439:A:H5''	1.87	0.40
36:5:2439:A:N6	36:5:2508:U:H3	2.04	0.40
16:C4:41:ARG:HD2	1:6:917:U:H1'	271.28	0.40
51:M5:38:ARG:HD3	51:M5:39:ALA:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:38:ARG:HH11	51:M5:38:ARG:HG3	1.86	0.40
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.61	0.40
36:1:299:G:O6	86:1:4079:OHX:N2	2.54	0.40
57:N1:96:ILE:HA	57:N1:96:ILE:HD12	1.82	0.40
14:C2:88:LEU:HB3	14:C2:140:PHE:HZ	1.87	0.40
2:S0:120:LEU:HD11	2:S0:144:ILE:HG13	2.02	0.40
42:L5:94:ASN:OD1	42:L5:97:ALA:N	2.46	0.40
8:S6:87:ARG:HD3	8:S6:87:ARG:HA	1.70	0.40
11:S9:162:SER:HA	11:S9:163:PRO:HD2	2.69	0.40
42:L5:58:LYS:HA	42:L5:93:THR:HB	2.04	0.40
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.84	0.40
36:5:1573:G:C5	36:5:1574:C:H1'	2.57	0.40
15:C3:55:ARG:O	29:D7:47:PHE:HB2	2.70	0.40
63:N7:27:LYS:HD2	63:N7:27:LYS:HA	1.90	0.40
36:1:1949:G:OP2	55:M9:135:LYS:HE2	2.21	0.40
17:C5:28:MET:HE3	17:C5:33:PHE:HB2	2.33	0.40
17:C5:18:ARG:HD2	17:C5:36:LEU:O	2.49	0.40
1:2:332:U:OP1	10:S8:31:ARG:NE	2.47	0.40
14:C2:54:ARG:O	14:C2:56:GLU:N	2.50	0.40
52:M6:92:THR:O	52:M6:96:LYS:HG3	2.44	0.40
36:5:3288:G:H2'	36:5:3288:G:OP2	2.22	0.40
36:1:2115:G:H22	36:1:2120:A:H1'	1.84	0.40
74:O8:62:ALA:C	74:O8:64:LYS:N	3.45	0.40
75:O9:5:LYS:HG3	75:O9:5:LYS:H	1.60	0.40
68:O2:19:ARG:HG3	68:O2:33:ARG:HB2	2.38	0.40
13:C1:10:GLU:HG2	1:6:327:U:O2'	271.23	0.40
1:6:330:G:C6	1:6:331:A:C5	3.10	0.40
2:S0:110:TYR:HA	2:S0:115:PHE:CZ	2.55	0.40
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.33	0.40
74:O8:35:GLY:O	74:O8:36:LYS:HD2	6.78	0.40
6:S4:66:MET:HE1	6:S4:78:THR:HG23	4.26	0.40
39:L2:130:SER:HA	39:L2:169:ILE:CG2	2.50	0.40
36:1:979:U:H1'	36:1:980:A:N9	2.36	0.40
47:M0:129:VAL:HG13	47:M0:130:ASP:N	2.88	0.40
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	2.03	0.40
52:M6:43:ILE:HG22	52:M6:44:SER:O	2.20	0.40
36:5:3227:A:C2'	36:5:3228:C:H5'	2.50	0.40
34:SR:205:SER:HB3	34:SR:210:LEU:HB2	2.04	0.40
18:C6:118:ILE:CG2	1:6:1410:A:H5''	416.45	0.40
67:O1:9:THR:HA	67:O1:76:SER:HA	2.54	0.40
41:L4:220:ARG:HD2	41:L4:220:ARG:HH11	1.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:128:ARG:HH11	39:L2:128:ARG:HD3	1.77	0.40
61:N5:138:ARG:HG2	61:N5:138:ARG:HH21	1.87	0.40
1:2:773:C:OP1	6:S4:22:LYS:N	2.53	0.40
21:C9:6:VAL:HB	21:C9:14:PHE:CE1	2.57	0.40
1:6:1213:G:O2'	1:6:1244:A:N6	2.54	0.40
38:4:103:G:C6	38:4:105:A:C6	3.10	0.40
24:D2:11:LEU:HA	24:D2:11:LEU:HD23	1.96	0.40
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.48	0.40
36:1:1720:U:P	55:M9:110:ARG:HH12	2.44	0.40
1:6:449:C:H2'	1:6:450:U:H6	1.86	0.40
21:C9:118:PRO:C	21:C9:120:GLY:N	3.00	0.40
36:5:848:A:C5	36:5:849:C:H1'	2.56	0.40
46:L9:129:ARG:HB3	46:L9:132:VAL:HG11	3.05	0.40
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.23	0.40
1:2:1742:U:H2'	1:2:1743:U:O4'	2.21	0.40
8:S6:22:HIS:HA	8:S6:25:ARG:NH1	2.36	0.40
1:2:599:A:H5'	25:D3:123:LYS:HZ1	1.85	0.40
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.36	0.40
6:S4:251:GLU:O	6:S4:255:ARG:HG2	3.95	0.40
42:L5:86:TYR:CD1	42:L5:247:ILE:HA	2.56	0.40
36:1:2308:C:O5'	36:1:2308:C:H6	2.05	0.40
50:M4:85:TRP:C	50:M4:85:TRP:CD1	3.24	0.40
1:2:1014:G:OP1	86:2:2025:OHX:N5	2.54	0.40
1:6:993:A:H2'	1:6:994:G:O4'	2.21	0.40
5:S3:90:ARG:HB3	5:S3:91:VAL:H	2.81	0.40
36:5:199:A:C4	36:5:201:A:C8	3.09	0.40
1:2:1573:A:H5'	1:2:1574:G:N2	2.37	0.40
36:1:1021:G:N2	36:1:1032:C:C2	2.90	0.40
1:6:1054:U:H2'	1:6:1055:U:C6	2.57	0.40
55:M9:4:LEU:CD2	55:M9:33:ALA:HA	3.04	0.40
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	3.15	0.40
48:M1:25:GLU:OE1	48:M1:29:ARG:HD2	2.21	0.40
1:6:1214:U:H3'	1:6:1215:C:C6	2.56	0.40
36:1:2652:U:C4	36:1:2653:C:C4	3.10	0.40
36:1:1506:A:H1'	36:1:1848:G:O6	2.21	0.40
1:2:766:U:C4	1:2:769:A:N7	2.89	0.40
1:2:620:A:O2'	1:2:621:A:H5'	2.21	0.40
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.61	0.40
41:L4:174:ALA:O	41:L4:178:LEU:HG	2.21	0.40
36:5:3316:A:H5''	36:5:3318:G:N2	2.36	0.40
30:D8:11:LYS:O	30:D8:31:GLU:N	2.92	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1404:C:H2'	1:2:1405:G:H8	1.86	0.40
1:6:1627:U:C4	1:6:1628:U:C4	3.10	0.40
36:5:1461:A:H2'	36:5:1462:A:O4'	2.22	0.40
36:1:2674:A:OP2	86:1:4047:OHX:N3	2.55	0.40
36:1:535:G:O6	86:1:4059:OHX:N3	2.55	0.40
48:M1:110:ILE:CD1	48:M1:122:ILE:HD11	4.52	0.40
64:N8:70:LYS:HE2	64:N8:129:PHE:CD2	2.57	0.40
48:M1:72:ARG:HD2	37:7:40:C:O2'	309.39	0.40
36:5:3236:U:H1'	36:5:3252:G:N2	2.37	0.40
36:1:1709:C:H2'	36:1:1710:C:H6	1.85	0.40
49:M3:4:SER:O	49:M3:5:LYS:HB2	2.30	0.40
36:5:1666:G:C6	36:5:1667:A:C6	3.10	0.40
7:S5:124:LEU:HD12	7:S5:124:LEU:HA	3.20	0.40
34:SR:62:LYS:HE2	34:SR:62:LYS:HB3	1.91	0.40
55:M9:102:LEU:HD23	55:M9:102:LEU:HA	1.87	0.40
48:M1:82:ARG:HB2	48:M1:82:ARG:HE	1.85	0.40
1:2:180:A:H2'	1:2:181:A:O4'	2.21	0.40
42:L5:33:ARG:HD2	37:7:7:G:OP1	272.59	0.40
68:O2:67:SER:HB2	68:O2:68:PRO:HD2	2.03	0.40

All (2) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:236:A:O2'	38:4:158:U:O2'[2_556]	2.13	0.07
60:n4:106:GLU:OE2	82:p0:16:ARG:NH2[2_657]	2.16	0.04

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%)	148 (72%)	34 (17%)	22 (11%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	s0	204/251 (81%)	155 (76%)	31 (15%)	18 (9%)	1	5
3	S1	212/254 (84%)	143 (68%)	36 (17%)	33 (16%)	0	1
3	s1	214/254 (84%)	168 (78%)	30 (14%)	16 (8%)	1	9
4	S2	215/253 (85%)	176 (82%)	24 (11%)	15 (7%)	1	10
4	s2	215/253 (85%)	178 (83%)	24 (11%)	13 (6%)	2	16
5	S3	221/239 (92%)	182 (82%)	31 (14%)	8 (4%)	4	30
5	s3	221/239 (92%)	172 (78%)	31 (14%)	18 (8%)	1	7
6	S4	258/260 (99%)	208 (81%)	27 (10%)	23 (9%)	1	5
6	s4	258/260 (99%)	200 (78%)	36 (14%)	22 (8%)	1	6
7	S5	204/224 (91%)	154 (76%)	29 (14%)	21 (10%)	1	4
7	s5	204/224 (91%)	158 (78%)	26 (13%)	20 (10%)	1	4
8	S6	224/236 (95%)	185 (83%)	22 (10%)	17 (8%)	1	9
8	s6	216/236 (92%)	187 (87%)	19 (9%)	10 (5%)	3	23
9	S7	182/189 (96%)	134 (74%)	23 (13%)	25 (14%)	0	1
9	s7	184/189 (97%)	145 (79%)	27 (15%)	12 (6%)	1	13
10	S8	184/200 (92%)	149 (81%)	24 (13%)	11 (6%)	2	16
10	s8	184/200 (92%)	159 (86%)	19 (10%)	6 (3%)	5	32
11	S9	183/196 (93%)	143 (78%)	29 (16%)	11 (6%)	2	16
11	s9	183/196 (93%)	148 (81%)	25 (14%)	10 (6%)	2	18
12	C0	94/105 (90%)	74 (79%)	10 (11%)	10 (11%)	0	3
12	c0	92/105 (88%)	63 (68%)	15 (16%)	14 (15%)	0	1
13	C1	153/155 (99%)	118 (77%)	20 (13%)	15 (10%)	1	4
13	c1	144/155 (93%)	117 (81%)	19 (13%)	8 (6%)	2	18
14	C2	122/142 (86%)	75 (62%)	26 (21%)	21 (17%)	0	0
14	c2	122/142 (86%)	69 (57%)	34 (28%)	19 (16%)	0	1
15	C3	148/150 (99%)	120 (81%)	20 (14%)	8 (5%)	2	19
15	c3	148/150 (99%)	120 (81%)	18 (12%)	10 (7%)	1	11
16	C4	125/136 (92%)	94 (75%)	21 (17%)	10 (8%)	1	7
16	c4	126/136 (93%)	92 (73%)	22 (18%)	12 (10%)	1	5
17	C5	122/141 (86%)	90 (74%)	18 (15%)	14 (12%)	0	3
17	c5	133/141 (94%)	86 (65%)	23 (17%)	24 (18%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	C6	139/142 (98%)	116 (84%)	13 (9%)	10 (7%)	1	10
18	c6	140/142 (99%)	115 (82%)	18 (13%)	7 (5%)	3	21
19	C7	116/136 (85%)	86 (74%)	18 (16%)	12 (10%)	1	4
19	c7	113/136 (83%)	87 (77%)	12 (11%)	14 (12%)	0	2
20	C8	143/145 (99%)	110 (77%)	22 (15%)	11 (8%)	1	8
20	c8	143/145 (99%)	111 (78%)	22 (15%)	10 (7%)	1	10
21	C9	141/143 (99%)	113 (80%)	25 (18%)	3 (2%)	9	46
21	c9	141/143 (99%)	116 (82%)	18 (13%)	7 (5%)	3	21
22	D0	105/120 (88%)	83 (79%)	19 (18%)	3 (3%)	6	36
22	d0	108/120 (90%)	82 (76%)	16 (15%)	10 (9%)	1	5
23	D1	85/87 (98%)	65 (76%)	14 (16%)	6 (7%)	1	10
23	d1	85/87 (98%)	74 (87%)	7 (8%)	4 (5%)	3	22
24	D2	127/129 (98%)	108 (85%)	12 (9%)	7 (6%)	2	18
24	d2	127/129 (98%)	114 (90%)	9 (7%)	4 (3%)	5	34
25	D3	142/144 (99%)	107 (75%)	22 (16%)	13 (9%)	1	5
25	d3	142/144 (99%)	116 (82%)	19 (13%)	7 (5%)	3	22
26	D4	132/134 (98%)	102 (77%)	23 (17%)	7 (5%)	2	19
26	d4	132/134 (98%)	101 (76%)	21 (16%)	10 (8%)	1	9
27	D5	68/107 (64%)	43 (63%)	14 (21%)	11 (16%)	0	1
27	d5	67/107 (63%)	50 (75%)	14 (21%)	3 (4%)	3	24
28	D6	95/97 (98%)	56 (59%)	19 (20%)	20 (21%)	0	0
28	d6	95/97 (98%)	73 (77%)	13 (14%)	9 (10%)	1	5
29	D7	79/81 (98%)	61 (77%)	15 (19%)	3 (4%)	4	28
29	d7	79/81 (98%)	60 (76%)	15 (19%)	4 (5%)	2	20
30	D8	61/66 (92%)	50 (82%)	7 (12%)	4 (7%)	1	12
30	d8	61/66 (92%)	44 (72%)	10 (16%)	7 (12%)	0	3
31	D9	51/55 (93%)	43 (84%)	7 (14%)	1 (2%)	9	48
31	d9	51/55 (93%)	39 (76%)	8 (16%)	4 (8%)	1	8
32	E0	58/60 (97%)	49 (84%)	6 (10%)	3 (5%)	2	19
33	E1	69/76 (91%)	33 (48%)	15 (22%)	21 (30%)	0	0
33	e1	74/76 (97%)	33 (45%)	24 (32%)	17 (23%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	SR	316/318 (99%)	244 (77%)	52 (16%)	20 (6%)	2	13
34	sR	316/318 (99%)	259 (82%)	43 (14%)	14 (4%)	3	24
35	SM	155/273 (57%)	114 (74%)	23 (15%)	18 (12%)	0	3
35	sM	98/273 (36%)	61 (62%)	21 (21%)	16 (16%)	0	1
39	L2	250/253 (99%)	218 (87%)	26 (10%)	6 (2%)	7	43
39	l2	250/253 (99%)	203 (81%)	36 (14%)	11 (4%)	3	24
40	L3	384/386 (100%)	336 (88%)	30 (8%)	18 (5%)	3	22
40	l3	384/386 (100%)	329 (86%)	42 (11%)	13 (3%)	5	31
41	L4	359/361 (99%)	303 (84%)	37 (10%)	19 (5%)	2	19
41	l4	359/361 (99%)	297 (83%)	43 (12%)	19 (5%)	2	19
42	L5	294/296 (99%)	244 (83%)	31 (10%)	19 (6%)	1	13
42	l5	292/296 (99%)	250 (86%)	30 (10%)	12 (4%)	3	27
43	L6	152/175 (87%)	129 (85%)	19 (12%)	4 (3%)	7	40
43	l6	153/175 (87%)	125 (82%)	24 (16%)	4 (3%)	7	40
44	L7	220/243 (90%)	183 (83%)	28 (13%)	9 (4%)	3	27
44	l7	221/243 (91%)	191 (86%)	24 (11%)	6 (3%)	6	39
45	L8	231/255 (91%)	185 (80%)	37 (16%)	9 (4%)	4	28
45	l8	229/255 (90%)	175 (76%)	32 (14%)	22 (10%)	1	5
46	L9	189/191 (99%)	161 (85%)	24 (13%)	4 (2%)	9	46
46	l9	189/191 (99%)	165 (87%)	18 (10%)	6 (3%)	5	33
47	M0	207/220 (94%)	168 (81%)	33 (16%)	6 (3%)	6	36
47	m0	209/220 (95%)	175 (84%)	20 (10%)	14 (7%)	1	12
48	M1	167/173 (96%)	135 (81%)	18 (11%)	14 (8%)	1	6
48	m1	167/173 (96%)	132 (79%)	20 (12%)	15 (9%)	1	5
49	M3	191/198 (96%)	161 (84%)	21 (11%)	9 (5%)	3	22
49	m3	192/198 (97%)	154 (80%)	19 (10%)	19 (10%)	1	4
50	M4	134/137 (98%)	119 (89%)	8 (6%)	7 (5%)	2	19
50	m4	135/137 (98%)	118 (87%)	15 (11%)	2 (2%)	13	55
51	M5	201/203 (99%)	184 (92%)	11 (6%)	6 (3%)	5	35
51	m5	201/203 (99%)	181 (90%)	15 (8%)	5 (2%)	7	41
52	M6	195/198 (98%)	176 (90%)	16 (8%)	3 (2%)	13	55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	m6	195/198 (98%)	175 (90%)	15 (8%)	5 (3%)	7	40
53	M7	181/183 (99%)	154 (85%)	22 (12%)	5 (3%)	6	37
53	m7	153/183 (84%)	131 (86%)	19 (12%)	3 (2%)	9	48
54	M8	183/185 (99%)	157 (86%)	19 (10%)	7 (4%)	4	28
54	m8	183/185 (99%)	148 (81%)	29 (16%)	6 (3%)	5	32
55	M9	186/188 (99%)	165 (89%)	17 (9%)	4 (2%)	8	45
55	m9	186/188 (99%)	162 (87%)	20 (11%)	4 (2%)	8	45
56	N0	170/172 (99%)	152 (89%)	15 (9%)	3 (2%)	11	51
56	n0	170/172 (99%)	154 (91%)	13 (8%)	3 (2%)	11	51
57	N1	157/159 (99%)	136 (87%)	13 (8%)	8 (5%)	2	20
57	n1	157/159 (99%)	139 (88%)	16 (10%)	2 (1%)	15	59
58	N2	98/120 (82%)	77 (79%)	15 (15%)	6 (6%)	2	15
58	n2	96/120 (80%)	75 (78%)	19 (20%)	2 (2%)	9	46
59	N3	134/136 (98%)	119 (89%)	15 (11%)	0	100	100
59	n3	134/136 (98%)	122 (91%)	10 (8%)	2 (2%)	13	55
60	N4	96/155 (62%)	72 (75%)	18 (19%)	6 (6%)	2	13
60	n4	133/155 (86%)	111 (84%)	15 (11%)	7 (5%)	2	19
61	N5	119/141 (84%)	106 (89%)	9 (8%)	4 (3%)	5	31
61	n5	118/141 (84%)	96 (81%)	15 (13%)	7 (6%)	2	16
62	N6	124/126 (98%)	110 (89%)	8 (6%)	6 (5%)	3	22
62	n6	124/126 (98%)	108 (87%)	11 (9%)	5 (4%)	4	27
63	N7	133/135 (98%)	112 (84%)	14 (10%)	7 (5%)	2	19
63	n7	133/135 (98%)	108 (81%)	20 (15%)	5 (4%)	4	28
64	N8	146/148 (99%)	124 (85%)	18 (12%)	4 (3%)	6	39
64	n8	146/148 (99%)	120 (82%)	16 (11%)	10 (7%)	1	11
65	N9	56/58 (97%)	44 (79%)	10 (18%)	2 (4%)	4	30
65	n9	56/58 (97%)	41 (73%)	10 (18%)	5 (9%)	1	5
66	O0	95/104 (91%)	83 (87%)	10 (10%)	2 (2%)	9	46
66	o0	98/104 (94%)	86 (88%)	9 (9%)	3 (3%)	5	34
67	O1	107/112 (96%)	95 (89%)	7 (6%)	5 (5%)	3	22
67	o1	107/112 (96%)	91 (85%)	12 (11%)	4 (4%)	4	29

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
68	O2	125/129 (97%)	109 (87%)	13 (10%)	3 (2%)	7	43
68	o2	125/129 (97%)	102 (82%)	18 (14%)	5 (4%)	4	27
69	O3	104/106 (98%)	93 (89%)	10 (10%)	1 (1%)	19	65
69	o3	104/106 (98%)	90 (86%)	11 (11%)	3 (3%)	6	36
70	O4	110/120 (92%)	92 (84%)	16 (14%)	2 (2%)	11	51
70	o4	110/120 (92%)	92 (84%)	12 (11%)	6 (6%)	2	18
71	O5	117/119 (98%)	103 (88%)	8 (7%)	6 (5%)	2	20
71	o5	117/119 (98%)	97 (83%)	13 (11%)	7 (6%)	2	16
72	O6	97/99 (98%)	76 (78%)	11 (11%)	10 (10%)	1	4
72	o6	97/99 (98%)	74 (76%)	16 (16%)	7 (7%)	1	10
73	O7	85/87 (98%)	73 (86%)	10 (12%)	2 (2%)	7	43
73	o7	85/87 (98%)	69 (81%)	13 (15%)	3 (4%)	4	31
74	O8	75/77 (97%)	61 (81%)	9 (12%)	5 (7%)	1	12
74	o8	75/77 (97%)	59 (79%)	11 (15%)	5 (7%)	1	12
75	O9	48/50 (96%)	41 (85%)	7 (15%)	0	100	100
75	o9	48/50 (96%)	41 (85%)	5 (10%)	2 (4%)	3	26
76	Q0	50/52 (96%)	43 (86%)	5 (10%)	2 (4%)	4	27
76	q0	50/52 (96%)	45 (90%)	4 (8%)	1 (2%)	9	48
77	Q1	23/25 (92%)	23 (100%)	0	0	100	100
77	q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	25
78	Q2	103/105 (98%)	78 (76%)	16 (16%)	9 (9%)	1	5
78	q2	103/105 (98%)	90 (87%)	11 (11%)	2 (2%)	10	50
79	Q3	89/91 (98%)	75 (84%)	10 (11%)	4 (4%)	3	24
79	q3	89/91 (98%)	76 (85%)	12 (14%)	1 (1%)	17	62
80	e0	60/62 (97%)	48 (80%)	5 (8%)	7 (12%)	0	3
82	p0	139/311 (45%)	111 (80%)	23 (16%)	5 (4%)	4	30
All	All	22333/24143 (92%)	18179 (81%)	2816 (13%)	1338 (6%)	2	16

All (1338) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	66	ALA
2	S0	158	VAL

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Mol	Chain	Res	Type
2	S0	191	ARG
2	S0	194	PRO
3	S1	40	ASN
3	S1	49	ASN
3	S1	90	GLU
3	S1	132	ASP
3	S1	181	LEU
3	S1	182	ALA
3	S1	206	PRO
3	S1	213	ARG
3	S1	221	PRO
3	S1	223	PHE
4	S2	48	GLY
4	S2	148	LEU
5	S3	93	ASP
5	S3	137	VAL
5	S3	216	PRO
5	S3	220	PRO
6	S4	3	ARG
6	S4	12	LEU
6	S4	38	LEU
6	S4	39	ARG
6	S4	79	ASP
6	S4	96	ASN
6	S4	104	ASP
6	S4	142	HIS
6	S4	188	ASN
6	S4	227	VAL
6	S4	242	LYS
7	S5	26	ALA
7	S5	35	GLN
7	S5	36	ALA
7	S5	39	GLU
7	S5	43	PHE
7	S5	63	GLN
7	S5	81	ARG
7	S5	101	GLY
7	S5	154	ALA
8	S6	122	GLU
8	S6	173	PRO
8	S6	174	LYS
9	S7	31	SER

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Mol	Chain	Res	Type
9	S7	32	PRO
9	S7	64	VAL
9	S7	85	PHE
9	S7	111	LYS
9	S7	112	ARG
9	S7	116	ARG
9	S7	131	PHE
9	S7	134	GLU
10	S8	120	THR
10	S8	149	SER
10	S8	153	GLU
11	S9	98	ALA
11	S9	134	ILE
11	S9	164	PHE
11	S9	169	PRO
12	C0	60	SER
12	C0	88	PRO
12	C0	94	GLU
13	C1	7	VAL
13	C1	29	LYS
13	C1	96	LYS
13	C1	139	VAL
13	C1	140	VAL
14	C2	101	ALA
16	C4	50	ALA
16	C4	124	ASP
16	C4	125	SER
16	C4	126	THR
17	C5	11	VAL
17	C5	125	PRO
17	C5	126	VAL
18	C6	39	VAL
18	C6	41	PRO
18	C6	58	ASP
18	C6	114	ARG
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
20	C8	14	ILE
20	C8	60	GLU
20	C8	91	ASP
20	C8	144	ARG

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Mol	Chain	Res	Type
21	C9	31	PRO
21	C9	53	TRP
23	D1	4	ASP
23	D1	82	VAL
24	D2	83	ILE
24	D2	127	GLY
25	D3	54	LEU
25	D3	138	GLU
25	D3	144	ARG
26	D4	6	THR
27	D5	37	GLN
28	D6	18	VAL
28	D6	45	VAL
28	D6	46	GLU
28	D6	47	ALA
28	D6	61	GLU
28	D6	65	PRO
28	D6	66	LYS
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
28	D6	88	SER
29	D7	38	PRO
29	D7	62	ILE
32	E0	47	VAL
33	E1	84	VAL
33	E1	98	VAL
33	E1	102	VAL
33	E1	103	LEU
34	SR	24	ALA
34	SR	155	ARG
34	SR	161	LYS
34	SR	188	ILE
34	SR	201	THR
34	SR	231	MET
35	SM	42	ALA
35	SM	102	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	144	ASN
39	L2	246	LEU

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Mol	Chain	Res	Type
40	L3	3	HIS
40	L3	5	LYS
40	L3	140	ASP
40	L3	347	SER
40	L3	386	ASP
41	L4	4	PRO
41	L4	131	VAL
41	L4	311	HIS
41	L4	338	LYS
42	L5	57	ASN
42	L5	178	ASN
42	L5	234	ASP
42	L5	258	LYS
43	L6	98	VAL
44	L7	24	GLU
45	L8	25	PRO
46	L9	2	LYS
47	M0	189	GLU
47	M0	207	GLU
47	M0	219	ALA
48	M1	8	PRO
48	M1	9	MET
48	M1	140	ARG
48	M1	145	LYS
48	M1	165	GLN
49	M3	13	HIS
49	M3	47	ALA
49	M3	129	ASN
49	M3	192	GLU
50	M4	9	ALA
50	M4	10	SER
51	M5	74	PRO
52	M6	110	PRO
52	M6	111	PRO
53	M7	157	VAL
54	M8	41	ASP
54	M8	98	LYS
54	M8	99	THR
56	N0	2	ALA
57	N1	122	GLN
57	N1	124	VAL
57	N1	126	VAL

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Mol	Chain	Res	Type
58	N2	31	ALA
58	N2	44	GLU
60	N4	76	VAL
60	N4	81	PRO
61	N5	44	PRO
62	N6	52	ARG
63	N7	3	LYS
63	N7	59	ALA
64	N8	76	ASP
67	O1	6	ASP
68	O2	127	ALA
71	O5	96	GLU
71	O5	119	LYS
72	O6	33	ALA
72	O6	34	SER
72	O6	52	PRO
72	O6	98	ARG
72	O6	99	ARG
74	O8	18	ALA
78	Q2	100	LYS
2	s0	29	VAL
2	s0	30	GLN
2	s0	111	ILE
2	s0	158	VAL
2	s0	164	ASN
2	s0	167	LYS
2	s0	186	GLY
2	s0	189	VAL
2	s0	206	ASP
3	s1	206	PRO
3	s1	232	HIS
4	s2	92	ALA
5	s3	61	GLU
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	12	LEU
6	s4	24	SER
6	s4	57	ASN
6	s4	90	ILE
6	s4	95	THR

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Mol	Chain	Res	Type
6	s4	104	ASP
6	s4	196	VAL
7	s5	28	PRO
7	s5	29	ILE
7	s5	36	ALA
7	s5	151	GLY
7	s5	184	PHE
7	s5	209	TYR
8	s6	70	PRO
8	s6	122	GLU
8	s6	153	VAL
8	s6	154	ARG
8	s6	173	PRO
9	s7	64	VAL
9	s7	74	GLN
9	s7	131	PHE
9	s7	163	ASP
9	s7	185	ILE
10	s8	62	THR
10	s8	137	LYS
11	s9	65	LYS
11	s9	162	SER
12	c0	73	VAL
12	c0	83	PRO
12	c0	88	PRO
12	c0	94	GLU
12	c0	97	PRO
13	c1	129	ARG
13	c1	144	ALA
14	c2	22	VAL
14	c2	130	THR
14	c2	131	ASP
15	c3	19	SER
15	c3	29	SER
15	c3	66	ILE
16	c4	35	GLY
16	c4	91	THR
16	c4	98	GLY
16	c4	126	THR
17	c5	11	VAL
17	c5	20	VAL
17	c5	50	THR

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Mol	Chain	Res	Type
17	c5	51	SER
17	c5	68	PRO
17	c5	125	PRO
17	c5	127	ARG
18	c6	42	GLU
18	c6	113	ASP
18	c6	115	THR
18	c6	116	LEU
19	c7	63	LYS
19	c7	98	GLY
19	c7	104	ASN
19	c7	105	GLN
20	c8	91	ASP
20	c8	92	ILE
21	c9	29	GLU
21	c9	33	TYR
22	d0	15	GLN
22	d0	49	ASN
22	d0	51	VAL
22	d0	52	LYS
22	d0	97	VAL
23	d1	4	ASP
24	d2	56	HIS
26	d4	30	PRO
26	d4	33	ALA
26	d4	35	VAL
27	d5	104	ALA
29	d7	3	LEU
29	d7	59	CYS
31	d9	6	VAL
31	d9	7	TRP
80	e0	45	VAL
80	e0	51	ASN
80	e0	60	PRO
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	103	LEU
33	e1	106	TYR
33	e1	111	GLU
34	sR	4	ASN

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Mol	Chain	Res	Type
34	sR	149	ASP
34	sR	165	ASP
34	sR	297	ASP
34	sR	318	ALA
35	sM	172	VAL
39	l2	24	GLN
39	l2	56	ALA
39	l2	104	LEU
39	l2	238	ILE
39	l2	249	SER
40	l3	129	ALA
40	l3	140	ASP
40	l3	142	ALA
40	l3	188	ILE
41	l4	14	GLU
41	l4	15	ALA
41	l4	90	PHE
41	l4	132	ALA
41	l4	301	PRO
41	l4	329	PRO
41	l4	330	TYR
41	l4	342	LYS
42	l5	260	PHE
42	l5	269	SER
42	l5	270	LYS
43	l6	98	VAL
45	l8	25	PRO
45	l8	81	THR
45	l8	120	LYS
45	l8	122	LYS
45	l8	123	GLN
46	l9	144	ILE
46	l9	167	VAL
47	m0	25	ALA
47	m0	82	ARG
47	m0	170	LYS
47	m0	220	GLN
48	m1	8	PRO
48	m1	10	ARG
48	m1	108	GLU
48	m1	115	LYS
49	m3	47	ALA

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Mol	Chain	Res	Type
49	m3	50	PRO
49	m3	76	THR
49	m3	93	ILE
49	m3	134	GLU
49	m3	135	ALA
49	m3	152	THR
49	m3	193	ALA
50	m4	135	LEU
50	m4	136	ALA
51	m5	76	PRO
51	m5	81	TYR
51	m5	182	ASN
51	m5	183	THR
52	m6	16	VAL
52	m6	110	PRO
52	m6	111	PRO
54	m8	99	THR
55	m9	36	ASN
57	n1	122	GLN
58	n2	50	LEU
60	n4	63	ILE
60	n4	76	VAL
62	n6	83	ASP
62	n6	126	LEU
63	n7	56	LYS
64	n8	28	HIS
64	n8	76	ASP
65	n9	5	LYS
65	n9	21	ILE
65	n9	23	LYS
65	n9	39	PHE
67	o1	84	ASP
68	o2	5	PRO
70	o4	79	SER
71	o5	82	ALA
72	o6	98	ARG
74	o8	17	ARG
74	o8	18	ALA
74	o8	19	ASP
76	q0	78	ILE
82	p0	93	LEU
82	p0	102	SER

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Mol	Chain	Res	Type
2	S0	5	ALA
2	S0	30	GLN
2	S0	49	ASN
2	S0	94	GLY
2	S0	95	ALA
2	S0	111	ILE
2	S0	139	VAL
2	S0	162	CYS
2	S0	192	THR
3	S1	26	ARG
3	S1	51	SER
3	S1	58	SER
3	S1	63	GLY
3	S1	93	GLY
3	S1	105	PHE
3	S1	148	ASN
3	S1	179	SER
3	S1	224	ASP
4	S2	107	SER
4	S2	248	SER
5	S3	218	LEU
6	S4	26	CYS
6	S4	175	PHE
6	S4	195	ILE
6	S4	228	ILE
6	S4	245	LYS
7	S5	45	LYS
7	S5	127	GLN
8	S6	54	GLY
8	S6	111	LEU
8	S6	123	GLY
9	S7	5	GLN
9	S7	29	ASN
9	S7	30	SER
9	S7	35	LYS
9	S7	67	LEU
9	S7	73	VAL
9	S7	155	ASP
9	S7	156	SER
9	S7	159	VAL
9	S7	163	ASP
10	S8	22	ARG

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Mol	Chain	Res	Type
10	S8	52	ASN
11	S9	163	PRO
12	C0	81	ASN
13	C1	55	ASP
13	C1	95	PRO
14	C2	25	GLU
14	C2	91	VAL
14	C2	126	TRP
14	C2	127	GLY
14	C2	130	THR
15	C3	12	SER
15	C3	22	ALA
15	C3	24	ALA
15	C3	68	GLY
16	C4	40	ALA
16	C4	42	VAL
16	C4	132	ARG
17	C5	22	LEU
17	C5	51	SER
18	C6	59	LYS
19	C7	113	LEU
19	C7	115	LEU
19	C7	122	ILE
20	C8	7	GLU
22	D0	49	ASN
23	D1	43	GLY
24	D2	66	ASN
24	D2	78	ARG
25	D3	128	SER
25	D3	131	SER
27	D5	39	ALA
27	D5	43	ASP
27	D5	44	GLN
27	D5	55	PRO
27	D5	56	THR
27	D5	97	LYS
28	D6	3	LYS
28	D6	63	ALA
28	D6	86	VAL
31	D9	6	VAL
32	E0	51	ASN
33	E1	83	LYS

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Mol	Chain	Res	Type
33	E1	93	HIS
33	E1	99	LYS
33	E1	110	ALA
33	E1	111	GLU
33	E1	128	ALA
33	E1	138	ARG
34	SR	3	SER
34	SR	160	GLU
34	SR	194	GLY
34	SR	269	TYR
35	SM	52	PRO
35	SM	87	THR
35	SM	89	ARG
35	SM	139	GLU
35	SM	154	TYR
35	SM	165	LYS
39	L2	70	ARG
39	L2	127	ALA
40	L3	138	ALA
40	L3	142	ALA
40	L3	351	LEU
41	L4	72	ALA
41	L4	130	ALA
41	L4	190	GLY
41	L4	291	ASN
42	L5	58	LYS
42	L5	148	ILE
42	L5	215	ASP
42	L5	253	PHE
43	L6	108	LYS
44	L7	25	GLN
44	L7	32	ALA
44	L7	175	LYS
45	L8	36	ILE
45	L8	122	LYS
45	L8	135	GLY
45	L8	156	ASP
47	M0	117	GLY
47	M0	145	LYS
48	M1	115	LYS
48	M1	151	SER
49	M3	141	ALA

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Mol	Chain	Res	Type
49	M3	163	GLY
50	M4	8	LYS
50	M4	36	VAL
52	M6	16	VAL
53	M7	161	ALA
54	M8	24	VAL
55	M9	112	ALA
55	M9	133	LYS
57	N1	159	PHE
58	N2	51	GLY
60	N4	97	LYS
61	N5	45	LYS
62	N6	53	ASP
62	N6	84	LYS
62	N6	92	GLY
63	N7	125	GLY
64	N8	66	ALA
65	N9	53	ALA
66	O0	71	GLN
68	O2	27	ARG
70	O4	74	ARG
70	O4	77	GLY
71	O5	97	ALA
72	O6	3	VAL
72	O6	97	SER
73	O7	86	ALA
76	Q0	78	ILE
78	Q2	30	ALA
78	Q2	94	GLY
2	s0	44	GLY
2	s0	139	VAL
3	s1	39	GLU
3	s1	61	LEU
3	s1	147	ALA
3	s1	233	GLY
4	s2	91	ARG
4	s2	107	SER
4	s2	163	GLY
5	s3	161	GLY
5	s3	179	GLN
6	s4	164	LEU
6	s4	195	ILE

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Mol	Chain	Res	Type
6	s4	245	LYS
7	s5	40	ILE
7	s5	43	PHE
7	s5	56	ALA
7	s5	101	GLY
7	s5	102	ARG
7	s5	204	GLY
8	s6	68	LEU
9	s7	7	LYS
9	s7	67	LEU
10	s8	149	SER
11	s9	147	MET
11	s9	183	ALA
12	c0	32	HIS
12	c0	82	LEU
12	c0	92	ILE
13	c1	80	MET
13	c1	121	ASP
14	c2	45	LEU
14	c2	89	ILE
14	c2	90	LYS
14	c2	106	ILE
14	c2	119	SER
15	c3	60	VAL
15	c3	87	ASP
15	c3	139	TRP
16	c4	58	TYR
16	c4	97	GLY
16	c4	109	GLY
17	c5	9	LYS
17	c5	14	THR
17	c5	49	MET
17	c5	65	LEU
17	c5	133	ALA
18	c6	39	VAL
18	c6	97	VAL
19	c7	113	LEU
19	c7	120	SER
20	c8	29	VAL
20	c8	135	GLY
21	c9	34	VAL
22	d0	118	VAL

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Mol	Chain	Res	Type
24	d2	68	ARG
25	d3	66	SER
25	d3	131	SER
26	d4	53	ASP
27	d5	103	ARG
28	d6	35	ALA
28	d6	45	VAL
28	d6	46	GLU
30	d8	33	LEU
30	d8	57	MET
30	d8	61	ARG
31	d9	11	PRO
33	e1	83	LYS
33	e1	102	VAL
33	e1	127	GLY
34	sR	96	THR
34	sR	160	GLU
34	sR	237	GLN
35	sM	47	ALA
35	sM	50	ASN
35	sM	66	ALA
35	sM	121	LYS
39	l2	32	LEU
39	l2	80	GLU
39	l2	130	SER
39	l2	194	ASN
40	l3	3	HIS
40	l3	22	ALA
40	l3	155	ALA
40	l3	239	PRO
40	l3	289	ASP
40	l3	347	SER
41	l4	43	ASN
41	l4	190	GLY
41	l4	311	HIS
42	l5	258	LYS
42	l5	277	LEU
42	l5	279	LYS
43	l6	97	ASN
44	l7	130	ILE
45	l8	39	ALA
45	l8	82	LEU

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Mol	Chain	Res	Type
45	l8	109	LEU
45	l8	133	LYS
45	l8	202	GLU
45	l8	223	ALA
45	l8	239	GLY
46	l9	109	ALA
46	l9	110	LYS
47	m0	100	ASN
47	m0	204	GLY
48	m1	9	MET
48	m1	39	GLN
48	m1	94	ARG
48	m1	116	TYR
48	m1	153	LYS
49	m3	44	ALA
49	m3	51	LEU
49	m3	129	ASN
49	m3	141	ALA
49	m3	150	PRO
52	m6	13	GLY
53	m7	67	ILE
54	m8	74	GLU
54	m8	108	ALA
54	m8	109	GLY
54	m8	147	ARG
55	m9	156	ASN
59	n3	134	GLY
60	n4	77	LYS
61	n5	25	LYS
62	n6	84	LYS
63	n7	16	GLY
63	n7	134	LEU
64	n8	120	ASN
67	o1	45	GLY
67	o1	83	GLU
68	o2	27	ARG
68	o2	124	GLY
69	o3	33	GLU
71	o5	29	ALA
71	o5	39	PRO
71	o5	119	LYS
72	o6	12	ASN

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Mol	Chain	Res	Type
72	o6	13	LYS
73	o7	87	SER
82	p0	33	VAL
82	p0	47	GLY
82	p0	198	PRO
2	S0	4	PRO
2	S0	39	ASN
3	S1	35	PRO
3	S1	54	LEU
3	S1	78	ASP
3	S1	79	HIS
3	S1	147	ALA
3	S1	158	SER
3	S1	209	ASN
3	S1	226	GLY
4	S2	39	THR
4	S2	47	ALA
4	S2	106	ASP
4	S2	236	PRO
5	S3	44	THR
6	S4	32	SER
6	S4	164	LEU
6	S4	200	ARG
6	S4	258	GLN
7	S5	51	VAL
7	S5	153	GLY
7	S5	206	SER
8	S6	39	GLU
8	S6	146	GLY
8	S6	148	SER
8	S6	152	ASP
8	S6	154	ARG
9	S7	98	ILE
10	S8	105	ASP
10	S8	152	ILE
10	S8	154	SER
11	S9	89	ASP
11	S9	150	LEU
12	C0	86	ILE
12	C0	87	VAL
13	C1	4	GLU
13	C1	72	THR

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Mol	Chain	Res	Type
13	C1	145	ALA
13	C1	146	ALA
13	C1	154	ALA
14	C2	21	GLU
14	C2	22	VAL
14	C2	83	GLU
14	C2	92	ALA
14	C2	106	ILE
14	C2	107	ASP
14	C2	112	ALA
15	C3	31	GLU
17	C5	54	ALA
17	C5	80	MET
17	C5	101	ALA
18	C6	116	LEU
19	C7	123	ASN
20	C8	61	LEU
20	C8	83	ALA
20	C8	92	ILE
23	D1	7	GLN
25	D3	3	LYS
25	D3	40	SER
25	D3	41	SER
25	D3	53	VAL
25	D3	70	LYS
25	D3	112	LYS
26	D4	97	ALA
26	D4	133	ASN
27	D5	93	SER
28	D6	55	GLU
29	D7	57	GLU
30	D8	14	LYS
33	E1	90	LYS
33	E1	118	ARG
34	SR	70	ASP
34	SR	114	ASP
34	SR	153	GLN
34	SR	189	GLU
34	SR	318	ALA
35	SM	88	ARG
35	SM	155	LEU
35	SM	174	LEU

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Mol	Chain	Res	Type
39	L2	250	GLN
40	L3	155	ALA
40	L3	185	GLY
41	L4	15	ALA
41	L4	90	PHE
41	L4	232	SER
42	L5	7	ALA
42	L5	260	PHE
43	L6	7	PRO
44	L7	164	SER
45	L8	39	ALA
48	M1	114	ILE
48	M1	117	ASP
48	M1	167	TYR
48	M1	173	ASP
49	M3	136	GLU
49	M3	165	SER
50	M4	6	ILE
50	M4	29	ALA
51	M5	75	VAL
53	M7	156	ALA
53	M7	164	LYS
55	M9	111	ASP
56	N0	170	THR
57	N1	114	ALA
57	N1	120	LYS
57	N1	125	ALA
58	N2	11	ILE
60	N4	64	THR
60	N4	69	LYS
63	N7	33	SER
63	N7	102	GLU
63	N7	103	GLN
64	N8	47	LYS
67	O1	60	TRP
67	O1	82	GLU
67	O1	84	ASP
69	O3	59	VAL
71	O5	10	ARG
71	O5	27	GLU
73	O7	51	ALA
74	O8	33	LYS

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Mol	Chain	Res	Type
78	Q2	15	LYS
78	Q2	34	SER
78	Q2	103	ALA
79	Q3	84	ARG
2	s0	8	ASP
2	s0	92	HIS
2	s0	94	GLY
2	s0	95	ALA
3	s1	26	ARG
3	s1	106	THR
3	s1	160	HIS
3	s1	161	ILE
4	s2	106	ASP
4	s2	234	PRO
5	s3	160	SER
5	s3	180	GLY
6	s4	3	ARG
6	s4	11	ARG
6	s4	189	LEU
6	s4	213	SER
7	s5	35	GLN
8	s6	152	ASP
8	s6	156	PHE
9	s7	6	ALA
11	s9	121	SER
11	s9	161	THR
11	s9	167	ALA
12	c0	3	MET
14	c2	21	GLU
14	c2	58	LEU
14	c2	93	ASP
14	c2	103	LEU
14	c2	108	ARG
15	c3	43	LYS
15	c3	137	PRO
15	c3	140	LYS
16	c4	32	ASP
16	c4	125	SER
17	c5	7	ALA
17	c5	10	ARG
17	c5	66	ALA
17	c5	126	VAL

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Mol	Chain	Res	Type
17	c5	136	SER
19	c7	15	ALA
19	c7	99	VAL
19	c7	116	LYS
20	c8	61	LEU
21	c9	119	LYS
22	d0	17	GLN
22	d0	96	PRO
23	d1	43	GLY
25	d3	119	GLY
25	d3	134	ALA
26	d4	36	SER
26	d4	58	PHE
26	d4	78	SER
27	d5	85	LYS
28	d6	8	ASN
28	d6	13	LYS
28	d6	34	LYS
28	d6	47	ALA
29	d7	38	PRO
31	d9	16	LYS
33	e1	81	LYS
33	e1	85	TYR
33	e1	128	ALA
34	sR	161	LYS
34	sR	163	ASP
34	sR	186	PHE
34	sR	279	ALA
35	sM	39	PRO
35	sM	42	ALA
35	sM	63	ASP
39	l2	215	ASN
40	l3	139	GLN
41	l4	232	SER
41	l4	302	ALA
42	l5	265	TYR
42	l5	266	ALA
43	l6	10	TYR
44	l7	129	LEU
44	l7	158	LYS
44	l7	191	VAL
45	l8	203	VAL

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Mol	Chain	Res	Type
45	l8	209	ALA
45	l8	237	ILE
47	m0	143	SER
47	m0	176	LEU
47	m0	194	GLY
47	m0	207	GLU
48	m1	167	TYR
49	m3	60	ALA
49	m3	130	GLY
55	m9	47	ASN
55	m9	155	LEU
56	n0	2	ALA
58	n2	27	VAL
60	n4	64	THR
61	n5	24	LEU
61	n5	40	LEU
61	n5	44	PRO
61	n5	45	LYS
61	n5	47	ALA
63	n7	127	ASN
65	n9	24	PRO
67	o1	86	LYS
69	o3	88	ASN
71	o5	43	LYS
73	o7	86	ALA
78	q2	74	CYS
2	S0	33	GLN
2	S0	36	TYR
2	S0	44	GLY
2	S0	103	THR
2	S0	190	ASP
3	S1	55	LYS
3	S1	81	PHE
4	S2	91	ARG
4	S2	145	GLY
4	S2	150	GLN
4	S2	183	ALA
4	S2	247	ALA
5	S3	89	GLU
5	S3	217	ILE
6	S4	5	PRO
6	S4	17	HIS

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Mol	Chain	Res	Type
7	S5	58	LEU
8	S6	112	VAL
8	S6	138	ALA
8	S6	149	LYS
9	S7	132	PRO
9	S7	186	PRO
11	S9	120	LYS
12	C0	34	GLU
12	C0	93	GLN
14	C2	66	VAL
14	C2	87	PRO
14	C2	119	SER
14	C2	125	ASN
14	C2	131	ASP
15	C3	3	ARG
15	C3	23	PRO
16	C4	24	ASN
16	C4	79	VAL
17	C5	52	LYS
17	C5	69	GLU
18	C6	33	GLY
18	C6	113	ASP
18	C6	142	TYR
19	C7	23	LYS
20	C8	139	LYS
21	C9	29	GLU
23	D1	10	GLU
25	D3	11	SER
25	D3	37	ALA
26	D4	5	VAL
26	D4	58	PHE
28	D6	5	ARG
28	D6	64	LEU
30	D8	16	LEU
30	D8	61	ARG
33	E1	85	TYR
33	E1	86	THR
33	E1	94	LYS
33	E1	137	ASP
34	SR	112	SER
34	SR	242	SER
34	SR	244	ALA

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Mol	Chain	Res	Type
35	SM	10	ASN
35	SM	173	GLU
40	L3	139	GLN
40	L3	348	ARG
40	L3	378	ALA
41	L4	5	GLN
41	L4	140	HIS
41	L4	233	LEU
41	L4	270	SER
42	L5	137	ASP
42	L5	221	GLU
42	L5	259	LYS
44	L7	91	GLY
44	L7	159	GLN
45	L8	47	SER
45	L8	138	HIS
45	L8	157	VAL
46	L9	164	ILE
48	M1	94	ARG
48	M1	108	GLU
49	M3	76	THR
51	M5	181	ASN
54	M8	91	ALA
54	M8	162	ALA
55	M9	53	LYS
57	N1	133	ALA
60	N4	91	LYS
61	N5	25	LYS
61	N5	128	ALA
71	O5	75	TYR
72	O6	13	LYS
72	O6	21	THR
76	Q0	79	GLU
78	Q2	8	ARG
78	Q2	17	CYS
79	Q3	85	ARG
2	s0	103	THR
3	s1	93	GLY
4	s2	144	TRP
4	s2	150	GLN
4	s2	235	LEU
4	s2	238	SER

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Mol	Chain	Res	Type
5	s3	43	PRO
5	s3	45	LYS
5	s3	76	ARG
6	s4	31	PRO
6	s4	168	LYS
6	s4	171	ASP
6	s4	255	ARG
7	s5	21	THR
7	s5	45	LYS
7	s5	60	ASP
7	s5	98	MET
9	s7	106	SER
10	s8	52	ASN
11	s9	55	ALA
12	c0	25	LYS
12	c0	95	ARG
13	c1	7	VAL
13	c1	146	ALA
17	c5	6	ASN
17	c5	17	TYR
17	c5	52	LYS
17	c5	69	GLU
17	c5	80	MET
20	c8	60	GLU
23	d1	10	GLU
24	d2	24	GLN
26	d4	11	LYS
26	d4	52	LYS
28	d6	59	TYR
30	d8	6	PRO
30	d8	64	ARG
30	d8	65	ARG
80	e0	61	SER
33	e1	124	PRO
33	e1	137	ASP
34	sR	250	TYR
35	sM	65	THR
35	sM	67	GLY
41	l4	233	LEU
41	l4	258	LEU
41	l4	272	VAL
45	l8	240	ASN

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Mol	Chain	Res	Type
46	l9	31	ARG
47	m0	102	MET
47	m0	193	ASP
47	m0	219	ALA
48	m1	117	ASP
49	m3	13	HIS
49	m3	45	LYS
49	m3	140	SER
49	m3	162	ASN
51	m5	11	GLN
52	m6	4	GLU
60	n4	71	ARG
61	n5	87	SER
62	n6	75	ARG
63	n7	125	GLY
64	n8	17	ALA
64	n8	24	LYS
64	n8	47	LYS
64	n8	129	PHE
66	o0	46	ALA
68	o2	6	HIS
68	o2	12	LYS
70	o4	78	GLY
70	o4	82	ALA
71	o5	83	LYS
71	o5	84	LYS
72	o6	4	LYS
73	o7	85	LYS
74	o8	15	THR
75	o9	44	TRP
78	q2	17	CYS
2	S0	195	TRP
3	S1	38	PHE
3	S1	154	SER
4	S2	36	VAL
4	S2	182	PRO
7	S5	21	THR
7	S5	54	LYS
7	S5	64	VAL
7	S5	156	ARG
9	S7	36	ALA
10	S8	59	ARG

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Mol	Chain	Res	Type
10	S8	81	VAL
10	S8	82	VAL
12	C0	27	PHE
13	C1	30	ARG
13	C1	71	LEU
14	C2	37	VAL
14	C2	108	ARG
15	C3	29	SER
17	C5	68	PRO
17	C5	130	ARG
20	C8	8	GLN
22	D0	16	GLN
22	D0	17	GLN
23	D1	12	TYR
24	D2	57	ARG
28	D6	11	ASN
33	E1	100	LEU
34	SR	217	ASP
35	SM	12	VAL
35	SM	53	ARG
40	L3	317	ILE
41	L4	223	PRO
42	L5	188	GLU
42	L5	214	ASP
42	L5	233	ALA
42	L5	295	GLY
43	L6	6	ALA
44	L7	217	PRO
47	M0	208	ASN
48	M1	95	ASN
51	M5	81	TYR
51	M5	183	THR
53	M7	160	ALA
58	N2	52	ASN
63	N7	128	GLN
66	O0	20	SER
67	O1	7	VAL
79	Q3	7	LYS
79	Q3	45	LYS
3	s1	129	THR
3	s1	177	GLN
3	s1	234	GLU

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Mol	Chain	Res	Type
5	s3	81	PRO
5	s3	142	LEU
5	s3	163	PRO
5	s3	203	PRO
5	s3	219	ALA
6	s4	96	ASN
6	s4	119	ALA
6	s4	163	ASP
7	s5	152	GLY
8	s6	69	LEU
8	s6	150	GLU
9	s7	10	SER
9	s7	11	GLN
9	s7	133	THR
10	s8	142	LYS
11	s9	169	PRO
12	c0	30	ALA
12	c0	35	ILE
13	c1	55	ASP
14	c2	87	PRO
14	c2	118	ALA
16	c4	92	LYS
16	c4	100	ALA
17	c5	100	LYS
17	c5	128	HIS
18	c6	4	VAL
19	c7	68	GLY
19	c7	97	ASN
20	c8	9	GLY
20	c8	14	ILE
23	d1	6	GLY
24	d2	31	SER
25	d3	29	TYR
25	d3	101	GLU
25	d3	133	LEU
29	d7	12	ALA
30	d8	62	GLU
80	e0	50	VAL
35	sM	43	ASP
35	sM	52	PRO
35	sM	68	ARG
35	sM	84	LYS

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Mol	Chain	Res	Type
41	l4	5	GLN
41	l4	257	LYS
41	l4	328	ASN
42	l5	178	ASN
44	l7	178	ILE
45	l8	76	ALA
45	l8	79	GLN
45	l8	117	ALA
45	l8	121	SER
45	l8	124	ASP
45	l8	196	ALA
47	m0	101	LYS
48	m1	114	ILE
53	m7	25	SER
53	m7	134	GLY
54	m8	112	ALA
57	n1	121	ALA
64	n8	48	TYR
64	n8	56	VAL
70	o4	47	CYS
72	o6	97	SER
77	q1	22	ALA
79	q3	51	ALA
2	S0	188	LEU
3	S1	22	ASP
3	S1	210	ILE
6	S4	53	LYS
8	S6	117	GLY
9	S7	14	THR
11	S9	118	LEU
11	S9	147	MET
11	S9	162	SER
13	C1	113	PRO
17	C5	29	SER
17	C5	53	PRO
19	C7	72	LYS
19	C7	84	TYR
19	C7	124	VAL
20	C8	125	ILE
24	D2	100	GLY
26	D4	60	PHE
28	D6	36	ILE

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Mol	Chain	Res	Type
30	D8	35	ASP
32	E0	50	VAL
33	E1	107	LYS
33	E1	148	TYR
40	L3	37	ARG
40	L3	300	ARG
41	L4	14	GLU
41	L4	79	GLY
42	L5	115	LEU
44	L7	178	ILE
46	L9	108	GLY
50	M4	28	SER
51	M5	94	TYR
58	N2	70	LYS
62	N6	125	LYS
68	O2	125	ARG
74	O8	8	ILE
74	O8	35	GLY
2	s0	4	PRO
2	s0	10	THR
3	s1	22	ASP
3	s1	207	LEU
4	s2	164	SER
6	s4	30	ARG
7	s5	100	ASN
7	s5	154	ALA
10	s8	78	ILE
12	c0	23	ALA
14	c2	26	ASP
15	c3	22	ALA
16	c4	114	ARG
19	c7	102	VAL
20	c8	94	ASP
21	c9	3	GLY
21	c9	28	LEU
21	c9	118	PRO
22	d0	45	ALA
80	e0	54	ARG
33	e1	126	CYS
33	e1	148	TYR
34	sR	185	GLN
40	l3	362	ALA

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Mol	Chain	Res	Type
43	l6	30	LEU
46	l9	85	GLY
48	m1	7	ASN
48	m1	38	GLU
48	m1	152	HIS
56	n0	129	ILE
60	n4	83	THR
62	n6	65	GLY
69	o3	59	VAL
70	o4	77	GLY
72	o6	9	ILE
75	o9	24	PRO
7	S5	187	ILE
8	S6	69	LEU
27	D5	54	VAL
41	L4	146	PRO
54	M8	183	GLY
74	O8	37	PRO
4	s2	83	ILE
80	e0	47	VAL
35	sM	166	VAL
40	l3	185	GLY
60	n4	98	PRO
14	C2	115	VAL
18	C6	97	VAL
19	C7	38	ILE
39	L2	13	GLY
56	N0	153	PRO
65	N9	21	ILE
72	O6	94	ILE
11	s9	185	GLY
14	c2	40	GLY
14	c2	82	PRO
19	c7	88	VAL
20	c8	28	ILE
35	sM	51	ARG
42	l5	135	VAL
56	n0	51	VAL
64	n8	110	GLY
74	o8	35	GLY
7	S5	151	GLY
8	S6	165	GLY

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Mol	Chain	Res	Type
12	C0	92	ILE
16	C4	75	GLY
34	SR	113	VAL
40	L3	141	GLY
42	L5	125	VAL
78	Q2	101	GLY
22	d0	19	ILE
26	d4	29	HIS
28	d6	58	VAL
42	l5	286	VAL
44	l7	193	PRO
66	o0	96	GLY
72	o6	3	VAL
9	S7	63	PRO
24	D2	77	PRO
27	D5	41	ILE
27	D5	88	ILE
33	E1	87	THR
40	L3	166	ILE
46	L9	98	PRO
62	N6	45	ILE
5	s3	199	PRO
14	c2	115	VAL
19	c7	117	LEU
39	l2	103	PRO
42	l5	125	VAL
59	n3	16	GLY
66	o0	100	ILE
70	o4	100	ILE
26	D4	75	VAL
28	D6	59	TYR
64	N8	70	LYS
4	s2	93	GLY
13	c1	113	PRO

5.3.2 Protein sidechains ⓘ

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%)	129 (79%)	35 (21%)	1	7
2	s0	165/209 (79%)	129 (78%)	36 (22%)	1	6
3	S1	191/223 (86%)	150 (78%)	41 (22%)	1	6
3	s1	192/223 (86%)	150 (78%)	42 (22%)	1	6
4	S2	176/204 (86%)	142 (81%)	34 (19%)	2	9
4	s2	176/204 (86%)	124 (70%)	52 (30%)	0	1
5	S3	182/194 (94%)	140 (77%)	42 (23%)	1	4
5	s3	182/194 (94%)	146 (80%)	36 (20%)	1	8
6	S4	221/221 (100%)	167 (76%)	54 (24%)	1	3
6	s4	221/221 (100%)	180 (81%)	41 (19%)	2	10
7	S5	173/190 (91%)	141 (82%)	32 (18%)	2	10
7	s5	173/190 (91%)	142 (82%)	31 (18%)	2	11
8	S6	188/201 (94%)	156 (83%)	32 (17%)	2	12
8	s6	187/201 (93%)	151 (81%)	36 (19%)	2	9
9	S7	165/169 (98%)	137 (83%)	28 (17%)	2	12
9	s7	165/169 (98%)	137 (83%)	28 (17%)	2	12
10	S8	150/161 (93%)	125 (83%)	25 (17%)	3	13
10	s8	150/161 (93%)	119 (79%)	31 (21%)	1	7
11	S9	158/165 (96%)	122 (77%)	36 (23%)	1	5
11	s9	158/165 (96%)	123 (78%)	35 (22%)	1	5
12	C0	77/98 (79%)	61 (79%)	16 (21%)	1	7
12	c0	73/98 (74%)	64 (88%)	9 (12%)	6	27
13	C1	129/136 (95%)	108 (84%)	21 (16%)	3	14
13	c1	129/136 (95%)	104 (81%)	25 (19%)	2	9
14	C2	88/118 (75%)	64 (73%)	24 (27%)	0	2
14	c2	88/118 (75%)	63 (72%)	25 (28%)	0	1
15	C3	127/127 (100%)	102 (80%)	25 (20%)	1	8
15	c3	127/127 (100%)	102 (80%)	25 (20%)	1	8
16	C4	81/104 (78%)	57 (70%)	24 (30%)	0	1
16	c4	97/104 (93%)	73 (75%)	24 (25%)	1	3
17	C5	101/117 (86%)	80 (79%)	21 (21%)	1	7
17	c5	103/117 (88%)	84 (82%)	19 (18%)	2	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	C6	117/118 (99%)	94 (80%)	23 (20%)	1	8
18	c6	118/118 (100%)	99 (84%)	19 (16%)	3	14
19	C7	94/124 (76%)	74 (79%)	20 (21%)	1	7
19	c7	92/124 (74%)	73 (79%)	19 (21%)	1	7
20	C8	128/128 (100%)	98 (77%)	30 (23%)	1	4
20	c8	128/128 (100%)	102 (80%)	26 (20%)	1	7
21	C9	115/115 (100%)	88 (76%)	27 (24%)	1	4
21	c9	115/115 (100%)	95 (83%)	20 (17%)	2	12
22	D0	100/113 (88%)	75 (75%)	25 (25%)	1	2
22	d0	103/113 (91%)	74 (72%)	29 (28%)	0	1
23	D1	74/74 (100%)	58 (78%)	16 (22%)	1	6
23	d1	74/74 (100%)	58 (78%)	16 (22%)	1	6
24	D2	110/110 (100%)	88 (80%)	22 (20%)	1	8
24	d2	110/110 (100%)	94 (86%)	16 (14%)	4	19
25	D3	119/119 (100%)	98 (82%)	21 (18%)	2	11
25	d3	119/119 (100%)	100 (84%)	19 (16%)	3	14
26	D4	112/112 (100%)	90 (80%)	22 (20%)	1	9
26	d4	112/112 (100%)	94 (84%)	18 (16%)	3	14
27	D5	61/88 (69%)	46 (75%)	15 (25%)	1	3
27	d5	61/88 (69%)	51 (84%)	10 (16%)	3	13
28	D6	83/83 (100%)	66 (80%)	17 (20%)	1	7
28	d6	83/83 (100%)	70 (84%)	13 (16%)	3	15
29	D7	70/70 (100%)	63 (90%)	7 (10%)	9	37
29	d7	70/70 (100%)	60 (86%)	10 (14%)	4	19
30	D8	56/59 (95%)	42 (75%)	14 (25%)	1	2
30	d8	56/59 (95%)	42 (75%)	14 (25%)	1	2
31	D9	47/48 (98%)	41 (87%)	6 (13%)	5	25
31	d9	47/48 (98%)	35 (74%)	12 (26%)	1	2
32	E0	51/51 (100%)	41 (80%)	10 (20%)	1	9
33	E1	62/66 (94%)	45 (73%)	17 (27%)	0	1
33	e1	66/66 (100%)	46 (70%)	20 (30%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	SR	260/261 (100%)	219 (84%)	41 (16%)	3	15
34	sR	260/261 (100%)	229 (88%)	31 (12%)	6	28
35	SM	97/228 (42%)	77 (79%)	20 (21%)	1	7
35	sM	54/228 (24%)	39 (72%)	15 (28%)	0	1
39	L2	193/195 (99%)	154 (80%)	39 (20%)	1	7
39	l2	192/195 (98%)	161 (84%)	31 (16%)	3	14
40	L3	321/322 (100%)	245 (76%)	76 (24%)	1	4
40	l3	321/322 (100%)	257 (80%)	64 (20%)	1	8
41	L4	288/288 (100%)	231 (80%)	57 (20%)	1	8
41	l4	288/288 (100%)	232 (81%)	56 (19%)	2	9
42	L5	244/244 (100%)	199 (82%)	45 (18%)	2	10
42	l5	243/244 (100%)	192 (79%)	51 (21%)	1	7
43	L6	134/152 (88%)	116 (87%)	18 (13%)	5	22
43	l6	135/152 (89%)	113 (84%)	22 (16%)	3	14
44	L7	186/204 (91%)	156 (84%)	30 (16%)	3	14
44	l7	187/204 (92%)	159 (85%)	28 (15%)	3	17
45	L8	187/207 (90%)	150 (80%)	37 (20%)	1	8
45	l8	177/207 (86%)	141 (80%)	36 (20%)	1	7
46	L9	171/171 (100%)	138 (81%)	33 (19%)	2	9
46	l9	171/171 (100%)	131 (77%)	40 (23%)	1	4
47	M0	177/186 (95%)	142 (80%)	35 (20%)	1	8
47	m0	179/186 (96%)	138 (77%)	41 (23%)	1	4
48	M1	147/150 (98%)	112 (76%)	35 (24%)	1	3
48	m1	147/150 (98%)	114 (78%)	33 (22%)	1	5
49	M3	154/158 (98%)	129 (84%)	25 (16%)	3	14
49	m3	154/158 (98%)	128 (83%)	26 (17%)	2	13
50	M4	107/108 (99%)	88 (82%)	19 (18%)	2	11
50	m4	108/108 (100%)	81 (75%)	27 (25%)	1	2
51	M5	175/175 (100%)	146 (83%)	29 (17%)	3	13
51	m5	175/175 (100%)	144 (82%)	31 (18%)	2	11
52	M6	160/161 (99%)	134 (84%)	26 (16%)	3	14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	m6	160/161 (99%)	123 (77%)	37 (23%)	1	4
53	M7	140/145 (97%)	109 (78%)	31 (22%)	1	5
53	m7	125/145 (86%)	101 (81%)	24 (19%)	2	10
54	M8	150/150 (100%)	126 (84%)	24 (16%)	3	14
54	m8	150/150 (100%)	115 (77%)	35 (23%)	1	4
55	M9	153/153 (100%)	123 (80%)	30 (20%)	1	9
55	m9	153/153 (100%)	119 (78%)	34 (22%)	1	5
56	N0	156/156 (100%)	127 (81%)	29 (19%)	2	10
56	n0	156/156 (100%)	118 (76%)	38 (24%)	1	3
57	N1	136/136 (100%)	104 (76%)	32 (24%)	1	4
57	n1	136/136 (100%)	110 (81%)	26 (19%)	2	10
58	N2	87/106 (82%)	69 (79%)	18 (21%)	1	7
58	n2	85/106 (80%)	67 (79%)	18 (21%)	1	7
59	N3	104/104 (100%)	81 (78%)	23 (22%)	1	5
59	n3	104/104 (100%)	87 (84%)	17 (16%)	3	14
60	N4	57/129 (44%)	49 (86%)	8 (14%)	4	20
60	n4	100/129 (78%)	86 (86%)	14 (14%)	4	20
61	N5	104/117 (89%)	79 (76%)	25 (24%)	1	3
61	n5	104/117 (89%)	83 (80%)	21 (20%)	1	7
62	N6	109/109 (100%)	84 (77%)	25 (23%)	1	4
62	n6	109/109 (100%)	85 (78%)	24 (22%)	1	6
63	N7	115/115 (100%)	92 (80%)	23 (20%)	1	8
63	n7	115/115 (100%)	88 (76%)	27 (24%)	1	4
64	N8	118/118 (100%)	98 (83%)	20 (17%)	2	13
64	n8	118/118 (100%)	98 (83%)	20 (17%)	2	13
65	N9	46/46 (100%)	36 (78%)	10 (22%)	1	6
65	n9	46/46 (100%)	34 (74%)	12 (26%)	0	2
66	O0	81/87 (93%)	64 (79%)	17 (21%)	1	7
66	o0	84/87 (97%)	65 (77%)	19 (23%)	1	5
67	O1	92/96 (96%)	65 (71%)	27 (29%)	0	1
67	o1	94/96 (98%)	70 (74%)	24 (26%)	1	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	O2	109/110 (99%)	90 (83%)	19 (17%)	2	12
68	o2	109/110 (99%)	81 (74%)	28 (26%)	0	2
69	O3	90/90 (100%)	76 (84%)	14 (16%)	3	15
69	o3	90/90 (100%)	76 (84%)	14 (16%)	3	15
70	O4	95/102 (93%)	80 (84%)	15 (16%)	3	15
70	o4	95/102 (93%)	76 (80%)	19 (20%)	1	8
71	O5	104/104 (100%)	82 (79%)	22 (21%)	1	7
71	o5	103/104 (99%)	82 (80%)	21 (20%)	1	7
72	O6	81/81 (100%)	64 (79%)	17 (21%)	1	7
72	o6	80/81 (99%)	53 (66%)	27 (34%)	0	0
73	O7	70/70 (100%)	53 (76%)	17 (24%)	1	3
73	o7	70/70 (100%)	54 (77%)	16 (23%)	1	4
74	O8	68/68 (100%)	51 (75%)	17 (25%)	1	2
74	o8	67/68 (98%)	57 (85%)	10 (15%)	4	17
75	O9	45/45 (100%)	34 (76%)	11 (24%)	1	3
75	o9	45/45 (100%)	38 (84%)	7 (16%)	3	15
76	Q0	47/47 (100%)	38 (81%)	9 (19%)	2	10
76	q0	47/47 (100%)	37 (79%)	10 (21%)	1	7
77	Q1	23/23 (100%)	12 (52%)	11 (48%)	0	0
77	q1	23/23 (100%)	17 (74%)	6 (26%)	0	2
78	Q2	90/90 (100%)	71 (79%)	19 (21%)	1	7
78	q2	90/90 (100%)	71 (79%)	19 (21%)	1	7
79	Q3	71/71 (100%)	57 (80%)	14 (20%)	1	8
79	q3	71/71 (100%)	55 (78%)	16 (22%)	1	5
80	e0	53/53 (100%)	40 (76%)	13 (24%)	1	3
82	p0	105/253 (42%)	89 (85%)	16 (15%)	3	17
All	All	18730/20241 (92%)	14956 (80%)	3774 (20%)	1	7

All (3774) 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	30	GLN
2	S0	32	HIS
2	S0	34	GLU
2	S0	37	VAL
2	S0	39	ASN
2	S0	43	ASP
2	S0	50	VAL
2	S0	72	ASP
2	S0	74	VAL
2	S0	84	ARG
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	101	ARG
2	S0	103	THR
2	S0	110	TYR
2	S0	112	THR
2	S0	113	ARG
2	S0	123	VAL
2	S0	127	ARG
2	S0	131	GLN
2	S0	135	GLU
2	S0	154	GLU
2	S0	157	ASP
2	S0	165	ARG
2	S0	170	ILE
2	S0	172	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	189	VAL
2	S0	196	SER
2	S0	200	ASP
3	S1	21	VAL
3	S1	22	ASP
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	39	GLU
3	S1	43	VAL
3	S1	46	THR
3	S1	47	LEU

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Mol	Chain	Res	Type
3	S1	61	LEU
3	S1	65	VAL
3	S1	68	VAL
3	S1	70	LEU
3	S1	77	GLU
3	S1	81	PHE
3	S1	85	LYS
3	S1	89	ASP
3	S1	96	LEU
3	S1	97	LEU
3	S1	105	PHE
3	S1	107	THR
3	S1	108	ASP
3	S1	110	LEU
3	S1	115	ARG
3	S1	117	TRP
3	S1	135	LEU
3	S1	153	HIS
3	S1	154	SER
3	S1	180	THR
3	S1	181	LEU
3	S1	186	SER
3	S1	198	GLU
3	S1	202	LYS
3	S1	214	LYS
3	S1	215	VAL
3	S1	217	LEU
3	S1	218	LEU
3	S1	223	PHE
3	S1	229	MET
3	S1	231	LEU
3	S1	232	HIS
4	S2	41	LEU
4	S2	50	ILE
4	S2	58	LEU
4	S2	64	LYS
4	S2	69	ILE
4	S2	72	LEU
4	S2	73	LEU
4	S2	76	LEU
4	S2	87	GLN
4	S2	89	GLN

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Mol	Chain	Res	Type
4	S2	91	ARG
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	113	LEU
4	S2	134	LEU
4	S2	137	ILE
4	S2	140	ARG
4	S2	141	ARG
4	S2	148	LEU
4	S2	153	SER
4	S2	166	THR
4	S2	170	ILE
4	S2	181	SER
4	S2	207	LEU
4	S2	221	THR
4	S2	222	TYR
4	S2	224	PHE
4	S2	226	THR
4	S2	235	LEU
4	S2	237	VAL
4	S2	246	GLU
4	S2	250	GLN
5	S3	6	SER
5	S3	7	LYS
5	S3	9	ARG
5	S3	21	LEU
5	S3	23	GLU
5	S3	37	VAL
5	S3	65	ARG
5	S3	66	ILE
5	S3	74	GLN
5	S3	76	ARG
5	S3	78	LYS
5	S3	84	ILE
5	S3	89	GLU
5	S3	92	GLN
5	S3	93	ASP
5	S3	94	ARG
5	S3	111	ASN
5	S3	113	LEU

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Mol	Chain	Res	Type
5	S3	117	ARG
5	S3	120	TYR
5	S3	124	ARG
5	S3	134	CYS
5	S3	136	VAL
5	S3	142	LEU
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	168	ILE
5	S3	170	THR
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	181	VAL
5	S3	182	LEU
5	S3	188	ILE
5	S3	202	LEU
5	S3	207	THR
5	S3	212	LYS
5	S3	217	ILE
5	S3	218	LEU
6	S4	6	LYS
6	S4	9	LEU
6	S4	12	LEU
6	S4	21	ASP
6	S4	23	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	39	ARG
6	S4	45	ILE
6	S4	49	ARG
6	S4	52	LEU
6	S4	54	TYR
6	S4	56	LEU
6	S4	65	LEU
6	S4	68	ARG
6	S4	69	HIS
6	S4	76	VAL
6	S4	77	ARG

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Mol	Chain	Res	Type
6	S4	78	THR
6	S4	93	ASP
6	S4	95	THR
6	S4	108	ARG
6	S4	115	THR
6	S4	116	ASP
6	S4	117	GLU
6	S4	123	LEU
6	S4	126	VAL
6	S4	128	LYS
6	S4	131	LEU
6	S4	133	LYS
6	S4	141	THR
6	S4	155	LYS
6	S4	164	LEU
6	S4	170	THR
6	S4	180	LEU
6	S4	181	VAL
6	S4	182	TYR
6	S4	187	ARG
6	S4	191	ARG
6	S4	192	ILE
6	S4	206	ASP
6	S4	215	ASP
6	S4	220	THR
6	S4	221	ARG
6	S4	222	LEU
6	S4	226	PHE
6	S4	228	ILE
6	S4	236	ILE
6	S4	240	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	248	ILE
6	S4	258	GLN
6	S4	259	GLN
7	S5	25	LEU
7	S5	32	GLU
7	S5	38	THR
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS

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Mol	Chain	Res	Type
7	S5	48	PHE
7	S5	49	GLU
7	S5	53	VAL
7	S5	66	GLN
7	S5	76	ARG
7	S5	81	ARG
7	S5	84	LYS
7	S5	89	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	97	LEU
7	S5	99	MET
7	S5	119	ASP
7	S5	121	ILE
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	162	VAL
7	S5	163	SER
7	S5	166	ARG
7	S5	184	PHE
7	S5	190	ILE
7	S5	194	LEU
7	S5	211	ILE
7	S5	224	ASN
7	S5	225	ARG
8	S6	3	LEU
8	S6	6	SER
8	S6	13	GLN
8	S6	14	LYS
8	S6	25	ARG
8	S6	43	ASP
8	S6	45	PHE
8	S6	51	LYS
8	S6	58	LYS
8	S6	67	VAL
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	82	SER
8	S6	98	ARG
8	S6	109	LEU

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Mol	Chain	Res	Type
8	S6	113	ILE
8	S6	120	GLU
8	S6	122	GLU
8	S6	127	THR
8	S6	128	THR
8	S6	132	ARG
8	S6	133	LEU
8	S6	154	ARG
8	S6	155	ASP
8	S6	162	VAL
8	S6	170	THR
8	S6	175	ILE
8	S6	201	GLN
8	S6	211	LEU
8	S6	212	LEU
8	S6	223	LYS
9	S7	7	LYS
9	S7	9	LEU
9	S7	14	THR
9	S7	24	PHE
9	S7	28	GLU
9	S7	42	GLN
9	S7	50	ASP
9	S7	51	VAL
9	S7	67	LEU
9	S7	74	GLN
9	S7	76	LYS
9	S7	77	LEU
9	S7	79	ARG
9	S7	85	PHE
9	S7	87	ASP
9	S7	97	ARG
9	S7	104	ARG
9	S7	106	SER
9	S7	114	ARG
9	S7	123	ASP
9	S7	126	LEU
9	S7	144	VAL
9	S7	147	ASN
9	S7	156	SER
9	S7	163	ASP
9	S7	167	GLU

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Mol	Chain	Res	Type
9	S7	176	LEU
9	S7	186	PRO
10	S8	7	SER
10	S8	8	ARG
10	S8	21	PHE
10	S8	22	ARG
10	S8	36	THR
10	S8	37	LYS
10	S8	46	VAL
10	S8	49	ARG
10	S8	56	ARG
10	S8	58	LEU
10	S8	60	ILE
10	S8	66	SER
10	S8	70	GLU
10	S8	74	LYS
10	S8	93	THR
10	S8	123	LYS
10	S8	135	LYS
10	S8	138	ASN
10	S8	151	LYS
10	S8	152	ILE
10	S8	155	SER
10	S8	158	SER
10	S8	161	SER
10	S8	184	LEU
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	30	LEU
11	S9	40	LYS
11	S9	46	SER
11	S9	49	LEU
11	S9	64	GLU
11	S9	78	ARG
11	S9	82	ARG
11	S9	92	LYS
11	S9	93	LEU

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Mol	Chain	Res	Type
11	S9	94	ASP
11	S9	95	TYR
11	S9	97	LEU
11	S9	99	LEU
11	S9	101	VAL
11	S9	106	GLU
11	S9	110	GLN
11	S9	115	LYS
11	S9	121	SER
11	S9	123	HIS
11	S9	134	ILE
11	S9	138	LYS
11	S9	140	ILE
11	S9	149	ARG
11	S9	161	THR
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	175	ARG
11	S9	182	GLU
12	C0	5	LYS
12	C0	6	GLU
12	C0	13	GLN
12	C0	27	PHE
12	C0	28	ASN
12	C0	40	LEU
12	C0	46	LEU
12	C0	49	LEU
12	C0	55	VAL
12	C0	56	LYS
12	C0	76	LEU
12	C0	78	GLU
12	C0	79	TYR
12	C0	80	LEU
12	C0	81	ASN
12	C0	82	LEU
13	C1	21	ASN
13	C1	25	VAL
13	C1	29	LYS
13	C1	30	ARG
13	C1	31	THR

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Mol	Chain	Res	Type
13	C1	40	LEU
13	C1	43	LYS
13	C1	44	THR
13	C1	63	LEU
13	C1	64	VAL
13	C1	67	ARG
13	C1	69	LYS
13	C1	74	THR
13	C1	80	MET
13	C1	91	LEU
13	C1	107	VAL
13	C1	127	GLN
13	C1	131	ILE
13	C1	138	ASN
13	C1	140	VAL
13	C1	141	LYS
14	C2	33	ARG
14	C2	37	VAL
14	C2	43	ARG
14	C2	45	LEU
14	C2	46	ARG
14	C2	49	THR
14	C2	50	LYS
14	C2	52	LEU
14	C2	54	ARG
14	C2	59	LEU
14	C2	62	LEU
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	86	VAL
14	C2	89	ILE
14	C2	90	LYS
14	C2	103	LEU
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	135	MET
14	C2	139	HIS
14	C2	140	PHE
15	C3	3	ARG
15	C3	6	SER

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Mol	Chain	Res	Type
15	C3	16	ILE
15	C3	27	LYS
15	C3	32	SER
15	C3	39	LYS
15	C3	43	LYS
15	C3	45	LEU
15	C3	61	THR
15	C3	64	ARG
15	C3	66	ILE
15	C3	72	MET
15	C3	76	LYS
15	C3	80	LEU
15	C3	83	GLU
15	C3	96	VAL
15	C3	102	LEU
15	C3	105	ASN
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	131	THR
15	C3	134	VAL
15	C3	145	THR
15	C3	147	SER
16	C4	16	VAL
16	C4	26	THR
16	C4	30	VAL
16	C4	31	THR
16	C4	38	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	46	MET
16	C4	48	VAL
16	C4	55	SER
16	C4	76	ILE
16	C4	84	ARG
16	C4	89	THR
16	C4	92	LYS
16	C4	93	THR
16	C4	103	ARG
16	C4	114	ARG
16	C4	118	VAL
16	C4	119	THR

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Mol	Chain	Res	Type
16	C4	123	SER
16	C4	125	SER
16	C4	126	THR
16	C4	132	ARG
16	C4	137	LEU
17	C5	11	VAL
17	C5	14	THR
17	C5	22	LEU
17	C5	28	MET
17	C5	29	SER
17	C5	34	VAL
17	C5	36	LEU
17	C5	40	ARG
17	C5	44	ARG
17	C5	52	LYS
17	C5	80	MET
17	C5	89	MET
17	C5	92	SER
17	C5	98	ASN
17	C5	105	VAL
17	C5	106	GLU
17	C5	110	GLU
17	C5	116	LEU
17	C5	121	ILE
17	C5	124	THR
17	C5	125	PRO
18	C6	14	LYS
18	C6	19	VAL
18	C6	28	LEU
18	C6	43	ILE
18	C6	52	LEU
18	C6	53	LEU
18	C6	54	LEU
18	C6	57	LEU
18	C6	59	LYS
18	C6	66	ARG
18	C6	69	VAL
18	C6	98	ASP
18	C6	104	GLU
18	C6	105	LEU
18	C6	106	LYS
18	C6	116	LEU

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Mol	Chain	Res	Type
18	C6	117	LEU
18	C6	118	ILE
18	C6	123	ARG
18	C6	128	LYS
18	C6	136	SER
18	C6	137	ARG
18	C6	143	ARG
19	C7	5	ARG
19	C7	6	THR
19	C7	25	THR
19	C7	36	ASP
19	C7	38	ILE
19	C7	40	THR
19	C7	46	LEU
19	C7	49	LYS
19	C7	54	THR
19	C7	69	ILE
19	C7	72	LYS
19	C7	78	ARG
19	C7	83	GLN
19	C7	84	TYR
19	C7	88	VAL
19	C7	104	ASN
19	C7	105	GLN
19	C7	108	ASP
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	6	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	18	LEU
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	34	THR
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN

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Mol	Chain	Res	Type
20	C8	72	ILE
20	C8	80	LYS
20	C8	92	ILE
20	C8	93	THR
20	C8	97	ASP
20	C8	101	LEU
20	C8	108	LYS
20	C8	114	GLU
20	C8	116	LEU
20	C8	120	ARG
20	C8	132	ARG
20	C8	136	GLN
20	C8	138	THR
20	C8	141	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	13	ASP
21	C9	18	TYR
21	C9	22	LEU
21	C9	27	LYS
21	C9	28	LEU
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	39	THR
21	C9	57	ARG
21	C9	67	MET
21	C9	68	ARG
21	C9	70	GLN
21	C9	71	VAL
21	C9	94	ILE
21	C9	111	ILE
21	C9	122	ARG
21	C9	124	ILE
21	C9	126	GLU
21	C9	130	ARG
21	C9	131	ASP
21	C9	132	LEU
21	C9	139	THR
21	C9	144	GLU

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Mol	Chain	Res	Type
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	31	VAL
22	D0	34	LEU
22	D0	39	SER
22	D0	40	ASN
22	D0	41	ILE
22	D0	49	ASN
22	D0	51	VAL
22	D0	57	ARG
22	D0	58	LEU
22	D0	61	LYS
22	D0	68	ARG
22	D0	74	GLU
22	D0	76	SER
22	D0	81	THR
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	106	ILE
22	D0	121	ASN
23	D1	1	MET
23	D1	3	ASN
23	D1	7	GLN
23	D1	9	VAL
23	D1	11	LEU
23	D1	12	TYR
23	D1	18	SER
23	D1	27	ASP
23	D1	36	VAL
23	D1	41	GLU
23	D1	52	THR
23	D1	68	SER
23	D1	69	LEU
23	D1	78	LEU
23	D1	82	VAL
23	D1	87	ARG
24	D2	2	THR

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Mol	Chain	Res	Type
24	D2	7	LEU
24	D2	12	ASN
24	D2	22	LYS
24	D2	23	ARG
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	31	SER
24	D2	49	GLU
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	70	ASN
24	D2	76	SER
24	D2	97	ARG
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	121	VAL
24	D2	126	LEU
24	D2	129	VAL
25	D3	7	ARG
25	D3	9	LEU
25	D3	16	ARG
25	D3	19	ARG
25	D3	28	ASN
25	D3	31	LYS
25	D3	36	THR
25	D3	40	SER
25	D3	47	SER
25	D3	52	ILE
25	D3	63	GLN
25	D3	72	VAL
25	D3	75	GLN
25	D3	84	THR
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	114	LYS
25	D3	117	ILE
25	D3	120	VAL
25	D3	132	LEU

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Mol	Chain	Res	Type
26	D4	13	ILE
26	D4	21	LYS
26	D4	28	LEU
26	D4	29	HIS
26	D4	34	ASN
26	D4	36	SER
26	D4	40	LEU
26	D4	51	GLU
26	D4	52	LYS
26	D4	57	VAL
26	D4	61	ARG
26	D4	62	THR
26	D4	63	GLN
26	D4	70	VAL
26	D4	79	VAL
26	D4	96	LEU
26	D4	102	LYS
26	D4	124	ARG
26	D4	127	LYS
26	D4	131	ARG
26	D4	132	ARG
26	D4	133	ASN
27	D5	40	VAL
27	D5	42	LEU
27	D5	48	ASP
27	D5	58	ARG
27	D5	63	SER
27	D5	67	ASP
27	D5	71	ILE
27	D5	75	LEU
27	D5	83	LEU
27	D5	85	LYS
27	D5	90	LYS
27	D5	92	ILE
27	D5	95	HIS
27	D5	96	SER
27	D5	100	ILE
28	D6	10	ARG
28	D6	27	SER
28	D6	36	ILE
28	D6	37	LYS
28	D6	39	MET

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Mol	Chain	Res	Type
28	D6	41	ILE
28	D6	44	ILE
28	D6	57	SER
28	D6	61	GLU
28	D6	64	LEU
28	D6	68	TYR
28	D6	70	LYS
28	D6	76	SER
28	D6	82	ARG
28	D6	83	ILE
28	D6	84	VAL
28	D6	85	ARG
29	D7	3	LEU
29	D7	29	ARG
29	D7	33	LEU
29	D7	42	ASN
29	D7	60	SER
29	D7	64	CYS
29	D7	75	GLU
30	D8	13	ILE
30	D8	15	VAL
30	D8	19	THR
30	D8	32	PHE
30	D8	36	THR
30	D8	38	ARG
30	D8	39	THR
30	D8	41	VAL
30	D8	49	ARG
30	D8	51	ASN
30	D8	58	GLU
30	D8	61	ARG
30	D8	64	ARG
30	D8	65	ARG
31	D9	5	ASN
31	D9	12	ARG
31	D9	22	ARG
31	D9	28	THR
31	D9	32	ARG
31	D9	36	LEU
32	E0	3	LYS
32	E0	26	LYS
32	E0	31	LYS

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Mol	Chain	Res	Type
32	E0	42	ARG
32	E0	43	ARG
32	E0	47	VAL
32	E0	48	THR
32	E0	49	LEU
32	E0	50	VAL
32	E0	54	ARG
33	E1	89	LYS
33	E1	90	LYS
33	E1	91	ILE
33	E1	97	LYS
33	E1	108	VAL
33	E1	109	ASP
33	E1	111	GLU
33	E1	113	LYS
33	E1	115	THR
33	E1	118	ARG
33	E1	120	GLU
33	E1	130	VAL
33	E1	137	ASP
33	E1	145	HIS
33	E1	146	SER
33	E1	150	VAL
33	E1	151	ASN
34	SR	6	VAL
34	SR	7	LEU
34	SR	21	THR
34	SR	37	SER
34	SR	48	THR
34	SR	50	ASP
34	SR	52	GLN
34	SR	59	ARG
34	SR	60	SER
34	SR	70	ASP
34	SR	76	ASP
34	SR	96	THR
34	SR	116	ASP
34	SR	117	LYS
34	SR	133	VAL
34	SR	136	ILE
34	SR	137	LYS
34	SR	141	LEU

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Mol	Chain	Res	Type
34	SR	143	THR
34	SR	144	LEU
34	SR	149	ASP
34	SR	153	GLN
34	SR	159	ASN
34	SR	199	ILE
34	SR	200	ASN
34	SR	202	LEU
34	SR	207	ASP
34	SR	231	MET
34	SR	232	TYR
34	SR	238	ASP
34	SR	241	PHE
34	SR	258	THR
34	SR	266	ASP
34	SR	268	GLN
34	SR	269	TYR
34	SR	277	GLU
34	SR	300	THR
34	SR	312	VAL
34	SR	314	GLN
34	SR	317	THR
34	SR	319	ASN
35	SM	27	LYS
35	SM	30	THR
35	SM	34	LYS
35	SM	37	VAL
35	SM	41	SER
35	SM	43	ASP
35	SM	45	SER
35	SM	61	ILE
35	SM	64	LYS
35	SM	72	ARG
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	96	ARG
35	SM	97	THR
35	SM	100	THR
35	SM	101	ASP
35	SM	115	LYS
35	SM	131	ILE

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Mol	Chain	Res	Type
35	SM	139	GLU
39	L2	18	SER
39	L2	28	LYS
39	L2	32	LEU
39	L2	36	GLU
39	L2	37	ARG
39	L2	44	ILE
39	L2	45	VAL
39	L2	47	GLN
39	L2	48	ILE
39	L2	62	VAL
39	L2	71	LEU
39	L2	73	GLU
39	L2	95	SER
39	L2	96	LEU
39	L2	97	ASN
39	L2	101	VAL
39	L2	104	LEU
39	L2	114	SER
39	L2	116	VAL
39	L2	137	ILE
39	L2	139	HIS
39	L2	143	GLU
39	L2	149	ARG
39	L2	157	VAL
39	L2	163	ARG
39	L2	165	VAL
39	L2	169	ILE
39	L2	177	LYS
39	L2	179	LEU
39	L2	180	LEU
39	L2	181	LYS
39	L2	191	LEU
39	L2	193	ARG
39	L2	202	VAL
39	L2	207	VAL
39	L2	227	ARG
39	L2	230	VAL
39	L2	241	ARG
39	L2	252	THR
40	L3	3	HIS
40	L3	7	GLU

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Mol	Chain	Res	Type
40	L3	10	ARG
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	47	LEU
40	L3	56	ILE
40	L3	66	LYS
40	L3	70	ARG
40	L3	73	VAL
40	L3	79	VAL
40	L3	81	THR
40	L3	84	VAL
40	L3	85	VAL
40	L3	87	VAL
40	L3	100	ARG
40	L3	102	LEU
40	L3	103	THR
40	L3	114	VAL
40	L3	116	ARG
40	L3	126	LYS
40	L3	128	LYS
40	L3	134	SER
40	L3	139	GLN
40	L3	146	ARG
40	L3	148	LEU
40	L3	153	LYS
40	L3	157	VAL
40	L3	160	VAL
40	L3	165	GLN
40	L3	166	ILE
40	L3	167	ARG
40	L3	169	THR
40	L3	187	SER
40	L3	188	ILE
40	L3	189	SER
40	L3	192	VAL
40	L3	196	ARG
40	L3	200	GLU

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Mol	Chain	Res	Type
40	L3	201	LYS
40	L3	202	THR
40	L3	208	VAL
40	L3	210	GLU
40	L3	212	ASN
40	L3	232	ARG
40	L3	235	THR
40	L3	236	LYS
40	L3	238	LEU
40	L3	241	LYS
40	L3	252	ILE
40	L3	264	VAL
40	L3	266	ARG
40	L3	274	SER
40	L3	284	ARG
40	L3	305	ILE
40	L3	308	MET
40	L3	320	ASP
40	L3	324	VAL
40	L3	328	ILE
40	L3	332	ARG
40	L3	338	LEU
40	L3	341	SER
40	L3	343	TYR
40	L3	347	SER
40	L3	353	GLU
40	L3	354	VAL
40	L3	355	SER
40	L3	364	LYS
40	L3	382	THR
40	L3	385	LYS
40	L3	387	LEU
41	L4	2	SER
41	L4	6	VAL
41	L4	16	THR
41	L4	20	LEU
41	L4	37	THR
41	L4	40	THR
41	L4	64	SER
41	L4	71	VAL
41	L4	74	ILE
41	L4	93	MET

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Mol	Chain	Res	Type
41	L4	99	MET
41	L4	112	LYS
41	L4	117	GLU
41	L4	120	TYR
41	L4	124	SER
41	L4	133	SER
41	L4	136	LEU
41	L4	148	ILE
41	L4	150	LEU
41	L4	152	VAL
41	L4	156	LEU
41	L4	179	LEU
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	211	GLU
41	L4	220	ARG
41	L4	222	VAL
41	L4	223	PRO
41	L4	230	VAL
41	L4	258	LEU
41	L4	259	ASP
41	L4	267	VAL
41	L4	270	SER
41	L4	284	SER
41	L4	287	THR
41	L4	289	ILE
41	L4	292	SER
41	L4	295	ILE
41	L4	306	THR
41	L4	307	GLN
41	L4	308	LYS
41	L4	313	LEU
41	L4	323	VAL
41	L4	327	LEU
41	L4	333	VAL
41	L4	338	LYS

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Mol	Chain	Res	Type
41	L4	343	LYS
41	L4	346	LYS
41	L4	349	THR
41	L4	350	LYS
41	L4	359	LEU
42	L5	4	GLN
42	L5	22	ARG
42	L5	23	ARG
42	L5	27	LYS
42	L5	34	LYS
42	L5	41	LYS
42	L5	43	LYS
42	L5	65	ILE
42	L5	66	SER
42	L5	70	THR
42	L5	75	LEU
42	L5	105	ILE
42	L5	109	THR
42	L5	112	LYS
42	L5	115	LEU
42	L5	118	THR
42	L5	131	LEU
42	L5	132	THR
42	L5	137	ASP
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE
42	L5	151	GLN
42	L5	152	ARG
42	L5	155	THR
42	L5	158	ARG
42	L5	159	VAL
42	L5	163	LEU
42	L5	185	PHE
42	L5	186	GLU
42	L5	188	GLU
42	L5	196	ARG
42	L5	217	GLU
42	L5	218	ARG
42	L5	220	SER
42	L5	222	LEU
42	L5	227	LEU

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Mol	Chain	Res	Type
42	L5	232	ASP
42	L5	242	SER
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU
42	L5	273	ARG
42	L5	275	THR
42	L5	290	ILE
43	L6	5	LYS
43	L6	15	VAL
43	L6	18	LEU
43	L6	21	THR
43	L6	48	ARG
43	L6	52	VAL
43	L6	64	LEU
43	L6	65	ILE
43	L6	79	VAL
43	L6	84	VAL
43	L6	89	THR
43	L6	90	LYS
43	L6	94	GLU
43	L6	98	VAL
43	L6	134	ARG
43	L6	155	LEU
43	L6	162	SER
43	L6	166	LYS
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	33	ARG
44	L7	38	LYS
44	L7	40	LYS
44	L7	59	GLU
44	L7	60	ARG
44	L7	77	VAL
44	L7	82	LYS
44	L7	89	ILE
44	L7	93	ASN
44	L7	98	LYS
44	L7	110	ARG
44	L7	118	LYS
44	L7	120	THR

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Mol	Chain	Res	Type
44	L7	124	LEU
44	L7	128	LYS
44	L7	158	LYS
44	L7	161	VAL
44	L7	164	SER
44	L7	175	LYS
44	L7	179	LEU
44	L7	182	ASP
44	L7	184	LEU
44	L7	206	LYS
44	L7	224	ILE
44	L7	228	SER
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU
45	L8	27	THR
45	L8	41	GLN
45	L8	50	VAL
45	L8	63	LYS
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR
45	L8	82	LEU
45	L8	84	ARG
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	149	LYS
45	L8	150	LEU
45	L8	156	ASP
45	L8	163	VAL
45	L8	169	LEU
45	L8	172	LYS
45	L8	181	LYS
45	L8	185	ARG
45	L8	189	LEU
45	L8	197	VAL
45	L8	203	VAL

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Mol	Chain	Res	Type
45	L8	206	GLU
45	L8	211	LEU
45	L8	219	ASP
45	L8	221	ASN
45	L8	232	HIS
45	L8	238	LEU
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
46	L9	5	GLN
46	L9	6	THR
46	L9	14	GLU
46	L9	18	VAL
46	L9	20	ILE
46	L9	22	SER
46	L9	34	LEU
46	L9	36	LYS
46	L9	41	ILE
46	L9	48	VAL
46	L9	52	LEU
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	72	LYS
46	L9	78	MET
46	L9	82	VAL
46	L9	115	ARG
46	L9	123	ILE
46	L9	124	ARG
46	L9	135	GLU
46	L9	138	THR
46	L9	139	ASN
46	L9	147	SER
46	L9	151	VAL
46	L9	152	GLU
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	164	ILE
46	L9	173	ARG
46	L9	177	ASP
46	L9	189	GLU

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Mol	Chain	Res	Type
47	M0	3	ARG
47	M0	21	ARG
47	M0	24	ARG
47	M0	26	VAL
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	63	GLU
47	M0	87	LEU
47	M0	102	MET
47	M0	128	ARG
47	M0	130	ASP
47	M0	133	GLN
47	M0	138	VAL
47	M0	139	ARG
47	M0	146	ASP
47	M0	163	GLN
47	M0	165	ILE
47	M0	166	ILE
47	M0	174	THR
47	M0	175	ASN
47	M0	176	LEU
47	M0	177	ASP
47	M0	178	ARG
47	M0	180	GLU
47	M0	184	LYS
47	M0	191	LYS
47	M0	203	LYS
47	M0	205	SER
47	M0	207	GLU
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	26	SER

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Mol	Chain	Res	Type
48	M1	28	ASP
48	M1	34	SER
48	M1	38	GLU
48	M1	40	LEU
48	M1	44	THR
48	M1	46	VAL
48	M1	52	TYR
48	M1	63	GLU
48	M1	65	ILE
48	M1	71	VAL
48	M1	77	GLU
48	M1	80	LEU
48	M1	82	ARG
48	M1	94	ARG
48	M1	95	ASN
48	M1	106	ILE
48	M1	107	ASP
48	M1	112	LEU
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	161	SER
48	M1	165	GLN
48	M1	166	LYS
48	M1	171	VAL
49	M3	23	LYS
49	M3	35	ARG
49	M3	54	LEU
49	M3	55	ARG
49	M3	57	VAL
49	M3	58	VAL
49	M3	59	ARG
49	M3	62	THR
49	M3	67	ARG
49	M3	69	VAL
49	M3	80	VAL
49	M3	85	LEU
49	M3	107	GLU
49	M3	114	GLN

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Mol	Chain	Res	Type
49	M3	122	LYS
49	M3	124	ILE
49	M3	131	LYS
49	M3	136	GLU
49	M3	144	THR
49	M3	147	ILE
49	M3	164	GLU
49	M3	168	ARG
49	M3	169	THR
49	M3	171	ARG
49	M3	190	LYS
50	M4	5	SER
50	M4	8	LYS
50	M4	19	ARG
50	M4	20	VAL
50	M4	23	ILE
50	M4	27	GLN
50	M4	38	ILE
50	M4	50	LYS
50	M4	53	VAL
50	M4	64	VAL
50	M4	66	THR
50	M4	72	LEU
50	M4	90	VAL
50	M4	91	CYS
50	M4	102	LYS
50	M4	105	GLN
50	M4	108	ARG
50	M4	121	MET
50	M4	135	LEU
51	M5	10	LEU
51	M5	13	LYS
51	M5	18	VAL
51	M5	22	LEU
51	M5	24	ARG
51	M5	38	ARG
51	M5	68	ARG
51	M5	80	THR
51	M5	83	LYS
51	M5	85	THR
51	M5	96	ARG
51	M5	105	ARG

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Mol	Chain	Res	Type
51	M5	106	VAL
51	M5	109	ARG
51	M5	117	ASN
51	M5	124	ASP
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	159	ARG
51	M5	167	THR
51	M5	175	ASN
51	M5	182	ASN
51	M5	184	LYS
51	M5	190	THR
51	M5	204	LYS
52	M6	6	VAL
52	M6	33	ILE
52	M6	36	VAL
52	M6	50	ASN
52	M6	58	LEU
52	M6	68	ARG
52	M6	74	ARG
52	M6	78	ARG
52	M6	79	ILE
52	M6	84	LEU
52	M6	85	ARG
52	M6	89	SER
52	M6	106	GLU
52	M6	110	PRO
52	M6	116	LYS
52	M6	117	ARG
52	M6	122	GLN
52	M6	124	LEU
52	M6	128	ARG
52	M6	134	LYS
52	M6	143	THR
52	M6	151	ASP
52	M6	164	SER
52	M6	184	THR
52	M6	190	VAL

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Mol	Chain	Res	Type
52	M6	192	LYS
53	M7	3	ARG
53	M7	9	THR
53	M7	16	SER
53	M7	18	ARG
53	M7	23	ARG
53	M7	24	VAL
53	M7	32	THR
53	M7	36	ILE
53	M7	40	GLU
53	M7	41	LEU
53	M7	52	LEU
53	M7	56	ARG
53	M7	69	ARG
53	M7	78	VAL
53	M7	79	THR
53	M7	87	SER
53	M7	107	LEU
53	M7	118	GLN
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	148	LEU
53	M7	157	VAL
53	M7	171	ARG
53	M7	180	LYS
53	M7	181	ARG
54	M8	22	ASP
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	41	ASP
54	M8	49	LEU
54	M8	50	LYS
54	M8	63	SER
54	M8	67	ILE
54	M8	69	ARG

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Mol	Chain	Res	Type
54	M8	73	GLN
54	M8	74	GLU
54	M8	80	THR
54	M8	104	LEU
54	M8	111	ARG
54	M8	113	LYS
54	M8	127	LEU
54	M8	129	VAL
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	161	LYS
54	M8	174	ARG
54	M8	179	ARG
55	M9	5	ARG
55	M9	10	LEU
55	M9	29	THR
55	M9	31	GLU
55	M9	34	GLN
55	M9	37	SER
55	M9	41	ILE
55	M9	44	LEU
55	M9	55	VAL
55	M9	60	LYS
55	M9	61	SER
55	M9	63	THR
55	M9	74	ARG
55	M9	86	GLU
55	M9	91	SER
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	116	ASP
55	M9	134	HIS
55	M9	138	LEU
55	M9	139	VAL
55	M9	150	GLN
55	M9	153	LYS
55	M9	156	ASN
55	M9	164	LEU
55	M9	165	LYS
55	M9	175	GLN

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Mol	Chain	Res	Type
55	M9	176	ARG
55	M9	181	ARG
56	N0	1	MET
56	N0	8	GLN
56	N0	45	LEU
56	N0	46	GLN
56	N0	51	VAL
56	N0	52	LYS
56	N0	57	GLU
56	N0	85	SER
56	N0	87	THR
56	N0	92	LYS
56	N0	99	ARG
56	N0	100	VAL
56	N0	104	GLU
56	N0	106	LEU
56	N0	113	ARG
56	N0	115	ARG
56	N0	117	ARG
56	N0	122	HIS
56	N0	125	LYS
56	N0	132	THR
56	N0	136	LYS
56	N0	137	ARG
56	N0	142	GLN
56	N0	144	LEU
56	N0	155	ARG
56	N0	156	VAL
56	N0	162	THR
56	N0	171	PHE
56	N0	172	TYR
57	N1	12	ARG
57	N1	18	ASP
57	N1	25	VAL
57	N1	26	HIS
57	N1	27	LEU
57	N1	32	LYS
57	N1	36	VAL
57	N1	55	LYS
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET

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Mol	Chain	Res	Type
57	N1	80	VAL
57	N1	83	ARG
57	N1	87	LYS
57	N1	88	ARG
57	N1	89	LEU
57	N1	92	ARG
57	N1	96	ILE
57	N1	102	ARG
57	N1	106	LEU
57	N1	110	LYS
57	N1	118	GLU
57	N1	122	GLN
57	N1	124	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	139	ARG
57	N1	143	THR
57	N1	149	GLN
57	N1	158	THR
57	N1	159	PHE
57	N1	160	ILE
58	N2	10	LYS
58	N2	14	THR
58	N2	16	THR
58	N2	32	SER
58	N2	39	ASP
58	N2	43	VAL
58	N2	50	LEU
58	N2	52	ASN
58	N2	54	VAL
58	N2	59	ASP
58	N2	61	THR
58	N2	66	VAL
58	N2	70	LYS
58	N2	74	LYS
58	N2	88	GLN
58	N2	93	ILE
58	N2	99	LYS
58	N2	100	THR
59	N3	9	THR
59	N3	12	ARG
59	N3	13	ILE

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Mol	Chain	Res	Type
59	N3	14	SER
59	N3	32	ARG
59	N3	40	LYS
59	N3	42	SER
59	N3	44	SER
59	N3	46	LEU
59	N3	48	ARG
59	N3	54	LEU
59	N3	69	LEU
59	N3	73	VAL
59	N3	78	VAL
59	N3	83	LYS
59	N3	88	ARG
59	N3	91	VAL
59	N3	102	ILE
59	N3	110	LYS
59	N3	125	LEU
59	N3	131	SER
59	N3	135	VAL
59	N3	137	VAL
60	N4	2	LYS
60	N4	5	ILE
60	N4	19	THR
60	N4	34	SER
60	N4	39	LEU
60	N4	43	ARG
60	N4	47	ARG
60	N4	64	THR
61	N5	26	VAL
61	N5	27	ARG
61	N5	28	THR
61	N5	34	LEU
61	N5	36	LYS
61	N5	38	LEU
61	N5	42	ARG
61	N5	48	SER
61	N5	49	LYS
61	N5	63	ILE
61	N5	71	THR
61	N5	75	LYS
61	N5	86	VAL
61	N5	88	MET

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Mol	Chain	Res	Type
61	N5	92	LYS
61	N5	102	LEU
61	N5	108	LEU
61	N5	113	LEU
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	133	LEU
61	N5	135	ILE
61	N5	139	ILE
61	N5	142	ILE
62	N6	3	LYS
62	N6	4	GLN
62	N6	9	SER
62	N6	13	ARG
62	N6	17	LYS
62	N6	31	LEU
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU
62	N6	42	GLN
62	N6	45	ILE
62	N6	50	ILE
62	N6	56	VAL
62	N6	57	LEU
62	N6	60	ARG
62	N6	62	SER
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	83	ASP
62	N6	115	ARG
62	N6	122	LYS
62	N6	125	LYS
62	N6	126	LEU
62	N6	127	GLU
63	N7	14	VAL
63	N7	21	LYS
63	N7	24	VAL
63	N7	34	LYS
63	N7	46	ILE
63	N7	52	LYS

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Mol	Chain	Res	Type
63	N7	64	LYS
63	N7	72	ILE
63	N7	74	VAL
63	N7	75	VAL
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	95	VAL
63	N7	99	GLU
63	N7	102	GLU
63	N7	106	GLN
63	N7	109	GLU
63	N7	121	ARG
63	N7	134	LEU
63	N7	135	ARG
63	N7	136	PHE
64	N8	4	ARG
64	N8	8	THR
64	N8	10	LYS
64	N8	29	PRO
64	N8	32	ARG
64	N8	34	MET
64	N8	42	ARG
64	N8	47	LYS
64	N8	60	TYR
64	N8	64	GLN
64	N8	65	GLN
64	N8	78	LEU
64	N8	88	ASP
64	N8	91	LEU
64	N8	92	LYS
64	N8	115	LYS
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	137	LYS
65	N9	6	ASN
65	N9	13	THR
65	N9	14	ARG
65	N9	22	LYS
65	N9	23	LYS

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Mol	Chain	Res	Type
65	N9	25	LYS
65	N9	28	LYS
65	N9	38	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	12	GLN
66	O0	14	LEU
66	O0	16	LEU
66	O0	20	SER
66	O0	22	LYS
66	O0	24	THR
66	O0	36	GLN
66	O0	40	LYS
66	O0	41	LEU
66	O0	54	SER
66	O0	61	MET
66	O0	65	THR
66	O0	79	THR
66	O0	81	VAL
66	O0	83	LYS
66	O0	87	VAL
66	O0	101	LEU
67	O1	6	ASP
67	O1	8	VAL
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	28	ARG
67	O1	42	LEU
67	O1	46	THR
67	O1	53	PRO
67	O1	55	LEU
67	O1	64	VAL
67	O1	68	GLU
67	O1	73	LEU
67	O1	76	SER
67	O1	79	ARG
67	O1	82	GLU
67	O1	83	GLU
67	O1	84	ASP
67	O1	86	LYS
67	O1	87	ASN

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Mol	Chain	Res	Type
67	O1	94	GLU
67	O1	96	VAL
67	O1	102	LYS
67	O1	104	LEU
67	O1	105	GLN
67	O1	106	THR
67	O1	110	GLU
68	O2	4	LEU
68	O2	19	ARG
68	O2	33	ARG
68	O2	51	SER
68	O2	54	LYS
68	O2	66	LEU
68	O2	73	THR
68	O2	82	LEU
68	O2	84	THR
68	O2	87	MET
68	O2	91	THR
68	O2	101	SER
68	O2	103	LYS
68	O2	106	VAL
68	O2	109	LEU
68	O2	120	THR
68	O2	125	ARG
68	O2	126	LEU
68	O2	128	LEU
69	O3	15	SER
69	O3	20	LYS
69	O3	21	ARG
69	O3	24	ASN
69	O3	49	ILE
69	O3	63	LYS
69	O3	70	LYS
69	O3	74	THR
69	O3	80	VAL
69	O3	86	ARG
69	O3	90	PRO
69	O3	98	VAL
69	O3	105	SER
69	O3	106	ASN
70	O4	8	ARG
70	O4	20	ILE

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Mol	Chain	Res	Type
70	O4	21	LYS
70	O4	23	VAL
70	O4	49	SER
70	O4	51	LEU
70	O4	58	ARG
70	O4	65	VAL
70	O4	71	THR
70	O4	79	SER
70	O4	81	CYS
70	O4	86	LYS
70	O4	88	ARG
70	O4	102	LYS
70	O4	104	VAL
71	O5	15	GLU
71	O5	20	GLN
71	O5	21	LEU
71	O5	27	GLU
71	O5	41	LEU
71	O5	46	THR
71	O5	48	ARG
71	O5	49	LYS
71	O5	50	SER
71	O5	62	GLN
71	O5	69	LEU
71	O5	71	LYS
71	O5	74	LYS
71	O5	89	ARG
71	O5	90	ARG
71	O5	101	THR
71	O5	102	GLU
71	O5	103	LYS
71	O5	104	GLN
71	O5	105	ARG
71	O5	107	LYS
71	O5	119	LYS
72	O6	17	VAL
72	O6	18	THR
72	O6	21	THR
72	O6	26	ILE
72	O6	34	SER
72	O6	45	ARG
72	O6	57	LEU

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Mol	Chain	Res	Type
72	O6	58	ILE
72	O6	60	LEU
72	O6	62	ARG
72	O6	68	ARG
72	O6	70	ARG
72	O6	76	ARG
72	O6	81	THR
72	O6	84	LYS
72	O6	98	ARG
72	O6	99	ARG
73	O7	5	THR
73	O7	15	SER
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	26	SER
73	O7	37	CYS
73	O7	44	THR
73	O7	45	ARG
73	O7	54	LYS
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	65	ARG
73	O7	79	GLN
73	O7	82	SER
73	O7	85	LYS
74	O8	5	ILE
74	O8	6	THR
74	O8	8	ILE
74	O8	22	THR
74	O8	24	THR
74	O8	31	LEU
74	O8	32	ASN
74	O8	39	ARG
74	O8	41	THR
74	O8	45	VAL
74	O8	46	ARG
74	O8	48	SER
74	O8	53	THR
74	O8	61	LYS
74	O8	65	LEU

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Mol	Chain	Res	Type
74	O8	67	GLN
74	O8	72	THR
75	O9	5	LYS
75	O9	12	LYS
75	O9	17	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	29	LEU
75	O9	33	ASN
75	O9	42	ARG
75	O9	45	ARG
75	O9	47	THR
75	O9	51	ILE
76	Q0	78	ILE
76	Q0	85	LEU
76	Q0	98	LYS
76	Q0	99	CYS
76	Q0	108	THR
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
77	Q1	1	MET
77	Q1	2	ARG
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	10	THR
77	Q1	11	ARG
77	Q1	13	LEU
77	Q1	16	LYS
77	Q1	19	LYS
77	Q1	20	VAL
77	Q1	21	ARG
78	Q2	2	VAL
78	Q2	9	LYS
78	Q2	21	THR
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	45	ARG
78	Q2	47	GLN
78	Q2	48	SER
78	Q2	71	ARG

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Mol	Chain	Res	Type
78	Q2	78	LYS
78	Q2	79	THR
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	92	GLU
78	Q2	93	LEU
78	Q2	99	GLN
78	Q2	104	LEU
79	Q3	5	THR
79	Q3	11	THR
79	Q3	25	GLN
79	Q3	27	LYS
79	Q3	31	ILE
79	Q3	32	GLN
79	Q3	40	SER
79	Q3	45	LYS
79	Q3	49	ARG
79	Q3	54	ILE
79	Q3	60	CYS
79	Q3	78	THR
79	Q3	90	VAL
79	Q3	91	GLU
2	s0	9	LEU
2	s0	10	THR
2	s0	12	GLU
2	s0	27	ARG
2	s0	29	VAL
2	s0	32	HIS
2	s0	39	ASN
2	s0	41	ARG
2	s0	43	ASP
2	s0	57	LEU
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP
2	s0	87	LEU
2	s0	93	THR
2	s0	96	THR
2	s0	106	SER
2	s0	110	TYR

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Mol	Chain	Res	Type
2	s0	119	ARG
2	s0	124	THR
2	s0	131	GLN
2	s0	137	SER
2	s0	144	ILE
2	s0	153	SER
2	s0	154	GLU
2	s0	156	VAL
2	s0	157	ASP
2	s0	165	ARG
2	s0	167	LYS
2	s0	172	LEU
2	s0	179	ARG
2	s0	183	ARG
2	s0	185	ARG
2	s0	189	VAL
2	s0	198	MET
2	s0	200	ASP
3	s1	21	VAL
3	s1	25	THR
3	s1	37	THR
3	s1	40	ASN
3	s1	47	LEU
3	s1	51	SER
3	s1	54	LEU
3	s1	55	LYS
3	s1	62	LYS
3	s1	66	VAL
3	s1	70	LEU
3	s1	73	LEU
3	s1	83	LYS
3	s1	84	ILE
3	s1	90	GLU
3	s1	91	VAL
3	s1	105	PHE
3	s1	119	THR
3	s1	125	VAL
3	s1	131	ASP
3	s1	137	ILE
3	s1	154	SER
3	s1	158	SER
3	s1	159	SER

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Mol	Chain	Res	Type
3	s1	164	ILE
3	s1	169	SER
3	s1	175	GLU
3	s1	177	GLN
3	s1	180	THR
3	s1	181	LEU
3	s1	188	LEU
3	s1	193	ILE
3	s1	195	LYS
3	s1	202	LYS
3	s1	206	PRO
3	s1	211	HIS
3	s1	215	VAL
3	s1	219	LYS
3	s1	222	LYS
3	s1	225	VAL
3	s1	228	LEU
3	s1	231	LEU
4	s2	41	LEU
4	s2	46	LYS
4	s2	51	THR
4	s2	53	ILE
4	s2	54	GLU
4	s2	55	GLU
4	s2	58	LEU
4	s2	60	SER
4	s2	61	LEU
4	s2	69	ILE
4	s2	73	LEU
4	s2	80	VAL
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	97	ARG
4	s2	106	ASP
4	s2	108	ASN
4	s2	111	VAL
4	s2	113	LEU
4	s2	117	THR
4	s2	120	GLU

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Mol	Chain	Res	Type
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	150	GLN
4	s2	153	SER
4	s2	159	THR
4	s2	164	SER
4	s2	166	THR
4	s2	170	ILE
4	s2	179	VAL
4	s2	181	SER
4	s2	182	PRO
4	s2	185	LYS
4	s2	186	LYS
4	s2	190	LEU
4	s2	194	GLU
4	s2	195	ASP
4	s2	206	THR
4	s2	207	LEU
4	s2	212	LYS
4	s2	225	LEU
4	s2	229	LEU
4	s2	246	GLU
4	s2	248	SER
5	s3	4	LEU
5	s3	9	ARG
5	s3	10	LYS
5	s3	11	LEU
5	s3	21	LEU
5	s3	26	THR
5	s3	32	GLU
5	s3	37	VAL
5	s3	40	ARG
5	s3	44	THR
5	s3	59	LEU
5	s3	61	GLU
5	s3	65	ARG
5	s3	69	LEU

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Mol	Chain	Res	Type
5	s3	76	ARG
5	s3	83	THR
5	s3	94	ARG
5	s3	103	GLU
5	s3	115	ILE
5	s3	124	ARG
5	s3	128	GLU
5	s3	139	SER
5	s3	142	LEU
5	s3	146	ARG
5	s3	158	ILE
5	s3	164	VAL
5	s3	172	THR
5	s3	181	VAL
5	s3	195	SER
5	s3	196	ARG
5	s3	202	LEU
5	s3	209	ILE
5	s3	210	GLU
5	s3	212	LYS
5	s3	217	ILE
5	s3	223	LYS
6	s4	6	LYS
6	s4	7	LYS
6	s4	12	LEU
6	s4	20	LEU
6	s4	23	LEU
6	s4	24	SER
6	s4	38	LEU
6	s4	42	LEU
6	s4	49	ARG
6	s4	56	LEU
6	s4	69	HIS
6	s4	70	VAL
6	s4	77	ARG
6	s4	78	THR
6	s4	89	VAL
6	s4	104	ASP
6	s4	115	THR
6	s4	116	ASP
6	s4	117	GLU
6	s4	123	LEU

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Mol	Chain	Res	Type
6	s4	127	LYS
6	s4	128	LYS
6	s4	146	THR
6	s4	148	ARG
6	s4	159	THR
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	184	THR
6	s4	200	ARG
6	s4	214	LEU
6	s4	221	ARG
6	s4	222	LEU
6	s4	223	ASN
6	s4	227	VAL
6	s4	236	ILE
6	s4	237	SER
6	s4	242	LYS
6	s4	245	LYS
6	s4	248	ILE
6	s4	254	ARG
7	s5	23	VAL
7	s5	24	VAL
7	s5	25	LEU
7	s5	31	GLU
7	s5	33	VAL
7	s5	38	THR
7	s5	45	LYS
7	s5	50	GLU
7	s5	59	VAL
7	s5	63	GLN
7	s5	64	VAL
7	s5	68	ILE
7	s5	76	ARG
7	s5	79	ASN
7	s5	83	ARG
7	s5	93	LEU
7	s5	102	ARG
7	s5	119	ASP
7	s5	124	LEU
7	s5	128	ASN
7	s5	146	THR

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Mol	Chain	Res	Type
7	s5	156	ARG
7	s5	157	ARG
7	s5	167	ARG
7	s5	190	ILE
7	s5	192	GLU
7	s5	194	LEU
7	s5	205	SER
7	s5	213	LYS
7	s5	216	GLU
7	s5	219	ARG
8	s6	21	GLU
8	s6	22	HIS
8	s6	30	LYS
8	s6	31	ARG
8	s6	63	MET
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	98	ARG
8	s6	108	VAL
8	s6	109	LEU
8	s6	120	GLU
8	s6	121	LEU
8	s6	125	THR
8	s6	126	ASP
8	s6	127	THR
8	s6	129	VAL
8	s6	143	LYS
8	s6	151	ASP
8	s6	153	VAL
8	s6	154	ARG
8	s6	155	ASP
8	s6	166	GLU
8	s6	168	THR
8	s6	171	LYS
8	s6	177	ARG

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Mol	Chain	Res	Type
8	s6	182	GLN
8	s6	193	LEU
8	s6	197	ASN
8	s6	215	ARG
9	s7	9	LEU
9	s7	17	GLU
9	s7	24	PHE
9	s7	26	GLU
9	s7	28	GLU
9	s7	35	LYS
9	s7	42	GLN
9	s7	49	ILE
9	s7	50	ASP
9	s7	77	LEU
9	s7	78	THR
9	s7	79	ARG
9	s7	80	GLU
9	s7	86	GLN
9	s7	97	ARG
9	s7	110	GLN
9	s7	114	ARG
9	s7	115	SER
9	s7	117	THR
9	s7	119	THR
9	s7	122	HIS
9	s7	129	LEU
9	s7	143	LEU
9	s7	144	VAL
9	s7	149	ILE
9	s7	162	ILE
9	s7	185	ILE
9	s7	187	SER
10	s8	7	SER
10	s8	9	HIS
10	s8	22	ARG
10	s8	25	ARG
10	s8	29	LEU
10	s8	32	GLN
10	s8	36	THR
10	s8	54	LYS
10	s8	59	ARG
10	s8	61	GLU

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Mol	Chain	Res	Type
10	s8	62	THR
10	s8	64	ASN
10	s8	72	ILE
10	s8	74	LYS
10	s8	76	THR
10	s8	77	ARG
10	s8	89	GLU
10	s8	110	ARG
10	s8	119	GLN
10	s8	120	THR
10	s8	121	LEU
10	s8	138	ASN
10	s8	141	ARG
10	s8	149	SER
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	158	SER
10	s8	176	SER
10	s8	183	ILE
10	s8	199	LYS
11	s9	3	ARG
11	s9	7	THR
11	s9	10	LYS
11	s9	16	LYS
11	s9	20	GLU
11	s9	28	LEU
11	s9	37	LYS
11	s9	49	LEU
11	s9	53	ARG
11	s9	60	LEU
11	s9	89	ASP
11	s9	90	LYS
11	s9	92	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	113	VAL
11	s9	120	LYS

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Mol	Chain	Res	Type
11	s9	126	ARG
11	s9	127	VAL
11	s9	130	THR
11	s9	132	ARG
11	s9	134	ILE
11	s9	142	ASN
11	s9	149	ARG
11	s9	150	LEU
11	s9	152	SER
11	s9	164	PHE
11	s9	168	ARG
11	s9	172	VAL
11	s9	179	ARG
11	s9	180	LYS
12	c0	2	LEU
12	c0	5	LYS
12	c0	20	VAL
12	c0	22	VAL
12	c0	40	LEU
12	c0	55	VAL
12	c0	57	THR
12	c0	73	VAL
12	c0	76	LEU
13	c1	5	LEU
13	c1	6	THR
13	c1	10	GLU
13	c1	21	ASN
13	c1	24	LYS
13	c1	27	THR
13	c1	30	ARG
13	c1	32	LYS
13	c1	40	LEU
13	c1	44	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	67	ARG
13	c1	69	LYS
13	c1	74	THR
13	c1	77	SER
13	c1	80	MET
13	c1	82	ARG
13	c1	87	ARG

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Mol	Chain	Res	Type
13	c1	107	VAL
13	c1	119	VAL
13	c1	129	ARG
13	c1	138	ASN
13	c1	140	VAL
13	c1	143	SER
14	c2	26	ASP
14	c2	28	LEU
14	c2	30	VAL
14	c2	36	LEU
14	c2	37	VAL
14	c2	38	HIS
14	c2	39	ASP
14	c2	45	LEU
14	c2	52	LEU
14	c2	58	LEU
14	c2	61	VAL
14	c2	67	THR
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	121	VAL
14	c2	129	GLU
14	c2	132	GLU
14	c2	136	ILE
14	c2	140	PHE
14	c2	142	GLN
15	c3	3	ARG
15	c3	6	SER
15	c3	12	SER
15	c3	14	SER
15	c3	20	ARG
15	c3	21	ASN
15	c3	27	LYS
15	c3	29	SER
15	c3	35	GLU
15	c3	64	ARG
15	c3	66	ILE

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Mol	Chain	Res	Type
15	c3	70	LYS
15	c3	84	ILE
15	c3	87	ASP
15	c3	97	SER
15	c3	102	LEU
15	c3	104	ARG
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	131	THR
15	c3	134	VAL
15	c3	138	ASN
15	c3	139	TRP
15	c3	151	ASN
16	c4	18	ARG
16	c4	20	TYR
16	c4	23	PHE
16	c4	26	THR
16	c4	31	THR
16	c4	33	LEU
16	c4	43	THR
16	c4	49	LYS
16	c4	51	ASP
16	c4	52	ARG
16	c4	58	TYR
16	c4	62	LEU
16	c4	70	LYS
16	c4	81	VAL
16	c4	92	LYS
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	119	THR
16	c4	123	SER
16	c4	132	ARG
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	13	LYS
17	c5	22	LEU
17	c5	24	LYS

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Mol	Chain	Res	Type
17	c5	27	GLU
17	c5	36	LEU
17	c5	40	ARG
17	c5	51	SER
17	c5	68	PRO
17	c5	69	GLU
17	c5	71	GLU
17	c5	92	SER
17	c5	107	ILE
17	c5	110	GLU
17	c5	111	MET
17	c5	121	ILE
17	c5	124	THR
17	c5	127	ARG
17	c5	134	THR
18	c6	23	LYS
18	c6	26	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	43	ILE
18	c6	48	VAL
18	c6	53	LEU
18	c6	57	LEU
18	c6	66	ARG
18	c6	68	ARG
18	c6	69	VAL
18	c6	83	GLN
18	c6	94	GLN
18	c6	110	THR
18	c6	114	ARG
18	c6	118	ILE
18	c6	137	ARG
18	c6	140	LYS
18	c6	143	ARG
19	c7	3	ARG
19	c7	5	ARG
19	c7	8	THR
19	c7	26	LEU
19	c7	34	LEU
19	c7	38	ILE
19	c7	46	LEU
19	c7	47	ARG

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Mol	Chain	Res	Type
19	c7	61	ILE
19	c7	62	GLN
19	c7	63	LYS
19	c7	69	ILE
19	c7	72	LYS
19	c7	83	GLN
19	c7	85	VAL
19	c7	87	GLU
19	c7	105	GLN
19	c7	112	SER
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	7	GLU
20	c8	8	GLN
20	c8	12	GLN
20	c8	20	THR
20	c8	25	ASN
20	c8	28	ILE
20	c8	29	VAL
20	c8	33	THR
20	c8	34	THR
20	c8	40	ARG
20	c8	46	VAL
20	c8	57	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	66	LEU
20	c8	80	LYS
20	c8	105	VAL
20	c8	116	LEU
20	c8	119	ILE
20	c8	143	ARG
20	c8	144	ARG
21	c9	6	VAL
21	c9	28	LEU
21	c9	34	VAL
21	c9	37	VAL
21	c9	41	SER

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Mol	Chain	Res	Type
21	c9	51	GLU
21	c9	68	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	86	ARG
21	c9	91	TYR
21	c9	102	ARG
21	c9	116	ILE
21	c9	123	ARG
21	c9	126	GLU
21	c9	131	ASP
21	c9	133	ASP
21	c9	139	THR
21	c9	141	GLU
21	c9	142	GLU
22	d0	13	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	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	61	LYS
22	d0	63	LEU
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	77	LYS
22	d0	81	THR
22	d0	88	LYS
22	d0	89	ARG
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	105	GLN
22	d0	107	THR
22	d0	113	ASP

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Mol	Chain	Res	Type
22	d0	115	GLU
22	d0	121	ASN
23	d1	2	GLU
23	d1	3	ASN
23	d1	5	LYS
23	d1	11	LEU
23	d1	12	TYR
23	d1	25	LYS
23	d1	32	VAL
23	d1	38	LYS
23	d1	44	ARG
23	d1	50	TYR
23	d1	52	THR
23	d1	68	SER
23	d1	69	LEU
23	d1	75	ASN
23	d1	78	LEU
23	d1	81	ASN
24	d2	7	LEU
24	d2	20	THR
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	37	PHE
24	d2	65	LEU
24	d2	68	ARG
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	105	THR
24	d2	117	ARG
24	d2	119	LYS
24	d2	124	LYS
24	d2	129	VAL
25	d3	9	LEU
25	d3	14	LYS
25	d3	16	ARG
25	d3	19	ARG
25	d3	28	ASN
25	d3	34	LEU
25	d3	40	SER
25	d3	52	ILE

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Mol	Chain	Res	Type
25	d3	73	ARG
25	d3	78	LYS
25	d3	83	VAL
25	d3	84	THR
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	121	ARG
25	d3	125	VAL
25	d3	128	SER
25	d3	133	LEU
26	d4	6	THR
26	d4	10	ARG
26	d4	21	LYS
26	d4	36	SER
26	d4	43	LYS
26	d4	46	GLU
26	d4	47	VAL
26	d4	49	LYS
26	d4	62	THR
26	d4	83	LYS
26	d4	88	THR
26	d4	91	LEU
26	d4	100	VAL
26	d4	121	THR
26	d4	125	LEU
26	d4	127	LYS
26	d4	128	LYS
26	d4	133	ASN
27	d5	41	ILE
27	d5	43	ASP
27	d5	51	LEU
27	d5	52	LYS
27	d5	60	VAL
27	d5	71	ILE
27	d5	75	LEU
27	d5	81	ARG
27	d5	88	ILE
27	d5	90	LYS
28	d6	4	LYS
28	d6	10	ARG
28	d6	15	ARG

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Mol	Chain	Res	Type
28	d6	25	ASN
28	d6	41	ILE
28	d6	44	ILE
28	d6	53	LEU
28	d6	54	SER
28	d6	55	GLU
28	d6	67	THR
28	d6	82	ARG
28	d6	85	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	4	VAL
29	d7	15	GLU
29	d7	26	GLN
29	d7	36	LYS
29	d7	43	ILE
29	d7	52	THR
29	d7	72	LYS
29	d7	74	SER
29	d7	77	THR
30	d8	8	THR
30	d8	11	LYS
30	d8	19	THR
30	d8	22	ARG
30	d8	30	VAL
30	d8	32	PHE
30	d8	33	LEU
30	d8	39	THR
30	d8	40	ILE
30	d8	49	ARG
30	d8	54	LEU
30	d8	58	GLU
30	d8	61	ARG
30	d8	66	LEU
31	d9	6	VAL
31	d9	10	HIS
31	d9	12	ARG
31	d9	19	ARG
31	d9	25	SER
31	d9	26	SER
31	d9	30	LEU
31	d9	31	ILE

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Mol	Chain	Res	Type
31	d9	32	ARG
31	d9	36	LEU
31	d9	39	CYS
31	d9	54	LYS
80	e0	13	LYS
80	e0	14	VAL
80	e0	26	LYS
80	e0	31	LYS
80	e0	38	LEU
80	e0	39	LEU
80	e0	41	THR
80	e0	44	PHE
80	e0	45	VAL
80	e0	46	ASN
80	e0	48	THR
80	e0	49	LEU
80	e0	54	ARG
33	e1	80	ARG
33	e1	84	VAL
33	e1	86	THR
33	e1	96	LYS
33	e1	97	LYS
33	e1	100	LEU
33	e1	106	TYR
33	e1	109	ASP
33	e1	113	LYS
33	e1	115	THR
33	e1	116	LYS
33	e1	118	ARG
33	e1	119	ARG
33	e1	130	VAL
33	e1	135	HIS
33	e1	138	ARG
33	e1	147	VAL
33	e1	148	TYR
33	e1	150	VAL
33	e1	151	ASN
34	sR	13	LEU
34	sR	21	THR
34	sR	23	LEU
34	sR	29	GLN
34	sR	50	ASP

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Mol	Chain	Res	Type
34	sR	52	GLN
34	sR	58	VAL
34	sR	64	HIS
34	sR	65	SER
34	sR	66	HIS
34	sR	72	THR
34	sR	76	ASP
34	sR	82	SER
34	sR	96	THR
34	sR	98	GLU
34	sR	166	SER
34	sR	167	VAL
34	sR	176	LYS
34	sR	178	VAL
34	sR	185	GLN
34	sR	197	SER
34	sR	209	THR
34	sR	232	TYR
34	sR	237	GLN
34	sR	258	THR
34	sR	266	ASP
34	sR	275	ARG
34	sR	286	GLU
34	sR	297	ASP
34	sR	310	ILE
34	sR	314	GLN
35	sM	23	LYS
35	sM	24	GLU
35	sM	28	SER
35	sM	29	ASN
35	sM	41	SER
35	sM	43	ASP
35	sM	48	ARG
35	sM	61	ILE
35	sM	68	ARG
35	sM	72	ARG
35	sM	74	LYS
35	sM	75	ASP
35	sM	77	THR
35	sM	79	SER
35	sM	82	THR
39	l2	15	ILE

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Mol	Chain	Res	Type
39	12	32	LEU
39	12	41	ILE
39	12	44	ILE
39	12	45	VAL
39	12	48	ILE
39	12	61	VAL
39	12	62	VAL
39	12	68	LYS
39	12	82	VAL
39	12	101	VAL
39	12	109	GLU
39	12	114	SER
39	12	116	VAL
39	12	123	ARG
39	12	126	LEU
39	12	137	ILE
39	12	142	ASP
39	12	157	VAL
39	12	177	LYS
39	12	179	LEU
39	12	191	LEU
39	12	193	ARG
39	12	194	ASN
39	12	204	MET
39	12	206	PRO
39	12	227	ARG
39	12	230	VAL
39	12	241	ARG
39	12	245	LEU
39	12	246	LEU
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	21	ARG
40	13	24	SER
40	13	30	LYS
40	13	38	SER
40	13	44	THR
40	13	56	ILE

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Mol	Chain	Res	Type
40	l3	60	LEU
40	l3	66	LYS
40	l3	74	GLU
40	l3	77	THR
40	l3	79	VAL
40	l3	81	THR
40	l3	85	VAL
40	l3	87	VAL
40	l3	103	THR
40	l3	114	VAL
40	l3	126	LYS
40	l3	132	LYS
40	l3	139	GLN
40	l3	140	ASP
40	l3	146	ARG
40	l3	148	LEU
40	l3	150	ARG
40	l3	156	SER
40	l3	157	VAL
40	l3	169	THR
40	l3	173	GLN
40	l3	188	ILE
40	l3	192	VAL
40	l3	196	ARG
40	l3	200	GLU
40	l3	201	LYS
40	l3	202	THR
40	l3	208	VAL
40	l3	211	GLN
40	l3	221	THR
40	l3	232	ARG
40	l3	235	THR
40	l3	237	LYS
40	l3	238	LEU
40	l3	242	THR
40	l3	244	ARG
40	l3	252	ILE
40	l3	264	VAL
40	l3	266	ARG
40	l3	274	SER
40	l3	284	ARG
40	l3	297	SER

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Mol	Chain	Res	Type
40	l3	304	THR
40	l3	308	MET
40	l3	317	ILE
40	l3	328	ILE
40	l3	332	ARG
40	l3	338	LEU
40	l3	346	THR
40	l3	359	ILE
40	l3	363	SER
40	l3	382	THR
41	l4	3	ARG
41	l4	6	VAL
41	l4	25	VAL
41	l4	47	ARG
41	l4	52	VAL
41	l4	53	SER
41	l4	55	LYS
41	l4	69	ARG
41	l4	73	ARG
41	l4	90	PHE
41	l4	93	MET
41	l4	98	ARG
41	l4	112	LYS
41	l4	120	TYR
41	l4	122	THR
41	l4	129	THR
41	l4	144	LYS
41	l4	156	LEU
41	l4	172	VAL
41	l4	176	SER
41	l4	177	ASP
41	l4	179	LEU
41	l4	182	LEU
41	l4	186	LYS
41	l4	187	LEU
41	l4	203	ARG
41	l4	206	LEU
41	l4	215	ILE
41	l4	222	VAL
41	l4	226	GLU
41	l4	230	VAL
41	l4	233	LEU

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Mol	Chain	Res	Type
41	14	287	THR
41	14	291	ASN
41	14	299	ILE
41	14	300	ARG
41	14	301	PRO
41	14	304	GLN
41	14	306	THR
41	14	307	GLN
41	14	310	THR
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	345	GLU
41	14	346	LYS
41	14	347	THR
41	14	349	THR
41	14	356	THR
41	14	357	GLU
41	14	359	LEU
42	15	9	SER
42	15	10	SER
42	15	15	ARG
42	15	34	LYS
42	15	35	ARG
42	15	41	LYS
42	15	51	LEU
42	15	61	ILE
42	15	68	THR
42	15	70	THR
42	15	73	VAL
42	15	74	VAL
42	15	75	LEU
42	15	109	THR
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU
42	15	115	LEU

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Mol	Chain	Res	Type
42	15	118	THR
42	15	120	LYS
42	15	131	LEU
42	15	133	GLU
42	15	135	VAL
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	152	ARG
42	15	155	THR
42	15	164	LYS
42	15	176	SER
42	15	183	TRP
42	15	185	PHE
42	15	187	THR
42	15	194	LEU
42	15	211	LEU
42	15	218	ARG
42	15	227	LEU
42	15	230	ASP
42	15	236	LEU
42	15	238	ASP
42	15	239	ILE
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	262	LYS
42	15	268	GLU
42	15	271	LYS
42	15	275	THR
42	15	279	LYS
42	15	293	LEU
43	16	8	LYS
43	16	14	ASP
43	16	15	VAL
43	16	20	LYS
43	16	21	THR
43	16	31	ARG
43	16	46	ARG
43	16	64	LEU
43	16	65	ILE

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Mol	Chain	Res	Type
43	16	78	ARG
43	16	82	ARG
43	16	89	THR
43	16	91	VAL
43	16	98	VAL
43	16	99	GLU
43	16	131	LYS
43	16	133	GLU
43	16	150	LYS
43	16	152	THR
43	16	155	LEU
43	16	170	LYS
43	16	175	LYS
44	17	24	GLU
44	17	30	ARG
44	17	41	ARG
44	17	45	LEU
44	17	54	GLU
44	17	60	ARG
44	17	82	LYS
44	17	83	LEU
44	17	88	ARG
44	17	94	LYS
44	17	100	ARG
44	17	121	LYS
44	17	124	LEU
44	17	130	ILE
44	17	156	ILE
44	17	158	LYS
44	17	159	GLN
44	17	173	LEU
44	17	178	ILE
44	17	179	LEU
44	17	181	ILE
44	17	184	LEU
44	17	193	PRO
44	17	219	LYS
44	17	229	PHE
44	17	239	LEU
44	17	242	SER
44	17	244	ASN
45	18	29	SER

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Mol	Chain	Res	Type
45	18	40	VAL
45	18	41	GLN
45	18	46	LEU
45	18	65	LEU
45	18	68	ARG
45	18	71	VAL
45	18	74	THR
45	18	79	GLN
45	18	81	THR
45	18	82	LEU
45	18	83	ASP
45	18	85	ASN
45	18	93	LEU
45	18	95	ASN
45	18	111	LYS
45	18	128	LYS
45	18	132	VAL
45	18	136	LEU
45	18	147	LYS
45	18	149	LYS
45	18	153	ILE
45	18	160	ILE
45	18	163	VAL
45	18	164	VAL
45	18	169	LEU
45	18	183	LYS
45	18	200	LEU
45	18	208	GLU
45	18	211	LEU
45	18	213	LYS
45	18	214	LEU
45	18	224	ASP
45	18	231	LYS
45	18	245	LYS
45	18	248	LYS
46	19	5	GLN
46	19	6	THR
46	19	16	VAL
46	19	18	VAL
46	19	19	SER
46	19	31	ARG
46	19	33	THR

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Mol	Chain	Res	Type
46	19	37	ASN
46	19	43	VAL
46	19	44	THR
46	19	51	GLN
46	19	52	LEU
46	19	55	VAL
46	19	62	ARG
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	80	THR
46	19	82	VAL
46	19	92	TYR
46	19	115	ARG
46	19	118	LEU
46	19	121	LYS
46	19	122	LYS
46	19	123	ILE
46	19	129	ARG
46	19	132	VAL
46	19	133	THR
46	19	138	THR
46	19	143	GLU
46	19	144	ILE
46	19	151	VAL
46	19	157	ASN
46	19	162	GLN
46	19	163	GLN
46	19	166	ARG
46	19	167	VAL
46	19	173	ARG
46	19	179	ILE
46	19	191	LEU
47	m0	4	ARG
47	m0	24	ARG
47	m0	28	ASP
47	m0	36	LEU
47	m0	42	THR
47	m0	44	ASP
47	m0	48	LEU
47	m0	50	VAL
47	m0	52	LEU

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Mol	Chain	Res	Type
47	m0	57	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	71	CYS
47	m0	77	THR
47	m0	78	THR
47	m0	83	ASP
47	m0	87	LEU
47	m0	91	VAL
47	m0	99	ILE
47	m0	101	LYS
47	m0	129	VAL
47	m0	135	ILE
47	m0	139	ARG
47	m0	143	SER
47	m0	144	ASN
47	m0	145	LYS
47	m0	156	ARG
47	m0	169	LYS
47	m0	170	LYS
47	m0	176	LEU
47	m0	177	ASP
47	m0	182	LEU
47	m0	185	ARG
47	m0	197	VAL
47	m0	200	LEU
47	m0	202	LYS
47	m0	205	SER
47	m0	206	LEU
47	m0	210	ILE
47	m0	211	ARG
47	m0	212	GLU
48	m1	6	GLN
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	16	LYS
48	m1	23	VAL
48	m1	37	LEU
48	m1	44	THR
48	m1	46	VAL

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Mol	Chain	Res	Type
48	m1	49	LYS
48	m1	60	ARG
48	m1	65	ILE
48	m1	78	GLU
48	m1	80	LEU
48	m1	87	LYS
48	m1	99	THR
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	122	ILE
48	m1	129	VAL
48	m1	130	VAL
48	m1	137	ARG
48	m1	138	VAL
48	m1	140	ARG
48	m1	142	LYS
48	m1	147	THR
48	m1	152	HIS
48	m1	154	THR
48	m1	158	ASP
48	m1	159	THR
48	m1	171	VAL
49	m3	28	GLN
49	m3	31	LYS
49	m3	36	ARG
49	m3	54	LEU
49	m3	55	ARG
49	m3	59	ARG
49	m3	63	VAL
49	m3	67	ARG
49	m3	69	VAL
49	m3	73	ARG
49	m3	76	THR
49	m3	85	LEU
49	m3	103	ASN
49	m3	104	ARG
49	m3	107	GLU
49	m3	124	ILE
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR

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Mol	Chain	Res	Type
49	m3	157	ARG
49	m3	165	SER
49	m3	171	ARG
49	m3	175	SER
49	m3	176	GLU
49	m3	184	GLU
49	m3	194	GLU
50	m4	2	SER
50	m4	3	THR
50	m4	4	ASP
50	m4	6	ILE
50	m4	13	ARG
50	m4	15	VAL
50	m4	16	GLU
50	m4	24	LYS
50	m4	27	GLN
50	m4	28	SER
50	m4	53	VAL
50	m4	58	ILE
50	m4	62	GLN
50	m4	63	VAL
50	m4	64	VAL
50	m4	66	THR
50	m4	72	LEU
50	m4	80	THR
50	m4	82	SER
50	m4	85	TRP
50	m4	105	GLN
50	m4	106	ARG
50	m4	107	GLU
50	m4	124	ARG
50	m4	130	THR
50	m4	133	LYS
50	m4	135	LEU
51	m5	5	LYS
51	m5	8	GLU
51	m5	10	LEU
51	m5	15	GLN
51	m5	22	LEU
51	m5	27	VAL
51	m5	49	ARG
51	m5	50	ARG

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Mol	Chain	Res	Type
51	m5	66	VAL
51	m5	67	ARG
51	m5	68	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	92	LEU
51	m5	96	ARG
51	m5	97	SER
51	m5	105	ARG
51	m5	109	ARG
51	m5	117	ASN
51	m5	138	GLN
51	m5	142	ILE
51	m5	152	CYS
51	m5	153	ASP
51	m5	159	ARG
51	m5	165	THR
51	m5	170	LYS
51	m5	171	SER
51	m5	184	LYS
51	m5	190	THR
51	m5	204	LYS
52	m6	3	VAL
52	m6	4	GLU
52	m6	12	LYS
52	m6	34	VAL
52	m6	46	GLU
52	m6	51	LYS
52	m6	58	LEU
52	m6	59	ARG
52	m6	66	LYS
52	m6	67	THR
52	m6	74	ARG
52	m6	78	ARG
52	m6	79	ILE
52	m6	84	LEU
52	m6	85	ARG
52	m6	89	SER
52	m6	94	ARG
52	m6	100	GLU
52	m6	106	GLU

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Mol	Chain	Res	Type
52	m6	108	ILE
52	m6	110	PRO
52	m6	117	ARG
52	m6	122	GLN
52	m6	124	LEU
52	m6	128	ARG
52	m6	129	LEU
52	m6	130	LYS
52	m6	134	LYS
52	m6	144	SER
52	m6	151	ASP
52	m6	152	VAL
52	m6	160	ARG
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	9	THR
53	m7	20	SER
53	m7	23	ARG
53	m7	29	THR
53	m7	32	THR
53	m7	52	LEU
53	m7	79	THR
53	m7	82	ARG
53	m7	87	SER
53	m7	89	LYS
53	m7	110	THR
53	m7	112	LEU
53	m7	114	VAL
53	m7	119	VAL
53	m7	126	ARG
53	m7	127	ARG
53	m7	136	ILE
53	m7	138	LYS
53	m7	140	GLU
53	m7	144	SER
53	m7	150	VAL
53	m7	153	LYS
53	m7	155	GLU

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Mol	Chain	Res	Type
54	m8	3	ILE
54	m8	7	SER
54	m8	12	ARG
54	m8	22	ASP
54	m8	24	VAL
54	m8	26	LEU
54	m8	27	LYS
54	m8	31	LYS
54	m8	32	LEU
54	m8	34	THR
54	m8	40	THR
54	m8	46	LYS
54	m8	49	LEU
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	80	THR
54	m8	81	VAL
54	m8	86	THR
54	m8	93	ILE
54	m8	98	LYS
54	m8	113	LYS
54	m8	127	LEU
54	m8	129	VAL
54	m8	135	GLN
54	m8	146	SER
54	m8	147	ARG
54	m8	165	ILE
54	m8	170	ARG
54	m8	171	LYS
54	m8	174	ARG
54	m8	176	ARG
54	m8	178	ARG
54	m8	180	ARG
54	m8	186	VAL
55	m9	7	GLN
55	m9	8	LYS
55	m9	9	ARG
55	m9	10	LEU
55	m9	17	VAL
55	m9	20	ARG
55	m9	29	THR

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Mol	Chain	Res	Type
55	m9	31	GLU
55	m9	36	ASN
55	m9	43	LYS
55	m9	49	THR
55	m9	56	THR
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	98	ARG
55	m9	99	LEU
55	m9	111	ASP
55	m9	117	LYS
55	m9	138	LEU
55	m9	152	GLU
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU
55	m9	164	LEU
55	m9	165	LYS
55	m9	167	ARG
55	m9	170	ARG
55	m9	173	ARG
55	m9	177	VAL
55	m9	180	LYS
56	n0	13	ARG
56	n0	16	THR
56	n0	23	LYS
56	n0	24	LEU
56	n0	32	SER
56	n0	45	LEU
56	n0	50	LYS
56	n0	52	LYS
56	n0	53	LYS
56	n0	60	SER
56	n0	62	ASN
56	n0	63	GLN
56	n0	70	THR
56	n0	71	LYS
56	n0	73	LYS

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Mol	Chain	Res	Type
56	n0	87	THR
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
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
56	n0	155	ARG
56	n0	160	THR
56	n0	161	LYS
56	n0	162	THR
56	n0	164	SER
56	n0	166	LYS
56	n0	167	ARG
56	n0	169	SER
56	n0	172	TYR
57	n1	12	ARG
57	n1	17	ARG
57	n1	26	HIS
57	n1	27	LEU
57	n1	35	LYS
57	n1	47	SER
57	n1	55	LYS
57	n1	68	THR
57	n1	71	SER
57	n1	75	ILE
57	n1	78	LYS
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	127	GLN

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Mol	Chain	Res	Type
57	n1	130	ARG
57	n1	139	ARG
57	n1	140	ILE
57	n1	141	VAL
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
58	n2	11	ILE
58	n2	16	THR
58	n2	23	THR
58	n2	27	VAL
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	58	GLU
58	n2	62	VAL
58	n2	63	VAL
58	n2	68	THR
58	n2	90	ARG
58	n2	92	TRP
58	n2	94	ARG
58	n2	98	THR
59	n3	4	ASN
59	n3	13	ILE
59	n3	14	SER
59	n3	15	LEU
59	n3	42	SER
59	n3	45	ARG
59	n3	48	ARG
59	n3	63	LYS
59	n3	66	LYS
59	n3	72	LYS
59	n3	79	VAL
59	n3	83	LYS
59	n3	88	ARG
59	n3	91	VAL
59	n3	93	LEU
59	n3	115	THR
59	n3	120	LYS

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Mol	Chain	Res	Type
60	n4	1	MET
60	n4	19	THR
60	n4	39	LEU
60	n4	54	LEU
60	n4	57	LYS
60	n4	63	ILE
60	n4	87	LEU
60	n4	96	LEU
60	n4	97	LYS
60	n4	100	VAL
60	n4	104	ASN
60	n4	107	GLU
60	n4	127	LYS
60	n4	135	SER
61	n5	27	ARG
61	n5	37	THR
61	n5	40	LEU
61	n5	46	TYR
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	71	THR
61	n5	74	LYS
61	n5	78	ASP
61	n5	86	VAL
61	n5	108	LEU
61	n5	109	LYS
61	n5	115	ARG
61	n5	117	ASN
61	n5	119	THR
61	n5	125	ARG
61	n5	133	LEU
61	n5	134	ASP
61	n5	135	ILE
61	n5	142	ILE
62	n6	4	GLN
62	n6	12	ARG
62	n6	13	ARG
62	n6	17	LYS
62	n6	25	SER
62	n6	37	LYS
62	n6	45	ILE

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Mol	Chain	Res	Type
62	n6	51	ARG
62	n6	52	ARG
62	n6	53	ASP
62	n6	57	LEU
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	86	THR
62	n6	88	GLU
62	n6	89	LYS
62	n6	108	LYS
62	n6	112	ASP
62	n6	120	GLN
62	n6	127	GLU
63	n7	3	LYS
63	n7	5	LEU
63	n7	14	VAL
63	n7	15	ARG
63	n7	17	ARG
63	n7	21	LYS
63	n7	24	VAL
63	n7	26	VAL
63	n7	36	HIS
63	n7	46	ILE
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	88	ASP
63	n7	90	GLU
63	n7	92	PHE
63	n7	94	SER
63	n7	98	THR
63	n7	102	GLU
63	n7	103	GLN
63	n7	105	SER
63	n7	126	LYS

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Mol	Chain	Res	Type
63	n7	134	LEU
63	n7	135	ARG
64	n8	4	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	10	LYS
64	n8	14	HIS
64	n8	42	ARG
64	n8	46	ASP
64	n8	60	TYR
64	n8	64	GLN
64	n8	65	GLN
64	n8	70	LYS
64	n8	76	ASP
64	n8	78	LEU
64	n8	82	ILE
64	n8	91	LEU
64	n8	98	THR
64	n8	115	LYS
64	n8	124	ILE
64	n8	133	LEU
64	n8	146	GLU
65	n9	3	LYS
65	n9	5	LYS
65	n9	12	GLN
65	n9	19	ASN
65	n9	21	ILE
65	n9	22	LYS
65	n9	23	LYS
65	n9	35	VAL
65	n9	38	LYS
65	n9	54	LEU
65	n9	58	LYS
65	n9	59	LYS
66	o0	9	SER
66	o0	10	ILE
66	o0	12	GLN
66	o0	18	ILE
66	o0	32	LYS
66	o0	33	SER
66	o0	34	LEU
66	o0	40	LYS

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Mol	Chain	Res	Type
66	o0	43	ILE
66	o0	44	ILE
66	o0	48	THR
66	o0	50	VAL
66	o0	55	GLU
66	o0	61	MET
66	o0	68	TYR
66	o0	74	ASN
66	o0	81	VAL
66	o0	86	ARG
66	o0	87	VAL
67	o1	6	ASP
67	o1	8	VAL
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	31	ARG
67	o1	34	LYS
67	o1	38	LYS
67	o1	44	MET
67	o1	48	ASP
67	o1	61	LYS
67	o1	68	GLU
67	o1	76	SER
67	o1	82	GLU
67	o1	83	GLU
67	o1	89	LEU
67	o1	90	PHE
67	o1	93	VAL
67	o1	102	LYS
67	o1	104	LEU
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
67	o1	112	ASP
68	o2	5	PRO
68	o2	6	HIS
68	o2	16	LYS
68	o2	19	ARG
68	o2	21	HIS
68	o2	24	ARG
68	o2	31	ASN

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Mol	Chain	Res	Type
68	o2	33	ARG
68	o2	35	GLN
68	o2	51	SER
68	o2	52	GLN
68	o2	54	LYS
68	o2	61	LYS
68	o2	62	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	81	ASP
68	o2	82	LEU
68	o2	84	THR
68	o2	86	THR
68	o2	87	MET
68	o2	91	THR
68	o2	101	SER
68	o2	106	VAL
68	o2	113	LYS
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	10	LYS
69	o3	31	LYS
69	o3	49	ILE
69	o3	56	SER
69	o3	59	VAL
69	o3	70	LYS
69	o3	74	THR
69	o3	84	THR
69	o3	92	LYS
69	o3	93	THR
69	o3	97	SER
69	o3	98	VAL
69	o3	107	ILE
70	o4	5	VAL
70	o4	8	ARG
70	o4	9	ARG
70	o4	20	ILE
70	o4	21	LYS
70	o4	23	VAL
70	o4	29	ILE

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Mol	Chain	Res	Type
70	o4	31	ARG
70	o4	38	LEU
70	o4	47	CYS
70	o4	58	ARG
70	o4	65	VAL
70	o4	68	THR
70	o4	79	SER
70	o4	85	VAL
70	o4	88	ARG
70	o4	98	GLN
70	o4	104	VAL
70	o4	105	VAL
71	o5	11	THR
71	o5	15	GLU
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	28	LEU
71	o5	36	LEU
71	o5	37	SER
71	o5	40	SER
71	o5	47	VAL
71	o5	48	ARG
71	o5	57	VAL
71	o5	63	ARG
71	o5	81	ARG
71	o5	85	THR
71	o5	89	ARG
71	o5	90	ARG
71	o5	101	THR
71	o5	105	ARG
71	o5	107	LYS
71	o5	108	GLN
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	12	ASN
72	o6	18	THR
72	o6	26	ILE
72	o6	34	SER
72	o6	35	ASN
72	o6	36	ARG

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Mol	Chain	Res	Type
72	o6	37	THR
72	o6	38	LYS
72	o6	42	SER
72	o6	43	LEU
72	o6	45	ARG
72	o6	46	GLU
72	o6	47	ILE
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	88	GLU
72	o6	94	ILE
72	o6	98	ARG
73	o7	5	THR
73	o7	17	THR
73	o7	21	ARG
73	o7	25	ARG
73	o7	33	THR
73	o7	36	SER
73	o7	40	PRO
73	o7	44	THR
73	o7	55	ARG
73	o7	58	THR
73	o7	59	THR
73	o7	67	LEU
73	o7	70	VAL
73	o7	74	PHE
73	o7	80	THR
73	o7	85	LYS
74	o8	5	ILE
74	o8	12	LEU
74	o8	20	VAL
74	o8	24	THR
74	o8	31	LEU
74	o8	41	THR
74	o8	53	THR
74	o8	64	LYS

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Mol	Chain	Res	Type
74	o8	65	LEU
74	o8	72	THR
75	o9	4	GLN
75	o9	5	LYS
75	o9	17	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	28	ARG
75	o9	45	ARG
76	q0	79	GLU
76	q0	85	LEU
76	q0	87	SER
76	q0	93	LYS
76	q0	94	SER
76	q0	106	ARG
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	21	ARG
77	q1	23	ARG
78	q2	2	VAL
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	26	THR
78	q2	38	GLN
78	q2	45	ARG
78	q2	46	LYS
78	q2	48	SER
78	q2	61	LYS
78	q2	68	VAL
78	q2	71	ARG
78	q2	78	LYS
78	q2	79	THR
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU

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Mol	Chain	Res	Type
78	q2	93	LEU
78	q2	100	LYS
79	q3	3	LYS
79	q3	10	ILE
79	q3	20	SER
79	q3	24	ARG
79	q3	40	SER
79	q3	42	CYS
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	57	CYS
79	q3	70	THR
79	q3	73	THR
79	q3	81	SER
79	q3	90	VAL
79	q3	91	GLU
82	p0	4	ILE
82	p0	10	GLU
82	p0	30	VAL
82	p0	31	ASP
82	p0	39	HIS
82	p0	42	ARG
82	p0	43	LYS
82	p0	48	ARG
82	p0	70	LEU
82	p0	72	ASP
82	p0	80	VAL
82	p0	81	LYS
82	p0	93	LEU
82	p0	97	LYS
82	p0	101	VAL
82	p0	193	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (56) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	168	HIS
3	S1	232	HIS
6	S4	67	GLN
7	S5	103	ASN

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Mol	Chain	Res	Type
7	S5	139	ASN
9	S7	170	GLN
9	S7	174	ASN
12	C0	12	HIS
22	D0	40	ASN
22	D0	121	ASN
23	D1	70	ASN
24	D2	56	HIS
27	D5	95	HIS
29	D7	26	GLN
29	D7	49	HIS
39	L2	209	HIS
42	L5	40	HIS
42	L5	264	GLN
43	L6	28	GLN
44	L7	25	GLN
44	L7	244	ASN
45	L8	38	GLN
46	L9	8	GLN
46	L9	59	ASN
47	M0	59	GLN
47	M0	144	ASN
49	M3	25	HIS
50	M4	126	GLN
55	M9	34	GLN
57	N1	98	HIS
59	N3	98	ASN
61	N5	80	ASN
63	N7	127	ASN
72	O6	63	ASN
78	Q2	22	GLN
78	Q2	99	GLN
78	Q2	102	GLN
2	s0	21	ASN
3	s1	149	GLN
5	s3	74	GLN
7	s5	104	ASN
9	s7	110	GLN
9	s7	122	HIS
9	s7	174	ASN
11	s9	142	ASN
15	c3	49	GLN

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Mol	Chain	Res	Type
26	d4	22	GLN
39	l2	50	HIS
44	l7	186	HIS
54	m8	58	ASN
58	n2	101	ASN
61	n5	111	ASN
63	n7	57	HIS
64	n8	49	HIS
75	o9	4	GLN
75	o9	38	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	480 (27%)	50 (2%)
1	6	1792/1800 (99%)	484 (27%)	49 (2%)
36	1	3145/3396 (92%)	690 (21%)	93 (2%)
36	5	3145/3396 (92%)	693 (22%)	78 (2%)
37	3	120/121 (99%)	17 (14%)	1 (0%)
37	7	120/121 (99%)	20 (16%)	1 (0%)
38	4	157/158 (99%)	40 (25%)	6 (3%)
38	8	157/158 (99%)	38 (24%)	1 (0%)
All	All	10383/10950 (94%)	2462 (23%)	279 (2%)

All (2462) 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	57	G
1	2	60	U
1	2	66	U
1	2	67	A

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Mol	Chain	Res	Type
1	2	68	A
1	2	69	G
1	2	71	A
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	95	G
1	2	104	A
1	2	114	C
1	2	115	G
1	2	126	A
1	2	127	G
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
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	167	U
1	2	169	A
1	2	178	U
1	2	185	U
1	2	186	C
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

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Mol	Chain	Res	Type
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	229	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U
1	2	242	U
1	2	250	C
1	2	257	A
1	2	260	U
1	2	261	U
1	2	262	U
1	2	265	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	288	A
1	2	290	G
1	2	299	A
1	2	302	U
1	2	314	C
1	2	316	A
1	2	319	U

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Mol	Chain	Res	Type
1	2	321	C
1	2	322	G
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	381	C
1	2	387	A
1	2	397	A
1	2	400	A
1	2	402	C
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	437	A
1	2	439	U
1	2	444	C
1	2	446	A
1	2	448	C
1	2	454	U
1	2	464	A
1	2	468	A
1	2	477	A
1	2	484	C
1	2	485	A
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

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Mol	Chain	Res	Type
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
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	515	A
1	2	519	C
1	2	520	A
1	2	527	A
1	2	534	A
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	555	A
1	2	556	A
1	2	558	U
1	2	559	C
1	2	565	C
1	2	566	C
1	2	579	A
1	2	580	A
1	2	594	A
1	2	595	G
1	2	597	G
1	2	606	A
1	2	609	U
1	2	611	U
1	2	617	U
1	2	619	A
1	2	620	A

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Mol	Chain	Res	Type
1	2	621	A
1	2	622	A
1	2	623	A
1	2	630	A
1	2	639	U
1	2	640	U
1	2	645	C
1	2	648	G
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	680	U
1	2	682	C
1	2	684	A
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	721	U
1	2	722	G
1	2	723	G
1	2	724	C
1	2	725	U
1	2	727	U

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Mol	Chain	Res	Type
1	2	728	U
1	2	729	G
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	744	U
1	2	753	A
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	785	U
1	2	789	A
1	2	794	U
1	2	795	U
1	2	806	A
1	2	811	A
1	2	812	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	840	U
1	2	841	U
1	2	846	G
1	2	854	U
1	2	856	A
1	2	861	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	886	U
1	2	896	U
1	2	898	A
1	2	904	G
1	2	911	U
1	2	912	U
1	2	913	G
1	2	914	G
1	2	916	U
1	2	921	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	961	U
1	2	966	A
1	2	984	G
1	2	987	G
1	2	992	A
1	2	993	A
1	2	995	A
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1026	A

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Mol	Chain	Res	Type
1	2	1028	C
1	2	1031	U
1	2	1039	A
1	2	1040	G
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	1075	C
1	2	1079	U
1	2	1081	A
1	2	1082	C
1	2	1086	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1101	G
1	2	1111	G
1	2	1117	U
1	2	1121	C
1	2	1138	A
1	2	1143	A
1	2	1149	G
1	2	1150	G
1	2	1151	A
1	2	1157	A
1	2	1158	C
1	2	1159	C
1	2	1160	A
1	2	1163	A
1	2	1166	A
1	2	1167	G
1	2	1168	U
1	2	1176	G
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A

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Mol	Chain	Res	Type
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C
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	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1258	U
1	2	1284	C
1	2	1286	U
1	2	1287	A
1	2	1290	U
1	2	1314	U
1	2	1315	U
1	2	1321	A
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	1364	G
1	2	1367	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1383	G
1	2	1388	A

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Mol	Chain	Res	Type
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1412	G
1	2	1413	U
1	2	1414	U
1	2	1415	U
1	2	1424	A
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1433	G
1	2	1445	G
1	2	1446	A
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1469	A
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1478	G
1	2	1481	C
1	2	1482	C
1	2	1486	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1501	C
1	2	1506	G
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	1535	U
1	2	1536	G
1	2	1537	C

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Mol	Chain	Res	Type
1	2	1538	U
1	2	1540	G
1	2	1556	A
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1573	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1591	C
1	2	1596	C
1	2	1600	A
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1619	C
1	2	1631	A
1	2	1634	C
1	2	1637	C
1	2	1657	U
1	2	1658	G
1	2	1663	G
1	2	1680	G
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1685	G
1	2	1719	A
1	2	1731	A
1	2	1747	G
1	2	1756	A
1	2	1760	G
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

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Mol	Chain	Res	Type
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	13	A
36	1	15	C
36	1	16	A
36	1	26	A
36	1	33	G
36	1	40	A
36	1	45	A
36	1	49	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	74	G
36	1	76	G
36	1	83	U
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	116	A
36	1	117	U
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	165	A
36	1	166	C
36	1	169	U
36	1	187	A
36	1	190	U
36	1	191	U

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Mol	Chain	Res	Type
36	1	192	C
36	1	210	U
36	1	218	G
36	1	219	A
36	1	224	C
36	1	237	G
36	1	240	U
36	1	241	G
36	1	243	G
36	1	245	U
36	1	247	C
36	1	248	U
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	265	A
36	1	269	G
36	1	270	U
36	1	282	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U
36	1	305	U
36	1	311	C
36	1	315	C
36	1	323	A
36	1	329	U
36	1	339	C
36	1	344	A
36	1	349	A
36	1	350	C
36	1	376	G
36	1	397	A
36	1	398	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	412	G
36	1	417	A
36	1	421	G

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Mol	Chain	Res	Type
36	1	422	A
36	1	438	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	498	A
36	1	507	U
36	1	520	U
36	1	521	A
36	1	535	G
36	1	541	U
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	549	U
36	1	551	A
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	578	A
36	1	579	G
36	1	585	A
36	1	592	A
36	1	600	G
36	1	604	G
36	1	607	A
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	636	C
36	1	638	C
36	1	640	U
36	1	649	A
36	1	660	A
36	1	661	G
36	1	677	A

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Mol	Chain	Res	Type
36	1	681	U
36	1	683	U
36	1	691	A
36	1	705	A
36	1	712	G
36	1	715	A
36	1	716	A
36	1	725	G
36	1	726	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	776	U
36	1	777	U
36	1	781	G
36	1	785	G
36	1	806	A
36	1	811	U
36	1	816	A
36	1	817	A
36	1	830	A
36	1	837	A
36	1	849	C
36	1	859	G
36	1	860	G
36	1	861	C
36	1	874	U
36	1	879	U
36	1	882	A
36	1	890	C
36	1	896	A
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
36	1	924	G
36	1	937	G
36	1	939	U

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Mol	Chain	Res	Type
36	1	943	U
36	1	944	C
36	1	959	C
36	1	960	U
36	1	979	U
36	1	980	A
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	1003	A
36	1	1006	A
36	1	1010	G
36	1	1013	G
36	1	1015	U
36	1	1016	C
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1042	U
36	1	1045	C
36	1	1047	A
36	1	1049	C
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	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1111	U
36	1	1117	G
36	1	1128	U
36	1	1131	G
36	1	1149	G
36	1	1150	A
36	1	1153	A
36	1	1159	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1191	U
36	1	1192	C
36	1	1197	A
36	1	1201	C
36	1	1209	G
36	1	1213	G
36	1	1216	C
36	1	1218	U
36	1	1222	G
36	1	1225	A
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	1253	U
36	1	1258	U
36	1	1259	A

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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	1267	U
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	1308	A
36	1	1309	U
36	1	1313	G
36	1	1314	C
36	1	1317	A
36	1	1323	G
36	1	1324	U
36	1	1330	A
36	1	1331	U
36	1	1336	U
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	1354	G
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1367	G
36	1	1386	A
36	1	1392	G
36	1	1399	A
36	1	1400	G
36	1	1417	G

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Mol	Chain	Res	Type
36	1	1418	A
36	1	1419	A
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1446	A
36	1	1450	G
36	1	1454	A
36	1	1455	U
36	1	1462	A
36	1	1465	A
36	1	1481	A
36	1	1482	A
36	1	1485	G
36	1	1502	C
36	1	1508	C
36	1	1516	C
36	1	1527	C
36	1	1529	A
36	1	1531	C
36	1	1533	U
36	1	1536	G
36	1	1549	U
36	1	1555	U
36	1	1556	C
36	1	1557	A
36	1	1559	A
36	1	1560	G
36	1	1561	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1571	A
36	1	1572	U
36	1	1579	C
36	1	1580	A
36	1	1581	C

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Mol	Chain	Res	Type
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1605	A
36	1	1620	U
36	1	1621	A
36	1	1629	U
36	1	1630	U
36	1	1633	C
36	1	1639	C
36	1	1643	A
36	1	1654	A
36	1	1657	C
36	1	1677	G
36	1	1683	A
36	1	1688	U
36	1	1713	G
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1736	G
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	1780	G
36	1	1781	C
36	1	1783	U
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1816	A

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Mol	Chain	Res	Type
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1825	G
36	1	1834	U
36	1	1839	A
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1847	A
36	1	1849	C
36	1	1850	A
36	1	1855	U
36	1	1866	C
36	1	1871	U
36	1	1879	A
36	1	1880	U
36	1	1886	A
36	1	1895	A
36	1	1897	G
36	1	1901	A
36	1	1906	G
36	1	1908	A
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	2115	G
36	1	2116	G
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G

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Mol	Chain	Res	Type
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2169	G
36	1	2173	U
36	1	2184	U
36	1	2185	G
36	1	2187	G
36	1	2193	U
36	1	2205	U
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2228	A
36	1	2234	G
36	1	2239	G
36	1	2244	A
36	1	2245	C
36	1	2249	G
36	1	2250	G
36	1	2252	A
36	1	2255	A
36	1	2256	A
36	1	2262	A
36	1	2272	G
36	1	2273	G
36	1	2281	A
36	1	2282	U
36	1	2284	C
36	1	2299	A
36	1	2303	A
36	1	2304	C
36	1	2306	C
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2315	G
36	1	2317	A
36	1	2334	U
36	1	2336	U
36	1	2362	C

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Mol	Chain	Res	Type
36	1	2366	C
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2388	U
36	1	2392	C
36	1	2393	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2405	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2435	G
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2509	U
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G
36	1	2534	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	2549	G
36	1	2552	C
36	1	2554	A

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Mol	Chain	Res	Type
36	1	2555	G
36	1	2561	A
36	1	2568	C
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2582	C
36	1	2585	G
36	1	2586	G
36	1	2593	A
36	1	2594	C
36	1	2595	A
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2617	U
36	1	2618	G
36	1	2628	A
36	1	2637	A
36	1	2638	C
36	1	2652	U
36	1	2656	A
36	1	2672	G
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2752	U
36	1	2753	G
36	1	2762	A
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G

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Mol	Chain	Res	Type
36	1	2778	G
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2803	A
36	1	2810	C
36	1	2817	A
36	1	2818	U
36	1	2822	U
36	1	2827	U
36	1	2829	U
36	1	2836	C
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2846	U
36	1	2847	A
36	1	2856	G
36	1	2860	U
36	1	2863	G
36	1	2871	G
36	1	2872	A
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2898	G
36	1	2899	C
36	1	2900	A
36	1	2911	A
36	1	2914	G
36	1	2923	U
36	1	2927	C
36	1	2932	U
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2955	U
36	1	2956	A

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Mol	Chain	Res	Type
36	1	2971	A
36	1	2974	U
36	1	2977	G
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2997	G
36	1	3012	A
36	1	3030	G
36	1	3034	C
36	1	3040	A
36	1	3058	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3080	G
36	1	3086	A
36	1	3087	A
36	1	3092	C
36	1	3104	U
36	1	3113	A
36	1	3119	U
36	1	3122	A
36	1	3130	A
36	1	3131	U
36	1	3142	A
36	1	3143	C
36	1	3151	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	3167	A
36	1	3168	A
36	1	3169	U
36	1	3170	A
36	1	3171	U
36	1	3173	G

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Mol	Chain	Res	Type
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3180	A
36	1	3181	C
36	1	3187	A
36	1	3195	U
36	1	3196	U
36	1	3198	U
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3229	G
36	1	3235	C
36	1	3243	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3265	C
36	1	3266	G
36	1	3268	A
36	1	3269	U
36	1	3270	U
36	1	3273	A
36	1	3276	G
36	1	3280	U
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	3313	U
36	1	3316	A
36	1	3317	U
36	1	3318	G

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Mol	Chain	Res	Type
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3347	A
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	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
36	1	3390	G
36	1	3396	U
37	3	11	A
37	3	13	A
37	3	14	U
37	3	22	A
37	3	23	A
37	3	42	A
37	3	54	U
37	3	59	U
37	3	60	G
37	3	64	A
37	3	65	G
37	3	74	C
37	3	75	G
37	3	76	A
37	3	91	G
37	3	102	A
37	3	112	G
38	4	2	A
38	4	9	A
38	4	26	U

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Mol	Chain	Res	Type
38	4	34	U
38	4	35	C
38	4	48	A
38	4	52	A
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	69	U
38	4	70	G
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
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	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	127	U
38	4	128	U
38	4	133	G
38	4	138	A
38	4	152	G
38	4	155	A
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	10	G
1	6	17	C
1	6	25	C

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Mol	Chain	Res	Type
1	6	26	A
1	6	27	U
1	6	34	G
1	6	42	G
1	6	47	A
1	6	57	G
1	6	60	U
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	103	A
1	6	104	A
1	6	114	C
1	6	115	G
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	175	G
1	6	178	U
1	6	181	A
1	6	182	A
1	6	185	U
1	6	187	G
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U

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Mol	Chain	Res	Type
1	6	193	U
1	6	194	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
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	222	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	234	G
1	6	235	G
1	6	240	U
1	6	241	U
1	6	249	U
1	6	250	C
1	6	260	U
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	304	U
1	6	308	C
1	6	313	U

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Mol	Chain	Res	Type
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	337	G
1	6	338	C
1	6	359	A
1	6	360	A
1	6	361	C
1	6	370	A
1	6	393	C
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	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	437	A
1	6	439	U
1	6	444	C
1	6	448	C
1	6	468	A
1	6	475	A
1	6	477	A
1	6	480	G
1	6	482	U
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

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Mol	Chain	Res	Type
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	507	U
1	6	508	U
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	515	A
1	6	518	A
1	6	519	C
1	6	524	U
1	6	527	A
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	557	G
1	6	558	U
1	6	559	C
1	6	564	G
1	6	565	C
1	6	566	C
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	609	U
1	6	610	G
1	6	611	U

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Mol	Chain	Res	Type
1	6	617	U
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	630	A
1	6	637	C
1	6	639	U
1	6	640	U
1	6	645	C
1	6	648	G
1	6	650	U
1	6	652	G
1	6	653	C
1	6	658	C
1	6	659	C
1	6	661	A
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	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

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Mol	Chain	Res	Type
1	6	722	G
1	6	723	G
1	6	726	C
1	6	730	G
1	6	733	A
1	6	751	G
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	762	A
1	6	765	G
1	6	766	U
1	6	774	A
1	6	775	G
1	6	777	C
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	787	G
1	6	789	A
1	6	792	U
1	6	793	A
1	6	794	U
1	6	806	A
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	821	U
1	6	822	U
1	6	823	G
1	6	825	U
1	6	826	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	842	C

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Mol	Chain	Res	Type
1	6	862	A
1	6	863	A
1	6	864	U
1	6	865	A
1	6	873	U
1	6	881	A
1	6	898	A
1	6	906	A
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	928	U
1	6	933	A
1	6	935	U
1	6	942	G
1	6	945	U
1	6	959	U
1	6	960	U
1	6	966	A
1	6	969	C
1	6	970	A
1	6	971	A
1	6	983	A
1	6	989	U
1	6	991	G
1	6	992	A
1	6	993	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1008	G
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1029	U
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1057	U
1	6	1058	U

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Mol	Chain	Res	Type
1	6	1059	U
1	6	1060	U
1	6	1074	G
1	6	1081	A
1	6	1082	C
1	6	1091	A
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	1105	C
1	6	1109	G
1	6	1137	A
1	6	1138	A
1	6	1139	A
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1162	C
1	6	1164	G
1	6	1167	G
1	6	1185	U
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1203	A
1	6	1207	C
1	6	1208	A
1	6	1216	C
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1227	A
1	6	1228	G

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Mol	Chain	Res	Type
1	6	1229	G
1	6	1230	A
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1254	U
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1261	G
1	6	1275	A
1	6	1276	U
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	1318	G
1	6	1319	A
1	6	1321	A
1	6	1327	C
1	6	1338	C
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1347	U
1	6	1349	G
1	6	1354	G
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1367	G
1	6	1371	A
1	6	1372	U
1	6	1373	C

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Mol	Chain	Res	Type
1	6	1377	U
1	6	1383	G
1	6	1388	A
1	6	1390	U
1	6	1391	A
1	6	1396	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1413	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1447	C
1	6	1448	G
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1471	A
1	6	1481	C
1	6	1482	C
1	6	1489	U
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	1516	A
1	6	1517	U
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1531	G
1	6	1535	U
1	6	1536	G

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Mol	Chain	Res	Type
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1548	G
1	6	1549	C
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1571	C
1	6	1572	G
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	1601	G
1	6	1616	G
1	6	1621	U
1	6	1631	A
1	6	1634	C
1	6	1637	C
1	6	1638	G
1	6	1654	G
1	6	1656	U
1	6	1657	U
1	6	1658	G
1	6	1678	A
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1703	C
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1736	G
1	6	1755	A
1	6	1760	G

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Mol	Chain	Res	Type
1	6	1762	A
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1779	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	14	U
36	5	15	C
36	5	26	A
36	5	33	G
36	5	40	A
36	5	44	U
36	5	49	A
36	5	59	G
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A
36	5	73	C
36	5	74	G
36	5	76	G
36	5	87	U
36	5	91	G
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

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Mol	Chain	Res	Type
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	130	A
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	142	C
36	5	151	A
36	5	152	U
36	5	156	G
36	5	157	A
36	5	161	G
36	5	165	A
36	5	166	C
36	5	169	U
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	180	C
36	5	182	U
36	5	183	G
36	5	184	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	210	U
36	5	211	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	243	G
36	5	244	G

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Mol	Chain	Res	Type
36	5	246	U
36	5	247	C
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	258	G
36	5	259	C
36	5	265	A
36	5	269	G
36	5	274	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	315	C
36	5	322	U
36	5	323	A
36	5	329	U
36	5	334	A
36	5	339	C
36	5	349	A
36	5	350	C
36	5	351	A
36	5	370	U
36	5	372	A
36	5	376	G
36	5	397	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	404	G
36	5	419	G
36	5	421	G
36	5	422	A
36	5	436	A
36	5	438	A
36	5	439	C

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Mol	Chain	Res	Type
36	5	440	A
36	5	442	G
36	5	492	U
36	5	507	U
36	5	520	U
36	5	521	A
36	5	530	G
36	5	531	G
36	5	535	G
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	554	A
36	5	557	A
36	5	559	A
36	5	570	A
36	5	578	A
36	5	579	G
36	5	592	A
36	5	594	U
36	5	595	G
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	621	A
36	5	636	C
36	5	649	A
36	5	651	G
36	5	660	A
36	5	661	G
36	5	677	A
36	5	681	U
36	5	683	U
36	5	685	G
36	5	689	U
36	5	691	A
36	5	705	A

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Mol	Chain	Res	Type
36	5	712	G
36	5	715	A
36	5	716	A
36	5	718	G
36	5	719	U
36	5	725	G
36	5	750	G
36	5	765	C
36	5	766	U
36	5	767	U
36	5	768	C
36	5	769	G
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	830	A
36	5	859	G
36	5	861	C
36	5	869	G
36	5	874	U
36	5	876	A
36	5	879	U
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	931	C
36	5	937	G
36	5	938	C
36	5	944	C
36	5	953	G

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Mol	Chain	Res	Type
36	5	959	C
36	5	960	U
36	5	964	G
36	5	979	U
36	5	990	U
36	5	993	G
36	5	994	G
36	5	1001	G
36	5	1002	A
36	5	1003	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
36	5	1019	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1028	U
36	5	1029	G
36	5	1032	C
36	5	1035	G
36	5	1041	U
36	5	1047	A
36	5	1049	C
36	5	1052	U
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1083	G
36	5	1085	A
36	5	1087	G
36	5	1093	A
36	5	1094	U
36	5	1095	U
36	5	1096	U

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Mol	Chain	Res	Type
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1117	G
36	5	1121	U
36	5	1131	G
36	5	1153	A
36	5	1159	A
36	5	1164	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1190	A
36	5	1191	U
36	5	1192	C
36	5	1193	A
36	5	1201	C
36	5	1208	U
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	1243	G
36	5	1244	A
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1254	C
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	1285	G
36	5	1307	G

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Mol	Chain	Res	Type
36	5	1308	A
36	5	1309	U
36	5	1313	G
36	5	1314	C
36	5	1321	G
36	5	1330	A
36	5	1331	U
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1355	A
36	5	1356	U
36	5	1357	G
36	5	1379	G
36	5	1386	A
36	5	1399	A
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1421	G
36	5	1431	G
36	5	1433	A
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1465	A
36	5	1476	G
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1508	C
36	5	1509	A
36	5	1519	G
36	5	1527	C
36	5	1528	G
36	5	1533	U
36	5	1536	G
36	5	1539	A
36	5	1541	G

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Mol	Chain	Res	Type
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	1569	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
36	5	1579	C
36	5	1581	C
36	5	1582	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1593	A
36	5	1620	U
36	5	1621	A
36	5	1629	U
36	5	1630	U
36	5	1639	C
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1657	C
36	5	1663	C
36	5	1683	A
36	5	1713	G
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1750	A

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Mol	Chain	Res	Type
36	5	1751	G
36	5	1756	C
36	5	1759	C
36	5	1760	A
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1770	G
36	5	1775	G
36	5	1778	G
36	5	1780	G
36	5	1793	C
36	5	1797	A
36	5	1810	A
36	5	1812	G
36	5	1813	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1820	U
36	5	1821	U
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1849	C
36	5	1850	A
36	5	1858	A
36	5	1864	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	1901	A
36	5	1906	G
36	5	1914	G
36	5	1935	G
36	5	1947	G

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Mol	Chain	Res	Type
36	5	1952	G
36	5	1953	G
36	5	2100	A
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2133	U
36	5	2138	A
36	5	2158	A
36	5	2169	G
36	5	2170	U
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2209	U
36	5	2210	G
36	5	2215	A
36	5	2222	A
36	5	2223	A
36	5	2228	A
36	5	2229	A
36	5	2234	G
36	5	2244	A
36	5	2246	G
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2269	U
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2282	U
36	5	2288	G

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Mol	Chain	Res	Type
36	5	2303	A
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2319	U
36	5	2324	A
36	5	2331	C
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2352	A
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2392	C
36	5	2393	G
36	5	2397	A
36	5	2401	A
36	5	2403	G
36	5	2404	A
36	5	2405	C
36	5	2410	U
36	5	2411	U
36	5	2412	G
36	5	2418	G
36	5	2419	A
36	5	2435	G
36	5	2437	G
36	5	2439	A
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2510	U
36	5	2511	A
36	5	2513	U

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Mol	Chain	Res	Type
36	5	2514	U
36	5	2515	A
36	5	2522	G
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2530	G
36	5	2535	A
36	5	2536	A
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
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
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2573	G
36	5	2574	G
36	5	2580	A
36	5	2585	G
36	5	2588	U
36	5	2589	G
36	5	2593	A
36	5	2594	C
36	5	2598	G
36	5	2599	U
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2636	A
36	5	2638	C
36	5	2643	A
36	5	2652	U

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Mol	Chain	Res	Type
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2681	U
36	5	2683	U
36	5	2689	A
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2707	C
36	5	2714	G
36	5	2720	G
36	5	2728	G
36	5	2729	U
36	5	2742	C
36	5	2752	U
36	5	2753	G
36	5	2754	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	2779	A
36	5	2780	A
36	5	2796	G
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2810	C
36	5	2817	A
36	5	2818	U
36	5	2822	U
36	5	2829	U
36	5	2839	G
36	5	2840	C
36	5	2842	U
36	5	2843	U
36	5	2845	A
36	5	2849	C

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Mol	Chain	Res	Type
36	5	2853	A
36	5	2871	G
36	5	2872	A
36	5	2875	U
36	5	2880	U
36	5	2881	C
36	5	2887	A
36	5	2889	C
36	5	2899	C
36	5	2900	A
36	5	2902	A
36	5	2904	U
36	5	2921	U
36	5	2922	G
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2939	G
36	5	2942	C
36	5	2947	G
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2980	U
36	5	2983	C
36	5	2990	G
36	5	2992	U
36	5	2993	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3028	G
36	5	3030	G
36	5	3048	A
36	5	3056	U
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C
36	5	3094	A
36	5	3101	G

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Mol	Chain	Res	Type
36	5	3102	G
36	5	3119	U
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	3154	C
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	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3176	G
36	5	3179	U
36	5	3180	A
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3198	U
36	5	3207	U
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3239	G
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3259	U

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Mol	Chain	Res	Type
36	5	3263	G
36	5	3269	U
36	5	3270	U
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3281	U
36	5	3282	U
36	5	3284	G
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3304	U
36	5	3307	A
36	5	3313	U
36	5	3316	A
36	5	3319	U
36	5	3332	U
36	5	3333	G
36	5	3335	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3356	G
36	5	3369	G
36	5	3378	C
36	5	3382	U
36	5	3389	U
36	5	3390	G
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	27	A
37	7	29	C

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Mol	Chain	Res	Type
37	7	33	U
37	7	38	U
37	7	41	G
37	7	54	U
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	92	A
37	7	93	C
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	112	G
38	8	9	A
38	8	18	U
38	8	21	C
38	8	34	U
38	8	35	C
38	8	48	A
38	8	49	G
38	8	51	G
38	8	52	A
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	85	G
38	8	86	U
38	8	87	G
38	8	95	G
38	8	96	A
38	8	97	A
38	8	104	A

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Mol	Chain	Res	Type
38	8	105	A
38	8	106	C
38	8	108	C
38	8	111	A
38	8	113	U
38	8	125	U
38	8	126	A
38	8	152	G
38	8	155	A
38	8	156	U
38	8	157	U
38	8	158	U

All (279) 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	192	U
1	2	217	A
1	2	232	U
1	2	240	U
1	2	280	U
1	2	400	A
1	2	417	A
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	704	C

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Mol	Chain	Res	Type
1	2	720	G
1	2	721	U
1	2	755	A
1	2	794	U
1	2	811	A
1	2	815	G
1	2	823	G
1	2	829	A
1	2	1058	U
1	2	1150	G
1	2	1157	A
1	2	1196	A
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1489	U
1	2	1568	C
1	2	1573	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	65	A
36	1	210	U
36	1	217	U
36	1	223	U
36	1	239	G
36	1	264	G
36	1	282	G
36	1	369	A
36	1	397	A
36	1	406	G
36	1	547	G
36	1	556	U
36	1	588	G
36	1	594	U
36	1	620	U
36	1	637	C
36	1	647	A
36	1	719	U

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Mol	Chain	Res	Type
36	1	726	G
36	1	763	G
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	1329	U
36	1	1352	A
36	1	1355	A
36	1	1419	A
36	1	1484	U
36	1	1554	U
36	1	1556	C
36	1	1562	C
36	1	1568	U
36	1	1580	A
36	1	1582	C
36	1	1589	A
36	1	1643	A
36	1	1716	U
36	1	1751	G
36	1	1815	U
36	1	1816	A
36	1	1820	U
36	1	1841	A
36	1	1842	A
36	1	1849	C
36	1	2101	C
36	1	2112	U
36	1	2116	G
36	1	2209	U
36	1	2227	C
36	1	2249	G

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Mol	Chain	Res	Type
36	1	2281	A
36	1	2372	A
36	1	2374	C
36	1	2418	G
36	1	2523	A
36	1	2537	U
36	1	2538	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2593	A
36	1	2728	G
36	1	2772	C
36	1	2801	A
36	1	2817	A
36	1	2818	U
36	1	2842	U
36	1	2859	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3169	U
36	1	3195	U
36	1	3217	C
36	1	3228	C
36	1	3269	U
36	1	3275	U
36	1	3278	C
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3355	U
37	3	13	A
38	4	82	U
38	4	85	G
38	4	111	A
38	4	125	U
38	4	126	A
38	4	157	U
1	6	25	C
1	6	66	U

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Mol	Chain	Res	Type
1	6	103	A
1	6	114	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	277	U
1	6	313	U
1	6	400	A
1	6	417	A
1	6	512	A
1	6	542	A
1	6	557	G
1	6	558	U
1	6	651	G
1	6	664	U
1	6	667	U
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	1244	A
1	6	1255	G
1	6	1344	A
1	6	1346	A
1	6	1398	U
1	6	1481	C
1	6	1489	U
1	6	1535	U
1	6	1572	G
1	6	1573	A
1	6	1574	G
1	6	1600	A
1	6	1615	C

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Mol	Chain	Res	Type
1	6	1620	C
1	6	1657	U
1	6	1698	G
1	6	1700	C
1	6	1754	A
36	5	122	A
36	5	151	A
36	5	183	G
36	5	210	U
36	5	217	U
36	5	221	A
36	5	238	A
36	5	264	G
36	5	269	G
36	5	374	A
36	5	397	A
36	5	647	A
36	5	765	C
36	5	816	A
36	5	873	C
36	5	896	A
36	5	916	G
36	5	937	G
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1181	U
36	5	1238	C
36	5	1241	U
36	5	1284	C
36	5	1307	G
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	1392	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	1815	U
36	5	1816	A
36	5	1817	G
36	5	1841	A
36	5	1846	C
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2255	A
36	5	2257	C
36	5	2372	A
36	5	2373	A
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2572	C
36	5	2585	G
36	5	2593	A
36	5	2682	C
36	5	2728	G
36	5	2772	C
36	5	2818	U
36	5	2887	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	3269	U
36	5	3275	U
36	5	3289	G
36	5	3340	G
36	5	3341	U
37	7	76	A

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Mol	Chain	Res	Type
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 2558 ligands modelled in this entry, 1426 are monoatomic - leaving 1132 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	3863	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3864	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3865	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-
87	PCY	2	2178	-	36,42,42	0.43	0	41,65,65	1.28	3 (7%)
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	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	86	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	86	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-
86	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-
87	PCY	6	2204	-	36,42,42	0.59	1 (2%)	41,65,65	1.02	3 (7%)
86	OHX	7	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	217	-	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	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	-
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	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	403	-	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	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	303	-	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	204	-	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	102	-	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	Q2	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S6	301	-	0,6,6	0.00	-	0,15,15	0.00	-
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	403	-	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	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	l9	600	-	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	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	201	-	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	n9	102	-	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	502	-	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	301	-	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	s9	201	-	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	3863	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3864	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3865	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
87	PCY	2	2178	-	-	0/33/67/67	0/3/3/3
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	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	3	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	222	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	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	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	86	-	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	86	-	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
86	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
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
87	PCY	6	2204	-	-	0/33/67/67	0/3/3/3
86	OHX	7	215	-	-	0/0/0/0	0/0/0/0
86	OHX	7	216	-	-	0/0/0/0	0/0/0/0
86	OHX	7	217	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	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	403	-	-	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	L4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	303	-	-	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	204	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	202	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0
86	OHX	S6	301	-	-	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	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	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	l9	600	-	-	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	203	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	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	n9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	502	-	-	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	301	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	6	2204	PCY	C24-C28	2.12	1.42	1.39

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	2	2178	PCY	C8-C17-N20	-5.90	104.32	113.17
87	2	2178	PCY	O14-C7-C13	-3.52	102.82	109.45
87	6	2204	PCY	C8-C17-N20	-3.16	108.43	113.17
87	6	2204	PCY	O14-C7-C13	-2.21	105.29	109.45
87	6	2204	PCY	O5-C1-N2	2.37	126.04	120.97
87	2	2178	PCY	O5-C1-N2	2.41	126.12	120.97

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

472 monomers are involved in 706 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3865	OHX	1	0
86	1	3868	OHX	2	0
86	1	3870	OHX	1	0
86	1	3872	OHX	1	0
86	1	3876	OHX	1	0
86	1	3878	OHX	1	0
86	1	3879	OHX	1	0
86	1	3880	OHX	1	0
86	1	3881	OHX	1	0
86	1	3882	OHX	2	0
86	1	3884	OHX	2	0
86	1	3888	OHX	1	0
86	1	3889	OHX	1	0
86	1	3890	OHX	1	0
86	1	3896	OHX	1	0
86	1	3898	OHX	1	0
86	1	3903	OHX	1	0
86	1	3904	OHX	1	0
86	1	3909	OHX	2	0
86	1	3911	OHX	1	0
86	1	3913	OHX	1	0
86	1	3915	OHX	1	0
86	1	3917	OHX	1	0
86	1	3922	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3923	OHX	1	0
86	1	3924	OHX	2	0
86	1	3928	OHX	1	0
86	1	3930	OHX	2	0
86	1	3931	OHX	1	0
86	1	3936	OHX	6	0
86	1	3937	OHX	1	0
86	1	3938	OHX	2	0
86	1	3943	OHX	1	0
86	1	3944	OHX	1	0
86	1	3945	OHX	1	0
86	1	3948	OHX	1	0
86	1	3954	OHX	1	0
86	1	3955	OHX	5	0
86	1	3957	OHX	2	0
86	1	3960	OHX	1	0
86	1	3961	OHX	1	0
86	1	3963	OHX	1	0
86	1	3964	OHX	1	0
86	1	3966	OHX	1	0
86	1	3969	OHX	6	0
86	1	3970	OHX	1	0
86	1	3972	OHX	1	0
86	1	3973	OHX	4	0
86	1	3974	OHX	1	0
86	1	3978	OHX	1	0
86	1	3979	OHX	1	0
86	1	3980	OHX	1	0
86	1	3981	OHX	1	0
86	1	3983	OHX	1	0
86	1	3991	OHX	1	0
86	1	3994	OHX	1	0
86	1	3995	OHX	1	0
86	1	3999	OHX	1	0
86	1	4000	OHX	1	0
86	1	4001	OHX	6	0
86	1	4004	OHX	2	0
86	1	4006	OHX	1	0
86	1	4008	OHX	1	0
86	1	4011	OHX	1	0
86	1	4015	OHX	1	0
86	1	4017	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4025	OHX	1	0
86	1	4026	OHX	5	0
86	1	4028	OHX	1	0
86	1	4030	OHX	6	0
86	1	4032	OHX	1	0
86	1	4036	OHX	2	0
86	1	4037	OHX	2	0
86	1	4038	OHX	2	0
86	1	4039	OHX	2	0
86	1	4041	OHX	2	0
86	1	4042	OHX	3	0
86	1	4043	OHX	6	0
86	1	4044	OHX	1	0
86	1	4046	OHX	2	0
86	1	4047	OHX	1	0
86	1	4054	OHX	6	0
86	1	4055	OHX	3	0
86	1	4059	OHX	1	0
86	1	4065	OHX	1	0
86	1	4066	OHX	1	0
86	1	4069	OHX	1	0
86	1	4071	OHX	1	0
86	1	4072	OHX	1	0
86	1	4073	OHX	1	0
86	1	4074	OHX	1	0
86	1	4078	OHX	1	0
86	1	4079	OHX	3	0
86	1	4081	OHX	1	0
86	1	4083	OHX	4	0
86	1	4084	OHX	3	0
86	1	4087	OHX	1	0
86	1	4094	OHX	1	0
86	1	4095	OHX	1	0
86	1	4097	OHX	1	0
86	1	4098	OHX	2	0
86	1	4106	OHX	1	0
86	1	4108	OHX	1	0
86	1	4113	OHX	1	0
86	1	4117	OHX	1	0
86	1	4121	OHX	1	0
86	1	4124	OHX	1	0
86	1	4130	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4131	OHX	2	0
86	1	4132	OHX	1	0
86	1	4134	OHX	1	0
86	1	4137	OHX	1	0
86	1	4138	OHX	3	0
86	1	4139	OHX	2	0
86	1	4141	OHX	1	0
86	1	4143	OHX	2	0
86	1	4145	OHX	1	0
86	1	4146	OHX	6	0
86	1	4147	OHX	1	0
86	1	4150	OHX	1	0
86	1	4153	OHX	2	0
86	1	4154	OHX	4	0
86	1	4155	OHX	6	0
86	1	4159	OHX	1	0
86	1	4162	OHX	6	0
86	1	4163	OHX	1	0
86	1	4164	OHX	1	0
86	1	4166	OHX	2	0
86	1	4167	OHX	2	0
86	1	4168	OHX	1	0
86	1	4171	OHX	7	0
86	1	4174	OHX	1	0
86	1	4178	OHX	1	0
86	1	4179	OHX	1	0
86	1	4180	OHX	3	0
86	1	4182	OHX	1	0
86	1	4187	OHX	1	0
86	1	4192	OHX	1	0
86	1	4193	OHX	1	0
86	1	4194	OHX	1	0
86	1	4195	OHX	1	0
86	1	4196	OHX	1	0
86	1	4197	OHX	6	0
86	1	4198	OHX	1	0
86	1	4200	OHX	1	0
86	1	4206	OHX	1	0
86	1	4208	OHX	1	0
86	2	2024	OHX	1	0
86	2	2025	OHX	1	0
86	2	2027	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2032	OHX	8	0
86	2	2036	OHX	1	0
86	2	2037	OHX	2	0
86	2	2038	OHX	1	0
86	2	2039	OHX	1	0
86	2	2040	OHX	2	0
86	2	2043	OHX	1	0
86	2	2045	OHX	6	0
86	2	2046	OHX	1	0
86	2	2047	OHX	1	0
86	2	2048	OHX	2	0
86	2	2049	OHX	1	0
86	2	2052	OHX	1	0
86	2	2054	OHX	1	0
86	2	2058	OHX	1	0
86	2	2060	OHX	1	0
86	2	2065	OHX	1	0
86	2	2066	OHX	1	0
86	2	2067	OHX	1	0
86	2	2068	OHX	1	0
86	2	2071	OHX	1	0
86	2	2072	OHX	1	0
86	2	2074	OHX	1	0
86	2	2075	OHX	1	0
86	2	2076	OHX	1	0
86	2	2077	OHX	1	0
86	2	2078	OHX	1	0
86	2	2083	OHX	1	0
86	2	2084	OHX	1	0
86	2	2085	OHX	2	0
86	2	2087	OHX	1	0
86	2	2090	OHX	4	0
86	2	2091	OHX	1	0
86	2	2092	OHX	1	0
86	2	2094	OHX	1	0
86	2	2096	OHX	7	0
86	2	2097	OHX	2	0
86	2	2098	OHX	2	0
86	2	2100	OHX	6	0
86	2	2105	OHX	1	0
86	2	2106	OHX	1	0
86	2	2107	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2109	OHX	1	0
86	2	2110	OHX	7	0
86	2	2111	OHX	1	0
86	2	2112	OHX	2	0
86	2	2117	OHX	2	0
86	2	2122	OHX	3	0
86	2	2124	OHX	1	0
86	2	2126	OHX	2	0
86	2	2127	OHX	1	0
86	2	2128	OHX	1	0
86	2	2130	OHX	1	0
86	2	2132	OHX	1	0
86	2	2134	OHX	1	0
86	2	2136	OHX	2	0
86	2	2138	OHX	1	0
86	2	2140	OHX	1	0
86	2	2141	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	7	0
86	2	2147	OHX	1	0
86	2	2148	OHX	1	0
86	2	2151	OHX	1	0
86	2	2153	OHX	1	0
86	2	2154	OHX	1	0
86	2	2156	OHX	3	0
86	2	2159	OHX	2	0
86	2	2160	OHX	1	0
86	2	2163	OHX	2	0
86	2	2164	OHX	1	0
86	2	2166	OHX	1	0
86	2	2167	OHX	1	0
86	2	2170	OHX	1	0
86	2	2176	OHX	1	0
87	2	2178	PCY	5	0
86	3	216	OHX	1	0
86	3	226	OHX	1	0
86	4	222	OHX	1	0
86	4	224	OHX	1	0
86	4	225	OHX	1	0
86	4	226	OHX	1	0
86	4	228	OHX	1	0
86	4	230	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	4	231	OHX	1	0
86	4	232	OHX	1	0
86	4	234	OHX	2	0
86	4	236	OHX	1	0
86	4	237	OHX	1	0
86	4	238	OHX	1	0
86	5	3902	OHX	2	0
86	5	3906	OHX	1	0
86	5	3907	OHX	3	0
86	5	3908	OHX	1	0
86	5	3910	OHX	1	0
86	5	3911	OHX	2	0
86	5	3916	OHX	1	0
86	5	3917	OHX	2	0
86	5	3920	OHX	1	0
86	5	3923	OHX	2	0
86	5	3925	OHX	1	0
86	5	3926	OHX	1	0
86	5	3933	OHX	1	0
86	5	3938	OHX	1	0
86	5	3942	OHX	1	0
86	5	3943	OHX	7	0
86	5	3948	OHX	1	0
86	5	3949	OHX	1	0
86	5	3957	OHX	1	0
86	5	3958	OHX	3	0
86	5	3959	OHX	2	0
86	5	3960	OHX	1	0
86	5	3961	OHX	1	0
86	5	3963	OHX	4	0
86	5	3965	OHX	1	0
86	5	3970	OHX	1	0
86	5	3973	OHX	2	0
86	5	3974	OHX	4	0
86	5	3979	OHX	8	0
86	5	3980	OHX	1	0
86	5	3983	OHX	1	0
86	5	3984	OHX	2	0
86	5	3985	OHX	1	0
86	5	3987	OHX	1	0
86	5	3990	OHX	1	0
86	5	3992	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3996	OHX	1	0
86	5	4002	OHX	4	0
86	5	4003	OHX	1	0
86	5	4007	OHX	1	0
86	5	4008	OHX	1	0
86	5	4011	OHX	6	0
86	5	4013	OHX	1	0
86	5	4014	OHX	1	0
86	5	4017	OHX	1	0
86	5	4021	OHX	6	0
86	5	4023	OHX	3	0
86	5	4024	OHX	1	0
86	5	4027	OHX	1	0
86	5	4029	OHX	1	0
86	5	4033	OHX	1	0
86	5	4035	OHX	4	0
86	5	4044	OHX	1	0
86	5	4049	OHX	1	0
86	5	4050	OHX	1	0
86	5	4051	OHX	1	0
86	5	4052	OHX	1	0
86	5	4054	OHX	1	0
86	5	4055	OHX	6	0
86	5	4061	OHX	1	0
86	5	4066	OHX	7	0
86	5	4072	OHX	1	0
86	5	4074	OHX	1	0
86	5	4078	OHX	1	0
86	5	4079	OHX	1	0
86	5	4081	OHX	1	0
86	5	4086	OHX	1	0
86	5	4089	OHX	1	0
86	5	4090	OHX	2	0
86	5	4092	OHX	1	0
86	5	4093	OHX	3	0
86	5	4096	OHX	1	0
86	5	4097	OHX	1	0
86	5	4099	OHX	1	0
86	5	4101	OHX	1	0
86	5	4102	OHX	2	0
86	5	4105	OHX	2	0
86	5	4110	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4111	OHX	1	0
86	5	4114	OHX	1	0
86	5	4119	OHX	1	0
86	5	4120	OHX	1	0
86	5	4130	OHX	1	0
86	5	4131	OHX	1	0
86	5	4137	OHX	1	0
86	5	4138	OHX	1	0
86	5	4140	OHX	1	0
86	5	4141	OHX	1	0
86	5	4143	OHX	6	0
86	5	4144	OHX	1	0
86	5	4147	OHX	1	0
86	5	4159	OHX	2	0
86	5	4160	OHX	1	0
86	5	4162	OHX	1	0
86	5	4163	OHX	1	0
86	5	4168	OHX	1	0
86	5	4173	OHX	1	0
86	5	4174	OHX	1	0
86	5	4181	OHX	1	0
86	5	4182	OHX	1	0
86	5	4184	OHX	1	0
86	5	4185	OHX	1	0
86	5	4186	OHX	1	0
86	5	4190	OHX	3	0
86	5	4192	OHX	3	0
86	5	4193	OHX	1	0
86	5	4194	OHX	1	0
86	5	4195	OHX	1	0
86	5	4196	OHX	1	0
86	5	4198	OHX	3	0
86	5	4199	OHX	10	0
86	5	4200	OHX	7	0
86	5	4201	OHX	7	0
86	5	4202	OHX	3	0
86	5	4203	OHX	1	0
86	5	4205	OHX	1	0
86	5	4208	OHX	1	0
86	5	4214	OHX	1	0
86	5	4217	OHX	7	0
86	5	4219	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4223	OHX	1	0
86	5	4224	OHX	2	0
86	5	4226	OHX	2	0
86	5	4228	OHX	1	0
86	5	4231	OHX	1	0
86	5	4233	OHX	6	0
86	5	4236	OHX	1	0
86	5	4237	OHX	4	0
86	5	4239	OHX	1	0
86	5	4242	OHX	5	0
86	5	4246	OHX	1	0
86	5	4248	OHX	1	0
86	5	4250	OHX	1	0
86	6	2046	OHX	1	0
86	6	2049	OHX	1	0
86	6	2054	OHX	1	0
86	6	2055	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	2068	OHX	1	0
86	6	2070	OHX	1	0
86	6	2071	OHX	1	0
86	6	2073	OHX	2	0
86	6	2074	OHX	1	0
86	6	2075	OHX	1	0
86	6	2079	OHX	1	0
86	6	2086	OHX	1	0
86	6	2088	OHX	1	0
86	6	2092	OHX	1	0
86	6	2095	OHX	1	0
86	6	2096	OHX	1	0
86	6	2097	OHX	2	0
86	6	2100	OHX	3	0
86	6	2102	OHX	1	0
86	6	2103	OHX	1	0
86	6	2106	OHX	1	0
86	6	2107	OHX	2	0
86	6	2108	OHX	2	0
86	6	2109	OHX	1	0
86	6	2110	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2111	OHX	2	0
86	6	2112	OHX	1	0
86	6	2114	OHX	1	0
86	6	2117	OHX	2	0
86	6	2119	OHX	1	0
86	6	2120	OHX	8	0
86	6	2121	OHX	1	0
86	6	2122	OHX	1	0
86	6	2123	OHX	2	0
86	6	2124	OHX	1	0
86	6	2125	OHX	6	0
86	6	2126	OHX	3	0
86	6	2128	OHX	1	0
86	6	2130	OHX	2	0
86	6	2135	OHX	1	0
86	6	2136	OHX	1	0
86	6	2137	OHX	2	0
86	6	2138	OHX	1	0
86	6	2142	OHX	1	0
86	6	2145	OHX	1	0
86	6	2146	OHX	7	0
86	6	2148	OHX	1	0
86	6	2149	OHX	5	0
86	6	2150	OHX	1	0
86	6	2153	OHX	2	0
86	6	2156	OHX	1	0
86	6	2158	OHX	2	0
86	6	2160	OHX	1	0
86	6	2162	OHX	1	0
86	6	2169	OHX	1	0
86	6	2170	OHX	9	0
86	6	2174	OHX	1	0
86	6	2177	OHX	1	0
86	6	2178	OHX	1	0
86	6	2179	OHX	2	0
86	6	2181	OHX	1	0
86	6	2183	OHX	1	0
86	6	2185	OHX	1	0
86	6	2187	OHX	1	0
86	6	2188	OHX	2	0
86	6	2189	OHX	1	0
86	6	2191	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2201	OHX	2	0
86	6	2203	OHX	1	0
87	6	2204	PCY	1	0
86	7	217	OHX	6	0
86	7	218	OHX	1	0
86	7	225	OHX	7	0
86	8	217	OHX	2	0
86	8	218	OHX	1	0
86	8	219	OHX	6	0
86	8	223	OHX	1	0
86	8	225	OHX	1	0
86	8	226	OHX	1	0
86	8	227	OHX	6	0
86	8	228	OHX	1	0
86	8	229	OHX	2	0
86	C3	201	OHX	2	0
86	C5	201	OHX	3	0
86	D9	102	OHX	1	0
86	L3	404	OHX	1	0
86	L4	403	OHX	1	0
86	M5	303	OHX	1	0
86	M7	205	OHX	1	0
86	M7	206	OHX	2	0
86	N1	201	OHX	1	0
86	N9	102	OHX	1	0
86	O3	202	OHX	2	0
86	O7	104	OHX	6	0
86	Q2	503	OHX	2	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

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

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

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

6.3 Carbohydrates [i](#)

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

6.4 Ligands [i](#)

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

6.5 Other polymers [i](#)

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