Full wwPDB X-ray Structure Validation Report (i)

Feb 19, 2016 – 11:46 PM GMT

PDB ID	:	4WSM
Title	:	Complex of 70S ribosome with tRNA-Leu and mRNA with G-U mismatch in the first position in the A- and P-sites
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2014-10-28
Resolution	:	3.30 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 (i) symbol.

The following versions of software and data (see references (1)) were used in the production of this report:

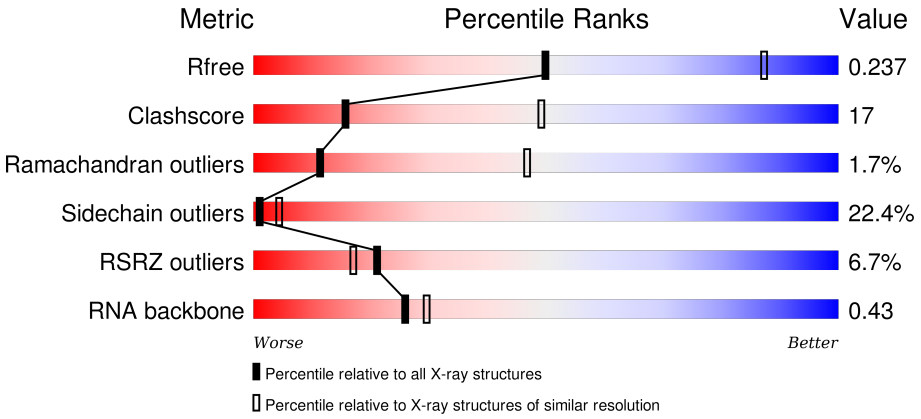
MolProbity	:	4.02b-467
Mogul	:	1.7.1 (RC1), CSD as537be (2016)
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20026982
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	rb-20026982

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 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))
R_{free}	91344	2060 (3.40-3.20)
Clashscore	102246	1058 (3.38-3.22)
Ramachandran outliers	100387	1038 (3.38-3.22)
Sidechain outliers	100360	1037 (3.38-3.22)
RSRZ outliers	91569	2070 (3.40-3.20)
RNA backbone	2183	1005 (3.82-2.78)

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 <=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.

Mol	Chain	Length	Quality of chain
1	13	1522	37% 44% 16%
1	1G	1522	38% 42% 16%
2	12	256	10% 40% 39% 13% 7%
2	1E	256	6% 42% 40% 10% 7%

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Mol	Chain	Length	Quality of chain
3	22	239	28% 39% 37% 10% 14%
3	2E	239	8% 44% 33% 10% 14%
4	32	209	10% 42% 45% 12%
4	3E	209	% 50% 40% 9%
5	42	162	7% 46% 37% 10% 7%
5	4E	162	4% 44% 39% 10% 7%
6	52	101	47% 44% 9%
6	5E	101	6% 53% 38% 9%
7	62	156	7% 44% 42% 8% 6%
7	6E	156	3% 51% 35% 6% 8%
8	72	138	9% 54% 41%
8	7E	138	4% 53% 41% 6%
9	82	128	3% 46% 43% 8%
9	8E	128	2% 35% 50% 13%
10	1A	105	15% 45% 38% 10% 6%
10	1I	105	16% 42% 44% 9% 6%
11	2A	129	16% 45% 38% 7% 10%
11	2I	129	17% 47% 39% 5% 10%
12	3A	132	27% 47% 33% 15% 5%
12	3I	132	4% 44% 39% 9% 8%
13	4A	126	14% 40% 45% 7% 8%
13	4I	126	14% 39% 41% 12% 8%
14	5A	61	34% 39% 43% 11% 5%
14	5I	61	2% 41% 46% 11%
15	6A	89	4% 57% 39%

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Mol	Chain	Length	Quality of chain
15	6I	89	4% 54% 40%
16	7A	88	5% 49% 40% 7% 5%
16	7I	88	17% 45% 44% 6% 5%
17	8A	105	9% 47% 43% 5% 6%
17	8I	105	3% 53% 36% 6% 5%
18	9A	88	18% 42% 31% 6% 22%
18	9I	88	24% 42% 24% 10% 24%
19	AA	93	27% 30% 45% 9% 16%
19	AI	93	19% 40% 37% 6% 14%
20	BA	106	% 42% 42% 8% 7%
20	BI	106	3% 49% 36% 8% 7%
21	1B	27	22% 52% 37% 7%
21	1F	27	48% 37% 15%
22	1K	87	6% 41% 34% 23%
22	1L	87	14% 33% 48% 16%
23	2K	87	5% 33% 22% 28% 8% 9%
23	2L	87	6% 18% 38% 28% 8% 8%
24	3K	87	3% 24% 43% 18% 11%
24	3L	87	3% 28% 37% 21% 14%
25	4K	60	8% 12% 7% 73%
25	4L	60	3% 15% 13% 7% 65%
26	14	2917	% 36% 42% 18%
26	1H	2917	% 33% 43% 20%
27	16	122	36% 45% 17%
27	1J	122	32% 45% 19%

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Mol	Chain	Length	Quality of chain
28	11	276	% 56% 35% 8%
28	19	276	4% 56% 33% 9%
29	21	206	11% 39% 43% 16%
29	29	206	9% 42% 42% 13%
30	31	210	4% 46% 40% 10%
30	39	210	6% 38% 48% 13%
31	41	182	30% 41% 48% 10%
31	49	182	37% 47% 43% 9%
32	51	180	9% 38% 44% 13%
32	59	180	27% 36% 46% 13% 6%
33	61	148	14% 40% 47% 11%
33	69	148	26% 41% 41% 17%
34	15	140	6% 53% 34% 12%
34	58	140	9% 44% 44% 10%
35	25	122	7% 47% 44% 9%
35	68	122	6% 62% 26% 11%
36	35	150	11% 42% 35% 19%
36	78	150	33% 47% 15%
37	45	141	23% 44% 43% 11%
37	88	141	18% 49% 37% 13%
38	55	118	3% 39% 42% 18%
38	98	118	4% 42% 38% 19%
39	65	112	14% 41% 40% 17%
39	A8	112	13% 40% 43% 15%
40	75	146	% 42% 42% 9% 6%

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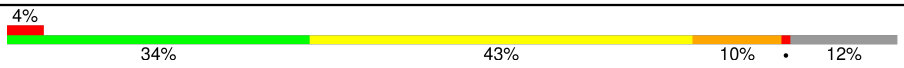
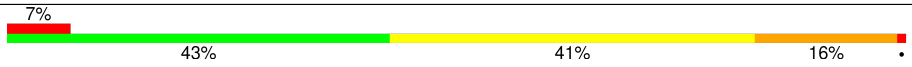
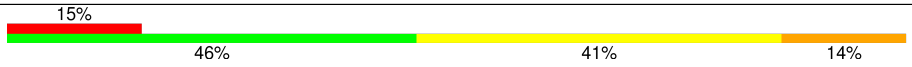
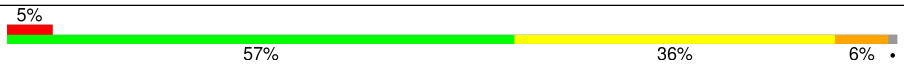
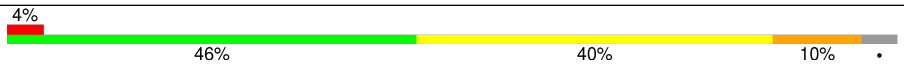
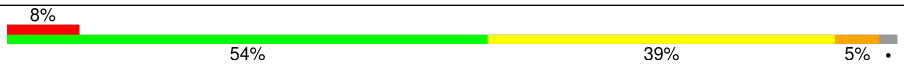
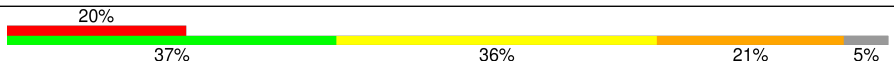
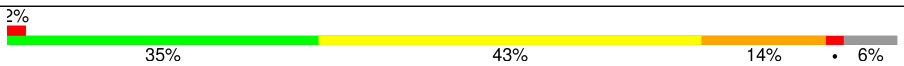
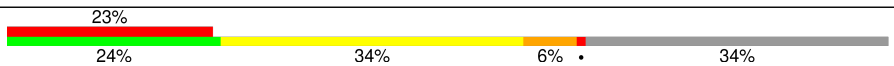
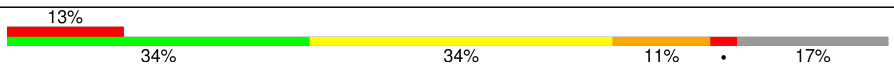
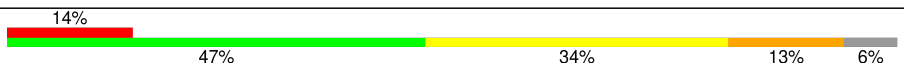
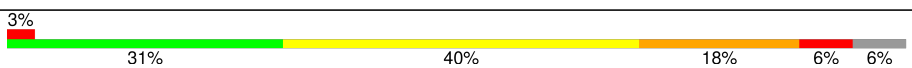
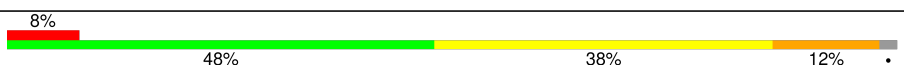
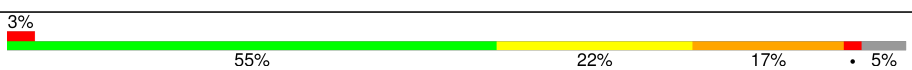
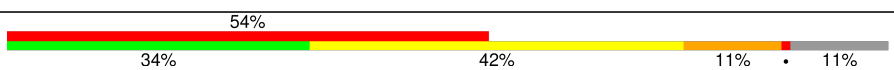
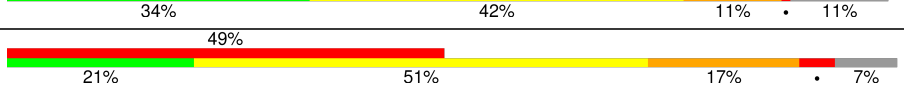
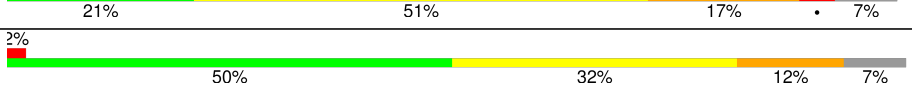
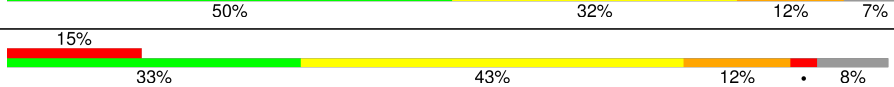
Mol	Chain	Length	Quality of chain
40	B8	146	
41	85	118	
41	C8	118	
42	95	101	
42	D8	101	
43	A5	113	
43	E8	113	
44	B5	96	
44	F8	96	
45	C5	110	
45	G8	110	
46	D5	206	
46	H8	206	
47	E5	85	
47	I8	85	
48	F5	98	
48	J8	98	
49	G5	72	
49	K8	72	
50	H5	60	
50	L8	60	
51	I5	71	
51	M8	71	
52	J5	60	
52	N8	60	

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Mol	Chain	Length	Quality of chain
53	L5	49	2% 39% 45% 12%
53	P8	49	4% 43% 41% 10%
54	M5	65	11% 35% 31% 15% 18%
54	Q8	65	3% 11% 35% 32% 14% 8%

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
55	MG	13	1601	-	-	-	X
55	MG	13	1602	-	-	-	X
55	MG	13	1604	-	-	-	X
55	MG	13	1606	-	-	-	X
55	MG	13	1608	-	-	-	X
55	MG	13	1609	-	-	-	X
55	MG	13	1610	-	-	-	X
55	MG	13	1613	-	-	-	X
55	MG	13	1615	-	-	-	X
55	MG	13	1619	-	-	-	X
55	MG	13	1622	-	-	-	X
55	MG	13	1626	-	-	-	X
55	MG	13	1629	-	-	-	X
55	MG	13	1632	-	-	-	X
55	MG	13	1635	-	-	-	X
55	MG	13	1636	-	-	-	X
55	MG	13	1638	-	-	-	X
55	MG	13	1639	-	-	-	X
55	MG	13	1661	-	-	-	X
55	MG	13	1667	-	-	-	X
55	MG	13	1672	-	-	-	X
55	MG	13	1680	-	-	-	X
55	MG	13	1681	-	-	-	X
55	MG	13	1688	-	-	-	X
55	MG	13	1697	-	-	-	X
55	MG	13	1700	-	-	-	X
55	MG	13	1709	-	-	-	X
55	MG	13	1711	-	-	-	X
55	MG	13	1713	-	-	-	X
55	MG	13	1716	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	13	1720	-	-	-	X
55	MG	13	1724	-	-	-	X
55	MG	13	1728	-	-	-	X
55	MG	13	1731	-	-	-	X
55	MG	14	3005	-	-	-	X
55	MG	14	3009	-	-	-	X
55	MG	14	3011	-	-	-	X
55	MG	14	3013	-	-	-	X
55	MG	14	3017	-	-	-	X
55	MG	14	3024	-	-	-	X
55	MG	14	3030	-	-	-	X
55	MG	14	3031	-	-	-	X
55	MG	14	3032	-	-	-	X
55	MG	14	3034	-	-	-	X
55	MG	14	3036	-	-	-	X
55	MG	14	3037	-	-	-	X
55	MG	14	3038	-	-	-	X
55	MG	14	3039	-	-	-	X
55	MG	14	3040	-	-	-	X
55	MG	14	3041	-	-	-	X
55	MG	14	3042	-	-	-	X
55	MG	14	3044	-	-	-	X
55	MG	14	3046	-	-	-	X
55	MG	14	3052	-	-	-	X
55	MG	14	3059	-	-	-	X
55	MG	14	3065	-	-	-	X
55	MG	14	3066	-	-	-	X
55	MG	14	3067	-	-	-	X
55	MG	14	3071	-	-	-	X
55	MG	14	3072	-	-	-	X
55	MG	14	3074	-	-	-	X
55	MG	14	3090	-	-	-	X
55	MG	14	3093	-	-	-	X
55	MG	14	3094	-	-	-	X
55	MG	14	3099	-	-	-	X
55	MG	14	3100	-	-	-	X
55	MG	14	3105	-	-	-	X
55	MG	14	3108	-	-	-	X
55	MG	14	3109	-	-	-	X
55	MG	14	3110	-	-	-	X
55	MG	14	3120	-	-	-	X
55	MG	14	3121	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	14	3124	-	-	-	X
55	MG	14	3130	-	-	-	X
55	MG	14	3140	-	-	-	X
55	MG	14	3146	-	-	-	X
55	MG	14	3148	-	-	-	X
55	MG	14	3150	-	-	-	X
55	MG	14	3153	-	-	-	X
55	MG	14	3155	-	-	-	X
55	MG	14	3165	-	-	-	X
55	MG	14	3166	-	-	-	X
55	MG	14	3170	-	-	-	X
55	MG	14	3172	-	-	-	X
55	MG	14	3173	-	-	-	X
55	MG	14	3177	-	-	-	X
55	MG	14	3179	-	-	-	X
55	MG	14	3183	-	-	-	X
55	MG	14	3188	-	-	-	X
55	MG	14	3190	-	-	-	X
55	MG	14	3196	-	-	-	X
55	MG	14	3197	-	-	-	X
55	MG	14	3199	-	-	-	X
55	MG	14	3200	-	-	-	X
55	MG	14	3205	-	-	-	X
55	MG	14	3206	-	-	-	X
55	MG	14	3207	-	-	-	X
55	MG	14	3224	-	-	-	X
55	MG	14	3225	-	-	-	X
55	MG	14	3229	-	-	-	X
55	MG	14	3241	-	-	-	X
55	MG	14	3243	-	-	-	X
55	MG	14	3253	-	-	-	X
55	MG	14	3262	-	-	-	X
55	MG	14	3274	-	-	-	X
55	MG	14	3276	-	-	-	X
55	MG	14	3280	-	-	-	X
55	MG	14	3285	-	-	-	X
55	MG	14	3292	-	-	-	X
55	MG	14	3295	-	-	-	X
55	MG	14	3300	-	-	-	X
55	MG	14	3301	-	-	-	X
55	MG	14	3314	-	-	-	X
55	MG	14	3319	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	14	3330	-	-	-	X
55	MG	14	3350	-	-	-	X
55	MG	14	3353	-	-	-	X
55	MG	14	3363	-	-	-	X
55	MG	14	3366	-	-	-	X
55	MG	14	3373	-	-	-	X
55	MG	14	3488	-	-	-	X
55	MG	14	3490	-	-	-	X
55	MG	16	201	-	-	-	X
55	MG	16	204	-	-	-	X
55	MG	1G	1602	-	-	-	X
55	MG	1G	1603	-	-	-	X
55	MG	1G	1604	-	-	-	X
55	MG	1G	1608	-	-	-	X
55	MG	1G	1613	-	-	-	X
55	MG	1G	1618	-	-	-	X
55	MG	1G	1619	-	-	-	X
55	MG	1G	1621	-	-	-	X
55	MG	1G	1622	-	-	-	X
55	MG	1G	1630	-	-	-	X
55	MG	1G	1641	-	-	-	X
55	MG	1G	1644	-	-	-	X
55	MG	1G	1649	-	-	-	X
55	MG	1G	1656	-	-	-	X
55	MG	1G	1672	-	-	-	X
55	MG	1G	1676	-	-	-	X
55	MG	1G	1685	-	-	-	X
55	MG	1G	1686	-	-	-	X
55	MG	1G	1687	-	-	-	X
55	MG	1G	1688	-	-	-	X
55	MG	1G	1695	-	-	-	X
55	MG	1G	1696	-	-	-	X
55	MG	1G	1701	-	-	-	X
55	MG	1G	1702	-	-	-	X
55	MG	1G	1704	-	-	-	X
55	MG	1G	1709	-	-	-	X
55	MG	1G	1710	-	-	-	X
55	MG	1G	1720	-	-	-	X
55	MG	1G	1722	-	-	-	X
55	MG	1G	1728	-	-	-	X
55	MG	1H	3001	-	-	-	X
55	MG	1H	3002	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	1H	3003	-	-	-	X
55	MG	1H	3005	-	-	-	X
55	MG	1H	3009	-	-	-	X
55	MG	1H	3011	-	-	-	X
55	MG	1H	3016	-	-	-	X
55	MG	1H	3017	-	-	-	X
55	MG	1H	3018	-	-	-	X
55	MG	1H	3019	-	-	-	X
55	MG	1H	3021	-	-	-	X
55	MG	1H	3025	-	-	-	X
55	MG	1H	3029	-	-	-	X
55	MG	1H	3035	-	-	-	X
55	MG	1H	3038	-	-	-	X
55	MG	1H	3039	-	-	-	X
55	MG	1H	3040	-	-	-	X
55	MG	1H	3041	-	-	-	X
55	MG	1H	3043	-	-	-	X
55	MG	1H	3046	-	-	-	X
55	MG	1H	3052	-	-	-	X
55	MG	1H	3053	-	-	-	X
55	MG	1H	3055	-	-	-	X
55	MG	1H	3058	-	-	-	X
55	MG	1H	3060	-	-	-	X
55	MG	1H	3061	-	-	-	X
55	MG	1H	3066	-	-	-	X
55	MG	1H	3067	-	-	-	X
55	MG	1H	3071	-	-	-	X
55	MG	1H	3075	-	-	-	X
55	MG	1H	3076	-	-	-	X
55	MG	1H	3080	-	-	-	X
55	MG	1H	3083	-	-	-	X
55	MG	1H	3085	-	-	-	X
55	MG	1H	3087	-	-	-	X
55	MG	1H	3092	-	-	-	X
55	MG	1H	3096	-	-	-	X
55	MG	1H	3097	-	-	-	X
55	MG	1H	3098	-	-	-	X
55	MG	1H	3102	-	-	-	X
55	MG	1H	3103	-	-	-	X
55	MG	1H	3108	-	-	-	X
55	MG	1H	3110	-	-	-	X
55	MG	1H	3113	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	1H	3115	-	-	-	X
55	MG	1H	3116	-	-	-	X
55	MG	1H	3118	-	-	-	X
55	MG	1H	3120	-	-	-	X
55	MG	1H	3121	-	-	-	X
55	MG	1H	3125	-	-	-	X
55	MG	1H	3130	-	-	-	X
55	MG	1H	3132	-	-	-	X
55	MG	1H	3135	-	-	-	X
55	MG	1H	3140	-	-	-	X
55	MG	1H	3142	-	-	-	X
55	MG	1H	3144	-	-	-	X
55	MG	1H	3148	-	-	-	X
55	MG	1H	3150	-	-	-	X
55	MG	1H	3152	-	-	-	X
55	MG	1H	3153	-	-	-	X
55	MG	1H	3161	-	-	-	X
55	MG	1H	3166	-	-	-	X
55	MG	1H	3168	-	-	-	X
55	MG	1H	3171	-	-	-	X
55	MG	1H	3173	-	-	-	X
55	MG	1H	3177	-	-	-	X
55	MG	1H	3180	-	-	-	X
55	MG	1H	3197	-	-	-	X
55	MG	1H	3209	-	-	-	X
55	MG	1H	3213	-	-	-	X
55	MG	1H	3216	-	-	-	X
55	MG	1H	3217	-	-	-	X
55	MG	1H	3226	-	-	-	X
55	MG	1H	3228	-	-	-	X
55	MG	1H	3244	-	-	-	X
55	MG	1H	3254	-	-	-	X
55	MG	1H	3263	-	-	-	X
55	MG	1H	3266	-	-	-	X
55	MG	1H	3268	-	-	-	X
55	MG	1H	3273	-	-	-	X
55	MG	1H	3279	-	-	-	X
55	MG	1H	3281	-	-	-	X
55	MG	1H	3283	-	-	-	X
55	MG	1H	3290	-	-	-	X
55	MG	1H	3299	-	-	-	X
55	MG	1H	3310	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	1H	3314	-	-	-	X
55	MG	1H	3323	-	-	-	X
55	MG	1H	3326	-	-	-	X
55	MG	1H	3336	-	-	-	X
55	MG	1H	3344	-	-	-	X
55	MG	1H	3352	-	-	-	X
55	MG	1H	3355	-	-	-	X
55	MG	1H	3359	-	-	-	X
55	MG	1H	3363	-	-	-	X
55	MG	1H	3365	-	-	-	X
55	MG	1H	3369	-	-	-	X
55	MG	1H	3373	-	-	-	X
55	MG	1H	3377	-	-	-	X
55	MG	1H	3388	-	-	-	X
55	MG	1H	3395	-	-	-	X
55	MG	1H	3396	-	-	-	X
55	MG	1H	3405	-	-	-	X
55	MG	1H	3484	-	-	-	X
55	MG	1H	3509	-	-	-	X
55	MG	1H	3510	-	-	-	X
55	MG	1K	101	-	-	-	X
55	MG	29	301	-	-	-	X
55	MG	2L	101	-	-	-	X
56	ZN	3E	302	-	-	-	X
56	ZN	C5	201	-	-	-	X
56	ZN	G8	202	-	-	-	X

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 299429 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 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1507	Total	C	N	O	P	0	0	0
			32389	14416	5999	10467	1507			
1	1G	1513	Total	C	N	O	P	0	0	0
			32511	14472	6018	10509	1512			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
2	12	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2E	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	22	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	42	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			
6	52	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6E	144	Total	C	N	O	S	0	0	0
			1157	718	230	203	6			
7	62	147	Total	C	N	O	S	0	0	0
			1200	750	237	207	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	7E	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			
8	72	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	8E	127	Total	C	N	O	0	0	0
			1009	639	197	173			
9	82	124	Total	C	N	O	0	0	0
			983	624	190	169			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1A	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			
11	2A	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	3I	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
12	3A	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
13	4A	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			

- Molecule 14 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	60	Total	C	N	O	S	0	0	0
			491	312	104	71	4			
14	5A	58	Total	C	N	O	S	0	0	0
			475	303	99	69	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			
15	6A	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	7A	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	8I	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	8A	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	67	Total	C	N	O	0	0	0
			550	352	107	91			
18	9A	69	Total	C	N	O	0	0	0
			564	361	110	93			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	80	Total	C	N	O	S	0	0	0
			643	411	118	112	2			
19	AA	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	23	Total 199	C 122	N 48	O 29	0	0	0
21	1B	25	Total 217	C 134	N 52	O 31	0	0	0

- Molecule 22 is a RNA chain called tRNA-Leu.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1K	87	Total 1863	C 831	N 333	O 612	P 87	0	0	0
22	1L	87	Total 1863	C 831	N 333	O 612	P 87	0	0	0

- Molecule 23 is a RNA chain called tRNA-Leu.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	2K	79	Total 1692	C 755	N 300	O 558	P 79	0	0	0
23	2L	80	Total 1712	C 764	N 303	O 565	P 80	0	0	0

- Molecule 24 is a RNA chain called tRNA-Leu.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	77	Total 1646	C 733	N 292	O 544	P 77	0	0	0
24	3L	75	Total 1601	C 713	N 282	O 531	P 75	0	0	0

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	16	Total 336	C 150	N 50	O 120	P 16	0	0	0
25	4L	21	Total 438	C 196	N 64	O 157	P 21	0	0	0

- Molecule 26 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2912	Total 62707	C 27911	N 11722	O 20163	P 2911	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	2909	Total	C	N	O	P	0	0	0
			62647	27884	11716	20139	2908			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	-	insertion	GB 48268
1H	493	G	-	insertion	GB 48268
1H	1228	G	-	insertion	GB 48268
14	161	U	-	insertion	GB 48268
14	493	G	-	insertion	GB 48268
14	1228	G	-	insertion	GB 48268

- Molecule 27 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	16	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
27	1J	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	11	273	Total	C	N	O	S	0	0	0
			2126	1341	424	358	3			
28	19	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	21	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
29	29	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	39	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 31 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	41	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			
31	49	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	51	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			
32	59	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
33	69	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	58	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
34	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	68	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
35	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	78	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			
36	35	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	88	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	7			
37	45	140	Total	C	N	O	S	0	0	0
			1113	710	211	186	6			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	98	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
38	55	117	Total	C	N	O		0	0	0
			959	599	202	158				

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	A8	111	Total	C	N	O	0	0	0
			881	556	176	149			
39	65	111	Total	C	N	O	0	0	0
			881	556	176	149			

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B8	129	Total	C	N	O	S	0	0	0
			1081	674	223	183	1			
40	75	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	C8	117	Total	C	N	O	S	0	0	0
			963	610	202	150	1			
41	85	117	Total	C	N	O	S	0	0	0
			963	610	202	150	1			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	D8	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			
42	95	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	E8	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
43	A5	113	Total	C	N	O	S	0	0	0
			899	566	177	154	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	F8	94	Total	C	N	O	S	0	0	0
			742	482	134	125	1			
44	B5	92	Total	C	N	O		0	0	0
			725	471	131	123				

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	G8	103	Total	C	N	O	S	0	0	0
			783	504	148	126	5			
45	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	H8	171	Total	C	N	O	S	0	0	0
			1373	876	247	247	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	D5	135	Total	C	N	O	S	0	0	0
			1120	720	202	195	3			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	I8	83	Total	C	N	O	S	0	0	0
			656	407	139	109	1			
47	E5	80	Total	C	N	O	S	0	0	0
			627	388	132	106	1			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
I8	6	ALA	GLY	conflict	UNP P60493
I8	8	ALA	GLY	conflict	UNP P60493
E5	6	ALA	GLY	conflict	UNP P60493
E5	8	ALA	GLY	conflict	UNP P60493

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	J8	95	Total	C	N	O	S	0	0	0
			746	469	148	128	1			
48	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	K8	68	Total	C	N	O	S	0	0	0
			575	358	116	100	1			
49	G5	67	Total	C	N	O	S	0	0	0
			567	351	115	100	1			

- Molecule 50 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	L8	57	Total	C	N	O	0	0	0
			452	288	88	76			
50	H5	59	Total	C	N	O	0	0	0
			468	298	90	80			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M8	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
51	I5	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	N8	55	Total	C	N	O	S	0	0	0
			429	269	86	69	5			
52	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	P8	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			
53	L5	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	Q8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
54	M5	53	Total	C	N	O	S	0	0	0
			422	270	87	63	2			

- Molecule 55 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	98	1	Total	Mg	0	0
			1	1		
55	45	2	Total	Mg	0	0
			2	2		
55	P8	1	Total	Mg	0	0
			1	1		
55	85	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	32	1	Total Mg 1 1	0	0
55	13	146	Total Mg 146 146	0	0
55	1J	2	Total Mg 2 2	0	0
55	16	5	Total Mg 5 5	0	0
55	25	1	Total Mg 1 1	0	0
55	21	2	Total Mg 2 2	0	0
55	31	1	Total Mg 1 1	0	0
55	3I	1	Total Mg 1 1	0	0
55	I8	2	Total Mg 2 2	0	0
55	5E	1	Total Mg 1 1	0	0
55	29	3	Total Mg 3 3	0	0
55	7A	1	Total Mg 1 1	0	0
55	2K	3	Total Mg 3 3	0	0
55	J8	1	Total Mg 1 1	0	0
55	1G	143	Total Mg 143 143	0	0
55	11	1	Total Mg 1 1	0	0
55	1H	512	Total Mg 512 512	0	0
55	E5	2	Total Mg 2 2	0	0
55	88	4	Total Mg 4 4	0	0
55	14	490	Total Mg 490 490	0	0
55	78	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	3E	1	Total Mg 1 1	0	0
55	1K	1	Total Mg 1 1	0	0
55	G8	1	Total Mg 1 1	0	0
55	2L	2	Total Mg 2 2	0	0

- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	32	1	Total Zn 1 1	0	0
56	3E	1	Total Zn 1 1	0	0
56	5I	1	Total Zn 1 1	0	0
56	5A	1	Total Zn 1 1	0	0
56	G8	1	Total Zn 1 1	0	0
56	C5	1	Total Zn 1 1	0	0

- Molecule 57 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	13	74	Total O 74 74	0	0
57	3E	1	Total O 1 1	0	0
57	6I	1	Total O 1 1	0	0
57	BI	1	Total O 1 1	0	0
57	1H	552	Total O 552 552	0	0
57	11	1	Total O 1 1	0	0
57	21	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	31	4	Total O 4 4	0	0
57	78	2	Total O 2 2	0	0
57	B8	1	Total O 1 1	0	0
57	C8	2	Total O 2 2	0	0
57	D8	1	Total O 1 1	0	0
57	E8	1	Total O 1 1	0	0
57	I8	3	Total O 3 3	0	0
57	J8	1	Total O 1 1	0	0
57	P8	1	Total O 1 1	0	0
57	1G	73	Total O 73 73	0	0
57	6A	2	Total O 2 2	0	0
57	7A	1	Total O 1 1	0	0
57	4L	2	Total O 2 2	0	0
57	14	520	Total O 520 520	0	0
57	19	8	Total O 8 8	0	0
57	29	2	Total O 2 2	0	0
57	39	4	Total O 4 4	0	0
57	35	1	Total O 1 1	0	0
57	55	2	Total O 2 2	0	0
57	85	1	Total O 1 1	0	0
57	A5	1	Total O 1 1	0	0

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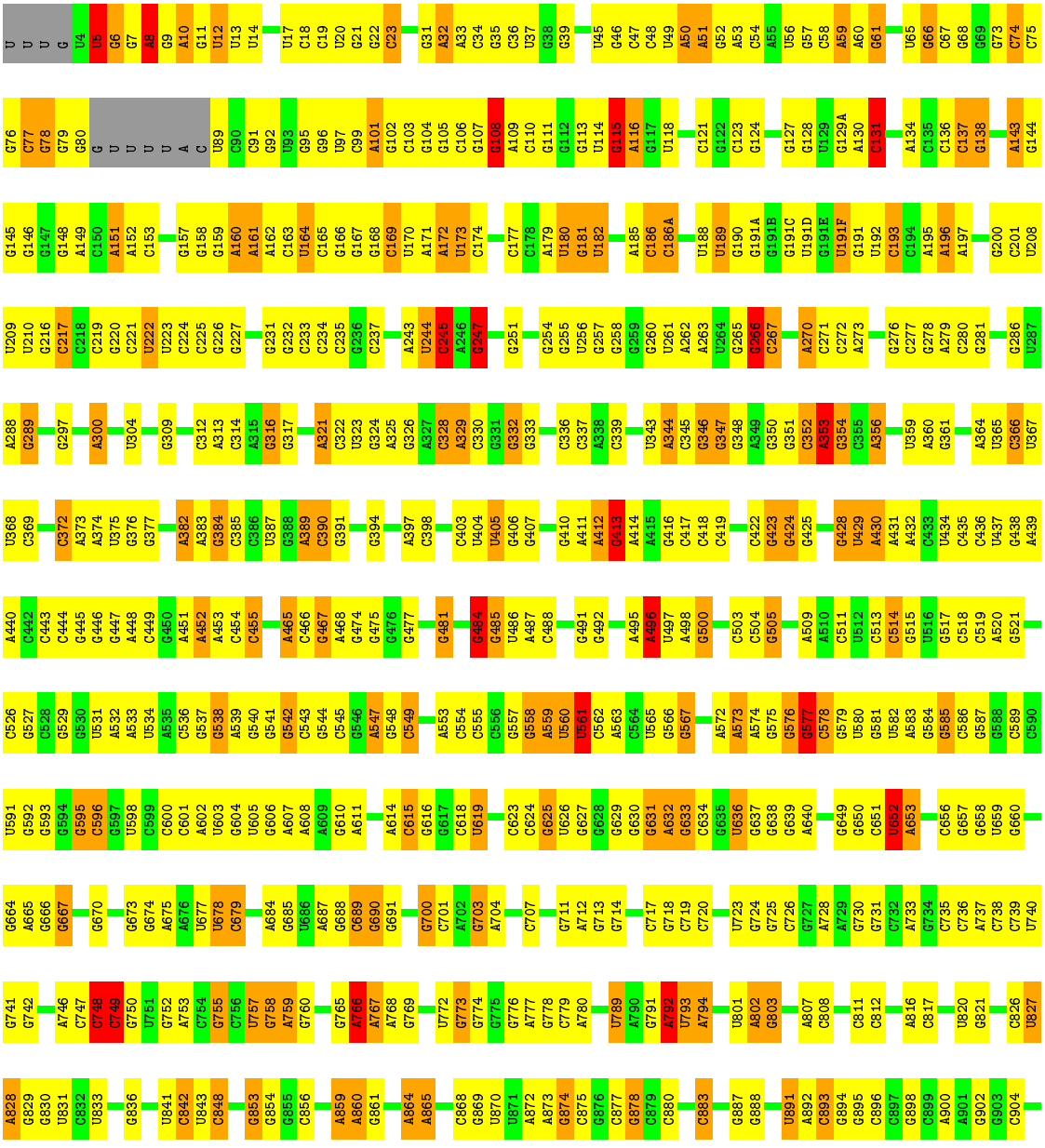
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	M5	3	Total O 3 3	0	0

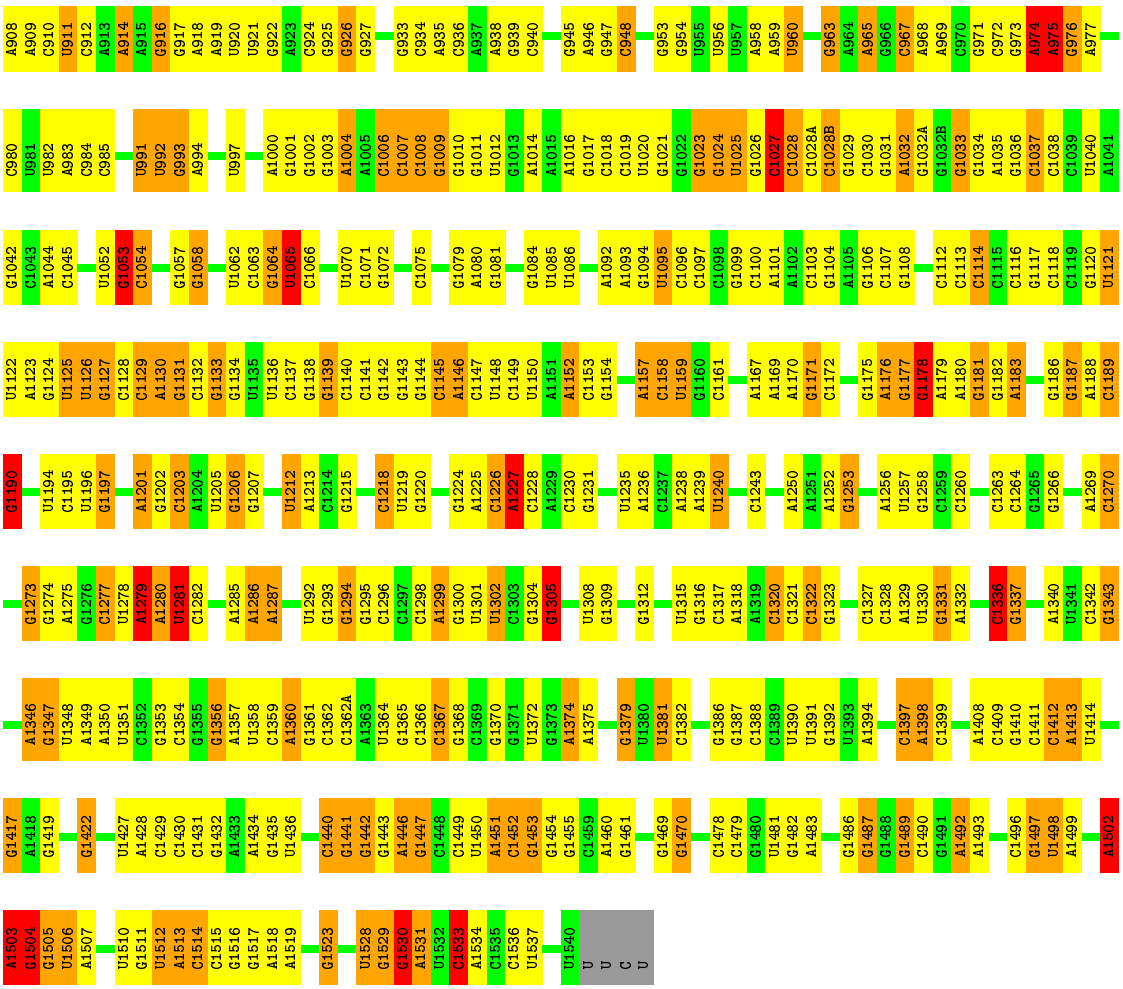
3 Residue-property plots (i)

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

- Molecule 1: 16S ribosomal RNA

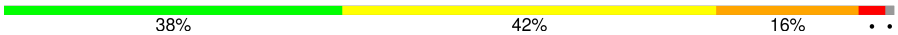
Chain 13:

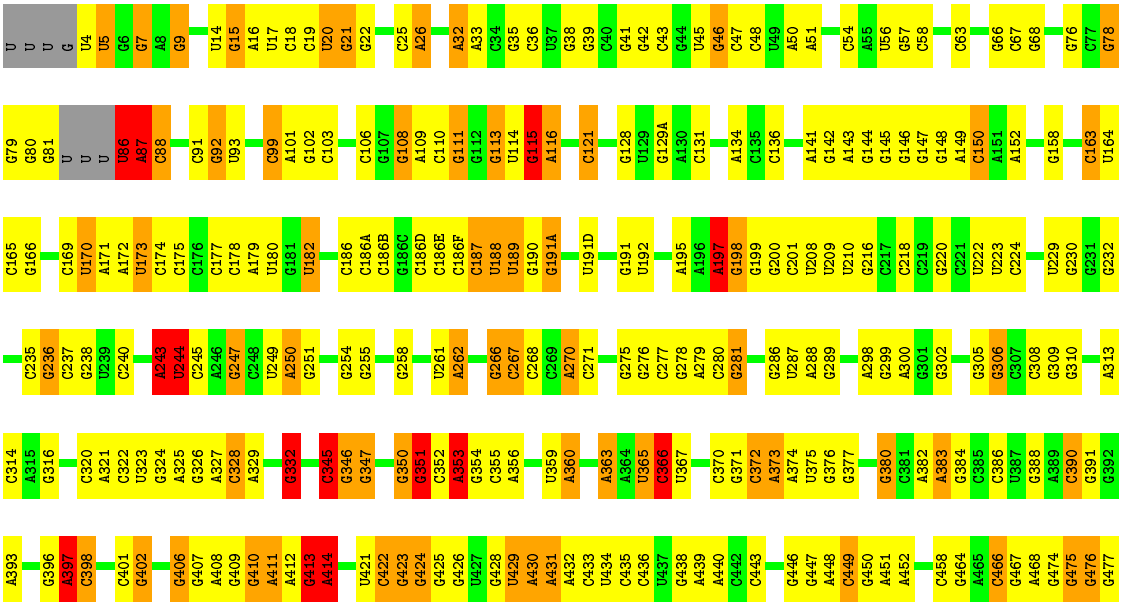


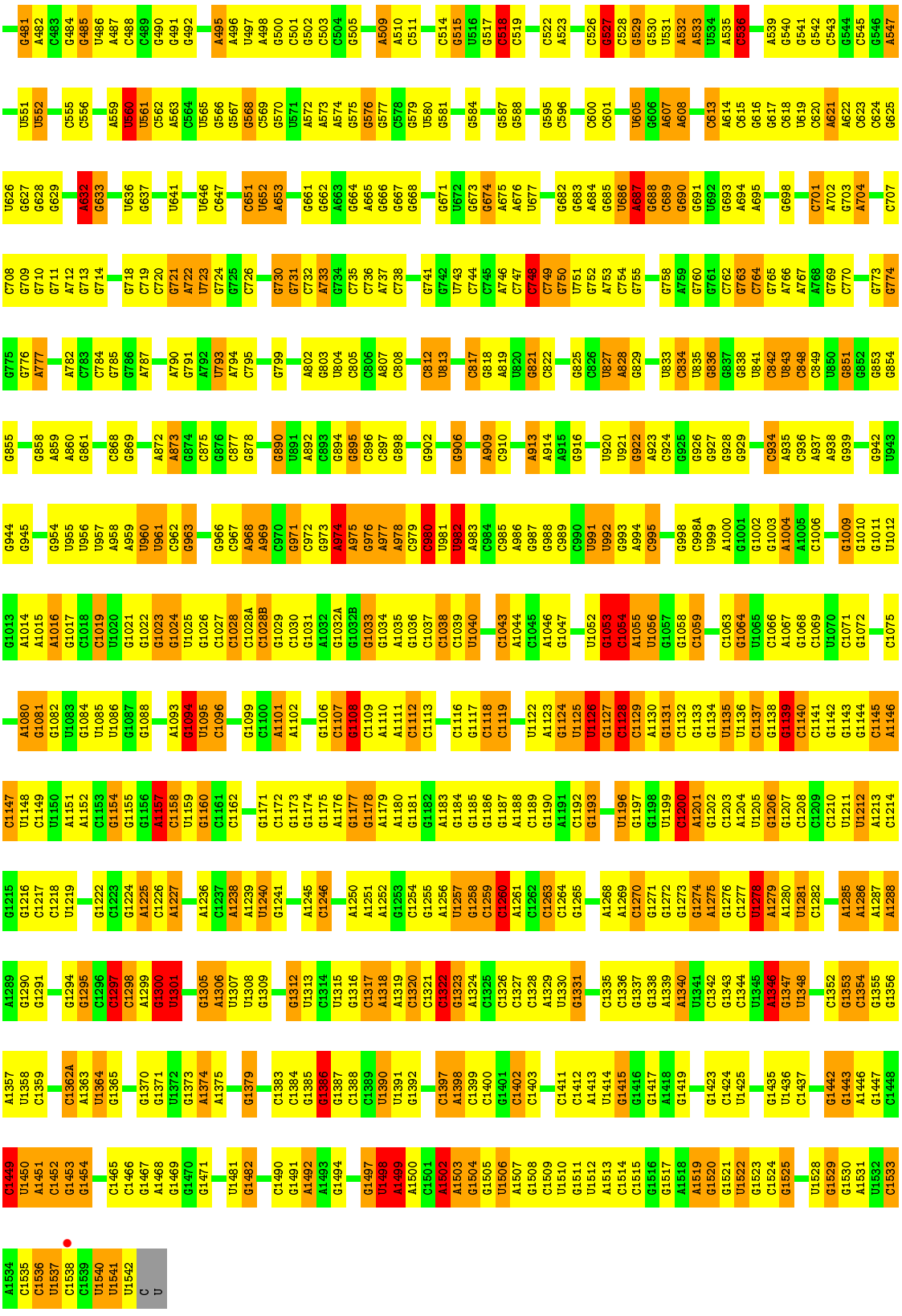


• Molecule 1: 16S ribosomal RNA

Chain 1G:

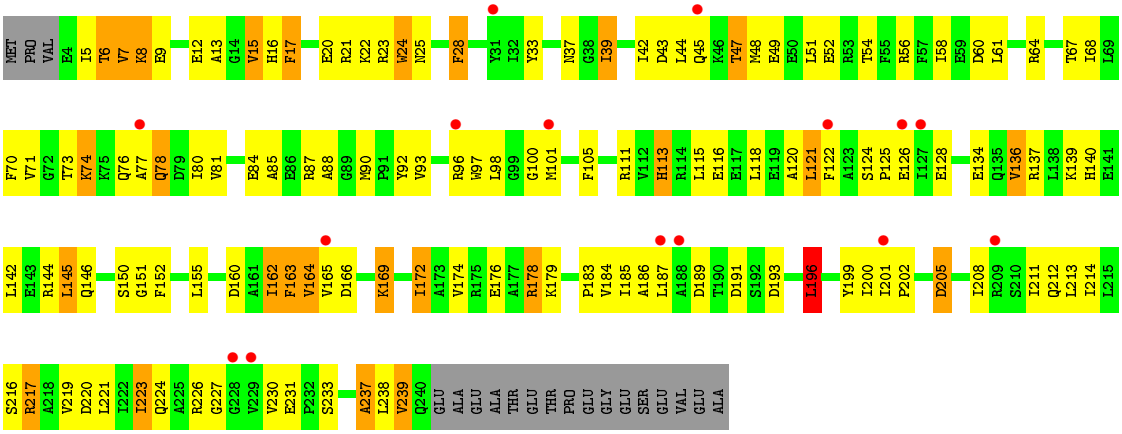






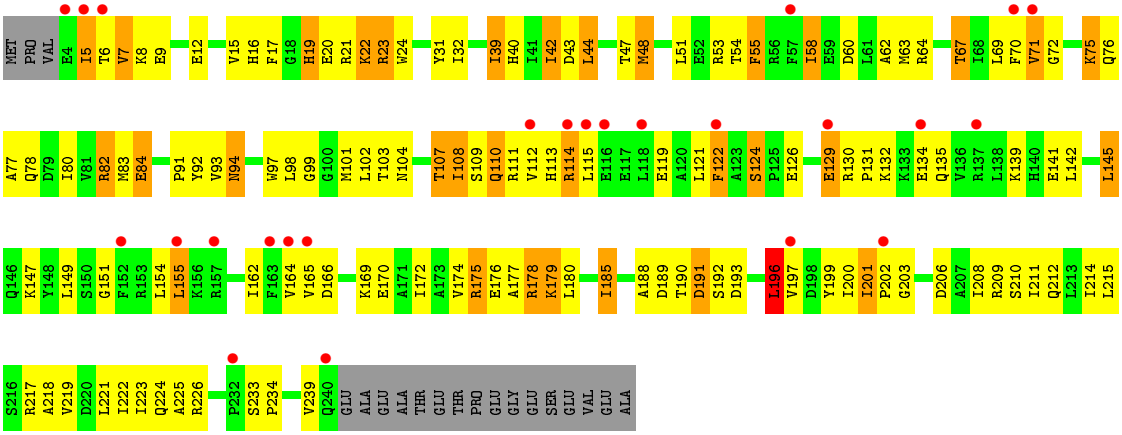
- Molecule 2: 30S ribosomal protein S2

Chain 1E:



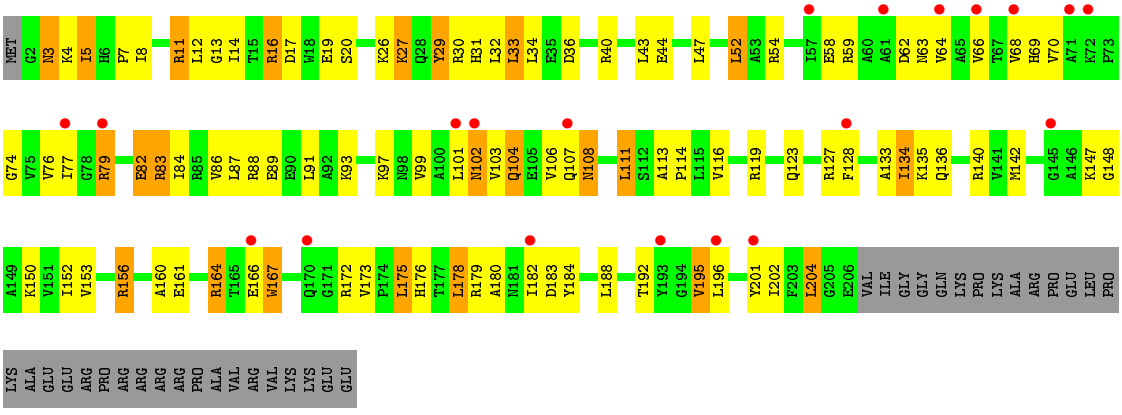
• Molecule 2: 30S ribosomal protein S2

Chain 12:



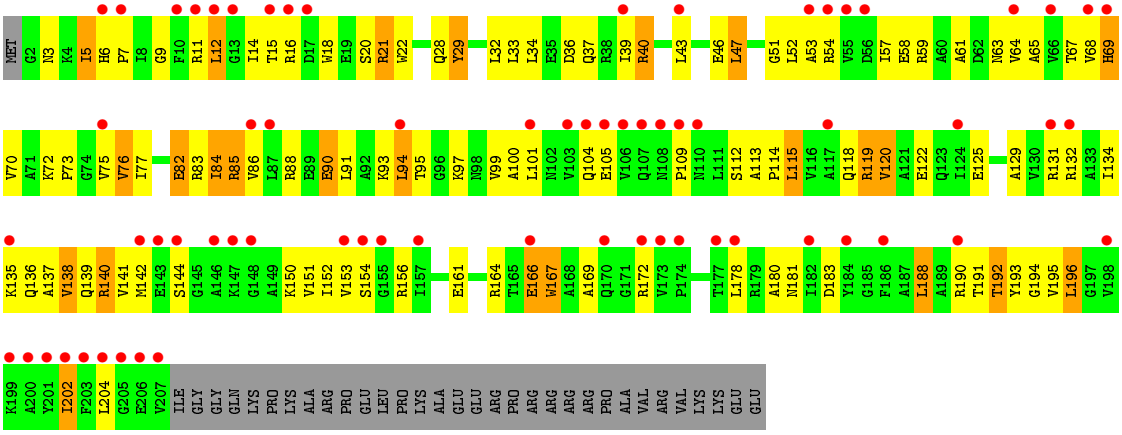
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



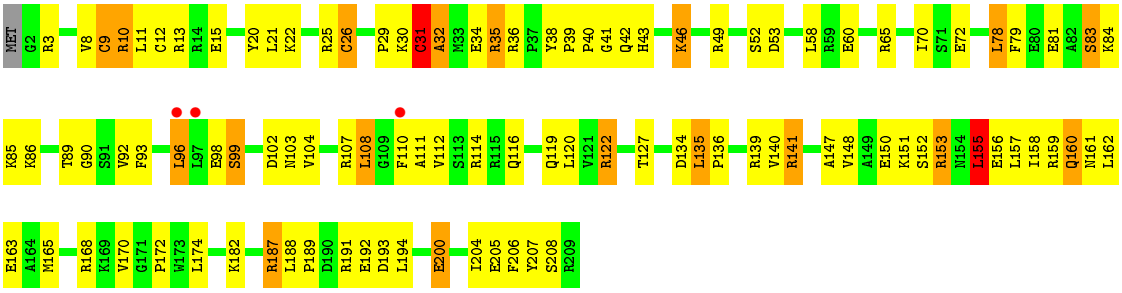
• Molecule 3: 30S ribosomal protein S3

Chain 22:



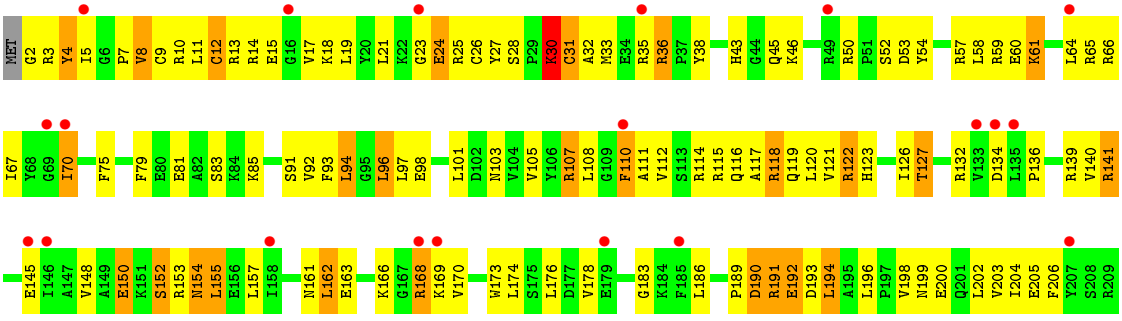
• Molecule 4: 30S ribosomal protein S4

Chain 3E:



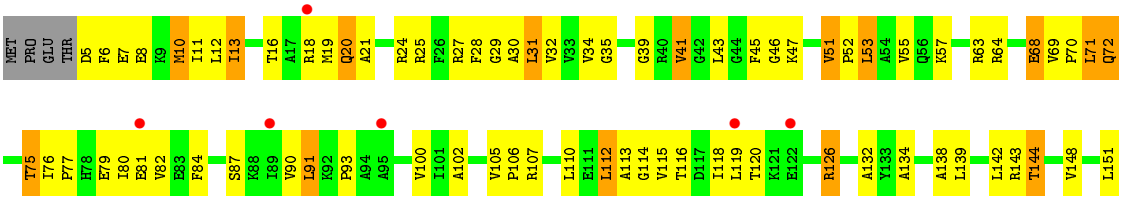
• Molecule 4: 30S ribosomal protein S4

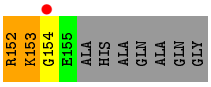
Chain 32:



• Molecule 5: 30S ribosomal protein S5

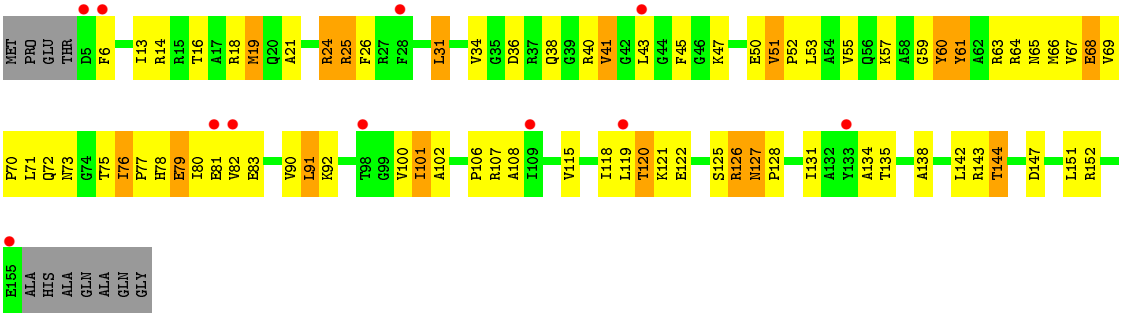
Chain 4E:





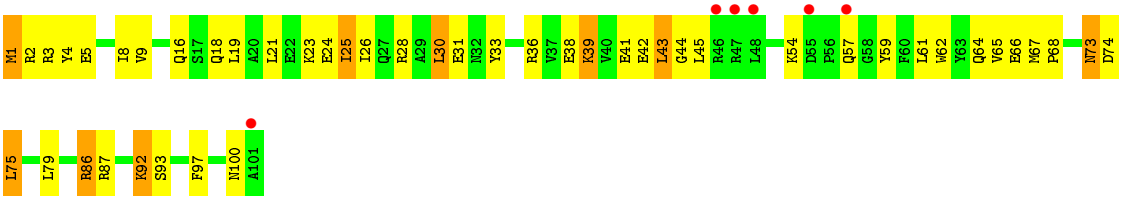
• Molecule 5: 30S ribosomal protein S5

Chain 42:



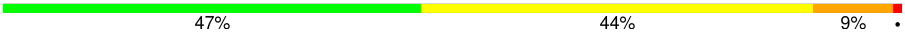
• Molecule 6: 30S ribosomal protein S6

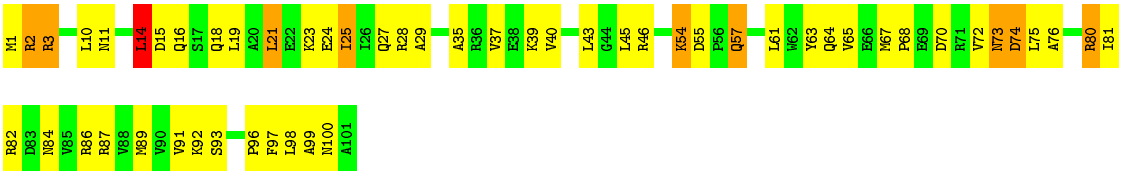
Chain 5E:



• Molecule 6: 30S ribosomal protein S6

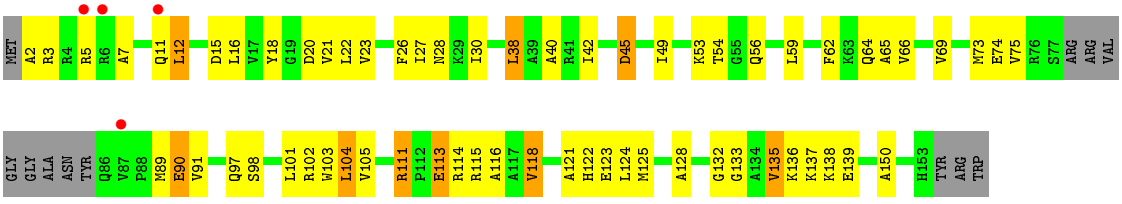
Chain 52:





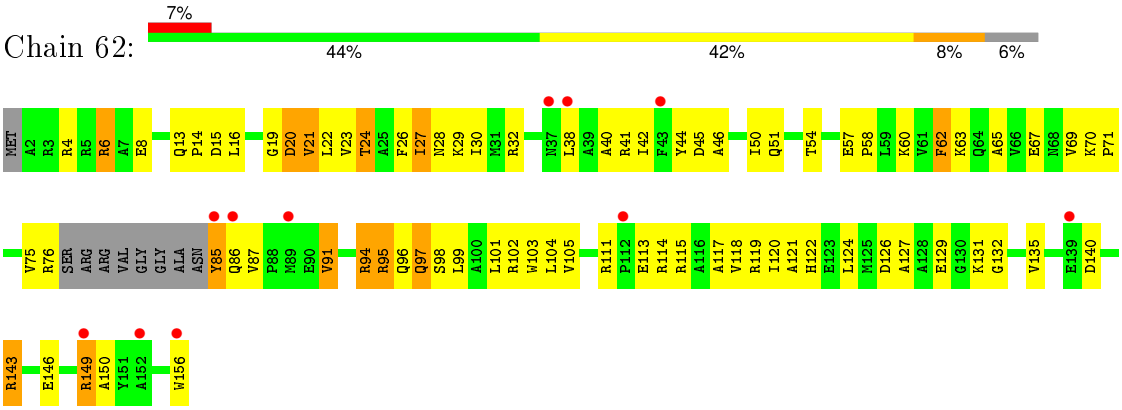
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



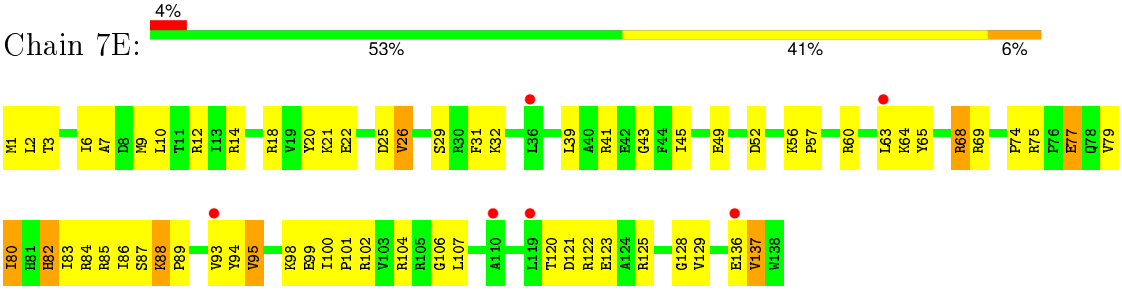
• Molecule 7: 30S ribosomal protein S7

Chain 62:



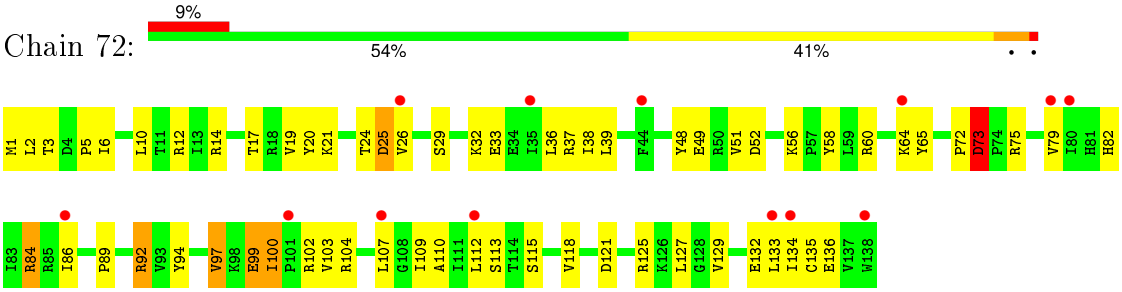
- Molecule 8: 30S ribosomal protein S8

Chain 7E:



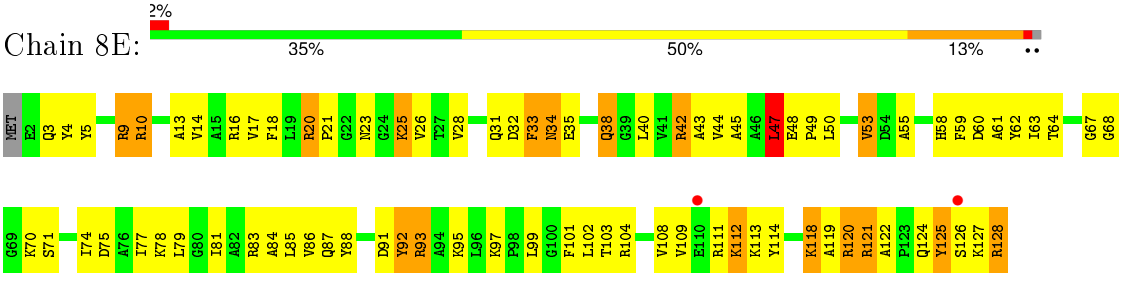
- Molecule 8: 30S ribosomal protein S8

Chain 72:



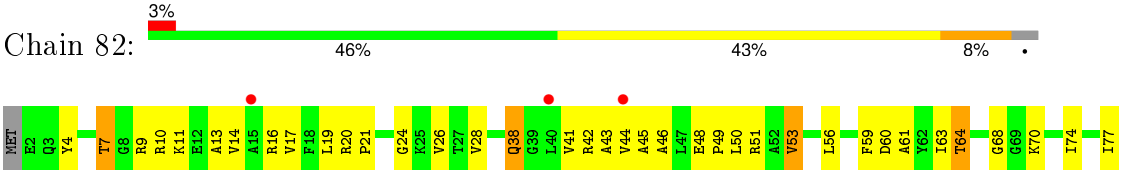
- Molecule 9: 30S ribosomal protein S9

Chain 8E:



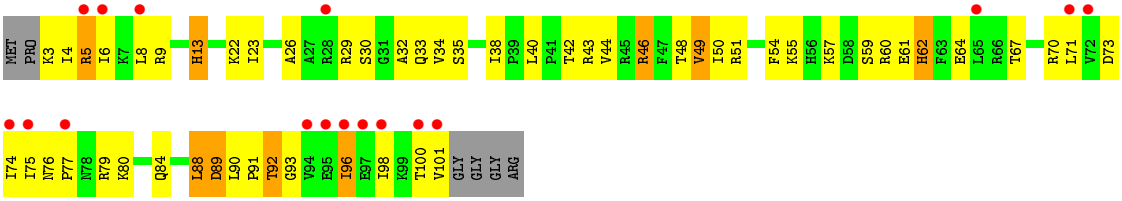
- Molecule 9: 30S ribosomal protein S9

Chain 82:



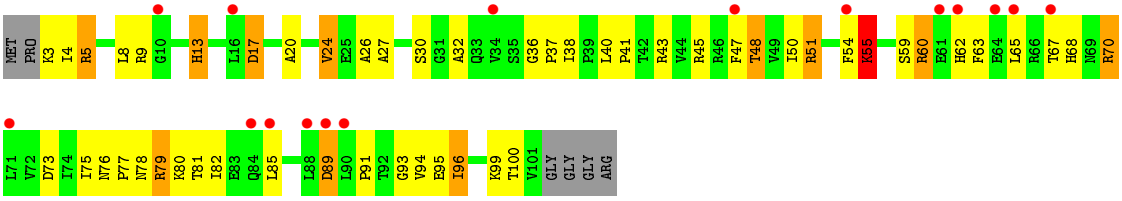
• Molecule 10: 30S ribosomal protein S10

Chain 1I:



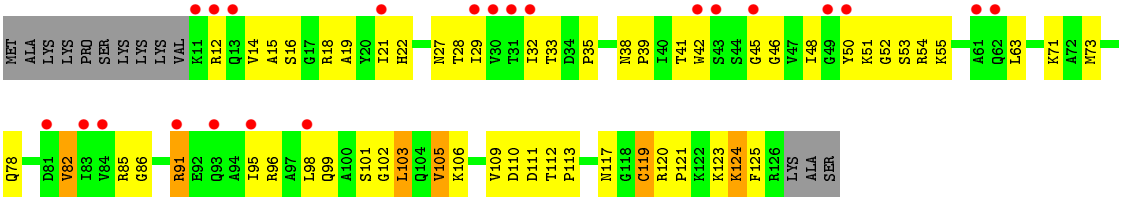
• Molecule 10: 30S ribosomal protein S10

Chain 1A:



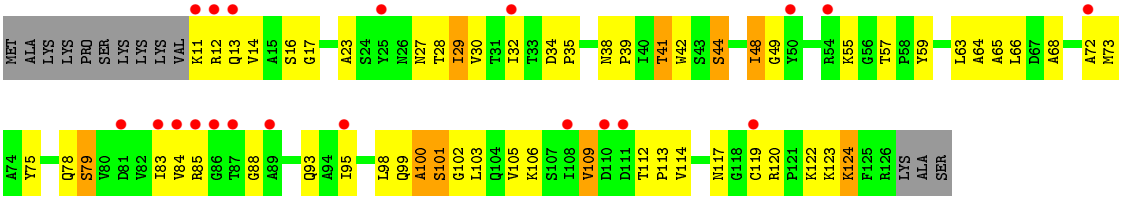
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



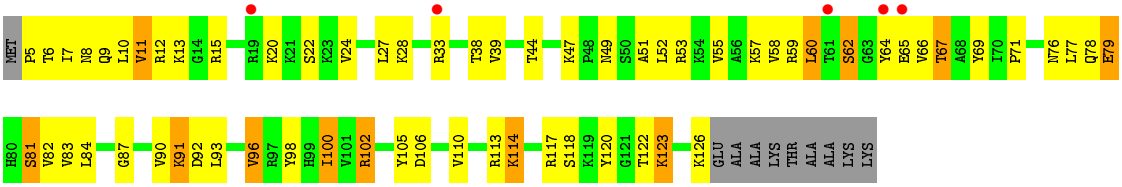
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



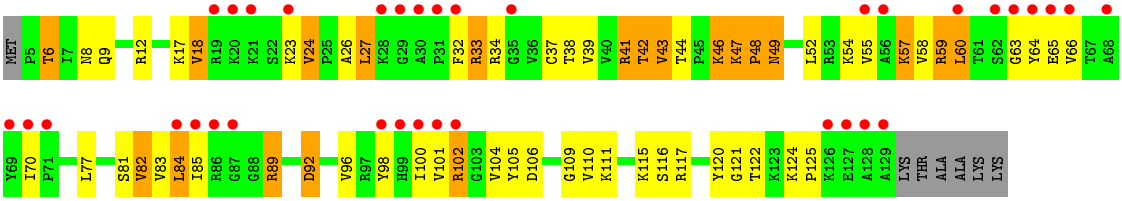
• Molecule 12: 30S ribosomal protein S12

Chain 3I:



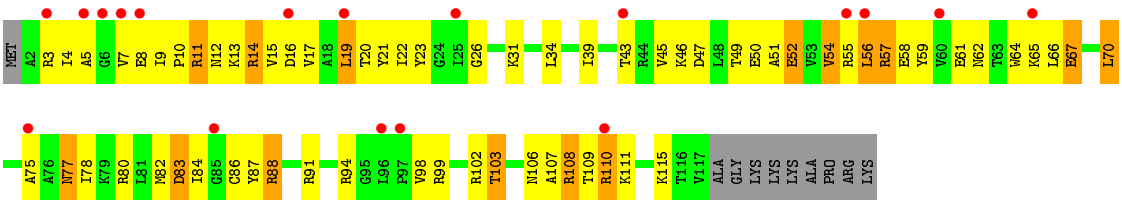
• Molecule 12: 30S ribosomal protein S12

Chain 3A:



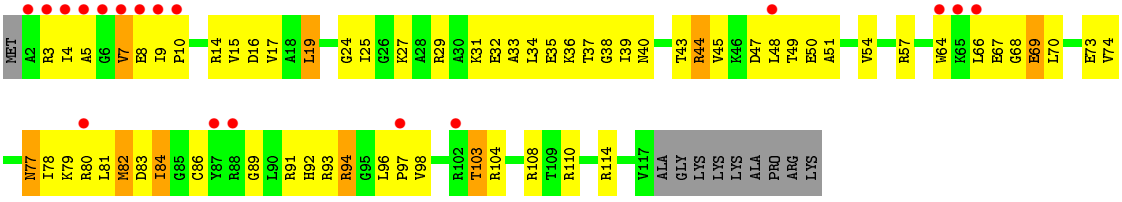
• Molecule 13: 30S ribosomal protein S13

Chain 4I:



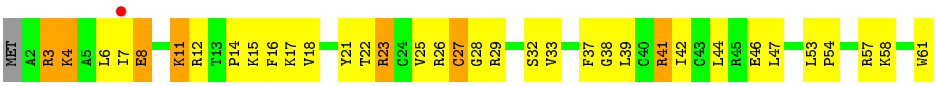
• Molecule 13: 30S ribosomal protein S13

Chain 4A:



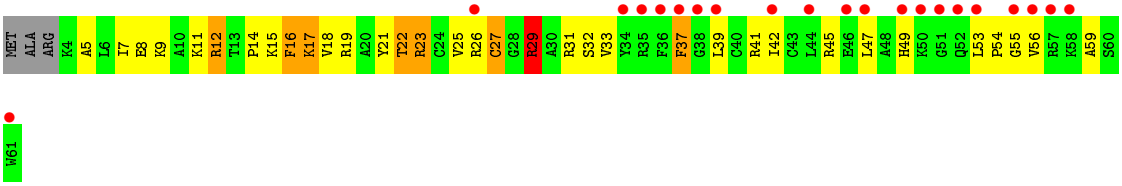
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:

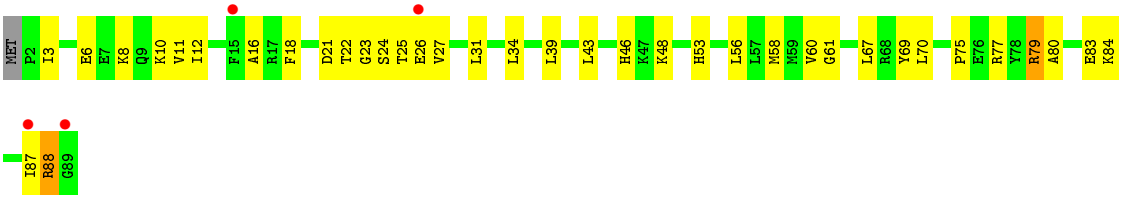


• Molecule 15: 30S ribosomal protein S15

Chain 6I:

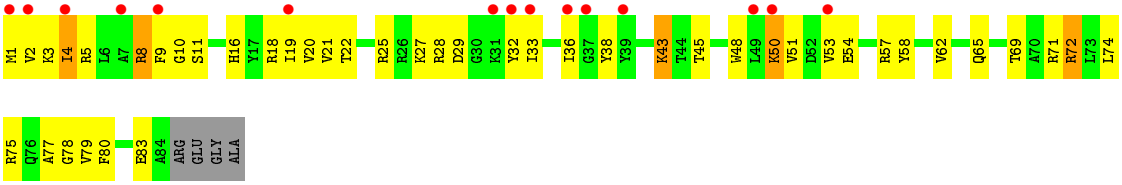
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



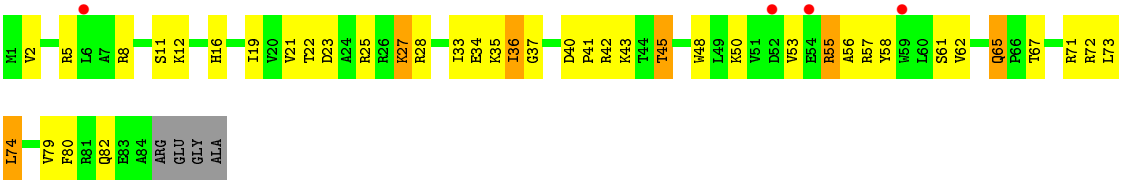
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



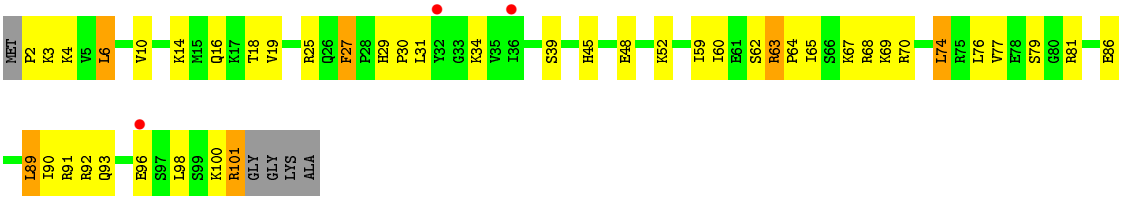
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



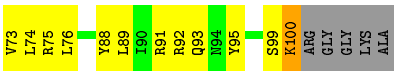
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



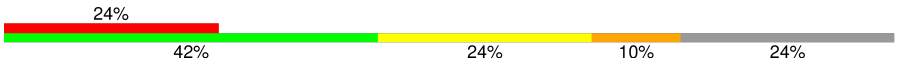
• Molecule 17: 30S ribosomal protein S17

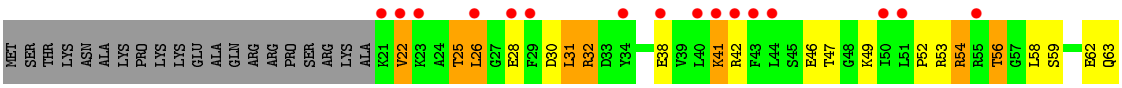
Chain 8A:

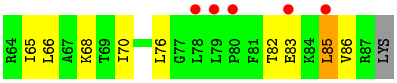


• Molecule 18: 30S ribosomal protein S18

Chain 9I:

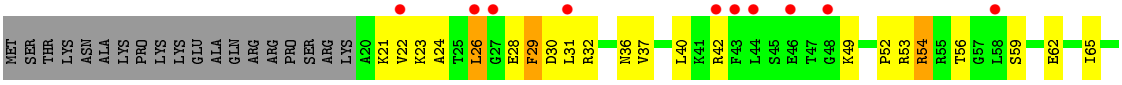


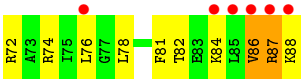




• Molecule 18: 30S ribosomal protein S18

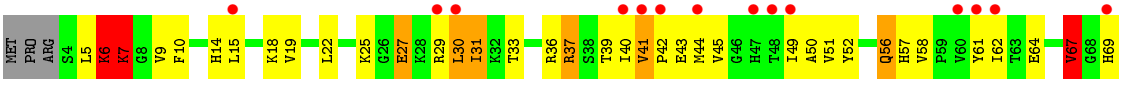
Chain 9A:

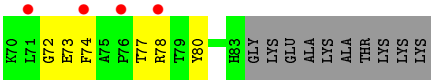




• Molecule 19: 30S ribosomal protein S19

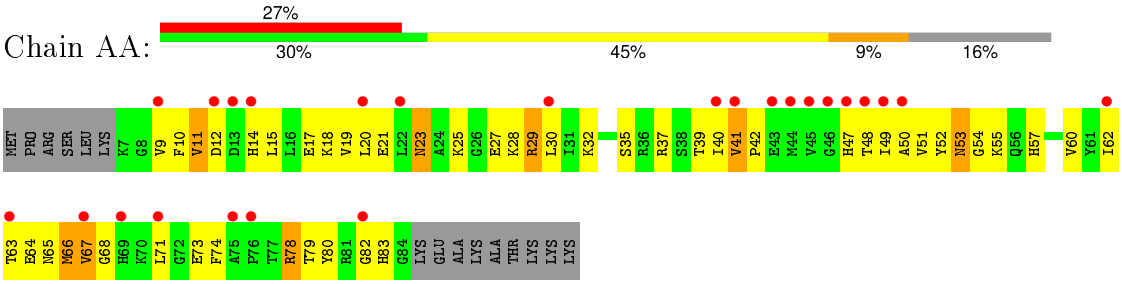
Chain AI:





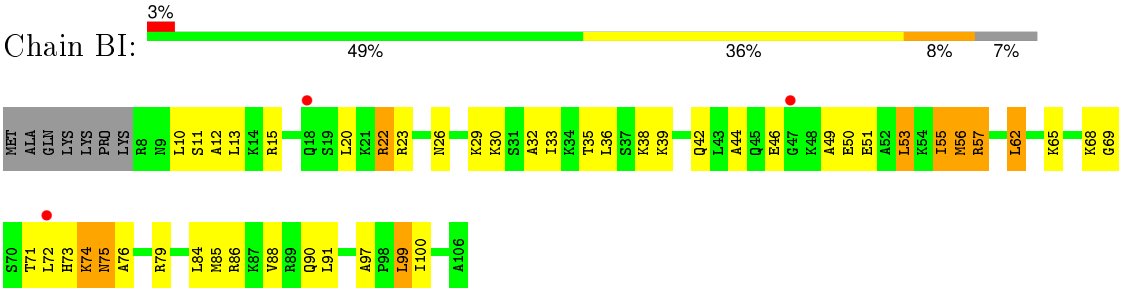
• Molecule 19: 30S ribosomal protein S19

Chain AA:



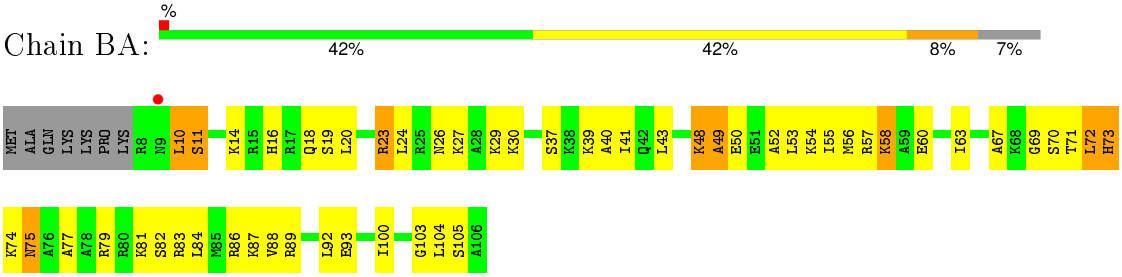
• Molecule 20: 30S ribosomal protein S20

Chain BI:



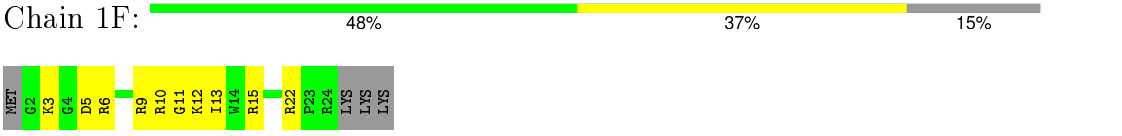
• Molecule 20: 30S ribosomal protein S20

Chain BA:



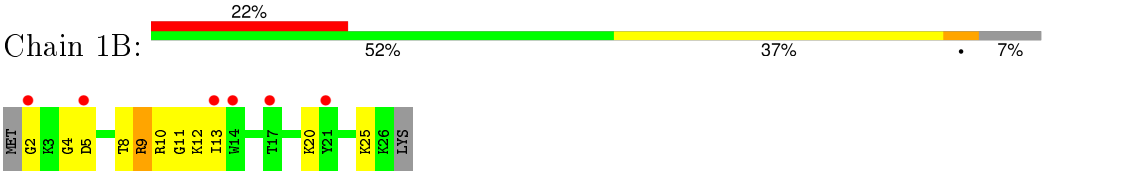
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



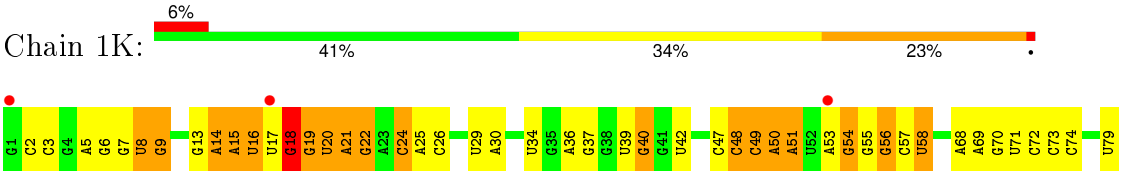
• Molecule 21: 30S ribosomal protein Thx

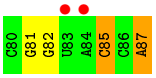
Chain 1B:



• Molecule 22: tRNA-Leu

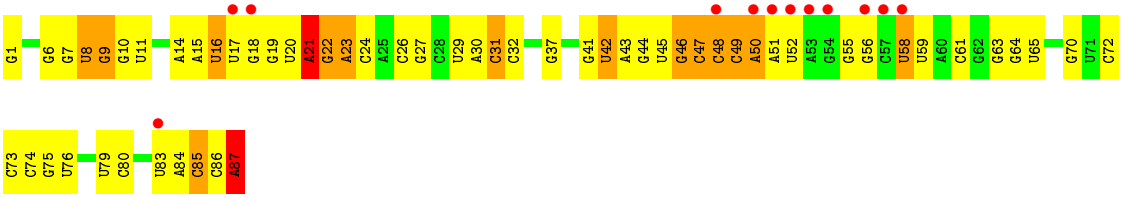
Chain 1K:





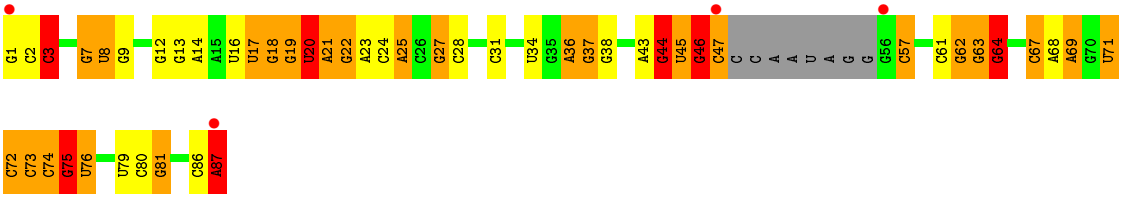
• Molecule 22: tRNA-Leu

Chain 1L:



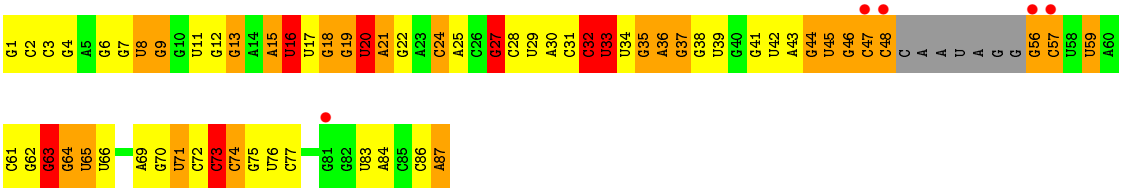
• Molecule 23: tRNA-Leu

Chain 2K:



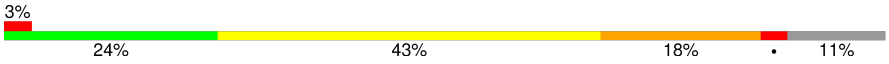
• Molecule 23: tRNA-Leu

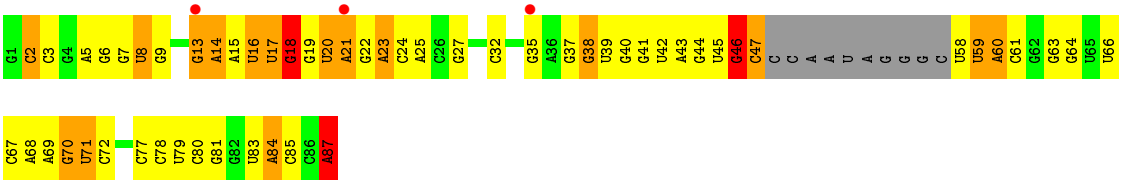
Chain 2L:



• Molecule 24: tRNA-Leu

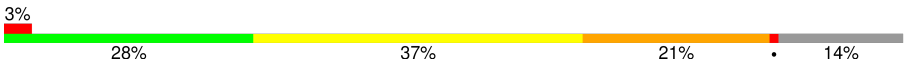
Chain 3K:

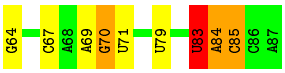




• Molecule 24: tRNA-Leu

Chain 3L:



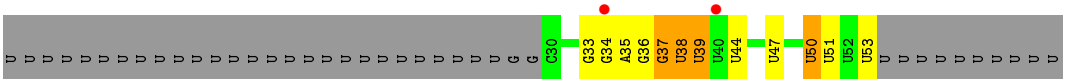


• Molecule 25: mRNA

Chain 4K:

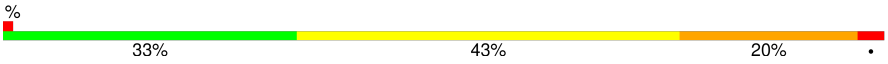
• Molecule 25: mRNA

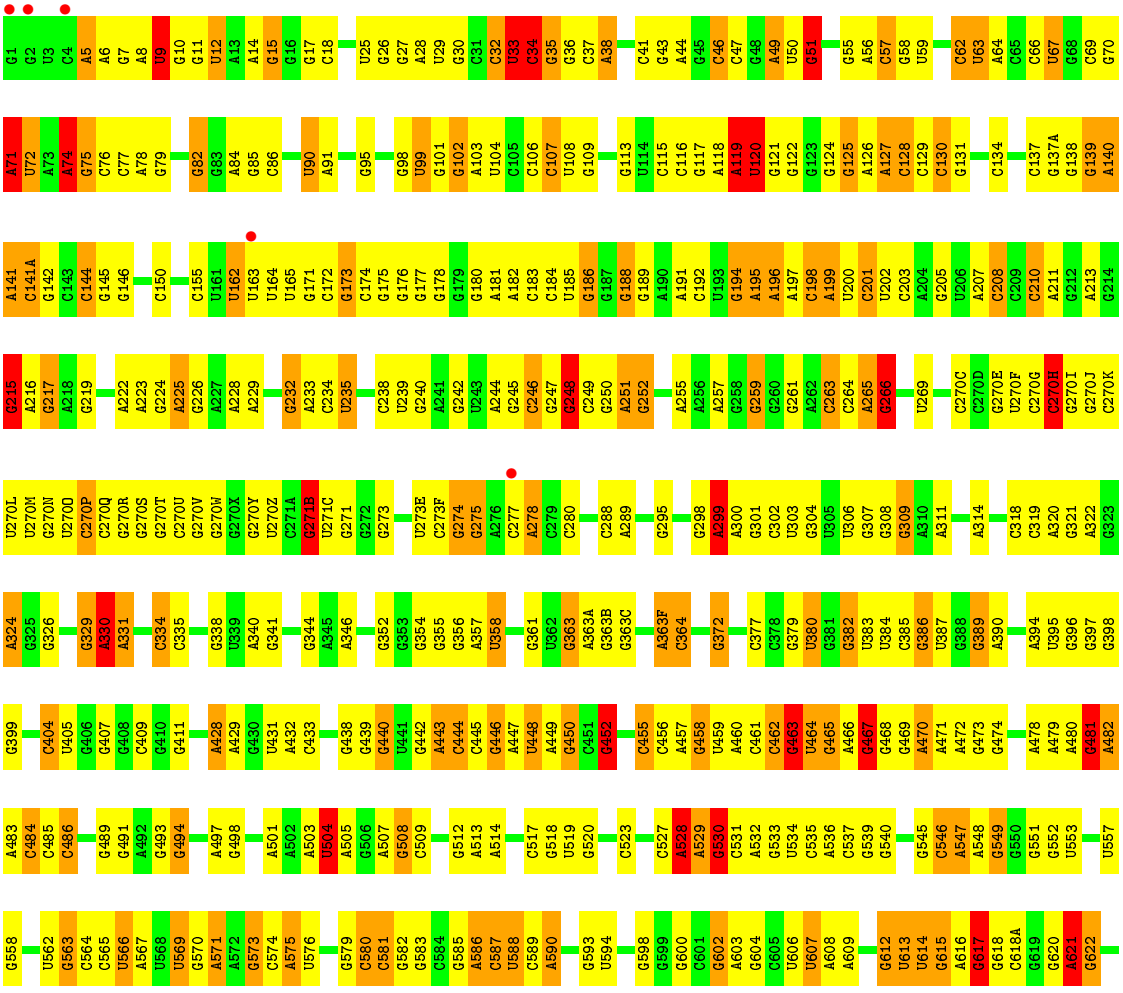
Chain 4L:

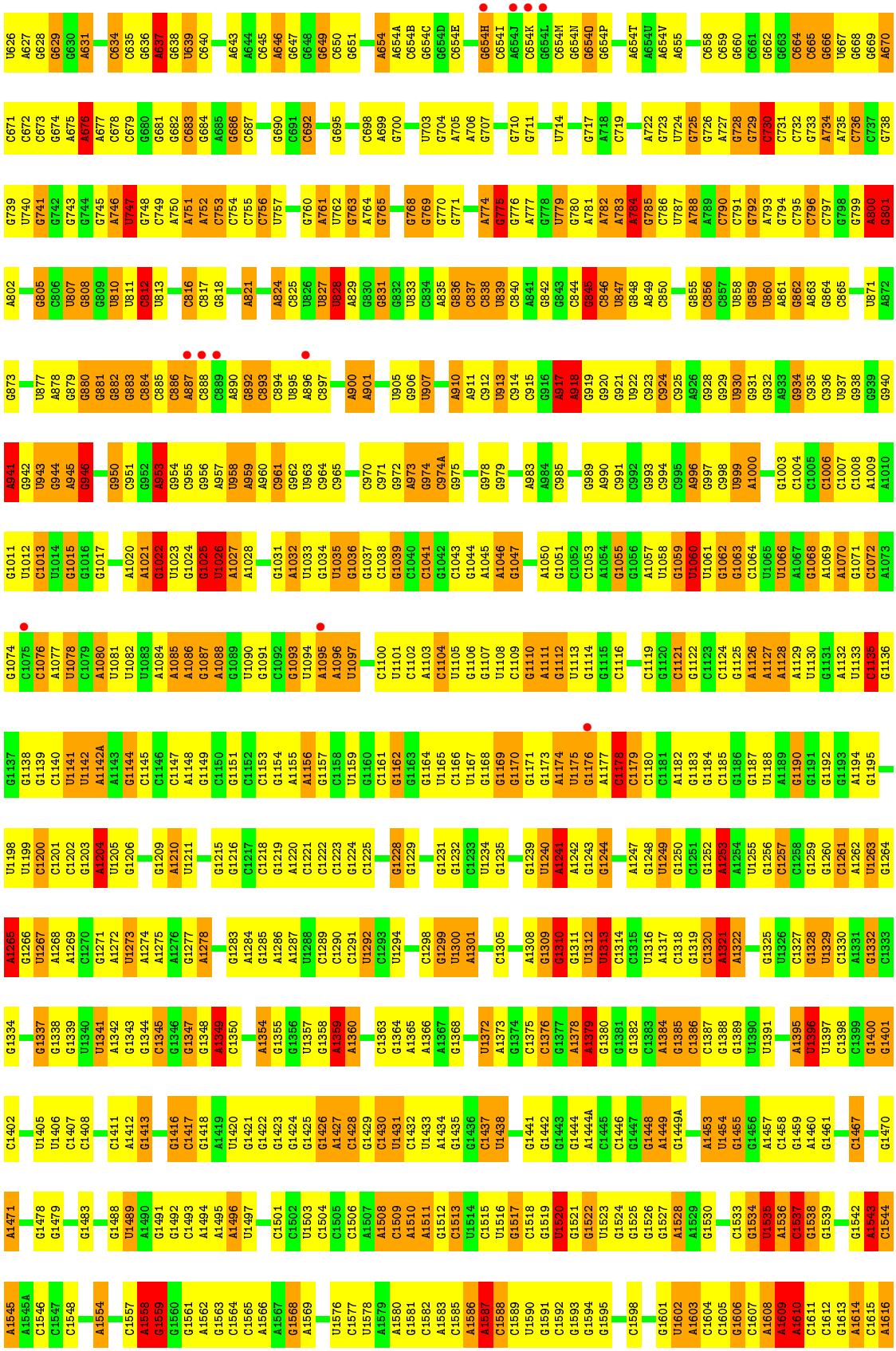


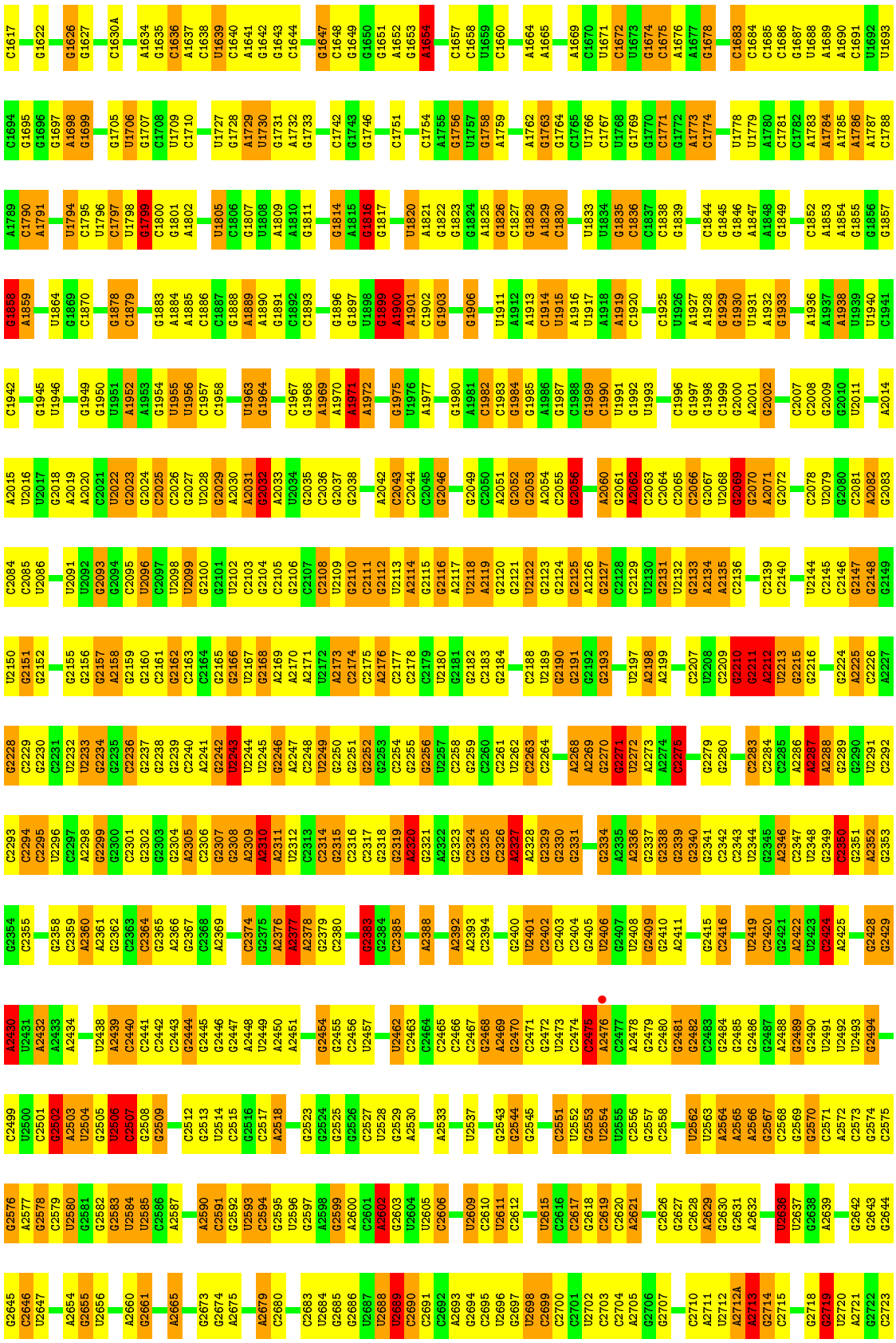
• Molecule 26: 23S ribosomal RNA

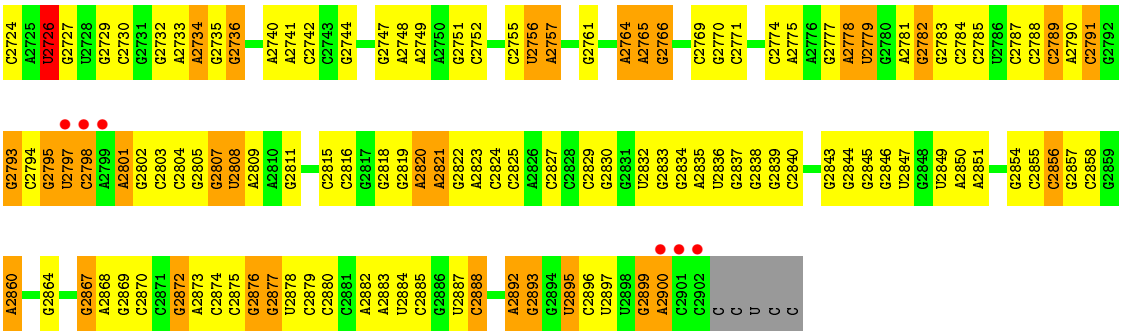
Chain 1H:





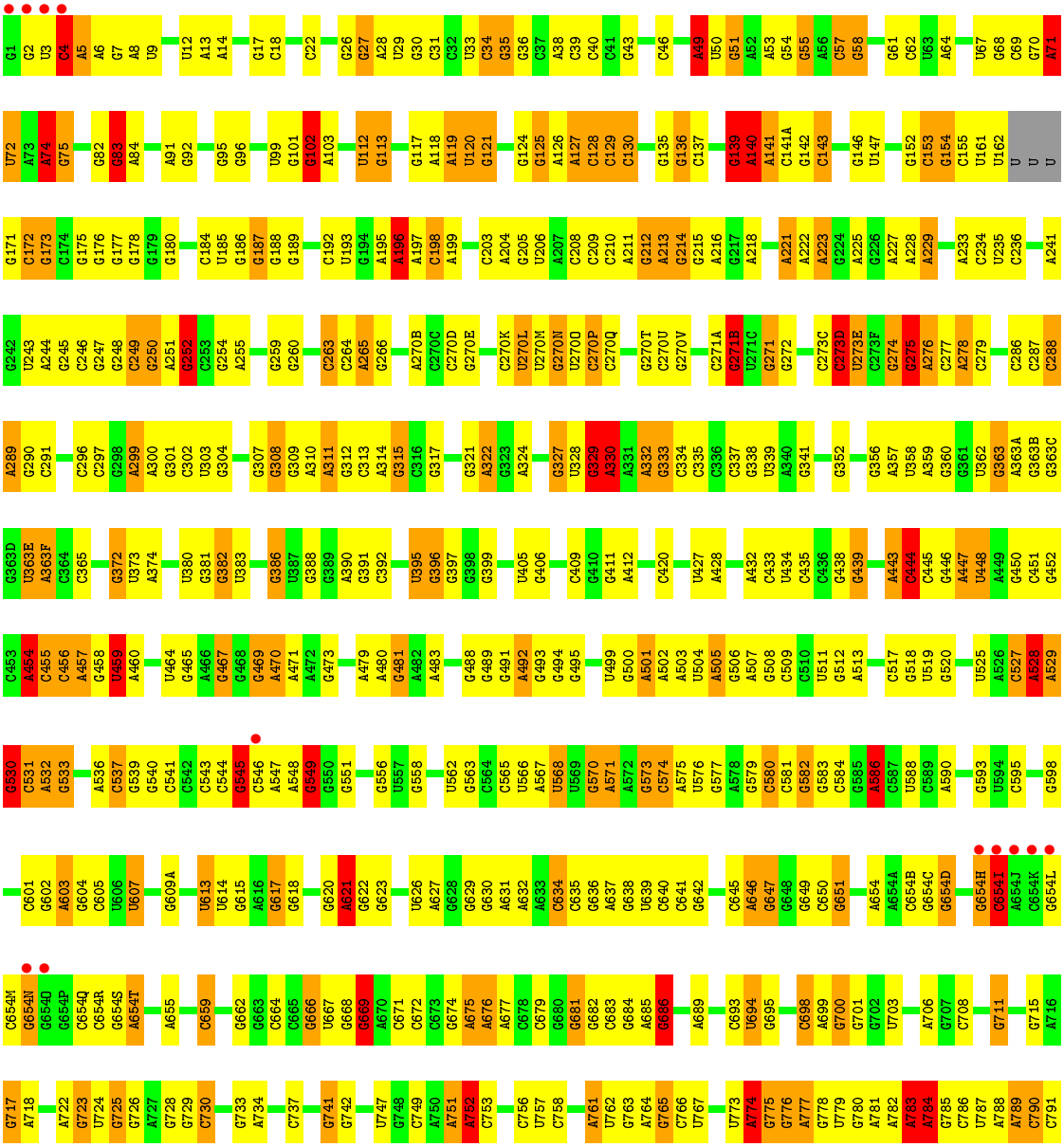


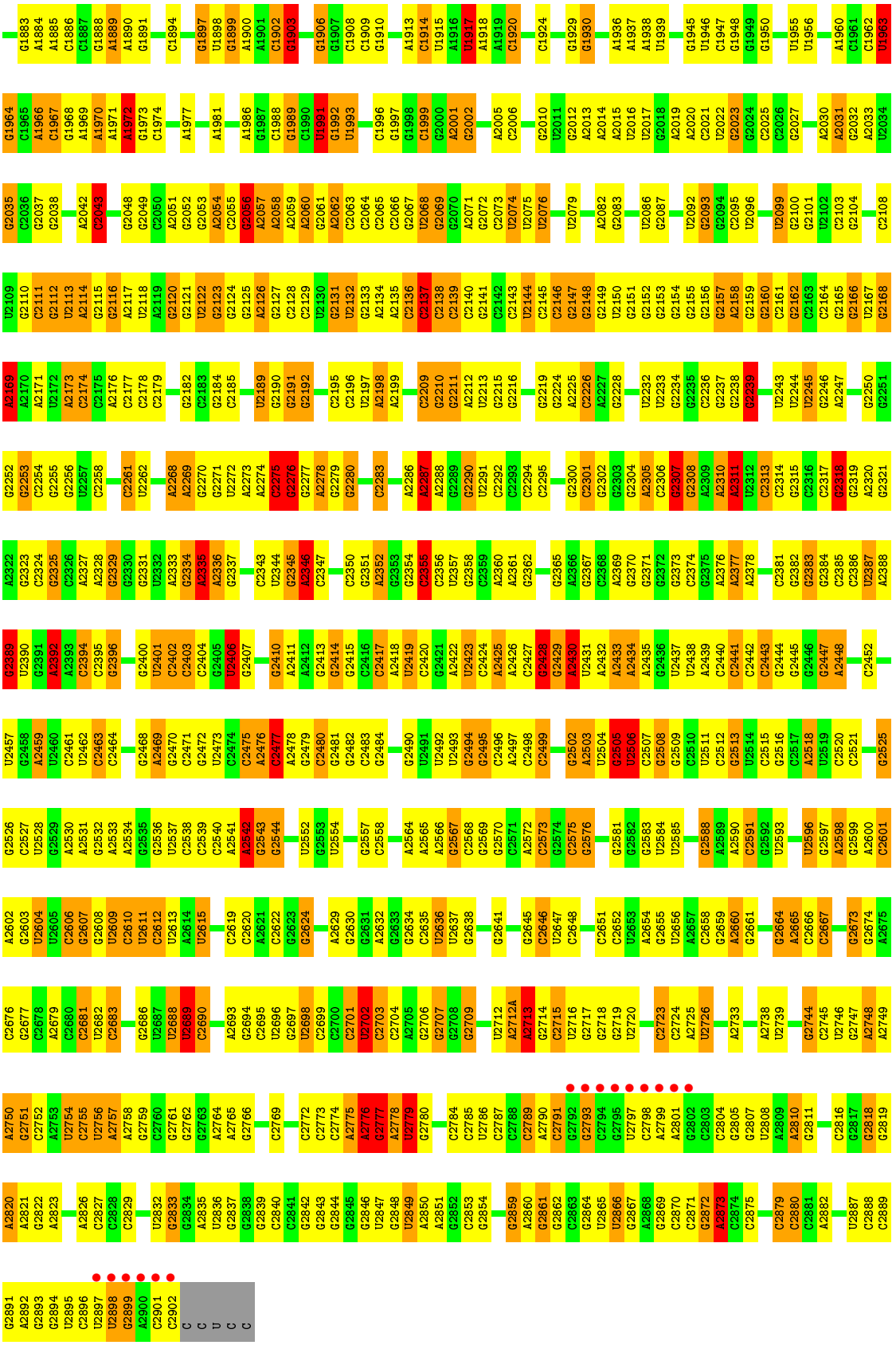




• Molecule 26: 23S ribosomal RNA

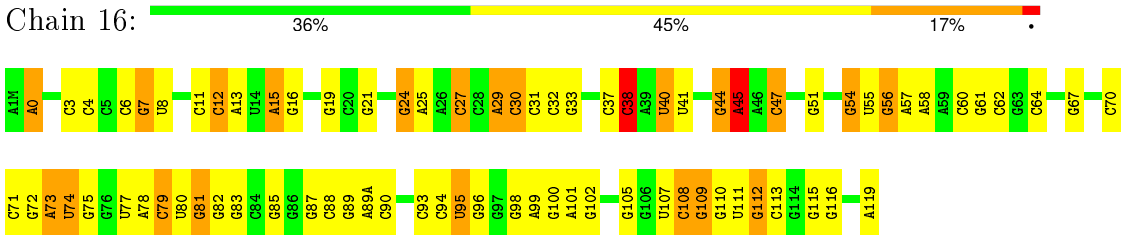
Chain 14:





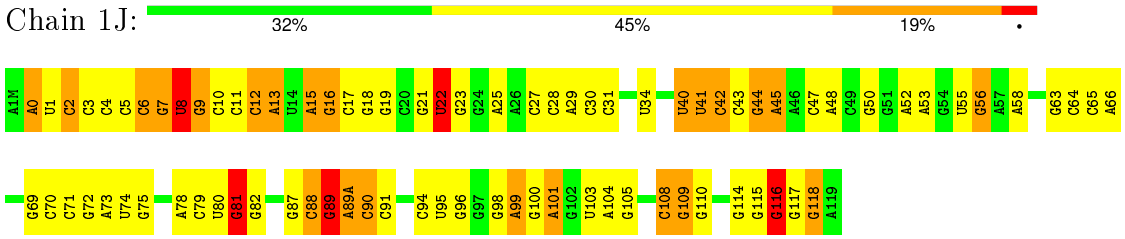
- Molecule 27: 5S ribosomal RNA

Chain 16:



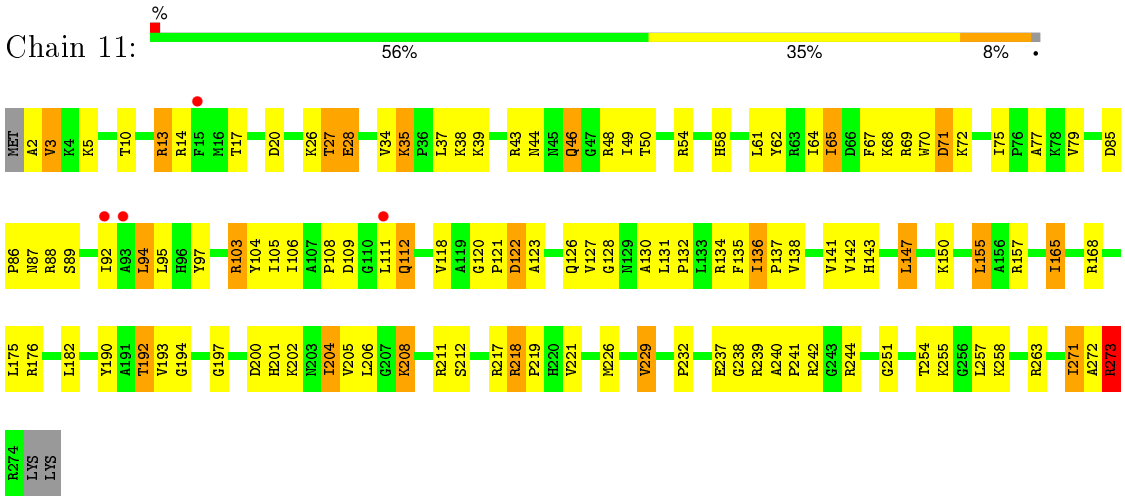
• Molecule 27: 5S ribosomal RNA

Chain 1J:



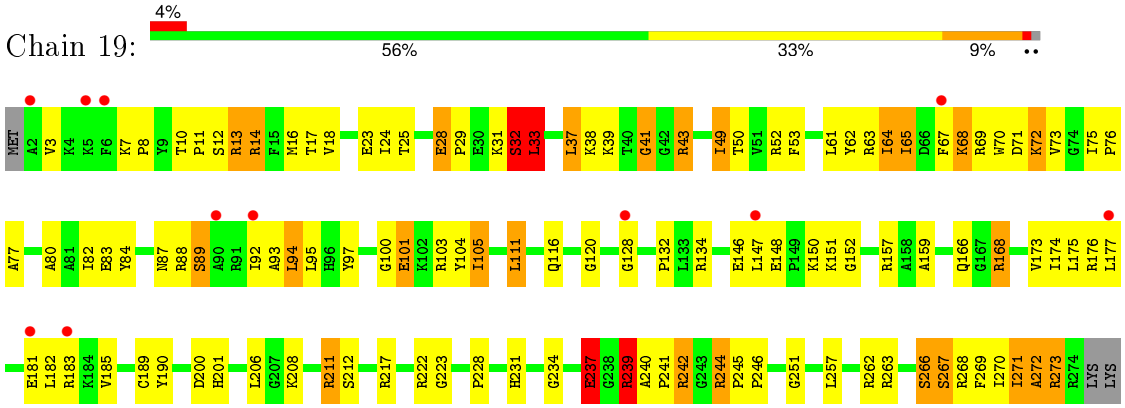
• Molecule 28: 50S ribosomal protein L2

Chain 11:



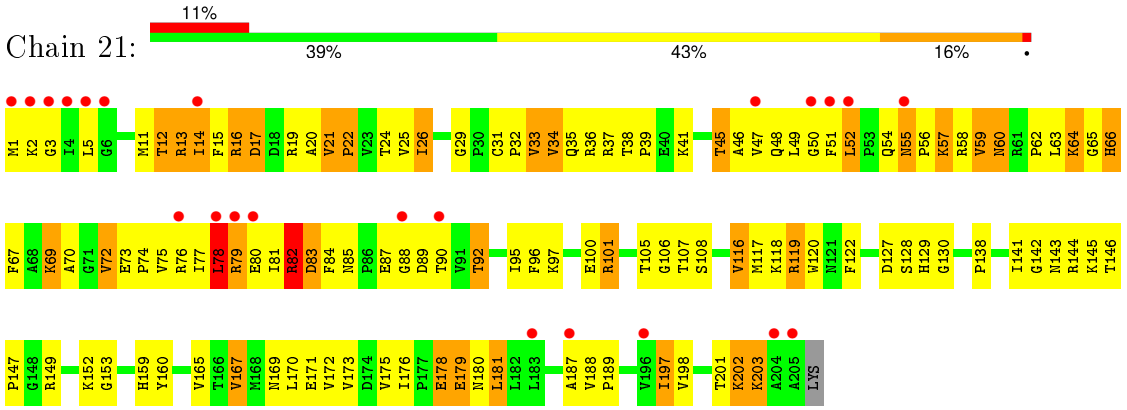
• Molecule 28: 50S ribosomal protein L2

Chain 19:



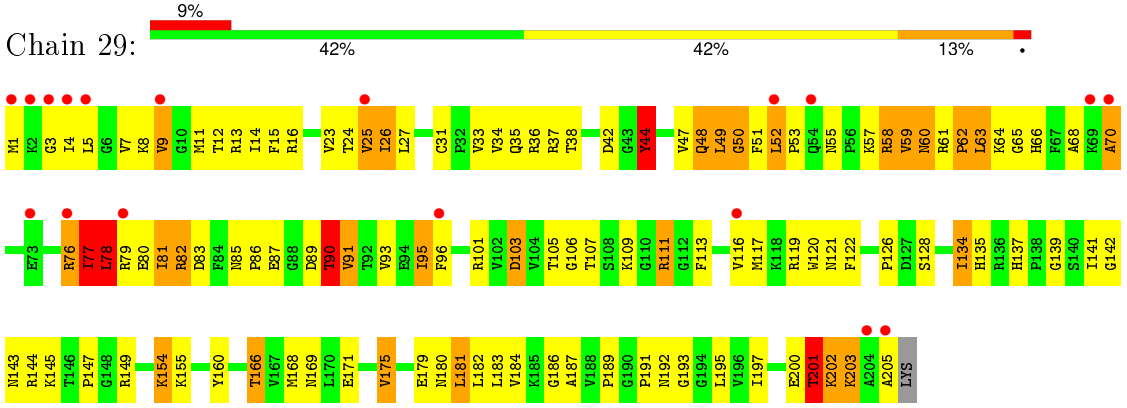
• Molecule 29: 50S ribosomal protein L3

Chain 21:



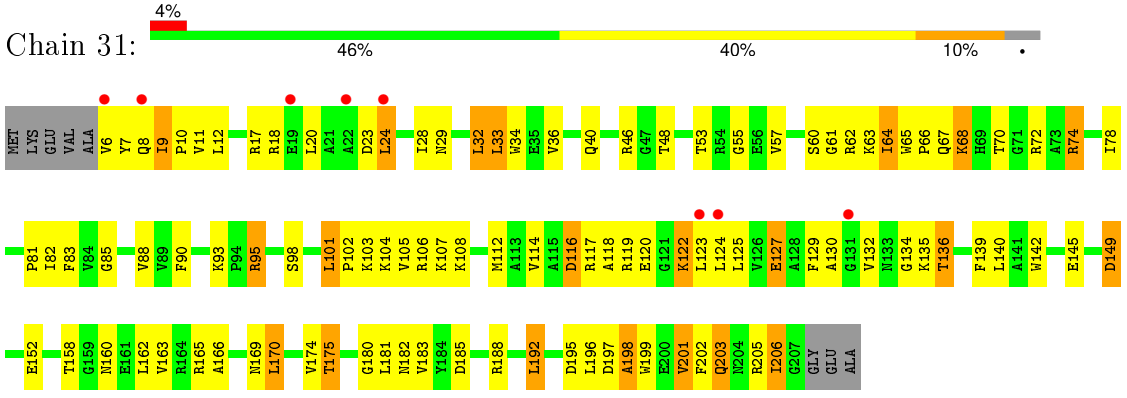
- Molecule 29: 50S ribosomal protein L3

Chain 29:



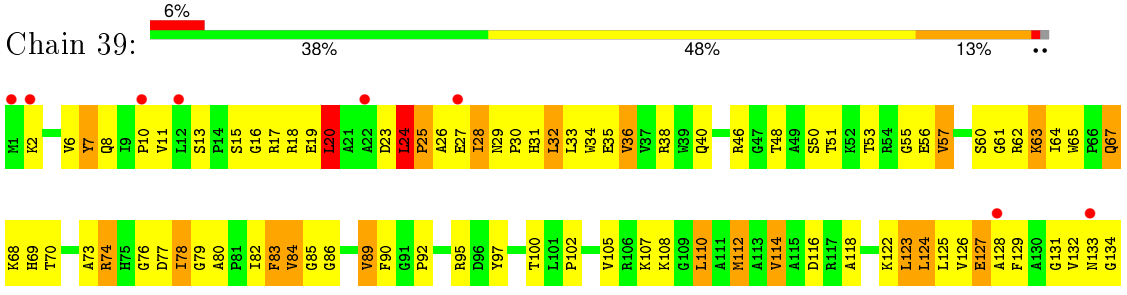
- Molecule 30: 50S ribosomal protein L4

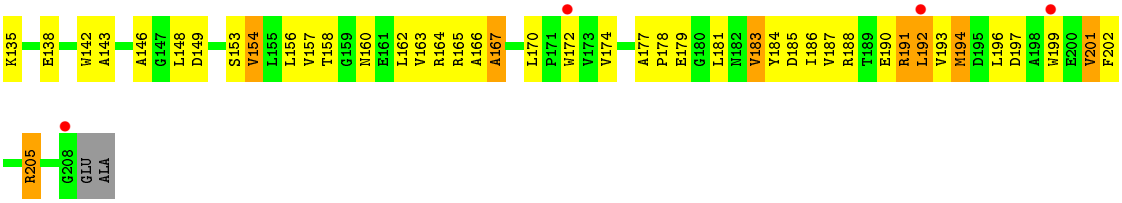
Chain 31:



- Molecule 30: 50S ribosomal protein L4

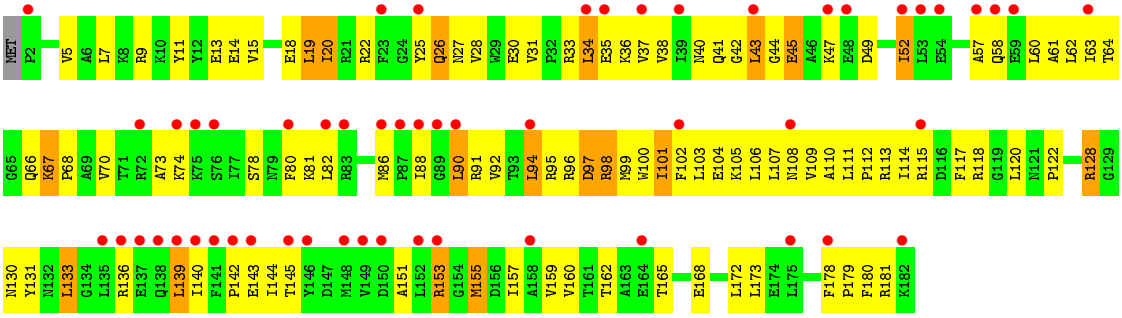
Chain 39:





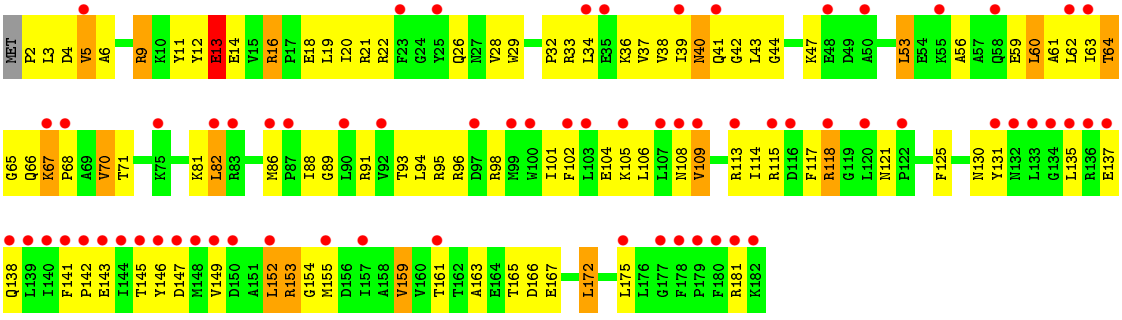
• Molecule 31: 50S ribosomal protein L5

Chain 41:



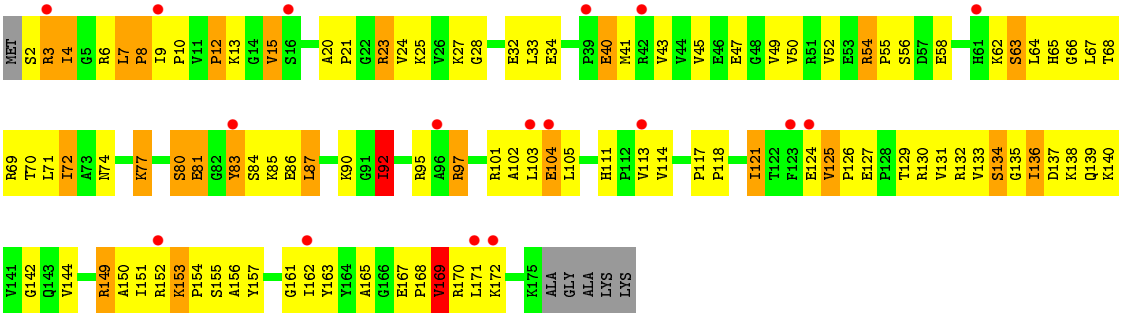
• Molecule 31: 50S ribosomal protein L5

Chain 49:



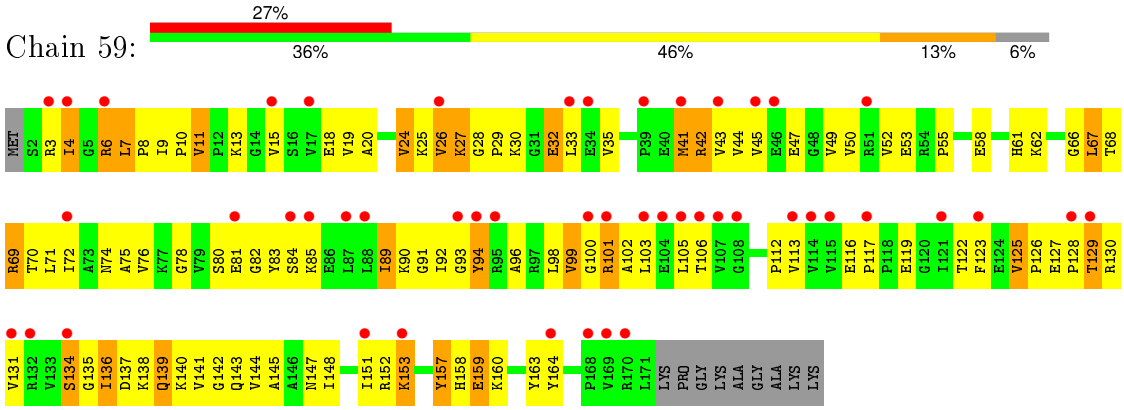
• Molecule 32: 50S ribosomal protein L6

Chain 51:



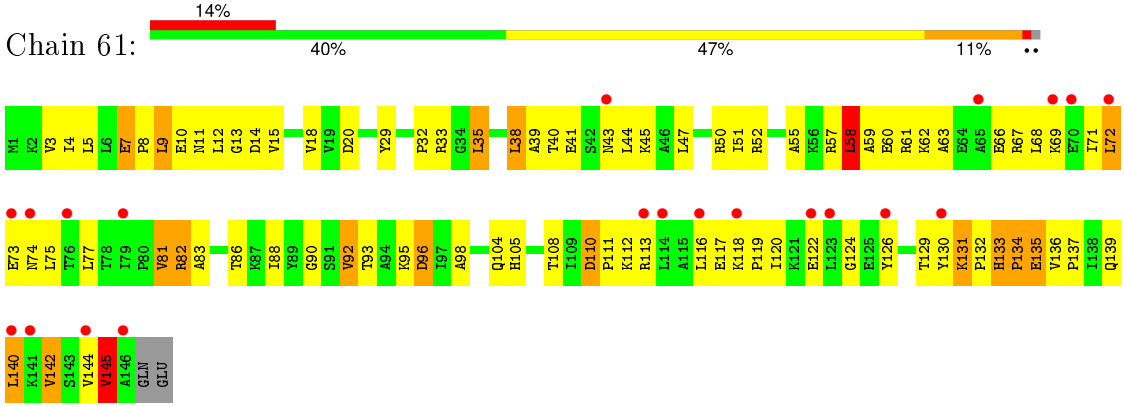
• Molecule 32: 50S ribosomal protein L6

Chain 59:



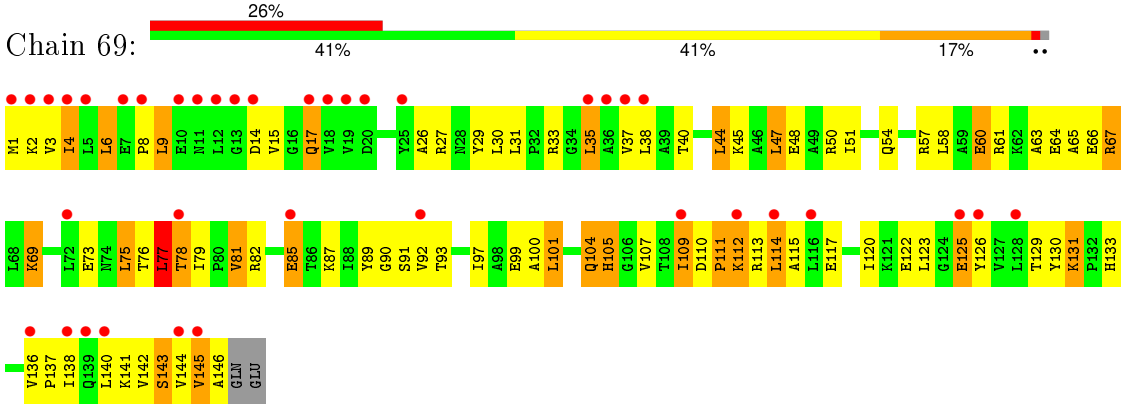
- Molecule 33: 50S ribosomal protein L9

Chain 61:



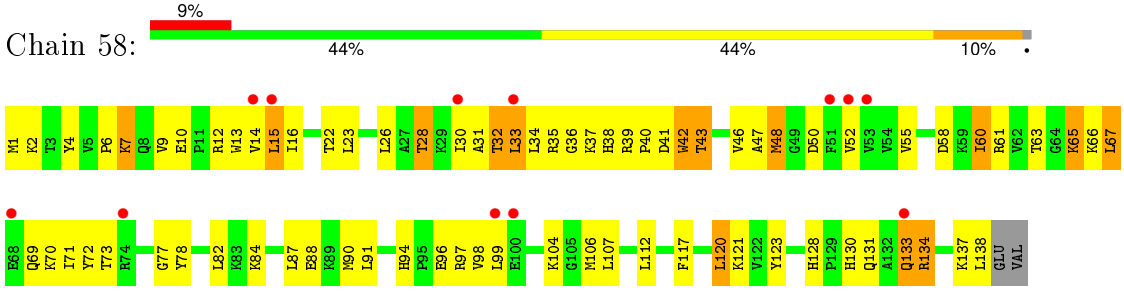
- Molecule 33: 50S ribosomal protein L9

Chain 69:



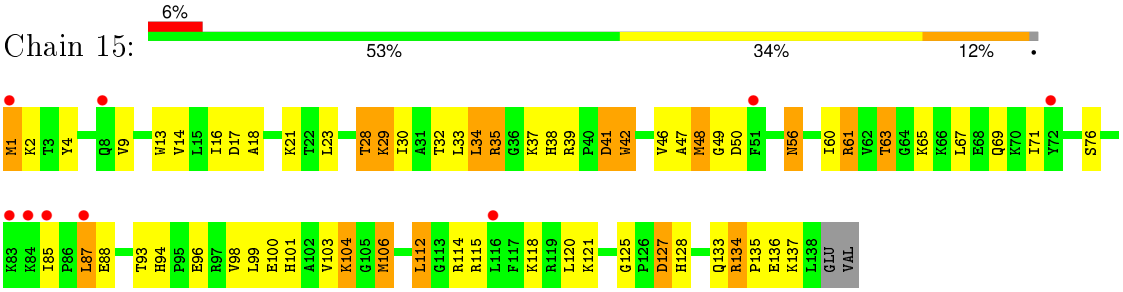
- Molecule 34: 50S ribosomal protein L13

Chain 58:



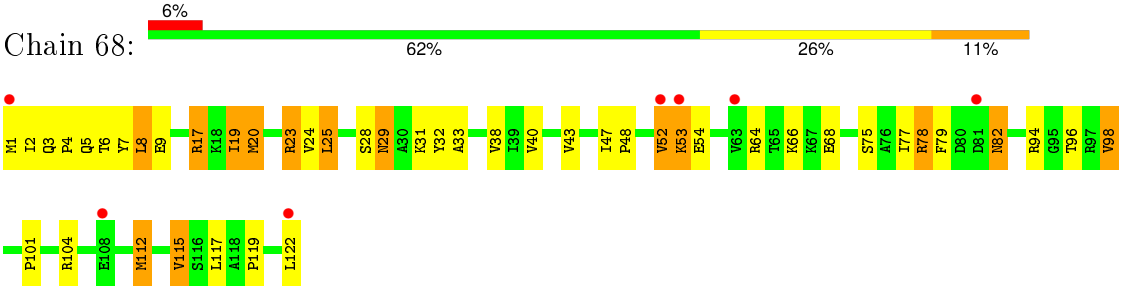
- Molecule 34: 50S ribosomal protein L13

Chain 15:



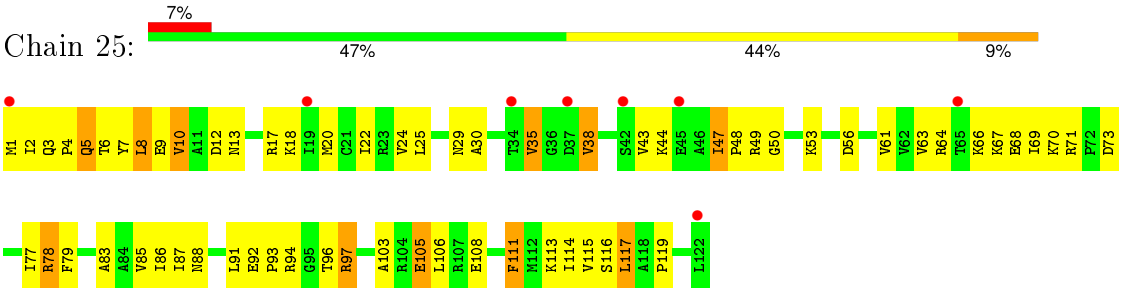
- Molecule 35: 50S ribosomal protein L14

Chain 68:



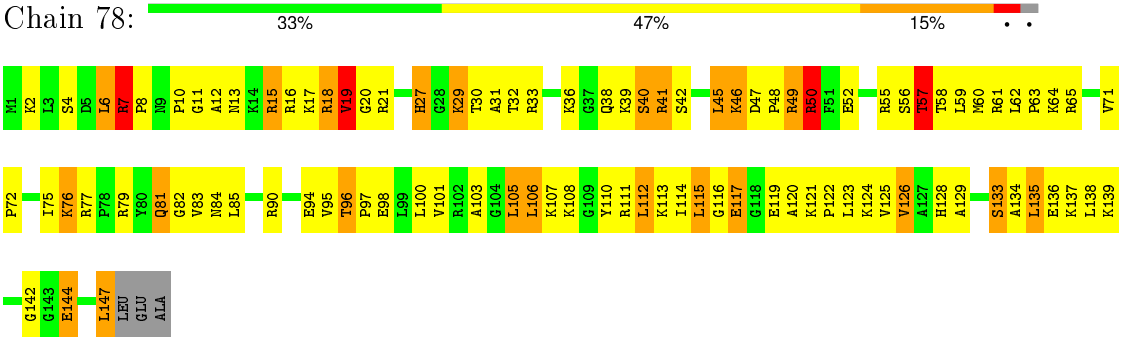
- Molecule 35: 50S ribosomal protein L14

Chain 25:



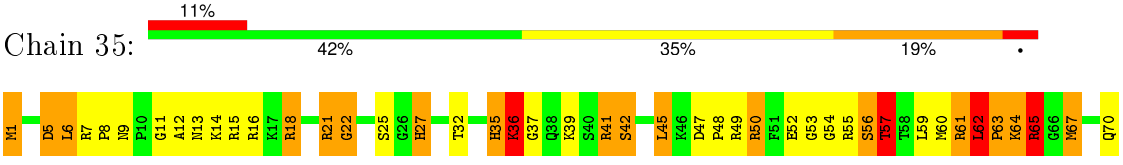
- Molecule 36: 50S ribosomal protein L15

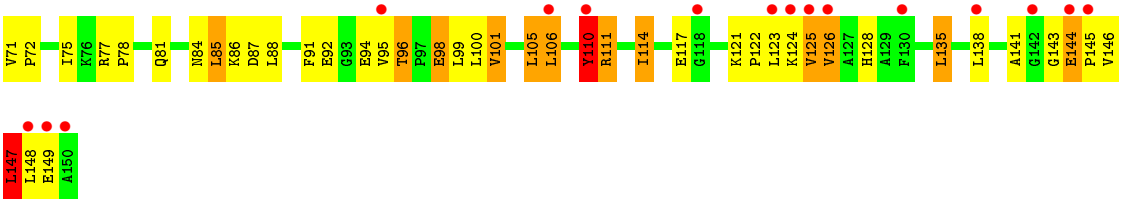
Chain 78:



- Molecule 36: 50S ribosomal protein L15

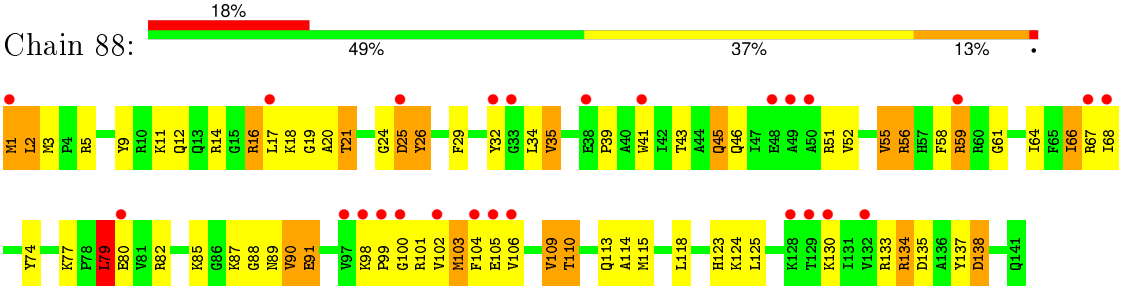
Chain 35:





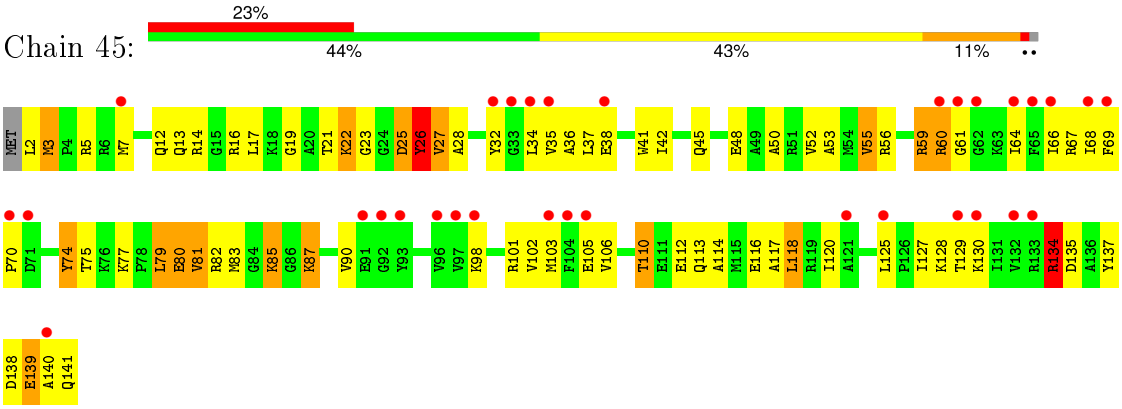
• Molecule 37: 50S ribosomal protein L16

Chain 88:



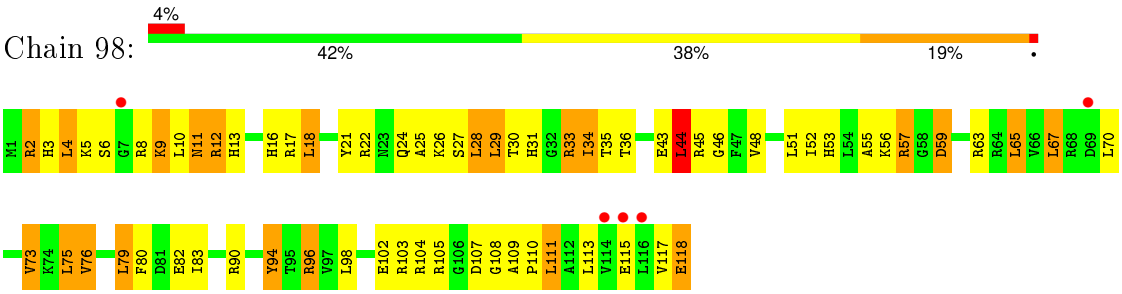
• Molecule 37: 50S ribosomal protein L16

Chain 45:



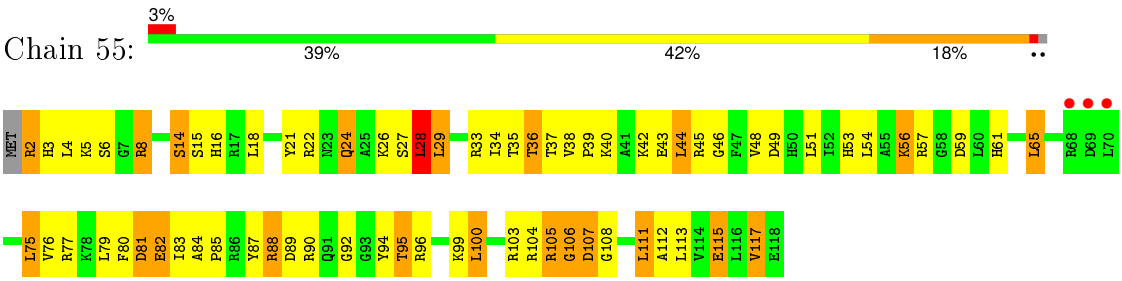
• Molecule 38: 50S ribosomal protein L17

Chain 98:



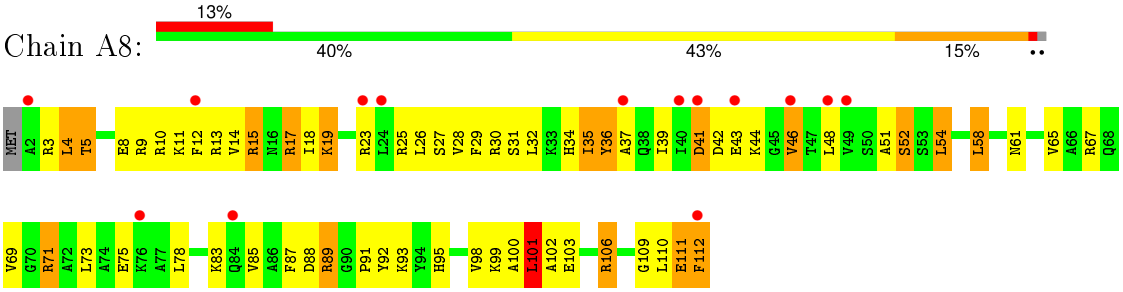
• Molecule 38: 50S ribosomal protein L17

Chain 55:



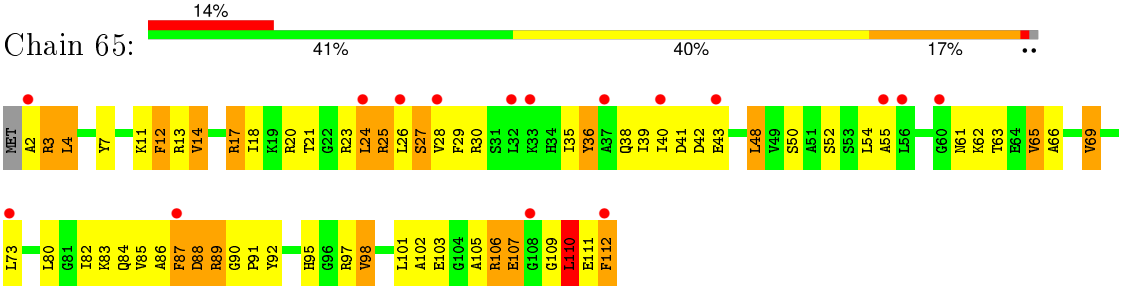
• Molecule 39: 50S ribosomal protein L18

Chain A8:



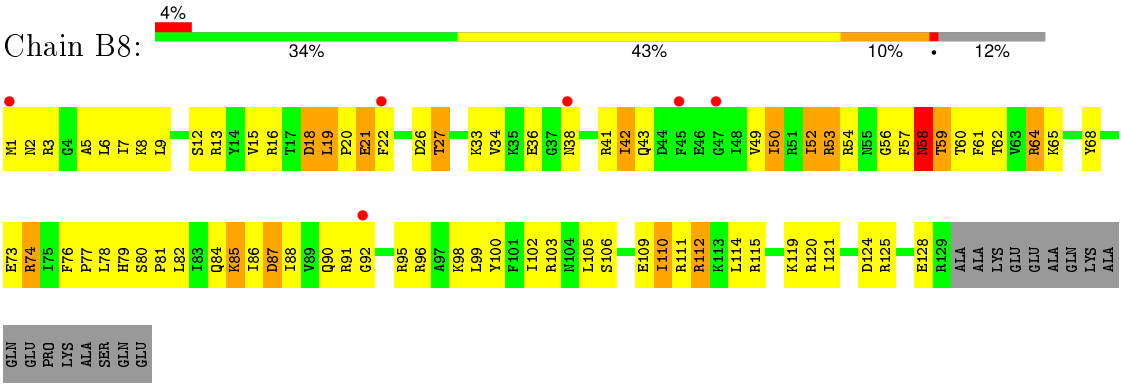
• Molecule 39: 50S ribosomal protein L18

Chain 65:



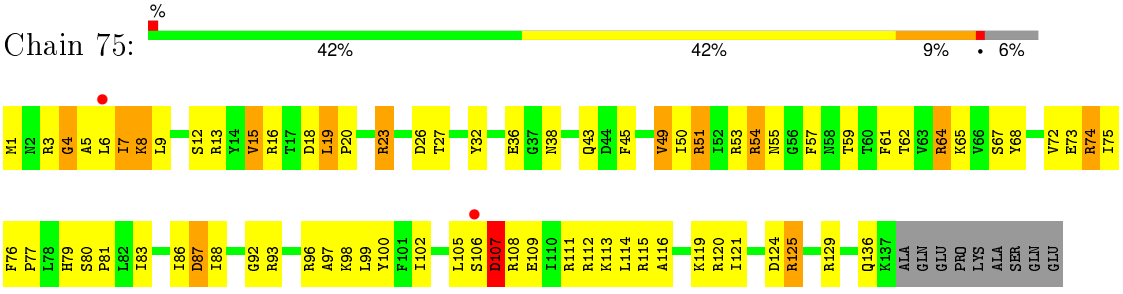
• Molecule 40: 50S ribosomal protein L19

Chain B8:



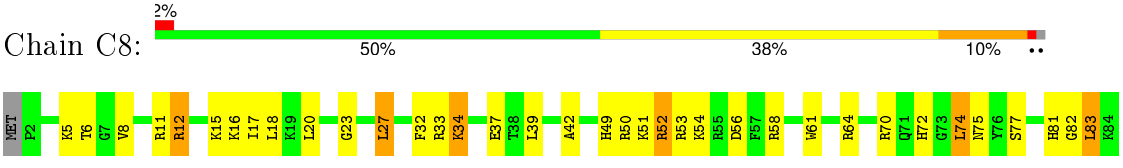
• Molecule 40: 50S ribosomal protein L19

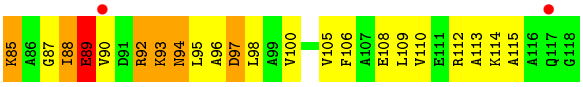
Chain 75:



• Molecule 41: 50S ribosomal protein L20

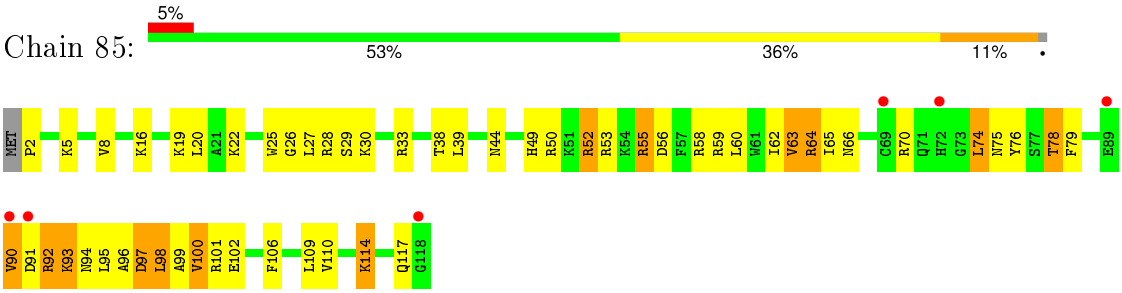
Chain C8:





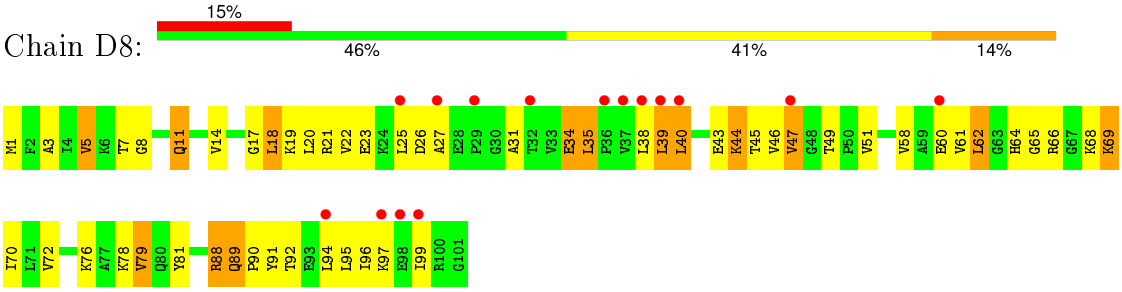
• Molecule 41: 50S ribosomal protein L20

Chain 85:



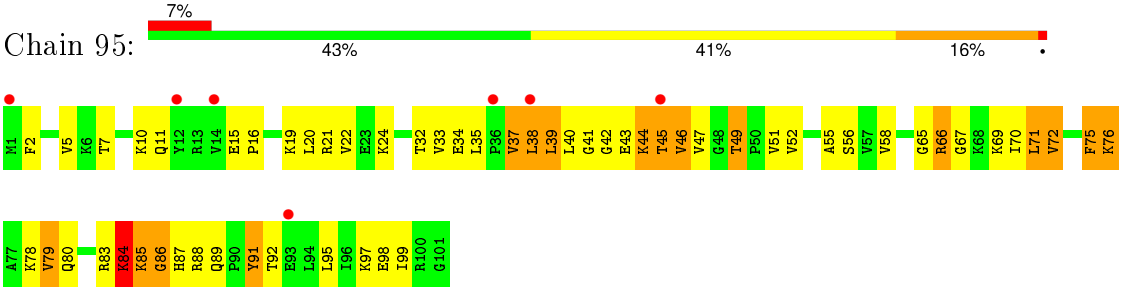
• Molecule 42: 50S ribosomal protein L21

Chain D8:



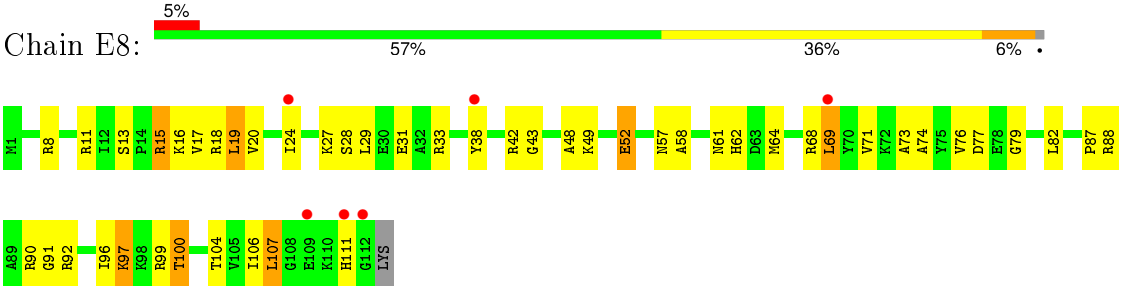
• Molecule 42: 50S ribosomal protein L21

Chain 95:



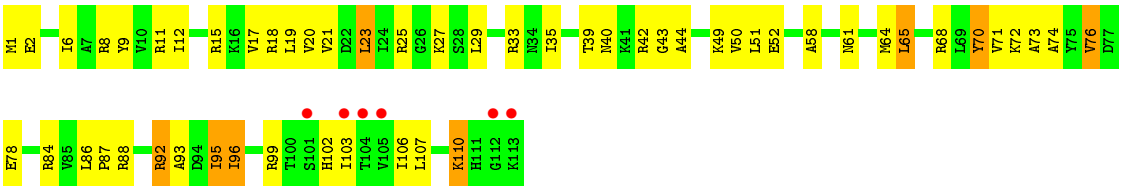
• Molecule 43: 50S ribosomal protein L22

Chain E8:



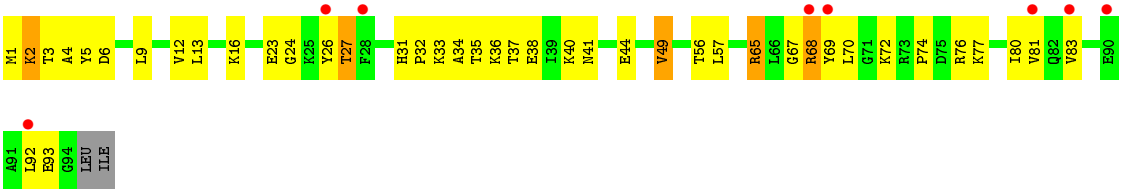
• Molecule 43: 50S ribosomal protein L22

Chain A5:



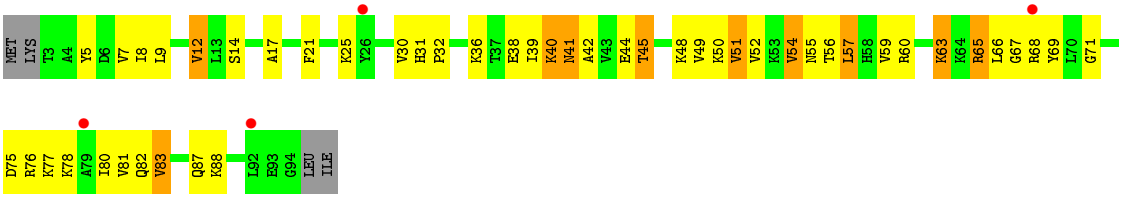
• Molecule 44: 50S ribosomal protein L23

Chain F8:



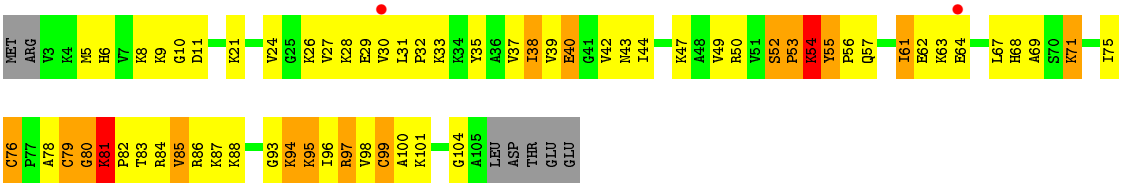
• Molecule 44: 50S ribosomal protein L23

Chain B5:



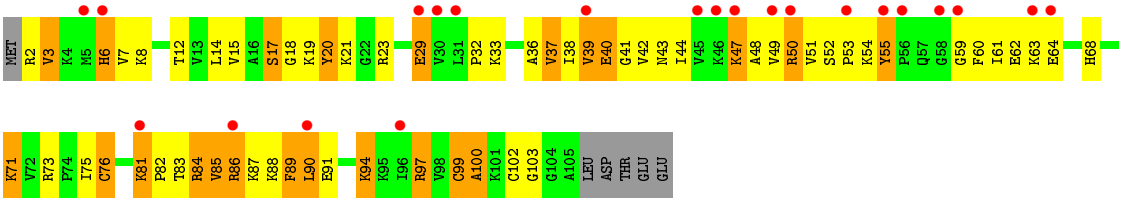
• Molecule 45: 50S ribosomal protein L24

Chain G8:



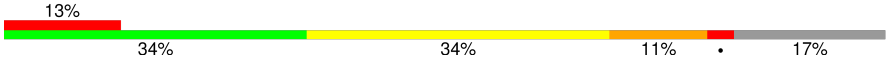
• Molecule 45: 50S ribosomal protein L24

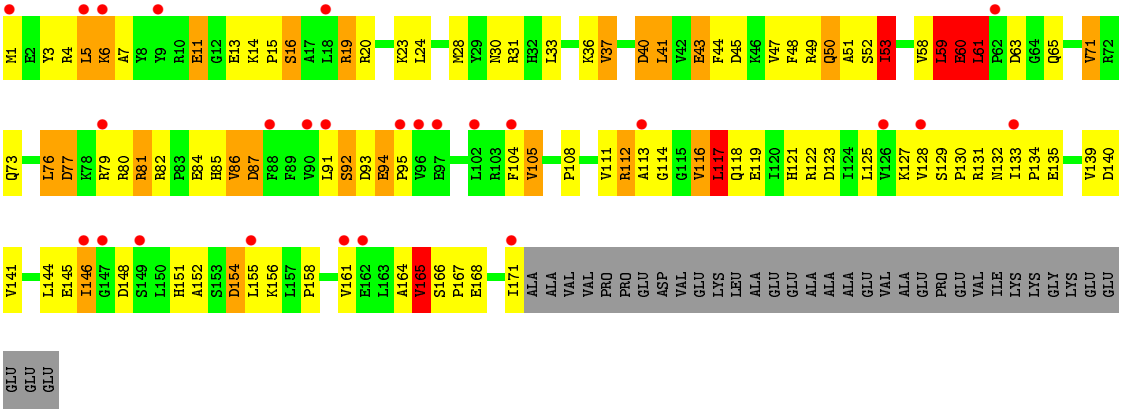
Chain C5:



• Molecule 46: 50S ribosomal protein L25

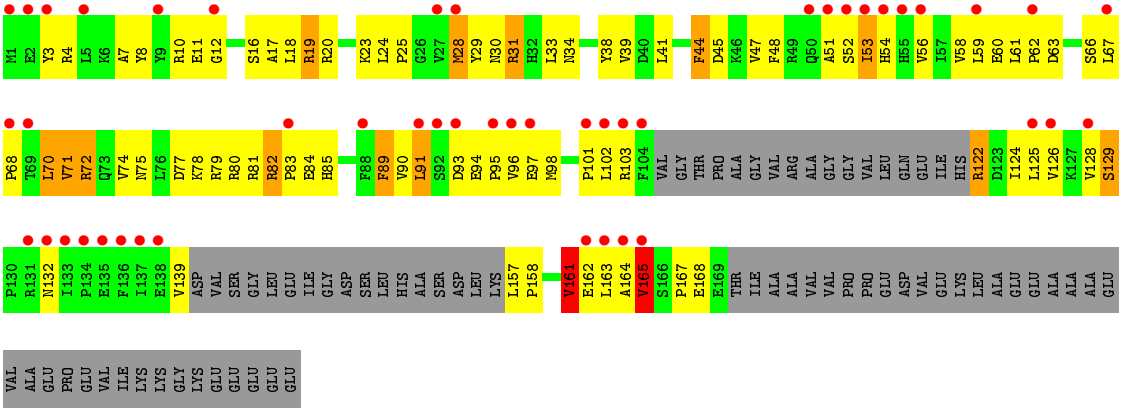
Chain H8:





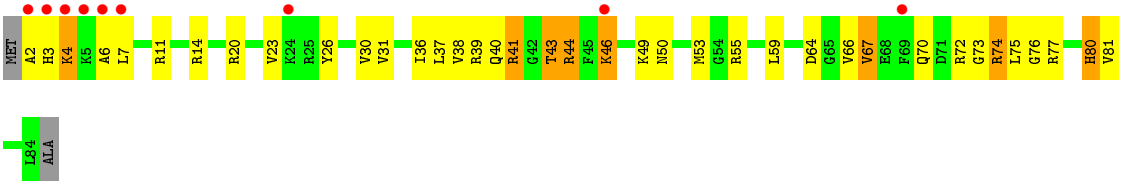
• Molecule 46: 50S ribosomal protein L25

Chain D5:



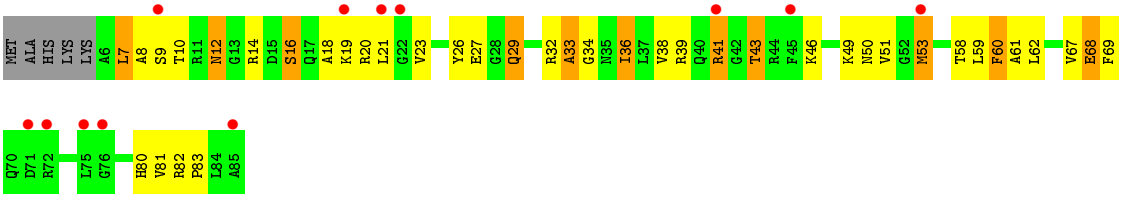
• Molecule 47: 50S ribosomal protein L27

Chain I8:



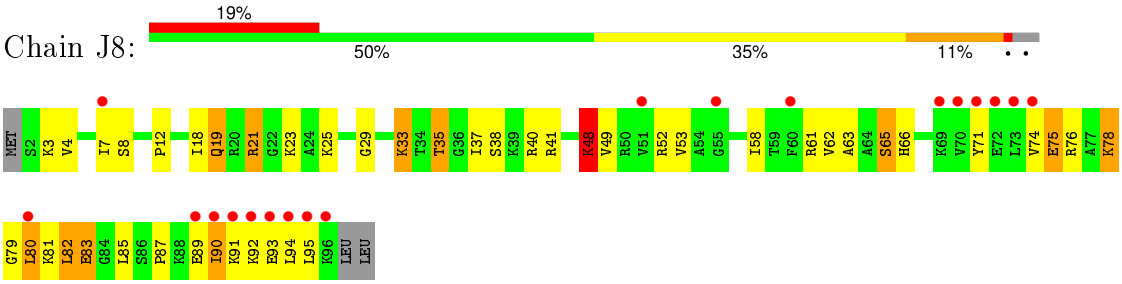
• Molecule 47: 50S ribosomal protein L27

Chain E5:



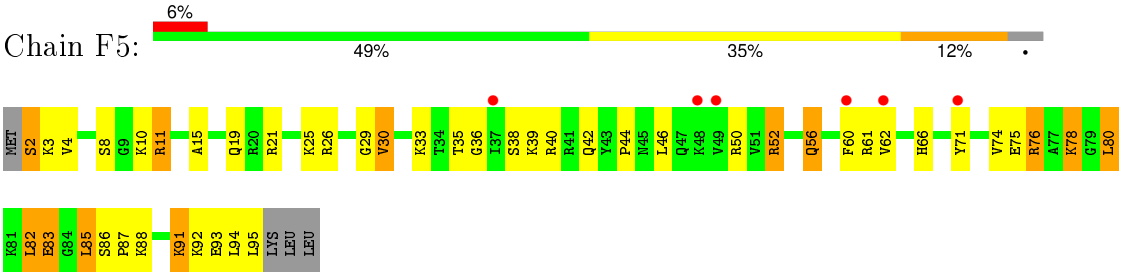
• Molecule 48: 50S ribosomal protein L28

Chain J8:



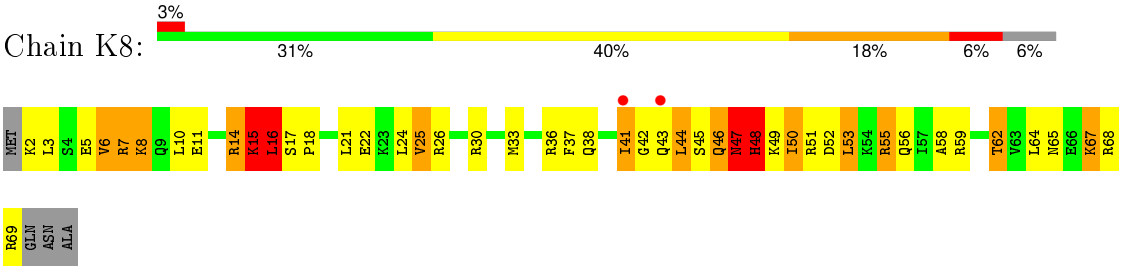
• Molecule 48: 50S ribosomal protein L28

Chain F5:



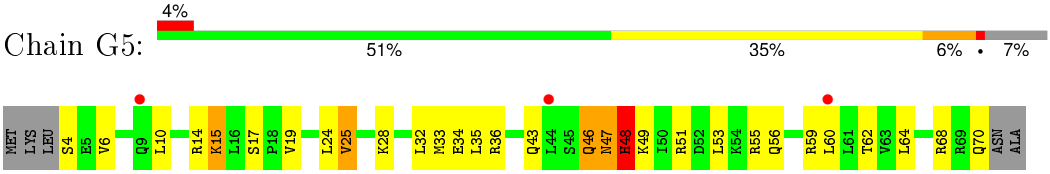
• Molecule 49: 50S ribosomal protein L29

Chain K8:



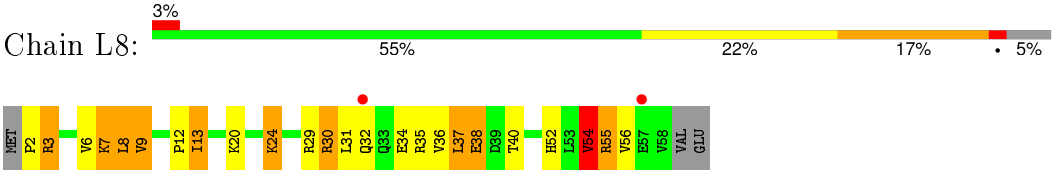
• Molecule 49: 50S ribosomal protein L29

Chain G5:



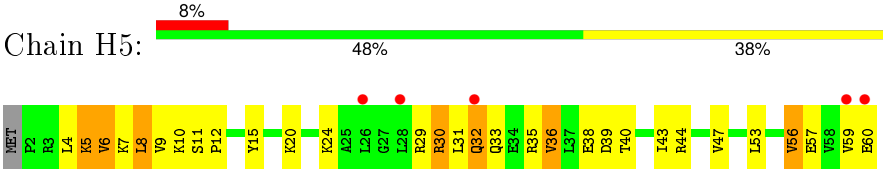
• Molecule 50: 50S ribosomal protein L30

Chain L8:



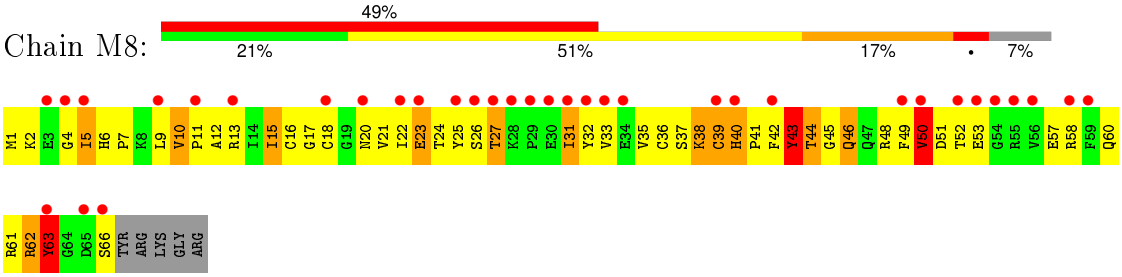
• Molecule 50: 50S ribosomal protein L30

Chain H5:



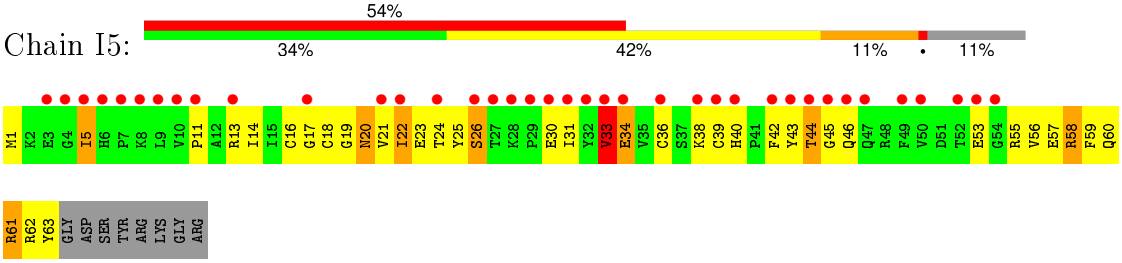
- Molecule 51: 50S ribosomal protein L31

Chain M8:



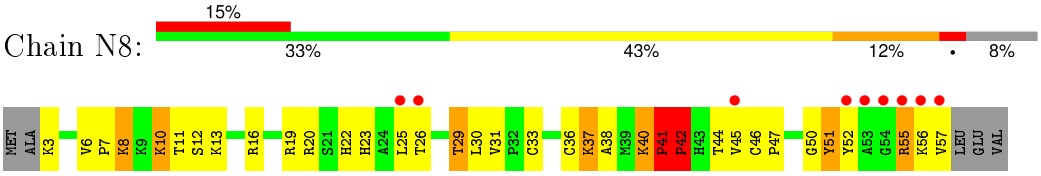
- Molecule 51: 50S ribosomal protein L31

Chain I5:



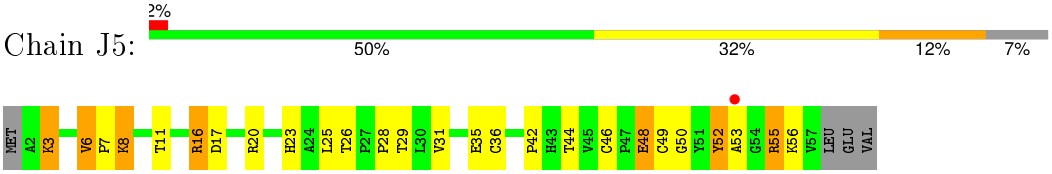
- Molecule 52: 50S ribosomal protein L32

Chain N8:



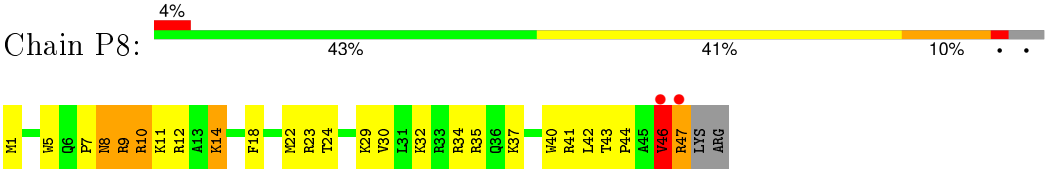
- Molecule 52: 50S ribosomal protein L32

Chain J5:



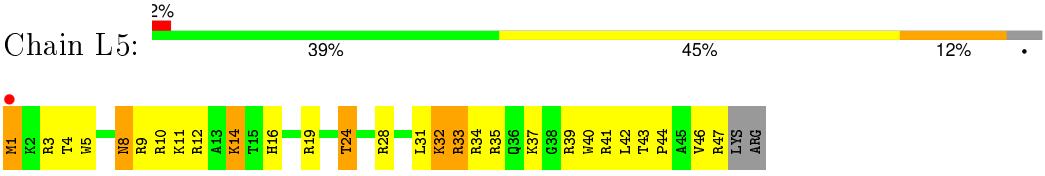
- Molecule 53: 50S ribosomal protein L34

Chain P8:



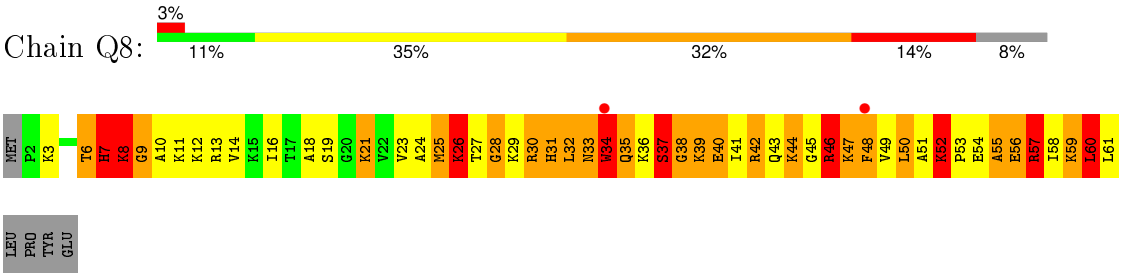
- Molecule 53: 50S ribosomal protein L34

Chain L5:



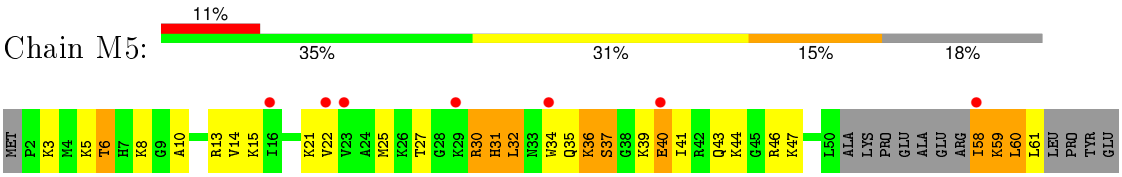
- Molecule 54: 50S ribosomal protein L35

Chain Q8:



- Molecule 54: 50S ribosomal protein L35

Chain M5:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.50Å 449.90Å 618.70Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.31 – 3.30 153.31 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (153.31-3.30) 93.1 (153.31-3.30)	Depositor EDS
R_{merge}	0.54	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.13 (at 3.33Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.185 , (Not available) 0.192 , 0.237	Depositor DCC
R_{free} test set	2000 reflections (0.25%)	DCC
Wilson B-factor (Å^2)	96.5	Xtriage
Anisotropy	0.275	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 81.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.43$, $< L^2 > = 0.25$	Xtriage
Outliers	0 of 867119 reflections	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	299429	wwPDB-VP
Average B, all atoms (Å^2)	116.0	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.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ 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: 5MU, MG, OMG, H2U, ZN, 1MG, PSU

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	13	0.70	4/36254 (0.0%)	1.35	317/56581 (0.6%)
1	1G	0.66	0/36390	1.30	250/56793 (0.4%)
2	12	0.39	0/1959	0.67	2/2642 (0.1%)
2	1E	0.41	0/1959	0.67	2/2642 (0.1%)
3	22	0.44	0/1636	0.65	0/2205
3	2E	0.50	0/1629	0.66	1/2195 (0.0%)
4	32	0.54	1/1732 (0.1%)	0.76	1/2318 (0.0%)
4	3E	0.63	4/1732 (0.2%)	0.75	2/2318 (0.1%)
5	42	0.50	0/1171	0.73	0/1576
5	4E	0.54	0/1171	0.70	0/1576
6	52	0.52	0/855	0.72	2/1154 (0.2%)
6	5E	0.56	0/855	0.67	0/1154
7	62	0.43	0/1218	0.60	0/1632
7	6E	0.40	0/1171	0.57	0/1567
8	72	0.47	0/1135	0.65	0/1527
8	7E	0.51	0/1135	0.72	0/1527
9	82	0.41	0/1002	0.66	0/1346
9	8E	0.43	0/1028	0.65	0/1379
10	1A	0.40	0/814	0.63	0/1095
10	1I	0.47	0/814	0.70	0/1095
11	2A	0.48	0/879	0.70	0/1187
11	2I	0.47	0/879	0.72	1/1187 (0.1%)
12	3A	0.58	0/991	0.77	0/1327
12	3I	0.62	0/972	0.83	0/1301
13	4A	0.34	0/938	0.59	0/1258
13	4I	0.45	0/938	0.65	0/1258
14	5A	0.45	0/484	0.72	0/643
14	5I	0.64	1/500 (0.2%)	0.80	0/664
15	6A	0.51	0/744	0.64	0/992
15	6I	0.51	0/744	0.71	0/992
16	7A	0.52	0/721	0.70	0/970
16	7I	0.47	0/721	0.67	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.56	0/836	0.66	0/1117
17	8I	0.52	0/847	0.73	0/1131
18	9A	0.53	0/569	0.78	0/757
18	9I	0.49	0/555	0.74	0/739
19	AA	0.39	0/638	0.66	0/860
19	AI	0.46	0/657	0.75	1/885 (0.1%)
20	BA	0.48	0/764	0.73	0/1007
20	BI	0.41	0/764	0.66	0/1007
21	1B	0.47	0/221	0.63	0/288
21	1F	0.41	0/203	0.65	0/266
22	1K	0.52	0/1988	1.13	11/3099 (0.4%)
22	1L	0.45	0/1988	1.06	9/3099 (0.3%)
23	2K	0.69	0/1746	1.39	17/2719 (0.6%)
23	2L	0.69	0/1768	1.47	21/2753 (0.8%)
24	3K	0.49	0/1838	1.12	6/2862 (0.2%)
24	3L	0.54	0/1786	1.13	4/2778 (0.1%)
25	4K	0.70	0/372	1.05	0/574
25	4L	0.60	0/485	1.03	1/749 (0.1%)
26	14	0.84	45/70167 (0.1%)	1.51	1106/109541 (1.0%)
26	1H	0.91	66/70233 (0.1%)	1.60	1430/109643 (1.3%)
27	16	0.75	0/2928	1.48	45/4568 (1.0%)
27	1J	0.71	0/2928	1.37	24/4568 (0.5%)
28	11	0.70	1/2176 (0.0%)	0.89	2/2933 (0.1%)
28	19	0.69	2/2170 (0.1%)	0.91	2/2926 (0.1%)
29	21	0.63	0/1601	0.91	2/2160 (0.1%)
29	29	0.67	0/1601	0.97	2/2160 (0.1%)
30	31	0.67	0/1620	0.82	0/2194
30	39	0.62	0/1662	0.90	0/2249
31	41	0.43	0/1498	0.66	1/2016 (0.0%)
31	49	0.37	0/1498	0.63	0/2016
32	51	0.57	0/1362	0.85	0/1841
32	59	0.38	0/1332	0.75	2/1802 (0.1%)
33	61	0.52	0/1151	0.78	2/1558 (0.1%)
33	69	0.48	0/1151	0.75	2/1558 (0.1%)
34	15	0.54	0/1131	0.71	0/1525
34	58	0.56	0/1131	0.79	1/1525 (0.1%)
35	25	0.64	0/942	0.81	2/1269 (0.2%)
35	68	0.61	0/942	0.76	0/1269
36	35	0.59	0/1161	0.99	1/1544 (0.1%)
36	78	0.64	0/1139	1.03	2/1514 (0.1%)
37	45	0.63	0/1134	0.82	0/1517
37	88	0.66	0/1142	0.92	3/1527 (0.2%)
38	55	0.62	0/973	0.87	1/1302 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	98	0.53	0/981	0.85	2/1312 (0.2%)
39	65	0.55	0/891	0.91	1/1187 (0.1%)
39	A8	0.55	0/891	0.81	1/1187 (0.1%)
40	75	0.61	0/1155	0.77	0/1542
40	B8	0.64	0/1095	0.79	0/1463
41	85	0.59	0/981	0.79	0/1306
41	C8	0.67	0/981	0.88	2/1306 (0.2%)
42	95	0.66	0/789	0.85	2/1057 (0.2%)
42	D8	0.59	0/789	0.83	1/1057 (0.1%)
43	A5	0.68	0/910	0.87	0/1220
43	E8	0.64	0/901	0.83	0/1209
44	B5	0.69	0/739	0.81	0/993
44	F8	0.72	0/756	0.86	0/1014
45	C5	0.68	0/807	0.90	1/1076 (0.1%)
45	G8	0.71	0/796	0.98	5/1062 (0.5%)
46	D5	0.47	0/1145	0.67	0/1547
46	H8	0.47	0/1403	0.76	2/1901 (0.1%)
47	E5	0.63	0/635	0.89	0/848
47	I8	0.69	0/665	0.82	0/885
48	F5	0.65	0/744	0.87	1/989 (0.1%)
48	J8	0.67	0/753	0.93	3/1000 (0.3%)
49	G5	0.61	0/569	0.85	0/753
49	K8	0.68	0/577	0.92	1/763 (0.1%)
50	H5	0.48	0/473	0.63	0/635
50	L8	0.66	0/457	0.79	0/613
51	I5	0.44	0/527	0.79	0/709
51	M8	0.43	0/545	0.77	0/733
52	J5	0.60	0/448	0.82	0/606
52	N8	0.64	0/443	0.84	0/599
53	L5	0.65	0/417	0.83	0/550
53	P8	0.75	0/417	0.88	0/550
54	M5	0.71	0/426	0.97	1/556 (0.2%)
54	Q8	1.05	0/486	1.47	6/638 (0.9%)
All	All	0.74	124/322561 (0.0%)	1.33	3307/483352 (0.7%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	3
4	32	0	3
4	3E	0	1
9	82	0	1
9	8E	0	1
10	1A	0	1
11	2A	0	1
12	3A	0	2
12	3I	0	1
13	4A	0	1
14	5A	0	1
19	AI	0	2
20	BA	0	2
28	11	0	1
28	19	0	3
29	21	0	4
29	29	0	8
30	31	0	1
30	39	0	6
31	49	0	1
33	61	0	3
33	69	0	3
34	15	0	1
36	35	0	7
36	78	0	2
37	45	0	5
37	88	0	3
38	55	0	2
38	98	0	1
40	75	0	2
40	B8	0	2
41	85	0	2
41	C8	0	1
42	95	0	1
43	A5	0	1
45	C5	0	4
45	G8	0	4
46	H8	0	3
47	E5	0	2
47	I8	0	2
48	F5	0	1
48	J8	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
49	G5	0	3
49	K8	0	5
51	I5	0	1
51	M8	0	3
52	J5	0	1
52	N8	0	2
53	P8	0	1
54	M5	0	2
54	Q8	0	12
All	All	0	128

All (124) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	774	A	N9-C4	-14.53	1.29	1.37
26	14	783	A	N9-C4	-9.44	1.32	1.37
26	1H	71	A	N9-C4	-9.18	1.32	1.37
26	14	2518	A	N9-C4	-7.93	1.33	1.37
4	3E	12	CYS	CB-SG	7.85	1.95	1.82
26	14	1950	G	C2-N3	7.73	1.39	1.32
26	1H	783	A	N7-C5	-7.61	1.34	1.39
26	1H	783	A	C5-C6	-7.49	1.34	1.41
26	1H	783	A	N9-C4	-7.41	1.33	1.37
26	14	71	A	N9-C4	-7.37	1.33	1.37
26	14	74	A	N9-C4	-7.36	1.33	1.37
26	14	2346	A	N3-C4	-7.36	1.30	1.34
26	1H	676	A	N9-C4	-7.33	1.33	1.37
26	1H	127	A	C5-C6	-7.30	1.34	1.41
26	14	774	A	N9-C4	-7.27	1.33	1.37
26	1H	784	A	C6-N1	-7.26	1.30	1.35
26	14	2506	U	C2-N3	7.24	1.42	1.37
26	1H	1950	G	C2-N3	7.13	1.38	1.32
26	1H	528	A	N9-C4	-7.04	1.33	1.37
26	1H	1786	A	N9-C4	-7.04	1.33	1.37
26	14	676	A	N9-C4	-7.00	1.33	1.37
26	1H	1899	G	N9-C4	-6.95	1.32	1.38
26	1H	821	A	N7-C5	-6.95	1.35	1.39
26	14	1332	G	N9-C4	-6.87	1.32	1.38
1	13	1523	G	C6-O6	6.82	1.30	1.24
1	13	792	A	C5-C6	-6.77	1.34	1.41
26	1H	1210	A	N9-C4	-6.65	1.33	1.37
26	14	945	A	N9-C4	-6.62	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	2287	A	N9-C4	-6.62	1.33	1.37
26	1H	2346	A	N3-C4	-6.58	1.30	1.34
14	5I	27	CYS	CB-SG	-6.58	1.71	1.82
26	1H	774	A	N7-C5	-6.47	1.35	1.39
26	1H	330	A	N9-C4	-6.46	1.33	1.37
26	14	447	A	N9-C4	-6.45	1.33	1.37
26	1H	676	A	C5-C4	6.43	1.43	1.38
4	3E	26	CYS	CB-SG	6.43	1.93	1.82
26	1H	74	A	N9-C4	-6.41	1.34	1.37
26	1H	57	C	N3-C4	-6.37	1.29	1.33
4	32	31	CYS	CB-SG	-6.36	1.71	1.82
26	1H	1378	A	N9-C4	-6.28	1.34	1.37
26	1H	945	A	N7-C5	-6.20	1.35	1.39
26	1H	774	A	N3-C4	-6.14	1.31	1.34
26	1H	2518	A	N9-C4	-6.10	1.34	1.37
4	3E	31	CYS	CB-SG	6.09	1.92	1.82
28	19	28	GLU	CG-CD	6.08	1.61	1.51
26	14	528	A	N9-C4	-6.08	1.34	1.37
26	14	945	A	C5-C6	-6.01	1.35	1.41
26	1H	676	A	N9-C8	6.00	1.42	1.37
26	14	828	U	N3-C4	-5.95	1.33	1.38
26	14	1890	A	N9-C4	-5.88	1.34	1.37
28	19	28	GLU	CB-CG	5.81	1.63	1.52
26	14	1616	A	N9-C4	-5.81	1.34	1.37
26	1H	1899	G	N9-C8	5.80	1.42	1.37
26	14	2062	A	N3-C4	5.80	1.38	1.34
26	1H	2392	A	C5-C4	5.80	1.42	1.38
26	14	774	A	C5-C6	-5.78	1.35	1.41
26	14	783	A	N7-C5	-5.72	1.35	1.39
26	1H	1977	A	C6-N1	-5.70	1.31	1.35
26	14	512	G	N9-C4	-5.69	1.33	1.38
26	1H	472	A	N3-C4	-5.69	1.31	1.34
26	1H	2287	A	N9-C4	-5.67	1.34	1.37
26	14	528	A	N3-C4	-5.64	1.31	1.34
26	14	676	A	N9-C8	5.62	1.42	1.37
26	1H	1786	A	C5-C6	-5.61	1.35	1.41
26	1H	74	A	N3-C4	-5.61	1.31	1.34
26	14	2278	A	N3-C4	-5.60	1.31	1.34
26	1H	2062	A	N3-C4	5.60	1.38	1.34
26	14	332	A	N9-C4	-5.60	1.34	1.37
26	1H	2430	A	N9-C4	-5.59	1.34	1.37
26	1H	138	G	N9-C8	5.57	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1786	A	N7-C5	-5.56	1.35	1.39
26	14	676	A	C5-C4	5.56	1.42	1.38
26	1H	1698	A	N3-C4	-5.55	1.31	1.34
26	14	1610	A	C5-C6	-5.53	1.36	1.41
26	1H	783	A	N3-C4	-5.51	1.31	1.34
26	1H	140	A	C5-C6	-5.51	1.36	1.41
26	1H	71	A	C5-C6	-5.50	1.36	1.41
26	14	1332	G	N3-C4	-5.50	1.31	1.35
26	14	2062	A	C6-N1	5.50	1.39	1.35
26	14	2873	A	N7-C5	-5.49	1.35	1.39
26	14	330	A	N9-C4	-5.48	1.34	1.37
1	13	974	A	N9-C4	-5.47	1.34	1.37
26	14	1678	G	N9-C4	-5.47	1.33	1.38
26	14	786	C	N3-C4	-5.47	1.30	1.33
26	1H	1021	A	N9-C4	-5.47	1.34	1.37
26	14	1617	C	N1-C6	-5.46	1.33	1.37
26	1H	667	U	N1-C2	-5.41	1.33	1.38
26	14	621	A	N9-C4	-5.41	1.34	1.37
26	1H	2602	A	N3-C4	5.37	1.38	1.34
26	1H	2713	A	C5-C4	5.37	1.42	1.38
26	1H	1829	A	C5-C4	-5.34	1.35	1.38
26	14	2490	G	N9-C8	5.34	1.41	1.37
26	14	1613	G	C6-N1	-5.33	1.35	1.39
26	1H	1363	C	N3-C4	-5.30	1.30	1.33
26	1H	449	A	N3-C4	-5.30	1.31	1.34
26	1H	1616	A	N7-C5	-5.29	1.36	1.39
28	11	28	GLU	CG-CD	5.29	1.59	1.51
26	1H	1683	C	N3-C4	-5.26	1.30	1.33
26	1H	82	G	C6-O6	5.25	1.28	1.24
4	3E	9	CYS	CB-SG	5.25	1.91	1.82
26	14	1950	G	C5-C4	5.23	1.42	1.38
26	1H	2346	A	N9-C4	-5.21	1.34	1.37
26	1H	1496	A	C5-C6	-5.20	1.36	1.41
26	1H	1558	A	N3-C4	-5.18	1.31	1.34
26	1H	768	G	C6-N1	-5.18	1.35	1.39
26	14	1142(A)	A	N9-C4	-5.18	1.34	1.37
26	14	777	A	N9-C4	-5.17	1.34	1.37
26	1H	859	G	N9-C4	-5.17	1.33	1.38
26	14	821	A	N7-C5	-5.17	1.36	1.39
1	13	792	A	N9-C4	-5.14	1.34	1.37
26	1H	1614	A	N9-C4	-5.12	1.34	1.37
26	14	1187	G	N3-C4	-5.12	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1332	G	N9-C4	-5.09	1.33	1.38
26	1H	1950	G	C5-C4	5.08	1.42	1.38
26	14	751	A	N9-C4	-5.08	1.34	1.37
26	1H	692	C	N3-C4	-5.08	1.30	1.33
26	1H	793	A	C5-C6	-5.06	1.36	1.41
26	1H	1300	U	N1-C2	-5.05	1.34	1.38
26	1H	1626	G	N3-C4	-5.05	1.31	1.35
26	1H	2032	G	N9-C8	-5.05	1.34	1.37
26	1H	2600	A	N3-C4	-5.05	1.31	1.34
26	14	783	A	C5-C6	-5.04	1.36	1.41
26	1H	330	A	N3-C4	-5.01	1.31	1.34
26	1H	1257	C	N3-C4	-5.01	1.30	1.33

All (3307) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N3-C4-N9	-18.45	114.93	126.00
26	14	1332	G	N3-C4-N9	-15.36	116.78	126.00
26	1H	676	A	C2-N3-C4	-14.95	103.12	110.60
26	1H	783	A	C5-N7-C8	-14.89	96.45	103.90
26	14	1786	A	N7-C8-N9	14.75	121.17	113.80
26	1H	1899	G	N3-C4-C5	14.68	135.94	128.60
26	1H	774	A	C2-N3-C4	-14.26	103.47	110.60
26	1H	2430	A	C2-N3-C4	-14.07	103.57	110.60
26	14	828	U	C5-C4-O4	13.91	134.25	125.90
26	1H	71	A	C2-N3-C4	-13.86	103.67	110.60
26	1H	127	A	N1-C6-N6	13.76	126.86	118.60
26	14	676	A	N1-C6-N6	13.73	126.84	118.60
26	14	676	A	C2-N3-C4	-13.71	103.74	110.60
26	1H	1332	G	C2-N3-C4	-13.70	105.05	111.90
26	1H	1786	A	C5-N7-C8	-13.70	97.05	103.90
26	1H	783	A	N1-C6-N6	13.68	126.81	118.60
26	1H	945	A	C6-C5-N7	-13.66	122.74	132.30
26	1H	1899	G	C2-N3-C4	-13.47	105.17	111.90
26	14	676	A	C5-N7-C8	-13.47	97.17	103.90
26	1H	676	A	C5-N7-C8	-13.32	97.24	103.90
26	14	741	G	O5'-P-OP1	-13.25	93.77	105.70
1	13	792	A	N1-C6-N6	13.20	126.52	118.60
26	14	774	A	C2-N3-C4	-13.11	104.05	110.60
26	1H	1786	A	N7-C8-N9	13.09	120.34	113.80
26	1H	783	A	C2-N3-C4	-12.91	104.15	110.60
26	14	74	A	C2-N3-C4	-12.90	104.15	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1786	A	C8-N9-C4	-12.77	100.69	105.80
26	1H	1899	G	N3-C2-N2	-12.76	110.97	119.90
26	14	2430	A	N1-C6-N6	12.63	126.18	118.60
26	14	2518	A	C2-N3-C4	-12.46	104.37	110.60
26	1H	774	A	N3-C4-N9	-12.36	117.51	127.40
26	1H	783	A	N7-C8-N9	12.34	119.97	113.80
26	14	945	A	N1-C6-N6	12.32	125.99	118.60
26	1H	783	A	C6-C5-N7	-12.32	123.68	132.30
1	13	690	G	C6-C5-N7	-12.17	123.10	130.40
26	14	945	A	C2-N3-C4	-12.11	104.54	110.60
26	1H	2430	A	N1-C6-N6	12.09	125.85	118.60
26	1H	783	A	C4-C5-N7	12.08	116.74	110.70
26	1H	1972	A	N1-C6-N6	12.05	125.83	118.60
26	1H	774	A	N3-C4-C5	11.98	135.19	126.80
26	14	1332	G	N3-C4-C5	11.97	134.58	128.60
26	1H	945	A	N1-C6-N6	11.92	125.75	118.60
26	14	1786	A	C5-N7-C8	-11.89	97.95	103.90
26	1H	945	A	C4-C5-C6	11.80	122.90	117.00
26	1H	1210	A	C5-N7-C8	-11.80	98.00	103.90
26	14	676	A	C4-C5-N7	11.68	116.54	110.70
26	14	1678	G	C2-N3-C4	-11.68	106.06	111.90
26	1H	1786	A	C2-N3-C4	-11.68	104.76	110.60
1	13	792	A	C4-C5-N7	11.62	116.51	110.70
26	1H	2584	U	N3-C2-O2	-11.62	114.07	122.20
26	1H	74	A	C2-N3-C4	-11.49	104.86	110.60
27	16	81	G	C4-C5-N7	11.25	115.30	110.80
26	14	1332	G	C2-N3-C4	-11.17	106.31	111.90
26	1H	140	A	C5-N7-C8	-11.15	98.32	103.90
26	1H	676	A	N7-C8-N9	11.14	119.37	113.80
26	14	1786	A	C2-N3-C4	-11.13	105.03	110.60
26	14	2873	A	C5-N7-C8	-11.11	98.34	103.90
26	14	2287	A	C2-N3-C4	-11.10	105.05	110.60
26	1H	2509	G	C5-C6-O6	-11.00	122.00	128.60
26	1H	828	U	C5-C4-O4	10.89	132.43	125.90
26	14	330	A	C2-N3-C4	-10.83	105.19	110.60
26	1H	121	G	C5-C6-O6	-10.81	122.11	128.60
26	1H	1021	A	C2-N3-C4	-10.79	105.20	110.60
26	14	528	A	C2-N3-C4	-10.77	105.22	110.60
26	1H	71	A	C5-N7-C8	-10.76	98.52	103.90
26	14	2873	A	N7-C8-N9	10.75	119.17	113.80
26	1H	2430	A	C5-C6-N1	-10.75	112.33	117.70
26	14	783	A	C2-N3-C4	-10.75	105.23	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1899	G	C2-N3-C4	-10.72	106.54	111.90
26	1H	1210	A	N1-C6-N6	10.70	125.02	118.60
26	1H	945	A	N7-C8-N9	10.67	119.13	113.80
26	14	1698	A	N1-C6-N6	10.65	124.99	118.60
26	1H	2609	U	C5-C6-N1	-10.63	117.39	122.70
26	14	783	A	C5-N7-C8	-10.62	98.59	103.90
26	1H	1496	A	N1-C6-N6	10.53	124.92	118.60
26	14	528	A	N1-C2-N3	10.47	134.54	129.30
26	14	2506	U	C5-C6-N1	10.46	127.93	122.70
26	14	71	A	C2-N3-C4	-10.41	105.39	110.60
26	14	71	A	N1-C6-N6	10.37	124.82	118.60
26	14	1816	G	O5'-P-OP1	-10.35	96.38	105.70
26	14	74	A	N1-C6-N6	10.34	124.80	118.60
26	14	945	A	C4-C5-N7	10.33	115.86	110.70
26	1H	2346	A	O4'-C1'-N9	10.29	116.43	108.20
26	14	945	A	C5-N7-C8	-10.29	98.76	103.90
26	14	676	A	N3-C4-C5	10.27	133.99	126.80
26	1H	1950	G	C8-N9-C4	-10.26	102.30	106.40
26	1H	1249	U	O5'-P-OP1	-10.22	96.50	105.70
26	14	2873	A	C2-N3-C4	-10.22	105.49	110.60
26	14	2490	G	C8-N9-C4	-10.20	102.32	106.40
26	1H	1332	G	C5-N7-C8	-10.16	99.22	104.30
26	1H	330	A	C2-N3-C4	-10.15	105.53	110.60
26	1H	186	G	C5-C6-O6	-10.15	122.51	128.60
26	1H	2331	G	C8-N9-C4	10.13	110.45	106.40
26	1H	684	G	C8-N9-C4	-10.13	102.35	106.40
26	1H	528	A	C2-N3-C4	-10.09	105.56	110.60
26	1H	1786	A	C8-N9-C4	-10.08	101.77	105.80
26	14	391	G	N1-C6-O6	10.08	125.95	119.90
26	1H	1204	A	O4'-C1'-N9	10.02	116.22	108.20
26	1H	71	A	N3-C4-C5	9.99	133.79	126.80
26	14	1021	A	C2-N3-C4	-9.99	105.61	110.60
26	14	774	A	N3-C4-C5	9.97	133.78	126.80
26	1H	504	U	C2-N1-C1'	9.97	129.66	117.70
26	1H	140	A	C4-C5-N7	9.96	115.68	110.70
26	1H	2503	A	N1-C6-N6	9.95	124.57	118.60
26	14	2584	U	N3-C2-O2	-9.93	115.25	122.20
26	14	767	U	C5-C4-O4	9.92	131.85	125.90
26	1H	1210	A	C4-C5-N7	9.92	115.66	110.70
26	1H	1602	U	C5-C6-N1	-9.90	117.75	122.70
26	1H	796	C	O5'-P-OP2	-9.89	96.80	105.70
26	14	2307	G	O4'-C1'-N9	9.88	116.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1276	A	N1-C6-N6	9.88	124.53	118.60
26	14	2430	A	C2-N3-C4	-9.88	105.66	110.60
26	1H	783	A	C8-N9-C4	-9.86	101.86	105.80
26	1H	140	A	N1-C6-N6	9.86	124.51	118.60
26	1H	672	C	O5'-P-OP2	-9.84	96.85	105.70
26	14	74	A	C5-C6-N1	-9.80	112.80	117.70
1	13	690	G	C4-N9-C1'	9.78	139.22	126.50
26	1H	130	C	C6-N1-C2	9.78	124.21	120.30
26	14	330	A	N1-C6-N6	9.79	124.47	118.60
26	1H	2468	G	O4'-C1'-N9	9.78	116.03	108.20
26	1H	2392	A	N7-C8-N9	9.77	118.68	113.80
26	1H	2856	C	C6-N1-C2	-9.76	116.39	120.30
26	1H	2679	A	O5'-P-OP2	-9.74	96.93	105.70
26	14	2873	A	N1-C6-N6	9.73	124.44	118.60
36	78	50	ARG	NE-CZ-NH2	9.71	125.16	120.30
26	14	1950	G	N7-C8-N9	9.69	117.95	113.10
26	14	828	U	N3-C4-O4	-9.68	112.62	119.40
26	14	828	U	N3-C2-O2	-9.68	115.42	122.20
1	13	690	G	O4'-C1'-N9	9.68	115.94	108.20
26	1H	735	A	C8-N9-C4	9.67	109.67	105.80
26	1H	917	A	C2-N3-C4	-9.66	105.77	110.60
1	13	792	A	N9-C4-C5	-9.63	101.95	105.80
26	1H	121	G	C6-C5-N7	-9.61	124.64	130.40
26	1H	121	G	N3-C4-N9	9.61	131.77	126.00
26	1H	2331	G	N1-C6-O6	9.61	125.66	119.90
26	1H	2403	C	C6-N1-C2	-9.61	116.46	120.30
26	1H	2518	A	C5-N7-C8	-9.59	99.10	103.90
26	14	1496	A	N7-C8-N9	9.56	118.58	113.80
26	1H	2331	G	N9-C4-C5	-9.56	101.58	105.40
26	14	2688	U	N3-C2-O2	-9.55	115.52	122.20
39	65	110	LEU	CA-CB-CG	9.54	137.25	115.30
26	14	801	G	N1-C6-O6	-9.54	114.18	119.90
26	1H	837	C	C6-N1-C2	-9.51	116.50	120.30
26	1H	2439	A	OP1-P-O3'	9.50	126.10	105.20
26	14	574	C	C6-N1-C2	9.50	124.10	120.30
26	14	2544	G	C5-C6-O6	-9.49	122.90	128.60
26	1H	1021	A	C5-N7-C8	-9.48	99.16	103.90
26	1H	621	A	C2-N3-C4	-9.47	105.86	110.60
26	1H	676	A	N3-C4-C5	9.45	133.41	126.80
26	14	2518	A	N1-C6-N6	9.44	124.27	118.60
26	1H	2450	A	O5'-P-OP2	-9.40	97.24	105.70
26	14	933	A	N1-C6-N6	9.40	124.24	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2392	A	C5-N7-C8	-9.38	99.21	103.90
26	1H	1698	A	C2-N3-C4	-9.37	105.92	110.60
26	1H	140	A	N7-C8-N9	9.36	118.48	113.80
26	14	1610	A	N1-C6-N6	9.36	124.22	118.60
26	1H	1899	G	N9-C4-C5	9.33	109.13	105.40
26	14	669	G	C2-N3-C4	9.33	116.56	111.90
1	13	1498	U	P-O3'-C3'	9.31	130.88	119.70
26	14	1327	C	N1-C2-O2	-9.30	113.32	118.90
26	14	71	A	C5-N7-C8	-9.29	99.26	103.90
26	14	2430	A	N1-C2-N3	9.27	133.94	129.30
26	1H	945	A	C5-N7-C8	-9.26	99.27	103.90
26	14	391	G	C6-C5-N7	-9.26	124.85	130.40
26	1H	2688	U	N3-C2-O2	-9.25	115.73	122.20
26	1H	676	A	C4-C5-N7	9.22	115.31	110.70
26	14	140	A	C5-N7-C8	-9.22	99.29	103.90
1	13	792	A	C5-C6-N6	-9.19	116.35	123.70
26	1H	1786	A	C4-C5-N7	9.17	115.29	110.70
26	1H	2440	C	O5'-P-OP1	-9.17	97.45	105.70
26	1H	127	A	C5-C6-N6	-9.16	116.37	123.70
26	1H	1931	U	N3-C2-O2	-9.15	115.79	122.20
1	13	690	G	N7-C8-N9	9.12	117.66	113.10
26	14	2012	G	C5-C6-O6	-9.12	123.13	128.60
26	1H	946	G	C8-N9-C4	9.12	110.05	106.40
26	14	2873	A	C6-C5-N7	-9.12	125.92	132.30
1	13	690	G	C4-C5-N7	9.10	114.44	110.80
26	1H	1950	G	N7-C8-N9	9.10	117.65	113.10
26	1H	1395	A	O4'-C1'-N9	9.09	115.47	108.20
1	13	623	C	C6-N1-C2	-9.06	116.67	120.30
1	1G	529	G	C5-C6-O6	-9.06	123.16	128.60
26	14	1989	G	N3-C2-N2	-9.05	113.56	119.90
1	13	792	A	O4'-C1'-N9	9.05	115.44	108.20
1	13	186	C	C6-N1-C2	-9.05	116.68	120.30
26	14	2430	A	C6-C5-N7	-9.03	125.98	132.30
26	14	2544	G	N1-C6-O6	9.03	125.31	119.90
26	1H	860	U	C4-C5-C6	9.02	125.11	119.70
26	1H	2576	G	O5'-P-OP1	-8.97	97.62	105.70
26	1H	2330	G	N1-C6-O6	8.97	125.28	119.90
26	1H	1350	C	O5'-P-OP1	-8.96	97.64	105.70
54	Q8	28	GLY	N-CA-C	-8.95	90.73	113.10
26	14	1616	A	C5-N7-C8	-8.94	99.43	103.90
26	14	2713	A	C5-N7-C8	-8.93	99.44	103.90
26	1H	461	C	N1-C2-O2	-8.91	113.55	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	81	G	C5-N7-C8	-8.89	99.85	104.30
22	1K	87	A	N7-C8-N9	8.86	118.23	113.80
26	1H	2567	G	O5'-P-OP1	-8.86	97.73	105.70
1	13	792	A	C5-N7-C8	-8.84	99.48	103.90
26	14	664	C	C5-C6-N1	-8.84	116.58	121.00
26	14	1496	A	C5-N7-C8	-8.84	99.48	103.90
26	1H	2710	C	C5-C6-N1	-8.82	116.59	121.00
26	1H	2346	A	N1-C2-N3	8.81	133.71	129.30
26	1H	1616	A	N7-C8-N9	8.79	118.20	113.80
26	14	1786	A	N1-C2-N3	8.79	133.69	129.30
26	14	2681	C	C5-C4-N4	8.78	126.35	120.20
26	14	686	G	O5'-P-OP2	-8.78	97.80	105.70
26	14	2506	U	C2-N1-C1'	8.78	128.24	117.70
26	1H	121	G	C4-N9-C1'	8.77	137.90	126.50
26	14	1698	A	N9-C4-C5	-8.76	102.30	105.80
26	14	2346	A	N1-C2-N3	8.76	133.68	129.30
26	14	586	A	O5'-P-OP2	-8.75	97.83	105.70
26	14	2713	A	N1-C6-N6	8.74	123.84	118.60
26	14	2477	C	N1-C2-O2	8.73	124.14	118.90
26	14	1276	A	C5-C6-N6	-8.72	116.72	123.70
26	1H	1816	G	O5'-P-OP1	-8.71	97.86	105.70
1	1G	690	G	N3-C4-C5	8.71	132.96	128.60
26	1H	784	A	N1-C6-N6	-8.71	113.38	118.60
26	1H	2258	C	O5'-P-OP1	-8.71	97.86	105.70
1	1G	690	G	N3-C4-N9	-8.70	120.78	126.00
26	14	140	A	C4-C5-N7	8.68	115.04	110.70
26	1H	71	A	C4-C5-N7	8.67	115.04	110.70
1	1G	1278	U	C2-N1-C1'	8.67	128.10	117.70
26	14	330	A	N1-C2-N3	8.66	133.63	129.30
26	14	512	G	N3-C4-N9	-8.66	120.81	126.00
26	1H	1698	A	N1-C2-N3	8.64	133.62	129.30
26	14	71	A	O4'-C1'-N9	-8.64	101.29	108.20
26	1H	859	G	N3-C4-C5	8.62	132.91	128.60
26	14	1787	A	O5'-P-OP1	-8.62	97.94	105.70
26	14	2873	A	N1-C2-N3	8.61	133.60	129.30
26	14	1396	U	N3-C2-O2	-8.61	116.18	122.20
26	1H	945	A	C4-N9-C1'	8.58	141.74	126.30
26	1H	530	G	N1-C6-O6	-8.57	114.75	119.90
26	14	1695	G	C6-C5-N7	-8.57	125.26	130.40
26	14	140	A	N1-C6-N6	8.55	123.73	118.60
26	14	1790	C	N1-C2-O2	-8.55	113.77	118.90
26	14	774	A	N1-C6-N6	8.54	123.72	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2584	U	N1-C2-N3	8.53	120.02	114.90
26	1H	676	A	O4'-C1'-N9	8.53	115.02	108.20
26	1H	1332	G	C4-C5-N7	8.53	114.21	110.80
1	1G	1322	C	C2-N1-C1'	8.52	128.17	118.80
26	14	912	C	C6-N1-C2	-8.51	116.90	120.30
1	13	652	U	C5-C6-N1	8.51	126.95	122.70
1	1G	1281	U	C5-C6-N1	8.51	126.95	122.70
26	14	1950	G	C4-N9-C1'	8.50	137.55	126.50
26	1H	2346	A	C2-N3-C4	-8.49	106.35	110.60
26	14	1610	A	C5-C6-N6	-8.47	116.92	123.70
26	14	330	A	C6-C5-N7	-8.47	126.37	132.30
26	1H	676	A	N1-C6-N6	8.46	123.68	118.60
26	1H	679	C	C6-N1-C2	8.46	123.68	120.30
26	1H	71	A	N1-C6-N6	8.46	123.67	118.60
26	14	945	A	C6-C5-N7	-8.45	126.39	132.30
1	13	1203	C	C6-N1-C2	-8.44	116.92	120.30
26	14	566	U	C5-C6-N1	-8.44	118.48	122.70
26	14	2447	G	O4'-C1'-N9	8.44	114.95	108.20
26	1H	127	A	C4-C5-N7	8.44	114.92	110.70
26	14	2709	G	N1-C6-O6	8.44	124.96	119.90
26	1H	1496	A	N7-C8-N9	8.43	118.02	113.80
26	14	933	A	C5-N7-C8	-8.43	99.68	103.90
26	1H	2595	G	C5-C6-O6	-8.43	123.54	128.60
1	13	792	A	C6-C5-N7	-8.42	126.41	132.30
26	14	676	A	N7-C8-N9	8.41	118.00	113.80
26	1H	1616	A	C5-N7-C8	-8.40	99.70	103.90
26	1H	1496	A	C5-N7-C8	-8.39	99.71	103.90
26	1H	2287	A	C2-N3-C4	-8.38	106.41	110.60
26	1H	831	G	C8-N9-C4	8.37	109.75	106.40
26	1H	2330	G	C2-N3-C4	-8.37	107.72	111.90
26	14	783	A	C4-C5-N7	8.37	114.88	110.70
26	1H	736	C	N1-C2-O2	-8.36	113.88	118.90
26	14	1950	G	C8-N9-C4	-8.36	103.06	106.40
26	14	991	C	O5'-P-OP1	-8.36	98.18	105.70
26	1H	1616	A	C6-C5-N7	-8.34	126.46	132.30
26	1H	1614	A	N1-C6-N6	8.32	123.59	118.60
26	1H	1899	G	C8-N9-C1'	8.32	137.81	127.00
26	1H	2430	A	C6-C5-N7	-8.32	126.48	132.30
26	1H	1496	A	C6-C5-N7	-8.31	126.48	132.30
26	1H	2008	C	O5'-P-OP2	-8.30	98.23	105.70
26	1H	2595	G	C4-C5-N7	8.30	114.12	110.80
1	13	1281	U	N3-C2-O2	-8.29	116.39	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2518	A	N7-C8-N9	8.29	117.95	113.80
26	14	2755	C	C2-N1-C1'	8.28	127.91	118.80
26	1H	1313	U	C2-N1-C1'	8.28	127.63	117.70
26	1H	528	A	N3-C4-N9	-8.27	120.78	127.40
26	1H	2330	G	C8-N9-C4	8.27	109.71	106.40
1	13	1523	G	C5-C6-N1	-8.26	107.37	111.50
26	1H	51	G	O5'-P-OP1	-8.26	98.26	105.70
26	14	810	U	C5-C4-O4	-8.26	120.94	125.90
26	1H	2062	A	C8-N9-C4	8.25	109.10	105.80
26	1H	1942	C	N3-C4-C5	8.25	125.20	121.90
26	1H	609	A	N1-C6-N6	8.25	123.55	118.60
26	1H	1784	A	N1-C6-N6	-8.23	113.66	118.60
1	1G	1260	C	C6-N1-C2	-8.23	117.01	120.30
26	14	2447	G	C8-N9-C1'	8.23	137.69	127.00
26	1H	121	G	N1-C6-O6	8.22	124.83	119.90
26	1H	186	G	N1-C6-O6	8.22	124.83	119.90
26	1H	512	G	O4'-C1'-N9	8.21	114.77	108.20
1	13	505	G	N1-C6-O6	8.20	124.82	119.90
26	14	1328	G	N9-C4-C5	-8.20	102.12	105.40
26	1H	2256	G	O5'-P-OP2	-8.20	98.32	105.70
1	1G	1260	C	C5-C6-N1	8.20	125.10	121.00
26	1H	2392	A	C8-N9-C4	-8.19	102.52	105.80
1	13	690	G	C5-N7-C8	-8.19	100.21	104.30
26	1H	464	U	N3-C2-O2	-8.17	116.48	122.20
26	1H	1021	A	C4-C5-N7	8.17	114.79	110.70
26	1H	140	A	C6-C5-N7	-8.16	126.58	132.30
26	1H	1602	U	C6-N1-C2	8.16	125.90	121.00
26	1H	672	C	O5'-P-OP1	8.16	120.49	110.70
26	1H	1698	A	C6-C5-N7	-8.15	126.59	132.30
26	1H	263	C	O5'-P-OP2	-8.15	98.36	105.70
26	14	1678	G	N3-C4-C5	8.15	132.68	128.60
1	13	690	G	N1-C6-O6	8.15	124.79	119.90
26	1H	1332	G	N3-C4-C5	8.15	132.67	128.60
26	1H	2259	G	N1-C6-O6	8.14	124.79	119.90
26	1H	2490	G	N3-C4-C5	8.14	132.67	128.60
26	1H	917	A	N1-C2-N3	8.14	133.37	129.30
26	14	1698	A	C4-C5-N7	8.14	114.77	110.70
1	13	247	G	N3-C4-C5	-8.13	124.53	128.60
26	1H	1496	A	C4-C5-N7	8.13	114.77	110.70
26	14	774	A	C5-N7-C8	-8.12	99.84	103.90
26	14	2518	A	N3-C4-C5	8.11	132.48	126.80
26	14	1698	A	C2-N3-C4	-8.11	106.55	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2609	U	C2-N3-C4	-8.10	122.14	127.00
26	1H	138	G	C8-N9-C4	-8.09	103.16	106.40
26	14	140	A	N7-C8-N9	8.09	117.84	113.80
1	13	1305	G	C8-N9-C4	-8.08	103.17	106.40
22	1K	87	A	C5-N7-C8	-8.08	99.86	103.90
1	1G	529	G	N1-C6-O6	8.07	124.74	119.90
26	14	1332	G	N9-C4-C5	8.07	108.63	105.40
26	14	330	A	C5-N7-C8	-8.06	99.87	103.90
26	14	512	G	N3-C4-C5	8.06	132.63	128.60
26	1H	2258	C	C6-N1-C2	-8.06	117.08	120.30
26	14	2873	A	C4-C5-N7	8.05	114.73	110.70
26	1H	121	G	C8-N9-C1'	-8.04	116.54	127.00
26	1H	1611	C	C6-N1-C2	8.04	123.52	120.30
26	14	2490	G	N7-C8-N9	8.03	117.12	113.10
26	1H	247	G	C8-N9-C4	8.03	109.61	106.40
26	1H	2503	A	C5-C6-N6	-8.01	117.29	123.70
26	1H	676	A	C5-C6-N1	-8.01	113.69	117.70
26	14	2779	U	N3-C2-O2	-8.00	116.60	122.20
26	1H	1616	A	N1-C6-N6	7.99	123.40	118.60
26	1H	1528	A	C8-N9-C4	-7.99	102.61	105.80
26	1H	2565	A	C8-N9-C4	7.99	108.99	105.80
26	1H	59	U	C6-N1-C2	-7.98	116.21	121.00
26	1H	1379	A	N1-C6-N6	7.98	123.39	118.60
26	14	74	A	C5-N7-C8	-7.98	99.91	103.90
26	1H	528	A	N3-C4-C5	7.96	132.38	126.80
26	14	801	G	C5-C6-O6	7.96	133.38	128.60
26	1H	593	G	O5'-P-OP2	-7.96	98.54	105.70
26	14	241	A	O5'-P-OP2	-7.96	98.54	105.70
26	1H	774	A	C5-C6-N1	-7.95	113.72	117.70
26	1H	139	G	O5'-P-OP1	-7.95	98.54	105.70
26	1H	801	G	C5-C6-O6	7.95	133.37	128.60
26	14	2584	U	C2-N1-C1'	7.95	127.24	117.70
26	1H	74	A	N1-C2-N3	7.94	133.27	129.30
32	59	153	LYS	C-N-CD	7.94	145.07	128.40
26	1H	1829	A	O5'-P-OP1	-7.93	98.56	105.70
26	1H	828	U	N3-C2-O2	-7.93	116.65	122.20
26	14	2430	A	C4-C5-C6	7.93	120.97	117.00
26	14	2447	G	O5'-P-OP1	-7.92	98.57	105.70
26	1H	141	A	C5-N7-C8	-7.91	99.94	103.90
26	1H	729	G	C8-N9-C4	-7.91	103.24	106.40
26	1H	695	G	O5'-P-OP2	-7.90	98.59	105.70
26	1H	918	A	O5'-P-OP1	-7.89	98.60	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	208	C	C6-N1-C2	7.88	123.45	120.30
26	14	797	C	N3-C4-N4	7.88	123.51	118.00
1	13	1530	G	C5-C6-O6	-7.87	123.88	128.60
26	14	1950	G	O4'-C1'-N9	7.85	114.48	108.20
26	1H	2409	G	C4-C5-N7	7.84	113.94	110.80
26	14	71	A	C4-C5-N7	7.84	114.62	110.70
26	1H	2424	C	OP1-P-OP2	7.84	131.36	119.60
1	13	23	C	C6-N1-C2	-7.84	117.17	120.30
26	14	783	A	N1-C6-N6	7.83	123.30	118.60
26	1H	2509	G	N1-C6-O6	7.83	124.60	119.90
26	1H	140	A	C2-N3-C4	-7.83	106.68	110.60
26	14	933	A	C4-C5-N7	7.83	114.62	110.70
38	55	28	LEU	CA-CB-CG	7.83	133.31	115.30
26	1H	1363	C	C5-C6-N1	-7.83	117.08	121.00
26	1H	1026	U	N3-C2-O2	-7.83	116.72	122.20
26	14	265	A	C5-N7-C8	-7.82	99.99	103.90
1	13	802	A	N1-C6-N6	7.82	123.29	118.60
26	1H	1241	A	C5-C6-N1	-7.82	113.79	117.70
26	1H	1830	C	N1-C2-O2	-7.81	114.22	118.90
1	1G	1297	C	P-O3'-C3'	7.81	129.07	119.70
26	1H	2338	G	C5-C6-O6	-7.80	123.92	128.60
26	14	1616	A	C4-C5-N7	7.79	114.60	110.70
26	1H	824	A	O5'-P-OP1	-7.79	98.69	105.70
27	16	81	G	C6-C5-N7	-7.78	125.73	130.40
26	1H	678	C	C5-C6-N1	-7.77	117.11	121.00
26	14	2346	A	C2-N3-C4	-7.77	106.71	110.60
1	13	974	A	N1-C6-N6	7.77	123.26	118.60
26	14	801	G	C6-C5-N7	7.77	135.06	130.40
26	14	621	A	C2-N3-C4	-7.77	106.72	110.60
26	1H	127	A	C6-C5-N7	-7.75	126.87	132.30
1	13	1158	C	N1-C2-O2	7.75	123.55	118.90
26	1H	2584	U	C5-C4-O4	7.75	130.55	125.90
26	1H	127	A	C2-N3-C4	-7.74	106.73	110.60
1	1G	568	G	C8-N9-C4	-7.74	103.30	106.40
26	14	1496	A	N1-C6-N6	7.74	123.24	118.60
26	1H	2713	A	C2-N3-C4	-7.74	106.73	110.60
27	16	12	C	C5-C6-N1	-7.73	117.13	121.00
23	2K	3	C	C5-C6-N1	7.73	124.87	121.00
26	14	1260	G	N1-C6-O6	7.73	124.54	119.90
1	1G	817	C	C6-N1-C2	7.72	123.39	120.30
26	1H	684	G	N7-C8-N9	7.72	116.96	113.10
26	1H	1611	C	C5-C6-N1	-7.71	117.15	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	988	A	O5'-P-OP1	-7.70	98.77	105.70
26	14	1671	U	O5'-P-OP1	-7.70	98.77	105.70
26	1H	2447	G	C5-C6-O6	-7.69	123.99	128.60
26	1H	1544	C	N1-C2-O2	7.68	123.51	118.90
26	14	659	C	C5-C6-N1	-7.68	117.16	121.00
26	1H	1786	A	C6-C5-N7	-7.68	126.93	132.30
1	13	1053	G	P-O3'-C3'	7.67	128.91	119.70
26	14	2386	C	C6-N1-C2	7.67	123.37	120.30
26	14	621	A	C5-C6-N1	-7.67	113.86	117.70
1	1G	895	G	N1-C6-O6	7.65	124.49	119.90
54	Q8	60	LEU	CA-CB-CG	7.65	132.89	115.30
26	1H	74	A	C5-C6-N1	-7.64	113.88	117.70
26	1H	127	A	N9-C4-C5	-7.64	102.74	105.80
26	14	2447	G	C4-N9-C1'	-7.64	116.57	126.50
26	1H	856	C	O5'-P-OP1	-7.63	98.83	105.70
27	16	30	C	C6-N1-C2	-7.63	117.25	120.30
26	14	1950	G	C6-C5-N7	-7.63	125.82	130.40
1	13	690	G	C8-N9-C1'	-7.62	117.09	127.00
26	1H	2069	G	C5-C6-O6	-7.62	124.03	128.60
26	14	1275	A	N1-C6-N6	7.62	123.17	118.60
26	1H	1799	G	N3-C4-C5	-7.62	124.79	128.60
26	14	2012	G	C6-C5-N7	-7.61	125.83	130.40
26	14	2518	A	C5-N7-C8	-7.60	100.10	103.90
26	1H	1332	G	N7-C8-N9	7.60	116.90	113.10
26	1H	120	U	C4-C5-C6	7.59	124.26	119.70
26	14	2610	C	N1-C2-O2	7.59	123.45	118.90
26	1H	138	G	N7-C8-N9	7.59	116.89	113.10
26	1H	812	C	N1-C2-O2	-7.59	114.35	118.90
1	13	974	A	O4'-C1'-N9	7.59	114.27	108.20
26	14	2607	G	N1-C6-O6	7.58	124.45	119.90
26	14	2755	C	C5-C6-N1	7.58	124.79	121.00
26	1H	1989	G	N3-C2-N2	-7.58	114.59	119.90
26	14	1981	A	N1-C6-N6	7.58	123.15	118.60
27	16	60	C	C5-C6-N1	7.58	124.79	121.00
26	14	2437	U	C5-C4-O4	7.57	130.44	125.90
1	1G	527	G	C5-C6-O6	7.57	133.14	128.60
26	14	512	G	C4-N9-C1'	-7.57	116.66	126.50
26	14	1204	A	O4'-C1'-N9	7.56	114.25	108.20
26	1H	1025	G	N1-C6-O6	-7.56	115.36	119.90
26	1H	860	U	C5-C6-N1	-7.56	118.92	122.70
26	14	810	U	N3-C4-O4	7.55	124.69	119.40
26	14	74	A	C6-C5-N7	-7.55	127.01	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	676	A	O4'-C1'-N9	7.55	114.24	108.20
1	13	505	G	C5-C6-O6	-7.55	124.07	128.60
26	14	1328	G	C4-C5-N7	7.55	113.82	110.80
1	13	1530	G	N1-C6-O6	7.54	124.43	119.90
26	14	2275	C	P-O3'-C3'	7.54	128.75	119.70
26	14	2440	C	O5'-P-OP1	-7.54	98.91	105.70
26	14	1786	A	C6-C5-N7	-7.54	127.02	132.30
26	14	929	G	N1-C6-O6	7.53	124.42	119.90
26	1H	682	G	O5'-P-OP2	-7.53	98.93	105.70
26	1H	835	A	C6-N1-C2	-7.53	114.08	118.60
26	1H	120	U	C5-C6-N1	-7.52	118.94	122.70
26	14	801	G	O5'-P-OP2	-7.52	98.93	105.70
26	1H	2430	A	N1-C2-N3	7.51	133.05	129.30
26	1H	324	A	O5'-P-OP1	-7.50	98.95	105.70
1	1G	87	A	P-O3'-C3'	7.50	128.70	119.70
26	1H	2331	G	C5-C6-O6	-7.50	124.10	128.60
26	1H	1382	G	C5-C6-O6	-7.49	124.11	128.60
26	1H	860	U	N3-C2-O2	-7.49	116.96	122.20
26	14	2681	C	N3-C4-N4	-7.49	112.76	118.00
26	1H	494	G	C5-C6-O6	-7.48	124.11	128.60
26	14	1328	G	N3-C4-N9	7.47	130.49	126.00
26	1H	964	C	C6-N1-C2	-7.47	117.31	120.30
26	14	329	G	N1-C6-O6	-7.47	115.42	119.90
1	13	1201	A	N1-C6-N6	7.46	123.08	118.60
26	1H	831	G	N7-C8-N9	-7.46	109.37	113.10
26	1H	945	A	O4'-C1'-N9	7.46	114.17	108.20
26	1H	1972	A	C5-C6-N6	-7.46	117.73	123.70
26	1H	774	A	C5-N7-C8	-7.45	100.18	103.90
23	2L	33	U	C5-C6-N1	7.45	126.42	122.70
32	59	93	GLY	N-CA-C	7.45	131.72	113.10
26	14	1698	A	C6-C5-N7	-7.44	127.09	132.30
26	1H	1513	C	C5-C6-N1	7.44	124.72	121.00
26	14	2392	A	C5-C6-N1	-7.44	113.98	117.70
26	14	774	A	C4-C5-N7	7.44	114.42	110.70
26	14	2702	U	O4'-C1'-N1	7.44	114.15	108.20
23	2L	20	U	P-O3'-C3'	7.43	128.62	119.70
26	14	783	A	N7-C8-N9	7.43	117.52	113.80
26	14	2581	G	C8-N9-C4	-7.43	103.43	106.40
26	14	1332	G	C8-N9-C4	-7.43	103.43	106.40
1	13	1305	G	N3-C2-N2	-7.42	114.70	119.90
26	1H	1210	A	N7-C8-N9	7.42	117.51	113.80
26	14	1667	G	N1-C6-O6	7.42	124.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	197	A	N7-C8-N9	7.41	117.51	113.80
26	14	1695	G	N3-C4-N9	7.41	130.45	126.00
26	1H	121	G	N3-C4-C5	-7.41	124.90	128.60
26	14	747	U	N3-C2-O2	7.41	127.38	122.20
23	2L	16	U	C2-N1-C1'	7.40	126.58	117.70
11	2I	102	GLY	N-CA-C	-7.40	94.60	113.10
26	1H	2503	A	N9-C4-C5	-7.40	102.84	105.80
26	1H	621	A	C5-N7-C8	-7.40	100.20	103.90
26	1H	1026	U	N1-C2-O2	7.40	127.98	122.80
26	14	1565	C	N1-C2-O2	-7.39	114.47	118.90
36	35	147	LEU	CA-CB-CG	7.39	132.30	115.30
26	1H	2392	A	C5-C6-N1	-7.39	114.00	117.70
1	1G	1322	C	C5-C6-N1	7.39	124.69	121.00
26	14	2713	A	N7-C8-N9	7.38	117.49	113.80
26	14	689	A	O5'-P-OP2	-7.38	99.06	105.70
26	14	1594	G	C8-N9-C4	-7.38	103.45	106.40
26	1H	756	C	N1-C2-O2	-7.38	114.47	118.90
26	1H	1528	A	O4'-C1'-N9	7.37	114.10	108.20
1	1G	345	C	C2-N1-C1'	7.37	126.91	118.80
26	14	1695	G	C4-N9-C1'	7.37	136.08	126.50
26	14	1260	G	C5-C6-O6	-7.37	124.18	128.60
26	1H	676	A	N3-C4-N9	-7.36	121.51	127.40
26	1H	796	C	C6-N1-C2	7.36	123.24	120.30
26	1H	1413	G	N1-C6-O6	7.36	124.31	119.90
24	3K	3	C	C6-N1-C2	-7.36	117.36	120.30
26	1H	920	G	C8-N9-C4	7.35	109.34	106.40
26	14	1332	G	C5-N7-C8	-7.35	100.62	104.30
26	1H	265	A	C5-N7-C8	-7.35	100.22	103.90
1	1G	793	U	O4'-C1'-N1	7.35	114.08	108.20
26	14	2447	G	C4-C5-N7	-7.35	107.86	110.80
26	14	2518	A	C4-C5-N7	7.35	114.37	110.70
26	1H	74	A	N7-C8-N9	7.34	117.47	113.80
1	1G	898	G	C8-N9-C4	7.34	109.34	106.40
1	13	481	G	C5-C6-N1	-7.34	107.83	111.50
1	1G	254	G	O5'-P-OP1	-7.34	99.09	105.70
26	14	2607	G	C5-C6-O6	-7.34	124.20	128.60
26	1H	783	A	C5-C6-N1	-7.34	114.03	117.70
26	1H	1606	G	C8-N9-C4	7.34	109.33	106.40
26	14	582	G	N1-C6-O6	7.34	124.30	119.90
1	1G	890	G	O4'-C1'-N9	7.33	114.06	108.20
26	14	1989	G	N9-C4-C5	7.32	108.33	105.40
1	13	1523	G	N1-C6-O6	7.32	124.29	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	87	A	C8-N9-C4	-7.31	102.88	105.80
1	13	115	G	P-O3'-C3'	7.31	128.47	119.70
26	1H	945	A	C4-C5-N7	7.31	114.36	110.70
26	14	2430	A	O5'-P-OP1	-7.31	99.12	105.70
26	14	952	G	C8-N9-C4	-7.31	103.48	106.40
26	14	2518	A	O4'-C1'-N9	-7.30	102.36	108.20
26	1H	1431	U	C5-C6-N1	7.30	126.35	122.70
26	1H	1359	A	N1-C2-N3	7.30	132.95	129.30
26	1H	1899	G	C8-N9-C4	-7.30	103.48	106.40
26	1H	530	G	N3-C2-N2	7.30	125.01	119.90
29	29	78	LEU	CA-CB-CG	7.29	132.08	115.30
1	13	812	C	N3-C2-O2	-7.29	116.80	121.90
26	1H	2506	U	N1-C2-O2	7.29	127.91	122.80
26	1H	1602	U	O5'-P-OP2	7.29	119.45	110.70
26	14	613	U	N3-C2-O2	-7.29	117.10	122.20
26	1H	2591	C	N1-C2-O2	-7.29	114.53	118.90
1	13	353	A	C8-N9-C4	-7.29	102.89	105.80
26	1H	1698	A	N7-C8-N9	7.28	117.44	113.80
26	14	929	G	C6-C5-N7	-7.28	126.03	130.40
26	14	2401	U	C5-C6-N1	7.28	126.34	122.70
26	14	676	A	C5-C6-N1	-7.28	114.06	117.70
26	1H	2060	A	P-O3'-C3'	7.27	128.43	119.70
26	1H	2374	C	C5-C6-N1	-7.27	117.36	121.00
26	14	1520	U	C5-C4-O4	7.26	130.26	125.90
26	14	774	A	C5-C6-N1	-7.25	114.07	117.70
26	1H	213	A	N1-C6-N6	7.25	122.95	118.60
26	1H	1241	A	C2-N3-C4	-7.25	106.97	110.60
26	14	2477	C	C2-N1-C1'	7.25	126.77	118.80
26	1H	856	C	C6-N1-C2	-7.24	117.40	120.30
26	14	2447	G	N9-C4-C5	7.24	108.30	105.40
26	1H	71	A	N3-C4-N9	-7.24	121.61	127.40
26	14	1233	C	C6-N1-C2	-7.24	117.41	120.30
26	1H	504	U	C6-N1-C1'	-7.23	111.07	121.20
26	14	12	U	N3-C2-O2	-7.23	117.14	122.20
26	1H	2698	U	C5-C6-N1	-7.23	119.08	122.70
26	1H	1310	G	C5-C6-O6	-7.23	124.27	128.60
26	14	2880	C	C6-N1-C2	-7.22	117.41	120.30
26	1H	864	G	C5-C6-O6	-7.21	124.27	128.60
26	1H	609	A	C5-C6-N6	-7.21	117.93	123.70
27	1J	8	U	O5'-P-OP2	-7.21	99.21	105.70
26	14	774	A	N3-C4-N9	-7.21	121.63	127.40
26	14	974(A)	C	C6-N1-C2	-7.21	117.42	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1496	A	C6-C5-N7	-7.20	127.26	132.30
26	1H	2688	U	C5-C4-O4	7.20	130.22	125.90
26	14	2430	A	C5-C6-N1	-7.20	114.10	117.70
1	13	186	C	C5-C6-N1	7.20	124.60	121.00
26	1H	2553	G	C8-N9-C1'	-7.20	117.65	127.00
26	1H	1332	G	N1-C2-N3	7.19	128.22	123.90
26	1H	38	A	C5-C6-N6	-7.19	117.95	123.70
26	14	439	G	C5-C6-O6	-7.19	124.28	128.60
26	14	567	A	C4-C5-C6	7.19	120.59	117.00
26	14	1328	G	C6-C5-N7	-7.18	126.09	130.40
27	16	81	G	C5-C6-O6	-7.18	124.29	128.60
26	14	4	C	C2-N1-C1'	7.18	126.70	118.80
26	14	2346	A	O4'-C1'-N9	7.18	113.94	108.20
26	1H	440	G	C5-C6-O6	-7.18	124.29	128.60
26	14	2622	C	C6-N1-C2	7.17	123.17	120.30
1	1G	690	G	C5-N7-C8	-7.17	100.71	104.30
26	1H	2583	G	N1-C2-N2	-7.17	109.75	116.20
1	13	860	A	N1-C6-N6	7.16	122.90	118.60
45	C5	103	GLY	N-CA-C	7.16	131.00	113.10
27	16	64	C	C6-N1-C2	7.15	123.16	120.30
26	1H	494	G	N1-C6-O6	7.15	124.19	119.90
26	1H	2490	G	C5-N7-C8	-7.15	100.72	104.30
26	1H	807	U	N3-C4-O4	7.15	124.40	119.40
26	14	945	A	N3-C4-C5	7.15	131.80	126.80
29	21	65	GLY	N-CA-C	-7.15	95.23	113.10
26	1H	2212	A	O4'-C1'-N9	7.14	113.91	108.20
28	19	272	ALA	N-CA-C	7.14	130.28	111.00
41	C8	74	LEU	CA-CB-CG	7.14	131.72	115.30
26	14	1902	C	N3-C4-N4	-7.14	113.00	118.00
1	1G	197	A	C8-N9-C4	-7.13	102.95	105.80
26	1H	1275	A	N1-C6-N6	7.13	122.88	118.60
26	14	74	A	N3-C4-C5	7.13	131.79	126.80
27	16	47	C	C6-N1-C2	7.12	123.15	120.30
27	1J	114	G	N3-C4-C5	7.12	132.16	128.60
26	1H	188	G	C8-N9-C4	7.12	109.25	106.40
27	16	70	C	C6-N1-C2	-7.12	117.45	120.30
26	1H	1559	G	N3-C4-C5	7.11	132.16	128.60
26	14	580	C	C6-N1-C2	-7.11	117.46	120.30
26	14	2755	C	C6-N1-C2	-7.11	117.46	120.30
26	1H	1332	G	C6-C5-N7	-7.11	126.13	130.40
26	1H	945	A	N1-C2-N3	7.11	132.85	129.30
1	13	1158	C	C2-N1-C1'	7.10	126.61	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	945	A	C2-N3-C4	-7.10	107.05	110.60
26	14	1695	G	C8-N9-C1'	-7.10	117.77	127.00
26	14	1634	A	N1-C6-N6	-7.10	114.34	118.60
26	1H	74	A	C5-N7-C8	-7.09	100.35	103.90
26	1H	2713	A	C5-N7-C8	-7.09	100.35	103.90
26	1H	1695	G	N3-C4-N9	7.09	130.26	126.00
26	1H	2439	A	C8-N9-C4	-7.09	102.96	105.80
26	14	2012	G	C4-C5-N7	7.08	113.63	110.80
1	13	700	G	C6-C5-N7	-7.08	126.15	130.40
26	1H	2830	G	C8-N9-C4	-7.07	103.57	106.40
26	14	752	A	C8-N9-C4	-7.07	102.97	105.80
26	14	783	A	N3-C4-C5	7.07	131.75	126.80
26	1H	736	C	O5'-P-OP1	-7.07	99.34	105.70
26	1H	1678	G	C2-N3-C4	-7.07	108.37	111.90
26	14	828	U	N1-C2-O2	7.06	127.74	122.80
26	1H	2447	G	N1-C6-O6	7.06	124.14	119.90
26	1H	2575	C	N3-C4-C5	-7.06	119.08	121.90
26	14	512	G	C8-N9-C1'	7.05	136.17	127.00
26	14	2323	G	C8-N9-C4	7.05	109.22	106.40
26	1H	698	C	C6-N1-C2	7.05	123.12	120.30
26	14	1610	A	N9-C4-C5	-7.05	102.98	105.80
26	14	2287	A	C5-C6-N1	-7.05	114.18	117.70
26	14	2688	U	C5-C4-O4	7.05	130.13	125.90
1	13	1354	C	C6-N1-C2	-7.04	117.48	120.30
26	1H	864	G	C4-C5-N7	7.04	113.62	110.80
26	14	685	A	C8-N9-C4	-7.04	102.98	105.80
26	1H	788	A	N1-C6-N6	7.03	122.82	118.60
26	1H	863	A	C5-C6-N1	7.03	121.22	117.70
26	1H	1558	A	P-O3'-C3'	7.03	128.14	119.70
26	1H	1349	A	C2-N3-C4	-7.03	107.09	110.60
26	1H	141	A	N7-C8-N9	7.03	117.31	113.80
26	14	1681	G	N3-C4-C5	7.03	132.11	128.60
26	14	2389	G	C8-N9-C4	-7.02	103.59	106.40
26	1H	2583	G	N3-C2-N2	7.02	124.81	119.90
1	1G	230	G	N1-C6-O6	7.02	124.11	119.90
26	14	801	G	N3-C4-N9	-7.01	121.79	126.00
26	14	2688	U	C4-C5-C6	7.01	123.91	119.70
26	14	621	A	C5-N7-C8	-7.00	100.40	103.90
26	1H	1968	G	C5-C6-O6	-7.00	124.40	128.60
26	1H	1204	A	C2-N3-C4	-7.00	107.10	110.60
26	1H	2287	A	N1-C2-N3	7.00	132.80	129.30
26	1H	1814	G	C4-C5-N7	7.00	113.60	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	975	A	N1-C6-N6	7.00	122.80	118.60
22	1L	85	C	C5-C4-N4	7.00	125.10	120.20
26	14	382	G	N1-C6-O6	7.00	124.10	119.90
26	14	2002	G	C5-C6-O6	-6.99	124.40	128.60
1	1G	1059	C	C5-C6-N1	6.99	124.49	121.00
26	14	621	A	N1-C6-N6	6.99	122.79	118.60
1	1G	1094	G	OP2-P-O3'	6.99	120.57	105.20
1	13	623	C	C5-C6-N1	6.98	124.49	121.00
26	1H	1899	G	N1-C2-N3	6.98	128.09	123.90
26	1H	2570	G	N1-C6-O6	6.98	124.09	119.90
26	1H	1528	A	N7-C8-N9	6.97	117.29	113.80
26	1H	871	U	N3-C4-O4	6.97	124.28	119.40
26	14	1312	U	N1-C2-O2	-6.97	117.92	122.80
26	14	1496	A	C8-N9-C4	-6.97	103.01	105.80
1	13	579	G	N1-C6-O6	6.96	124.08	119.90
26	1H	676	A	C8-N9-C4	-6.96	103.02	105.80
26	1H	1363	C	N3-C4-C5	6.96	124.69	121.90
1	1G	1278	U	N1-C2-O2	6.96	127.67	122.80
1	13	549	C	C2-N1-C1'	-6.96	111.14	118.80
26	1H	99	U	N3-C2-O2	-6.96	117.33	122.20
26	1H	1606	G	C5-C6-O6	-6.95	124.43	128.60
23	2L	27	G	C6-C5-N7	-6.95	126.23	130.40
1	13	413	G	O4'-C1'-N9	6.95	113.76	108.20
1	1G	897	C	N1-C2-O2	-6.95	114.73	118.90
26	14	1812	A	O5'-P-OP2	-6.95	99.44	105.70
26	14	1610	A	C4-C5-N7	6.94	114.17	110.70
26	1H	513	A	C6-N1-C2	-6.94	114.44	118.60
1	13	1502	A	C5-N7-C8	-6.93	100.43	103.90
26	1H	564	C	C6-N1-C2	-6.93	117.53	120.30
26	1H	945	A	C8-N9-C1'	-6.93	115.22	127.70
26	1H	1347	G	C5-C6-O6	-6.93	124.44	128.60
26	1H	1520	U	C5-C4-O4	6.93	130.06	125.90
1	13	904	C	N3-C4-C5	6.92	124.67	121.90
26	1H	2367	G	N1-C6-O6	6.92	124.05	119.90
1	1G	969	A	O5'-P-OP2	-6.92	99.48	105.70
1	1G	1346	A	P-O3'-C3'	6.92	128.00	119.70
26	14	1342	A	C2-N3-C4	-6.91	107.14	110.60
26	1H	1698	A	C5-N7-C8	-6.91	100.44	103.90
26	1H	2444	G	O5'-P-OP2	-6.91	99.48	105.70
54	Q8	52	LYS	C-N-CD	-6.91	105.39	120.60
26	1H	121	G	C4-C5-N7	6.91	113.56	110.80
26	1H	2310	A	C8-N9-C4	-6.91	103.04	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1678	G	C5-N7-C8	-6.91	100.85	104.30
26	14	1825	A	C6-N1-C2	-6.91	114.46	118.60
26	1H	785	G	C8-N9-C4	-6.90	103.64	106.40
26	1H	2271	G	C5-C6-O6	-6.90	124.46	128.60
26	14	1602	U	O5'-P-OP2	6.90	118.98	110.70
26	1H	2295	C	C6-N1-C2	-6.90	117.54	120.30
1	13	766	A	N9-C4-C5	-6.89	103.04	105.80
26	1H	945	A	C8-N9-C4	-6.89	103.04	105.80
26	1H	1698	A	C8-N9-C4	-6.89	103.04	105.80
26	1H	1781	C	C2-N1-C1'	6.89	126.38	118.80
26	14	1899	G	N3-C4-C5	6.89	132.04	128.60
26	1H	621	A	O5'-P-OP1	-6.89	99.50	105.70
26	14	265	A	C2-N3-C4	-6.89	107.16	110.60
1	13	733	A	C8-N9-C4	6.88	108.55	105.80
26	1H	1376	C	C6-N1-C2	-6.88	117.55	120.30
26	14	1382	G	N3-C4-C5	6.88	132.04	128.60
26	14	49	A	C8-N9-C4	-6.88	103.05	105.80
26	14	2588	G	N1-C6-O6	-6.88	115.77	119.90
26	1H	1675	C	N3-C4-C5	-6.88	119.15	121.90
26	1H	2026	C	C5-C6-N1	-6.88	117.56	121.00
26	1H	1520	U	C6-N1-C2	-6.88	116.88	121.00
26	1H	2553	G	C6-C5-N7	-6.88	126.27	130.40
26	14	1661	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	2710	C	C2-N3-C4	-6.87	116.46	119.90
26	1H	2490	G	N3-C4-N9	-6.87	121.88	126.00
26	1H	2553	G	C4-N9-C1'	6.87	135.43	126.50
27	1J	114	G	C8-N9-C4	6.87	109.15	106.40
26	14	49	A	P-O3'-C3'	6.87	127.94	119.70
26	1H	197	A	OP2-P-O3'	6.86	120.30	105.20
26	14	439	G	N1-C6-O6	6.86	124.02	119.90
26	1H	1228	G	C8-N9-C4	-6.86	103.66	106.40
26	1H	821	A	C4-C5-C6	6.85	120.43	117.00
26	14	797	C	N3-C4-C5	-6.85	119.16	121.90
26	14	1616	A	O4'-C1'-N9	6.85	113.68	108.20
4	3E	12	CYS	CA-CB-SG	6.85	126.33	114.00
26	1H	1022	G	N9-C4-C5	6.85	108.14	105.40
26	14	2542	A	P-O3'-C3'	6.85	127.92	119.70
26	14	2873	A	C8-N9-C4	-6.85	103.06	105.80
26	1H	1543	A	N1-C6-N6	6.84	122.71	118.60
26	14	675	A	C4-C5-N7	6.84	114.12	110.70
26	14	2429	G	C8-N9-C4	-6.84	103.66	106.40
26	1H	189	G	C8-N9-C4	6.84	109.14	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	913	A	C8-N9-C4	-6.84	103.06	105.80
26	1H	752	A	P-O3'-C3'	6.84	127.91	119.70
26	14	1914	C	N3-C2-O2	-6.84	117.11	121.90
26	14	40	C	C6-N1-C2	-6.83	117.57	120.30
1	1G	812	C	P-O3'-C3'	6.83	127.90	119.70
26	1H	1888	G	N3-C4-C5	-6.83	125.19	128.60
26	1H	2685	G	C5-C6-N1	-6.83	108.09	111.50
1	13	496	A	C8-N9-C4	-6.83	103.07	105.80
26	14	676	A	N9-C4-C5	-6.83	103.07	105.80
26	14	74	A	C4-C5-N7	6.82	114.11	110.70
26	14	1914	C	N1-C2-O2	6.82	122.99	118.90
26	1H	1298	C	C5-C6-N1	6.82	124.41	121.00
26	14	1328	G	C5-C6-O6	-6.82	124.51	128.60
26	14	1558	A	C2-N3-C4	-6.81	107.19	110.60
28	19	41	GLY	N-CA-C	-6.81	96.06	113.10
26	1H	1300	U	N1-C2-O2	-6.80	118.04	122.80
26	1H	1697	G	N1-C6-O6	6.80	123.98	119.90
45	G8	81	LYS	C-N-CD	-6.80	105.64	120.60
26	1H	850	C	C6-N1-C2	-6.80	117.58	120.30
26	1H	113	G	N1-C6-O6	6.79	123.98	119.90
26	1H	140	A	O4'-C1'-N9	6.79	113.63	108.20
1	13	766	A	C8-N9-C4	6.79	108.52	105.80
26	1H	115	C	O5'-P-OP1	-6.79	99.59	105.70
26	1H	2570	G	C5-C6-N1	-6.79	108.11	111.50
26	14	1667	G	N3-C4-C5	6.79	132.00	128.60
26	1H	1614	A	C2-N3-C4	-6.79	107.20	110.60
1	1G	529	G	C6-C5-N7	-6.79	126.33	130.40
1	1G	687	A	P-O3'-C3'	6.78	127.84	119.70
26	14	774	A	C6-N1-C2	6.78	122.67	118.60
26	14	57	C	C6-N1-C2	6.78	123.01	120.30
26	14	275	G	N3-C4-N9	6.78	130.07	126.00
22	1K	18	G	C4-N9-C1'	-6.78	117.69	126.50
26	14	914	C	N1-C2-O2	6.78	122.97	118.90
26	1H	38	A	C6-N1-C2	-6.78	114.53	118.60
26	1H	2451	A	C8-N9-C4	-6.78	103.09	105.80
26	14	2518	A	N9-C4-C5	-6.78	103.09	105.80
1	1G	449	C	C6-N1-C2	-6.77	117.59	120.30
26	1H	2444	G	C8-N9-C4	-6.77	103.69	106.40
26	14	457	A	C8-N9-C4	-6.77	103.09	105.80
1	13	690	G	C8-N9-C4	-6.77	103.69	106.40
26	14	2606	C	C6-N1-C2	6.77	123.01	120.30
23	2L	27	G	C4-C5-N7	6.77	113.51	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	449	C	C6-N1-C2	-6.76	117.59	120.30
1	13	652	U	C2-N1-C1'	6.76	125.82	117.70
26	1H	1972	A	N9-C4-C5	-6.76	103.09	105.80
1	1G	1281	U	C2-N1-C1'	6.76	125.82	117.70
26	1H	666	G	N1-C6-O6	6.76	123.95	119.90
26	1H	74	A	C6-C5-N7	-6.76	127.57	132.30
26	1H	226	G	O4'-C1'-N9	6.76	113.61	108.20
26	14	1899	G	N3-C4-N9	-6.76	121.95	126.00
26	14	2584	U	N1-C2-O2	6.76	127.53	122.80
26	1H	1379	A	C5-N7-C8	-6.75	100.52	103.90
26	1H	1950	G	C5-C6-O6	6.75	132.65	128.60
26	14	2283	C	N3-C4-N4	6.75	122.73	118.00
26	1H	2518	A	C4-C5-N7	6.75	114.08	110.70
26	1H	2062	A	N9-C4-C5	-6.75	103.10	105.80
26	1H	1950	G	N1-C6-O6	-6.75	115.85	119.90
26	1H	1210	A	C2-N3-C4	-6.74	107.23	110.60
27	1J	98	G	N3-C4-N9	6.74	130.05	126.00
26	1H	1678	G	N3-C4-C5	6.74	131.97	128.60
26	1H	1128	A	C8-N9-C4	-6.74	103.11	105.80
26	14	1011	G	O4'-C1'-N9	6.73	113.59	108.20
26	14	1603	A	C8-N9-C4	-6.73	103.11	105.80
26	14	1342	A	O4'-C1'-N9	6.73	113.58	108.20
1	1G	1112	C	C6-N1-C2	-6.73	117.61	120.30
26	14	582	G	C5-C6-O6	-6.73	124.56	128.60
1	13	1470	G	N1-C6-O6	6.73	123.94	119.90
26	14	1616	A	N1-C6-N6	6.73	122.64	118.60
26	1H	1990	C	C6-N1-C2	-6.72	117.61	120.30
26	1H	2330	G	N9-C4-C5	-6.72	102.71	105.40
26	14	1966	A	N1-C6-N6	6.72	122.63	118.60
26	1H	837	C	C5-C6-N1	6.72	124.36	121.00
26	1H	942	G	N3-C2-N2	-6.72	115.20	119.90
26	1H	263	C	N3-C2-O2	-6.72	117.20	121.90
26	1H	2377	A	C8-N9-C4	6.71	108.48	105.80
26	1H	1820	U	C5-C6-N1	-6.71	119.35	122.70
1	13	1206	G	C6-C5-N7	-6.70	126.38	130.40
26	1H	115	C	N3-C4-N4	6.70	122.69	118.00
26	1H	1972	A	C4-C5-N7	6.70	114.05	110.70
26	1H	330	A	N1-C2-N3	6.70	132.65	129.30
1	13	720	C	C6-N1-C2	-6.70	117.62	120.30
26	14	1276	A	N9-C4-C5	-6.70	103.12	105.80
1	13	1281	U	N1-C2-O2	6.70	127.49	122.80
26	14	659	C	C4-C5-C6	6.70	120.75	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	529	G	C4-C5-N7	6.69	113.48	110.80
26	1H	2367	G	C6-C5-N7	-6.69	126.39	130.40
26	14	330	A	C4-C5-N7	6.69	114.05	110.70
26	14	574	C	N1-C2-O2	6.69	122.91	118.90
26	14	1528	A	N7-C8-N9	6.69	117.14	113.80
26	14	2433	A	N1-C2-N3	6.68	132.64	129.30
1	1G	1139	G	N3-C4-C5	6.68	131.94	128.60
1	13	758	G	N3-C4-C5	6.68	131.94	128.60
26	14	2447	G	N3-C4-N9	-6.67	122.00	126.00
26	1H	915	C	N1-C2-O2	6.67	122.90	118.90
26	1H	1647	G	O5'-P-OP1	-6.67	99.70	105.70
26	1H	1989	G	C5-C6-O6	-6.67	124.60	128.60
26	14	1373	A	C8-N9-C4	6.67	108.47	105.80
26	1H	2246	G	N3-C4-C5	-6.67	125.27	128.60
1	13	700	G	N1-C6-O6	6.66	123.90	119.90
26	14	1405	U	O5'-P-OP2	-6.66	99.70	105.70
1	13	1516	G	N3-C4-N9	-6.66	122.01	126.00
26	14	1210	A	N1-C6-N6	6.66	122.59	118.60
1	13	452	A	C8-N9-C4	6.65	108.46	105.80
1	13	186(A)	C	C6-N1-C2	-6.65	117.64	120.30
26	1H	82	G	C5-C6-N1	-6.65	108.17	111.50
26	14	574	C	N1-C2-N3	-6.65	114.54	119.20
26	1H	621	A	N1-C6-N6	6.65	122.59	118.60
26	1H	973	A	C2-N3-C4	-6.65	107.28	110.60
26	14	1774	C	C2-N1-C1'	6.65	126.11	118.80
26	14	737	C	N1-C2-O2	-6.64	114.91	118.90
26	1H	1763	G	O5'-P-OP2	-6.64	99.72	105.70
26	1H	800	A	N1-C2-N3	6.64	132.62	129.30
26	14	2012	G	N3-C4-N9	6.64	129.98	126.00
1	1G	288	A	N1-C6-N6	6.64	122.58	118.60
26	14	1471	A	C8-N9-C4	-6.63	103.15	105.80
1	13	766	A	N1-C6-N6	6.63	122.58	118.60
26	14	675	A	C5-N7-C8	-6.63	100.59	103.90
26	14	1963	U	N1-C2-O2	6.63	127.44	122.80
26	1H	2304	G	N3-C4-N9	-6.62	122.03	126.00
1	1G	518	C	N3-C2-O2	-6.62	117.26	121.90
26	1H	1612	C	N3-C4-C5	-6.62	119.25	121.90
1	1G	1128	C	C5-C6-N1	6.62	124.31	121.00
26	1H	205	G	N1-C6-O6	-6.62	115.93	119.90
1	13	1514	C	C6-N1-C2	-6.62	117.65	120.30
1	1G	527	G	N1-C6-O6	-6.62	115.93	119.90
26	14	700	G	N1-C6-O6	6.62	123.87	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2713	A	C4-C5-N7	6.62	114.01	110.70
26	1H	2778	A	O5'-P-OP2	-6.61	99.75	105.70
1	1G	121	C	C2-N1-C1'	6.61	126.08	118.80
26	14	140	A	C6-C5-N7	-6.61	127.67	132.30
1	1G	995	C	C6-N1-C2	-6.61	117.66	120.30
26	1H	1971	A	C8-N9-C4	6.61	108.44	105.80
26	14	1613	G	N3-C4-N9	6.61	129.96	126.00
1	1G	529	G	N9-C4-C5	-6.61	102.76	105.40
26	1H	765	G	O5'-P-OP1	-6.60	99.76	105.70
26	1H	970	C	N1-C2-O2	-6.60	114.94	118.90
26	1H	1210	A	N3-C4-C5	6.60	131.42	126.80
1	1G	767	A	N1-C6-N6	6.60	122.56	118.60
26	1H	1616	A	C4-C5-N7	6.60	114.00	110.70
26	1H	49	A	C5-N7-C8	6.59	107.20	103.90
26	14	654(I)	C	C2-N1-C1'	6.59	126.05	118.80
26	1H	1784	A	C5-C6-N6	6.58	128.97	123.70
26	14	1142(A)	A	C2-N3-C4	-6.58	107.31	110.60
26	14	1989	G	N3-C4-N9	-6.58	122.05	126.00
26	1H	141	A	C4-C5-N7	6.58	113.99	110.70
1	1G	328	C	N1-C2-O2	6.58	122.85	118.90
26	1H	528	A	C5-C6-N1	-6.58	114.41	117.70
26	14	945	A	O4'-C1'-N9	6.58	113.46	108.20
26	1H	2037	G	C5-C6-N1	6.58	114.79	111.50
27	16	108	C	O4'-C1'-N1	6.58	113.46	108.20
26	14	1899	G	N1-C2-N3	6.58	127.84	123.90
26	14	1608	A	N1-C6-N6	-6.57	114.66	118.60
26	14	2443	C	N3-C4-N4	6.57	122.60	118.00
26	14	1608	A	O5'-P-OP1	-6.56	99.79	105.70
26	1H	1773	A	N1-C2-N3	6.56	132.58	129.30
1	1G	1354	C	C5-C6-N1	6.56	124.28	121.00
1	13	812	C	N1-C2-O2	6.56	122.83	118.90
1	13	1176	A	C8-N9-C4	-6.56	103.18	105.80
26	1H	2402	C	C6-N1-C2	-6.56	117.68	120.30
26	14	1564	C	C6-N1-C2	-6.56	117.68	120.30
1	13	1533	C	C6-N1-C2	-6.56	117.68	120.30
27	16	81	G	N7-C8-N9	6.55	116.38	113.10
23	2K	87	A	C8-N9-C4	6.55	108.42	105.80
26	14	312	G	O5'-P-OP1	-6.55	99.80	105.70
26	14	783	A	C6-C5-N7	-6.55	127.72	132.30
26	1H	621	A	N7-C8-N9	6.55	117.07	113.80
1	13	584	G	N1-C6-O6	-6.55	115.97	119.90
26	1H	2346	A	N7-C8-N9	6.55	117.07	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	894	G	C8-N9-C4	6.54	109.02	106.40
2	12	196	LEU	CA-CB-CG	6.54	130.34	115.30
26	14	1256	G	C5-C6-O6	-6.54	124.67	128.60
1	1G	495	A	N1-C6-N6	-6.54	114.68	118.60
1	13	1513	A	C8-N9-C4	6.54	108.41	105.80
26	1H	1378	A	C2-N3-C4	-6.54	107.33	110.60
26	1H	2518	A	N1-C6-N6	6.54	122.52	118.60
26	1H	1784	A	N1-C2-N3	6.53	132.57	129.30
26	14	1332	G	N7-C8-N9	6.53	116.37	113.10
26	14	1688	U	N1-C2-O2	-6.53	118.23	122.80
26	14	198	C	O5'-P-OP1	-6.53	99.82	105.70
26	1H	944	G	N7-C8-N9	6.53	116.36	113.10
23	2L	63	G	O4'-C1'-N9	6.53	113.42	108.20
26	1H	265	A	O4'-C1'-N9	6.53	113.42	108.20
23	2L	16	U	N1-C2-O2	6.53	127.37	122.80
26	14	933	A	C6-C5-N7	-6.53	127.73	132.30
26	1H	474	G	C8-N9-C4	-6.52	103.79	106.40
22	1L	87	A	C5-N7-C8	-6.52	100.64	103.90
27	16	74	U	C5-C4-O4	6.52	129.81	125.90
26	1H	1576	U	C6-N1-C2	-6.52	117.09	121.00
26	14	2387	U	C5-C6-N1	-6.52	119.44	122.70
26	1H	2310	A	N7-C8-N9	6.51	117.05	113.80
26	14	435	C	N1-C2-O2	6.51	122.81	118.90
26	1H	2593	U	N3-C4-C5	-6.51	110.70	114.60
26	1H	750	A	OP1-P-O3'	6.50	119.51	105.20
26	1H	1190	G	C4-C5-N7	6.50	113.40	110.80
26	1H	1376	C	N3-C4-C5	-6.50	119.30	121.90
26	14	1678	G	C5-N7-C8	-6.50	101.05	104.30
26	14	1950	G	C5-N7-C8	-6.50	101.05	104.30
26	1H	2527	C	C6-N1-C2	-6.50	117.70	120.30
1	13	874	G	N3-C4-C5	-6.50	125.35	128.60
26	14	533	G	C8-N9-C1'	-6.50	118.55	127.00
26	14	749	C	N1-C2-O2	6.50	122.80	118.90
26	14	2610	C	C6-N1-C2	6.50	122.90	120.30
26	1H	746	A	O4'-C1'-N9	6.50	113.40	108.20
26	1H	2699	C	C6-N1-C2	6.49	122.90	120.30
1	1G	46	G	N1-C6-O6	6.49	123.80	119.90
26	14	315	G	C8-N9-C4	6.49	109.00	106.40
26	1H	1781	C	N1-C2-O2	6.49	122.79	118.90
26	1H	613	U	N3-C2-O2	-6.49	117.66	122.20
26	1H	1021	A	N3-C4-C5	6.49	131.34	126.80
26	14	2072	G	N3-C2-N2	6.49	124.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2526	G	N3-C4-N9	-6.49	122.11	126.00
26	14	723	G	O5'-P-OP1	6.49	118.48	110.70
1	1G	360	A	N1-C6-N6	6.48	122.49	118.60
26	1H	1559	G	C2-N3-C4	-6.48	108.66	111.90
26	14	459	U	N3-C2-O2	-6.48	117.66	122.20
1	1G	197	A	P-O3'-C3'	6.48	127.47	119.70
26	1H	330	A	O4'-C1'-N9	-6.47	103.02	108.20
26	1H	835	A	C5-C6-N6	-6.47	118.52	123.70
26	14	1204	A	C2-N3-C4	-6.47	107.36	110.60
26	1H	2468	G	C4-N9-C1'	6.47	134.91	126.50
26	1H	1698	A	O4'-C1'-N9	6.47	113.38	108.20
1	13	974	A	C4-C5-N7	6.47	113.93	110.70
26	14	1678	G	N3-C4-N9	-6.47	122.12	126.00
26	1H	265	A	N7-C8-N9	6.47	117.03	113.80
26	1H	2409	G	C6-C5-N7	-6.47	126.52	130.40
26	14	632	A	O5'-P-OP2	6.46	118.46	110.70
1	1G	121	C	N1-C2-O2	6.46	122.78	118.90
26	14	391	G	C4-N9-C1'	6.46	134.90	126.50
1	1G	353	A	N1-C6-N6	6.46	122.47	118.60
26	14	1544	C	N1-C2-O2	6.46	122.77	118.90
26	1H	186	G	N9-C4-C5	-6.45	102.82	105.40
26	1H	930	U	C5-C4-O4	6.45	129.77	125.90
26	14	1897	G	N3-C4-N9	6.45	129.87	126.00
26	1H	1021	A	N7-C8-N9	6.45	117.03	113.80
26	1H	2490	G	C4-C5-N7	6.45	113.38	110.80
26	14	533	G	C4-N9-C1'	6.45	134.88	126.50
26	14	2438	U	O5'-P-OP2	-6.45	99.90	105.70
26	1H	1520	U	N3-C2-O2	-6.45	117.69	122.20
1	1G	895	G	C6-C5-N7	-6.44	126.53	130.40
26	1H	684	G	N3-C4-C5	-6.44	125.38	128.60
26	14	1323	U	N3-C2-O2	6.44	126.71	122.20
26	1H	1320	C	C6-N1-C2	6.44	122.88	120.30
26	1H	1771	C	C5-C4-N4	-6.44	115.69	120.20
26	14	533	G	C6-C5-N7	-6.44	126.54	130.40
26	1H	2779	U	N3-C2-O2	-6.43	117.70	122.20
26	14	686	G	C4-C5-N7	6.43	113.37	110.80
26	14	945	A	N9-C4-C5	-6.43	103.23	105.80
26	14	1663	C	C6-N1-C2	6.43	122.87	120.30
26	1H	859	G	N3-C4-N9	-6.43	122.14	126.00
26	14	2287	A	N1-C2-N3	6.43	132.52	129.30
26	14	265	A	C4-C5-N7	6.43	113.92	110.70
26	1H	219	G	OP1-P-O3'	6.43	119.34	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1437	C	C6-N1-C2	-6.43	117.73	120.30
26	14	2776	A	P-O3'-C3'	6.43	127.41	119.70
26	1H	1588	C	C6-N1-C2	-6.42	117.73	120.30
26	14	2581	G	N7-C8-N9	6.42	116.31	113.10
1	1G	1498	U	P-O3'-C3'	6.42	127.41	119.70
26	1H	2008	C	O5'-P-OP1	6.42	118.41	110.70
23	2L	8	U	C2-N1-C1'	6.42	125.40	117.70
1	13	739	C	N1-C2-O2	-6.42	115.05	118.90
26	1H	189	G	N1-C6-O6	6.42	123.75	119.90
26	1H	621	A	N1-C2-N3	6.42	132.51	129.30
1	1G	1322	C	C6-N1-C1'	-6.42	113.10	120.80
1	13	789	U	N3-C2-O2	-6.41	117.71	122.20
26	1H	271(B)	G	P-O3'-C3'	6.41	127.40	119.70
26	1H	915	C	N3-C2-O2	-6.41	117.41	121.90
26	1H	1391	U	N1-C2-O2	6.41	127.29	122.80
26	1H	266	G	C5-C6-O6	-6.41	124.75	128.60
26	1H	1678	G	N3-C4-N9	-6.41	122.15	126.00
26	1H	2326	C	C6-N1-C2	-6.41	117.74	120.30
26	14	676	A	C6-C5-N7	-6.41	127.81	132.30
26	14	1313	U	C2-N1-C1'	6.41	125.39	117.70
26	1H	192	C	N3-C4-C5	6.41	124.46	121.90
26	1H	2331	G	C2-N3-C4	-6.41	108.70	111.90
1	1G	180	U	C6-N1-C2	-6.41	117.16	121.00
26	1H	213	A	C5-C6-N6	-6.40	118.58	123.70
26	14	613	U	N1-C2-O2	6.40	127.28	122.80
26	1H	2655	G	O4'-C1'-N9	6.40	113.32	108.20
1	13	1305	G	N7-C8-N9	6.40	116.30	113.10
26	14	1991	U	C5-C4-O4	6.40	129.74	125.90
26	14	1547	C	C6-N1-C2	-6.39	117.74	120.30
1	1G	774	G	N1-C6-O6	6.39	123.74	119.90
26	14	71	A	N3-C4-C5	6.39	131.28	126.80
26	14	974(A)	C	N3-C2-O2	-6.39	117.43	121.90
26	14	2632	A	C8-N9-C4	6.39	108.36	105.80
23	2K	20	U	P-O3'-C3'	6.39	127.36	119.70
26	1H	330	A	C5-N7-C8	-6.38	100.71	103.90
27	16	100	G	C8-N9-C4	6.38	108.95	106.40
1	13	1530	G	C4-C5-N7	6.38	113.35	110.80
26	1H	1846	G	C5-C6-O6	-6.38	124.77	128.60
26	1H	1972	A	C6-C5-N7	-6.38	127.84	132.30
26	1H	2439	A	N7-C8-N9	6.38	116.99	113.80
26	1H	2509	G	N3-C4-N9	6.38	129.83	126.00
26	1H	1616	A	O4'-C1'-N9	6.38	113.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	578	C	C6-N1-C2	-6.38	117.75	120.30
26	1H	2346	A	C6-C5-N7	-6.37	127.84	132.30
26	14	1695	G	C4-C5-C6	6.37	122.62	118.80
26	14	2509	G	C6-C5-N7	-6.37	126.58	130.40
26	1H	2688	U	N1-C2-N3	6.37	118.72	114.90
26	1H	2824	C	C6-N1-C2	6.37	122.85	120.30
1	13	585	G	C8-N9-C4	6.37	108.95	106.40
1	1G	87	A	N1-C6-N6	6.37	122.42	118.60
26	1H	1496	A	C8-N9-C4	-6.37	103.25	105.80
26	14	1820	U	C5-C6-N1	-6.37	119.52	122.70
26	1H	1964	G	O5'-P-OP2	-6.36	99.97	105.70
26	14	1210	A	C5-N7-C8	-6.36	100.72	103.90
26	14	1970	A	N1-C6-N6	6.36	122.42	118.60
26	1H	1805	U	N3-C2-O2	-6.36	117.75	122.20
26	1H	2584	U	C4-C5-C6	6.36	123.52	119.70
27	16	79	C	C5-C6-N1	6.36	124.18	121.00
1	1G	150	C	C6-N1-C2	-6.36	117.76	120.30
26	14	2723	C	C6-N1-C2	-6.36	117.75	120.30
1	13	1362	C	N1-C2-O2	6.36	122.71	118.90
1	13	1502	A	N7-C8-N9	6.36	116.98	113.80
24	3L	59	U	P-O3'-C3'	6.36	127.33	119.70
26	14	2068	U	OP1-P-O3'	6.36	119.18	105.20
26	1H	265	A	N1-C6-N6	6.35	122.41	118.60
26	14	1917	U	C5-C6-N1	6.35	125.88	122.70
26	1H	600	G	C8-N9-C4	6.35	108.94	106.40
26	1H	1606	G	N1-C6-O6	6.35	123.71	119.90
26	1H	2593	U	N1-C2-O2	-6.35	118.36	122.80
26	1H	2346	A	C5-C6-N1	-6.34	114.53	117.70
27	16	116	G	N1-C6-O6	6.34	123.71	119.90
26	14	1298	C	O5'-P-OP2	-6.34	99.99	105.70
1	13	169	C	C6-N1-C2	-6.34	117.76	120.30
26	14	800	A	N1-C6-N6	-6.34	114.80	118.60
26	14	1629	U	N3-C4-C5	-6.34	110.80	114.60
26	1H	215	G	C5-C6-O6	-6.34	124.80	128.60
26	1H	678	C	N1-C2-O2	-6.34	115.10	118.90
1	13	1514	C	N3-C4-C5	-6.34	119.37	121.90
19	AI	30	LEU	CA-CB-CG	6.33	129.87	115.30
26	14	2688	U	C5-C6-N1	-6.33	119.53	122.70
26	1H	1798	U	C5-C4-O4	-6.33	122.10	125.90
26	1H	2771	C	C6-N1-C2	-6.33	117.77	120.30
26	1H	1363	C	C6-N1-C2	6.33	122.83	120.30
26	14	1022	G	P-O3'-C3'	6.33	127.29	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	328	C	C2-N1-C1'	6.33	125.76	118.80
26	1H	801	G	O5'-P-OP2	-6.32	100.01	105.70
26	1H	1379	A	C4-C5-N7	6.32	113.86	110.70
26	1H	2504	U	N1-C2-O2	6.32	127.22	122.80
26	14	1527	G	N3-C4-C5	6.32	131.76	128.60
1	13	1125	U	P-O3'-C3'	6.32	127.28	119.70
1	13	8	A	C8-N9-C4	6.31	108.33	105.80
26	14	1681	G	C4-C5-N7	6.31	113.32	110.80
26	14	752	A	P-O3'-C3'	6.30	127.26	119.70
26	1H	1535	U	C2-N1-C1'	6.30	125.26	117.70
26	1H	667	U	N1-C2-O2	-6.30	118.39	122.80
26	1H	1675	C	OP1-P-OP2	6.30	129.04	119.60
26	1H	2674	G	N3-C4-N9	-6.29	122.22	126.00
26	1H	1950	G	O4'-C1'-N9	6.29	113.23	108.20
26	1H	2595	G	C5-N7-C8	-6.29	101.15	104.30
26	14	2027	G	C6-N1-C2	-6.29	121.33	125.10
27	1J	114	G	C4-N9-C1'	-6.29	118.32	126.50
26	1H	1626	G	C8-N9-C4	-6.29	103.89	106.40
26	14	2012	G	N9-C4-C5	-6.29	102.89	105.40
26	1H	1833	U	O5'-P-OP2	-6.29	100.04	105.70
26	1H	1021	A	N1-C6-N6	6.28	122.37	118.60
26	1H	446	G	N9-C4-C5	-6.28	102.89	105.40
26	1H	2268	A	N1-C6-N6	6.28	122.37	118.60
1	1G	898	G	N3-C4-C5	6.28	131.74	128.60
26	14	623	G	C5-C6-O6	-6.28	124.83	128.60
26	14	664	C	C4-C5-C6	6.28	120.54	117.40
26	14	1022	G	N9-C4-C5	6.28	107.91	105.40
26	14	1528	A	C8-N9-C4	-6.28	103.29	105.80
26	1H	677	A	N1-C6-N6	-6.27	114.84	118.60
26	1H	1931	U	C5-C4-O4	6.27	129.66	125.90
26	1H	2295	C	C5-C6-N1	6.27	124.14	121.00
26	1H	1396	U	N3-C2-O2	-6.27	117.81	122.20
26	1H	1817	G	C5-C6-O6	6.26	132.36	128.60
1	1G	320	C	C6-N1-C2	6.26	122.81	120.30
26	1H	1674	G	C6-C5-N7	-6.26	126.64	130.40
26	1H	2580	U	C5-C6-N1	6.26	125.83	122.70
26	1H	1940	U	N1-C2-O2	-6.26	118.42	122.80
26	14	1437	C	C5-C6-N1	6.26	124.13	121.00
26	1H	1786	A	N9-C1'-C2'	6.25	122.13	114.00
26	1H	197	A	N1-C2-N3	6.25	132.43	129.30
26	14	1999	C	C6-N1-C2	6.25	122.80	120.30
26	14	570	G	C8-N9-C4	-6.25	103.90	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1256	G	N1-C6-O6	6.25	123.65	119.90
1	13	1413	A	N1-C6-N6	6.25	122.35	118.60
26	1H	33	U	OP1-P-O3'	6.25	118.94	105.20
26	1H	783	A	N3-C4-C5	6.25	131.17	126.80
1	1G	774	G	N9-C4-C5	-6.24	102.90	105.40
26	14	751	A	N1-C2-N3	6.24	132.42	129.30
26	1H	265	A	C6-C5-N7	-6.24	127.93	132.30
26	14	1790	C	C2-N3-C4	-6.24	116.78	119.90
26	1H	736	C	N3-C2-O2	6.24	126.27	121.90
1	13	1528	U	C5-C6-N1	-6.24	119.58	122.70
1	1G	275	G	N3-C4-N9	6.23	129.74	126.00
26	14	265	A	O4'-C1'-N9	6.23	113.19	108.20
26	14	518	G	N1-C2-N2	-6.23	110.59	116.20
26	14	1328	G	N1-C6-O6	6.23	123.64	119.90
1	13	1065	U	P-O3'-C3'	6.23	127.17	119.70
23	2K	20	U	N1-C2-O2	6.23	127.16	122.80
26	1H	2565	A	N9-C4-C5	-6.23	103.31	105.80
26	14	2726	U	C5-C4-O4	6.23	129.64	125.90
26	1H	128	C	C6-N1-C2	6.22	122.79	120.30
26	1H	621	A	O4'-C1'-N9	6.22	113.18	108.20
26	1H	1636	C	N3-C4-N4	6.22	122.36	118.00
26	1H	622	G	N3-C4-N9	6.22	129.73	126.00
26	1H	194	G	C8-N9-C4	6.22	108.89	106.40
26	14	2426	A	N7-C8-N9	6.22	116.91	113.80
1	1G	529	G	N3-C4-N9	6.22	129.73	126.00
26	1H	593	G	N1-C2-N3	6.21	127.63	123.90
26	14	2329	G	N9-C4-C5	-6.21	102.91	105.40
1	13	1158	C	N3-C2-O2	-6.21	117.55	121.90
26	1H	101	G	C8-N9-C4	6.21	108.88	106.40
26	1H	1790	C	C6-N1-C2	6.21	122.78	120.30
26	14	763	G	C8-N9-C4	-6.21	103.92	106.40
1	13	131	C	N1-C2-O2	6.20	122.62	118.90
26	1H	2424	C	N1-C2-O2	6.20	122.62	118.90
26	14	703	U	C5-C4-O4	6.20	129.62	125.90
26	1H	530	G	N1-C2-N2	-6.20	110.62	116.20
26	1H	2346	A	C4-C5-C6	6.20	120.10	117.00
26	1H	793	A	C2-N3-C4	-6.20	107.50	110.60
26	1H	829	A	C2-N3-C4	-6.20	107.50	110.60
26	1H	1426	G	C8-N9-C4	-6.20	103.92	106.40
26	14	1254	A	C6-N1-C2	-6.20	114.88	118.60
26	14	2829	C	C6-N1-C2	6.20	122.78	120.30
26	1H	115	C	C5-C4-N4	-6.19	115.86	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	275	G	C6-C5-N7	-6.19	126.68	130.40
26	1H	1699	G	O5'-P-OP1	-6.19	100.13	105.70
26	14	55	G	C5-C6-O6	-6.19	124.89	128.60
26	14	275	G	C5-C6-O6	-6.19	124.89	128.60
26	14	2879	C	C6-N1-C2	6.19	122.78	120.30
27	16	12	C	C4-C5-C6	6.19	120.49	117.40
26	14	1348	G	O5'-P-OP2	6.19	118.12	110.70
26	14	113	G	N1-C6-O6	6.19	123.61	119.90
34	58	120	LEU	CA-CB-CG	6.18	129.53	115.30
38	98	18	LEU	CA-CB-CG	6.18	129.52	115.30
26	14	469	G	N1-C6-O6	-6.18	116.19	119.90
26	14	1496	A	C4-C5-N7	6.18	113.79	110.70
1	13	428	G	N3-C4-N9	-6.18	122.29	126.00
26	1H	808	G	N1-C6-O6	-6.18	116.19	119.90
1	1G	1300	G	P-O3'-C3'	6.18	127.12	119.70
1	1G	1108	G	C5-C6-O6	6.18	132.31	128.60
26	14	2392	A	C6-N1-C2	6.18	122.31	118.60
26	1H	1616	A	C8-N9-C4	-6.18	103.33	105.80
26	14	265	A	N1-C6-N6	6.18	122.31	118.60
26	14	1762	A	C2-N3-C4	-6.18	107.51	110.60
1	13	880	C	C6-N1-C2	6.18	122.77	120.30
26	1H	461	C	N3-C2-O2	6.18	126.22	121.90
26	14	1807	G	N1-C6-O6	6.17	123.61	119.90
26	14	2779	U	N1-C2-O2	6.17	127.12	122.80
26	1H	1825	A	N1-C2-N3	6.17	132.39	129.30
26	1H	1535	U	N1-C2-O2	6.17	127.12	122.80
26	1H	440	G	N1-C6-O6	6.17	123.60	119.90
26	1H	945	A	C5-C6-N1	-6.17	114.62	117.70
26	1H	2007	C	N3-C2-O2	-6.17	117.58	121.90
26	14	2598	A	OP2-P-O3'	6.17	118.77	105.20
26	1H	1985	G	N1-C6-O6	-6.17	116.20	119.90
1	1G	1354	C	C6-N1-C2	-6.17	117.83	120.30
23	2K	3	C	C6-N1-C2	-6.17	117.83	120.30
1	1G	1278	U	C6-N1-C1'	-6.17	112.57	121.20
26	1H	140	A	C8-N9-C4	-6.16	103.33	105.80
26	14	974(A)	C	N3-C4-C5	-6.16	119.44	121.90
26	1H	2599	G	N3-C2-N2	-6.16	115.59	119.90
26	1H	734	A	C2-N3-C4	-6.16	107.52	110.60
26	1H	2501	C	N3-C4-C5	6.16	124.36	121.90
26	14	465	G	N9-C4-C5	6.16	107.86	105.40
26	1H	265	A	C2-N3-C4	-6.16	107.52	110.60
26	1H	1363	C	C2-N3-C4	-6.16	116.82	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	87	A	N7-C8-N9	6.16	116.88	113.80
26	14	1682	G	N1-C6-O6	6.15	123.59	119.90
1	13	856	C	C6-N1-C2	-6.15	117.84	120.30
26	14	2726	U	N3-C4-O4	-6.15	115.09	119.40
27	1J	98	G	C8-N9-C1'	-6.15	119.00	127.00
26	14	2329	G	N3-C4-N9	6.15	129.69	126.00
26	1H	924	C	C6-N1-C2	6.15	122.76	120.30
26	1H	2362	G	C8-N9-C4	6.15	108.86	106.40
23	2K	72	C	C6-N1-C2	-6.15	117.84	120.30
26	1H	1604	C	N3-C4-N4	6.15	122.30	118.00
26	1H	74	A	O4'-C1'-N9	-6.14	103.28	108.20
26	1H	217	G	C4-C5-N7	-6.14	108.34	110.80
26	1H	1337	G	OP1-P-O3'	6.14	118.71	105.20
26	1H	571	A	C8-N9-C4	6.14	108.26	105.80
26	1H	1698	A	C4-C5-C6	6.14	120.07	117.00
26	14	84	A	C8-N9-C4	6.14	108.26	105.80
26	14	1395	A	C8-N9-C4	6.14	108.26	105.80
26	14	2683	C	C6-N1-C2	-6.14	117.84	120.30
26	1H	786	C	C5-C6-N1	-6.14	117.93	121.00
26	1H	1613	G	N1-C2-N2	-6.14	110.67	116.20
26	1H	2449	U	N3-C4-C5	-6.14	110.92	114.60
26	1H	659	C	C5-C6-N1	-6.14	117.93	121.00
26	1H	2562	U	C5-C6-N1	-6.14	119.63	122.70
27	16	27	C	N3-C4-C5	-6.14	119.45	121.90
1	13	811	C	C5-C6-N1	-6.13	117.93	121.00
26	1H	580	C	C6-N1-C2	-6.13	117.85	120.30
1	1G	1502	A	C5-N7-C8	-6.13	100.83	103.90
26	14	945	A	C5-C6-N1	-6.13	114.63	117.70
26	1H	2230	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	602	G	C6-C5-N7	-6.13	126.72	130.40
1	1G	1346	A	OP2-P-O3'	6.13	118.69	105.20
26	14	1276	A	C6-C5-N7	-6.13	128.01	132.30
1	13	23	C	N3-C4-C5	-6.13	119.45	121.90
1	13	974	A	C6-C5-N7	-6.13	128.01	132.30
26	1H	801	G	C4-C5-N7	-6.13	108.35	110.80
26	1H	1654	A	C8-N9-C4	-6.13	103.35	105.80
26	1H	1779	U	N1-C2-N3	-6.13	111.22	114.90
26	14	2779	U	C2-N1-C1'	6.13	125.05	117.70
1	1G	1139	G	C4-N9-C1'	-6.12	118.54	126.50
1	13	883	C	C6-N1-C2	-6.12	117.85	120.30
26	14	212	G	O5'-P-OP2	-6.12	100.19	105.70
26	14	1786	A	N9-C1'-C2'	6.12	121.96	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2018	G	C8-N9-C4	-6.12	103.95	106.40
26	1H	2392	A	C4-C5-N7	6.12	113.76	110.70
26	14	2001	A	N1-C6-N6	6.12	122.27	118.60
27	1J	30	C	C6-N1-C2	-6.12	117.85	120.30
26	1H	2710	C	C4-C5-C6	6.12	120.46	117.40
26	1H	2383	G	N3-C4-N9	6.12	129.67	126.00
26	1H	2465	C	C6-N1-C2	6.12	122.75	120.30
23	2L	8	U	C5-C6-N1	6.12	125.76	122.70
26	14	1632	A	N1-C6-N6	6.12	122.27	118.60
26	1H	70	G	N3-C4-C5	-6.12	125.54	128.60
26	1H	770	G	C4-C5-N7	6.12	113.25	110.80
26	1H	2566	A	P-O3'-C3'	6.12	127.04	119.70
26	14	2404	C	N3-C4-C5	6.12	124.35	121.90
1	1G	721	G	C6-C5-N7	-6.11	126.73	130.40
1	13	576	G	N1-C6-O6	6.11	123.57	119.90
24	3K	2	C	C6-N1-C2	-6.11	117.86	120.30
26	1H	203	C	O5'-P-OP2	6.11	118.03	110.70
26	1H	816	C	N3-C2-O2	6.11	126.18	121.90
26	1H	247	G	N9-C4-C5	-6.11	102.96	105.40
26	14	1225	C	C6-N1-C2	6.11	122.74	120.30
1	13	690	G	C4-C5-C6	6.11	122.46	118.80
26	1H	1066	U	C2-N1-C1'	6.11	125.03	117.70
26	1H	1636	C	N1-C2-O2	-6.11	115.24	118.90
26	14	2477	C	N3-C2-O2	-6.11	117.63	121.90
26	1H	847	U	N1-C2-N3	6.10	118.56	114.90
26	1H	2247	A	C2-N3-C4	-6.10	107.55	110.60
26	1H	2378	A	C8-N9-C4	6.10	108.24	105.80
1	1G	536	C	N1-C2-O2	6.10	122.56	118.90
1	1G	1498	U	O4'-C1'-N1	-6.10	103.32	108.20
27	16	8	U	O5'-P-OP1	6.10	118.02	110.70
26	14	1318	C	C6-N1-C2	-6.10	117.86	120.30
26	14	2775	A	N1-C6-N6	6.10	122.26	118.60
1	13	900	A	C8-N9-C4	6.10	108.24	105.80
26	14	2702	U	C2-N1-C1'	6.10	125.02	117.70
26	1H	49	A	N7-C8-N9	-6.09	110.75	113.80
26	1H	1535	U	N3-C2-O2	-6.09	117.94	122.20
26	14	1614	A	O4'-C1'-N9	6.09	113.07	108.20
26	1H	108	U	O5'-P-OP1	-6.09	100.22	105.70
1	1G	372	C	N1-C2-O2	6.09	122.55	118.90
26	1H	186	G	C4-C5-N7	6.09	113.23	110.80
26	1H	1781	C	N3-C2-O2	-6.09	117.64	121.90
26	1H	2346	A	C4-N9-C1'	6.09	137.25	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	747	U	C6-N1-C2	6.09	124.65	121.00
1	13	1305	G	N9-C4-C5	6.08	107.83	105.40
1	13	1356	G	C8-N9-C4	-6.08	103.97	106.40
26	1H	2466	C	C6-N1-C2	6.08	122.73	120.30
26	14	2423	U	C6-N1-C2	6.08	124.65	121.00
26	1H	2711	A	C2-N3-C4	-6.08	107.56	110.60
26	1H	208	C	N3-C4-C5	6.08	124.33	121.90
26	1H	379	G	N3-C4-N9	6.08	129.65	126.00
26	1H	1917	U	C5-C6-N1	6.08	125.74	122.70
26	14	1422	G	N1-C6-O6	6.08	123.55	119.90
26	14	2832	U	C2-N1-C1'	-6.08	110.41	117.70
1	13	1206	G	C4-N9-C1'	6.08	134.40	126.50
26	1H	781	A	N1-C6-N6	-6.08	114.95	118.60
26	1H	1321	A	C8-N9-C4	6.08	108.23	105.80
26	14	681	G	N1-C2-N3	6.08	127.55	123.90
1	1G	652	U	O5'-P-OP1	-6.07	100.23	105.70
26	14	278	A	P-O3'-C3'	6.07	126.99	119.70
26	1H	34	C	O5'-P-OP1	-6.07	100.23	105.70
26	14	2019	A	C8-N9-C4	6.07	108.23	105.80
1	1G	576	G	C6-C5-N7	-6.07	126.76	130.40
26	14	664	C	C2-N3-C4	-6.07	116.86	119.90
26	14	675	A	N1-C6-N6	6.07	122.24	118.60
26	14	211	A	N1-C6-N6	6.07	122.24	118.60
26	14	2634	G	N1-C6-O6	6.07	123.54	119.90
26	1H	1950	G	C4-N9-C1'	6.06	134.38	126.50
26	1H	2507	C	C6-N1-C2	-6.06	117.88	120.30
1	1G	14	U	C5-C6-N1	6.06	125.73	122.70
26	14	567	A	C6-N1-C2	-6.06	114.96	118.60
1	13	792	A	C3'-C2'-C1'	-6.06	96.65	101.50
1	1G	1259	C	C6-N1-C2	-6.06	117.88	120.30
26	14	1786	A	C4-N9-C1'	6.06	137.20	126.30
26	14	567	A	N1-C2-N3	6.05	132.33	129.30
26	14	1342	A	N1-C2-N3	6.05	132.33	129.30
26	1H	194	G	C5-C6-N1	6.05	114.53	111.50
26	1H	394	A	N1-C6-N6	-6.05	114.97	118.60
26	1H	2761	G	C8-N9-C4	6.05	108.82	106.40
1	1G	1374	A	C2-N3-C4	-6.05	107.58	110.60
26	14	2387	U	C6-N1-C2	6.05	124.63	121.00
26	14	1572	A	C5-C6-N6	-6.05	118.86	123.70
26	14	715	G	C5-C6-O6	-6.05	124.97	128.60
26	14	1323	U	N1-C2-O2	-6.05	118.57	122.80
1	13	413	G	C8-N9-C4	-6.05	103.98	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2490	G	C5-N7-C8	-6.05	101.28	104.30
26	1H	1639	U	N3-C2-O2	-6.04	117.97	122.20
26	1H	251	A	O5'-P-OP1	-6.04	100.26	105.70
26	1H	298	G	N1-C6-O6	6.04	123.53	119.90
26	1H	74	A	C4-C5-C6	6.04	120.02	117.00
26	14	505	A	C8-N9-C4	-6.04	103.38	105.80
26	14	2688	U	N1-C2-N3	6.04	118.53	114.90
26	1H	807	U	C5-C4-O4	-6.04	122.28	125.90
1	13	481	G	N1-C6-O6	6.04	123.52	119.90
1	13	898	G	C5-C6-O6	-6.04	124.98	128.60
1	13	974	A	C5-N7-C8	-6.04	100.88	103.90
26	1H	513	A	C8-N9-C4	-6.04	103.39	105.80
26	1H	1829	A	C6-N1-C2	-6.03	114.98	118.60
24	3L	57	C	N1-C2-O2	6.03	122.52	118.90
26	1H	107	C	N3-C2-O2	6.03	126.12	121.90
26	1H	1265	A	O5'-P-OP1	-6.03	100.27	105.70
1	13	5	U	P-O3'-C3'	6.03	126.93	119.70
26	1H	571	A	N9-C4-C5	-6.03	103.39	105.80
26	1H	590	A	C8-N9-C4	-6.03	103.39	105.80
26	14	1327	C	C2-N1-C1'	-6.03	112.17	118.80
26	1H	2544	G	N1-C6-O6	6.03	123.52	119.90
26	14	113	G	C6-C5-N7	-6.03	126.78	130.40
26	14	723	G	N1-C6-O6	6.03	123.52	119.90
26	14	1651	G	C6-C5-N7	-6.03	126.78	130.40
26	1H	2032	G	C4-C5-C6	6.02	122.41	118.80
26	1H	2269	A	C8-N9-C4	6.02	108.21	105.80
24	3K	87	A	O5'-P-OP1	-6.02	100.28	105.70
26	1H	1273	U	P-O3'-C3'	6.02	126.92	119.70
26	1H	1345	C	N1-C2-O2	-6.02	115.29	118.90
1	1G	1200	C	N1-C2-O2	6.02	122.51	118.90
26	14	623	G	N1-C6-O6	6.02	123.51	119.90
26	14	2092	U	C5-C4-O4	6.02	129.51	125.90
1	13	1227	A	C8-N9-C4	-6.02	103.39	105.80
26	1H	226	G	N1-C2-N2	-6.02	110.78	116.20
1	1G	898	G	N7-C8-N9	-6.02	110.09	113.10
26	14	1193	G	C4-C5-N7	6.02	113.21	110.80
26	14	830	G	C8-N9-C4	6.02	108.81	106.40
26	14	1289	C	N3-C4-C5	-6.02	119.49	121.90
1	13	1530	G	N9-C4-C5	-6.01	102.99	105.40
26	1H	2501	C	C6-N1-C2	6.01	122.71	120.30
26	1H	812	C	N3-C2-O2	6.01	126.11	121.90
1	1G	121	C	C6-N1-C1'	-6.01	113.58	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	676	A	C6-C5-N7	-6.01	128.09	132.30
26	14	2506	U	C2-N3-C4	6.01	130.61	127.00
26	1H	116	C	N3-C4-C5	-6.01	119.50	121.90
26	1H	1899	G	C4-N9-C1'	-6.01	118.69	126.50
26	1H	2499	C	C6-N1-C2	-6.01	117.90	120.30
1	13	1220	G	N1-C6-O6	6.00	123.50	119.90
26	1H	225	A	C8-N9-C4	6.00	108.20	105.80
1	13	1441	G	N3-C4-N9	-6.00	122.40	126.00
26	1H	912	C	C6-N1-C2	-6.00	117.90	120.30
26	1H	1830	C	N3-C2-O2	6.00	126.10	121.90
27	16	45	A	N7-C8-N9	6.00	116.80	113.80
1	13	656	C	C5-C6-N1	6.00	124.00	121.00
26	1H	1382	G	C6-C5-N7	-6.00	126.80	130.40
1	1G	1449	C	C2-N1-C1'	6.00	125.40	118.80
26	14	669	G	N3-C4-C5	-6.00	125.60	128.60
26	14	921	G	N3-C4-N9	-6.00	122.40	126.00
36	78	50	ARG	NE-CZ-NH1	-6.00	117.30	120.30
48	F5	36	GLY	N-CA-C	6.00	128.10	113.10
1	13	757	U	N1-C2-O2	6.00	127.00	122.80
1	13	1281	U	C2-N1-C1'	6.00	124.90	117.70
26	14	1257	C	N1-C2-O2	-6.00	115.30	118.90
26	14	1613	G	N3-C4-C5	-6.00	125.60	128.60
26	14	1889	A	N1-C6-N6	-6.00	115.00	118.60
1	13	1227	A	N7-C8-N9	6.00	116.80	113.80
26	1H	958	U	C6-N1-C2	-6.00	117.40	121.00
26	14	2060	A	C8-N9-C4	-6.00	103.40	105.80
26	1H	131	G	C8-N9-C4	5.99	108.80	106.40
26	1H	2726	U	C5-C4-O4	5.99	129.50	125.90
26	14	2066	C	C6-N1-C2	-5.99	117.90	120.30
1	1G	1059	C	C6-N1-C2	-5.99	117.90	120.30
22	1L	85	C	C2-N1-C1'	-5.99	112.21	118.80
1	13	700	G	C5-C6-O6	-5.99	125.01	128.60
24	3K	46	G	O4'-C1'-N9	5.99	112.99	108.20
37	88	2	LEU	CA-CB-CG	5.99	129.07	115.30
26	14	1950	G	N3-C2-N2	5.99	124.09	119.90
33	69	9	LEU	CA-CB-CG	5.99	129.07	115.30
26	1H	1669	A	N7-C8-N9	5.98	116.79	113.80
26	14	447	A	C2-N3-C4	-5.98	107.61	110.60
26	14	808	G	OP1-P-OP2	5.98	128.57	119.60
1	13	1206	G	N7-C8-N9	5.98	116.09	113.10
26	1H	793	A	N1-C6-N6	5.98	122.19	118.60
26	14	2575	C	C2-N3-C4	5.98	122.89	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	534	U	C5-C4-O4	5.98	129.49	125.90
1	13	690	G	C2-N3-C4	-5.98	108.91	111.90
26	1H	2465	C	C5-C6-N1	-5.98	118.01	121.00
26	14	1616	A	N7-C8-N9	5.98	116.79	113.80
1	13	1504	G	P-O3'-C3'	5.98	126.87	119.70
26	1H	751	A	OP1-P-OP2	-5.98	110.63	119.60
27	16	44	G	C4-N9-C1'	-5.98	118.73	126.50
1	1G	390	C	C6-N1-C2	5.98	122.69	120.30
26	14	918	A	C8-N9-C4	-5.97	103.41	105.80
26	1H	613	U	C5-C4-O4	5.97	129.48	125.90
26	1H	1606	G	N9-C4-C5	-5.97	103.01	105.40
26	1H	2324	C	C5-C6-N1	-5.97	118.02	121.00
26	14	2278	A	N1-C2-N3	5.97	132.28	129.30
26	1H	747	U	O5'-P-OP1	-5.96	100.33	105.70
26	1H	2713	A	N7-C8-N9	5.96	116.78	113.80
26	14	1612	C	C6-N1-C2	5.96	122.69	120.30
26	14	1688	U	C2-N1-C1'	-5.96	110.55	117.70
26	14	2508	G	C4-C5-N7	5.96	113.19	110.80
26	1H	2430	A	C4-C5-C6	5.96	119.98	117.00
1	13	517	G	N1-C6-O6	5.96	123.47	119.90
1	13	748	C	C5-C6-N1	5.96	123.98	121.00
26	14	1596	A	N1-C6-N6	-5.96	115.03	118.60
26	1H	2346	A	C8-N9-C4	-5.96	103.42	105.80
1	13	504	C	C6-N1-C2	-5.95	117.92	120.30
26	14	1666	G	O4'-C1'-N9	5.95	112.96	108.20
26	1H	1382	G	N1-C6-O6	5.95	123.47	119.90
26	1H	2502	G	O5'-P-OP2	5.95	117.84	110.70
1	1G	353	A	C4-C5-N7	5.95	113.67	110.70
26	14	211	A	C2-N3-C4	-5.95	107.62	110.60
26	14	2506	U	C6-N1-C2	-5.95	117.43	121.00
1	13	1497	G	N1-C6-O6	-5.95	116.33	119.90
1	1G	1519	A	C5-C6-N6	5.95	128.46	123.70
22	1L	85	C	N3-C4-N4	-5.95	113.84	118.00
26	1H	1963	U	N1-C2-O2	5.95	126.96	122.80
26	14	855	G	C8-N9-C4	-5.95	104.02	106.40
26	14	1914	C	C2-N1-C1'	5.95	125.34	118.80
26	14	2392	A	C2-N3-C4	-5.95	107.63	110.60
26	1H	2388	A	C8-N9-C4	5.95	108.18	105.80
26	14	1653	G	N3-C4-C5	-5.95	125.63	128.60
26	14	1815	A	C6-N1-C2	-5.95	115.03	118.60
26	14	1352	U	O5'-P-OP2	-5.94	100.35	105.70
26	1H	460	A	N1-C6-N6	5.94	122.17	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	974	A	O4'-C1'-N9	5.94	112.95	108.20
26	1H	1308	A	N1-C6-N6	-5.94	115.03	118.60
1	1G	258	G	N1-C6-O6	5.94	123.47	119.90
26	14	577	G	C4-C5-C6	5.94	122.36	118.80
26	1H	2869	G	C8-N9-C4	-5.94	104.03	106.40
26	14	1022	G	C8-N9-C4	-5.94	104.03	106.40
26	14	2278	A	C6-N1-C2	-5.94	115.04	118.60
26	14	439	G	C6-C5-N7	-5.94	126.84	130.40
1	13	690	G	C5-C6-O6	-5.93	125.04	128.60
26	14	1820	U	C6-N1-C2	5.93	124.56	121.00
26	1H	845	G	N3-C4-C5	5.93	131.57	128.60
26	1H	2264	C	C6-N1-C2	-5.93	117.93	120.30
26	1H	2449	U	C6-N1-C2	-5.93	117.44	121.00
26	1H	1157	G	N1-C2-N3	5.93	127.46	123.90
46	H8	117	LEU	CA-CB-CG	5.93	128.94	115.30
26	1H	2856	C	C2-N1-C1'	5.93	125.32	118.80
26	14	137	C	C6-N1-C2	-5.93	117.93	120.30
26	14	929	G	N7-C8-N9	5.93	116.06	113.10
26	14	630	G	O5'-P-OP2	-5.93	100.36	105.70
1	13	789	U	C5-C4-O4	5.93	129.46	125.90
26	1H	186	G	C6-C5-N7	-5.93	126.84	130.40
26	1H	1809	A	C5-C6-N6	-5.93	118.96	123.70
37	88	79	LEU	CA-CB-CG	-5.93	101.67	115.30
26	14	2689	U	N3-C4-O4	-5.93	115.25	119.40
27	1J	103	U	C5-C6-N1	-5.93	119.74	122.70
26	1H	309	G	N3-C4-C5	-5.92	125.64	128.60
26	1H	1931	U	N1-C2-O2	5.92	126.95	122.80
45	G8	81	LYS	N-CA-C	-5.92	95.00	111.00
26	14	1432	C	N3-C2-O2	5.92	126.05	121.90
26	1H	309	G	N3-C4-N9	5.92	129.55	126.00
26	14	1572	A	N1-C6-N6	5.92	122.15	118.60
1	13	963	G	N3-C4-N9	5.92	129.55	126.00
26	1H	944	G	C8-N9-C4	-5.92	104.03	106.40
26	1H	2570	G	N3-C2-N2	-5.92	115.75	119.90
26	14	1373	A	N7-C8-N9	-5.92	110.84	113.80
26	14	2866	U	C5-C4-O4	5.92	129.45	125.90
26	1H	2610	C	C6-N1-C2	5.92	122.67	120.30
26	1H	865	C	C6-N1-C2	5.92	122.67	120.30
26	1H	2609	U	C6-N1-C2	5.92	124.55	121.00
26	14	1304	C	N3-C4-N4	-5.92	113.86	118.00
26	1H	681	G	C8-N9-C4	5.92	108.77	106.40
26	14	669	G	C4-C5-N7	-5.92	108.43	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1667	G	C5-C6-O6	-5.91	125.05	128.60
26	14	2459	A	C8-N9-C4	-5.91	103.44	105.80
26	14	2023	G	O5'-P-OP2	-5.91	100.38	105.70
26	14	2818	G	C5-C6-O6	-5.91	125.05	128.60
26	1H	636	G	O5'-P-OP1	-5.91	100.38	105.70
26	1H	928	G	N1-C6-O6	5.91	123.45	119.90
26	1H	2570	G	C2-N3-C4	-5.91	108.94	111.90
26	14	1337	G	OP1-P-O3'	5.91	118.20	105.20
26	1H	517	C	C5-C4-N4	-5.91	116.06	120.20
26	1H	1000	A	C8-N9-C4	-5.91	103.44	105.80
26	1H	2275	C	OP1-P-O3'	5.91	118.20	105.20
1	13	481	G	C8-N9-C1'	-5.91	119.32	127.00
1	13	567	G	O5'-P-OP1	-5.91	100.39	105.70
1	13	975	A	C5-N7-C8	-5.91	100.95	103.90
26	1H	1384	A	N1-C6-N6	-5.91	115.06	118.60
26	1H	1915	U	N3-C2-O2	-5.91	118.07	122.20
45	G8	81	LYS	C-N-CA	5.91	146.80	122.00
26	1H	659	C	C4-C5-C6	5.90	120.35	117.40
26	14	2606	C	N3-C4-C5	5.90	124.26	121.90
26	1H	2553	G	N3-C4-N9	5.90	129.54	126.00
26	14	939	G	N1-C6-O6	5.90	123.44	119.90
26	14	1779	U	OP1-P-OP2	5.90	128.46	119.60
26	1H	2430	A	N9-C4-C5	-5.90	103.44	105.80
26	14	715	G	C4-C5-N7	5.90	113.16	110.80
27	1J	22	U	C5-C6-N1	5.90	125.65	122.70
26	1H	2402	C	N1-C2-O2	-5.90	115.36	118.90
1	1G	1301	U	C2-N1-C1'	5.90	124.78	117.70
26	14	819	A	C8-N9-C4	-5.90	103.44	105.80
26	1H	2071	A	N1-C6-N6	5.90	122.14	118.60
1	1G	1200	C	C2-N1-C1'	5.90	125.29	118.80
26	14	1323	U	N3-C4-O4	5.90	123.53	119.40
26	1H	2689	U	P-O3'-C3'	5.90	126.78	119.70
26	14	1972	A	OP2-P-O3'	5.90	118.17	105.20
27	16	54	G	N1-C6-O6	5.89	123.44	119.90
26	14	1891	G	C4-N9-C1'	5.89	134.16	126.50
26	1H	613	U	N3-C4-O4	-5.89	115.28	119.40
28	11	147	LEU	CA-CB-CG	5.89	128.85	115.30
26	14	751	A	C2-N3-C4	-5.89	107.65	110.60
1	13	1277	C	C6-N1-C2	-5.89	117.94	120.30
26	1H	2642	G	C8-N9-C4	5.89	108.76	106.40
26	14	1761	C	N1-C2-O2	-5.89	115.37	118.90
1	1G	1529	G	C8-N9-C4	-5.89	104.05	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1276	A	C4-C5-N7	5.89	113.64	110.70
26	1H	821	A	N1-C2-N3	5.88	132.24	129.30
26	14	12	U	N1-C2-O2	5.88	126.92	122.80
26	14	211	A	C8-N9-C4	5.88	108.15	105.80
26	14	577	G	C6-C5-N7	-5.88	126.87	130.40
26	14	71	A	C6-C5-N7	-5.88	128.18	132.30
26	14	2526	G	C5-C6-N1	-5.88	108.56	111.50
1	13	366	C	N1-C2-O2	-5.88	115.37	118.90
26	1H	1135	C	N1-C2-O2	5.88	122.43	118.90
26	1H	446	G	N1-C6-O6	5.88	123.43	119.90
26	1H	1349	A	N1-C6-N6	5.88	122.12	118.60
26	14	1786	A	C4-C5-N7	5.88	113.64	110.70
26	14	1688	U	C6-N1-C1'	5.88	129.43	121.20
26	14	1966	A	C5-C6-N6	-5.87	119.00	123.70
26	14	2452	C	N3-C4-N4	5.87	122.11	118.00
26	1H	482	A	C8-N9-C4	-5.87	103.45	105.80
26	14	1193	G	N1-C6-O6	5.87	123.42	119.90
26	14	1614	A	O5'-P-OP1	-5.87	100.42	105.70
23	2L	16	U	N3-C2-O2	-5.87	118.09	122.20
26	14	2683	C	N3-C4-C5	-5.87	119.55	121.90
1	13	792	A	N9-C1'-C2'	5.87	121.63	114.00
27	16	95	U	C2-N1-C1'	-5.87	110.66	117.70
26	1H	1627	G	N1-C6-O6	-5.87	116.38	119.90
26	14	372	G	O4'-C1'-N9	5.87	112.89	108.20
26	14	1395	A	O4'-C1'-N9	5.87	112.89	108.20
1	13	748	C	P-O3'-C3'	5.86	126.74	119.70
1	1G	1126	U	P-O3'-C3'	5.86	126.73	119.70
26	14	270(B)	A	N1-C6-N6	5.86	122.12	118.60
26	14	2445	G	N3-C4-C5	-5.86	125.67	128.60
26	14	1327	C	N3-C2-O2	5.86	126.00	121.90
26	14	2425	A	O5'-P-OP2	-5.86	100.43	105.70
1	1G	963	G	N1-C2-N2	-5.85	110.93	116.20
26	14	773	U	C5-C6-N1	-5.85	119.77	122.70
26	14	1950	G	C8-N9-C1'	-5.85	119.39	127.00
26	1H	1198	U	N3-C2-O2	-5.85	118.10	122.20
26	1H	1799	G	P-O3'-C3'	5.85	126.72	119.70
26	14	1613	G	N1-C6-O6	-5.85	116.39	119.90
26	14	2403	C	N1-C2-O2	-5.85	115.39	118.90
26	14	278	A	OP1-P-O3'	5.85	118.07	105.20
26	14	2433	A	C4-C5-C6	5.85	119.93	117.00
1	13	789	U	N1-C2-N3	5.85	118.41	114.90
26	1H	486	C	N3-C2-O2	5.85	125.99	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	649	G	N1-C6-O6	5.85	123.41	119.90
26	1H	1846	G	N1-C6-O6	5.85	123.41	119.90
26	14	566	U	C6-N1-C2	5.85	124.51	121.00
26	14	1964	G	O5'-P-OP1	-5.85	100.44	105.70
26	14	2329	G	C8-N9-C4	5.85	108.74	106.40
26	14	506	G	N1-C6-O6	5.85	123.41	119.90
1	13	811	C	C2-N3-C4	-5.85	116.98	119.90
26	14	121	G	C8-N9-C1'	-5.85	119.40	127.00
27	1J	6	C	C6-N1-C2	5.85	122.64	120.30
1	1G	795	C	N1-C2-O2	-5.84	115.39	118.90
26	14	288	C	C2-N1-C1'	5.84	125.23	118.80
26	14	1528	A	C5-N7-C8	-5.84	100.98	103.90
26	14	1989	G	N1-C2-N2	5.84	121.46	116.20
1	13	1518	A	O5'-P-OP2	-5.84	100.44	105.70
1	13	185	A	C8-N9-C4	-5.84	103.46	105.80
26	1H	246	C	C6-N1-C2	5.84	122.64	120.30
26	1H	2385	C	C2-N3-C4	-5.84	116.98	119.90
26	14	1681	G	C5-N7-C8	-5.84	101.38	104.30
26	1H	1204	A	C5-C6-N1	-5.84	114.78	117.70
26	14	923	C	C6-N1-C2	-5.84	117.96	120.30
26	14	2406	U	O4'-C1'-N1	-5.84	103.53	108.20
1	13	679	C	C6-N1-C2	-5.84	117.97	120.30
26	1H	117	G	O5'-P-OP2	5.84	117.70	110.70
26	1H	829	A	C6-N1-C2	5.84	122.10	118.60
26	1H	1900	A	C5'-C4'-O4'	-5.84	102.09	109.10
26	14	2079	U	O5'-P-OP1	-5.84	100.45	105.70
26	1H	703	U	O5'-P-OP1	-5.84	100.45	105.70
26	14	1608	A	N9-C4-C5	5.84	108.14	105.80
26	14	2505	G	O5'-P-OP1	5.84	117.70	110.70
26	1H	1308	A	N9-C4-C5	5.83	108.13	105.80
26	1H	1614	A	O5'-P-OP1	-5.83	100.45	105.70
26	1H	1210	A	C5-C6-N6	-5.83	119.03	123.70
26	1H	1627	G	O5'-P-OP2	-5.83	100.45	105.70
26	1H	1273	U	O5'-P-OP1	-5.83	100.45	105.70
26	1H	1496	A	C5-C6-N6	-5.83	119.04	123.70
26	14	2413	G	C5-C6-O6	-5.83	125.10	128.60
1	13	481	G	C4-C5-C6	5.83	122.30	118.80
26	1H	774	A	C8-N9-C1'	5.83	138.19	127.70
26	1H	1006	C	N1-C2-O2	-5.83	115.40	118.90
27	1J	81	G	C4-C5-N7	5.83	113.13	110.80
26	1H	201	C	C6-N1-C2	5.83	122.63	120.30
26	1H	186	G	N3-C4-N9	5.82	129.49	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2594	C	C5-C4-N4	-5.82	116.12	120.20
26	14	675	A	N9-C4-C5	-5.82	103.47	105.80
27	1J	6	C	C5-C6-N1	-5.82	118.09	121.00
26	14	796	C	C5-C6-N1	-5.82	118.09	121.00
26	1H	594	U	C5-C4-O4	5.82	129.39	125.90
26	14	439	G	C4-C5-N7	5.82	113.13	110.80
26	14	801	G	C4-C5-C6	-5.82	115.31	118.80
1	13	31	G	C8-N9-C4	5.82	108.73	106.40
1	13	505	G	C4-C5-N7	5.82	113.13	110.80
26	1H	1257	C	N1-C2-N3	5.82	123.27	119.20
26	1H	1257	C	C4-C5-C6	5.82	120.31	117.40
26	1H	1546	C	C6-N1-C2	-5.82	117.97	120.30
26	1H	2888	C	C6-N1-C2	-5.82	117.97	120.30
1	1G	345	C	C6-N1-C2	-5.82	117.97	120.30
26	14	681	G	C6-C5-N7	-5.82	126.91	130.40
26	14	866	A	O4'-C1'-N9	-5.82	103.55	108.20
33	69	77	LEU	CA-CB-CG	5.82	128.68	115.30
1	13	1502	A	N1-C2-N3	5.82	132.21	129.30
26	14	382	G	C5-C6-N1	-5.82	108.59	111.50
26	14	1673	U	OP2-P-O3'	5.82	117.99	105.20
26	14	2346	A	C6-C5-N7	-5.82	128.23	132.30
26	1H	575	A	C8-N9-C4	5.81	108.13	105.80
26	1H	138	G	C5-C6-N1	5.81	114.41	111.50
26	1H	1742	C	C6-N1-C2	-5.81	117.97	120.30
29	21	49	LEU	CA-CB-CG	-5.81	101.93	115.30
31	41	94	LEU	CA-CB-CG	5.81	128.67	115.30
26	14	275	G	C4-N9-C1'	5.81	134.06	126.50
26	14	2499	C	N3-C2-O2	-5.81	117.83	121.90
26	14	860	U	N3-C2-O2	-5.81	118.13	122.20
1	13	481	G	C6-C5-N7	-5.81	126.91	130.40
26	1H	382	G	C8-N9-C4	5.81	108.72	106.40
26	14	365	C	C6-N1-C2	-5.81	117.98	120.30
26	1H	2503	A	O5'-P-OP1	5.80	117.66	110.70
26	14	2019	A	N7-C8-N9	-5.80	110.90	113.80
26	1H	138	G	C2-N3-C4	5.80	114.80	111.90
26	1H	609	A	C4-C5-N7	5.80	113.60	110.70
26	1H	1779	U	N1-C2-O2	5.80	126.86	122.80
1	1G	980	C	C6-N1-C2	-5.80	117.98	120.30
1	1G	266	G	P-O3'-C3'	5.80	126.66	119.70
26	1H	324	A	O5'-P-OP2	5.80	117.66	110.70
26	1H	409	C	C6-N1-C2	5.80	122.62	120.30
26	14	2062	A	C4-C5-C6	-5.80	114.10	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	703	G	C4-C5-N7	5.80	113.12	110.80
26	1H	67	U	N3-C2-O2	-5.80	118.14	122.20
26	1H	765	G	N1-C6-O6	5.80	123.38	119.90
48	J8	79	GLY	N-CA-C	5.80	127.59	113.10
49	K8	16	LEU	N-CA-C	-5.80	95.35	111.00
1	1G	86	U	C2-N1-C1'	5.79	124.65	117.70
26	14	2067	G	N3-C4-C5	-5.79	125.70	128.60
1	13	1493	A	N1-C6-N6	5.79	122.08	118.60
22	1K	40	G	N1-C6-O6	5.79	123.38	119.90
1	1G	945	G	N1-C6-O6	5.79	123.38	119.90
26	14	391	G	C4-C5-N7	5.79	113.12	110.80
26	1H	144	C	C5-C6-N1	-5.79	118.10	121.00
26	1H	2430	A	N3-C4-C5	5.79	130.85	126.80
26	14	1696	G	O5'-P-OP2	-5.79	100.49	105.70
26	1H	195	A	N1-C6-N6	5.79	122.07	118.60
1	1G	1206	G	C6-C5-N7	-5.79	126.93	130.40
26	14	203	C	N1-C2-O2	-5.79	115.43	118.90
26	14	2447	G	C6-C5-N7	5.79	133.87	130.40
26	14	621	A	C4-C5-N7	5.79	113.59	110.70
26	14	2441	C	O5'-P-OP1	-5.79	100.49	105.70
1	13	652	U	N1-C2-O2	5.79	126.85	122.80
26	1H	2330	G	C5-C6-O6	-5.79	125.13	128.60
26	1H	2330	G	N1-C2-N3	5.79	127.37	123.90
26	1H	2330	G	C6-C5-N7	-5.79	126.93	130.40
26	1H	2503	A	N1-C2-N3	-5.79	126.41	129.30
27	16	64	C	C5-C6-N1	-5.79	118.11	121.00
27	16	102	G	N1-C6-O6	5.79	123.37	119.90
26	14	140	A	O4'-C1'-N9	5.79	112.83	108.20
26	1H	1210	A	C6-C5-N7	-5.78	128.25	132.30
1	1G	353	A	C5-N7-C8	-5.78	101.01	103.90
26	14	2390	U	C6-N1-C2	-5.78	117.53	121.00
26	14	2779	U	C6-N1-C1'	-5.78	113.10	121.20
26	1H	2392	A	C2-N3-C4	-5.78	107.71	110.60
26	14	1637	A	N1-C6-N6	5.78	122.07	118.60
1	13	956	U	C6-N1-C2	-5.78	117.53	121.00
26	1H	397	G	N3-C4-C5	5.78	131.49	128.60
26	1H	564	C	N3-C4-C5	-5.78	119.59	121.90
26	14	577	G	C8-N9-C4	-5.78	104.09	106.40
26	14	2702	U	C6-N1-C1'	-5.78	113.11	121.20
1	13	59	A	C2-N3-C4	5.78	113.49	110.60
26	1H	70	G	N1-C6-O6	-5.78	116.43	119.90
26	1H	299	A	OP2-P-O3'	5.78	117.91	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1950	G	N1-C2-N2	-5.78	111.00	116.20
1	1G	1139	G	N3-C4-N9	-5.78	122.53	126.00
26	1H	743	G	N3-C2-N2	-5.78	115.86	119.90
26	1H	2527	C	C5-C6-N1	5.78	123.89	121.00
27	16	30	C	C5-C6-N1	5.77	123.89	121.00
26	14	1564	C	N3-C2-O2	-5.77	117.86	121.90
26	1H	74	A	C8-N9-C4	-5.77	103.49	105.80
1	13	131	C	N3-C2-O2	-5.77	117.86	121.90
26	14	1336	A	N1-C6-N6	-5.77	115.14	118.60
26	1H	2331	G	C6-C5-N7	-5.77	126.94	130.40
26	14	53	A	N1-C2-N3	5.77	132.18	129.30
27	1J	55	U	C5-C6-N1	5.77	125.58	122.70
23	2L	28	C	C5-C6-N1	5.77	123.88	121.00
1	13	1176	A	N7-C8-N9	5.76	116.68	113.80
26	1H	513	A	N1-C6-N6	-5.76	115.14	118.60
26	1H	856	C	C5-C6-N1	5.76	123.88	121.00
26	1H	1448	G	N1-C6-O6	5.76	123.36	119.90
26	1H	1786	A	N1-C2-N3	5.76	132.18	129.30
26	14	1828	G	O5'-P-OP2	-5.76	100.51	105.70
26	14	2012	G	N1-C6-O6	5.76	123.36	119.90
1	13	1305	G	N3-C4-N9	-5.76	122.54	126.00
1	1G	1157	A	P-O3'-C3'	5.76	126.61	119.70
26	14	776	G	O4'-C1'-N9	-5.76	103.59	108.20
54	Q8	7	HIS	N-CA-C	5.76	126.55	111.00
1	13	803	G	C5-C6-O6	5.76	132.05	128.60
26	1H	513	A	N1-C2-N3	5.76	132.18	129.30
26	1H	1035	U	C5-C4-O4	5.76	129.35	125.90
26	14	2071	A	OP1-P-OP2	-5.76	110.97	119.60
26	1H	2401	U	C6-N1-C2	-5.75	117.55	121.00
26	1H	2449	U	N3-C4-O4	5.75	123.43	119.40
26	14	676	A	C5-C6-N6	-5.75	119.10	123.70
26	14	730	C	N3-C2-O2	-5.75	117.87	121.90
26	14	2425	A	N1-C6-N6	-5.75	115.15	118.60
1	13	1197	G	C8-N9-C4	-5.75	104.10	106.40
26	1H	2468	G	N7-C8-N9	5.75	115.98	113.10
1	13	193	C	C6-N1-C2	-5.75	118.00	120.30
1	13	549	C	O4'-C1'-N1	5.75	112.80	108.20
1	13	566	G	N3-C4-N9	5.75	129.45	126.00
26	1H	2053	G	C5-C6-O6	-5.75	125.15	128.60
26	14	391	G	C8-N9-C1'	-5.75	119.52	127.00
26	14	1908	C	C6-N1-C2	-5.75	118.00	120.30
26	1H	504	U	N3-C2-O2	-5.75	118.18	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1343	G	C4-N9-C1'	5.75	133.97	126.50
27	16	81	G	N9-C4-C5	-5.75	103.10	105.40
26	1H	2710	C	N1-C2-O2	-5.75	115.45	118.90
1	1G	560	U	C6-N1-C2	-5.75	117.55	121.00
26	1H	1644	C	N3-C2-O2	-5.75	117.88	121.90
26	1H	1977	A	N1-C6-N6	-5.74	115.15	118.60
26	14	1728	G	C2-N3-C4	5.74	114.77	111.90
26	1H	618(A)	C	N3-C4-C5	5.74	124.20	121.90
26	14	250	G	C8-N9-C4	-5.74	104.10	106.40
1	13	579	G	C5-C6-O6	-5.74	125.16	128.60
1	13	1515	C	N3-C4-C5	5.74	124.19	121.90
1	1G	817	C	C5-C6-N1	-5.74	118.13	121.00
26	14	545	G	N1-C6-O6	-5.74	116.46	119.90
1	13	827	U	C2-N1-C1'	5.74	124.58	117.70
26	1H	1343	G	C8-N9-C4	-5.74	104.11	106.40
26	14	1407	C	C5-C6-N1	5.74	123.87	121.00
1	13	138	G	N1-C6-O6	5.73	123.34	119.90
26	1H	2674	G	C8-N9-C1'	5.73	134.45	127.00
26	1H	513	A	N3-C4-C5	-5.73	122.79	126.80
1	1G	249	U	O5'-P-OP2	-5.73	100.54	105.70
26	1H	1261	C	N3-C2-O2	5.73	125.91	121.90
26	1H	1799	G	N3-C4-N9	5.73	129.44	126.00
26	1H	2454	G	C8-N9-C4	5.73	108.69	106.40
26	14	27	G	C5-C6-N1	-5.73	108.64	111.50
26	1H	827	U	O5'-P-OP2	-5.73	100.55	105.70
1	13	792	A	C2-N3-C4	-5.72	107.74	110.60
26	1H	576	U	OP2-P-O3'	5.72	117.79	105.20
26	14	679	C	N1-C2-O2	-5.72	115.47	118.90
26	14	2584	U	O4'-C1'-N1	5.72	112.78	108.20
1	13	758	G	C4-C5-N7	5.72	113.09	110.80
26	1H	612	G	C5-C6-O6	-5.72	125.17	128.60
39	A8	101	LEU	CA-CB-CG	5.72	128.46	115.30
26	14	362	U	N3-C2-O2	-5.72	118.19	122.20
26	14	683	C	N1-C2-O2	-5.72	115.47	118.90
23	2K	44	G	C8-N9-C4	-5.72	104.11	106.40
26	1H	2639	A	C2-N3-C4	-5.72	107.74	110.60
26	1H	1665	A	N1-C6-N6	5.72	122.03	118.60
26	14	1469	A	C8-N9-C4	-5.72	103.51	105.80
26	14	1678	G	N1-C2-N3	5.72	127.33	123.90
26	1H	309	G	C4-N9-C1'	5.72	133.93	126.50
26	1H	2509	G	C6-C5-N7	-5.72	126.97	130.40
1	1G	390	C	C5-C6-N1	-5.72	118.14	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	397	A	C8-N9-C4	-5.72	103.51	105.80
26	14	1653	G	N3-C4-N9	5.72	129.43	126.00
26	14	1899	G	P-O3'-C3'	5.71	126.56	119.70
1	13	758	G	N1-C6-O6	5.71	123.33	119.90
1	13	965	A	N1-C6-N6	5.71	122.03	118.60
26	1H	917	A	C5-C6-N1	-5.71	114.84	117.70
22	1K	85	C	N1-C2-O2	5.71	122.33	118.90
26	1H	440	G	N3-C4-N9	5.71	129.43	126.00
1	13	1336	C	P-O3'-C3'	5.71	126.55	119.70
26	1H	678	C	C6-N1-C2	5.71	122.58	120.30
26	1H	1972	A	C5-N7-C8	-5.71	101.05	103.90
23	2L	27	G	N1-C6-O6	5.71	123.32	119.90
26	14	796	C	C2-N3-C4	-5.71	117.05	119.90
26	14	1028	A	OP2-P-O3'	5.71	117.75	105.20
26	1H	954	G	C4-C5-N7	-5.71	108.52	110.80
26	1H	121	G	N7-C8-N9	5.70	115.95	113.10
26	14	666	G	C8-N9-C4	5.70	108.68	106.40
26	14	1555	G	C4-N9-C1'	5.70	133.91	126.50
1	13	700	G	N3-C4-N9	5.70	129.42	126.00
26	14	1667	G	C4-C5-N7	5.70	113.08	110.80
26	1H	955	C	N3-C4-C5	-5.70	119.62	121.90
26	1H	2454	G	C4-C5-N7	-5.70	108.52	110.80
26	1H	2454	G	C5-C6-O6	5.70	132.02	128.60
26	14	1342	A	C4-C5-C6	5.70	119.85	117.00
26	1H	871	U	O5'-P-OP2	5.70	117.54	110.70
26	14	180	G	N1-C6-O6	5.70	123.32	119.90
1	13	534	U	N3-C4-O4	-5.70	115.41	119.40
26	1H	51	G	OP2-P-O3'	5.70	117.73	105.20
26	1H	831	G	C5-N7-C8	5.70	107.15	104.30
1	1G	372	C	N1-C2-N3	-5.70	115.21	119.20
1	1G	1107	C	C6-N1-C2	-5.70	118.02	120.30
1	1G	1442	G	N3-C4-C5	5.70	131.45	128.60
26	14	2413	G	N1-C6-O6	5.70	123.32	119.90
23	2K	87	A	N9-C4-C5	-5.69	103.52	105.80
26	14	808	G	C6-N1-C2	-5.69	121.68	125.10
26	1H	865	C	N3-C4-C5	5.69	124.18	121.90
26	1H	924	C	N3-C4-C5	5.69	124.18	121.90
26	1H	2025	C	C6-N1-C2	-5.69	118.02	120.30
26	14	1187	G	N1-C6-O6	5.69	123.32	119.90
26	14	1637	A	C6-C5-N7	-5.69	128.31	132.30
1	13	703	G	N1-C6-O6	5.69	123.31	119.90
24	3K	2	C	C5-C6-N1	5.69	123.84	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	138	G	C5-N7-C8	-5.69	101.45	104.30
26	1H	2346	A	C5-N7-C8	-5.69	101.06	103.90
26	1H	2350	C	C6-N1-C2	-5.69	118.02	120.30
42	D8	18	LEU	CA-CB-CG	5.69	128.39	115.30
35	25	50	GLY	N-CA-C	-5.69	98.87	113.10
26	1H	2046	G	N3-C4-C5	-5.69	125.75	128.60
26	1H	246	C	C5-C6-N1	-5.69	118.16	121.00
26	1H	679	C	N3-C2-O2	5.69	125.88	121.90
26	1H	1888	G	C4-N9-C1'	5.69	133.89	126.50
26	1H	2327	A	C2-N3-C4	5.69	113.44	110.60
26	1H	2596	U	N3-C4-C5	5.69	118.01	114.60
26	14	932	G	N3-C4-N9	-5.69	122.59	126.00
26	1H	101	G	N9-C4-C5	-5.69	103.12	105.40
54	M5	32	LEU	CA-CB-CG	5.68	128.38	115.30
26	14	545	G	O4'-C1'-N9	5.68	112.75	108.20
26	14	1474	C	C6-N1-C2	-5.68	118.03	120.30
26	14	2859	G	P-O3'-C3'	5.68	126.52	119.70
26	1H	581	C	N1-C2-O2	-5.68	115.49	118.90
26	1H	2819	G	N1-C6-O6	5.68	123.31	119.90
26	14	1613	G	N3-C2-N2	5.68	123.88	119.90
26	1H	783	A	C5-C6-N6	-5.68	119.16	123.70
26	14	1695	G	N3-C4-C5	-5.68	125.76	128.60
26	1H	2430	A	C4-C5-N7	5.67	113.54	110.70
26	14	1651	G	C4-C5-N7	5.67	113.07	110.80
26	1H	946	G	N3-C4-C5	5.67	131.44	128.60
26	1H	1940	U	N3-C2-O2	5.67	126.17	122.20
26	1H	1609	A	N1-C6-N6	-5.67	115.20	118.60
26	1H	2689	U	C2-N3-C4	-5.67	123.60	127.00
26	14	1379	A	C5-N7-C8	-5.67	101.06	103.90
26	14	2048	G	C8-N9-C4	-5.67	104.13	106.40
26	1H	134	C	N3-C2-O2	-5.67	117.93	121.90
26	1H	2619	C	C5-C4-N4	-5.67	116.23	120.20
1	13	1498	U	N3-C4-O4	5.67	123.37	119.40
26	14	2062	A	C4-N9-C1'	-5.67	116.10	126.30
26	1H	1025	G	N3-C4-C5	-5.66	125.77	128.60
26	1H	2243	U	O5'-P-OP1	5.66	117.50	110.70
26	1H	2392	A	C6-C5-N7	-5.66	128.34	132.30
26	14	2443	C	C5-C4-N4	-5.66	116.24	120.20
1	13	394	G	N3-C4-N9	-5.66	122.60	126.00
54	Q8	60	LEU	CB-CG-CD2	5.66	120.62	111.00
26	1H	729	G	C5-N7-C8	-5.66	101.47	104.30
1	1G	366	C	C6-N1-C2	5.66	122.56	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1158	C	C6-N1-C2	-5.65	118.04	120.30
26	1H	127	A	C5-N7-C8	-5.65	101.07	103.90
26	1H	703	U	C5-C4-O4	5.65	129.29	125.90
1	1G	1415	G	C8-N9-C4	5.65	108.66	106.40
26	14	757	U	OP2-P-O3'	5.65	117.63	105.20
26	1H	1294	U	N3-C2-O2	5.65	126.16	122.20
26	1H	842	G	OP2-P-O3'	5.65	117.63	105.20
26	1H	859	G	N1-C6-O6	5.65	123.29	119.90
26	1H	735	A	N9-C4-C5	-5.65	103.54	105.80
26	1H	346	A	O5'-P-OP2	-5.65	100.62	105.70
22	1K	18	G	C8-N9-C1'	5.64	134.34	127.00
26	1H	191	A	N1-C2-N3	5.64	132.12	129.30
26	1H	1366	A	N1-C6-N6	5.64	121.99	118.60
26	1H	2525	G	C6-C5-N7	-5.64	127.02	130.40
26	14	2844	G	OP2-P-O3'	5.64	117.61	105.20
27	16	7	G	C8-N9-C4	5.64	108.66	106.40
26	1H	801	G	N1-C6-O6	-5.64	116.52	119.90
26	1H	1977	A	C5-C6-N6	5.64	128.21	123.70
26	1H	2409	G	C5-C6-O6	-5.64	125.22	128.60
26	1H	2593	U	N3-C4-O4	5.64	123.35	119.40
1	1G	197	A	C6-C5-N7	-5.64	128.35	132.30
26	14	465	G	C4-C5-N7	-5.64	108.55	110.80
26	1H	1368	G	C5-C6-O6	-5.64	125.22	128.60
26	1H	2419	U	OP1-P-O3'	5.64	117.60	105.20
26	1H	2525	G	N1-C6-O6	5.64	123.28	119.90
1	1G	236	G	C5-C6-N1	-5.64	108.68	111.50
26	14	728	G	C8-N9-C4	5.64	108.65	106.40
26	14	2073	C	N1-C2-O2	-5.64	115.52	118.90
1	13	1489	G	C8-N9-C4	5.63	108.65	106.40
26	1H	965	C	C5-C6-N1	5.63	123.82	121.00
26	14	33	U	C6-N1-C2	5.63	124.38	121.00
26	14	1966	A	N9-C4-C5	-5.63	103.55	105.80
1	13	1481	U	N3-C4-C5	-5.63	111.22	114.60
26	1H	1206	G	N3-C4-C5	-5.63	125.78	128.60
2	12	23	ARG	N-CA-C	-5.63	95.80	111.00
26	14	383	U	O4'-C1'-N1	5.63	112.70	108.20
26	14	726	G	O4'-C1'-N9	5.63	112.70	108.20
26	14	1312	U	N3-C2-O2	5.63	126.14	122.20
26	1H	1311	G	N3-C4-C5	5.63	131.41	128.60
26	14	4	C	C6-N1-C1'	-5.63	114.04	120.80
26	14	545	G	C4-C5-N7	-5.63	108.55	110.80
26	1H	1828	G	N3-C4-C5	5.63	131.41	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	388	G	N3-C4-N9	-5.63	122.62	126.00
26	1H	1558	A	N1-C2-N3	5.63	132.11	129.30
26	14	647	G	C8-N9-C4	-5.63	104.15	106.40
26	14	848	G	N3-C4-C5	-5.63	125.79	128.60
26	1H	1489	U	C5-C4-O4	5.62	129.28	125.90
1	13	503	C	C6-N1-C2	-5.62	118.05	120.30
26	1H	122	G	O5'-P-OP2	-5.62	100.64	105.70
26	1H	2422	A	O4'-C1'-N9	5.62	112.70	108.20
26	14	667	U	N1-C2-O2	-5.62	118.86	122.80
26	14	801	G	N3-C4-C5	5.62	131.41	128.60
1	1G	267	C	O5'-P-OP1	-5.62	100.64	105.70
26	14	757	U	N1-C2-O2	-5.62	118.86	122.80
26	14	941	A	C8-N9-C4	-5.62	103.55	105.80
26	14	1769	G	N1-C6-O6	5.62	123.27	119.90
26	14	300	A	N1-C6-N6	5.62	121.97	118.60
26	14	1977	A	C2-N3-C4	-5.62	107.79	110.60
26	1H	1022	G	C4-C5-N7	-5.62	108.55	110.80
1	13	757	U	N3-C2-O2	-5.62	118.27	122.20
26	1H	829	A	N3-C4-C5	5.62	130.73	126.80
26	1H	837	C	N3-C4-N4	5.62	121.93	118.00
26	1H	618(A)	C	C6-N1-C2	5.62	122.55	120.30
26	14	213	A	C8-N9-C4	5.62	108.05	105.80
26	1H	923	C	N3-C4-C5	-5.61	119.66	121.90
1	1G	243	A	P-O3'-C3'	5.61	126.44	119.70
26	14	675	A	C5-C6-N6	-5.61	119.21	123.70
26	1H	954	G	C6-C5-N7	5.61	133.77	130.40
4	3E	32	ALA	N-CA-C	-5.61	95.85	111.00
26	14	922	U	C5-C6-N1	5.61	125.50	122.70
26	1H	377	C	N3-C4-C5	5.61	124.14	121.90
26	1H	774	A	O5'-P-OP2	-5.61	100.65	105.70
26	1H	2475	C	C5-C6-N1	5.61	123.81	121.00
26	14	789	A	OP1-P-OP2	-5.61	111.19	119.60
26	1H	1255	U	N3-C4-O4	5.61	123.33	119.40
1	13	853	G	C8-N9-C4	5.61	108.64	106.40
26	14	1193	G	C5-C6-O6	-5.61	125.24	128.60
26	14	1313	U	C6-N1-C2	-5.61	117.64	121.00
26	14	1950	G	C4-C5-N7	5.61	113.04	110.80
26	14	1332	G	N3-C2-N2	-5.60	115.98	119.90
26	14	1787	A	C5-N7-C8	-5.60	101.10	103.90
26	1H	1638	C	O5'-P-OP2	-5.60	100.66	105.70
26	1H	2621	A	N1-C6-N6	-5.60	115.24	118.60
26	1H	2856	C	C5-C6-N1	5.60	123.80	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	500	G	N3-C4-N9	5.60	129.36	126.00
1	1G	784	C	C6-N1-C2	5.60	122.54	120.30
26	14	1011	G	C4-N9-C1'	-5.60	119.22	126.50
27	16	60	C	N3-C4-N4	5.60	121.92	118.00
26	14	2429	G	OP2-P-O3'	5.60	117.52	105.20
26	14	2826	A	N9-C4-C5	5.60	108.04	105.80
1	13	1413	A	C5-N7-C8	-5.60	101.10	103.90
26	1H	1698	A	C4-N9-C1'	5.60	136.38	126.30
26	1H	1787	A	C4-C5-C6	5.60	119.80	117.00
26	14	1559	G	N1-C6-O6	5.60	123.26	119.90
26	14	1790	C	OP1-P-O3'	5.60	117.52	105.20
26	14	2335	A	O4'-C1'-N9	5.60	112.68	108.20
1	13	794	A	N1-C6-N6	5.60	121.96	118.60
26	1H	1031	G	N1-C6-O6	-5.60	116.54	119.90
1	13	266	G	P-O3'-C3'	5.59	126.41	119.70
26	14	1651	G	C5-C6-O6	-5.59	125.24	128.60
26	1H	1576	U	N3-C2-O2	-5.59	118.28	122.20
26	1H	1678	G	C4-C5-N7	5.59	113.04	110.80
26	14	391	G	C5-C6-N1	-5.59	108.70	111.50
1	13	304	U	C5-C4-O4	5.59	129.25	125.90
1	13	888	G	C8-N9-C4	5.59	108.64	106.40
26	1H	751	A	N1-C2-N3	5.59	132.10	129.30
22	1K	18	G	OP1-P-O3'	5.59	117.50	105.20
26	1H	1313	U	C6-N1-C2	-5.59	117.65	121.00
26	1H	1788	C	O5'-P-OP2	-5.59	100.67	105.70
1	1G	730	G	C4-C5-N7	-5.59	108.56	110.80
26	1H	735	A	C2-N3-C4	-5.59	107.81	110.60
26	14	141	A	O4'-C1'-N9	5.59	112.67	108.20
1	13	963	G	N1-C2-N2	-5.59	111.17	116.20
26	1H	2402	C	C6-N1-C1'	5.59	127.50	120.80
27	16	95	U	N1-C2-O2	-5.59	118.89	122.80
26	14	469	G	C5-C6-N1	5.58	114.29	111.50
26	14	1706	U	N3-C4-C5	-5.58	111.25	114.60
26	1H	807	U	C4-C5-C6	5.58	123.05	119.70
26	1H	1626	G	N9-C4-C5	5.58	107.63	105.40
26	1H	2445	G	N1-C6-O6	-5.58	116.55	119.90
45	G8	80	GLY	N-CA-C	5.58	127.06	113.10
1	1G	345	C	C5-C6-N1	5.58	123.79	121.00
26	14	698	C	C6-N1-C2	5.58	122.53	120.30
26	14	2702	U	C5-C6-N1	5.58	125.49	122.70
1	13	773	G	C4-N9-C1'	5.58	133.76	126.50
1	1G	108	G	C4-C5-N7	5.58	113.03	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	676	A	N3-C4-N9	-5.58	122.93	127.40
26	14	1790	C	C5-C6-N1	-5.58	118.21	121.00
26	1H	131	G	C5-C6-O6	-5.58	125.25	128.60
26	1H	781	A	P-O3'-C3'	5.58	126.39	119.70
26	1H	1446	C	C6-N1-C2	-5.58	118.07	120.30
26	1H	2606	C	OP1-P-O3'	5.58	117.47	105.20
1	1G	1519	A	C8-N9-C4	-5.58	103.57	105.80
26	14	140	A	C8-N9-C4	-5.58	103.57	105.80
26	14	582	G	C6-C5-N7	-5.58	127.05	130.40
26	14	1187	G	N3-C2-N2	-5.58	116.00	119.90
26	1H	380	U	N3-C2-O2	-5.58	118.30	122.20
26	1H	735	A	N7-C8-N9	-5.58	111.01	113.80
26	1H	953	A	C8-N9-C4	5.58	108.03	105.80
26	1H	1204	A	C5-N7-C8	-5.58	101.11	103.90
1	1G	244	U	O5'-P-OP1	-5.58	100.68	105.70
26	14	1533	C	C2-N1-C1'	5.58	124.93	118.80
27	1J	96	G	N3-C2-N2	-5.58	116.00	119.90
1	13	505	G	C6-C5-N7	-5.57	127.06	130.40
26	1H	1799	G	C2-N3-C4	5.57	114.69	111.90
26	14	1779	U	C6-N1-C1'	-5.57	113.40	121.20
26	1H	201	C	O5'-P-OP2	-5.57	100.69	105.70
26	1H	130	C	N3-C4-C5	5.57	124.13	121.90
26	1H	2071	A	OP2-P-O3'	5.57	117.45	105.20
1	13	1343	G	N1-C6-O6	5.57	123.24	119.90
1	13	1496	C	O5'-P-OP2	-5.57	100.69	105.70
26	1H	1022	G	C8-N9-C4	-5.57	104.17	106.40
26	1H	1697	G	C5-C6-O6	-5.57	125.26	128.60
26	1H	2562	U	N3-C2-O2	-5.57	118.30	122.20
26	1H	2688	U	C6-N1-C2	-5.57	117.66	121.00
1	13	748	C	C6-N1-C2	-5.57	118.07	120.30
26	14	2428	G	C5-C6-O6	5.57	131.94	128.60
42	95	86	GLY	N-CA-C	-5.57	99.19	113.10
26	1H	629	G	N1-C6-O6	-5.56	116.56	119.90
1	1G	21	G	C8-N9-C4	5.56	108.63	106.40
1	13	247	G	C8-N9-C4	-5.56	104.17	106.40
1	13	413	G	N3-C4-C5	-5.56	125.82	128.60
26	14	2433	A	C8-N9-C4	-5.56	103.58	105.80
1	13	1412	C	C6-N1-C2	5.56	122.52	120.30
26	14	2509	G	C4-N9-C1'	5.56	133.73	126.50
26	1H	845	G	C5-C6-O6	-5.56	125.26	128.60
26	1H	954	G	N1-C6-O6	-5.56	116.56	119.90
26	1H	2229	C	C6-N1-C2	5.56	122.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	C8	96	ALA	N-CA-C	-5.56	95.99	111.00
26	14	1411	C	N3-C2-O2	-5.56	118.01	121.90
26	14	1682	G	C6-C5-N7	-5.56	127.06	130.40
2	1E	196	LEU	CA-CB-CG	5.56	128.08	115.30
26	1H	1933	G	N3-C4-C5	-5.56	125.82	128.60
26	1H	2311	A	N1-C2-N3	5.56	132.08	129.30
26	14	791	C	C6-N1-C2	5.56	122.52	120.30
26	14	1681	G	N1-C6-O6	5.56	123.23	119.90
35	25	8	LEU	CA-CB-CG	5.56	128.08	115.30
26	1H	1008	C	N1-C2-O2	-5.56	115.57	118.90
26	14	2777	G	O4'-C1'-N9	-5.56	103.75	108.20
1	13	534	U	C2-N1-C1'	-5.55	111.04	117.70
26	1H	621	A	C4-C5-N7	5.55	113.48	110.70
1	1G	545	C	C6-N1-C2	-5.55	118.08	120.30
26	14	647	G	C6-C5-N7	-5.55	127.07	130.40
26	14	788	A	O5'-P-OP1	-5.55	100.70	105.70
26	14	1988	C	C6-N1-C2	5.55	122.52	120.30
26	14	2369	A	C8-N9-C4	-5.55	103.58	105.80
26	1H	38	A	N1-C6-N6	5.55	121.93	118.60
26	1H	205	G	N3-C2-N2	5.55	123.78	119.90
26	1H	622	G	C6-C5-N7	-5.55	127.07	130.40
26	1H	1989	G	O5'-P-OP1	-5.55	100.70	105.70
26	1H	2503	A	C4-C5-N7	5.55	113.48	110.70
26	1H	2724	C	N1-C2-O2	-5.55	115.57	118.90
1	1G	500	G	N3-C4-C5	-5.55	125.82	128.60
1	1G	1522	U	C6-N1-C2	-5.55	117.67	121.00
26	14	130	C	C6-N1-C2	5.55	122.52	120.30
26	14	1332	G	C8-N9-C1'	5.55	134.22	127.00
26	14	2701	C	P-O3'-C3'	5.55	126.36	119.70
26	1H	571	A	N1-C6-N6	5.55	121.93	118.60
26	14	761	A	OP1-P-O3'	5.55	117.41	105.20
26	14	470	A	C5-C6-N6	-5.55	119.26	123.70
26	14	1021	A	C5-C6-N1	-5.55	114.93	117.70
26	1H	725	G	O5'-P-OP1	-5.54	100.71	105.70
26	1H	2026	C	C6-N1-C2	5.54	122.52	120.30
26	1H	2674	G	C4-N9-C1'	-5.54	119.29	126.50
26	14	1550	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	463	G	C4-C5-N7	5.54	113.02	110.80
26	1H	1598	C	OP1-P-O3'	5.54	117.40	105.20
1	1G	258	G	C6-C5-N7	-5.54	127.07	130.40
26	14	725	G	C6-C5-N7	-5.54	127.07	130.40
26	14	1825	A	C5-C6-N6	-5.54	119.27	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	1J	52	A	P-O3'-C3'	5.54	126.35	119.70
26	1H	462	C	N3-C4-N4	-5.54	114.12	118.00
26	14	1313	U	N3-C2-O2	-5.54	118.32	122.20
26	1H	1969	A	N1-C6-N6	-5.54	115.28	118.60
26	1H	2438	U	O5'-P-OP2	-5.54	100.72	105.70
1	1G	402	G	N1-C6-O6	5.54	123.22	119.90
26	14	196	A	O4'-C1'-N9	5.54	112.63	108.20
26	14	654(I)	C	N1-C2-O2	5.54	122.22	118.90
33	61	131	LYS	C-N-CD	-5.54	108.42	120.60
26	14	973	A	C8-N9-C4	5.54	108.01	105.80
26	14	2035	G	O4'-C1'-N9	5.54	112.63	108.20
26	1H	446	G	C6-C5-N7	-5.53	127.08	130.40
26	1H	692	C	C5-C6-N1	-5.53	118.23	121.00
26	14	970	C	O5'-P-OP1	-5.53	100.72	105.70
26	14	1858	G	C5-C6-N1	-5.53	108.73	111.50
26	14	2622	C	C5-C6-N1	-5.53	118.23	121.00
1	1G	767	A	C5-C6-N6	-5.53	119.28	123.70
26	1H	729	G	N7-C8-N9	5.53	115.87	113.10
1	1G	250	A	P-O3'-C3'	5.53	126.33	119.70
26	14	758	C	O5'-P-OP2	-5.53	100.73	105.70
26	14	1522	G	C5-C6-O6	-5.53	125.28	128.60
26	14	1989	G	C8-N9-C1'	5.53	134.19	127.00
1	13	186(A)	C	C5-C6-N1	5.53	123.76	121.00
26	1H	600	G	N7-C8-N9	-5.53	110.34	113.10
26	1H	1821	A	N1-C2-N3	5.53	132.06	129.30
26	1H	1660	C	C5-C6-N1	-5.52	118.24	121.00
27	16	38	C	N1-C2-O2	-5.52	115.59	118.90
23	2L	56	G	C4-N9-C1'	5.52	133.68	126.50
26	1H	2022	U	N3-C4-C5	5.52	117.91	114.60
26	14	968	G	N3-C4-C5	5.52	131.36	128.60
26	14	2346	A	C4-C5-C6	5.52	119.76	117.00
26	1H	1938	A	O4'-C1'-N9	5.52	112.62	108.20
26	14	1304	C	N3-C4-C5	5.52	124.11	121.90
26	1H	1327	C	O5'-P-OP1	-5.52	100.73	105.70
26	1H	2544	G	C8-N9-C4	5.52	108.61	106.40
26	1H	141	A	O4'-C1'-N9	5.52	112.61	108.20
26	1H	761	A	OP1-P-OP2	-5.52	111.32	119.60
26	1H	763	G	N3-C4-C5	-5.52	125.84	128.60
1	1G	413	G	O4'-C1'-N9	5.52	112.61	108.20
26	14	2516	G	C6-N1-C2	-5.52	121.79	125.10
26	1H	918	A	O5'-P-OP2	5.51	117.32	110.70
26	1H	1603	A	C8-N9-C4	-5.51	103.59	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1386	G	N1-C6-O6	-5.51	116.59	119.90
26	14	974(A)	C	C2-N1-C1'	5.51	124.87	118.80
26	14	1786	A	C5-C6-N1	-5.51	114.94	117.70
26	14	2001	A	C5-C6-N6	-5.51	119.29	123.70
1	13	1224	G	O4'-C1'-N9	5.51	112.61	108.20
26	1H	566	U	C5-C4-O4	-5.51	122.59	125.90
26	1H	728	G	C8-N9-C1'	-5.51	119.83	127.00
1	13	247	G	C2-N3-C4	5.51	114.66	111.90
26	1H	1797	C	C6-N1-C2	5.51	122.50	120.30
26	14	832	G	N3-C2-N2	-5.51	116.04	119.90
1	13	191(F)	U	C5-C6-N1	5.51	125.45	122.70
1	13	1504	G	O5'-P-OP2	5.51	117.31	110.70
26	1H	383	U	O4'-C1'-N1	5.51	112.61	108.20
26	1H	745	G	C6-C5-N7	-5.51	127.09	130.40
26	1H	2765	A	C2-N3-C4	-5.51	107.84	110.60
1	13	854	G	N1-C6-O6	5.51	123.20	119.90
1	13	300	A	O5'-P-OP1	-5.51	100.74	105.70
26	1H	2585	U	N1-C2-O2	5.51	126.65	122.80
26	14	330	A	N7-C8-N9	5.51	116.55	113.80
26	14	2076	U	C5-C6-N1	5.51	125.45	122.70
26	1H	622	G	C4-N9-C1'	5.50	133.66	126.50
26	14	2056	G	N3-C2-N2	-5.50	116.05	119.90
26	1H	921	G	C8-N9-C4	-5.50	104.20	106.40
26	1H	1364	G	N3-C4-N9	5.50	129.30	126.00
26	1H	1413	G	C6-C5-N7	-5.50	127.10	130.40
26	1H	1829	A	OP1-P-OP2	5.50	127.85	119.60
26	14	2426	A	C8-N9-C4	-5.50	103.60	105.80
26	1H	1604	C	C5-C4-N4	-5.50	116.35	120.20
6	52	14	LEU	CA-CB-CG	5.50	127.95	115.30
1	13	1058	G	C8-N9-C4	5.50	108.60	106.40
26	1H	2409	G	C5-N7-C8	-5.50	101.55	104.30
26	1H	2553	G	N1-C6-O6	5.50	123.20	119.90
26	14	1469	A	N7-C8-N9	5.50	116.55	113.80
1	13	266	G	O4'-C1'-N9	-5.50	103.80	108.20
1	13	578	C	C5-C6-N1	5.50	123.75	121.00
26	1H	514	A	C5-C6-N1	5.50	120.45	117.70
26	1H	2597	G	O5'-P-OP1	5.50	117.30	110.70
26	14	1963	U	N3-C2-O2	-5.50	118.35	122.20
26	14	1986	A	N1-C2-N3	5.50	132.05	129.30
26	14	2068	U	O5'-P-OP1	-5.50	100.75	105.70
26	14	2509	G	C4-C5-C6	5.50	122.10	118.80
26	14	2818	G	C8-N9-C4	5.50	108.60	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	1J	98	G	N9-C4-C5	-5.50	103.20	105.40
26	14	362	U	C2-N1-C1'	5.50	124.29	117.70
26	14	741	G	O5'-P-OP2	5.50	117.29	110.70
26	14	308	G	C6-C5-N7	-5.49	127.10	130.40
1	1G	46	G	C5-C6-O6	-5.49	125.31	128.60
26	14	511	U	C6-N1-C2	-5.49	117.70	121.00
26	1H	796	C	O5'-P-OP1	5.49	117.29	110.70
26	1H	840	C	C5-C6-N1	-5.49	118.25	121.00
26	1H	1675	C	O5'-P-OP1	-5.49	100.76	105.70
26	1H	1616	A	C4-N9-C1'	5.49	136.18	126.30
26	1H	2713	A	O4'-C1'-N9	-5.49	103.81	108.20
1	1G	913	A	P-O3'-C3'	5.49	126.29	119.70
26	1H	2056	G	N3-C4-N9	5.49	129.29	126.00
22	1K	85	C	N3-C4-C5	5.49	124.09	121.90
26	1H	194	G	N7-C8-N9	-5.49	110.36	113.10
26	14	2433	A	N7-C8-N9	5.49	116.54	113.80
26	14	2518	A	C5-C6-N1	-5.49	114.96	117.70
26	1H	569	U	C5-C6-N1	-5.48	119.96	122.70
37	88	24	GLY	N-CA-C	-5.48	99.39	113.10
26	14	527	C	N3-C4-N4	-5.48	114.16	118.00
26	1H	2002	G	C4-C5-N7	5.48	112.99	110.80
1	1G	1383	C	C6-N1-C2	5.48	122.49	120.30
26	14	271(B)	G	N3-C4-C5	-5.48	125.86	128.60
26	14	1637	A	C5-C6-N6	-5.48	119.31	123.70
26	1H	1537	C	C6-N1-C2	-5.48	118.11	120.30
26	1H	1858	G	P-O3'-C3'	5.48	126.28	119.70
26	1H	621	A	C6-C5-N7	-5.48	128.47	132.30
26	14	933	A	N7-C8-N9	5.48	116.54	113.80
26	14	1413	G	N1-C6-O6	5.48	123.19	119.90
26	14	2704	C	N3-C4-C5	-5.48	119.71	121.90
26	1H	1219	G	C5-C6-O6	-5.48	125.31	128.60
26	1H	2779	U	C5-C6-N1	-5.48	119.96	122.70
26	1H	2319	G	N1-C6-O6	-5.48	116.61	119.90
26	1H	1830	C	C2-N1-C1'	-5.47	112.78	118.80
1	1G	372	C	C6-N1-C1'	-5.47	114.23	120.80
26	14	2612	C	N1-C2-O2	5.47	122.18	118.90
26	1H	372	G	N1-C6-O6	-5.47	116.62	119.90
26	1H	1332	G	OP1-P-O3'	5.47	117.24	105.20
26	14	456	C	C6-N1-C2	5.47	122.49	120.30
26	14	783	A	N3-C4-N9	-5.47	123.02	127.40
26	14	2290	G	N1-C6-O6	5.47	123.18	119.90
1	13	108	G	N7-C8-N9	5.47	115.83	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	687	C	N3-C4-C5	5.47	124.09	121.90
26	1H	1026	U	C2-N1-C1'	5.47	124.26	117.70
26	1H	1328	G	N9-C4-C5	-5.47	103.21	105.40
26	1H	2288	A	C4-C5-N7	5.47	113.43	110.70
26	14	447	A	N1-C2-N3	5.47	132.03	129.30
26	1H	1313	U	C5-C6-N1	5.47	125.43	122.70
26	1H	828	U	N1-C2-N3	5.47	118.18	114.90
45	G8	79	CYS	N-CA-C	5.47	125.76	111.00
1	13	1178	G	C8-N9-C4	-5.46	104.21	106.40
26	1H	109	G	N3-C4-N9	5.46	129.28	126.00
26	1H	1758	G	N1-C6-O6	-5.46	116.62	119.90
26	1H	1781	C	C6-N1-C1'	-5.46	114.24	120.80
26	1H	2383	G	C8-N9-C1'	-5.46	119.90	127.00
26	1H	2719	G	OP1-P-OP2	-5.46	111.41	119.60
1	1G	20	U	N3-C4-C5	5.46	117.88	114.60
26	1H	2066	C	C6-N1-C2	-5.46	118.11	120.30
26	1H	2383	G	C4-N9-C1'	5.46	133.60	126.50
26	1H	2451	A	N9-C4-C5	5.46	107.98	105.80
26	1H	1528	A	C5-N7-C8	-5.46	101.17	103.90
26	14	275	G	C4-C5-N7	5.46	112.98	110.80
26	14	499	U	N1-C2-N3	5.46	118.18	114.90
26	14	1970	A	C4-C5-N7	5.46	113.43	110.70
26	14	2209	C	N1-C2-O2	-5.46	115.62	118.90
1	13	1203	C	C5-C6-N1	5.46	123.73	121.00
26	1H	636	G	O5'-P-OP2	5.46	117.25	110.70
26	14	1678	G	C4-C5-N7	5.46	112.98	110.80
26	1H	2078	C	O5'-P-OP2	5.46	117.25	110.70
27	16	6	C	C6-N1-C2	5.46	122.48	120.30
26	14	204	A	N1-C2-N3	5.46	132.03	129.30
26	14	1897	G	C8-N9-C1'	-5.46	119.91	127.00
1	13	286	G	C8-N9-C4	-5.45	104.22	106.40
26	1H	1626	G	N3-C2-N2	-5.45	116.08	119.90
48	J8	80	LEU	CA-CB-CG	5.45	127.84	115.30
1	1G	613	C	C6-N1-C2	-5.45	118.12	120.30
26	14	1648	C	C6-N1-C2	-5.45	118.12	120.30
1	13	278	G	N1-C6-O6	5.45	123.17	119.90
26	1H	2288	A	N1-C6-N6	5.45	121.87	118.60
38	98	107	ASP	CB-CG-OD1	-5.45	113.39	118.30
26	14	794	G	C8-N9-C4	5.45	108.58	106.40
26	1H	763	G	C4-C5-N7	-5.45	108.62	110.80
26	1H	1148	A	N7-C8-N9	-5.45	111.08	113.80
1	13	577	G	N1-C6-O6	5.45	123.17	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1308	A	C5-C6-N6	5.45	128.06	123.70
26	1H	1382	G	C4-C5-N7	5.45	112.98	110.80
24	3L	57	C	C2-N1-C1'	5.45	124.79	118.80
26	14	1345	C	C6-N1-C2	-5.45	118.12	120.30
26	1H	211	A	N1-C6-N6	5.45	121.87	118.60
27	16	45	A	C8-N9-C4	-5.45	103.62	105.80
26	14	2624	G	N1-C6-O6	5.45	123.17	119.90
26	1H	2210	G	C8-N9-C4	-5.45	104.22	106.40
26	1H	954	G	C5-C6-O6	5.44	131.87	128.60
1	1G	1502	A	C6-C5-N7	-5.44	128.49	132.30
26	1H	301	G	OP1-P-OP2	5.44	127.77	119.60
26	1H	741	G	C8-N9-C4	-5.44	104.22	106.40
26	1H	2430	A	C5-N7-C8	-5.44	101.18	103.90
26	14	545	G	C6-C5-N7	5.44	133.67	130.40
26	14	2062	A	C8-N9-C4	5.44	107.98	105.80
26	14	2404	C	C6-N1-C2	5.44	122.48	120.30
26	1H	2304	G	C8-N9-C1'	5.44	134.07	127.00
26	14	140	A	C5-C6-N6	-5.44	119.35	123.70
1	1G	632	A	O4'-C1'-N9	5.44	112.55	108.20
26	1H	845	G	C4-N9-C1'	-5.44	119.43	126.50
1	13	975	A	O4'-C1'-N9	-5.43	103.85	108.20
26	14	1600	C	C5-C6-N1	-5.43	118.28	121.00
26	14	2620	C	C2-N1-C1'	5.43	124.78	118.80
1	13	481	G	C4-N9-C1'	5.43	133.56	126.50
1	13	1529	G	C8-N9-C4	-5.43	104.23	106.40
26	1H	634	C	O5'-P-OP2	-5.43	100.81	105.70
26	1H	1626	G	N3-C4-N9	-5.43	122.74	126.00
26	1H	2509	G	C6-N1-C2	-5.43	121.84	125.10
26	14	141	A	C5-N7-C8	-5.43	101.18	103.90
26	14	2022	U	O4'-C1'-N1	-5.43	103.86	108.20
1	13	484	G	P-O3'-C3'	5.43	126.22	119.70
1	13	974	A	N9-C4-C5	-5.43	103.63	105.80
26	1H	1554	A	O5'-P-OP2	-5.43	100.81	105.70
1	1G	1519	A	N9-C4-C5	5.43	107.97	105.80
26	14	120	U	N3-C2-O2	-5.43	118.40	122.20
26	1H	950	G	N1-C6-O6	-5.43	116.64	119.90
26	1H	1334	G	C6-C5-N7	-5.43	127.14	130.40
26	14	1266	G	C5-C6-N1	5.43	114.21	111.50
1	13	975	A	C4-C5-N7	5.43	113.41	110.70
26	1H	397	G	C2-N3-C4	-5.43	109.19	111.90
26	14	1379	A	N1-C6-N6	5.43	121.86	118.60
26	1H	856	C	C2-N1-C1'	5.42	124.77	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1558	A	N1-C2-N3	5.42	132.01	129.30
26	14	2859	G	N3-C4-C5	-5.42	125.89	128.60
26	1H	464	U	C4-C5-C6	5.42	122.95	119.70
26	1H	2340	G	C8-N9-C4	5.42	108.57	106.40
22	1L	85	C	C6-N1-C1'	5.42	127.31	120.80
26	14	1379	A	C4-C5-N7	5.42	113.41	110.70
1	13	878	G	N3-C4-N9	5.42	129.25	126.00
26	14	155	C	N1-C2-O2	5.42	122.15	118.90
26	14	1698	A	C5-N7-C8	-5.42	101.19	103.90
26	1H	1955	U	O5'-P-OP1	-5.42	100.82	105.70
26	14	391	G	C5-C6-O6	-5.42	125.35	128.60
1	13	339	C	N1-C2-O2	-5.42	115.65	118.90
26	1H	617	G	O5'-P-OP1	5.42	117.20	110.70
26	1H	1347	G	N3-C4-N9	5.42	129.25	126.00
26	14	533	G	N3-C4-N9	5.42	129.25	126.00
26	14	1610	A	C6-C5-N7	-5.42	128.51	132.30
26	14	1774	C	C6-N1-C2	-5.42	118.13	120.30
26	1H	2590	A	O5'-P-OP1	-5.42	100.83	105.70
26	1H	162	U	C2-N1-C1'	5.41	124.20	117.70
26	14	2779	U	C2-N3-C4	-5.41	123.75	127.00
26	1H	2856	C	N3-C4-C5	-5.41	119.73	121.90
26	14	2254	C	C2-N1-C1'	-5.41	112.85	118.80
26	1H	141(A)	C	O5'-P-OP1	-5.41	100.83	105.70
26	1H	2377	A	C2-N3-C4	-5.41	107.89	110.60
26	14	689	A	O5'-P-OP1	5.41	117.19	110.70
26	14	1383	C	N3-C4-N4	5.41	121.79	118.00
26	1H	859	G	C4-N9-C1'	-5.41	119.47	126.50
26	1H	1779	U	O5'-P-OP1	-5.41	100.83	105.70
1	1G	1502	A	C4-C5-N7	5.41	113.40	110.70
26	14	2709	G	C5-C6-O6	-5.41	125.36	128.60
26	14	2826	A	N1-C6-N6	-5.41	115.36	118.60
26	14	210	C	C5-C6-N1	-5.41	118.30	121.00
26	14	915	C	N1-C2-O2	5.41	122.14	118.90
26	14	945	A	C5-C6-N6	-5.41	119.37	123.70
26	1H	464	U	N1-C2-N3	5.41	118.14	114.90
26	14	805	G	O5'-P-OP1	-5.41	100.83	105.70
26	14	2389	G	N7-C8-N9	5.41	115.80	113.10
26	1H	428	A	OP1-P-O3'	5.40	117.08	105.20
26	1H	2525	G	N9-C4-C5	-5.40	103.24	105.40
1	13	549	C	C6-N1-C1'	5.40	127.28	120.80
1	13	938	A	N1-C6-N6	5.40	121.84	118.60
1	13	1220	G	C5-C6-O6	-5.40	125.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	1	G	C4-N9-C1'	5.40	133.52	126.50
26	1H	2724	C	C2-N1-C1'	-5.40	112.86	118.80
26	14	178	G	N1-C6-O6	5.40	123.14	119.90
1	13	452	A	N7-C8-N9	-5.40	111.10	113.80
26	1H	824	A	C2-N3-C4	-5.40	107.90	110.60
26	14	1999	C	C5-C4-N4	-5.40	116.42	120.20
26	14	2440	C	C2-N3-C4	5.40	122.60	119.90
26	14	2490	G	N9-C4-C5	5.40	107.56	105.40
22	1K	87	A	O4'-C1'-N9	5.40	112.52	108.20
26	1H	1391	U	N3-C2-O2	-5.40	118.42	122.20
26	1H	2296	U	N3-C4-O4	5.40	123.18	119.40
1	1G	390	C	C2-N1-C1'	-5.40	112.86	118.80
26	14	1656	C	OP2-P-O3'	5.40	117.08	105.20
26	14	83	G	N1-C6-O6	5.40	123.14	119.90
23	2K	31	C	N3-C2-O2	-5.39	118.12	121.90
26	1H	530	G	C5-C6-O6	5.39	131.84	128.60
26	1H	1301	A	C5-C6-N1	-5.39	115.00	117.70
1	1G	353	A	OP2-P-O3'	5.39	117.07	105.20
26	14	2168	G	C4-N9-C1'	5.39	133.51	126.50
26	1H	2870	C	C6-N1-C2	-5.39	118.14	120.30
1	1G	481	G	N3-C4-N9	5.39	129.24	126.00
26	14	391	G	C4-C5-C6	5.39	122.04	118.80
26	14	1790	C	C5-C4-N4	-5.39	116.43	120.20
1	13	227	G	C8-N9-C4	5.39	108.56	106.40
26	14	1698	A	O4'-C1'-N9	5.39	112.51	108.20
26	1H	1773	A	C4-C5-C6	5.39	119.69	117.00
26	14	1342	A	C4-N9-C1'	5.39	136.00	126.30
1	13	916	G	C5-C6-N1	5.39	114.19	111.50
26	1H	1695	G	N9-C4-C5	-5.39	103.25	105.40
26	14	784	A	C2-N3-C4	-5.39	107.91	110.60
26	14	1225	C	C2-N1-C1'	-5.39	112.88	118.80
26	14	2419	U	OP1-P-O3'	5.39	117.05	105.20
26	1H	117	G	C5-C6-N1	5.38	114.19	111.50
26	1H	201	C	C5-C6-N1	-5.38	118.31	121.00
1	1G	106	C	C6-N1-C2	-5.38	118.15	120.30
1	13	1512	U	C5-C6-N1	-5.38	120.01	122.70
26	1H	1178	C	P-O3'-C3'	5.38	126.16	119.70
26	1H	1771	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	1952	A	OP1-P-O3'	5.38	117.04	105.20
1	13	911	U	C4-C5-C6	5.38	122.93	119.70
26	1H	847	U	N3-C2-O2	-5.38	118.43	122.20
26	1H	1379	A	C6-C5-N7	-5.38	128.53	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1676	A	OP1-P-O3'	5.38	117.04	105.20
26	1H	1952	A	O5'-P-OP2	-5.38	100.86	105.70
26	1H	2449	U	C5-C6-N1	5.38	125.39	122.70
27	16	12	C	C6-N1-C2	5.38	122.45	120.30
26	14	2473	U	C2-N1-C1'	5.38	124.16	117.70
26	1H	650	C	N1-C2-O2	-5.38	115.67	118.90
26	14	2829	C	N3-C4-C5	5.38	124.05	121.90
26	1H	954	G	N9-C4-C5	5.38	107.55	105.40
26	1H	1202	C	N3-C4-C5	-5.38	119.75	121.90
26	1H	1210	A	N9-C4-C5	-5.38	103.65	105.80
1	1G	305	G	N1-C6-O6	-5.38	116.67	119.90
26	14	2253	G	C5-C6-N1	5.38	114.19	111.50
26	1H	379	G	N9-C4-C5	-5.38	103.25	105.40
26	1H	2567	G	C5-C6-O6	-5.38	125.37	128.60
26	14	1376	C	O4'-C1'-N1	5.38	112.50	108.20
26	1H	785	G	N3-C4-C5	-5.38	125.91	128.60
26	1H	1294	U	N1-C2-O2	-5.38	119.04	122.80
26	14	2526	G	N3-C4-C5	5.38	131.29	128.60
26	1H	2366	A	C8-N9-C4	-5.37	103.65	105.80
26	1H	2856	C	N3-C2-O2	-5.37	118.14	121.90
26	14	127	A	N1-C6-N6	5.37	121.83	118.60
26	1H	62	C	C6-N1-C2	5.37	122.45	120.30
1	1G	1139	G	C8-N9-C4	5.37	108.55	106.40
1	1G	1281	U	C6-N1-C2	-5.37	117.78	121.00
26	14	2511	U	C5-C4-O4	-5.37	122.68	125.90
26	14	2584	U	C6-N1-C1'	-5.37	113.68	121.20
1	13	561	U	C5-C4-O4	-5.37	122.68	125.90
1	13	700	G	N9-C4-C5	-5.37	103.25	105.40
26	1H	82	G	C4-C5-C6	5.37	122.02	118.80
26	14	794	G	N1-C2-N3	5.37	127.12	123.90
26	1H	1401	G	C8-N9-C4	-5.37	104.25	106.40
1	1G	536	C	N3-C2-O2	-5.37	118.14	121.90
26	1H	189	G	OP2-P-O3'	5.37	117.00	105.20
26	1H	1309	G	C8-N9-C4	5.37	108.55	106.40
26	1H	2468	G	C8-N9-C4	-5.37	104.25	106.40
1	1G	115	G	P-O3'-C3'	5.37	126.14	119.70
26	14	1902	C	C5-C4-N4	5.37	123.96	120.20
1	13	517	G	C5-C6-O6	-5.36	125.38	128.60
26	1H	263	C	C2-N3-C4	-5.36	117.22	119.90
26	1H	452	G	N3-C4-C5	-5.36	125.92	128.60
26	1H	1032	A	C8-N9-C4	5.36	107.94	105.80
26	14	686	G	C5-C6-O6	-5.36	125.38	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	113	G	C5-C6-O6	-5.36	125.38	128.60
1	13	529	G	N1-C6-O6	5.36	123.11	119.90
26	1H	622	G	C8-N9-C1'	-5.36	120.03	127.00
26	14	1555	G	C8-N9-C1'	-5.36	120.03	127.00
26	1H	389	G	C8-N9-C4	5.36	108.54	106.40
26	1H	671	C	C6-N1-C2	5.36	122.44	120.30
1	1G	15	G	N3-C2-N2	5.36	123.65	119.90
26	14	2276	G	O5'-P-OP1	-5.36	100.88	105.70
23	2L	27	G	C5-C6-O6	-5.35	125.39	128.60
26	1H	446	G	C4-C5-N7	5.35	112.94	110.80
26	1H	504	U	N1-C2-O2	5.35	126.55	122.80
26	1H	2240	C	N3-C4-C5	-5.35	119.76	121.90
1	13	23	C	C5-C6-N1	5.35	123.67	121.00
26	1H	486	C	N1-C2-O2	-5.35	115.69	118.90
26	1H	1610	A	C8-N9-C4	-5.35	103.66	105.80
26	14	2002	G	N1-C6-O6	5.35	123.11	119.90
26	14	2713	A	C6-C5-N7	-5.35	128.56	132.30
1	13	749	C	C2-N1-C1'	5.35	124.68	118.80
1	13	773	G	C6-C5-N7	-5.35	127.19	130.40
26	1H	684	G	C5-C6-N1	5.35	114.17	111.50
26	1H	859	G	C8-N9-C4	5.35	108.54	106.40
26	1H	1601	G	C8-N9-C4	5.35	108.54	106.40
26	1H	2504	U	C5-C4-O4	5.35	129.11	125.90
26	1H	2568	C	N3-C4-C5	5.35	124.04	121.90
26	14	465	G	C8-N9-C4	-5.35	104.26	106.40
26	14	2477	C	C6-N1-C1'	-5.35	114.38	120.80
1	13	1367	C	C6-N1-C2	-5.34	118.16	120.30
26	1H	801	G	N9-C4-C5	5.34	107.54	105.40
26	1H	810	U	C5-C4-O4	-5.34	122.69	125.90
26	1H	1190	G	C5-N7-C8	-5.34	101.63	104.30
26	1H	1364	G	N9-C4-C5	-5.34	103.26	105.40
26	1H	1998	G	C8-N9-C1'	-5.34	120.05	127.00
26	14	275	G	N1-C6-O6	5.34	123.11	119.90
26	14	1594	G	N7-C8-N9	5.34	115.77	113.10
26	14	1641	A	C6-N1-C2	-5.34	115.39	118.60
26	1H	1915	U	N1-C2-O2	5.34	126.54	122.80
26	1H	2056	G	N3-C4-C5	-5.34	125.93	128.60
1	13	893	C	N1-C2-O2	5.34	122.11	118.90
26	1H	609	A	N9-C4-C5	-5.34	103.66	105.80
26	1H	1278	A	N1-C2-N3	5.34	131.97	129.30
26	1H	1364	G	C6-C5-N7	-5.34	127.20	130.40
26	1H	1520	U	N1-C2-N3	5.34	118.10	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	266	G	O4'-C1'-N9	-5.34	103.93	108.20
1	1G	345	C	N1-C2-O2	5.34	122.11	118.90
1	1G	827	U	N1-C2-O2	5.34	126.54	122.80
23	2L	16	U	C5-C6-N1	5.34	125.37	122.70
42	95	49	THR	C-N-CD	5.34	139.62	128.40
26	1H	961	C	O5'-P-OP1	-5.34	100.89	105.70
26	1H	2367	G	C4-C5-N7	5.34	112.94	110.80
26	14	263	C	N1-C2-O2	5.34	122.10	118.90
26	14	275	G	C8-N9-C1'	-5.34	120.06	127.00
26	1H	2830	G	N7-C8-N9	5.34	115.77	113.10
26	1H	913	U	O5'-P-OP2	-5.34	100.90	105.70
26	1H	1396	U	OP1-P-OP2	5.34	127.60	119.60
1	1G	579	G	C6-C5-N7	-5.34	127.20	130.40
26	1H	196	A	N1-C6-N6	5.33	121.80	118.60
26	1H	512	G	N3-C4-C5	5.33	131.27	128.60
26	1H	862	G	N3-C4-C5	-5.33	125.93	128.60
26	1H	1675	C	C6-N1-C2	-5.33	118.17	120.30
26	14	2490	G	N3-C4-N9	-5.33	122.80	126.00
26	1H	2595	G	C6-C5-N7	-5.33	127.20	130.40
26	1H	2827	C	C6-N1-C2	5.33	122.43	120.30
1	1G	306	G	N1-C6-O6	5.33	123.10	119.90
26	14	488	G	C5-C6-O6	-5.33	125.40	128.60
26	14	848	G	N3-C4-N9	5.33	129.20	126.00
26	14	1596	A	C5-C6-N6	5.33	127.97	123.70
26	14	1843	C	C2-N3-C4	-5.33	117.23	119.90
26	1H	1513	C	C6-N1-C2	-5.33	118.17	120.30
1	1G	733	A	O4'-C1'-N9	5.33	112.47	108.20
26	14	1695	G	N1-C2-N2	-5.33	111.40	116.20
26	14	2420	C	N1-C2-O2	-5.33	115.70	118.90
26	1H	2082	A	O5'-P-OP1	5.33	117.10	110.70
26	14	1332	G	C5-C6-O6	5.33	131.80	128.60
26	1H	840	C	N3-C4-N4	-5.33	114.27	118.00
1	1G	1390	U	C5-C4-O4	5.33	129.10	125.90
26	14	1382	G	C8-N9-C4	5.33	108.53	106.40
26	14	2607	G	O5'-P-OP2	-5.33	100.90	105.70
26	14	530	G	C5-N7-C8	-5.33	101.64	104.30
26	1H	9	U	C2-N1-C1'	5.32	124.09	117.70
26	1H	1327	C	N1-C2-O2	-5.32	115.70	118.90
26	1H	2606	C	C2-N3-C4	-5.32	117.24	119.90
26	1H	2877	G	C5-C6-N1	-5.32	108.84	111.50
1	1G	320	C	C2-N1-C1'	-5.32	112.94	118.80
1	1G	1348	U	C5-C4-O4	5.32	129.09	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	571	A	N1-C6-N6	5.32	121.80	118.60
26	14	1970	A	N9-C4-C5	-5.32	103.67	105.80
26	14	2827	C	C6-N1-C2	5.32	122.43	120.30
26	1H	752	A	N1-C2-N3	5.32	131.96	129.30
26	1H	1690	A	O5'-P-OP1	-5.32	100.91	105.70
26	1H	1786	A	N3-C4-C5	5.32	130.53	126.80
26	14	2463	C	C2-N1-C1'	-5.32	112.95	118.80
1	13	667	G	N3-C2-N2	-5.32	116.18	119.90
26	1H	213	A	N9-C4-C5	-5.32	103.67	105.80
26	1H	1364	G	C4-C5-N7	5.32	112.93	110.80
1	1G	1442	G	N3-C4-N9	-5.32	122.81	126.00
26	14	467	G	C8-N9-C4	5.32	108.53	106.40
26	14	488	G	N9-C4-C5	-5.32	103.27	105.40
26	14	1613	G	C5-N7-C8	5.32	106.96	104.30
26	14	188	G	OP1-P-OP2	5.32	127.58	119.60
26	14	2437	U	N1-C2-N3	5.32	118.09	114.90
1	13	405	U	C5-C6-N1	5.32	125.36	122.70
26	1H	666	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	2686	G	C4-N9-C1'	5.32	133.41	126.50
26	1H	2867	G	N3-C4-N9	-5.32	122.81	126.00
26	14	2534	A	N1-C6-N6	5.32	121.79	118.60
26	14	1489	U	C2-N1-C1'	-5.31	111.32	117.70
23	2K	22	G	C4-N9-C1'	5.31	133.41	126.50
26	14	1308	A	C8-N9-C4	-5.31	103.67	105.80
26	14	1613	G	OP1-P-O3'	5.31	116.89	105.20
26	1H	946	G	N9-C4-C5	-5.31	103.28	105.40
26	1H	2228	G	C4-N9-C1'	5.31	133.40	126.50
1	1G	632	A	P-O3'-C3'	5.31	126.07	119.70
26	14	761	A	C5-N7-C8	-5.31	101.25	103.90
26	14	2596	U	OP1-P-OP2	5.31	127.56	119.60
27	1J	89	G	C4-N9-C1'	5.31	133.40	126.50
26	1H	1438	U	C2-N1-C1'	5.31	124.07	117.70
26	14	1835	G	N3-C4-N9	5.31	129.18	126.00
26	1H	770	G	N1-C6-O6	5.30	123.08	119.90
1	1G	690	G	O4'-C1'-N9	5.30	112.44	108.20
26	1H	380	U	C4-C5-C6	5.30	122.88	119.70
26	1H	1604	C	OP2-P-O3'	5.30	116.87	105.20
26	1H	2320	A	O4'-C1'-N9	5.30	112.44	108.20
1	1G	180	U	C5-C6-N1	5.30	125.35	122.70
26	1H	452	G	N1-C6-O6	-5.30	116.72	119.90
26	1H	1888	G	N3-C4-N9	5.30	129.18	126.00
26	14	2490	G	N1-C6-O6	-5.30	116.72	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	332	G	C8-N9-C4	5.30	108.52	106.40
26	1H	383	U	C2-N1-C1'	-5.30	111.34	117.70
26	1H	1613	G	N3-C2-N2	5.30	123.61	119.90
26	1H	1975	G	N9-C4-C5	-5.30	103.28	105.40
26	1H	2439	A	OP2-P-O3'	-5.29	93.55	105.20
26	1H	2645	G	C5-C6-O6	5.29	131.78	128.60
26	1H	2782	G	C6-C5-N7	-5.29	127.22	130.40
1	13	186(A)	C	C2-N1-C1'	5.29	124.62	118.80
1	13	428	G	C8-N9-C1'	5.29	133.88	127.00
1	13	904	C	C2-N3-C4	-5.29	117.25	119.90
26	1H	845	G	C4-C5-N7	5.29	112.92	110.80
26	14	2622	C	N1-C2-O2	-5.29	115.72	118.90
26	14	577	G	C4-N9-C1'	5.29	133.38	126.50
26	14	784	A	N3-C4-N9	-5.29	123.17	127.40
26	1H	69	C	N3-C2-O2	-5.29	118.20	121.90
26	1H	2329	G	C4-N9-C1'	-5.29	119.63	126.50
26	14	1327	C	C6-N1-C1'	5.29	127.15	120.80
1	1G	793	U	C2-N1-C1'	-5.29	111.36	117.70
1	1G	1468	A	N1-C6-N6	5.29	121.77	118.60
26	14	273(D)	C	O5'-P-OP2	-5.29	100.94	105.70
26	1H	1695	G	C8-N9-C1'	-5.29	120.13	127.00
26	1H	2007	C	C6-N1-C2	-5.29	118.19	120.30
26	1H	2211	G	O4'-C1'-N9	-5.28	103.97	108.20
22	1L	21	A	P-O3'-C3'	5.28	126.04	119.70
23	2L	33	U	C2-N1-C1'	5.28	124.04	117.70
26	14	845	G	C2-N3-C4	-5.28	109.26	111.90
26	14	1999	C	N3-C4-C5	5.28	124.01	121.90
26	1H	1630(A)	C	C6-N1-C2	-5.28	118.19	120.30
26	1H	1786	A	N1-C6-N6	5.28	121.77	118.60
1	1G	909	A	N1-C6-N6	5.28	121.77	118.60
26	1H	271(B)	G	C4-N9-C1'	5.28	133.37	126.50
26	14	141(A)	C	C6-N1-C2	-5.28	118.19	120.30
1	13	767	A	O5'-P-OP1	-5.28	100.95	105.70
26	1H	528	A	C6-N1-C2	5.28	121.77	118.60
1	13	1513	A	N9-C4-C5	-5.28	103.69	105.80
26	1H	404	C	P-O3'-C3'	5.28	126.03	119.70
26	1H	446	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	1698	A	C4-C5-N7	5.28	113.34	110.70
1	1G	963	G	N3-C2-N2	5.28	123.59	119.90
26	14	457	A	N7-C8-N9	5.28	116.44	113.80
26	14	2624	G	N7-C8-N9	-5.28	110.46	113.10
27	1J	89	G	N3-C4-N9	5.28	129.16	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1676	A	C2-N3-C4	-5.27	107.96	110.60
26	1H	1956	U	N1-C2-O2	-5.27	119.11	122.80
1	13	61	G	C4-C5-N7	-5.27	108.69	110.80
26	1H	140	A	C5-C6-N6	-5.27	119.48	123.70
26	1H	678	C	C2-N3-C4	-5.27	117.27	119.90
26	1H	1299	G	C5-N7-C8	-5.27	101.66	104.30
26	14	1991	U	N3-C4-O4	-5.27	115.71	119.40
26	14	2043	C	C6-N1-C2	-5.27	118.19	120.30
1	13	538	G	C8-N9-C4	5.27	108.51	106.40
22	1K	18	G	N3-C4-C5	5.27	131.24	128.60
26	1H	2568	C	C5-C4-N4	-5.27	116.51	120.20
1	1G	890	G	C4-C5-N7	-5.27	108.69	110.80
26	14	187	G	C8-N9-C4	5.27	108.51	106.40
26	14	621	A	C6-C5-N7	-5.27	128.61	132.30
26	14	1462	C	C6-N1-C2	-5.27	118.19	120.30
26	14	2027	G	N1-C2-N3	5.27	127.06	123.90
26	1H	484	C	C6-N1-C2	-5.27	118.19	120.30
26	1H	1899	G	N1-C2-N2	5.27	120.94	116.20
1	1G	322	C	C5-C4-N4	-5.27	116.51	120.20
26	14	2313	C	C6-N1-C2	-5.27	118.19	120.30
1	13	36	C	C6-N1-C2	-5.26	118.19	120.30
1	13	542	G	N3-C2-N2	-5.26	116.21	119.90
1	1G	500	G	C6-C5-N7	-5.26	127.24	130.40
26	14	1342	A	C5-C6-N1	-5.26	115.07	117.70
26	14	2027	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	141	A	C8-N9-C4	-5.26	103.69	105.80
26	1H	1325	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	1790	C	C5-C6-N1	-5.26	118.37	121.00
26	1H	1799	G	OP1-P-O3'	5.26	116.78	105.20
26	14	198	C	C6-N1-C2	-5.26	118.19	120.30
26	14	850	C	C6-N1-C2	-5.26	118.19	120.30
26	14	2755	C	N1-C2-O2	5.26	122.06	118.90
26	1H	2207	C	C6-N1-C2	-5.26	118.19	120.30
26	1H	2490	G	C2-N3-C4	-5.26	109.27	111.90
26	14	1823	G	N1-C6-O6	5.26	123.06	119.90
26	14	2609	U	N3-C2-O2	-5.26	118.52	122.20
1	13	1417	G	C8-N9-C4	-5.26	104.30	106.40
26	14	647	G	C4-N9-C1'	5.26	133.34	126.50
26	14	2352	A	O5'-P-OP1	-5.26	100.97	105.70
26	14	2593	U	N3-C4-C5	-5.26	111.44	114.60
1	1G	897	C	N3-C2-O2	5.26	125.58	121.90
26	14	2442	C	N1-C2-O2	5.26	122.06	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1052	U	N1-C2-O2	5.26	126.48	122.80
26	14	57	C	N3-C2-O2	5.26	125.58	121.90
26	14	211	A	N9-C4-C5	-5.26	103.70	105.80
26	14	1204	A	C5-N7-C8	-5.26	101.27	103.90
26	14	1602	U	N3-C4-C5	-5.26	111.45	114.60
26	14	2275	C	C6-N1-C2	-5.26	118.20	120.30
26	1H	71	A	N7-C8-N9	5.25	116.43	113.80
26	1H	481	G	O4'-C1'-N9	5.25	112.40	108.20
26	1H	664	C	C4-C5-C6	5.25	120.03	117.40
26	14	808	G	O5'-P-OP2	-5.25	100.97	105.70
1	13	561	U	N3-C2-O2	5.25	125.88	122.20
26	14	454	A	C8-N9-C4	5.25	107.90	105.80
26	14	1817	G	N1-C6-O6	5.25	123.05	119.90
26	1H	1809	A	N1-C6-N6	5.25	121.75	118.60
26	1H	1879	C	C6-N1-C2	-5.25	118.20	120.30
26	1H	2084	C	C5-C6-N1	-5.25	118.38	121.00
26	1H	2518	A	C8-N9-C4	-5.25	103.70	105.80
26	1H	2523	G	OP2-P-O3'	5.25	116.75	105.20
1	1G	414	A	O5'-P-OP2	-5.25	100.97	105.70
26	14	1275	A	C5-C6-N6	-5.25	119.50	123.70
22	1L	85	C	O4'-C1'-N1	5.25	112.40	108.20
26	14	801	G	C4-N9-C1'	-5.25	119.67	126.50
26	1H	1211	U	C6-N1-C2	5.25	124.15	121.00
26	1H	1969	A	O5'-P-OP1	-5.25	100.98	105.70
27	16	112	G	N3-C4-C5	5.25	131.22	128.60
26	14	444	C	C6-N1-C2	5.25	122.40	120.30
26	14	2769	C	O4'-C1'-N1	5.25	112.40	108.20
1	13	245	C	C6-N1-C2	-5.25	118.20	120.30
26	1H	1975	G	C8-N9-C1'	-5.25	120.18	127.00
26	1H	2015	A	OP1-P-O3'	5.25	116.74	105.20
1	1G	799	G	OP2-P-O3'	5.25	116.74	105.20
26	14	2715	C	C6-N1-C2	5.25	122.40	120.30
1	1G	380	G	N1-C6-O6	5.25	123.05	119.90
23	2L	59	U	C6-N1-C2	-5.25	117.85	121.00
26	1H	1215	G	OP1-P-O3'	5.24	116.73	105.20
26	1H	1669	A	C4-N9-C1'	5.24	135.74	126.30
26	1H	2454	G	N1-C6-O6	-5.24	116.75	119.90
1	1G	579	G	N7-C8-N9	5.24	115.72	113.10
26	14	12	U	C2-N1-C1'	5.24	123.99	117.70
26	14	391	G	N7-C8-N9	5.24	115.72	113.10
26	1H	2233	U	N1-C2-N3	5.24	118.05	114.90
1	1G	579	G	N1-C6-O6	5.24	123.05	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2002	G	C4-C5-N7	5.24	112.90	110.80
26	1H	690	G	C8-N9-C4	5.24	108.50	106.40
26	14	143	C	C6-N1-C2	-5.24	118.20	120.30
26	14	1422	G	N3-C4-C5	5.24	131.22	128.60
26	14	1637	A	C4-C5-C6	5.24	119.62	117.00
26	14	2389	G	C5-N7-C8	-5.24	101.68	104.30
26	1H	1968	G	C4-C5-N7	5.24	112.89	110.80
26	14	2072	G	C4-C5-N7	5.24	112.89	110.80
1	13	636	U	C5-C6-N1	5.24	125.32	122.70
26	14	1604	C	C6-N1-C2	-5.24	118.20	120.30
26	1H	683	C	C5-C4-N4	-5.24	116.53	120.20
26	1H	765	G	C5-C6-O6	-5.24	125.46	128.60
1	1G	275	G	N3-C4-C5	-5.24	125.98	128.60
26	14	2377	A	C8-N9-C4	5.24	107.89	105.80
26	1H	1253	A	O5'-P-OP1	-5.23	100.99	105.70
26	1H	1897	G	C5-C6-N1	-5.23	108.88	111.50
26	1H	2719	G	C8-N9-C4	-5.23	104.31	106.40
26	14	962	G	N3-C4-N9	-5.23	122.86	126.00
26	14	2508	G	C5-N7-C8	-5.23	101.68	104.30
22	1L	31	C	C6-N1-C2	-5.23	118.21	120.30
26	14	2382	G	N3-C4-N9	5.23	129.14	126.00
1	13	247	G	N3-C4-N9	5.23	129.14	126.00
26	1H	1835	G	N3-C2-N2	5.23	123.56	119.90
1	1G	982	U	N3-C4-C5	5.23	117.74	114.60
26	14	1193	G	N9-C4-C5	-5.23	103.31	105.40
1	13	544	G	C6-C5-N7	-5.23	127.26	130.40
1	13	449	C	C2-N1-C1'	5.23	124.55	118.80
26	1H	514	A	C8-N9-C4	5.23	107.89	105.80
26	14	1800	C	N3-C4-C5	-5.23	119.81	121.90
26	14	1970	A	C5-C6-N6	-5.23	119.52	123.70
26	14	2506	U	N3-C4-O4	5.23	123.06	119.40
26	1H	676	A	N1-C2-N3	5.23	131.91	129.30
1	13	1027	C	P-O3'-C3'	5.22	125.97	119.70
26	1H	1141	U	O4'-C1'-N1	5.22	112.38	108.20
1	1G	351	G	OP2-P-O3'	5.22	116.69	105.20
26	14	1342	A	C6-C5-N7	-5.22	128.64	132.30
1	13	108	G	C5-N7-C8	-5.22	101.69	104.30
1	13	1381	U	N3-C2-O2	-5.22	118.54	122.20
26	1H	2263	C	C6-N1-C2	-5.22	118.21	120.30
1	1G	748	C	P-O3'-C3'	5.22	125.97	119.70
3	2E	204	LEU	CA-CB-CG	-5.22	103.29	115.30
23	2L	9	G	C4-N9-C1'	5.22	133.29	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	690	G	N1-C2-N3	5.22	127.03	123.90
26	1H	196	A	O5'-P-OP2	-5.22	101.00	105.70
26	1H	985	C	OP2-P-O3'	5.22	116.68	105.20
26	1H	2567	G	N1-C6-O6	5.22	123.03	119.90
26	14	2417	C	O5'-P-OP2	-5.22	101.00	105.70
1	13	773	G	C8-N9-C1'	-5.22	120.22	127.00
26	1H	1614	A	C4-C5-N7	5.22	113.31	110.70
26	1H	1669	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	2331	G	C8-N9-C1'	-5.22	120.22	127.00
26	1H	2462	U	C6-N1-C2	-5.22	117.87	121.00
26	1H	2609	U	C4-C5-C6	5.22	122.83	119.70
26	14	641	C	C6-N1-C2	5.22	122.39	120.30
1	13	1504	G	O5'-P-OP1	-5.21	101.01	105.70
26	1H	309	G	C6-C5-N7	-5.21	127.27	130.40
26	1H	621	A	C5-C6-N1	-5.21	115.09	117.70
26	1H	838	C	C4-C5-C6	5.21	120.01	117.40
1	1G	605	U	C6-N1-C2	-5.21	117.87	121.00
26	14	329	G	O5'-P-OP2	-5.21	101.01	105.70
26	14	683	C	C5-C4-N4	-5.21	116.55	120.20
26	14	929	G	C4-C5-C6	5.21	121.93	118.80
1	1G	1128	C	C6-N1-C2	-5.21	118.22	120.30
1	1G	1498	U	C2-N1-C1'	5.21	123.96	117.70
26	14	2362	G	C8-N9-C4	5.21	108.48	106.40
26	1H	121	G	N9-C4-C5	-5.21	103.32	105.40
26	1H	741	G	C6-N1-C2	-5.21	121.97	125.10
26	14	659	C	C2-N3-C4	-5.21	117.29	119.90
26	14	1411	C	N1-C2-O2	5.21	122.03	118.90
26	14	2323	G	N1-C6-O6	5.21	123.03	119.90
26	1H	845	G	C8-N9-C1'	5.21	133.77	127.00
26	1H	871	U	C5-C6-N1	5.21	125.31	122.70
26	1H	2064	C	C4-C5-C6	5.21	120.00	117.40
26	1H	2416	C	O5'-P-OP2	-5.21	101.01	105.70
1	13	1483	A	O5'-P-OP1	-5.21	101.01	105.70
26	1H	467	G	N1-C6-O6	5.21	123.02	119.90
1	1G	275	G	C8-N9-C1'	-5.21	120.23	127.00
1	1G	324	G	C4-N9-C1'	-5.21	119.73	126.50
26	14	432	A	N1-C6-N6	5.21	121.72	118.60
26	14	2573	C	N3-C4-N4	5.21	121.64	118.00
26	1H	265	A	C4-C5-N7	5.21	113.30	110.70
26	1H	1311	G	C8-N9-C4	5.21	108.48	106.40
26	1H	2329	G	N3-C4-C5	5.21	131.20	128.60
26	1H	2383	G	C4-C5-C6	5.21	121.92	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	101	A	C8-N9-C4	5.21	107.88	105.80
26	14	74	A	N7-C8-N9	5.21	116.40	113.80
1	13	752	G	C8-N9-C1'	-5.20	120.23	127.00
26	1H	298	G	C5-C6-O6	-5.20	125.48	128.60
23	2L	35	G	OP1-P-O3'	5.20	116.65	105.20
26	14	2776	A	C8-N9-C4	-5.20	103.72	105.80
1	13	1279	A	N7-C8-N9	5.20	116.40	113.80
26	1H	953	A	N9-C4-C5	-5.20	103.72	105.80
26	14	1167	U	C2-N1-C1'	-5.20	111.46	117.70
1	13	919	A	N1-C6-N6	-5.20	115.48	118.60
26	1H	465	G	C5-C6-N1	-5.20	108.90	111.50
26	14	700	G	C6-C5-N7	-5.20	127.28	130.40
26	14	1698	A	C5-C6-N6	-5.20	119.54	123.70
26	14	1823	G	C5-C6-N1	-5.20	108.90	111.50
26	14	2518	A	C6-C5-N7	-5.20	128.66	132.30
26	14	2542	A	C8-N9-C4	5.20	107.88	105.80
26	1H	679	C	N3-C4-C5	5.20	123.98	121.90
26	1H	860	U	N1-C2-O2	5.20	126.44	122.80
26	1H	1006	C	N3-C2-O2	5.20	125.54	121.90
26	1H	2259	G	C5-C6-O6	-5.20	125.48	128.60
26	1H	2360	A	C2-N3-C4	-5.20	108.00	110.60
26	1H	2473	U	C2-N1-C1'	5.20	123.94	117.70
26	14	382	G	OP1-P-O3'	5.20	116.63	105.20
26	1H	215	G	N1-C6-O6	5.20	123.02	119.90
26	1H	829	A	C5-C6-N1	-5.20	115.10	117.70
26	14	863	A	O5'-P-OP2	-5.20	101.02	105.70
26	14	961	C	O4'-C1'-N1	5.20	112.36	108.20
26	14	2392	A	C8-N9-C4	-5.20	103.72	105.80
26	14	2619	C	N3-C4-C5	5.20	123.98	121.90
26	1H	1785	A	OP2-P-O3'	5.19	116.63	105.20
26	1H	2571	C	N3-C2-O2	-5.19	118.27	121.90
26	14	2099	U	C2-N1-C1'	5.19	123.93	117.70
1	13	776	G	N1-C6-O6	5.19	123.02	119.90
2	1E	187	LEU	CA-CB-CG	5.19	127.24	115.30
26	1H	395	U	N3-C2-O2	-5.19	118.57	122.20
46	H8	76	LEU	CA-CB-CG	5.19	127.24	115.30
26	14	1669	A	O5'-P-OP1	-5.19	101.03	105.70
26	1H	1543	A	C2-N3-C4	-5.19	108.00	110.60
27	16	29	A	C8-N9-C4	-5.19	103.72	105.80
26	14	1386	C	N3-C2-O2	5.19	125.53	121.90
26	14	2346	A	C4-N9-C1'	5.19	135.64	126.30
26	1H	1448	G	C5-C6-O6	-5.19	125.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	928	G	C5-C6-O6	-5.19	125.49	128.60
26	1H	1322	A	OP2-P-O3'	5.19	116.61	105.20
1	1G	218	C	C6-N1-C2	-5.19	118.22	120.30
1	1G	275	G	C4-N9-C1'	5.19	133.25	126.50
1	1G	1054	C	O5'-P-OP1	-5.19	101.03	105.70
26	14	2452	C	C5-C4-N4	-5.19	116.57	120.20
26	14	2624	G	C8-N9-C4	5.19	108.47	106.40
26	1H	107	C	N1-C2-O2	-5.19	115.79	118.90
26	1H	1400	G	C8-N9-C4	-5.19	104.33	106.40
26	1H	1636	C	C6-N1-C2	-5.19	118.23	120.30
26	14	332	A	OP2-P-O3'	5.19	116.61	105.20
26	1H	785	G	N9-C4-C5	5.18	107.47	105.40
26	1H	859	G	C2-N3-C4	-5.18	109.31	111.90
26	1H	1457	A	N1-C6-N6	5.18	121.71	118.60
26	14	784	A	P-O3'-C3'	5.18	125.92	119.70
26	1H	1022	G	P-O3'-C3'	5.18	125.92	119.70
26	1H	1963	U	N3-C2-O2	-5.18	118.57	122.20
27	16	24	G	C4-N9-C1'	5.18	133.24	126.50
1	13	50	A	P-O3'-C3'	5.18	125.92	119.70
26	1H	681	G	N9-C4-C5	-5.18	103.33	105.40
26	1H	1664	A	N1-C6-N6	-5.18	115.49	118.60
26	14	2702	U	N1-C2-N3	-5.18	111.79	114.90
1	13	625	G	C8-N9-C4	-5.18	104.33	106.40
26	1H	671	C	C5-C6-N1	-5.18	118.41	121.00
26	1H	1698	A	N9-C1'-C2'	5.18	120.73	114.00
26	1H	2234	G	C2-N3-C4	-5.18	109.31	111.90
26	1H	2339	G	C8-N9-C4	5.18	108.47	106.40
1	1G	20	U	C6-N1-C2	5.18	124.11	121.00
26	14	1342	A	N9-C1'-C2'	5.18	120.73	114.00
1	13	12	U	N3-C4-C5	-5.18	111.49	114.60
1	1G	770	C	N1-C2-O2	-5.18	115.79	118.90
26	14	1555	G	C6-C5-N7	-5.18	127.29	130.40
26	14	2169	A	N1-C6-N6	-5.18	115.49	118.60
27	1J	55	U	C6-N1-C2	-5.18	117.89	121.00
26	1H	934	G	C5-C6-O6	-5.18	125.49	128.60
26	1H	1805	U	C6-N1-C2	-5.18	117.89	121.00
1	1G	667	G	C5-C6-O6	-5.18	125.49	128.60
26	14	1996	C	O4'-C1'-N1	-5.18	104.06	108.20
26	1H	481	G	P-O3'-C3'	5.17	125.91	119.70
27	16	44	G	C8-N9-C1'	5.17	133.73	127.00
26	14	121	G	C4-N9-C1'	5.17	133.23	126.50
26	1H	1835	G	O5'-P-OP1	-5.17	101.04	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	518	C	N1-C2-O2	5.17	122.00	118.90
1	1G	785	G	N1-C6-O6	5.17	123.00	119.90
1	13	1227	A	C5-N7-C8	-5.17	101.31	103.90
23	2K	46	G	O5'-P-OP2	-5.17	101.05	105.70
26	1H	1241	A	C5-N7-C8	-5.17	101.31	103.90
26	1H	2506	U	C2-N1-C1'	5.17	123.91	117.70
26	14	685	A	O4'-C1'-N9	5.17	112.34	108.20
26	14	828	U	C5-C6-N1	-5.17	120.11	122.70
26	1H	1332	G	N3-C4-N9	-5.17	122.90	126.00
1	1G	46	G	N9-C4-C5	-5.17	103.33	105.40
26	14	1799	G	N3-C4-C5	5.17	131.19	128.60
1	1G	515	G	N1-C6-O6	5.17	123.00	119.90
26	1H	210	C	C5-C6-N1	-5.17	118.42	121.00
26	1H	1135	C	C2-N1-C1'	5.17	124.48	118.80
26	1H	1603	A	OP1-P-O3'	5.17	116.57	105.20
26	1H	1846	G	C4-C5-N7	5.17	112.87	110.80
26	1H	1899	G	OP2-P-O3'	5.17	116.57	105.20
26	14	322	A	N1-C6-N6	-5.17	115.50	118.60
26	14	330	A	C4-C5-C6	5.17	119.58	117.00
1	13	1058	G	N9-C4-C5	-5.17	103.33	105.40
26	1H	358	U	C5-C6-N1	5.17	125.28	122.70
26	1H	2517	C	C4-C5-C6	5.17	119.98	117.40
26	1H	326	G	C4-C5-N7	5.16	112.87	110.80
26	1H	470	A	O5'-P-OP1	-5.16	101.05	105.70
26	1H	828	U	C6-N1-C2	-5.16	117.90	121.00
26	1H	835	A	C5-C6-N1	5.16	120.28	117.70
26	1H	839	U	C4-C5-C6	5.16	122.80	119.70
26	1H	1822	G	N1-C6-O6	5.16	123.00	119.90
26	14	252	G	N3-C2-N2	-5.16	116.29	119.90
26	14	784	A	N3-C4-C5	5.16	130.41	126.80
26	14	1903	G	OP1-P-OP2	5.16	127.34	119.60
26	1H	458	G	C8-N9-C1'	5.16	133.71	127.00
26	1H	2504	U	N3-C2-O2	-5.16	118.59	122.20
26	1H	1601	G	N9-C4-C5	-5.16	103.34	105.40
26	1H	1799	G	C8-N9-C4	-5.16	104.34	106.40
26	14	265	A	N7-C8-N9	5.16	116.38	113.80
26	14	647	G	N7-C8-N9	5.16	115.68	113.10
1	13	1503	A	OP1-P-O3'	5.16	116.55	105.20
26	1H	943	U	N1-C2-O2	-5.16	119.19	122.80
26	1H	1587	A	C8-N9-C4	-5.16	103.74	105.80
26	1H	2044	C	N3-C4-C5	-5.16	119.84	121.90
26	14	2755	C	C6-N1-C1'	-5.16	114.61	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2840	C	C4-C5-C6	5.16	119.98	117.40
26	14	684	G	C8-N9-C4	-5.16	104.34	106.40
26	14	1712	C	C6-N1-C2	-5.16	118.24	120.30
26	14	2457	U	N3-C2-O2	-5.16	118.59	122.20
1	13	1516	G	N3-C4-C5	5.16	131.18	128.60
26	1H	165	U	C2-N1-C1'	5.16	123.89	117.70
26	1H	811	U	C2-N3-C4	-5.16	123.91	127.00
26	1H	958	U	C5-C4-O4	5.16	128.99	125.90
1	1G	324	G	N3-C4-N9	-5.16	122.91	126.00
26	14	2576	G	C2-N3-C4	5.16	114.48	111.90
26	1H	198	C	C4-C5-C6	-5.15	114.82	117.40
26	1H	828	U	C4-C5-C6	5.15	122.79	119.70
26	14	634	C	N3-C4-C5	-5.15	119.84	121.90
26	1H	178	G	C8-N9-C4	5.15	108.46	106.40
26	1H	474	G	N9-C4-C5	5.15	107.46	105.40
33	61	58	LEU	CA-CB-CG	5.15	127.15	115.30
1	1G	328	C	C6-N1-C1'	-5.15	114.62	120.80
1	1G	1498	U	N3-C2-O2	-5.15	118.59	122.20
26	14	567	A	C6-C5-N7	-5.15	128.69	132.30
1	13	219	C	C6-N1-C2	-5.15	118.24	120.30
26	1H	1695	G	N3-C2-N2	5.15	123.51	119.90
26	1H	2338	G	N1-C6-O6	5.15	122.99	119.90
6	52	21	LEU	CA-CB-CG	5.15	127.14	115.30
26	14	492	A	N1-C6-N6	5.15	121.69	118.60
26	14	695	G	C8-N9-C4	5.15	108.46	106.40
26	14	986	C	C6-N1-C2	-5.15	118.24	120.30
1	13	172	A	C8-N9-C4	-5.15	103.74	105.80
1	13	1032	A	O4'-C1'-N9	5.15	112.32	108.20
1	1G	698	G	C8-N9-C4	-5.15	104.34	106.40
1	13	865	A	N7-C8-N9	5.15	116.37	113.80
26	1H	941	A	OP2-P-O3'	5.15	116.52	105.20
26	1H	1638	C	C6-N1-C2	-5.15	118.24	120.30
26	1H	2046	G	C6-N1-C2	-5.15	122.01	125.10
1	13	428	G	N9-C4-C5	5.15	107.46	105.40
1	13	827	U	C6-N1-C1'	-5.15	114.00	121.20
1	1G	87	A	N1-C2-N3	5.15	131.87	129.30
1	1G	579	G	C4-C5-N7	5.15	112.86	110.80
26	1H	303	U	C6-N1-C2	-5.14	117.91	121.00
26	1H	783	A	C4-C5-C6	5.14	119.57	117.00
26	1H	1925	C	C6-N1-C2	-5.14	118.24	120.30
27	16	98	G	OP1-P-OP2	5.14	127.32	119.60
26	14	139	G	C8-N9-C4	-5.14	104.34	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	514	C	C2-N1-C1'	-5.14	113.14	118.80
1	13	578	C	N3-C4-C5	-5.14	119.84	121.90
26	14	1664	A	C8-N9-C4	-5.14	103.74	105.80
1	13	1430	C	C2-N3-C4	-5.14	117.33	119.90
26	1H	226	G	N3-C2-N2	5.14	123.50	119.90
26	1H	785	G	N1-C6-O6	-5.14	116.82	119.90
26	14	725	G	N1-C6-O6	5.14	122.98	119.90
26	1H	130	C	C5-C4-N4	-5.14	116.60	120.20
26	1H	1950	G	C5-N7-C8	-5.14	101.73	104.30
26	14	1777	U	N1-C2-N3	5.14	117.98	114.90
26	1H	1422	G	C8-N9-C4	-5.14	104.34	106.40
26	14	329	G	C5-C6-O6	5.14	131.68	128.60
26	14	694	U	N3-C2-O2	-5.14	118.60	122.20
26	14	1986	A	C2-N3-C4	-5.14	108.03	110.60
26	14	2600	A	N9-C4-C5	5.14	107.86	105.80
26	1H	2420	C	O5'-P-OP1	-5.14	101.08	105.70
27	16	81	G	N1-C6-O6	5.14	122.98	119.90
1	1G	7	G	N3-C4-N9	-5.14	122.92	126.00
26	14	329	G	N9-C4-C5	5.14	107.45	105.40
26	14	767	U	N3-C2-O2	-5.14	118.60	122.20
26	14	1648	C	N1-C2-O2	-5.14	115.82	118.90
26	1H	137	C	N1-C2-O2	5.13	121.98	118.90
26	1H	1614	A	C5-N7-C8	-5.13	101.33	103.90
26	14	62	C	N1-C2-O2	-5.13	115.82	118.90
26	14	2301	C	C6-N1-C2	-5.13	118.25	120.30
26	1H	130	C	N3-C2-O2	5.13	125.49	121.90
26	1H	839	U	C5-C4-O4	5.13	128.98	125.90
26	1H	2392	A	C6-N1-C2	5.13	121.68	118.60
26	1H	2713	A	N3-C4-C5	5.13	130.39	126.80
27	16	95	U	C6-N1-C1'	5.13	128.38	121.20
1	1G	690	G	N7-C8-N9	5.13	115.67	113.10
26	14	621	A	N3-C4-C5	5.13	130.39	126.80
26	14	1762	A	C5-N7-C8	-5.13	101.33	103.90
1	13	1374	A	O4'-C1'-N9	5.13	112.30	108.20
1	13	1430	C	N1-C2-N3	5.13	122.79	119.20
23	2L	73	C	C6-N1-C2	-5.13	118.25	120.30
26	14	1638	C	OP2-P-O3'	5.13	116.49	105.20
26	1H	144	C	C2-N3-C4	-5.13	117.33	119.90
26	1H	298	G	OP2-P-O3'	5.13	116.48	105.20
26	1H	594	U	OP2-P-O3'	5.13	116.48	105.20
26	1H	670	A	O4'-C1'-N9	-5.13	104.10	108.20
26	1H	964	C	C2-N1-C1'	5.13	124.44	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1060	U	P-O3'-C3'	5.13	125.86	119.70
26	1H	1422	G	N3-C4-C5	-5.13	126.04	128.60
26	1H	2067	G	C6-N1-C2	-5.13	122.03	125.10
26	14	1857	G	C5-C6-N1	-5.13	108.94	111.50
26	14	2058	A	N1-C6-N6	5.13	121.67	118.60
26	1H	462	C	C6-N1-C1'	5.12	126.95	120.80
1	1G	1113	C	C5-C6-N1	5.12	123.56	121.00
26	14	1558	A	P-O3'-C3'	5.12	125.85	119.70
26	1H	2642	G	N1-C6-O6	5.12	122.97	119.90
26	1H	775	G	O4'-C1'-N9	5.12	112.30	108.20
26	1H	1043	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	1949	G	C6-N1-C2	-5.12	122.03	125.10
1	1G	509	A	P-O3'-C3'	5.12	125.85	119.70
26	14	945	A	N7-C8-N9	5.12	116.36	113.80
26	1H	1206	G	C2-N3-C4	5.12	114.46	111.90
26	14	391	G	C5-N7-C8	-5.12	101.74	104.30
26	14	1609	A	O5'-P-OP2	-5.12	101.09	105.70
26	1H	779	U	OP1-P-OP2	-5.12	111.92	119.60
26	1H	1192	G	C8-N9-C4	5.12	108.45	106.40
26	1H	2029	G	C5-N7-C8	-5.12	101.74	104.30
26	14	2457	U	OP2-P-O3'	5.12	116.46	105.20
1	13	514	C	C6-N1-C2	5.12	122.35	120.30
26	1H	1622	G	C4-C5-N7	-5.12	108.75	110.80
26	1H	2642	G	N9-C4-C5	-5.12	103.35	105.40
26	14	915	C	N3-C2-O2	-5.12	118.32	121.90
26	14	1632	A	C4-C5-N7	5.12	113.26	110.70
1	13	802	A	C6-C5-N7	-5.12	128.72	132.30
28	11	273	ARG	N-CA-C	5.12	124.81	111.00
26	14	458	G	O5'-P-OP2	-5.12	101.10	105.70
26	14	1210	A	C4-C5-N7	5.12	113.26	110.70
26	1H	730	C	C6-N1-C2	-5.11	118.25	120.30
26	1H	739	G	O5'-P-OP1	5.11	116.84	110.70
26	1H	2610	C	N3-C4-C5	5.11	123.94	121.90
1	1G	230	G	C6-C5-N7	-5.11	127.33	130.40
26	14	1379	A	C2-N3-C4	-5.11	108.04	110.60
1	13	1408	A	C8-N9-C4	-5.11	103.75	105.80
26	1H	2724	C	C6-N1-C1'	5.11	126.94	120.80
26	14	1758	G	C5-C6-O6	-5.11	125.53	128.60
26	1H	811	U	N1-C2-N3	5.11	117.97	114.90
26	14	926	A	C5-C6-N6	-5.11	119.61	123.70
26	14	998	C	N1-C2-O2	5.11	121.97	118.90
26	14	2387	U	C2-N1-C1'	-5.11	111.57	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	J8	48	LYS	C-N-CA	5.11	134.47	121.70
26	14	912	C	C5-C6-N1	5.11	123.55	121.00
1	1G	767	A	C6-C5-N7	-5.11	128.72	132.30
1	13	1294	G	N3-C4-N9	-5.11	122.94	126.00
26	1H	47	C	N3-C4-C5	5.11	123.94	121.90
26	1H	677	A	C8-N9-C4	-5.11	103.76	105.80
26	1H	923	C	C6-N1-C2	-5.11	118.26	120.30
1	1G	1502	A	C2-N3-C4	-5.11	108.05	110.60
26	14	1601	G	OP1-P-O3'	5.11	116.43	105.20
26	14	2430	A	C5-N7-C8	-5.11	101.35	103.90
26	1H	1794	U	N1-C2-N3	5.10	117.96	114.90
26	14	558	G	C8-N9-C4	5.10	108.44	106.40
26	14	1790	C	N3-C2-O2	5.10	125.47	121.90
1	13	894	G	C4-N9-C1'	-5.10	119.87	126.50
26	1H	2287	A	O4'-C1'-N9	-5.10	104.12	108.20
26	14	236	C	N1-C2-O2	-5.10	115.84	118.90
26	14	939	G	C6-C5-N7	-5.10	127.34	130.40
26	14	2503	A	C8-N9-C4	-5.10	103.76	105.80
26	1H	2236	C	C5-C4-N4	-5.10	116.63	120.20
27	16	19	G	N3-C4-C5	5.10	131.15	128.60
1	1G	1257	U	C5-C6-N1	5.10	125.25	122.70
26	14	1167	U	N3-C2-O2	5.10	125.77	122.20
23	2K	75	G	C4-C5-N7	5.10	112.84	110.80
26	1H	1268	A	C2-N3-C4	-5.10	108.05	110.60
26	1H	1558	A	C5-C6-N6	5.10	127.78	123.70
26	1H	2491	U	N1-C2-O2	5.10	126.37	122.80
1	1G	108	G	N1-C6-O6	5.10	122.96	119.90
1	1G	413	G	C4-N9-C1'	-5.10	119.87	126.50
26	14	204	A	C6-N1-C2	-5.10	115.54	118.60
26	14	2426	A	C5-N7-C8	-5.10	101.35	103.90
27	1J	96	G	N1-C2-N2	5.10	120.79	116.20
23	2K	64	G	C8-N9-C4	-5.10	104.36	106.40
26	1H	739	G	N7-C8-N9	-5.10	110.55	113.10
26	14	621	A	C6-N1-C2	5.10	121.66	118.60
26	14	685	A	N1-C6-N6	-5.10	115.54	118.60
26	14	933	A	N9-C4-C5	-5.10	103.76	105.80
26	14	1664	A	C4-N9-C1'	5.10	135.48	126.30
26	1H	757	U	O5'-P-OP2	-5.10	101.11	105.70
26	1H	639	U	C5-C4-O4	5.09	128.96	125.90
26	1H	1751	C	N3-C2-O2	5.09	125.47	121.90
26	1H	2246	G	N3-C4-N9	5.09	129.06	126.00
26	1H	2700	C	C6-N1-C2	5.09	122.34	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	562	U	N3-C2-O2	-5.09	118.63	122.20
26	1H	467	G	N3-C4-N9	5.09	129.06	126.00
26	1H	514	A	N7-C8-N9	-5.09	111.25	113.80
26	1H	1975	G	N3-C4-N9	5.09	129.06	126.00
26	1H	2011	U	N3-C2-O2	5.09	125.76	122.20
26	1H	2565	A	N7-C8-N9	-5.09	111.25	113.80
26	1H	2388	A	N9-C4-C5	-5.09	103.76	105.80
26	1H	2779	U	N1-C2-N3	5.09	117.95	114.90
1	1G	527	G	C4-C5-N7	-5.09	108.76	110.80
26	14	229	A	O4'-C1'-N9	5.09	112.27	108.20
26	14	2374	C	C6-N1-C2	5.09	122.34	120.30
26	1H	1299	G	N7-C8-N9	5.09	115.64	113.10
26	1H	1576	U	N3-C4-C5	-5.09	111.55	114.60
26	14	783	A	C8-N9-C4	-5.09	103.77	105.80
26	1H	188	G	C5-C6-N1	5.09	114.04	111.50
26	1H	1786	A	O4'-C1'-N9	5.09	112.27	108.20
1	1G	922	G	N3-C4-C5	-5.09	126.06	128.60
1	1G	1278	U	C5-C6-N1	5.09	125.24	122.70
1	1G	1274	G	C4-N9-C1'	5.08	133.11	126.50
26	1H	945	A	C5-C6-N6	-5.08	119.63	123.70
26	1H	1616	A	C4-C5-C6	5.08	119.54	117.00
26	1H	1807	G	C5-C6-O6	-5.08	125.55	128.60
26	14	1930	G	C4-N9-C1'	-5.08	119.89	126.50
1	13	865	A	C6-C5-N7	-5.08	128.74	132.30
24	3K	18	G	OP2-P-O3'	5.08	116.38	105.20
26	1H	431	U	C5-C6-N1	5.08	125.24	122.70
26	1H	1325	G	N1-C6-O6	-5.08	116.85	119.90
26	1H	1544	C	C6-N1-C2	5.08	122.33	120.30
24	3L	83	U	N1-C1'-C2'	-5.08	106.41	112.00
26	14	1395	A	N7-C8-N9	-5.08	111.26	113.80
26	1H	213	A	C8-N9-C4	5.08	107.83	105.80
26	1H	1413	G	C5-C6-O6	-5.08	125.55	128.60
26	14	2499	C	C6-N1-C2	-5.08	118.27	120.30
1	1G	1417	G	C6-C5-N7	-5.08	127.35	130.40
26	14	1566	A	N1-C6-N6	5.08	121.65	118.60
26	14	2689	U	C5-C4-O4	5.08	128.95	125.90
26	1H	259	G	N1-C6-O6	5.08	122.95	119.90
26	14	756	C	C5-C4-N4	-5.08	116.65	120.20
1	13	874	G	N1-C6-O6	-5.08	116.85	119.90
27	16	12	C	C2-N3-C4	-5.08	117.36	119.90
26	14	22	C	N3-C4-C5	5.08	123.93	121.90
27	1J	22	U	C2-N1-C1'	5.08	123.79	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	1J	116	G	N3-C4-C5	5.08	131.14	128.60
1	13	1206	G	N3-C4-N9	5.07	129.04	126.00
26	1H	1265	A	C8-N9-C4	-5.07	103.77	105.80
26	1H	2636	U	O5'-P-OP1	-5.07	101.13	105.70
26	14	1730	U	C2-N1-C1'	5.07	123.79	117.70
26	14	2423	U	C5-C4-O4	-5.07	122.86	125.90
26	1H	615	G	O4'-C1'-N9	5.07	112.26	108.20
26	1H	450	G	N1-C6-O6	5.07	122.94	119.90
26	1H	678	C	C4-C5-C6	5.07	119.94	117.40
26	1H	2025	C	C2-N1-C1'	5.07	124.38	118.80
26	1H	2377	A	N9-C4-C5	-5.07	103.77	105.80
27	16	24	G	N3-C4-C5	-5.07	126.06	128.60
1	1G	383	A	N1-C6-N6	5.07	121.64	118.60
26	14	53	A	C6-N1-C2	-5.07	115.56	118.60
26	14	1306	C	O5'-P-OP1	-5.07	101.14	105.70
26	1H	828	U	N3-C4-O4	-5.07	115.85	119.40
26	1H	2082	A	C6-N1-C2	-5.07	115.56	118.60
1	1G	500	G	C4-N9-C1'	5.07	133.09	126.50
23	2L	32	C	OP1-P-O3'	5.07	116.35	105.20
26	14	2394	C	O5'-P-OP2	-5.07	101.14	105.70
26	1H	99	U	C2-N1-C1'	5.07	123.78	117.70
26	1H	395	U	N1-C2-O2	5.07	126.35	122.80
26	1H	799	G	N1-C2-N3	5.07	126.94	123.90
26	1H	1568	G	OP1-P-OP2	-5.07	112.00	119.60
1	1G	1278	U	N3-C2-O2	-5.07	118.65	122.20
26	14	2499	C	C2-N1-C1'	5.07	124.37	118.80
26	1H	670	A	C8-N9-C4	5.07	107.83	105.80
26	1H	790	C	N3-C2-O2	5.07	125.45	121.90
26	1H	1348	G	C5-C6-O6	-5.07	125.56	128.60
1	1G	596	C	C6-N1-C2	5.07	122.33	120.30
26	1H	1372	U	N3-C4-O4	5.06	122.94	119.40
26	14	2239	G	N3-C4-N9	5.06	129.04	126.00
26	1H	330	A	N3-C4-C5	5.06	130.34	126.80
26	1H	958	U	N3-C2-O2	-5.06	118.66	122.20
1	1G	232	G	C4-N9-C1'	5.06	133.08	126.50
26	14	792	G	C8-N9-C4	-5.06	104.38	106.40
26	14	1308	A	N9-C4-C5	5.06	107.82	105.80
26	1H	965	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	1350	C	C6-N1-C2	5.06	122.32	120.30
26	1H	2618	G	C5-C6-O6	5.06	131.64	128.60
26	14	197	A	OP2-P-O3'	5.06	116.33	105.20
26	14	549	G	N1-C6-O6	5.06	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	933	A	C5-C6-N6	-5.06	119.65	123.70
26	14	2624	G	C5-C6-O6	-5.06	125.56	128.60
26	14	2713	A	C2-N3-C4	-5.06	108.07	110.60
1	13	898	G	N3-C4-N9	5.06	129.03	126.00
26	1H	1004	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	1354	A	OP1-P-O3'	5.06	116.33	105.20
26	1H	1950	G	N3-C2-N2	5.06	123.44	119.90
26	1H	2578	G	C2-N3-C4	5.06	114.43	111.90
25	4L	51	U	C6-N1-C2	-5.06	117.97	121.00
26	14	1890	A	C8-N9-C4	5.06	107.82	105.80
26	14	2318	G	C8-N9-C4	-5.06	104.38	106.40
26	14	2604	U	C6-N1-C2	5.06	124.03	121.00
26	1H	248	G	C8-N9-C4	5.06	108.42	106.40
26	14	711	G	N1-C6-O6	5.06	122.93	119.90
26	1H	1345	C	N3-C2-O2	5.05	125.44	121.90
26	1H	2228	G	N1-C2-N2	-5.05	111.65	116.20
1	1G	944	G	N3-C4-C5	-5.05	126.07	128.60
26	14	2880	C	N3-C4-C5	-5.05	119.88	121.90
1	13	919	A	N9-C4-C5	5.05	107.82	105.80
26	14	313	C	C5-C6-N1	5.05	123.53	121.00
26	1H	774	A	C4-N9-C1'	-5.05	117.21	126.30
26	1H	2011	U	N1-C2-N3	-5.05	111.87	114.90
26	1H	2294	C	N3-C4-C5	5.05	123.92	121.90
1	1G	774	G	O4'-C1'-N9	-5.05	104.16	108.20
26	14	2447	G	P-O3'-C3'	5.05	125.76	119.70
1	13	1190	G	N1-C6-O6	5.05	122.93	119.90
26	1H	827	U	O5'-P-OP1	5.05	116.76	110.70
26	1H	1846	G	C6-C5-N7	-5.05	127.37	130.40
1	1G	701	C	N1-C2-O2	5.05	121.93	118.90
4	32	85	LYS	N-CA-C	-5.05	97.36	111.00
26	14	2168	G	N3-C4-N9	5.05	129.03	126.00
26	14	2826	A	N1-C2-N3	5.05	131.82	129.30
26	1H	2304	G	C4-N9-C1'	-5.05	119.94	126.50
26	14	27	G	N3-C4-N9	-5.05	122.97	126.00
1	13	1422	G	C8-N9-C4	5.05	108.42	106.40
26	1H	202	U	C5-C4-O4	-5.05	122.87	125.90
26	1H	1942	C	C2-N3-C4	-5.05	117.38	119.90
1	1G	1053	G	P-O3'-C3'	5.05	125.76	119.70
26	14	2634	G	C5-C6-O6	-5.05	125.57	128.60
29	29	50	GLY	N-CA-C	5.05	125.72	113.10
26	1H	32	C	C6-N1-C1'	5.04	126.85	120.80
26	1H	468	G	C4-C5-N7	5.04	112.82	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1135	C	C6-N1-C1'	-5.04	114.75	120.80
26	1H	2409	G	N7-C8-N9	5.04	115.62	113.10
1	1G	689	C	O5'-P-OP1	-5.04	101.16	105.70
1	1G	1119	C	C6-N1-C2	-5.04	118.28	120.30
26	14	2573	C	C5-C4-N4	-5.04	116.67	120.20
1	13	576	G	C8-N9-C1'	-5.04	120.45	127.00
26	1H	1691	C	N1-C2-O2	-5.04	115.88	118.90
26	14	864	G	C8-N9-C4	-5.04	104.38	106.40
26	14	1629	U	N1-C2-O2	-5.04	119.27	122.80
26	14	2723	C	N3-C2-O2	-5.04	118.37	121.90
26	1H	273	G	N1-C6-O6	5.04	122.92	119.90
1	1G	360	A	C5-C6-N6	-5.04	119.67	123.70
26	14	681	G	N3-C4-N9	5.04	129.02	126.00
26	14	827	U	O5'-P-OP2	-5.04	101.16	105.70
27	1J	114	G	N7-C8-N9	-5.04	110.58	113.10
1	13	505	G	N9-C4-C5	-5.04	103.39	105.40
1	13	1498	U	OP2-P-O3'	5.04	116.28	105.20
1	13	1533	C	N3-C2-O2	-5.04	118.37	121.90
26	1H	1807	G	N1-C6-O6	5.04	122.92	119.90
26	14	1259	G	C5-C6-N1	5.04	114.02	111.50
26	14	1283	G	N1-C6-O6	5.04	122.92	119.90
26	14	2389	G	C4-C5-N7	5.04	112.81	110.80
1	13	689	C	N3-C2-O2	-5.04	118.38	121.90
26	1H	131	G	N1-C6-O6	5.04	122.92	119.90
26	1H	217	G	N9-C4-C5	5.04	107.41	105.40
26	1H	2429	G	OP2-P-O3'	5.04	116.28	105.20
26	1H	2603	G	OP1-P-O3'	5.04	116.28	105.20
26	14	1021	A	N1-C2-N3	5.04	131.82	129.30
26	14	2054	A	O5'-P-OP1	-5.04	101.17	105.70
26	14	2168	G	C8-N9-C1'	-5.04	120.45	127.00
23	2K	22	G	C6-C5-N7	-5.03	127.38	130.40
26	1H	779	U	N3-C4-C5	5.03	117.62	114.60
26	1H	1162	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	1501	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	2032	G	N1-C2-N3	5.03	126.92	123.90
26	14	1603	A	N7-C8-N9	5.03	116.32	113.80
1	13	575	G	C8-N9-C4	5.03	108.41	106.40
26	14	2634	G	C8-N9-C4	5.03	108.41	106.40
1	13	865	A	N1-C6-N6	5.03	121.62	118.60
26	1H	1025	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	1771	C	N3-C4-N4	5.03	121.52	118.00
26	1H	2081	C	N3-C4-C5	-5.03	119.89	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	686	U	O4'-C1'-N1	5.03	112.22	108.20
26	14	528	A	C5-N7-C8	-5.03	101.38	103.90
26	14	813	U	O5'-P-OP2	-5.03	101.17	105.70
1	13	1408	A	N9-C4-C5	5.03	107.81	105.80
1	13	1440	C	C5-C6-N1	-5.03	118.49	121.00
26	14	1688	U	N1-C2-N3	5.03	117.92	114.90
1	13	1052	U	N3-C2-O2	-5.03	118.68	122.20
26	1H	119	A	N1-C2-N3	5.03	131.81	129.30
26	1H	326	G	C5-C6-O6	-5.03	125.58	128.60
1	1G	197	A	C4-C5-C6	5.03	119.51	117.00
1	1G	1499	A	C8-N9-C4	5.03	107.81	105.80
26	14	1203	G	N3-C2-N2	5.03	123.42	119.90
26	14	2311	A	N7-C8-N9	5.03	116.31	113.80
26	14	2859	G	N1-C6-O6	-5.03	116.88	119.90
1	13	124	G	C5-C6-N1	-5.03	108.99	111.50
26	1H	920	G	N3-C4-C5	5.03	131.11	128.60
54	Q8	52	LYS	C-N-CA	5.03	143.11	122.00
1	1G	268	C	C6-N1-C2	-5.03	118.29	120.30
26	14	206	U	N3-C2-O2	-5.03	118.68	122.20
26	14	723	G	C8-N9-C4	5.03	108.41	106.40
26	14	1897	G	C4-N9-C1'	5.03	133.03	126.50
1	13	1413	A	C4-C5-N7	5.02	113.21	110.70
26	1H	2084	C	C4-C5-C6	5.02	119.91	117.40
1	1G	111	G	C6-C5-N7	-5.02	127.39	130.40
1	13	558	G	N1-C6-O6	5.02	122.91	119.90
23	2K	44	G	P-O3'-C3'	5.02	125.73	119.70
26	1H	270(H)	C	C5-C6-N1	5.02	123.51	121.00
26	1H	769	G	O5'-P-OP2	-5.02	101.18	105.70
26	1H	2468	G	C8-N9-C1'	-5.02	120.47	127.00
26	1H	2617	C	N3-C2-O2	5.02	125.42	121.90
26	14	1021	A	N3-C4-C5	5.02	130.32	126.80
1	13	1114	C	C5-C6-N1	5.02	123.51	121.00
26	1H	468	G	C6-C5-N7	-5.02	127.39	130.40
26	1H	1814	G	C5-C6-N1	5.02	114.01	111.50
26	1H	2337	G	C8-N9-C4	-5.02	104.39	106.40
26	14	1215	G	C8-N9-C4	-5.02	104.39	106.40
26	14	2355	C	C2-N1-C1'	5.02	124.32	118.80
26	14	2430	A	O5'-P-OP2	5.02	116.72	110.70
23	2K	81	G	C5-C6-N1	-5.02	108.99	111.50
26	1H	302	C	N1-C2-O2	5.02	121.91	118.90
26	1H	1320	C	C5-C6-N1	-5.02	118.49	121.00
26	1H	2228	G	N3-C4-C5	-5.02	126.09	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2454	G	N7-C8-N9	-5.02	110.59	113.10
26	14	1634	A	C4-C5-N7	-5.02	108.19	110.70
26	14	1906	G	O5'-P-OP2	5.02	116.72	110.70
26	14	2789	C	C6-N1-C2	-5.02	118.29	120.30
1	13	1381	U	C2-N1-C1'	5.02	123.72	117.70
26	1H	793	A	N1-C2-N3	5.02	131.81	129.30
26	1H	2432	A	C2-N3-C4	-5.02	108.09	110.60
1	1G	99	C	N1-C2-O2	-5.02	115.89	118.90
26	1H	162	U	N1-C2-O2	5.02	126.31	122.80
1	1G	560	U	C5-C6-N1	5.02	125.21	122.70
26	1H	602	G	N1-C6-O6	5.01	122.91	119.90
26	1H	821	A	C8-N9-C4	-5.01	103.79	105.80
26	14	102	G	O5'-P-OP1	-5.01	101.19	105.70
26	1H	1263	U	N3-C2-O2	-5.01	118.69	122.20
26	14	1334	G	C6-C5-N7	-5.01	127.39	130.40
26	14	1396	U	N1-C2-O2	5.01	126.31	122.80
26	1H	70	G	P-O3'-C3'	5.01	125.71	119.70
26	1H	719	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	743	G	N9-C4-C5	5.01	107.40	105.40
26	1H	1543	A	C6-C5-N7	-5.01	128.79	132.30
26	14	2226	C	C5-C6-N1	5.01	123.50	121.00
26	14	2871	C	C6-N1-C2	5.01	122.30	120.30
26	1H	71	A	O4'-C1'-N9	-5.01	104.19	108.20
26	1H	1695	G	C4-N9-C1'	5.01	133.01	126.50
26	1H	2331	G	C4-C5-N7	5.01	112.80	110.80
26	14	2137	C	C2-N1-C1'	5.01	124.31	118.80
26	14	2287	A	N3-C4-C5	5.01	130.31	126.80
26	1H	70	G	C5-C6-O6	5.01	131.60	128.60
26	1H	470	A	C6-N1-C2	-5.01	115.60	118.60
26	1H	1378	A	N3-C4-N9	-5.01	123.39	127.40
26	1H	2568	C	C2-N3-C4	-5.01	117.40	119.90
27	1J	114	G	N3-C4-N9	-5.01	123.00	126.00
26	1H	999	U	C5-C4-O4	5.00	128.90	125.90
26	1H	1025	G	C2-N3-C4	5.00	114.40	111.90
26	1H	1471	A	C8-N9-C4	-5.00	103.80	105.80
26	1H	2367	G	C2-N3-C4	-5.00	109.40	111.90
26	1H	115	C	N1-C2-O2	-5.00	115.90	118.90
26	1H	2383	G	N3-C4-C5	-5.00	126.10	128.60
1	1G	1471	G	N3-C4-N9	5.00	129.00	126.00
26	14	71	A	C5-C6-N1	-5.00	115.20	117.70
1	13	1523	G	N3-C2-N2	-5.00	116.40	119.90
26	1H	121	G	C4-C5-C6	5.00	121.80	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	637	A	N1-C6-N6	5.00	121.60	118.60
26	1H	779	U	O5'-P-OP1	5.00	116.70	110.70
26	1H	1685	C	N3-C4-C5	5.00	123.90	121.90
1	1G	87	A	C5-C6-N6	-5.00	119.70	123.70
1	1G	224	C	C6-N1-C2	5.00	122.30	120.30

There are no chirality outliers.

All (128) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	273	ARG	Peptide
2	12	19	HIS	Peptide
34	15	41	ASP	Peptide
28	19	237	GLU	Peptide
28	19	32	SER	Peptide
28	19	37	LEU	Peptide
10	1A	55	LYS	Peptide
2	1E	15	VAL	Peptide
2	1E	169	LYS	Peptide
2	1E	237	ALA	Peptide
29	21	153	GLY	Peptide
29	21	57	LYS	Peptide
29	21	78	LEU	Peptide
29	21	82	ARG	Peptide
29	29	117	MET	Peptide
29	29	139	GLY	Peptide
29	29	186	GLY	Peptide
29	29	201	THR	Peptide
29	29	203	LYS	Peptide
29	29	44	TYR	Peptide
29	29	53	PRO	Peptide
29	29	70	ALA	Peptide
11	2A	49	GLY	Peptide
30	31	196	LEU	Peptide
4	32	154	ASN	Peptide
4	32	155	LEU	Peptide
4	32	30	LYS	Peptide
36	35	110	TYR	Peptide
36	35	22	GLY	Peptide
36	35	36	LYS	Peptide
36	35	5	ASP	Peptide
36	35	56	SER	Peptide

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Mol	Chain	Res	Type	Group
36	35	60	MET	Peptide
36	35	63	PRO	Peptide
30	39	127	GLU	Peptide
30	39	166	ALA	Peptide
30	39	20	LEU	Peptide
30	39	24	LEU	Peptide
30	39	26	ALA	Peptide
30	39	89	VAL	Peptide
12	3A	18	VAL	Peptide
12	3A	89	ARG	Peptide
4	3E	31	CYS	Peptide
12	3I	87	GLY	Peptide
37	45	134	ARG	Peptide
37	45	135	ASP	Peptide
37	45	137	TYR	Peptide
37	45	25	ASP	Peptide
37	45	26	TYR	Peptide
31	49	13	GLU	Peptide
13	4A	94	ARG	Peptide
38	55	105	ARG	Peptide
38	55	106	GLY	Peptide
14	5A	29	ARG	Peptide
33	61	11	ASN	Peptide
33	61	134	PRO	Peptide
33	61	82	ARG	Peptide
33	69	112	LYS	Peptide
33	69	143	SER	Peptide
33	69	85	GLU	Peptide
40	75	12	SER	Peptide
40	75	4	GLY	Peptide
36	78	11	GLY	Peptide
36	78	115	LEU	Peptide
9	82	117	HIS	Peptide
41	85	90	VAL	Peptide
41	85	98	LEU	Peptide
37	88	21	THR	Peptide
37	88	58	PHE	Peptide
37	88	79	LEU	Peptide
9	8E	47	LEU	Peptide
42	95	85	LYS	Peptide
38	98	44	LEU	Peptide
43	A5	43	GLY	Peptide

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Mol	Chain	Res	Type	Group
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
40	B8	12	SER	Peptide
40	B8	58	ASN	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
45	C5	100	ALA	Peptide
45	C5	39	VAL	Peptide
45	C5	81	LYS	Peptide
45	C5	90	LEU	Peptide
41	C8	115	ALA	Peptide
47	E5	7	LEU	Peptide
47	E5	83	PRO	Peptide
48	F5	78	LYS	Peptide
49	G5	15	LYS	Peptide
49	G5	17	SER	Peptide
49	G5	43	GLN	Peptide
45	G8	53	PRO	Peptide
45	G8	54	LYS	Peptide
45	G8	80	GLY	Peptide
45	G8	94	LYS	Peptide
46	H8	165	VAL	Peptide
46	H8	59	LEU	Peptide
46	H8	63	ASP	Peptide
51	I5	26	SER	Peptide
47	I8	2	ALA	Peptide
47	I8	6	ALA	Peptide
52	J5	3	LYS	Peptide
48	J8	75	GLU	Peptide
49	K8	15	LYS	Peptide
49	K8	16	LEU	Peptide
49	K8	17	SER	Peptide
49	K8	45	SER	Peptide
49	K8	46	GLN	Peptide
54	M5	35	GLN	Peptide
54	M5	40	GLU	Peptide
51	M8	4	GLY	Peptide
51	M8	40	HIS	Peptide
51	M8	43	TYR	Peptide
52	N8	41	PRO	Peptide
52	N8	42	PRO	Peptide
53	P8	46	VAL	Peptide

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Mol	Chain	Res	Type	Group
54	Q8	18	ALA	Peptide
54	Q8	26	LYS	Peptide
54	Q8	33	ASN	Peptide
54	Q8	37	SER	Peptide
54	Q8	38	GLY	Peptide
54	Q8	46	ARG	Peptide
54	Q8	48	PHE	Peptide
54	Q8	56	GLU	Peptide
54	Q8	57	ARG	Peptide
54	Q8	6	THR	Peptide
54	Q8	7	HIS	Peptide
54	Q8	9	GLY	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	13	32389	0	16350	718	0
1	1G	32511	0	16414	717	0
2	12	1924	0	1975	96	0
2	1E	1924	0	1975	88	0
3	22	1612	0	1677	83	0
3	2E	1605	0	1668	69	0
4	32	1702	0	1763	104	0
4	3E	1702	0	1763	77	0
5	42	1155	0	1213	52	0
5	4E	1155	0	1213	55	0
6	52	842	0	857	32	0
6	5E	842	0	857	33	0
7	62	1200	0	1238	51	0
7	6E	1157	0	1202	45	0
8	72	1115	0	1177	46	0
8	7E	1115	0	1177	42	0
9	82	983	0	1006	76	0
9	8E	1009	0	1037	68	0
10	1A	801	0	849	56	0
10	1I	801	0	849	53	0
11	2A	864	0	881	37	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	2I	864	0	881	39	0
12	3A	975	0	1062	41	0
12	3I	956	0	1046	47	0
13	4A	928	0	987	52	0
13	4I	928	0	987	55	0
14	5A	475	0	511	36	0
14	5I	491	0	529	31	0
15	6A	733	0	771	31	0
15	6I	733	0	771	25	0
16	7A	705	0	725	27	0
16	7I	705	0	725	40	0
17	8A	823	0	891	32	0
17	8I	834	0	904	39	0
18	9A	564	0	631	22	0
18	9I	550	0	613	23	0
19	AA	624	0	636	42	0
19	AI	643	0	662	43	0
20	BA	762	0	861	44	0
20	BI	762	0	861	40	0
21	1B	217	0	234	11	0
21	1F	199	0	208	9	0
22	1K	1863	0	942	41	0
22	1L	1863	0	942	40	0
23	2K	1692	0	859	47	0
23	2L	1712	0	870	62	0
24	3K	1646	0	830	36	0
24	3L	1601	0	809	30	0
25	4K	336	0	168	9	0
25	4L	438	0	220	11	0
26	14	62647	0	31582	1257	0
26	1H	62707	0	31614	1349	1
27	16	2617	0	1328	60	0
27	1J	2617	0	1328	70	0
28	11	2126	0	2208	88	0
28	19	2120	0	2197	86	0
29	21	1568	0	1634	96	0
29	29	1568	0	1634	104	0
30	31	1585	0	1632	84	0
30	39	1627	0	1680	94	0
31	41	1473	0	1535	92	0
31	49	1473	0	1535	67	0
32	51	1336	0	1418	80	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	59	1307	0	1382	73	0
33	61	1136	0	1223	59	0
33	69	1136	0	1223	57	0
34	15	1104	0	1180	49	0
34	58	1104	0	1180	56	0
35	25	932	0	996	43	0
35	68	932	0	996	35	0
36	35	1144	0	1228	82	0
36	78	1122	0	1206	97	0
37	45	1113	0	1167	64	0
37	88	1121	0	1179	66	0
38	55	959	0	1021	51	0
38	98	967	0	1033	58	0
39	65	881	0	943	59	0
39	A8	881	0	943	57	0
40	75	1141	0	1202	54	0
40	B8	1081	0	1141	63	0
41	85	963	0	1022	61	0
41	C8	963	0	1022	60	0
42	95	778	0	852	60	0
42	D8	778	0	852	37	0
43	A5	899	0	964	34	0
43	E8	890	0	951	31	0
44	B5	725	0	778	38	0
44	F8	742	0	803	30	0
45	C5	794	0	884	52	0
45	G8	783	0	870	46	0
46	D5	1120	0	1146	54	0
46	H8	1373	0	1402	75	0
47	E5	627	0	645	42	0
47	I8	656	0	679	32	0
48	F5	737	0	813	38	0
48	J8	746	0	826	34	0
49	G5	567	0	618	20	0
49	K8	575	0	634	38	0
50	H5	468	0	518	15	1
50	L8	452	0	503	19	0
51	I5	515	0	514	35	0
51	M8	533	0	526	52	0
52	J5	434	0	454	19	0
52	N8	429	0	449	31	0
53	L5	409	0	454	21	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	P8	409	0	454	18	0
54	M5	422	0	484	30	0
54	Q8	480	0	549	94	0
55	11	1	0	0	0	0
55	13	146	0	0	0	0
55	14	490	0	0	0	0
55	16	5	0	0	0	0
55	1G	143	0	0	0	0
55	1H	512	0	0	0	0
55	1J	2	0	0	0	0
55	1K	1	0	0	0	0
55	21	2	0	0	0	0
55	25	1	0	0	0	0
55	29	3	0	0	0	0
55	2K	3	0	0	0	0
55	2L	2	0	0	0	0
55	31	1	0	0	0	0
55	32	1	0	0	0	0
55	3E	1	0	0	0	0
55	3I	1	0	0	0	0
55	45	2	0	0	0	0
55	5E	1	0	0	0	0
55	78	1	0	0	0	0
55	7A	1	0	0	0	0
55	85	2	0	0	0	0
55	88	4	0	0	0	0
55	98	1	0	0	0	0
55	E5	2	0	0	0	0
55	G8	1	0	0	0	0
55	I8	2	0	0	0	0
55	J8	1	0	0	0	0
55	P8	1	0	0	0	0
56	32	1	0	0	0	0
56	3E	1	0	0	0	0
56	5A	1	0	0	0	0
56	5I	1	0	0	0	0
56	C5	1	0	0	0	0
56	G8	1	0	0	0	0
57	11	1	0	0	0	0
57	13	74	0	0	11	0
57	14	520	0	0	102	0
57	19	8	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	1G	73	0	0	6	0
57	1H	552	0	0	122	0
57	21	1	0	0	1	0
57	29	2	0	0	0	0
57	31	4	0	0	1	0
57	35	1	0	0	0	0
57	39	4	0	0	0	0
57	3E	1	0	0	0	0
57	4L	2	0	0	0	0
57	55	2	0	0	0	0
57	6A	2	0	0	0	0
57	6I	1	0	0	0	0
57	78	2	0	0	0	0
57	7A	1	0	0	0	0
57	85	1	0	0	0	0
57	A5	1	0	0	0	0
57	B8	1	0	0	0	0
57	BI	1	0	0	0	0
57	C8	2	0	0	1	0
57	D8	1	0	0	0	0
57	E8	1	0	0	0	0
57	I8	3	0	0	0	0
57	J8	1	0	0	0	0
57	M5	3	0	0	0	0
57	P8	1	0	0	0	0
All	All	299429	0	199511	8202	1

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 17.

All (8202) 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)
26:1H:2032:G:N7	57:1H:4116:HOH:O	1.81	1.11
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.39	1.04
26:1H:810:U:OP1	57:1H:4123:HOH:O	1.75	1.03
26:1H:2308:G:H1	26:1H:2311:A:H2	1.07	1.02
26:1H:763:G:OP1	57:1H:3623:HOH:O	1.80	1.00
26:1H:1602:U:O4	57:1H:3791:HOH:O	1.78	1.00
28:19:37:LEU:HA	28:19:38:LYS:HB3	1.45	0.99
1:13:1305:G:H22	1:13:1331:G:H2'	1.25	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2448:A:OP1	57:14:3631:HOH:O	1.81	0.98
26:14:2701:C:H3'	26:14:2702:U:H5"	1.46	0.97
4:32:26:CYS:HA	4:32:31:CYS:HB3	1.44	0.97
1:13:1502:A:H2	1:13:1505:G:H1	0.99	0.96
50:L8:8:LEU:HA	50:L8:54:VAL:HB	1.46	0.96
26:1H:2056:G:N7	57:1H:3925:HOH:O	1.98	0.96
26:14:1647:G:OP2	57:14:3939:HOH:O	1.81	0.96
26:1H:1774:C:OP1	57:1H:3665:HOH:O	1.84	0.95
54:M5:40:GLU:H	54:M5:43:GLN:HG3	1.27	0.95
26:1H:1388:G:N7	57:1H:3802:HOH:O	1.99	0.94
26:14:2624:G:N7	57:14:3935:HOH:O	1.98	0.94
26:14:1639:U:OP1	57:14:3953:HOH:O	1.85	0.94
26:1H:330:A:HO2'	26:1H:331:A:H8	1.10	0.94
26:14:1332:G:N2	26:14:1609:A:O2'	2.01	0.94
26:1H:761:A:OP1	57:1H:3618:HOH:O	1.86	0.94
26:1H:567:A:OP1	57:1H:3603:HOH:O	1.86	0.93
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.49	0.93
32:59:6:ARG:HB2	32:59:66:GLY:HA2	1.50	0.93
26:14:1349:A:OP1	57:14:3543:HOH:O	1.84	0.93
26:1H:217:G:OP2	57:1H:3643:HOH:O	1.86	0.93
23:2L:37:G:H1	25:4L:47:U:H3	1.11	0.93
26:1H:751:A:OP1	57:1H:3745:HOH:O	1.84	0.93
30:39:53:THR:HG23	30:39:55:GLY:H	1.34	0.92
32:59:137:ASP:HB3	32:59:140:LYS:HB2	1.49	0.92
26:1H:452:G:OP2	57:1H:3740:HOH:O	1.86	0.92
26:1H:1614:A:OP1	57:1H:3742:HOH:O	1.87	0.92
1:1G:758:G:N7	57:1G:1869:HOH:O	2.03	0.92
26:14:1774:C:OP1	57:14:3551:HOH:O	1.88	0.92
26:14:676:A:H8	26:14:2069:G:H21	1.11	0.92
1:13:200:G:H1	1:13:217:C:H42	1.16	0.92
20:BA:82:SER:OG	20:BA:86:ARG:NH2	2.03	0.92
26:1H:801:G:OP2	57:1H:3907:HOH:O	1.87	0.92
26:1H:2287:A:N6	26:1H:2344:U:H3	1.69	0.91
26:14:741:G:OP1	57:14:3546:HOH:O	1.88	0.91
26:14:4:C:H42	26:14:2899:G:H22	1.10	0.91
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.52	0.91
23:2L:1:G:H1	23:2L:83:U:H3	1.18	0.91
26:14:1899:G:N2	26:14:1902:C:H41	1.68	0.91
29:21:201:THR:HG22	29:21:203:LYS:H	1.36	0.90
26:14:1613:G:N7	57:14:3608:HOH:O	2.05	0.90
3:22:32:LEU:HB3	3:22:59:ARG:HH12	1.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1890:A:OP2	57:1H:4002:HOH:O	1.90	0.90
1:1G:975:A:H4'	1:1G:976:G:H5"	1.52	0.90
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.37	0.89
1:13:137:C:H42	1:13:226:G:H1	0.98	0.89
26:14:751:A:OP1	57:14:3508:HOH:O	1.89	0.89
26:14:450:G:OP2	57:14:3656:HOH:O	1.87	0.89
26:1H:1359:A:N1	26:1H:1372:U:N3	2.20	0.89
26:14:2415:G:H4'	36:35:67:MET:H	1.38	0.89
26:14:1496:A:H8	26:14:1577:C:HO2'	0.96	0.89
31:41:109:VAL:HG11	31:41:142:PRO:HD3	1.55	0.89
22:1L:46:G:H22	22:1L:58:U:H1'	1.34	0.89
26:1H:2576:G:OP1	57:1H:3671:HOH:O	1.91	0.89
26:1H:2053:G:OP1	57:1H:3670:HOH:O	1.91	0.89
26:1H:1823:G:N7	57:1H:4094:HOH:O	2.05	0.88
26:14:1757:U:H3	26:14:1762:A:H2	1.21	0.88
1:13:8:A:H62	4:3E:208:SER:HB2	1.38	0.88
1:1G:1502:A:H2	1:1G:1505:G:H1	1.20	0.88
26:14:1992:G:N7	57:14:3588:HOH:O	2.07	0.88
27:16:21:G:H1	27:16:62:C:H42	1.21	0.88
26:14:1061:U:H5'	26:14:1070:A:H1'	1.53	0.88
26:1H:450:G:OP2	57:1H:3739:HOH:O	1.91	0.88
36:78:52:GLU:HG3	36:78:57:THR:HA	1.56	0.87
26:14:2499:C:OP2	57:14:3526:HOH:O	1.89	0.87
26:14:576:U:OP1	57:14:3614:HOH:O	1.91	0.87
26:14:631:A:OP2	54:M5:47:LYS:NZ	2.07	0.87
26:1H:586:A:OP2	57:1H:3733:HOH:O	1.91	0.87
26:14:880:G:O6	26:14:894:C:N4	2.07	0.87
36:78:101:VAL:HG12	36:78:106:LEU:HD12	1.55	0.87
26:1H:731:C:OP2	57:1H:3621:HOH:O	1.93	0.87
30:31:40:GLN:HE22	30:31:182:ASN:HB2	1.38	0.87
1:1G:1178:G:H5"	9:82:93:ARG:HH22	1.37	0.87
1:1G:1348:U:H3	1:1G:1374:A:H2	1.13	0.87
26:1H:2096:U:H3	26:1H:2193:G:H1	1.22	0.87
26:14:1616:A:O2'	57:14:3941:HOH:O	1.93	0.87
54:Q8:37:SER:HA	54:Q8:40:GLU:HB3	1.57	0.87
26:14:1678:G:N2	26:14:1989:G:H22	1.73	0.87
26:1H:880:G:N2	26:1H:897:C:N3	2.22	0.87
26:1H:1062:G:N2	26:1H:1076:C:O2	2.07	0.86
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.40	0.86
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	1.57	0.86
26:14:2448:A:OP2	57:14:3526:HOH:O	1.92	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:676:A:H8	26:1H:2069:G:H21	1.15	0.86
26:1H:2843:G:H1	26:1H:2874:C:H42	1.23	0.86
26:1H:571:A:OP2	57:1H:3713:HOH:O	1.93	0.86
41:85:49:HIS:HA	41:85:52:ARG:HB2	1.56	0.86
1:1G:147:G:H1	1:1G:175:C:H42	1.24	0.86
26:1H:1021:A:H62	26:1H:1141:U:H3	1.23	0.86
1:13:963:G:N3	10:1I:55:LYS:NZ	2.23	0.86
26:1H:607:U:H3	26:1H:621:A:H2	1.23	0.86
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.07	0.86
37:45:25:ASP:HB3	37:45:102:VAL:HG23	1.55	0.86
26:14:1614:A:OP1	57:14:3506:HOH:O	1.94	0.85
26:1H:733:G:N7	57:1H:3838:HOH:O	2.09	0.85
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.09	0.85
26:1H:585:G:OP2	57:1H:3692:HOH:O	1.94	0.85
27:16:0:A:H62	27:16:119:A:H61	1.25	0.85
28:19:242:ARG:O	57:19:307:HOH:O	1.93	0.85
26:14:833:U:O2	36:35:55:ARG:NH1	2.10	0.85
26:1H:1899:G:H22	26:1H:1902:C:H41	1.20	0.85
45:G8:83:THR:HG22	45:G8:84:ARG:HG3	1.59	0.85
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.58	0.85
48:J8:83:GLU:HG2	48:J8:85:LEU:H	1.40	0.85
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.59	0.85
26:14:1614:A:OP1	57:14:3509:HOH:O	1.95	0.84
26:14:1856:G:H1	26:14:1886:C:H42	1.20	0.84
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.09	0.84
26:1H:748:G:OP2	57:1H:4036:HOH:O	1.95	0.84
26:1H:1342:A:OP2	57:1H:3789:HOH:O	1.94	0.84
48:J8:92:LYS:HA	48:J8:95:LEU:HB2	1.60	0.84
43:E8:79:GLY:HA3	43:E8:100:THR:HG22	1.60	0.84
1:13:1309:G:OP2	13:4I:99:ARG:NH2	2.09	0.84
26:14:274:G:N7	26:14:363:G:N2	2.26	0.84
13:4I:54:VAL:HA	13:4I:57:ARG:HB3	1.59	0.84
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.42	0.84
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.11	0.84
26:14:2598:A:OP1	57:14:3565:HOH:O	1.96	0.84
26:1H:249:C:OP1	57:1H:3617:HOH:O	1.93	0.84
22:1L:47:C:N3	22:1L:56:G:N2	2.25	0.84
26:1H:563:G:OP2	57:1H:3610:HOH:O	1.95	0.83
26:14:910:A:H62	37:45:12:GLN:HA	1.43	0.83
36:78:50:ARG:HB2	36:78:50:ARG:HH21	1.42	0.83
26:1H:1310:G:OP2	53:P8:9:ARG:NH1	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1503:A:H5'	1:1G:1531:A:H1'	1.60	0.83
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.10	0.83
26:1H:2406:U:OP1	57:1H:4139:HOH:O	1.94	0.83
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.58	0.83
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.44	0.83
26:1H:67:U:H3	26:1H:74:A:H2	1.27	0.83
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.24	0.83
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.20	0.83
26:14:857:C:H4'	47:E5:23:VAL:HG21	1.61	0.83
26:14:958:U:OP2	37:45:14:ARG:NH1	2.12	0.82
10:1A:47:PHE:HB2	10:1A:63:PHE:HB2	1.61	0.82
26:1H:49:A:N7	26:1H:120:U:H5	1.77	0.82
26:1H:2562:U:H1'	35:68:23:ARG:HH11	1.43	0.82
26:1H:780:G:H21	26:1H:783:A:H62	1.27	0.82
26:1H:2577:A:OP1	57:1H:3668:HOH:O	1.97	0.82
23:2K:2:C:H2'	23:2K:3:C:C6	2.14	0.82
19:AI:42:PRO:HD3	51:M8:63:TYR:HE2	1.45	0.82
30:31:9:ILE:HD11	30:31:125:LEU:H	1.45	0.82
26:1H:2878:U:O4	57:1H:3959:HOH:O	1.95	0.82
27:1J:48:A:H4'	39:65:95:HIS:HD2	1.45	0.82
26:14:1365:A:O2'	48:F5:11:ARG:NH2	2.12	0.82
26:1H:1253:A:N7	57:1H:4123:HOH:O	2.13	0.82
26:14:1364:G:OP2	48:F5:2:SER:N	2.12	0.82
1:13:963:G:H1	1:13:972:C:H42	1.25	0.82
22:1L:87:A:H8	26:14:2583:G:H21	1.24	0.82
2:1E:189:ASP:HB2	2:1E:205:ASP:HB3	1.62	0.82
1:13:1348:U:H3	1:13:1374:A:H2	1.27	0.82
26:1H:654(B):C:H2'	26:1H:654(C):G:H8	1.44	0.82
48:J8:48:LYS:HB3	48:J8:49:VAL:HA	1.60	0.82
1:1G:1340:A:O2'	23:2L:32:C:O2'	1.98	0.82
19:AI:40:ILE:O	51:M8:63:TYR:OH	1.98	0.82
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.62	0.81
26:14:1664:A:OP2	57:14:3587:HOH:O	1.96	0.81
30:39:25:PRO:HB2	30:39:27:GLU:H	1.45	0.81
3:22:134:ILE:HG13	3:22:153:VAL:HG21	1.63	0.81
26:14:993:G:OP1	41:85:50:ARG:NH2	2.12	0.81
26:1H:1187:G:O6	57:1H:3720:HOH:O	1.97	0.81
54:M5:59:LYS:HZ2	54:M5:59:LYS:HA	1.45	0.81
35:25:35:VAL:HG11	35:25:103:ALA:HB3	1.63	0.81
29:21:29:GLY:H	29:21:51:PHE:HE1	1.25	0.81
22:1K:87:A:H8	26:1H:2583:G:H21	1.24	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:73:ASP:HB2	8:72:75:ARG:HH21	1.45	0.81
26:14:2597:G:O3'	57:14:3564:HOH:O	1.98	0.81
26:1H:399:G:OP2	57:1H:3823:HOH:O	1.96	0.81
46:H8:19:ARG:HH11	46:H8:84:GLU:HB2	1.45	0.81
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.14	0.81
1:13:1422:G:H5"	35:68:48:PRO:HB3	1.60	0.81
38:98:26:LYS:HG2	38:98:70:LEU:HD22	1.62	0.81
30:31:185:ASP:OD1	30:31:188:ARG:NH1	2.13	0.81
29:29:181:LEU:HD11	40:75:7:ILE:HD11	1.62	0.81
26:1H:2213:U:O2	48:J8:52:ARG:NH2	2.14	0.81
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.63	0.81
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.14	0.81
1:13:1435:G:H2'	1:13:1436:U:C6	2.15	0.81
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.14	0.81
23:2K:2:C:H2'	23:2K:3:C:H6	1.44	0.81
26:14:2245:U:H5"	26:14:2246:G:H5'	1.63	0.80
26:14:790:C:O5'	57:14:3663:HOH:O	1.99	0.80
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.62	0.80
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.15	0.80
29:21:116:VAL:HG11	29:21:138:PRO:HB3	1.62	0.80
27:1J:11:C:OP2	27:1J:12:C:N4	2.15	0.80
26:14:787:U:OP1	57:14:3664:HOH:O	1.99	0.80
29:21:1:MET:N	29:21:83:ASP:O	2.14	0.80
1:1G:928:G:O2'	1:1G:1533:C:OP1	1.99	0.80
26:14:1434:A:H61	26:14:1558:A:H62	1.26	0.80
26:1H:730:C:H3'	57:1H:3621:HOH:O	1.81	0.80
26:14:1225:C:H4'	42:95:85:LYS:HA	1.64	0.80
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.63	0.80
26:14:780:G:H21	26:14:783:A:H62	1.29	0.80
31:49:11:TYR:OH	31:49:16:ARG:NH1	2.14	0.80
29:21:55:ASN:HB3	29:21:58:ARG:HD2	1.64	0.80
26:1H:1997:G:OP2	57:1H:3786:HOH:O	2.00	0.80
26:14:1022:G:H22	26:14:1142(A):A:H2	1.30	0.80
19:AA:60:VAL:HG21	19:AA:74:PHE:HB3	1.64	0.80
1:1G:353:A:H8	1:1G:353:A:H5'	1.44	0.80
43:A5:92:ARG:HG2	43:A5:92:ARG:HH11	1.46	0.80
26:1H:1634:A:OP2	57:1H:3951:HOH:O	1.99	0.80
41:85:92:ARG:HD3	41:85:94:ASN:HB3	1.63	0.80
54:Q8:47:LYS:NZ	54:Q8:47:LYS:HA	1.97	0.80
26:1H:2837:G:N7	57:1H:3962:HOH:O	2.15	0.80
32:51:25:LYS:HG2	32:51:34:GLU:HG2	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1225:C:O2'	42:95:85:LYS:N	2.15	0.79
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.62	0.79
26:1H:943:U:OP2	57:1H:4133:HOH:O	1.98	0.79
33:61:8:PRO:HA	33:61:14:ASP:HA	1.64	0.79
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.64	0.79
50:L8:35:ARG:HB3	50:L8:37:LEU:HD21	1.64	0.79
26:14:2498:C:OP2	57:14:3526:HOH:O	1.99	0.79
26:14:674:G:H1'	30:39:74:ARG:HD3	1.61	0.79
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.64	0.79
12:3A:84:LEU:HD12	12:3A:104:VAL:HG11	1.63	0.79
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.63	0.79
24:3K:83:U:H2'	24:3K:84:A:H5"	1.63	0.79
26:1H:382:G:O6	57:1H:4008:HOH:O	2.01	0.79
26:14:2681:C:H5	26:14:2725:A:H62	1.31	0.79
28:19:13:ARG:NH1	28:19:16:MET:SD	2.55	0.79
26:14:2016:U:OP1	57:14:3851:HOH:O	2.00	0.79
49:K8:8:LYS:HA	49:K8:11:GLU:HB3	1.61	0.79
40:75:92:GLY:HA2	40:75:116:ALA:HA	1.64	0.79
28:11:242:ARG:HD2	28:11:242:ARG:H	1.47	0.79
40:B8:3:ARG:HB2	40:B8:6:LEU:HB2	1.63	0.79
26:1H:10:G:O2'	26:1H:2801:A:N3	2.15	0.79
30:31:66:PRO:O	30:31:67:GLN:HB3	1.82	0.79
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.00	0.79
26:1H:880:G:H1	26:1H:897:C:H42	1.30	0.79
44:B5:8:ILE:O	49:G5:36:ARG:NH2	2.15	0.79
2:12:67:THR:HG21	2:12:155:LEU:HD21	1.63	0.79
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.48	0.78
26:14:2448:A:O5'	57:14:3635:HOH:O	2.01	0.78
26:14:570:G:O6	57:14:3631:HOH:O	2.01	0.78
49:K8:47:ASN:O	49:K8:49:LYS:N	2.15	0.78
23:2L:31:C:O2	23:2L:41:G:N2	2.15	0.78
39:65:3:ARG:HH21	39:65:4:LEU:HB2	1.49	0.78
28:11:273:ARG:O	28:11:273:ARG:NE	2.16	0.78
1:13:1452:C:O2'	1:13:1453:G:OP2	2.02	0.78
31:49:118:ARG:HB3	31:49:181:ARG:HG3	1.66	0.78
26:1H:1689:A:H62	26:1H:1698:A:H2	1.30	0.78
41:85:90:VAL:HG22	42:95:39:LEU:HB2	1.63	0.78
31:41:64:THR:HG22	31:41:66:GLN:H	1.47	0.78
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.02	0.78
26:14:2315:G:OP1	31:49:36:LYS:NZ	2.14	0.78
1:1G:286:G:N7	57:1G:1824:HOH:O	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1643:G:N7	57:1H:3753:HOH:O	2.16	0.78
27:16:40:U:O2	27:16:45:A:N6	2.17	0.78
6:5E:38:GLU:HB2	6:5E:64:GLN:HB3	1.65	0.78
26:1H:796:C:H2'	26:1H:797:C:C6	2.18	0.78
26:14:1041:C:H42	26:14:1114:G:H22	1.28	0.78
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.18	0.78
1:13:1321:C:H3'	1:13:1322:C:H5"	1.66	0.78
37:45:34:LEU:HD11	37:45:129:THR:HB	1.66	0.78
26:14:1030:G:OP2	37:45:128:LYS:NZ	2.16	0.78
1:13:410:G:O6	57:13:1819:HOH:O	2.00	0.78
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.65	0.78
51:I5:22:ILE:HG12	51:I5:23:GLU:H	1.48	0.78
26:14:1249:U:OP1	57:14:3520:HOH:O	2.02	0.78
26:14:125:G:H5"	53:L5:19:ARG:HD3	1.64	0.78
26:14:2287:A:N6	26:14:2344:U:H3	1.81	0.78
1:13:975:A:H4'	1:13:976:G:H5"	1.66	0.78
26:1H:963:U:OP1	57:1H:3697:HOH:O	2.02	0.78
24:3K:7:G:H3'	24:3K:8:U:H5"	1.65	0.77
40:75:1:MET:HB3	40:75:6:LEU:HB2	1.65	0.77
30:31:6:VAL:N	30:31:24:LEU:O	2.16	0.77
45:G8:94:LYS:HA	45:G8:94:LYS:HZ3	1.50	0.77
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.66	0.77
46:D5:94:GLU:HB3	46:D5:96:VAL:HG23	1.66	0.77
26:14:1856:G:N2	26:14:1886:C:N3	2.28	0.77
42:D8:17:GLY:N	42:D8:96:ILE:O	2.17	0.77
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.02	0.77
26:1H:2256:G:N7	57:1H:3880:HOH:O	2.16	0.77
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.20	0.77
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.67	0.77
33:61:144:VAL:HG13	33:61:145:VAL:HG23	1.67	0.77
26:1H:442:G:H1'	30:31:48:THR:HG21	1.65	0.77
3:2E:76:VAL:HG21	3:2E:103:VAL:HG21	1.65	0.77
1:13:1003:G:N2	1:13:1037:C:N3	2.32	0.77
1:1G:987:G:N2	1:1G:1218:C:N3	2.31	0.77
49:G5:25:VAL:HG12	49:G5:60:LEU:HD23	1.65	0.77
29:29:33:VAL:HG12	29:29:89:ASP:HB3	1.66	0.77
20:BA:82:SER:HG	20:BA:86:ARG:HH22	1.31	0.77
2:12:54:THR:HG21	2:12:201:ILE:HD11	1.66	0.77
46:D5:19:ARG:HH11	46:D5:84:GLU:HB2	1.48	0.77
1:1G:1263:C:N4	1:1G:1272:G:O6	2.17	0.77
24:3K:13:G:H1	24:3K:23:A:HO2'	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.65	0.77
26:14:1828:G:OP2	57:14:3531:HOH:O	2.01	0.77
52:N8:42:PRO:O	52:N8:44:THR:HG22	1.85	0.77
26:14:1403:C:OP1	26:14:1522:G:N2	2.18	0.77
26:1H:2112:G:H22	26:1H:2169:A:H61	1.32	0.77
26:1H:761:A:OP2	57:1H:3836:HOH:O	2.02	0.76
54:Q8:53:PRO:HA	54:Q8:55:ALA:N	2.00	0.76
26:1H:259:G:O2'	26:1H:621:A:O2'	1.98	0.76
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.18	0.76
1:1G:1298:C:OP2	7:62:114:ARG:NH2	2.18	0.76
1:13:1226:C:H2'	13:4I:103:THR:HB	1.65	0.76
45:C5:73:ARG:NH2	45:C5:81:LYS:O	2.18	0.76
26:14:2718:G:N7	57:14:3996:HOH:O	2.18	0.76
8:7E:41:ARG:NH1	8:7E:123:GLU:OE1	2.17	0.76
39:65:106:ARG:O	39:65:106:ARG:NH1	2.18	0.76
39:65:84:GLN:HA	39:65:110:LEU:HD12	1.65	0.76
10:1I:6:ILE:HG22	10:1I:98:ILE:HG12	1.68	0.76
28:19:181:GLU:HG3	28:19:272:ALA:HB3	1.67	0.76
1:1G:443:C:H42	1:1G:491:G:H1	1.30	0.76
31:41:97:ASP:O	31:41:100:TRP:N	2.17	0.76
50:L8:12:PRO:O	50:L8:20:LYS:NZ	2.19	0.76
22:1K:49:C:N4	22:1K:55:G:O6	2.19	0.76
36:78:62:LEU:HD13	54:Q8:23:VAL:HG11	1.66	0.76
31:41:37:VAL:HG22	31:41:159:VAL:HG12	1.67	0.76
29:29:50:GLY:HA2	29:29:78:LEU:HB3	1.67	0.76
1:13:438:G:N7	57:13:1866:HOH:O	2.18	0.76
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.18	0.76
4:32:157:LEU:O	4:32:161:ASN:ND2	2.16	0.76
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.67	0.76
46:H8:31:ARG:NH1	46:H8:94:GLU:OE1	2.19	0.76
17:8A:88:TYR:OH	17:8A:92:ARG:NH1	2.19	0.76
40:B8:50:ILE:HD11	40:B8:102:ILE:HD11	1.67	0.76
1:13:591:U:H2'	1:13:592:G:H8	1.51	0.76
26:1H:2038:G:O6	57:1H:3657:HOH:O	2.03	0.76
43:E8:13:SER:HB3	43:E8:16:LYS:HD2	1.66	0.76
33:69:81:VAL:HG23	33:69:143:SER:HB2	1.68	0.76
29:29:8:LYS:HB3	29:29:193:GLY:H	1.50	0.76
26:14:2837:G:N7	57:14:3966:HOH:O	2.17	0.76
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.18	0.76
1:1G:152:A:N6	1:1G:170:U:O2	2.19	0.76
1:1G:1454:G:OP1	20:BA:39:LYS:NZ	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:586:A:OP2	57:14:3517:HOH:O	2.03	0.76
26:14:1627:G:OP1	57:14:3902:HOH:O	2.04	0.76
27:1J:40:U:H5	51:I5:1:MET:HB3	1.50	0.75
34:15:4:TYR:O	41:85:64:ARG:NH1	2.19	0.75
26:1H:2494:G:O2'	37:88:80:GLU:HB3	1.86	0.75
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.01	0.75
26:14:124:G:N7	57:14:3849:HOH:O	2.20	0.75
1:13:262:A:H2'	1:13:263:A:C8	2.21	0.75
1:1G:1047:G:H1	1:1G:1210:C:H42	1.34	0.75
26:1H:141:A:H8	26:1H:1595:G:H21	1.34	0.75
26:1H:2035:G:OP1	57:1H:3659:HOH:O	2.03	0.75
34:15:14:VAL:HA	34:15:135:PRO:HD2	1.67	0.75
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.69	0.75
29:29:36:ARG:NH1	29:29:85:ASN:OD1	2.19	0.75
1:13:1027:C:O2	1:13:1035:A:N6	2.19	0.75
26:1H:398:G:N7	57:1H:4090:HOH:O	2.19	0.75
28:11:71:ASP:N	28:11:71:ASP:OD1	2.17	0.75
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.51	0.75
26:1H:730:C:OP2	57:1H:3621:HOH:O	2.05	0.75
27:1J:116:G:H5"	39:65:55:ALA:HB2	1.68	0.75
42:95:43:GLU:O	42:95:45:THR:OG1	2.04	0.75
31:49:67:LYS:HE3	51:I5:5:ILE:HB	1.67	0.75
26:14:1048:A:N6	26:14:1112:G:O2'	2.19	0.75
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.18	0.75
29:21:127:ASP:OD1	57:21:401:HOH:O	2.03	0.75
26:14:943:U:OP2	36:35:36:LYS:NZ	2.16	0.75
26:1H:910:A:H62	37:88:12:GLN:HA	1.52	0.75
26:14:1771:C:HO2'	26:14:1786:A:H8	1.34	0.75
1:1G:1497:G:H2'	1:1G:1498:U:H5'	1.69	0.75
26:1H:860:U:H5	26:1H:917:A:C2	2.03	0.75
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.22	0.75
12:3I:82:VAL:HG13	12:3I:105:TYR:HB3	1.68	0.75
30:39:25:PRO:HB3	30:39:28:ILE:HG23	1.67	0.75
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.20	0.75
1:1G:1259:C:N4	1:1G:1260:C:O2	2.19	0.74
20:BA:69:GLY:O	20:BA:73:HIS:NE2	2.20	0.74
40:75:54:ARG:HB3	40:75:54:ARG:HH11	1.49	0.74
24:3L:32:C:O2	24:3L:40:G:N1	2.19	0.74
26:1H:732:C:OP2	57:1H:3841:HOH:O	2.05	0.74
29:29:111:ARG:HH11	29:29:111:ARG:HG2	1.52	0.74
26:1H:2035:G:OP1	57:1H:3656:HOH:O	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2141:G:N1	26:14:2150:U:O2	2.19	0.74
22:1L:37:G:H1	25:4L:50:U:H3	1.34	0.74
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.69	0.74
24:3K:46:G:H2'	24:3K:47:C:H5'	1.68	0.74
26:1H:1899:G:H22	26:1H:1902:C:N4	1.84	0.74
1:1G:278:G:N7	17:8A:92:ARG:NH2	2.35	0.74
1:1G:664:G:H22	1:1G:741:G:H1	1.34	0.74
41:85:98:LEU:HB2	41:85:102:GLU:HB2	1.69	0.74
1:1G:91:C:H2'	1:1G:92:G:H8	1.52	0.74
26:1H:2032:G:H21	29:21:146:THR:HG23	1.50	0.74
26:1H:1359:A:H2	26:1H:1372:U:O4	1.70	0.74
42:95:85:LYS:HB3	42:95:87:HIS:H	1.51	0.74
29:21:57:LYS:HG3	29:21:59:VAL:HG12	1.69	0.74
52:J5:49:CYS:SG	52:J5:50:GLY:N	2.61	0.74
48:F5:92:LYS:HD3	48:F5:93:GLU:H	1.51	0.74
19:AI:6:LYS:HE3	51:M8:62:ARG:HB2	1.69	0.74
51:M8:37:SER:OG	51:M8:42:PHE:O	2.04	0.74
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.69	0.74
40:B8:52:ILE:HG23	40:B8:61:PHE:HB3	1.68	0.74
27:16:15:A:H5'	27:16:16:G:C8	2.23	0.74
26:1H:958:U:H5'	37:88:14:ARG:HD3	1.68	0.74
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.52	0.74
11:2I:91:ARG:NH2	11:2I:110:ASP:OD2	2.18	0.74
33:69:77:LEU:HD13	33:69:141:LYS:HD2	1.69	0.74
1:13:137:C:N4	1:13:226:G:H1	1.82	0.74
26:14:399:G:OP2	57:14:3703:HOH:O	2.06	0.74
28:19:181:GLU:HA	28:19:272:ALA:HB1	1.69	0.74
13:4I:39:ILE:HD12	13:4I:56:LEU:HD23	1.70	0.74
26:14:329:G:OP2	45:C5:71:LYS:NZ	2.19	0.74
47:I8:46:LYS:HE3	47:I8:76:GLY:HA3	1.70	0.74
26:14:2255:G:H21	47:E5:9:SER:H	1.34	0.74
1:1G:988:G:N2	1:1G:1217:C:O2	2.17	0.74
26:1H:2140:C:H42	26:1H:2151:G:H1	1.35	0.74
26:1H:1058:U:H3	26:1H:1080:A:H61	1.34	0.74
54:Q8:50:LEU:C	54:Q8:52:LYS:H	1.91	0.73
26:1H:399:G:OP2	57:1H:3821:HOH:O	2.06	0.73
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.69	0.73
27:1J:90:C:OP2	37:45:16:ARG:NH2	2.21	0.73
22:1L:9:G:O2'	22:1L:10:G:N7	2.19	0.73
5:42:60:TYR:HB3	5:42:64:ARG:HH21	1.51	0.73
1:1G:222:U:H2'	1:1G:223:U:C6	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:103:ARG:NH1	38:55:108:GLY:O	2.20	0.73
26:1H:620:G:H4'	26:1H:621:A:H5"	1.71	0.73
26:14:54:G:O6	57:14:3945:HOH:O	2.06	0.73
35:25:64:ARG:HB2	35:25:83:ALA:HB3	1.70	0.73
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.21	0.73
1:13:1129:C:H4'	1:13:1130:A:H5'	1.69	0.73
1:1G:1329:A:H5'	13:4A:29:ARG:HE	1.53	0.73
26:14:249:C:OP1	57:14:3513:HOH:O	2.05	0.73
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.68	0.73
38:98:55:ALA:HA	38:98:80:PHE:CE1	2.24	0.73
44:B5:55:ASN:HB2	44:B5:80:ILE:HG13	1.69	0.73
46:H8:154:ASP:OD1	46:H8:154:ASP:N	2.21	0.73
26:1H:1537:C:H2'	26:1H:1538:G:O4'	1.87	0.73
26:14:617:G:OP1	30:39:40:GLN:NE2	2.18	0.73
26:14:1897:G:N7	57:14:3708:HOH:O	2.21	0.73
36:35:85:LEU:HB3	36:35:114:ILE:HD11	1.70	0.73
42:95:21:ARG:NH2	42:95:65:GLY:O	2.22	0.73
1:1G:987:G:H1	1:1G:1218:C:H42	1.37	0.73
26:14:452:G:OP2	57:14:3655:HOH:O	2.06	0.73
45:C5:99:CYS:SG	45:C5:100:ALA:N	2.62	0.73
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.71	0.73
26:14:2645:G:H3'	26:14:2646:C:H5'	1.71	0.73
13:4A:3:ARG:HG2	13:4A:9:ILE:HG12	1.69	0.73
26:14:662:G:H5"	36:35:16:ARG:HG2	1.70	0.73
26:14:2327:A:H2'	26:14:2328:A:C8	2.24	0.73
47:E5:32:ARG:O	47:E5:34:GLY:N	2.21	0.73
1:13:411:A:C4	1:13:413:G:H1'	2.23	0.73
36:78:114:ILE:HD13	36:78:125:VAL:HG11	1.70	0.73
26:1H:1607:C:OP1	57:1H:4098:HOH:O	2.05	0.73
39:65:3:ARG:NH2	39:65:4:LEU:HB2	2.04	0.73
1:13:372:C:H42	1:13:389:A:H62	1.37	0.73
26:14:2520:C:H41	26:14:2542:A:H62	1.33	0.73
26:14:363:G:H2'	26:14:363(A):A:H8	1.53	0.72
51:I5:55:ARG:HD2	51:I5:56:VAL:HG12	1.71	0.72
26:1H:2099:U:O2	26:1H:2190:G:N1	2.18	0.72
1:13:1305:G:H8	1:13:1305:G:OP2	1.72	0.72
9:82:112:LYS:HE3	9:82:118:LYS:H	1.52	0.72
1:13:664:G:H22	1:13:741:G:H1	1.34	0.72
26:14:573:G:O2'	26:14:574:C:H3'	1.89	0.72
26:1H:945:A:OP2	57:1H:3866:HOH:O	2.07	0.72
32:59:81:GLU:O	32:59:138:LYS:NZ	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:C5:17:SER:HB2	45:C5:71:LYS:HD2	1.69	0.72
37:88:89:ASN:O	37:88:91:GLU:HB2	1.89	0.72
26:14:2355:C:H1'	47:E5:39:ARG:HH21	1.54	0.72
32:59:152:ARG:HG3	32:59:153:LYS:HB2	1.71	0.72
26:1H:1678:G:N2	26:1H:1989:G:H22	1.87	0.72
26:1H:2287:A:H61	26:1H:2344:U:H3	1.37	0.72
26:14:2503:A:OP1	57:14:3614:HOH:O	2.06	0.72
26:14:1525:G:H2'	26:14:1526:G:H8	1.55	0.72
47:E5:21:LEU:HD11	47:E5:41:ARG:HH11	1.52	0.72
26:14:2239:G:OP2	57:14:3502:HOH:O	2.08	0.72
23:2L:86:C:H3'	23:2L:87:A:H5"	1.71	0.72
40:75:65:LYS:HE3	40:75:67:SER:HB2	1.70	0.72
29:29:61:ARG:O	29:29:63:LEU:N	2.20	0.72
23:2L:87:A:H2'	23:2L:87:A:N3	2.03	0.72
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.69	0.72
39:A8:28:VAL:HG11	39:A8:98:VAL:HG13	1.71	0.72
2:12:107:THR:O	2:12:110:GLN:NE2	2.22	0.72
29:21:105:THR:HB	29:21:197:ILE:HG23	1.72	0.72
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	1.69	0.72
31:49:121:ASN:O	31:49:131:TYR:OH	2.07	0.72
26:14:2499:C:OP1	57:14:3631:HOH:O	2.06	0.72
26:1H:528:A:O2'	26:1H:529:A:H5"	1.90	0.72
1:13:451:A:OP1	1:13:481:G:N2	2.21	0.72
4:32:8:VAL:O	4:32:11:LEU:N	2.20	0.72
46:H8:16:SER:O	46:H8:20:ARG:NH1	2.22	0.72
10:1I:35:SER:HB2	10:1I:73:ASP:HB2	1.72	0.72
1:13:601:C:H2'	1:13:602:A:H8	1.55	0.72
19:AA:41:VAL:HG12	19:AA:42:PRO:HD2	1.70	0.72
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.23	0.72
26:14:2793:G:N2	26:14:2804:C:O2	2.22	0.72
34:58:30:ILE:HG23	34:58:52:VAL:HG11	1.72	0.72
1:13:1502:A:H2	1:13:1505:G:N1	1.82	0.72
26:14:1060:U:H4'	26:14:1061:U:H5"	1.72	0.72
26:14:796:C:H2'	26:14:797:C:C6	2.25	0.72
28:11:72:LYS:HG2	28:11:103:ARG:HH21	1.53	0.72
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.72	0.72
26:14:491:G:H2'	26:14:492:A:C8	2.24	0.72
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.72	0.72
26:14:1665:A:O2'	35:25:1:MET:N	2.19	0.72
43:A5:72:LYS:HB3	43:A5:106:ILE:HG13	1.69	0.71
26:14:831:G:N7	57:14:3685:HOH:O	2.22	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1479:G:N7	26:1H:1510:A:N6	2.38	0.71
1:1G:192:U:O4'	20:BA:103:GLY:HA2	1.90	0.71
26:1H:2068:U:H3	26:1H:2430:A:H2	1.36	0.71
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.70	0.71
1:1G:971:G:N2	1:1G:1363:A:OP2	2.22	0.71
23:2L:71:U:H5"	23:2L:72:C:H5	1.55	0.71
32:51:86:GLU:HG3	32:51:165:ALA:HB3	1.71	0.71
17:8I:76:LEU:HD21	17:8I:79:SER:HB3	1.71	0.71
26:14:2153:G:N2	26:14:2154:G:O6	2.21	0.71
26:14:1022:G:O2'	26:14:1023:U:OP2	2.04	0.71
19:AA:78:ARG:HD3	19:AA:78:ARG:H	1.53	0.71
46:H8:131:ARG:NH2	46:H8:132:ASN:OD1	2.23	0.71
26:1H:2632:A:HO2'	26:1H:2811:G:HO2'	1.34	0.71
23:2L:36:A:H2'	23:2L:37:G:H8	1.55	0.71
26:14:1377:G:OP2	57:14:3539:HOH:O	2.08	0.71
2:1E:60:ASP:HB3	2:1E:64:ARG:HH12	1.56	0.71
26:1H:2309:A:C5	26:1H:2310:A:H8	2.08	0.71
30:39:116:ASP:OD2	36:35:1:MET:N	2.24	0.71
34:58:96:GLU:O	34:58:98:VAL:N	2.23	0.71
26:14:172:C:H2'	26:14:173:G:H8	1.54	0.71
26:14:1250:G:OP1	57:14:3522:HOH:O	2.08	0.71
26:14:270(N):G:OP1	33:69:57:ARG:NH1	2.23	0.71
26:14:1678:G:H22	26:14:1989:G:H22	1.37	0.71
26:14:2243:U:OP1	57:14:3643:HOH:O	2.07	0.71
26:1H:2884:U:O2	52:N8:52:TYR:OH	2.04	0.71
29:29:55:ASN:O	29:29:57:LYS:NZ	2.16	0.71
9:82:45:ALA:O	9:82:78:LYS:NZ	2.24	0.71
26:14:1434:A:H61	26:14:1558:A:N6	1.88	0.71
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.25	0.71
26:14:620:G:H4'	26:14:621:A:H5"	1.71	0.71
40:75:51:ARG:HG2	40:75:98:LYS:HD2	1.71	0.71
30:39:123:LEU:O	30:39:125:LEU:N	2.23	0.71
42:95:85:LYS:HB3	42:95:87:HIS:N	2.04	0.71
44:F8:65:ARG:HG3	44:F8:67:GLY:H	1.55	0.71
26:14:1428:C:N4	26:14:1570:A:OP2	2.20	0.71
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.24	0.71
27:1J:80:U:H2'	27:1J:81:G:H21	1.56	0.71
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.56	0.71
1:1G:458:C:N3	1:1G:474:G:N2	2.38	0.71
42:95:35:LEU:O	42:95:37:VAL:HG22	1.90	0.71
1:1G:998:G:H22	1:1G:1043:C:H42	1.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:3:ARG:HE	39:65:4:LEU:H	1.38	0.71
26:14:586:A:OP2	57:14:3519:HOH:O	2.08	0.71
1:1G:827:U:H3	1:1G:872:A:H62	1.39	0.71
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.23	0.70
20:BI:73:HIS:HB3	20:BI:74:LYS:HD2	1.72	0.70
26:14:1556:C:H2'	26:14:1557:C:H6	1.54	0.70
1:1G:359:U:H2'	1:1G:360:A:C8	2.26	0.70
26:1H:639:U:H3	26:1H:649:G:H1	1.36	0.70
26:1H:2636:U:OP1	29:21:79:ARG:HA	1.91	0.70
28:19:93:ALA:HB3	28:19:105:ILE:HG22	1.73	0.70
1:1G:45:U:H2'	1:1G:46:G:C8	2.25	0.70
17:8A:12:SER:HB3	17:8A:20:THR:HB	1.73	0.70
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.73	0.70
42:D8:60:GLU:HB2	42:D8:97:LYS:HE2	1.74	0.70
26:14:2469:A:H2	26:14:2481:G:H21	1.39	0.70
26:1H:307:G:N7	57:1H:3993:HOH:O	2.24	0.70
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.17	0.70
27:16:90:C:H5'	37:88:18:LYS:HA	1.73	0.70
9:82:53:VAL:HG13	9:82:95:LYS:HE3	1.73	0.70
1:1G:1219:U:OP1	14:5A:19:ARG:NH1	2.25	0.70
30:39:63:LYS:HE2	30:39:67:GLN:HB3	1.74	0.70
26:14:2111:C:N3	26:14:2118:U:O2'	2.21	0.70
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.55	0.70
28:11:182:LEU:H	28:11:272:ALA:HB3	1.55	0.70
1:13:166:G:H2'	1:13:167:G:H8	1.56	0.70
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.73	0.70
26:14:1864:U:OP1	26:14:2410:G:O2'	2.09	0.70
22:1L:22:G:N2	22:1L:59:U:O4'	2.24	0.70
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.73	0.70
10:1A:48:THR:OG1	10:1A:62:HIS:ND1	2.21	0.70
54:Q8:47:LYS:HZ2	54:Q8:47:LYS:HA	1.56	0.70
40:B8:6:LEU:HA	40:B8:9:LEU:HB2	1.73	0.70
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.56	0.70
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.73	0.70
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.25	0.70
28:19:68:LYS:HB3	28:19:70:TRP:CH2	2.27	0.70
2:1E:87:ARG:NH2	2:1E:220:ASP:OD1	2.24	0.70
39:65:27:SER:HA	39:65:88:ASP:HB2	1.73	0.70
26:14:2588:G:OP1	57:14:3567:HOH:O	2.09	0.70
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.73	0.70
24:3K:22:G:N7	24:3K:59:U:N3	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:97:LYS:HD3	9:8E:102:LEU:HB2	1.73	0.70
1:13:1189:C:O2	57:13:1842:HOH:O	2.05	0.70
36:35:94:GLU:HG3	36:35:124:LYS:HG2	1.72	0.70
1:1G:1240:U:H1'	7:62:38:LEU:HD21	1.73	0.70
23:2K:37:G:H1	25:4K:46:U:H3	1.37	0.70
26:1H:1839:G:OP2	57:1H:3833:HOH:O	2.09	0.70
26:14:1636:C:OP2	57:14:3598:HOH:O	2.08	0.70
26:1H:520:G:OP2	57:1H:3899:HOH:O	2.09	0.70
37:88:130:LYS:NZ	46:H8:81:ARG:HG2	2.07	0.70
26:14:2557:G:H2'	26:14:2558:C:C6	2.26	0.70
26:1H:913:U:O4	57:1H:3774:HOH:O	2.07	0.70
1:13:1086:U:H3	1:13:1099:G:H22	1.40	0.70
26:14:1416:G:O2'	26:14:1417:C:O5'	2.09	0.70
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.72	0.70
44:B5:49:VAL:HB	44:B5:83:VAL:HG21	1.73	0.70
33:61:110:ASP:HB2	33:61:112:LYS:H	1.57	0.70
26:1H:1253:A:N6	57:1H:4120:HOH:O	2.25	0.69
32:51:20:ALA:HB3	32:51:23:ARG:HG3	1.74	0.69
1:13:21:G:OP1	57:13:1807:HOH:O	2.10	0.69
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.73	0.69
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.74	0.69
2:12:21:ARG:HA	2:12:39:ILE:HA	1.74	0.69
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.72	0.69
35:25:63:VAL:HG12	35:25:106:LEU:HD11	1.73	0.69
34:58:32:THR:HG22	34:58:37:LYS:HB2	1.73	0.69
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.25	0.69
26:1H:429:A:OP2	57:1H:4126:HOH:O	2.09	0.69
28:19:76:PRO:HB2	28:19:116:GLN:OE1	1.92	0.69
32:59:26:VAL:HG12	32:59:33:LEU:H	1.54	0.69
26:1H:831:G:OP1	57:1H:3705:HOH:O	2.09	0.69
1:1G:588:G:H1	1:1G:651:C:H42	1.41	0.69
3:22:70:VAL:HG12	3:22:72:LYS:H	1.56	0.69
51:M8:52:THR:OG1	51:M8:53:GLU:N	2.26	0.69
1:1G:560:U:O2'	1:1G:561:U:OP2	2.09	0.69
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.27	0.69
6:52:37:VAL:HA	6:52:65:VAL:HG12	1.75	0.69
41:C8:92:ARG:O	41:C8:94:ASN:N	2.25	0.69
1:13:624:C:H2'	1:13:625:G:H8	1.58	0.69
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.58	0.69
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.73	0.69
30:39:68:LYS:HG3	30:39:69:HIS:CE1	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:992:U:H3	1:1G:1044:A:H62	1.41	0.69
2:1E:7:VAL:HG11	2:1E:217:ARG:HH11	1.57	0.69
1:1G:991:U:O4	1:1G:1212:U:O2'	2.10	0.69
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.57	0.69
35:68:98:VAL:HG13	35:68:117:LEU:HB3	1.75	0.69
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.25	0.69
54:Q8:9:GLY:HA2	54:Q8:12:LYS:HB2	1.74	0.69
26:14:593:G:H4'	54:M5:60:LEU:HD22	1.75	0.69
30:31:6:VAL:HG21	30:31:119:ARG:HB2	1.74	0.69
35:25:1:MET:HE3	35:25:67:LYS:HG2	1.74	0.69
26:14:1382:G:N7	57:14:3696:HOH:O	2.26	0.69
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.26	0.69
29:21:82:ARG:O	29:21:84:PHE:N	2.25	0.69
30:39:178:PRO:HB2	30:39:201:VAL:HG11	1.75	0.69
33:61:40:THR:O	33:61:44:LEU:HB2	1.92	0.69
26:1H:76:C:O2'	49:K8:62:THR:HG21	1.91	0.69
29:29:65:GLY:HA2	29:29:66:HIS:HB3	1.75	0.69
26:14:2304:G:N2	26:14:2313:C:N3	2.41	0.69
31:41:41:GLN:HG2	31:41:155:MET:HB3	1.74	0.69
35:68:19:ILE:HG22	35:68:43:VAL:HA	1.73	0.69
3:22:84:ILE:HD11	3:22:88:ARG:HH21	1.56	0.69
26:14:2513:G:O2'	29:29:154:LYS:NZ	2.25	0.69
53:L5:31:LEU:HD22	53:L5:42:LEU:HD13	1.74	0.69
26:1H:2485:G:H5"	37:88:46:GLN:HE21	1.58	0.69
10:1I:57:LYS:O	10:1I:60:ARG:NH1	2.24	0.69
22:1K:5:A:H61	22:1K:79:U:H3	1.39	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.91	0.69
3:22:94:LEU:HD12	3:22:95:THR:HG23	1.75	0.69
1:1G:87:A:O2'	1:1G:88:C:OP2	2.10	0.69
31:49:18:GLU:OE1	31:49:21:ARG:NH2	2.25	0.69
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.08	0.69
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.58	0.69
20:BI:86:ARG:NH1	20:BI:86:ARG:O	2.25	0.69
26:1H:2135:A:H4'	26:1H:2160:G:H4'	1.75	0.69
26:1H:2127:G:N1	26:1H:2162:G:N3	2.41	0.69
26:14:2104:G:O6	26:14:2185:C:N4	2.25	0.69
26:14:1019:U:H3	26:14:1142(A):A:H62	1.40	0.68
1:1G:448:A:P	1:1G:485:G:H22	2.15	0.68
27:16:3:C:H2'	27:16:4:C:C6	2.27	0.68
26:14:1784:A:OP1	57:14:3549:HOH:O	2.09	0.68
13:4I:15:VAL:HG22	13:4I:45:VAL:HG12	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M5:59:LYS:C	54:M5:60:LEU:HG	2.12	0.68
28:19:69:ARG:NH2	28:19:128:GLY:O	2.26	0.68
34:58:33:LEU:HD12	34:58:38:HIS:CD2	2.28	0.68
26:1H:662:G:OP1	36:78:15:ARG:NE	2.24	0.68
26:14:61:G:OP1	49:G5:51:ARG:NH1	2.26	0.68
34:58:13:TRP:HB2	34:58:133:GLN:HG2	1.75	0.68
26:1H:2272:U:O4	57:1H:3954:HOH:O	2.11	0.68
1:1G:536:C:OP2	57:1G:1809:HOH:O	2.11	0.68
36:78:19:VAL:HB	36:78:27:HIS:HB2	1.76	0.68
1:1G:1095:U:P	1:1G:1108:G:H1	2.15	0.68
52:J5:55:ARG:HH11	52:J5:55:ARG:HB2	1.58	0.68
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.10	0.68
1:13:1128:C:H5"	9:8E:16:ARG:HH22	1.58	0.68
2:1E:118:LEU:HD13	2:1E:142:LEU:HA	1.75	0.68
26:1H:918:A:N3	27:16:80:U:O2'	2.26	0.68
32:51:101:ARG:NH2	32:51:121:ILE:O	2.26	0.68
26:1H:2121:G:N2	26:1H:2177:C:N3	2.41	0.68
26:14:2472:G:H2'	26:14:2475:C:H41	1.56	0.68
1:1G:539:A:H2'	1:1G:540:G:C8	2.28	0.68
31:41:64:THR:HG23	31:41:94:LEU:HD13	1.76	0.68
26:14:252:G:OP2	36:35:50:ARG:NH2	2.24	0.68
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.75	0.68
54:Q8:30:ARG:NH1	54:Q8:30:ARG:HB2	2.09	0.68
34:58:65:LYS:HB3	34:58:69:GLN:HG3	1.74	0.68
29:29:59:VAL:HB	29:29:60:ASN:HA	1.75	0.68
26:14:2103:C:H2'	26:14:2104:G:C8	2.29	0.68
1:13:101:A:H2'	1:13:102:G:H8	1.59	0.68
22:1K:47:C:H42	22:1K:56:G:H1	1.41	0.68
26:14:1673:U:H5"	26:14:1674:G:OP2	1.93	0.68
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.29	0.68
28:11:142:VAL:HG23	28:11:193:VAL:HA	1.76	0.68
26:1H:1253:A:C8	57:1H:4123:HOH:O	2.47	0.68
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.29	0.68
26:14:2588:G:OP2	57:14:3574:HOH:O	2.12	0.68
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.75	0.68
47:I8:38:VAL:HG12	47:I8:40:GLN:HG2	1.75	0.68
1:13:618:C:H5"	1:13:619:U:H5"	1.76	0.68
1:13:735:C:H2'	1:13:736:C:H6	1.58	0.68
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.94	0.68
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.74	0.68
45:G8:76:CYS:O	45:G8:78:ALA:N	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2270:G:OP2	57:14:3779:HOH:O	2.11	0.68
17:8A:18:THR:OG1	17:8A:69:LYS:NZ	2.20	0.68
26:14:1266:G:O4'	43:A5:15:ARG:NH2	2.26	0.68
26:1H:245:G:O6	54:Q8:8:LYS:NZ	2.27	0.68
23:2L:72:C:H2'	23:2L:73:C:H6	1.59	0.68
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.27	0.68
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.28	0.68
35:25:53:LYS:N	35:25:56:ASP:OD2	2.26	0.68
1:13:328:C:H4'	1:13:329:A:H5"	1.74	0.68
26:1H:730:C:OP2	57:1H:3618:HOH:O	2.12	0.67
36:78:64:LYS:HE3	54:Q8:12:LYS:HD2	1.76	0.67
41:85:92:ARG:HH22	42:95:10:LYS:HA	1.60	0.67
51:I5:13:ARG:HG2	51:I5:22:ILE:HG13	1.76	0.67
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.30	0.67
11:2I:98:LEU:O	11:2I:101:SER:OG	2.10	0.67
27:1J:13:A:N1	27:1J:69:G:O2'	2.23	0.67
26:14:2256:G:O6	57:14:3681:HOH:O	2.11	0.67
26:14:1174:A:H62	26:14:1177:A:H4'	1.59	0.67
26:14:1774:C:OP1	57:14:3555:HOH:O	2.10	0.67
26:14:1175:U:O2	26:14:1176:G:N2	2.27	0.67
23:2K:62:G:O2'	23:2K:63:G:OP2	2.12	0.67
26:14:528:A:C2	26:14:2042:A:H2'	2.29	0.67
26:14:2683:C:OP1	40:75:53:ARG:NH2	2.27	0.67
23:2K:12:G:H1	23:2K:24:C:H42	1.42	0.67
35:68:119:PRO:HB2	40:B8:68:TYR:CE2	2.29	0.67
50:H5:10:LYS:NZ	50:H5:15:TYR:OH	2.23	0.67
26:14:2415:G:H4'	36:35:67:MET:N	2.09	0.67
26:14:1992:G:OP2	57:14:3586:HOH:O	2.12	0.67
37:45:25:ASP:O	46:D5:78:LYS:NZ	2.27	0.67
19:AI:5:LEU:HB3	19:AI:10:PHE:HE1	1.59	0.67
27:16:95:U:H2'	27:16:96:G:C8	2.29	0.67
1:13:1503:A:H5"	1:13:1531:A:H1'	1.76	0.67
26:1H:1816:G:N7	28:11:35:LYS:NZ	2.42	0.67
26:14:2292:C:OP1	39:65:17:ARG:NH2	2.24	0.67
26:1H:2815:C:H5'	52:N8:29:THR:HG21	1.75	0.67
26:14:1525:G:H2'	26:14:1526:G:C8	2.29	0.67
23:2L:74:C:H2'	23:2L:75:G:C8	2.29	0.67
1:1G:547:A:OP2	4:32:2:GLY:N	2.26	0.67
46:H8:117:LEU:HD22	46:H8:118:GLN:H	1.60	0.67
1:1G:376:G:H5"	16:7A:5:ARG:HD2	1.75	0.67
2:12:111:ARG:HH11	2:12:111:ARG:HA	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.27	0.67
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.75	0.67
50:H5:6:VAL:HG12	50:H5:56:VAL:HB	1.77	0.67
26:1H:2002:G:O6	57:1H:3940:HOH:O	2.12	0.67
40:75:108:ARG:HA	40:75:111:ARG:HG3	1.77	0.67
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.76	0.67
19:AA:66:MET:SD	19:AA:66:MET:N	2.67	0.67
46:D5:70:LEU:O	46:D5:89:PHE:N	2.23	0.67
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.28	0.67
46:D5:97:GLU:HB3	46:D5:125:LEU:HD11	1.76	0.67
45:G8:97:ARG:CZ	45:G8:104:GLY:HA3	2.25	0.67
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.27	0.67
26:14:894:C:O2	26:14:896:A:N6	2.28	0.67
26:14:910:A:C5	37:45:13:GLN:HG3	2.30	0.67
22:1K:49:C:N3	22:1K:55:G:N1	2.43	0.67
22:1L:15:A:H8	22:1L:16:U:C5	2.12	0.67
1:1G:929:G:H1	1:1G:1388:C:H42	1.42	0.67
26:1H:1397:U:OP2	26:1H:1398:C:N4	2.21	0.67
22:1K:30:A:N6	22:1K:42:U:O4	2.19	0.67
26:14:2745:C:O2	32:59:139:GLN:NE2	2.28	0.67
48:J8:48:LYS:HB3	48:J8:49:VAL:CA	2.24	0.67
26:14:634:C:H2'	26:14:635:C:C6	2.30	0.67
13:4I:23:TYR:HD1	13:4I:67:GLU:HA	1.60	0.67
44:B5:9:LEU:HA	49:G5:36:ARG:HH21	1.60	0.67
26:14:1250:G:OP2	36:35:21:ARG:NH1	2.28	0.67
27:16:95:U:H2'	27:16:96:G:H8	1.58	0.67
26:14:2849:U:O4	40:75:23:ARG:NH2	2.28	0.67
31:41:35:GLU:HG3	31:41:36:LYS:HB2	1.76	0.67
26:14:529:A:H4'	26:14:530:G:H5'	1.77	0.67
26:1H:581:C:H2'	26:1H:582:G:H8	1.58	0.67
1:13:1063:C:H3'	1:13:1064:G:H2'	1.76	0.67
23:2L:83:U:O4	23:2L:84:A:N6	2.27	0.66
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.78	0.66
32:51:124:GLU:HB3	32:51:132:ARG:HB3	1.76	0.66
8:72:113:SER:HB2	8:72:134:ILE:HD11	1.75	0.66
31:49:41:GLN:NE2	31:49:154:GLY:O	2.27	0.66
43:A5:86:LEU:HD12	43:A5:87:PRO:HD2	1.77	0.66
26:14:2528:U:O2'	26:14:2530:A:OP1	2.12	0.66
1:13:45:U:H2'	1:13:46:G:C8	2.30	0.66
26:14:1263:U:OP2	57:14:3820:HOH:O	2.12	0.66
51:I5:56:VAL:HG22	51:I5:57:GLU:HG3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1357:U:OP2	57:1H:3809:HOH:O	2.12	0.66
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.29	0.66
40:75:87:ASP:OD1	40:75:87:ASP:N	2.28	0.66
1:13:1273:G:H3'	1:13:1274:G:H8	1.60	0.66
1:1G:977:A:H1'	1:1G:982:U:O4	1.95	0.66
48:J8:53:VAL:HB	48:J8:58:ILE:HD13	1.76	0.66
26:1H:945:A:OP1	57:1H:3872:HOH:O	2.12	0.66
26:1H:2405:G:OP1	36:78:77:ARG:NH2	2.29	0.66
37:45:26:TYR:O	37:45:28:ALA:N	2.28	0.66
26:14:2447:G:H3'	57:14:3633:HOH:O	1.94	0.66
10:1I:84:GLN:HE21	10:1I:88:LEU:HD22	1.61	0.66
3:22:32:LEU:HD22	3:22:59:ARG:HH22	1.60	0.66
10:1A:91:PRO:HB2	10:1A:93:GLY:H	1.61	0.66
46:D5:30:ASN:HD22	46:D5:90:VAL:HB	1.61	0.66
46:H8:140:ASP:OD2	46:H8:156:LYS:NZ	2.25	0.66
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.78	0.66
35:68:112:MET:HA	35:68:115:VAL:HG13	1.78	0.66
10:1A:3:LYS:NZ	10:1A:75:ILE:O	2.28	0.66
45:C5:29:GLU:OE1	45:C5:29:GLU:N	2.28	0.66
4:32:119:GLN:HG2	4:32:123:HIS:CD2	2.31	0.66
2:1E:17:PHE:H	2:1E:17:PHE:HD1	1.44	0.66
29:21:97:LYS:N	29:21:100:GLU:OE1	2.24	0.66
26:14:2497:A:O3'	57:14:3523:HOH:O	2.12	0.66
26:14:2591:C:OP1	28:19:239:ARG:HG3	1.95	0.66
26:14:71:A:H2	44:B5:31:HIS:HE2	1.41	0.66
35:68:104:ARG:NH2	40:B8:43:GLN:OE1	2.27	0.66
29:21:24:THR:HG21	29:21:188:VAL:HG22	1.78	0.66
26:14:1899:G:N2	26:14:1902:C:N4	2.44	0.66
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.27	0.66
26:1H:617:G:OP1	30:31:40:GLN:NE2	2.29	0.66
40:B8:50:ILE:HD13	40:B8:64:ARG:HB3	1.77	0.66
26:14:2810:A:N6	26:14:2891:G:O2'	2.29	0.66
22:1K:47:C:N3	22:1K:56:G:N2	2.43	0.66
29:29:37:ARG:NE	29:29:42:ASP:OD2	2.26	0.66
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.30	0.66
26:1H:489:G:N7	43:E8:49:LYS:NZ	2.42	0.66
28:11:38:LYS:HE2	28:11:39:LYS:O	1.96	0.66
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.60	0.66
47:E5:18:ALA:HB3	47:E5:20:ARG:HH21	1.61	0.66
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	1.78	0.66
34:15:18:ALA:HA	34:15:21:LYS:HG3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:259:G:H21	26:14:621:A:H8	1.40	0.66
32:59:159:GLU:O	32:59:163:TYR:OH	2.13	0.66
12:3I:90:VAL:HG11	12:3I:93:LEU:HG	1.77	0.66
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.29	0.66
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.36	0.66
26:1H:2392:A:H2	26:1H:2424:C:H42	1.42	0.66
26:1H:529:A:H4'	26:1H:530:G:H5'	1.78	0.66
36:35:147:LEU:HG	36:35:148:LEU:H	1.60	0.66
46:H8:28:MET:HG3	46:H8:37:VAL:HG11	1.78	0.66
50:H5:59:VAL:HG12	50:H5:60:GLU:H	1.61	0.66
31:49:61:ALA:HB2	31:49:68:PRO:HD3	1.78	0.66
1:1G:587:G:N2	1:1G:754:C:OP2	2.29	0.66
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.60	0.66
1:13:601:C:H2'	1:13:602:A:C8	2.30	0.66
26:14:1427:A:H4'	26:14:1428:C:O4'	1.96	0.66
1:1G:359:U:H2'	1:1G:360:A:H8	1.59	0.66
43:A5:65:LEU:HD13	43:A5:68:ARG:HD3	1.78	0.66
26:1H:760:G:OP1	57:1H:3688:HOH:O	2.13	0.66
54:Q8:53:PRO:HB3	54:Q8:56:GLU:H	1.61	0.66
26:14:784:A:OP1	57:14:3568:HOH:O	2.13	0.66
51:M8:40:HIS:CD2	51:M8:45:GLY:HA3	2.31	0.66
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.31	0.66
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	1.78	0.66
46:H8:11:GLU:O	46:H8:36:LYS:NZ	2.28	0.66
1:13:1305:G:H22	1:13:1331:G:C2'	2.05	0.65
26:14:1021:A:H62	26:14:1141:U:H3	1.44	0.65
33:61:120:ILE:HD11	33:61:126:TYR:CE2	2.31	0.65
33:69:75:LEU:HD22	33:69:76:THR:H	1.61	0.65
1:13:1062:U:H2'	1:13:1063:C:C6	2.31	0.65
7:6E:62:PHE:HD1	7:6E:124:LEU:HD11	1.60	0.65
33:61:3:VAL:HG12	33:61:38:LEU:HA	1.78	0.65
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.78	0.65
26:14:459:U:H5"	53:L5:40:TRP:CD2	2.32	0.65
26:1H:330:A:O2'	26:1H:331:A:H8	1.79	0.65
1:1G:973:G:H1'	10:1A:55:LYS:NZ	2.12	0.65
10:1A:48:THR:HG1	10:1A:62:HIS:CE1	2.13	0.65
26:1H:33:U:H4'	26:1H:34:C:OP1	1.96	0.65
26:14:2377:A:H4'	39:65:111:GLU:HG2	1.78	0.65
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.30	0.65
42:D8:34:GLU:HB2	42:D8:58:VAL:HG22	1.79	0.65
1:13:1149:C:H2'	1:13:1150:U:C6	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1182:G:H4'	1:13:1183:A:H5"	1.77	0.65
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.61	0.65
26:1H:1341:U:O4	44:F8:16:LYS:NZ	2.30	0.65
1:13:1305:G:N2	1:13:1331:G:H2'	2.05	0.65
1:1G:1326:C:OP1	21:1B:12:LYS:NZ	2.28	0.65
40:B8:27:THR:HG23	40:B8:90:GLN:HB3	1.78	0.65
1:1G:1469:G:O6	57:1G:1831:HOH:O	2.11	0.65
24:3L:37:G:H22	25:4L:44:U:H3	1.43	0.65
26:1H:2355:C:O2	47:I8:39:ARG:NH2	2.30	0.65
3:22:7:PRO:O	3:22:11:ARG:NH1	2.28	0.65
26:14:273(C):C:H42	26:14:363(C):G:H1	1.44	0.65
1:13:963:G:N2	1:13:972:C:N3	2.32	0.65
26:1H:1826:G:H4'	28:11:242:ARG:HH21	1.62	0.65
1:13:439:A:H2'	1:13:440:A:O4'	1.97	0.65
22:1L:31:C:O2	22:1L:41:G:N2	2.28	0.65
2:12:115:LEU:HD13	2:12:145:LEU:HB3	1.78	0.65
37:45:117:ALA:HA	37:45:120:ILE:HB	1.76	0.65
26:1H:1141:U:H6	34:58:63:THR:HG1	1.42	0.65
27:1J:42:C:O2'	31:49:67:LYS:O	2.12	0.65
23:2L:73:C:H2'	23:2L:74:C:C6	2.32	0.65
32:59:26:VAL:HG21	32:59:75:ALA:HB1	1.77	0.65
1:13:1149:C:H2'	1:13:1150:U:H6	1.61	0.65
26:14:571:A:OP2	57:14:3987:HOH:O	2.13	0.65
8:7E:106:GLY:HA2	8:7E:122:ARG:HH12	1.60	0.65
26:14:1252:G:O4'	41:85:33:ARG:HD3	1.95	0.65
21:1B:9:ARG:HG3	21:1B:10:ARG:N	2.12	0.65
46:D5:54:HIS:HB3	46:D5:101:PRO:HD3	1.77	0.65
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.78	0.65
36:78:138:LEU:HD12	36:78:144:GLU:HG3	1.78	0.65
26:14:544:C:H2'	26:14:545:G:H5'	1.77	0.65
26:14:1069:A:H2	26:14:1094:U:H3	1.43	0.65
29:21:39:PRO:HD3	29:21:45:THR:HG23	1.78	0.65
29:29:60:ASN:HB3	29:29:61:ARG:C	2.17	0.65
45:G8:76:CYS:HB2	45:G8:82:PRO:HD3	1.79	0.65
46:H8:111:VAL:HG21	46:H8:146:ILE:HG13	1.78	0.65
40:75:16:ARG:HH12	40:75:83:ILE:HB	1.61	0.65
11:2A:34:ASP:HB2	11:2A:35:PRO:HD2	1.77	0.65
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.31	0.65
22:1L:48:C:O2'	22:1L:49:C:OP1	2.11	0.65
33:69:130:TYR:HB3	33:69:136:VAL:HG13	1.78	0.65
26:1H:761:A:OP1	57:1H:3622:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2444:G:OP2	30:39:68:LYS:HE2	1.97	0.65
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.78	0.65
26:14:2287:A:H62	26:14:2344:U:H3	1.43	0.65
40:B8:64:ARG:HB2	40:B8:73:GLU:HG2	1.78	0.65
22:1K:37:G:H1	25:4K:49:U:H3	1.43	0.65
26:1H:784:A:C5	28:11:229:VAL:HG21	2.32	0.65
26:1H:299:A:H5'	26:1H:300:A:OP2	1.97	0.65
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.29	0.65
5:4E:71:LEU:HD22	5:4E:114:GLY:HA3	1.78	0.65
2:12:178:ARG:NH1	2:12:196:LEU:O	2.27	0.65
46:D5:163:LEU:HD23	46:D5:163:LEU:H	1.60	0.65
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.10	0.65
26:14:309:G:H4'	45:C5:18:GLY:HA3	1.79	0.65
1:13:21:G:OP1	57:13:1810:HOH:O	2.13	0.65
1:1G:32:A:H2'	1:1G:33:A:C8	2.31	0.65
26:14:1939:U:OP1	26:14:2604:U:O2'	2.11	0.65
1:1G:380:G:N2	1:1G:383:A:OP2	2.30	0.65
26:14:1024:G:H3'	26:14:1025:G:H5"	1.79	0.65
26:1H:2306:C:N4	31:41:42:GLY:O	2.30	0.65
26:1H:2168:G:OP1	26:1H:2168:G:H4'	1.97	0.65
23:2L:20:U:O2'	23:2L:21:A:OP2	2.10	0.65
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.30	0.65
3:22:73:PRO:O	3:22:77:ILE:N	2.22	0.65
33:61:120:ILE:HD11	33:61:126:TYR:CZ	2.31	0.65
23:2L:72:C:H2'	23:2L:73:C:C6	2.32	0.65
26:14:2746:U:OP1	32:59:85:LYS:NZ	2.22	0.65
26:14:2058:A:OP1	57:14:3855:HOH:O	2.15	0.65
26:14:2010:G:H5"	43:A5:42:ARG:HB2	1.78	0.65
27:1J:28:C:H42	27:1J:56:G:H1	1.44	0.65
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.32	0.65
1:1G:1067:A:HO2'	1:1G:1093:A:HO2'	1.42	0.65
1:1G:1503:A:OP1	1:1G:1531:A:O2'	2.15	0.65
51:I5:57:GLU:O	51:I5:61:ARG:NH2	2.28	0.65
26:14:491:G:H2'	26:14:492:A:H8	1.62	0.65
28:19:24:ILE:HA	28:19:82:ILE:HG22	1.79	0.65
42:95:58:VAL:HB	42:95:98:GLU:HB2	1.79	0.65
53:P8:8:ASN:OD1	53:P8:11:LYS:N	2.24	0.65
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.79	0.65
26:1H:71:A:H2	44:F8:31:HIS:CE1	2.15	0.65
1:1G:973:G:O4'	10:1A:55:LYS:HG3	1.96	0.64
26:1H:2576:G:OP1	57:1H:3667:HOH:O	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2557:G:H2'	26:14:2558:C:H6	1.60	0.64
26:14:2112:G:O2'	26:14:2114:A:N6	2.27	0.64
46:H8:5:LEU:HD23	46:H8:47:VAL:HG21	1.79	0.64
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.62	0.64
26:1H:1520:U:H2'	26:1H:1521:G:O4'	1.97	0.64
48:J8:87:PRO:HA	48:J8:90:ILE:HG12	1.79	0.64
26:1H:1997:G:OP2	57:1H:3785:HOH:O	2.15	0.64
13:4A:29:ARG:HB3	13:4A:64:TRP:CZ2	2.33	0.64
26:14:1359:A:H62	26:14:1372:U:H3	1.45	0.64
26:1H:1006:C:H1'	34:58:106:MET:HE3	1.78	0.64
1:13:468:A:H5"	16:7I:80:PHE:HB3	1.77	0.64
26:1H:2255:G:OP2	57:1H:3878:HOH:O	2.14	0.64
26:1H:1249:U:OP1	57:1H:3734:HOH:O	2.14	0.64
43:E8:57:ASN:O	43:E8:61:ASN:HB2	1.97	0.64
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.79	0.64
1:1G:636:U:H2'	1:1G:637:G:H8	1.62	0.64
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.62	0.64
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.80	0.64
1:1G:280:C:H3'	1:1G:281:G:H5'	1.78	0.64
1:1G:1119:C:OP1	9:82:83:ARG:NH1	2.30	0.64
2:1E:134:GLU:HA	2:1E:137:ARG:HB3	1.78	0.64
40:75:125:ARG:HG3	40:75:129:ARG:HH21	1.62	0.64
27:1J:15:A:H5'	27:1J:16:G:C8	2.32	0.64
26:1H:1826:G:O2'	28:11:242:ARG:NH2	2.31	0.64
26:14:1828:G:OP2	57:14:3532:HOH:O	2.15	0.64
26:14:1485:G:H1	26:14:1504:C:H42	1.44	0.64
26:1H:2408:U:H2'	26:1H:2409:G:H8	1.63	0.64
1:13:1279:A:O2'	1:13:1281:U:OP2	2.15	0.64
48:F5:60:PHE:HE2	48:F5:91:LYS:HD3	1.63	0.64
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.32	0.64
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.30	0.64
14:5A:37:PHE:HZ	14:5A:56:VAL:HG21	1.63	0.64
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.80	0.64
34:15:38:HIS:NE2	34:15:50:ASP:OD2	2.30	0.64
26:1H:41:C:H42	26:1H:438:G:H1	1.45	0.64
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.79	0.64
1:13:946:A:H2'	1:13:947:G:C8	2.33	0.64
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.78	0.64
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.61	0.64
26:14:1973:G:H2'	26:14:1974:C:C6	2.31	0.64
1:13:14:U:OP2	57:13:1815:HOH:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2715:C:H2'	26:14:2716:U:H6	1.61	0.64
6:5E:39:LYS:H	6:5E:64:GLN:HB2	1.63	0.64
1:13:1240:U:OP2	7:6E:116:ALA:N	2.30	0.64
37:88:87:LYS:HG2	37:88:88:GLY:H	1.63	0.64
28:19:132:PRO:HG3	28:19:190:TYR:CE1	2.33	0.64
3:2E:152:ILE:HG12	3:2E:167:TRP:HB2	1.80	0.64
26:1H:2679:A:H4'	29:21:165:VAL:HG11	1.80	0.64
32:51:27:LYS:HA	32:51:32:GLU:HA	1.79	0.64
1:13:1132:C:H2'	1:13:1133:G:H8	1.60	0.64
40:B8:5:ALA:HA	40:B8:8:LYS:HG2	1.80	0.64
36:78:36:LYS:O	36:78:40:SER:HB3	1.98	0.64
1:13:148:G:H2'	1:13:149:A:H8	1.61	0.64
26:14:1794:U:H2'	26:14:1795:C:H6	1.61	0.64
47:E5:26:TYR:O	47:E5:29:GLN:HB2	1.98	0.64
43:A5:35:ILE:HG23	52:J5:28:PRO:HD2	1.80	0.64
1:1G:409:G:H1	1:1G:433:C:H42	1.45	0.64
30:39:20:LEU:HG	30:39:199:TRP:HH2	1.63	0.64
26:14:1729:A:H2'	26:14:1731:G:H22	1.63	0.64
1:1G:1127:G:H2'	1:1G:1147:C:H42	1.62	0.64
34:58:9:VAL:HG11	34:58:39:ARG:HH12	1.62	0.64
48:J8:18:ILE:HG12	48:J8:37:ILE:HG12	1.80	0.64
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.80	0.64
32:51:4:ILE:HG13	32:51:6:ARG:HB2	1.79	0.64
13:4A:96:LEU:O	13:4A:110:ARG:NE	2.28	0.64
1:13:991:U:H4'	1:13:992:U:H5"	1.78	0.64
54:Q8:49:VAL:HG13	54:Q8:50:LEU:O	1.96	0.64
26:1H:29:U:H2'	26:1H:30:G:C8	2.33	0.64
1:1G:1012:U:H3	1:1G:1017:G:H1	1.46	0.64
23:2L:36:A:H2'	23:2L:37:G:C8	2.33	0.64
1:1G:413:G:O2'	1:1G:414:A:OP2	2.11	0.64
1:1G:426:G:OP1	4:32:38:TYR:OH	2.12	0.64
26:1H:547:A:H2'	26:1H:548:A:C8	2.33	0.64
44:F8:26:TYR:HD1	44:F8:92:LEU:HD12	1.63	0.64
26:14:2116:G:N1	26:14:2162:G:OP1	2.31	0.64
26:1H:2444:G:OP2	30:31:68:LYS:HE2	1.98	0.64
26:1H:974(A):C:OP1	57:1H:3911:HOH:O	2.15	0.64
30:39:157:VAL:HB	30:39:194:MET:HB3	1.79	0.64
31:41:64:THR:HG21	31:41:92:VAL:HG21	1.79	0.64
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.29	0.64
2:12:179:LYS:HA	8:72:72:PRO:HG3	1.80	0.64
32:51:33:LEU:HD21	32:51:136:ILE:HB	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:103:ASP:OD1	29:29:201:THR:HG23	1.98	0.64
11:2I:85:ARG:HE	11:2I:111:ASP:HB3	1.63	0.64
26:14:2749:A:N1	26:14:2750:A:N6	2.46	0.63
26:14:751:A:OP1	57:14:3505:HOH:O	2.15	0.63
48:J8:92:LYS:O	48:J8:94:LEU:N	2.31	0.63
26:1H:1728:G:H8	26:1H:1732:A:H62	1.45	0.63
37:45:114:ALA:O	37:45:118:LEU:HB2	1.98	0.63
26:14:1111:A:H4'	32:59:3:ARG:HD3	1.80	0.63
26:1H:635:C:O2'	26:1H:639:U:OP1	2.15	0.63
22:1L:64:G:H1	22:1L:72:C:H42	1.45	0.63
1:1G:413:G:HO2'	1:1G:428:G:H22	1.47	0.63
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.80	0.63
26:1H:2147:G:H2'	26:1H:2148:G:H4'	1.80	0.63
26:1H:1830:C:H42	26:1H:1975:G:H1	1.44	0.63
26:1H:1849:G:N2	26:1H:1893:C:O2	2.26	0.63
33:61:131:LYS:HB3	33:61:132:PRO:HA	1.79	0.63
26:1H:2419:U:O4	54:Q8:29:LYS:NZ	2.18	0.63
31:49:4:ASP:CG	31:49:5:VAL:H	2.01	0.63
26:14:492:A:H2'	26:14:493:G:O4'	1.97	0.63
27:1J:41:U:C4	31:49:70:VAL:HG23	2.32	0.63
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.79	0.63
30:31:85:GLY:O	57:31:501:HOH:O	2.15	0.63
1:1G:142:G:H2'	1:1G:143:A:H8	1.61	0.63
29:29:12:THR:O	29:29:23:VAL:HG22	1.98	0.63
2:12:7:VAL:HG22	2:12:8:LYS:H	1.62	0.63
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.34	0.63
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.80	0.63
26:1H:1187:G:OP2	57:1H:3727:HOH:O	2.15	0.63
12:3A:27:LEU:HB3	12:3A:33:ARG:HD3	1.79	0.63
33:69:3:VAL:HG12	33:69:38:LEU:HA	1.78	0.63
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.28	0.63
48:J8:8:SER:HB3	48:J8:66:HIS:CD2	2.33	0.63
30:31:130:ALA:H	30:31:132:VAL:HG13	1.63	0.63
26:1H:2502:G:H5"	26:1H:2503:A:H5"	1.81	0.63
10:1A:32:ALA:HA	10:1A:76:ASN:HB2	1.80	0.63
13:4A:34:LEU:O	13:4A:38:GLY:N	2.32	0.63
39:65:85:VAL:H	39:65:110:LEU:HB3	1.64	0.63
26:1H:1434:A:H61	26:1H:1558:A:H62	1.46	0.63
36:35:147:LEU:CG	36:35:148:LEU:H	2.10	0.63
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.13	0.63
31:41:40:ASN:HB2	31:41:91:ARG:HG2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:222:U:H2'	1:13:223:U:C6	2.34	0.63
42:D8:3:ALA:HB1	42:D8:38:LEU:HD11	1.80	0.63
54:Q8:36:LYS:HG2	54:Q8:39:LYS:NZ	2.14	0.63
29:21:12:THR:OG1	29:21:13:ARG:N	2.31	0.63
29:29:33:VAL:HG12	29:29:89:ASP:CB	2.27	0.63
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.78	0.63
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.44	0.63
1:13:1028(A):C:H2'	1:13:1028(B):C:H5	1.64	0.63
26:1H:185:U:H2'	26:1H:186:G:H8	1.62	0.63
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.30	0.63
1:1G:709:G:H2'	1:1G:710:G:H8	1.63	0.63
26:1H:2392:A:OP2	54:Q8:30:ARG:NH2	2.31	0.63
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.79	0.63
28:19:182:LEU:H	28:19:272:ALA:HB2	1.63	0.63
26:14:1252:G:N3	41:85:33:ARG:HD2	2.13	0.63
46:H8:111:VAL:HG11	46:H8:146:ILE:HB	1.80	0.63
1:13:224:C:H2'	1:13:225:C:C6	2.33	0.63
9:82:4:TYR:HB2	9:82:19:LEU:HB2	1.78	0.63
1:1G:1291:G:OP1	7:62:41:ARG:NH2	2.32	0.63
33:61:69:LYS:HA	33:61:136:VAL:HB	1.80	0.63
26:1H:1899:G:N2	26:1H:1902:C:H5	1.96	0.63
1:1G:1533:C:H42	25:4L:39:U:H3	1.45	0.63
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.28	0.63
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.34	0.63
46:D5:72:ARG:NH2	46:D5:97:GLU:O	2.30	0.63
26:1H:581:C:H2'	26:1H:582:G:C8	2.34	0.63
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.79	0.63
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.64	0.63
1:13:1342:C:H2'	1:13:1343:G:C8	2.34	0.63
36:35:64:LYS:HB3	54:M5:30:ARG:HH22	1.62	0.63
26:14:1260:G:H2'	26:14:1261:C:C6	2.33	0.63
26:14:265:A:N6	26:14:427:U:O2'	2.31	0.63
54:Q8:35:GLN:C	54:Q8:37:SER:H	2.00	0.63
26:1H:2406:U:OP1	57:1H:4136:HOH:O	2.16	0.63
30:39:24:LEU:HD12	30:39:25:PRO:HD3	1.81	0.63
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.33	0.63
32:51:86:GLU:CD	32:51:86:GLU:H	2.01	0.63
26:14:2148:G:H2'	26:14:2149:G:H8	1.64	0.63
26:1H:2176:A:H2'	26:1H:2177:C:H6	1.62	0.63
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.33	0.63
2:12:58:ILE:O	2:12:62:ALA:N	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:77:ARG:O	38:55:80:PHE:N	2.31	0.63
1:1G:1492:A:OP1	12:3A:46:LYS:HB2	1.99	0.63
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.64	0.63
26:1H:1228:G:OP2	41:C8:16:LYS:NZ	2.30	0.63
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.64	0.63
26:14:2302:G:N2	26:14:2314:C:O2	2.31	0.63
38:98:104:ARG:HG3	38:98:111:LEU:HD21	1.81	0.63
2:1E:8:LYS:HG2	2:1E:9:GLU:HG2	1.80	0.63
26:14:2306:C:H3'	26:14:2307:G:H5"	1.81	0.63
1:1G:1379:G:OP1	7:62:6:ARG:NH1	2.31	0.63
45:C5:50:ARG:HB3	45:C5:53:PRO:HG3	1.81	0.63
9:8E:53:VAL:HG12	9:8E:55:ALA:H	1.64	0.63
32:59:69:ARG:HA	32:59:72:ILE:HD12	1.80	0.63
53:P8:12:ARG:HH21	53:P8:44:PRO:HB3	1.64	0.63
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.17	0.63
30:31:40:GLN:NE2	30:31:182:ASN:HB2	2.13	0.62
32:51:4:ILE:HB	32:51:6:ARG:HG3	1.80	0.62
1:13:651:C:H2'	1:13:652:U:H6	1.64	0.62
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.32	0.62
13:4A:10:PRO:HG2	13:4A:45:VAL:HG11	1.81	0.62
1:13:67:C:H2'	1:13:68:G:H8	1.64	0.62
3:2E:59:ARG:HH12	3:2E:97:LYS:HE3	1.64	0.62
27:16:111:U:H2'	27:16:112:G:H8	1.64	0.62
41:85:74:LEU:HD13	41:85:79:PHE:HB2	1.81	0.62
26:14:443:A:H1'	26:14:1201:C:O4'	1.99	0.62
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.81	0.62
26:1H:2420:C:H41	54:Q8:29:LYS:HA	1.63	0.62
10:1I:50:ILE:HA	10:1I:60:ARG:HB3	1.81	0.62
28:11:72:LYS:HD2	28:11:75:ILE:HD12	1.81	0.62
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.34	0.62
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.31	0.62
26:14:1405:U:H2'	26:14:1406:U:C6	2.34	0.62
1:1G:860:A:H2'	1:1G:861:G:O4'	1.99	0.62
33:69:101:LEU:HB3	33:69:105:HIS:HB2	1.80	0.62
26:14:602:G:O2'	26:14:655:A:N6	2.32	0.62
26:14:1204:A:O2'	26:14:1205:U:OP2	2.16	0.62
1:13:1106:G:H5"	3:2E:172:ARG:HG2	1.81	0.62
26:1H:2079:U:O4	57:1H:3998:HOH:O	2.16	0.62
26:14:1754:C:P	40:75:96:ARG:HH12	2.21	0.62
5:4E:100:VAL:HG12	5:4E:118:ILE:HG22	1.81	0.62
1:13:413:G:N7	4:3E:35:ARG:NH1	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.34	0.62
26:14:2271:G:H5"	47:E5:20:ARG:NE	2.13	0.62
26:14:287:C:H2'	26:14:288:C:H6	1.63	0.62
48:J8:3:LYS:O	48:J8:12:PRO:HD3	1.98	0.62
26:14:95:G:H4'	49:G5:46:GLN:HB2	1.81	0.62
44:B5:60:ARG:HA	44:B5:60:ARG:HH11	1.64	0.62
10:1I:49:VAL:O	10:1I:60:ARG:HB2	1.99	0.62
41:85:92:ARG:O	41:85:94:ASN:N	2.33	0.62
26:14:2811:G:OP1	29:29:61:ARG:HB3	1.99	0.62
26:1H:1045:A:H1'	26:1H:1047:G:N3	2.14	0.62
22:1L:41:G:H2'	22:1L:42:U:C6	2.33	0.62
42:D8:19:LYS:HG3	42:D8:95:LEU:HD23	1.80	0.62
46:D5:28:MET:HE1	46:D5:61:LEU:HD21	1.81	0.62
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.80	0.62
26:14:2816:C:O3'	38:55:99:LYS:NZ	2.32	0.62
1:13:1178:G:N2	1:13:1181:G:H8	1.96	0.62
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.80	0.62
16:7I:43:LYS:HA	16:7I:48:TRP:HB2	1.81	0.62
1:1G:1028:C:H42	1:1G:1033:G:H1	1.47	0.62
1:1G:673:G:H2'	1:1G:674:G:C8	2.34	0.62
26:1H:77:C:H5"	49:K8:10:LEU:HD11	1.81	0.62
46:D5:4:ARG:HB3	46:D5:58:VAL:HB	1.81	0.62
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.64	0.62
26:14:2690:C:OP2	38:55:14:SER:HB3	1.98	0.62
44:F8:1:MET:C	44:F8:3:THR:H	2.02	0.62
26:1H:95:G:H4'	49:K8:46:GLN:HB3	1.81	0.62
18:9I:52:PRO:HB2	18:9I:54:ARG:HD3	1.80	0.62
1:1G:978:A:O2'	1:1G:1322:C:N3	2.32	0.62
54:Q8:32:LEU:HG	54:Q8:33:ASN:HD22	1.64	0.62
27:1J:15:A:H1'	27:1J:109:G:N9	2.14	0.62
45:G8:39:VAL:HB	45:G8:42:VAL:HG11	1.80	0.62
26:14:1464:C:HO2'	26:14:1528:A:H8	1.47	0.62
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.80	0.62
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.81	0.62
36:78:79:ARG:HB3	36:78:110:TYR:CD1	2.34	0.62
48:J8:7:ILE:HD13	48:J8:62:VAL:HG11	1.81	0.62
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.81	0.62
30:39:32:LEU:HD11	30:39:105:VAL:HG13	1.80	0.62
29:29:58:ARG:HG2	29:29:58:ARG:HH21	1.65	0.62
29:21:77:ILE:O	29:21:79:ARG:N	2.33	0.62
3:22:11:ARG:HE	3:22:180:ALA:HB3	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:4:ARG:NH1	46:D5:60:GLU:OE2	2.32	0.62
29:29:81:ILE:HG22	29:29:82:ARG:H	1.64	0.62
26:14:1106:G:H2'	26:14:1107:G:C8	2.34	0.62
1:13:581:G:N2	1:13:760:G:N7	2.47	0.62
26:14:848:G:H2'	26:14:849:A:C8	2.35	0.62
30:39:36:VAL:HB	30:39:183:VAL:HG11	1.82	0.62
22:1L:21:A:O2'	22:1L:59:U:O4	2.16	0.62
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	1.81	0.62
20:BA:16:HIS:O	20:BA:19:SER:OG	2.16	0.62
17:8A:7:THR:O	17:8A:23:VAL:HG13	2.00	0.62
26:14:234:C:H2'	26:14:235:U:H6	1.63	0.62
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.00	0.62
38:98:27:SER:HB3	38:98:34:ILE:HD11	1.80	0.62
1:1G:407:G:O6	1:1G:435:C:N4	2.20	0.62
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.34	0.62
49:K8:47:ASN:C	49:K8:49:LYS:H	2.02	0.62
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.14	0.62
51:I5:58:ARG:HA	51:I5:58:ARG:NE	2.14	0.62
26:1H:1216:G:OP2	41:C8:12:ARG:NH2	2.32	0.62
26:14:185:U:H2'	26:14:186:G:C8	2.35	0.62
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.65	0.62
3:2E:119:ARG:O	3:2E:123:GLN:HB2	2.00	0.62
6:5E:42:GLU:OE1	6:5E:59:TYR:OH	2.13	0.62
26:14:1079:C:N4	26:14:1088:A:OP1	2.30	0.62
42:95:85:LYS:HD2	42:95:87:HIS:HA	1.82	0.62
26:1H:607:U:OP1	30:31:102:PRO:HA	1.99	0.62
24:3K:7:G:H1	24:3K:77:C:H42	1.48	0.62
46:D5:19:ARG:NH1	46:D5:84:GLU:HB2	2.15	0.62
22:1L:21:A:H1'	22:1L:22:G:O5'	1.98	0.62
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.65	0.62
23:2K:61:C:N4	23:2K:62:G:O6	2.33	0.62
10:1A:3:LYS:HD2	10:1A:77:PRO:HG3	1.82	0.62
26:14:2272:U:O4	57:14:3776:HOH:O	2.11	0.62
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.80	0.62
48:F5:85:LEU:HA	48:F5:87:PRO:HD2	1.80	0.62
1:13:223:U:H2'	1:13:224:C:H6	1.63	0.62
26:14:1138:G:H21	34:15:106:MET:HE3	1.65	0.62
26:1H:1093:G:N2	26:1H:1097:U:OP2	2.24	0.62
32:51:113:VAL:HG11	32:51:151:ILE:HD13	1.79	0.62
37:88:110:THR:HG23	37:88:113:GLN:OE1	1.99	0.62
36:78:126:VAL:HG12	36:78:147:LEU:HD21	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:3:ARG:HE	39:65:4:LEU:N	1.98	0.62
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.80	0.62
26:1H:1009:A:OP2	34:58:37:LYS:NZ	2.33	0.62
37:45:139:GLU:HG2	37:45:140:ALA:H	1.65	0.62
52:N8:50:GLY:H	52:N8:56:LYS:HB2	1.64	0.62
26:14:1165:U:H2'	26:14:1166:C:C6	2.35	0.62
26:14:2074:U:OP1	57:14:3503:HOH:O	2.16	0.62
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.80	0.62
38:98:12:ARG:HG2	38:98:12:ARG:HH11	1.65	0.62
26:1H:2331:G:H4'	47:I8:43:THR:H	1.65	0.62
26:1H:1309:G:H4'	53:P8:7:PRO:HB2	1.81	0.62
40:B8:85:LYS:NZ	40:B8:87:ASP:OD1	2.19	0.62
36:78:50:ARG:CB	36:78:50:ARG:HH21	2.12	0.61
27:1J:44:G:H5"	27:1J:45:A:OP1	2.00	0.61
34:58:96:GLU:C	34:58:98:VAL:H	2.02	0.61
1:1G:413:G:O2'	1:1G:428:G:N2	2.33	0.61
26:14:2738:A:OP2	57:14:4010:HOH:O	2.16	0.61
18:9A:37:VAL:HG11	18:9A:78:LEU:HB3	1.80	0.61
24:3L:30:A:N1	24:3L:43:A:N6	2.47	0.61
21:1F:10:ARG:HE	21:1F:13:ILE:HD12	1.64	0.61
9:82:114:TYR:HE2	10:1A:60:ARG:H	1.46	0.61
26:14:2295:C:H5	39:65:13:ARG:HH22	1.47	0.61
31:49:66:GLN:OE1	31:49:98:ARG:NH1	2.32	0.61
40:B8:56:GLY:O	40:B8:59:THR:HG22	2.00	0.61
16:7I:57:ARG:NH2	16:7I:78:GLY:O	2.33	0.61
49:G5:56:GLN:HG2	49:G5:59:ARG:HH21	1.65	0.61
12:3I:28:LYS:HD2	12:3I:62:SER:HB3	1.81	0.61
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.33	0.61
31:41:109:VAL:HG22	51:M8:33:VAL:HG21	1.82	0.61
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.81	0.61
26:1H:528:A:N1	26:1H:2042:A:H2'	2.15	0.61
54:Q8:8:LYS:H	54:Q8:8:LYS:HD2	1.65	0.61
4:32:108:LEU:HD12	4:32:170:VAL:HG11	1.81	0.61
26:14:1260:G:H2'	26:14:1261:C:H6	1.65	0.61
26:14:2777:G:H5"	26:14:2778:A:H5'	1.81	0.61
30:31:29:ASN:H	30:31:112:MET:HE3	1.64	0.61
26:14:581:C:H2'	26:14:582:G:C8	2.35	0.61
26:1H:1252:G:N3	41:C8:33:ARG:HD2	2.15	0.61
4:32:150:GLU:C	4:32:152:SER:H	2.03	0.61
1:1G:688:G:H2'	1:1G:689:C:H6	1.65	0.61
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:45:U:H2'	1:1G:46:G:H8	1.65	0.61
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.64	0.61
2:12:174:VAL:HA	2:12:177:ALA:HB3	1.83	0.61
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.82	0.61
8:72:37:ARG:HH21	8:72:38:ILE:HG13	1.66	0.61
26:14:1693:U:O2'	28:19:14:ARG:NH2	2.33	0.61
1:13:130:A:OP2	17:8I:63:ARG:NH2	2.33	0.61
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.81	0.61
38:55:38:VAL:HG22	38:55:112:ALA:HB2	1.81	0.61
25:4K:33:G:H2'	25:4K:34:G:C8	2.35	0.61
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.30	0.61
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.35	0.61
1:13:67:C:H2'	1:13:68:G:C8	2.35	0.61
44:F8:3:THR:OG1	44:F8:4:ALA:HA	2.00	0.61
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.81	0.61
54:Q8:38:GLY:H	54:Q8:41:ILE:HG13	1.66	0.61
26:14:2701:C:H3'	26:14:2702:U:C5'	2.27	0.61
28:19:10:THR:OG1	28:19:13:ARG:HB2	1.99	0.61
26:14:581:C:H2'	26:14:582:G:H8	1.65	0.61
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.00	0.61
49:K8:42:GLY:O	49:K8:44:LEU:N	2.31	0.61
19:AA:40:ILE:O	19:AA:68:GLY:N	2.34	0.61
26:14:2068:U:H3	26:14:2430:A:H2	1.47	0.61
26:1H:2784:C:H2'	26:1H:2785:C:H6	1.65	0.61
37:45:22:LYS:N	37:45:23:GLY:HA3	2.13	0.61
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.82	0.61
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.82	0.61
1:13:1367:C:H5'	10:1I:60:ARG:HH21	1.66	0.61
1:1G:91:C:H2'	1:1G:92:G:C8	2.35	0.61
26:1H:1278:A:H5"	38:98:36:THR:HG22	1.82	0.61
46:H8:45:ASP:O	46:H8:49:ARG:HG3	2.01	0.61
34:15:56:ASN:H	34:15:125:GLY:HA3	1.64	0.61
26:14:489:G:N7	43:A5:49:LYS:NZ	2.48	0.61
31:49:135:LEU:HB2	31:49:155:MET:HG2	1.82	0.61
26:1H:731:C:H2'	26:1H:732:C:H6	1.64	0.61
36:78:60:MET:HA	54:Q8:13:ARG:NH1	2.16	0.61
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.35	0.61
31:41:60:LEU:HD12	31:41:68:PRO:HG3	1.81	0.61
23:2K:9:G:H21	23:2K:21:A:H8	1.49	0.61
26:1H:2379:G:O2'	39:A8:17:ARG:NH1	2.34	0.61
1:1G:382:A:H8	1:1G:382:A:O5'	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:86:ILE:HD11	8:72:136:GLU:HG2	1.83	0.61
9:82:114:TYR:CD2	10:1A:60:ARG:HG3	2.35	0.61
49:G5:47:ASN:O	49:G5:49:LYS:N	2.29	0.61
4:3E:122:ARG:HG2	4:3E:122:ARG:HH11	1.64	0.61
8:7E:95:VAL:HG12	8:7E:99:GLU:HB2	1.83	0.61
1:13:560:U:H4'	1:13:561:U:H5"	1.83	0.61
31:41:133:LEU:HD11	31:41:157:ILE:HB	1.82	0.61
26:1H:1891:G:O6	57:1H:4003:HOH:O	2.16	0.61
2:1E:45:GLN:NE2	2:1E:49:GLU:OE1	2.33	0.61
1:13:973:G:H3'	1:13:974:A:H5"	1.81	0.61
38:98:63:ARG:HG3	38:98:80:PHE:CE2	2.35	0.61
28:11:182:LEU:N	28:11:272:ALA:HB3	2.15	0.61
27:16:80:U:H2'	27:16:81:G:H21	1.65	0.61
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.66	0.61
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.66	0.61
26:14:639:U:H2'	26:14:640:C:C6	2.35	0.61
26:14:654(H):G:N7	26:14:654(N):G:N1	2.48	0.61
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.82	0.61
33:69:120:ILE:HG22	33:69:122:GLU:H	1.64	0.61
49:K8:15:LYS:H	49:K8:67:LYS:HE2	1.65	0.61
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.18	0.61
1:13:186:C:H2'	1:13:186(A):C:H6	1.65	0.61
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.82	0.61
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.01	0.61
27:1J:90:C:P	37:45:16:ARG:HH21	2.23	0.61
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.82	0.61
26:1H:2307:G:O6	31:41:44:GLY:N	2.34	0.61
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.83	0.61
26:14:2074:U:H2'	26:14:2075:U:C6	2.36	0.61
12:3I:71:PRO:O	12:3I:102:ARG:HD3	2.01	0.61
18:9I:85:LEU:HD12	18:9I:86:VAL:H	1.65	0.61
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.00	0.61
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.14	0.61
4:32:60:GLU:OE2	4:32:199:ASN:N	2.33	0.61
33:69:54:GLN:HA	33:69:57:ARG:HD3	1.83	0.61
26:14:1358:G:N1	26:14:1372:U:OP2	2.24	0.61
9:82:63:ILE:HD11	9:82:81:ILE:HD11	1.82	0.61
1:1G:1119:C:H42	1:1G:1154:G:H1	1.48	0.61
49:K8:42:GLY:C	49:K8:44:LEU:H	2.04	0.61
1:13:1528:U:O2	1:13:1530:G:H5"	2.01	0.61
26:14:1264:G:H2'	26:14:2014:A:N6	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:981:U:O2	14:5A:31:ARG:NH2	2.33	0.60
26:14:1678:G:N2	26:14:1989:G:N2	2.47	0.60
19:AI:42:PRO:HD3	51:M8:63:TYR:CE2	2.31	0.60
26:14:2148:G:H2'	26:14:2149:G:C8	2.36	0.60
26:14:824:A:H1'	26:14:2358:G:N7	2.16	0.60
41:85:29:SER:OG	41:85:30:LYS:NZ	2.32	0.60
7:62:91:VAL:HG12	7:62:95:ARG:HB3	1.81	0.60
1:13:352:C:O2'	1:13:354:G:OP1	2.18	0.60
26:14:2052:G:C8	29:29:141:ILE:HD11	2.35	0.60
40:B8:106:SER:HB2	40:B8:109:GLU:HB2	1.83	0.60
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.00	0.60
43:E8:18:ARG:HD3	43:E8:76:VAL:HG22	1.81	0.60
34:58:73:THR:HG22	34:58:84:LYS:HG3	1.82	0.60
36:35:52:GLU:OE2	36:35:57:THR:HA	2.01	0.60
47:I8:37:LEU:HD22	47:I8:67:VAL:HG11	1.83	0.60
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.33	0.60
3:2E:16:ARG:NH2	3:2E:183:ASP:OD1	2.34	0.60
26:14:811:U:H2'	36:35:21:ARG:HA	1.83	0.60
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.33	0.60
52:N8:40:LYS:HZ3	52:N8:46:CYS:HB3	1.66	0.60
1:1G:683:G:N2	1:1G:707:C:O2	2.31	0.60
1:13:833:U:H3	1:13:853:G:H1	1.48	0.60
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.84	0.60
26:14:1790:C:H2'	26:14:1791:A:C5	2.36	0.60
43:A5:25:ARG:NH2	43:A5:74:ALA:O	2.34	0.60
10:1I:48:THR:HA	10:1I:62:HIS:CB	2.31	0.60
11:2I:15:ALA:HB1	11:2I:78:GLN:HG3	1.82	0.60
26:1H:2884:U:H2'	26:1H:2885:C:O4'	2.01	0.60
30:31:62:ARG:HH21	30:31:64:ILE:HD13	1.65	0.60
1:13:1004:A:O5'	1:13:1025:U:N3	2.35	0.60
36:35:36:LYS:HE3	36:35:39:LYS:HB3	1.84	0.60
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.36	0.60
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.83	0.60
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.36	0.60
26:14:2210:G:H3'	26:14:2211:G:N2	2.15	0.60
9:82:10:ARG:HD2	9:82:105:ASP:HB3	1.83	0.60
1:13:1410:G:H2'	1:13:1411:C:C6	2.36	0.60
26:1H:930:U:H4'	26:1H:931:G:O5'	2.01	0.60
27:16:73:A:H3'	27:16:74:U:H6	1.66	0.60
1:1G:1133:G:N2	1:1G:1141:C:N3	2.38	0.60
1:1G:985:C:H2'	1:1G:986:A:C8	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.37	0.60
1:13:591:U:H2'	1:13:592:G:C8	2.36	0.60
2:12:208:ILE:HA	2:12:211:ILE:HD12	1.84	0.60
4:32:118:ARG:HH21	4:32:118:ARG:HB2	1.67	0.60
1:1G:1270:C:O2'	1:1G:1313:U:O2'	2.20	0.60
49:K8:18:PRO:HA	49:K8:21:LEU:HB2	1.81	0.60
51:M8:24:THR:OG1	51:M8:25:TYR:N	2.24	0.60
54:Q8:59:LYS:HE3	54:Q8:59:LYS:H	1.67	0.60
1:1G:1187:G:O5'	9:82:113:LYS:NZ	2.34	0.60
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.84	0.60
26:14:274:G:H2'	26:14:275:G:H4'	1.82	0.60
28:11:242:ARG:N	28:11:242:ARG:HD2	2.15	0.60
44:B5:50:LYS:HB2	44:B5:87:GLN:NE2	2.16	0.60
27:1J:15:A:H1'	27:1J:109:G:C4	2.37	0.60
9:82:4:TYR:CZ	9:82:88:TYR:HB3	2.36	0.60
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.34	0.60
1:1G:921:U:O2'	5:42:19:MET:O	2.14	0.60
1:13:864:A:H3'	1:13:865:A:C8	2.36	0.60
42:D8:1:MET:SD	42:D8:43:GLU:HB3	2.42	0.60
10:1A:9:ARG:HE	10:1A:95:GLU:HG2	1.67	0.60
26:14:1963:U:H5"	26:14:1963:U:O2	2.00	0.60
1:1G:718:G:H5'	11:2A:117:ASN:ND2	2.17	0.60
36:78:101:VAL:HA	36:78:105:LEU:O	2.01	0.60
26:14:2328:A:H2'	26:14:2329:G:C8	2.37	0.60
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.84	0.60
26:1H:2838:G:N7	57:1H:3960:HOH:O	2.30	0.60
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.66	0.60
36:35:22:GLY:HA3	36:35:25:SER:H	1.66	0.60
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.84	0.60
40:B8:2:ASN:O	40:B8:3:ARG:HG2	2.01	0.60
36:35:39:LYS:HA	36:35:45:LEU:HD13	1.84	0.60
26:1H:1167:U:H2'	26:1H:1168:G:C8	2.37	0.60
26:14:2745:C:H4'	32:59:142:GLY:O	2.01	0.60
29:29:3:GLY:HA3	29:29:81:ILE:HD12	1.82	0.60
19:AA:50:ALA:HB1	19:AA:57:HIS:HB3	1.83	0.60
15:6A:11:VAL:HG21	15:6A:34:LEU:HD13	1.83	0.60
39:A8:44:LYS:HB3	39:A8:46:VAL:HB	1.84	0.60
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.34	0.60
1:13:192:U:H2'	1:13:193:C:H6	1.65	0.60
28:19:37:LEU:CA	28:19:38:LYS:HB3	2.27	0.60
1:1G:963:G:N2	10:1A:55:LYS:HE3	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:Q8:33:ASN:HB2	54:Q8:34:TRP:CE3	2.37	0.60
26:14:172:C:H2'	26:14:173:G:C8	2.35	0.60
26:14:1428:C:O2'	26:14:1569:A:OP2	2.15	0.60
42:95:35:LEU:HB3	42:95:37:VAL:CG1	2.32	0.60
26:14:469:G:O6	53:L5:37:LYS:HE2	2.01	0.60
26:14:2394:C:OP1	36:35:64:LYS:HB2	2.01	0.60
1:1G:922:G:N3	1:1G:1398:A:H2	2.00	0.60
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.81	0.60
39:65:21:THR:HG23	39:65:23:ARG:H	1.66	0.60
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.02	0.60
10:1I:34:VAL:HG12	10:1I:74:ILE:HG12	1.82	0.60
53:P8:46:VAL:O	53:P8:47:ARG:HB2	2.02	0.60
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.34	0.60
29:29:25:VAL:O	29:29:26:ILE:HG12	2.02	0.60
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.82	0.60
41:C8:85:LYS:HA	41:C8:85:LYS:NZ	2.16	0.60
26:14:540:G:H2'	26:14:541:C:H6	1.67	0.60
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.02	0.60
27:1J:40:U:C5	51:I5:1:MET:HB3	2.35	0.60
12:3I:82:VAL:HG12	12:3I:106:ASP:OD2	2.02	0.60
34:58:26:LEU:O	34:58:30:ILE:HG13	2.01	0.60
1:13:1273:G:H3'	1:13:1274:G:C8	2.36	0.60
40:B8:26:ASP:O	40:B8:49:VAL:HG12	2.02	0.60
10:1A:50:ILE:HA	10:1A:60:ARG:HB3	1.84	0.60
26:14:192:C:P	57:14:3644:HOH:O	2.60	0.60
9:82:97:LYS:HB3	9:82:98:PRO:HD3	1.84	0.60
27:1J:18:G:H1	27:1J:65:C:H42	1.48	0.60
26:14:579:G:H2'	26:14:580:C:C6	2.36	0.60
35:25:47:ILE:HG13	35:25:48:PRO:HD2	1.84	0.60
6:5E:18:GLN:HA	6:5E:21:LEU:HB2	1.84	0.60
1:13:1053:G:H4'	1:13:1054:C:O5'	2.02	0.60
3:2E:89:GLU:OE2	3:2E:93:LYS:NZ	2.35	0.60
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.37	0.60
26:1H:1024:G:H3'	26:1H:1025:G:H5"	1.84	0.60
6:52:74:ASP:N	6:52:74:ASP:OD1	2.34	0.60
26:1H:232:G:H5"	26:1H:232:G:H8	1.66	0.60
12:3A:47:LYS:HG2	12:3A:48:PRO:HD2	1.84	0.60
41:85:92:ARG:HG2	42:95:11:GLN:OE1	2.01	0.60
29:29:8:LYS:HG2	29:29:192:ASN:HA	1.83	0.60
34:15:42:TRP:O	41:85:64:ARG:NH2	2.34	0.60
26:14:620:G:N3	26:14:620:G:H5'	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:L5:35:ARG:HG3	53:L5:42:LEU:HD11	1.84	0.60
26:1H:2162:G:H2'	26:1H:2163:C:C6	2.36	0.60
26:14:528:A:OP2	34:15:114:ARG:NH1	2.34	0.60
1:1G:382:A:H2'	1:1G:383:A:H8	1.65	0.60
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.34	0.60
26:1H:2789:C:H2'	26:1H:2790:A:H5"	1.84	0.60
1:13:1292:U:H2'	1:13:1293:G:C8	2.36	0.60
26:14:290:G:H2'	26:14:291:C:O4'	2.02	0.60
14:5I:6:LEU:O	14:5I:23:ARG:NH2	2.35	0.60
32:59:7:LEU:HD12	32:59:8:PRO:HD3	1.83	0.60
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.67	0.60
1:13:181:G:O2'	1:13:182:U:O5'	2.19	0.60
2:12:103:THR:HG23	2:12:176:GLU:HB3	1.83	0.60
54:Q8:33:ASN:HB2	54:Q8:34:TRP:CD2	2.37	0.59
26:1H:946:G:OP1	57:1H:4106:HOH:O	2.17	0.59
26:1H:2291:U:O2'	26:1H:2374:C:O2	2.18	0.59
1:13:1279:A:OP2	10:1I:9:ARG:NH1	2.35	0.59
45:C5:52:SER:HA	45:C5:55:TYR:O	2.02	0.59
1:13:1312:G:OP1	51:M8:58:ARG:NH2	2.35	0.59
40:75:107:ASP:OD1	40:75:109:GLU:HB2	2.02	0.59
26:1H:2305:A:H1'	31:41:136:ARG:HH12	1.66	0.59
26:1H:384:U:H2'	26:1H:385:C:H6	1.67	0.59
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.84	0.59
30:39:31:HIS:HB2	36:35:9:ASN:OD1	2.02	0.59
26:1H:883:G:N2	26:1H:893:C:O2	2.33	0.59
26:1H:676:A:H8	26:1H:2069:G:N2	1.95	0.59
30:39:27:GLU:O	30:39:28:ILE:HG12	2.01	0.59
26:14:795:C:H2'	26:14:796:C:C6	2.37	0.59
45:G8:87:LYS:H	45:G8:94:LYS:HG2	1.67	0.59
28:19:182:LEU:H	28:19:272:ALA:CB	2.15	0.59
26:14:1786:A:H2	26:14:2606:C:H1'	1.65	0.59
32:59:71:LEU:O	32:59:75:ALA:N	2.35	0.59
1:1G:86:U:H6	1:1G:87:A:C2	2.20	0.59
1:13:619:U:H3	4:3E:134:ASP:HB2	1.65	0.59
26:1H:2062:A:H62	26:1H:2503:A:H62	1.47	0.59
26:1H:270(J):G:N2	26:1H:270(Q):C:N3	2.50	0.59
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.37	0.59
26:14:646:A:H2'	26:14:647:G:O4'	2.03	0.59
1:13:37:U:O2'	1:13:500:G:H4'	2.02	0.59
31:49:115:ARG:NH2	31:49:137:GLU:OE1	2.35	0.59
2:1E:74:LYS:HB2	2:1E:76:GLN:HG3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:84:A:OP2	45:G8:8:LYS:NZ	2.28	0.59
26:1H:566:U:O4	42:D8:78:LYS:HD3	2.02	0.59
6:52:2:ARG:HD3	6:52:92:LYS:HE3	1.82	0.59
26:1H:751:A:H5'	43:E8:90:ARG:HA	1.83	0.59
54:Q8:53:PRO:HB3	54:Q8:56:GLU:N	2.16	0.59
57:1H:3789:HOH:O	44:F8:56:THR:O	2.15	0.59
26:1H:2199:A:O3'	48:J8:48:LYS:HD3	2.02	0.59
28:19:16:MET:HE1	28:19:208:LYS:HE3	1.84	0.59
31:41:97:ASP:O	31:41:99:MET:N	2.34	0.59
26:1H:860:U:C5	26:1H:917:A:C2	2.90	0.59
51:M8:17:GLY:HA3	51:M8:35:VAL:HG23	1.84	0.59
42:95:35:LEU:HD13	42:95:37:VAL:HG11	1.84	0.59
2:1E:115:LEU:HA	2:1E:118:LEU:HD12	1.84	0.59
54:Q8:38:GLY:N	54:Q8:41:ILE:HG13	2.17	0.59
34:15:56:ASN:HA	34:15:125:GLY:H	1.66	0.59
26:1H:480:A:OP2	45:G8:47:LYS:HD3	2.02	0.59
30:31:158:THR:OG1	30:31:195:ASP:OD2	2.20	0.59
4:32:61:LYS:HZ3	4:32:206:PHE:HE2	1.48	0.59
35:25:4:PRO:O	35:25:5:GLN:HB2	2.02	0.59
26:1H:2400:G:H1	26:1H:2416:C:H42	1.50	0.59
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.84	0.59
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.37	0.59
26:1H:2899:G:N2	26:1H:2900:A:N1	2.50	0.59
45:C5:20:TYR:CZ	45:C5:42:VAL:HA	2.37	0.59
26:14:1443:G:H1	26:14:1548:C:H42	1.49	0.59
3:2E:26:LYS:HG3	3:2E:27:LYS:HE2	1.83	0.59
1:1G:1536:C:H2'	1:1G:1537:U:C5	2.36	0.59
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.12	0.59
26:1H:259:G:H21	26:1H:621:A:H8	1.49	0.59
26:14:2836:U:H2'	26:14:2837:G:C8	2.37	0.59
9:82:95:LYS:HZ1	9:82:96:LEU:HD13	1.67	0.59
27:1J:104:A:H2'	27:1J:105:G:O4'	2.03	0.59
26:14:539:G:H2'	26:14:540:G:H8	1.67	0.59
1:13:1391:U:H2'	1:13:1392:G:C8	2.38	0.59
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.34	0.59
9:8E:128:ARG:NH1	23:2K:34:U:OP2	2.27	0.59
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.83	0.59
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.36	0.59
19:AA:23:ASN:HA	19:AA:27:GLU:HG3	1.83	0.59
1:13:196:A:O2'	1:13:197:A:H2'	2.03	0.59
41:85:91:ASP:O	41:85:92:ARG:HG3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.37	0.59
26:1H:1102:C:H2'	26:1H:1103:A:C8	2.37	0.59
36:35:63:PRO:HB3	54:M5:30:ARG:NH1	2.16	0.59
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.67	0.59
26:1H:1454:U:H5	38:98:73:VAL:HG13	1.67	0.59
1:13:789:U:H5	1:13:791:G:H3'	1.67	0.59
26:14:1329:U:H5"	26:14:1330:C:H5	1.67	0.59
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.67	0.59
1:1G:406:G:O6	1:1G:436:C:N4	2.32	0.59
26:1H:1262:A:N3	52:N8:10:LYS:HE3	2.17	0.59
1:1G:677:U:H3	1:1G:713:G:H22	1.49	0.59
26:14:2748:A:H2'	26:14:2749:A:H8	1.66	0.59
9:82:113:LYS:H	9:82:119:ALA:HB2	1.67	0.59
24:3K:6:G:O2'	24:3K:7:G:O4'	2.21	0.59
45:C5:15:VAL:HG12	45:C5:21:LYS:HA	1.84	0.59
7:6E:62:PHE:CD1	7:6E:124:LEU:HD11	2.38	0.59
38:55:38:VAL:HG12	38:55:42:LYS:HD2	1.85	0.59
37:88:135:ASP:HB3	37:88:137:TYR:H	1.68	0.59
27:1J:50:G:OP1	39:65:62:LYS:HB2	2.03	0.59
26:14:1336:A:H2'	26:14:1337:G:C8	2.38	0.59
14:5I:15:LYS:HG2	14:5I:16:PHE:HD2	1.67	0.59
4:32:139:ARG:HG3	4:32:139:ARG:HH11	1.67	0.59
3:2E:20:SER:OG	3:2E:40:ARG:NH2	2.33	0.59
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.67	0.59
31:41:113:ARG:HD2	51:M8:33:VAL:HG13	1.85	0.59
49:K8:50:ILE:HD12	49:K8:51:ARG:H	1.68	0.59
2:1E:7:VAL:HG11	2:1E:217:ARG:NH1	2.17	0.59
26:14:459:U:H2'	26:14:460:A:H8	1.68	0.59
1:1G:382:A:H2'	1:1G:383:A:C8	2.37	0.59
26:14:1534:G:H3'	26:14:1535:U:H5"	1.85	0.59
33:69:14:ASP:OD1	33:69:15:VAL:N	2.36	0.59
29:21:70:ALA:O	29:21:73:GLU:N	2.35	0.59
2:12:5:ILE:HA	2:12:221:LEU:HD11	1.85	0.59
26:14:2158:A:H1'	26:14:2159:G:C8	2.37	0.59
33:69:100:ALA:O	33:69:104:GLN:HB3	2.03	0.59
4:3E:150:GLU:HA	4:3E:153:ARG:HG2	1.84	0.59
26:14:1639:U:H4'	26:14:2699:C:H4'	1.85	0.59
54:Q8:53:PRO:HA	54:Q8:54:GLU:C	2.21	0.59
26:14:1364:G:OP1	48:F5:3:LYS:HD2	2.02	0.59
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.83	0.59
23:2K:19:G:O3'	23:2K:20:U:H2'	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:92:TYR:O	9:82:95:LYS:NZ	2.23	0.59
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.38	0.59
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.38	0.59
26:1H:1171:G:N7	26:1H:1174:A:N6	2.51	0.59
1:13:861:G:H4'	8:7E:18:ARG:NH2	2.18	0.59
10:1I:8:LEU:HD22	10:1I:96:ILE:HG22	1.85	0.59
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.02	0.59
38:98:48:VAL:HA	38:98:51:LEU:HB2	1.83	0.59
32:59:81:GLU:HG2	32:59:83:TYR:H	1.68	0.59
26:14:674:G:O2'	30:39:74:ARG:HG3	2.03	0.59
44:B5:36:LYS:HA	44:B5:39:ILE:HD12	1.83	0.59
1:13:1034:G:N2	1:13:1035:A:N7	2.50	0.59
26:1H:1058:U:H3	26:1H:1080:A:N6	2.01	0.59
29:21:2:LYS:HA	29:21:84:PHE:CD1	2.37	0.59
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.85	0.59
10:1A:30:SER:HB2	10:1A:81:THR:HA	1.83	0.59
49:G5:10:LEU:HD13	49:G5:59:ARG:HD2	1.85	0.59
27:16:30:C:H2'	27:16:31:C:H5'	1.84	0.59
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.02	0.59
26:1H:2735:G:H2'	26:1H:2736:G:C8	2.37	0.59
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.85	0.59
20:BA:54:LYS:HA	20:BA:57:ARG:HH12	1.68	0.59
26:14:467:G:OP1	53:L5:33:ARG:NH1	2.36	0.59
5:42:24:ARG:NH1	5:42:24:ARG:HB3	2.17	0.59
23:2L:44:G:H2'	23:2L:45:U:O4'	2.03	0.59
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.84	0.59
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.36	0.59
10:1I:5:ARG:HB2	10:1I:73:ASP:OD1	2.03	0.59
13:4A:80:ARG:NH1	19:AA:66:MET:HG2	2.17	0.59
1:13:651:C:H2'	1:13:652:U:C6	2.38	0.59
1:13:57:G:H2'	1:13:58:C:C6	2.38	0.59
1:1G:1451:A:H5"	1:1G:1452:C:C5	2.38	0.59
26:14:708:C:H42	26:14:723:G:H1	1.51	0.59
6:52:11:ASN:HB3	6:52:14:LEU:HD13	1.84	0.59
10:1A:17:ASP:OD2	10:1A:70:ARG:NH1	2.36	0.59
26:14:2143:C:H2'	26:14:2144:U:H4'	1.83	0.59
8:72:12:ARG:HD3	8:72:26:VAL:HG12	1.84	0.59
3:22:150:LYS:NZ	3:22:152:ILE:HD11	2.18	0.59
30:39:7:TYR:HD1	30:39:18:ARG:H	1.51	0.59
1:13:359:U:H2'	1:13:360:A:C8	2.37	0.59
28:11:206:LEU:O	28:11:211:ARG:HD3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.68	0.58
26:1H:1899:G:N2	26:1H:1902:C:C5	2.71	0.58
13:4A:29:ARG:HD2	13:4A:64:TRP:CE2	2.38	0.58
26:1H:2099:U:H2'	26:1H:2100:G:C8	2.38	0.58
1:13:166:G:H2'	1:13:167:G:C8	2.37	0.58
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.68	0.58
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.85	0.58
13:4I:87:TYR:O	13:4I:91:ARG:HG2	2.02	0.58
26:14:1066:U:H1'	26:14:1073:A:H61	1.68	0.58
1:13:1167:A:H2'	1:13:1169:A:C8	2.38	0.58
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.36	0.58
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.68	0.58
36:35:122:PRO:HB3	36:35:141:ALA:HB1	1.85	0.58
26:14:996:A:H4'	41:85:92:ARG:CZ	2.33	0.58
13:4I:49:THR:HB	13:4I:52:GLU:HG3	1.85	0.58
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.38	0.58
26:1H:945:A:OP2	26:1H:945:A:H4'	2.03	0.58
26:1H:2309:A:C5	26:1H:2310:A:C8	2.91	0.58
1:1G:474:G:H2'	1:1G:475:G:C8	2.38	0.58
26:14:1486:A:H2'	26:14:1487:G:C8	2.38	0.58
26:1H:1252:G:O4'	41:C8:33:ARG:HD3	2.03	0.58
27:1J:50:G:OP1	39:65:63:THR:HG23	2.04	0.58
32:59:15:VAL:HG12	32:59:29:PRO:HD2	1.85	0.58
30:39:143:ALA:O	30:39:148:LEU:HB2	2.02	0.58
54:Q8:28:GLY:HA2	54:Q8:31:HIS:NE2	2.18	0.58
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.02	0.58
36:78:122:PRO:HA	36:78:142:GLY:HA3	1.84	0.58
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.38	0.58
26:1H:518:G:H2'	26:1H:519:U:H6	1.69	0.58
26:1H:2359:C:H5"	54:Q8:49:VAL:HG21	1.85	0.58
23:2L:32:C:O2'	23:2L:33:U:OP1	2.15	0.58
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.38	0.58
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.03	0.58
1:1G:838:G:H1	1:1G:848:C:H42	1.51	0.58
12:3I:110:VAL:HG23	12:3I:120:TYR:HB3	1.85	0.58
14:5I:29:ARG:HH21	14:5I:42:ILE:HD11	1.66	0.58
26:14:1253:A:OP1	57:14:3839:HOH:O	2.17	0.58
26:14:2371:G:O6	57:14:3861:HOH:O	2.14	0.58
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.68	0.58
26:14:1342:A:H2	26:14:1602:U:H3	1.51	0.58
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:83:TYR:HB3	32:51:134:SER:HA	1.86	0.58
1:1G:1122:U:O4	1:1G:1123:A:N6	2.37	0.58
26:1H:2228:G:OP2	28:11:263:ARG:NH2	2.36	0.58
10:1A:47:PHE:O	10:1A:63:PHE:N	2.24	0.58
29:29:111:ARG:HB2	29:29:160:TYR:HB3	1.85	0.58
26:14:943:U:OP2	36:35:36:LYS:HG3	2.03	0.58
36:78:19:VAL:CB	36:78:27:HIS:HB2	2.33	0.58
26:1H:71:A:C2	44:F8:31:HIS:CE1	2.91	0.58
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.85	0.58
21:1B:2:GLY:O	21:1B:4:GLY:N	2.36	0.58
3:22:129:ALA:HB3	3:22:132:ARG:HB3	1.85	0.58
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.68	0.58
13:4A:82:MET:SD	13:4A:83:ASP:N	2.76	0.58
23:2L:29:U:H2'	23:2L:30:A:H8	1.68	0.58
8:72:99:GLU:OE2	8:72:100:ILE:N	2.21	0.58
1:13:1348:U:H2'	1:13:1349:A:H8	1.69	0.58
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.36	0.58
33:69:77:LEU:HD12	33:69:78:THR:H	1.68	0.58
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.86	0.58
20:BI:86:ARG:HH12	20:BI:90:GLN:HB2	1.69	0.58
26:14:221:A:N6	26:14:265:A:H8	2.00	0.58
4:32:24:GLU:HG2	4:32:25:ARG:H	1.67	0.58
40:75:107:ASP:CG	40:75:109:GLU:HB2	2.24	0.58
26:14:2853:C:H2'	26:14:2854:G:C8	2.38	0.58
28:11:85:ASP:OD2	28:11:88:ARG:NH1	2.27	0.58
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.02	0.58
26:14:67:U:H3	26:14:74:A:H2	1.50	0.58
26:1H:2599:G:N7	28:11:237:GLU:HG2	2.19	0.58
32:59:10:PRO:HD3	32:59:50:VAL:O	2.03	0.58
26:1H:729:G:OP2	28:11:13:ARG:NH1	2.29	0.58
34:15:67:LEU:O	34:15:88:GLU:HG3	2.03	0.58
26:1H:960:A:C8	26:1H:962:G:C8	2.91	0.58
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.38	0.58
1:1G:353:A:H5'	1:1G:353:A:C8	2.34	0.58
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.69	0.58
26:1H:1858:G:O2'	26:1H:1859:A:O5'	2.22	0.58
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.36	0.58
46:D5:48:PHE:HA	46:D5:51:ALA:HB3	1.84	0.58
30:39:18:ARG:HG2	30:39:19:GLU:H	1.67	0.58
39:A8:58:LEU:HD12	39:A8:65:VAL:HG13	1.85	0.58
22:1K:18:G:H4'	22:1K:19:G:OP1	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1593:G:H2'	26:14:1594:G:C8	2.39	0.58
29:29:9:VAL:HA	40:75:3:ARG:HG3	1.85	0.58
31:49:4:ASP:OD2	51:I5:25:TYR:OH	2.22	0.58
1:13:975:A:H8	1:13:975:A:H5'	1.69	0.58
47:E5:21:LEU:HD11	47:E5:41:ARG:NH1	2.19	0.58
2:12:174:VAL:HG11	2:12:196:LEU:HD13	1.86	0.58
24:3L:42:U:H2'	24:3L:43:A:H8	1.69	0.58
1:13:758:G:O2'	1:13:759:A:H5'	2.04	0.58
26:14:2873:A:C8	38:55:5:LYS:HA	2.38	0.58
2:12:233:SER:HB2	2:12:234:PRO:HD2	1.85	0.58
26:14:139:G:N2	26:14:141:A:N1	2.48	0.58
26:1H:2120:G:N2	26:1H:2178:C:O2	2.32	0.58
26:14:271:G:H2'	26:14:272:G:C8	2.39	0.58
1:13:1366:C:H2'	1:13:1367:C:C6	2.39	0.58
6:5E:3:ARG:NH1	6:5E:38:GLU:OE2	2.36	0.58
1:1G:222:U:H2'	1:1G:223:U:H6	1.67	0.58
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.68	0.58
1:13:17:U:H2'	1:13:18:C:C6	2.39	0.58
1:13:1239:A:O2'	7:6E:114:ARG:O	2.18	0.58
50:H5:7:LYS:HE2	50:H5:32:GLN:HG3	1.85	0.58
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.27	0.58
4:3E:147:ALA:HB2	4:3E:182:LYS:HB3	1.85	0.58
46:H8:3:TYR:O	46:H8:58:VAL:HG13	2.03	0.58
38:98:56:LYS:NZ	38:98:90:ARG:O	2.36	0.58
4:32:93:PHE:O	4:32:96:LEU:HB2	2.04	0.58
21:1F:15:ARG:HH11	21:1F:15:ARG:HB2	1.68	0.58
1:13:35:G:O2'	12:3I:118:SER:O	2.11	0.58
26:1H:1983:C:H2'	26:1H:1984:G:H5"	1.85	0.58
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.86	0.58
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.85	0.58
1:13:1349:A:H2'	1:13:1350:A:H8	1.69	0.58
29:29:111:ARG:HA	38:55:2:ARG:HH12	1.68	0.58
26:14:459:U:H5"	53:L5:40:TRP:CE2	2.39	0.58
26:14:1534:G:H3'	26:14:1535:U:C5'	2.34	0.58
7:62:67:GLU:OE2	7:62:70:LYS:NZ	2.36	0.58
1:13:864:A:H3'	1:13:865:A:H8	1.68	0.58
30:31:197:ASP:O	30:31:199:TRP:N	2.37	0.58
1:1G:736:C:H2'	1:1G:737:A:C8	2.39	0.58
5:4E:79:GLU:HG3	5:4E:93:PRO:HD2	1.85	0.58
7:6E:74:GLU:HG2	7:6E:91:VAL:HG22	1.85	0.58
3:2E:104:GLN:OE1	3:2E:107:GLN:NE2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:33:MET:HG3	49:K8:36:ARG:HH21	1.68	0.58
26:1H:1523:U:H2'	26:1H:1524:G:O4'	2.04	0.58
4:32:157:LEU:HD12	4:32:161:ASN:HD21	1.69	0.58
1:13:1128:C:O2'	1:13:1129:C:H5"	2.02	0.58
26:14:1794:U:H2'	26:14:1795:C:C6	2.38	0.58
23:2L:44:G:H8	23:2L:44:G:H5'	1.68	0.58
7:6E:118:VAL:HG23	7:6E:122:HIS:NE2	2.19	0.58
1:13:376:G:H1	1:13:387:U:H3	1.51	0.58
26:14:1388:G:H2'	26:14:1389:G:H8	1.68	0.58
26:1H:1913:A:H4'	26:1H:1914:C:H5"	1.86	0.58
26:1H:2131:G:H5"	26:1H:2133:G:H4'	1.86	0.58
20:BA:26:ASN:O	20:BA:30:LYS:HB2	2.03	0.58
43:E8:29:LEU:HD21	43:E8:33:ARG:NH2	2.18	0.58
48:J8:82:LEU:HD22	48:J8:82:LEU:H	1.68	0.58
41:C8:83:LEU:HD13	41:C8:113:ALA:HB2	1.86	0.58
1:1G:720:C:H3'	1:1G:721:G:H2'	1.85	0.58
26:1H:2467:C:O2	37:88:124:LYS:NZ	2.37	0.58
26:1H:2360:A:OP1	54:Q8:49:VAL:HB	2.03	0.57
29:21:116:VAL:O	29:21:117:MET:HB3	2.04	0.57
24:3K:21:A:N6	24:3K:46:G:H1'	2.19	0.57
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.39	0.57
26:14:2849:U:H1'	26:14:2866:U:O2	2.04	0.57
46:D5:52:SER:O	46:D5:54:HIS:N	2.36	0.57
26:14:1418:G:OP1	26:14:1588:C:O2'	2.22	0.57
1:13:861:G:H4'	8:7E:18:ARG:HH21	1.68	0.57
30:39:146:ALA:HB1	30:39:148:LEU:HG	1.86	0.57
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.38	0.57
1:13:486:U:H2'	1:13:487:A:C8	2.38	0.57
26:1H:1814:G:O6	57:1H:3815:HOH:O	2.17	0.57
2:1E:211:ILE:HA	2:1E:214:ILE:HD12	1.86	0.57
23:2L:38:1MG:H2'	23:2L:39:PSU:C6	2.39	0.57
50:H5:39:ASP:O	50:H5:44:ARG:NH2	2.36	0.57
1:1G:345:C:H1'	1:1G:346:G:C2	2.39	0.57
26:14:30:G:H2'	26:14:31:C:C6	2.39	0.57
26:14:2698:U:H2'	26:14:2699:C:C6	2.38	0.57
27:16:12:C:O2	47:I8:74:ARG:NH1	2.35	0.57
26:14:848:G:C4	26:14:933:A:H8	2.22	0.57
32:51:86:GLU:HG2	32:51:87:LEU:H	1.68	0.57
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.85	0.57
32:59:74:ASN:O	32:59:78:GLY:N	2.38	0.57
31:41:35:GLU:OE1	31:41:36:LYS:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2331:G:O3'	47:I8:43:THR:HG22	2.03	0.57
33:69:14:ASP:O	33:69:17:GLN:HB2	2.03	0.57
32:51:83:TYR:HD1	32:51:84:SER:H	1.50	0.57
23:2L:38:1MG:H2'	23:2L:39:PSU:H6	1.69	0.57
32:51:43:VAL:HB	32:51:52:VAL:HG23	1.85	0.57
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.03	0.57
1:13:1412:C:H2'	1:13:1413:A:C8	2.39	0.57
11:2A:57:THR:HG22	11:2A:59:TYR:H	1.69	0.57
32:59:129:THR:HB	32:59:130:ARG:HG3	1.86	0.57
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.04	0.57
24:3L:31:C:O2	24:3L:41:G:N2	2.34	0.57
1:1G:963:G:H21	10:1A:55:LYS:CE	2.17	0.57
26:1H:833:U:O2	36:78:55:ARG:NH1	2.36	0.57
16:7I:51:VAL:HG21	16:7I:74:LEU:HD21	1.85	0.57
41:C8:88:ILE:C	41:C8:90:VAL:H	2.08	0.57
26:14:2861:G:C2	26:14:2862:G:C4	2.92	0.57
1:13:1006:C:O2	1:13:1023:G:N2	2.33	0.57
19:AA:9:VAL:HG13	51:I5:63:TYR:CE1	2.39	0.57
26:1H:771:G:OP1	53:P8:10:ARG:NH1	2.38	0.57
26:1H:2857:G:N2	26:1H:2860:A:OP2	2.31	0.57
26:14:2819:G:O6	57:14:4000:HOH:O	2.16	0.57
26:14:2365:G:O6	54:M5:39:LYS:NZ	2.37	0.57
28:11:2:ALA:HB1	28:11:200:ASP:OD2	2.03	0.57
1:13:670:G:H21	6:5E:73:ASN:HD21	1.52	0.57
28:11:72:LYS:HG2	28:11:103:ARG:NH2	2.19	0.57
26:1H:1138:G:H21	34:58:106:MET:HE3	1.70	0.57
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.37	0.57
26:14:2853:C:H2'	26:14:2854:G:H8	1.68	0.57
29:21:67:PHE:O	29:21:69:LYS:HD2	2.04	0.57
26:1H:1013:C:H42	26:1H:1149:G:H1	1.50	0.57
31:49:161:THR:HG22	31:49:163:ALA:H	1.69	0.57
26:1H:2840:C:H5"	38:98:53:HIS:CD2	2.39	0.57
57:1H:3907:HOH:O	30:31:55:GLY:HA2	2.04	0.57
26:14:2414:G:H21	36:35:67:MET:CE	2.17	0.57
31:41:173:LEU:HB3	31:41:178:PHE:HD2	1.69	0.57
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.70	0.57
4:32:24:GLU:OE1	4:32:112:VAL:HG21	2.04	0.57
30:31:29:ASN:H	30:31:112:MET:CE	2.17	0.57
49:K8:15:LYS:H	49:K8:15:LYS:HE3	1.70	0.57
26:14:2873:A:H8	38:55:6:SER:H	1.49	0.57
51:M8:43:TYR:CG	51:M8:44:THR:N	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:690:G:H2'	1:13:691:G:O4'	2.04	0.57
26:14:1188:U:H4'	42:95:79:VAL:HG12	1.87	0.57
26:14:2121:G:O6	26:14:2177:C:N4	2.37	0.57
29:29:182:LEU:O	29:29:183:LEU:HD12	2.04	0.57
1:1G:1106:G:H5"	3:22:172:ARG:HG2	1.86	0.57
1:13:1286:A:H2'	1:13:1287:A:H4'	1.85	0.57
26:14:2318:G:N2	39:65:3:ARG:HG2	2.20	0.57
49:G5:25:VAL:HA	49:G5:28:LYS:HB2	1.86	0.57
51:M8:16:CYS:SG	51:M8:17:GLY:N	2.75	0.57
26:14:71:A:C8	26:14:71:A:H5'	2.40	0.57
1:1G:1126:U:C4	1:1G:1281:U:C6	2.92	0.57
32:51:4:ILE:HD13	32:51:4:ILE:H	1.68	0.57
6:5E:45:LEU:HD12	6:5E:59:TYR:HD2	1.69	0.57
1:1G:689:C:H2'	1:1G:690:G:H5'	1.87	0.57
39:65:89:ARG:O	39:65:92:TYR:N	2.38	0.57
1:13:108:G:H5"	1:13:109:A:H5"	1.84	0.57
44:F8:32:PRO:HA	44:F8:77:LYS:HD2	1.86	0.57
26:14:1386:C:H2'	26:14:1387:C:C6	2.39	0.57
32:51:3:ARG:HH21	32:51:7:LEU:HD11	1.69	0.57
28:19:32:SER:O	28:19:33:LEU:HB2	2.04	0.57
1:13:1510:U:H2'	1:13:1511:G:C8	2.40	0.57
35:68:75:SER:HB2	40:B8:74:ARG:HH12	1.69	0.57
26:14:244:A:C2	26:14:255:A:C4	2.92	0.57
50:L8:9:VAL:HG22	50:L8:54:VAL:HA	1.86	0.57
26:1H:732:C:H3'	57:1H:3837:HOH:O	2.05	0.57
54:Q8:50:LEU:C	54:Q8:52:LYS:N	2.58	0.57
1:1G:1117:G:H4'	9:82:104:ARG:HD2	1.86	0.57
5:4E:139:LEU:HA	5:4E:142:LEU:HD12	1.86	0.57
28:19:17:THR:O	28:19:211:ARG:NH2	2.37	0.57
52:N8:30:LEU:HD23	52:N8:41:PRO:HA	1.84	0.57
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.85	0.57
34:15:35:ARG:HB2	34:15:42:TRP:CZ3	2.39	0.57
1:1G:1016:A:O2'	1:1G:1217:C:O2'	2.21	0.57
26:14:2471:C:N4	26:14:2476:A:O2'	2.38	0.57
1:13:624:C:H2'	1:13:625:G:C8	2.39	0.57
40:B8:26:ASP:HB2	40:B8:91:ARG:HA	1.86	0.57
38:98:12:ARG:O	38:98:17:ARG:NH2	2.37	0.57
1:1G:920:U:H2'	1:1G:921:U:C6	2.39	0.57
33:61:63:ALA:HA	33:61:66:GLU:HG2	1.86	0.57
33:61:124:GLY:H	33:61:142:VAL:HG23	1.69	0.57
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:119:ARG:HD3	29:21:160:TYR:HB2	1.86	0.57
24:3L:6:G:O2'	24:3L:7:G:O4'	2.23	0.57
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.69	0.57
26:14:1062:G:H21	26:14:1088:A:H2	1.52	0.57
1:1G:146:G:H2'	1:1G:147:G:H8	1.69	0.57
1:13:1227:A:OP1	19:AI:80:TYR:OH	2.16	0.57
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.85	0.57
29:21:105:THR:HG22	29:21:106:GLY:H	1.70	0.57
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.15	0.57
40:75:23:ARG:HG3	40:75:120:ARG:NH1	2.20	0.57
40:B8:54:ARG:HA	40:B8:59:THR:HB	1.86	0.57
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.69	0.57
36:78:100:LEU:HD23	36:78:112:LEU:HD11	1.86	0.57
26:1H:1899:G:N2	26:1H:1902:C:H41	1.97	0.57
47:E5:53:MET:HG3	47:E5:59:LEU:HD23	1.87	0.57
41:85:92:ARG:CD	41:85:94:ASN:HB3	2.31	0.57
39:65:106:ARG:NH1	39:65:107:GLU:OE1	2.37	0.57
1:13:600:C:H2'	1:13:601:C:C6	2.40	0.57
26:14:2138:C:O2'	26:14:2154:G:N2	2.36	0.57
34:58:96:GLU:O	34:58:98:VAL:HG12	2.04	0.57
29:29:65:GLY:C	29:29:68:ALA:HB2	2.26	0.57
39:65:41:ASP:HB2	39:65:48:LEU:HD21	1.87	0.57
51:I5:42:PHE:O	51:I5:43:TYR:HB3	2.04	0.57
1:13:1440:C:H2'	1:13:1441:G:O4'	2.04	0.57
26:14:2232:U:OP2	48:F5:40:ARG:NH2	2.37	0.57
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.04	0.57
1:13:614:A:H2'	1:13:615:C:C6	2.40	0.57
38:98:33:ARG:HG3	38:98:115:GLU:HB3	1.86	0.57
54:Q8:13:ARG:O	54:Q8:23:VAL:HG23	2.05	0.57
26:14:1138:G:H21	34:15:106:MET:CE	2.18	0.57
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.87	0.57
12:3I:38:THR:HG22	12:3I:39:VAL:HG23	1.87	0.57
38:55:84:ALA:N	38:55:85:PRO:HD2	2.20	0.57
26:14:2324:C:H5"	26:14:2325:G:H5'	1.86	0.57
26:1H:2125:G:H21	26:1H:2173:A:H62	1.52	0.57
33:69:26:ALA:O	33:69:31:LEU:HB2	2.05	0.57
26:14:2427:C:H5"	26:14:2428:G:OP1	2.05	0.57
26:14:2319:G:N2	26:14:2334:G:OP1	2.33	0.57
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.39	0.57
43:E8:19:LEU:HB3	52:N8:25:LEU:HD12	1.85	0.57
10:1I:89:ASP:N	10:1I:89:ASP:OD1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:19:G:OP2	23:2L:19:G:H3'	2.04	0.57
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.87	0.57
26:14:38:A:H2'	26:14:39:C:C6	2.40	0.57
26:14:363:G:H2'	26:14:363(A):A:C8	2.39	0.56
33:61:83:ALA:HB2	33:61:144:VAL:HG23	1.87	0.56
26:14:2126:A:H2	26:14:2162:G:H22	1.52	0.56
49:K8:15:LYS:HE3	49:K8:15:LYS:N	2.20	0.56
23:2L:2:C:H2'	23:2L:3:C:H6	1.70	0.56
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.05	0.56
26:1H:665:C:H2'	26:1H:666:G:C8	2.40	0.56
26:14:2165:G:OP2	26:14:2166:G:N2	2.38	0.56
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.87	0.56
30:31:32:LEU:HD21	30:31:105:VAL:HG13	1.86	0.56
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.87	0.56
27:16:21:G:H1	27:16:62:C:N4	1.99	0.56
26:14:910:A:N7	37:45:13:GLN:HG3	2.20	0.56
31:41:67:LYS:HE2	51:M8:6:HIS:CE1	2.40	0.56
1:1G:1043:C:H2'	1:1G:1044:A:C8	2.40	0.56
26:14:2314:C:H5'	31:49:38:VAL:HG11	1.85	0.56
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.05	0.56
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.39	0.56
26:14:443:A:H5"	26:14:444:C:OP1	2.05	0.56
2:12:70:PHE:HB2	2:12:92:TYR:CB	2.35	0.56
1:13:186:C:H2'	1:13:186(A):C:C6	2.40	0.56
1:1G:345:C:O2'	1:1G:346:G:O5'	2.19	0.56
25:4L:35:A:H2'	25:4L:36:G:C8	2.40	0.56
1:13:243:A:H4'	1:13:244:U:H5"	1.87	0.56
26:1H:503:A:H4'	26:1H:504:U:H5'	1.87	0.56
18:9I:31:LEU:HD12	18:9I:65:ILE:HB	1.86	0.56
26:1H:330:A:H2	26:1H:1210:A:HO2'	1.53	0.56
26:14:1331:A:O2'	26:14:1332:G:H8	1.87	0.56
36:78:59:LEU:HD21	54:Q8:10:ALA:HB2	1.88	0.56
51:I5:13:ARG:HA	51:I5:22:ILE:HB	1.87	0.56
1:13:1004:A:P	1:13:1025:U:H3	2.29	0.56
1:13:537:G:H5"	12:3I:113:ARG:NH1	2.21	0.56
51:M8:16:CYS:SG	51:M8:36:CYS:N	2.78	0.56
1:1G:1028(A):C:H2'	1:1G:1028(B):C:H5"	1.87	0.56
10:1A:48:THR:HG1	10:1A:62:HIS:HD1	1.33	0.56
46:D5:126:VAL:HA	46:D5:163:LEU:HA	1.86	0.56
18:9I:38:GLU:HA	18:9I:41:LYS:HE3	1.85	0.56
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:221:A:H61	26:14:265:A:H8	1.53	0.56
38:98:10:LEU:O	38:98:12:ARG:HG2	2.03	0.56
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.38	0.56
1:1G:957:U:H1'	1:1G:960:U:C5	2.40	0.56
26:1H:2793:G:N2	26:1H:2804:C:O2	2.38	0.56
12:3A:47:LYS:O	12:3A:49:ASN:N	2.37	0.56
4:3E:152:SER:HB3	4:3E:155:LEU:HD12	1.87	0.56
26:14:2873:A:H8	38:55:6:SER:N	2.03	0.56
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.19	0.56
1:1G:1086:U:H3	1:1G:1099:G:H22	1.53	0.56
28:19:228:PRO:HD3	28:19:234:GLY:O	2.05	0.56
26:14:1581:G:H2'	26:14:1582:C:O4'	2.05	0.56
7:62:15:ASP:O	7:62:19:GLY:HA2	2.05	0.56
2:12:9:GLU:HB2	2:12:217:ARG:HH12	1.69	0.56
26:1H:1332:G:H21	26:1H:1610:A:H8	1.54	0.56
1:13:1122:U:O4	1:13:1123:A:N6	2.38	0.56
26:1H:507:A:H5"	26:1H:508:G:H3'	1.85	0.56
17:8A:57:VAL:HG12	17:8A:76:LEU:HA	1.88	0.56
26:1H:780:G:H21	26:1H:783:A:N6	2.00	0.56
26:1H:782:A:H5'	26:1H:783:A:C2	2.40	0.56
26:14:1786:A:C2	26:14:2606:C:H1'	2.40	0.56
1:1G:1497:G:C2'	1:1G:1498:U:H5'	2.36	0.56
1:1G:998:G:H22	1:1G:1043:C:N4	2.01	0.56
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.22	0.56
9:82:97:LYS:HD3	9:82:102:LEU:HB2	1.85	0.56
1:13:76:G:H2'	1:13:77:C:H5'	1.86	0.56
1:1G:632:A:H4'	1:1G:633:G:O5'	2.05	0.56
3:2E:188:LEU:HD13	3:2E:195:VAL:HG11	1.87	0.56
23:2K:87:A:N3	23:2K:87:A:H2'	2.21	0.56
52:J5:46:CYS:SG	52:J5:48:GLU:HG2	2.45	0.56
26:14:127:A:H5"	26:14:128:C:C6	2.40	0.56
18:9I:53:ARG:HA	18:9I:56:THR:HG23	1.88	0.56
1:1G:1524:C:H2'	1:1G:1525:G:C8	2.40	0.56
26:14:2414:G:H21	36:35:67:MET:HE1	1.69	0.56
26:1H:120:U:OP2	57:1H:3889:HOH:O	2.18	0.56
27:16:15:A:H5'	27:16:16:G:H8	1.70	0.56
30:39:123:LEU:O	30:39:193:VAL:HA	2.05	0.56
26:1H:1055:G:HO2'	26:1H:1086:A:N6	2.04	0.56
1:1G:843:U:H3'	1:1G:848:C:O4'	2.06	0.56
1:13:173:U:H5"	1:13:197:A:O4'	2.05	0.56
26:1H:1266:G:O5'	43:E8:15:ARG:NH2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:87:PHE:CE2	39:A8:102:ALA:HB2	2.40	0.56
26:14:859:G:O2'	26:14:916:G:O6	2.17	0.56
26:14:1200:C:H5'	57:14:3972:HOH:O	2.04	0.56
24:3K:17:U:O2'	24:3K:68:A:N1	2.34	0.56
26:1H:1901:A:OP2	28:11:255:LYS:HE2	2.06	0.56
1:1G:401:C:H2'	1:1G:402:G:C8	2.40	0.56
26:1H:862:G:OP2	57:1H:3781:HOH:O	2.18	0.56
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.06	0.56
26:14:357:A:H8	26:14:357:A:O5'	1.89	0.56
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.71	0.56
9:8E:112:LYS:HD2	9:8E:113:LYS:N	2.20	0.56
26:1H:1533:C:H2'	26:1H:1534:G:C2	2.41	0.56
52:J5:16:ARG:HG3	52:J5:17:ASP:N	2.19	0.56
26:14:1665:A:H1'	35:25:1:MET:HG2	1.88	0.56
28:19:177:LEU:HD11	28:19:183:ARG:HD2	1.88	0.56
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.20	0.56
26:14:221:A:N6	26:14:265:A:C8	2.73	0.56
26:14:2128:C:H42	26:14:2160:G:N2	2.04	0.56
1:13:1360:A:H2'	1:13:1361:G:O4'	2.05	0.56
26:14:1198:U:H2'	26:14:1199:U:H6	1.71	0.56
26:1H:248:G:H5'	26:1H:250:G:N7	2.19	0.56
1:13:750:G:N3	15:6I:23:GLY:HA3	2.21	0.56
26:14:2006:C:O2'	26:14:2823:A:N3	2.37	0.56
26:1H:357:A:H2'	26:1H:358:U:H6	1.70	0.56
36:35:8:PRO:HB2	36:35:12:ALA:HB3	1.87	0.56
26:1H:818:G:H5'	26:1H:839:U:OP1	2.05	0.56
26:14:698:C:O2'	26:14:734:A:N6	2.39	0.56
37:88:85:LYS:HG3	47:I8:7:LEU:HD13	1.88	0.56
26:1H:2091:U:O4	57:1H:4142:HOH:O	2.14	0.56
54:Q8:54:GLU:O	54:Q8:56:GLU:N	2.39	0.56
26:1H:1063:G:N1	26:1H:1076:C:O2'	2.38	0.56
26:1H:607:U:N3	26:1H:621:A:H2	1.97	0.56
1:1G:539:A:H2'	1:1G:540:G:H8	1.69	0.56
52:J5:6:VAL:HG22	52:J5:7:PRO:HD2	1.86	0.56
26:14:1556:C:H2'	26:14:1557:C:C6	2.37	0.56
29:21:78:LEU:O	29:21:79:ARG:HB2	2.06	0.56
40:B8:58:ASN:HD22	40:B8:58:ASN:C	2.08	0.56
43:E8:18:ARG:HH11	43:E8:76:VAL:HG22	1.70	0.56
1:1G:1312:G:H2'	1:1G:1313:U:C6	2.40	0.56
36:78:83:VAL:HG12	36:78:112:LEU:HD21	1.86	0.56
26:14:1688:U:O2	26:14:1700:A:H5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:642:G:N2	26:14:645:C:OP2	2.37	0.56
22:1L:63:G:N2	22:1L:73:C:O2	2.29	0.56
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.87	0.56
20:BI:53:LEU:O	20:BI:57:ARG:HD3	2.05	0.56
37:88:20:ALA:HB1	37:88:99:PRO:HB2	1.88	0.56
1:1G:1238:A:H62	1:1G:1301:U:H3	1.53	0.56
1:13:639:G:H2'	1:13:640:A:H8	1.70	0.56
1:13:1304:G:N2	1:13:1332:A:OP2	2.30	0.56
9:8E:26:VAL:HB	9:8E:33:PHE:HB2	1.88	0.56
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.06	0.56
26:1H:2121:G:H1	26:1H:2177:C:H42	1.53	0.56
26:14:2761:G:H1'	32:59:143:GLN:HE22	1.70	0.56
22:1L:31:C:H2'	22:1L:32:C:H6	1.71	0.56
2:12:7:VAL:HG13	2:12:8:LYS:HG3	1.86	0.56
54:Q8:57:ARG:HD3	54:Q8:57:ARG:N	2.21	0.56
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.39	0.56
1:13:1441:G:H21	1:13:1460:A:H62	1.52	0.56
1:1G:1297:C:OP1	13:4A:44:ARG:NH2	2.21	0.56
7:62:69:VAL:HG22	7:62:135:VAL:HG23	1.87	0.56
26:1H:631:A:OP1	36:78:65:ARG:NH2	2.21	0.56
26:14:752:A:H3'	53:L5:1:MET:SD	2.46	0.56
48:F5:29:GLY:O	48:F5:30:VAL:HG22	2.06	0.56
35:68:7:TYR:HE1	35:68:20:MET:HE3	1.70	0.56
1:13:145:G:H2'	1:13:146:G:H8	1.71	0.56
26:14:1054:A:H2'	26:14:1055:G:H8	1.70	0.56
30:31:33:LEU:HB3	36:78:6:LEU:HD11	1.86	0.56
36:35:101:VAL:HA	36:35:105:LEU:O	2.06	0.56
26:14:2543:G:H2'	26:14:2544:G:C8	2.41	0.56
54:Q8:45:GLY:HA2	54:Q8:46:ARG:C	2.27	0.56
8:72:25:ASP:OD1	8:72:25:ASP:N	2.39	0.56
26:1H:825:C:O2	36:78:55:ARG:NH2	2.39	0.56
26:14:1677:A:H2'	26:14:1678:G:C8	2.41	0.56
30:31:63:LYS:HE3	30:31:67:GLN:HB2	1.88	0.56
26:14:2156:G:N7	26:14:2157:G:N2	2.54	0.56
26:14:2469:A:O2'	37:45:56:ARG:HG2	2.06	0.56
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.71	0.56
36:78:116:GLY:H	36:78:134:ALA:HB2	1.70	0.56
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.41	0.56
18:9A:37:VAL:HA	18:9A:40:LEU:HB2	1.87	0.56
26:1H:523:C:O2	26:1H:553:U:O2'	2.24	0.56
29:29:147:PRO:HB2	29:29:149:ARG:HG2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:223:A:O2'	26:14:420:C:O2	2.19	0.56
26:14:1430:C:H2'	26:14:1431:U:C6	2.41	0.56
33:61:117:GLU:N	33:61:117:GLU:OE2	2.38	0.56
1:1G:158:G:H1	1:1G:163:C:H42	1.54	0.56
10:1I:22:LYS:NZ	10:1I:90:LEU:HB2	2.21	0.56
36:78:82:GLY:HA2	36:78:113:LYS:O	2.06	0.56
26:1H:130:C:O3'	26:1H:1349:A:H1'	2.06	0.56
5:4E:72:GLN:HE22	5:4E:144:THR:HG22	1.71	0.56
26:1H:1534:G:H22	26:1H:1538:G:H22	1.53	0.56
1:1G:464:G:C6	1:1G:466:C:H5'	2.41	0.56
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.40	0.56
26:14:568:U:N3	57:14:3987:HOH:O	2.32	0.56
21:1B:8:THR:HB	21:1B:11:GLY:H	1.70	0.56
41:C8:88:ILE:O	41:C8:90:VAL:N	2.39	0.56
1:1G:1522:U:H2'	1:1G:1523:G:H8	1.70	0.56
26:14:2020:A:O2'	26:14:2021:C:H5'	2.05	0.56
26:14:2209:C:O2	26:14:2216:G:C2	2.59	0.56
26:1H:1169:G:H1	26:1H:1180:C:H42	1.53	0.56
26:1H:1068:G:H1'	26:1H:1096:A:H1'	1.87	0.56
26:1H:660:G:H21	36:78:12:ALA:HA	1.71	0.56
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.71	0.56
26:14:1087:G:H2'	26:14:1089:G:H1'	1.88	0.56
19:AI:40:ILE:HG12	19:AI:41:VAL:N	2.21	0.55
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.33	0.55
4:32:7:PRO:HB2	4:32:10:ARG:HD2	1.88	0.55
30:31:67:GLN:HG3	30:31:67:GLN:O	2.05	0.55
1:13:413:G:N2	1:13:428:G:H1'	2.21	0.55
42:D8:31:ALA:O	42:D8:60:GLU:HG2	2.05	0.55
26:1H:2485:G:H5"	37:88:46:GLN:NE2	2.21	0.55
46:D5:52:SER:O	46:D5:52:SER:OG	2.20	0.55
1:1G:1125:U:O4	10:1A:5:ARG:NH2	2.40	0.55
26:1H:994:C:H3'	41:C8:54:LYS:HE3	1.88	0.55
1:13:1410:G:H2'	1:13:1411:C:H6	1.72	0.55
26:1H:2305:A:H1'	31:41:136:ARG:NH1	2.21	0.55
39:65:7:TYR:HE1	39:65:11:LYS:HZ3	1.52	0.55
22:1L:61:C:H42	22:1L:75:G:H1	1.52	0.55
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.06	0.55
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	1.88	0.55
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.34	0.55
26:1H:1021:A:OP2	34:58:65:LYS:NZ	2.27	0.55
3:22:70:VAL:HG12	3:22:72:LYS:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:87:A:O3'	26:14:2506:U:O2'	2.19	0.55
30:31:65:TRP:CZ3	30:31:72:ARG:HB3	2.41	0.55
27:1J:63:G:H2'	27:1J:64:C:C6	2.42	0.55
1:1G:1347:G:N7	9:82:107:ARG:NH1	2.55	0.55
1:13:748:C:H4'	1:13:749:C:O5'	2.06	0.55
26:1H:873:G:H1'	37:88:29:PHE:HE2	1.71	0.55
1:13:746:A:H2'	1:13:747:C:C6	2.41	0.55
17:8A:48:GLU:HB2	17:8A:50:LYS:HB2	1.88	0.55
30:39:57:VAL:HG11	30:39:79:GLY:HA3	1.88	0.55
1:13:953:G:H2'	1:13:954:G:O4'	2.06	0.55
53:P8:30:VAL:O	53:P8:34:ARG:HG3	2.06	0.55
33:69:4:ILE:HG21	33:69:47:LEU:HD13	1.88	0.55
26:1H:1026:U:O2'	26:1H:1027:A:O5'	2.20	0.55
26:14:333:G:H5"	26:14:334:C:OP2	2.06	0.55
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.88	0.55
28:19:75:ILE:H	28:19:75:ILE:HD12	1.70	0.55
4:32:31:CYS:C	4:32:33:MET:N	2.59	0.55
26:14:1060:U:H4'	26:14:1061:U:C5'	2.35	0.55
26:14:1141:U:H2'	34:15:63:THR:HG21	1.88	0.55
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.36	0.55
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.06	0.55
26:14:1174:A:N6	26:14:1177:A:H4'	2.22	0.55
12:3I:91:LYS:HG3	12:3I:91:LYS:O	2.06	0.55
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.39	0.55
18:9A:22:VAL:C	18:9A:24:ALA:H	2.08	0.55
6:52:86:ARG:O	6:52:87:ARG:HG2	2.07	0.55
5:4E:126:ARG:HH11	5:4E:126:ARG:HG3	1.70	0.55
27:16:73:A:H5'	27:16:74:U:OP2	2.06	0.55
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.71	0.55
54:M5:37:SER:HB2	54:M5:39:LYS:O	2.06	0.55
1:1G:158:G:N2	1:1G:163:C:N3	2.50	0.55
37:45:38:GLU:HG3	37:45:127:ILE:HG22	1.89	0.55
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.88	0.55
45:G8:55:TYR:N	45:G8:56:PRO:HD3	2.21	0.55
1:13:673:G:H2'	1:13:674:G:C8	2.41	0.55
1:1G:229:U:O2'	16:7A:23:ASP:OD2	2.20	0.55
57:1H:4089:HOH:O	48:J8:65:SER:HB3	2.05	0.55
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.88	0.55
37:45:35:VAL:HG12	37:45:36:ALA:H	1.70	0.55
16:7I:71:ARG:O	16:7I:75:ARG:N	2.39	0.55
26:1H:2611:U:H5'	26:1H:2611:U:H6	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:45:ARG:HA	38:55:95:THR:HG21	1.88	0.55
37:45:60:ARG:HH11	37:45:61:GLY:HA2	1.71	0.55
32:59:137:ASP:OD1	32:59:138:LYS:N	2.38	0.55
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.70	0.55
26:14:1885:A:H5'	26:14:1886:C:OP2	2.05	0.55
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.22	0.55
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.38	0.55
45:C5:68:HIS:HB2	45:C5:71:LYS:HZ3	1.71	0.55
36:78:18:ARG:O	36:78:19:VAL:HG13	2.06	0.55
1:13:328:C:H4'	1:13:329:A:C5'	2.36	0.55
4:32:13:ARG:C	4:32:15:GLU:H	2.09	0.55
40:B8:84:GLN:HG2	40:B8:85:LYS:HG2	1.87	0.55
1:13:916:G:H2'	1:13:917:G:H8	1.71	0.55
30:31:158:THR:HG23	30:31:160:ASN:H	1.70	0.55
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.89	0.55
1:13:674:G:H2'	1:13:675:A:H8	1.71	0.55
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.05	0.55
23:2K:73:C:H2'	23:2K:74:C:H6	1.71	0.55
37:45:134:ARG:HH22	46:D5:122:ARG:NH1	2.04	0.55
16:7I:9:PHE:HE2	16:7I:18:ARG:HH21	1.54	0.55
26:1H:2103:C:H2'	26:1H:2104:G:C8	2.42	0.55
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.55
41:85:75:ASN:OD1	41:85:78:THR:OG1	2.18	0.55
34:15:61:ARG:HA	34:15:61:ARG:CZ	2.36	0.55
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.22	0.55
31:49:32:PRO:HB2	31:49:172:LEU:HD13	1.88	0.55
26:14:907:U:O2'	37:45:101:ARG:NH2	2.36	0.55
4:32:31:CYS:C	4:32:33:MET:H	2.09	0.55
26:1H:760:G:C2'	26:1H:761:A:H5'	2.36	0.55
32:59:136:ILE:HD12	32:59:137:ASP:HB2	1.87	0.55
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.89	0.55
30:39:108:LYS:O	30:39:112:MET:HB2	2.05	0.55
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.39	0.55
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.71	0.55
52:N8:40:LYS:NZ	52:N8:46:CYS:HB3	2.21	0.55
24:3L:42:U:H2'	24:3L:43:A:C8	2.42	0.55
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.22	0.55
54:Q8:59:LYS:CE	54:Q8:59:LYS:H	2.19	0.55
26:14:540:G:H2'	26:14:541:C:C6	2.41	0.55
36:35:121:LYS:HG2	36:35:122:PRO:HD2	1.88	0.55
23:2K:71:U:H5"	23:2K:72:C:C5	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1292:U:H2'	26:14:1293:C:C6	2.40	0.55
26:14:479:A:N3	26:14:481:G:H5"	2.21	0.55
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.42	0.55
4:32:111:ALA:HB3	4:32:117:ALA:HB2	1.87	0.55
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.29	0.55
41:C8:106:PHE:HA	41:C8:109:LEU:HD12	1.88	0.55
27:1J:88:C:H3'	27:1J:89:G:N7	2.21	0.55
26:1H:1021:A:H3'	26:1H:1022:G:H5"	1.87	0.55
1:13:1028:C:H42	1:13:1033:G:H22	1.53	0.55
31:41:112:PRO:HB3	51:M8:37:SER:H	1.71	0.55
26:1H:2315:G:OP1	31:41:36:LYS:NZ	2.34	0.55
24:3L:37:G:N2	25:4L:44:U:H3	2.05	0.55
26:1H:71:A:H4'	26:1H:72:U:H5"	1.87	0.55
1:1G:683:G:H2'	1:1G:684:A:C8	2.42	0.55
36:35:63:PRO:HB3	54:M5:30:ARG:CZ	2.37	0.55
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.39	0.55
38:98:9:LYS:HA	38:98:17:ARG:NE	2.22	0.55
23:2L:29:U:H2'	23:2L:30:A:C8	2.42	0.55
39:65:7:TYR:CZ	39:65:91:PRO:HG3	2.42	0.55
1:13:626:U:C2	1:13:627:G:C8	2.95	0.55
26:14:1747:G:H2'	26:14:1748:G:H8	1.71	0.55
18:9A:86:VAL:HG12	18:9A:87:ARG:NH1	2.22	0.55
39:65:28:VAL:HG11	39:65:98:VAL:HG12	1.87	0.55
14:5A:15:LYS:HG2	14:5A:16:PHE:CE2	2.42	0.55
1:13:1316:G:H4'	14:5I:18:VAL:HG11	1.89	0.55
40:B8:50:ILE:CD1	40:B8:102:ILE:HD11	2.35	0.55
26:14:1771:C:H1'	26:14:1786:A:C8	2.41	0.55
26:14:830:G:H4'	26:14:831:G:OP2	2.06	0.55
26:14:2138:C:O2	26:14:2154:G:N1	2.40	0.55
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.41	0.55
26:1H:2111:C:H5	26:1H:2147:G:C6	2.25	0.55
1:13:221:C:H2'	1:13:222:U:H6	1.72	0.55
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.06	0.55
1:1G:1453:G:H22	20:BA:54:LYS:HZ2	1.53	0.55
1:13:1023:G:H3'	1:13:1024:G:H5"	1.89	0.55
29:21:60:ASN:OD1	29:21:62:PRO:HD2	2.06	0.55
38:98:29:LEU:HB3	38:98:75:LEU:HD21	1.89	0.55
1:1G:299:G:H2'	1:1G:300:A:C8	2.42	0.55
26:1H:2882:A:OP1	38:98:96:ARG:HD3	2.06	0.55
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.87	0.55
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2262:U:H2'	26:1H:2263:C:H6	1.72	0.55
26:14:113:G:H8	26:14:113:G:O5'	1.89	0.55
33:69:82:ARG:O	33:69:89:TYR:HD2	1.89	0.55
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.89	0.55
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.89	0.55
26:14:2443:C:OP1	30:39:68:LYS:HG2	2.06	0.55
26:14:787:U:P	57:14:3662:HOH:O	2.63	0.55
41:85:92:ARG:NH2	42:95:11:GLN:H	2.05	0.55
45:G8:85:VAL:HG22	45:G8:98:VAL:HB	1.88	0.55
26:14:1047:G:H21	26:14:1111:A:H62	1.55	0.55
31:49:109:VAL:HG11	31:49:142:PRO:HG3	1.87	0.55
26:14:2387:U:H1'	47:E5:41:ARG:NE	2.22	0.55
26:1H:1509:C:H3'	26:1H:1510:A:H5"	1.89	0.55
28:19:68:LYS:HB3	28:19:70:TRP:CZ3	2.42	0.55
1:1G:448:A:OP2	1:1G:485:G:N2	2.37	0.55
1:13:498:A:H4'	1:13:500:G:OP1	2.06	0.55
2:1E:76:GLN:O	2:1E:208:ILE:HG12	2.07	0.55
28:11:10:THR:OG1	28:11:13:ARG:HB2	2.06	0.55
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.40	0.55
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.07	0.55
26:14:1199:U:H2'	26:14:1200:C:C6	2.41	0.55
37:88:85:LYS:CG	47:I8:7:LEU:HD13	2.37	0.55
26:1H:2116:G:OP2	26:1H:2166:G:O2'	2.24	0.55
11:2A:16:SER:OG	11:2A:79:SER:OG	2.23	0.55
31:49:22:ARG:HH12	31:49:175:LEU:HD21	1.71	0.55
26:14:1366:A:H2'	26:14:1367:A:O4'	2.06	0.55
26:1H:2553:G:H2'	26:1H:2554:U:H4'	1.89	0.55
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.40	0.55
41:85:92:ARG:NH2	42:95:10:LYS:HA	2.21	0.55
54:Q8:47:LYS:HD3	54:Q8:47:LYS:C	2.28	0.55
2:1E:174:VAL:HG11	2:1E:196:LEU:HD13	1.87	0.55
34:15:35:ARG:HB2	34:15:42:TRP:HZ3	1.71	0.55
19:AI:6:LYS:HE3	51:M8:62:ARG:HD2	1.89	0.55
35:25:43:VAL:HG23	35:25:56:ASP:O	2.07	0.55
29:21:24:THR:HG21	29:21:188:VAL:CG2	2.37	0.55
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.35	0.55
7:62:95:ARG:HH21	7:62:99:LEU:HD11	1.72	0.55
26:1H:1231:G:H2'	26:1H:1232:G:H8	1.72	0.55
26:1H:2481:G:O2'	26:1H:2482:G:O5'	2.25	0.55
1:1G:737:A:H2'	1:1G:738:C:C6	2.41	0.55
36:35:125:VAL:O	36:35:144:GLU:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:85:16:LYS:O	41:85:20:LEU:HD13	2.06	0.55
26:14:2774:C:H2'	26:14:2775:A:O4'	2.06	0.55
13:4I:88:ARG:HD2	13:4I:98:VAL:HG12	1.89	0.55
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.42	0.55
26:1H:2052:G:H4'	29:21:143:ASN:O	2.06	0.55
26:14:1997:G:H5"	57:14:3984:HOH:O	2.07	0.55
32:59:66:GLY:O	32:59:70:THR:OG1	2.20	0.55
41:85:92:ARG:C	41:85:94:ASN:H	2.10	0.55
42:95:21:ARG:HE	42:95:91:TYR:HB3	1.71	0.55
23:2L:18:OMG:P	23:2L:71:U:H3	2.30	0.55
45:G8:82:PRO:HG3	45:G8:97:ARG:HG3	1.89	0.55
46:H8:116:VAL:HG23	46:H8:146:ILE:HG12	1.89	0.55
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.88	0.55
1:13:1228:C:OP1	13:4I:108:ARG:NH2	2.40	0.55
1:1G:411:A:H62	1:1G:413:G:H21	1.54	0.55
26:1H:2791:C:N4	26:1H:2805:G:H1	2.05	0.55
26:14:2873:A:H8	38:55:5:LYS:HA	1.72	0.55
45:C5:47:LYS:HG3	45:C5:60:PHE:CE2	2.41	0.55
39:65:42:ASP:O	39:65:43:GLU:HB2	2.06	0.55
2:1E:212:GLN:O	2:1E:216:SER:OG	2.15	0.55
34:58:47:ALA:HB2	34:58:112:LEU:HD11	1.89	0.55
2:12:16:HIS:HD2	2:12:210:SER:HA	1.71	0.55
26:14:390:A:C6	36:35:71:VAL:HG21	2.42	0.55
9:8E:10:ARG:HG3	9:8E:75:ASP:HB2	1.88	0.55
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.88	0.54
31:41:131:TYR:O	31:41:159:VAL:HG22	2.07	0.54
26:1H:973:A:OP2	57:1H:3717:HOH:O	2.17	0.54
47:E5:21:LEU:HD21	47:E5:41:ARG:HH12	1.71	0.54
26:1H:71:A:C2	44:F8:31:HIS:HE1	2.25	0.54
4:32:36:ARG:HB3	4:32:38:TYR:CE1	2.41	0.54
26:14:1533:C:N3	26:14:1534:G:O2'	2.33	0.54
51:M8:13:ARG:HA	51:M8:24:THR:HG21	1.90	0.54
20:BI:97:ALA:O	20:BI:99:LEU:N	2.39	0.54
29:29:25:VAL:HG12	29:29:26:ILE:H	1.72	0.54
29:21:70:ALA:HB1	29:21:73:GLU:HB2	1.88	0.54
26:14:2294:C:P	39:65:89:ARG:HH22	2.29	0.54
1:13:1523:G:OP1	11:2I:123:LYS:HE3	2.06	0.54
26:14:483:A:H4'	45:C5:49:VAL:HA	1.89	0.54
2:12:109:SER:HA	2:12:112:VAL:HG23	1.89	0.54
6:5E:9:VAL:HB	6:5E:87:ARG:HB2	1.88	0.54
26:14:2250:G:C6	37:45:83:MET:HB3	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.72	0.54
7:62:97:GLN:HG3	7:62:98:SER:N	2.21	0.54
13:4I:75:ALA:HA	13:4I:78:ILE:HG13	1.90	0.54
26:1H:2849:U:OP2	40:B8:95:ARG:NH1	2.40	0.54
1:13:179:A:H2'	1:13:180:U:H6	1.71	0.54
1:1G:116:A:H61	1:1G:313:A:H1'	1.72	0.54
26:14:2311:A:H62	31:49:44:GLY:HA3	1.70	0.54
30:39:6:VAL:HB	30:39:124:LEU:HA	1.89	0.54
32:59:119:GLU:N	32:59:119:GLU:OE2	2.34	0.54
26:14:363(F):A:OP2	26:14:363(F):A:H8	1.89	0.54
28:11:17:THR:HB	28:11:205:VAL:H	1.72	0.54
26:14:35:G:H2'	26:14:36:G:O4'	2.07	0.54
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.88	0.54
26:14:997:G:O2'	26:14:998:C:H5'	2.07	0.54
41:85:92:ARG:CZ	42:95:11:GLN:H	2.21	0.54
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.36	0.54
31:41:112:PRO:HB2	51:M8:36:CYS:HA	1.88	0.54
46:H8:134:PRO:HG3	46:H8:161:VAL:HG11	1.87	0.54
26:1H:1437:C:C2	26:1H:1438:U:C5	2.95	0.54
1:1G:1075:C:H4'	2:12:175:ARG:HH22	1.71	0.54
1:13:138:G:H1	1:13:225:C:H42	1.53	0.54
10:1A:9:ARG:HB2	10:1A:95:GLU:HB3	1.88	0.54
26:1H:2882:A:H5'	38:98:96:ARG:HG3	1.87	0.54
8:7E:104:ARG:HB3	8:7E:107:LEU:HB2	1.89	0.54
2:1E:47:THR:HG23	2:1E:202:PRO:HG2	1.88	0.54
5:4E:20:GLN:HG2	5:4E:21:ALA:H	1.72	0.54
26:1H:924:C:H2'	26:1H:925:C:C6	2.43	0.54
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.87	0.54
26:1H:654(E):C:N3	26:1H:654(P):G:N2	2.48	0.54
26:14:551:G:H1'	26:14:1220:A:C6	2.42	0.54
26:14:975:G:H1'	26:14:990:A:C2	2.42	0.54
31:49:125:PHE:HB3	31:49:166:ASP:HB2	1.89	0.54
18:9I:26:LEU:HB3	18:9I:42:ARG:HH22	1.72	0.54
1:1G:974:A:P	14:5A:41:ARG:HH22	2.30	0.54
22:1L:87:A:HO3'	26:14:2506:U:HO2'	1.52	0.54
26:14:2716:U:O2'	26:14:2717:G:H5'	2.07	0.54
29:29:89:ASP:CG	29:29:90:THR:H	2.11	0.54
26:14:2472:G:H2'	26:14:2475:C:N4	2.21	0.54
1:1G:1142:G:H2'	1:1G:1143:G:O4'	2.07	0.54
1:13:992:U:H4'	1:13:993:G:O5'	2.06	0.54
1:13:353:A:H5'	1:13:353:A:H8	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:82:ILE:O	15:6I:86:GLY:N	2.40	0.54
26:14:271:G:H2'	26:14:272:G:H8	1.72	0.54
1:1G:735:C:H2'	1:1G:736:C:H6	1.71	0.54
23:2K:71:U:H5"	23:2K:72:C:H5	1.72	0.54
5:4E:70:PRO:O	5:4E:77:PRO:HD3	2.08	0.54
26:1H:935:C:H2'	26:1H:936:C:H6	1.72	0.54
26:1H:127:A:H5"	26:1H:128:C:C6	2.42	0.54
18:9I:66:LEU:HD11	18:9I:70:ILE:HD11	1.89	0.54
1:13:1305:G:OP2	1:13:1305:G:C8	2.57	0.54
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.21	0.54
1:1G:977:A:H2'	1:1G:978:A:H5'	1.90	0.54
26:1H:1060:U:C4	26:1H:1062:G:H4'	2.41	0.54
34:58:70:LYS:HE3	34:58:72:TYR:CE1	2.42	0.54
26:14:857:C:H2'	26:14:858:U:C6	2.43	0.54
26:14:2015:A:OP1	43:A5:92:ARG:NH2	2.40	0.54
26:14:1048:A:H2	26:14:1112:G:H21	1.55	0.54
26:14:1665:A:H4'	35:25:67:LYS:HB2	1.90	0.54
26:1H:2176:A:H2'	26:1H:2177:C:C6	2.41	0.54
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.21	0.54
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.88	0.54
2:12:92:TYR:HE2	2:12:94:ASN:HB2	1.72	0.54
26:14:2378:A:O2'	39:65:21:THR:HG21	2.08	0.54
1:1G:114:U:H2'	1:1G:115:G:C8	2.43	0.54
26:1H:935:C:H2'	26:1H:936:C:C6	2.42	0.54
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.42	0.54
26:1H:722:A:H2'	26:1H:723:G:C8	2.42	0.54
32:51:169:VAL:O	32:51:170:ARG:NE	2.39	0.54
43:A5:6:ILE:HG22	43:A5:8:ARG:HG3	1.89	0.54
1:13:143:A:H2	1:13:220:G:H1	1.56	0.54
26:1H:58:G:H5'	44:F8:74:PRO:HB3	1.88	0.54
9:8E:125:TYR:HD1	9:8E:126:SER:N	2.05	0.54
45:C5:86:ARG:HG3	45:C5:87:LYS:N	2.21	0.54
26:14:1412:A:H2'	26:14:1413:G:C8	2.42	0.54
26:14:1149:G:H2'	26:14:1150:C:C6	2.42	0.54
1:13:434:U:H2'	1:13:435:C:C6	2.42	0.54
36:35:39:LYS:HG3	36:35:45:LEU:HD22	1.90	0.54
46:H8:105:VAL:O	46:H8:140:ASP:HA	2.08	0.54
1:1G:171:A:H2'	1:1G:172:A:C8	2.41	0.54
4:3E:43:HIS:O	4:3E:46:LYS:HG3	2.08	0.54
1:13:1427:U:H2'	1:13:1428:A:C8	2.43	0.54
29:29:76:ARG:HG2	29:29:195:LEU:HD22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:101:LEU:O	7:62:105:VAL:HG23	2.07	0.54
30:39:15:SER:OG	30:39:16:GLY:N	2.39	0.54
1:1G:501:C:H2'	1:1G:502:G:C8	2.42	0.54
32:51:126:PRO:HB2	32:51:130:ARG:HH22	1.72	0.54
26:14:1061:U:C5'	26:14:1070:A:H1'	2.32	0.54
26:14:536:A:OP1	41:85:53:ARG:NH1	2.40	0.54
42:95:85:LYS:HD2	42:95:87:HIS:H	1.73	0.54
48:J8:58:ILE:HG23	48:J8:87:PRO:HG3	1.88	0.54
28:19:208:LYS:HG3	28:19:211:ARG:H	1.73	0.54
1:13:56:U:H2'	1:13:57:G:C8	2.43	0.54
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.42	0.54
26:14:1429:G:H2'	26:14:1430:C:C6	2.42	0.54
1:13:658:G:H2'	1:13:659:U:H6	1.73	0.54
39:A8:42:ASP:O	39:A8:43:GLU:HB2	2.08	0.54
1:13:859:A:H2'	1:13:860:A:O4'	2.06	0.54
26:1H:2299:G:H1	26:1H:2318:G:H8	1.55	0.54
7:62:26:PHE:CD1	7:62:30:ILE:HD11	2.43	0.54
37:88:134:ARG:HE	46:H8:122:ARG:NH2	2.06	0.54
46:D5:79:ARG:HB3	46:D5:80:ARG:HD2	1.90	0.54
26:14:1310:G:OP2	53:L5:9:ARG:NE	2.41	0.54
49:K8:52:ASP:O	49:K8:56:GLN:HB2	2.08	0.54
42:95:69:LYS:HG2	42:95:86:GLY:HA3	1.90	0.54
31:41:11:TYR:HA	31:41:15:VAL:HB	1.90	0.54
26:14:833:U:H2'	26:14:834:C:C6	2.43	0.54
26:14:607:U:H3	26:14:621:A:H2	1.54	0.54
26:14:2138:C:H1'	26:14:2154:G:H1	1.73	0.54
22:1L:21:A:H4'	22:1L:22:G:OP1	2.07	0.54
1:13:1188:A:N6	57:13:1842:HOH:O	2.41	0.54
26:1H:1250:G:OP2	36:78:18:ARG:NH1	2.40	0.54
36:78:13:ASN:OD1	36:78:15:ARG:HD3	2.07	0.54
13:4I:108:ARG:HH11	13:4I:108:ARG:HA	1.70	0.54
33:61:73:GLU:HG3	33:61:136:VAL:HG23	1.90	0.54
26:1H:1805:U:O2	28:11:50:THR:HB	2.07	0.54
1:13:1301:U:O2'	1:13:1302:U:H5'	2.08	0.54
26:1H:2209:C:O2	26:1H:2216:G:C2	2.60	0.54
26:1H:2684:U:O2'	35:68:68:GLU:HG3	2.08	0.54
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.08	0.54
17:8A:45:HIS:HE2	17:8A:47:PRO:HB3	1.71	0.54
24:3L:22:G:H1'	24:3L:70:G:H22	1.71	0.54
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.22	0.54
51:I5:18:CYS:HB2	51:I5:36:CYS:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:106:GLY:HA3	29:29:189:PRO:HB2	1.89	0.54
26:14:1899:G:H21	26:14:1902:C:H41	1.53	0.54
1:13:592:G:H2'	1:13:593:G:H8	1.73	0.54
1:13:664:G:N2	1:13:741:G:H1	2.04	0.54
33:69:101:LEU:HD12	33:69:109:ILE:HD12	1.89	0.54
1:1G:985:C:H2'	1:1G:986:A:H8	1.72	0.54
1:1G:960:U:H3	1:1G:1225:A:H1'	1.73	0.54
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.08	0.54
42:95:76:LYS:HB2	42:95:79:VAL:HG23	1.88	0.54
26:14:1054:A:H2'	26:14:1055:G:C8	2.43	0.54
39:A8:34:HIS:CE1	39:A8:54:LEU:HD23	2.43	0.54
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.90	0.54
26:14:944:G:H2'	57:14:3688:HOH:O	2.07	0.54
29:29:109:LYS:HE2	29:29:191:PRO:HA	1.90	0.54
26:14:1327:C:O3'	38:55:105:ARG:NH2	2.41	0.54
35:25:111:PHE:O	35:25:115:VAL:HG23	2.06	0.54
7:62:94:ARG:H	7:62:94:ARG:HD3	1.72	0.54
3:22:33:LEU:O	3:22:36:ASP:N	2.41	0.54
44:B5:42:ALA:O	44:B5:45:THR:N	2.40	0.54
13:4I:23:TYR:CD1	13:4I:67:GLU:HA	2.41	0.54
9:8E:17:VAL:HA	9:8E:63:ILE:HG12	1.89	0.54
26:14:1771:C:O2'	26:14:1786:A:H8	1.88	0.54
1:1G:1016:A:HO2'	1:1G:1217:C:HO2'	1.53	0.54
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.43	0.54
26:14:2778:A:H5"	26:14:2778:A:H8	1.73	0.54
26:1H:1053:C:N3	26:1H:1107:G:N2	2.56	0.54
24:3L:22:G:H1'	24:3L:70:G:N2	2.23	0.54
1:1G:25:C:H2'	1:1G:26:A:H8	1.72	0.54
1:13:1469:G:H2'	1:13:1470:G:C8	2.43	0.54
26:14:2462:U:H2'	26:14:2463:C:C6	2.43	0.54
26:14:1520:U:H2'	26:14:1521:G:O4'	2.07	0.54
44:B5:67:GLY:C	44:B5:69:TYR:H	2.10	0.54
26:1H:2046:G:H1'	52:N8:22:HIS:CE1	2.42	0.54
6:52:45:LEU:HD13	6:52:57:GLN:OE1	2.08	0.54
26:1H:2629:A:O2'	26:1H:2630:G:H5"	2.07	0.54
10:1A:99:LYS:HD3	10:1A:100:THR:H	1.72	0.54
33:61:96:ASP:OD1	33:61:96:ASP:N	2.41	0.54
54:M5:36:LYS:HE2	54:M5:36:LYS:HA	1.90	0.54
7:62:115:ARG:HB3	7:62:118:VAL:HG13	1.89	0.54
1:1G:979:C:H5"	1:1G:980:C:OP2	2.08	0.54
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2580:U:H4'	29:21:130:GLY:CA	2.33	0.54
1:13:536:C:H2'	1:13:537:G:C8	2.43	0.54
9:82:77:ILE:O	9:82:81:ILE:HG12	2.07	0.54
9:82:10:ARG:NH2	9:82:11:LYS:HE2	2.23	0.54
26:1H:1113:U:H5'	32:51:2:SER:HB2	1.90	0.54
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.40	0.54
28:19:75:ILE:HG22	28:19:97:TYR:HD2	1.73	0.54
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.72	0.54
31:49:34:LEU:HD21	31:49:172:LEU:HD21	1.89	0.54
26:1H:2197:U:H1'	26:1H:2198:A:C8	2.43	0.54
2:1E:52:GLU:HG2	2:1E:56:ARG:HH12	1.73	0.54
12:3A:82:VAL:HG23	12:3A:106:ASP:OD2	2.08	0.54
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.08	0.54
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.08	0.54
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.08	0.54
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.43	0.54
26:14:790:C:OP2	57:14:3661:HOH:O	2.19	0.53
26:14:2016:U:O2	52:J5:7:PRO:HG2	2.08	0.53
37:88:14:ARG:HG2	37:88:41:TRP:HH2	1.72	0.53
32:51:86:GLU:OE1	32:51:86:GLU:N	2.38	0.53
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.40	0.53
22:1K:29:U:H2'	22:1K:30:A:C8	2.43	0.53
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.90	0.53
1:13:1131:G:H2'	1:13:1132:C:H6	1.72	0.53
30:31:29:ASN:HB3	30:31:112:MET:HE1	1.91	0.53
26:1H:2481:G:HO2'	26:1H:2482:G:P	2.31	0.53
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.39	0.53
26:14:2823:A:OP1	29:29:113:PHE:HB2	2.07	0.53
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.23	0.53
1:13:1397:C:H4'	1:13:1398:A:OP2	2.08	0.53
26:14:1751:C:H2'	26:14:1752:C:C6	2.43	0.53
26:14:1579:A:H2'	26:14:1580:A:C8	2.42	0.53
33:69:27:ARG:HG2	48:F5:71:TYR:CZ	2.43	0.53
1:1G:1481:U:H2'	1:1G:1482:G:C8	2.44	0.53
39:A8:14:VAL:O	39:A8:18:ILE:HD13	2.08	0.53
1:1G:607:A:H2'	1:1G:608:A:O4'	2.08	0.53
1:13:891:U:H2'	1:13:892:A:H8	1.73	0.53
1:1G:983:A:N1	1:1G:1222:G:N2	2.54	0.53
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.43	0.53
11:2I:19:ALA:HB2	11:2I:32:ILE:HG23	1.89	0.53
1:1G:1305:G:O2'	1:1G:1306:A:O5'	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:44:G:H1'	27:1J:47:C:N4	2.22	0.53
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.90	0.53
26:14:774:A:O2'	26:14:775:G:O5'	2.25	0.53
29:29:47:VAL:HG21	29:29:86:PRO:HD2	1.90	0.53
29:29:31:CYS:N	29:29:90:THR:O	2.33	0.53
34:15:13:TRP:HB2	34:15:133:GLN:HB3	1.89	0.53
23:2L:62:G:O2'	23:2L:63:G:O5'	2.25	0.53
22:1L:14:A:N1	22:1L:22:G:O2'	2.41	0.53
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.21	0.53
54:Q8:59:LYS:CD	54:Q8:59:LYS:H	2.19	0.53
1:13:917:G:H2'	1:13:918:A:C8	2.44	0.53
6:52:14:LEU:HD23	6:52:19:LEU:HB2	1.89	0.53
36:78:97:PRO:HB3	36:78:112:LEU:HD12	1.91	0.53
45:G8:49:VAL:HG21	45:G8:55:TYR:CD2	2.43	0.53
24:3L:15:A:H4'	24:3L:15:A:OP1	2.07	0.53
26:14:1288:U:C2	26:14:1327:C:O2	2.61	0.53
2:12:119:GLU:HA	2:12:122:PHE:HD2	1.73	0.53
31:41:98:ARG:NE	51:M8:1:MET:SD	2.81	0.53
6:52:91:VAL:HG11	18:9A:72:ARG:NH1	2.23	0.53
7:62:143:ARG:HH11	7:62:143:ARG:HB3	1.74	0.53
1:1G:652:U:H1'	1:1G:653:A:H2	1.72	0.53
42:95:7:THR:HG23	42:95:22:VAL:HG21	1.89	0.53
26:1H:1156:A:C8	41:C8:51:LYS:HD2	2.43	0.53
1:13:631:G:H2'	1:13:632:A:N3	2.23	0.53
1:13:980:C:O2	57:13:1802:HOH:O	2.18	0.53
26:14:1796:U:H2'	26:14:1797:C:C6	2.43	0.53
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.09	0.53
26:1H:1423:G:N7	57:1H:3919:HOH:O	2.34	0.53
38:98:103:ARG:HD2	38:98:108:GLY:O	2.09	0.53
1:13:718:G:H5'	11:2I:117:ASN:ND2	2.24	0.53
36:35:95:VAL:HA	36:35:99:LEU:HD23	1.88	0.53
36:78:52:GLU:OE2	36:78:58:THR:HG22	2.07	0.53
26:1H:586:A:OP2	57:1H:3731:HOH:O	2.19	0.53
40:75:96:ARG:HH11	40:75:96:ARG:HG2	1.73	0.53
31:41:37:VAL:O	31:41:94:LEU:HD23	2.08	0.53
51:I5:22:ILE:HG12	51:I5:23:GLU:N	2.22	0.53
1:13:1003:G:H1	1:13:1037:C:H42	1.56	0.53
26:1H:1467:C:H42	26:1H:1525:G:H1	1.57	0.53
26:14:1044:G:H4'	26:14:1048:A:H1'	1.91	0.53
26:14:2111:C:H42	26:14:2147:G:H21	1.55	0.53
45:G8:76:CYS:SG	45:G8:97:ARG:HG2	2.49	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:53:ARG:O	40:75:53:ARG:HG3	2.07	0.53
26:1H:2156:G:H2'	26:1H:2157:G:C2	2.43	0.53
48:F5:91:LYS:HZ3	48:F5:91:LYS:HA	1.73	0.53
13:4A:78:ILE:HD13	13:4A:92:HIS:CE1	2.44	0.53
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.24	0.53
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.74	0.53
26:1H:1244:G:OP1	36:78:7:ARG:HD3	2.08	0.53
1:13:77:C:O2'	1:13:92:G:N2	2.25	0.53
1:1G:722:A:H2	1:1G:733:A:H61	1.56	0.53
1:13:105:G:H2'	1:13:106:C:C6	2.42	0.53
15:6I:32:LEU:O	15:6I:35:ARG:N	2.42	0.53
24:3L:67:C:N3	26:14:2169:A:N6	2.56	0.53
26:14:527:C:N4	26:14:2779:U:OP2	2.41	0.53
33:61:29:TYR:C	33:61:32:PRO:HD2	2.29	0.53
1:13:1431:C:H2'	1:13:1432:G:O4'	2.09	0.53
18:9A:31:LEU:H	18:9A:31:LEU:HD23	1.71	0.53
1:1G:1505:G:H4'	1:1G:1506:U:H5"	1.91	0.53
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.90	0.53
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.06	0.53
9:82:63:ILE:HD13	9:82:77:ILE:HG23	1.91	0.53
27:1J:15:A:H1'	27:1J:109:G:C8	2.43	0.53
26:1H:2735:G:H2'	26:1H:2736:G:H8	1.73	0.53
13:4A:79:LYS:HG3	13:4A:82:MET:SD	2.49	0.53
1:1G:25:C:H2'	1:1G:26:A:C8	2.43	0.53
27:1J:94:C:H2'	27:1J:95:U:C6	2.43	0.53
28:11:218:ARG:HB3	28:11:219:PRO:HD2	1.91	0.53
26:14:2110:G:O2'	26:14:2120:G:OP1	2.15	0.53
10:1I:3:LYS:N	10:1I:75:ILE:O	2.41	0.53
1:1G:371:G:H1	1:1G:390:C:H42	1.55	0.53
35:68:4:PRO:O	35:68:5:GLN:HB2	2.07	0.53
26:14:314:A:H2'	26:14:315:G:C8	2.44	0.53
2:1E:136:VAL:O	2:1E:140:HIS:N	2.42	0.53
31:49:71:THR:N	31:49:89:GLY:O	2.37	0.53
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.90	0.53
1:1G:682:G:H1	1:1G:708:C:H42	1.55	0.53
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.90	0.53
36:35:59:LEU:HD21	54:M5:10:ALA:HA	1.89	0.53
26:1H:2479:G:O5'	26:1H:2479:G:H8	1.91	0.53
33:69:85:GLU:HA	33:69:123:LEU:HD12	1.90	0.53
29:29:35:GLN:O	29:29:48:GLN:HB2	2.09	0.53
43:E8:48:ALA:O	43:E8:52:GLU:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:G8:93:GLY:O	45:G8:94:LYS:HB2	2.08	0.53
34:15:42:TRP:HA	34:15:48:MET:HE1	1.91	0.53
24:3K:46:G:H2'	24:3K:47:C:C5'	2.37	0.53
1:13:372:C:N4	1:13:389:A:H62	2.04	0.53
4:3E:104:VAL:O	4:3E:107:ARG:N	2.41	0.53
9:82:7:THR:H	9:82:83:ARG:HD2	1.73	0.53
47:E5:29:GLN:O	47:E5:67:VAL:HG23	2.08	0.53
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.08	0.53
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.73	0.53
7:62:143:ARG:HB3	7:62:143:ARG:NH1	2.24	0.53
26:14:829:A:N7	26:14:2247:A:O2'	2.35	0.53
26:1H:906:G:OP1	37:88:26:TYR:OH	2.21	0.53
34:58:6:PRO:HG3	34:58:41:ASP:HB2	1.90	0.53
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.90	0.53
26:14:64:A:O3'	44:B5:71:GLY:HA3	2.09	0.53
30:31:60:SER:OG	30:31:61:GLY:N	2.42	0.53
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.43	0.53
26:14:588:U:H1'	30:39:90:PHE:CG	2.44	0.53
26:1H:1411:C:H2'	26:1H:1412:A:H8	1.73	0.53
41:C8:97:ASP:OD1	41:C8:98:LEU:N	2.42	0.53
26:14:2786:U:O2	29:29:62:PRO:HB3	2.09	0.53
31:41:173:LEU:HB3	31:41:178:PHE:CD2	2.42	0.53
40:75:4:GLY:O	40:75:7:ILE:N	2.41	0.53
9:82:51:ARG:HG2	9:82:56:LEU:HD22	1.89	0.53
26:14:654(R):C:N4	26:14:654(S):G:O6	2.42	0.53
1:1G:1112:C:C4	3:22:178:LEU:HD23	2.43	0.53
1:1G:410:G:N1	1:1G:431:A:OP2	2.41	0.53
1:1G:674:G:H2'	1:1G:675:A:C8	2.44	0.53
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.90	0.53
36:78:49:ARG:HG3	54:Q8:57:ARG:HE	1.73	0.53
1:1G:164:U:H2'	1:1G:165:C:C6	2.42	0.53
19:AA:9:VAL:HG13	51:I5:63:TYR:HE1	1.73	0.53
1:1G:377:G:H1	1:1G:386:C:H42	1.56	0.53
32:59:42:ARG:NH1	32:59:53:GLU:O	2.37	0.53
11:2A:13:GLN:HA	11:2A:75:TYR:O	2.08	0.53
2:12:71:VAL:HB	2:12:164:VAL:HG13	1.90	0.53
26:1H:1586:A:H3'	26:1H:1587:A:H8	1.74	0.53
1:1G:1157:A:H8	1:1G:1158:C:C5	2.27	0.53
26:1H:1359:A:C2	26:1H:1372:U:O4	2.57	0.53
54:Q8:14:VAL:HB	54:Q8:21:LYS:HE2	1.90	0.53
37:45:27:VAL:H	37:45:102:VAL:HG21	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:39:ILE:HD12	39:65:85:VAL:HG11	1.91	0.53
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.37	0.53
13:4A:91:ARG:NH1	13:4A:96:LEU:HD13	2.24	0.53
26:1H:1069:A:O2'	26:1H:1072:C:OP2	2.26	0.53
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.43	0.53
13:4A:40:ASN:HB3	13:4A:43:THR:HG23	1.90	0.53
38:98:117:VAL:HG22	38:98:118:GLU:H	1.73	0.53
26:14:2219:G:H2'	26:14:2224:G:H5'	1.90	0.53
26:1H:265:A:C8	26:1H:266:G:H1'	2.44	0.53
31:49:40:ASN:HB2	31:49:91:ARG:HB2	1.90	0.53
46:D5:23:LYS:HB3	46:D5:38:TYR:CD1	2.44	0.53
26:14:844:C:H3'	26:14:845:G:C8	2.44	0.53
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.90	0.53
6:52:25:ILE:HD12	6:52:82:ARG:HD2	1.90	0.53
1:13:1139:G:H4'	1:13:1140:C:H5'	1.91	0.53
54:Q8:7:HIS:O	54:Q8:7:HIS:ND1	2.42	0.53
36:35:84:ASN:ND2	36:35:117:GLU:HB3	2.24	0.53
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.73	0.53
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.74	0.53
43:A5:9:TYR:H	43:A5:102:HIS:CE1	2.25	0.53
30:31:181:LEU:O	30:31:205:ARG:NH2	2.41	0.53
1:1G:147:G:N2	1:1G:148:G:C4	2.77	0.53
37:45:34:LEU:HB2	37:45:118:LEU:HD13	1.90	0.53
9:82:85:LEU:HD12	9:82:92:TYR:CD2	2.44	0.53
10:1I:46:ARG:NH2	10:1I:64:GLU:OE1	2.42	0.53
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.44	0.53
16:7I:77:ALA:HB3	16:7I:79:VAL:HG23	1.91	0.53
45:C5:52:SER:HA	45:C5:55:TYR:C	2.28	0.53
20:BA:26:ASN:HB3	20:BA:71:THR:OG1	2.09	0.53
37:88:20:ALA:HA	37:88:98:LYS:HB3	1.90	0.53
26:14:990:A:H8	26:14:990:A:H5'	1.73	0.53
2:12:84:GLU:OE2	2:12:212:GLN:NE2	2.42	0.53
26:14:1432:C:H2'	26:14:1433:U:O4'	2.08	0.53
7:6E:73:MET:HA	7:6E:90:GLU:HA	1.91	0.53
26:1H:50:U:H3'	26:1H:51:G:H5'	1.91	0.53
3:2E:83:ARG:HA	3:2E:86:VAL:HG13	1.91	0.53
26:1H:124:G:N2	26:1H:126:A:O3'	2.42	0.53
33:61:4:ILE:HG12	33:61:18:VAL:HG22	1.91	0.53
2:12:44:LEU:HD23	2:12:44:LEU:H	1.74	0.53
26:14:1444(A):A:N3	26:14:1444(A):A:H2'	2.24	0.53
1:1G:622:A:C8	1:1G:623:C:C6	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.09	0.53
26:1H:825:C:H5'	57:1H:3680:HOH:O	2.09	0.53
42:95:71:LEU:O	42:95:72:VAL:HG12	2.08	0.53
48:F5:2:SER:O	48:F5:4:VAL:HG13	2.09	0.53
45:C5:17:SER:OG	45:C5:18:GLY:O	2.25	0.53
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.42	0.53
2:12:104:ASN:OD1	2:12:107:THR:OG1	2.26	0.53
42:95:35:LEU:HB3	42:95:37:VAL:HG11	1.91	0.53
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.26	0.53
26:1H:692:C:O2'	28:11:38:LYS:HE3	2.09	0.53
37:88:66:ILE:O	37:88:104:PHE:N	2.40	0.53
26:1H:1086:A:O2'	26:1H:1103:A:N1	2.38	0.53
32:51:4:ILE:C	32:51:6:ARG:H	2.12	0.53
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.23	0.53
54:Q8:27:THR:HG22	54:Q8:42:ARG:HH21	1.74	0.53
1:1G:529:G:O6	12:3A:49:ASN:HA	2.09	0.53
44:B5:65:ARG:HG3	44:B5:67:GLY:H	1.72	0.53
1:13:920:U:H2'	1:13:921:U:C6	2.44	0.53
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.73	0.53
1:13:1107:C:C4	1:13:1108:G:C8	2.97	0.53
39:A8:5:THR:OG1	39:A8:8:GLU:HG2	2.08	0.53
15:6I:29:VAL:HG11	15:6I:67:LEU:HD21	1.90	0.53
7:6E:38:LEU:O	7:6E:42:ILE:HG13	2.09	0.53
33:69:60:GLU:HG3	33:69:61:ARG:N	2.24	0.53
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.74	0.53
26:14:2655:G:N2	26:14:2665:A:OP2	2.42	0.53
1:1G:628:G:H2'	1:1G:629:G:H8	1.73	0.53
1:1G:1502:A:H2	1:1G:1505:G:N1	2.00	0.53
26:14:860:U:H1'	26:14:2268:A:H5'	1.91	0.53
40:75:4:GLY:HA2	40:75:8:LYS:HB2	1.90	0.53
26:14:2239:G:H5'	28:19:251:GLY:HA3	1.89	0.53
23:2K:63:G:C4	23:2K:64:G:C8	2.97	0.53
1:13:1131:G:H2'	1:13:1132:C:C6	2.44	0.53
1:13:991:U:C4	1:13:1212:U:H1'	2.44	0.53
40:B8:87:ASP:OD1	40:B8:87:ASP:N	2.42	0.53
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.90	0.53
31:41:7:LEU:HB2	31:41:104:GLU:HB2	1.90	0.53
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.44	0.53
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.08	0.53
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.44	0.53
36:35:27:HIS:HB3	36:35:32:THR:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1039:G:H1	26:1H:1116:C:H42	1.56	0.53
1:13:1250:A:OP1	9:8E:67:GLY:N	2.30	0.53
1:13:1070:U:H2'	1:13:1071:C:H6	1.73	0.53
23:2K:7:G:OP2	23:2K:7:G:H8	1.92	0.53
26:14:2757:A:N1	32:59:67:LEU:HD23	2.24	0.53
26:1H:49:A:N7	26:1H:120:U:C5	2.68	0.52
22:1K:87:A:O3'	26:1H:2506:U:H1'	2.08	0.52
1:13:1422:G:H1	1:13:1478:C:H42	1.55	0.52
26:14:1041:C:H2'	26:14:1042:G:H8	1.73	0.52
1:13:1033:G:H2'	1:13:1034:G:H8	1.74	0.52
27:16:15:A:H1'	27:16:109:G:N9	2.24	0.52
26:14:2789:C:H1'	26:14:2892:A:H2	1.74	0.52
26:1H:1437:C:H2'	26:1H:1438:U:C6	2.42	0.52
26:1H:1858:G:H1'	26:1H:1884:A:N6	2.24	0.52
48:F5:91:LYS:HA	48:F5:91:LYS:NZ	2.23	0.52
26:1H:2729:G:H2'	26:1H:2730:C:H6	1.73	0.52
1:13:223:U:H2'	1:13:224:C:C6	2.43	0.52
1:13:1178:G:N2	1:13:1181:G:C8	2.76	0.52
1:1G:674:G:H2'	1:1G:675:A:H8	1.72	0.52
19:AA:27:GLU:O	19:AA:47:HIS:NE2	2.39	0.52
1:13:749:C:H2'	1:13:750:G:H8	1.73	0.52
13:4A:4:ILE:HG23	13:4A:5:ALA:H	1.74	0.52
26:1H:277:C:H3'	26:1H:278:A:O4'	2.10	0.52
26:14:843:G:H1	26:14:935:C:H42	1.56	0.52
10:1I:59:SER:OG	10:1I:59:SER:O	2.21	0.52
2:1E:70:PHE:O	2:1E:93:VAL:N	2.32	0.52
22:1K:8:U:H1'	22:1K:22:G:H21	1.74	0.52
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.91	0.52
31:41:151:ALA:O	31:41:153:ARG:NH1	2.42	0.52
4:32:168:ARG:HD3	4:32:169:LYS:H	1.74	0.52
27:16:21:G:N2	27:16:62:C:N3	2.46	0.52
26:1H:882:G:OP1	26:1H:882:G:H4'	2.09	0.52
3:22:47:LEU:HD11	3:22:70:VAL:HG22	1.92	0.52
26:14:308:G:C8	26:14:501:A:H1'	2.44	0.52
23:2L:71:U:H5"	23:2L:72:C:C5	2.40	0.52
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.91	0.52
4:3E:98:GLU:HG3	4:3E:103:ASN:HD21	1.73	0.52
26:14:1778:U:H2'	26:14:1784:A:N6	2.24	0.52
1:1G:535:A:H5"	57:1G:1809:HOH:O	2.08	0.52
1:13:1280:A:H3'	1:13:1281:U:H5'	1.91	0.52
26:1H:2062:A:N6	26:1H:2503:A:H62	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:728:A:C5	15:6I:54:ARG:HD2	2.44	0.52
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.44	0.52
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.91	0.52
26:14:1026:U:H2'	27:1J:88:C:N4	2.24	0.52
1:13:939:G:H5"	7:6E:102:ARG:NH2	2.24	0.52
26:14:2719:G:OP2	57:14:3591:HOH:O	2.18	0.52
4:32:107:ARG:HH22	4:32:196:LEU:HD21	1.73	0.52
1:13:1513:A:H2'	1:13:1514:C:C6	2.43	0.52
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.45	0.52
36:78:2:LYS:HD3	36:78:4:SER:HB2	1.91	0.52
5:42:76:ILE:HG22	5:42:77:PRO:HD2	1.91	0.52
30:31:140:LEU:HD13	30:31:170:LEU:HD21	1.91	0.52
26:1H:176:G:O2'	26:1H:177:G:H5'	2.09	0.52
1:13:554:C:H2'	1:13:555:C:C6	2.44	0.52
29:21:5:LEU:HD12	29:21:51:PHE:HB2	1.90	0.52
40:B8:3:ARG:O	40:B8:7:ILE:N	2.36	0.52
26:1H:1510:A:N3	26:1H:1510:A:H2'	2.23	0.52
32:51:20:ALA:HB1	32:51:21:PRO:HD2	1.89	0.52
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.09	0.52
29:29:68:ALA:C	29:29:70:ALA:H	2.13	0.52
26:14:1729:A:H2'	26:14:1731:G:N2	2.24	0.52
1:1G:1128:C:H4'	9:82:16:ARG:HH12	1.75	0.52
1:13:221:C:H2'	1:13:222:U:C6	2.44	0.52
46:H8:125:LEU:HG	46:H8:164:ALA:HB2	1.91	0.52
26:1H:2784:C:H2'	26:1H:2785:C:C6	2.43	0.52
1:1G:841:U:O2'	1:1G:842:C:H5"	2.09	0.52
43:E8:29:LEU:HG	43:E8:29:LEU:O	2.10	0.52
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.75	0.52
22:1L:75:G:H2'	22:1L:76:U:C6	2.43	0.52
23:2K:73:C:H2'	23:2K:74:C:C6	2.43	0.52
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.10	0.52
1:13:1469:G:H2'	1:13:1470:G:H8	1.75	0.52
1:13:1152:A:O3'	10:1I:13:HIS:NE2	2.42	0.52
26:14:2262:U:P	47:E5:19:LYS:HE3	2.49	0.52
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.09	0.52
23:2L:15:A:H2'	23:2L:70:G:H1	1.75	0.52
4:3E:13:ARG:HD3	4:3E:36:ARG:O	2.09	0.52
1:1G:854:G:C2	1:1G:855:G:C8	2.97	0.52
26:14:947:G:H2'	26:14:948:G:C8	2.44	0.52
34:15:99:LEU:O	34:15:103:VAL:HG23	2.10	0.52
1:13:1243:C:H42	1:13:1294:G:H1	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.09	0.52
28:11:132:PRO:HD3	28:11:190:TYR:CZ	2.44	0.52
26:14:1278:A:OP1	38:55:36:THR:HG22	2.09	0.52
54:Q8:50:LEU:O	54:Q8:52:LYS:N	2.40	0.52
28:19:242:ARG:H	28:19:242:ARG:HH11	1.58	0.52
9:82:49:PRO:HD3	9:82:78:LYS:HZ2	1.75	0.52
1:13:792:A:H4'	1:13:793:U:O5'	2.09	0.52
27:16:29:A:H2'	27:16:30:C:O4'	2.09	0.52
1:1G:632:A:H1'	1:1G:633:G:OP2	2.10	0.52
41:85:66:ASN:ND2	41:85:70:ARG:HE	2.07	0.52
26:14:654(I):C:H5"	26:14:654(M):C:H42	1.73	0.52
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.25	0.52
7:62:46:ALA:O	7:62:50:ILE:HG12	2.09	0.52
1:13:356:A:N3	1:13:368:U:O2'	2.42	0.52
31:49:138:GLN:OE1	31:49:153:ARG:HG2	2.09	0.52
39:A8:109:GLY:HA3	39:A8:110:LEU:HD23	1.91	0.52
28:19:83:GLU:HB2	28:19:92:ILE:HG13	1.92	0.52
35:25:71:ARG:NE	35:25:105:GLU:OE1	2.37	0.52
24:3L:9:G:H3'	24:3L:10:G:H5"	1.91	0.52
26:14:1169:G:C2	26:14:1170:G:H1'	2.44	0.52
26:1H:2308:G:N3	26:1H:2308:G:H2'	2.25	0.52
26:1H:37:C:H2'	26:1H:38:A:C8	2.44	0.52
19:AI:6:LYS:O	19:AI:7:LYS:NZ	2.26	0.52
26:14:307:G:H8	26:14:307:G:O5'	1.93	0.52
22:1L:64:G:O3'	37:45:56:ARG:NH2	2.43	0.52
13:4A:92:HIS:CD2	13:4A:98:VAL:HG11	2.45	0.52
54:Q8:36:LYS:HG2	54:Q8:39:LYS:HZ1	1.74	0.52
26:14:185:U:H4'	26:14:218:A:H4'	1.91	0.52
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.10	0.52
1:13:486:U:H2'	1:13:487:A:H8	1.75	0.52
26:14:1871:A:H2'	26:14:1872:A:C8	2.45	0.52
26:14:247:G:H4'	26:14:386:G:C5	2.44	0.52
28:11:155:LEU:HD13	28:11:155:LEU:N	2.25	0.52
1:1G:111:G:O5'	1:1G:111:G:H8	1.92	0.52
32:51:104:GLU:HB2	32:51:114:VAL:HG13	1.91	0.52
40:B8:121:ILE:O	40:B8:124:ASP:HB2	2.09	0.52
26:14:2635:C:OP1	29:29:77:ILE:HB	2.08	0.52
26:14:1606:G:H5"	26:14:1607:C:OP1	2.10	0.52
26:1H:144:C:H2'	26:1H:145:G:H8	1.74	0.52
30:39:30:PRO:O	30:39:33:LEU:N	2.42	0.52
33:61:62:LYS:HA	33:61:133:HIS:NE2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:309:G:N3	26:1H:329:G:O2'	2.43	0.52
54:Q8:29:LYS:O	54:Q8:30:ARG:NH1	2.39	0.52
26:1H:881:G:H5'	26:1H:882:G:O5'	2.09	0.52
26:1H:1342:A:OP1	44:F8:36:LYS:NZ	2.30	0.52
26:1H:861:A:N3	27:16:79:C:O2'	2.43	0.52
26:14:662:G:OP1	36:35:14:LYS:NZ	2.20	0.52
1:13:736:C:H2'	1:13:737:A:H8	1.75	0.52
37:45:26:TYR:O	37:45:26:TYR:HD1	1.93	0.52
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.10	0.52
38:98:2:ARG:HH11	38:98:2:ARG:HG2	1.74	0.52
43:E8:17:VAL:HG13	43:E8:76:VAL:HG11	1.92	0.52
26:14:193:U:H5	57:14:3644:HOH:O	1.93	0.52
1:13:789:U:C5	1:13:791:G:H3'	2.45	0.52
54:Q8:31:HIS:ND1	54:Q8:31:HIS:O	2.40	0.52
1:1G:668:G:HO2'	15:6A:46:HIS:HB3	1.75	0.52
26:1H:728:G:H4'	28:11:13:ARG:HD3	1.91	0.52
48:F5:15:ALA:O	48:F5:40:ARG:HG2	2.10	0.52
26:14:483:A:H1'	45:C5:60:PHE:CE1	2.45	0.52
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.10	0.52
1:13:922:G:H1'	5:4E:19:MET:HB2	1.91	0.52
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.92	0.52
26:1H:1838:C:O3'	57:1H:3834:HOH:O	2.19	0.52
29:21:152:LYS:HG2	34:58:78:TYR:CE1	2.45	0.52
1:13:270:A:H2'	1:13:271:C:O4'	2.10	0.52
30:39:165:ARG:HB3	30:39:165:ARG:HH11	1.74	0.52
6:5E:23:LYS:HG3	6:5E:61:LEU:HD21	1.90	0.52
26:1H:2843:G:H1	26:1H:2874:C:N4	2.00	0.52
26:14:1225:C:C4'	42:95:85:LYS:HA	2.36	0.52
1:13:973:G:O4'	10:1I:55:LYS:HB3	2.10	0.52
26:1H:1534:G:H3'	26:1H:1534:G:N3	2.24	0.52
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.44	0.52
13:4I:39:ILE:HD13	13:4I:52:GLU:HB3	1.92	0.52
26:14:2646:C:H2'	26:14:2647:U:O4'	2.10	0.52
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.91	0.52
26:1H:1047:G:H2'	26:1H:1110:G:N1	2.25	0.52
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.43	0.52
40:75:61:PHE:CE1	40:75:76:PHE:HB2	2.45	0.52
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.42	0.52
5:42:126:ARG:HG3	5:42:126:ARG:HH11	1.74	0.52
26:1H:2110:G:N2	26:1H:2180:U:O2	2.43	0.52
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:313:A:H2'	1:1G:314:C:C6	2.45	0.52
7:62:126:ASP:HB3	7:62:131:LYS:O	2.09	0.52
26:14:57:C:H2'	26:14:58:G:O4'	2.10	0.52
1:1G:173:U:O2	1:1G:197:A:N6	2.43	0.52
30:31:114:VAL:HG21	30:31:202:PHE:CZ	2.45	0.52
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.91	0.52
1:13:404:U:H2'	1:13:405:U:C6	2.44	0.52
20:BA:67:ALA:HB2	20:BA:77:ALA:HB2	1.92	0.52
26:14:270(L):U:O2	33:69:50:ARG:HD2	2.10	0.52
26:14:13:A:N1	26:14:525:U:H2'	2.25	0.52
26:1H:2748:A:OP1	32:51:70:THR:OG1	2.18	0.52
1:1G:858:G:H8	1:1G:858:G:OP2	1.93	0.52
54:Q8:52:LYS:HA	54:Q8:54:GLU:HB2	1.91	0.52
54:Q8:35:GLN:HB3	54:Q8:37:SER:O	2.10	0.52
26:14:2318:G:H1	39:65:2:ALA:HA	1.73	0.52
6:5E:39:LYS:HD3	6:5E:64:GLN:HG3	1.91	0.52
23:2L:86:C:H2'	23:2L:87:A:C8	2.45	0.52
36:78:144:GLU:N	36:78:144:GLU:OE2	2.42	0.52
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.10	0.52
1:1G:1028:C:N4	1:1G:1033:G:H1	2.08	0.52
7:6E:69:VAL:HG22	7:6E:135:VAL:HG13	1.90	0.52
2:12:82:ARG:NH1	2:12:92:TYR:OH	2.43	0.52
1:13:791:G:C6	1:13:792:A:C2	2.98	0.52
23:2K:86:C:H3'	23:2K:87:A:H5"	1.89	0.52
26:1H:1635:G:H2'	26:1H:1636:C:C6	2.45	0.52
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.09	0.52
13:4I:14:ARG:HB2	13:4I:14:ARG:HH11	1.75	0.52
38:55:37:THR:OG1	38:55:40:LYS:HE3	2.10	0.52
24:3L:5:A:H61	24:3L:79:U:H3	1.58	0.52
1:13:765:G:H5"	1:13:766:A:OP1	2.10	0.52
26:14:99:U:H4'	26:14:102:G:H1'	1.91	0.52
1:1G:751:U:H4'	15:6A:24:SER:HA	1.92	0.52
5:4E:28:PHE:O	5:4E:47:LYS:HA	2.10	0.52
26:1H:1582:C:H2'	26:1H:1583:A:O4'	2.10	0.52
37:45:17:LEU:HD21	37:45:41:TRP:HE1	1.75	0.52
36:35:111:ARG:HG3	36:35:128:HIS:CG	2.45	0.52
45:C5:63:LYS:HA	45:C5:63:LYS:NZ	2.25	0.52
11:2A:100:ALA:O	11:2A:102:GLY:N	2.43	0.52
32:59:122:THR:OG1	32:59:134:SER:OG	2.28	0.52
8:72:14:ARG:O	8:72:17:THR:HG22	2.09	0.52
17:8A:59:ILE:HD13	17:8A:73:VAL:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1184:G:H5'	50:H5:29:ARG:HH21	1.75	0.52
26:14:1609:A:OP2	57:14:3603:HOH:O	2.19	0.52
1:13:963:G:H21	10:1I:55:LYS:CE	2.22	0.52
26:1H:1729:A:HO2'	26:1H:1730:U:P	2.33	0.52
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.10	0.52
26:14:780:G:N2	26:14:783:A:H62	2.03	0.52
30:39:123:LEU:HB2	30:39:192:LEU:HB3	1.90	0.52
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.10	0.52
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.10	0.52
13:4I:3:ARG:HD3	13:4I:7:VAL:HG13	1.92	0.52
1:13:1179:A:H2'	1:13:1180:A:O4'	2.10	0.52
43:E8:73:ALA:HB3	43:E8:106:ILE:HD12	1.91	0.52
2:1E:77:ALA:HB1	2:1E:165:VAL:HG11	1.90	0.52
10:1A:65:LEU:HD12	14:5A:55:GLY:O	2.10	0.52
31:49:143:GLU:OE2	31:49:143:GLU:N	2.42	0.52
26:14:2882:A:H5'	38:55:96:ARG:HG3	1.92	0.52
26:14:2601:C:H2'	26:14:2603:G:C8	2.45	0.52
1:13:312:C:H2'	1:13:313:A:H8	1.74	0.52
32:51:40:GLU:OE1	32:51:41:MET:N	2.43	0.52
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.45	0.52
26:1H:86:C:H4'	26:1H:104:U:H1'	1.91	0.52
26:1H:844:C:H3'	26:1H:845:G:H8	1.74	0.52
26:1H:848:G:H2'	26:1H:849:A:C8	2.45	0.52
53:P8:35:ARG:HG3	53:P8:42:LEU:HD11	1.92	0.52
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.58	0.52
26:14:29:U:O4	57:14:3809:HOH:O	2.19	0.52
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.43	0.52
9:82:118:LYS:HZ3	9:82:118:LYS:HB3	1.75	0.52
26:1H:2383:G:N7	54:Q8:34:TRP:CZ2	2.76	0.52
26:14:1021:A:H2'	26:14:1023:U:H5'	1.91	0.52
26:1H:1535:U:H2'	26:1H:1536:A:H5"	1.92	0.52
26:1H:2068:U:N3	26:1H:2430:A:H2	2.07	0.52
23:2L:74:C:H2'	23:2L:75:G:H8	1.74	0.52
1:1G:413:G:HO2'	1:1G:414:A:P	2.28	0.52
17:8I:25:ARG:CZ	17:8I:27:PHE:HE2	2.23	0.52
2:12:70:PHE:O	2:12:93:VAL:N	2.39	0.52
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.10	0.52
10:1A:36:GLY:O	10:1A:38:ILE:HG13	2.10	0.52
26:14:1198:U:H2'	26:14:1199:U:C6	2.45	0.52
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.10	0.52
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:25:PRO:O	46:D5:85:HIS:HA	2.09	0.52
26:1H:263:C:H2'	26:1H:264:C:O4'	2.10	0.52
19:AA:29:ARG:NH1	19:AA:48:THR:H	2.08	0.52
26:1H:1543:A:H3'	26:1H:1543:A:OP2	2.10	0.52
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.10	0.52
5:42:6:PHE:HB2	5:42:34:VAL:HG22	1.92	0.52
26:1H:389:G:H22	36:78:72:PRO:HD3	1.74	0.52
1:13:1075:C:OP1	2:1E:179:LYS:NZ	2.27	0.52
26:14:1838:C:N4	26:14:1898:U:H2'	2.25	0.52
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.10	0.51
48:F5:4:VAL:HG11	48:F5:11:ARG:NH1	2.25	0.51
23:2L:32:C:H2'	23:2L:33:U:O4'	2.10	0.51
29:21:37:ARG:O	29:21:45:THR:HA	2.10	0.51
29:29:47:VAL:HG12	29:29:49:LEU:HD23	1.92	0.51
1:1G:580:U:H5"	15:6A:58:MET:HG2	1.92	0.51
44:B5:55:ASN:HB2	44:B5:80:ILE:CG1	2.37	0.51
26:14:2270:G:OP2	57:14:3775:HOH:O	2.19	0.51
27:1J:6:C:C2	27:1J:115:G:N2	2.78	0.51
27:16:112:G:H2'	27:16:113:C:C6	2.45	0.51
10:1I:48:THR:HA	10:1I:62:HIS:HB2	1.90	0.51
26:1H:518:G:H2'	26:1H:519:U:C6	2.45	0.51
1:1G:165:C:H2'	1:1G:166:G:C8	2.45	0.51
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.09	0.51
26:14:2262:U:H5	47:E5:16:SER:HG	1.56	0.51
26:14:28:A:O2'	26:14:583:G:H5'	2.10	0.51
26:1H:14:A:H3'	26:1H:15:G:H5"	1.92	0.51
26:1H:445:C:H2'	26:1H:446:G:C8	2.45	0.51
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.10	0.51
31:41:34:LEU:HD23	31:41:172:LEU:HD21	1.90	0.51
3:2E:43:LEU:HD22	3:2E:47:LEU:HD12	1.92	0.51
1:1G:551:U:H2'	1:1G:552:U:H6	1.74	0.51
1:13:446:G:H1	1:13:488:C:H42	1.58	0.51
4:32:57:ARG:HE	4:32:205:GLU:HB3	1.73	0.51
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.44	0.51
24:3K:32:C:O2	24:3K:40:G:N2	2.38	0.51
2:1E:164:VAL:HG23	2:1E:186:ALA:HB2	1.91	0.51
26:14:2666:C:C2'	26:14:2667:C:H5'	2.40	0.51
57:14:3726:HOH:O	30:39:55:GLY:HA2	2.09	0.51
36:78:56:SER:O	36:78:61:ARG:HG3	2.11	0.51
1:1G:540:G:H2'	1:1G:541:G:O4'	2.09	0.51
26:14:1479:G:O2'	26:14:1558:A:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:973:A:OP2	57:14:3989:HOH:O	2.19	0.51
26:14:1972:A:H2'	26:14:1973:G:H8	1.73	0.51
2:12:175:ARG:O	2:12:179:LYS:HB2	2.09	0.51
26:1H:185:U:H2'	26:1H:186:G:C8	2.44	0.51
16:7I:50:LYS:HD3	16:7I:51:VAL:H	1.75	0.51
26:1H:357:A:H2'	26:1H:358:U:C6	2.46	0.51
4:3E:141:ARG:HB2	4:3E:141:ARG:HH11	1.75	0.51
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.45	0.51
29:29:105:THR:OG1	29:29:166:THR:HG23	2.10	0.51
28:11:136:ILE:HG22	28:11:137:PRO:HD2	1.92	0.51
26:1H:2656:U:H3	26:1H:2665:A:H2	1.58	0.51
26:1H:816:C:OP2	57:1H:3724:HOH:O	2.19	0.51
1:13:1504:G:H3'	1:13:1504:G:P	2.51	0.51
26:1H:1203:G:H3'	26:1H:1204:A:H5"	1.91	0.51
26:14:1802:A:N1	26:14:1822:G:H1'	2.25	0.51
26:14:2748:A:H2'	26:14:2749:A:C8	2.46	0.51
14:5A:7:ILE:HA	14:5A:23:ARG:HE	1.74	0.51
26:1H:2392:A:H1'	36:78:61:ARG:HH11	1.75	0.51
30:39:28:ILE:HA	30:39:112:MET:HG2	1.91	0.51
26:14:1041:C:N4	26:14:1114:G:H22	2.04	0.51
29:29:57:LYS:HA	29:29:58:ARG:O	2.11	0.51
30:39:178:PRO:HG2	30:39:179:GLU:OE1	2.10	0.51
40:75:80:SER:HB3	40:75:83:ILE:HG13	1.91	0.51
26:14:1505:C:H2'	26:14:1506:C:C6	2.46	0.51
1:13:945:G:C2	1:13:946:A:C8	2.99	0.51
7:6E:69:VAL:HG21	7:6E:104:LEU:HD21	1.92	0.51
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.46	0.51
26:14:2495:G:H5"	26:14:2496:C:OP2	2.09	0.51
19:AA:29:ARG:HD3	19:AA:48:THR:OG1	2.10	0.51
3:22:61:ALA:C	3:22:63:ASN:H	2.14	0.51
3:22:16:ARG:HH12	3:22:181:ASN:ND2	2.09	0.51
2:1E:120:ALA:O	2:1E:124:SER:OG	2.16	0.51
27:16:93:C:H2'	27:16:94:C:H6	1.74	0.51
1:1G:765:G:N2	1:1G:813:U:OP2	2.43	0.51
1:1G:308:C:H2'	1:1G:309:G:H8	1.75	0.51
2:12:19:HIS:HD2	2:12:20:GLU:HG2	1.75	0.51
53:L5:12:ARG:HH21	53:L5:44:PRO:HB3	1.75	0.51
39:A8:67:ARG:HD3	39:A8:71:ARG:NH2	2.26	0.51
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.50	0.51
50:L8:38:GLU:H	50:L8:38:GLU:CD	2.14	0.51
1:13:1095:U:H2'	1:13:1096:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.93	0.51
26:1H:796:C:H2'	26:1H:797:C:H6	1.73	0.51
26:1H:2815:C:O2'	52:N8:42:PRO:HG2	2.11	0.51
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.11	0.51
22:1L:10:G:H2'	22:1L:11:U:C6	2.46	0.51
8:7E:29:SER:OG	8:7E:32:LYS:HE3	2.10	0.51
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.11	0.51
33:69:109:ILE:H	33:69:109:ILE:HD13	1.75	0.51
45:G8:40:GLU:HA	45:G8:42:VAL:N	2.26	0.51
29:21:119:ARG:HB3	29:21:120:TRP:CD1	2.45	0.51
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.29	0.51
26:14:128:C:H2'	26:14:129:C:H6	1.76	0.51
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.46	0.51
26:14:43:G:H1'	26:14:438:G:N2	2.25	0.51
24:3L:2:C:H2'	24:3L:3:C:C6	2.45	0.51
30:31:103:LYS:HG2	30:31:106:ARG:HH21	1.75	0.51
1:1G:41:G:H2'	1:1G:42:G:C8	2.46	0.51
26:14:1014:U:H2'	26:14:1015:G:H8	1.75	0.51
46:H8:48:PHE:HE1	46:H8:71:VAL:HG11	1.75	0.51
1:13:1014:A:H4'	19:AI:14:HIS:CG	2.45	0.51
26:1H:1007:C:OP1	34:58:35:ARG:NH1	2.44	0.51
26:14:2320:A:N6	26:14:2333:A:H2'	2.26	0.51
1:13:323:U:H2'	1:13:324:G:O4'	2.10	0.51
26:14:2682:U:O2'	29:29:13:ARG:HG2	2.10	0.51
17:8A:99:SER:OG	17:8A:100:LYS:N	2.44	0.51
26:1H:1396:U:H2'	26:1H:1396:U:O2	2.08	0.51
26:1H:321:G:OP2	30:31:135:LYS:HG3	2.11	0.51
1:13:107:G:O6	20:BI:15:ARG:HG3	2.10	0.51
32:51:85:LYS:HE3	32:51:142:GLY:HA2	1.93	0.51
26:14:1810:A:H2'	26:14:1811:G:O4'	2.11	0.51
26:14:2754:U:H5'	26:14:2755:C:OP2	2.10	0.51
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.24	0.51
51:I5:16:CYS:HA	51:I5:33:VAL:HG22	1.91	0.51
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.09	0.51
26:1H:2210:G:H2'	26:1H:2211:G:C6	2.44	0.51
23:2K:21:A:H2	23:2K:57:C:H42	1.58	0.51
1:13:736:C:H2'	1:13:737:A:C8	2.45	0.51
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.25	0.51
48:F5:87:PRO:O	48:F5:91:LYS:N	2.42	0.51
1:1G:142:G:H2'	1:1G:143:A:C8	2.44	0.51
10:1A:78:ASN:OD1	10:1A:80:LYS:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:580:U:H2'	1:13:581:G:O4'	2.11	0.51
1:1G:1134:G:N2	1:1G:1140:C:N3	2.57	0.51
1:1G:628:G:H2'	1:1G:629:G:C8	2.46	0.51
2:1E:85:ALA:O	2:1E:90:MET:N	2.43	0.51
28:11:77:ALA:HB2	28:11:97:TYR:CD1	2.45	0.51
26:1H:1184:G:H5'	50:L8:29:ARG:HH11	1.75	0.51
1:13:1171:G:H2'	1:13:1172:C:C6	2.45	0.51
5:42:31:LEU:HD23	5:42:45:PHE:HB2	1.92	0.51
46:D5:7:ALA:O	46:D5:8:TYR:CG	2.63	0.51
18:9I:22:VAL:HA	18:9I:25:THR:OG1	2.10	0.51
26:14:2082:A:H3'	26:14:2083:G:H8	1.74	0.51
29:29:11:MET:SD	29:29:24:THR:HG22	2.50	0.51
27:1J:7:G:H3'	27:1J:8:U:H5"	1.92	0.51
33:61:47:LEU:O	33:61:51:ILE:HG13	2.10	0.51
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.10	0.51
26:14:929:G:O5'	26:14:929:G:H8	1.94	0.51
26:1H:736:C:O5'	26:1H:736:C:H6	1.93	0.51
26:1H:1222:C:H2'	26:1H:1223:C:H6	1.75	0.51
33:61:129:THR:HA	33:61:137:PRO:HA	1.92	0.51
26:1H:654(B):C:H2'	26:1H:654(C):G:C8	2.34	0.51
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.92	0.51
38:98:76:VAL:HG13	38:98:80:PHE:CE2	2.45	0.51
26:1H:274:G:H2'	26:1H:275:G:H4'	1.92	0.51
40:B8:90:GLN:HG3	40:B8:91:ARG:N	2.25	0.51
26:14:1973:G:H2'	26:14:1974:C:H6	1.74	0.51
26:14:1533:C:C4	26:14:1534:G:H1'	2.45	0.51
46:H8:164:ALA:O	46:H8:165:VAL:HG22	2.10	0.51
1:1G:1312:G:H2'	1:1G:1313:U:H6	1.75	0.51
26:1H:84:A:N1	26:1H:98:G:O2'	2.36	0.51
45:G8:8:LYS:O	45:G8:11:ASP:HB2	2.09	0.51
38:98:44:LEU:HD22	38:98:48:VAL:HG13	1.93	0.51
1:13:1097:C:O2'	1:13:1169:A:N3	2.36	0.51
26:14:1367:A:H5"	26:14:1368:G:OP2	2.10	0.51
26:1H:1034:G:H2'	26:1H:1035:U:O4'	2.10	0.51
26:1H:1423:G:H2'	26:1H:1424:G:H8	1.75	0.51
1:13:1134:G:H1	1:13:1140:C:H42	1.58	0.51
19:AA:29:ARG:HB2	19:AA:30:LEU:HD22	1.92	0.51
1:13:657:G:H4'	15:6I:28:GLN:HG2	1.93	0.51
37:45:19:GLY:O	37:45:98:LYS:HB3	2.10	0.51
38:55:8:ARG:HH11	38:55:39:PRO:HB3	1.74	0.51
26:14:2611:U:C4	52:J5:3:LYS:HG2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:112:ARG:HA	40:B8:115:ARG:CZ	2.40	0.51
48:F5:52:ARG:HA	48:F5:56:GLN:O	2.11	0.51
29:21:16:ARG:HG3	29:21:17:ASP:HB2	1.93	0.51
48:F5:8:SER:OG	48:F5:10:LYS:HG3	2.11	0.51
26:14:1819:A:H4'	26:14:1820:U:H5"	1.91	0.51
26:14:2575:C:H5'	29:29:143:ASN:O	2.11	0.51
2:12:101:MET:HB2	2:12:102:LEU:HD12	1.93	0.51
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.46	0.51
26:14:882:G:H22	26:14:894:C:N4	2.09	0.51
49:K8:48:HIS:N	49:K8:50:ILE:HD11	2.26	0.51
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.11	0.51
26:14:2715:C:H2'	26:14:2716:U:C6	2.45	0.51
26:14:1159:U:O2'	26:14:1160:G:H5'	2.11	0.51
6:5E:39:LYS:H	6:5E:64:GLN:CB	2.23	0.51
48:F5:92:LYS:O	48:F5:94:LEU:N	2.43	0.51
31:41:112:PRO:HG2	51:M8:36:CYS:HB2	1.92	0.51
1:13:411:A:N9	1:13:413:G:H1'	2.26	0.51
46:H8:81:ARG:HG3	46:H8:81:ARG:O	2.11	0.51
41:C8:92:ARG:NH2	42:D8:11:GLN:H	2.09	0.51
36:78:17:LYS:HE2	36:78:27:HIS:CD2	2.45	0.51
37:88:66:ILE:HG22	37:88:67:ARG:N	2.24	0.51
54:Q8:39:LYS:HA	54:Q8:42:ARG:HD3	1.92	0.51
13:4A:79:LYS:O	13:4A:82:MET:N	2.41	0.51
26:14:1592:C:H2'	26:14:1593:G:C8	2.45	0.51
38:98:117:VAL:O	38:98:118:GLU:HB2	2.09	0.51
26:1H:2024:G:H2'	26:1H:2025:C:H6	1.75	0.51
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.76	0.51
26:1H:2533:A:OP1	26:1H:2665:A:H1'	2.10	0.51
26:14:2124:G:H1	26:14:2173:A:N6	2.09	0.51
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.91	0.51
24:3L:44:G:H2'	24:3L:44:G:N3	2.26	0.51
26:14:2776:A:OP1	26:14:2776:A:H3'	2.10	0.51
32:59:103:LEU:HD23	32:59:103:LEU:H	1.75	0.51
36:78:98:GLU:O	36:78:101:VAL:HG13	2.11	0.51
42:95:39:LEU:HD12	42:95:39:LEU:H	1.75	0.51
26:14:399:G:OP2	57:14:3700:HOH:O	2.18	0.51
32:51:90:LYS:HG3	32:51:163:TYR:CD1	2.46	0.51
33:61:39:ALA:HB1	33:61:44:LEU:HD13	1.92	0.51
36:35:49:ARG:NH1	54:M5:58:ILE:HG23	2.25	0.51
46:D5:30:ASN:HD21	46:D5:33:LEU:HB3	1.75	0.51
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:535:C:O3'	41:C8:53:ARG:NH1	2.43	0.51
45:G8:52:SER:O	45:G8:56:PRO:HA	2.11	0.51
16:7I:8:ARG:O	16:7I:9:PHE:HD1	1.93	0.51
11:2A:109:VAL:HG13	18:9A:86:VAL:HG13	1.92	0.51
34:58:78:TYR:N	34:58:78:TYR:CD1	2.79	0.51
1:13:404:U:H2'	1:13:405:U:H6	1.76	0.51
1:1G:551:U:H2'	1:1G:552:U:C6	2.46	0.51
31:41:20:ILE:HG23	31:41:25:TYR:HD2	1.76	0.51
26:1H:805:G:OP2	36:78:41:ARG:HG2	2.11	0.51
33:61:68:LEU:HA	33:61:71:ILE:CG2	2.41	0.51
26:14:296:C:H2'	26:14:297:C:H6	1.75	0.51
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.59	0.51
20:BA:37:SER:O	20:BA:41:ILE:HG23	2.11	0.51
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.46	0.51
33:61:93:THR:HA	33:61:119:PRO:HB3	1.92	0.51
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.46	0.51
26:14:675:A:C8	26:14:804:A:C6	2.98	0.51
15:6I:12:ILE:HG12	15:6I:31:LEU:HD11	1.91	0.51
1:1G:1199:U:H4'	10:1A:54:PHE:CE1	2.46	0.51
54:Q8:23:VAL:HG22	54:Q8:24:ALA:N	2.26	0.51
41:85:92:ARG:HD2	41:85:95:LEU:HD12	1.92	0.51
26:14:469:G:O6	53:L5:39:ARG:NH1	2.44	0.51
26:14:1485:G:H1	26:14:1504:C:N4	2.07	0.51
2:1E:74:LYS:O	2:1E:78:GLN:HB2	2.11	0.51
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.40	0.51
26:1H:1266:G:O4'	43:E8:15:ARG:NH2	2.44	0.51
26:1H:1523:U:O5'	26:1H:1523:U:H6	1.94	0.51
26:14:483:A:H5'	45:C5:49:VAL:HG22	1.93	0.51
1:1G:722:A:H2'	1:1G:722:A:N3	2.26	0.51
7:62:50:ILE:HB	7:62:58:PRO:HG3	1.91	0.51
26:1H:1528:A:H2	26:1H:1542:G:C2	2.29	0.51
26:1H:1161:C:H4'	42:D8:8:GLY:HA2	1.92	0.51
1:13:266:G:H5"	1:13:267:C:H5	1.76	0.51
26:14:1153:C:H2'	26:14:1154:G:O4'	2.11	0.51
17:8A:55:ASP:OD1	17:8A:55:ASP:N	2.44	0.51
28:19:65:ILE:HD11	28:19:67:PHE:CE1	2.45	0.51
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.11	0.51
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.93	0.51
4:3E:99:SER:HB3	4:3E:139:ARG:HG3	1.93	0.51
26:14:1033:U:H1'	26:14:2750:A:N1	2.25	0.51
1:1G:980:C:H5"	1:1G:981:U:C5	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:963:G:H5'	57:13:1840:HOH:O	2.12	0.51
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.93	0.51
1:13:1366:C:O2'	10:1I:60:ARG:NH2	2.44	0.51
40:75:8:LYS:HA	40:75:8:LYS:HZ2	1.76	0.51
6:5E:36:ARG:HH21	6:5E:38:GLU:HG2	1.75	0.51
26:14:1007:C:H5"	34:15:35:ARG:NH1	2.26	0.51
26:1H:2036:C:N4	57:1H:3659:HOH:O	2.44	0.51
49:K8:58:ALA:O	49:K8:62:THR:HG22	2.11	0.51
7:6E:15:ASP:HB3	7:6E:20:ASP:N	2.25	0.51
26:14:1784:A:H5"	57:14:3549:HOH:O	2.09	0.51
38:98:10:LEU:O	38:98:12:ARG:N	2.44	0.51
4:32:148:VAL:O	4:32:152:SER:OG	2.16	0.51
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.93	0.51
42:D8:69:LYS:HB2	42:D8:88:ARG:HG2	1.91	0.51
9:82:24:GLY:HA2	9:82:59:PHE:O	2.10	0.51
1:1G:323:U:H5'	20:BA:23:ARG:HB2	1.92	0.51
3:22:9:GLY:HA2	3:22:12:LEU:HG	1.93	0.51
29:21:35:GLN:HG3	29:21:36:ARG:N	2.26	0.51
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.75	0.51
40:75:113:LYS:O	40:75:114:LEU:HD23	2.11	0.51
26:14:500:G:N2	26:14:502:A:H3'	2.26	0.51
26:1H:589:C:H2'	26:1H:590:A:C8	2.46	0.51
26:14:1187:G:H8	26:14:1187:G:O5'	1.94	0.51
26:1H:1602:U:H5	57:1H:3792:HOH:O	1.93	0.50
29:21:45:THR:O	29:21:83:ASP:N	2.45	0.50
26:14:1159:U:H2'	26:14:1160:G:H8	1.75	0.50
26:14:1379:A:H4'	26:14:1380:G:OP2	2.11	0.50
27:1J:13:A:H2'	27:1J:70:C:O2'	2.11	0.50
1:13:1064:G:OP1	1:13:1386:G:H4'	2.11	0.50
26:1H:34:C:H6	26:1H:34:C:OP2	1.93	0.50
32:51:4:ILE:HG13	32:51:6:ARG:NE	2.26	0.50
26:1H:2146:C:H4'	26:1H:2147:G:N7	2.26	0.50
4:32:108:LEU:HD13	4:32:174:LEU:HB3	1.93	0.50
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.76	0.50
26:1H:2791:C:N4	26:1H:2893:G:O6	2.44	0.50
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.93	0.50
26:1H:1265:A:H3'	52:N8:19:ARG:NH1	2.25	0.50
26:14:1450:C:H2'	26:14:1451:C:C6	2.45	0.50
26:1H:844:C:H3'	26:1H:845:G:C8	2.46	0.50
1:13:446:G:H2'	1:13:447:G:O4'	2.12	0.50
26:14:2850:A:C2	26:14:2851:A:C4	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:13:GLY:HA3	14:5I:57:ARG:HD2	1.93	0.50
40:B8:100:TYR:HD1	40:B8:103:ARG:NH2	2.08	0.50
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.11	0.50
1:1G:136:C:O2'	16:7A:65:GLN:OE1	2.29	0.50
47:I8:50:ASN:HB2	47:I8:81:VAL:O	2.10	0.50
26:1H:1999:C:H5"	26:1H:2723:C:O2'	2.11	0.50
1:1G:999:U:O4	1:1G:1000:A:N6	2.42	0.50
26:14:270(E):G:H1	26:14:270(U):C:H42	1.58	0.50
28:19:181:GLU:HG3	28:19:272:ALA:CB	2.40	0.50
41:85:97:ASP:OD1	41:85:98:LEU:N	2.43	0.50
33:69:76:THR:HG21	33:69:140:LEU:HD12	1.93	0.50
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.92	0.50
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.44	0.50
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.11	0.50
27:16:3:C:H2'	27:16:4:C:H6	1.75	0.50
45:G8:97:ARG:N	45:G8:97:ARG:HD2	2.26	0.50
32:51:4:ILE:HG21	32:51:6:ARG:NH1	2.25	0.50
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.26	0.50
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.11	0.50
26:14:2074:U:P	57:14:3503:HOH:O	2.69	0.50
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.93	0.50
1:13:1079:G:H2'	1:13:1080:A:C8	2.46	0.50
26:1H:818:G:H4'	26:1H:838:C:O3'	2.10	0.50
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.10	0.50
35:25:111:PHE:HB3	35:25:114:ILE:HG13	1.92	0.50
26:1H:2293:C:H5"	39:A8:89:ARG:HH22	1.75	0.50
1:1G:373:A:C2	1:1G:374:A:C8	2.99	0.50
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.46	0.50
1:1G:197:A:H1'	1:1G:198:G:O4'	2.10	0.50
2:12:19:HIS:CD2	2:12:20:GLU:HG2	2.46	0.50
34:15:28:THR:HG22	34:15:29:LYS:HE3	1.93	0.50
1:1G:1538:C:H42	25:4L:34:G:H1	1.60	0.50
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.93	0.50
2:12:131:PRO:HG2	2:12:134:GLU:HB2	1.93	0.50
26:14:1850:G:H2'	26:14:1851:U:O4'	2.11	0.50
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.76	0.50
33:69:45:LYS:O	33:69:48:GLU:HB3	2.12	0.50
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.93	0.50
34:58:137:LYS:HG3	34:58:138:LEU:O	2.11	0.50
26:14:2540:C:H2'	26:14:2541:A:O4'	2.11	0.50
26:14:900:A:H3'	26:14:901:A:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.42	0.50
31:41:106:LEU:HG	31:41:107:LEU:HD23	1.93	0.50
10:1I:57:LYS:HG3	10:1I:60:ARG:HH12	1.77	0.50
27:16:11:C:O5'	27:16:12:C:H5	1.94	0.50
2:1E:163:PHE:CD1	2:1E:185:ILE:HG13	2.46	0.50
30:39:25:PRO:C	30:39:27:GLU:N	2.64	0.50
3:22:134:ILE:HD12	3:22:151:VAL:HG11	1.92	0.50
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.45	0.50
26:14:1111:A:H5'	32:59:3:ARG:HD3	1.93	0.50
39:A8:35:ILE:HD11	39:A8:101:LEU:HD23	1.93	0.50
26:1H:528:A:C2	26:1H:2043:C:H4'	2.46	0.50
22:1L:48:C:HO2'	22:1L:49:C:P	2.32	0.50
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.12	0.50
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.93	0.50
29:21:64:LYS:O	29:21:70:ALA:HB2	2.11	0.50
28:11:92:ILE:HD12	28:11:104:TYR:CE1	2.46	0.50
32:51:10:PRO:HG2	32:51:50:VAL:O	2.11	0.50
36:78:113:LYS:HA	36:78:129:ALA:O	2.11	0.50
26:14:1126:A:H4'	26:14:1127:A:O5'	2.11	0.50
26:14:34:C:O2'	26:14:35:G:OP1	2.25	0.50
12:3A:82:VAL:HB	12:3A:105:TYR:HB3	1.94	0.50
32:51:152:ARG:HG3	32:51:161:GLY:HA2	1.92	0.50
26:1H:172:C:H2'	26:1H:173:G:C8	2.46	0.50
24:3K:71:U:O2'	24:3K:72:C:O4'	2.29	0.50
46:H8:113:ALA:N	46:H8:114:GLY:HA2	2.26	0.50
4:32:126:ILE:HG22	4:32:127:THR:H	1.77	0.50
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.12	0.50
15:6A:75:PRO:HB2	15:6A:79:ARG:CZ	2.41	0.50
26:1H:1592:C:H2'	26:1H:1593:G:H8	1.76	0.50
26:14:1516:U:H2'	26:14:1517:G:H8	1.76	0.50
26:14:890:A:H2'	26:14:892:G:H8	1.76	0.50
19:AA:64:GLU:CD	19:AA:64:GLU:H	2.12	0.50
47:E5:49:LYS:HG2	47:E5:80:HIS:ND1	2.26	0.50
26:14:805:G:OP2	36:35:41:ARG:HG2	2.12	0.50
37:88:59:ARG:C	37:88:61:GLY:H	2.14	0.50
12:3I:83:VAL:HG21	12:3I:100:ILE:HG12	1.93	0.50
1:13:826:C:H2'	1:13:827:U:O2	2.12	0.50
38:55:59:ASP:OD2	38:55:61:HIS:HB3	2.11	0.50
26:1H:1996:C:O3'	57:1H:3785:HOH:O	2.19	0.50
26:14:1021:A:H3'	26:14:1021:A:C8	2.46	0.50
26:14:1021:A:H8	26:14:1021:A:H3'	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:5:GLU:HB3	6:5E:62:TRP:HE1	1.76	0.50
26:14:1040:C:H2'	26:14:1041:C:C6	2.47	0.50
1:13:1000:A:H2'	1:13:1001:G:C8	2.47	0.50
1:13:232:G:H1'	1:13:262:A:N1	2.26	0.50
33:69:75:LEU:HD13	33:69:77:LEU:N	2.26	0.50
26:1H:821:A:H62	26:1H:972:G:H21	1.59	0.50
26:1H:1354:A:H5"	28:11:38:LYS:HD3	1.94	0.50
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.29	0.50
9:82:102:LEU:O	9:82:103:THR:OG1	2.25	0.50
26:1H:1041:C:H42	26:1H:1114:G:H1	1.57	0.50
26:1H:125:G:C6	53:P8:10:ARG:HG3	2.46	0.50
9:8E:47:LEU:HA	9:8E:49:PRO:HD2	1.93	0.50
1:13:674:G:H2'	1:13:675:A:C8	2.47	0.50
45:C5:86:ARG:NE	45:C5:87:LYS:O	2.40	0.50
7:62:26:PHE:CE1	7:62:30:ILE:HD11	2.47	0.50
1:1G:1538:C:H42	25:4L:34:G:H22	1.59	0.50
26:14:1910:G:H1	26:14:1920:C:H42	1.58	0.50
26:14:531:C:H4'	26:14:532:A:H5"	1.93	0.50
34:58:43:THR:HG23	41:C8:64:ARG:HH22	1.76	0.50
26:1H:646:A:H2'	26:1H:647:G:O4'	2.11	0.50
26:14:868:U:N3	26:14:869:G:N7	2.59	0.50
4:32:65:ARG:HG3	4:32:70:ILE:HG22	1.93	0.50
41:85:65:ILE:HD11	41:85:93:LYS:HA	1.94	0.50
26:1H:270(L):U:C2	33:61:50:ARG:HG2	2.47	0.50
34:58:90:MET:O	34:58:94:HIS:N	2.43	0.50
27:1J:101:A:OP2	27:1J:101:A:H8	1.94	0.50
26:14:2280:G:O2'	26:14:2388:A:N1	2.35	0.50
26:1H:1209:G:H21	26:1H:1210:A:H62	1.58	0.50
1:13:1366:C:H2'	1:13:1367:C:H6	1.75	0.50
7:6E:12:LEU:HD21	7:6E:28:ASN:ND2	2.27	0.50
34:15:133:GLN:HG3	34:15:135:PRO:HG3	1.93	0.50
26:1H:972:G:OP2	26:1H:973:A:O2'	2.27	0.50
29:21:105:THR:HG22	29:21:106:GLY:N	2.27	0.50
26:1H:527:C:H4'	26:1H:528:A:O5'	2.12	0.50
26:14:96:G:H4'	49:G5:48:HIS:CD2	2.47	0.50
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.47	0.50
34:15:21:LYS:O	34:15:60:ILE:HG13	2.11	0.50
34:15:23:LEU:HA	34:15:60:ILE:HD11	1.94	0.50
1:13:1148:U:H2'	1:13:1149:C:O4'	2.11	0.50
1:13:1327:C:P	21:1F:12:LYS:HZ1	2.35	0.50
26:14:1537:C:H2'	26:14:1538:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:234:C:H2'	26:14:235:U:C6	2.44	0.50
26:1H:2336:A:H61	47:I8:43:THR:HB	1.76	0.50
26:1H:566:U:OP1	36:78:29:LYS:NZ	2.38	0.50
6:52:11:ASN:HB3	6:52:14:LEU:CD1	2.42	0.50
26:1H:1264:G:H3'	26:1H:1265:A:H5"	1.93	0.50
26:14:752:A:OP1	53:L5:3:ARG:NH2	2.40	0.50
1:13:1171:G:O2'	1:13:1172:C:H5'	2.11	0.50
2:1E:58:ILE:O	2:1E:61:LEU:N	2.45	0.50
28:11:70:TRP:CH2	28:11:150:LYS:HA	2.47	0.50
52:J5:20:ARG:HA	52:J5:23:HIS:ND1	2.27	0.50
1:1G:365:U:H5"	1:1G:366:C:OP1	2.11	0.50
18:9A:74:ARG:HB3	18:9A:81:PHE:CE1	2.46	0.50
26:14:2693:A:H2'	26:14:2694:G:C8	2.47	0.50
22:1K:14:A:H61	22:1K:21:A:H2	1.59	0.50
24:3L:84:A:H2'	24:3L:85:C:H6	1.77	0.50
1:1G:422:C:O2'	1:1G:423:G:C2	2.65	0.50
38:55:29:LEU:HB3	38:55:75:LEU:HD21	1.94	0.50
27:16:88:C:H2'	27:16:89:G:O4'	2.12	0.50
26:14:2820:A:C6	38:55:4:LEU:HD11	2.47	0.50
26:1H:1606:G:OP1	57:1H:4102:HOH:O	2.19	0.50
26:14:1542:G:H3'	26:14:1543:A:H5"	1.93	0.50
4:32:26:CYS:HA	4:32:31:CYS:CB	2.31	0.50
26:1H:1022:G:N7	34:58:66:LYS:NZ	2.59	0.50
26:1H:1729:A:O2'	26:1H:1730:U:OP1	2.27	0.50
1:13:1349:A:H2'	1:13:1350:A:C8	2.47	0.50
26:14:2875:C:O2'	40:75:1:MET:N	2.44	0.50
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.41	0.50
26:1H:2210:G:H5'	26:1H:2211:G:C5	2.47	0.50
13:4A:3:ARG:HH21	31:49:113:ARG:HH21	1.59	0.50
16:7A:53:VAL:O	16:7A:57:ARG:HG3	2.12	0.50
7:62:113:GLU:O	7:62:119:ARG:HD3	2.11	0.50
26:14:1731:G:N3	26:14:1731:G:H5"	2.27	0.50
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.41	0.50
26:14:2037:G:H2'	26:14:2038:G:C8	2.46	0.50
46:H8:4:ARG:HA	46:H8:58:VAL:HG22	1.93	0.50
26:14:358:U:H2'	26:14:359:A:C8	2.47	0.50
20:BI:50:GLU:HG3	20:BI:100:ILE:HG12	1.92	0.50
26:1H:873:G:H1'	37:88:29:PHE:CE2	2.46	0.50
26:14:2495:G:H5'	37:45:82:ARG:HG2	1.93	0.50
1:1G:373:A:N3	1:1G:374:A:C8	2.80	0.50
34:58:42:TRP:HA	34:58:48:MET:HE3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:20:ALA:HB3	32:59:24:VAL:HA	1.93	0.50
26:1H:11:G:H2'	26:1H:12:U:H5'	1.94	0.50
26:14:1640:C:H2'	26:14:1641:A:C8	2.46	0.50
37:88:82:ARG:HE	47:I8:4:LYS:NZ	2.10	0.50
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.45	0.50
45:G8:100:ALA:HB1	45:G8:101:LYS:CB	2.42	0.50
26:1H:467:G:H8	26:1H:467:G:O5'	1.94	0.50
20:BA:40:ALA:O	20:BA:43:LEU:N	2.44	0.50
26:14:2880:C:O2'	38:55:90:ARG:HD3	2.12	0.50
1:1G:518:C:H5"	1:1G:519:C:C6	2.47	0.50
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.12	0.50
33:69:112:LYS:HA	33:69:114:LEU:H	1.77	0.50
5:4E:82:VAL:HG21	5:4E:138:ALA:HA	1.94	0.50
30:39:185:ASP:OD1	30:39:188:ARG:NH2	2.33	0.50
24:3L:26:C:H2'	24:3L:27:G:O4'	2.12	0.50
26:1H:1132:A:O2'	26:1H:1133:U:H5'	2.11	0.50
2:12:48:MET:HA	2:12:51:LEU:HB2	1.94	0.50
38:55:106:GLY:O	38:55:107:ASP:HB3	2.10	0.50
1:13:1505:G:H4'	1:13:1506:U:H5"	1.92	0.50
28:19:12:SER:HB2	28:19:208:LYS:HB3	1.93	0.50
9:8E:5:TYR:OH	9:8E:16:ARG:HG2	2.11	0.50
23:2K:19:G:OP1	23:2K:19:G:H3'	2.12	0.50
26:14:1800:C:OP2	28:19:183:ARG:NH2	2.44	0.50
26:14:459:U:H2'	26:14:460:A:C8	2.47	0.50
36:78:138:LEU:CD1	36:78:144:GLU:HG3	2.42	0.50
26:1H:1100:C:H2'	26:1H:1101:U:C6	2.46	0.50
26:14:2113:U:OP1	26:14:2114:A:N6	2.44	0.50
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.44	0.50
40:B8:58:ASN:ND2	40:B8:58:ASN:O	2.37	0.50
26:14:142:G:H2'	26:14:143:C:H6	1.76	0.50
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.93	0.50
26:1H:1332:G:C8	26:1H:1332:G:H5'	2.47	0.50
26:1H:2052:G:C8	29:21:141:ILE:HD11	2.47	0.50
3:22:183:ASP:HB3	3:22:202:ILE:HG13	1.93	0.50
11:2I:54:ARG:NH2	24:3K:40:G:O3'	2.45	0.50
1:13:1504:G:OP1	1:13:1507:A:H4'	2.12	0.50
26:14:2418:A:H2'	26:14:2419:U:C6	2.46	0.50
37:88:82:ARG:HH21	47:I8:4:LYS:NZ	2.09	0.50
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.11	0.50
26:14:1462:C:H2'	26:14:1463:C:H6	1.77	0.50
1:13:279:A:C5	17:8I:98:LEU:HD12	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(O):U:O4	33:61:52:ARG:HG2	2.12	0.50
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.54	0.50
1:13:73:G:H2'	1:13:74:C:O4'	2.11	0.50
12:3I:5:PRO:HG2	12:3I:10:LEU:HD21	1.94	0.50
26:14:2361:A:O5'	54:M5:27:THR:OG1	2.30	0.50
45:G8:50:ARG:NH1	45:G8:50:ARG:HB2	2.27	0.50
14:5A:26:ARG:HG2	14:5A:26:ARG:O	2.12	0.50
26:1H:1614:A:N1	43:E8:91:GLY:HA2	2.27	0.50
54:Q8:53:PRO:HB3	54:Q8:56:GLU:HG3	1.94	0.50
27:16:11:C:H3'	27:16:12:C:H6	1.76	0.50
37:45:25:ASP:HB3	37:45:102:VAL:CG2	2.34	0.50
26:14:1019:U:HO2'	26:14:1021:A:H2	1.55	0.50
45:G8:85:VAL:HG23	45:G8:96:ILE:HG22	1.94	0.50
1:1G:262:A:H5'	20:BA:74:LYS:HZ3	1.76	0.50
26:14:1636:C:H2'	26:14:1637:A:C8	2.46	0.50
36:78:16:ARG:HG2	36:78:17:LYS:N	2.27	0.50
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.11	0.50
4:32:25:ARG:O	4:32:28:SER:N	2.45	0.50
39:A8:41:ASP:OD2	39:A8:44:LYS:HB2	2.12	0.50
26:14:539:G:H2'	26:14:540:G:C8	2.45	0.50
26:14:1386:C:H2'	26:14:1387:C:H6	1.77	0.50
23:2K:87:A:H4'	26:1H:2602:A:C6	2.47	0.50
26:1H:2630:G:H2'	26:1H:2631:G:C8	2.47	0.50
28:11:70:TRP:CE2	28:11:150:LYS:HD2	2.47	0.50
1:13:95:G:H3'	1:13:96:G:C8	2.47	0.50
4:3E:162:LEU:HA	4:3E:165:MET:HB2	1.93	0.50
27:16:55:U:H2'	27:16:56:G:C8	2.46	0.50
26:1H:2470:G:H5'	37:88:56:ARG:NH2	2.27	0.50
26:14:68:G:H2'	26:14:69:C:O4'	2.11	0.50
26:14:321:G:OP1	30:39:135:LYS:NZ	2.45	0.50
26:14:957:A:C6	26:14:2459:A:C8	3.00	0.50
1:1G:895:G:H2'	1:1G:896:C:C6	2.46	0.50
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.12	0.50
26:1H:1062:G:N2	26:1H:1088:A:N1	2.60	0.50
37:45:27:VAL:HG11	46:D5:81:ARG:NH2	2.26	0.50
35:68:25:LEU:HD12	35:68:38:VAL:O	2.12	0.50
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.76	0.50
29:21:51:PHE:O	29:21:74:PRO:HB2	2.12	0.50
8:72:20:TYR:HA	8:72:65:TYR:CE2	2.47	0.50
1:1G:1260:C:H6	1:1G:1260:C:H3'	1.77	0.50
26:1H:2815:C:H2'	26:1H:2816:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:79:C:H6	27:16:79:C:O5'	1.95	0.50
26:14:2147:G:H2'	26:14:2148:G:H4'	1.94	0.50
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.47	0.50
32:51:6:ARG:HA	32:51:66:GLY:HA2	1.94	0.50
42:D8:38:LEU:HD21	42:D8:40:LEU:O	2.12	0.50
26:14:2720:U:N3	26:14:2873:A:C2	2.78	0.50
1:13:563:A:N7	1:13:567:G:H1'	2.26	0.50
26:1H:2514:U:H3	26:1H:2570:G:H1	1.59	0.50
30:31:10:PRO:O	30:31:124:LEU:HD12	2.11	0.50
1:1G:1443:G:N2	40:75:119:LYS:HB2	2.27	0.50
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.47	0.50
4:3E:206:PHE:HD1	4:3E:207:TYR:CD1	2.30	0.50
35:25:69:ILE:HD12	35:25:77:ILE:O	2.12	0.50
33:61:10:GLU:O	33:61:10:GLU:HG3	2.12	0.50
26:14:1439:A:H2'	26:14:1440:G:O4'	2.12	0.50
28:11:109:ASP:HB2	28:11:197:GLY:CA	2.41	0.50
49:K8:64:LEU:O	49:K8:68:ARG:HG3	2.12	0.50
49:K8:65:ASN:O	49:K8:69:ARG:HG3	2.12	0.50
2:12:53:ARG:HH12	2:12:199:TYR:HA	1.77	0.49
1:1G:1320:C:H2'	1:1G:1321:C:O4'	2.12	0.49
6:5E:5:GLU:HB3	6:5E:62:TRP:NE1	2.27	0.49
1:13:1227:A:OP2	13:4I:111:LYS:HE3	2.11	0.49
39:65:106:ARG:O	39:65:106:ARG:HD2	2.12	0.49
34:15:4:TYR:CD2	41:85:100:VAL:HG11	2.47	0.49
20:BA:73:HIS:CB	20:BA:74:LYS:HZ2	2.25	0.49
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.11	0.49
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.12	0.49
1:1G:430:A:OP2	4:32:8:VAL:HG23	2.11	0.49
31:41:47:LYS:HD3	31:41:81:LYS:HB2	1.94	0.49
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.45	0.49
1:1G:1135:U:O2'	1:1G:1138:G:O6	2.20	0.49
23:2L:13:G:H4'	26:14:1924:C:H4'	1.94	0.49
2:1E:80:ILE:HD11	2:1E:208:ILE:HG23	1.94	0.49
26:1H:2734:A:H5'	26:1H:2735:G:OP2	2.12	0.49
5:42:24:ARG:HB3	5:42:24:ARG:HH11	1.77	0.49
40:B8:74:ARG:HD3	40:B8:76:PHE:CZ	2.47	0.49
16:7A:36:ILE:HD12	16:7A:56:ALA:HB2	1.94	0.49
26:14:1582:C:HO2'	26:14:1586:A:H8	1.60	0.49
26:1H:356:G:H2'	26:1H:357:A:H8	1.75	0.49
26:1H:911:A:H2'	37:88:9:TYR:OH	2.12	0.49
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1652:A:OP1	38:98:8:ARG:NH1	2.43	0.49
26:1H:207:A:H2'	26:1H:208:C:O4'	2.12	0.49
31:41:122:PRO:HB3	31:41:180:PHE:CD2	2.47	0.49
46:H8:73:GLN:HB2	46:H8:87:ASP:HB2	1.94	0.49
33:61:75:LEU:HB3	33:61:105:HIS:CD2	2.47	0.49
26:14:339:U:H6	26:14:339:U:O5'	1.94	0.49
1:1G:1058:G:H2'	1:1G:1059:C:C6	2.47	0.49
1:13:820:U:H4'	1:13:821:G:OP2	2.12	0.49
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.12	0.49
1:1G:804:U:H5"	1:1G:805:C:OP2	2.12	0.49
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.27	0.49
2:1E:17:PHE:HB2	2:1E:42:ILE:HG22	1.93	0.49
26:1H:620:G:H4'	26:1H:621:A:C5'	2.41	0.49
1:13:1348:U:N3	1:13:1374:A:H2	2.04	0.49
26:1H:1058:U:N3	26:1H:1059:G:N7	2.61	0.49
1:13:741:G:H2'	1:13:742:G:O4'	2.11	0.49
23:2L:73:C:H2'	23:2L:74:C:H6	1.75	0.49
1:13:1190:G:OP1	3:2E:5:ILE:N	2.41	0.49
1:13:45:U:H2'	1:13:46:G:H8	1.76	0.49
26:14:2636:U:O2'	29:29:44:TYR:OH	2.20	0.49
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.26	0.49
26:14:2331:G:O2'	26:14:2336:A:N1	2.42	0.49
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.75	0.49
26:14:579:G:H2'	26:14:580:C:H6	1.76	0.49
4:3E:155:LEU:HB3	4:3E:158:ILE:HG13	1.93	0.49
1:1G:300:A:H1'	1:1G:565:U:O2	2.11	0.49
29:21:147:PRO:HB2	29:21:149:ARG:HG3	1.94	0.49
26:1H:900:A:H3'	26:1H:901:A:H8	1.77	0.49
7:62:143:ARG:O	7:62:146:GLU:HB2	2.12	0.49
29:21:152:LYS:HD3	34:58:77:GLY:HA3	1.94	0.49
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.77	0.49
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.47	0.49
2:12:60:ASP:O	2:12:64:ARG:N	2.43	0.49
30:31:198:ALA:O	30:31:201:VAL:N	2.45	0.49
26:14:2030:A:H4'	26:14:2031:A:C8	2.47	0.49
42:95:15:GLU:HG3	42:95:16:PRO:HD2	1.93	0.49
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.11	0.49
26:14:2056:G:O3'	52:J5:8:LYS:NZ	2.45	0.49
57:1H:4131:HOH:O	36:78:39:LYS:HB3	2.12	0.49
5:42:80:ILE:HG13	8:72:104:ARG:NH2	2.27	0.49
38:55:28:LEU:HB2	38:55:34:ILE:HB	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:37:PHE:O	49:K8:41:ILE:HG22	2.13	0.49
41:85:106:PHE:O	41:85:109:LEU:HB2	2.13	0.49
4:32:190:ASP:OD1	4:32:190:ASP:N	2.45	0.49
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.12	0.49
26:14:2395:C:H2'	26:14:2396:G:O4'	2.12	0.49
26:14:1677:A:H2'	26:14:1678:G:H8	1.77	0.49
25:4K:34:G:H2'	25:4K:35:A:C8	2.47	0.49
37:45:25:ASP:HB3	37:45:102:VAL:H	1.76	0.49
7:6E:11:GLN:OE1	7:6E:12:LEU:N	2.46	0.49
26:1H:1188:U:H5'	42:D8:79:VAL:HG22	1.93	0.49
24:3K:83:U:C2'	24:3K:84:A:H5"	2.36	0.49
1:13:1001:G:C6	1:13:1002:G:N7	2.81	0.49
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.56	0.49
26:14:2808:U:H5"	26:14:2891:G:O6	2.12	0.49
29:21:34:VAL:HG22	29:21:48:GLN:HB3	1.92	0.49
3:2E:5:ILE:HG22	10:1I:51:ARG:HH12	1.77	0.49
36:78:17:LYS:HE2	36:78:27:HIS:HD2	1.77	0.49
26:14:1176:G:H5'	26:14:1177:A:OP1	2.12	0.49
37:88:34:LEU:HD23	37:88:104:PHE:HD2	1.78	0.49
26:14:153:C:OP1	48:F5:88:LYS:NZ	2.41	0.49
7:6E:65:ALA:O	7:6E:69:VAL:HG23	2.12	0.49
26:14:1005:C:N3	26:14:1143:A:C4	2.81	0.49
14:5I:4:LYS:HA	14:5I:7:ILE:HG12	1.93	0.49
19:AA:27:GLU:HG2	19:AA:47:HIS:NE2	2.27	0.49
13:4I:9:ILE:HG22	13:4I:10:PRO:O	2.11	0.49
23:2L:42:U:O4	23:2L:43:A:N6	2.44	0.49
26:1H:2880:C:O2'	38:98:90:ARG:NH1	2.39	0.49
26:1H:1170:G:N2	26:1H:1180:C:O2	2.45	0.49
26:14:898:C:H3'	26:14:899:A:H5"	1.94	0.49
46:H8:53:ILE:HG22	46:H8:71:VAL:HG13	1.93	0.49
26:14:1154:G:OP2	41:85:58:ARG:NH1	2.43	0.49
29:21:36:ARG:NH1	29:21:85:ASN:OD1	2.45	0.49
1:13:74:C:N3	1:13:96:G:N2	2.44	0.49
1:1G:1172:C:H2'	1:1G:1173:G:H8	1.76	0.49
13:4A:57:ARG:HH12	51:I5:17:GLY:HA3	1.78	0.49
26:14:649:G:H2'	26:14:650:C:C6	2.48	0.49
26:1H:456:C:H3'	44:F8:68:ARG:NH2	2.27	0.49
29:29:134:ILE:O	29:29:134:ILE:HD12	2.13	0.49
26:1H:18:C:O3'	41:C8:23:GLY:HA2	2.13	0.49
22:1K:15:A:H5"	22:1K:16:U:H5"	1.93	0.49
22:1K:68:A:H2'	22:1K:69:A:H5'	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:7:G:H3'	22:1L:8:U:C5'	2.41	0.49
1:1G:1400:C:C2	23:2L:35:G:C2	3.00	0.49
26:1H:2428:G:O6	57:1H:3680:HOH:O	2.19	0.49
27:16:0:A:H62	27:16:119:A:N6	2.02	0.49
26:1H:963:U:H5"	57:1H:3699:HOH:O	2.11	0.49
46:D5:75:ASN:O	46:D5:84:GLU:HG2	2.12	0.49
1:1G:491:G:H2'	1:1G:492:G:O4'	2.12	0.49
23:2K:12:G:C2	23:2K:13:G:H1'	2.47	0.49
35:68:119:PRO:HB2	40:B8:68:TYR:CD2	2.47	0.49
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.11	0.49
26:14:1486:A:H2'	26:14:1487:G:H8	1.78	0.49
1:13:113:G:O2'	1:13:354:G:H5'	2.12	0.49
28:19:71:ASP:CG	28:19:103:ARG:HH12	2.14	0.49
1:1G:1522:U:H2'	1:1G:1523:G:C8	2.47	0.49
26:14:34:C:HO2'	26:14:35:G:P	2.35	0.49
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.12	0.49
39:A8:67:ARG:HH21	39:A8:103:GLU:HG3	1.77	0.49
27:16:67:G:O5'	27:16:67:G:H8	1.96	0.49
46:H8:48:PHE:HA	46:H8:51:ALA:HB3	1.94	0.49
1:13:1218:C:H2'	1:13:1219:U:C6	2.48	0.49
26:1H:270(T):G:C6	26:1H:270(U):C:C4	3.00	0.49
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.47	0.49
14:5A:25:VAL:O	14:5A:26:ARG:HB3	2.12	0.49
38:55:33:ARG:HG3	38:55:115:GLU:HB3	1.94	0.49
5:4E:153:LYS:HD3	5:4E:154:GLY:O	2.13	0.49
38:98:79:LEU:HA	38:98:83:ILE:HD12	1.94	0.49
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.12	0.49
26:1H:654(H):G:O6	26:1H:654(N):G:N2	2.45	0.49
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.12	0.49
1:1G:973:G:H1'	10:1A:55:LYS:HZ2	1.77	0.49
39:A8:15:ARG:O	39:A8:19:LYS:HD3	2.12	0.49
26:14:858:U:O2	26:14:2268:A:H2'	2.12	0.49
30:31:9:ILE:HD11	30:31:125:LEU:N	2.20	0.49
23:2L:18:OMG:H4'	23:2L:18:OMG:OP1	2.12	0.49
7:62:16:LEU:HD13	9:82:44:VAL:HG22	1.93	0.49
1:13:735:C:H2'	1:13:736:C:C6	2.43	0.49
46:D5:39:VAL:HG21	46:D5:44:PHE:HD2	1.77	0.49
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.12	0.49
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.48	0.49
26:14:2134:A:C2	26:14:2159:G:H1'	2.48	0.49
26:1H:1199:U:H2'	26:1H:1200:C:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:723:G:H2'	26:1H:724:U:O4'	2.13	0.49
26:1H:2630:G:H2'	26:1H:2631:G:H8	1.78	0.49
10:1A:4:ILE:HA	10:1A:100:THR:HG22	1.94	0.49
1:13:1432:G:O6	57:13:1848:HOH:O	2.15	0.49
15:6A:24:SER:OG	15:6A:27:VAL:HG23	2.13	0.49
19:AI:31:ILE:HG23	19:AI:49:ILE:HG12	1.93	0.49
23:2L:24:C:H2'	23:2L:25:A:H8	1.77	0.49
19:AI:19:VAL:HG11	19:AI:44:MET:HG2	1.93	0.49
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.27	0.49
31:49:42:GLY:O	31:49:43:LEU:HD13	2.13	0.49
26:14:598:G:H1	26:14:659:C:H42	1.59	0.49
1:13:129(A):G:C2	1:13:188:U:O2'	2.65	0.49
2:1E:121:LEU:O	2:1E:139:LYS:NZ	2.37	0.49
1:13:868:C:H2'	1:13:869:G:O4'	2.12	0.49
26:1H:82:G:N2	26:1H:103:A:OP2	2.36	0.49
26:1H:1015:G:OP2	26:1H:1015:G:H8	1.96	0.49
26:1H:483:A:H2'	26:1H:484:C:O4'	2.13	0.49
35:25:92:GLU:HG2	35:25:113:LYS:NZ	2.27	0.49
27:16:75:G:H21	46:H8:85:HIS:CE1	2.30	0.49
26:1H:2615:U:C2	52:N8:7:PRO:HA	2.48	0.49
1:13:247:G:OP2	17:8I:100:LYS:N	2.22	0.49
26:14:1268:A:C2	26:14:2013:A:C4	3.00	0.49
28:11:65:ILE:HD11	28:11:67:PHE:CE1	2.47	0.49
1:13:8:A:N7	4:3E:208:SER:HB3	2.27	0.49
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.78	0.49
1:13:413:G:H2'	1:13:428:G:H22	1.77	0.49
42:95:5:VAL:HB	42:95:37:VAL:CG1	2.42	0.49
33:61:110:ASP:CB	33:61:112:LYS:H	2.25	0.49
32:59:35:VAL:HG13	32:59:71:LEU:HD23	1.94	0.49
10:1I:84:GLN:O	10:1I:88:LEU:HB2	2.12	0.49
12:3I:90:VAL:O	12:3I:91:LYS:HB3	2.11	0.49
32:51:6:ARG:HB3	32:51:65:HIS:CG	2.47	0.49
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.48	0.49
8:72:100:ILE:HG21	8:72:125:ARG:HE	1.77	0.49
1:13:376:G:H4'	16:7I:5:ARG:NH1	2.27	0.49
29:21:119:ARG:HG3	29:21:119:ARG:HH11	1.76	0.49
10:1I:33:GLN:HG2	10:1I:75:ILE:HG13	1.94	0.49
1:13:368:U:P	33:69:91:SER:HG	2.35	0.49
1:1G:145:G:N2	1:1G:177:C:O2	2.42	0.49
44:B5:59:VAL:CG2	44:B5:76:ARG:HD3	2.42	0.49
28:19:134:ARG:O	28:19:168:ARG:NH1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:921:G:C6	26:14:922:U:C4	3.01	0.49
26:1H:779:U:OP1	28:11:49:ILE:HG13	2.12	0.49
26:1H:1639:U:O2'	26:1H:1640:C:H5'	2.12	0.49
26:14:839:U:H2'	26:14:840:C:C6	2.47	0.49
26:14:2238:G:OP2	57:14:3812:HOH:O	2.20	0.49
26:14:2199:A:OP1	48:F5:50:ARG:NH2	2.45	0.49
1:1G:995:C:H6	1:1G:995:C:O5'	1.96	0.49
30:39:181:LEU:HD22	30:39:186:ILE:HD11	1.95	0.49
36:78:57:THR:HB	36:78:59:LEU:H	1.78	0.49
9:8E:118:LYS:HB3	9:8E:118:LYS:HE2	1.65	0.49
29:29:89:ASP:C	29:29:91:VAL:H	2.14	0.49
26:1H:2151:G:H2'	26:1H:2152:G:C8	2.48	0.49
28:11:182:LEU:HB3	28:11:271:ILE:HG13	1.94	0.49
46:H8:105:VAL:N	46:H8:139:VAL:O	2.43	0.49
10:1A:76:ASN:HB3	10:1A:78:ASN:HD22	1.78	0.49
38:98:12:ARG:HD3	38:98:16:HIS:CG	2.46	0.49
30:39:18:ARG:HG2	30:39:19:GLU:N	2.27	0.49
38:55:49:ASP:OD1	38:55:95:THR:HB	2.13	0.49
27:16:71:C:H2'	27:16:72:G:H8	1.76	0.49
32:51:170:ARG:HE	32:51:170:ARG:HA	1.77	0.49
1:13:659:U:H2'	1:13:660:G:H8	1.77	0.49
26:1H:1242:A:N1	36:78:4:SER:OG	2.37	0.49
5:42:41:VAL:O	5:42:67:VAL:HG12	2.13	0.49
26:14:2773:C:OP1	29:29:166:THR:OG1	2.31	0.49
28:11:131:LEU:HB2	28:11:136:ILE:CD1	2.43	0.49
33:69:29:TYR:HD2	33:69:30:LEU:HD23	1.78	0.49
1:1G:782:A:O3'	1:1G:1515:C:H4'	2.12	0.49
26:14:1234:U:H2'	26:14:1235:G:O4'	2.13	0.49
33:69:99:GLU:H	33:69:99:GLU:CD	2.15	0.49
28:11:112:GLN:OE1	28:11:112:GLN:N	2.46	0.49
8:72:49:GLU:O	8:72:51:VAL:HG13	2.13	0.49
11:2I:125:PHE:N	11:2I:125:PHE:CD1	2.79	0.49
38:98:57:ARG:HB3	38:98:59:ASP:OD2	2.12	0.49
36:78:136:GLU:HA	36:78:139:LYS:HE2	1.95	0.49
23:2L:47:C:O2'	23:2L:48:C:O5'	2.28	0.49
30:39:153:SER:OG	30:39:190:GLU:HB2	2.12	0.49
49:G5:64:LEU:HD21	49:G5:68:ARG:HH11	1.78	0.49
26:1H:1728:G:H5'	26:1H:1729:A:OP2	2.12	0.49
8:72:20:TYR:CE2	8:72:75:ARG:HG2	2.47	0.49
29:29:89:ASP:O	29:29:91:VAL:N	2.35	0.49
26:14:1045:A:H1'	26:14:1047:G:N3	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2493:U:H2'	26:1H:2494:G:O4'	2.12	0.49
26:1H:860:U:C5	26:1H:917:A:H2	2.30	0.49
26:1H:634:C:H2'	26:1H:635:C:C6	2.47	0.49
26:14:2468:G:H3'	26:14:2476:A:C2	2.48	0.49
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	1.95	0.49
54:Q8:8:LYS:HD2	54:Q8:8:LYS:N	2.27	0.49
1:1G:1386:G:C2	1:1G:1387:G:C8	3.01	0.49
1:13:234:C:H2'	1:13:235:C:H6	1.76	0.49
12:3I:93:LEU:HB2	12:3I:96:VAL:CG1	2.43	0.49
1:13:429:U:O2'	4:3E:22:LYS:NZ	2.39	0.49
40:B8:21:GLU:OE1	40:B8:91:ARG:NH2	2.46	0.49
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.47	0.49
26:1H:1291:C:H2'	26:1H:1292:U:H6	1.78	0.49
26:1H:1278:A:C5'	38:98:36:THR:HG22	2.41	0.49
33:61:124:GLY:H	33:61:142:VAL:CG2	2.25	0.49
1:13:368:U:C6	33:69:90:GLY:HA3	2.47	0.49
1:13:1296:C:H5'	13:4I:14:ARG:HH12	1.77	0.49
33:61:75:LEU:HB3	33:61:105:HIS:HD2	1.77	0.49
42:D8:65:GLY:HA3	42:D8:91:TYR:CE1	2.47	0.49
26:14:2279:G:O6	47:E5:14:ARG:HD2	2.13	0.49
24:3K:87:A:O2'	26:1H:2394:C:O2	2.31	0.49
13:4I:84:ILE:HG13	19:AI:74:PHE:HE1	1.78	0.49
1:13:778:G:H1'	11:2I:119:CYS:HB3	1.93	0.49
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.13	0.49
37:88:17:LEU:HB3	37:88:39:PRO:HB2	1.95	0.49
37:88:19:GLY:O	37:88:21:THR:OG1	2.19	0.49
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.95	0.49
26:14:1039:G:H1	26:14:1116:C:H42	1.61	0.49
26:14:1999:C:H4'	26:14:2723:C:O2	2.12	0.49
34:58:121:LYS:HB2	34:58:123:TYR:HE1	1.78	0.49
26:14:2099:U:H3	26:14:2190:G:H1	1.60	0.49
37:45:79:LEU:H	37:45:79:LEU:HD22	1.78	0.49
11:2I:41:THR:HG22	11:2I:42:TRP:H	1.77	0.49
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.46	0.49
26:1H:1729:A:H8	26:1H:1730:U:H6	1.59	0.49
37:45:34:LEU:HD12	37:45:130:LYS:O	2.13	0.49
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.48	0.49
22:1K:56:G:H2'	22:1K:57:C:C6	2.48	0.49
52:N8:33:CYS:SG	52:N8:40:LYS:HD3	2.52	0.49
1:1G:1127:G:N2	1:1G:1144:G:H1	2.10	0.49
13:4A:81:LEU:HD23	13:4A:86:CYS:SG	2.53	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:32:ALA:HB2	10:1A:81:THR:HG21	1.94	0.49
16:7I:77:ALA:CB	16:7I:79:VAL:HG23	2.43	0.49
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.48	0.49
32:59:10:PRO:HD2	32:59:50:VAL:H	1.77	0.49
54:Q8:46:ARG:NH2	54:Q8:48:PHE:HA	2.28	0.49
26:14:1430:C:H2'	26:14:1431:U:H6	1.78	0.49
45:C5:87:LYS:NZ	45:C5:88:LYS:O	2.37	0.49
6:52:97:PHE:O	18:9A:31:LEU:HD23	2.13	0.49
1:13:272:C:H2'	1:13:273:A:C8	2.48	0.49
26:14:2056:G:N3	26:14:2056:G:H2'	2.28	0.49
13:4I:86:CYS:HB2	19:AI:73:GLU:HB3	1.93	0.49
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.12	0.49
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.94	0.49
30:39:107:LYS:HE2	30:39:205:ARG:HD2	1.95	0.49
26:14:519:U:H2'	26:14:520:G:H8	1.77	0.49
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.13	0.49
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.13	0.49
11:2I:16:SER:O	11:2I:35:PRO:HG3	2.13	0.49
29:21:96:PHE:O	29:21:175:VAL:HG11	2.12	0.49
26:14:2709:G:H1'	57:14:3958:HOH:O	2.12	0.49
7:6E:23:VAL:O	7:6E:27:ILE:N	2.46	0.49
26:1H:1142:U:H2'	26:1H:1142:U:O2	2.13	0.49
39:A8:30:ARG:HG2	39:A8:30:ARG:HH11	1.77	0.49
6:5E:92:LYS:HB2	6:5E:92:LYS:NZ	2.27	0.49
50:L8:7:LYS:HE3	50:L8:32:GLN:HA	1.94	0.49
39:A8:10:ARG:HG3	39:A8:13:ARG:NH1	2.27	0.49
38:98:30:THR:HG22	38:98:31:HIS:ND1	2.28	0.49
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.95	0.49
47:E5:53:MET:HG3	47:E5:59:LEU:CD2	2.42	0.49
31:41:68:PRO:HB3	31:41:92:VAL:HB	1.95	0.49
45:G8:94:LYS:HZ2	45:G8:95:LYS:H	1.61	0.49
27:1J:74:U:H1'	46:D5:34:ASN:HD21	1.78	0.49
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.94	0.49
26:14:1972:A:H2'	26:14:1973:G:C8	2.48	0.49
12:3I:28:LYS:NZ	12:3I:62:SER:HB3	2.27	0.49
26:14:651:G:OP2	54:M5:21:LYS:NZ	2.32	0.49
11:2I:99:GLN:HA	11:2I:105:VAL:HG11	1.95	0.49
1:1G:957:U:O2'	1:1G:959:A:N7	2.34	0.49
23:2L:43:A:O2'	23:2L:44:G:H5'	2.13	0.49
26:14:2872:G:C4	26:14:2873:A:C2	3.01	0.49
53:P8:10:ARG:HG2	53:P8:14:LYS:HD3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:8:PRO:HG2	32:51:69:ARG:NH2	2.28	0.49
26:14:777:A:O2'	26:14:778:G:H5'	2.13	0.49
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.93	0.49
45:C5:87:LYS:HB3	45:C5:94:LYS:HA	1.95	0.49
11:2I:50:TYR:O	11:2I:55:LYS:HD3	2.12	0.49
1:1G:197:A:C8	1:1G:198:G:H1'	2.48	0.49
1:13:1296:C:H5'	13:4I:14:ARG:NH1	2.28	0.49
26:14:83:G:N2	26:14:102:G:H2'	2.27	0.49
1:13:266:G:H5"	1:13:267:C:C5	2.48	0.49
26:1H:1605:C:H2'	26:1H:1606:G:O4'	2.13	0.49
26:14:2880:C:H1'	38:55:92:GLY:HA3	1.94	0.49
35:25:116:SER:OG	35:25:117:LEU:N	2.46	0.49
1:13:322:C:O3'	20:BI:23:ARG:HG3	2.13	0.49
27:16:83:G:H4'	50:L8:52:HIS:CG	2.48	0.49
2:12:124:SER:O	2:12:126:GLU:N	2.40	0.49
10:1I:23:ILE:HA	10:1I:26:ALA:HB3	1.95	0.49
1:13:300:A:H1'	1:13:565:U:O2	2.13	0.49
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.48	0.49
26:1H:836:G:H2'	26:1H:837:C:C6	2.48	0.49
4:3E:8:VAL:HG13	4:3E:21:LEU:HD12	1.95	0.49
26:1H:2236:C:H2'	26:1H:2237:G:O4'	2.13	0.49
26:1H:75:G:H4'	49:K8:55:ARG:NH1	2.28	0.49
26:14:2095:C:H2'	26:14:2096:U:O4'	2.13	0.49
22:1L:65:5MU:H71	22:1L:65:5MU:OP2	2.12	0.49
44:B5:63:LYS:H	44:B5:63:LYS:CE	2.25	0.49
26:1H:1903:G:OP2	28:11:241:PRO:HB2	2.12	0.49
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.95	0.49
48:J8:71:TYR:O	48:J8:74:VAL:HG12	2.13	0.49
8:72:29:SER:H	8:72:32:LYS:HB2	1.76	0.49
46:D5:11:GLU:HG3	46:D5:12:GLY:H	1.78	0.49
4:32:23:GLY:H	4:32:26:CYS:HB2	1.77	0.48
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.13	0.48
1:1G:975:A:H4'	1:1G:976:G:C5'	2.33	0.48
1:13:136:C:H2'	1:13:137:C:H5"	1.95	0.48
26:14:1754:C:N3	26:14:2716:U:O2'	2.41	0.48
26:14:1434:A:H2'	26:14:1435:G:C8	2.48	0.48
31:49:2:PRO:HG2	31:49:4:ASP:HB3	1.95	0.48
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.11	0.48
26:1H:971:C:H2'	26:1H:972:G:O4'	2.13	0.48
29:21:78:LEU:HD23	29:21:78:LEU:O	2.13	0.48
9:82:95:LYS:HZ1	9:82:96:LEU:HB2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:41:G:H2'	24:3K:42:U:C6	2.48	0.48
1:13:97:U:H2'	1:13:99:C:H6	1.77	0.48
2:12:196:LEU:HD12	2:12:197:VAL:HG23	1.95	0.48
5:42:51:VAL:O	5:42:55:VAL:HG23	2.13	0.48
26:14:2121:G:H2'	26:14:2122:U:C6	2.47	0.48
26:1H:665:C:H2'	26:1H:666:G:H8	1.78	0.48
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.95	0.48
26:14:2250:G:C8	26:14:2496:C:H5"	2.46	0.48
26:14:494:G:H5'	43:A5:8:ARG:HD3	1.95	0.48
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.78	0.48
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.95	0.48
26:14:49:A:H5"	26:14:51:G:O4'	2.12	0.48
9:82:26:VAL:HG22	9:82:61:ALA:N	2.28	0.48
34:58:104:LYS:HB2	34:58:117:PHE:CD1	2.47	0.48
26:14:2572:A:N7	29:29:145:LYS:HG3	2.28	0.48
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.12	0.48
1:13:110:C:O2'	16:7I:25:ARG:O	2.28	0.48
26:14:1689:A:H62	26:14:1698:A:H2	1.60	0.48
4:3E:90:GLY:O	4:3E:93:PHE:HB3	2.12	0.48
5:42:59:GLY:O	5:42:63:ARG:HG2	2.13	0.48
26:1H:1885:A:H2'	26:1H:1886:C:O4'	2.13	0.48
7:6E:45:ASP:O	7:6E:49:ILE:HG12	2.13	0.48
43:E8:27:LYS:HB3	43:E8:31:GLU:HG3	1.95	0.48
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.12	0.48
26:14:2503:A:OP2	26:14:2503:A:H3'	2.13	0.48
26:14:880:G:C2	26:14:881:G:C8	3.01	0.48
1:13:963:G:H4'	57:13:1838:HOH:O	2.13	0.48
26:14:126:A:O5'	53:L5:19:ARG:HG3	2.13	0.48
28:11:108:PRO:HG3	28:11:143:HIS:HE1	1.74	0.48
52:J5:36:CYS:SG	52:J5:49:CYS:SG	3.11	0.48
45:C5:17:SER:O	45:C5:21:LYS:HB2	2.13	0.48
13:4A:3:ARG:HA	13:4A:8:GLU:O	2.13	0.48
1:13:600:C:H4'	8:7E:128:GLY:O	2.13	0.48
1:13:1190:G:OP1	3:2E:4:LYS:HA	2.12	0.48
51:M8:40:HIS:CG	51:M8:45:GLY:HA3	2.48	0.48
11:2I:21:ILE:O	11:2I:85:ARG:N	2.40	0.48
54:Q8:25:MET:HB3	54:Q8:42:ARG:HB3	1.95	0.48
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.48	0.48
34:58:73:THR:HB	34:58:82:LEU:HD11	1.94	0.48
13:4I:3:ARG:HG2	13:4I:9:ILE:HG12	1.94	0.48
26:1H:2110:G:C6	26:1H:2120:G:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:7:LEU:N	32:51:8:PRO:HD3	2.28	0.48
11:2A:16:SER:HG	11:2A:79:SER:HG	1.54	0.48
37:45:80:GLU:O	37:45:81:VAL:HG22	2.13	0.48
26:14:1519:G:H2'	26:14:1520:U:O4'	2.14	0.48
1:13:606:G:N2	1:13:632:A:N1	2.61	0.48
27:1J:94:C:H2'	27:1J:95:U:H6	1.78	0.48
1:1G:1157:A:H8	1:1G:1158:C:C4	2.31	0.48
39:A8:110:LEU:HD22	39:A8:111:GLU:HB2	1.95	0.48
31:49:62:LEU:HG	31:49:143:GLU:HB3	1.94	0.48
27:16:93:C:H2'	27:16:94:C:C6	2.47	0.48
26:14:861:A:N3	27:1J:79:C:O2'	2.46	0.48
1:13:474:G:H2'	1:13:475:G:C8	2.48	0.48
26:1H:2740:A:H2'	26:1H:2741:A:C8	2.48	0.48
26:14:706:A:OP1	28:19:7:LYS:NZ	2.31	0.48
26:14:821:A:H2'	26:14:946:G:H5"	1.94	0.48
35:68:64:ARG:HG2	35:68:79:PHE:CG	2.48	0.48
26:14:495:G:N3	43:A5:61:ASN:ND2	2.59	0.48
4:32:64:LEU:HA	4:32:67:ILE:HD12	1.95	0.48
26:1H:2401:U:H2'	26:1H:2402:C:C1'	2.43	0.48
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.12	0.48
26:1H:989:G:N7	50:L8:13:ILE:HD11	2.27	0.48
27:1J:2:C:O2	27:1J:118:G:N2	2.37	0.48
46:H8:77:ASP:OD2	46:H8:80:ARG:NH1	2.47	0.48
30:39:164:ARG:O	30:39:167:ALA:HB3	2.12	0.48
1:1G:243:A:H4'	1:1G:244:U:O5'	2.12	0.48
30:31:9:ILE:HG23	30:31:20:LEU:O	2.13	0.48
1:1G:685:G:C2	1:1G:686:U:C4	3.01	0.48
26:14:2357:U:OP1	47:E5:20:ARG:HD2	2.13	0.48
26:1H:1138:G:H21	34:58:106:MET:CE	2.26	0.48
26:14:1536:A:C8	26:14:1537:C:H1'	2.48	0.48
33:69:120:ILE:HD12	33:69:126:TYR:CE2	2.48	0.48
6:52:14:LEU:HB2	6:52:18:GLN:HB2	1.95	0.48
1:13:757:U:H2'	1:13:758:G:O4'	2.14	0.48
1:13:376:G:H4'	16:7I:5:ARG:HH11	1.78	0.48
26:14:2819:G:OP1	57:14:3950:HOH:O	2.20	0.48
16:7I:8:ARG:C	16:7I:9:PHE:HD1	2.17	0.48
26:1H:128:C:H2'	26:1H:129:C:H6	1.79	0.48
1:1G:501:C:H2'	1:1G:502:G:H8	1.78	0.48
1:13:659:U:H2'	1:13:660:G:C8	2.48	0.48
7:62:146:GLU:O	7:62:149:ARG:HB2	2.13	0.48
1:1G:653:A:C8	8:72:56:LYS:HE3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:36:ASP:CG	5:42:38:GLN:HB2	2.34	0.48
26:1H:17:G:H2'	26:1H:18:C:C6	2.48	0.48
35:68:2:ILE:HB	35:68:33:ALA:HB3	1.95	0.48
26:14:1917:U:H3'	26:14:1918:A:H8	1.79	0.48
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.13	0.48
30:39:65:TRP:HZ3	30:39:73:ALA:HB3	1.78	0.48
1:1G:128:G:H4'	17:8A:3:LYS:HG2	1.94	0.48
26:14:765:G:H2'	26:14:766:C:C6	2.48	0.48
1:1G:753:A:OP1	15:6A:69:TYR:OH	2.24	0.48
26:1H:606:U:H4'	26:1H:658:C:H4'	1.95	0.48
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.12	0.48
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.93	0.48
6:52:1:MET:HB3	6:52:67:MET:O	2.13	0.48
26:1H:1318:C:H5	57:1H:3767:HOH:O	1.97	0.48
3:22:18:TRP:NE1	14:5A:53:LEU:O	2.46	0.48
26:1H:802:A:OP1	57:1H:4017:HOH:O	2.20	0.48
27:16:11:C:H3'	27:16:12:C:C6	2.48	0.48
1:1G:542:G:N2	1:1G:543:C:C2	2.81	0.48
2:1E:178:ARG:HH21	8:7E:74:PRO:HB3	1.78	0.48
33:69:77:LEU:HD22	33:69:141:LYS:HE3	1.94	0.48
1:1G:580:U:H2'	1:1G:581:G:O4'	2.12	0.48
30:39:118:ALA:HB2	30:39:123:LEU:HD21	1.94	0.48
15:6I:39:LEU:O	15:6I:42:HIS:HB3	2.14	0.48
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.78	0.48
2:12:115:LEU:HB2	2:12:145:LEU:HD12	1.95	0.48
46:D5:163:LEU:HD12	46:D5:165:VAL:HG23	1.95	0.48
26:14:1344:G:H4'	26:14:1384:A:N7	2.28	0.48
33:69:8:PRO:HD3	33:69:15:VAL:HG22	1.94	0.48
42:95:76:LYS:HD2	42:95:80:GLN:HB3	1.95	0.48
37:45:59:ARG:O	37:45:60:ARG:HG3	2.12	0.48
26:14:483:A:H1'	45:C5:60:PHE:HE1	1.76	0.48
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.13	0.48
1:1G:769:G:H4'	1:1G:1513:A:H4'	1.95	0.48
26:14:1001:A:H2'	26:14:1002:G:O4'	2.12	0.48
26:1H:462:C:H42	26:1H:467:G:H1	1.61	0.48
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.48	0.48
1:13:1145:C:H4'	1:13:1146:A:O5'	2.12	0.48
29:29:15:PHE:CD2	40:75:81:PRO:HD3	2.49	0.48
41:C8:6:THR:N	57:C8:202:HOH:O	2.45	0.48
2:12:23:ARG:HH21	2:12:191:ASP:HB2	1.78	0.48
31:49:108:ASN:OD1	31:49:108:ASN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:94:TYR:N	38:98:94:TYR:CD1	2.79	0.48
15:6I:71:GLN:HG2	15:6I:71:GLN:O	2.13	0.48
36:78:121:LYS:HE2	36:78:123:LEU:HD21	1.94	0.48
49:K8:3:LEU:O	49:K8:6:VAL:HG13	2.13	0.48
6:52:76:ALA:O	6:52:80:ARG:HB2	2.13	0.48
31:41:106:LEU:HD11	31:41:111:LEU:HG	1.95	0.48
26:1H:2360:A:H2'	26:1H:2361:A:O4'	2.14	0.48
36:78:103:ALA:HB3	36:78:105:LEU:HD12	1.95	0.48
48:J8:58:ILE:CG2	48:J8:87:PRO:HG3	2.44	0.48
1:13:1434:A:H2'	1:13:1435:G:O4'	2.13	0.48
26:14:681:G:H2'	26:14:682:G:O4'	2.12	0.48
26:1H:775:G:C5	26:1H:794:G:C8	3.01	0.48
1:13:1002:G:C5	1:13:1003:G:C8	3.01	0.48
26:14:1007:C:H5"	34:15:35:ARG:HH11	1.78	0.48
28:19:95:LEU:HD11	28:19:105:ILE:HD12	1.95	0.48
1:13:103:C:H2'	1:13:104:G:C8	2.49	0.48
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.94	0.48
5:4E:39:GLY:HA3	5:4E:71:LEU:HD11	1.94	0.48
27:1J:15:A:H5'	27:1J:16:G:N7	2.29	0.48
26:14:445:C:OP1	41:85:2:PRO:HA	2.13	0.48
26:14:358:U:H2'	26:14:359:A:H8	1.78	0.48
26:1H:722:A:C2	26:1H:723:G:C4	3.01	0.48
39:A8:83:LYS:O	39:A8:110:LEU:HB2	2.13	0.48
1:1G:308:C:H2'	1:1G:309:G:C8	2.49	0.48
4:32:65:ARG:HD3	4:32:75:PHE:CG	2.48	0.48
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.48	0.48
4:32:54:TYR:CE2	4:32:58:LEU:HD12	2.49	0.48
26:14:2512:C:H4'	29:29:122:PHE:CE2	2.48	0.48
39:A8:51:ALA:HB3	39:A8:73:LEU:HG	1.95	0.48
3:2E:68:VAL:HG12	3:2E:70:VAL:HG13	1.94	0.48
26:1H:1759:A:H4'	26:1H:2715:C:O4'	2.13	0.48
42:D8:5:VAL:HB	42:D8:35:LEU:HD11	1.94	0.48
5:42:101:ILE:O	5:42:120:THR:HG23	2.13	0.48
26:1H:210:C:OP1	53:P8:29:LYS:HD2	2.14	0.48
1:1G:790:A:H2'	1:1G:791:G:C8	2.48	0.48
26:14:446:G:P	57:14:3971:HOH:O	2.72	0.48
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.48	0.48
31:41:111:LEU:HD21	31:41:120:LEU:HD21	1.96	0.48
54:Q8:24:ALA:HA	54:Q8:44:LYS:HB2	1.94	0.48
54:Q8:30:ARG:HB2	54:Q8:30:ARG:HH11	1.78	0.48
3:22:51:GLY:O	3:22:70:VAL:HG13	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:274:G:H3'	26:14:274:G:H8	1.79	0.48
14:5I:17:LYS:HE3	14:5I:18:VAL:HG13	1.96	0.48
20:BI:42:GLN:O	20:BI:46:GLU:HG3	2.14	0.48
1:13:1037:C:H2'	1:13:1038:C:H6	1.77	0.48
4:32:157:LEU:HD12	4:32:161:ASN:ND2	2.28	0.48
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.79	0.48
26:14:2542:A:H2'	26:14:2542:A:N3	2.27	0.48
26:14:2468:G:H3'	26:14:2476:A:N1	2.29	0.48
10:1A:62:HIS:HB3	14:5A:59:ALA:HB3	1.95	0.48
3:2E:3:ASN:O	3:2E:4:LYS:HG2	2.14	0.48
34:58:33:LEU:HD12	34:58:38:HIS:HD2	1.76	0.48
22:1K:57:C:H2'	22:1K:58:U:H4'	1.95	0.48
26:14:635:C:H2'	26:14:636:G:O4'	2.13	0.48
21:1B:8:THR:HG22	21:1B:10:ARG:H	1.79	0.48
1:13:1031:G:H2'	1:13:1032:A:H5'	1.95	0.48
1:1G:280:C:OP1	17:8A:91:ARG:NH2	2.44	0.48
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	1.94	0.48
10:1A:81:THR:OG1	10:1A:82:ILE:N	2.46	0.48
44:F8:3:THR:HA	44:F8:6:ASP:OD2	2.13	0.48
46:H8:45:ASP:OD1	46:H8:49:ARG:NH1	2.46	0.48
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	1.95	0.48
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.28	0.48
41:C8:88:ILE:C	41:C8:90:VAL:N	2.66	0.48
41:C8:88:ILE:HD11	41:C8:112:ARG:HB3	1.95	0.48
24:3L:6:G:O2'	24:3L:7:G:O5'	2.27	0.48
26:1H:1411:C:H2'	26:1H:1412:A:C8	2.49	0.48
26:1H:1184:G:H5'	50:L8:29:ARG:NH1	2.29	0.48
28:11:109:ASP:HB2	28:11:197:GLY:HA3	1.96	0.48
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.12	0.48
1:1G:1084:G:C5	1:1G:1085:U:C4	3.00	0.48
51:M8:9:LEU:N	51:M8:27:THR:OG1	2.45	0.48
10:1A:24:VAL:HG21	10:1A:37:PRO:HD3	1.95	0.48
26:1H:1835:G:H5'	26:1H:1836:C:OP2	2.13	0.48
26:1H:1754:C:OP1	40:B8:96:ARG:NH1	2.46	0.48
34:15:34:LEU:O	34:15:49:GLY:HA3	2.13	0.48
3:2E:84:ILE:HA	3:2E:87:LEU:HD12	1.95	0.48
1:13:959:A:HO2'	1:13:984:C:HO2'	1.61	0.48
46:H8:95:PRO:HB2	46:H8:127:LYS:HD2	1.96	0.48
27:1J:3:C:H42	27:1J:117:G:H1	1.61	0.48
30:39:162:LEU:H	30:39:162:LEU:HD12	1.79	0.48
15:6I:79:ARG:HB3	15:6I:79:ARG:CZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:620:C:H2'	1:1G:621:A:O4'	2.14	0.48
26:1H:2829:C:H5'	29:21:76:ARG:HH22	1.78	0.48
26:1H:2454:G:H1'	57:1H:4116:HOH:O	2.12	0.48
29:21:201:THR:HG22	29:21:203:LYS:N	2.18	0.48
1:1G:974:A:H5'	1:1G:975:A:OP1	2.13	0.48
54:Q8:32:LEU:HG	54:Q8:33:ASN:ND2	2.28	0.48
25:4K:32:A:H4'	25:4K:33:G:OP1	2.13	0.48
26:1H:1496:A:C8	26:1H:1577:C:O2'	2.59	0.48
27:16:40:U:O4	51:M8:2:LYS:N	2.47	0.48
1:13:1004:A:C2	1:13:1025:U:H1'	2.49	0.48
13:4I:52:GLU:O	13:4I:56:LEU:HB2	2.14	0.48
26:1H:996:A:O3'	41:C8:92:ARG:HG2	2.12	0.48
26:14:2784:C:H1'	29:29:37:ARG:HH21	1.78	0.48
53:L5:34:ARG:HG2	53:L5:39:ARG:HG3	1.94	0.48
27:1J:21:G:H2'	27:1J:22:U:O4'	2.13	0.48
1:1G:1226:C:H4'	19:AA:80:TYR:OH	2.13	0.48
23:2L:27:G:H1	23:2L:45:U:H3	1.60	0.48
24:3K:67:C:O2'	24:3K:68:A:H5'	2.14	0.48
1:13:1070:U:H2'	1:13:1071:C:C6	2.49	0.48
26:14:1268:A:H2'	26:14:1269:A:O4'	2.13	0.48
26:1H:606:U:OP2	30:31:104:LYS:NZ	2.42	0.48
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.12	0.48
51:M8:57:GLU:HA	51:M8:60:GLN:OE1	2.14	0.48
26:1H:458:G:C5	53:P8:37:LYS:HE3	2.48	0.48
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.13	0.48
1:13:1266:G:N2	1:13:1270:C:N3	2.61	0.48
26:1H:1562:A:H2'	26:1H:1563:G:C8	2.48	0.48
5:42:57:LYS:HE2	5:42:61:TYR:OH	2.14	0.48
1:13:519:C:H2'	1:13:520:A:O4'	2.14	0.48
26:14:1510:A:H2'	26:14:1511:A:C8	2.49	0.48
37:88:109:VAL:HG12	37:88:114:ALA:HB2	1.94	0.48
1:1G:306:G:O5'	1:1G:306:G:H8	1.96	0.48
54:Q8:26:LYS:HE3	54:Q8:26:LYS:HB2	1.68	0.48
34:15:137:LYS:HD3	34:15:137:LYS:HA	1.63	0.48
26:1H:1427:A:H4'	26:1H:1428:C:O4'	2.14	0.48
26:14:2505:G:H2'	26:14:2576:G:O6	2.14	0.48
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.49	0.48
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.14	0.48
51:I5:13:ARG:HB3	51:I5:22:ILE:HG21	1.96	0.48
26:14:848:G:C4	26:14:933:A:C8	3.02	0.48
26:1H:2160:G:C2	26:1H:2161:C:H1'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:72:G:O2'	27:1J:104:A:N6	2.46	0.48
46:D5:29:TYR:HA	46:D5:33:LEU:O	2.14	0.48
28:19:24:ILE:HD13	28:19:84:TYR:HB2	1.95	0.48
1:1G:937:A:H1'	1:1G:1379:G:N2	2.29	0.48
1:13:1442:G:C6	1:13:1446:A:N6	2.82	0.48
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.11	0.48
41:C8:75:ASN:HB3	41:C8:77:SER:H	1.78	0.48
22:1K:8:U:H1'	22:1K:22:G:N2	2.28	0.48
26:1H:144:C:H2'	26:1H:145:G:C8	2.49	0.48
22:1K:21:A:H2'	22:1K:21:A:N3	2.29	0.48
38:55:33:ARG:HA	38:55:115:GLU:HA	1.95	0.48
31:41:139:LEU:HA	31:41:144:ILE:HB	1.95	0.48
26:1H:448:U:O4	26:1H:583:G:H1'	2.14	0.48
7:6E:133:GLY:O	7:6E:136:LYS:HB2	2.14	0.48
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.14	0.48
1:13:595:G:H1'	1:13:596:C:H5	1.79	0.48
41:C8:17:ILE:HG23	41:C8:39:LEU:HD12	1.95	0.48
37:88:68:ILE:HD13	37:88:103:MET:HB3	1.96	0.48
42:D8:27:ALA:HB3	42:D8:61:VAL:HG11	1.96	0.48
52:N8:3:LYS:HE3	52:N8:3:LYS:HB3	1.56	0.48
1:13:909:A:H2'	1:13:910:C:O4'	2.14	0.48
26:14:1496:A:H2'	26:14:1498:C:C5	2.49	0.48
48:J8:87:PRO:HA	48:J8:90:ILE:CG1	2.43	0.48
1:13:1318:A:H1'	19:AI:37:ARG:NH2	2.23	0.48
26:14:794:G:H2'	26:14:795:C:C6	2.48	0.48
1:1G:1278:U:H5'	1:1G:1279:A:H5'	1.96	0.48
26:14:2346:A:C2	26:14:2383:G:C2	3.02	0.48
8:7E:41:ARG:HG2	8:7E:41:ARG:O	2.14	0.48
28:19:271:ILE:O	28:19:272:ALA:HB2	2.13	0.48
26:14:1110:G:O2'	26:14:1111:A:O4'	2.29	0.48
26:1H:1408:C:C2	26:1H:1595:G:N2	2.82	0.48
44:B5:40:LYS:HA	44:B5:51:VAL:HG11	1.95	0.48
29:29:58:ARG:O	29:29:59:VAL:HG22	2.14	0.48
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	1.95	0.48
7:6E:132:GLY:O	7:6E:135:VAL:HG23	2.14	0.48
26:14:2068:U:N3	26:14:2430:A:H2	2.11	0.48
18:9I:46:GLU:HG2	18:9I:85:LEU:HD13	1.95	0.48
40:75:107:ASP:N	40:75:107:ASP:OD1	2.45	0.48
1:1G:737:A:H2'	1:1G:738:C:H6	1.78	0.48
7:6E:5:ARG:NE	7:6E:7:ALA:HA	2.28	0.48
1:13:179:A:H2'	1:13:180:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2317:C:H2'	26:1H:2318:G:O4'	2.14	0.48
1:1G:390:C:H2'	1:1G:391:G:C8	2.48	0.48
26:1H:150:C:H42	26:1H:176:G:H1	1.60	0.48
29:21:16:ARG:HH21	29:21:173:VAL:HG13	1.79	0.48
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.49	0.48
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.49	0.48
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.96	0.48
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.49	0.48
1:13:1016:A:H2'	1:13:1017:G:O4'	2.13	0.48
26:14:1667:G:O2'	26:14:1991:U:O4	2.27	0.48
26:14:1076:C:C5	26:14:1077:A:H1'	2.49	0.48
12:3A:8:ASN:OD1	17:8A:34:LYS:HE2	2.13	0.48
26:14:2086:U:H2'	26:14:2087:G:C8	2.48	0.48
33:61:57:ARG:HG2	33:61:61:ARG:HH12	1.79	0.48
26:14:1425:G:H2'	26:14:1426:G:C8	2.49	0.48
29:21:167:VAL:HG21	29:21:187:ALA:CB	2.44	0.48
32:51:77:LYS:O	32:51:77:LYS:HG2	2.13	0.48
26:1H:322:A:OP2	30:31:169:ASN:HB2	2.14	0.48
30:31:101:LEU:HD22	30:31:102:PRO:HD2	1.95	0.48
48:J8:92:LYS:HD2	48:J8:95:LEU:HD12	1.96	0.48
35:25:63:VAL:O	35:25:64:ARG:HG3	2.14	0.48
41:85:91:ASP:OD1	41:85:96:ALA:HB2	2.14	0.48
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.13	0.48
29:29:31:CYS:HB3	29:29:49:LEU:HB2	1.96	0.48
29:29:5:LEU:HD22	29:29:49:LEU:HD12	1.95	0.48
26:14:662:G:H5'	36:35:14:LYS:CB	2.43	0.48
26:1H:662:G:H5"	36:78:16:ARG:HB2	1.95	0.48
26:14:529:A:H8	26:14:530:G:C6	2.32	0.48
1:1G:967:C:H2'	1:1G:968:A:N7	2.29	0.48
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.29	0.48
26:14:1537:C:H2'	26:14:1538:G:H8	1.78	0.48
26:14:184:C:H2'	26:14:185:U:H6	1.79	0.48
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.14	0.48
26:1H:2305:A:O2'	31:41:136:ARG:NH1	2.47	0.48
26:14:140:A:C8	26:14:1408:C:O2'	2.66	0.48
37:45:103:MET:HE3	37:45:125:LEU:HD13	1.95	0.48
26:14:1291:C:H2'	26:14:1292:U:C6	2.49	0.48
39:A8:99:LYS:O	39:A8:103:GLU:HG2	2.14	0.48
26:1H:1929:G:H4'	26:1H:1930:G:OP1	2.14	0.48
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.78	0.48
1:13:110:C:H2'	1:13:111:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:864:G:C6	26:14:865:C:N4	2.82	0.48
26:1H:710:G:H2'	26:1H:711:G:C8	2.49	0.48
26:14:380:U:H2'	26:14:381:G:H8	1.79	0.48
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.96	0.48
26:14:1488:G:C6	26:14:1489:U:C2	3.02	0.48
26:14:2064:C:H2'	26:14:2065:C:C6	2.49	0.48
30:39:95:ARG:HG3	30:39:97:TYR:CE1	2.49	0.48
26:1H:2508:G:H2'	26:1H:2509:G:H8	1.79	0.48
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.96	0.48
26:14:2533:A:O2'	26:14:2664:G:H5'	2.13	0.48
1:1G:310:G:OP2	16:7A:27:LYS:NZ	2.33	0.48
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.14	0.48
32:51:102:ALA:HA	32:51:117:PRO:HD3	1.95	0.48
23:2K:43:A:O2'	23:2K:44:G:P	2.72	0.48
1:13:725:G:H2'	1:13:726:C:H6	1.79	0.48
12:3I:51:ALA:O	12:3I:52:LEU:HD23	2.14	0.48
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.79	0.48
26:14:795:C:O2'	26:14:796:C:H5'	2.14	0.47
26:14:1047:G:N2	26:14:1111:A:H62	2.12	0.47
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.13	0.47
38:98:76:VAL:HG13	38:98:80:PHE:HE2	1.77	0.47
26:1H:639:U:H2'	26:1H:640:C:C6	2.49	0.47
26:1H:1045:A:C2	26:1H:1111:A:C5	3.02	0.47
3:22:94:LEU:HD12	3:22:95:THR:H	1.79	0.47
32:51:137:ASP:HB3	32:51:140:LYS:HB3	1.95	0.47
26:1H:2502:G:H5"	26:1H:2503:A:C5'	2.44	0.47
49:G5:47:ASN:C	49:G5:49:LYS:H	2.14	0.47
1:13:560:U:H4'	1:13:561:U:C5'	2.43	0.47
4:3E:155:LEU:O	4:3E:157:LEU:N	2.47	0.47
37:45:36:ALA:HB2	37:45:103:MET:HE1	1.95	0.47
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.48	0.47
26:14:2693:A:H2'	26:14:2694:G:H8	1.79	0.47
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.86	0.47
23:2L:47:C:N4	23:2L:57:C:H42	2.12	0.47
50:L8:31:LEU:O	50:L8:32:GLN:HB2	2.14	0.47
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.96	0.47
26:1H:1175:U:H4'	26:1H:1176:G:H4'	1.96	0.47
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.29	0.47
3:2E:79:ARG:NH2	11:2A:99:GLN:HG2	2.29	0.47
26:1H:545:G:H2'	26:1H:546:C:H5"	1.96	0.47
2:12:222:ILE:O	2:12:226:ARG:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.14	0.47
26:1H:198:C:C2'	26:1H:199:A:H5"	2.44	0.47
24:3K:85:C:H4'	48:J8:23:LYS:HB2	1.95	0.47
26:14:2537:U:H2'	26:14:2538:C:C6	2.49	0.47
27:16:78:A:C2	27:16:99:A:C4	3.02	0.47
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.13	0.47
43:E8:58:ALA:O	43:E8:64:MET:HB2	2.14	0.47
28:11:130:ALA:HB2	28:11:192:THR:HB	1.96	0.47
38:98:3:HIS:O	38:98:5:LYS:N	2.47	0.47
26:14:1181:C:H2'	26:14:1182:A:C8	2.49	0.47
26:1H:1372:U:H2'	26:1H:1373:A:H8	1.79	0.47
1:1G:1399:C:C2	1:1G:1502:A:N6	2.82	0.47
26:14:1041:C:H2'	26:14:1042:G:C8	2.49	0.47
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.95	0.47
26:14:2139:C:N4	26:14:2152:G:O6	2.48	0.47
16:7I:22:THR:OG1	16:7I:32:TYR:HA	2.14	0.47
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.14	0.47
45:G8:81:LYS:HB3	45:G8:82:PRO:HA	1.96	0.47
26:14:528:A:H2	26:14:2043:C:C5'	2.27	0.47
31:41:35:GLU:OE1	31:41:95:ARG:HB3	2.14	0.47
23:2L:20:U:C4	23:2L:22:G:H4'	2.48	0.47
38:98:44:LEU:HA	38:98:44:LEU:HD23	1.73	0.47
1:13:1167:A:C6	1:13:1169:A:C6	3.02	0.47
4:3E:108:LEU:HB3	4:3E:110:PHE:CD1	2.48	0.47
26:1H:1170:G:N2	26:1H:1180:C:C2	2.83	0.47
37:45:38:GLU:HG3	37:45:127:ILE:CG2	2.44	0.47
11:2I:52:GLY:H	11:2I:55:LYS:HG3	1.79	0.47
7:6E:73:MET:HG2	7:6E:90:GLU:HB3	1.95	0.47
27:16:7:G:O5'	39:A8:29:PHE:CE2	2.66	0.47
26:1H:448:U:C4	26:1H:583:G:H1'	2.50	0.47
1:13:587:G:N2	1:13:755:G:C5	2.82	0.47
1:1G:56:U:H2'	1:1G:57:G:C8	2.49	0.47
26:14:671:C:H2'	26:14:672:C:C6	2.48	0.47
1:1G:1054:C:H6	1:1G:1196:U:HO2'	1.61	0.47
3:22:139:GLN:NE2	3:22:142:MET:SD	2.85	0.47
22:1K:24:C:H2'	22:1K:25:A:O4'	2.14	0.47
26:1H:753:C:O2'	26:1H:754:C:H5'	2.14	0.47
10:1I:4:ILE:HG12	10:1I:100:THR:HG23	1.96	0.47
26:1H:588:U:H1'	30:31:90:PHE:CG	2.49	0.47
33:69:111:PRO:O	33:69:113:ARG:HB2	2.14	0.47
1:13:60:A:H8	1:13:60:A:OP1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:21:VAL:HA	29:21:22:PRO:HD3	1.45	0.47
1:1G:1224:G:C2	1:1G:1322:C:H1'	2.49	0.47
54:Q8:33:ASN:OD1	54:Q8:34:TRP:HB2	2.13	0.47
26:14:796:C:H2'	26:14:797:C:H6	1.73	0.47
52:N8:41:PRO:HD2	52:N8:44:THR:CG2	2.44	0.47
33:61:98:ALA:HB2	33:61:111:PRO:HB3	1.97	0.47
26:1H:919:G:H4'	27:16:81:G:H4'	1.95	0.47
26:14:2849:U:H5'	26:14:2867:G:N2	2.29	0.47
1:13:1280:A:C3'	1:13:1281:U:H5'	2.45	0.47
1:13:1133:G:N2	1:13:1141:C:O2	2.47	0.47
45:G8:28:LYS:HZ2	45:G8:40:GLU:HG2	1.79	0.47
26:14:184:C:H2'	26:14:185:U:C6	2.48	0.47
18:9I:85:LEU:HD12	18:9I:86:VAL:N	2.28	0.47
26:1H:1915:U:H2'	26:1H:1916:A:O4'	2.13	0.47
26:1H:2376:A:H2	39:A8:112:PHE:HB3	1.78	0.47
1:13:1179:A:H4'	9:8E:103:THR:HA	1.96	0.47
26:14:270(D):C:H2'	26:14:270(E):G:C8	2.50	0.47
24:3K:63:G:H2'	24:3K:64:G:O4'	2.15	0.47
45:C5:39:VAL:HG23	45:C5:41:GLY:H	1.78	0.47
30:39:181:LEU:CD2	30:39:186:ILE:HD11	2.44	0.47
26:14:2275:C:O2	37:45:85:LYS:HG3	2.14	0.47
31:41:45:GLU:H	31:41:45:GLU:HG2	1.36	0.47
22:1L:44:G:H2'	22:1L:45:U:O4'	2.14	0.47
27:16:44:G:H1'	27:16:47:C:H42	1.79	0.47
1:1G:393:A:OP2	16:7A:12:LYS:NZ	2.25	0.47
29:29:120:TRP:CD1	29:29:155:LYS:HB3	2.49	0.47
47:I8:49:LYS:HB2	47:I8:80:HIS:HB3	1.96	0.47
26:14:1966:A:H4'	26:14:1967:C:OP1	2.14	0.47
26:1H:2254:C:H3'	57:1H:3881:HOH:O	2.13	0.47
1:1G:7:G:H21	5:42:121:LYS:HG2	1.79	0.47
13:4A:27:LYS:HE3	13:4A:31:LYS:NZ	2.30	0.47
26:1H:794:G:H2'	26:1H:795:C:C6	2.49	0.47
26:1H:1534:G:H21	26:1H:1535:U:H5"	1.79	0.47
4:32:8:VAL:HG12	4:32:21:LEU:HD12	1.96	0.47
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.80	0.47
40:75:51:ARG:HD3	40:75:100:TYR:OH	2.15	0.47
26:14:2477:C:H5'	26:14:2479:G:O6	2.14	0.47
26:14:1784:A:H4'	26:14:1785:A:O5'	2.15	0.47
1:13:1064:G:H4'	1:13:1065:U:OP1	2.13	0.47
43:E8:38:TYR:OH	52:N8:47:PRO:HG3	2.15	0.47
1:1G:429:U:OP1	4:32:13:ARG:NH2	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:101:LEU:HB2	33:69:107:VAL:O	2.13	0.47
1:13:982:U:H5"	14:5I:6:LEU:HD13	1.96	0.47
45:C5:20:TYR:CE2	45:C5:42:VAL:HA	2.50	0.47
1:13:1390:U:H2'	1:13:1391:U:H6	1.79	0.47
26:14:1328:G:H2'	26:14:1330:C:C5	2.50	0.47
26:1H:1260:G:H2'	26:1H:1261:C:C6	2.49	0.47
1:13:1441:G:H5"	1:13:1442:G:H5'	1.96	0.47
1:13:658:G:H2'	1:13:659:U:C6	2.49	0.47
17:8A:45:HIS:ND1	17:8A:65:ILE:HG21	2.29	0.47
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.12	0.47
48:F5:8:SER:HB3	48:F5:66:HIS:CD2	2.50	0.47
2:12:102:LEU:HD12	2:12:102:LEU:H	1.80	0.47
11:2I:41:THR:HG21	11:2I:71:LYS:HD3	1.95	0.47
22:1K:53:A:H62	22:1K:54:G:H21	1.62	0.47
1:1G:255:G:O6	1:1G:270:A:N6	2.48	0.47
38:55:88:ARG:HD2	38:55:89:ASP:OD1	2.13	0.47
53:L5:24:THR:O	53:L5:28:ARG:HG3	2.14	0.47
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.42	0.47
26:14:1202:C:H42	26:14:1243:G:H1	1.61	0.47
26:1H:2287:A:C2	26:1H:2289:G:C8	3.03	0.47
1:13:972:C:O2	10:1I:55:LYS:HD3	2.14	0.47
47:E5:23:VAL:HA	47:E5:38:VAL:HG22	1.96	0.47
54:M5:59:LYS:NZ	54:M5:59:LYS:HA	2.24	0.47
31:49:181:ARG:HB3	31:49:181:ARG:NH1	2.30	0.47
51:I5:21:VAL:HG22	51:I5:22:ILE:H	1.79	0.47
37:88:66:ILE:HG22	37:88:67:ARG:H	1.79	0.47
26:14:1485:G:H2'	26:14:1486:A:H8	1.79	0.47
9:82:16:ARG:NH1	9:82:64:THR:HG21	2.29	0.47
10:1A:76:ASN:HB3	10:1A:78:ASN:ND2	2.29	0.47
2:12:55:PHE:HD1	2:12:58:ILE:HG13	1.78	0.47
49:K8:15:LYS:HD3	49:K8:67:LYS:HZ3	1.80	0.47
7:62:91:VAL:HB	7:62:96:GLN:HG2	1.97	0.47
26:1H:1013:C:N4	26:1H:1149:G:H1	2.12	0.47
26:1H:2125:G:H21	26:1H:2173:A:N6	2.10	0.47
39:A8:5:THR:HG23	39:A8:8:GLU:OE2	2.15	0.47
2:1E:85:ALA:HB1	2:1E:90:MET:O	2.14	0.47
26:1H:844:C:H2'	26:1H:845:G:O4'	2.14	0.47
28:11:68:LYS:HB3	28:11:70:TRP:CZ3	2.49	0.47
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.44	0.47
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.79	0.47
26:14:1967:C:H2'	26:14:1968:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:830:G:H2'	1:13:831:U:O4'	2.15	0.47
1:1G:890:G:O2'	1:1G:906:G:O6	2.21	0.47
43:E8:97:LYS:HE2	43:E8:99:ARG:NH2	2.28	0.47
26:1H:387:U:O4	57:1H:4006:HOH:O	2.19	0.47
2:1E:239:VAL:O	2:1E:239:VAL:HG12	2.14	0.47
45:C5:75:ILE:O	45:C5:76:CYS:HB3	2.15	0.47
43:A5:33:ARG:NH1	43:A5:52:GLU:OE2	2.48	0.47
4:32:91:SER:HA	4:32:94:LEU:HD12	1.97	0.47
53:L5:8:ASN:C	53:L5:8:ASN:OD1	2.52	0.47
4:3E:159:ARG:O	4:3E:163:GLU:N	2.46	0.47
1:1G:517:G:N2	1:1G:533:A:OP2	2.41	0.47
31:41:173:LEU:HD22	31:41:178:PHE:CE2	2.50	0.47
54:Q8:21:LYS:HA	54:Q8:21:LYS:HD2	1.55	0.47
26:14:274:G:H3'	26:14:274:G:C8	2.50	0.47
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.34	0.47
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.80	0.47
1:13:976:G:H5'	1:13:1358:U:O2'	2.14	0.47
33:61:40:THR:HB	33:61:43:ASN:H	1.79	0.47
22:1K:48:C:N3	22:1K:56:G:N2	2.62	0.47
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.29	0.47
4:32:24:GLU:OE2	4:32:24:GLU:N	2.47	0.47
26:1H:1072:C:H2'	26:1H:1093:G:O6	2.15	0.47
30:31:108:LYS:O	30:31:112:MET:HG3	2.14	0.47
26:14:2872:G:C5	26:14:2873:A:C2	3.03	0.47
1:13:769:G:H4'	1:13:1513:A:H4'	1.97	0.47
46:D5:24:LEU:HD23	46:D5:41:LEU:HA	1.95	0.47
26:14:957:A:N6	26:14:2459:A:C8	2.83	0.47
26:14:2196:C:O2'	26:14:2197:U:H5'	2.14	0.47
26:1H:2455:G:H2'	26:1H:2456:C:C6	2.50	0.47
45:C5:12:THR:O	45:C5:75:ILE:HB	2.15	0.47
20:BI:35:THR:HG22	20:BI:38:LYS:NZ	2.30	0.47
1:13:684:A:N6	1:13:685:G:C6	2.83	0.47
52:J5:52:TYR:HD1	52:J5:53:ALA:H	1.62	0.47
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.12	0.47
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.49	0.47
1:1G:188:U:O2'	1:1G:189:U:H5'	2.15	0.47
1:1G:316:G:OP2	1:1G:351:G:O2'	2.31	0.47
13:4I:16:ASP:HA	13:4I:19:LEU:HD22	1.95	0.47
43:E8:82:LEU:HA	43:E8:82:LEU:HD23	1.60	0.47
34:58:7:LYS:HB3	34:58:7:LYS:HE3	1.71	0.47
6:5E:1:MET:SD	6:5E:66:GLU:HG2	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:760:G:H2'	26:1H:761:A:H5'	1.96	0.47
26:1H:731:C:H2'	26:1H:732:C:C6	2.47	0.47
41:85:49:HIS:O	41:85:53:ARG:N	2.48	0.47
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.50	0.47
27:16:119:A:N3	27:16:119:A:H2'	2.30	0.47
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.29	0.47
26:14:1759:A:H4'	26:14:2715:C:O4'	2.14	0.47
29:21:55:ASN:CB	29:21:58:ARG:HD2	2.42	0.47
26:14:996:A:N6	26:14:1160:G:C6	2.83	0.47
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.15	0.47
1:1G:1278:U:H5'	1:1G:1279:A:C5'	2.44	0.47
26:14:2344:U:H4'	26:14:2345:G:OP1	2.14	0.47
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.25	0.47
26:14:2352:A:C2	47:E5:33:ALA:HB1	2.50	0.47
1:13:412:A:H4'	1:13:413:G:O5'	2.14	0.47
26:14:2889:C:H3'	26:14:2891:G:C8	2.49	0.47
26:1H:1508:A:O2'	26:1H:1509:C:O5'	2.31	0.47
26:14:2479:G:C6	26:14:2480:C:C4	3.03	0.47
4:3E:103:ASN:O	4:3E:107:ARG:HG2	2.14	0.47
39:65:86:ALA:O	39:65:87:PHE:HB2	2.15	0.47
44:B5:50:LYS:HB2	44:B5:87:GLN:HE22	1.79	0.47
26:1H:1250:G:OP2	36:78:21:ARG:NH1	2.47	0.47
12:3I:55:VAL:HG12	12:3I:69:TYR:HA	1.97	0.47
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.15	0.47
26:1H:300:A:H2'	26:1H:334:C:H1'	1.97	0.47
10:1A:30:SER:CB	10:1A:81:THR:HA	2.44	0.47
41:C8:8:VAL:O	41:C8:12:ARG:HG3	2.15	0.47
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.15	0.47
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.44	0.47
1:13:191(F):U:H2'	1:13:191:G:C8	2.50	0.47
26:14:290:G:O5'	26:14:290:G:H8	1.97	0.47
1:13:1269:A:H2	1:13:1312:G:N3	2.13	0.47
26:14:1588:C:H5'	26:14:1589:C:OP2	2.13	0.47
1:1G:713:G:H2'	1:1G:714:G:C8	2.50	0.47
37:88:138:ASP:OD1	37:88:138:ASP:N	2.45	0.47
3:22:109:PRO:HB2	3:22:115:LEU:HG	1.97	0.47
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.79	0.47
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.30	0.47
21:1F:15:ARG:NH1	21:1F:15:ARG:HB2	2.28	0.47
12:3I:57:LYS:HE3	12:3I:65:GLU:HG2	1.96	0.47
28:11:2:ALA:HA	28:11:20:ASP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:481:G:OP2	45:C5:47:LYS:HD3	2.14	0.47
1:13:689:C:P	11:2I:46:GLY:HA3	2.55	0.47
1:1G:652:U:C5	1:1G:752:G:N3	2.83	0.47
23:2L:15:A:H2'	23:2L:70:G:N1	2.30	0.47
1:1G:110:C:H2'	1:1G:111:G:O4'	2.14	0.47
36:35:78:PRO:HA	36:35:110:TYR:CD2	2.50	0.47
47:E5:50:ASN:O	47:E5:62:LEU:HB2	2.15	0.47
24:3L:84:A:H2'	24:3L:85:C:C6	2.49	0.47
24:3L:27:G:H2'	24:3L:28:C:O4'	2.13	0.47
31:41:73:ALA:HB2	31:41:88:ILE:HD11	1.97	0.47
3:2E:74:GLY:HA2	3:2E:77:ILE:HB	1.97	0.47
29:21:170:LEU:HD21	29:21:187:ALA:HB3	1.97	0.47
26:14:864:G:H1'	26:14:914:C:N4	2.30	0.47
32:59:11:VAL:HB	32:59:13:LYS:HE2	1.97	0.47
22:1K:81:G:H2'	22:1K:82:G:O4'	2.14	0.47
26:1H:363(F):A:H4'	26:1H:364:C:H5'	1.96	0.47
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.45	0.47
32:59:96:ALA:H	32:59:128:PRO:HA	1.79	0.47
20:BA:56:MET:HG3	20:BA:84:LEU:HD22	1.96	0.47
26:14:212:G:H2'	26:14:213:A:O4'	2.14	0.47
26:1H:485:C:H2'	26:1H:486:C:C6	2.49	0.47
1:13:309:G:H1'	1:13:608:A:C2	2.50	0.47
48:F5:44:PRO:HB2	48:F5:46:LEU:CD1	2.44	0.47
42:95:66:ARG:HB2	42:95:88:ARG:HB3	1.95	0.47
32:51:92:ILE:HG13	32:51:92:ILE:H	1.37	0.47
29:29:95:ILE:HG13	29:29:95:ILE:H	1.46	0.47
4:3E:192:GLU:N	4:3E:192:GLU:OE1	2.47	0.47
4:32:141:ARG:HG2	4:32:141:ARG:HH11	1.80	0.47
26:1H:439:G:H2'	26:1H:440:G:C8	2.50	0.47
23:2L:65:5MU:C4	23:2L:66:PSU:C2	3.03	0.47
45:G8:5:MET:HE1	45:G8:32:PRO:HA	1.97	0.47
27:16:32:C:C2	27:16:51:G:N2	2.82	0.47
26:1H:2271:G:H5"	47:I8:20:ARG:HG2	1.96	0.47
28:11:238:GLY:O	28:11:239:ARG:C	2.51	0.47
9:8E:25:LYS:HD3	9:8E:60:ASP:HB3	1.97	0.47
34:15:96:GLU:H	34:15:96:GLU:CD	2.17	0.47
41:C8:105:VAL:HG22	42:D8:45:THR:HG21	1.97	0.47
2:1E:12:GLU:C	2:1E:16:HIS:HD2	2.18	0.47
30:31:149:ASP:OD1	30:31:149:ASP:N	2.42	0.47
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.78	0.47
26:1H:2643:G:H2'	26:1H:2644:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:3:ARG:HG2	40:75:4:GLY:N	2.30	0.47
31:49:16:ARG:O	31:49:20:ILE:HG13	2.15	0.47
29:29:111:ARG:NH1	29:29:111:ARG:HG2	2.27	0.47
1:1G:286:G:H2'	1:1G:287:U:H6	1.80	0.47
24:3K:7:G:H3'	24:3K:8:U:C5'	2.41	0.47
26:1H:1512:G:C5	26:1H:1513:C:C4	3.03	0.47
28:19:70:TRP:C	28:19:70:TRP:CD1	2.88	0.47
26:1H:828:U:H4'	26:1H:831:G:N1	2.30	0.47
41:C8:94:ASN:HB3	41:C8:95:LEU:HD22	1.96	0.47
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.79	0.47
1:13:737:A:H2'	1:13:738:C:C6	2.49	0.47
45:G8:97:ARG:NH1	45:G8:104:GLY:HA3	2.30	0.47
26:14:528:A:H2	26:14:2043:C:H5'	1.80	0.47
13:4A:86:CYS:O	13:4A:89:GLY:N	2.38	0.47
26:14:1259:G:H2'	26:14:1260:G:C8	2.50	0.47
13:4I:107:ALA:O	13:4I:110:ARG:N	2.47	0.47
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.15	0.47
31:41:26:GLN:OE1	31:41:27:ASN:HB2	2.15	0.47
26:14:1945:G:H2'	26:14:1946:U:H6	1.79	0.47
3:22:135:LYS:O	3:22:139:GLN:HB2	2.15	0.47
29:29:120:TRP:CG	29:29:155:LYS:HB3	2.50	0.47
7:6E:121:ALA:O	7:6E:125:MET:HB2	2.15	0.47
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.82	0.47
7:6E:103:TRP:CE2	7:6E:137:LYS:HD3	2.50	0.47
26:14:1666:G:OP1	35:25:66:LYS:HD3	2.15	0.47
44:B5:57:LEU:N	44:B5:57:LEU:HD23	2.29	0.47
1:1G:562:C:H4'	1:1G:563:A:O5'	2.14	0.47
35:25:68:GLU:HB3	35:25:78:ARG:HH11	1.79	0.47
26:14:1482:U:H5'	26:14:1483:G:OP2	2.14	0.47
26:14:2273:A:O2'	26:14:2274:A:H5'	2.15	0.47
48:J8:78:LYS:HE3	48:J8:78:LYS:H	1.80	0.47
4:32:163:GLU:HA	4:32:166:LYS:HG3	1.96	0.47
1:1G:1162:C:H42	1:1G:1174:G:H1	1.62	0.47
26:14:873:G:C2	26:14:905:U:O2	2.67	0.47
38:55:100:LEU:HD21	38:55:113:LEU:HD22	1.97	0.47
27:1J:44:G:C2	27:1J:48:A:C2	3.03	0.47
42:D8:79:VAL:CG1	42:D8:81:TYR:HB3	2.45	0.47
1:13:1356:G:H2'	1:13:1357:A:C8	2.49	0.47
22:1K:49:C:H2'	22:1K:50:A:H4'	1.96	0.47
26:14:2147:G:C5	26:14:2148:G:H1'	2.50	0.47
22:1L:15:A:H8	22:1L:16:U:H5	1.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2356:C:H4'	47:E5:20:ARG:HG3	1.97	0.47
1:1G:690:G:H2'	1:1G:691:G:O4'	2.15	0.47
26:1H:2475:C:O2'	26:1H:2476:A:H5'	2.15	0.47
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.50	0.47
20:BI:50:GLU:HB2	20:BI:100:ILE:HB	1.97	0.47
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.50	0.47
26:1H:1204:A:H2	26:1H:1241:A:N1	2.13	0.47
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.30	0.47
5:42:92:LYS:N	5:42:119:LEU:O	2.41	0.47
26:1H:997:G:O2'	26:1H:998:C:H5'	2.14	0.47
1:13:1104:G:O5'	2:1E:111:ARG:HD2	2.15	0.47
3:2E:150:LYS:HD2	3:2E:201:TYR:HD2	1.80	0.47
26:14:395:U:H2'	26:14:396:G:N7	2.29	0.47
1:13:779:C:H2'	1:13:780:A:O4'	2.15	0.47
5:4E:43:LEU:HD21	5:4E:132:ALA:HB1	1.97	0.47
1:1G:595:G:H1	1:1G:641:U:HO2'	1.62	0.47
39:65:30:ARG:HD2	39:65:97:ARG:HD3	1.96	0.47
26:14:813:U:H2'	26:14:814:C:C6	2.50	0.47
1:1G:979:C:O2'	14:5A:19:ARG:NH2	2.47	0.47
1:1G:976:G:OP1	14:5A:31:ARG:HB3	2.15	0.47
26:1H:2359:C:H2'	26:1H:2360:A:O4'	2.15	0.47
54:Q8:34:TRP:HA	54:Q8:35:GLN:HA	1.55	0.47
2:1E:17:PHE:CD1	2:1E:17:PHE:N	2.83	0.47
27:1J:11:C:H3'	27:1J:12:C:C6	2.50	0.47
41:85:92:ARG:NH1	42:95:11:GLN:O	2.48	0.47
26:1H:956:G:OP2	37:88:14:ARG:NH2	2.48	0.47
23:2K:18:OMG:H1'	23:2K:19:G:OP2	2.15	0.47
9:82:95:LYS:HE2	9:82:95:LYS:HB2	1.50	0.47
44:B5:50:LYS:H	44:B5:83:VAL:HG23	1.78	0.47
1:1G:687:A:C6	1:1G:704:A:N7	2.83	0.47
42:D8:3:ALA:CB	42:D8:38:LEU:HD11	2.43	0.47
4:3E:122:ARG:HG2	4:3E:122:ARG:NH1	2.30	0.47
1:13:560:U:O2'	1:13:561:U:OP2	2.30	0.47
1:13:865:A:H2	1:13:918:A:H4'	1.80	0.47
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.50	0.47
14:5I:27:CYS:HB2	14:5I:29:ARG:H	1.80	0.47
28:19:33:LEU:HD21	28:19:103:ARG:HA	1.97	0.47
26:1H:1105:U:H2'	26:1H:1106:G:H8	1.80	0.47
26:14:38:A:H2'	26:14:39:C:H6	1.78	0.47
26:1H:2474:C:H3'	26:1H:2475:C:C6	2.50	0.47
26:14:1997:G:H8	57:14:3984:HOH:O	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:41:MET:HB3	32:59:42:ARG:H	1.61	0.47
1:13:554:C:H2'	1:13:555:C:H6	1.79	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.50	0.47
39:A8:99:LYS:HE2	39:A8:103:GLU:OE1	2.15	0.47
19:AI:36:ARG:HD2	19:AI:52:TYR:O	2.15	0.47
26:1H:458:G:O2'	26:1H:469:G:O6	2.24	0.47
23:2K:44:G:O2'	23:2K:45:U:OP1	2.25	0.47
48:J8:23:LYS:HB3	48:J8:29:GLY:HA3	1.97	0.47
14:5A:39:LEU:HD13	14:5A:47:LEU:HD12	1.97	0.47
8:72:94:TYR:CE1	8:72:132:GLU:HB2	2.49	0.47
1:13:1175:G:C6	1:13:1176:A:C2	3.03	0.47
26:14:2432:A:H2'	26:14:2433:A:C8	2.50	0.47
42:95:2:PHE:H	42:95:42:GLY:HA3	1.79	0.47
32:59:125:VAL:HG22	32:59:126:PRO:HA	1.97	0.47
30:39:160:ASN:HB3	30:39:163:VAL:HB	1.97	0.47
1:13:1186:G:H21	14:5I:61:TRP:HA	1.80	0.47
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.50	0.47
26:14:676:A:H8	26:14:2069:G:N2	1.94	0.46
26:14:881:G:N7	26:14:882:G:C2	2.83	0.46
9:82:113:LYS:HD3	9:82:119:ALA:HB1	1.97	0.46
26:1H:2843:G:H2'	26:1H:2844:G:H8	1.79	0.46
48:J8:90:ILE:HA	48:J8:94:LEU:HD12	1.96	0.46
48:J8:92:LYS:H	48:J8:95:LEU:HD12	1.78	0.46
26:14:1160:G:C5	26:14:1161:C:C5	3.03	0.46
2:1E:22:LYS:C	2:1E:24:TRP:H	2.17	0.46
28:19:16:MET:HE1	28:19:208:LYS:HG2	1.96	0.46
31:49:118:ARG:HD2	31:49:118:ARG:N	2.30	0.46
46:D5:94:GLU:O	46:D5:129:SER:HA	2.15	0.46
33:61:144:VAL:HG22	33:61:145:VAL:N	2.31	0.46
26:14:2136:C:H5	26:14:2156:G:H21	1.62	0.46
26:14:586:A:N1	26:14:809:G:O2'	2.39	0.46
19:AI:6:LYS:HA	19:AI:6:LYS:HZ3	1.80	0.46
26:14:2674:G:H4'	35:25:30:ALA:HB2	1.97	0.46
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.50	0.46
32:51:131:VAL:HG22	32:51:132:ARG:H	1.80	0.46
27:1J:80:U:H2'	27:1J:81:G:N2	2.26	0.46
28:19:70:TRP:CH2	28:19:150:LYS:HA	2.50	0.46
26:14:1777:U:O2'	26:14:1778:U:H5'	2.15	0.46
4:32:119:GLN:HE21	4:32:123:HIS:CD2	2.33	0.46
26:14:1484:G:H2'	26:14:1485:G:H8	1.80	0.46
1:1G:345:C:HO2'	1:1G:346:G:P	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:8:PRO:O	32:51:10:PRO:HD3	2.15	0.46
2:12:84:GLU:O	2:12:219:VAL:HG11	2.15	0.46
2:1E:85:ALA:HB3	2:1E:92:TYR:CD2	2.50	0.46
4:32:57:ARG:HH22	5:42:107:ARG:CD	2.29	0.46
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.97	0.46
26:14:2695:C:H2'	26:14:2696:U:H6	1.80	0.46
17:8I:93:GLN:O	17:8I:96:GLU:HG3	2.16	0.46
3:22:136:GLN:O	3:22:139:GLN:N	2.48	0.46
1:1G:187:C:O2	1:1G:191(A):G:N1	2.48	0.46
32:51:157:TYR:HE1	32:51:172:LYS:HB2	1.79	0.46
3:2E:33:LEU:O	3:2E:36:ASP:HB2	2.15	0.46
26:14:2351:G:OP2	54:M5:46:ARG:NE	2.48	0.46
48:J8:89:GLU:O	48:J8:93:GLU:HB2	2.15	0.46
28:11:46:GLN:C	28:11:48:ARG:H	2.19	0.46
45:C5:59:GLY:O	45:C5:61:ILE:HG13	2.15	0.46
1:13:1113:C:H2'	1:13:1114:C:C6	2.50	0.46
26:1H:1283:G:N2	26:1H:1285:G:H3'	2.29	0.46
26:14:733:G:O6	26:14:761:A:C8	2.68	0.46
17:8I:4:LYS:HG3	17:8I:6:LEU:HD21	1.96	0.46
4:3E:85:LYS:CG	4:3E:86:LYS:H	2.27	0.46
1:13:539:A:H2'	1:13:540:G:C8	2.50	0.46
1:1G:616:G:C2	1:1G:617:G:C8	3.03	0.46
34:58:28:THR:O	34:58:31:ALA:HB3	2.15	0.46
1:13:926:G:C6	1:13:1505:G:C5	3.03	0.46
1:1G:976:G:OP1	14:5A:32:SER:N	2.48	0.46
36:78:46:LYS:O	36:78:47:ASP:HB3	2.15	0.46
40:75:1:MET:SD	40:75:6:LEU:HD13	2.55	0.46
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.15	0.46
29:29:8:LYS:HB3	29:29:193:GLY:N	2.23	0.46
26:14:2791:C:H42	26:14:2807:G:H22	1.62	0.46
26:14:307:G:N2	26:14:310:A:OP2	2.46	0.46
26:14:617:G:H5'	30:39:40:GLN:HE22	1.80	0.46
1:1G:63:C:OP1	1:1G:384:G:N2	2.42	0.46
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.45	0.46
1:1G:280:C:N3	17:8A:39:SER:OG	2.40	0.46
26:14:1485:G:H2'	26:14:1486:A:C8	2.50	0.46
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.15	0.46
18:9A:22:VAL:O	18:9A:23:LYS:HB3	2.15	0.46
26:14:2210:G:H3'	26:14:2211:G:C2	2.49	0.46
26:1H:478:A:C6	26:1H:480:A:C6	3.03	0.46
37:88:133:ARG:O	37:88:134:ARG:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:6:ILE:O	8:72:10:LEU:HG	2.14	0.46
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.49	0.46
26:14:1542:G:O6	26:14:1543:A:N6	2.48	0.46
8:72:29:SER:HB3	8:72:32:LYS:CG	2.45	0.46
1:1G:1541:U:H2'	1:1G:1542:U:C6	2.49	0.46
13:4I:65:LYS:O	13:4I:66:LEU:HD23	2.15	0.46
1:13:582:U:H2'	1:13:583:A:C8	2.50	0.46
13:4A:69:GLU:O	13:4A:73:GLU:HB2	2.15	0.46
31:41:52:ILE:HA	31:41:52:ILE:HD13	1.79	0.46
26:1H:2016:U:H1'	52:N8:6:VAL:HG13	1.97	0.46
26:1H:340:A:H2'	26:1H:341:G:O4'	2.14	0.46
26:14:959:A:C6	26:14:960:A:N1	2.84	0.46
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.14	0.46
33:61:55:ALA:HA	33:61:58:LEU:HD22	1.97	0.46
33:69:115:ALA:HB2	33:69:131:LYS:HE3	1.98	0.46
29:21:33:VAL:CG1	29:21:89:ASP:HA	2.45	0.46
44:F8:57:LEU:HD23	44:F8:57:LEU:N	2.30	0.46
3:22:21:ARG:O	3:22:58:GLU:HA	2.15	0.46
35:25:13:ASN:HD21	35:25:97:ARG:H	1.62	0.46
37:45:55:VAL:HG23	37:45:64:ILE:HD12	1.98	0.46
26:1H:239:U:H2'	26:1H:240:G:C8	2.50	0.46
42:95:72:VAL:HG13	42:95:72:VAL:O	2.16	0.46
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.80	0.46
37:45:25:ASP:CB	37:45:102:VAL:H	2.28	0.46
37:45:37:LEU:HD21	37:45:130:LYS:HB3	1.95	0.46
11:2I:91:ARG:O	11:2I:95:ILE:HG13	2.16	0.46
38:98:52:ILE:O	38:98:55:ALA:N	2.49	0.46
26:1H:2309:A:C6	26:1H:2310:A:H8	2.32	0.46
26:1H:2680:C:H5'	29:21:189:PRO:HA	1.97	0.46
26:1H:548:A:C6	26:1H:549:G:H1'	2.51	0.46
1:1G:709:G:H2'	1:1G:710:G:C8	2.48	0.46
26:14:185:U:H2'	26:14:186:G:H8	1.77	0.46
2:12:42:ILE:CD1	2:12:202:PRO:HB2	2.45	0.46
19:AA:10:PHE:O	51:I5:63:TYR:OH	2.33	0.46
26:1H:991:C:C5	26:1H:1185:C:N4	2.83	0.46
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.15	0.46
26:1H:1971:A:C4	28:11:241:PRO:HD3	2.50	0.46
1:13:134:A:H61	16:7I:25:ARG:NH1	2.13	0.46
27:1J:0:A:H2'	27:1J:1:U:C6	2.50	0.46
28:19:223:GLY:HA3	28:19:231:HIS:CE1	2.50	0.46
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2335:A:C8	26:14:2337:G:C5	3.04	0.46
30:31:120:GLU:HB3	30:31:122:LYS:HG2	1.97	0.46
19:AA:35:SER:O	19:AA:71:LEU:HD12	2.15	0.46
1:1G:584:G:O6	57:1G:1860:HOH:O	2.20	0.46
28:11:26:LYS:HE2	28:11:94:LEU:HD12	1.98	0.46
29:29:179:GLU:O	29:29:180:ASN:HB2	2.15	0.46
45:G8:10:GLY:O	45:G8:26:LYS:HE2	2.15	0.46
43:A5:110:LYS:HD2	43:A5:110:LYS:HA	1.55	0.46
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.98	0.46
3:2E:156:ARG:HB3	3:2E:160:ALA:O	2.15	0.46
26:14:26:G:C6	26:14:27:G:N1	2.84	0.46
1:1G:19:C:OP1	5:42:125:SER:OG	2.28	0.46
46:H8:151:HIS:HB3	46:H8:168:GLU:HA	1.98	0.46
1:1G:973:G:H3'	1:1G:974:A:H5"	1.98	0.46
1:1G:1374:A:O2'	7:62:28:ASN:HB3	2.15	0.46
39:A8:11:LYS:O	39:A8:15:ARG:HB2	2.15	0.46
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.51	0.46
26:14:2596:U:H2'	26:14:2597:G:O4'	2.16	0.46
29:29:5:LEU:CD2	29:29:49:LEU:HD12	2.45	0.46
30:39:36:VAL:O	30:39:40:GLN:HB2	2.15	0.46
31:49:113:ARG:NH1	31:49:142:PRO:HB3	2.31	0.46
22:1L:14:A:H1'	22:1L:23:A:C6	2.50	0.46
30:39:177:ALA:HB1	30:39:178:PRO:HD2	1.97	0.46
1:1G:1022:G:N3	1:1G:1023:G:H1'	2.30	0.46
26:14:666:G:H5"	36:35:47:ASP:O	2.15	0.46
26:1H:2291:U:H5"	26:1H:2380:C:O2'	2.15	0.46
26:14:2745:C:H1'	32:59:143:GLN:HG2	1.97	0.46
1:1G:1412:C:H2'	1:1G:1413:A:H8	1.81	0.46
4:32:150:GLU:C	4:32:152:SER:N	2.69	0.46
26:1H:1416:G:HO2'	26:1H:1417:C:H6	1.62	0.46
11:2I:103:LEU:O	11:2I:105:VAL:HG12	2.15	0.46
27:16:73:A:N3	27:16:73:A:H2'	2.30	0.46
26:14:2159:G:C2	26:14:2160:G:H1'	2.51	0.46
26:1H:443:A:H5"	26:1H:444:C:OP1	2.15	0.46
26:1H:443:A:O2'	26:1H:1200:C:O2'	2.16	0.46
1:1G:1453:G:H1	20:BA:54:LYS:HZ2	1.63	0.46
26:14:1386:C:OP2	26:14:1396:U:H5	1.98	0.46
35:68:75:SER:CB	40:B8:74:ARG:HH12	2.28	0.46
32:51:170:ARG:O	32:51:171:LEU:HD12	2.14	0.46
26:14:2169:A:N3	26:14:2169:A:H3'	2.30	0.46
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:92:TYR:CE2	2:1E:151:GLY:HA3	2.50	0.46
1:13:1118:C:H1'	1:13:1179:A:C4	2.50	0.46
26:1H:1581:G:C6	26:1H:1582:C:C4	3.04	0.46
26:1H:1709:U:H2'	26:1H:1710:C:H6	1.80	0.46
26:1H:1204:A:C2	26:1H:1241:A:N1	2.84	0.46
19:AI:18:LYS:HD3	19:AI:31:ILE:HB	1.97	0.46
44:B5:57:LEU:HD11	44:B5:78:LYS:HD2	1.97	0.46
14:5A:47:LEU:HA	14:5A:47:LEU:HD23	1.80	0.46
51:M8:49:PHE:HD1	51:M8:50:VAL:HB	1.80	0.46
13:4I:65:LYS:HE2	51:M8:50:VAL:HG13	1.97	0.46
1:13:153:C:H42	1:13:168:G:H1	1.62	0.46
1:13:455:C:H42	1:13:477:G:H1	1.64	0.46
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.49	0.46
28:19:148:GLU:HB2	28:19:151:LYS:HD2	1.97	0.46
26:1H:194:G:H2'	26:1H:195:A:O4'	2.16	0.46
26:14:2515:C:O2	26:14:2570:G:C2	2.69	0.46
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.38	0.46
26:14:1312:U:H4'	26:14:1313:U:O5'	2.15	0.46
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.96	0.46
28:11:165:ILE:H	28:11:165:ILE:HG12	1.57	0.46
26:1H:2543:G:H2'	26:1H:2544:G:O4'	2.16	0.46
19:AA:17:GLU:O	19:AA:21:GLU:HG2	2.15	0.46
26:1H:329:G:H4'	26:1H:330:A:OP2	2.15	0.46
54:Q8:32:LEU:CG	54:Q8:33:ASN:HD22	2.29	0.46
54:Q8:35:GLN:C	54:Q8:37:SER:N	2.68	0.46
26:1H:1729:A:H8	26:1H:1730:U:C6	2.33	0.46
26:14:775:G:C5	26:14:794:G:C8	3.04	0.46
30:31:116:ASP:HA	30:31:119:ARG:NH2	2.31	0.46
2:12:189:ASP:HB3	2:12:203:GLY:O	2.15	0.46
23:2K:20:U:H1'	23:2K:21:A:OP2	2.16	0.46
26:14:620:G:H4'	26:14:621:A:C5'	2.42	0.46
4:3E:25:ARG:NH1	4:3E:30:LYS:O	2.48	0.46
3:2E:3:ASN:OD1	3:2E:3:ASN:N	2.48	0.46
26:1H:1044:G:O2'	26:1H:1111:A:N6	2.47	0.46
1:1G:438:G:H4'	4:32:123:HIS:CE1	2.51	0.46
26:14:1094:U:H4'	26:14:1097:U:C5	2.51	0.46
1:1G:410:G:N1	1:1G:429:U:O2	2.48	0.46
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.50	0.46
32:51:54:ARG:HG3	32:51:56:SER:O	2.15	0.46
33:69:38:LEU:HD12	33:69:38:LEU:H	1.81	0.46
16:7I:38:TYR:CE1	16:7I:50:LYS:HB2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:68:ILE:HG12	37:45:103:MET:HB2	1.98	0.46
1:13:1117:G:O3'	9:8E:104:ARG:HD3	2.14	0.46
26:14:2694:G:C4	26:14:2695:C:C5	3.04	0.46
1:13:163:C:H2'	1:13:164:U:C4	2.51	0.46
29:21:167:VAL:HG21	29:21:187:ALA:HB1	1.98	0.46
26:14:863:A:H2'	26:14:864:G:C8	2.50	0.46
29:29:116:VAL:HG23	29:29:120:TRP:HD1	1.80	0.46
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.45	0.46
45:C5:3:VAL:HG11	45:C5:32:PRO:HB2	1.97	0.46
26:1H:26:G:C6	26:1H:27:G:N1	2.83	0.46
15:6I:33:THR:HG21	15:6I:85:LEU:HD22	1.98	0.46
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.97	0.46
26:14:7:G:H2'	26:14:8:A:C8	2.50	0.46
26:14:2308:G:O2'	26:14:2310:A:H2	1.98	0.46
9:8E:4:TYR:CZ	9:8E:88:TYR:HB2	2.51	0.46
26:14:382:G:H1	26:14:392:C:H42	1.64	0.46
26:1H:824:A:H1'	26:1H:2358:G:N7	2.30	0.46
42:95:24:LYS:HA	42:95:92:THR:OG1	2.15	0.46
1:1G:1011:G:N1	1:1G:1019:C:O2	2.49	0.46
41:C8:34:LYS:NZ	41:C8:37:GLU:OE1	2.40	0.46
1:1G:487:A:H2'	1:1G:488:C:O4'	2.15	0.46
1:13:22:G:C6	1:13:23:C:C4	3.04	0.46
26:1H:1162:G:H1'	42:D8:23:GLU:OE2	2.16	0.46
33:61:33:ARG:HB3	33:61:35:LEU:HD23	1.96	0.46
1:13:1230:C:H2'	1:13:1231:G:H8	1.79	0.46
35:68:101:PRO:HB3	35:68:122:LEU:CD1	2.46	0.46
1:13:562:C:H1'	12:3I:15:ARG:HB3	1.97	0.46
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.45	0.46
28:11:27:THR:HG23	28:11:28:GLU:HG2	1.97	0.46
29:21:101:ARG:HG2	29:21:169:ASN:OD1	2.16	0.46
45:G8:21:LYS:HE2	45:G8:21:LYS:HB3	1.68	0.46
41:C8:87:GLY:C	41:C8:89:GLU:H	2.19	0.46
26:14:1171:G:N2	26:14:1173:G:HO2'	2.13	0.46
26:14:2101:G:N2	26:14:2189:U:O2	2.48	0.46
1:13:13:U:O2	1:13:914:A:H3'	2.16	0.46
26:1H:2188:C:H2'	26:1H:2189:U:O4'	2.16	0.46
13:4A:32:GLU:O	13:4A:35:GLU:HG2	2.15	0.46
26:1H:884:C:O2	26:1H:892:G:N2	2.49	0.46
26:14:815:C:H2'	26:14:816:C:H6	1.81	0.46
1:1G:807:A:H2'	1:1G:808:C:C6	2.51	0.46
26:1H:1141:U:H6	34:58:63:THR:OG1	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:47:LEU:HD12	3:22:52:LEU:HB3	1.96	0.46
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.15	0.46
26:1H:2562:U:H1'	35:68:23:ARG:HD3	1.97	0.46
26:1H:795:C:H2'	26:1H:796:C:C6	2.50	0.46
51:M8:39:CYS:SG	51:M8:41:PRO:HD3	2.56	0.46
1:1G:1328:C:H2'	1:1G:1329:A:C8	2.51	0.46
32:51:125:VAL:HG13	32:51:131:VAL:HG23	1.97	0.46
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.28	0.46
1:13:452:A:O2'	1:13:453:A:O4'	2.30	0.46
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.30	0.46
1:13:103:C:H2'	1:13:104:G:H8	1.80	0.46
27:1J:70:C:H2'	27:1J:71:C:H6	1.79	0.46
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.98	0.46
26:1H:1830:C:N4	26:1H:1975:G:H1	2.12	0.46
1:13:1028(A):C:H2'	1:13:1028(B):C:C5	2.47	0.46
31:49:98:ARG:HE	31:49:98:ARG:HB2	1.49	0.46
26:14:2494:G:C4	26:14:2495:G:C8	3.04	0.46
26:1H:1036:G:H1	26:1H:1119:C:H42	1.62	0.46
36:35:77:ARG:HB2	36:35:78:PRO:HD2	1.98	0.46
26:14:2320:A:C6	26:14:2333:A:C8	3.04	0.46
1:13:324:G:OP1	20:BI:22:ARG:HG2	2.16	0.46
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.16	0.46
34:58:104:LYS:HB2	34:58:117:PHE:CE1	2.51	0.46
7:62:76:ARG:C	7:62:86:GLN:HB2	2.36	0.46
2:12:214:ILE:O	2:12:218:ALA:HB2	2.16	0.46
31:49:53:LEU:HA	31:49:56:ALA:HB3	1.96	0.46
1:1G:1290:G:H21	9:82:70:LYS:NZ	2.13	0.46
26:1H:288:C:H2'	26:1H:289:A:C8	2.51	0.46
44:B5:25:LYS:HA	44:B5:81:VAL:O	2.15	0.46
46:H8:141:VAL:O	46:H8:144:LEU:HG	2.16	0.46
5:4E:30:ALA:N	5:4E:46:GLY:O	2.46	0.46
26:1H:497:A:C5	26:1H:498:G:C8	3.04	0.46
2:1E:238:LEU:H	2:1E:238:LEU:HD12	1.81	0.46
6:52:3:ARG:HB3	6:52:3:ARG:HH11	1.81	0.46
13:4I:8:GLU:OE2	13:4I:22:ILE:HA	2.16	0.46
1:13:636:U:H2'	1:13:637:G:C8	2.50	0.46
44:F8:44:GLU:HG2	44:F8:49:VAL:O	2.15	0.46
26:14:1453:A:O2'	26:14:1454:U:H2'	2.15	0.46
26:1H:2287:A:H2	26:1H:2346:A:C2	2.34	0.46
31:41:106:LEU:HD12	31:41:110:ALA:HB3	1.97	0.46
26:1H:2053:G:P	57:1H:3670:HOH:O	2.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2360:A:C2	26:1H:2361:A:H1'	2.50	0.46
47:E5:38:VAL:HB	47:E5:59:LEU:HD12	1.98	0.46
29:21:50:GLY:O	29:21:74:PRO:HG3	2.16	0.46
26:14:789:A:H3'	57:14:3663:HOH:O	2.16	0.46
26:14:1022:G:C6	26:14:1140:C:C4	3.03	0.46
26:1H:142:G:C1'	44:F8:37:THR:HG21	2.43	0.46
1:13:514:C:H2'	1:13:515:G:C8	2.51	0.46
1:1G:1023:G:H3'	1:1G:1024:G:H5"	1.97	0.46
45:G8:76:CYS:C	45:G8:78:ALA:H	2.16	0.46
34:15:114:ARG:O	34:15:118:LYS:HG3	2.16	0.46
26:14:2745:C:H2'	26:14:2746:U:C6	2.51	0.46
1:13:429:U:H1'	1:13:430:A:H5"	1.96	0.46
31:49:64:THR:HA	31:49:102:PHE:HD1	1.81	0.46
24:3L:34:U:H2'	24:3L:36:A:OP2	2.16	0.46
46:D5:48:PHE:CE1	46:D5:52:SER:HA	2.51	0.46
1:13:1032:A:N1	26:14:2114:A:H5"	2.30	0.46
40:B8:57:PHE:CE1	40:B8:79:HIS:HB2	2.51	0.46
33:69:92:VAL:O	33:69:120:ILE:HG12	2.15	0.46
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.51	0.46
26:1H:2769:C:N4	26:1H:2770:G:C5	2.84	0.46
2:12:165:VAL:HG23	2:12:166:ASP:N	2.31	0.46
22:1K:18:G:N2	22:1K:20:U:OP1	2.49	0.46
41:C8:83:LEU:HD12	41:C8:88:ILE:HB	1.97	0.46
1:1G:1523:G:OP1	11:2A:123:LYS:HD2	2.15	0.46
41:85:66:ASN:HD21	41:85:70:ARG:HE	1.62	0.46
37:45:81:VAL:HG23	37:45:82:ARG:N	2.31	0.46
26:1H:2683:C:H5"	40:B8:53:ARG:HH12	1.81	0.46
26:14:900:A:OP1	26:14:900:A:H4'	2.14	0.46
26:1H:2764:A:N6	26:1H:2766:G:C2	2.84	0.46
49:K8:2:LYS:O	49:K8:6:VAL:HG12	2.15	0.46
32:51:150:ALA:O	32:51:153:LYS:HE2	2.16	0.46
1:13:443:C:H2'	1:13:444:C:H6	1.81	0.46
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	1.97	0.46
8:7E:43:GLY:O	8:7E:64:LYS:HD3	2.16	0.46
1:13:491:G:H2'	1:13:492:G:H8	1.81	0.46
53:L5:10:ARG:O	53:L5:14:LYS:HB2	2.16	0.46
45:G8:61:ILE:HD13	45:G8:63:LYS:HD3	1.97	0.46
26:14:208:C:H2'	26:14:209:C:H6	1.81	0.46
2:12:114:ARG:NH1	2:12:141:GLU:OE2	2.48	0.46
26:14:330:A:H2	26:14:1210:A:HO2'	1.59	0.46
26:14:2252:G:H2'	26:14:2253:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.51	0.46
8:7E:12:ARG:HD3	8:7E:26:VAL:HB	1.98	0.46
1:1G:1338:G:H2'	1:1G:1339:A:O4'	2.16	0.46
26:14:818:G:H4'	26:14:838:C:O3'	2.15	0.46
1:1G:147:G:H1	1:1G:175:C:N4	2.03	0.46
24:3K:8:U:H4'	24:3K:8:U:OP1	2.16	0.46
1:13:413:G:H2'	1:13:428:G:N2	2.31	0.46
32:51:90:LYS:HB3	32:51:90:LYS:HE2	1.75	0.46
26:1H:1046:A:O2'	26:1H:1047:G:OP1	2.28	0.46
43:A5:65:LEU:CD1	43:A5:68:ARG:HD3	2.45	0.46
1:1G:1342:C:H4'	9:82:125:TYR:CB	2.44	0.46
18:9A:52:PRO:O	18:9A:56:THR:HG23	2.15	0.46
38:98:102:GLU:O	38:98:111:LEU:HD12	2.15	0.46
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.79	0.46
51:M8:13:ARG:NH1	51:M8:22:ILE:HG23	2.31	0.46
54:Q8:59:LYS:HB2	54:Q8:60:LEU:HG	1.97	0.46
1:13:191:G:C6	1:13:192:U:C4	3.04	0.46
35:25:47:ILE:HD12	35:25:47:ILE:HA	1.75	0.46
2:1E:74:LYS:NZ	2:1E:169:LYS:HG3	2.30	0.46
26:14:1338:G:N3	26:14:1393:A:H2	2.14	0.46
1:13:243:A:H4'	1:13:244:U:C5'	2.46	0.46
18:9I:58:LEU:HG	18:9I:62:GLU:HB3	1.97	0.46
16:7A:23:ASP:O	16:7A:25:ARG:N	2.48	0.46
36:35:144:GLU:N	36:35:144:GLU:CD	2.69	0.46
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.15	0.46
42:95:69:LYS:HE3	42:95:86:GLY:HA3	1.98	0.46
26:1H:2046:G:H1'	52:N8:22:HIS:HE1	1.81	0.46
26:1H:1799:G:N2	28:11:155:LEU:HD12	2.31	0.46
26:1H:1906:G:OP2	26:1H:1929:G:O2'	2.31	0.46
19:AI:18:LYS:HG2	19:AI:22:LEU:HD13	1.98	0.46
1:1G:1540:U:H3	25:4L:33:G:H22	1.64	0.46
26:14:1462:C:H2'	26:14:1463:C:C6	2.51	0.46
26:14:1945:G:H2'	26:14:1946:U:C6	2.51	0.46
26:14:914:C:N3	26:14:915:C:H1'	2.31	0.46
1:1G:1205:U:O2'	3:22:195:VAL:HG13	2.15	0.46
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.98	0.46
1:1G:1265:G:C2	1:1G:1271:G:C2	3.04	0.46
28:11:121:PRO:HB3	28:11:135:PHE:CE2	2.51	0.46
37:45:48:GLU:O	37:45:52:VAL:HG23	2.15	0.46
26:14:2607:G:H2'	26:14:2608:G:O4'	2.15	0.46
26:14:779:U:OP1	28:19:49:ILE:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:603:U:H2'	1:13:604:G:C8	2.51	0.46
3:2E:136:GLN:HG2	3:2E:140:ARG:NH1	2.31	0.46
26:1H:1491:G:O2'	26:1H:1492:G:H5'	2.16	0.46
1:13:347:G:N2	1:13:348:G:N3	2.64	0.46
26:14:360:G:H8	26:14:360:G:O5'	1.98	0.46
26:14:1717:G:N2	26:14:1742:C:O2	2.44	0.46
51:I5:20:ASN:ND2	51:I5:39:CYS:SG	2.89	0.46
45:G8:9:LYS:O	45:G8:27:VAL:HG22	2.16	0.46
26:14:1090:U:N3	26:14:1102:C:H1'	2.30	0.46
1:1G:980:C:H5'	1:1G:981:U:OP2	2.16	0.46
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.31	0.46
26:1H:1021:A:C3'	26:1H:1021:A:C8	2.99	0.46
26:1H:1021:A:N6	26:1H:1141:U:C2	2.84	0.46
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.51	0.46
26:1H:2815:C:H2'	26:1H:2816:C:H6	1.81	0.46
17:8A:92:ARG:HG2	17:8A:95:TYR:CE2	2.51	0.46
26:1H:1678:G:O5'	26:1H:1678:G:H8	1.99	0.46
35:68:43:VAL:HG12	35:68:54:GLU:HA	1.98	0.46
3:22:84:ILE:HD11	3:22:88:ARG:NH2	2.28	0.46
30:39:78:ILE:C	30:39:80:ALA:H	2.19	0.46
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.16	0.46
34:15:17:ASP:O	34:15:18:ALA:HB3	2.16	0.46
48:F5:85:LEU:HG	48:F5:85:LEU:H	1.25	0.46
26:1H:1291:C:H2'	26:1H:1292:U:C6	2.51	0.46
26:14:1448:G:H1'	26:14:1528:A:H62	1.81	0.46
26:1H:1277:G:O2'	38:98:24:GLN:HG2	2.15	0.46
26:1H:846:C:C4	26:1H:930:U:C4	3.04	0.46
1:1G:15:G:H2'	1:1G:16:A:O4'	2.16	0.46
26:14:2131:G:H5"	26:14:2158:A:N1	2.31	0.46
35:68:7:TYR:CE1	35:68:20:MET:HE3	2.50	0.46
26:1H:2553:G:H2'	26:1H:2554:U:C4'	2.46	0.46
1:1G:722:A:H4'	1:1G:723:U:OP1	2.16	0.46
26:1H:2323:G:H2'	26:1H:2324:C:O4'	2.16	0.46
26:1H:320:A:H2'	30:31:136:THR:HG21	1.97	0.46
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.50	0.46
46:H8:48:PHE:CE1	46:H8:71:VAL:HG11	2.51	0.46
1:1G:999:U:H2'	1:1G:1000:A:C8	2.51	0.46
26:14:2093:G:N2	26:14:2196:C:O2	2.40	0.46
26:14:2197:U:H1'	26:14:2198:A:C8	2.51	0.46
30:39:133:ASN:HA	30:39:162:LEU:HD22	1.98	0.46
26:14:1171:G:H4'	26:14:1173:G:OP1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:122:LYS:HD3	11:2A:124:LYS:HE2	1.98	0.46
11:2A:23:ALA:HB1	11:2A:88:GLY:HA3	1.98	0.46
46:H8:59:LEU:HD23	46:H8:59:LEU:HA	1.58	0.46
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.16	0.46
26:1H:534:U:H5'	41:C8:42:ALA:HB1	1.97	0.46
30:31:134:GLY:H	30:31:162:LEU:HB3	1.80	0.46
41:C8:49:HIS:HA	41:C8:52:ARG:HG2	1.98	0.46
42:95:34:GLU:OE1	42:95:56:SER:HB2	2.16	0.46
26:14:6:A:N3	26:14:6:A:H2'	2.31	0.46
42:95:20:LEU:HD12	42:95:20:LEU:HA	1.64	0.46
34:58:60:ILE:HG13	34:58:60:ILE:H	1.45	0.46
2:12:22:LYS:H	2:12:22:LYS:HG3	1.60	0.46
26:14:2658:C:H5"	32:59:158:HIS:HE1	1.80	0.46
24:3K:37:G:H2'	24:3K:38:G:O4'	2.16	0.46
4:32:9:CYS:HA	4:32:12:CYS:HB2	1.97	0.46
4:32:176:LEU:HG	4:32:178:VAL:HG13	1.98	0.46
26:1H:1358:G:O2'	26:1H:1359:A:H5"	2.16	0.46
31:41:111:LEU:HA	31:41:114:ILE:HD12	1.97	0.46
26:14:1225:C:H2'	26:14:1226:G:C8	2.51	0.46
52:N8:30:LEU:HA	52:N8:41:PRO:O	2.15	0.46
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.97	0.46
20:BI:73:HIS:O	20:BI:76:ALA:HB3	2.16	0.46
1:1G:636:U:H2'	1:1G:637:G:C8	2.47	0.46
26:14:1204:A:C2	26:14:1241:A:N1	2.84	0.46
44:F8:1:MET:C	44:F8:3:THR:N	2.67	0.46
48:J8:62:VAL:HG23	48:J8:63:ALA:O	2.16	0.46
51:M8:12:ALA:HB3	51:M8:24:THR:HB	1.97	0.46
54:Q8:6:THR:HG22	54:Q8:59:LYS:HE3	1.97	0.46
1:1G:1397:C:O2'	1:1G:1398:A:OP1	2.27	0.46
2:1E:74:LYS:HG2	2:1E:74:LYS:H	1.50	0.46
26:1H:2769:C:C4	26:1H:2770:G:C5	3.04	0.46
2:12:72:GLY:HA2	2:12:165:VAL:CG2	2.46	0.46
39:65:14:VAL:HG21	39:65:90:GLY:O	2.16	0.46
1:13:953:G:H5'	1:13:965:A:H61	1.81	0.46
26:1H:2299:G:N1	26:1H:2318:G:H8	2.14	0.46
17:8A:45:HIS:NE2	17:8A:47:PRO:HB3	2.30	0.46
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.16	0.46
1:1G:623:C:C4	1:1G:624:C:C5	3.04	0.46
26:14:2689:U:P	26:14:2719:G:H22	2.38	0.46
26:14:2261:C:C6	47:E5:16:SER:HB3	2.50	0.46
17:8A:59:ILE:HG23	17:8A:71:PHE:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2690:C:H5"	26:1H:2872:G:H21	1.81	0.46
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.16	0.46
34:58:40:PRO:O	41:C8:64:ARG:HG2	2.16	0.46
47:E5:12:ASN:HA	47:E5:14:ARG:HH21	1.81	0.46
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.50	0.46
1:13:587:G:O5'	1:13:587:G:H8	1.98	0.46
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.13	0.46
26:14:2275:C:O2	37:45:85:LYS:HE3	2.16	0.46
50:L8:6:VAL:HG12	50:L8:56:VAL:HG13	1.97	0.46
29:29:203:LYS:HG2	29:29:205:ALA:CB	2.46	0.46
26:1H:2251:G:H2'	26:1H:2252:G:H8	1.81	0.46
27:1J:27:C:O3'	39:65:36:TYR:OH	2.34	0.46
26:14:2897:U:H5'	26:14:2898:U:OP2	2.16	0.46
26:14:1956:U:H1'	26:14:2552:U:OP1	2.16	0.46
26:1H:55:G:H2'	26:1H:56:A:H8	1.80	0.46
32:59:99:VAL:HG13	32:59:100:GLY:H	1.79	0.46
4:32:27:TYR:HA	4:32:27:TYR:HD1	1.58	0.46
26:1H:1095:A:N3	26:1H:1095:A:H2'	2.31	0.46
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.84	0.46
18:9A:29:PHE:CD1	18:9A:29:PHE:N	2.84	0.46
3:2E:147:LYS:HA	3:2E:147:LYS:HD3	1.80	0.46
1:13:730:G:C5	1:13:731:G:H1'	2.51	0.46
1:13:280:C:N3	17:8I:39:SER:N	2.62	0.46
28:19:73:VAL:HG13	28:19:120:GLY:HA3	1.96	0.46
14:5I:25:VAL:HG13	14:5I:38:GLY:O	2.15	0.46
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.51	0.45
26:14:249:C:OP1	57:14:3515:HOH:O	2.20	0.45
26:14:2469:A:H2	26:14:2481:G:N2	2.09	0.45
25:4K:45:U:HO2'	25:4K:46:U:P	2.39	0.45
1:13:329:A:C4	1:13:332:G:C5	3.04	0.45
26:14:568:U:O4	57:14:3989:HOH:O	2.20	0.45
23:2L:22:G:C2	23:2L:59:U:C2	3.04	0.45
26:1H:1087:G:N2	26:1H:1102:C:O2	2.48	0.45
1:13:993:G:H4'	1:13:994:A:OP2	2.16	0.45
27:16:111:U:H2'	27:16:112:G:C8	2.49	0.45
26:14:218:A:H2	26:14:235:U:H4'	1.80	0.45
1:1G:986:A:H1'	19:AA:54:GLY:O	2.16	0.45
2:12:221:LEU:HA	2:12:224:GLN:HB3	1.98	0.45
1:13:437:U:C5'	4:3E:155:LEU:HD21	2.46	0.45
30:31:199:TRP:NE1	30:31:203:GLN:OE1	2.49	0.45
39:A8:26:LEU:HD22	39:A8:87:PHE:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:3:VAL:HG13	28:11:17:THR:HG23	1.97	0.45
1:1G:1158:C:N3	1:1G:1160:G:C8	2.84	0.45
10:1A:45:ARG:HB3	10:1A:65:LEU:HB3	1.97	0.45
29:29:11:MET:HE3	29:29:187:ALA:H	1.80	0.45
32:59:19:VAL:HG12	32:59:20:ALA:H	1.80	0.45
1:13:465:A:N7	1:13:467:G:C6	2.84	0.45
26:14:2536:G:C6	26:14:2537:U:C4	3.04	0.45
45:C5:48:ALA:HB3	45:C5:59:GLY:HA2	1.98	0.45
1:1G:1541:U:O2'	1:1G:1542:U:O4'	2.24	0.45
18:9A:29:PHE:HD1	18:9A:29:PHE:N	2.14	0.45
26:14:1361:G:H1	26:14:1370:C:H42	1.63	0.45
39:65:102:ALA:HA	39:65:105:ALA:HB3	1.98	0.45
15:6A:26:GLU:HG3	15:6A:77:ARG:NH1	2.31	0.45
13:4I:77:ASN:HA	13:4I:80:ARG:HB3	1.98	0.45
38:55:87:TYR:HE1	38:55:117:VAL:HG12	1.80	0.45
2:12:132:LYS:O	2:12:135:GLN:HB2	2.15	0.45
4:32:59:ARG:NH2	4:32:66:ARG:HH12	2.14	0.45
40:75:62:THR:HG22	40:75:75:ILE:HG12	1.98	0.45
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.81	0.45
1:1G:695:A:H2	1:1G:787:A:HO2'	1.63	0.45
1:13:159:G:O2'	1:13:161:A:N7	2.40	0.45
46:H8:93:ASP:HA	46:H8:130:PRO:HG2	1.98	0.45
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.56	0.45
1:13:772:U:H2'	1:13:773:G:H8	1.81	0.45
26:1H:225:A:O2'	26:1H:257:A:H4'	2.16	0.45
26:1H:1820:U:O2	28:11:202:LYS:HB3	2.16	0.45
1:13:1304:G:C5	1:13:1305:G:C6	3.05	0.45
26:14:676:A:H1'	26:14:2443:C:H1'	1.97	0.45
9:82:118:LYS:HB3	9:82:118:LYS:NZ	2.32	0.45
27:16:11:C:OP2	27:16:12:C:N4	2.44	0.45
26:1H:74:A:H3'	49:K8:51:ARG:HH22	1.80	0.45
26:1H:1997:G:P	57:1H:3785:HOH:O	2.74	0.45
9:82:48:GLU:N	9:82:49:PRO:HD2	2.31	0.45
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.17	0.45
26:1H:1100:C:H2'	26:1H:1101:U:H6	1.82	0.45
1:1G:410:G:H21	1:1G:432:A:H62	1.63	0.45
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.99	0.45
1:13:1390:U:H2'	1:13:1391:U:C6	2.51	0.45
1:13:874:G:C6	1:13:875:C:N4	2.85	0.45
41:C8:112:ARG:HH21	42:D8:47:VAL:HG13	1.82	0.45
26:14:1199:U:H2'	26:14:1200:C:H6	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:17:GLY:N	11:2A:79:SER:O	2.40	0.45
28:11:3:VAL:O	28:11:3:VAL:HG12	2.15	0.45
39:A8:14:VAL:HG21	39:A8:89:ARG:HD3	1.98	0.45
1:13:827:U:C5	1:13:872:A:N1	2.84	0.45
26:14:2864:G:OP1	40:75:119:LYS:HD3	2.16	0.45
26:1H:2795:G:H3'	26:1H:2797:U:C5'	2.45	0.45
48:J8:78:LYS:HE3	48:J8:78:LYS:N	2.30	0.45
26:14:392:C:H5"	26:14:409:C:H5"	1.97	0.45
35:25:87:ILE:HD12	35:25:93:PRO:HA	1.98	0.45
50:H5:9:VAL:HG22	50:H5:53:LEU:O	2.16	0.45
32:59:27:LYS:HD2	32:59:32:GLU:HG2	1.97	0.45
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.17	0.45
26:1H:2850:A:C2	26:1H:2851:A:C4	3.04	0.45
1:1G:141:A:H1'	1:1G:182:U:C2	2.51	0.45
26:14:2801:A:C5'	26:14:2895:U:H4'	2.46	0.45
42:D8:25:LEU:HD12	42:D8:94:LEU:HD21	1.98	0.45
26:1H:479:A:C2	26:1H:481:G:H5'	2.52	0.45
7:62:27:ILE:HG21	7:62:40:ALA:HA	1.98	0.45
28:19:175:LEU:HD12	28:19:185:VAL:HG21	1.98	0.45
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.82	0.45
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.15	0.45
2:1E:223:ILE:HG12	2:1E:223:ILE:H	1.53	0.45
19:AA:79:THR:OG1	19:AA:79:THR:O	2.27	0.45
26:1H:975:G:H1'	26:1H:990:A:C2	2.51	0.45
26:1H:308:G:H2'	26:1H:309:G:C8	2.51	0.45
30:39:53:THR:HG22	30:39:56:GLU:CG	2.47	0.45
1:1G:1305:G:HO2'	1:1G:1306:A:P	2.38	0.45
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.97	0.45
26:1H:782:A:C2	28:11:226:MET:HG2	2.52	0.45
26:14:774:A:H2	26:14:787:U:HO2'	1.60	0.45
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.15	0.45
44:B5:44:GLU:HG3	44:B5:51:VAL:CG2	2.47	0.45
1:1G:1327:C:OP1	21:1B:20:LYS:HB3	2.16	0.45
4:3E:25:ARG:NH1	4:3E:30:LYS:HG3	2.31	0.45
11:2A:29:ILE:O	11:2A:29:ILE:HG12	2.16	0.45
28:11:127:VAL:HA	28:11:193:VAL:HG22	1.98	0.45
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.50	0.45
26:14:1484:G:H2'	26:14:1485:G:C8	2.51	0.45
4:32:30:LYS:HD3	4:32:35:ARG:HH11	1.81	0.45
1:1G:842:C:H1'	1:1G:848:C:N3	2.31	0.45
1:13:875:C:H4'	8:7E:18:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:139:G:H1'	26:14:140:A:H2	1.82	0.45
1:13:1413:A:H2	1:13:1487:G:H22	1.64	0.45
28:19:32:SER:OG	28:19:32:SER:O	2.34	0.45
26:14:626:U:O2	36:35:105:LEU:HD23	2.16	0.45
29:21:143:ASN:HB2	29:21:147:PRO:HD2	1.98	0.45
2:1E:125:PRO:O	2:1E:126:GLU:HB2	2.17	0.45
38:55:57:ARG:HB3	38:55:59:ASP:OD1	2.16	0.45
13:4I:82:MET:O	13:4I:84:ILE:N	2.47	0.45
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.72	0.45
34:15:34:LEU:HD21	34:15:120:LEU:HD13	1.97	0.45
31:49:37:VAL:HG22	31:49:159:VAL:HG12	1.97	0.45
26:14:480:A:H1'	45:C5:44:ILE:HG12	1.99	0.45
46:H8:44:PHE:CE2	46:H8:86:VAL:HG11	2.52	0.45
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.32	0.45
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.17	0.45
11:2I:38:ASN:HA	11:2I:39:PRO:HD3	1.75	0.45
26:14:1500:G:O2'	28:19:100:GLY:O	2.27	0.45
16:7A:58:TYR:O	16:7A:61:SER:HB3	2.16	0.45
28:19:41:GLY:HA3	28:19:43:ARG:HE	1.81	0.45
41:C8:18:LEU:HD23	41:C8:18:LEU:HA	1.51	0.45
23:2K:81:G:H8	23:2K:81:G:O5'	2.00	0.45
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.31	0.45
26:14:724:U:H2'	26:14:725:G:O4'	2.17	0.45
26:14:2392:A:OP2	54:M5:31:HIS:NE2	2.44	0.45
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.36	0.45
29:21:201:THR:HG22	29:21:202:LYS:N	2.31	0.45
26:1H:1359:A:C2	26:1H:1372:U:C4	3.05	0.45
26:1H:2576:G:H3'	57:1H:3671:HOH:O	2.15	0.45
54:Q8:30:ARG:CZ	54:Q8:30:ARG:HB2	2.46	0.45
39:A8:15:ARG:HD3	39:A8:15:ARG:HA	1.64	0.45
48:J8:85:LEU:HD13	48:J8:85:LEU:HA	1.82	0.45
20:BI:74:LYS:HB3	20:BI:75:ASN:H	1.42	0.45
26:14:2111:C:H42	26:14:2147:G:N2	2.15	0.45
26:1H:587:C:N3	36:78:33:ARG:NH1	2.65	0.45
19:AA:66:MET:HA	19:AA:67:VAL:C	2.36	0.45
31:49:64:THR:HA	31:49:102:PHE:CD1	2.51	0.45
1:1G:408:A:H2'	1:1G:409:G:O4'	2.16	0.45
4:32:13:ARG:HD3	4:32:36:ARG:O	2.16	0.45
26:14:1464:C:O2'	26:14:1528:A:H8	1.98	0.45
26:1H:536:A:OP1	41:C8:53:ARG:NH1	2.50	0.45
1:13:130:A:N7	17:8I:63:ARG:HB2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:70:PHE:H	2:12:92:TYR:HA	1.81	0.45
2:12:208:ILE:HD12	2:12:239:VAL:HG11	1.97	0.45
10:1A:38:ILE:O	10:1A:70:ARG:HG3	2.17	0.45
26:14:31:C:N4	57:14:3807:HOH:O	2.48	0.45
2:12:9:GLU:HB2	2:12:217:ARG:NH1	2.30	0.45
16:7I:28:ARG:HG2	16:7I:29:ASP:OD1	2.16	0.45
5:4E:68:GLU:O	5:4E:68:GLU:HG3	2.17	0.45
22:1K:72:C:H2'	22:1K:73:C:H6	1.81	0.45
31:49:59:GLU:HB2	31:49:153:ARG:HH21	1.81	0.45
30:31:114:VAL:O	30:31:118:ALA:N	2.35	0.45
1:13:164:U:H2'	1:13:165:C:C6	2.50	0.45
35:25:88:ASN:HD21	35:25:92:GLU:HB2	1.81	0.45
26:14:2195:C:O2'	26:14:2196:C:H5'	2.16	0.45
30:39:114:VAL:HG21	30:39:202:PHE:CZ	2.51	0.45
26:1H:1754:C:P	40:B8:96:ARG:HH12	2.39	0.45
31:41:49:ASP:OD2	31:41:52:ILE:HG12	2.17	0.45
26:14:1701:A:H5"	26:14:1702:G:OP2	2.16	0.45
11:2I:18:ARG:HG2	11:2I:33:THR:OG1	2.16	0.45
28:11:79:VAL:HG21	28:11:111:LEU:HD11	1.98	0.45
1:1G:818:G:O2'	1:1G:819:A:H5'	2.15	0.45
35:25:9:GLU:HG3	35:25:18:LYS:HG3	1.99	0.45
31:41:62:LEU:O	31:41:143:GLU:HG2	2.16	0.45
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.81	0.45
26:14:1619:G:N7	57:14:3602:HOH:O	2.35	0.45
1:13:767:A:H2'	1:13:768:A:O4'	2.16	0.45
29:29:96:PHE:O	29:29:175:VAL:HG11	2.16	0.45
26:14:686:G:H1	53:L5:16:HIS:CD2	2.35	0.45
32:59:76:VAL:O	32:59:80:SER:OG	2.21	0.45
43:A5:20:VAL:O	43:A5:23:LEU:HB2	2.16	0.45
23:2K:8:U:OP1	23:2K:8:U:H4'	2.16	0.45
12:3I:76:ASN:OD1	12:3I:76:ASN:N	2.32	0.45
47:I8:41:ARG:NE	47:I8:41:ARG:HA	2.30	0.45
23:2L:16:U:H2'	23:2L:16:U:O2	2.16	0.45
26:1H:2082:A:H2'	26:1H:2083:G:O4'	2.16	0.45
26:1H:493:G:H2'	26:1H:494:G:O4'	2.17	0.45
36:78:96:THR:C	36:78:98:GLU:H	2.20	0.45
1:1G:1187:G:P	9:82:113:LYS:HZ1	2.39	0.45
9:82:119:ALA:O	9:82:120:ARG:HB2	2.15	0.45
26:1H:571:A:H5'	26:1H:2030:A:N7	2.31	0.45
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.17	0.45
10:1A:47:PHE:N	10:1A:63:PHE:O	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:40:ILE:HD11	19:AI:62:ILE:CG2	2.44	0.45
1:1G:543:C:OP1	4:32:14:ARG:HD2	2.16	0.45
26:14:2383:G:O2'	26:14:2384:G:H5'	2.16	0.45
29:29:31:CYS:O	29:29:91:VAL:HG22	2.16	0.45
52:J5:16:ARG:NH1	52:J5:17:ASP:OD2	2.50	0.45
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.31	0.45
27:16:15:A:H1'	27:16:109:G:C4	2.51	0.45
36:35:85:LEU:HA	36:35:88:LEU:HB2	1.98	0.45
26:14:2647:U:O2	26:14:2673:G:N2	2.39	0.45
26:14:154:G:O6	26:14:172:C:N4	2.49	0.45
9:82:78:LYS:HE3	9:82:101:PHE:CD2	2.52	0.45
3:22:95:THR:HB	3:22:97:LYS:HG2	1.97	0.45
30:39:83:PHE:O	30:39:84:VAL:HB	2.15	0.45
26:14:71:A:H2	44:B5:31:HIS:NE2	2.12	0.45
1:13:468:A:H4'	16:7I:80:PHE:O	2.17	0.45
1:1G:1126:U:H4'	1:1G:1127:G:C5	2.51	0.45
32:51:136:ILE:HD12	32:51:137:ASP:H	1.81	0.45
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.17	0.45
17:8I:63:ARG:HG3	17:8I:64:PRO:N	2.31	0.45
1:1G:1140:C:H2'	1:1G:1141:C:H6	1.82	0.45
12:3A:49:ASN:N	12:3A:49:ASN:OD1	2.49	0.45
1:13:77:C:HO2'	1:13:92:G:H22	1.57	0.45
6:5E:97:PHE:HB3	18:9I:32:ARG:HD3	1.99	0.45
26:1H:250:G:H2'	26:1H:251:A:C8	2.51	0.45
26:14:1412:A:H2'	26:14:1413:G:H8	1.82	0.45
26:1H:2325:G:H2'	26:1H:2326:C:H6	1.81	0.45
28:19:92:ILE:HD12	28:19:104:TYR:CE1	2.50	0.45
33:61:133:HIS:HB2	33:61:134:PRO:HD2	1.97	0.45
28:11:136:ILE:O	28:11:168:ARG:NH2	2.49	0.45
1:13:542:G:O2'	1:13:543:C:H5'	2.17	0.45
26:1H:288:C:H2'	26:1H:289:A:H8	1.82	0.45
3:2E:133:ALA:HA	3:2E:136:GLN:HB3	1.99	0.45
1:13:160:A:OP1	1:13:160:A:H8	1.98	0.45
8:7E:121:ASP:N	8:7E:121:ASP:OD1	2.49	0.45
1:1G:821:G:H2'	1:1G:822:C:H6	1.82	0.45
5:42:18:ARG:HH21	5:42:25:ARG:HG2	1.81	0.45
26:1H:280:C:C2	26:1H:361:G:N2	2.84	0.45
31:41:9:ARG:O	31:41:13:GLU:HG2	2.16	0.45
10:1A:8:LEU:HD22	10:1A:20:ALA:HB2	1.97	0.45
26:1H:2867:G:OP2	40:B8:119:LYS:NZ	2.27	0.45
26:1H:1433:U:O2	26:1H:1561:G:C2	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:32:TYR:O	37:88:105:GLU:HA	2.17	0.45
1:13:431:A:H2'	1:13:432:A:O4'	2.17	0.45
26:14:246:C:N4	54:M5:8:LYS:HG3	2.31	0.45
1:13:32:A:H2'	1:13:33:A:C8	2.51	0.45
36:78:133:SER:O	36:78:137:LYS:HG3	2.16	0.45
26:1H:1654:A:H1'	26:1H:2823:A:H5'	1.97	0.45
31:41:107:LEU:HD21	31:41:178:PHE:CE1	2.51	0.45
26:1H:880:G:HO2'	26:1H:881:G:C5'	2.27	0.45
35:25:64:ARG:HG2	35:25:79:PHE:CG	2.52	0.45
26:14:996:A:H4'	41:85:92:ARG:NE	2.31	0.45
26:14:2724:C:OP1	29:29:111:ARG:NH1	2.50	0.45
39:65:110:LEU:HD23	39:65:112:PHE:CZ	2.52	0.45
23:2K:9:G:N2	23:2K:21:A:H8	2.14	0.45
30:39:183:VAL:O	30:39:187:VAL:HG23	2.16	0.45
36:78:19:VAL:CB	36:78:20:GLY:HA2	2.46	0.45
1:13:1157:A:N6	1:13:1178:G:H21	2.13	0.45
1:1G:673:G:O3'	6:52:87:ARG:NH2	2.50	0.45
26:1H:1332:G:N2	26:1H:1610:A:C8	2.85	0.45
26:1H:2250:G:OP1	37:88:85:LYS:NZ	2.45	0.45
20:BI:56:MET:HG3	20:BI:88:VAL:HG21	1.99	0.45
6:52:25:ILE:O	6:52:29:ALA:N	2.35	0.45
26:14:2124:G:H2'	26:14:2124:G:N3	2.32	0.45
26:1H:589:C:H2'	26:1H:590:A:H8	1.81	0.45
33:61:104:GLN:O	33:61:105:HIS:HB2	2.16	0.45
12:3I:9:GLN:O	12:3I:13:LYS:HG2	2.17	0.45
26:1H:2741:A:H2'	26:1H:2742:C:O4'	2.17	0.45
3:2E:79:ARG:O	3:2E:82:GLU:HB2	2.16	0.45
26:1H:2275:C:C6	26:1H:2275:C:H5'	2.52	0.45
1:1G:1250:A:H4'	9:82:68:GLY:N	2.30	0.45
26:1H:180:G:OP2	53:P8:32:LYS:HE2	2.17	0.45
30:31:107:LYS:HD2	30:31:206:ILE:HA	1.98	0.45
12:3I:47:LYS:HE2	12:3I:47:LYS:HB3	1.68	0.45
26:1H:200:U:O2	26:1H:386:G:N2	2.49	0.45
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.50	0.45
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.99	0.45
10:1A:89:ASP:OD1	10:1A:89:ASP:N	2.48	0.45
26:14:1903:G:OP2	28:19:241:PRO:HB2	2.16	0.45
33:69:93:THR:O	33:69:97:ILE:HG13	2.16	0.45
41:C8:110:VAL:O	41:C8:114:LYS:N	2.45	0.45
1:1G:980:C:H2'	14:5A:21:TYR:HE2	1.81	0.45
54:Q8:37:SER:HB2	54:Q8:40:GLU:OE1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1225:C:O3'	42:95:85:LYS:HA	2.16	0.45
26:1H:2562:U:H4'	35:68:25:LEU:HD23	1.98	0.45
26:14:775:G:C4	26:14:794:G:C8	3.05	0.45
30:31:64:ILE:HG23	30:31:65:TRP:CD1	2.52	0.45
31:41:66:GLN:HA	51:M8:6:HIS:CE1	2.51	0.45
51:I5:22:ILE:HD13	51:I5:22:ILE:H	1.81	0.45
26:1H:38:A:H1'	30:31:48:THR:O	2.17	0.45
1:1G:1263:C:H2'	1:1G:1264:C:O4'	2.17	0.45
26:1H:2112:G:H22	26:1H:2169:A:N6	2.09	0.45
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.79	0.45
28:19:176:ARG:HG3	28:19:182:LEU:HD22	1.99	0.45
26:14:307:G:H22	26:14:310:A:P	2.39	0.45
5:42:60:TYR:O	5:42:64:ARG:HG3	2.17	0.45
28:19:69:ARG:NE	28:19:105:ILE:HD11	2.31	0.45
1:1G:560:U:H5'	1:1G:566:G:N2	2.32	0.45
27:1J:104:A:OP1	46:D5:72:ARG:NH1	2.50	0.45
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.81	0.45
1:1G:1125:U:H5	10:1A:5:ARG:NH1	2.14	0.45
26:14:1204:A:N1	26:14:1241:A:C2	2.85	0.45
1:1G:675:A:H2'	1:1G:676:A:O4'	2.17	0.45
4:32:25:ARG:NH2	4:32:30:LYS:HD2	2.32	0.45
26:1H:2331:G:O2'	47:I8:43:THR:HB	2.16	0.45
49:G5:47:ASN:HD22	49:G5:47:ASN:H	1.63	0.45
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.17	0.45
1:13:1512:U:H3	1:13:1523:G:H1	1.64	0.45
1:1G:522:C:H2'	1:1G:523:A:O4'	2.16	0.45
36:35:143:GLY:HA2	36:35:144:GLU:OE2	2.16	0.45
26:1H:1121:C:H5"	26:1H:1122:G:OP2	2.16	0.45
26:1H:2245:U:H5"	26:1H:2246:G:H5'	1.99	0.45
19:AA:64:GLU:N	19:AA:64:GLU:OE1	2.31	0.45
1:1G:424:G:H2'	1:1G:425:G:H8	1.82	0.45
45:G8:100:ALA:HB1	45:G8:101:LYS:HG3	1.98	0.45
26:1H:2312:U:H5'	31:41:88:ILE:HG13	1.99	0.45
39:A8:10:ARG:HG3	39:A8:13:ARG:HH12	1.81	0.45
35:68:64:ARG:O	35:68:82:ASN:HA	2.17	0.45
29:21:52:LEU:O	29:21:75:VAL:HG23	2.17	0.45
1:1G:1364:U:O2'	1:1G:1365:G:H5'	2.17	0.45
26:1H:354:G:H2'	26:1H:355:G:H8	1.82	0.45
26:1H:182:A:H2'	26:1H:183:C:C6	2.52	0.45
3:2E:7:PRO:O	3:2E:11:ARG:HG3	2.17	0.45
26:1H:6:A:H2'	26:1H:7:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:666:G:H5'	1:1G:726:C:H1'	1.99	0.45
37:88:25:ASP:HA	37:88:100:GLY:O	2.16	0.45
17:8A:28:PRO:HA	17:8A:35:VAL:HA	1.98	0.45
27:1J:43:C:O2	31:49:95:ARG:NH2	2.39	0.45
26:14:1514:U:H2'	26:14:1515:C:C6	2.52	0.45
17:8I:89:LEU:HA	17:8I:89:LEU:HD13	1.69	0.45
1:1G:619:U:N3	4:32:134:ASP:OD1	2.50	0.45
27:16:61:G:C6	27:16:62:C:C4	3.05	0.45
26:1H:2392:A:H2	26:1H:2424:C:N4	2.13	0.45
26:14:881:G:O6	26:14:882:G:N2	2.50	0.45
9:82:112:LYS:HE3	9:82:118:LYS:N	2.25	0.45
26:14:826:U:H4'	36:35:55:ARG:HA	1.99	0.45
26:1H:602:G:O2'	26:1H:655:A:N6	2.48	0.45
38:98:25:ALA:HB3	38:98:70:LEU:HD21	1.98	0.45
26:14:198:C:H5'	26:14:2244:U:OP1	2.16	0.45
5:4E:10:MET:HB3	5:4E:10:MET:HE2	1.92	0.45
1:1G:1023:G:H5"	1:1G:1024:G:N2	2.32	0.45
1:1G:410:G:H5"	1:1G:411:A:OP1	2.17	0.45
35:25:3:GLN:HB2	35:25:4:PRO:HD2	1.99	0.45
27:16:29:A:H2'	27:16:30:C:C6	2.52	0.45
26:1H:729:G:N7	28:11:208:LYS:HG3	2.31	0.45
12:3I:59:ARG:HA	12:3I:65:GLU:HA	1.98	0.45
23:2L:2:C:H2'	23:2L:3:C:C6	2.49	0.45
1:13:631:G:H2'	1:13:632:A:C2	2.52	0.45
26:1H:1636:C:H2'	26:1H:1637:A:H8	1.82	0.45
1:1G:1175:G:C2	1:1G:1176:A:C5	3.04	0.45
9:8E:114:TYR:CD2	10:1I:59:SER:HA	2.52	0.45
31:49:63:ILE:HG22	31:49:143:GLU:HB2	1.97	0.45
26:14:2695:C:H2'	26:14:2696:U:C6	2.52	0.45
26:1H:2515:C:O2	26:1H:2570:G:C2	2.70	0.45
36:78:135:LEU:HD22	36:78:139:LYS:HD3	1.99	0.45
1:1G:1052:U:H5"	1:1G:1053:G:OP2	2.17	0.45
26:14:2432:A:C2	48:F5:35:THR:HG22	2.52	0.45
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.98	0.45
2:12:63:MET:HG3	2:12:225:ALA:HB1	1.99	0.45
1:13:1298:C:H4'	1:13:1299:A:O4'	2.16	0.45
1:1G:35:G:H2'	1:1G:36:C:C6	2.51	0.45
23:2K:79:U:H2'	23:2K:80:C:C6	2.52	0.45
1:1G:662:G:O2'	1:1G:836:G:OP1	2.31	0.45
48:J8:19:GLN:O	48:J8:35:THR:N	2.45	0.45
3:22:82:GLU:O	3:22:85:ARG:N	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:950:G:H2'	26:14:951:C:O4'	2.17	0.45
26:14:1993:U:H4'	29:29:128:SER:OG	2.17	0.45
22:1K:39:PSU:H3'	22:1K:40:G:H8	1.81	0.45
26:1H:1319:G:C6	26:1H:1320:C:N4	2.85	0.45
28:11:175:LEU:HA	28:11:175:LEU:HD23	1.67	0.45
53:P8:5:TRP:HA	53:P8:5:TRP:CE3	2.51	0.45
1:13:713:G:H2'	1:13:714:G:C8	2.51	0.45
26:1H:1000:A:OP2	26:1H:1154:G:N1	2.34	0.45
26:1H:306:U:C5	26:1H:307:G:C5	3.05	0.45
26:14:2749:A:O2'	32:59:62:LYS:HD3	2.17	0.45
26:14:1225:C:H4'	42:95:85:LYS:HD3	1.98	0.45
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.99	0.45
26:14:2244:U:H2'	26:14:2245:U:O4'	2.17	0.45
26:1H:2628:C:H1'	26:1H:2781:A:H2'	1.99	0.45
26:1H:1467:C:N4	26:1H:1525:G:H1	2.15	0.45
2:12:75:LYS:HA	2:12:78:GLN:CB	2.43	0.45
30:39:32:LEU:O	30:39:36:VAL:HG22	2.17	0.45
47:E5:32:ARG:HB3	47:E5:33:ALA:H	1.55	0.45
28:11:182:LEU:O	28:11:271:ILE:HG12	2.16	0.45
37:45:26:TYR:O	37:45:26:TYR:CD1	2.70	0.45
26:1H:1086:A:H1'	26:1H:1103:A:H61	1.81	0.45
1:1G:411:A:N7	1:1G:413:G:N3	2.64	0.45
26:14:2116:G:H1	26:14:2162:G:P	2.40	0.45
44:F8:1:MET:HG2	44:F8:2:LYS:H	1.81	0.45
26:1H:2329:G:H2'	26:1H:2330:G:C8	2.52	0.45
1:13:559:A:H4'	1:13:560:U:H5"	1.99	0.45
27:1J:17:C:H2'	27:1J:18:G:O4'	2.17	0.45
13:4I:91:ARG:HA	13:4I:91:ARG:HD2	1.69	0.45
46:H8:58:VAL:O	46:H8:60:GLU:N	2.50	0.45
1:1G:719:C:H5	1:1G:720:C:C4	2.35	0.45
26:1H:1169:G:H2'	26:1H:1170:G:O4'	2.16	0.45
26:1H:1906:G:H5"	26:1H:1929:G:O2'	2.17	0.45
41:85:99:ALA:HB2	41:85:106:PHE:CD1	2.52	0.45
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.99	0.45
40:75:99:LEU:HD23	40:75:99:LEU:HA	1.51	0.45
40:B8:34:VAL:HG22	40:B8:41:ARG:HB3	1.99	0.45
1:13:115:G:H4'	1:13:116:A:O5'	2.17	0.45
26:14:17:G:H2'	26:14:18:C:C6	2.52	0.45
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.51	0.45
10:1I:42:THR:HG23	10:1I:67:THR:O	2.17	0.45
1:1G:1039:C:H3'	1:1G:1040:U:H5"	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2406:U:C2	36:35:72:PRO:HB2	2.52	0.45
1:13:701:C:O2	1:13:703:G:N1	2.49	0.45
26:1H:1683:C:H2'	26:1H:1684:C:H6	1.81	0.45
46:D5:82:ARG:HA	46:D5:83:PRO:HD3	1.69	0.45
26:14:1421:G:C2	26:14:1422:G:C8	3.04	0.45
1:1G:149:A:H2'	1:1G:150:C:C6	2.51	0.45
7:62:85:TYR:N	7:62:85:TYR:CD1	2.85	0.45
35:68:17:ARG:HH11	35:68:17:ARG:HA	1.81	0.45
48:J8:21:ARG:HB3	48:J8:21:ARG:HE	1.34	0.45
41:85:55:ARG:H	41:85:55:ARG:HG2	1.51	0.45
54:M5:32:LEU:HD12	54:M5:32:LEU:O	2.17	0.45
1:13:911:U:H2'	1:13:912:C:C6	2.52	0.45
37:45:66:ILE:O	37:45:67:ARG:HB2	2.17	0.45
19:AA:19:VAL:HB	19:AA:20:LEU:HD22	1.98	0.45
26:14:1271:G:O3'	26:14:1272:A:H4'	2.17	0.45
26:1H:2572:A:C8	29:21:144:ARG:HD3	2.52	0.45
36:35:65:ARG:HH22	54:M5:47:LYS:HE2	1.82	0.45
1:1G:1306:A:N6	1:1G:1331:G:H1'	2.32	0.45
26:1H:699:A:H2'	26:1H:700:G:O4'	2.17	0.45
9:8E:112:LYS:HD2	9:8E:113:LYS:H	1.81	0.45
26:14:780:G:H21	26:14:783:A:N6	2.06	0.45
6:5E:5:GLU:HG3	6:5E:93:SER:OG	2.17	0.45
51:I5:24:THR:HG1	51:I5:25:TYR:H	1.65	0.45
26:14:2286:A:H4'	26:14:2287:A:O4'	2.17	0.45
26:1H:2210:G:H2'	26:1H:2211:G:N1	2.32	0.45
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.17	0.45
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.51	0.45
19:AA:65:ASN:OD1	19:AA:65:ASN:N	2.50	0.45
26:14:2636:U:OP1	29:29:80:GLU:HB2	2.17	0.45
51:M8:40:HIS:CE1	51:M8:45:GLY:HA3	2.53	0.45
46:D5:52:SER:C	46:D5:54:HIS:H	2.20	0.45
1:1G:1129:C:C4	1:1G:1139:G:N1	2.85	0.45
1:13:51:A:C6	1:13:353:A:C2	3.06	0.45
1:13:1409:C:H2'	1:13:1410:G:H8	1.82	0.45
1:1G:960:U:H4'	1:1G:961:U:C5'	2.47	0.45
1:13:79:G:H2'	1:13:79:G:N3	2.32	0.45
1:13:1442:G:C5	1:13:1446:A:C6	3.05	0.45
20:BI:44:ALA:HB2	20:BI:88:VAL:HG13	1.98	0.45
54:Q8:45:GLY:CA	54:Q8:46:ARG:C	2.86	0.45
37:45:21:THR:HG21	37:45:101:ARG:HD2	1.99	0.45
26:14:2772:C:H2'	26:14:2773:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2417:C:H2'	26:14:2418:A:H8	1.81	0.45
31:41:26:GLN:HG3	31:41:30:GLU:OE1	2.16	0.45
26:1H:456:C:H3'	44:F8:68:ARG:HH22	1.82	0.45
22:1K:15:A:N7	22:1K:16:U:H5	2.15	0.45
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.45	0.45
26:1H:2740:A:N6	26:1H:2764:A:C8	2.85	0.45
26:1H:2401:U:H2'	26:1H:2402:C:H1'	1.99	0.45
26:14:671:C:H2'	26:14:672:C:H6	1.81	0.45
26:14:671:C:OP1	36:35:42:SER:O	2.35	0.45
34:15:96:GLU:O	34:15:100:GLU:HG3	2.17	0.45
38:55:100:LEU:HD12	38:55:111:LEU:HB2	1.98	0.45
38:55:87:TYR:CE1	38:55:117:VAL:HG12	2.52	0.45
5:42:68:GLU:O	5:42:70:PRO:HD3	2.16	0.45
44:B5:5:TYR:HD1	49:G5:33:MET:SD	2.40	0.45
45:C5:6:HIS:CE1	45:C5:7:VAL:HG13	2.52	0.45
26:1H:2118:U:H5"	26:1H:2119:A:OP1	2.16	0.45
9:8E:84:ALA:O	9:8E:87:GLN:HB2	2.17	0.45
26:14:135:G:H2'	26:14:136:G:O4'	2.17	0.45
26:14:1063:G:H1	26:14:1075:C:H1'	1.81	0.45
6:52:72:VAL:HG13	6:52:73:ASN:OD1	2.16	0.45
3:2E:135:LYS:NZ	5:4E:52:PRO:HG2	2.31	0.45
29:21:178:GLU:HG3	29:21:178:GLU:H	1.52	0.45
45:C5:40:GLU:N	45:C5:40:GLU:OE2	2.50	0.45
3:2E:134:ILE:HD13	3:2E:134:ILE:HA	1.63	0.45
52:N8:11:THR:HG22	52:N8:12:SER:O	2.17	0.45
26:14:2698:U:H2'	26:14:2699:C:H6	1.81	0.44
26:1H:184:C:H1'	26:1H:217:G:H1'	1.98	0.44
26:1H:1889:A:H2'	26:1H:1890:A:O4'	2.17	0.44
54:Q8:34:TRP:H	54:Q8:34:TRP:HE3	1.64	0.44
45:G8:83:THR:HG22	45:G8:84:ARG:HE	1.83	0.44
26:1H:10:G:H21	26:1H:2801:A:HO2'	1.62	0.44
1:13:1147:C:O2'	9:8E:16:ARG:HD3	2.18	0.44
8:7E:6:ILE:O	8:7E:9:MET:N	2.50	0.44
26:1H:2636:U:H2'	26:1H:2637:U:H6	1.78	0.44
26:1H:1046:A:HO2'	26:1H:1047:G:P	2.38	0.44
26:1H:1557:C:H5"	26:1H:1558:A:OP2	2.17	0.44
26:14:2784:C:H1'	29:29:37:ARG:NH2	2.31	0.44
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.40	0.44
26:14:1485:G:N2	26:14:1504:C:N3	2.43	0.44
54:Q8:36:LYS:HG2	54:Q8:39:LYS:HZ2	1.82	0.44
1:13:652:U:HO2'	1:13:653:A:P	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:557:U:H2'	26:1H:558:G:C8	2.52	0.44
26:1H:242:G:H5'	54:Q8:60:LEU:HD13	1.98	0.44
39:65:18:ILE:O	39:65:21:THR:HG22	2.16	0.44
14:5I:3:ARG:O	14:5I:7:ILE:HG23	2.18	0.44
10:1I:76:ASN:HA	10:1I:77:PRO:HD2	1.80	0.44
1:13:1202:G:O2'	14:5I:27:CYS:HB3	2.17	0.44
47:E5:27:GLU:HB2	47:E5:69:PHE:HD1	1.82	0.44
35:25:111:PHE:N	35:25:111:PHE:CD1	2.85	0.44
26:1H:1543:A:C2	26:1H:1545:A:C4	3.05	0.44
49:K8:64:LEU:HD21	49:K8:68:ARG:NH1	2.33	0.44
26:1H:244:A:C2	26:1H:255:A:C4	3.05	0.44
28:11:69:ARG:NH2	28:11:128:GLY:O	2.35	0.44
26:14:2507:C:H2'	26:14:2508:G:O4'	2.16	0.44
5:42:135:THR:O	5:42:138:ALA:HB3	2.17	0.44
20:BA:55:ILE:O	20:BA:58:LYS:N	2.49	0.44
28:19:28:GLU:HG3	28:19:29:PRO:HD2	1.99	0.44
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.52	0.44
51:M8:10:VAL:HG22	51:M8:11:PRO:HD2	1.99	0.44
40:B8:60:THR:HG22	40:B8:77:PRO:HA	1.98	0.44
26:14:603:A:H8	26:14:604:G:H1'	1.81	0.44
26:14:601:C:O2	26:14:605:C:H4'	2.16	0.44
26:1H:2393:A:H5'	36:78:63:PRO:HB3	1.98	0.44
32:59:94:TYR:N	32:59:94:TYR:CD1	2.83	0.44
32:51:97:ARG:HB2	32:51:97:ARG:HE	1.43	0.44
26:14:2567:G:H2'	26:14:2568:C:C6	2.52	0.44
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.99	0.44
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.31	0.44
1:1G:1399:C:H4'	1:1G:1400:C:H5"	1.99	0.44
27:1J:10:C:C4	27:1J:11:C:C5	3.05	0.44
30:31:24:LEU:HD12	30:31:24:LEU:HA	1.76	0.44
26:14:1113:U:H2'	26:14:1114:G:O4'	2.18	0.44
26:14:2287:A:H2	26:14:2346:A:C2	2.36	0.44
1:13:976:G:C8	1:13:1358:U:C2	3.05	0.44
38:55:103:ARG:HD3	43:A5:40:ASN:ND2	2.31	0.44
1:13:1128:C:H42	1:13:1143:G:H1	1.63	0.44
26:14:1665:A:N6	57:14:3584:HOH:O	2.29	0.44
26:14:2410:G:H2'	26:14:2411:A:O4'	2.17	0.44
30:39:83:PHE:C	30:39:85:GLY:H	2.20	0.44
46:D5:29:TYR:HB3	46:D5:34:ASN:OD1	2.17	0.44
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.32	0.44
32:59:90:LYS:O	32:59:160:LYS:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:29:U:H3	22:1L:43:A:H2	1.65	0.44
46:H8:5:LEU:HD13	46:H8:6:LYS:HB2	1.99	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.48	0.44
32:59:4:ILE:HB	32:59:7:LEU:HD11	2.00	0.44
26:14:2822:G:H2'	26:14:2823:A:H5"	2.00	0.44
36:35:105:LEU:O	36:35:106:LEU:HB3	2.17	0.44
3:22:113:ALA:HB3	3:22:114:PRO:HD3	1.98	0.44
4:32:168:ARG:HD3	4:32:169:LYS:N	2.32	0.44
26:14:2820:A:C5	38:55:4:LEU:HD11	2.52	0.44
50:L8:7:LYS:HG3	50:L8:34:GLU:HG2	1.97	0.44
8:72:5:PRO:HB2	8:72:32:LYS:HE2	2.00	0.44
32:51:153:LYS:HD2	32:51:153:LYS:H	1.81	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.17	0.44
26:14:699:A:H2'	26:14:700:G:O4'	2.16	0.44
26:14:464:U:H4'	53:L5:5:TRP:CZ3	2.53	0.44
1:1G:1116:C:H42	1:1G:1184:G:H1	1.64	0.44
1:1G:1190:G:OP1	3:22:5:ILE:HG23	2.18	0.44
26:14:2236:C:H2'	26:14:2237:G:O4'	2.17	0.44
1:1G:600:C:H2'	1:1G:601:C:C6	2.52	0.44
26:1H:106:C:H2'	26:1H:107:C:H6	1.81	0.44
3:22:141:VAL:HA	3:22:144:SER:HB2	1.99	0.44
44:B5:21:PHE:CD1	44:B5:21:PHE:N	2.84	0.44
6:52:54:LYS:NZ	6:52:54:LYS:HB2	2.32	0.44
1:13:374:A:C6	1:13:375:U:C4	3.05	0.44
30:39:53:THR:HG23	30:39:55:GLY:N	2.16	0.44
26:1H:1372:U:H2'	26:1H:1373:A:C8	2.52	0.44
42:95:85:LYS:HD2	42:95:87:HIS:CA	2.46	0.44
1:13:1374:A:C4	1:13:1375:A:C8	3.06	0.44
50:L8:35:ARG:HB3	50:L8:37:LEU:CD2	2.40	0.44
30:31:63:LYS:HG2	30:31:65:TRP:O	2.17	0.44
42:D8:14:VAL:HB	42:D8:96:ILE:HG13	2.00	0.44
26:14:2387:U:H1'	47:E5:41:ARG:HE	1.82	0.44
1:1G:458:C:H42	1:1G:474:G:H1	1.65	0.44
1:13:46:G:H2'	1:13:366:C:C5	2.52	0.44
35:68:104:ARG:NH1	40:B8:36:GLU:OE2	2.50	0.44
31:49:64:THR:HB	31:49:94:LEU:HD11	1.98	0.44
28:19:8:PRO:HB3	28:19:14:ARG:HB2	1.99	0.44
49:K8:14:ARG:HB3	49:K8:15:LYS:NZ	2.33	0.44
1:1G:838:G:O5'	1:1G:838:G:H8	2.00	0.44
26:1H:931:G:O2'	50:L8:24:LYS:HE2	2.18	0.44
26:14:565:C:H4'	26:14:1253:A:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1511:G:H2'	1:13:1512:U:O4'	2.18	0.44
1:13:614:A:H2'	1:13:615:C:H6	1.81	0.44
24:3K:67:C:H2'	24:3K:68:A:H8	1.82	0.44
45:C5:88:LYS:O	45:C5:89:PHE:HB3	2.16	0.44
26:1H:463:G:H5"	26:1H:464:U:OP2	2.17	0.44
26:14:839:U:H2'	26:14:840:C:H6	1.82	0.44
3:2E:77:ILE:HA	3:2E:84:ILE:CD1	2.47	0.44
32:51:157:TYR:HD1	32:51:157:TYR:HA	1.71	0.44
1:13:540:G:H2'	1:13:541:G:O4'	2.17	0.44
26:1H:354:G:H2'	26:1H:355:G:C8	2.52	0.44
52:N8:37:LYS:HG3	52:N8:38:ALA:N	2.32	0.44
38:55:81:ASP:O	38:55:82:GLU:HB3	2.17	0.44
4:3E:191:ARG:HD3	4:3E:200:GLU:OE1	2.17	0.44
26:1H:855:G:C6	26:1H:856:C:C4	3.06	0.44
26:1H:768:G:O2'	26:1H:1379:A:N6	2.50	0.44
1:1G:877:C:O2	8:72:3:THR:OG1	2.30	0.44
32:59:144:VAL:O	32:59:148:ILE:HG12	2.18	0.44
26:1H:1435:G:O5'	26:1H:1435:G:H8	2.00	0.44
20:BI:55:ILE:HA	20:BI:55:ILE:HD13	1.90	0.44
26:14:2367:G:O5'	26:14:2367:G:H8	2.00	0.44
33:61:81:VAL:HG11	33:61:88:ILE:HD13	1.99	0.44
29:21:176:ILE:HB	29:21:181:LEU:HB2	1.99	0.44
26:1H:2287:A:H62	26:1H:2344:U:H3	1.59	0.44
1:1G:1307:U:H2'	1:1G:1308:U:O4'	2.17	0.44
1:13:1346:A:C8	1:13:1348:U:C2	3.05	0.44
26:1H:2583:G:H2'	26:1H:2584:U:O2	2.18	0.44
1:13:1128:C:H4'	9:8E:16:ARG:HH12	1.83	0.44
26:1H:1778:U:H2'	26:1H:1784:A:C6	2.52	0.44
1:1G:1003:G:H2'	1:1G:1004:A:H4'	1.98	0.44
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.53	0.44
26:1H:1086:A:H5"	26:1H:1087:G:OP1	2.18	0.44
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	2.00	0.44
7:62:132:GLY:HA3	7:62:135:VAL:HB	1.98	0.44
1:13:1302:U:OP2	13:4I:21:TYR:OH	2.16	0.44
26:1H:2684:U:OP2	40:B8:53:ARG:NH1	2.51	0.44
36:78:84:ASN:HA	36:78:115:LEU:O	2.18	0.44
1:13:1118:C:P	9:8E:104:ARG:HH11	2.41	0.44
24:3L:9:G:N2	24:3L:11:U:O4	2.50	0.44
5:42:107:ARG:HH22	5:42:108:ALA:HB2	1.83	0.44
32:51:85:LYS:O	32:51:133:VAL:HG23	2.18	0.44
26:14:2418:A:H2'	26:14:2419:U:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:26:GLN:CD	31:41:27:ASN:HB2	2.37	0.44
17:8I:100:LYS:CB	17:8I:101:ARG:HE	2.31	0.44
1:1G:178:C:H2'	1:1G:179:A:O4'	2.17	0.44
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.52	0.44
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.65	0.44
19:AA:53:ASN:OD1	19:AA:55:LYS:HB3	2.17	0.44
34:58:12:ARG:HB3	34:58:50:ASP:OD1	2.18	0.44
26:1H:2675:A:H5"	35:68:31:LYS:HD3	2.00	0.44
15:6I:4:THR:OG1	15:6I:7:GLU:HB2	2.18	0.44
3:22:125:GLU:HG2	3:22:190:ARG:O	2.16	0.44
46:H8:104:PHE:CE2	46:H8:119:GLU:HG2	2.52	0.44
40:B8:125:ARG:O	40:B8:128:GLU:HB3	2.17	0.44
1:13:1252:A:H2'	1:13:1253:G:O4'	2.17	0.44
3:22:167:TRP:H	3:22:167:TRP:HE3	1.66	0.44
12:3A:102:ARG:HB3	12:3A:102:ARG:HE	1.56	0.44
11:2I:86:GLY:N	11:2I:112:THR:OG1	2.32	0.44
43:A5:1:MET:CE	43:A5:2:GLU:H	2.30	0.44
10:1A:26:ALA:C	10:1A:85:LEU:HD21	2.38	0.44
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.50	0.44
54:M5:40:GLU:H	54:M5:43:GLN:CG	2.14	0.44
54:M5:40:GLU:N	54:M5:43:GLN:HG3	2.11	0.44
26:1H:2428:G:H21	36:78:61:ARG:HH21	1.66	0.44
26:1H:1899:G:O2'	26:1H:1900:A:OP2	2.31	0.44
26:14:2681:C:C4	26:14:2724:C:C5	3.06	0.44
51:I5:23:GLU:C	51:I5:24:THR:HG1	2.20	0.44
26:14:1771:C:C1'	26:14:1786:A:C8	3.01	0.44
46:H8:132:ASN:HD22	46:H8:134:PRO:HD3	1.82	0.44
4:3E:107:ARG:HH11	4:3E:114:ARG:NH2	2.14	0.44
3:2E:88:ARG:HA	3:2E:91:LEU:HD12	1.98	0.44
34:58:32:THR:O	34:58:36:GLY:N	2.47	0.44
26:1H:1858:G:HO2'	26:1H:1859:A:P	2.40	0.44
1:1G:1036:G:H5'	1:1G:1037:C:OP2	2.17	0.44
45:G8:76:CYS:HA	45:G8:97:ARG:HG2	1.99	0.44
26:14:1257:C:H2'	26:14:1258:C:C6	2.52	0.44
1:1G:569:C:H5"	1:1G:570:G:OP1	2.17	0.44
26:14:1093:G:H1	26:14:1097:U:H5"	1.82	0.44
5:4E:39:GLY:HA2	5:4E:113:ALA:HB1	1.99	0.44
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.48	0.44
4:32:24:GLU:HG2	4:32:25:ARG:N	2.32	0.44
9:82:114:TYR:HD2	10:1A:60:ARG:HG3	1.82	0.44
36:35:52:GLU:O	36:35:54:GLY:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:104:GLU:OE1	51:M8:23:GLU:HG3	2.18	0.44
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.99	0.44
26:14:1342:A:H2	26:14:1602:U:N3	2.16	0.44
7:6E:115:ARG:O	7:6E:118:VAL:HG13	2.17	0.44
29:21:67:PHE:C	29:21:69:LYS:H	2.20	0.44
29:21:119:ARG:HG3	29:21:119:ARG:NH1	2.33	0.44
26:1H:2376:A:C2	39:A8:112:PHE:HB3	2.52	0.44
31:41:11:TYR:O	31:41:15:VAL:HB	2.18	0.44
33:61:29:TYR:O	33:61:32:PRO:HD2	2.17	0.44
1:1G:833:U:O2'	1:1G:834:C:H5'	2.17	0.44
31:49:63:ILE:HD12	31:49:141:PHE:CD2	2.52	0.44
33:61:71:ILE:HG12	33:61:72:LEU:HD13	1.99	0.44
26:14:1542:G:O5'	26:14:1543:A:H5"	2.18	0.44
26:14:957:A:N1	26:14:2459:A:C8	2.85	0.44
1:13:254:G:O2'	17:8I:16:GLN:O	2.34	0.44
48:F5:19:GLN:HB3	48:F5:35:THR:O	2.16	0.44
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	2.00	0.44
26:14:601:C:O2'	26:14:605:C:H5"	2.16	0.44
26:14:2492:U:H2'	26:14:2493:U:C6	2.53	0.44
38:98:109:ALA:HA	38:98:110:PRO:HD2	1.89	0.44
29:21:179:GLU:O	29:21:180:ASN:HB2	2.18	0.44
1:13:1489:G:H2'	1:13:1490:C:O4'	2.18	0.44
29:29:126:PRO:O	29:29:135:HIS:HD2	2.00	0.44
45:G8:35:TYR:CE2	45:G8:69:ALA:HB3	2.52	0.44
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.17	0.44
1:13:418:C:H2'	1:13:419:C:H6	1.82	0.44
1:13:573:A:N3	1:13:883:C:O2'	2.44	0.44
26:14:1962:C:O2'	26:14:1964:G:OP2	2.35	0.44
28:19:146:GLU:OE2	28:19:152:GLY:N	2.43	0.44
26:14:2525:G:N2	26:14:2539:C:C2	2.85	0.44
13:4I:11:ARG:HG3	13:4I:46:LYS:HD2	1.99	0.44
26:1H:2896:C:H2'	26:1H:2897:U:H6	1.83	0.44
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.86	0.44
46:H8:155:LEU:HA	46:H8:155:LEU:HD23	1.87	0.44
46:H8:50:GLN:H	46:H8:50:GLN:HG2	1.53	0.44
1:13:1450:U:O2'	1:13:1451:A:H3'	2.18	0.44
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.17	0.44
14:5A:41:ARG:HG3	14:5A:42:ILE:HG12	1.99	0.44
1:13:963:G:C2	10:1I:55:LYS:NZ	2.84	0.44
24:3K:14:A:H2'	24:3K:14:A:N3	2.33	0.44
33:69:143:SER:OG	33:69:145:VAL:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:139:G:N3	26:1H:141:A:N1	2.65	0.44
36:35:35:HIS:HB3	36:35:36:LYS:H	1.53	0.44
26:14:2313:C:H2'	26:14:2314:C:C6	2.52	0.44
40:75:26:ASP:O	40:75:49:VAL:HG13	2.17	0.44
1:13:265:G:O2'	17:8I:67:LYS:N	2.51	0.44
29:21:100:GLU:O	29:21:172:VAL:HG23	2.17	0.44
12:3A:41:ARG:HH12	12:3A:43:VAL:HG22	1.82	0.44
26:1H:34:C:OP2	26:1H:34:C:C6	2.70	0.44
36:78:134:ALA:O	36:78:138:LEU:HB2	2.17	0.44
26:14:1024:G:H8	26:14:1024:G:O5'	2.00	0.44
1:1G:1128:C:N3	1:1G:1139:G:N1	2.66	0.44
2:12:58:ILE:H	2:12:58:ILE:HG12	1.51	0.44
38:98:24:GLN:OE1	38:98:36:THR:HG21	2.17	0.44
43:E8:29:LEU:HD22	43:E8:69:LEU:CD1	2.48	0.44
26:14:825:C:H4'	26:14:2428:G:C5	2.53	0.44
13:4A:14:ARG:HA	13:4A:43:THR:O	2.17	0.44
37:45:60:ARG:NH1	37:45:61:GLY:HA2	2.33	0.44
1:13:390:C:H2'	1:13:391:G:C8	2.52	0.44
39:A8:3:ARG:HG2	39:A8:4:LEU:N	2.33	0.44
1:13:633:G:H5"	1:13:634:C:OP2	2.17	0.44
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.47	0.44
2:1E:54:THR:O	2:1E:58:ILE:HG13	2.18	0.44
26:14:214:G:OP1	26:14:214:G:H4'	2.17	0.44
1:13:74:C:H2'	1:13:75:C:O4'	2.18	0.44
43:A5:61:ASN:OD1	43:A5:61:ASN:N	2.50	0.44
29:21:20:ALA:O	29:21:21:VAL:HB	2.18	0.44
42:D8:25:LEU:H	42:D8:92:THR:CG2	2.30	0.44
11:2I:33:THR:HA	11:2I:39:PRO:HA	1.99	0.44
28:19:80:ALA:HB3	28:19:94:LEU:HB3	1.99	0.44
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.99	0.44
46:H8:121:HIS:HB2	46:H8:171:ILE:HD12	2.00	0.44
43:A5:21:VAL:HG21	43:A5:76:VAL:HG12	2.00	0.44
19:AA:49:ILE:HD11	19:AA:62:ILE:HD11	2.00	0.44
4:32:189:PRO:HB2	4:32:194:LEU:HD21	1.99	0.44
1:1G:302:G:O2'	1:1G:556:C:H5"	2.17	0.44
37:88:1:MET:HB3	37:88:2:LEU:H	1.58	0.44
26:14:1255:U:OP2	26:14:2502:G:N2	2.50	0.44
45:G8:68:HIS:HB3	45:G8:71:LYS:HG2	2.00	0.44
26:14:945:A:H2	57:14:3690:HOH:O	2.00	0.44
26:1H:740:U:H2'	26:1H:741:G:C8	2.53	0.44
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1340:U:C2	26:14:1603:A:O4'	2.71	0.44
31:49:19:LEU:HD23	31:49:19:LEU:HA	1.80	0.44
4:32:192:GLU:H	4:32:192:GLU:HG3	1.50	0.44
36:78:94:GLU:OE1	36:78:124:LYS:HD3	2.18	0.44
1:13:801:U:H2'	1:13:802:A:H8	1.81	0.44
31:41:142:PRO:HB2	51:M8:31:ILE:HD12	2.00	0.44
26:1H:2576:G:P	57:1H:3669:HOH:O	2.75	0.44
26:1H:608:A:H1'	26:1H:621:A:N6	2.33	0.44
13:4I:50:GLU:O	13:4I:54:VAL:HG23	2.18	0.44
26:14:1141:U:OP2	34:15:63:THR:OG1	2.23	0.44
26:1H:1535:U:O2	26:1H:1535:U:H2'	2.16	0.44
33:61:144:VAL:HG22	33:61:145:VAL:H	1.82	0.44
48:F5:76:ARG:HB2	48:F5:94:LEU:HD13	1.99	0.44
26:1H:2098:U:O2	26:1H:2191:G:N2	2.36	0.44
24:3K:59:U:O2'	24:3K:60:A:OP1	2.31	0.44
26:1H:1859:A:C2	26:1H:1884:A:H1'	2.53	0.44
46:H8:117:LEU:HD22	46:H8:118:GLN:N	2.30	0.44
31:49:61:ALA:HA	31:49:64:THR:HG23	2.00	0.44
1:1G:1111:A:O5'	1:1G:1111:A:H8	2.00	0.44
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.17	0.44
1:1G:1125:U:H2'	1:1G:1126:U:C6	2.53	0.44
1:1G:1127:G:H1'	1:1G:1148:U:O2	2.18	0.44
26:14:1259:G:H2'	26:14:1260:G:H8	1.82	0.44
26:14:186:G:H2'	26:14:187:G:H8	1.83	0.44
26:1H:1252:G:H5"	57:1H:3639:HOH:O	2.17	0.44
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.17	0.44
34:58:71:ILE:HG21	34:58:84:LYS:HG2	1.98	0.44
26:1H:1024:G:H8	26:1H:1024:G:O5'	2.01	0.44
14:5I:7:ILE:HG22	14:5I:28:GLY:HA3	2.00	0.44
37:88:135:ASP:HB2	37:88:138:ASP:OD1	2.17	0.44
3:22:53:ALA:HB2	3:22:115:LEU:HD23	1.99	0.44
26:14:1388:G:H2'	26:14:1389:G:C8	2.51	0.44
28:19:71:ASP:OD1	28:19:103:ARG:NH1	2.49	0.44
1:13:435:C:H2'	1:13:436:C:H6	1.83	0.44
36:35:96:THR:HG23	36:35:99:LEU:HB3	2.00	0.44
1:1G:1157:A:C8	1:1G:1158:C:C5	3.06	0.44
26:14:1190:G:OP1	36:35:32:THR:HA	2.17	0.44
2:1E:172:ILE:HG13	2:1E:172:ILE:H	1.47	0.44
5:42:34:VAL:O	5:42:41:VAL:HG12	2.18	0.44
1:13:1171:G:H8	1:13:1171:G:O5'	2.00	0.44
1:13:842:C:H1'	1:13:848:C:H42	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:114:LEU:HD22	33:69:114:LEU:O	2.17	0.44
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.53	0.44
1:1G:1207:G:C6	1:1G:1208:C:C4	3.06	0.44
26:14:1480:G:H1	26:14:1513:C:H42	1.66	0.44
28:11:44:ASN:O	28:11:46:GLN:O	2.35	0.44
4:3E:84:LYS:HA	4:3E:85:LYS:C	2.38	0.44
26:14:1131:G:OP2	26:14:2515:C:H4'	2.17	0.44
4:32:162:LEU:HD21	4:32:178:VAL:HG11	2.00	0.44
1:1G:730:G:C5	1:1G:731:G:H1'	2.53	0.44
23:2K:67:C:O2'	31:41:78:SER:HB2	2.17	0.44
26:1H:270(Y):G:C2	26:1H:270(Z):U:O4	2.71	0.44
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	1.99	0.44
26:14:1341:U:OP2	26:14:1394:U:O2'	2.22	0.44
9:8E:78:LYS:HE2	9:8E:101:PHE:CE1	2.52	0.44
6:5E:8:ILE:HD12	6:5E:26:ILE:HD13	2.00	0.44
34:58:4:TYR:CE2	41:C8:100:VAL:HG11	2.53	0.44
8:72:19:VAL:HG23	8:72:21:LYS:HB2	1.99	0.44
1:13:128:G:H4'	17:8I:3:LYS:HG2	2.00	0.44
26:14:1423:G:C4	26:14:1424:G:C8	3.06	0.44
20:BA:63:ILE:HG21	20:BA:81:LYS:HG3	2.00	0.44
1:1G:1500:A:H5"	1:1G:1508:G:H5"	2.00	0.44
26:14:1065:U:N3	26:14:1074:G:H1'	2.32	0.44
1:1G:974:A:P	14:5A:41:ARG:HH12	2.41	0.44
31:41:111:LEU:HD13	31:41:179:PRO:HG2	2.00	0.44
1:13:8:A:N6	4:3E:205:GLU:O	2.51	0.44
41:85:50:ARG:HH22	42:95:72:VAL:HG23	1.83	0.44
42:95:85:LYS:HD2	42:95:87:HIS:N	2.32	0.44
34:58:66:LYS:O	34:58:70:LYS:HB3	2.17	0.44
26:14:774:A:HO2'	26:14:775:G:P	2.40	0.44
26:14:795:C:H2'	26:14:796:C:H6	1.80	0.44
1:1G:1256:A:H5"	1:1G:1258:G:C4	2.52	0.44
26:1H:795:C:H2'	26:1H:796:C:H6	1.82	0.44
1:13:7:G:H2'	5:4E:119:LEU:HD22	1.98	0.44
47:I8:46:LYS:HG2	47:I8:77:ARG:O	2.17	0.44
9:8E:16:ARG:HB2	9:8E:64:THR:OG1	2.16	0.44
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.99	0.44
30:39:67:GLN:HG3	30:39:67:GLN:O	2.18	0.44
3:2E:4:LYS:HE3	3:2E:4:LYS:HB3	1.66	0.44
1:13:329:A:C5	1:13:332:G:C6	3.06	0.44
24:3K:42:U:H2'	24:3K:43:A:H8	1.82	0.44
26:14:2865:U:C4	26:14:2866:U:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:F5:85:LEU:HB2	48:F5:88:LYS:HG3	2.00	0.44
1:1G:1139:G:H22	1:1G:1143:G:N2	2.16	0.44
53:P8:12:ARG:NH2	53:P8:44:PRO:HB3	2.32	0.44
38:98:12:ARG:HG2	38:98:12:ARG:NH1	2.31	0.44
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.51	0.44
26:1H:2804:C:H2'	26:1H:2805:G:C8	2.53	0.44
28:19:33:LEU:HA	28:19:64:ILE:HG23	1.99	0.44
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.18	0.44
30:31:32:LEU:HA	30:31:32:LEU:HD22	1.53	0.44
33:69:4:ILE:CG2	33:69:47:LEU:HD13	2.46	0.44
1:13:1308:U:OP1	13:4I:98:VAL:HG23	2.18	0.44
30:39:154:VAL:HA	30:39:191:ARG:O	2.18	0.44
26:1H:2197:U:O2'	26:1H:2198:A:H2'	2.17	0.44
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.18	0.44
26:14:868:U:C2	26:14:869:G:C8	3.06	0.44
26:1H:2182:G:N2	26:1H:2183:C:O2	2.51	0.44
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.17	0.44
33:61:88:ILE:HG22	33:61:90:GLY:N	2.33	0.44
1:1G:555:C:H2'	1:1G:556:C:C6	2.53	0.44
46:H8:30:ASN:ND2	46:H8:33:LEU:HB3	2.32	0.44
1:13:260:G:H2'	1:13:261:U:C6	2.53	0.44
1:13:589:C:H42	1:13:650:G:H1	1.65	0.44
30:39:170:LEU:HD22	30:39:172:TRP:NE1	2.33	0.44
45:G8:44:ILE:HD12	45:G8:62:GLU:CD	2.38	0.44
26:1H:43:G:H2'	26:1H:44:A:O4'	2.18	0.44
26:14:301:G:C6	26:14:317:G:C6	3.05	0.44
26:14:1680:U:H2'	26:14:1681:G:O4'	2.18	0.44
45:C5:82:PRO:HB2	45:C5:83:THR:O	2.17	0.44
26:1H:90:U:H1'	26:1H:91:A:C8	2.52	0.44
1:13:1177:G:OP1	1:13:1177:G:H4'	2.18	0.44
42:D8:62:LEU:HD12	42:D8:62:LEU:HA	1.80	0.44
36:35:135:LEU:HD23	36:35:135:LEU:HA	1.82	0.44
50:H5:5:LYS:HB3	50:H5:5:LYS:HE3	1.58	0.44
8:72:92:ARG:HA	8:72:92:ARG:HD2	1.60	0.44
26:1H:886:C:H3'	26:1H:887:A:C5'	2.48	0.44
3:2E:173:VAL:HG12	3:2E:175:LEU:HG	2.00	0.44
26:1H:833:U:H1'	36:78:55:ARG:NH1	2.33	0.44
1:13:1365:G:H2'	1:13:1366:C:H6	1.83	0.44
22:1L:47:C:H42	22:1L:56:G:H22	1.66	0.44
26:14:1035:U:H2'	26:14:1036:G:C8	2.53	0.44
1:1G:286:G:H2'	1:1G:287:U:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1036:G:H2'	1:13:1037:C:C2	2.53	0.44
51:M8:18:CYS:HB3	51:M8:39:CYS:CB	2.48	0.44
34:58:16:ILE:HG21	34:58:26:LEU:HD11	1.99	0.44
1:1G:1107:C:C4	1:1G:1108:G:C8	3.06	0.44
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.99	0.44
1:1G:1384:C:H2'	1:1G:1385:G:C8	2.53	0.44
1:13:947:G:OP1	13:4I:108:ARG:HB3	2.18	0.44
1:13:66:G:C2	1:13:67:C:C6	3.05	0.44
43:E8:17:VAL:HG23	43:E8:43:GLY:HA3	1.99	0.44
1:1G:921:U:H2'	1:1G:922:G:O4'	2.17	0.44
39:A8:41:ASP:HB3	39:A8:48:LEU:HD11	2.00	0.44
30:31:160:ASN:OD1	30:31:163:VAL:HG23	2.18	0.44
39:65:7:TYR:HE1	39:65:11:LYS:NZ	2.16	0.44
1:13:109:A:C6	1:13:326:G:C6	3.05	0.44
18:9I:32:ARG:HD2	18:9I:65:ILE:HG21	2.00	0.44
26:1H:1094:U:HO2'	26:1H:1096:A:P	2.41	0.44
28:19:77:ALA:HB2	28:19:97:TYR:CD2	2.53	0.44
38:98:29:LEU:HA	38:98:29:LEU:HD12	1.74	0.44
13:4I:98:VAL:HG22	13:4I:110:ARG:HH21	1.82	0.44
37:88:134:ARG:HH21	46:H8:122:ARG:CZ	2.31	0.44
51:I5:18:CYS:HB3	51:I5:19:GLY:HA2	2.00	0.44
1:1G:371:G:O2'	1:1G:373:A:N7	2.44	0.44
1:1G:1157:A:C8	1:1G:1158:C:C4	3.06	0.44
1:1G:197:A:OP2	1:1G:197:A:H3'	2.17	0.44
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.99	0.44
19:AI:49:ILE:HG22	19:AI:51:VAL:HG22	2.00	0.44
26:14:629:G:H5"	26:14:650:C:O2'	2.18	0.44
22:1K:15:A:H2'	22:1K:15:A:N3	2.33	0.44
29:29:145:LYS:HB3	29:29:145:LYS:HE3	1.86	0.44
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.53	0.44
1:1G:1508:G:H2'	1:1G:1509:C:O4'	2.17	0.44
52:N8:20:ARG:HA	52:N8:23:HIS:ND1	2.32	0.44
1:13:1387:G:H2'	1:13:1388:C:C6	2.53	0.44
12:3I:77:LEU:HD22	12:3I:81:SER:HB2	2.00	0.44
26:1H:1050:A:C8	26:1H:2751:G:C5	3.06	0.44
1:1G:828:A:H2'	1:1G:829:G:O4'	2.18	0.44
26:1H:787:U:H5"	26:1H:788:A:H5'	2.00	0.44
1:1G:763:G:H2'	1:1G:764:C:H6	1.83	0.44
26:1H:2070:G:C2	26:1H:2442:C:C2	3.06	0.44
1:13:256:U:H2'	1:13:257:G:O4'	2.18	0.44
26:14:243:U:OP1	54:M5:6:THR:OG1	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1245:A:H2'	1:1G:1246:C:O4'	2.18	0.44
40:B8:18:ASP:OD1	40:B8:18:ASP:N	2.50	0.44
38:98:28:LEU:O	38:98:28:LEU:HD22	2.18	0.44
26:1H:978:G:C2'	26:1H:979:G:H5'	2.48	0.44
1:13:711:G:H2'	1:13:712:A:H8	1.83	0.44
1:1G:613:C:H2'	1:1G:614:A:O4'	2.18	0.44
1:1G:1357:A:N7	1:1G:1358:U:C5	2.86	0.43
1:1G:924:C:O2'	1:1G:1502:A:N6	2.50	0.43
54:Q8:49:VAL:HG22	54:Q8:49:VAL:O	2.18	0.43
26:1H:563:G:OP2	57:1H:3607:HOH:O	2.20	0.43
1:1G:1277:C:O2'	1:1G:1279:A:H8	2.01	0.43
1:13:1452:C:HO2'	1:13:1453:G:P	2.35	0.43
39:65:109:GLY:O	39:65:110:LEU:HD22	2.18	0.43
24:3K:21:A:C5	24:3K:58:U:H1'	2.52	0.43
1:1G:1329:A:C5'	13:4A:29:ARG:HE	2.27	0.43
47:E5:34:GLY:HA2	47:E5:61:ALA:O	2.18	0.43
23:2L:87:A:C2'	23:2L:87:A:N3	2.77	0.43
36:35:1:MET:HB2	36:35:5:ASP:OD2	2.18	0.43
1:1G:458:C:N4	1:1G:464:G:O6	2.51	0.43
12:3I:90:VAL:HG11	12:3I:93:LEU:CG	2.46	0.43
36:78:116:GLY:N	36:78:134:ALA:HB2	2.33	0.43
37:88:51:ARG:HD2	37:88:66:ILE:HD11	1.99	0.43
1:1G:942:G:C2	1:1G:1342:C:C2	3.06	0.43
26:14:1729:A:OP1	26:14:1729:A:H8	2.01	0.43
1:13:1178:G:C8	1:13:1178:G:H3'	2.52	0.43
49:G5:47:ASN:HD22	49:G5:47:ASN:N	2.13	0.43
14:5I:4:LYS:O	14:5I:7:ILE:HG12	2.18	0.43
1:13:547:A:H4'	1:13:548:G:O5'	2.18	0.43
1:13:196:A:OP1	20:BI:68:LYS:NZ	2.51	0.43
1:13:437:U:H5"	4:3E:155:LEU:HD21	2.00	0.43
1:13:1486:G:H2'	1:13:1487:G:C1'	2.48	0.43
1:13:79:G:N2	1:13:89:U:C2	2.86	0.43
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.53	0.43
25:4K:37:G:H8	25:4K:37:G:OP2	2.01	0.43
24:3K:16:U:H2'	24:3K:18:G:OP2	2.17	0.43
1:13:639:G:H2'	1:13:640:A:C8	2.52	0.43
23:2K:72:C:H2'	23:2K:73:C:H6	1.83	0.43
36:35:144:GLU:HA	36:35:145:PRO:HD3	1.62	0.43
1:13:1428:A:H2'	1:13:1429:C:O4'	2.17	0.43
1:13:859:A:H2'	1:13:860:A:C8	2.53	0.43
1:1G:1481:U:H2'	1:1G:1482:G:H8	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1278:A:H2'	26:14:1279:G:C8	2.53	0.43
26:14:654(I):C:H5"	26:14:654(M):C:N4	2.33	0.43
32:59:18:GLU:HB2	32:59:25:LYS:HD2	2.00	0.43
4:3E:162:LEU:HA	4:3E:162:LEU:HD23	1.74	0.43
26:14:1440:G:C4	26:14:1441:G:C8	3.06	0.43
11:2I:124:LYS:HG3	11:2I:125:PHE:CE1	2.53	0.43
4:3E:78:LEU:HB3	4:3E:93:PHE:HE1	1.83	0.43
1:13:958:A:C6	1:13:959:A:C6	3.05	0.43
41:C8:17:ILE:HD12	41:C8:32:PHE:HE1	1.83	0.43
1:13:908:A:H2'	1:13:909:A:C8	2.53	0.43
1:1G:1055:A:H5"	1:1G:1056:U:OP2	2.18	0.43
26:1H:588:U:O4	26:1H:670:A:H1'	2.18	0.43
1:1G:616:G:N3	1:1G:617:G:C8	2.86	0.43
26:14:906:G:O3'	37:45:67:ARG:NH2	2.51	0.43
46:H8:30:ASN:HD21	46:H8:33:LEU:HB3	1.83	0.43
3:22:37:GLN:O	3:22:40:ARG:N	2.51	0.43
26:1H:137(A):G:H1'	44:F8:41:ASN:ND2	2.32	0.43
8:7E:56:LYS:HA	8:7E:57:PRO:HD3	1.83	0.43
4:32:101:LEU:HD12	4:32:101:LEU:HA	1.84	0.43
3:2E:108:ASN:HB3	3:2E:111:LEU:HB2	2.00	0.43
7:62:13:GLN:HA	7:62:14:PRO:HD3	1.82	0.43
30:31:139:PHE:HB2	30:31:166:ALA:HB1	2.00	0.43
26:1H:2528:U:H2'	26:1H:2530:A:O5'	2.18	0.43
26:1H:466:A:O4'	26:1H:683:C:H4'	2.18	0.43
29:21:31:CYS:HA	29:21:32:PRO:HD3	1.68	0.43
10:1A:79:ARG:HB3	10:1A:79:ARG:HH11	1.83	0.43
15:6A:10:LYS:HD2	15:6A:10:LYS:HA	1.67	0.43
5:42:90:VAL:O	5:42:91:LEU:HD13	2.17	0.43
30:31:93:LYS:HA	30:31:93:LYS:HD2	1.50	0.43
3:2E:19:GLU:HA	3:2E:54:ARG:HH12	1.83	0.43
1:13:1372:U:H5"	9:8E:71:SER:HB2	2.00	0.43
1:1G:1355:G:H2'	1:1G:1356:G:O4'	2.18	0.43
31:41:142:PRO:HB2	51:M8:31:ILE:HB	2.00	0.43
54:Q8:21:LYS:HZ2	54:Q8:21:LYS:HB3	1.83	0.43
36:78:58:THR:HG21	54:Q8:52:LYS:NZ	2.33	0.43
54:Q8:16:ILE:HD13	54:Q8:56:GLU:OE2	2.18	0.43
26:1H:607:U:N3	26:1H:621:A:C2	2.78	0.43
30:31:11:VAL:HG22	30:31:125:LEU:HB2	1.99	0.43
48:J8:48:LYS:HG3	48:J8:48:LYS:HZ3	1.75	0.43
26:1H:1534:G:N2	26:1H:1538:G:H22	2.16	0.43
51:I5:11:PRO:HA	51:I5:25:TYR:CG	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:35:ARG:HG2	34:15:35:ARG:H	1.66	0.43
1:1G:78:G:O6	1:1G:91:C:N4	2.50	0.43
37:88:14:ARG:HG2	37:88:41:TRP:CH2	2.53	0.43
33:69:76:THR:HG23	33:69:77:LEU:N	2.33	0.43
26:14:2520:C:HO2'	26:14:2565:A:HO2'	1.65	0.43
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.53	0.43
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.58	0.43
26:1H:2023:G:H4'	26:1H:2617:C:O3'	2.18	0.43
1:13:624:C:H4'	16:7I:11:SER:N	2.33	0.43
20:BA:75:ASN:O	20:BA:79:ARG:HB2	2.18	0.43
40:75:23:ARG:O	40:75:26:ASP:HB2	2.17	0.43
27:1J:74:U:H2'	27:1J:75:G:O4'	2.18	0.43
1:13:277:C:H5"	17:8I:68:ARG:NH2	2.32	0.43
1:13:1148:U:O3'	9:8E:14:VAL:HG11	2.18	0.43
1:13:1132:C:H2'	1:13:1133:G:C8	2.46	0.43
29:21:13:ARG:HD2	40:B8:58:ASN:HB3	2.00	0.43
16:7A:34:GLU:HG2	16:7A:35:LYS:N	2.33	0.43
26:14:2637:U:C4	26:14:2638:G:C6	3.06	0.43
40:B8:106:SER:O	40:B8:110:ILE:HB	2.18	0.43
51:M8:13:ARG:CA	51:M8:24:THR:HG21	2.49	0.43
20:BI:97:ALA:O	20:BI:99:LEU:HD13	2.18	0.43
6:5E:21:LEU:O	6:5E:24:GLU:HB3	2.18	0.43
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.15	0.43
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.17	0.43
1:1G:1069:C:H42	1:1G:1106:G:H1	1.67	0.43
1:13:1446:A:O2'	1:13:1447:G:H5'	2.19	0.43
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.53	0.43
38:98:96:ARG:CZ	38:98:117:VAL:HG23	2.49	0.43
39:A8:89:ARG:HG3	39:A8:92:TYR:O	2.17	0.43
1:1G:374:A:C6	1:1G:375:U:C4	3.06	0.43
5:42:6:PHE:HD1	5:42:36:ASP:HB3	1.83	0.43
2:12:48:MET:HA	2:12:51:LEU:HD12	1.99	0.43
27:16:57:A:H5'	31:41:26:GLN:OE1	2.18	0.43
36:78:39:LYS:HB2	36:78:45:LEU:CD2	2.47	0.43
13:4I:82:MET:C	13:4I:84:ILE:H	2.20	0.43
1:13:134:A:H1'	1:13:325:A:C4	2.53	0.43
26:1H:28:A:O2'	26:1H:583:G:H5'	2.18	0.43
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.18	0.43
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.06	0.43
26:1H:2822:G:H2'	26:1H:2823:A:H5"	2.00	0.43
26:1H:769:G:H4'	26:1H:1379:A:N1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1990:C:H2'	26:1H:1991:U:C6	2.53	0.43
26:14:2676:C:H2'	26:14:2677:G:H8	1.83	0.43
43:A5:78:GLU:OE2	43:A5:99:ARG:HD3	2.18	0.43
6:52:10:LEU:HA	6:52:84:ASN:O	2.18	0.43
26:1H:35:G:H2'	26:1H:36:G:O4'	2.18	0.43
33:61:5:LEU:HD12	33:61:13:GLY:O	2.18	0.43
30:39:131:GLY:HA2	30:39:138:GLU:HB3	2.01	0.43
26:1H:579:G:H2'	26:1H:580:C:C6	2.53	0.43
1:13:1057:G:H2'	1:13:1058:G:O4'	2.18	0.43
26:14:1058:U:O5'	26:14:1058:U:H6	2.01	0.43
52:J5:56:LYS:HB3	52:J5:56:LYS:HE2	1.74	0.43
26:1H:654:A:H3'	26:1H:654:A:N3	2.32	0.43
15:6A:67:LEU:HD23	15:6A:67:LEU:HA	1.85	0.43
32:51:74:ASN:ND2	32:51:138:LYS:HD3	2.34	0.43
26:1H:1224:G:OP2	42:D8:66:ARG:NH2	2.50	0.43
46:D5:157:LEU:HA	46:D5:158:PRO:HD2	1.85	0.43
28:11:201:HIS:O	28:11:204:ILE:HG23	2.17	0.43
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.33	0.43
3:22:47:LEU:HB3	3:22:52:LEU:HD13	1.99	0.43
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.53	0.43
23:2L:31:C:H2'	23:2L:32:C:H6	1.84	0.43
22:1K:87:A:C8	26:1H:2507:C:H1'	2.53	0.43
8:72:73:ASP:HB2	8:72:75:ARG:NH2	2.21	0.43
31:49:4:ASP:CG	31:49:5:VAL:N	2.70	0.43
36:35:36:LYS:HB3	36:35:37:GLY:H	1.39	0.43
23:2K:19:G:O6	23:2K:69:A:H5"	2.17	0.43
43:A5:70:TYR:OH	43:A5:72:LYS:HD2	2.19	0.43
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.26	0.43
1:13:625:G:H4'	16:7I:16:HIS:CG	2.53	0.43
1:1G:1004:A:H2	1:1G:1024:G:C8	2.36	0.43
23:2K:12:G:C6	23:2K:13:G:C4	3.07	0.43
1:13:1159:U:O4'	1:13:1182:G:N2	2.51	0.43
1:1G:1129:C:O5'	1:1G:1130:A:H5'	2.18	0.43
16:7I:74:LEU:HD23	16:7I:74:LEU:HA	1.62	0.43
26:1H:384:U:H2'	26:1H:385:C:C6	2.50	0.43
26:14:142:G:H2'	26:14:143:C:C6	2.53	0.43
26:14:1336:A:H2'	26:14:1337:G:H8	1.83	0.43
27:16:30:C:OP2	39:A8:32:LEU:HD21	2.18	0.43
5:42:122:GLU:O	5:42:126:ARG:NH1	2.52	0.43
1:1G:1453:G:H22	20:BA:54:LYS:NZ	2.15	0.43
4:3E:155:LEU:HD13	4:3E:158:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2474:C:H3'	26:1H:2475:C:H6	1.84	0.43
20:BI:53:LEU:HA	20:BI:56:MET:HB3	1.99	0.43
54:Q8:46:ARG:HH21	54:Q8:48:PHE:HA	1.83	0.43
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.34	0.43
27:1J:87:G:H2'	27:1J:88:C:H5'	2.00	0.43
26:14:2689:U:H5"	26:14:2713:A:C2	2.53	0.43
26:1H:1242:A:C8	26:1H:1243:G:C8	3.06	0.43
26:1H:1710:C:H4'	26:1H:2858:C:O2	2.17	0.43
46:H8:48:PHE:CE1	46:H8:71:VAL:HG21	2.53	0.43
26:14:1849:G:H2'	26:14:1850:G:H8	1.83	0.43
26:14:531:C:C5	26:14:2035:G:C2	3.06	0.43
1:13:1379:G:N7	7:6E:2:ALA:HB3	2.33	0.43
1:1G:1053:G:O2'	1:1G:1054:C:OP2	2.30	0.43
26:1H:1707:G:C5	26:1H:1756:G:C6	3.06	0.43
35:68:101:PRO:HB3	35:68:122:LEU:HD12	2.00	0.43
26:1H:2251:G:H2'	26:1H:2252:G:C8	2.53	0.43
26:14:1444:G:H2'	26:14:1445:C:C5	2.53	0.43
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.99	0.43
45:C5:84:ARG:HE	45:C5:85:VAL:C	2.20	0.43
39:65:24:LEU:HD12	39:65:40:ILE:O	2.18	0.43
26:1H:1878:G:H2'	26:1H:1879:C:C6	2.54	0.43
26:14:2887:U:H2'	26:14:2888:C:C6	2.53	0.43
26:14:250:G:OP2	54:M5:13:ARG:NH2	2.51	0.43
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.52	0.43
26:1H:673:C:H5"	30:31:81:PRO:HD2	2.00	0.43
26:1H:1845:G:OP1	28:11:258:LYS:NZ	2.43	0.43
34:58:67:LEU:HD23	34:58:88:GLU:HB3	2.00	0.43
11:2A:38:ASN:HA	11:2A:39:PRO:HD3	1.90	0.43
1:1G:939:G:H5'	7:62:102:ARG:CZ	2.48	0.43
1:1G:693:G:H2'	1:1G:694:A:C8	2.53	0.43
27:1J:66:A:C2	27:1J:108:C:C4	3.06	0.43
39:A8:106:ARG:HG3	39:A8:106:ARG:H	1.48	0.43
4:3E:156:GLU:O	4:3E:160:GLN:HB2	2.18	0.43
1:1G:17:U:H2'	1:1G:18:C:C6	2.53	0.43
35:25:12:ASP:HB3	35:25:85:VAL:HG23	1.98	0.43
2:12:162:ILE:O	2:12:185:ILE:HG12	2.18	0.43
32:59:138:LYS:HD2	32:59:138:LYS:HA	1.83	0.43
1:1G:758:G:H8	1:1G:758:G:O5'	2.01	0.43
26:14:676:A:H2	26:14:802:A:H61	1.61	0.43
26:14:729:G:O5'	28:19:208:LYS:NZ	2.48	0.43
26:14:307:G:N2	26:14:309:G:H3'	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1309:G:C6	1:1G:1329:A:C2	3.06	0.43
1:1G:1330:U:H5'	13:4A:24:GLY:H	1.84	0.43
42:95:5:VAL:HB	42:95:37:VAL:HB	1.99	0.43
39:65:26:LEU:O	39:65:88:ASP:HB2	2.18	0.43
1:13:1099:G:H2'	1:13:1100:C:C6	2.52	0.43
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	2.01	0.43
36:78:27:HIS:O	36:78:31:ALA:HA	2.18	0.43
36:35:47:ASP:HB3	36:35:49:ARG:N	2.32	0.43
1:13:102:G:O2'	1:13:151:A:N3	2.40	0.43
23:2K:62:G:HO2'	23:2K:63:G:P	2.39	0.43
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.18	0.43
26:14:273(C):C:N4	26:14:363(C):G:H1	2.12	0.43
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	2.00	0.43
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.48	0.43
1:13:875:C:H4'	8:7E:18:ARG:HH12	1.83	0.43
28:11:263:ARG:HH11	28:11:263:ARG:HB2	1.82	0.43
8:72:100:ILE:HG21	8:72:125:ARG:NE	2.33	0.43
26:1H:1263:U:H2'	26:1H:1264:G:C8	2.53	0.43
41:C8:90:VAL:HG22	42:D8:39:LEU:HB3	1.99	0.43
26:14:38:A:H1'	30:39:48:THR:HB	2.00	0.43
1:13:244:U:H4'	1:13:245:C:O5'	2.18	0.43
26:1H:934:G:H2'	26:1H:935:C:H6	1.84	0.43
36:78:2:LYS:HD3	36:78:4:SER:CB	2.47	0.43
28:11:147:LEU:HD13	28:11:155:LEU:HD21	1.99	0.43
1:1G:552:U:H1'	12:3A:32:PHE:CE1	2.54	0.43
28:11:70:TRP:CD1	28:11:70:TRP:C	2.91	0.43
35:25:113:LYS:HG2	35:25:113:LYS:H	1.33	0.43
17:8I:90:ILE:O	17:8I:93:GLN:HB3	2.18	0.43
40:75:50:ILE:HA	40:75:99:LEU:HB2	1.99	0.43
26:1H:2797:U:H5"	26:1H:2798:C:OP2	2.18	0.43
22:1K:53:A:N7	22:1K:54:G:H1'	2.33	0.43
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.54	0.43
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.53	0.43
1:1G:731:G:OP1	1:1G:766:A:H1'	2.19	0.43
1:13:574:A:N3	1:13:883:C:H1'	2.34	0.43
1:1G:332:G:OP2	20:BA:10:LEU:HD12	2.18	0.43
1:1G:277:C:OP1	17:8A:41:LYS:HE3	2.18	0.43
1:13:1126:U:N3	1:13:1127:G:C2	2.85	0.43
1:1G:101:A:C2'	1:1G:102:G:H5'	2.48	0.43
6:5E:16:GLN:HA	6:5E:19:LEU:HD12	2.00	0.43
26:1H:749:C:H5"	57:1H:4040:HOH:O	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:396:G:O2'	1:1G:398:C:OP1	2.22	0.43
29:21:92:THR:O	29:21:95:ILE:HG22	2.18	0.43
31:49:82:LEU:HA	31:49:86:MET:SD	2.59	0.43
26:1H:2627:G:N2	26:1H:2777:G:OP2	2.51	0.43
26:14:2531:A:H5'	32:59:157:TYR:CZ	2.54	0.43
22:1K:34:U:H2'	22:1K:36:A:OP2	2.18	0.43
1:13:321:A:C2	1:13:333:G:C2	3.07	0.43
29:21:66:HIS:O	29:21:66:HIS:ND1	2.51	0.43
1:13:131:C:O2	1:13:131:C:H2'	2.18	0.43
23:2K:27:G:N3	23:2K:27:G:H5"	2.33	0.43
23:2K:27:G:OP1	23:2K:27:G:H4'	2.19	0.43
26:14:570:G:H5"	57:14:3985:HOH:O	2.17	0.43
26:1H:1358:G:N2	26:1H:1372:U:C5	2.87	0.43
1:1G:1306:A:C6	1:1G:1307:U:C2	3.06	0.43
1:13:1351:U:O4	9:8E:118:LYS:HE3	2.18	0.43
44:B5:9:LEU:HA	49:G5:36:ARG:NH2	2.31	0.43
26:14:1041:C:N3	26:14:1115:G:N2	2.66	0.43
1:13:1358:U:H2'	1:13:1359:C:O4'	2.19	0.43
45:G8:94:LYS:NZ	45:G8:95:LYS:H	2.15	0.43
39:65:103:GLU:O	39:65:106:ARG:NE	2.52	0.43
38:55:104:ARG:O	38:55:108:GLY:HA2	2.19	0.43
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.19	0.43
1:13:740:U:O2'	1:13:741:G:H5'	2.18	0.43
26:1H:628:G:H2'	26:1H:629:G:C8	2.53	0.43
26:14:2480:C:H5'	26:14:2481:G:OP2	2.19	0.43
26:1H:812:C:H1'	26:1H:1250:G:C2	2.54	0.43
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.18	0.43
39:65:17:ARG:HG3	39:65:17:ARG:HH11	1.82	0.43
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.83	0.43
26:14:2376:A:H2'	26:14:2377:A:O4'	2.19	0.43
36:78:144:GLU:N	36:78:144:GLU:CD	2.71	0.43
40:75:16:ARG:NH1	40:75:80:SER:O	2.45	0.43
1:1G:1129:C:H4'	1:1G:1130:A:O5'	2.18	0.43
26:14:1105:U:H2'	26:14:1106:G:O4'	2.19	0.43
49:G5:47:ASN:ND2	49:G5:47:ASN:N	2.66	0.43
1:13:791:G:H2'	1:13:792:A:H5'	2.01	0.43
26:1H:2481:G:O2'	26:1H:2482:G:H8	2.02	0.43
26:14:1591:G:H2'	26:14:1592:C:O4'	2.18	0.43
1:13:34:C:H2'	1:13:35:G:C8	2.53	0.43
26:14:1287:A:C5	26:14:1288:U:C4	3.07	0.43
11:2I:19:ALA:HA	11:2I:32:ILE:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:136:THR:O	30:31:140:LEU:HB2	2.18	0.43
4:3E:165:MET:SD	4:3E:168:ARG:HD3	2.58	0.43
44:B5:59:VAL:HG21	44:B5:76:ARG:HD3	2.01	0.43
26:1H:2031:A:N3	26:1H:2455:G:O2'	2.44	0.43
3:2E:184:TYR:HD2	3:2E:201:TYR:CE1	2.36	0.43
26:14:396:G:H8	26:14:396:G:O5'	2.01	0.43
26:14:2432:A:C8	48:F5:33:LYS:HD2	2.54	0.43
28:19:62:TYR:HA	28:19:87:ASN:HD21	1.84	0.43
51:M8:48:ARG:HA	51:M8:48:ARG:HD3	1.87	0.43
26:14:2300:G:H2'	26:14:2301:C:C6	2.54	0.43
20:BI:30:LYS:HA	20:BI:33:ILE:HG12	2.01	0.43
1:13:1417:G:C6	1:13:1482:G:C6	3.06	0.43
26:1H:2660:A:H2'	26:1H:2661:G:O4'	2.19	0.43
26:14:397:G:N7	57:14:3832:HOH:O	2.36	0.43
52:N8:45:VAL:HG12	52:N8:51:TYR:CD2	2.54	0.43
5:4E:112:LEU:HA	5:4E:112:LEU:HD22	1.72	0.43
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.53	0.43
14:5I:8:GLU:HA	14:5I:11:LYS:HD2	1.99	0.43
5:4E:53:LEU:O	5:4E:57:LYS:HG2	2.19	0.43
7:6E:26:PHE:O	7:6E:30:ILE:HG13	2.18	0.43
35:68:77:ILE:HG12	35:68:78:ARG:N	2.34	0.43
1:13:688:G:C5	1:13:700:G:C2	3.07	0.43
26:14:337:C:H2'	26:14:338:G:O4'	2.19	0.43
3:2E:164:ARG:HB3	3:2E:164:ARG:HE	1.38	0.43
23:2K:46:G:HO2'	23:2K:47:C:P	2.42	0.43
23:2K:46:G:O2'	23:2K:47:C:O5'	2.37	0.43
5:42:147:ASP:O	5:42:151:LEU:HG	2.18	0.43
33:69:129:THR:HA	33:69:137:PRO:HA	2.01	0.43
26:14:2660:A:H2'	26:14:2661:G:O4'	2.19	0.43
27:16:12:C:C2	47:I8:74:ARG:NH1	2.87	0.43
37:45:25:ASP:OD1	37:45:25:ASP:N	2.52	0.43
27:1J:11:C:O5'	27:1J:12:C:H5	2.00	0.43
26:14:783:A:H8	26:14:784:A:H4'	1.84	0.43
26:14:1141:U:H2'	34:15:63:THR:CG2	2.47	0.43
40:B8:3:ARG:O	40:B8:3:ARG:HG3	2.19	0.43
20:BI:39:LYS:O	20:BI:42:GLN:HB3	2.19	0.43
26:1H:1533:C:C2	26:1H:1534:G:N2	2.86	0.43
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.18	0.43
29:29:89:ASP:OD1	29:29:90:THR:N	2.51	0.43
29:21:48:GLN:OE1	29:21:77:ILE:HG21	2.18	0.43
32:51:118:PRO:HD2	32:51:121:ILE:HG21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:36:LYS:HG2	31:41:38:VAL:HG23	2.00	0.43
3:2E:62:ASP:OD1	3:2E:97:LYS:HG2	2.17	0.43
27:1J:18:G:H1	27:1J:65:C:N4	2.14	0.43
39:A8:32:LEU:N	39:A8:32:LEU:HD23	2.33	0.43
14:5I:27:CYS:HB2	14:5I:29:ARG:HB2	2.00	0.43
26:1H:2481:G:HO2'	26:1H:2482:G:H8	1.66	0.43
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.54	0.43
36:35:101:VAL:HB	36:35:106:LEU:HD23	2.01	0.43
12:3A:59:ARG:NH1	12:3A:63:GLY:HA2	2.33	0.43
26:14:2461:C:H2'	26:14:2462:U:C6	2.53	0.43
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.54	0.43
26:1H:51:G:H1'	26:1H:119:A:N1	2.33	0.43
7:6E:16:LEU:HD11	9:8E:42:ARG:HA	2.01	0.43
26:1H:1184:G:C5	26:1H:1185:C:C5	3.06	0.43
26:14:2173:A:C2	26:14:2174:C:H1'	2.53	0.43
26:14:2820:A:O5'	38:55:4:LEU:HD23	2.19	0.43
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.18	0.43
19:AA:17:GLU:HG2	19:AA:21:GLU:OE1	2.19	0.43
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	2.00	0.43
1:1G:476:G:H2'	1:1G:477:G:C8	2.54	0.43
6:5E:26:ILE:O	6:5E:30:LEU:HD12	2.18	0.43
32:59:82:GLY:HA3	32:59:135:GLY:O	2.18	0.43
26:14:373:U:H2'	26:14:374:A:H8	1.84	0.43
3:22:91:LEU:HD11	3:22:101:LEU:HD12	2.00	0.43
1:13:1205:U:H2'	1:13:1206:G:C8	2.54	0.43
4:3E:20:TYR:CZ	6:52:15:ASP:HB3	2.53	0.43
1:1G:4:U:H3'	1:1G:5:U:H5'	2.00	0.43
31:49:117:PHE:CG	31:49:117:PHE:O	2.72	0.43
1:13:1044:A:C5	1:13:1045:C:H1'	2.54	0.43
26:14:189:G:OP2	48:F5:39:LYS:HE2	2.19	0.43
1:1G:1034:G:H2'	1:1G:1035:A:C8	2.54	0.43
38:98:18:LEU:HD11	38:98:22:ARG:CZ	2.49	0.43
26:14:311:A:C8	26:14:332:A:N7	2.87	0.43
26:1H:2704:C:H2'	26:1H:2705:A:O4'	2.18	0.43
17:8I:74:LEU:HA	17:8I:74:LEU:HD22	1.83	0.43
51:M8:38:LYS:N	51:M8:38:LYS:HD2	2.34	0.43
26:1H:271(B):G:H2'	26:1H:271(B):G:H8	1.67	0.43
6:52:39:LYS:HB3	6:52:39:LYS:HE3	1.55	0.43
31:41:128:ARG:HB2	31:41:128:ARG:NH2	2.33	0.43
1:1G:1063:C:H3'	1:1G:1064:G:H2'	2.00	0.43
26:1H:234:C:H2'	26:1H:235:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:234:C:H2'	26:1H:235:U:O4'	2.19	0.43
2:12:40:HIS:HB2	2:12:190:THR:HG21	2.01	0.43
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.85	0.43
11:2I:120:ARG:HA	11:2I:121:PRO:HD3	1.83	0.43
8:72:103:VAL:HG21	8:72:109:ILE:O	2.19	0.43
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.99	0.43
26:1H:2334:G:C2	39:A8:12:PHE:CD1	3.07	0.43
1:13:1328:C:H2'	1:13:1329:A:C8	2.53	0.43
5:42:152:ARG:O	8:72:64:LYS:HD3	2.19	0.43
26:14:674:G:C1'	30:39:74:ARG:HD3	2.41	0.43
1:1G:1327:C:H2'	1:1G:1328:C:H6	1.83	0.43
26:1H:944:G:H5"	26:1H:945:A:H5'	2.01	0.43
1:13:1007:C:H5'	1:13:1008:C:OP2	2.19	0.43
44:F8:67:GLY:C	44:F8:69:TYR:H	2.22	0.43
26:1H:638:G:C5	26:1H:651:G:C2	3.06	0.43
26:1H:1167:U:C2	26:1H:1183:G:N2	2.87	0.43
1:13:234:C:H2'	1:13:235:C:C6	2.52	0.43
26:14:71:A:H4'	26:14:72:U:H5"	1.99	0.43
26:1H:784:A:C8	26:1H:792:G:C5	3.06	0.43
46:D5:124:ILE:HD11	46:D5:165:VAL:HG21	1.99	0.43
26:14:1024:G:C3'	26:14:1025:G:H5"	2.42	0.43
2:1E:84:GLU:O	2:1E:88:ALA:N	2.48	0.43
26:14:1448:G:H1'	26:14:1528:A:N6	2.34	0.43
26:1H:557:U:H2'	26:1H:558:G:H8	1.83	0.43
1:13:558:G:H5"	1:13:559:A:OP2	2.19	0.43
1:13:865:A:C2	1:13:918:A:H4'	2.54	0.43
28:11:85:ASP:HB2	28:11:92:ILE:HG12	2.01	0.43
1:13:77:C:H2'	1:13:78:G:H5"	2.00	0.43
26:14:1568:G:P	28:19:63:ARG:HH12	2.42	0.43
24:3K:39:U:H2'	24:3K:40:G:H5'	2.01	0.43
26:14:2744:G:C8	26:14:2755:C:C6	3.06	0.43
9:8E:34:ASN:OD1	9:8E:34:ASN:N	2.52	0.43
26:1H:2756:U:H1'	26:1H:2757:A:H5"	2.00	0.43
22:1K:69:A:H1'	22:1K:71:U:C5	2.54	0.43
1:1G:1054:C:H4'	1:1G:1055:A:C5'	2.49	0.43
1:13:684:A:C6	1:13:685:G:C6	3.06	0.43
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.82	0.43
26:1H:2349:G:C6	26:1H:2350:C:C5	3.07	0.43
26:14:815:C:H2'	26:14:816:C:C6	2.53	0.43
26:14:330:A:H2	26:14:1210:A:O2'	2.00	0.43
32:59:27:LYS:HE3	32:59:28:GLY:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:10:VAL:HG13	35:25:17:ARG:O	2.18	0.43
2:12:76:GLN:NE2	2:12:206:ASP:OD1	2.51	0.43
46:H8:40:ASP:OD2	46:H8:43:GLU:HB2	2.19	0.43
26:14:1947:C:H2'	26:14:1948:G:O4'	2.19	0.43
32:59:58:GLU:HB2	32:59:61:HIS:CE1	2.53	0.43
30:39:129:PHE:HA	30:39:142:TRP:CD1	2.53	0.43
5:42:69:VAL:O	5:42:71:LEU:N	2.51	0.43
1:13:424:G:N2	1:13:425:G:C4	2.86	0.43
1:13:127:G:O2'	17:8I:2:PRO:O	2.36	0.43
20:BI:29:LYS:HE3	20:BI:29:LYS:HB2	1.65	0.43
20:BI:91:LEU:HA	20:BI:91:LEU:HD23	1.90	0.43
26:1H:2174:C:H2'	26:1H:2175:C:C6	2.53	0.43
38:55:44:LEU:HD22	38:55:48:VAL:HG23	2.00	0.43
1:13:1331:G:OP2	13:4I:23:TYR:HD2	2.02	0.43
1:1G:976:G:P	14:5A:32:SER:H	2.42	0.43
1:1G:1348:U:N3	1:1G:1374:A:H2	1.97	0.43
9:82:112:LYS:HD3	9:82:113:LYS:O	2.19	0.43
1:13:1366:C:O3'	10:1I:60:ARG:NH2	2.52	0.43
27:16:12:C:H2'	47:I8:73:GLY:HA3	2.01	0.43
27:1J:40:U:H1'	27:1J:45:A:H61	1.83	0.43
40:B8:102:ILE:HA	40:B8:105:LEU:HD22	2.01	0.43
26:14:662:G:H5'	36:35:14:LYS:HB2	2.00	0.43
23:2L:72:C:C6	23:2L:73:C:H5	2.37	0.43
26:1H:638:G:H2'	26:1H:639:U:O4'	2.19	0.43
33:61:110:ASP:CG	33:61:130:TYR:HE1	2.22	0.43
1:13:553:A:H5"	12:3I:24:VAL:HG21	2.01	0.43
20:BA:79:ARG:HE	20:BA:83:ARG:NH1	2.17	0.43
32:59:84:SER:OG	32:59:85:LYS:N	2.51	0.43
29:29:37:ARG:HD3	29:29:44:TYR:CE2	2.53	0.43
51:M8:40:HIS:NE2	51:M8:45:GLY:HA3	2.34	0.43
44:F8:31:HIS:CD2	44:F8:33:LYS:H	2.37	0.43
26:1H:29:U:H2'	26:1H:30:G:H8	1.80	0.43
30:31:130:ALA:C	30:31:132:VAL:H	2.22	0.43
26:1H:2348:U:OP1	54:Q8:36:LYS:HB3	2.19	0.43
41:85:74:LEU:HD11	41:85:110:VAL:HG13	2.01	0.43
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.54	0.43
49:K8:42:GLY:C	49:K8:44:LEU:N	2.71	0.43
16:7I:53:VAL:HG21	16:7I:77:ALA:HB1	2.01	0.43
20:BA:48:LYS:O	20:BA:50:GLU:N	2.51	0.43
1:13:498:A:C6	1:13:547:A:C8	3.06	0.43
2:12:42:ILE:CG1	2:12:202:PRO:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:47:THR:HG23	2:12:202:PRO:HD2	2.01	0.43
26:14:1392:A:N6	26:14:1393:A:N6	2.67	0.43
26:14:74:A:H4'	26:14:75:G:O5'	2.19	0.43
4:32:93:PHE:CZ	4:32:97:LEU:HD11	2.53	0.43
50:H5:39:ASP:CG	50:H5:44:ARG:HH21	2.22	0.43
2:1E:212:GLN:OE1	2:1E:216:SER:OG	2.37	0.43
1:1G:833:U:H2'	1:1G:834:C:H6	1.84	0.43
36:35:78:PRO:HA	36:35:110:TYR:HD2	1.83	0.43
26:1H:1222:C:C2	26:1H:1223:C:C5	3.07	0.43
26:14:270(T):G:C6	26:14:270(U):C:C4	3.06	0.43
26:1H:465:G:H8	26:1H:465:G:O5'	2.01	0.43
26:14:2030:A:H4'	26:14:2031:A:H8	1.84	0.43
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	2.01	0.43
43:E8:24:ILE:HG13	43:E8:24:ILE:H	1.71	0.43
1:1G:56:U:H2'	1:1G:57:G:H8	1.83	0.43
1:1G:1206:G:C6	1:1G:1207:G:C6	3.07	0.43
26:14:813:U:C2	26:14:1195:G:N2	2.87	0.43
7:62:86:GLN:N	7:62:86:GLN:OE1	2.51	0.43
3:2E:136:GLN:HG2	3:2E:140:ARG:HH12	1.83	0.43
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	2.01	0.43
3:22:191:THR:OG1	3:22:194:GLY:O	2.33	0.43
1:1G:923:A:H5'	5:42:21:ALA:HB2	1.99	0.43
39:65:66:ALA:O	39:65:69:VAL:HG13	2.19	0.43
26:1H:569:U:C4	26:1H:570:G:C6	3.07	0.43
4:32:154:ASN:ND2	4:32:155:LEU:HG	2.33	0.43
1:13:152:A:N6	1:13:170:U:C2	2.87	0.43
44:F8:5:TYR:CZ	49:K8:30:ARG:HB2	2.53	0.43
27:16:87:G:N2	27:16:89(A):A:OP2	2.47	0.43
39:65:12:PHE:HA	39:65:12:PHE:HD1	1.66	0.43
38:98:4:LEU:HD13	38:98:4:LEU:HA	1.48	0.43
29:29:200:GLU:N	29:29:200:GLU:OE1	2.52	0.43
26:14:2839:G:H5'	38:55:46:GLY:HA2	2.00	0.43
1:13:1194:U:H2'	1:13:1195:C:C6	2.54	0.43
1:13:288:A:H2'	1:13:289:G:H4'	1.99	0.43
26:1H:761:A:H5"	57:1H:3620:HOH:O	2.18	0.43
26:1H:1614:A:P	57:1H:3743:HOH:O	2.76	0.43
31:41:110:ALA:HA	31:41:140:ILE:O	2.19	0.43
54:Q8:9:GLY:H	54:Q8:12:LYS:H	1.66	0.43
27:1J:40:U:OP2	27:1J:40:U:H6	2.01	0.43
8:72:20:TYR:HE2	8:72:75:ARG:HG2	1.83	0.43
26:14:1019:U:O2'	26:14:1021:A:H2	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2836:U:C4	26:1H:2883:A:N6	2.86	0.43
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.84	0.43
39:65:110:LEU:HD23	39:65:112:PHE:CE1	2.53	0.43
26:1H:363:G:H2'	26:1H:363(A):A:C8	2.54	0.43
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.84	0.43
23:2L:63:G:N3	23:2L:64:G:C8	2.87	0.43
36:78:19:VAL:HG21	36:78:27:HIS:CG	2.53	0.43
23:2K:62:G:O2'	23:2K:63:G:P	2.77	0.43
21:1B:8:THR:HB	21:1B:11:GLY:N	2.33	0.43
18:9A:22:VAL:HG12	18:9A:56:THR:HA	2.00	0.43
26:14:1537:C:C2	26:14:1538:G:N7	2.86	0.43
1:1G:434:U:H2'	1:1G:435:C:C6	2.54	0.43
26:14:1164:G:H2'	26:14:1165:U:C6	2.54	0.43
26:1H:2838:G:C6	26:1H:2839:G:C5	3.07	0.43
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.47	0.43
26:1H:1265:A:C8	26:1H:1267:U:C2	3.06	0.43
3:2E:69:HIS:HA	3:2E:104:GLN:O	2.19	0.43
26:1H:2173:A:OP1	26:1H:2173:A:H8	2.02	0.43
3:2E:195:VAL:O	3:2E:196:LEU:HD23	2.19	0.43
11:2A:65:ALA:HB1	11:2A:98:LEU:HD21	2.00	0.43
41:85:66:ASN:OD1	41:85:76:TYR:N	2.46	0.43
34:58:112:LEU:HA	34:58:112:LEU:HD12	1.73	0.43
26:1H:265:A:H1'	26:1H:266:G:O4'	2.18	0.43
26:14:2191:G:C5	26:14:2192:G:C8	3.05	0.43
26:1H:2747:G:H5"	32:51:70:THR:CG2	2.49	0.43
26:1H:2689:U:H5"	26:1H:2713:A:H2	1.84	0.43
3:22:14:ILE:HG12	3:22:15:THR:H	1.84	0.43
26:14:438:G:H2'	26:14:439:G:H8	1.83	0.43
29:29:11:MET:HA	29:29:24:THR:HA	2.00	0.43
27:1J:7:G:H4'	39:65:29:PHE:CD2	2.54	0.43
26:14:1820:U:O2	28:19:201:HIS:HB3	2.19	0.43
26:1H:1530:G:O6	26:1H:1542:G:N2	2.52	0.43
26:14:869:G:C2	26:14:909:A:C2	3.07	0.43
32:59:19:VAL:O	32:59:25:LYS:HE3	2.18	0.43
35:25:113:LYS:O	35:25:117:LEU:HD23	2.19	0.43
28:11:43:ARG:HD2	28:11:49:ILE:HG12	2.01	0.43
34:15:30:ILE:HG22	34:15:34:LEU:HD22	2.01	0.43
14:5I:25:VAL:HG22	14:5I:39:LEU:HD23	2.00	0.43
1:13:160:A:H2'	1:13:161:A:O4'	2.19	0.43
1:13:159:G:N2	1:13:162:A:OP2	2.51	0.43
46:H8:92:SER:O	46:H8:130:PRO:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:821:G:H2'	1:1G:822:C:C6	2.53	0.43
1:13:687:A:C2'	1:13:701:C:H41	2.31	0.43
26:1H:2697:G:H2'	26:1H:2698:U:O4'	2.18	0.43
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.19	0.43
10:1A:94:VAL:HG12	10:1A:96:ILE:HD13	1.99	0.43
25:4L:37:G:H2'	25:4L:38:U:C6	2.53	0.43
12:3A:124:LYS:HA	12:3A:125:PRO:HD3	1.92	0.43
27:16:37:C:H2'	27:16:38:C:O4'	2.18	0.43
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.18	0.43
16:7A:45:THR:O	16:7A:48:TRP:HD1	2.01	0.43
6:5E:33:TYR:CD2	6:5E:75:LEU:HD23	2.54	0.43
12:3A:24:VAL:O	12:3A:26:ALA:N	2.51	0.43
17:8A:6:LEU:HA	17:8A:6:LEU:HD23	1.76	0.43
37:45:3:MET:HE2	37:45:3:MET:HB3	1.80	0.43
42:95:84:LYS:HA	42:95:84:LYS:HD2	1.50	0.43
30:31:127:GLU:OE2	30:31:127:GLU:HA	2.19	0.43
37:88:45:GLN:H	37:88:45:GLN:CD	2.21	0.43
46:H8:14:LYS:HA	46:H8:15:PRO:HD2	1.75	0.43
26:1H:1615:C:C2	43:E8:87:PRO:HG2	2.54	0.43
26:1H:586:A:P	57:1H:3735:HOH:O	2.76	0.43
1:13:1346:A:H61	1:13:1374:A:H3'	1.84	0.43
42:D8:76:LYS:O	42:D8:79:VAL:HG12	2.19	0.43
22:1K:87:A:N6	26:1H:2583:G:O2'	2.52	0.43
45:G8:95:LYS:O	45:G8:96:ILE:HG13	2.19	0.43
26:14:328:U:H4'	45:C5:68:HIS:CD2	2.54	0.43
29:29:58:ARG:NH2	29:29:58:ARG:HG2	2.31	0.43
26:1H:529:A:H8	26:1H:530:G:C6	2.36	0.43
26:1H:1168:G:C2	26:1H:1182:A:C2	3.07	0.43
26:14:251:A:C5	26:14:252:G:H1'	2.54	0.43
1:13:46:G:H2'	1:13:366:C:H5	1.83	0.43
12:3I:90:VAL:HG12	12:3I:91:LYS:N	2.34	0.43
14:5A:37:PHE:CZ	14:5A:56:VAL:HG21	2.49	0.43
1:1G:409:G:C6	1:1G:410:G:C4	3.07	0.43
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.52	0.43
4:32:114:ARG:O	4:32:118:ARG:N	2.52	0.43
54:Q8:6:THR:HG22	54:Q8:59:LYS:HD2	2.01	0.43
42:D8:43:GLU:HA	42:D8:44:LYS:HA	1.87	0.43
6:5E:18:GLN:HG2	6:5E:21:LEU:HD22	2.01	0.43
46:H8:4:ARG:CZ	46:H8:58:VAL:HG21	2.49	0.43
26:14:481:G:C4	26:14:507:A:C2	3.07	0.43
26:1H:2165:G:N7	26:1H:2166:G:N2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2786:U:H2'	26:14:2787:C:O4'	2.19	0.43
26:14:947:G:H2'	26:14:948:G:H8	1.82	0.43
38:55:24:GLN:OE1	38:55:36:THR:HG21	2.19	0.43
26:14:999:U:H5"	26:14:1154:G:O6	2.19	0.43
26:14:2694:G:C5	26:14:2695:C:C5	3.07	0.43
26:14:321:G:C4	26:14:341:G:H4'	2.54	0.43
1:13:474:G:C6	1:13:475:G:C6	3.07	0.43
1:13:909:A:H3'	1:13:910:C:H6	1.84	0.43
26:14:2492:U:H2'	26:14:2493:U:H6	1.83	0.43
26:1H:432:A:C6	26:1H:433:C:C4	3.07	0.43
1:13:1533:C:H2'	1:13:1534:A:O4'	2.18	0.43
20:BA:14:LYS:HE2	20:BA:18:GLN:OE1	2.19	0.43
26:1H:807:U:H2'	26:1H:808:G:O4'	2.18	0.43
26:1H:539:G:H2'	26:1H:540:G:H8	1.84	0.43
32:51:15:VAL:HG12	32:51:28:GLY:HA3	2.01	0.43
1:1G:66:G:C2	1:1G:67:C:C6	3.07	0.43
28:19:266:SER:O	28:19:269:PHE:HB2	2.19	0.43
26:1H:755:C:H2'	26:1H:756:C:C6	2.53	0.43
5:42:83:GLU:O	5:42:83:GLU:HG3	2.18	0.43
12:3A:60:LEU:HA	12:3A:60:LEU:HD13	1.85	0.43
15:6I:6:GLU:CD	15:6I:6:GLU:H	2.22	0.43
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.54	0.43
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.54	0.43
51:M8:15:ILE:HB	51:M8:32:TYR:CE2	2.53	0.43
31:41:108:ASN:HD22	51:M8:21:VAL:HG11	1.83	0.43
43:A5:58:ALA:HB1	43:A5:64:MET:HB2	2.00	0.43
1:13:828:A:H2'	1:13:829:G:O4'	2.18	0.43
31:41:130:ASN:HB3	31:41:160:VAL:HA	2.00	0.43
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	2.00	0.43
26:14:130:C:O3'	26:14:1349:A:H1'	2.19	0.42
32:59:30:LYS:NZ	32:59:136:ILE:O	2.52	0.42
26:14:2402:C:H5	26:14:2415:G:H22	1.66	0.42
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.52	0.42
49:K8:47:ASN:HB2	49:K8:50:ILE:HD11	2.00	0.42
26:1H:780:G:C2	26:1H:782:A:C2	3.07	0.42
2:1E:162:ILE:O	2:1E:185:ILE:HG12	2.18	0.42
2:1E:21:ARG:HG3	2:1E:22:LYS:NZ	2.34	0.42
30:31:23:ASP:CG	30:31:24:LEU:H	2.22	0.42
26:1H:2801:A:OP2	26:1H:2895:U:O2'	2.25	0.42
1:13:232:G:C5	1:13:233:C:C5	3.07	0.42
1:13:1142:G:C5	1:13:1143:G:H1'	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:88:LEU:HA	36:35:88:LEU:HD12	1.84	0.42
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.18	0.42
44:B5:49:VAL:HA	44:B5:87:GLN:OE1	2.19	0.42
23:2K:75:G:O2'	23:2K:76:U:O5'	2.34	0.42
40:B8:26:ASP:OD2	40:B8:120:ARG:NH2	2.40	0.42
24:3L:33:U:H2'	24:3L:34:U:C5	2.54	0.42
23:2L:21:A:C2	23:2L:46:G:C4	3.07	0.42
1:13:1277:C:O2'	1:13:1279:A:H1'	2.18	0.42
13:4A:91:ARG:HB3	13:4A:98:VAL:HG12	2.01	0.42
4:32:173:TRP:O	4:32:186:LEU:HB2	2.19	0.42
38:55:76:VAL:O	38:55:80:PHE:N	2.52	0.42
26:14:1005:C:H2'	26:14:1006:C:C6	2.54	0.42
26:14:1006:C:H1'	34:15:106:MET:HB3	2.01	0.42
32:51:151:ILE:HG13	32:51:151:ILE:H	1.63	0.42
38:98:10:LEU:O	38:98:11:ASN:C	2.56	0.42
26:14:827:U:O2'	26:14:2068:U:C2	2.69	0.42
10:1I:32:ALA:CB	10:1I:76:ASN:HB2	2.49	0.42
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	2.01	0.42
46:H8:4:ARG:NH1	46:H8:60:GLU:OE2	2.51	0.42
26:14:2232:U:P	48:F5:40:ARG:HH22	2.42	0.42
4:32:120:LEU:HD23	4:32:120:LEU:HA	1.81	0.42
24:3L:15:A:H8	24:3L:16:U:C4	2.36	0.42
26:14:2656:U:H3	26:14:2665:A:H2	1.65	0.42
30:31:170:LEU:HA	30:31:170:LEU:HD13	1.85	0.42
9:8E:18:PHE:HD2	9:8E:62:TYR:CD2	2.37	0.42
24:3L:83:U:C2'	24:3L:84:A:H5'	2.48	0.42
41:85:99:ALA:HB2	41:85:106:PHE:CG	2.54	0.42
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.18	0.42
26:14:598:G:H5'	36:35:11:GLY:HA3	2.01	0.42
1:1G:750:G:O3'	15:6A:18:PHE:HZ	2.02	0.42
1:13:755:G:O5'	1:13:755:G:H8	2.02	0.42
3:22:136:GLN:HA	3:22:139:GLN:HB3	2.01	0.42
45:C5:76:CYS:SG	45:C5:97:ARG:HG3	2.59	0.42
26:14:2801:A:H5"	26:14:2895:U:H4'	2.00	0.42
3:22:154:SER:O	3:22:196:LEU:HD13	2.19	0.42
1:13:384:G:C6	1:13:385:C:N4	2.87	0.42
26:1H:174:C:H2'	26:1H:175:G:O4'	2.19	0.42
1:1G:909:A:H2'	1:1G:910:C:O4'	2.19	0.42
34:15:1:MET:HB2	34:15:2:LYS:H	1.55	0.42
33:69:33:ARG:HB3	33:69:35:LEU:HD21	2.01	0.42
30:31:123:LEU:HD13	30:31:192:LEU:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:62:C:H5”	26:1H:63:U:OP2	2.20	0.42
3:22:119:ARG:HH22	3:22:140:ARG:HG2	1.82	0.42
26:1H:1766:U:H2’	26:1H:1767:C:H6	1.83	0.42
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.49	0.42
26:1H:304:G:C2	26:1H:314:A:C2	3.06	0.42
18:9A:21:LYS:HE3	18:9A:54:ARG:O	2.18	0.42
9:82:111:ARG:HB3	9:82:111:ARG:HE	1.49	0.42
26:14:669:G:C2’	26:14:669:G:N3	2.81	0.42
47:E5:60:PHE:CD1	47:E5:60:PHE:N	2.87	0.42
19:AA:15:LEU:HD22	19:AA:18:LYS:HB2	2.00	0.42
7:62:42:ILE:HG23	7:62:117:ALA:HB2	2.01	0.42
26:1H:1429:G:H1’	26:1H:1568:G:H1’	2.00	0.42
26:1H:1155:A:H3’	57:1H:3677:HOH:O	2.18	0.42
26:14:2848:G:C8	40:75:97:ALA:HB2	2.54	0.42
26:1H:318:C:O2’	26:1H:319:C:H5’	2.18	0.42
28:19:37:LEU:O	28:19:37:LEU:HD12	2.19	0.42
36:78:62:LEU:HB3	54:Q8:23:VAL:HG21	2.01	0.42
1:13:1316:G:N2	1:13:1318:A:H3’	2.34	0.42
23:2L:31:C:H2’	23:2L:32:C:C6	2.54	0.42
26:1H:2512:C:H4’	29:21:122:PHE:CE2	2.54	0.42
1:13:1453:G:H2’	20:BI:39:LYS:HE2	2.01	0.42
41:85:90:VAL:HA	42:95:39:LEU:HD22	2.01	0.42
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	2.00	0.42
27:16:109:G:C6	27:16:110:G:C5	3.07	0.42
13:4A:3:ARG:HB2	51:I5:34:GLU:CG	2.48	0.42
41:C8:92:ARG:HD3	41:C8:94:ASN:HB2	2.01	0.42
1:1G:448:A:H2’	1:1G:449:C:O2	2.19	0.42
26:1H:547:A:C6	26:1H:548:A:N6	2.87	0.42
29:29:81:ILE:O	29:29:82:ARG:HB2	2.20	0.42
54:Q8:57:ARG:H	54:Q8:57:ARG:HH11	1.66	0.42
26:1H:232:G:H5”	26:1H:232:G:C8	2.50	0.42
36:35:121:LYS:O	36:35:123:LEU:N	2.47	0.42
32:51:83:TYR:HA	32:51:135:GLY:H	1.82	0.42
26:14:1590:U:H2’	26:14:1591:G:C8	2.53	0.42
41:C8:90:VAL:HG22	42:D8:39:LEU:HG	2.01	0.42
1:13:1413:A:H2’	1:13:1414:U:O4’	2.18	0.42
1:13:1442:G:H1	1:13:1461:G:H21	1.67	0.42
1:1G:186(A):C:H2’	1:1G:186(B):C:C6	2.54	0.42
45:C5:87:LYS:NZ	45:C5:89:PHE:HB3	2.33	0.42
1:1G:1176:A:O2’	1:1G:1177:G:H5’	2.19	0.42
36:78:84:ASN:HB3	36:78:117:GLU:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:76:ILE:HG23	5:42:142:LEU:HD13	2.01	0.42
1:1G:198:G:H2'	1:1G:199:G:H8	1.84	0.42
26:14:28:A:C2	26:14:513:A:C8	3.06	0.42
26:14:448:U:C4	26:14:583:G:H1'	2.54	0.42
51:I5:14:ILE:HG12	51:I5:33:VAL:HG21	2.01	0.42
26:14:380:U:H2'	26:14:381:G:C8	2.54	0.42
1:1G:750:G:H21	15:6A:23:GLY:HA3	1.84	0.42
52:J5:52:TYR:CD1	52:J5:53:ALA:N	2.86	0.42
39:A8:36:TYR:N	39:A8:36:TYR:HD1	2.17	0.42
33:61:7:GLU:HG2	33:61:9:LEU:HD22	2.01	0.42
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.85	0.42
1:13:1387:G:H2'	1:13:1388:C:H6	1.84	0.42
51:M8:46:GLN:HG3	51:M8:48:ARG:HG2	2.01	0.42
45:G8:29:GLU:HB3	45:G8:38:ILE:HG23	2.00	0.42
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.19	0.42
29:21:128:SER:OG	29:21:129:HIS:N	2.50	0.42
29:21:3:GLY:HA3	29:21:81:ILE:HG21	2.00	0.42
26:14:303:U:H2'	26:14:304:G:C8	2.54	0.42
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.54	0.42
26:1H:459:U:H5"	53:P8:40:TRP:CD2	2.54	0.42
26:14:832:G:H21	36:35:53:GLY:HA3	1.83	0.42
26:1H:78:A:H2'	26:1H:79:G:H8	1.84	0.42
33:69:65:ALA:O	33:69:69:LYS:N	2.52	0.42
35:68:29:ASN:OD1	35:68:29:ASN:N	2.44	0.42
28:19:52:ARG:HB2	28:19:53:PHE:CD2	2.54	0.42
26:1H:2093:G:C6	26:1H:2225:A:C8	3.07	0.42
26:14:1540:G:H2'	26:14:1541:U:C6	2.54	0.42
1:1G:1199:U:H4'	10:1A:54:PHE:CZ	2.55	0.42
40:75:4:GLY:N	40:75:7:ILE:HG22	2.34	0.42
26:1H:2213:U:H6	26:1H:2213:U:H2'	1.71	0.42
1:1G:92:G:H2'	1:1G:93:U:O4'	2.19	0.42
34:58:96:GLU:C	34:58:98:VAL:N	2.70	0.42
24:3K:59:U:O2'	24:3K:60:A:P	2.77	0.42
26:14:2527:C:N4	26:14:2528:U:C4	2.87	0.42
12:3A:41:ARG:NH1	12:3A:41:ARG:HB3	2.33	0.42
2:12:6:THR:OG1	2:12:7:VAL:N	2.53	0.42
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.52	0.42
4:32:173:TRP:NE1	4:32:174:LEU:HG	2.34	0.42
26:1H:1228:G:C2'	26:1H:1229:G:H5'	2.49	0.42
26:14:218:A:C2	26:14:235:U:H4'	2.54	0.42
4:32:148:VAL:HG12	4:32:152:SER:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:11:G:C5	1:13:12:U:C5	3.06	0.42
19:AA:51:VAL:HG12	19:AA:52:TYR:H	1.84	0.42
26:14:2131:G:OP2	26:14:2132:U:H5'	2.19	0.42
26:14:2370:G:H2'	26:14:2371:G:O4'	2.19	0.42
26:1H:2467:C:H4'	37:88:123:HIS:ND1	2.34	0.42
26:14:1027:A:H5'	27:1J:88:C:H41	1.84	0.42
1:1G:113:G:H2'	1:1G:114:U:H6	1.84	0.42
8:72:10:LEU:O	8:72:14:ARG:HB2	2.19	0.42
1:1G:1254:C:OP1	10:1A:45:ARG:HA	2.19	0.42
26:1H:2689:U:H4'	26:1H:2690:C:H5'	2.00	0.42
26:14:1014:U:H2'	26:14:1015:G:C8	2.54	0.42
19:AI:15:LEU:HB2	19:AI:31:ILE:HD11	2.01	0.42
24:3L:84:A:C8	24:3L:84:A:H3'	2.54	0.42
26:14:871:U:OP1	37:45:5:ARG:HG2	2.19	0.42
26:1H:483:A:C8	26:1H:484:C:C5	3.08	0.42
34:15:34:LEU:HA	34:15:34:LEU:HD12	1.71	0.42
1:1G:749:C:H2'	1:1G:750:G:H8	1.84	0.42
31:41:43:LEU:HG	31:41:45:GLU:HG3	2.02	0.42
26:1H:998:C:H2'	26:1H:999:U:O4'	2.19	0.42
43:A5:20:VAL:HG11	43:A5:44:ALA:H	1.84	0.42
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.90	0.42
10:1A:27:ALA:HA	10:1A:85:LEU:HD11	2.01	0.42
4:32:101:LEU:HD23	4:32:121:VAL:CG1	2.50	0.42
46:H8:24:LEU:HD22	46:H8:41:LEU:HD23	2.00	0.42
22:1K:2:C:H2'	22:1K:3:C:C6	2.54	0.42
26:14:455:C:N3	26:14:473:G:H5'	2.34	0.42
4:3E:188:LEU:HD23	4:3E:188:LEU:HA	1.81	0.42
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.84	0.42
52:J5:31:VAL:HG13	52:J5:42:PRO:HG3	2.01	0.42
24:3K:20:U:H2'	24:3K:70:G:O6	2.20	0.42
46:D5:3:TYR:HB3	46:D5:47:VAL:HG13	2.01	0.42
30:39:132:VAL:C	30:39:134:GLY:H	2.22	0.42
30:31:12:LEU:HD11	30:31:17:ARG:CZ	2.49	0.42
1:1G:200:G:O2'	1:1G:201:C:H5'	2.19	0.42
46:D5:67:LEU:HA	46:D5:68:PRO:HD3	1.87	0.42
6:5E:100:ASN:O	18:9I:28:GLU:HG2	2.19	0.42
1:1G:514:C:H2'	1:1G:515:G:O4'	2.20	0.42
48:F5:75:GLU:O	48:F5:75:GLU:HG3	2.19	0.42
1:1G:1346:A:H3'	1:1G:1346:A:OP2	2.19	0.42
1:13:1203:C:H6	1:13:1203:C:O5'	2.02	0.42
27:1J:9:G:OP1	39:65:25:ARG:NH2	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:C8:27:LEU:HD22	41:C8:27:LEU:HA	1.71	0.42
34:58:107:LEU:HA	34:58:107:LEU:HD23	1.80	0.42
1:13:49:U:C4	1:13:364:A:C5	3.08	0.42
26:14:1629:U:O2	26:14:2698:U:H5"	2.19	0.42
26:1H:307:G:N2	26:1H:309:G:H3'	2.34	0.42
26:14:4:C:H42	26:14:2899:G:N2	1.94	0.42
10:1A:54:PHE:CD2	10:1A:55:LYS:HD2	2.54	0.42
31:41:113:ARG:HD3	31:41:140:ILE:O	2.19	0.42
26:14:993:G:N3	42:95:89:GLN:NE2	2.67	0.42
36:35:55:ARG:HG2	36:35:56:SER:N	2.33	0.42
35:68:25:LEU:HD21	35:68:40:VAL:HG23	2.01	0.42
26:1H:2577:A:C5'	26:1H:2578:G:H5'	2.47	0.42
35:25:35:VAL:HG11	35:25:103:ALA:CB	2.42	0.42
5:4E:118:ILE:HG12	5:4E:119:LEU:N	2.35	0.42
2:12:189:ASP:H	2:12:192:SER:HB2	1.84	0.42
42:95:44:LYS:HG2	42:95:45:THR:OG1	2.19	0.42
20:BA:73:HIS:HB3	20:BA:74:LYS:HZ2	1.84	0.42
26:14:2647:U:H3	26:14:2673:G:H1	1.67	0.42
26:14:2139:C:N3	26:14:2153:G:H1'	2.34	0.42
30:39:123:LEU:HA	30:39:192:LEU:O	2.19	0.42
9:8E:102:LEU:HD23	9:8E:102:LEU:HA	1.83	0.42
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.33	0.42
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	2.02	0.42
32:51:4:ILE:HG12	32:51:4:ILE:O	2.18	0.42
32:51:6:ARG:HG2	32:51:66:GLY:N	2.34	0.42
26:14:1006:C:H1'	34:15:106:MET:HE3	2.00	0.42
26:14:2336:A:H61	47:E5:43:THR:HG21	1.83	0.42
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.20	0.42
54:Q8:57:ARG:CB	54:Q8:59:LYS:HE2	2.49	0.42
1:13:17:U:O4'	1:13:1080:A:H1'	2.19	0.42
1:13:1292:U:H2'	1:13:1293:G:H8	1.81	0.42
26:1H:883:G:N1	26:1H:893:C:N3	2.53	0.42
4:3E:150:GLU:HA	4:3E:153:ARG:CG	2.50	0.42
8:72:121:ASP:OD2	8:72:125:ARG:NH2	2.52	0.42
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.55	0.42
26:14:357:A:H2'	26:14:358:U:C6	2.55	0.42
26:1H:722:A:H2'	26:1H:723:G:H8	1.81	0.42
26:14:1473:G:H2'	26:14:1474:C:O4'	2.20	0.42
1:13:313:A:H2'	1:13:314:C:H6	1.84	0.42
1:1G:551:U:O2'	1:1G:552:U:H5'	2.18	0.42
29:21:16:ARG:NH2	29:21:173:VAL:HG13	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1003:G:N2	26:14:1153:C:C2	2.88	0.42
26:1H:270(L):U:O2	33:61:50:ARG:HG2	2.19	0.42
26:1H:654(H):G:N3	26:1H:654(H):G:H2'	2.34	0.42
35:68:64:ARG:HG2	35:68:79:PHE:CD2	2.54	0.42
26:14:590:A:OP1	30:39:95:ARG:NH1	2.52	0.42
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.53	0.42
42:95:2:PHE:O	42:95:42:GLY:N	2.52	0.42
26:1H:1820:U:C2	28:11:202:LYS:HD3	2.54	0.42
26:14:1465:G:C4	26:14:1466:G:C8	3.06	0.42
26:1H:466:A:N3	26:1H:683:C:H1'	2.35	0.42
51:M8:15:ILE:HG23	51:M8:20:ASN:ND2	2.35	0.42
4:3E:188:LEU:HA	4:3E:189:PRO:HD3	1.82	0.42
1:13:611:A:H61	1:13:629:G:H1	1.68	0.42
1:13:933:G:OP2	7:6E:3:ARG:HB2	2.19	0.42
2:1E:105:PHE:HE1	2:1E:152:PHE:CZ	2.37	0.42
2:12:32:ILE:N	2:12:43:ASP:HB2	2.34	0.42
31:49:101:ILE:O	31:49:105:LYS:HG3	2.19	0.42
34:15:101:HIS:O	34:15:104:LYS:HB3	2.19	0.42
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.55	0.42
1:13:1120:G:N2	1:13:1153:C:O2	2.44	0.42
30:39:10:PRO:HG2	30:39:13:SER:HB3	2.00	0.42
36:78:76:LYS:HA	36:78:76:LYS:HD3	1.79	0.42
19:AA:12:ASP:N	19:AA:12:ASP:OD1	2.50	0.42
1:13:967:C:O5'	1:13:967:C:H6	2.02	0.42
29:21:11:MET:HE2	29:21:11:MET:HB3	1.79	0.42
38:98:45:ARG:HB3	38:98:46:GLY:H	1.58	0.42
26:14:2846:G:H2'	26:14:2847:U:O4'	2.20	0.42
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.20	0.42
26:14:2748:A:O2'	32:59:66:GLY:HA3	2.20	0.42
10:1I:54:PHE:HZ	10:1I:55:LYS:HZ1	1.61	0.42
1:13:1478:C:H2'	1:13:1479:C:C6	2.54	0.42
30:31:64:ILE:O	30:31:64:ILE:HD12	2.19	0.42
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.84	0.42
2:12:91:PRO:HG2	2:12:155:LEU:CG	2.44	0.42
9:8E:28:VAL:N	9:8E:31:GLN:O	2.26	0.42
33:69:145:VAL:HB	33:69:146:ALA:H	1.61	0.42
26:1H:562:U:O4	26:1H:2036:C:H1'	2.20	0.42
26:14:2255:G:N2	47:E5:9:SER:H	2.09	0.42
32:51:124:GLU:O	32:51:132:ARG:N	2.53	0.42
33:69:51:ILE:O	33:69:54:GLN:HG2	2.19	0.42
9:82:95:LYS:NZ	9:82:96:LEU:HB2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:95:LYS:HE2	9:82:96:LEU:N	2.33	0.42
32:59:26:VAL:HG12	32:59:33:LEU:N	2.30	0.42
1:13:102:G:C6	1:13:103:C:C4	3.07	0.42
26:1H:2314:C:H5"	31:41:38:VAL:HG11	2.01	0.42
1:1G:570:G:C6	1:1G:873:A:C2	3.08	0.42
12:3A:43:VAL:HG23	12:3A:55:VAL:HG11	2.02	0.42
26:14:273(D):C:H5'	26:14:273(E):U:OP2	2.19	0.42
1:1G:967:C:H4'	9:82:125:TYR:OH	2.19	0.42
1:13:947:G:H2'	1:13:948:C:C6	2.55	0.42
3:2E:59:ARG:NH1	3:2E:97:LYS:HE3	2.33	0.42
26:1H:994:C:OP1	41:C8:53:ARG:NH2	2.52	0.42
1:13:1009:G:N2	1:13:1010:G:H1'	2.34	0.42
1:13:353:A:C8	1:13:353:A:H5'	2.53	0.42
3:2E:16:ARG:HB2	3:2E:16:ARG:HH11	1.84	0.42
26:1H:2469:A:N3	26:1H:2469:A:H5'	2.34	0.42
8:72:110:ALA:HB3	8:72:121:ASP:HB3	2.02	0.42
39:65:91:PRO:HG2	39:65:92:TYR:CE1	2.54	0.42
1:1G:523:A:N6	12:3A:92:ASP:HB2	2.33	0.42
26:14:1869:G:N2	26:14:1872:A:C8	2.88	0.42
12:3A:38:THR:HG21	12:3A:65:GLU:OE2	2.20	0.42
18:9A:87:ARG:HB3	18:9A:88:LYS:H	1.50	0.42
26:1H:2024:G:H2'	26:1H:2025:C:C6	2.55	0.42
5:4E:148:VAL:HG21	8:7E:107:LEU:HD13	2.02	0.42
31:41:98:ARG:HA	31:41:101:ILE:HG23	2.02	0.42
26:1H:2325:G:C4	26:1H:2326:C:C5	3.07	0.42
1:13:1108:G:H2'	1:13:1108:G:N3	2.34	0.42
26:1H:1178:C:HO2'	26:1H:1179:C:H5	1.67	0.42
39:A8:110:LEU:HA	39:A8:111:GLU:HA	1.90	0.42
24:3L:11:U:H2'	24:3L:12:G:N7	2.33	0.42
37:45:17:LEU:HD21	37:45:41:TRP:NE1	2.33	0.42
36:35:110:TYR:HB3	36:35:111:ARG:H	1.66	0.42
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.84	0.42
30:39:110:LEU:O	30:39:114:VAL:HG23	2.19	0.42
1:1G:243:A:C2	1:1G:245:C:C2	3.07	0.42
17:8I:90:ILE:HA	17:8I:93:GLN:HB3	2.01	0.42
6:52:67:MET:HB2	6:52:68:PRO:HD2	2.02	0.42
27:1J:3:C:H2'	27:1J:4:C:C6	2.54	0.42
30:31:120:GLU:CB	30:31:122:LYS:HG2	2.50	0.42
26:1H:1844:C:H2'	26:1H:1845:G:H8	1.85	0.42
5:42:71:LEU:HD21	5:42:115:VAL:HG22	2.02	0.42
1:13:924:C:H2'	1:13:925:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:84:VAL:HG11	11:2A:95:ILE:HD11	2.01	0.42
1:13:350:G:O2'	1:13:351:G:H5'	2.19	0.42
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.20	0.42
26:1H:455:C:N3	26:1H:473:G:H5'	2.35	0.42
1:13:1492:A:H1'	25:4K:50:U:O2'	2.19	0.42
1:1G:746:A:H2'	1:1G:747:C:C6	2.53	0.42
53:P8:18:PHE:CE1	53:P8:22:MET:HG3	2.54	0.42
6:5E:25:ILE:HG23	6:5E:28:ARG:HH12	1.85	0.42
26:1H:1488:G:C5	26:1H:1489:U:C5	3.07	0.42
47:I8:53:MET:HG3	47:I8:59:LEU:HD23	2.01	0.42
4:3E:79:PHE:HE1	4:3E:204:ILE:HD12	1.84	0.42
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.20	0.42
1:13:1170:A:H8	1:13:1170:A:O5'	2.03	0.42
46:D5:31:ARG:HB2	46:D5:31:ARG:HE	1.48	0.42
32:51:62:LYS:HE2	32:51:62:LYS:HB3	1.79	0.42
38:55:53:HIS:HA	38:55:56:LYS:HD3	2.01	0.42
26:14:548:A:C6	26:14:549:G:H1'	2.54	0.42
1:13:1399:C:C2	1:13:1502:A:N6	2.87	0.42
1:13:1364:U:O2'	1:13:1365:G:H5'	2.19	0.42
30:31:101:LEU:HA	30:31:101:LEU:HD23	1.77	0.42
39:A8:9:ARG:O	39:A8:12:PHE:N	2.52	0.42
31:49:12:TYR:O	31:49:16:ARG:HB3	2.19	0.42
26:14:996:A:H2'	26:14:997:G:H8	1.84	0.42
24:3K:5:A:O2'	24:3K:6:G:H5'	2.20	0.42
26:1H:1385:G:H1'	26:1H:1386:C:C6	2.54	0.42
45:C5:19:LYS:C	45:C5:21:LYS:H	2.22	0.42
26:14:848:G:N9	26:14:933:A:H8	2.17	0.42
26:14:260:G:O4'	26:14:621:A:H1'	2.20	0.42
47:E5:21:LEU:HA	47:E5:21:LEU:HD23	1.85	0.42
17:8I:18:THR:HG23	17:8I:69:LYS:HD2	2.00	0.42
37:88:34:LEU:HB2	37:88:118:LEU:HD22	2.01	0.42
26:14:444:C:OP2	41:85:2:PRO:HD3	2.19	0.42
44:F8:2:LYS:HG2	49:K8:26:ARG:HE	1.84	0.42
26:14:638:G:H2'	26:14:639:U:O4'	2.19	0.42
1:1G:1136:U:H5"	1:1G:1137:C:C5	2.55	0.42
49:K8:21:LEU:HD23	49:K8:21:LEU:HA	1.90	0.42
26:14:1963:U:H2'	26:14:1963:U:O2	2.20	0.42
26:1H:817:C:C4	26:1H:818:G:C5	3.08	0.42
1:13:746:A:H2'	1:13:747:C:H6	1.85	0.42
26:1H:934:G:H2'	26:1H:935:C:C6	2.53	0.42
1:13:1071:C:H2'	1:13:1072:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:34:LEU:HA	31:41:34:LEU:HD22	1.86	0.42
26:14:2666:C:H3'	26:14:2667:C:H6	1.84	0.42
33:61:68:LEU:HA	33:61:71:ILE:HG22	2.01	0.42
1:1G:894:G:C6	1:1G:895:G:C6	3.08	0.42
33:61:75:LEU:HD23	33:61:105:HIS:CD2	2.54	0.42
5:42:118:ILE:HG12	5:42:119:LEU:N	2.35	0.42
1:1G:790:A:C6	1:1G:791:G:C6	3.08	0.42
26:1H:1426:G:H2'	26:1H:1427:A:C8	2.55	0.42
26:14:1202:C:N4	26:14:1243:G:H1	2.17	0.42
26:14:2274:A:C5	26:14:2276:G:C8	3.06	0.42
1:13:347:G:H8	1:13:347:G:OP2	2.03	0.42
1:13:1206:G:C6	1:13:1207:G:C5	3.08	0.42
12:3I:78:GLN:HB3	12:3I:79:GLU:H	1.64	0.42
33:61:77:LEU:HB2	33:61:140:LEU:HB3	2.01	0.42
51:I5:38:LYS:HA	51:I5:44:THR:HG21	2.02	0.42
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.30	0.42
2:12:129:GLU:HB3	2:12:130:ARG:H	1.56	0.42
26:1H:551:G:OP1	42:D8:68:LYS:NZ	2.52	0.42
37:88:16:ARG:HE	37:88:16:ARG:HB3	1.41	0.42
1:13:1236:A:OP1	21:1F:3:LYS:HE3	2.20	0.42
32:59:106:THR:HG22	32:59:112:PRO:HB2	2.02	0.42
23:2K:17:H2U:HO2'	23:2K:68:A:H2	1.66	0.42
26:1H:2239:G:H5'	28:11:251:GLY:HA3	2.01	0.42
26:1H:1671:U:H2'	26:1H:1672:C:H5"	2.02	0.42
26:14:1275:A:C5	38:55:16:HIS:CD2	3.07	0.42
41:85:114:LYS:H	41:85:114:LYS:HG2	1.49	0.42
1:1G:962:C:H1'	1:1G:1201:A:C6	2.54	0.42
32:59:141:VAL:O	32:59:145:ALA:N	2.45	0.42
50:H5:30:ARG:HG3	50:H5:30:ARG:H	1.57	0.42
3:2E:32:LEU:HD23	3:2E:32:LEU:HA	1.89	0.42
13:4A:77:ASN:HD22	13:4A:77:ASN:C	2.23	0.42
26:14:335:C:O5'	26:14:335:C:H6	2.02	0.42
3:22:131:ARG:HG3	3:22:166:GLU:OE1	2.20	0.42
26:1H:614:U:O4	30:31:175:THR:HG22	2.19	0.42
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.40	0.42
26:14:2702:U:HO2'	26:14:2703:C:H6	1.64	0.42
32:59:30:LYS:HZ1	32:59:136:ILE:HA	1.84	0.42
26:14:4:C:O2'	26:14:5:A:OP1	2.31	0.42
54:Q8:53:PRO:HA	54:Q8:55:ALA:H	1.81	0.42
26:14:880:G:H1	26:14:897:C:H42	1.66	0.42
41:85:50:ARG:HG2	41:85:53:ARG:NH2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1141:U:H4'	26:1H:1142(A):A:O4'	2.19	0.42
26:14:826:U:H2'	26:14:828:U:O4'	2.19	0.42
1:13:1317:C:H2'	1:13:1318:A:O4'	2.19	0.42
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.52	0.42
23:2L:86:C:H3'	23:2L:87:A:C5'	2.46	0.42
26:14:2468:G:N2	26:14:2481:G:O2'	2.38	0.42
30:39:63:LYS:HA	30:39:76:GLY:O	2.19	0.42
22:1L:15:A:N1	22:1L:59:U:N3	2.68	0.42
26:1H:2592:G:C6	26:1H:2593:U:N3	2.88	0.42
29:21:46:ALA:HB2	29:21:82:ARG:HA	2.02	0.42
36:78:27:HIS:ND1	36:78:27:HIS:N	2.68	0.42
26:14:1053:C:H42	26:14:1106:G:H1	1.67	0.42
1:13:10:A:H2'	1:13:11:G:H8	1.85	0.42
40:B8:106:SER:HB2	40:B8:109:GLU:H	1.84	0.42
32:59:89:ILE:HD12	32:59:130:ARG:HA	2.02	0.42
30:31:32:LEU:O	30:31:36:VAL:HG23	2.19	0.42
26:1H:2378:A:H5"	39:A8:23:ARG:NH2	2.35	0.42
27:1J:88:C:H4'	27:1J:89:G:OP1	2.17	0.42
2:12:109:SER:O	2:12:113:HIS:ND1	2.52	0.42
2:1E:67:THR:HA	2:1E:90:MET:SD	2.60	0.42
1:1G:833:U:O2	1:1G:854:G:C2	2.73	0.42
26:14:28:A:C5	26:14:29:U:C5	3.07	0.42
4:32:70:ILE:CG2	4:32:75:PHE:HB2	2.50	0.42
26:14:957:A:N1	26:14:2459:A:H8	2.18	0.42
26:14:2198:A:C2	33:69:29:TYR:HB2	2.55	0.42
39:A8:30:ARG:HG2	39:A8:30:ARG:NH1	2.34	0.42
26:14:861:A:C2	26:14:917:A:C4	3.08	0.42
3:2E:70:VAL:N	3:2E:106:VAL:HG23	2.35	0.42
4:32:45:GLN:C	4:32:46:LYS:HG2	2.40	0.42
1:13:343:U:O2'	1:13:346:G:O6	2.31	0.42
26:14:1499:C:H2'	26:14:1500:G:C8	2.55	0.42
32:59:55:PRO:HG2	32:59:61:HIS:CD2	2.55	0.42
20:BA:14:LYS:O	20:BA:18:GLN:HG3	2.20	0.42
26:14:669:G:N3	26:14:669:G:H2'	2.34	0.42
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.20	0.42
26:1H:953:A:OP2	37:88:16:ARG:HD3	2.20	0.42
9:8E:32:ASP:HB3	9:8E:35:GLU:HB3	2.01	0.42
28:19:89:SER:HB2	28:19:159:ALA:H	1.85	0.42
43:E8:71:VAL:HA	43:E8:107:LEU:HD12	2.00	0.42
1:13:484:G:O2'	1:13:485:G:OP2	2.33	0.42
41:85:19:LYS:O	41:85:22:LYS:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.50	0.42
1:1G:743:U:H2'	1:1G:744:C:C6	2.55	0.42
1:1G:568:G:N3	1:1G:574:A:H2	2.18	0.42
32:59:47:GLU:O	32:59:49:VAL:HG22	2.20	0.42
8:72:97:VAL:HG22	8:72:129:VAL:C	2.40	0.42
42:95:38:LEU:HD13	42:95:55:ALA:HB1	2.02	0.42
1:1G:191:G:H1'	20:BA:104:LEU:O	2.19	0.42
28:19:267:SER:O	28:19:268:ARG:HG2	2.19	0.42
6:52:61:LEU:HB3	6:52:63:TYR:CE1	2.55	0.42
22:1K:9:G:N3	22:1K:9:G:H2'	2.35	0.42
26:14:2833:G:H3'	26:14:2833:G:C8	2.54	0.42
2:12:108:ILE:HA	2:12:108:ILE:HD13	1.75	0.42
34:58:91:LEU:HA	34:58:91:LEU:HD23	1.71	0.42
1:13:1092:A:C6	1:13:1093:A:C6	3.08	0.42
28:11:62:TYR:HA	28:11:87:ASN:OD1	2.20	0.42
26:14:1628:G:H2'	26:14:1629:U:C6	2.55	0.42
26:14:741:G:H2'	26:14:742:G:C8	2.55	0.42
49:K8:50:ILE:HD12	49:K8:51:ARG:N	2.33	0.42
34:15:134:ARG:N	34:15:135:PRO:HD3	2.33	0.42
20:BA:70:SER:HA	20:BA:73:HIS:NE2	2.34	0.42
51:M8:16:CYS:HB3	51:M8:18:CYS:SG	2.59	0.42
23:2K:18:OMG:H4'	23:2K:19:G:O5'	2.19	0.42
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.20	0.42
26:14:2239:G:OP2	28:19:244:ARG:NH2	2.46	0.42
23:2L:62:G:N2	23:2L:63:G:N3	2.68	0.42
9:82:46:ALA:HA	9:82:78:LYS:HB2	2.00	0.42
26:14:1569:A:H2'	26:14:1570:A:C8	2.55	0.42
1:1G:992:U:H3	1:1G:1044:A:N6	2.12	0.42
16:7I:33:ILE:H	16:7I:33:ILE:HG13	1.68	0.42
47:I8:23:VAL:HG22	47:I8:38:VAL:HG22	2.02	0.42
1:13:1342:C:H2'	1:13:1343:G:H8	1.81	0.42
26:1H:1653:G:C6	38:98:9:LYS:HG3	2.55	0.42
19:AA:32:LYS:HB3	19:AA:57:HIS:ND1	2.35	0.42
10:1I:77:PRO:HB2	10:1I:79:ARG:NH1	2.34	0.42
26:14:1337:G:H2'	26:14:1338:G:H8	1.85	0.42
7:62:150:ALA:HB1	11:2A:57:THR:HG21	2.00	0.42
26:1H:950:G:H2'	26:1H:951:C:C6	2.55	0.42
26:1H:508:G:N3	26:1H:508:G:H5"	2.34	0.42
18:9I:53:ARG:HH21	18:9I:59:SER:HA	1.84	0.42
37:88:20:ALA:HB3	46:H8:79:ARG:CZ	2.49	0.42
26:1H:2025:C:OP1	29:21:149:ARG:HD3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:119:GLU:HA	2:12:122:PHE:CD2	2.54	0.42
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.19	0.42
1:1G:1157:A:N6	1:1G:1177:G:H1	2.17	0.42
26:1H:2747:G:O6	26:1H:2755:C:H5"	2.19	0.42
26:1H:848:G:O6	26:1H:929:G:H2'	2.19	0.42
1:1G:247:G:OP2	17:8A:100:LYS:N	2.53	0.42
27:16:55:U:O2'	27:16:57:A:N7	2.52	0.42
26:14:69:C:H2'	26:14:70:G:C8	2.54	0.42
38:55:27:SER:HB3	38:55:34:ILE:HD11	2.00	0.42
1:13:129(A):G:HO2'	1:13:189:U:H6	1.66	0.42
4:3E:8:VAL:O	4:3E:11:LEU:N	2.41	0.42
26:1H:2846:G:C6	26:1H:2847:U:C4	3.08	0.42
37:88:106:VAL:HG21	37:88:114:ALA:HB1	2.02	0.42
26:14:1480:G:C6	26:14:1482:U:C4	3.07	0.42
26:1H:998:C:OP2	41:C8:93:LYS:NZ	2.46	0.42
29:21:101:ARG:NH2	29:21:171:GLU:HB2	2.35	0.42
26:14:1903:G:P	28:19:241:PRO:HB2	2.60	0.42
45:C5:83:THR:HG22	45:C5:84:ARG:H	1.84	0.42
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.20	0.42
32:51:155:SER:OG	32:51:156:ALA:N	2.53	0.42
40:B8:16:ARG:HE	40:B8:19:LEU:HD21	1.85	0.42
26:1H:1444:G:C2	26:1H:1548:C:C2	3.08	0.42
22:1L:1:G:H1	22:1L:83:U:H3	1.66	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.20	0.42
35:25:25:LEU:HB2	35:25:38:VAL:O	2.19	0.42
37:45:50:ALA:O	37:45:53:ALA:HB3	2.19	0.42
26:14:1028:A:H2'	26:14:1029:A:C8	2.54	0.42
32:59:101:ARG:HG3	32:59:102:ALA:N	2.35	0.42
1:1G:835:U:H3	1:1G:851:G:H1	1.66	0.42
49:K8:22:GLU:O	49:K8:25:VAL:HG12	2.20	0.42
46:D5:91:LEU:H	46:D5:91:LEU:HD23	1.84	0.42
40:75:18:ASP:N	40:75:18:ASP:OD1	2.53	0.42
37:88:79:LEU:HD23	37:88:79:LEU:HA	1.56	0.42
3:22:29:TYR:OH	14:5A:54:PRO:HD2	2.19	0.42
8:72:33:GLU:OE1	8:72:48:TYR:HE1	2.03	0.42
1:13:297:G:H4'	1:13:557:G:H4'	2.02	0.42
1:1G:1359:C:OP1	14:5A:22:THR:OG1	2.37	0.42
1:1G:446:G:H2'	1:1G:447:G:O4'	2.20	0.42
26:1H:306:U:H2'	26:1H:307:G:O4'	2.20	0.42
26:1H:2287:A:H2	26:1H:2346:A:H2	1.66	0.42
26:1H:676:A:N1	26:1H:802:A:N1	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	2.02	0.42
28:19:11:PRO:C	28:19:13:ARG:H	2.23	0.42
26:14:2615:U:C2	52:J5:7:PRO:HA	2.55	0.42
44:B5:9:LEU:CA	49:G5:36:ARG:HH21	2.31	0.42
26:14:1047:G:H2'	26:14:1110:G:H22	1.85	0.42
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.85	0.42
26:1H:1167:U:H2'	26:1H:1168:G:H8	1.84	0.42
26:1H:996:A:H4'	41:C8:92:ARG:NE	2.35	0.42
26:1H:1558:A:H4'	26:1H:1559:G:H5'	2.02	0.42
26:14:1784:A:H4'	26:14:1785:A:C5'	2.50	0.42
1:1G:1023:G:N3	1:1G:1023:G:H2'	2.35	0.42
26:14:654(C):G:C2	26:14:654(S):G:N1	2.88	0.42
32:51:54:ARG:HA	32:51:55:PRO:HD3	1.84	0.42
26:1H:547:A:C6	26:1H:548:A:C6	3.08	0.42
1:1G:1291:G:O2'	9:82:38:GLN:OE1	2.27	0.42
1:13:12:U:O2'	1:13:526:C:H4'	2.19	0.42
45:C5:54:LYS:C	45:C5:55:TYR:CG	2.93	0.42
26:14:2370:G:C6	26:14:2371:G:C6	3.07	0.42
41:C8:82:GLY:HA3	41:C8:113:ALA:HB1	2.01	0.42
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.20	0.42
53:P8:10:ARG:O	53:P8:14:LYS:HB2	2.19	0.42
29:29:182:LEU:HD12	29:29:182:LEU:HA	1.75	0.42
26:1H:2125:G:H1	26:1H:2171:A:H5"	1.85	0.42
28:19:72:LYS:HD3	28:19:97:TYR:CE2	2.55	0.42
12:3A:59:ARG:NH2	12:3A:65:GLU:OE1	2.53	0.42
24:3L:15:A:N6	24:3L:70:G:O2'	2.52	0.42
3:22:114:PRO:O	3:22:118:GLN:NE2	2.36	0.42
7:6E:150:ALA:HB2	11:2I:50:TYR:CE2	2.54	0.42
28:11:136:ILE:HG12	28:11:136:ILE:H	1.59	0.42
1:13:157:G:H2'	1:13:158:G:H8	1.83	0.42
43:E8:28:SER:OG	43:E8:31:GLU:HG2	2.20	0.42
4:32:45:GLN:HG2	4:32:45:GLN:H	1.64	0.42
1:1G:270:A:H5"	1:1G:271:C:OP2	2.19	0.42
23:2L:65:5MU:H73	23:2L:66:PSU:O2	2.19	0.42
1:1G:1190:G:H3'	3:22:3:ASN:OD1	2.20	0.42
1:1G:1245:A:O5'	1:1G:1245:A:H8	2.03	0.42
26:14:299:A:N1	26:14:322:A:O2'	2.38	0.42
26:14:82:G:N1	26:14:103:A:OP2	2.48	0.42
26:14:254:G:N7	54:M5:5:LYS:HE2	2.35	0.42
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.53	0.42
26:1H:664:C:H4'	26:1H:941:A:OP1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:83:ARG:O	9:8E:86:VAL:HG12	2.19	0.42
26:14:2178:C:H2'	26:14:2179:C:H6	1.83	0.42
31:49:152:LEU:HA	31:49:152:LEU:HD22	1.85	0.42
1:1G:350:G:H5"	1:1G:350:G:H8	1.84	0.42
20:BA:20:LEU:HD23	20:BA:20:LEU:HA	1.84	0.42
8:7E:68:ARG:O	8:7E:68:ARG:HG3	2.18	0.42
43:A5:95:ILE:HG12	43:A5:95:ILE:O	2.20	0.42
38:98:98:LEU:HA	38:98:98:LEU:HD23	1.77	0.42
50:H5:4:LEU:O	50:H5:36:VAL:HA	2.20	0.42
26:1H:616:A:C4	30:31:180:GLY:HA2	2.55	0.42
1:13:1330:U:H3'	1:13:1331:G:O4'	2.19	0.42
3:22:32:LEU:HD22	3:22:59:ARG:NH2	2.32	0.42
1:13:136:C:O2'	16:7I:65:GLN:HG3	2.20	0.42
19:AI:64:GLU:O	19:AI:67:VAL:HG13	2.20	0.42
26:14:780:G:H5"	26:14:781:A:P	2.60	0.42
41:85:92:ARG:NH1	42:95:11:GLN:H	2.17	0.42
26:14:2686:G:C2	26:14:2724:C:O2	2.73	0.42
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.55	0.42
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.53	0.42
26:1H:442:G:H4'	30:31:46:ARG:HG3	2.02	0.42
1:1G:1239:A:C4	1:1G:1298:C:N4	2.88	0.42
33:69:125:GLU:OE2	33:69:141:LYS:NZ	2.51	0.42
13:4A:3:ARG:NH2	31:49:113:ARG:HE	2.18	0.42
51:I5:58:ARG:HH11	51:I5:61:ARG:NE	2.17	0.42
4:32:19:LEU:HB3	4:32:21:LEU:HD21	2.02	0.42
26:14:171:G:H2'	26:14:172:C:C6	2.55	0.42
42:95:35:LEU:HB3	42:95:37:VAL:HG13	2.01	0.42
26:1H:1044:G:HO2'	26:1H:1111:A:N6	2.18	0.42
44:B5:32:PRO:HA	44:B5:77:LYS:HB2	2.02	0.42
22:1L:42:U:H2'	22:1L:43:A:O4'	2.19	0.42
46:D5:164:ALA:O	46:D5:165:VAL:HG13	2.20	0.42
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.19	0.42
26:1H:41:C:N4	26:1H:438:G:H1	2.13	0.42
36:35:62:LEU:HA	36:35:63:PRO:HD3	1.49	0.42
31:49:66:GLN:NE2	31:49:93:THR:O	2.53	0.42
1:1G:690:G:H22	11:2A:55:LYS:NZ	2.18	0.42
1:13:113:G:H2'	1:13:114:U:H6	1.85	0.42
15:6A:53:HIS:O	15:6A:56:LEU:N	2.52	0.42
1:1G:954:G:O6	1:1G:1225:A:N6	2.53	0.42
2:1E:74:LYS:HB3	2:1E:74:LYS:HE3	1.93	0.42
11:2A:48:ILE:HG13	11:2A:63:LEU:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1094:U:H1'	26:1H:1096:A:H5'	2.00	0.42
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.19	0.42
23:2K:72:C:H2'	23:2K:73:C:C6	2.55	0.42
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.49	0.42
26:14:1027:A:N6	26:14:1126:A:C4	2.88	0.42
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.20	0.42
26:1H:1178:C:H1'	26:1H:1179:C:C6	2.55	0.42
2:1E:70:PHE:HE1	2:1E:90:MET:HB2	1.85	0.42
46:H8:52:SER:O	46:H8:53:ILE:HG12	2.19	0.42
47:E5:49:LYS:O	47:E5:50:ASN:HB2	2.19	0.42
26:1H:1015:G:H1	26:1H:1147:C:H42	1.68	0.42
35:25:117:LEU:HA	35:25:117:LEU:HD13	1.89	0.42
8:72:29:SER:HB3	8:72:32:LYS:HG3	2.02	0.42
7:6E:49:ILE:O	7:6E:53:LYS:HG3	2.20	0.42
1:13:1266:G:N2	1:13:1270:C:C2	2.88	0.42
26:1H:2795:G:H3'	26:1H:2797:U:H5"	2.01	0.42
28:19:148:GLU:CB	28:19:151:LYS:HD2	2.50	0.42
26:14:603:A:H4'	26:14:604:G:O5'	2.20	0.42
5:4E:7:GLU:N	5:4E:35:GLY:O	2.48	0.42
29:29:101:ARG:HD2	29:29:169:ASN:ND2	2.35	0.42
6:52:61:LEU:HB3	6:52:63:TYR:HE1	1.84	0.42
1:1G:20:U:H2'	1:1G:21:G:O4'	2.20	0.42
1:13:5:U:H4'	1:13:6:G:O5'	2.19	0.42
26:1H:1693:U:H1'	28:11:14:ARG:NH2	2.35	0.42
22:1L:79:U:H2'	22:1L:80:C:C6	2.55	0.42
35:25:7:TYR:CE1	35:25:20:MET:HB2	2.55	0.42
26:14:1788:C:H2'	26:14:1789:A:O4'	2.20	0.42
41:85:59:ARG:O	41:85:63:VAL:HG22	2.20	0.42
32:59:116:GLU:HA	32:59:117:PRO:HD2	1.93	0.42
1:13:1336:C:H4'	1:13:1337:G:O5'	2.20	0.42
26:14:919:G:N2	26:14:2269:A:OP2	2.53	0.42
26:1H:2241:A:O2'	26:1H:2242:G:H5'	2.18	0.42
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.55	0.42
32:51:68:THR:O	32:51:72:ILE:HD12	2.20	0.42
9:8E:93:ARG:HH11	9:8E:93:ARG:HB2	1.85	0.42
1:13:577:G:C8	1:13:816:A:C6	3.08	0.42
26:14:2564:A:OP1	26:14:2648:C:H4'	2.19	0.42
26:1H:2726:U:O2'	26:1H:2727:G:H8	2.02	0.42
26:1H:2287:A:C2	26:1H:2346:A:C2	3.08	0.41
36:78:59:LEU:O	54:Q8:13:ARG:HD2	2.20	0.41
26:1H:881:G:N3	26:1H:881:G:H2'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:49:LYS:O	49:K8:53:LEU:HB2	2.20	0.41
1:13:1375:A:OP1	7:6E:28:ASN:ND2	2.45	0.41
26:14:195:A:H61	26:14:198:C:H3'	1.85	0.41
45:C5:81:LYS:HB2	45:C5:99:CYS:SG	2.60	0.41
1:13:438:G:N1	1:13:495:A:OP2	2.37	0.41
42:95:44:LYS:O	42:95:46:VAL:N	2.50	0.41
31:41:112:PRO:CB	51:M8:37:SER:H	2.32	0.41
32:59:151:ILE:O	32:59:152:ARG:HB2	2.19	0.41
26:14:492:A:C2	26:14:493:G:H1'	2.54	0.41
26:1H:1166:C:H2'	26:1H:1167:U:H6	1.83	0.41
1:13:735:C:O2'	1:13:736:C:H5'	2.20	0.41
31:49:60:LEU:HD22	31:49:68:PRO:HB3	2.02	0.41
26:1H:71:A:OP1	26:1H:72:U:H2'	2.19	0.41
9:82:38:GLN:O	9:82:38:GLN:NE2	2.53	0.41
4:32:174:LEU:HD23	4:32:174:LEU:HA	1.81	0.41
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.55	0.41
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.19	0.41
26:14:2778:A:C8	26:14:2778:A:H5"	2.53	0.41
1:1G:920:U:H2'	1:1G:921:U:H6	1.82	0.41
1:13:56:U:H2'	1:13:57:G:H8	1.84	0.41
26:14:2688:U:C5	26:14:2720:U:OP2	2.73	0.41
18:9I:56:THR:OG1	18:9I:58:LEU:HD13	2.19	0.41
20:BI:56:MET:CE	20:BI:85:MET:HG2	2.50	0.41
26:14:1054:A:N6	26:14:1104:C:H42	2.18	0.41
41:C8:106:PHE:O	41:C8:109:LEU:HB2	2.20	0.41
45:C5:87:LYS:CG	45:C5:88:LYS:H	2.33	0.41
1:1G:171:A:C2	1:1G:172:A:C4	3.08	0.41
26:1H:8:A:H2'	26:1H:9:U:O4'	2.20	0.41
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.51	0.41
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.54	0.41
53:L5:12:ARG:NH2	53:L5:44:PRO:HB3	2.34	0.41
20:BA:23:ARG:O	20:BA:27:LYS:HB2	2.19	0.41
26:1H:1593:G:C2	26:1H:1594:G:C5	3.08	0.41
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.20	0.41
31:41:122:PRO:HB3	31:41:180:PHE:HD2	1.84	0.41
23:2L:47:C:HO2'	23:2L:48:C:P	2.43	0.41
17:8I:93:GLN:NE2	17:8I:96:GLU:OE1	2.35	0.41
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.54	0.41
26:14:208:C:H2'	26:14:209:C:C6	2.55	0.41
1:13:604:G:H2'	1:13:605:U:O4'	2.20	0.41
1:1G:102:G:C6	1:1G:103:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:114:ILE:CG2	31:49:117:PHE:HB2	2.50	0.41
26:14:925:C:H2'	26:14:926:A:H8	1.85	0.41
32:51:154:PRO:HD3	32:51:162:ILE:O	2.20	0.41
26:14:2869:G:H2'	26:14:2870:C:O4'	2.20	0.41
31:41:118:ARG:HB2	31:41:181:ARG:NH1	2.35	0.41
26:1H:2563:U:O2'	35:68:28:SER:HB3	2.20	0.41
32:51:80:SER:C	32:51:81:GLU:HG3	2.39	0.41
1:13:1084:G:C5	1:13:1085:U:C4	3.08	0.41
26:1H:922:U:H1'	47:I8:26:TYR:CE2	2.55	0.41
40:75:64:ARG:CB	40:75:73:GLU:HG2	2.49	0.41
3:22:120:VAL:HG21	3:22:137:ALA:HB2	2.00	0.41
26:14:2706:G:N2	26:14:2707:G:H1'	2.35	0.41
2:1E:146:GLN:O	2:1E:150:SER:HB2	2.20	0.41
26:14:979:G:C4	26:14:982:C:N4	2.88	0.41
26:14:2901:C:H2'	26:14:2902:C:H5'	2.02	0.41
31:41:57:ALA:HB2	31:41:90:LEU:HG	2.02	0.41
8:72:36:LEU:HD23	8:72:36:LEU:HA	1.78	0.41
12:3A:57:LYS:HB2	12:3A:57:LYS:HE3	1.97	0.41
5:4E:152:ARG:H	5:4E:152:ARG:HG3	1.51	0.41
40:B8:114:LEU:HA	40:B8:114:LEU:HD23	1.62	0.41
6:5E:2:ARG:HB2	6:5E:4:TYR:CE1	2.55	0.41
44:F8:34:ALA:HA	44:F8:38:GLU:OE1	2.20	0.41
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	2.02	0.41
26:14:2290:G:H2'	26:14:2291:U:O4'	2.19	0.41
1:1G:532:A:H5'	3:22:161:GLU:OE2	2.20	0.41
1:1G:626:U:C2	1:1G:627:G:C8	3.08	0.41
26:14:1088:A:N3	26:14:1088:A:H2'	2.35	0.41
26:1H:608:A:C2	26:1H:621:A:C5	3.08	0.41
26:1H:1899:G:O2'	26:1H:1900:A:P	2.78	0.41
3:22:73:PRO:O	3:22:76:VAL:HG22	2.20	0.41
1:13:1226:C:H4'	1:13:1227:A:OP1	2.20	0.41
26:14:607:U:OP1	30:39:102:PRO:HA	2.20	0.41
37:88:74:TYR:O	37:88:90:VAL:O	2.38	0.41
26:1H:2636:U:H1'	26:1H:2783:G:N2	2.35	0.41
30:39:63:LYS:HB2	30:39:63:LYS:HE3	1.94	0.41
26:14:2146:C:O2'	26:14:2147:G:OP2	2.35	0.41
32:59:33:LEU:HD11	32:59:78:GLY:HA3	2.02	0.41
1:1G:449:C:O4'	1:1G:449:C:O2	2.39	0.41
1:1G:1384:C:H2'	1:1G:1385:G:H8	1.85	0.41
26:14:2271:G:H2'	26:14:2272:U:C6	2.56	0.41
2:12:145:LEU:O	2:12:149:LEU:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:F5:91:LYS:HZ1	48:F5:95:LEU:CD1	2.33	0.41
41:85:30:LYS:HD3	41:85:30:LYS:HA	1.76	0.41
5:42:126:ARG:NH1	5:42:126:ARG:HG3	2.35	0.41
26:1H:1266:G:OP2	52:N8:19:ARG:NH1	2.51	0.41
26:14:1396:U:H2'	26:14:1396:U:O2	2.19	0.41
18:9I:58:LEU:HD23	18:9I:63:GLN:HA	2.01	0.41
1:1G:1286:A:P	21:1B:25:LYS:HE2	2.60	0.41
26:1H:1126:A:H8	26:1H:1126:A:O5'	2.03	0.41
7:62:115:ARG:O	7:62:118:VAL:HG22	2.19	0.41
7:62:118:VAL:O	7:62:121:ALA:HB3	2.19	0.41
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.19	0.41
26:1H:2713:A:H3'	26:1H:2714:G:H5"	2.00	0.41
1:13:445:G:H2'	1:13:446:G:C8	2.56	0.41
5:42:107:ARG:NH2	5:42:108:ALA:HB2	2.34	0.41
26:14:2772:C:H5'	29:29:168:MET:SD	2.60	0.41
46:D5:8:TYR:HA	46:D5:62:PRO:HD3	2.02	0.41
33:61:67:ARG:O	33:61:71:ILE:HG22	2.20	0.41
40:B8:100:TYR:HB3	40:B8:103:ARG:NH1	2.34	0.41
26:1H:1592:C:H2'	26:1H:1593:G:C8	2.53	0.41
41:85:62:ILE:HD11	41:85:93:LYS:HD3	2.02	0.41
1:13:1103:C:H2'	1:13:1104:G:O4'	2.21	0.41
1:13:1104:G:H4'	2:1E:111:ARG:NH1	2.35	0.41
39:65:35:ILE:HB	39:65:97:ARG:NH2	2.35	0.41
33:61:58:LEU:HD23	33:61:59:ALA:HB2	2.01	0.41
46:H8:129:SER:HA	46:H8:130:PRO:HD3	1.76	0.41
1:13:32:A:C2	1:13:33:A:C4	3.08	0.41
9:82:13:ALA:HB2	9:82:68:GLY:HA3	2.00	0.41
26:14:2887:U:H2'	26:14:2888:C:H6	1.84	0.41
41:85:60:LEU:O	41:85:63:VAL:HG23	2.20	0.41
26:1H:295:G:C6	26:1H:344:G:C2	3.08	0.41
26:1H:2749:A:H1'	32:51:63:SER:OG	2.20	0.41
51:I5:40:HIS:CE1	51:I5:45:GLY:HA3	2.55	0.41
1:13:878:G:H5'	8:7E:89:PRO:HG2	2.01	0.41
26:14:1299:G:H5'	26:14:1301:A:O4'	2.20	0.41
26:1H:937:U:H2'	26:1H:938:G:O4'	2.20	0.41
39:A8:27:SER:HA	39:A8:88:ASP:CB	2.50	0.41
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	2.02	0.41
4:32:50:ARG:HG3	4:32:50:ARG:H	1.62	0.41
39:65:80:LEU:HD23	39:65:80:LEU:HA	1.85	0.41
34:15:127:ASP:N	34:15:127:ASP:OD1	2.52	0.41
1:1G:1227:A:H8	1:1G:1227:A:H3'	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:34:TRP:CE3	30:39:35:GLU:HG2	2.55	0.41
26:1H:1359:A:C2	26:1H:1372:U:N3	2.83	0.41
31:41:111:LEU:HD22	31:41:117:PHE:CE1	2.55	0.41
26:1H:1187:G:H5"	42:D8:81:TYR:CE2	2.54	0.41
26:1H:2506:U:O2	26:1H:2506:U:H2'	2.19	0.41
29:29:111:ARG:CG	29:29:111:ARG:HH11	2.27	0.41
39:65:3:ARG:HH21	39:65:4:LEU:CB	2.25	0.41
45:G8:94:LYS:CA	45:G8:94:LYS:HZ3	2.27	0.41
29:29:36:ARG:HG2	29:29:47:VAL:HG22	2.03	0.41
4:3E:30:LYS:HA	4:3E:35:ARG:CG	2.51	0.41
1:1G:588:G:H1	1:1G:651:C:N4	2.14	0.41
26:1H:1159:U:P	50:L8:30:ARG:HH12	2.43	0.41
3:22:88:ARG:HG2	3:22:88:ARG:O	2.19	0.41
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.55	0.41
1:13:276:G:O2'	17:8I:68:ARG:NH1	2.53	0.41
26:14:2057:A:H2'	26:14:2058:A:C8	2.55	0.41
2:12:211:ILE:O	2:12:215:LEU:HD23	2.21	0.41
51:M8:13:ARG:HH12	51:M8:22:ILE:HG23	1.85	0.41
2:1E:78:GLN:O	2:1E:81:VAL:HG12	2.19	0.41
3:22:109:PRO:HB2	3:22:115:LEU:CD1	2.50	0.41
21:1B:2:GLY:O	21:1B:5:ASP:N	2.33	0.41
1:13:243:A:H4'	1:13:244:U:H3'	2.01	0.41
36:35:126:VAL:HG13	36:35:145:PRO:HG2	2.01	0.41
13:4I:107:ALA:O	13:4I:109:THR:N	2.54	0.41
30:39:124:LEU:HD13	30:39:191:ARG:HH22	1.85	0.41
31:49:166:ASP:N	31:49:166:ASP:OD1	2.51	0.41
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.85	0.41
26:14:270(U):C:C2	26:14:270(V):G:C8	3.08	0.41
4:32:126:ILE:HG22	4:32:127:THR:N	2.35	0.41
23:2L:12:G:H1	23:2L:24:C:H42	1.68	0.41
26:1H:1257:C:H4'	30:31:83:PHE:CE1	2.56	0.41
1:1G:1317:C:H3'	1:1G:1318:A:C8	2.56	0.41
33:69:110:ASP:HA	33:69:111:PRO:HD3	1.69	0.41
3:2E:150:LYS:HD2	3:2E:201:TYR:CD2	2.56	0.41
5:4E:12:LEU:HB3	5:4E:31:LEU:HB2	2.01	0.41
5:4E:31:LEU:HD22	5:4E:43:LEU:HD11	2.02	0.41
3:22:21:ARG:HA	3:22:21:ARG:HE	1.84	0.41
26:1H:2564:A:H5"	26:1H:2565:A:OP2	2.20	0.41
15:6A:26:GLU:OE2	15:6A:77:ARG:HB2	2.20	0.41
26:14:951:C:O2'	26:14:952:G:H5'	2.20	0.41
30:39:126:VAL:HG21	30:39:142:TRP:CH2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:924:C:H2'	1:13:925:G:H8	1.84	0.41
3:22:65:ALA:HA	3:22:100:ALA:HB3	2.02	0.41
1:1G:646:U:H2'	1:1G:647:C:C6	2.55	0.41
9:82:20:ARG:O	9:82:60:ASP:HB2	2.19	0.41
26:14:2233:U:H2'	26:14:2234:G:C8	2.55	0.41
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.41
4:32:79:PHE:CE2	4:32:204:ILE:HD13	2.56	0.41
1:13:895:G:H2'	1:13:896:C:C6	2.56	0.41
19:AI:27:GLU:HG3	19:AI:27:GLU:H	1.74	0.41
26:14:2001:A:H2'	26:14:2002:G:O4'	2.21	0.41
26:1H:1144:G:H2'	26:1H:1145:C:H6	1.84	0.41
36:35:86:LYS:HG3	36:35:87:ASP:N	2.35	0.41
26:1H:2270:G:OP2	57:1H:3952:HOH:O	2.22	0.41
37:45:110:THR:HG23	37:45:113:GLN:OE1	2.20	0.41
1:1G:802:A:H3'	1:1G:803:G:C8	2.55	0.41
54:Q8:34:TRP:N	54:Q8:34:TRP:HE3	2.19	0.41
1:13:1316:G:H5"	14:5I:17:LYS:NZ	2.35	0.41
1:13:1315:U:H2'	1:13:1316:G:O4'	2.20	0.41
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.20	0.41
1:13:1347:G:H22	1:13:1374:A:P	2.43	0.41
26:14:1022:G:HO2'	26:14:1023:U:P	2.35	0.41
12:3A:84:LEU:C	12:3A:85:ILE:HD12	2.41	0.41
39:65:109:GLY:C	39:65:110:LEU:HD13	2.41	0.41
46:H8:158:PRO:O	46:H8:161:VAL:HG22	2.20	0.41
28:19:116:GLN:HB2	28:19:116:GLN:HE21	1.64	0.41
26:1H:99:U:C6	26:1H:102:G:C2	3.07	0.41
1:13:452:A:H2'	1:13:453:A:C8	2.55	0.41
27:16:81:G:C6	27:16:82:G:C5	3.09	0.41
47:I8:38:VAL:CG1	47:I8:40:GLN:HG2	2.46	0.41
27:1J:22:U:H5'	27:1J:23:G:OP2	2.20	0.41
52:N8:40:LYS:HG2	52:N8:46:CYS:SG	2.61	0.41
4:32:118:ARG:O	4:32:122:ARG:HB2	2.20	0.41
16:7I:38:TYR:CZ	16:7I:50:LYS:HB2	2.56	0.41
26:1H:2415:G:C6	26:1H:2416:C:C4	3.09	0.41
26:14:2544:G:O5'	26:14:2544:G:H8	2.03	0.41
26:1H:873:G:N2	26:1H:905:U:C2	2.88	0.41
26:14:1288:U:H4'	26:14:1289:C:OP2	2.20	0.41
26:14:2755:C:HO2'	26:14:2756:U:H6	1.67	0.41
1:1G:894:G:C6	1:1G:895:G:C5	3.09	0.41
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.20	0.41
17:8I:100:LYS:HB2	17:8I:101:ARG:HE	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:236:G:H2'	1:1G:237:C:O4'	2.20	0.41
30:39:110:LEU:HD12	30:39:205:ARG:HG2	2.02	0.41
1:1G:748:C:H4'	1:1G:749:C:O5'	2.20	0.41
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.20	0.41
26:1H:2271:G:C5'	47:I8:20:ARG:HG2	2.49	0.41
26:14:1717:G:C6	26:14:1743:G:C6	3.08	0.41
42:D8:89:GLN:HA	42:D8:90:PRO:HD2	1.81	0.41
32:51:12:PRO:HB2	32:51:13:LYS:HE2	2.01	0.41
4:3E:172:PRO:HB2	4:3E:187:ARG:HH12	1.86	0.41
1:13:1320:C:C2	19:AI:72:GLY:HA3	2.55	0.41
26:14:1494:A:C2	26:14:1495:A:C4	3.08	0.41
1:1G:450:G:N7	1:1G:481:G:C6	2.89	0.41
41:85:44:ASN:HD21	42:95:75:PHE:H	1.67	0.41
35:68:52:VAL:C	35:68:53:LYS:HD2	2.41	0.41
34:15:69:GLN:O	34:15:71:ILE:HG23	2.21	0.41
13:4I:12:ASN:HB3	13:4I:13:LYS:H	1.58	0.41
14:5I:58:LYS:HE3	14:5I:58:LYS:HB2	1.84	0.41
31:41:105:LYS:HE3	31:41:105:LYS:HB2	1.81	0.41
36:78:111:ARG:HG2	36:78:128:HIS:CD2	2.55	0.41
26:14:447:A:C6	26:14:454:A:C8	3.08	0.41
26:1H:2462:U:H2'	26:1H:2463:C:C6	2.55	0.41
26:1H:565:C:H4'	57:1H:4120:HOH:O	2.19	0.41
1:13:1304:G:C6	1:13:1305:G:C6	3.09	0.41
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.86	0.41
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.02	0.41
26:14:1225:C:C3'	42:95:85:LYS:HA	2.51	0.41
26:14:1856:G:H1	26:14:1886:C:N4	2.02	0.41
26:14:1856:G:C6	26:14:1857:G:C5	3.08	0.41
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.20	0.41
40:75:4:GLY:O	40:75:5:ALA:C	2.58	0.41
26:14:198:C:H4'	26:14:2243:U:O2'	2.21	0.41
26:14:1019:U:OP1	26:14:1035:U:O2'	2.25	0.41
1:13:1002:G:C2	1:13:1003:G:H1'	2.56	0.41
26:1H:821:A:O2'	26:1H:945:A:H3'	2.20	0.41
29:29:55:ASN:C	29:29:57:LYS:H	2.23	0.41
29:29:59:VAL:CB	29:29:60:ASN:HA	2.45	0.41
46:H8:128:VAL:CG2	46:H8:161:VAL:HG12	2.50	0.41
1:13:453:A:C6	1:13:454:C:C4	3.09	0.41
26:1H:2121:G:H2'	26:1H:2122:U:C6	2.56	0.41
40:75:26:ASP:OD1	40:75:120:ARG:NH2	2.54	0.41
44:B5:31:HIS:HA	44:B5:32:PRO:HD3	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:87:LYS:HG2	37:88:88:GLY:N	2.34	0.41
29:29:81:ILE:HG22	29:29:82:ARG:N	2.35	0.41
26:1H:242:G:C8	54:Q8:3:LYS:HG3	2.56	0.41
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	2.01	0.41
46:H8:60:GLU:O	46:H8:61:LEU:HD23	2.21	0.41
30:39:46:ARG:O	30:39:48:THR:HG23	2.20	0.41
1:1G:1300:G:O2'	1:1G:1301:U:P	2.78	0.41
11:2A:79:SER:OG	11:2A:106:LYS:HD2	2.20	0.41
8:7E:107:LEU:HD23	8:7E:107:LEU:HA	1.83	0.41
1:13:123:C:OP1	1:13:312:C:H5'	2.21	0.41
26:14:176:G:O2'	26:14:177:G:H5'	2.20	0.41
35:68:8:LEU:HD12	35:68:82:ASN:HB2	2.01	0.41
35:68:2:ILE:HD11	35:68:82:ASN:HB3	2.02	0.41
26:1H:2795:G:C4	26:1H:2802:G:O6	2.74	0.41
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.35	0.41
41:C8:72:HIS:ND1	41:C8:110:VAL:HG21	2.35	0.41
1:13:802:A:H3'	1:13:803:G:C8	2.56	0.41
50:L8:2:PRO:HB2	50:L8:3:ARG:H	1.59	0.41
39:A8:25:ARG:O	39:A8:39:ILE:HA	2.21	0.41
46:D5:17:ALA:HA	46:D5:20:ARG:HD2	2.02	0.41
30:39:60:SER:OG	30:39:61:GLY:N	2.53	0.41
3:2E:29:TYR:OH	14:5I:54:PRO:O	2.27	0.41
26:1H:1286:A:C5	26:1H:1289:C:C4	3.09	0.41
26:14:2123:G:N2	26:14:2176:A:C6	2.88	0.41
26:1H:2338:G:H2'	26:1H:2339:G:H8	1.85	0.41
29:21:15:PHE:CD2	40:B8:81:PRO:HD3	2.56	0.41
27:1J:99:A:C4	27:1J:100:G:C8	3.08	0.41
50:L8:55:ARG:O	50:L8:55:ARG:HG3	2.20	0.41
39:65:83:LYS:HE2	39:65:83:LYS:HB3	1.77	0.41
29:21:14:ILE:HA	29:21:14:ILE:HD13	1.80	0.41
26:1H:686:G:H4'	26:1H:686:G:OP2	2.21	0.41
38:98:21:TYR:OH	38:98:43:GLU:HG2	2.20	0.41
31:49:9:ARG:HG2	31:49:13:GLU:OE2	2.20	0.41
46:D5:161:VAL:HB	46:D5:162:GLU:H	1.50	0.41
26:1H:800:A:H4'	26:1H:801:G:O5'	2.19	0.41
26:1H:775:G:C2	26:1H:777:A:N6	2.88	0.41
31:49:6:ALA:N	51:I5:23:GLU:OE2	2.53	0.41
1:13:1357:A:C5	1:13:1358:U:C4	3.08	0.41
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.21	0.41
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	2.01	0.41
31:41:99:MET:HG3	31:41:100:TRP:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:537:G:H2'	1:13:538:G:C8	2.55	0.41
17:8A:88:TYR:CE1	17:8A:92:ARG:HD3	2.55	0.41
26:14:2137:C:OP2	26:14:2137:C:H6	2.03	0.41
26:14:327:G:C6	26:14:328:U:N3	2.89	0.41
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.55	0.41
26:14:634:C:H2'	26:14:635:C:H6	1.81	0.41
1:13:97:U:H2'	1:13:99:C:C6	2.55	0.41
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	2.03	0.41
1:13:148:G:N2	1:13:149:A:C5	2.89	0.41
13:4A:81:LEU:HB3	13:4A:89:GLY:CA	2.50	0.41
41:C8:11:ARG:O	41:C8:15:LYS:HG3	2.21	0.41
26:1H:1069:A:H4'	26:1H:1070:A:H5"	2.02	0.41
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	2.03	0.41
2:12:5:ILE:HG12	2:12:5:ILE:O	2.21	0.41
28:11:85:ASP:OD1	28:11:86:PRO:HD2	2.20	0.41
38:98:33:ARG:HH12	52:N8:55:ARG:HB3	1.84	0.41
26:1H:1108:U:O4	26:1H:1109:C:N4	2.53	0.41
20:BI:53:LEU:HD23	20:BI:100:ILE:HG22	2.02	0.41
26:1H:552:G:H2'	26:1H:553:U:O4'	2.21	0.41
26:14:1429:G:C5	26:14:1568:G:C6	3.09	0.41
26:1H:598:G:C1'	36:78:12:ALA:HB2	2.50	0.41
1:13:626:U:N3	1:13:627:G:N7	2.68	0.41
29:21:147:PRO:HB2	29:21:149:ARG:CG	2.51	0.41
30:39:122:LYS:HB3	30:39:191:ARG:HB2	2.02	0.41
1:13:659:U:C2	1:13:660:G:C8	3.08	0.41
15:6I:35:ARG:HA	15:6I:38:ARG:HB2	2.01	0.41
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.55	0.41
26:1H:2655:G:N2	26:1H:2665:A:OP2	2.47	0.41
3:22:15:THR:HG21	3:22:181:ASN:HA	2.01	0.41
2:12:20:GLU:H	2:12:20:GLU:HG2	1.72	0.41
1:13:1014:A:C2	1:13:1219:U:H1'	2.56	0.41
20:BA:41:ILE:HD12	20:BA:87:LYS:HE3	2.02	0.41
26:1H:1528:A:C2	26:1H:1542:G:C2	3.08	0.41
1:1G:423:G:N2	1:1G:424:G:C4	2.88	0.41
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.19	0.41
12:3I:51:ALA:C	12:3I:52:LEU:HD23	2.41	0.41
43:A5:29:LEU:O	43:A5:29:LEU:HD12	2.20	0.41
26:14:2433:A:H5"	26:14:2434:A:P	2.61	0.41
14:5I:39:LEU:HD13	14:5I:47:LEU:HD12	2.02	0.41
1:13:344:A:O2'	1:13:346:G:N7	2.53	0.41
7:62:24:THR:O	7:62:27:ILE:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:711:G:H2'	1:13:712:A:C8	2.56	0.41
26:14:1728:G:C6	26:14:1730:U:OP2	2.74	0.41
5:42:131:ILE:O	5:42:134:ALA:HB3	2.20	0.41
26:14:1574:C:H6	26:14:1574:C:O5'	2.03	0.41
1:1G:1009:G:C2	1:1G:1010:G:C8	3.09	0.41
26:1H:2054:A:H2'	52:N8:8:LYS:HE2	2.03	0.41
6:5E:41:GLU:O	6:5E:43:LEU:HD12	2.20	0.41
38:98:67:LEU:HD13	38:98:67:LEU:HA	1.75	0.41
12:3I:123:LYS:HG2	12:3I:123:LYS:H	1.73	0.41
23:2L:61:C:H6	23:2L:61:C:O5'	2.04	0.41
12:3A:12:ARG:HE	12:3A:12:ARG:HB3	1.57	0.41
1:1G:526:C:C5	1:1G:527:G:H1'	2.55	0.41
40:75:19:LEU:HA	40:75:20:PRO:HD3	1.84	0.41
48:F5:80:LEU:HB3	48:F5:82:LEU:HG	2.02	0.41
30:39:68:LYS:HA	30:39:68:LYS:HD2	1.97	0.41
26:1H:2287:A:N3	26:1H:2289:G:C8	2.89	0.41
27:16:12:C:O2'	47:I8:74:ARG:HG2	2.20	0.41
54:M5:60:LEU:HB2	54:M5:61:LEU:H	1.34	0.41
1:1G:928:G:C2	1:1G:1390:U:O2	2.73	0.41
26:14:2681:C:H2'	26:14:2681:C:O2	2.21	0.41
31:41:60:LEU:HD23	31:41:60:LEU:HA	1.82	0.41
31:41:61:ALA:HB2	31:41:67:LYS:HA	2.03	0.41
26:14:125:G:H4'	26:14:126:A:OP2	2.21	0.41
1:13:1004:A:H1'	1:13:1036:G:N2	2.35	0.41
2:12:188:ALA:O	2:12:203:GLY:N	2.54	0.41
24:3K:21:A:H62	24:3K:46:G:H1'	1.86	0.41
24:3K:21:A:N7	24:3K:58:U:H1'	2.35	0.41
9:8E:20:ARG:HA	9:8E:21:PRO:HD3	1.91	0.41
13:4A:3:ARG:NH1	13:4A:7:VAL:HG12	2.35	0.41
28:19:245:PRO:HA	28:19:246:PRO:HD3	1.83	0.41
43:A5:73:ALA:O	43:A5:106:ILE:HG12	2.21	0.41
1:1G:827:U:H3	1:1G:872:A:N6	2.11	0.41
3:22:95:THR:C	3:22:97:LYS:H	2.24	0.41
26:1H:246:C:N4	54:Q8:8:LYS:HG2	2.35	0.41
26:1H:2315:G:H5"	26:1H:2316:C:OP2	2.20	0.41
1:13:1062:U:H2'	1:13:1063:C:C5	2.56	0.41
26:14:654(S):G:C2	26:14:654(T):A:C6	3.08	0.41
26:1H:32:C:O2'	26:1H:33:U:H5'	2.20	0.41
31:41:44:GLY:O	31:41:47:LYS:HE3	2.20	0.41
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.48	0.41
19:AA:80:TYR:CE2	19:AA:82:GLY:HA2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:120:ILE:O	7:62:124:LEU:HB2	2.21	0.41
26:14:537:C:H5'	26:14:539:G:OP2	2.21	0.41
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.50	0.41
33:69:4:ILE:HG12	33:69:4:ILE:H	1.55	0.41
1:1G:134:A:H1'	1:1G:325:A:C5	2.56	0.41
26:1H:57:C:H2'	26:1H:58:G:O4'	2.20	0.41
26:14:2635:C:H5'	29:29:77:ILE:O	2.20	0.41
26:1H:2689:U:P	26:1H:2719:G:H22	2.43	0.41
4:32:57:ARG:HH22	5:42:107:ARG:HD3	1.85	0.41
1:1G:42:G:H2'	1:1G:43:C:O4'	2.19	0.41
25:4L:33:G:H2'	25:4L:34:G:C8	2.55	0.41
24:3K:63:G:O6	24:3K:72:C:N4	2.54	0.41
31:41:26:GLN:HB2	31:41:26:GLN:HE21	1.74	0.41
26:14:957:A:H4'	37:45:74:TYR:OH	2.21	0.41
26:1H:2312:U:OP2	31:41:74:LYS:HD3	2.21	0.41
26:14:921:G:C5	26:14:922:U:C5	3.09	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
3:2E:156:ARG:HE	3:2E:156:ARG:HB3	1.48	0.41
26:1H:25:U:C4	26:1H:26:G:C6	3.09	0.41
26:1H:5:A:H2'	26:1H:6:A:C8	2.55	0.41
1:1G:731:G:O2'	1:1G:732:C:H5'	2.21	0.41
26:14:1421:G:C2	26:14:1422:G:N7	2.88	0.41
20:BA:10:LEU:HD13	20:BA:10:LEU:O	2.21	0.41
41:85:114:LYS:HA	41:85:117:GLN:HG3	2.03	0.41
26:14:1574:C:H2'	26:14:1575:C:C6	2.55	0.41
45:C5:36:ALA:O	45:C5:37:VAL:HG13	2.21	0.41
26:1H:1783:A:C6	26:1H:2587:A:C2	3.09	0.41
1:13:1011:G:H2'	1:13:1012:U:O4'	2.20	0.41
1:1G:38:G:C2	1:1G:397:A:C2	3.09	0.41
40:B8:33:LYS:HG3	40:B8:82:LEU:HA	2.01	0.41
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.21	0.41
26:1H:1927:A:C6	26:1H:1928:A:C6	3.08	0.41
40:75:15:VAL:HG23	40:75:79:HIS:CE1	2.55	0.41
33:61:113:ARG:H	33:61:116:LEU:HD13	1.85	0.41
1:1G:868:C:H2'	1:1G:869:G:O4'	2.20	0.41
1:1G:825:G:H1	1:1G:875:C:H42	1.68	0.41
26:1H:1954:G:N3	26:1H:2551:C:H5"	2.35	0.41
38:98:65:LEU:HA	38:98:65:LEU:HD12	1.71	0.41
40:B8:22:PHE:N	40:B8:22:PHE:CD1	2.89	0.41
34:15:87:LEU:HD23	34:15:87:LEU:HA	1.85	0.41
26:1H:2071:A:H2'	26:1H:2072:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:99:ALA:HB1	18:9A:62:GLU:OE2	2.20	0.41
14:5I:37:PHE:CE1	14:5I:53:LEU:HD13	2.55	0.41
26:1H:751:A:N7	57:1H:3741:HOH:O	2.53	0.41
26:14:882:G:O2'	26:14:883:G:O4'	2.36	0.41
1:13:963:G:H21	10:1I:55:LYS:NZ	2.18	0.41
26:1H:608:A:C4	26:1H:621:A:C6	3.09	0.41
22:1L:47:C:N4	22:1L:56:G:H22	2.19	0.41
26:1H:2406:U:C2	36:78:75:ILE:HD13	2.56	0.41
35:25:103:ALA:O	35:25:106:LEU:HB2	2.20	0.41
31:41:61:ALA:O	51:M8:7:PRO:HG3	2.20	0.41
1:1G:279:A:OP2	17:8A:95:TYR:OH	2.26	0.41
42:95:41:GLY:HA3	42:95:46:VAL:HG11	2.03	0.41
26:1H:956:G:N2	26:1H:959:A:H3'	2.35	0.41
45:C5:19:LYS:O	45:C5:21:LYS:N	2.54	0.41
22:1L:10:G:H2'	22:1L:11:U:H6	1.86	0.41
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.21	0.41
26:1H:273(F):C:H3'	26:1H:274:G:C5'	2.50	0.41
32:51:87:LEU:HA	32:51:163:TYR:O	2.20	0.41
26:1H:1864:U:OP1	26:1H:2411:A:H5'	2.20	0.41
28:11:182:LEU:HB3	28:11:271:ILE:CG1	2.51	0.41
39:65:26:LEU:HB3	39:65:87:PHE:HA	2.01	0.41
26:1H:674:G:O2'	30:31:74:ARG:HG3	2.21	0.41
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.85	0.41
26:1H:2342:C:O2	26:1H:2374:C:H4'	2.20	0.41
1:1G:1385:G:C2	1:1G:1386:G:C8	3.09	0.41
46:D5:30:ASN:ND2	46:D5:90:VAL:HB	2.33	0.41
44:B5:56:THR:HB	44:B5:77:LYS:HE2	2.03	0.41
32:59:159:GLU:HB3	32:59:160:LYS:H	1.57	0.41
27:1J:56:G:O5'	27:1J:56:G:H8	2.04	0.41
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.55	0.41
26:14:152:G:H2'	26:14:153:C:O4'	2.21	0.41
48:F5:86:SER:N	48:F5:87:PRO:CD	2.84	0.41
38:98:13:HIS:CE1	38:98:16:HIS:HB2	2.55	0.41
26:14:638:G:C5	26:14:651:G:C2	3.09	0.41
11:2I:73:MET:SD	11:2I:103:LEU:HD22	2.60	0.41
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.51	0.41
1:13:1121:U:C4	1:13:1122:U:C4	3.09	0.41
13:4A:14:ARG:HG2	13:4A:44:ARG:HE	1.85	0.41
10:1I:22:LYS:HZ1	10:1I:90:LEU:HB2	1.84	0.41
1:13:626:U:H2'	1:13:627:G:C8	2.55	0.41
29:29:76:ARG:CG	29:29:195:LEU:HD22	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:265:A:H8	26:1H:266:G:H1'	1.86	0.41
26:1H:2712:U:OP1	26:1H:2714:G:H4'	2.21	0.41
29:29:11:MET:CE	29:29:187:ALA:H	2.34	0.41
29:29:11:MET:HG3	29:29:24:THR:N	2.36	0.41
36:78:38:GLN:O	36:78:41:ARG:HB2	2.21	0.41
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.55	0.41
37:88:59:ARG:C	37:88:61:GLY:N	2.74	0.41
26:14:70:G:H5"	26:14:112:U:O2	2.20	0.41
33:61:104:GLN:HG2	33:61:105:HIS:ND1	2.35	0.41
2:12:23:ARG:NH2	2:12:191:ASP:HB2	2.35	0.41
42:95:67:GLY:O	42:95:88:ARG:HD2	2.21	0.41
26:1H:439:G:H2'	26:1H:440:G:H8	1.85	0.41
4:32:134:ASP:O	4:32:136:PRO:HD3	2.21	0.41
44:B5:21:PHE:HD1	44:B5:21:PHE:N	2.18	0.41
1:13:257:G:C4	1:13:258:G:C8	3.09	0.41
26:1H:447:A:C8	26:1H:473:G:C6	3.09	0.41
1:13:1235:U:H2'	1:13:1236:A:O4'	2.21	0.41
1:1G:1200:C:H5'	1:1G:1201:A:H5"	2.02	0.41
1:1G:625:G:C5	1:1G:626:U:C5	3.08	0.41
1:13:382:A:H2'	1:13:383:A:C8	2.55	0.41
13:4A:15:VAL:O	13:4A:19:LEU:HG	2.21	0.41
26:1H:2000:G:C2'	26:1H:2001:A:H5'	2.51	0.41
23:2K:38:1MG:HN21	23:2K:38:1MG:HM11	1.75	0.41
11:2A:66:LEU:HD23	11:2A:66:LEU:HA	1.84	0.41
30:39:64:ILE:HG12	30:39:64:ILE:H	1.53	0.41
1:1G:575:G:OP1	1:1G:575:G:H4'	2.21	0.41
3:2E:204:LEU:HA	3:2E:204:LEU:HD23	1.85	0.41
53:L5:32:LYS:HB3	53:L5:32:LYS:HE3	1.79	0.41
26:14:1787:A:N3	26:14:1787:A:H2'	2.34	0.41
1:1G:1124:G:H8	1:1G:1124:G:OP2	2.03	0.41
36:35:61:ARG:HG2	36:35:61:ARG:H	1.54	0.41
26:14:1356:G:H2'	26:14:1357:U:O4'	2.19	0.41
26:1H:1956:U:H1'	26:1H:2552:U:OP1	2.21	0.41
26:1H:706:A:H2'	26:1H:707:G:O4'	2.20	0.41
26:14:2499:C:OP2	57:14:3528:HOH:O	2.21	0.41
32:59:6:ARG:HB2	32:59:66:GLY:CA	2.34	0.41
1:1G:1504:G:H4'	1:1G:1505:G:O4'	2.21	0.41
26:14:1061:U:H5"	26:14:1062:G:OP2	2.21	0.41
36:78:96:THR:HG23	36:78:126:VAL:HG21	2.03	0.41
36:35:55:ARG:HG2	36:35:56:SER:H	1.86	0.41
1:13:1349:A:OP1	9:8E:118:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M5:59:LYS:HG2	54:M5:59:LYS:HZ3	1.78	0.41
29:21:116:VAL:HG21	29:21:122:PHE:CE2	2.56	0.41
26:1H:1992:G:C2	26:1H:1997:G:C5	3.09	0.41
31:41:64:THR:HG22	31:41:66:GLN:N	2.25	0.41
1:13:1357:A:O5'	1:13:1359:C:N4	2.54	0.41
10:1I:6:ILE:O	10:1I:71:LEU:HD12	2.21	0.41
22:1K:50:A:H5'	22:1K:51:A:H5"	2.03	0.41
1:13:495:A:C2	1:13:496:A:C5	3.09	0.41
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.56	0.41
13:4I:39:ILE:CD1	13:4I:56:LEU:HD23	2.46	0.41
37:88:90:VAL:HG23	37:88:91:GLU:H	1.86	0.41
11:2A:29:ILE:CG2	11:2A:44:SER:HB2	2.44	0.41
26:14:1665:A:C4'	35:25:67:LYS:HB2	2.51	0.41
23:2L:73:C:H2'	23:2L:74:C:C5	2.55	0.41
32:51:87:LEU:HB2	32:51:131:VAL:HG12	2.01	0.41
26:14:2469:A:H4'	26:14:2469:A:OP1	2.20	0.41
26:14:2111:C:N4	26:14:2118:U:H1'	2.36	0.41
37:88:35:VAL:HG13	37:88:130:LYS:O	2.21	0.41
1:1G:559:A:H4'	1:1G:560:U:H5"	2.03	0.41
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.56	0.41
22:1K:5:A:H2'	22:1K:6:G:O4'	2.21	0.41
1:1G:449:C:H6	16:7A:42:ARG:HD2	1.86	0.41
24:3K:43:A:H2'	24:3K:43:A:N3	2.36	0.41
26:14:2305:A:C2	31:49:154:GLY:HA3	2.55	0.41
1:13:276:G:C6	1:13:277:C:C4	3.08	0.41
26:14:2784:C:H2'	26:14:2785:C:C6	2.56	0.41
32:59:91:GLY:HA3	32:59:160:LYS:HB3	2.03	0.41
46:D5:44:PHE:CE1	46:D5:48:PHE:HB2	2.55	0.41
26:1H:1091:G:C2	26:1H:1101:U:H1'	2.56	0.41
26:1H:2306:C:H2'	26:1H:2307:G:H21	1.85	0.41
37:88:125:LEU:HA	37:88:125:LEU:HD23	1.80	0.41
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.20	0.41
26:1H:1249:U:P	57:1H:3732:HOH:O	2.78	0.41
4:32:13:ARG:C	4:32:15:GLU:N	2.74	0.41
30:31:129:PHE:O	30:31:130:ALA:HB3	2.21	0.41
9:8E:53:VAL:HG22	9:8E:92:TYR:CE1	2.56	0.41
44:B5:60:ARG:NH1	44:B5:60:ARG:HA	2.33	0.41
26:1H:1653:G:H3'	38:98:2:ARG:HG3	2.02	0.41
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.20	0.41
1:13:186:C:H6	1:13:186:C:H3'	1.86	0.41
7:62:70:LYS:HD3	7:62:96:GLN:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.21	0.41
1:1G:1137:C:H5"	1:1G:1138:G:OP1	2.21	0.41
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.56	0.41
1:1G:956:U:H2'	1:1G:957:U:O4'	2.21	0.41
16:7I:53:VAL:CG2	16:7I:77:ALA:HB1	2.50	0.41
26:14:1343:G:C2'	26:14:1344:G:H5'	2.51	0.41
1:13:1263:C:H2'	1:13:1264:C:H6	1.85	0.41
26:14:2720:U:H2'	26:14:2720:U:O2	2.20	0.41
26:1H:2131:G:C5'	26:1H:2133:G:H4'	2.50	0.41
42:95:78:LYS:O	42:95:79:VAL:HG13	2.19	0.41
26:1H:2376:A:N1	39:A8:87:PHE:HB3	2.35	0.41
26:1H:817:C:H5"	57:1H:3718:HOH:O	2.21	0.41
26:14:2020:A:P	41:85:27:LEU:HD23	2.61	0.41
1:13:391:G:O3'	16:7I:8:ARG:NH2	2.54	0.41
1:13:626:U:H2'	1:13:627:G:H8	1.85	0.41
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.21	0.41
30:39:15:SER:OG	30:39:17:ARG:N	2.52	0.41
26:1H:2318:G:H22	39:A8:3:ARG:H	1.66	0.41
7:6E:150:ALA:HB2	11:2I:50:TYR:HE2	1.86	0.41
1:13:892:A:C6	1:13:893:C:C4	3.09	0.41
9:8E:18:PHE:CD2	9:8E:62:TYR:HD2	2.38	0.41
39:A8:67:ARG:O	39:A8:71:ARG:HG2	2.21	0.41
1:13:1171:G:H2'	1:13:1172:C:H6	1.86	0.41
26:14:890:A:O2'	26:14:892:G:H5'	2.21	0.41
26:14:2388:A:C2'	26:14:2389:G:H5'	2.51	0.41
45:G8:99:CYS:N	45:G8:100:ALA:HA	2.35	0.41
26:14:2360:A:H2'	26:14:2361:A:O4'	2.21	0.41
42:D8:21:ARG:HG2	42:D8:91:TYR:CE2	2.56	0.41
1:13:322:C:O2'	20:BI:23:ARG:HD2	2.20	0.41
26:14:51:G:N3	26:14:119:A:C2	2.89	0.41
50:L8:13:ILE:HA	50:L8:13:ILE:HD13	1.63	0.41
26:14:1426:G:H5"	26:14:1559:G:N1	2.36	0.41
26:14:2273:A:H2'	26:14:2274:A:C8	2.55	0.41
33:61:9:LEU:HD21	33:61:35:LEU:CD1	2.51	0.41
1:13:491:G:H2'	1:13:492:G:C8	2.55	0.41
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.21	0.41
26:1H:270(V):G:H2'	26:1H:270(W):G:O4'	2.21	0.41
26:1H:2442:C:H2'	26:1H:2443:C:C6	2.56	0.41
1:1G:613:C:H6	1:1G:613:C:H3'	1.85	0.41
26:1H:2626:C:H2'	26:1H:2627:G:O4'	2.21	0.41
26:14:2659:G:O2'	26:14:2661:G:N7	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:373:U:H2'	26:14:374:A:C8	2.56	0.41
1:13:423:G:N2	1:13:424:G:C8	2.89	0.41
43:A5:64:MET:HE2	43:A5:64:MET:HB3	1.84	0.41
40:B8:19:LEU:HA	40:B8:20:PRO:HD3	1.88	0.41
32:51:12:PRO:HB2	32:51:13:LYS:H	1.70	0.41
30:39:51:THR:HG23	30:39:92:PRO:HG2	2.03	0.41
1:13:807:A:H2'	1:13:808:C:C6	2.55	0.41
4:3E:39:PRO:HA	4:3E:40:PRO:HD3	1.74	0.41
26:1H:2688:U:H5	26:1H:2720:U:OP2	2.04	0.41
26:1H:2721:A:H1'	26:1H:2873:A:O2'	2.20	0.41
42:95:51:VAL:HG12	42:95:52:VAL:N	2.36	0.41
26:1H:46:C:OP2	26:1H:215:G:H2'	2.20	0.41
17:8A:19:VAL:HG23	17:8A:44:ALA:HB3	2.03	0.41
46:H8:133:ILE:O	46:H8:135:GLU:N	2.54	0.41
26:14:2381:C:H6	26:14:2381:C:O5'	2.03	0.41
26:14:2651:C:O2'	26:14:2652:C:H5'	2.20	0.41
37:88:55:VAL:HG12	37:88:64:ILE:HD12	2.02	0.41
7:6E:18:TYR:HB3	7:6E:59:LEU:HD12	2.01	0.41
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.55	0.41
26:1H:612:G:C6	26:1H:613:U:C4	3.09	0.41
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.21	0.41
28:19:222:ARG:CZ	57:19:304:HOH:O	2.68	0.41
1:13:52:G:H2'	1:13:53:A:H8	1.86	0.41
23:2L:76:U:H2'	23:2L:77:C:H6	1.86	0.41
43:A5:84:ARG:O	43:A5:96:ILE:HD13	2.21	0.41
26:14:2712:U:HO2'	26:14:2712(A):A:P	2.44	0.41
26:14:146:G:H2'	26:14:147:U:O4'	2.21	0.41
50:H5:11:SER:HA	50:H5:12:PRO:HD2	1.67	0.41
1:13:1112:C:H6	1:13:1112:C:O5'	2.04	0.41
33:69:44:LEU:HA	33:69:44:LEU:HD22	1.83	0.41
31:41:117:PHE:HE1	31:41:120:LEU:HD23	1.85	0.41
26:1H:2053:G:H5'	29:21:144:ARG:O	2.21	0.41
26:14:275:G:H5"	26:14:363:G:O6	2.21	0.41
26:1H:249:C:O2	54:Q8:12:LYS:HE3	2.21	0.41
2:1E:21:ARG:O	2:1E:23:ARG:N	2.54	0.41
26:14:1249:U:H2'	36:35:18:ARG:HH12	1.86	0.41
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.56	0.41
47:E5:32:ARG:C	47:E5:34:GLY:H	2.18	0.41
26:1H:946:G:OP1	57:1H:3866:HOH:O	2.21	0.41
47:E5:21:LEU:HD21	47:E5:41:ARG:NH1	2.34	0.41
28:19:244:ARG:HB2	28:19:245:PRO:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:468:A:H4'	16:7A:80:PHE:O	2.21	0.41
34:58:13:TRP:O	34:58:134:ARG:HA	2.20	0.41
36:35:47:ASP:HB3	36:35:48:PRO:CA	2.51	0.41
46:H8:117:LEU:H	46:H8:117:LEU:CD1	2.34	0.41
22:1L:31:C:H2'	22:1L:32:C:C6	2.55	0.41
22:1L:49:C:C5	22:1L:50:A:H1'	2.56	0.41
26:1H:2854:G:C6	26:1H:2864:G:N1	2.89	0.41
40:B8:54:ARG:HA	40:B8:59:THR:CB	2.51	0.41
39:65:61:ASN:CG	39:65:62:LYS:H	2.24	0.41
8:72:100:ILE:HD11	8:72:112:LEU:HD11	2.02	0.41
42:D8:46:VAL:HG12	42:D8:47:VAL:H	1.86	0.41
1:1G:605:U:H3	1:1G:633:G:H1	1.68	0.41
37:88:85:LYS:HG3	47:I8:7:LEU:HB3	2.02	0.41
2:1E:47:THR:O	2:1E:51:LEU:N	2.34	0.41
18:9I:26:LEU:HB3	18:9I:42:ARG:NH2	2.36	0.41
26:1H:934:G:C4	26:1H:935:C:C5	3.09	0.41
11:2A:12:ARG:HG2	11:2A:13:GLN:N	2.36	0.41
26:1H:176:G:C2'	26:1H:177:G:H5'	2.51	0.41
4:3E:13:ARG:HD2	4:3E:38:TYR:O	2.21	0.41
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.21	0.41
1:1G:1055:A:N6	1:1G:1206:G:C5	2.89	0.41
43:A5:29:LEU:HD21	43:A5:33:ARG:NH2	2.36	0.41
4:32:91:SER:OG	4:32:191:ARG:HG3	2.20	0.41
26:1H:494:G:OP1	43:E8:8:ARG:HD3	2.21	0.41
6:52:72:VAL:O	6:52:75:LEU:HB3	2.21	0.41
52:J5:42:PRO:O	52:J5:44:THR:HG23	2.21	0.41
1:13:52:G:H2'	1:13:53:A:O4'	2.21	0.41
43:E8:74:ALA:HA	43:E8:104:THR:O	2.21	0.41
1:13:585:G:C6	1:13:586:C:C4	3.09	0.41
26:14:1399:C:O2'	26:14:1400:G:H5'	2.20	0.41
16:7A:40:ASP:HA	16:7A:41:PRO:HD2	1.81	0.41
26:14:693:C:H2'	26:14:694:U:H6	1.86	0.41
26:1H:1028:A:N3	26:1H:2486:G:O2'	2.45	0.41
38:55:18:LEU:HD11	38:55:22:ARG:CZ	2.51	0.41
44:B5:12:VAL:HG22	44:B5:17:ALA:HB2	2.03	0.41
5:42:143:ARG:HA	5:42:143:ARG:HD3	1.93	0.41
28:19:111:LEU:HA	28:19:111:LEU:HD23	1.84	0.41
18:9A:76:LEU:HA	18:9A:76:LEU:HD23	1.68	0.41
28:11:254:THR:O	28:11:254:THR:OG1	2.34	0.41
9:8E:127:LYS:O	9:8E:127:LYS:HG2	2.21	0.41
36:78:85:LEU:HD13	36:78:120:ALA:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2422:A:N7	54:Q8:30:ARG:NH2	2.55	0.40
25:4K:34:G:H2'	25:4K:35:A:H8	1.85	0.40
43:E8:79:GLY:CA	43:E8:100:THR:HG22	2.39	0.40
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.21	0.40
28:19:206:LEU:HD22	28:19:211:ARG:HG2	2.02	0.40
29:29:34:VAL:HG21	29:29:78:LEU:HD22	2.03	0.40
26:1H:141:A:C8	26:1H:1408:C:H1'	2.56	0.40
13:4A:25:ILE:HD13	13:4A:25:ILE:HA	1.84	0.40
26:14:2184:G:H2'	26:14:2185:C:C6	2.56	0.40
23:2K:24:C:H2'	23:2K:25:A:O4'	2.22	0.40
3:22:6:HIS:CD2	14:5A:49:HIS:HB3	2.56	0.40
17:8I:69:LYS:C	17:8I:70:ARG:HD2	2.42	0.40
46:H8:11:GLU:HA	46:H8:36:LYS:HE3	2.03	0.40
7:6E:22:LEU:HG	7:6E:62:PHE:HE2	1.87	0.40
40:B8:26:ASP:CB	40:B8:92:GLY:H	2.32	0.40
29:29:201:THR:HG22	29:29:202:LYS:N	2.37	0.40
54:Q8:27:THR:HG22	54:Q8:42:ARG:HE	1.86	0.40
1:13:11:G:C6	1:13:12:U:C4	3.09	0.40
1:1G:838:G:N2	1:1G:849:C:C4	2.89	0.40
1:1G:954:G:H2'	1:1G:955:U:C6	2.56	0.40
26:14:1418:G:H8	26:14:1418:G:O5'	2.03	0.40
4:32:92:VAL:O	4:32:96:LEU:HD12	2.20	0.40
26:14:2258:C:O2'	26:14:2427:C:OP2	2.35	0.40
23:2K:87:A:H4'	26:1H:2602:A:C5	2.56	0.40
1:1G:1523:G:C6	1:1G:1524:C:C4	3.09	0.40
26:14:1011:G:OP2	41:85:70:ARG:NH2	2.53	0.40
26:1H:2052:G:O4'	29:21:142:GLY:HA3	2.21	0.40
34:58:46:VAL:O	34:58:47:ALA:HB3	2.21	0.40
26:14:2311:A:H8	31:49:88:ILE:HG12	1.85	0.40
29:29:195:LEU:HD12	29:29:195:LEU:HA	1.81	0.40
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.54	0.40
26:1H:2747:G:H5"	32:51:70:THR:HG21	2.03	0.40
33:61:129:THR:HG22	33:61:137:PRO:HB3	2.02	0.40
26:14:2124:G:H1	26:14:2173:A:H61	1.69	0.40
9:82:21:PRO:HA	9:82:59:PHE:HA	2.02	0.40
26:1H:2757:A:N1	32:51:67:LEU:HD22	2.36	0.40
37:45:79:LEU:HD13	37:45:79:LEU:H	1.86	0.40
27:1J:78:A:H2'	27:1J:79:C:O4'	2.21	0.40
46:H8:77:ASP:OD1	46:H8:80:ARG:HD2	2.21	0.40
49:K8:2:LYS:O	49:K8:5:GLU:HB2	2.21	0.40
3:2E:52:LEU:HD23	3:2E:52:LEU:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M8:26:SER:OG	51:M8:27:THR:N	2.54	0.40
1:1G:1206:G:H4'	3:22:192:THR:O	2.21	0.40
39:A8:36:TYR:HB3	39:A8:52:SER:HB3	2.04	0.40
26:14:960:A:C8	26:14:962:G:C8	3.09	0.40
19:AA:71:LEU:HA	19:AA:71:LEU:HD23	1.68	0.40
26:14:1171:G:N3	26:14:1173:G:H1'	2.35	0.40
29:29:203:LYS:HG2	29:29:205:ALA:HB3	2.02	0.40
26:14:2676:C:H2'	26:14:2677:G:C8	2.55	0.40
46:H8:23:LYS:HD3	46:H8:40:ASP:HA	2.02	0.40
39:65:65:VAL:O	39:65:69:VAL:HG12	2.21	0.40
1:13:118:U:C5	1:13:288:A:C6	3.09	0.40
6:52:23:LYS:HG2	6:52:61:LEU:HD21	2.03	0.40
26:1H:2471:C:H2'	26:1H:2472:G:O4'	2.21	0.40
38:55:79:LEU:HA	38:55:83:ILE:HB	2.04	0.40
41:85:25:TRP:CD1	41:85:26:GLY:N	2.89	0.40
1:13:678:U:H2'	1:13:679:C:C6	2.57	0.40
1:1G:109:A:C6	1:1G:326:G:C6	3.09	0.40
47:E5:7:LEU:O	47:E5:8:ALA:HB2	2.22	0.40
26:1H:1854:A:H2'	26:1H:1855:G:O4'	2.22	0.40
26:1H:1957:C:H2'	26:1H:1958:C:C6	2.57	0.40
1:1G:1273:G:OP2	1:1G:1273:G:H8	2.04	0.40
15:6I:43:LEU:HA	15:6I:43:LEU:HD23	1.87	0.40
47:I8:44:ARG:HD2	47:I8:44:ARG:HH11	1.77	0.40
26:14:1139:G:H8	26:14:1139:G:O5'	2.03	0.40
49:G5:4:SER:N	49:G5:6:VAL:HG22	2.36	0.40
26:1H:1247:A:OP1	30:31:95:ARG:NH2	2.54	0.40
46:H8:152:ALA:HB3	46:H8:167:PRO:HA	2.03	0.40
1:1G:1323:G:H4'	1:1G:1362(A):C:C2	2.56	0.40
1:1G:973:G:C1'	10:1A:55:LYS:HG3	2.51	0.40
1:1G:1392:G:H21	1:1G:1502:A:H8	1.67	0.40
36:78:81:GLN:HG2	36:78:106:LEU:HD22	2.04	0.40
26:1H:675:A:C6	26:1H:676:A:C6	3.10	0.40
26:14:993:G:O4'	42:95:87:HIS:CD2	2.74	0.40
26:1H:1342:A:N1	26:1H:1345:C:C2	2.89	0.40
26:14:275:G:H2'	26:14:276:A:C8	2.56	0.40
36:78:47:ASP:HA	36:78:48:PRO:HD3	1.73	0.40
49:G5:28:LYS:HA	49:G5:28:LYS:HD3	1.91	0.40
2:12:188:ALA:N	2:12:201:ILE:O	2.50	0.40
1:1G:1240:U:H2'	7:62:32:ARG:NH2	2.35	0.40
33:69:77:LEU:CD1	33:69:78:THR:H	2.31	0.40
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:14:LYS:HB3	36:35:14:LYS:HE2	1.96	0.40
16:7A:74:LEU:O	16:7A:79:VAL:HG23	2.21	0.40
34:58:15:LEU:HD13	34:58:16:ILE:N	2.36	0.40
32:59:35:VAL:HG21	32:59:75:ALA:HB2	2.03	0.40
29:21:188:VAL:HA	29:21:189:PRO:HD3	1.90	0.40
29:29:23:VAL:HA	29:29:184:VAL:O	2.21	0.40
26:14:2394:C:P	54:M5:30:ARG:NH1	2.94	0.40
26:14:288:C:H2'	26:14:289:A:C8	2.56	0.40
8:72:84:ARG:O	8:72:135:CYS:HB2	2.22	0.40
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.71	0.40
40:B8:42:ILE:HG21	40:B8:84:GLN:NE2	2.36	0.40
1:13:1010:G:N2	1:13:1019:C:N3	2.63	0.40
26:1H:1516:U:C2	26:1H:1517:G:C8	3.10	0.40
26:14:2720:U:N3	26:14:2873:A:H2	2.19	0.40
39:65:89:ARG:O	39:65:90:GLY:C	2.60	0.40
1:13:953:G:C6	1:13:954:G:C4	3.09	0.40
13:4I:88:ARG:HB3	13:4I:88:ARG:HH11	1.85	0.40
5:4E:69:VAL:HA	5:4E:70:PRO:HD3	1.78	0.40
1:1G:370:C:H2'	1:1G:371:G:C8	2.56	0.40
26:1H:1413:G:N2	26:1H:1589:C:O2	2.54	0.40
3:22:61:ALA:O	3:22:63:ASN:N	2.52	0.40
26:1H:2294:C:C4	26:1H:2295:C:C5	3.09	0.40
34:58:42:TRP:O	41:C8:64:ARG:HD2	2.21	0.40
26:1H:464:U:H2'	26:1H:465:G:O4'	2.21	0.40
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.21	0.40
4:3E:8:VAL:HG13	4:3E:21:LEU:HB2	2.03	0.40
6:52:35:ALA:HB2	6:52:67:MET:HE3	2.03	0.40
1:13:984:C:H2'	1:13:985:C:C6	2.56	0.40
26:1H:2620:C:H2'	26:1H:2621:A:O4'	2.21	0.40
1:1G:187:C:H2'	1:1G:188:U:O4'	2.20	0.40
29:21:88:GLY:O	29:21:89:ASP:HB2	2.21	0.40
1:13:153:C:N4	1:13:168:G:H22	2.18	0.40
32:51:153:LYS:H	32:51:153:LYS:CD	2.33	0.40
1:13:677:U:H3	1:13:713:G:H22	1.69	0.40
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.56	0.40
26:1H:774:A:C2	26:1H:787:U:O2'	2.73	0.40
26:14:1057:A:H2'	26:14:1058:U:O4'	2.22	0.40
46:D5:157:LEU:HA	46:D5:157:LEU:HD12	1.76	0.40
3:22:91:LEU:HB2	3:22:99:VAL:HG21	2.03	0.40
26:1H:234:C:H2'	26:1H:235:U:C6	2.56	0.40
1:13:448:A:P	1:13:485:G:H22	2.45	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:149:ARG:NH1	32:51:154:PRO:HG3	2.36	0.40
29:21:15:PHE:HA	29:21:19:ARG:O	2.21	0.40
31:41:18:GLU:OE1	31:41:22:ARG:HD2	2.21	0.40
43:A5:27:LYS:O	43:A5:71:VAL:HG23	2.21	0.40
8:7E:100:ILE:HA	8:7E:101:PRO:HD3	1.72	0.40
40:75:45:PHE:CE2	40:75:74:ARG:HB2	2.57	0.40
34:15:39:ARG:C	34:15:41:ASP:H	2.24	0.40
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.57	0.40
26:1H:643:A:N1	26:1H:2369:A:O2'	2.48	0.40
5:4E:13:ILE:HA	5:4E:29:GLY:O	2.22	0.40
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.85	0.40
26:14:433:C:C4	26:14:434:U:O4	2.74	0.40
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	2.02	0.40
26:1H:2123:G:H2'	26:1H:2124:G:H8	1.86	0.40
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.54	0.40
16:7A:37:GLY:HA3	16:7A:50:LYS:O	2.21	0.40
3:22:90:GLU:HA	3:22:93:LYS:HB3	2.03	0.40
26:14:1049:C:N3	26:14:2751:G:N1	2.58	0.40
33:69:64:GLU:HG2	33:69:67:ARG:HD2	2.02	0.40
15:6A:84:LYS:HB2	15:6A:84:LYS:HE2	1.94	0.40
2:12:180:LEU:HA	2:12:180:LEU:HD23	1.72	0.40
31:41:19:LEU:HA	31:41:19:LEU:HD23	1.80	0.40
3:22:69:HIS:N	3:22:69:HIS:ND1	2.70	0.40
41:C8:20:LEU:HD23	41:C8:20:LEU:HA	1.83	0.40
1:13:316:G:N3	1:13:316:G:H2'	2.36	0.40
1:13:960:U:H2'	1:13:960:U:O2	2.21	0.40
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.86	0.40
27:1J:31:C:H4'	31:49:29:TRP:HH2	1.86	0.40
1:1G:711:G:O2'	1:1G:712:A:H5'	2.21	0.40
54:M5:41:ILE:O	54:M5:44:LYS:N	2.51	0.40
26:1H:704:G:O2'	26:1H:726:G:N2	2.42	0.40
54:Q8:14:VAL:HG12	54:Q8:23:VAL:HB	2.03	0.40
26:14:881:G:N3	26:14:881:G:H2'	2.37	0.40
26:14:1677:A:O5'	26:14:1677:A:H8	2.04	0.40
26:1H:1022:G:O6	34:58:66:LYS:NZ	2.44	0.40
20:BI:62:LEU:HA	20:BI:65:LYS:HB3	2.03	0.40
14:5I:17:LYS:HG3	14:5I:18:VAL:N	2.36	0.40
26:14:1160:G:C6	26:14:1161:C:C4	3.09	0.40
46:D5:94:GLU:OE1	46:D5:95:PRO:HD2	2.21	0.40
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.41	0.40
26:14:1770:G:H2'	26:14:1771:C:H6	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2520:C:H2'	26:14:2521:C:C6	2.56	0.40
26:14:1416:G:C2	26:14:1417:C:C4	3.09	0.40
26:1H:1110:G:O2'	26:1H:1111:A:C8	2.75	0.40
41:C8:95:LEU:N	41:C8:95:LEU:HD22	2.37	0.40
28:11:142:VAL:HA	28:11:194:GLY:H	1.87	0.40
40:75:76:PHE:HA	40:75:77:PRO:HD2	1.91	0.40
27:1J:109:G:C6	27:1J:110:G:C5	3.10	0.40
1:1G:1129:C:C4	1:1G:1139:G:C2	3.10	0.40
9:8E:53:VAL:HG21	9:8E:85:LEU:HD13	2.03	0.40
1:1G:1347:G:C5	9:82:107:ARG:NH1	2.89	0.40
36:78:49:ARG:HG3	54:Q8:57:ARG:NE	2.35	0.40
26:14:1324:G:C5	26:14:1328:G:O6	2.73	0.40
6:52:11:ASN:O	6:52:14:LEU:HD22	2.22	0.40
8:72:25:ASP:HB3	8:72:58:TYR:HB3	2.03	0.40
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.20	0.40
1:1G:115:G:H4'	1:1G:116:A:O5'	2.21	0.40
1:13:632:A:H8	1:13:633:G:N9	2.19	0.40
1:13:718:G:H5'	11:2I:117:ASN:CG	2.42	0.40
5:42:76:ILE:CG2	5:42:77:PRO:HD2	2.51	0.40
26:14:196:A:O2'	26:14:805:G:O6	2.36	0.40
14:5A:26:ARG:O	14:5A:27:CYS:HB3	2.21	0.40
22:1K:53:A:C8	22:1K:54:G:H1'	2.56	0.40
43:A5:29:LEU:CG	43:A5:33:ARG:HH21	2.35	0.40
32:59:11:VAL:O	32:59:13:LYS:HG3	2.21	0.40
41:C8:93:LYS:HG3	41:C8:93:LYS:H	1.60	0.40
1:13:160:A:H1'	1:13:344:A:C5	2.56	0.40
26:1H:2850:A:H3'	26:1H:2851:A:H8	1.86	0.40
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.22	0.40
26:1H:1153:C:C4	26:1H:1154:G:C5	3.08	0.40
35:25:61:VAL:HG13	35:25:85:VAL:HG12	2.03	0.40
1:13:422:C:H4'	1:13:423:G:O5'	2.21	0.40
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.86	0.40
1:1G:514:C:C2	1:1G:515:G:C8	3.09	0.40
1:1G:567:G:H2'	1:1G:568:G:O4'	2.22	0.40
26:14:1914:C:C5	26:14:1915:U:C2	3.10	0.40
26:14:2590:A:OP2	28:19:237:GLU:HB3	2.21	0.40
26:14:227:A:C2	26:14:2407:G:H1'	2.56	0.40
1:1G:1192:C:C5	1:1G:1193:G:C8	3.10	0.40
28:11:232:PRO:HB3	28:11:244:ARG:NH1	2.36	0.40
26:1H:2027:G:C5	26:1H:2028:U:C5	3.09	0.40
26:1H:1649:G:C6	26:1H:2009:G:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:25:ASN:O	2:1E:28:PHE:HB2	2.21	0.40
26:14:2277:G:H5"	37:45:87:LYS:HB2	2.02	0.40
10:1I:80:LYS:O	10:1I:80:LYS:HD3	2.21	0.40
3:22:46:GLU:H	3:22:46:GLU:HG2	1.55	0.40
26:1H:725:G:H8	26:1H:725:G:O5'	2.04	0.40
2:12:223:ILE:H	2:12:223:ILE:HG12	1.66	0.40
5:4E:24:ARG:HB3	5:4E:24:ARG:HE	1.58	0.40
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.58	0.40
50:H5:8:LEU:HD13	50:H5:31:LEU:HA	2.03	0.40
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.21	0.40
30:31:34:TRP:NE1	36:78:8:PRO:HD3	2.36	0.40
1:1G:355:C:C4	1:1G:356:A:N7	2.89	0.40
1:13:926:G:C6	1:13:1505:G:C6	3.10	0.40
26:14:2697:G:H2'	26:14:2698:U:O4'	2.20	0.40
26:1H:1078:U:O2	26:1H:1088:A:H2	2.04	0.40
2:1E:21:ARG:HG2	2:1E:22:LYS:HB2	2.03	0.40
30:31:28:ILE:HD13	30:31:116:ASP:HB2	2.03	0.40
44:B5:7:VAL:HG12	44:B5:8:ILE:HD12	2.03	0.40
26:1H:861:A:C2	26:1H:917:A:C5	3.09	0.40
26:1H:1387:C:O2	26:1H:1387:C:H2'	2.21	0.40
5:42:60:TYR:HB3	5:42:64:ARG:HE	1.86	0.40
30:39:40:GLN:HG2	30:39:184:TYR:HB2	2.03	0.40
23:2L:64:G:O6	23:2L:72:C:N4	2.55	0.40
46:H8:131:ARG:CZ	46:H8:131:ARG:HB3	2.51	0.40
22:1K:6:G:H2'	22:1K:7:G:C8	2.56	0.40
1:1G:1036:G:N7	1:1G:1037:C:N4	2.68	0.40
26:1H:2404:C:N4	26:1H:2405:G:C6	2.90	0.40
31:49:64:THR:OG1	31:49:65:GLY:N	2.55	0.40
37:88:118:LEU:HD23	37:88:118:LEU:HA	1.87	0.40
26:1H:438:G:H8	26:1H:438:G:O5'	2.04	0.40
33:61:135:GLU:HB2	33:61:136:VAL:H	1.64	0.40
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	2.02	0.40
1:1G:688:G:H2'	1:1G:689:C:C6	2.51	0.40
40:B8:110:ILE:O	40:B8:110:ILE:HD13	2.20	0.40
26:14:579:G:C8	26:14:2017:U:C4	3.10	0.40
2:12:221:LEU:HA	2:12:224:GLN:CB	2.52	0.40
36:35:92:GLU:HA	36:35:123:LEU:HD22	2.03	0.40
26:14:141:A:H1'	26:14:1408:C:O4'	2.22	0.40
26:14:141:A:C8	26:14:1408:C:H1'	2.56	0.40
1:1G:346:G:N2	1:1G:347:G:C8	2.89	0.40
1:1G:173:U:O2	1:1G:197:A:C6	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:100:ALA:HA	39:A8:103:GLU:HG2	2.04	0.40
19:AI:52:TYR:CE1	19:AI:56:GLN:HA	2.57	0.40
34:15:29:LYS:HG2	34:15:29:LYS:H	1.71	0.40
26:1H:463:G:N1	26:1H:467:G:C6	2.90	0.40
26:14:871:U:H4'	37:45:69:PHE:CD2	2.56	0.40
29:29:134:ILE:HG22	29:29:137:HIS:CG	2.56	0.40
26:1H:270(G):C:O5'	26:1H:270(G):C:H6	2.05	0.40
22:1L:65:5MU:H6	22:1L:65:5MU:O5'	2.04	0.40
26:14:446:G:OP2	57:14:3971:HOH:O	2.21	0.40
3:2E:77:ILE:HA	3:2E:84:ILE:HD11	2.04	0.40
1:13:1017:G:H2'	1:13:1018:C:O4'	2.21	0.40
48:F5:35:THR:O	48:F5:35:THR:OG1	2.30	0.40
1:13:637:G:H2'	1:13:638:G:C8	2.56	0.40
26:1H:479:A:HO2'	26:1H:481:G:H8	1.67	0.40
1:1G:149:A:O5'	1:1G:149:A:H8	2.04	0.40
26:14:603:A:C8	26:14:604:G:H1'	2.56	0.40
31:49:114:ILE:HG22	31:49:117:PHE:HB2	2.03	0.40
38:55:56:LYS:HE3	38:55:94:TYR:CE1	2.57	0.40
32:51:149:ARG:HD2	32:51:149:ARG:HH11	1.71	0.40
1:13:808:C:OP1	15:6I:48:LYS:HE2	2.22	0.40
26:14:1773:A:C5	26:14:1829:A:H1'	2.56	0.40
1:13:416:G:C5	1:13:417:C:C4	3.10	0.40
26:1H:2320:A:H8	26:1H:2321:G:N1	2.20	0.40
1:13:336:C:O2'	1:13:337:C:H5'	2.21	0.40
36:78:107:LYS:HB3	36:78:108:LYS:H	1.67	0.40
3:22:188:LEU:HA	3:22:188:LEU:HD22	1.82	0.40
48:F5:83:GLU:N	48:F5:83:GLU:CD	2.75	0.40
45:C5:8:LYS:HE3	45:C5:8:LYS:HB2	1.84	0.40
41:85:39:LEU:HD23	41:85:39:LEU:HA	1.80	0.40
26:1H:1234:U:H2'	26:1H:1235:G:H5'	2.04	0.40
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	2.03	0.40
31:49:145:THR:HG22	51:I5:31:ILE:HG21	2.04	0.40
26:14:1647:G:P	26:14:1647:G:H3'	2.62	0.40
1:1G:1117:G:O3'	9:82:104:ARG:HD2	2.22	0.40
9:8E:111:ARG:HG3	9:8E:112:LYS:H	1.86	0.40
8:72:20:TYR:HD1	8:72:65:TYR:CD2	2.39	0.40
5:4E:139:LEU:HA	5:4E:142:LEU:CD1	2.49	0.40
1:1G:1275:A:N6	1:1G:1276:G:C6	2.90	0.40
1:13:515:G:N2	1:13:537:G:C4	2.89	0.40
37:45:16:ARG:HE	37:45:16:ARG:HB3	1.67	0.40
26:1H:972:G:OP1	26:1H:974:G:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2309:A:N7	26:1H:2310:A:C8	2.90	0.40
26:1H:2636:U:OP2	29:21:79:ARG:HD2	2.21	0.40
41:C8:92:ARG:HD3	41:C8:94:ASN:CB	2.52	0.40
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.57	0.40
20:BA:75:ASN:N	20:BA:75:ASN:OD1	2.48	0.40
1:13:1063:C:OP2	1:13:1064:G:O2'	2.36	0.40
46:H8:116:VAL:H	46:H8:146:ILE:HG12	1.86	0.40
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.56	0.40
1:1G:383:A:H5"	1:1G:384:G:OP2	2.21	0.40
37:88:34:LEU:HD23	37:88:104:PHE:CD2	2.57	0.40
48:F5:60:PHE:CE2	48:F5:91:LYS:HD3	2.49	0.40
10:1A:5:ARG:HB2	10:1A:73:ASP:OD1	2.22	0.40
26:14:1405:U:H2'	26:14:1406:U:H6	1.80	0.40
44:F8:1:MET:CG	44:F8:2:LYS:H	2.33	0.40
8:72:38:ILE:HD11	8:72:118:VAL:O	2.22	0.40
26:1H:1260:G:H2'	26:1H:1261:C:H6	1.86	0.40
5:4E:76:ILE:O	5:4E:93:PRO:HB3	2.22	0.40
12:3I:39:VAL:H	12:3I:57:LYS:HB3	1.87	0.40
35:68:6:THR:HG22	35:68:7:TYR:O	2.22	0.40
26:1H:598:G:O4'	36:78:12:ALA:HB2	2.21	0.40
12:3I:11:VAL:HG13	17:8I:29:HIS:CE1	2.56	0.40
34:15:99:LEU:O	34:15:99:LEU:HD23	2.21	0.40
24:3L:3:C:H2'	24:3L:4:G:O4'	2.21	0.40
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.86	0.40
51:I5:33:VAL:O	51:I5:33:VAL:HG22	2.21	0.40
3:2E:13:GLY:H	14:5I:57:ARG:HD2	1.86	0.40
1:1G:999:U:H2'	1:1G:1000:A:H8	1.87	0.40
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.85	0.40
26:14:870:A:H2'	26:14:871:U:O4'	2.21	0.40
22:1K:15:A:N1	22:1K:70:G:C6	2.89	0.40
27:1J:1:U:C2'	27:1J:2:C:H5'	2.52	0.40
26:1H:2846:G:C5	26:1H:2847:U:C4	3.09	0.40
5:42:101:ILE:HD11	5:42:119:LEU:HD23	2.02	0.40
1:13:958:A:C6	1:13:959:A:N1	2.89	0.40
26:1H:2802:G:H2'	26:1H:2802:G:N3	2.37	0.40
26:1H:2619:C:O2'	26:1H:2620:C:H5'	2.21	0.40
1:1G:57:G:C5	1:1G:58:C:C4	3.10	0.40
45:C5:75:ILE:HA	45:C5:75:ILE:HD12	1.85	0.40
41:C8:34:LYS:HE3	41:C8:34:LYS:HA	2.03	0.40
28:11:134:ARG:HG3	28:11:135:PHE:CE1	2.56	0.40
26:1H:537:C:H2'	26:1H:539:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:49:U:C2	1:13:361:G:N2	2.90	0.40
1:13:577:G:O2'	1:13:578:C:H5'	2.21	0.40
1:1G:532:A:H2	3:22:156:ARG:HH22	1.70	0.40
4:3E:187:ARG:HH22	4:3E:193:ASP:CG	2.25	0.40
26:14:1280:G:H1	26:14:1290:C:H42	1.68	0.40
28:11:120:GLY:HA3	28:11:122:ASP:OD1	2.22	0.40
47:I8:72:ARG:CB	47:I8:75:LEU:HB2	2.51	0.40
2:1E:113:HIS:O	2:1E:116:GLU:HB2	2.21	0.40
26:1H:1727:U:H3	26:1H:1733:G:H1	1.70	0.40
3:2E:101:LEU:HD23	3:2E:102:ASN:N	2.37	0.40
26:1H:747:U:O2	26:1H:2014:A:H1'	2.22	0.40
5:42:50:GLU:HB2	5:42:53:LEU:HD13	2.04	0.40
11:2I:48:ILE:HG21	11:2I:63:LEU:HD12	2.03	0.40
26:1H:390:A:C6	36:78:71:VAL:HG21	2.56	0.40
29:21:26:ILE:HD11	29:21:198:VAL:HG21	2.04	0.40
45:C5:90:LEU:HA	45:C5:91:GLU:HA	1.73	0.40
26:14:1859:A:N6	26:14:1883:G:O2'	2.55	0.40
33:69:63:ALA:O	33:69:66:GLU:HB2	2.21	0.40
26:1H:2352:A:H2'	26:1H:2353:G:O4'	2.21	0.40
50:H5:35:ARG:HD2	50:H5:35:ARG:HH11	1.78	0.40
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.87	0.40
38:55:65:LEU:HA	38:55:65:LEU:HD12	1.77	0.40
33:69:6:LEU:HA	33:69:6:LEU:HD12	1.70	0.40
1:1G:1068:G:N7	1:1G:1094:G:C8	2.90	0.40
26:1H:2085:C:H2'	26:1H:2086:U:O4'	2.22	0.40
38:55:21:TYR:OH	38:55:43:GLU:HG2	2.22	0.40
1:13:545:C:H5'	4:3E:72:GLU:HB2	2.03	0.40
26:14:717:G:H2'	26:14:718:A:O4'	2.21	0.40
26:14:263:C:H2'	26:14:264:C:O4'	2.21	0.40
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.86	0.40
26:14:2842:G:H2'	26:14:2843:G:O4'	2.21	0.40
50:H5:43:ILE:O	50:H5:47:VAL:HG23	2.22	0.40
12:3A:6:THR:HG23	12:3A:9:GLN:OE1	2.21	0.40
26:1H:705:A:C8	26:1H:727:A:C2	3.10	0.40
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.56	0.40

All (1) 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)
26:1H:654(O):G:N2	50:H5:57:GLU:OE1[2_464]	2.18	0.02

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	12	235/256 (92%)	198 (84%)	35 (15%)	2 (1%)	21 60
2	1E	235/256 (92%)	200 (85%)	33 (14%)	2 (1%)	21 60
3	22	204/239 (85%)	181 (89%)	23 (11%)	0	100 100
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100 100
4	32	206/209 (99%)	175 (85%)	30 (15%)	1 (0%)	34 71
4	3E	206/209 (99%)	194 (94%)	9 (4%)	3 (2%)	13 49
5	42	149/162 (92%)	139 (93%)	10 (7%)	0	100 100
5	4E	149/162 (92%)	142 (95%)	6 (4%)	1 (1%)	26 66
6	52	99/101 (98%)	97 (98%)	2 (2%)	0	100 100
6	5E	99/101 (98%)	94 (95%)	5 (5%)	0	100 100
7	62	143/156 (92%)	137 (96%)	6 (4%)	0	100 100
7	6E	140/156 (90%)	134 (96%)	6 (4%)	0	100 100
8	72	136/138 (99%)	125 (92%)	10 (7%)	1 (1%)	26 66
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	26 66
9	82	122/128 (95%)	109 (89%)	12 (10%)	1 (1%)	24 62
9	8E	125/128 (98%)	106 (85%)	19 (15%)	0	100 100
10	1A	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
10	1I	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
11	2A	114/129 (88%)	103 (90%)	8 (7%)	3 (3%)	7 36
11	2I	114/129 (88%)	102 (90%)	10 (9%)	2 (2%)	11 46
12	3A	123/132 (93%)	99 (80%)	20 (16%)	4 (3%)	5 30
12	3I	120/132 (91%)	102 (85%)	18 (15%)	0	100 100
13	4A	114/126 (90%)	95 (83%)	18 (16%)	1 (1%)	21 60
13	4I	114/126 (90%)	95 (83%)	18 (16%)	1 (1%)	21 60
14	5A	56/61 (92%)	46 (82%)	9 (16%)	1 (2%)	11 46

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	5I	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	11 47
15	6A	86/89 (97%)	81 (94%)	5 (6%)	0	100 100
15	6I	86/89 (97%)	80 (93%)	6 (7%)	0	100 100
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100 100
16	7I	82/88 (93%)	76 (93%)	6 (7%)	0	100 100
17	8A	97/105 (92%)	92 (95%)	5 (5%)	0	100 100
17	8I	98/105 (93%)	91 (93%)	7 (7%)	0	100 100
18	9A	67/88 (76%)	61 (91%)	6 (9%)	0	100 100
18	9I	65/88 (74%)	63 (97%)	1 (2%)	1 (2%)	13 49
19	AA	76/93 (82%)	62 (82%)	12 (16%)	2 (3%)	7 36
19	AI	78/93 (84%)	65 (83%)	11 (14%)	2 (3%)	7 36
20	BA	97/106 (92%)	87 (90%)	8 (8%)	2 (2%)	9 42
20	BI	97/106 (92%)	82 (84%)	15 (16%)	0	100 100
21	1B	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
28	11	271/276 (98%)	257 (95%)	10 (4%)	4 (2%)	13 49
28	19	271/276 (98%)	247 (91%)	17 (6%)	7 (3%)	7 36
29	21	203/206 (98%)	162 (80%)	32 (16%)	9 (4%)	3 22
29	29	203/206 (98%)	154 (76%)	38 (19%)	11 (5%)	2 17
30	31	200/210 (95%)	183 (92%)	15 (8%)	2 (1%)	19 58
30	39	206/210 (98%)	165 (80%)	33 (16%)	8 (4%)	4 25
31	41	179/182 (98%)	156 (87%)	20 (11%)	3 (2%)	11 47
31	49	179/182 (98%)	153 (86%)	24 (13%)	2 (1%)	17 57
32	51	172/180 (96%)	148 (86%)	17 (10%)	7 (4%)	3 24
32	59	168/180 (93%)	131 (78%)	33 (20%)	4 (2%)	7 38
33	61	144/148 (97%)	117 (81%)	24 (17%)	3 (2%)	9 42
33	69	144/148 (97%)	116 (81%)	25 (17%)	3 (2%)	9 42
34	15	136/140 (97%)	119 (88%)	16 (12%)	1 (1%)	26 66
34	58	136/140 (97%)	118 (87%)	15 (11%)	3 (2%)	8 41
35	25	120/122 (98%)	115 (96%)	5 (4%)	0	100 100
35	68	120/122 (98%)	114 (95%)	6 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
36	35	148/150 (99%)	115 (78%)	24 (16%)	9 (6%)	2 14
36	78	145/150 (97%)	117 (81%)	23 (16%)	5 (3%)	5 29
37	45	138/141 (98%)	109 (79%)	27 (20%)	2 (1%)	14 50
37	88	139/141 (99%)	115 (83%)	21 (15%)	3 (2%)	8 41
38	55	115/118 (98%)	101 (88%)	12 (10%)	2 (2%)	11 47
38	98	116/118 (98%)	101 (87%)	14 (12%)	1 (1%)	21 60
39	65	109/112 (97%)	87 (80%)	20 (18%)	2 (2%)	11 46
39	A8	109/112 (97%)	92 (84%)	16 (15%)	1 (1%)	21 60
40	75	135/146 (92%)	120 (89%)	14 (10%)	1 (1%)	26 66
40	B8	127/146 (87%)	113 (89%)	14 (11%)	0	100 100
41	85	115/118 (98%)	104 (90%)	10 (9%)	1 (1%)	21 60
41	C8	115/118 (98%)	104 (90%)	8 (7%)	3 (3%)	7 36
42	95	99/101 (98%)	77 (78%)	17 (17%)	5 (5%)	2 19
42	D8	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	9 43
43	A5	111/113 (98%)	104 (94%)	5 (4%)	2 (2%)	11 46
43	E8	110/113 (97%)	101 (92%)	9 (8%)	0	100 100
44	B5	90/96 (94%)	84 (93%)	4 (4%)	2 (2%)	8 41
44	F8	92/96 (96%)	83 (90%)	7 (8%)	2 (2%)	8 41
45	C5	102/110 (93%)	73 (72%)	24 (24%)	5 (5%)	3 19
45	G8	101/110 (92%)	78 (77%)	19 (19%)	4 (4%)	4 24
46	D5	129/206 (63%)	101 (78%)	24 (19%)	4 (3%)	5 32
46	H8	169/206 (82%)	137 (81%)	26 (15%)	6 (4%)	4 28
47	E5	78/85 (92%)	68 (87%)	9 (12%)	1 (1%)	15 52
47	I8	81/85 (95%)	74 (91%)	7 (9%)	0	100 100
48	F5	92/98 (94%)	82 (89%)	9 (10%)	1 (1%)	17 57
48	J8	93/98 (95%)	84 (90%)	7 (8%)	2 (2%)	8 41
49	G5	65/72 (90%)	61 (94%)	2 (3%)	2 (3%)	5 32
49	K8	66/72 (92%)	61 (92%)	2 (3%)	3 (4%)	3 21
50	H5	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
50	L8	55/60 (92%)	53 (96%)	1 (2%)	1 (2%)	11 46
51	I5	61/71 (86%)	35 (57%)	23 (38%)	3 (5%)	3 19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	M8	64/71 (90%)	41 (64%)	20 (31%)	3 (5%)	3 20
52	J5	54/60 (90%)	50 (93%)	4 (7%)	0	100 100
52	N8	53/60 (88%)	46 (87%)	5 (9%)	2 (4%)	4 26
53	L5	45/49 (92%)	44 (98%)	1 (2%)	0	100 100
53	P8	45/49 (92%)	41 (91%)	3 (7%)	1 (2%)	8 41
54	M5	49/65 (75%)	41 (84%)	7 (14%)	1 (2%)	9 43
54	Q8	58/65 (89%)	34 (59%)	18 (31%)	6 (10%)	1 4
All	All	11130/11946 (93%)	9701 (87%)	1242 (11%)	187 (2%)	11 47

All (187) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
29	21	83	ASP
32	51	169	VAL
36	78	57	THR
38	98	11	ASN
46	H8	165	VAL
49	K8	48	HIS
54	Q8	51	ALA
2	12	7	VAL
9	82	118	LYS
11	2A	48	ILE
19	AA	11	VAL
20	BA	73	HIS
28	19	237	GLU
29	29	25	VAL
29	29	59	VAL
30	39	28	ILE
37	45	27	VAL
37	45	81	VAL
38	55	107	ASP
46	D5	53	ILE
46	D5	165	VAL
47	E5	33	ALA
48	F5	30	VAL
49	G5	47	ASN
54	M5	34	TRP
8	7E	86	ILE
18	9I	22	VAL
29	21	78	LEU

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Mol	Chain	Res	Type
31	41	98	ARG
32	51	168	PRO
34	58	97	ARG
37	88	66	ILE
37	88	90	VAL
41	C8	89	GLU
41	C8	93	LYS
45	G8	81	LYS
46	H8	60	GLU
51	M8	50	VAL
52	N8	41	PRO
52	N8	42	PRO
54	Q8	8	LYS
54	Q8	55	ALA
11	2A	100	ALA
12	3A	18	VAL
14	5A	29	ARG
20	BA	49	ALA
29	29	81	ILE
30	39	84	VAL
36	35	57	THR
39	65	89	ARG
45	C5	29	GLU
49	G5	48	HIS
51	I5	5	ILE
13	4I	83	ASP
19	AI	67	VAL
29	21	118	LYS
33	61	145	VAL
34	58	22	THR
36	78	42	SER
44	F8	68	ARG
45	G8	54	LYS
46	H8	6	LYS
48	J8	75	GLU
48	J8	76	ARG
49	K8	43	GLN
54	Q8	39	LYS
11	2A	101	SER
28	19	273	ARG
29	29	51	PHE
29	29	90	THR

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Mol	Chain	Res	Type
30	39	124	LEU
30	39	167	ALA
33	69	111	PRO
33	69	145	VAL
36	35	35	HIS
36	35	64	LYS
39	65	87	PHE
44	B5	68	ARG
46	D5	161	VAL
2	1E	13	ALA
4	3E	31	CYS
11	2I	91	ARG
14	5I	14	PRO
28	11	122	ASP
29	21	21	VAL
29	21	56	PRO
29	21	60	ASN
33	61	12	LEU
46	H8	59	LEU
49	K8	47	ASN
54	Q8	34	TRP
12	3A	48	PRO
29	29	9	VAL
29	29	26	ILE
30	39	128	ALA
30	39	149	ASP
32	59	92	ILE
36	35	6	LEU
36	35	65	ARG
36	35	110	TYR
43	A5	93	ALA
45	C5	17	SER
51	I5	26	SER
29	21	55	ASN
31	41	5	VAL
31	41	97	ASP
33	61	133	HIS
34	58	128	HIS
45	G8	53	PRO
51	M8	63	TYR
54	Q8	44	LYS
8	72	73	ASP

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Mol	Chain	Res	Type
28	19	33	LEU
28	19	239	ARG
29	29	91	VAL
30	39	25	PRO
31	49	47	LYS
36	35	42	SER
38	55	3	HIS
41	85	93	LYS
42	95	71	LEU
42	95	84	LYS
45	C5	20	TYR
46	D5	167	PRO
2	1E	239	VAL
4	3E	83	SER
4	3E	155	LEU
28	11	3	VAL
28	11	240	ALA
30	31	198	ALA
32	51	12	PRO
32	51	167	GLU
36	78	7	ARG
37	88	3	MET
39	A8	61	ASN
42	D8	47	VAL
44	F8	40	LYS
4	32	32	ALA
28	19	32	SER
28	19	240	ALA
40	75	107	ASP
43	A5	12	ILE
51	I5	33	VAL
11	2I	82	VAL
29	21	22	PRO
32	51	8	PRO
32	51	92	ILE
36	78	95	VAL
46	H8	53	ILE
51	M8	5	ILE
53	P8	46	VAL
28	19	3	VAL
32	59	99	VAL
32	59	131	VAL

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Mol	Chain	Res	Type
34	15	128	HIS
36	35	7	ARG
5	4E	115	VAL
2	12	39	ILE
29	29	62	PRO
29	29	77	ILE
31	49	5	VAL
32	59	4	ILE
33	69	144	VAL
36	35	62	LEU
42	95	72	VAL
30	31	24	LEU
42	D8	49	THR
45	G8	76	CYS
46	H8	61	LEU
12	3A	96	VAL
29	29	52	LEU
44	B5	51	VAL
19	AI	9	VAL
28	11	123	ALA
29	21	72	VAL
32	51	127	GLU
36	78	19	VAL
41	C8	88	ILE
50	L8	54	VAL
12	3A	47	LYS
13	4A	84	ILE
19	AA	67	VAL
30	39	89	VAL
45	C5	3	VAL
42	95	37	VAL
42	95	99	ILE
45	C5	76	CYS

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	12	205/220 (93%)	158 (77%)	47 (23%)	1 4
2	1E	205/220 (93%)	164 (80%)	41 (20%)	1 6
3	22	160/188 (85%)	122 (76%)	38 (24%)	1 3
3	2E	159/188 (85%)	120 (76%)	39 (24%)	1 3
4	32	180/181 (99%)	144 (80%)	36 (20%)	1 6
4	3E	180/181 (99%)	151 (84%)	29 (16%)	3 14
5	42	116/123 (94%)	83 (72%)	33 (28%)	0 2
5	4E	116/123 (94%)	88 (76%)	28 (24%)	1 3
6	52	90/90 (100%)	66 (73%)	24 (27%)	0 2
6	5E	90/90 (100%)	75 (83%)	15 (17%)	3 13
7	62	121/127 (95%)	94 (78%)	27 (22%)	1 4
7	6E	118/127 (93%)	98 (83%)	20 (17%)	2 12
8	72	119/119 (100%)	101 (85%)	18 (15%)	3 16
8	7E	119/119 (100%)	96 (81%)	23 (19%)	2 7
9	82	95/99 (96%)	83 (87%)	12 (13%)	5 24
9	8E	98/99 (99%)	68 (69%)	30 (31%)	0 1
10	1A	89/92 (97%)	74 (83%)	15 (17%)	2 12
10	1I	89/92 (97%)	72 (81%)	17 (19%)	2 8
11	2A	88/99 (89%)	73 (83%)	15 (17%)	2 12
11	2I	88/99 (89%)	77 (88%)	11 (12%)	6 24
12	3A	104/109 (95%)	71 (68%)	33 (32%)	0 1
12	3I	103/109 (94%)	84 (82%)	19 (18%)	2 9
13	4A	94/101 (93%)	76 (81%)	18 (19%)	2 8
13	4I	94/101 (93%)	67 (71%)	27 (29%)	0 1
14	5A	48/50 (96%)	38 (79%)	10 (21%)	1 6
14	5I	49/50 (98%)	36 (74%)	13 (26%)	0 2
15	6A	79/80 (99%)	72 (91%)	7 (9%)	12 43
15	6I	79/80 (99%)	68 (86%)	11 (14%)	4 20
16	7A	72/74 (97%)	58 (81%)	14 (19%)	2 7
16	7I	72/74 (97%)	58 (81%)	14 (19%)	2 7
17	8A	94/97 (97%)	79 (84%)	15 (16%)	3 14
17	8I	95/97 (98%)	78 (82%)	17 (18%)	2 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
18	9A	60/77 (78%)	46 (77%)	14 (23%)	1 4
18	9I	59/77 (77%)	48 (81%)	11 (19%)	2 9
19	AA	67/80 (84%)	55 (82%)	12 (18%)	2 10
19	AI	70/80 (88%)	53 (76%)	17 (24%)	1 3
20	BA	76/82 (93%)	64 (84%)	12 (16%)	3 15
20	BI	76/82 (93%)	61 (80%)	15 (20%)	1 7
21	1B	20/22 (91%)	19 (95%)	1 (5%)	30 68
21	1F	18/22 (82%)	17 (94%)	1 (6%)	26 65
28	11	215/218 (99%)	175 (81%)	40 (19%)	2 9
28	19	214/218 (98%)	172 (80%)	42 (20%)	1 7
29	21	165/166 (99%)	124 (75%)	41 (25%)	1 3
29	29	165/166 (99%)	126 (76%)	39 (24%)	1 3
30	31	161/166 (97%)	126 (78%)	35 (22%)	1 5
30	39	165/166 (99%)	125 (76%)	40 (24%)	1 3
31	41	155/156 (99%)	122 (79%)	33 (21%)	1 5
31	49	155/156 (99%)	123 (79%)	32 (21%)	1 6
32	51	145/148 (98%)	106 (73%)	39 (27%)	0 2
32	59	142/148 (96%)	108 (76%)	34 (24%)	1 3
33	61	122/124 (98%)	95 (78%)	27 (22%)	1 4
33	69	122/124 (98%)	89 (73%)	33 (27%)	0 2
34	15	117/119 (98%)	86 (74%)	31 (26%)	0 2
34	58	117/119 (98%)	91 (78%)	26 (22%)	1 4
35	25	100/100 (100%)	78 (78%)	22 (22%)	1 5
35	68	100/100 (100%)	77 (77%)	23 (23%)	1 4
36	35	116/116 (100%)	78 (67%)	38 (33%)	0 1
36	78	114/116 (98%)	83 (73%)	31 (27%)	0 2
37	45	110/111 (99%)	81 (74%)	29 (26%)	0 2
37	88	111/111 (100%)	89 (80%)	22 (20%)	1 7
38	55	100/101 (99%)	76 (76%)	24 (24%)	1 3
38	98	101/101 (100%)	75 (74%)	26 (26%)	0 2
39	65	87/88 (99%)	61 (70%)	26 (30%)	0 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	A8	87/88 (99%)	64 (74%)	23 (26%)	0	2
40	75	120/127 (94%)	87 (72%)	33 (28%)	0	2
40	B8	115/127 (91%)	86 (75%)	29 (25%)	1	2
41	85	93/94 (99%)	79 (85%)	14 (15%)	3	16
41	C8	93/94 (99%)	77 (83%)	16 (17%)	2	12
42	95	82/82 (100%)	61 (74%)	21 (26%)	0	2
42	D8	82/82 (100%)	60 (73%)	22 (27%)	0	2
43	A5	92/92 (100%)	74 (80%)	18 (20%)	1	7
43	E8	91/92 (99%)	74 (81%)	17 (19%)	2	9
44	B5	74/78 (95%)	56 (76%)	18 (24%)	1	3
44	F8	76/78 (97%)	62 (82%)	14 (18%)	2	9
45	C5	85/91 (93%)	61 (72%)	24 (28%)	0	2
45	G8	84/91 (92%)	61 (73%)	23 (27%)	0	2
46	D5	125/179 (70%)	94 (75%)	31 (25%)	1	3
46	H8	152/179 (85%)	118 (78%)	34 (22%)	1	4
47	E5	62/67 (92%)	48 (77%)	14 (23%)	1	4
47	I8	66/67 (98%)	50 (76%)	16 (24%)	1	3
48	F5	79/83 (95%)	60 (76%)	19 (24%)	1	3
48	J8	80/83 (96%)	62 (78%)	18 (22%)	1	4
49	G5	63/67 (94%)	49 (78%)	14 (22%)	1	4
49	K8	64/67 (96%)	46 (72%)	18 (28%)	0	2
50	H5	51/52 (98%)	39 (76%)	12 (24%)	1	4
50	L8	49/52 (94%)	36 (74%)	13 (26%)	0	2
51	I5	57/63 (90%)	44 (77%)	13 (23%)	1	4
51	M8	59/63 (94%)	42 (71%)	17 (29%)	0	1
52	J5	48/52 (92%)	37 (77%)	11 (23%)	1	4
52	N8	48/52 (92%)	35 (73%)	13 (27%)	0	2
53	L5	40/42 (95%)	28 (70%)	12 (30%)	0	1
53	P8	40/42 (95%)	29 (72%)	11 (28%)	0	2
54	M5	44/55 (80%)	31 (70%)	13 (30%)	0	1
54	Q8	50/55 (91%)	26 (52%)	24 (48%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	9404/9894 (95%)	7297 (78%)	2107 (22%)	1 4

All (2107) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	6	THR
2	1E	7	VAL
2	1E	8	LYS
2	1E	15	VAL
2	1E	17	PHE
2	1E	24	TRP
2	1E	28	PHE
2	1E	37	ASN
2	1E	39	ILE
2	1E	47	THR
2	1E	48	MET
2	1E	68	ILE
2	1E	71	VAL
2	1E	73	THR
2	1E	74	LYS
2	1E	78	GLN
2	1E	96	ARG
2	1E	113	HIS
2	1E	121	LEU
2	1E	122	PHE
2	1E	128	GLU
2	1E	136	VAL
2	1E	144	ARG
2	1E	145	LEU
2	1E	155	LEU
2	1E	162	ILE
2	1E	163	PHE
2	1E	164	VAL
2	1E	172	ILE
2	1E	178	ARG
2	1E	193	ASP
2	1E	196	LEU
2	1E	200	ILE
2	1E	205	ASP
2	1E	213	LEU
2	1E	217	ARG
2	1E	223	ILE

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Mol	Chain	Res	Type
2	1E	224	GLN
2	1E	230	VAL
2	1E	231	GLU
2	1E	233	SER
3	2E	3	ASN
3	2E	5	ILE
3	2E	11	ARG
3	2E	12	LEU
3	2E	14	ILE
3	2E	16	ARG
3	2E	17	ASP
3	2E	27	LYS
3	2E	29	TYR
3	2E	30	ARG
3	2E	31	HIS
3	2E	33	LEU
3	2E	34	LEU
3	2E	52	LEU
3	2E	58	GLU
3	2E	63	ASN
3	2E	79	ARG
3	2E	82	GLU
3	2E	83	ARG
3	2E	102	ASN
3	2E	104	GLN
3	2E	108	ASN
3	2E	111	LEU
3	2E	116	VAL
3	2E	127	ARG
3	2E	128	PHE
3	2E	134	ILE
3	2E	153	VAL
3	2E	156	ARG
3	2E	161	GLU
3	2E	164	ARG
3	2E	166	GLU
3	2E	167	TRP
3	2E	175	LEU
3	2E	178	LEU
3	2E	179	ARG
3	2E	192	THR
3	2E	195	VAL

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Mol	Chain	Res	Type
3	2E	202	ILE
4	3E	3	ARG
4	3E	10	ARG
4	3E	15	GLU
4	3E	31	CYS
4	3E	35	ARG
4	3E	42	GLN
4	3E	46	LYS
4	3E	49	ARG
4	3E	52	SER
4	3E	53	ASP
4	3E	58	LEU
4	3E	60	GLU
4	3E	78	LEU
4	3E	81	GLU
4	3E	96	LEU
4	3E	99	SER
4	3E	108	LEU
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	140	VAL
4	3E	141	ARG
4	3E	151	LYS
4	3E	153	ARG
4	3E	155	LEU
4	3E	160	GLN
4	3E	170	VAL
4	3E	187	ARG
4	3E	200	GLU
5	4E	5	ASP
5	4E	6	PHE
5	4E	10	MET
5	4E	13	ILE
5	4E	16	THR
5	4E	18	ARG
5	4E	20	GLN
5	4E	25	ARG
5	4E	27	ARG
5	4E	31	LEU
5	4E	41	VAL
5	4E	51	VAL

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Mol	Chain	Res	Type
5	4E	53	LEU
5	4E	64	ARG
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	75	THR
5	4E	80	ILE
5	4E	87	SER
5	4E	91	LEU
5	4E	105	VAL
5	4E	112	LEU
5	4E	116	THR
5	4E	126	ARG
5	4E	144	THR
5	4E	152	ARG
5	4E	153	LYS
6	5E	1	MET
6	5E	25	ILE
6	5E	30	LEU
6	5E	31	GLU
6	5E	39	LYS
6	5E	43	LEU
6	5E	54	LYS
6	5E	57	GLN
6	5E	65	VAL
6	5E	73	ASN
6	5E	74	ASP
6	5E	75	LEU
6	5E	79	LEU
6	5E	86	ARG
6	5E	92	LYS
7	6E	12	LEU
7	6E	21	VAL
7	6E	38	LEU
7	6E	45	ASP
7	6E	54	THR
7	6E	56	GLN
7	6E	64	GLN
7	6E	66	VAL
7	6E	75	VAL
7	6E	89	MET
7	6E	90	GLU

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Mol	Chain	Res	Type
7	6E	97	GLN
7	6E	98	SER
7	6E	104	LEU
7	6E	111	ARG
7	6E	113	GLU
7	6E	118	VAL
7	6E	135	VAL
7	6E	138	LYS
7	6E	139	GLU
8	7E	1	MET
8	7E	2	LEU
8	7E	3	THR
8	7E	22	GLU
8	7E	25	ASP
8	7E	26	VAL
8	7E	31	PHE
8	7E	49	GLU
8	7E	52	ASP
8	7E	60	ARG
8	7E	63	LEU
8	7E	68	ARG
8	7E	69	ARG
8	7E	77	GLU
8	7E	80	ILE
8	7E	82	HIS
8	7E	84	ARG
8	7E	88	LYS
8	7E	95	VAL
8	7E	98	LYS
8	7E	102	ARG
8	7E	129	VAL
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	20	ARG
9	8E	23	ASN
9	8E	25	LYS
9	8E	33	PHE
9	8E	34	ASN
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG

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Mol	Chain	Res	Type
9	8E	44	VAL
9	8E	47	LEU
9	8E	53	VAL
9	8E	58	HIS
9	8E	70	LYS
9	8E	79	LEU
9	8E	91	ASP
9	8E	92	TYR
9	8E	93	ARG
9	8E	95	LYS
9	8E	99	LEU
9	8E	108	VAL
9	8E	109	VAL
9	8E	112	LYS
9	8E	118	LYS
9	8E	120	ARG
9	8E	121	ARG
9	8E	124	GLN
9	8E	125	TYR
9	8E	128	ARG
10	1I	5	ARG
10	1I	13	HIS
10	1I	29	ARG
10	1I	30	SER
10	1I	40	LEU
10	1I	43	ARG
10	1I	44	VAL
10	1I	46	ARG
10	1I	49	VAL
10	1I	61	GLU
10	1I	62	HIS
10	1I	70	ARG
10	1I	88	LEU
10	1I	89	ASP
10	1I	92	THR
10	1I	96	ILE
10	1I	101	VAL
11	2I	12	ARG
11	2I	14	VAL
11	2I	51	LYS
11	2I	53	SER
11	2I	96	ARG

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Mol	Chain	Res	Type
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	109	VAL
11	2I	119	CYS
11	2I	124	LYS
12	3I	7	ILE
12	3I	11	VAL
12	3I	20	LYS
12	3I	22	SER
12	3I	33	ARG
12	3I	44	THR
12	3I	60	LEU
12	3I	62	SER
12	3I	67	THR
12	3I	79	GLU
12	3I	81	SER
12	3I	91	LYS
12	3I	92	ASP
12	3I	96	VAL
12	3I	100	ILE
12	3I	102	ARG
12	3I	114	LYS
12	3I	123	LYS
12	3I	126	LYS
13	4I	11	ARG
13	4I	14	ARG
13	4I	17	VAL
13	4I	19	LEU
13	4I	31	LYS
13	4I	34	LEU
13	4I	47	ASP
13	4I	52	GLU
13	4I	54	VAL
13	4I	55	ARG
13	4I	56	LEU
13	4I	57	ARG
13	4I	59	TYR
13	4I	61	GLU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU

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Mol	Chain	Res	Type
13	4I	77	ASN
13	4I	83	ASP
13	4I	88	ARG
13	4I	94	ARG
13	4I	102	ARG
13	4I	103	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	110	ARG
13	4I	115	LYS
14	5I	3	ARG
14	5I	4	LYS
14	5I	8	GLU
14	5I	11	LYS
14	5I	12	ARG
14	5I	22	THR
14	5I	23	ARG
14	5I	26	ARG
14	5I	32	SER
14	5I	33	VAL
14	5I	41	ARG
14	5I	44	LEU
14	5I	46	GLU
15	6I	10	LYS
15	6I	22	THR
15	6I	38	ARG
15	6I	39	LEU
15	6I	41	GLU
15	6I	47	LYS
15	6I	54	ARG
15	6I	56	LEU
15	6I	58	MET
15	6I	62	GLN
15	6I	66	LEU
16	7I	1	MET
16	7I	2	VAL
16	7I	4	ILE
16	7I	8	ARG
16	7I	27	LYS
16	7I	43	LYS
16	7I	45	THR
16	7I	50	LYS

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Mol	Chain	Res	Type
16	7I	54	GLU
16	7I	58	TYR
16	7I	62	VAL
16	7I	69	THR
16	7I	72	ARG
16	7I	83	GLU
17	8I	6	LEU
17	8I	14	LYS
17	8I	27	PHE
17	8I	31	LEU
17	8I	34	LYS
17	8I	48	GLU
17	8I	52	LYS
17	8I	59	ILE
17	8I	60	ILE
17	8I	62	SER
17	8I	63	ARG
17	8I	74	LEU
17	8I	81	ARG
17	8I	89	LEU
17	8I	91	ARG
17	8I	92	ARG
17	8I	101	ARG
18	9I	25	THR
18	9I	26	LEU
18	9I	31	LEU
18	9I	32	ARG
18	9I	41	LYS
18	9I	54	ARG
18	9I	56	THR
18	9I	68	LYS
18	9I	76	LEU
18	9I	82	THR
18	9I	85	LEU
19	AI	6	LYS
19	AI	7	LYS
19	AI	25	LYS
19	AI	27	GLU
19	AI	29	ARG
19	AI	30	LEU
19	AI	31	ILE
19	AI	33	THR

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Mol	Chain	Res	Type
19	AI	37	ARG
19	AI	41	VAL
19	AI	43	GLU
19	AI	56	GLN
19	AI	58	VAL
19	AI	61	TYR
19	AI	67	VAL
19	AI	77	THR
19	AI	78	ARG
20	BI	11	SER
20	BI	13	LEU
20	BI	20	LEU
20	BI	22	ARG
20	BI	36	LEU
20	BI	51	GLU
20	BI	53	LEU
20	BI	55	ILE
20	BI	56	MET
20	BI	57	ARG
20	BI	62	LEU
20	BI	74	LYS
20	BI	75	ASN
20	BI	84	LEU
20	BI	99	LEU
21	1F	6	ARG
28	11	5	LYS
28	11	13	ARG
28	11	27	THR
28	11	34	VAL
28	11	35	LYS
28	11	37	LEU
28	11	46	GLN
28	11	54	ARG
28	11	58	HIS
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	71	ASP
28	11	89	SER
28	11	94	LEU
28	11	95	LEU
28	11	103	ARG

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Mol	Chain	Res	Type
28	11	105	ILE
28	11	106	ILE
28	11	112	GLN
28	11	118	VAL
28	11	126	GLN
28	11	136	ILE
28	11	138	VAL
28	11	141	VAL
28	11	155	LEU
28	11	157	ARG
28	11	165	ILE
28	11	176	ARG
28	11	192	THR
28	11	204	ILE
28	11	208	LYS
28	11	212	SER
28	11	217	ARG
28	11	218	ARG
28	11	221	VAL
28	11	229	VAL
28	11	257	LEU
28	11	271	ILE
28	11	273	ARG
29	21	12	THR
29	21	13	ARG
29	21	14	ILE
29	21	16	ARG
29	21	17	ASP
29	21	25	VAL
29	21	26	ILE
29	21	33	VAL
29	21	34	VAL
29	21	38	THR
29	21	41	LYS
29	21	45	THR
29	21	47	VAL
29	21	52	LEU
29	21	54	GLN
29	21	59	VAL
29	21	63	LEU
29	21	64	LYS
29	21	66	HIS

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Mol	Chain	Res	Type
29	21	69	LYS
29	21	72	VAL
29	21	78	LEU
29	21	79	ARG
29	21	80	GLU
29	21	82	ARG
29	21	87	GLU
29	21	90	THR
29	21	92	THR
29	21	101	ARG
29	21	107	THR
29	21	108	SER
29	21	116	VAL
29	21	119	ARG
29	21	159	HIS
29	21	167	VAL
29	21	178	GLU
29	21	179	GLU
29	21	181	LEU
29	21	197	ILE
29	21	202	LYS
29	21	203	LYS
30	31	7	TYR
30	31	8	GLN
30	31	9	ILE
30	31	18	ARG
30	31	32	LEU
30	31	33	LEU
30	31	53	THR
30	31	57	VAL
30	31	64	ILE
30	31	68	LYS
30	31	70	THR
30	31	74	ARG
30	31	78	ILE
30	31	82	ILE
30	31	88	VAL
30	31	95	ARG
30	31	98	SER
30	31	101	LEU
30	31	116	ASP
30	31	117	ARG

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Mol	Chain	Res	Type
30	31	122	LYS
30	31	127	GLU
30	31	136	THR
30	31	145	GLU
30	31	149	ASP
30	31	152	GLU
30	31	165	ARG
30	31	170	LEU
30	31	174	VAL
30	31	175	THR
30	31	183	VAL
30	31	192	LEU
30	31	201	VAL
30	31	203	GLN
30	31	206	ILE
31	41	14	GLU
31	41	19	LEU
31	41	20	ILE
31	41	26	GLN
31	41	28	VAL
31	41	31	VAL
31	41	33	ARG
31	41	34	LEU
31	41	43	LEU
31	41	45	GLU
31	41	52	ILE
31	41	58	GLN
31	41	63	ILE
31	41	67	LYS
31	41	70	VAL
31	41	80	PHE
31	41	82	LEU
31	41	86	MET
31	41	90	LEU
31	41	96	ARG
31	41	101	ILE
31	41	102	PHE
31	41	103	LEU
31	41	115	ARG
31	41	128	ARG
31	41	133	LEU
31	41	139	LEU

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Mol	Chain	Res	Type
31	41	145	THR
31	41	153	ARG
31	41	155	MET
31	41	162	THR
31	41	165	THR
31	41	168	GLU
32	51	3	ARG
32	51	4	ILE
32	51	7	LEU
32	51	9	ILE
32	51	15	VAL
32	51	23	ARG
32	51	24	VAL
32	51	40	GLU
32	51	45	VAL
32	51	47	GLU
32	51	49	VAL
32	51	54	ARG
32	51	58	GLU
32	51	63	SER
32	51	64	LEU
32	51	71	LEU
32	51	72	ILE
32	51	77	LYS
32	51	80	SER
32	51	81	GLU
32	51	83	TYR
32	51	87	LEU
32	51	92	ILE
32	51	95	ARG
32	51	97	ARG
32	51	103	LEU
32	51	104	GLU
32	51	105	LEU
32	51	111	HIS
32	51	121	ILE
32	51	125	VAL
32	51	129	THR
32	51	134	SER
32	51	136	ILE
32	51	139	GLN
32	51	144	VAL

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Mol	Chain	Res	Type
32	51	149	ARG
32	51	153	LYS
32	51	169	VAL
33	61	7	GLU
33	61	9	LEU
33	61	15	VAL
33	61	20	ASP
33	61	35	LEU
33	61	38	LEU
33	61	41	GLU
33	61	45	LYS
33	61	58	LEU
33	61	60	GLU
33	61	72	LEU
33	61	74	ASN
33	61	81	VAL
33	61	82	ARG
33	61	86	THR
33	61	92	VAL
33	61	95	LYS
33	61	96	ASP
33	61	108	THR
33	61	110	ASP
33	61	118	LYS
33	61	122	GLU
33	61	135	GLU
33	61	139	GLN
33	61	140	LEU
33	61	142	VAL
33	61	145	VAL
34	58	1	MET
34	58	2	LYS
34	58	7	LYS
34	58	10	GLU
34	58	14	VAL
34	58	15	LEU
34	58	28	THR
34	58	32	THR
34	58	33	LEU
34	58	34	LEU
34	58	42	TRP
34	58	43	THR

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Mol	Chain	Res	Type
34	58	48	MET
34	58	55	VAL
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	87	LEU
34	58	99	LEU
34	58	120	LEU
34	58	130	HIS
34	58	131	GLN
34	58	133	GLN
34	58	134	ARG
35	68	1	MET
35	68	3	GLN
35	68	8	LEU
35	68	9	GLU
35	68	17	ARG
35	68	19	ILE
35	68	20	MET
35	68	23	ARG
35	68	24	VAL
35	68	25	LEU
35	68	29	ASN
35	68	32	TYR
35	68	47	ILE
35	68	52	VAL
35	68	53	LYS
35	68	66	LYS
35	68	78	ARG
35	68	82	ASN
35	68	94	ARG
35	68	96	THR
35	68	98	VAL
35	68	112	MET
35	68	115	VAL
36	78	6	LEU
36	78	7	ARG
36	78	10	PRO
36	78	15	ARG
36	78	18	ARG

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Mol	Chain	Res	Type
36	78	19	VAL
36	78	27	HIS
36	78	29	LYS
36	78	30	THR
36	78	32	THR
36	78	40	SER
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	49	ARG
36	78	50	ARG
36	78	57	THR
36	78	76	LYS
36	78	81	GLN
36	78	90	ARG
36	78	96	THR
36	78	105	LEU
36	78	106	LEU
36	78	112	LEU
36	78	117	GLU
36	78	119	GLU
36	78	126	VAL
36	78	133	SER
36	78	135	LEU
36	78	144	GLU
36	78	147	LEU
37	88	1	MET
37	88	5	ARG
37	88	11	LYS
37	88	16	ARG
37	88	25	ASP
37	88	26	TYR
37	88	35	VAL
37	88	43	THR
37	88	45	GLN
37	88	52	VAL
37	88	55	VAL
37	88	56	ARG
37	88	59	ARG
37	88	77	LYS
37	88	91	GLU
37	88	102	VAL

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Mol	Chain	Res	Type
37	88	103	MET
37	88	109	VAL
37	88	110	THR
37	88	115	MET
37	88	134	ARG
37	88	138	ASP
38	98	2	ARG
38	98	4	LEU
38	98	6	SER
38	98	9	LYS
38	98	12	ARG
38	98	28	LEU
38	98	29	LEU
38	98	33	ARG
38	98	34	ILE
38	98	35	THR
38	98	44	LEU
38	98	57	ARG
38	98	59	ASP
38	98	65	LEU
38	98	67	LEU
38	98	73	VAL
38	98	75	LEU
38	98	76	VAL
38	98	79	LEU
38	98	82	GLU
38	98	94	TYR
38	98	96	ARG
38	98	105	ARG
38	98	111	LEU
38	98	113	LEU
38	98	118	GLU
39	A8	4	LEU
39	A8	5	THR
39	A8	15	ARG
39	A8	17	ARG
39	A8	19	LYS
39	A8	31	SER
39	A8	35	ILE
39	A8	36	TYR
39	A8	41	ASP
39	A8	46	VAL

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Mol	Chain	Res	Type
39	A8	52	SER
39	A8	54	LEU
39	A8	58	LEU
39	A8	69	VAL
39	A8	71	ARG
39	A8	75	GLU
39	A8	78	LEU
39	A8	85	VAL
39	A8	89	ARG
39	A8	101	LEU
39	A8	106	ARG
39	A8	111	GLU
39	A8	112	PHE
40	B8	1	MET
40	B8	13	ARG
40	B8	15	VAL
40	B8	18	ASP
40	B8	19	LEU
40	B8	21	GLU
40	B8	27	THR
40	B8	38	ASN
40	B8	42	ILE
40	B8	50	ILE
40	B8	52	ILE
40	B8	53	ARG
40	B8	58	ASN
40	B8	59	THR
40	B8	62	THR
40	B8	64	ARG
40	B8	65	LYS
40	B8	74	ARG
40	B8	78	LEU
40	B8	80	SER
40	B8	85	LYS
40	B8	86	ILE
40	B8	87	ASP
40	B8	88	ILE
40	B8	98	LYS
40	B8	99	LEU
40	B8	110	ILE
40	B8	111	ARG
40	B8	112	ARG

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Mol	Chain	Res	Type
41	C8	5	LYS
41	C8	12	ARG
41	C8	27	LEU
41	C8	34	LYS
41	C8	52	ARG
41	C8	56	ASP
41	C8	70	ARG
41	C8	74	LEU
41	C8	81	HIS
41	C8	83	LEU
41	C8	85	LYS
41	C8	89	GLU
41	C8	92	ARG
41	C8	94	ASN
41	C8	97	ASP
41	C8	108	GLU
42	D8	5	VAL
42	D8	7	THR
42	D8	11	GLN
42	D8	18	LEU
42	D8	20	LEU
42	D8	22	VAL
42	D8	26	ASP
42	D8	34	GLU
42	D8	35	LEU
42	D8	39	LEU
42	D8	40	LEU
42	D8	44	LYS
42	D8	51	VAL
42	D8	62	LEU
42	D8	64	HIS
42	D8	69	LYS
42	D8	70	ILE
42	D8	72	VAL
42	D8	79	VAL
42	D8	88	ARG
42	D8	89	GLN
42	D8	99	ILE
43	E8	11	ARG
43	E8	15	ARG
43	E8	19	LEU
43	E8	20	VAL

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Mol	Chain	Res	Type
43	E8	42	ARG
43	E8	52	GLU
43	E8	62	HIS
43	E8	68	ARG
43	E8	69	LEU
43	E8	77	ASP
43	E8	88	ARG
43	E8	92	ARG
43	E8	96	ILE
43	E8	97	LYS
43	E8	100	THR
43	E8	107	LEU
43	E8	111	HIS
44	F8	2	LYS
44	F8	9	LEU
44	F8	13	LEU
44	F8	23	GLU
44	F8	27	THR
44	F8	35	THR
44	F8	49	VAL
44	F8	65	ARG
44	F8	70	LEU
44	F8	72	LYS
44	F8	76	ARG
44	F8	80	ILE
44	F8	81	VAL
44	F8	93	GLU
45	G8	6	HIS
45	G8	24	VAL
45	G8	31	LEU
45	G8	33	LYS
45	G8	38	ILE
45	G8	40	GLU
45	G8	43	ASN
45	G8	52	SER
45	G8	54	LYS
45	G8	55	TYR
45	G8	57	GLN
45	G8	61	ILE
45	G8	64	GLU
45	G8	67	LEU
45	G8	71	LYS

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Mol	Chain	Res	Type
45	G8	75	ILE
45	G8	79	CYS
45	G8	85	VAL
45	G8	86	ARG
45	G8	88	LYS
45	G8	95	LYS
45	G8	97	ARG
45	G8	99	CYS
46	H8	1	MET
46	H8	5	LEU
46	H8	11	GLU
46	H8	13	GLU
46	H8	16	SER
46	H8	19	ARG
46	H8	37	VAL
46	H8	40	ASP
46	H8	41	LEU
46	H8	43	GLU
46	H8	50	GLN
46	H8	53	ILE
46	H8	60	GLU
46	H8	61	LEU
46	H8	65	GLN
46	H8	71	VAL
46	H8	76	LEU
46	H8	77	ASP
46	H8	81	ARG
46	H8	82	ARG
46	H8	86	VAL
46	H8	87	ASP
46	H8	91	LEU
46	H8	92	SER
46	H8	94	GLU
46	H8	105	VAL
46	H8	112	ARG
46	H8	116	VAL
46	H8	117	LEU
46	H8	123	ASP
46	H8	145	GLU
46	H8	146	ILE
46	H8	148	ASP
46	H8	154	ASP

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Mol	Chain	Res	Type
47	I8	3	HIS
47	I8	4	LYS
47	I8	30	VAL
47	I8	31	VAL
47	I8	36	ILE
47	I8	41	ARG
47	I8	43	THR
47	I8	44	ARG
47	I8	46	LYS
47	I8	55	ARG
47	I8	64	ASP
47	I8	66	VAL
47	I8	67	VAL
47	I8	70	GLN
47	I8	74	ARG
47	I8	80	HIS
48	J8	4	VAL
48	J8	19	GLN
48	J8	21	ARG
48	J8	25	LYS
48	J8	33	LYS
48	J8	35	THR
48	J8	38	SER
48	J8	41	ARG
48	J8	48	LYS
48	J8	61	ARG
48	J8	65	SER
48	J8	78	LYS
48	J8	80	LEU
48	J8	81	LYS
48	J8	82	LEU
48	J8	83	GLU
48	J8	90	ILE
48	J8	91	LYS
49	K8	6	VAL
49	K8	7	ARG
49	K8	8	LYS
49	K8	14	ARG
49	K8	15	LYS
49	K8	16	LEU
49	K8	24	LEU
49	K8	25	VAL

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Mol	Chain	Res	Type
49	K8	38	GLN
49	K8	41	ILE
49	K8	44	LEU
49	K8	47	ASN
49	K8	48	HIS
49	K8	50	ILE
49	K8	53	LEU
49	K8	55	ARG
49	K8	62	THR
49	K8	67	LYS
50	L8	3	ARG
50	L8	7	LYS
50	L8	8	LEU
50	L8	9	VAL
50	L8	13	ILE
50	L8	24	LYS
50	L8	30	ARG
50	L8	36	VAL
50	L8	37	LEU
50	L8	38	GLU
50	L8	40	THR
50	L8	54	VAL
50	L8	55	ARG
51	M8	5	ILE
51	M8	10	VAL
51	M8	15	ILE
51	M8	23	GLU
51	M8	27	THR
51	M8	31	ILE
51	M8	38	LYS
51	M8	39	CYS
51	M8	43	TYR
51	M8	44	THR
51	M8	46	GLN
51	M8	50	VAL
51	M8	51	ASP
51	M8	61	ARG
51	M8	62	ARG
51	M8	63	TYR
51	M8	66	SER
52	N8	8	LYS
52	N8	10	LYS

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Mol	Chain	Res	Type
52	N8	13	LYS
52	N8	16	ARG
52	N8	26	THR
52	N8	29	THR
52	N8	31	VAL
52	N8	36	CYS
52	N8	37	LYS
52	N8	40	LYS
52	N8	51	TYR
52	N8	55	ARG
52	N8	57	VAL
53	P8	1	MET
53	P8	8	ASN
53	P8	9	ARG
53	P8	10	ARG
53	P8	14	LYS
53	P8	23	ARG
53	P8	24	THR
53	P8	41	ARG
53	P8	43	THR
53	P8	46	VAL
53	P8	47	ARG
54	Q8	8	LYS
54	Q8	11	LYS
54	Q8	19	SER
54	Q8	21	LYS
54	Q8	25	MET
54	Q8	26	LYS
54	Q8	30	ARG
54	Q8	31	HIS
54	Q8	32	LEU
54	Q8	34	TRP
54	Q8	35	GLN
54	Q8	37	SER
54	Q8	40	GLU
54	Q8	42	ARG
54	Q8	43	GLN
54	Q8	46	ARG
54	Q8	47	LYS
54	Q8	50	LEU
54	Q8	52	LYS
54	Q8	57	ARG

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Mol	Chain	Res	Type
54	Q8	58	ILE
54	Q8	59	LYS
54	Q8	60	LEU
54	Q8	61	LEU
2	12	5	ILE
2	12	12	GLU
2	12	15	VAL
2	12	17	PHE
2	12	22	LYS
2	12	24	TRP
2	12	31	TYR
2	12	42	ILE
2	12	44	LEU
2	12	48	MET
2	12	55	PHE
2	12	58	ILE
2	12	67	THR
2	12	69	LEU
2	12	71	VAL
2	12	75	LYS
2	12	80	ILE
2	12	82	ARG
2	12	83	MET
2	12	84	GLU
2	12	94	ASN
2	12	98	LEU
2	12	107	THR
2	12	108	ILE
2	12	110	GLN
2	12	114	ARG
2	12	121	LEU
2	12	122	PHE
2	12	124	SER
2	12	129	GLU
2	12	139	LYS
2	12	142	LEU
2	12	145	LEU
2	12	147	LYS
2	12	155	LEU
2	12	170	GLU
2	12	172	ILE
2	12	175	ARG

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Mol	Chain	Res	Type
2	12	178	ARG
2	12	179	LYS
2	12	185	ILE
2	12	191	ASP
2	12	193	ASP
2	12	196	LEU
2	12	200	ILE
2	12	201	ILE
2	12	209	ARG
3	22	5	ILE
3	22	12	LEU
3	22	20	SER
3	22	21	ARG
3	22	22	TRP
3	22	28	GLN
3	22	29	TYR
3	22	34	LEU
3	22	40	ARG
3	22	43	LEU
3	22	47	LEU
3	22	54	ARG
3	22	67	THR
3	22	69	HIS
3	22	76	VAL
3	22	82	GLU
3	22	83	ARG
3	22	84	ILE
3	22	85	ARG
3	22	86	VAL
3	22	90	GLU
3	22	94	LEU
3	22	104	GLN
3	22	105	GLU
3	22	115	LEU
3	22	119	ARG
3	22	120	VAL
3	22	122	GLU
3	22	138	VAL
3	22	140	ARG
3	22	164	ARG
3	22	166	GLU
3	22	167	TRP

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Mol	Chain	Res	Type
3	22	188	LEU
3	22	192	THR
3	22	193	TYR
3	22	196	LEU
3	22	202	ILE
4	32	3	ARG
4	32	4	TYR
4	32	5	ILE
4	32	8	VAL
4	32	12	CYS
4	32	17	VAL
4	32	18	LYS
4	32	24	GLU
4	32	30	LYS
4	32	36	ARG
4	32	52	SER
4	32	53	ASP
4	32	61	LYS
4	32	70	ILE
4	32	81	GLU
4	32	83	SER
4	32	94	LEU
4	32	96	LEU
4	32	107	ARG
4	32	110	PHE
4	32	118	ARG
4	32	122	ARG
4	32	127	THR
4	32	140	VAL
4	32	141	ARG
4	32	145	GLU
4	32	150	GLU
4	32	152	SER
4	32	162	LEU
4	32	168	ARG
4	32	190	ASP
4	32	191	ARG
4	32	192	GLU
4	32	193	ASP
4	32	194	LEU
4	32	200	GLU
5	42	13	ILE

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Mol	Chain	Res	Type
5	42	14	ARG
5	42	16	THR
5	42	19	MET
5	42	24	ARG
5	42	25	ARG
5	42	26	PHE
5	42	31	LEU
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	47	LYS
5	42	51	VAL
5	42	60	TYR
5	42	61	TYR
5	42	65	ASN
5	42	66	MET
5	42	68	GLU
5	42	72	GLN
5	42	73	ASN
5	42	75	THR
5	42	76	ILE
5	42	78	HIS
5	42	79	GLU
5	42	81	GLU
5	42	82	VAL
5	42	91	LEU
5	42	100	VAL
5	42	101	ILE
5	42	120	THR
5	42	126	ARG
5	42	127	ASN
5	42	144	THR
6	52	2	ARG
6	52	3	ARG
6	52	14	LEU
6	52	16	GLN
6	52	21	LEU
6	52	24	GLU
6	52	25	ILE
6	52	27	GLN
6	52	28	ARG
6	52	40	VAL

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Mol	Chain	Res	Type
6	52	43	LEU
6	52	46	ARG
6	52	54	LYS
6	52	55	ASP
6	52	57	GLN
6	52	64	GLN
6	52	70	ASP
6	52	73	ASN
6	52	74	ASP
6	52	80	ARG
6	52	81	ILE
6	52	89	MET
6	52	93	SER
6	52	98	LEU
7	62	4	ARG
7	62	6	ARG
7	62	8	GLU
7	62	20	ASP
7	62	21	VAL
7	62	24	THR
7	62	27	ILE
7	62	45	ASP
7	62	51	GLN
7	62	54	THR
7	62	57	GLU
7	62	60	LYS
7	62	62	PHE
7	62	63	LYS
7	62	75	VAL
7	62	85	TYR
7	62	87	VAL
7	62	91	VAL
7	62	94	ARG
7	62	95	ARG
7	62	97	GLN
7	62	104	LEU
7	62	129	GLU
7	62	140	ASP
7	62	143	ARG
7	62	149	ARG
7	62	156	TRP
8	72	1	MET

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Mol	Chain	Res	Type
8	72	2	LEU
8	72	24	THR
8	72	25	ASP
8	72	39	LEU
8	72	52	ASP
8	72	73	ASP
8	72	82	HIS
8	72	84	ARG
8	72	92	ARG
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	102	ARG
8	72	107	LEU
8	72	115	SER
8	72	127	LEU
8	72	133	LEU
9	82	7	THR
9	82	38	GLN
9	82	41	VAL
9	82	42	ARG
9	82	53	VAL
9	82	64	THR
9	82	85	LEU
9	82	88	TYR
9	82	91	ASP
9	82	95	LYS
9	82	102	LEU
9	82	104	ARG
10	1A	5	ARG
10	1A	13	HIS
10	1A	17	ASP
10	1A	24	VAL
10	1A	43	ARG
10	1A	48	THR
10	1A	51	ARG
10	1A	55	LYS
10	1A	59	SER
10	1A	60	ARG
10	1A	67	THR
10	1A	70	ARG
10	1A	79	ARG

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Mol	Chain	Res	Type
10	1A	89	ASP
10	1A	96	ILE
11	2A	11	LYS
11	2A	14	VAL
11	2A	29	ILE
11	2A	30	VAL
11	2A	41	THR
11	2A	44	SER
11	2A	78	GLN
11	2A	79	SER
11	2A	83	ILE
11	2A	93	GLN
11	2A	105	VAL
11	2A	109	VAL
11	2A	114	VAL
11	2A	120	ARG
11	2A	124	LYS
12	3A	6	THR
12	3A	17	LYS
12	3A	23	LYS
12	3A	24	VAL
12	3A	27	LEU
12	3A	33	ARG
12	3A	34	ARG
12	3A	37	CYS
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	43	VAL
12	3A	44	THR
12	3A	46	LYS
12	3A	49	ASN
12	3A	52	LEU
12	3A	54	LYS
12	3A	57	LYS
12	3A	59	ARG
12	3A	60	LEU
12	3A	64	TYR
12	3A	66	VAL
12	3A	81	SER
12	3A	82	VAL
12	3A	83	VAL

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Mol	Chain	Res	Type
12	3A	84	LEU
12	3A	89	ARG
12	3A	92	ASP
12	3A	98	TYR
12	3A	102	ARG
12	3A	111	LYS
12	3A	117	ARG
12	3A	122	THR
13	4A	7	VAL
13	4A	16	ASP
13	4A	17	VAL
13	4A	19	LEU
13	4A	36	LYS
13	4A	39	ILE
13	4A	44	ARG
13	4A	47	ASP
13	4A	48	LEU
13	4A	66	LEU
13	4A	69	GLU
13	4A	77	ASN
13	4A	82	MET
13	4A	93	ARG
13	4A	94	ARG
13	4A	103	THR
13	4A	108	ARG
13	4A	114	ARG
14	5A	8	GLU
14	5A	11	LYS
14	5A	12	ARG
14	5A	16	PHE
14	5A	17	LYS
14	5A	22	THR
14	5A	23	ARG
14	5A	27	CYS
14	5A	33	VAL
14	5A	37	PHE
15	6A	3	ILE
15	6A	6	GLU
15	6A	31	LEU
15	6A	48	LYS
15	6A	79	ARG
15	6A	83	GLU

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Mol	Chain	Res	Type
15	6A	88	ARG
16	7A	2	VAL
16	7A	8	ARG
16	7A	11	SER
16	7A	27	LYS
16	7A	36	ILE
16	7A	43	LYS
16	7A	45	THR
16	7A	55	ARG
16	7A	62	VAL
16	7A	65	GLN
16	7A	67	THR
16	7A	71	ARG
16	7A	74	LEU
16	7A	82	GLN
17	8A	10	VAL
17	8A	22	LEU
17	8A	24	GLU
17	8A	31	LEU
17	8A	43	LEU
17	8A	52	LYS
17	8A	55	ASP
17	8A	60	ILE
17	8A	68	ARG
17	8A	70	ARG
17	8A	74	LEU
17	8A	75	ARG
17	8A	89	LEU
17	8A	93	GLN
17	8A	100	LYS
18	9A	26	LEU
18	9A	28	GLU
18	9A	29	PHE
18	9A	32	ARG
18	9A	36	ASN
18	9A	42	ARG
18	9A	53	ARG
18	9A	54	ARG
18	9A	59	SER
18	9A	65	ILE
18	9A	82	THR
18	9A	84	LYS

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Mol	Chain	Res	Type
18	9A	86	VAL
18	9A	87	ARG
19	AA	11	VAL
19	AA	23	ASN
19	AA	25	LYS
19	AA	28	LYS
19	AA	29	ARG
19	AA	37	ARG
19	AA	39	THR
19	AA	41	VAL
19	AA	53	ASN
19	AA	66	MET
19	AA	78	ARG
19	AA	83	HIS
20	BA	10	LEU
20	BA	11	SER
20	BA	23	ARG
20	BA	24	LEU
20	BA	29	LYS
20	BA	48	LYS
20	BA	53	LEU
20	BA	58	LYS
20	BA	60	GLU
20	BA	75	ASN
20	BA	88	VAL
20	BA	93	GLU
21	1B	9	ARG
28	19	13	ARG
28	19	14	ARG
28	19	18	VAL
28	19	23	GLU
28	19	25	THR
28	19	31	LYS
28	19	32	SER
28	19	33	LEU
28	19	39	LYS
28	19	43	ARG
28	19	49	ILE
28	19	50	THR
28	19	61	LEU
28	19	64	ILE
28	19	65	ILE

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Mol	Chain	Res	Type
28	19	68	LYS
28	19	72	LYS
28	19	88	ARG
28	19	89	SER
28	19	94	LEU
28	19	101	GLU
28	19	105	ILE
28	19	111	LEU
28	19	147	LEU
28	19	157	ARG
28	19	168	ARG
28	19	173	VAL
28	19	200	ASP
28	19	211	ARG
28	19	212	SER
28	19	217	ARG
28	19	239	ARG
28	19	242	ARG
28	19	244	ARG
28	19	257	LEU
28	19	262	ARG
28	19	263	ARG
28	19	266	SER
28	19	267	SER
28	19	270	ILE
28	19	271	ILE
28	19	273	ARG
29	29	1	MET
29	29	4	ILE
29	29	7	VAL
29	29	14	ILE
29	29	16	ARG
29	29	27	LEU
29	29	38	THR
29	29	44	TYR
29	29	48	GLN
29	29	49	LEU
29	29	52	LEU
29	29	58	ARG
29	29	60	ASN
29	29	63	LEU
29	29	64	LYS

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Mol	Chain	Res	Type
29	29	76	ARG
29	29	77	ILE
29	29	78	LEU
29	29	79	ARG
29	29	82	ARG
29	29	83	ASP
29	29	87	GLU
29	29	90	THR
29	29	93	VAL
29	29	95	ILE
29	29	103	ASP
29	29	107	THR
29	29	111	ARG
29	29	119	ARG
29	29	121	ASN
29	29	134	ILE
29	29	144	ARG
29	29	154	LYS
29	29	166	THR
29	29	175	VAL
29	29	181	LEU
29	29	197	ILE
29	29	201	THR
29	29	202	LYS
30	39	2	LYS
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	20	LEU
30	39	23	ASP
30	39	24	LEU
30	39	29	ASN
30	39	32	LEU
30	39	36	VAL
30	39	38	ARG
30	39	50	SER
30	39	57	VAL
30	39	62	ARG
30	39	63	LYS
30	39	67	GLN
30	39	70	THR
30	39	74	ARG

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Mol	Chain	Res	Type
30	39	77	ASP
30	39	78	ILE
30	39	82	ILE
30	39	83	PHE
30	39	100	THR
30	39	110	LEU
30	39	112	MET
30	39	114	VAL
30	39	123	LEU
30	39	127	GLU
30	39	154	VAL
30	39	156	LEU
30	39	158	THR
30	39	174	VAL
30	39	183	VAL
30	39	191	ARG
30	39	192	LEU
30	39	194	MET
30	39	196	LEU
30	39	197	ASP
30	39	201	VAL
30	39	205	ARG
31	49	3	LEU
31	49	9	ARG
31	49	13	GLU
31	49	14	GLU
31	49	16	ARG
31	49	26	GLN
31	49	28	VAL
31	49	33	ARG
31	49	39	ILE
31	49	40	ASN
31	49	53	LEU
31	49	60	LEU
31	49	64	THR
31	49	67	LYS
31	49	70	VAL
31	49	81	LYS
31	49	82	LEU
31	49	96	ARG
31	49	104	GLU
31	49	106	LEU

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Mol	Chain	Res	Type
31	49	109	VAL
31	49	118	ARG
31	49	130	ASN
31	49	146	TYR
31	49	147	ASP
31	49	149	VAL
31	49	152	LEU
31	49	153	ARG
31	49	159	VAL
31	49	165	THR
31	49	167	GLU
31	49	172	LEU
32	59	6	ARG
32	59	7	LEU
32	59	9	ILE
32	59	11	VAL
32	59	24	VAL
32	59	26	VAL
32	59	27	LYS
32	59	32	GLU
32	59	41	MET
32	59	42	ARG
32	59	43	VAL
32	59	44	VAL
32	59	45	VAL
32	59	52	VAL
32	59	67	LEU
32	59	68	THR
32	59	69	ARG
32	59	89	ILE
32	59	94	TYR
32	59	98	LEU
32	59	101	ARG
32	59	105	LEU
32	59	113	VAL
32	59	123	PHE
32	59	125	VAL
32	59	127	GLU
32	59	129	THR
32	59	134	SER
32	59	136	ILE
32	59	139	GLN

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Mol	Chain	Res	Type
32	59	147	ASN
32	59	157	TYR
32	59	159	GLU
32	59	164	TYR
33	69	1	MET
33	69	2	LYS
33	69	4	ILE
33	69	6	LEU
33	69	9	LEU
33	69	17	GLN
33	69	35	LEU
33	69	37	VAL
33	69	40	THR
33	69	44	LEU
33	69	47	LEU
33	69	58	LEU
33	69	60	GLU
33	69	67	ARG
33	69	69	LYS
33	69	73	GLU
33	69	75	LEU
33	69	77	LEU
33	69	78	THR
33	69	79	ILE
33	69	81	VAL
33	69	87	LYS
33	69	101	LEU
33	69	104	GLN
33	69	105	HIS
33	69	109	ILE
33	69	114	LEU
33	69	117	GLU
33	69	125	GLU
33	69	131	LYS
33	69	133	HIS
33	69	138	ILE
33	69	142	VAL
34	15	1	MET
34	15	9	VAL
34	15	16	ILE
34	15	28	THR
34	15	29	LYS

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Mol	Chain	Res	Type
34	15	32	THR
34	15	33	LEU
34	15	34	LEU
34	15	35	ARG
34	15	37	LYS
34	15	42	TRP
34	15	46	VAL
34	15	48	MET
34	15	56	ASN
34	15	61	ARG
34	15	63	THR
34	15	65	LYS
34	15	76	SER
34	15	85	ILE
34	15	87	LEU
34	15	93	THR
34	15	94	HIS
34	15	98	VAL
34	15	104	LYS
34	15	106	MET
34	15	112	LEU
34	15	115	ARG
34	15	121	LYS
34	15	127	ASP
34	15	134	ARG
34	15	136	GLU
35	25	5	GLN
35	25	8	LEU
35	25	10	VAL
35	25	22	ILE
35	25	24	VAL
35	25	29	ASN
35	25	35	VAL
35	25	38	VAL
35	25	44	LYS
35	25	47	ILE
35	25	49	ARG
35	25	70	LYS
35	25	78	ARG
35	25	86	ILE
35	25	91	LEU
35	25	94	ARG

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Mol	Chain	Res	Type
35	25	96	THR
35	25	97	ARG
35	25	105	GLU
35	25	108	GLU
35	25	111	PHE
35	25	117	LEU
36	35	1	MET
36	35	6	LEU
36	35	13	ASN
36	35	15	ARG
36	35	18	ARG
36	35	21	ARG
36	35	27	HIS
36	35	36	LYS
36	35	41	ARG
36	35	45	LEU
36	35	50	ARG
36	35	57	THR
36	35	61	ARG
36	35	62	LEU
36	35	65	ARG
36	35	67	MET
36	35	70	GLN
36	35	75	ILE
36	35	81	GLN
36	35	85	LEU
36	35	91	PHE
36	35	96	THR
36	35	98	GLU
36	35	100	LEU
36	35	101	VAL
36	35	105	LEU
36	35	106	LEU
36	35	110	TYR
36	35	111	ARG
36	35	114	ILE
36	35	125	VAL
36	35	126	VAL
36	35	135	LEU
36	35	138	LEU
36	35	144	GLU
36	35	146	VAL

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Mol	Chain	Res	Type
36	35	147	LEU
36	35	149	GLU
37	45	2	LEU
37	45	3	MET
37	45	7	MET
37	45	22	LYS
37	45	26	TYR
37	45	32	TYR
37	45	42	ILE
37	45	45	GLN
37	45	55	VAL
37	45	59	ARG
37	45	60	ARG
37	45	74	TYR
37	45	75	THR
37	45	77	LYS
37	45	79	LEU
37	45	80	GLU
37	45	85	LYS
37	45	87	LYS
37	45	90	VAL
37	45	105	GLU
37	45	106	VAL
37	45	110	THR
37	45	112	GLU
37	45	116	GLU
37	45	118	LEU
37	45	134	ARG
37	45	138	ASP
37	45	139	GLU
37	45	141	GLN
38	55	2	ARG
38	55	8	ARG
38	55	14	SER
38	55	15	SER
38	55	24	GLN
38	55	26	LYS
38	55	28	LEU
38	55	29	LEU
38	55	35	THR
38	55	36	THR
38	55	44	LEU

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Mol	Chain	Res	Type
38	55	51	LEU
38	55	54	LEU
38	55	56	LYS
38	55	65	LEU
38	55	75	LEU
38	55	81	ASP
38	55	82	GLU
38	55	88	ARG
38	55	95	THR
38	55	100	LEU
38	55	111	LEU
38	55	115	GLU
38	55	117	VAL
39	65	3	ARG
39	65	4	LEU
39	65	12	PHE
39	65	14	VAL
39	65	17	ARG
39	65	20	ARG
39	65	24	LEU
39	65	25	ARG
39	65	27	SER
39	65	36	TYR
39	65	38	GLN
39	65	48	LEU
39	65	50	SER
39	65	52	SER
39	65	54	LEU
39	65	65	VAL
39	65	69	VAL
39	65	73	LEU
39	65	82	ILE
39	65	88	ASP
39	65	98	VAL
39	65	101	LEU
39	65	106	ARG
39	65	107	GLU
39	65	110	LEU
39	65	112	PHE
40	75	7	ILE
40	75	8	LYS
40	75	9	LEU

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Mol	Chain	Res	Type
40	75	13	ARG
40	75	15	VAL
40	75	19	LEU
40	75	23	ARG
40	75	27	THR
40	75	36	GLU
40	75	38	ASN
40	75	43	GLN
40	75	49	VAL
40	75	51	ARG
40	75	54	ARG
40	75	55	ASN
40	75	57	PHE
40	75	59	THR
40	75	64	ARG
40	75	72	VAL
40	75	74	ARG
40	75	86	ILE
40	75	87	ASP
40	75	88	ILE
40	75	93	ARG
40	75	105	LEU
40	75	106	SER
40	75	107	ASP
40	75	112	ARG
40	75	115	ARG
40	75	121	ILE
40	75	124	ASP
40	75	125	ARG
40	75	136	GLN
41	85	5	LYS
41	85	8	VAL
41	85	52	ARG
41	85	55	ARG
41	85	56	ASP
41	85	63	VAL
41	85	64	ARG
41	85	74	LEU
41	85	78	THR
41	85	92	ARG
41	85	97	ASP
41	85	100	VAL

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Mol	Chain	Res	Type
41	85	101	ARG
41	85	114	LYS
42	95	19	LYS
42	95	32	THR
42	95	33	VAL
42	95	38	LEU
42	95	39	LEU
42	95	40	LEU
42	95	44	LYS
42	95	45	THR
42	95	46	VAL
42	95	47	VAL
42	95	49	THR
42	95	66	ARG
42	95	70	ILE
42	95	75	PHE
42	95	76	LYS
42	95	79	VAL
42	95	83	ARG
42	95	84	LYS
42	95	91	TYR
42	95	95	LEU
42	95	97	LYS
43	A5	11	ARG
43	A5	17	VAL
43	A5	18	ARG
43	A5	19	LEU
43	A5	23	LEU
43	A5	39	THR
43	A5	50	VAL
43	A5	51	LEU
43	A5	65	LEU
43	A5	70	TYR
43	A5	76	VAL
43	A5	88	ARG
43	A5	92	ARG
43	A5	95	ILE
43	A5	96	ILE
43	A5	103	ILE
43	A5	107	LEU
43	A5	110	LYS
44	B5	12	VAL

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Mol	Chain	Res	Type
44	B5	14	SER
44	B5	30	VAL
44	B5	38	GLU
44	B5	40	LYS
44	B5	41	ASN
44	B5	45	THR
44	B5	48	LYS
44	B5	52	VAL
44	B5	54	VAL
44	B5	57	LEU
44	B5	63	LYS
44	B5	65	ARG
44	B5	66	LEU
44	B5	75	ASP
44	B5	82	GLN
44	B5	83	VAL
44	B5	88	LYS
45	C5	2	ARG
45	C5	6	HIS
45	C5	14	LEU
45	C5	23	ARG
45	C5	33	LYS
45	C5	37	VAL
45	C5	38	ILE
45	C5	40	GLU
45	C5	43	ASN
45	C5	47	LYS
45	C5	50	ARG
45	C5	51	VAL
45	C5	55	TYR
45	C5	62	GLU
45	C5	64	GLU
45	C5	71	LYS
45	C5	84	ARG
45	C5	85	VAL
45	C5	86	ARG
45	C5	89	PHE
45	C5	94	LYS
45	C5	97	ARG
45	C5	99	CYS
45	C5	102	CYS
46	D5	10	ARG

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Mol	Chain	Res	Type
46	D5	16	SER
46	D5	18	LEU
46	D5	19	ARG
46	D5	28	MET
46	D5	31	ARG
46	D5	44	PHE
46	D5	45	ASP
46	D5	56	VAL
46	D5	59	LEU
46	D5	63	ASP
46	D5	70	LEU
46	D5	71	VAL
46	D5	72	ARG
46	D5	74	VAL
46	D5	77	ASP
46	D5	82	ARG
46	D5	89	PHE
46	D5	91	LEU
46	D5	93	ASP
46	D5	98	MET
46	D5	102	LEU
46	D5	103	ARG
46	D5	122	ARG
46	D5	128	VAL
46	D5	129	SER
46	D5	132	ASN
46	D5	139	VAL
46	D5	161	VAL
46	D5	165	VAL
46	D5	168	GLU
47	E5	10	THR
47	E5	12	ASN
47	E5	16	SER
47	E5	29	GLN
47	E5	36	ILE
47	E5	41	ARG
47	E5	43	THR
47	E5	46	LYS
47	E5	53	MET
47	E5	58	THR
47	E5	60	PHE
47	E5	68	GLU

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Mol	Chain	Res	Type
47	E5	81	VAL
47	E5	82	ARG
48	F5	2	SER
48	F5	11	ARG
48	F5	21	ARG
48	F5	25	LYS
48	F5	26	ARG
48	F5	38	SER
48	F5	42	GLN
48	F5	52	ARG
48	F5	56	GLN
48	F5	61	ARG
48	F5	62	VAL
48	F5	74	VAL
48	F5	76	ARG
48	F5	78	LYS
48	F5	80	LEU
48	F5	82	LEU
48	F5	83	GLU
48	F5	85	LEU
48	F5	91	LYS
49	G5	14	ARG
49	G5	15	LYS
49	G5	19	VAL
49	G5	24	LEU
49	G5	25	VAL
49	G5	32	LEU
49	G5	34	GLU
49	G5	35	LEU
49	G5	46	GLN
49	G5	48	HIS
49	G5	53	LEU
49	G5	55	ARG
49	G5	62	THR
49	G5	70	GLN
50	H5	5	LYS
50	H5	6	VAL
50	H5	8	LEU
50	H5	20	LYS
50	H5	24	LYS
50	H5	30	ARG
50	H5	32	GLN

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Mol	Chain	Res	Type
50	H5	33	GLN
50	H5	36	VAL
50	H5	38	GLU
50	H5	40	THR
50	H5	56	VAL
51	I5	20	ASN
51	I5	22	ILE
51	I5	30	GLU
51	I5	33	VAL
51	I5	34	GLU
51	I5	44	THR
51	I5	46	GLN
51	I5	53	GLU
51	I5	58	ARG
51	I5	59	PHE
51	I5	60	GLN
51	I5	61	ARG
51	I5	62	ARG
52	J5	6	VAL
52	J5	8	LYS
52	J5	11	THR
52	J5	16	ARG
52	J5	25	LEU
52	J5	26	THR
52	J5	29	THR
52	J5	35	GLU
52	J5	48	GLU
52	J5	52	TYR
52	J5	55	ARG
53	L5	1	MET
53	L5	4	THR
53	L5	8	ASN
53	L5	11	LYS
53	L5	14	LYS
53	L5	24	THR
53	L5	32	LYS
53	L5	33	ARG
53	L5	41	ARG
53	L5	43	THR
53	L5	46	VAL
53	L5	47	ARG
54	M5	3	LYS

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Mol	Chain	Res	Type
54	M5	6	THR
54	M5	14	VAL
54	M5	15	LYS
54	M5	22	VAL
54	M5	25	MET
54	M5	30	ARG
54	M5	31	HIS
54	M5	36	LYS
54	M5	37	SER
54	M5	58	ILE
54	M5	59	LYS
54	M5	60	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
3	2E	104	GLN
3	2E	107	GLN
3	2E	108	ASN
10	1I	84	GLN
28	11	115	GLN
31	41	58	GLN
37	88	12	GLN
44	F8	31	HIS
46	H8	73	GLN
46	H8	151	HIS
13	4A	92	HIS
18	9A	36	ASN
28	19	87	ASN
29	29	55	ASN
32	59	61	HIS
39	65	95	HIS
45	C5	6	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1505/1522 (98%)	327 (21%)	31 (2%)
1	1G	1512/1522 (99%)	370 (24%)	38 (2%)
22	1K	86/87 (98%)	23 (26%)	1 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
22	1L	86/87 (98%)	31 (36%)	4 (4%)
23	2K	77/87 (88%)	31 (40%)	8 (10%)
23	2L	79/87 (90%)	32 (40%)	8 (10%)
24	3K	75/87 (86%)	35 (46%)	4 (5%)
24	3L	72/87 (82%)	34 (47%)	5 (6%)
25	4K	14/60 (23%)	6 (42%)	0
25	4L	19/60 (31%)	5 (26%)	0
26	14	2908/2917 (99%)	696 (23%)	40 (1%)
26	1H	2911/2917 (99%)	672 (23%)	52 (1%)
27	16	121/122 (99%)	21 (17%)	1 (0%)
27	1J	121/122 (99%)	36 (29%)	4 (3%)
All	All	9586/9764 (98%)	2319 (24%)	196 (2%)

All (2319) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	6	G
1	13	8	A
1	13	9	G
1	13	10	A
1	13	19	C
1	13	20	U
1	13	32	A
1	13	39	G
1	13	47	C
1	13	48	C
1	13	50	A
1	13	51	A
1	13	54	C
1	13	59	A
1	13	61	G
1	13	65	U
1	13	66	G
1	13	74	C
1	13	77	C
1	13	78	G
1	13	80	G
1	13	91	C
1	13	101	A
1	13	108	G
1	13	116	A

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Mol	Chain	Res	Type
1	13	121	C
1	13	131	C
1	13	137	C
1	13	143	A
1	13	144	G
1	13	151	A
1	13	160	A
1	13	161	A
1	13	164	U
1	13	169	C
1	13	171	A
1	13	172	A
1	13	173	U
1	13	174	C
1	13	180	U
1	13	182	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	195	A
1	13	196	A
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	231	G
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	266	G
1	13	267	C
1	13	270	A
1	13	281	G
1	13	289	G
1	13	316	G
1	13	317	G
1	13	321	A
1	13	328	C

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Mol	Chain	Res	Type
1	13	329	A
1	13	330	C
1	13	332	G
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	365	U
1	13	367	U
1	13	369	C
1	13	372	C
1	13	373	A
1	13	382	A
1	13	384	G
1	13	389	A
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	455	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	500	G
1	13	505	G
1	13	509	A
1	13	511	C
1	13	513	C

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Mol	Chain	Res	Type
1	13	518	C
1	13	521	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	547	A
1	13	549	C
1	13	559	A
1	13	561	U
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	595	G
1	13	596	C
1	13	607	A
1	13	610	G
1	13	615	C
1	13	616	G
1	13	619	U
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	649	G
1	13	652	U
1	13	653	A
1	13	665	A
1	13	666	G
1	13	678	U
1	13	704	A
1	13	707	C
1	13	717	C
1	13	723	U
1	13	724	G
1	13	748	C
1	13	749	C
1	13	753	A
1	13	755	G
1	13	759	A
1	13	766	A

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Mol	Chain	Res	Type
1	13	774	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	817	C
1	13	828	A
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	864	A
1	13	870	U
1	13	873	A
1	13	887	G
1	13	891	U
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	940	C
1	13	948	C
1	13	960	U
1	13	967	C
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	G
1	13	997	U
1	13	1004	A

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Mol	Chain	Res	Type
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1020	U
1	13	1021	G
1	13	1023	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1032(A)	G
1	13	1033	G
1	13	1037	C
1	13	1040	U
1	13	1042	G
1	13	1053	G
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1116	C
1	13	1121	U
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G

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Mol	Chain	Res	Type
1	13	1144	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1161	C
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1183	A
1	13	1187	G
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1212	U
1	13	1213	A
1	13	1215	G
1	13	1218	C
1	13	1225	A
1	13	1226	C
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1260	C
1	13	1270	C
1	13	1273	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1282	C
1	13	1286	A

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Mol	Chain	Res	Type
1	13	1287	A
1	13	1295	G
1	13	1299	A
1	13	1300	G
1	13	1305	G
1	13	1320	C
1	13	1322	C
1	13	1323	G
1	13	1331	G
1	13	1336	C
1	13	1337	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1353	G
1	13	1360	A
1	13	1362(A)	C
1	13	1370	G
1	13	1379	G
1	13	1381	U
1	13	1382	C
1	13	1394	A
1	13	1398	A
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1447	G
1	13	1449	C
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1498	U
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1517	G

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Mol	Chain	Res	Type
1	13	1519	A
1	13	1529	G
1	13	1530	G
1	13	1531	A
1	13	1533	C
1	13	1536	C
1	13	1537	U
22	1K	8	U
22	1K	9	G
22	1K	13	G
22	1K	14	A
22	1K	15	A
22	1K	16	U
22	1K	17	U
22	1K	18	G
22	1K	19	G
22	1K	20	U
22	1K	21	A
22	1K	22	G
22	1K	24	C
22	1K	26	C
22	1K	48	C
22	1K	49	C
22	1K	50	A
22	1K	51	A
22	1K	54	G
22	1K	56	G
22	1K	58	U
22	1K	74	C
22	1K	85	C
23	2K	3	C
23	2K	7	G
23	2K	8	U
23	2K	14	A
23	2K	16	U
23	2K	17	H2U
23	2K	18	OMG
23	2K	19	G
23	2K	20	U
23	2K	21	A
23	2K	22	G
23	2K	23	A

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Mol	Chain	Res	Type
23	2K	25	A
23	2K	27	G
23	2K	28	C
23	2K	37	G
23	2K	44	G
23	2K	45	U
23	2K	46	G
23	2K	47	C
23	2K	57	C
23	2K	62	G
23	2K	63	G
23	2K	64	G
23	2K	67	C
23	2K	69	A
23	2K	71	U
23	2K	74	C
23	2K	75	G
23	2K	76	U
23	2K	87	A
24	3K	2	C
24	3K	8	U
24	3K	9	G
24	3K	13	G
24	3K	14	A
24	3K	15	A
24	3K	16	U
24	3K	17	U
24	3K	18	G
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	23	A
24	3K	24	C
24	3K	25	A
24	3K	27	G
24	3K	35	G
24	3K	38	G
24	3K	44	G
24	3K	45	U
24	3K	46	G
24	3K	47	C
24	3K	59	U

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Mol	Chain	Res	Type
24	3K	60	A
24	3K	61	C
24	3K	66	U
24	3K	69	A
24	3K	70	G
24	3K	71	U
24	3K	78	C
24	3K	79	U
24	3K	80	C
24	3K	81	G
24	3K	84	A
24	3K	87	A
25	4K	33	G
25	4K	34	G
25	4K	35	A
25	4K	37	G
25	4K	38	U
25	4K	52	U
26	1H	5	A
26	1H	9	U
26	1H	12	U
26	1H	15	G
26	1H	34	C
26	1H	35	G
26	1H	46	C
26	1H	51	G
26	1H	63	U
26	1H	64	A
26	1H	66	C
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	90	U
26	1H	102	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	146	G
26	1H	155	C

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Mol	Chain	Res	Type
26	1H	162	U
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	173	G
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	199	A
26	1H	201	C
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	232	G
26	1H	233	A
26	1H	235	U
26	1H	238	C
26	1H	248	G
26	1H	252	G
26	1H	261	G
26	1H	266	G
26	1H	269	U
26	1H	270(F)	U
26	1H	270(H)	C
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(P)	C
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	278	A
26	1H	299	A
26	1H	311	A
26	1H	324	A

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Mol	Chain	Res	Type
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	334	C
26	1H	335	C
26	1H	338	G
26	1H	352	G
26	1H	363	G
26	1H	363(F)	A
26	1H	364	C
26	1H	372	G
26	1H	380	U
26	1H	386	G
26	1H	396	G
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	428	A
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	452	G
26	1H	455	C
26	1H	457	A
26	1H	463	G
26	1H	467	G
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	491	G
26	1H	501	A
26	1H	504	U
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	528	A
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G

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Mol	Chain	Res	Type
26	1H	546	C
26	1H	547	A
26	1H	549	G
26	1H	563	G
26	1H	573	G
26	1H	575	A
26	1H	586	A
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	607	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	618	G
26	1H	621	A
26	1H	622	G
26	1H	626	U
26	1H	627	A
26	1H	631	A
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	654	A
26	1H	654(H)	G
26	1H	654(I)	C
26	1H	654(K)	C
26	1H	654(M)	C
26	1H	654(O)	G
26	1H	654(V)	A
26	1H	665	C
26	1H	668	G
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	714	U
26	1H	717	G
26	1H	730	C
26	1H	738	G
26	1H	747	U
26	1H	752	A
26	1H	753	C

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Mol	Chain	Res	Type
26	1H	762	U
26	1H	764	A
26	1H	765	G
26	1H	775	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	813	U
26	1H	827	U
26	1H	828	U
26	1H	836	G
26	1H	845	G
26	1H	846	C
26	1H	847	U
26	1H	859	G
26	1H	877	U
26	1H	878	A
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	883	G
26	1H	884	C
26	1H	885	C
26	1H	886	C
26	1H	887	A
26	1H	888	C
26	1H	890	A
26	1H	892	G
26	1H	893	C
26	1H	894	C
26	1H	895	U
26	1H	896	A
26	1H	900	A
26	1H	901	A

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Mol	Chain	Res	Type
26	1H	907	U
26	1H	910	A
26	1H	914	C
26	1H	917	A
26	1H	918	A
26	1H	932	G
26	1H	940	G
26	1H	941	A
26	1H	946	G
26	1H	953	A
26	1H	957	A
26	1H	959	A
26	1H	961	C
26	1H	974	G
26	1H	974(A)	C
26	1H	983	A
26	1H	996	A
26	1H	1003	G
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1015	G
26	1H	1017	G
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1027	A
26	1H	1032	A
26	1H	1033	U
26	1H	1036	G
26	1H	1037	G
26	1H	1039	G
26	1H	1041	C
26	1H	1046	A
26	1H	1047	G
26	1H	1051	G
26	1H	1055	G
26	1H	1057	A
26	1H	1059	G
26	1H	1060	U
26	1H	1061	U

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Mol	Chain	Res	Type
26	1H	1062	G
26	1H	1063	G
26	1H	1064	C
26	1H	1066	U
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1072	C
26	1H	1074	G
26	1H	1076	C
26	1H	1077	A
26	1H	1078	U
26	1H	1080	A
26	1H	1081	U
26	1H	1082	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1090	U
26	1H	1093	G
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1104	C
26	1H	1111	A
26	1H	1112	G
26	1H	1121	C
26	1H	1126	A
26	1H	1127	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1144	G
26	1H	1151	G
26	1H	1156	A

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Mol	Chain	Res	Type
26	1H	1169	G
26	1H	1170	G
26	1H	1173	G
26	1H	1174	A
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1190	G
26	1H	1194	A
26	1H	1195	G
26	1H	1200	C
26	1H	1204	A
26	1H	1205	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1225	C
26	1H	1240	U
26	1H	1241	A
26	1H	1244	G
26	1H	1248	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1267	U
26	1H	1269	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1284	A
26	1H	1287	A
26	1H	1292	U
26	1H	1300	U
26	1H	1301	A
26	1H	1305	C
26	1H	1310	G
26	1H	1313	U
26	1H	1314	C
26	1H	1321	A

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Mol	Chain	Res	Type
26	1H	1329	U
26	1H	1341	U
26	1H	1344	G
26	1H	1347	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1378	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A
26	1H	1428	C
26	1H	1430	C
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1453	A
26	1H	1454	U
26	1H	1455	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1478	G
26	1H	1483	G
26	1H	1493	C
26	1H	1497	U
26	1H	1506	C
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A

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Mol	Chain	Res	Type
26	1H	1517	G
26	1H	1520	U
26	1H	1522	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1616	A
26	1H	1617	C
26	1H	1626	G
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1672	C
26	1H	1674	G
26	1H	1675	C
26	1H	1699	G
26	1H	1706	U
26	1H	1729	A
26	1H	1730	U
26	1H	1746	G
26	1H	1756	G
26	1H	1763	G
26	1H	1764	G

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Mol	Chain	Res	Type
26	1H	1769	G
26	1H	1773	A
26	1H	1774	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1811	G
26	1H	1816	G
26	1H	1826	G
26	1H	1829	A
26	1H	1836	C
26	1H	1847	A
26	1H	1852	C
26	1H	1853	A
26	1H	1858	G
26	1H	1859	A
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1903	G
26	1H	1906	G
26	1H	1911	U
26	1H	1914	C
26	1H	1919	A
26	1H	1929	G
26	1H	1930	G
26	1H	1936	A
26	1H	1938	A
26	1H	1952	A
26	1H	1955	U
26	1H	1963	U
26	1H	1964	G
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A

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Mol	Chain	Res	Type
26	1H	1982	C
26	1H	1984	G
26	1H	1987	G
26	1H	1993	U
26	1H	2019	A
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2043	C
26	1H	2049	G
26	1H	2051	A
26	1H	2052	G
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G
26	1H	2070	G
26	1H	2093	G
26	1H	2095	C
26	1H	2096	U
26	1H	2099	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2118	U
26	1H	2119	A
26	1H	2122	U
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2129	C

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Mol	Chain	Res	Type
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	2155	G
26	1H	2157	G
26	1H	2158	A
26	1H	2162	G
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G
26	1H	2170	A
26	1H	2173	A
26	1H	2174	C
26	1H	2176	A
26	1H	2190	G
26	1H	2191	G
26	1H	2193	G
26	1H	2198	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2238	G
26	1H	2243	U
26	1H	2249	U
26	1H	2252	G
26	1H	2268	A
26	1H	2269	A
26	1H	2270	G
26	1H	2271	G
26	1H	2273	A

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Mol	Chain	Res	Type
26	1H	2275	C
26	1H	2279	G
26	1H	2280	G
26	1H	2283	C
26	1H	2287	A
26	1H	2288	A
26	1H	2298	A
26	1H	2299	G
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2309	A
26	1H	2310	A
26	1H	2314	C
26	1H	2315	G
26	1H	2319	G
26	1H	2320	A
26	1H	2325	G
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2343	C
26	1H	2347	C
26	1H	2350	C
26	1H	2351	G
26	1H	2352	A
26	1H	2364	C
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2406	U
26	1H	2410	G
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2434	A
26	1H	2439	A
26	1H	2440	C

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Mol	Chain	Res	Type
26	1H	2441	C
26	1H	2446	G
26	1H	2448	A
26	1H	2457	U
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2475	C
26	1H	2476	A
26	1H	2478	A
26	1H	2480	C
26	1H	2482	G
26	1H	2484	G
26	1H	2489	G
26	1H	2494	G
26	1H	2502	G
26	1H	2504	U
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2513	G
26	1H	2518	A
26	1H	2529	G
26	1H	2537	U
26	1H	2545	G
26	1H	2551	C
26	1H	2554	U
26	1H	2556	C
26	1H	2564	A
26	1H	2566	A
26	1H	2567	G
26	1H	2569	G
26	1H	2573	C
26	1H	2574	G
26	1H	2582	G
26	1H	2602	A
26	1H	2605	U
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A

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Mol	Chain	Res	Type
26	1H	2636	U
26	1H	2646	C
26	1H	2654	A
26	1H	2661	G
26	1H	2665	A
26	1H	2673	G
26	1H	2689	U
26	1H	2690	C
26	1H	2691	C
26	1H	2702	U
26	1H	2703	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2719	G
26	1H	2726	U
26	1H	2733	A
26	1H	2734	A
26	1H	2736	G
26	1H	2744	G
26	1H	2752	C
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A
26	1H	2779	U
26	1H	2787	C
26	1H	2789	C
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2807	G
26	1H	2808	U

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Mol	Chain	Res	Type
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2825	C
26	1H	2832	U
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2860	A
26	1H	2872	G
26	1H	2876	G
26	1H	2877	G
26	1H	2879	C
26	1H	2892	A
26	1H	2893	G
26	1H	2895	U
26	1H	2899	G
26	1H	2900	A
27	16	0	A
27	16	13	A
27	16	15	A
27	16	24	G
27	16	25	A
27	16	27	C
27	16	33	G
27	16	38	C
27	16	40	U
27	16	41	U
27	16	45	A
27	16	54	G
27	16	56	G
27	16	58	A
27	16	73	A
27	16	77	U
27	16	85	G
27	16	105	G
27	16	107	U
27	16	109	G
27	16	115	G
1	1G	5	U
1	1G	9	G
1	1G	22	G

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Mol	Chain	Res	Type
1	1G	26	A
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	68	G
1	1G	76	G
1	1G	78	G
1	1G	79	G
1	1G	80	G
1	1G	81	G
1	1G	87	A
1	1G	88	C
1	1G	92	G
1	1G	99	C
1	1G	108	G
1	1G	113	G
1	1G	116	A
1	1G	121	C
1	1G	131	C
1	1G	144	G
1	1G	163	C
1	1G	169	C
1	1G	170	U
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	186	C
1	1G	186(F)	C
1	1G	187	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	A
1	1G	197	A
1	1G	198	G
1	1G	208	U

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Mol	Chain	Res	Type
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	220	G
1	1G	238	G
1	1G	240	C
1	1G	243	A
1	1G	244	U
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	262	A
1	1G	266	G
1	1G	267	C
1	1G	270	A
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	345	C
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	363	A
1	1G	365	U
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	410	G
1	1G	411	A

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Mol	Chain	Res	Type
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	431	A
1	1G	439	A
1	1G	440	A
1	1G	451	A
1	1G	452	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	476	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	495	A
1	1G	496	A
1	1G	497	U
1	1G	498	A
1	1G	505	G
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	547	A
1	1G	552	U
1	1G	561	U
1	1G	572	A
1	1G	573	A

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Mol	Chain	Res	Type
1	1G	576	G
1	1G	577	G
1	1G	607	A
1	1G	608	A
1	1G	615	C
1	1G	618	C
1	1G	621	A
1	1G	632	A
1	1G	633	G
1	1G	651	C
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	671	G
1	1G	674	G
1	1G	687	A
1	1G	688	G
1	1G	701	C
1	1G	702	A
1	1G	703	G
1	1G	704	A
1	1G	722	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	749	C
1	1G	750	G
1	1G	755	G
1	1G	760	G
1	1G	762	C
1	1G	763	G
1	1G	764	C
1	1G	773	G
1	1G	774	G
1	1G	776	G
1	1G	777	A
1	1G	793	U
1	1G	794	A
1	1G	813	U
1	1G	817	C
1	1G	821	G
1	1G	828	A

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Mol	Chain	Res	Type
1	1G	834	C
1	1G	836	G
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	851	G
1	1G	853	G
1	1G	859	A
1	1G	873	A
1	1G	902	G
1	1G	906	G
1	1G	914	A
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	938	A
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	966	G
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	982	U
1	1G	989	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1016	A

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Mol	Chain	Res	Type
1	1G	1019	C
1	1G	1021	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1027	C
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1038	C
1	1G	1040	U
1	1G	1043	C
1	1G	1046	A
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1080	A
1	1G	1081	G
1	1G	1082	G
1	1G	1088	G
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1101	A
1	1G	1108	G
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1131	G
1	1G	1135	U
1	1G	1137	C

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Mol	Chain	Res	Type
1	1G	1139	G
1	1G	1140	C
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1185	G
1	1G	1186	G
1	1G	1188	A
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1225	A
1	1G	1227	A
1	1G	1236	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1246	C
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1268	A
1	1G	1269	A
1	1G	1270	C
1	1G	1275	A
1	1G	1278	U

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Mol	Chain	Res	Type
1	1G	1279	A
1	1G	1280	A
1	1G	1285	A
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1295	G
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1306	A
1	1G	1312	G
1	1G	1317	C
1	1G	1318	A
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1337	G
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1354	C
1	1G	1362(A)	C
1	1G	1364	U
1	1G	1370	G
1	1G	1379	G
1	1G	1386	G
1	1G	1397	C
1	1G	1398	A
1	1G	1402	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A

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Mol	Chain	Res	Type
1	1G	1447	G
1	1G	1449	C
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1482	G
1	1G	1492	A
1	1G	1494	G
1	1G	1497	G
1	1G	1498	U
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1519	A
1	1G	1520	G
1	1G	1525	G
1	1G	1528	U
1	1G	1529	G
1	1G	1530	G
1	1G	1533	C
1	1G	1535	C
1	1G	1536	C
1	1G	1537	U
1	1G	1540	U
1	1G	1541	U
22	1L	6	G
22	1L	8	U
22	1L	9	G
22	1L	16	U
22	1L	17	U
22	1L	18	G
22	1L	19	G
22	1L	20	U
22	1L	21	A
22	1L	22	G
22	1L	23	A

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Mol	Chain	Res	Type
22	1L	24	C
22	1L	26	C
22	1L	27	G
22	1L	30	A
22	1L	42	U
22	1L	46	G
22	1L	47	C
22	1L	48	C
22	1L	49	C
22	1L	50	A
22	1L	51	A
22	1L	52	U
22	1L	55	G
22	1L	58	U
22	1L	70	G
22	1L	74	C
22	1L	84	A
22	1L	85	C
22	1L	86	C
22	1L	87	A
23	2L	4	G
23	2L	6	G
23	2L	7	G
23	2L	8	U
23	2L	9	G
23	2L	11	U
23	2L	13	G
23	2L	15	A
23	2L	16	U
23	2L	17	H2U
23	2L	18	OMG
23	2L	19	G
23	2L	20	U
23	2L	21	A
23	2L	24	C
23	2L	27	G
23	2L	33	U
23	2L	34	U
23	2L	37	G
23	2L	44	G
23	2L	45	U
23	2L	46	G

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Mol	Chain	Res	Type
23	2L	47	C
23	2L	48	C
23	2L	57	C
23	2L	63	G
23	2L	64	G
23	2L	65	5MU
23	2L	69	A
23	2L	71	U
23	2L	74	C
23	2L	87	A
24	3L	5	A
24	3L	7	G
24	3L	8	U
24	3L	10	G
24	3L	11	U
24	3L	12	G
24	3L	14	A
24	3L	15	A
24	3L	16	U
24	3L	17	U
24	3L	18	G
24	3L	19	G
24	3L	20	U
24	3L	23	A
24	3L	27	G
24	3L	30	A
24	3L	32	C
24	3L	34	U
24	3L	35	G
24	3L	36	A
24	3L	38	G
24	3L	43	A
24	3L	44	G
24	3L	45	U
24	3L	58	U
24	3L	59	U
24	3L	60	A
24	3L	64	G
24	3L	69	A
24	3L	70	G
24	3L	71	U
24	3L	83	U

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Mol	Chain	Res	Type
24	3L	84	A
24	3L	85	C
25	4L	37	G
25	4L	38	U
25	4L	39	U
25	4L	50	U
25	4L	53	U
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	9	U
26	14	14	A
26	14	34	C
26	14	35	G
26	14	46	C
26	14	50	U
26	14	51	G
26	14	55	G
26	14	58	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	83	G
26	14	91	A
26	14	92	G
26	14	102	G
26	14	112	U
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	125	G
26	14	129	C
26	14	136	G
26	14	139	G
26	14	140	A
26	14	153	C
26	14	154	G
26	14	161	U
26	14	162	U

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Mol	Chain	Res	Type
26	14	172	C
26	14	173	G
26	14	175	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	223	A
26	14	225	A
26	14	228	A
26	14	229	A
26	14	233	A
26	14	245	G
26	14	248	G
26	14	249	C
26	14	252	G
26	14	266	G
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(P)	C
26	14	271(B)	G
26	14	271	G
26	14	273(D)	C
26	14	273(E)	U
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	286	C
26	14	289	A
26	14	299	A
26	14	302	C
26	14	311	A

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Mol	Chain	Res	Type
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	333	G
26	14	352	G
26	14	356	G
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	386	G
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	428	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	456	C
26	14	457	A
26	14	459	U
26	14	470	A
26	14	471	A
26	14	481	G
26	14	501	A
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G

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Mol	Chain	Res	Type
26	14	537	C
26	14	543	C
26	14	546	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	563	G
26	14	568	U
26	14	573	G
26	14	575	A
26	14	584	C
26	14	586	A
26	14	595	C
26	14	603	A
26	14	607	U
26	14	609(A)	G
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	618	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	637	A
26	14	646	A
26	14	651	G
26	14	654	A
26	14	654(D)	G
26	14	654(H)	G
26	14	654(I)	C
26	14	654(L)	G
26	14	654(N)	G
26	14	654(Q)	C
26	14	654(T)	A
26	14	668	G
26	14	669	G
26	14	677	A
26	14	686	G
26	14	701	G
26	14	711	G
26	14	717	G

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Mol	Chain	Res	Type
26	14	722	A
26	14	730	C
26	14	752	A
26	14	753	C
26	14	762	U
26	14	764	A
26	14	765	G
26	14	775	G
26	14	776	G
26	14	782	A
26	14	783	A
26	14	784	A
26	14	785	G
26	14	790	C
26	14	792	G
26	14	805	G
26	14	812	C
26	14	819	A
26	14	827	U
26	14	828	U
26	14	830	G
26	14	832	G
26	14	846	C
26	14	852	G
26	14	855	G
26	14	859	G
26	14	861	A
26	14	869	G
26	14	878	A
26	14	880	G
26	14	881	G
26	14	882	G
26	14	885	C
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	890	A
26	14	892	G
26	14	893	C
26	14	894	C
26	14	895	U

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Mol	Chain	Res	Type
26	14	896	A
26	14	897	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	904	C
26	14	910	A
26	14	911	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	918	A
26	14	919	G
26	14	924	C
26	14	932	G
26	14	933	A
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	965	C
26	14	974	G
26	14	978	G
26	14	980	A
26	14	982	C
26	14	983	A
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1009	A
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U

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Mol	Chain	Res	Type
26	14	1039	G
26	14	1044	G
26	14	1045	A
26	14	1046	A
26	14	1048	A
26	14	1049	C
26	14	1051	G
26	14	1054	A
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1063	G
26	14	1065	U
26	14	1066	U
26	14	1067	A
26	14	1068	G
26	14	1070	A
26	14	1073	A
26	14	1077	A
26	14	1079	C
26	14	1082	U
26	14	1083	U
26	14	1085	A
26	14	1086	A
26	14	1087	G
26	14	1088	A
26	14	1089	G
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1095	A
26	14	1096	A
26	14	1099	G
26	14	1105	U
26	14	1111	A
26	14	1112	G
26	14	1122	G
26	14	1126	A
26	14	1127	A
26	14	1128	A
26	14	1129	A
26	14	1130	U

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Mol	Chain	Res	Type
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1143	A
26	14	1151	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1186	G
26	14	1204	A
26	14	1205	U
26	14	1210	A
26	14	1212	G
26	14	1220	A
26	14	1236	G
26	14	1244	G
26	14	1253	A
26	14	1256	G
26	14	1265	A
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1278	A
26	14	1287	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1306	C
26	14	1307	A
26	14	1319	G
26	14	1321	A
26	14	1329	U
26	14	1332	G
26	14	1345	C
26	14	1349	A
26	14	1359	A
26	14	1365	A
26	14	1368	G

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Mol	Chain	Res	Type
26	14	1370	C
26	14	1380	G
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1407	C
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1428	C
26	14	1437	C
26	14	1441	G
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1455	G
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1461	G
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1480	G
26	14	1482	U
26	14	1483	G
26	14	1490	A
26	14	1493	C
26	14	1494	A
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1522	G
26	14	1529	A
26	14	1533	C
26	14	1534	G

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Mol	Chain	Res	Type
26	14	1535	U
26	14	1537	C
26	14	1543	A
26	14	1547	C
26	14	1554	A
26	14	1558	A
26	14	1559	G
26	14	1569	A
26	14	1577	C
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1587	A
26	14	1588	C
26	14	1598	C
26	14	1608	A
26	14	1609	A
26	14	1616	A
26	14	1631	A
26	14	1639	U
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1673	U
26	14	1674	G
26	14	1675	C
26	14	1679	U
26	14	1680	U
26	14	1695	G
26	14	1697	G
26	14	1700	A
26	14	1701	A
26	14	1725	G
26	14	1726	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1732	A
26	14	1742	C
26	14	1743	G
26	14	1756	G

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Mol	Chain	Res	Type
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1769	G
26	14	1773	A
26	14	1777	U
26	14	1780	A
26	14	1782	C
26	14	1787	A
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1812	A
26	14	1816	G
26	14	1820	U
26	14	1826	G
26	14	1829	A
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1878	G
26	14	1884	A
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1900	A
26	14	1903	G
26	14	1906	G
26	14	1909	C
26	14	1913	A
26	14	1917	U
26	14	1920	C
26	14	1929	G
26	14	1930	G
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1967	C
26	14	1969	A

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Mol	Chain	Res	Type
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1991	U
26	14	1992	G
26	14	1993	U
26	14	2005	A
26	14	2023	G
26	14	2025	C
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2043	C
26	14	2049	G
26	14	2051	A
26	14	2053	G
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2057	A
26	14	2059	A
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2076	U
26	14	2093	G
26	14	2100	G
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2113	U
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2125	G

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Mol	Chain	Res	Type
26	14	2126	A
26	14	2127	G
26	14	2129	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2136	C
26	14	2137	C
26	14	2138	C
26	14	2139	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2151	G
26	14	2155	G
26	14	2158	A
26	14	2160	G
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2166	G
26	14	2167	U
26	14	2168	G
26	14	2169	A
26	14	2171	A
26	14	2173	A
26	14	2174	C
26	14	2182	G
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C

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Mol	Chain	Res	Type
26	14	2228	G
26	14	2239	G
26	14	2245	U
26	14	2261	C
26	14	2268	A
26	14	2269	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2317	C
26	14	2318	G
26	14	2321	G
26	14	2325	G
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2345	G
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2383	G
26	14	2385	C
26	14	2389	G
26	14	2392	A
26	14	2396	G
26	14	2400	G
26	14	2401	U
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2410	G

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Mol	Chain	Res	Type
26	14	2414	G
26	14	2422	A
26	14	2423	U
26	14	2424	C
26	14	2425	A
26	14	2428	G
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2441	C
26	14	2448	A
26	14	2464	C
26	14	2469	A
26	14	2470	G
26	14	2475	C
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2480	C
26	14	2482	G
26	14	2483	C
26	14	2484	G
26	14	2494	G
26	14	2495	G
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2513	G
26	14	2518	A
26	14	2525	G
26	14	2532	G
26	14	2543	G
26	14	2554	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2585	U

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Mol	Chain	Res	Type
26	14	2591	C
26	14	2599	G
26	14	2601	C
26	14	2602	A
26	14	2609	U
26	14	2610	C
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2630	G
26	14	2636	U
26	14	2641	G
26	14	2646	C
26	14	2654	A
26	14	2660	A
26	14	2664	G
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2698	U
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2726	U
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2754	U
26	14	2757	A
26	14	2758	A
26	14	2759	G

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Mol	Chain	Res	Type
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2790	A
26	14	2791	C
26	14	2793	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2805	G
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2835	A
26	14	2849	U
26	14	2860	A
26	14	2861	G
26	14	2872	G
26	14	2873	A
26	14	2879	C
26	14	2894	G
26	14	2896	C
26	14	2898	U
26	14	2899	G
27	1J	0	A
27	1J	2	C
27	1J	5	C
27	1J	7	G
27	1J	8	U
27	1J	9	G
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	19	G

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Mol	Chain	Res	Type
27	1J	22	U
27	1J	25	A
27	1J	29	A
27	1J	34	U
27	1J	40	U
27	1J	41	U
27	1J	42	C
27	1J	45	A
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	73	A
27	1J	81	G
27	1J	82	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	91	C
27	1J	99	A
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	116	G
27	1J	118	G

All (196) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	50	A
1	13	115	G
1	13	181	G
1	13	189	U
1	13	244	U
1	13	251	G
1	13	266	G
1	13	412	A
1	13	429	U
1	13	484	G
1	13	560	U
1	13	748	C

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Mol	Chain	Res	Type
1	13	793	U
1	13	992	U
1	13	1025	U
1	13	1027	C
1	13	1053	G
1	13	1064	G
1	13	1065	U
1	13	1129	C
1	13	1145	C
1	13	1177	G
1	13	1285	A
1	13	1302	U
1	13	1336	C
1	13	1397	C
1	13	1452	C
1	13	1498	U
1	13	1503	A
1	13	1504	G
22	1K	18	G
23	2K	8	U
23	2K	18	OMG
23	2K	20	U
23	2K	36	A
23	2K	44	G
23	2K	62	G
23	2K	63	G
23	2K	73	C
24	3K	18	G
24	3K	46	G
24	3K	59	U
24	3K	69	A
26	1H	33	U
26	1H	196	A
26	1H	232	G
26	1H	271(B)	G
26	1H	334	C
26	1H	404	C
26	1H	481	G
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	668	G

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Mol	Chain	Res	Type
26	1H	746	A
26	1H	752	A
26	1H	764	A
26	1H	800	A
26	1H	845	G
26	1H	858	U
26	1H	859	G
26	1H	880	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1085	A
26	1H	1110	G
26	1H	1178	C
26	1H	1273	U
26	1H	1312	U
26	1H	1379	A
26	1H	1396	U
26	1H	1416	G
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1647	G
26	1H	1729	A
26	1H	1762	A
26	1H	1799	G
26	1H	1858	G
26	1H	1899	G
26	1H	1900	A
26	1H	2060	A
26	1H	2157	G
26	1H	2242	G
26	1H	2272	U
26	1H	2475	C
26	1H	2481	G
26	1H	2518	A
26	1H	2566	A
26	1H	2611	U
26	1H	2689	U
26	1H	2756	U
27	16	108	C

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Mol	Chain	Res	Type
1	1G	86	U
1	1G	115	G
1	1G	197	A
1	1G	243	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	412	A
1	1G	413	G
1	1G	429	U
1	1G	485	G
1	1G	509	A
1	1G	528	C
1	1G	560	U
1	1G	632	A
1	1G	687	A
1	1G	722	A
1	1G	723	U
1	1G	748	C
1	1G	812	C
1	1G	913	A
1	1G	992	U
1	1G	1025	U
1	1G	1053	G
1	1G	1094	G
1	1G	1126	U
1	1G	1128	C
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1297	C
1	1G	1298	C
1	1G	1300	G
1	1G	1305	G
1	1G	1346	A
1	1G	1453	G
1	1G	1498	U
22	1L	20	U
22	1L	21	A
22	1L	22	G
22	1L	48	C

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Mol	Chain	Res	Type
23	2L	8	U
23	2L	20	U
23	2L	32	C
23	2L	36	A
23	2L	44	G
23	2L	56	G
23	2L	63	G
23	2L	73	C
24	3L	17	U
24	3L	18	G
24	3L	59	U
24	3L	83	U
24	3L	84	A
26	14	4	C
26	14	34	C
26	14	49	A
26	14	101	G
26	14	128	C
26	14	278	A
26	14	456	C
26	14	503	A
26	14	545	G
26	14	669	G
26	14	752	A
26	14	764	A
26	14	774	A
26	14	776	G
26	14	827	U
26	14	1022	G
26	14	1085	A
26	14	1379	A
26	14	1396	U
26	14	1420	U
26	14	1558	A
26	14	1608	A
26	14	2135	A
26	14	2157	G
26	14	2210	G
26	14	2225	A
26	14	2275	C
26	14	2402	C
26	14	2406	U

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Mol	Chain	Res	Type
26	14	2423	U
26	14	2542	A
26	14	2612	C
26	14	2629	A
26	14	2689	U
26	14	2747	G
26	14	2756	U
26	14	2776	A
26	14	2778	A
26	14	2859	G
26	14	2893	G
27	1J	15	A
27	1J	44	G
27	1J	88	C
27	1J	89	G

5.4 Non-standard residues in protein, DNA, RNA chains (i)

20 non-standard protein/DNA/RNA residues are modelled in this entry.

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	$\#\|Z\| > 2$
22	1MG	1K	38	22	17,26,27	3.60	5 (29%)	19,39,42	2.38	2 (10%)
22	PSU	1K	39	22	15,21,22	0.94	1 (6%)	16,30,33	2.02	4 (25%)
22	5MU	1K	65	22	13,22,23	1.64	2 (15%)	16,32,35	1.44	1 (6%)
22	PSU	1K	66	22	15,21,22	1.09	1 (6%)	16,30,33	2.16	5 (31%)
22	1MG	1L	38	22	17,26,27	3.63	5 (29%)	19,39,42	2.29	1 (5%)
22	PSU	1L	39	22	15,21,22	1.09	2 (13%)	16,30,33	2.02	2 (12%)
22	5MU	1L	65	22	13,22,23	1.68	2 (15%)	16,32,35	1.33	1 (6%)
22	PSU	1L	66	22	15,21,22	0.92	1 (6%)	16,30,33	2.06	4 (25%)
23	H2U	2K	17	23	17,21,22	2.29	4 (23%)	23,30,33	3.03	4 (17%)
23	OMG	2K	18	23	18,26,27	5.80	6 (33%)	21,38,41	6.15	7 (33%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	1MG	2K	38	23	17,26,27	3.27	5 (29%)	19,39,42	2.02	3 (15%)
23	PSU	2K	39	23	15,21,22	0.93	1 (6%)	16,30,33	1.90	4 (25%)
23	5MU	2K	65	23	13,22,23	1.66	2 (15%)	16,32,35	1.41	1 (6%)
23	PSU	2K	66	23	15,21,22	1.17	2 (13%)	16,30,33	2.53	3 (18%)
23	H2U	2L	17	23	17,21,22	2.07	4 (23%)	23,30,33	2.79	5 (21%)
23	OMG	2L	18	23	18,26,27	5.76	6 (33%)	21,38,41	6.66	6 (28%)
23	1MG	2L	38	23	17,26,27	3.80	5 (29%)	19,39,42	2.51	3 (15%)
23	PSU	2L	39	23	15,21,22	0.97	1 (6%)	16,30,33	2.02	4 (25%)
23	5MU	2L	65	23	13,22,23	1.59	2 (15%)	16,32,35	1.45	1 (6%)
23	PSU	2L	66	23	15,21,22	1.08	1 (6%)	16,30,33	2.06	3 (18%)

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
22	1MG	1K	38	22	-	0/3/25/26	0/3/3/3
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
22	5MU	1K	65	22	-	0/3/25/26	0/2/2/2
22	PSU	1K	66	22	-	0/7/25/26	0/2/2/2
22	1MG	1L	38	22	-	0/3/25/26	0/3/3/3
22	PSU	1L	39	22	-	0/7/25/26	0/2/2/2
22	5MU	1L	65	22	-	0/3/25/26	0/2/2/2
22	PSU	1L	66	22	-	0/7/25/26	0/2/2/2
23	H2U	2K	17	23	-	0/7/38/39	0/2/2/2
23	OMG	2K	18	23	-	0/5/27/28	0/3/3/3
23	1MG	2K	38	23	-	0/3/25/26	0/3/3/3
23	PSU	2K	39	23	-	0/7/25/26	0/2/2/2
23	5MU	2K	65	23	-	0/3/25/26	0/2/2/2
23	PSU	2K	66	23	-	0/7/25/26	0/2/2/2
23	H2U	2L	17	23	-	0/7/38/39	0/2/2/2
23	OMG	2L	18	23	-	0/5/27/28	0/3/3/3
23	1MG	2L	38	23	-	0/3/25/26	0/3/3/3
23	PSU	2L	39	23	-	0/7/25/26	0/2/2/2
23	5MU	2L	65	23	-	0/3/25/26	0/2/2/2
23	PSU	2L	66	23	-	0/7/25/26	0/2/2/2

All (58) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	18	OMG	C8-N7	-13.70	1.08	1.34
23	2K	18	OMG	C8-N7	-13.11	1.09	1.34
23	2L	18	OMG	C6-N1	-4.43	1.25	1.33
23	2K	18	OMG	C6-N1	-4.22	1.25	1.33
23	2L	17	H2U	C6-N1	-3.98	1.42	1.47
23	2K	17	H2U	C6-N1	-3.63	1.42	1.47
22	1L	65	5MU	C4-N3	-3.31	1.27	1.33
23	2K	65	5MU	C4-N3	-3.10	1.27	1.33
23	2L	65	5MU	C4-N3	-2.83	1.27	1.33
22	1K	65	5MU	C4-N3	-2.73	1.28	1.33
23	2L	18	OMG	O6-C6	-2.52	1.18	1.24
23	2K	18	OMG	O6-C6	-2.39	1.18	1.24
23	2K	66	PSU	C6-C5	2.00	1.41	1.38
22	1L	39	PSU	C5-C1'	2.01	1.54	1.52
23	2K	38	1MG	C6-N1	2.02	1.41	1.38
22	1K	39	PSU	C4-N3	2.51	1.37	1.33
22	1L	39	PSU	C4-N3	2.80	1.38	1.33
23	2K	39	PSU	C4-N3	2.83	1.38	1.33
22	1L	66	PSU	C4-N3	2.88	1.38	1.33
23	2L	39	PSU	C4-N3	3.12	1.38	1.33
22	1K	66	PSU	C4-N3	3.21	1.38	1.33
23	2K	18	OMG	C2-N2	3.22	1.40	1.34
22	1L	38	1MG	C6-N1	3.35	1.43	1.38
23	2L	66	PSU	C4-N3	3.38	1.39	1.33
22	1K	38	1MG	C6-N1	3.41	1.43	1.38
23	2K	66	PSU	C4-N3	3.44	1.39	1.33
23	2K	17	H2U	C2-N3	3.54	1.44	1.38
23	2L	17	H2U	C2-N3	3.55	1.44	1.38
23	2L	17	H2U	C4-N3	3.66	1.43	1.37
23	2L	18	OMG	C2-N2	3.69	1.41	1.34
23	2L	38	1MG	C6-N1	3.69	1.43	1.38
23	2K	17	H2U	C4-N3	3.80	1.43	1.37
23	2L	65	5MU	C2-N3	4.55	1.47	1.38
23	2K	65	5MU	C2-N3	4.64	1.47	1.38
22	1L	65	5MU	C2-N3	4.65	1.47	1.38
22	1K	65	5MU	C2-N3	4.80	1.48	1.38
23	2L	17	H2U	C2-N1	4.97	1.43	1.35
22	1L	38	1MG	C2-N2	5.05	1.44	1.33
23	2K	38	1MG	C2-N2	5.08	1.44	1.33
22	1K	38	1MG	C2-N2	5.16	1.44	1.33
23	2L	38	1MG	C2-N2	5.29	1.44	1.33
23	2K	38	1MG	C6-C5	6.23	1.52	1.40
23	2K	17	H2U	C2-N1	6.37	1.45	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	38	1MG	C4-N3	6.59	1.46	1.35
22	1K	38	1MG	C6-C5	6.65	1.53	1.40
22	1L	38	1MG	C6-C5	6.68	1.53	1.40
23	2L	38	1MG	C6-C5	7.03	1.54	1.40
22	1K	38	1MG	C4-N3	7.39	1.47	1.35
22	1L	38	1MG	C4-N3	7.86	1.48	1.35
23	2K	38	1MG	C2-N3	7.94	1.46	1.34
23	2L	38	1MG	C4-N3	8.19	1.48	1.35
22	1L	38	1MG	C2-N3	8.59	1.47	1.34
22	1K	38	1MG	C2-N3	8.60	1.47	1.34
23	2L	38	1MG	C2-N3	8.94	1.47	1.34
23	2L	18	OMG	C5-C4	9.77	1.62	1.40
23	2K	18	OMG	C5-C4	9.85	1.62	1.40
23	2L	18	OMG	C4-N3	16.34	1.61	1.35
23	2K	18	OMG	C4-N3	17.25	1.63	1.35

All (64) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	18	OMG	C6-C5-C4	-11.81	107.37	120.86
23	2K	18	OMG	C6-C5-C4	-11.40	107.84	120.86
23	2L	38	1MG	C1'-N9-C4	-10.07	115.57	126.81
22	1K	38	1MG	C1'-N9-C4	-9.55	116.15	126.81
22	1L	38	1MG	C1'-N9-C4	-9.27	116.46	126.81
23	2K	38	1MG	C1'-N9-C4	-7.77	118.13	126.81
23	2K	17	H2U	C4-N3-C2	-7.38	119.08	125.77
23	2L	18	OMG	N3-C2-N1	-6.91	118.16	127.56
23	2L	17	H2U	C4-N3-C2	-6.77	119.63	125.77
23	2K	18	OMG	N3-C2-N1	-6.63	118.54	127.56
23	2K	66	PSU	C5-C1'-C2'	-5.07	106.82	115.44
23	2L	39	PSU	C5-C1'-C2'	-4.07	108.52	115.44
22	1K	66	PSU	C5-C1'-C2'	-3.62	109.28	115.44
22	1L	66	PSU	C5-C1'-C2'	-3.46	109.56	115.44
23	2K	39	PSU	C5-C1'-C2'	-3.21	109.99	115.44
23	2L	39	PSU	C5-C6-N1	-3.12	120.03	124.38
23	2K	39	PSU	C5-C6-N1	-2.90	120.33	124.38
22	1L	66	PSU	C5-C6-N1	-2.78	120.50	124.38
23	2K	18	OMG	C4'-O4'-C1'	-2.69	106.79	109.64
23	2L	38	1MG	N3-C2-N1	-2.58	119.93	124.16
22	1K	39	PSU	C5-C6-N1	-2.53	120.85	124.38
22	1K	66	PSU	C5-C6-N1	-2.47	120.94	124.38
23	2L	17	H2U	O2-C2-N1	-2.43	119.99	123.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	38	1MG	N3-C2-N1	-2.39	120.23	124.16
22	1K	39	PSU	C5-C1'-C2'	-2.36	111.43	115.44
23	2L	66	PSU	C5-C6-N1	-2.36	121.10	124.38
22	1K	38	1MG	N3-C2-N1	-2.21	120.54	124.16
22	1K	66	PSU	O2'-C2'-C1'	-2.02	107.53	111.93
23	2L	18	OMG	N2-C2-N1	2.10	120.66	117.20
23	2K	66	PSU	O4'-C1'-C2'	2.14	107.01	104.69
22	1K	66	PSU	O4'-C1'-C2'	2.22	107.09	104.69
23	2L	38	1MG	N2-C2-N3	2.26	121.43	117.47
23	2K	39	PSU	O4'-C1'-C2'	2.34	107.22	104.69
22	1L	39	PSU	O4'-C1'-C2'	2.41	107.30	104.69
23	2K	38	1MG	N2-C2-N3	2.52	121.88	117.47
22	1L	66	PSU	O4'-C1'-C2'	2.61	107.52	104.69
23	2K	18	OMG	N2-C2-N1	2.67	121.61	117.20
23	2L	66	PSU	O4'-C1'-C2'	2.68	107.58	104.69
23	2L	39	PSU	O4'-C1'-C2'	2.74	107.66	104.69
22	1K	39	PSU	O4'-C1'-C2'	2.89	107.82	104.69
23	2L	17	H2U	N3-C2-N1	4.31	120.63	116.64
23	2K	17	H2U	N3-C2-N1	4.35	120.67	116.64
23	2K	18	OMG	C5-C6-N1	4.38	129.25	123.52
23	2L	17	H2U	C5-C4-N3	4.62	121.49	116.62
23	2L	18	OMG	C5-C6-N1	4.66	129.62	123.52
23	2L	65	5MU	C4-N3-C2	4.81	119.17	115.16
22	1L	65	5MU	C4-N3-C2	4.82	119.18	115.16
23	2K	65	5MU	C4-N3-C2	4.91	119.25	115.16
23	2L	39	PSU	C4-N3-C2	4.98	119.31	115.16
22	1K	65	5MU	C4-N3-C2	5.01	119.34	115.16
23	2K	39	PSU	C4-N3-C2	5.09	119.41	115.16
23	2K	17	H2U	C5-C4-N3	5.61	122.54	116.62
22	1L	66	PSU	C4-N3-C2	5.95	120.12	115.16
22	1K	39	PSU	C4-N3-C2	6.34	120.45	115.16
22	1K	66	PSU	C4-N3-C2	6.37	120.47	115.16
23	2L	66	PSU	C4-N3-C2	6.90	120.92	115.16
22	1L	39	PSU	C4-N3-C2	6.99	120.99	115.16
23	2K	66	PSU	C4-N3-C2	7.87	121.72	115.16
23	2L	17	H2U	C5-C6-N1	8.94	120.56	110.76
23	2K	17	H2U	C5-C6-N1	9.50	121.17	110.76
23	2K	18	OMG	C6-N1-C2	12.82	130.90	115.88
23	2L	18	OMG	C6-N1-C2	12.98	131.09	115.88
23	2K	18	OMG	C1'-N9-C4	20.29	149.45	126.81
23	2L	18	OMG	C1'-N9-C4	23.23	152.73	126.81

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

10 monomers are involved in 13 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	39	PSU	1	0
22	1L	65	5MU	2	0
23	2K	17	H2U	1	0
23	2K	18	OMG	2	0
23	2K	38	1MG	1	0
23	2L	18	OMG	2	0
23	2L	38	1MG	2	0
23	2L	39	PSU	2	0
23	2L	65	5MU	2	0
23	2L	66	PSU	2	0

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 1340 ligands modelled in this entry, 1340 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
25	4K	1
25	4L	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4K	38:U	O3'	44:U	P	28.59
1	4L	40:U	O3'	44:U	P	16.09

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	13	1507/1522 (99%)	-0.64	0 100 100	70, 113, 194, 267	0
1	1G	1513/1522 (99%)	-0.67	1 (0%) 95 96	79, 120, 189, 288	0
2	12	237/256 (92%)	0.57	25 (10%) 8 7	133, 170, 199, 207	0
2	1E	237/256 (92%)	0.36	15 (6%) 23 19	116, 156, 187, 198	0
3	22	206/239 (86%)	1.52	68 (33%) 0 1	128, 150, 185, 189	0
3	2E	205/239 (85%)	0.66	20 (9%) 10 8	94, 120, 157, 169	0
4	32	208/209 (99%)	0.80	20 (9%) 10 9	100, 121, 146, 158	0
4	3E	208/209 (99%)	0.23	3 (1%) 78 73	91, 113, 135, 145	0
5	42	151/162 (93%)	0.52	11 (7%) 18 15	105, 124, 142, 169	0
5	4E	151/162 (93%)	0.36	7 (4%) 36 30	89, 108, 128, 159	0
6	52	101/101 (100%)	0.27	0 100 100	87, 107, 126, 138	0
6	5E	101/101 (100%)	0.55	6 (5%) 26 20	87, 109, 129, 140	0
7	62	147/156 (94%)	0.51	11 (7%) 17 14	123, 138, 159, 171	0
7	6E	144/156 (92%)	0.40	4 (2%) 56 50	118, 136, 154, 175	0
8	72	138/138 (100%)	0.70	13 (9%) 11 9	100, 125, 141, 147	0
8	7E	138/138 (100%)	0.45	6 (4%) 39 32	97, 116, 130, 141	0
9	82	124/128 (96%)	0.31	4 (3%) 51 44	112, 154, 172, 181	0
9	8E	127/128 (99%)	-0.02	2 (1%) 74 69	105, 145, 167, 173	0
10	1A	99/105 (94%)	0.94	16 (16%) 3 2	126, 158, 184, 196	0
10	1I	99/105 (94%)	1.07	17 (17%) 2 2	96, 144, 175, 179	0
11	2A	116/129 (89%)	1.14	20 (17%) 2 2	92, 114, 138, 155	0
11	2I	116/129 (89%)	0.96	22 (18%) 2 1	86, 117, 142, 184	0
12	3A	125/132 (94%)	1.18	35 (28%) 1 1	91, 108, 136, 189	0
12	3I	122/132 (92%)	0.49	5 (4%) 41 34	78, 86, 112, 144	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	116/126 (92%)	0.98	18 (15%) 3 2	128, 165, 190, 202	0
13	4I	116/126 (92%)	0.96	18 (15%) 3 2	106, 146, 164, 175	0
14	5A	58/61 (95%)	1.29	21 (36%) 0 1	131, 143, 165, 167	0
14	5I	60/61 (98%)	0.02	1 (1%) 73 67	98, 110, 131, 142	0
15	6A	88/89 (98%)	0.26	4 (4%) 37 30	90, 113, 134, 136	0
15	6I	88/89 (98%)	0.34	4 (4%) 37 30	87, 108, 130, 139	0
16	7A	84/88 (95%)	0.42	4 (4%) 34 28	93, 108, 135, 169	0
16	7I	84/88 (95%)	0.82	15 (17%) 2 1	108, 120, 155, 187	0
17	8A	99/105 (94%)	0.52	9 (9%) 11 9	98, 112, 126, 131	0
17	8I	100/105 (95%)	0.12	3 (3%) 54 47	95, 113, 129, 133	0
18	9A	69/88 (78%)	1.37	16 (23%) 1 1	93, 115, 139, 172	0
18	9I	67/88 (76%)	1.47	21 (31%) 1 1	93, 111, 135, 144	0
19	AA	78/93 (83%)	1.43	25 (32%) 1 1	150, 182, 201, 206	0
19	AI	80/93 (86%)	1.02	18 (22%) 1 1	116, 149, 171, 175	0
20	BA	99/106 (93%)	0.08	1 (1%) 84 80	90, 115, 143, 158	0
20	BI	99/106 (93%)	0.36	3 (3%) 54 47	113, 132, 170, 175	0
21	1B	25/27 (92%)	0.98	6 (24%) 1 1	121, 142, 155, 172	0
21	1F	23/27 (85%)	0.24	0 100 100	115, 129, 133, 136	0
22	1K	83/87 (95%)	0.02	5 (6%) 25 20	95, 175, 257, 267	0
22	1L	83/87 (95%)	0.62	12 (14%) 3 3	111, 193, 298, 318	0
23	2K	73/87 (83%)	-0.06	4 (5%) 29 23	90, 130, 190, 235	0
23	2L	74/87 (85%)	0.21	5 (6%) 20 17	89, 140, 212, 243	0
24	3K	77/87 (88%)	0.04	3 (3%) 43 36	82, 248, 274, 282	0
24	3L	75/87 (86%)	-0.21	3 (4%) 42 34	82, 207, 221, 226	0
25	4K	16/60 (26%)	0.02	0 100 100	89, 147, 205, 218	0
25	4L	21/60 (35%)	0.16	2 (9%) 10 9	105, 147, 219, 221	0
26	14	2909/2917 (99%)	-0.35	35 (1%) 81 76	61, 91, 244, 328	0
26	1H	2912/2917 (99%)	-0.40	23 (0%) 87 84	55, 86, 243, 301	0
27	16	122/122 (100%)	-0.71	0 100 100	87, 113, 138, 224	0
27	1J	122/122 (100%)	-0.68	0 100 100	92, 126, 154, 207	0
28	11	273/276 (98%)	0.30	4 (1%) 76 71	55, 76, 93, 103	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	19	273/276 (98%)	0.53	11 (4%) 42 34	60, 81, 97, 113	0
29	21	205/206 (99%)	0.72	23 (11%) 7 5	63, 98, 141, 156	0
29	29	205/206 (99%)	0.68	18 (8%) 12 10	68, 96, 137, 158	0
30	31	202/210 (96%)	0.23	8 (3%) 42 34	59, 88, 127, 140	0
30	39	208/210 (99%)	0.59	12 (5%) 26 21	67, 106, 167, 200	0
31	41	181/182 (99%)	1.48	54 (29%) 1 1	113, 144, 175, 183	0
31	49	181/182 (99%)	1.84	68 (37%) 0 1	131, 162, 190, 207	0
32	51	174/180 (96%)	0.44	17 (9%) 10 8	93, 118, 133, 143	0
32	59	170/180 (94%)	1.33	48 (28%) 1 1	154, 211, 241, 256	0
33	61	146/148 (98%)	0.73	21 (14%) 3 3	86, 134, 157, 167	0
33	69	146/148 (98%)	1.09	38 (26%) 1 1	90, 135, 158, 166	0
34	15	138/140 (98%)	0.64	9 (6%) 22 18	79, 105, 142, 157	0
34	58	138/140 (98%)	0.48	12 (8%) 13 10	78, 100, 136, 154	0
35	25	122/122 (100%)	0.63	8 (6%) 22 17	77, 93, 110, 116	0
35	68	122/122 (100%)	0.72	7 (5%) 27 22	66, 89, 105, 114	0
36	35	150/150 (100%)	0.68	16 (10%) 8 6	68, 107, 146, 170	0
36	78	147/150 (98%)	-0.08	0 100 100	64, 92, 114, 126	0
37	45	140/141 (99%)	1.24	32 (22%) 1 1	77, 106, 132, 154	0
37	88	141/141 (100%)	1.02	26 (18%) 2 1	73, 95, 118, 143	0
38	55	117/118 (99%)	0.30	3 (2%) 59 53	68, 86, 107, 119	0
38	98	118/118 (100%)	0.56	5 (4%) 40 33	76, 94, 113, 126	0
39	65	111/112 (99%)	0.92	16 (14%) 3 3	91, 117, 141, 150	0
39	A8	111/112 (99%)	0.76	14 (12%) 5 4	90, 107, 127, 141	0
40	75	137/146 (93%)	0.12	2 (1%) 76 71	83, 101, 163, 193	0
40	B8	129/146 (88%)	0.44	6 (4%) 35 29	84, 103, 135, 159	0
41	85	117/118 (99%)	0.27	6 (5%) 32 25	69, 93, 134, 152	0
41	C8	117/118 (99%)	0.34	2 (1%) 73 67	65, 89, 124, 139	0
42	95	101/101 (100%)	0.58	7 (6%) 20 16	70, 121, 143, 174	0
42	D8	101/101 (100%)	1.00	15 (14%) 3 2	69, 110, 140, 150	0
43	A5	113/113 (100%)	0.61	6 (5%) 30 24	68, 80, 112, 185	0
43	E8	112/113 (99%)	0.65	6 (5%) 29 24	72, 84, 120, 154	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B5	92/96 (95%)	0.43	4 (4%) 39 32	76, 92, 116, 127	0
44	F8	94/96 (97%)	0.65	8 (8%) 13 10	67, 81, 107, 132	0
45	C5	104/110 (94%)	1.26	22 (21%) 1 1	96, 121, 156, 170	0
45	G8	103/110 (93%)	0.32	2 (1%) 70 63	83, 103, 144, 153	0
46	D5	135/206 (65%)	1.58	47 (34%) 0 1	110, 142, 177, 191	0
46	H8	171/206 (83%)	1.04	26 (15%) 3 2	100, 140, 212, 221	0
47	E5	80/85 (94%)	0.89	12 (15%) 3 2	76, 92, 114, 143	0
47	I8	83/85 (97%)	0.75	9 (10%) 8 6	75, 88, 104, 115	0
48	F5	94/98 (95%)	0.56	6 (6%) 23 19	70, 88, 127, 146	0
48	J8	95/98 (96%)	1.02	19 (20%) 1 1	67, 85, 135, 140	0
49	G5	67/72 (93%)	0.51	3 (4%) 37 30	90, 112, 131, 146	0
49	K8	68/72 (94%)	0.23	2 (2%) 55 49	71, 90, 105, 126	0
50	H5	59/60 (98%)	0.57	5 (8%) 13 10	85, 101, 151, 166	0
50	L8	57/60 (95%)	0.29	2 (3%) 48 40	76, 94, 117, 137	0
51	I5	63/71 (88%)	2.59	38 (60%) 0 0	157, 205, 225, 231	0
51	M8	66/71 (92%)	2.18	35 (53%) 0 0	142, 184, 199, 204	0
52	J5	56/60 (93%)	0.06	1 (1%) 71 65	63, 85, 141, 149	0
52	N8	55/60 (91%)	0.80	9 (16%) 2 2	60, 100, 170, 184	0
53	L5	47/49 (95%)	0.05	1 (2%) 67 60	64, 69, 88, 95	0
53	P8	47/49 (95%)	-0.08	2 (4%) 39 32	57, 64, 82, 108	0
54	M5	53/65 (81%)	0.87	7 (13%) 4 3	68, 83, 101, 111	0
54	Q8	60/65 (92%)	0.29	2 (3%) 50 43	69, 84, 110, 124	0
All	All	20915/21710 (96%)	0.17	1392 (6%) 21 17	55, 108, 195, 328	0

All (1392) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
31	41	2	PRO	12.7
26	14	2902	C	11.9
26	14	2797	U	10.2
36	35	150	ALA	9.4
12	3A	128	ALA	9.3
26	14	2798	C	9.3
43	A5	113	LYS	8.9

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Mol	Chain	Res	Type	RSRZ
13	4A	2	ALA	8.7
30	39	1	MET	8.5
13	4A	7	VAL	8.0
11	2I	12	ARG	7.9
26	14	2901	C	7.5
13	4A	4	ILE	7.5
26	14	654(J)	A	7.5
26	14	2	G	7.4
18	9A	88	LYS	7.2
26	14	1	G	7.1
45	C5	58	GLY	7.1
31	41	142	PRO	7.1
46	D5	2	GLU	7.1
31	49	182	LYS	6.9
43	A5	112	GLY	6.9
31	49	137	GLU	6.7
51	M8	55	ARG	6.6
13	4A	5	ALA	6.6
31	41	137	GLU	6.5
32	59	103	LEU	6.4
12	3A	64	TYR	6.4
46	D5	1	MET	6.3
33	61	146	ALA	6.3
51	M8	52	THR	6.3
22	1L	51	A	6.3
3	22	207	VAL	6.2
31	49	139	LEU	6.2
51	I5	40	HIS	6.2
22	1L	53	A	6.1
45	C5	59	GLY	6.0
26	14	654(K)	C	6.0
51	I5	9	LEU	6.0
51	I5	42	PHE	5.9
23	2L	56	G	5.8
30	39	12	LEU	5.8
26	14	2900	A	5.8
42	D8	36	PRO	5.8
26	14	2799	A	5.7
3	22	143	GLU	5.7
31	49	116	ASP	5.7
26	14	2795	G	5.7
52	N8	57	VAL	5.7

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Mol	Chain	Res	Type	RSRZ
32	59	105	LEU	5.6
40	B8	1	MET	5.6
2	12	115	LEU	5.6
14	5A	39	LEU	5.6
13	4I	5	ALA	5.5
26	1H	1	G	5.5
3	22	199	LYS	5.4
51	I5	5	ILE	5.4
31	49	145	THR	5.4
51	I5	39	CYS	5.4
31	49	178	PHE	5.4
46	D5	96	VAL	5.3
13	4I	6	GLY	5.3
26	1H	654(K)	C	5.3
51	I5	46	GLN	5.3
14	5A	53	LEU	5.3
32	59	115	VAL	5.3
14	5A	52	GLN	5.3
31	49	138	GLN	5.2
31	49	90	LEU	5.2
51	M8	13	ARG	5.2
26	1H	2902	C	5.2
51	M8	30	GLU	5.1
22	1L	52	U	5.1
13	4A	9	ILE	5.1
39	A8	2	ALA	5.1
32	59	4	ILE	5.1
3	22	108	ASN	5.0
48	J8	95	LEU	5.0
46	H8	155	LEU	5.0
13	4A	6	GLY	5.0
51	I5	29	PRO	5.0
31	49	177	GLY	5.0
37	45	68	ILE	5.0
29	21	205	ALA	4.9
41	C8	117	GLN	4.9
46	H8	1	MET	4.9
26	14	654(L)	G	4.9
48	J8	91	LYS	4.9
31	41	75	LYS	4.8
6	5E	101	ALA	4.8
11	2A	12	ARG	4.8

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Mol	Chain	Res	Type	RSRZ
51	I5	10	VAL	4.8
32	59	107	VAL	4.8
2	12	5	ILE	4.8
31	41	138	GLN	4.8
12	3A	129	ALA	4.7
51	M8	42	PHE	4.7
23	2L	47	C	4.7
51	M8	32	TYR	4.7
19	AA	62	ILE	4.7
31	49	108	ASN	4.7
51	M8	40	HIS	4.7
36	35	149	GLU	4.7
37	88	25	ASP	4.7
3	22	204	LEU	4.6
46	D5	95	PRO	4.6
51	I5	45	GLY	4.6
6	5E	46	ARG	4.6
46	D5	163	LEU	4.6
18	9A	85	LEU	4.6
12	3A	127	GLU	4.6
3	22	101	LEU	4.5
46	D5	68	PRO	4.5
51	M8	31	ILE	4.5
42	D8	38	LEU	4.5
54	Q8	34	TRP	4.5
48	J8	96	LYS	4.5
32	59	93	GLY	4.5
46	D5	53	ILE	4.5
3	22	206	GLU	4.5
31	49	97	ASP	4.5
13	4A	3	ARG	4.4
26	14	2801	A	4.4
46	H8	95	PRO	4.4
3	22	155	GLY	4.4
19	AI	61	TYR	4.4
26	14	3	U	4.4
3	22	87	LEU	4.4
51	I5	27	THR	4.4
10	1A	64	GLU	4.4
47	I8	3	HIS	4.4
47	E5	76	GLY	4.4
3	22	68	VAL	4.3

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Mol	Chain	Res	Type	RSRZ
30	31	6	VAL	4.3
35	25	1	MET	4.3
46	D5	55	HIS	4.3
36	35	110	TYR	4.3
46	D5	69	THR	4.3
29	29	70	ALA	4.3
37	45	60	ARG	4.3
32	59	106	THR	4.3
32	59	100	GLY	4.3
33	69	18	VAL	4.3
51	I5	31	ILE	4.3
51	I5	32	TYR	4.3
45	C5	55	TYR	4.3
31	49	179	PRO	4.3
45	C5	53	PRO	4.3
11	2I	11	LYS	4.3
31	41	182	LYS	4.3
46	D5	52	SER	4.3
33	69	72	LEU	4.3
3	22	146	ALA	4.3
12	3A	28	LYS	4.2
31	49	146	TYR	4.2
31	49	180	PHE	4.2
22	1K	17	U	4.2
49	K8	43	GLN	4.2
19	AA	67	VAL	4.2
38	55	69	ASP	4.2
3	22	104	GLN	4.2
46	D5	91	LEU	4.2
51	I5	36	CYS	4.2
51	I5	44	THR	4.2
46	H8	113	ALA	4.2
31	49	41	GLN	4.2
3	22	10	PHE	4.2
39	65	108	GLY	4.2
19	AI	78	ARG	4.2
51	I5	28	LYS	4.1
46	D5	134	PRO	4.1
33	69	139	GLN	4.1
3	22	147	LYS	4.1
13	4I	7	VAL	4.1
36	35	148	LEU	4.1

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Mol	Chain	Res	Type	RSRZ
33	69	11	ASN	4.1
29	29	69	LYS	4.1
29	29	205	ALA	4.1
2	1E	31	TYR	4.1
31	49	181	ARG	4.0
48	J8	92	LYS	4.0
45	C5	90	LEU	4.0
10	1I	101	VAL	4.0
3	22	144	SER	4.0
31	41	34	LEU	4.0
31	41	90	LEU	4.0
26	14	4	C	4.0
32	59	46	GLU	4.0
14	5A	37	PHE	4.0
5	42	155	GLU	4.0
11	2I	13	GLN	4.0
29	29	54	GLN	4.0
18	9A	46	GLU	4.0
18	9A	42	ARG	4.0
40	75	6	LEU	4.0
11	2A	110	ASP	4.0
33	61	113	ARG	4.0
30	39	172	TRP	4.0
3	22	17	ASP	4.0
51	M8	29	PRO	4.0
31	49	48	GLU	4.0
10	1A	88	LEU	4.0
46	H8	96	VAL	4.0
18	9A	43	PHE	4.0
19	AA	49	ILE	4.0
31	49	136	ARG	4.0
12	3A	32	PHE	4.0
22	1L	17	U	4.0
16	7I	53	VAL	4.0
46	H8	5	LEU	4.0
23	2L	48	C	3.9
26	14	1509	C	3.9
10	1I	98	ILE	3.9
32	59	39	PRO	3.9
32	59	114	VAL	3.9
15	6A	15	PHE	3.9
51	I5	54	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
46	D5	137	ILE	3.9
37	45	61	GLY	3.9
4	32	110	PHE	3.9
3	22	107	GLN	3.9
33	69	12	LEU	3.9
39	65	33	LYS	3.9
45	C5	50	ARG	3.9
33	61	118	LYS	3.9
31	41	88	ILE	3.8
3	22	12	LEU	3.8
4	32	134	ASP	3.8
42	95	36	PRO	3.8
19	AA	9	VAL	3.8
48	J8	80	LEU	3.8
18	9I	42	ARG	3.8
32	59	164	TYR	3.8
39	A8	41	ASP	3.8
33	69	3	VAL	3.8
48	J8	94	LEU	3.8
39	65	37	ALA	3.8
46	D5	93	ASP	3.8
3	22	203	PHE	3.8
5	42	6	PHE	3.8
31	49	120	LEU	3.8
2	12	165	VAL	3.8
19	AA	71	LEU	3.8
3	22	198	VAL	3.8
11	2A	50	TYR	3.8
46	D5	50	GLN	3.7
31	41	146	TYR	3.7
39	65	87	PHE	3.7
46	D5	138	GLU	3.7
32	59	117	PRO	3.7
26	1H	896	A	3.7
13	4A	97	PRO	3.7
2	1E	229	VAL	3.7
37	45	104	PHE	3.7
3	22	55	VAL	3.7
48	J8	93	GLU	3.7
32	59	84	SER	3.7
31	49	87	PRO	3.7
2	12	134	GLU	3.7

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Mol	Chain	Res	Type	RSRZ
26	14	888	C	3.7
51	I5	30	GLU	3.7
31	41	94	LEU	3.7
31	49	39	ILE	3.7
4	32	133	VAL	3.7
8	72	44	PHE	3.7
33	69	85	GLU	3.7
37	45	140	ALA	3.7
20	BI	18	GLN	3.7
37	88	104	PHE	3.7
48	J8	70	VAL	3.7
45	C5	29	GLU	3.7
13	4A	87	TYR	3.7
2	12	112	VAL	3.7
22	1L	57	C	3.7
18	9I	26	LEU	3.7
39	A8	49	VAL	3.7
48	J8	69	LYS	3.7
10	1I	6	ILE	3.7
46	D5	54	HIS	3.7
7	6E	5	ARG	3.7
51	M8	28	LYS	3.7
26	14	654(I)	C	3.7
34	15	51	PHE	3.7
29	21	196	VAL	3.7
19	AA	47	HIS	3.6
11	2A	89	ALA	3.6
36	35	95	VAL	3.6
3	22	105	GLU	3.6
6	5E	57	GLN	3.6
43	E8	111	HIS	3.6
32	51	123	PHE	3.6
30	39	2	LYS	3.6
31	49	34	LEU	3.6
31	49	135	LEU	3.6
37	45	103	MET	3.6
51	M8	58	ARG	3.6
26	1H	2476	A	3.6
19	AI	48	THR	3.6
3	22	16	ARG	3.6
7	62	86	GLN	3.6
37	45	7	MET	3.6

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Mol	Chain	Res	Type	RSRZ
19	AI	41	VAL	3.6
43	E8	24	ILE	3.6
31	41	150	ASP	3.6
44	B5	92	LEU	3.6
14	5A	50	LYS	3.6
18	9A	26	LEU	3.6
39	65	60	GLY	3.6
13	4A	102	ARG	3.5
17	8A	7	THR	3.5
31	49	62	LEU	3.5
3	22	109	PRO	3.5
13	4I	8	GLU	3.5
32	59	17	VAL	3.5
14	5A	38	GLY	3.5
47	I8	2	ALA	3.5
37	88	105	GLU	3.5
3	22	53	ALA	3.5
16	7I	32	TYR	3.5
13	4I	96	LEU	3.5
34	15	1	MET	3.5
10	1I	94	VAL	3.5
37	45	129	THR	3.5
4	32	69	GLY	3.5
19	AI	44	MET	3.5
31	41	139	LEU	3.5
31	49	175	LEU	3.5
2	12	163	PHE	3.5
26	1H	2900	A	3.5
26	1H	163	U	3.5
51	M8	25	TYR	3.5
3	2E	66	VAL	3.5
3	22	172	ARG	3.5
51	I5	47	GLN	3.5
10	1A	65	LEU	3.5
19	AA	30	LEU	3.5
2	12	240	GLN	3.5
42	D8	98	GLU	3.5
19	AI	76	PRO	3.5
17	8A	22	LEU	3.5
31	41	52	ILE	3.5
14	5A	51	GLY	3.5
31	49	147	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
46	H8	147	GLY	3.4
33	61	70	GLU	3.4
3	22	142	MET	3.4
37	45	130	LYS	3.4
10	1I	8	LEU	3.4
26	1H	888	C	3.4
51	M8	66	SER	3.4
18	9A	87	ARG	3.4
46	D5	51	ALA	3.4
31	41	72	ARG	3.4
3	22	154	SER	3.4
18	9A	44	LEU	3.4
33	69	116	LEU	3.4
12	3A	55	VAL	3.4
31	49	58	GLN	3.4
6	5E	55	ASP	3.4
26	1H	2901	C	3.4
29	29	96	PHE	3.4
26	14	654(O)	G	3.4
37	88	33	GLY	3.4
3	22	103	VAL	3.4
37	88	99	PRO	3.4
39	A8	112	PHE	3.4
36	35	144	GLU	3.4
36	35	123	LEU	3.3
33	61	122	GLU	3.3
7	62	85	TYR	3.3
12	3I	64	TYR	3.3
12	3A	87	GLY	3.3
37	45	105	GLU	3.3
18	9I	78	LEU	3.3
11	2I	31	THR	3.3
12	3A	69	TYR	3.3
42	95	12	TYR	3.3
14	5A	56	VAL	3.3
28	19	2	ALA	3.3
39	65	112	PHE	3.3
4	32	23	GLY	3.3
32	59	101	ARG	3.3
19	AA	82	GLY	3.3
2	12	116	GLU	3.3
10	1I	5	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
3	22	166	GLU	3.3
31	41	143	GLU	3.3
31	49	142	PRO	3.3
11	2A	13	GLN	3.3
37	45	69	PHE	3.3
26	1H	654(L)	G	3.3
42	D8	99	ILE	3.3
51	I5	34	GLU	3.3
30	39	208	GLY	3.3
18	9I	28	GLU	3.2
12	3A	68	ALA	3.2
4	3E	110	PHE	3.2
32	59	169	VAL	3.2
36	35	118	GLY	3.2
2	12	4	GLU	3.2
7	62	38	LEU	3.2
51	I5	24	THR	3.2
22	1K	84	A	3.2
41	85	90	VAL	3.2
51	M8	65	ASP	3.2
26	1H	4	C	3.2
33	69	17	GLN	3.2
23	2K	1	G	3.2
10	1I	95	GLU	3.2
41	85	69	CYS	3.2
46	H8	128	VAL	3.2
46	H8	149	SER	3.2
32	59	34	GLU	3.2
37	88	38	GLU	3.2
45	C5	46	LYS	3.2
13	4A	66	LEU	3.2
3	22	106	VAL	3.2
18	9A	84	LYS	3.2
31	41	153	ARG	3.2
17	8A	11	VAL	3.2
19	AA	41	VAL	3.2
16	7I	49	LEU	3.2
28	19	147	LEU	3.2
51	I5	52	THR	3.2
18	9I	21	LYS	3.2
31	41	23	PHE	3.2
39	65	2	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
3	22	153	VAL	3.2
10	1A	61	GLU	3.2
29	21	90	THR	3.2
46	H8	104	PHE	3.2
47	E5	71	ASP	3.2
32	59	6	ARG	3.2
32	59	43	VAL	3.2
13	4I	65	LYS	3.2
31	49	102	PHE	3.2
46	D5	126	VAL	3.2
31	41	48	GLU	3.2
38	98	115	GLU	3.2
51	M8	3	GLU	3.2
32	59	168	PRO	3.2
12	3A	100	ILE	3.2
35	68	63	VAL	3.2
3	2E	166	GLU	3.2
37	88	129	THR	3.2
3	22	131	ARG	3.1
19	AI	74	PHE	3.1
32	59	104	GLU	3.1
8	7E	63	LEU	3.1
2	12	114	ARG	3.1
33	69	19	VAL	3.1
33	69	145	VAL	3.1
42	95	1	MET	3.1
22	1L	54	G	3.1
29	21	204	ALA	3.1
47	E5	85	ALA	3.1
51	I5	8	LYS	3.1
46	D5	132	ASN	3.1
18	9I	29	PHE	3.1
4	32	179	GLU	3.1
52	N8	55	ARG	3.1
10	1A	85	LEU	3.1
18	9A	31	LEU	3.1
33	69	140	LEU	3.1
3	22	178	LEU	3.1
16	7I	4	ILE	3.1
47	I8	5	LYS	3.1
51	I5	17	GLY	3.1
35	68	122	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
13	4A	65	LYS	3.1
31	49	150	ASP	3.1
37	88	1	MET	3.1
31	41	82	LEU	3.1
31	41	58	GLN	3.1
22	1L	18	G	3.1
29	29	5	LEU	3.1
31	41	25	TYR	3.1
4	32	70	ILE	3.1
36	35	126	VAL	3.1
51	M8	34	GLU	3.1
51	M8	53	GLU	3.1
33	61	140	LEU	3.1
31	41	89	GLY	3.1
48	J8	74	VAL	3.1
19	AI	29	ARG	3.1
29	21	79	ARG	3.1
51	M8	54	GLY	3.1
52	N8	56	LYS	3.1
48	J8	73	LEU	3.1
51	I5	4	GLY	3.0
31	49	83	ARG	3.0
12	3A	31	PRO	3.0
18	9I	23	LYS	3.0
46	D5	133	ILE	3.0
51	M8	11	PRO	3.0
32	59	45	VAL	3.0
13	4I	56	LEU	3.0
51	I5	43	TYR	3.0
3	2E	68	VAL	3.0
3	22	66	VAL	3.0
12	3A	84	LEU	3.0
3	2E	201	TYR	3.0
29	21	88	GLY	3.0
13	4A	8	GLU	3.0
32	59	41	MET	3.0
38	98	7	GLY	3.0
31	41	37	VAL	3.0
39	A8	48	LEU	3.0
42	D8	40	LEU	3.0
30	39	133	ASN	3.0
10	1A	10	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
13	4A	10	PRO	3.0
6	5E	47	ARG	3.0
12	3I	61	THR	3.0
28	19	181	GLU	3.0
46	H8	146	ILE	3.0
41	85	118	GLY	3.0
28	11	111	LEU	3.0
26	1H	887	A	3.0
26	1H	2799	A	3.0
29	21	1	MET	3.0
54	Q8	48	PHE	3.0
9	8E	126	SER	3.0
21	1B	13	ILE	3.0
14	5A	49	HIS	3.0
2	12	129	GLU	3.0
13	4A	64	TRP	3.0
8	72	133	LEU	3.0
19	AA	22	LEU	3.0
31	49	107	LEU	3.0
32	59	87	LEU	3.0
31	41	102	PHE	3.0
11	2I	50	TYR	3.0
45	C5	39	VAL	3.0
46	D5	125	LEU	3.0
51	I5	21	VAL	3.0
11	2I	43	SER	3.0
51	I5	11	PRO	3.0
54	M5	40	GLU	3.0
2	1E	127	ILE	2.9
23	2K	56	G	2.9
33	69	138	ILE	2.9
19	AI	30	LEU	2.9
32	51	172	LYS	2.9
33	69	14	ASP	2.9
26	14	1095	A	2.9
31	49	161	THR	2.9
33	69	4	ILE	2.9
10	1I	71	LEU	2.9
15	6I	88	ARG	2.9
3	22	177	THR	2.9
5	4E	89	ILE	2.9
31	41	149	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
31	49	140	ILE	2.9
10	1A	90	LEU	2.9
46	D5	128	VAL	2.9
31	41	80	PHE	2.9
37	45	65	PHE	2.9
11	2A	11	LYS	2.9
31	49	122	PRO	2.9
31	41	59	GLU	2.9
37	45	97	VAL	2.9
31	41	35	GLU	2.9
8	72	86	ILE	2.9
10	1I	74	ILE	2.9
22	1L	50	A	2.9
33	61	144	VAL	2.9
51	M8	9	LEU	2.9
53	P8	46	VAL	2.9
3	22	190	ARG	2.9
37	88	32	TYR	2.9
3	22	157	ILE	2.9
13	4A	88	ARG	2.9
44	F8	81	VAL	2.9
28	19	90	ALA	2.9
26	14	1065	U	2.9
31	41	87	PRO	2.9
4	32	16	GLY	2.9
50	H5	59	VAL	2.9
51	M8	63	TYR	2.9
3	22	6	HIS	2.9
22	1K	83	U	2.9
46	D5	101	PRO	2.9
18	9I	41	LYS	2.9
18	9I	51	LEU	2.9
31	49	155	MET	2.9
46	H8	102	LEU	2.9
46	D5	5	LEU	2.9
17	8I	32	TYR	2.9
34	15	72	TYR	2.9
7	62	156	TRP	2.9
24	3L	38	G	2.9
11	2A	95	ILE	2.9
38	98	114	VAL	2.9
29	21	3	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
8	72	107	LEU	2.9
18	9I	40	LEU	2.9
26	1H	1075	C	2.9
31	41	86	MET	2.9
37	45	66	ILE	2.9
18	9I	83	GLU	2.9
46	H8	79	ARG	2.9
33	69	2	LYS	2.9
51	M8	56	VAL	2.8
33	69	10	GLU	2.8
33	69	125	GLU	2.8
19	AI	71	LEU	2.8
31	49	152	LEU	2.8
44	F8	92	LEU	2.8
12	3A	99	HIS	2.8
45	C5	49	VAL	2.8
51	I5	7	PRO	2.8
51	I5	38	LYS	2.8
10	1I	65	LEU	2.8
2	1E	122	PHE	2.8
3	22	7	PRO	2.8
14	5A	34	TYR	2.8
32	51	16	SER	2.8
37	45	32	TYR	2.8
46	D5	3	TYR	2.8
51	I5	26	SER	2.8
19	AA	48	THR	2.8
26	14	654(H)	G	2.8
2	12	232	PRO	2.8
3	22	174	PRO	2.8
33	61	73	GLU	2.8
52	N8	52	TYR	2.8
6	5E	48	LEU	2.8
8	7E	119	LEU	2.8
16	7A	6	LEU	2.8
31	49	113	ARG	2.8
37	45	34	LEU	2.8
2	12	57	PHE	2.8
18	9I	43	PHE	2.8
41	85	91	ASP	2.8
33	61	130	TYR	2.8
3	22	202	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
31	49	109	VAL	2.8
31	49	157	ILE	2.8
37	45	38	GLU	2.8
32	59	95	ARG	2.8
37	88	98	LYS	2.8
10	1A	89	ASP	2.8
18	9I	79	LEU	2.8
31	41	39	ILE	2.8
3	2E	102	ASN	2.8
30	31	19	GLU	2.8
3	2E	72	LYS	2.8
50	H5	28	LEU	2.8
37	45	93	TYR	2.8
32	59	123	PHE	2.8
35	68	52	VAL	2.8
51	I5	33	VAL	2.8
39	A8	43	GLU	2.8
14	5A	57	ARG	2.8
32	59	94	TYR	2.8
50	L8	57	GLU	2.7
47	E5	21	LEU	2.7
9	82	115	GLY	2.7
11	2I	30	VAL	2.7
33	69	144	VAL	2.7
3	2E	57	ILE	2.7
33	69	20	ASP	2.7
28	19	177	LEU	2.7
22	1L	58	U	2.7
19	AA	75	ALA	2.7
21	1B	2	GLY	2.7
40	B8	47	GLY	2.7
8	7E	93	VAL	2.7
45	C5	45	VAL	2.7
46	D5	136	PHE	2.7
33	69	78	THR	2.7
44	B5	68	ARG	2.7
31	49	134	GLY	2.7
46	H8	88	PHE	2.7
29	21	80	GLU	2.7
50	H5	60	GLU	2.7
41	85	72	HIS	2.7
46	H8	6	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
32	59	33	LEU	2.7
3	22	205	GLY	2.7
36	35	130	PHE	2.7
10	1I	96	ILE	2.7
17	8I	36	ILE	2.7
36	35	145	PRO	2.7
33	61	116	LEU	2.7
2	12	122	PHE	2.7
17	8A	9	VAL	2.7
26	1H	1095	A	2.7
33	61	65	ALA	2.7
48	J8	51	VAL	2.7
4	32	185	PHE	2.7
3	22	184	TYR	2.7
11	2A	83	ILE	2.7
12	3A	60	LEU	2.7
23	2L	81	G	2.7
32	59	128	PRO	2.7
29	21	4	ILE	2.7
51	M8	22	ILE	2.7
10	1A	54	PHE	2.7
29	29	1	MET	2.7
32	59	26	VAL	2.7
11	2A	87	THR	2.7
51	I5	53	GLU	2.7
12	3A	35	GLY	2.7
13	4I	97	PRO	2.7
51	M8	59	PHE	2.7
34	58	100	GLU	2.7
37	88	132	VAL	2.7
10	1I	75	ILE	2.7
31	41	57	ALA	2.7
39	A8	40	ILE	2.7
54	M5	34	TRP	2.7
8	72	112	LEU	2.7
20	BI	72	LEU	2.7
45	C5	81	LYS	2.7
14	5A	55	GLY	2.7
11	2A	72	ALA	2.7
16	7I	31	LYS	2.7
49	G5	60	LEU	2.7
34	15	8	GLN	2.7

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Mol	Chain	Res	Type	RSRZ
31	49	149	VAL	2.7
37	45	33	GLY	2.7
11	2A	32	ILE	2.7
11	2A	108	ILE	2.7
33	69	112	LYS	2.6
33	69	35	LEU	2.6
7	6E	11	GLN	2.6
45	G8	64	GLU	2.6
22	1K	1	G	2.6
5	42	98	THR	2.6
31	41	145	THR	2.6
11	2I	83	ILE	2.6
14	5A	36	PHE	2.6
45	C5	63	LYS	2.6
51	M8	50	VAL	2.6
32	59	170	ARG	2.6
2	1E	188	ALA	2.6
3	22	200	ALA	2.6
4	32	146	ILE	2.6
18	9A	58	LEU	2.6
30	31	22	ALA	2.6
33	61	72	LEU	2.6
37	45	121	ALA	2.6
46	D5	88	PHE	2.6
12	3A	63	GLY	2.6
35	68	53	LYS	2.6
31	41	115	ARG	2.6
31	41	148	MET	2.6
33	69	1	MET	2.6
4	32	207	TYR	2.6
13	4I	19	LEU	2.6
31	41	141	PHE	2.6
31	49	143	GLU	2.6
46	H8	161	VAL	2.6
46	D5	135	GLU	2.6
11	2A	25	TYR	2.6
29	21	51	PHE	2.6
7	6E	87	VAL	2.6
41	C8	90	VAL	2.6
3	2E	101	LEU	2.6
39	65	73	LEU	2.6
52	N8	25	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
16	7I	9	PHE	2.6
26	14	2898	U	2.6
18	9I	50	ILE	2.6
30	31	124	LEU	2.6
33	61	141	LYS	2.6
13	4I	110	ARG	2.6
31	49	115	ARG	2.6
20	BA	9	ASN	2.6
2	12	6	THR	2.6
51	M8	27	THR	2.6
18	9I	22	VAL	2.6
43	E8	112	GLY	2.6
48	F5	49	VAL	2.6
33	69	128	LEU	2.6
54	M5	58	ILE	2.6
3	2E	128	PHE	2.6
13	4I	85	GLY	2.6
46	D5	162	GLU	2.6
26	1H	654(J)	A	2.6
31	41	83	ARG	2.6
31	41	152	LEU	2.6
31	49	103	LEU	2.6
39	A8	24	LEU	2.6
31	49	25	TYR	2.6
46	D5	12	GLY	2.6
32	59	51	ARG	2.6
19	AI	49	ILE	2.6
26	14	2899	G	2.6
31	49	141	PHE	2.6
39	A8	84	GLN	2.6
12	3A	23	LYS	2.6
4	32	135	LEU	2.6
29	21	183	LEU	2.6
29	29	204	ALA	2.5
30	39	22	ALA	2.5
12	3A	66	VAL	2.5
35	25	122	LEU	2.5
2	12	202	PRO	2.5
11	2I	29	ILE	2.5
45	C5	5	MET	2.5
12	3A	126	LYS	2.5
46	D5	164	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
39	65	40	ILE	2.5
19	AI	47	HIS	2.5
44	F8	68	ARG	2.5
34	58	14	VAL	2.5
42	D8	37	VAL	2.5
31	41	135	LEU	2.5
10	1I	28	ARG	2.5
29	29	76	ARG	2.5
42	D8	25	LEU	2.5
4	32	5	ILE	2.5
53	P8	47	ARG	2.5
12	3A	101	VAL	2.5
29	21	6	GLY	2.5
51	M8	33	VAL	2.5
12	3A	19	ARG	2.5
12	3A	86	ARG	2.5
17	8A	21	VAL	2.5
29	21	187	ALA	2.5
31	49	105	LYS	2.5
31	49	23	PHE	2.5
32	59	121	ILE	2.5
47	I8	4	LYS	2.5
36	35	142	GLY	2.5
54	M5	23	VAL	2.5
26	1H	2798	C	2.5
3	22	13	GLY	2.5
3	22	132	ARG	2.5
18	9I	44	LEU	2.5
29	21	50	GLY	2.5
33	69	114	LEU	2.5
47	I8	6	ALA	2.5
25	4L	40	U	2.5
48	J8	60	PHE	2.5
26	1H	1176	G	2.5
51	M8	5	ILE	2.5
17	8I	96	GLU	2.5
11	2A	85	ARG	2.5
32	51	171	LEU	2.5
36	35	125	VAL	2.5
52	N8	54	GLY	2.5
38	98	69	ASP	2.5
8	72	64	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
31	41	76	SER	2.5
35	25	42	SER	2.5
37	88	130	LYS	2.5
19	AA	44	MET	2.5
10	1I	100	THR	2.5
2	1E	228	GLY	2.5
26	14	2793	G	2.5
31	49	50	ALA	2.5
39	65	55	ALA	2.5
31	49	75	LYS	2.5
19	AI	40	ILE	2.5
22	1K	53	A	2.5
37	88	68	ILE	2.5
43	A5	103	ILE	2.5
51	I5	3	GLU	2.5
22	1L	83	U	2.5
35	25	65	THR	2.5
19	AI	62	ILE	2.5
16	7I	37	GLY	2.4
33	61	123	LEU	2.4
21	1B	21	TYR	2.4
32	59	3	ARG	2.4
31	49	99	MET	2.4
34	58	99	LEU	2.4
47	E5	75	LEU	2.4
2	12	152	PHE	2.4
7	6E	6	ARG	2.4
32	59	132	ARG	2.4
28	11	92	ILE	2.4
31	49	86	MET	2.4
30	39	192	LEU	2.4
34	15	87	LEU	2.4
36	35	106	LEU	2.4
46	H8	126	VAL	2.4
30	39	10	PRO	2.4
45	C5	56	PRO	2.4
29	29	52	LEU	2.4
31	49	5	VAL	2.4
32	59	88	LEU	2.4
34	58	15	LEU	2.4
37	45	71	ASP	2.4
37	45	132	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
46	H8	18	LEU	2.4
12	3I	19	ARG	2.4
47	E5	72	ARG	2.4
3	22	186	PHE	2.4
33	69	36	ALA	2.4
45	C5	47	LYS	2.4
2	1E	45	GLN	2.4
19	AI	42	PRO	2.4
37	88	106	VAL	2.4
3	22	69	HIS	2.4
24	3L	19	G	2.4
4	32	169	LYS	2.4
5	4E	81	GLU	2.4
31	49	144	ILE	2.4
11	2A	111	ASP	2.4
24	3K	21	A	2.4
26	14	1084	A	2.4
30	39	199	TRP	2.4
8	72	134	ILE	2.4
12	3A	62	SER	2.4
45	C5	64	GLU	2.4
13	4I	55	ARG	2.4
32	51	3	ARG	2.4
2	12	164	VAL	2.4
3	22	94	LEU	2.4
31	41	53	LEU	2.4
46	D5	56	VAL	2.4
19	AA	69	HIS	2.4
11	2I	42	TRP	2.4
3	22	173	VAL	2.4
11	2A	84	VAL	2.4
19	AI	60	VAL	2.4
32	59	15	VAL	2.4
3	22	110	ASN	2.4
26	14	2792	G	2.4
37	45	62	GLY	2.4
47	I8	46	LYS	2.4
32	59	129	THR	2.4
46	H8	62	PRO	2.4
51	I5	13	ARG	2.4
14	5A	44	LEU	2.4
14	5A	47	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
19	AA	45	VAL	2.4
29	29	2	LYS	2.4
50	H5	26	LEU	2.4
2	12	157	ARG	2.4
18	9I	38	GLU	2.4
2	1E	201	ILE	2.4
22	1L	56	G	2.4
24	3L	35	G	2.4
26	14	2802	G	2.4
45	C5	6	HIS	2.4
31	49	133	LEU	2.4
34	15	84	LYS	2.4
37	45	125	LEU	2.4
2	12	71	VAL	2.4
1	1G	1538	C	2.4
7	62	37	ASN	2.4
42	D8	29	PRO	2.4
31	41	140	ILE	2.4
29	21	78	LEU	2.4
47	I8	7	LEU	2.4
29	29	25	VAL	2.4
42	95	14	VAL	2.4
40	75	106	SER	2.4
12	3I	65	GLU	2.4
32	51	39	PRO	2.4
37	88	48	GLU	2.4
36	35	138	LEU	2.4
18	9A	22	VAL	2.3
47	E5	22	GLY	2.3
35	68	1	MET	2.3
3	22	182	ILE	2.3
18	9I	34	TYR	2.3
26	1H	654(H)	G	2.3
3	22	15	THR	2.3
37	88	97	VAL	2.3
35	25	37	ASP	2.3
9	8E	110	GLU	2.3
3	22	201	TYR	2.3
8	72	80	ILE	2.3
12	3A	85	ILE	2.3
16	7I	33	ILE	2.3
29	21	14	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
44	F8	69	TYR	2.3
49	G5	44	LEU	2.3
8	72	138	TRP	2.3
37	45	98	LYS	2.3
42	95	45	THR	2.3
2	1E	126	GLU	2.3
16	7A	52	ASP	2.3
19	AA	43	GLU	2.3
22	1L	48	C	2.3
46	H8	162	GLU	2.3
10	1A	16	LEU	2.3
23	2K	87	A	2.3
38	55	68	ARG	2.3
2	12	197	VAL	2.3
15	6A	89	GLY	2.3
33	69	37	VAL	2.3
46	D5	165	VAL	2.3
48	F5	60	PHE	2.3
12	3A	65	GLU	2.3
33	61	76	THR	2.3
48	J8	89	GLU	2.3
51	M8	18	CYS	2.3
29	21	76	ARG	2.3
3	22	117	ALA	2.3
12	3A	70	ILE	2.3
31	41	43	LEU	2.3
10	1A	67	THR	2.3
42	95	38	LEU	2.3
45	C5	31	LEU	2.3
18	9A	86	VAL	2.3
40	B8	45	PHE	2.3
51	I5	50	VAL	2.3
12	3A	29	GLY	2.3
43	A5	101	SER	2.3
34	58	74	ARG	2.3
28	19	5	LYS	2.3
29	21	55	ASN	2.3
46	D5	102	LEU	2.3
54	M5	29	LYS	2.3
2	1E	77	ALA	2.3
51	I5	22	ILE	2.3
52	J5	53	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
54	M5	16	ILE	2.3
33	69	92	VAL	2.3
18	9I	80	PRO	2.3
19	AA	76	PRO	2.3
26	1H	889	C	2.3
31	49	148	MET	2.3
19	AI	69	HIS	2.3
19	AA	63	THR	2.3
7	62	43	PHE	2.3
8	72	26	VAL	2.3
11	2A	86	GLY	2.3
46	D5	97	GLU	2.3
19	AA	40	ILE	2.3
2	1E	165	VAL	2.3
3	2E	61	ALA	2.3
31	49	131	TYR	2.3
14	5A	35	ARG	2.3
29	29	3	GLY	2.3
14	5A	46	GLU	2.3
39	65	43	GLU	2.3
30	31	24	LEU	2.3
42	D8	94	LEU	2.3
3	2E	182	ILE	2.3
5	4E	95	ALA	2.3
8	72	79	VAL	2.3
10	1I	72	VAL	2.3
12	3A	102	ARG	2.3
13	4I	3	ARG	2.3
47	E5	45	PHE	2.3
26	1H	2797	U	2.3
46	H8	97	GLU	2.3
3	2E	196	LEU	2.3
8	7E	36	LEU	2.3
34	58	33	LEU	2.3
32	59	72	ILE	2.3
13	4I	75	ALA	2.3
33	69	136	VAL	2.3
37	45	35	VAL	2.3
4	32	49	ARG	2.3
5	42	43	LEU	2.3
9	82	40	LEU	2.3
37	88	17	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
29	29	4	ILE	2.3
32	59	153	LYS	2.3
42	D8	97	LYS	2.3
15	6I	89	GLY	2.2
30	39	128	ALA	2.3
46	D5	59	LEU	2.2
37	88	128	LYS	2.2
5	4E	122	GLU	2.2
12	3A	56	ALA	2.2
19	AA	50	ALA	2.2
37	88	50	ALA	2.2
10	1I	77	PRO	2.2
34	15	85	ILE	2.2
43	A5	105	VAL	2.2
46	H8	9	TYR	2.2
46	D5	27	VAL	2.2
51	M8	49	PHE	2.2
23	2K	47	C	2.2
26	14	2794	C	2.2
28	11	93	ALA	2.2
34	58	133	GLN	2.2
50	L8	32	GLN	2.2
4	32	35	ARG	2.2
32	51	152	ARG	2.2
32	59	134	SER	2.2
4	32	64	LEU	2.2
16	7I	50	LYS	2.2
19	AI	15	LEU	2.2
16	7I	1	MET	2.2
19	AA	13	ASP	2.2
28	19	6	PHE	2.2
29	29	116	VAL	2.2
48	F5	62	VAL	2.2
5	42	81	GLU	2.2
11	2I	93	GLN	2.2
30	31	131	GLY	2.2
32	51	83	TYR	2.2
32	59	108	GLY	2.2
37	88	59	ARG	2.2
37	45	133	ARG	2.2
42	D8	60	GLU	2.2
44	F8	90	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
34	15	83	LYS	2.2
15	6A	87	ILE	2.2
32	59	151	ILE	2.2
13	4I	16	ASP	2.2
19	AA	12	ASP	2.2
37	45	96	VAL	2.2
32	51	104	GLU	2.2
39	A8	37	ALA	2.2
44	F8	26	TYR	2.2
5	4E	119	LEU	2.2
19	AA	20	LEU	2.2
7	62	89	MET	2.2
2	1E	96	ARG	2.2
45	C5	30	VAL	2.2
46	H8	90	VAL	2.2
3	22	135	LYS	2.2
31	49	55	LYS	2.2
11	2I	61	ALA	2.2
40	B8	92	GLY	2.2
43	A5	104	THR	2.2
44	B5	26	TYR	2.2
29	21	47	VAL	2.2
33	69	109	ILE	2.2
39	A8	46	VAL	2.2
33	69	7	GLU	2.2
16	7I	39	TYR	2.2
11	2I	95	ILE	2.2
3	22	148	GLY	2.2
10	1I	97	GLU	2.2
32	59	131	VAL	2.2
34	58	68	GLU	2.2
37	88	102	VAL	2.2
32	51	96	ALA	2.2
29	21	5	LEU	2.2
30	31	8	GLN	2.2
39	65	28	VAL	2.2
3	2E	71	ALA	2.2
17	8A	6	LEU	2.2
21	1B	5	ASP	2.2
33	61	43	ASN	2.2
4	32	158	ILE	2.2
13	4I	60	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
46	D5	28	MET	2.2
2	12	118	LEU	2.2
3	2E	193	TYR	2.2
7	62	149	ARG	2.2
31	41	136	ARG	2.2
31	41	158	ALA	2.2
31	49	67	LYS	2.2
3	22	86	VAL	2.2
43	E8	109	GLU	2.2
3	22	54	ARG	2.2
31	49	82	LEU	2.2
33	61	69	LYS	2.2
37	88	67	ARG	2.2
47	E5	19	LYS	2.2
47	E5	41	ARG	2.2
2	1E	187	LEU	2.2
34	58	51	PHE	2.2
13	4I	25	ILE	2.2
14	5A	42	ILE	2.2
29	29	9	VAL	2.2
37	45	91	GLU	2.2
42	D8	47	VAL	2.2
19	AA	46	GLY	2.2
28	19	128	GLY	2.2
32	51	42	ARG	2.2
52	N8	26	THR	2.2
4	3E	96	LEU	2.1
33	69	5	LEU	2.1
38	98	116	LEU	2.1
39	65	32	LEU	2.1
3	22	170	GLN	2.1
28	19	67	PHE	2.1
31	41	164	GLU	2.1
35	68	108	GLU	2.1
46	H8	171	ILE	2.1
24	3K	35	G	2.1
51	M8	39	CYS	2.1
10	1A	62	HIS	2.1
11	2I	98	LEU	2.1
3	22	11	ARG	2.1
4	32	145	GLU	2.1
30	39	27	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
31	41	47	LYS	2.1
37	88	80	GLU	2.1
37	45	70	PRO	2.1
39	A8	23	ARG	2.1
46	D5	103	ARG	2.1
48	J8	90	ILE	2.1
11	2I	49	GLY	2.1
11	2I	81	ASP	2.1
33	61	114	LEU	2.1
9	82	15	ALA	2.1
42	D8	27	ALA	2.1
44	B5	79	ALA	2.1
5	42	109	ILE	2.1
8	7E	136	GLU	2.1
12	3A	21	LYS	2.1
16	7A	54	GLU	2.1
31	41	63	ILE	2.1
31	49	92	VAL	2.1
41	85	89	GLU	2.1
46	H8	133	ILE	2.1
3	2E	145	GLY	2.1
8	72	101	PRO	2.1
18	9A	48	GLY	2.1
46	D5	62	PRO	2.1
43	E8	69	LEU	2.1
8	7E	110	ALA	2.1
13	4I	43	THR	2.1
39	A8	76	LYS	2.1
3	2E	170	GLN	2.1
10	1A	34	VAL	2.1
28	19	92	ILE	2.1
32	51	9	ILE	2.1
32	51	113	VAL	2.1
42	95	93	GLU	2.1
48	J8	7	ILE	2.1
5	4E	154	GLY	2.1
25	4L	34	G	2.1
33	69	8	PRO	2.1
5	42	5	ASP	2.1
11	2A	81	ASP	2.1
16	7I	7	ALA	2.1
26	14	893	C	2.1

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Mol	Chain	Res	Type	RSRZ
31	41	54	GLU	2.1
48	J8	72	GLU	2.1
30	31	123	LEU	2.1
33	69	13	GLY	2.1
39	65	26	LEU	2.1
53	L5	1	MET	2.1
29	21	2	LYS	2.1
31	49	68	PRO	2.1
45	C5	86	ARG	2.1
46	D5	131	ARG	2.1
47	E5	9	SER	2.1
2	12	70	PHE	2.1
31	41	178	PHE	2.1
21	1B	14	TRP	2.1
32	51	61	HIS	2.1
16	7I	36	ILE	2.1
33	61	74	ASN	2.1
10	1A	71	LEU	2.1
14	5A	26	ARG	2.1
18	9I	55	ARG	2.1
38	55	70	LEU	2.1
42	D8	39	LEU	2.1
10	1A	47	PHE	2.1
28	11	15	PHE	2.1
33	61	126	TYR	2.1
39	A8	12	PHE	2.1
46	D5	9	TYR	2.1
3	2E	77	ILE	2.1
3	22	64	VAL	2.1
14	5A	61	TRP	2.1
16	7I	2	VAL	2.1
49	K8	41	ILE	2.1
2	1E	209	ARG	2.1
13	4A	80	ARG	2.1
21	1B	17	THR	2.1
31	49	118	ARG	2.1
36	35	124	LYS	2.1
39	65	24	LEU	2.1
49	G5	9	GLN	2.1
15	6A	26	GLU	2.1
46	D5	92	SER	2.1
8	72	35	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
14	5I	7	ILE	2.1
14	5A	58	LYS	2.1
5	42	119	LEU	2.1
28	19	183	ARG	2.1
31	49	63	ILE	2.1
32	51	103	LEU	2.1
50	H5	32	GLN	2.1
40	B8	38	ASN	2.1
51	I5	49	PHE	2.1
26	1H	2	G	2.1
26	1H	277	C	2.1
3	22	124	ILE	2.1
11	2I	91	ARG	2.1
34	58	52	VAL	2.1
37	45	64	ILE	2.1
45	C5	96	ILE	2.1
54	M5	22	VAL	2.1
15	6I	20	GLY	2.1
18	9I	85	LEU	2.1
29	21	52	LEU	2.1
37	88	41	TRP	2.1
37	45	92	GLY	2.1
39	65	56	LEU	2.1
46	H8	91	LEU	2.1
10	1A	84	GLN	2.1
11	2I	62	GLN	2.1
31	49	132	ASN	2.1
40	B8	22	PHE	2.1
35	25	34	THR	2.1
7	62	112	PRO	2.1
12	3A	98	TYR	2.1
26	14	1177	A	2.1
43	E8	38	TYR	2.1
48	F5	71	TYR	2.1
31	41	175	LEU	2.1
34	15	116	LEU	2.1
46	D5	104	PHE	2.1
7	62	139	GLU	2.1
12	3A	20	LYS	2.1
29	29	79	ARG	2.1
31	41	108	ASN	2.1
48	F5	48	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
3	2E	64	VAL	2.1
9	82	44	VAL	2.1
34	58	53	VAL	2.1
45	G8	30	VAL	2.1
26	14	1046	A	2.1
46	D5	67	LEU	2.1
2	1E	101	MET	2.1
3	22	56	ASP	2.1
19	AA	14	HIS	2.1
15	6I	63	ARG	2.0
31	41	74	LYS	2.0
32	51	124	GLU	2.0
32	59	81	GLU	2.0
5	42	82	VAL	2.0
7	62	152	ALA	2.0
37	88	49	ALA	2.0
3	22	43	LEU	2.0
11	2I	32	ILE	2.0
35	25	19	ILE	2.0
18	9A	27	GLY	2.0
3	2E	107	GLN	2.0
5	42	28	PHE	2.0
11	2A	54	ARG	2.0
51	I5	6	HIS	2.0
31	49	35	GLU	2.0
33	69	126	TYR	2.0
18	9A	76	LEU	2.0
32	51	162	ILE	2.0
48	F5	37	ILE	2.0
32	59	85	LYS	2.0
48	J8	55	GLY	2.0
4	32	168	ARG	2.0
5	4E	18	ARG	2.0
17	8A	12	SER	2.0
31	49	100	TRP	2.0
51	M8	23	GLU	2.0
44	F8	83	VAL	2.0
48	J8	71	TYR	2.0
4	3E	97	LEU	2.0
23	2L	57	C	2.0
26	14	546	C	2.0
51	M8	4	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
44	F8	28	PHE	2.0
47	I8	69	PHE	2.0
16	7A	59	TRP	2.0
51	M8	26	SER	2.0
3	22	75	VAL	2.0
12	3A	30	ALA	2.0
2	12	137	ARG	2.0
2	12	155	LEU	2.0
16	7I	19	ILE	2.0
33	61	79	ILE	2.0
33	69	38	LEU	2.0
34	58	30	ILE	2.0
52	N8	53	ALA	2.0
11	2I	45	GLY	2.0
37	88	100	GLY	2.0
17	8A	71	PHE	2.0
46	D5	83	PRO	2.0
47	E5	53	MET	2.0
51	M8	20	ASN	2.0
26	14	2897	U	2.0
11	2I	84	VAL	2.0
35	68	81	ASP	2.0
47	I8	24	LYS	2.0
52	N8	45	VAL	2.0
3	22	39	ILE	2.0
11	2I	21	ILE	2.0
12	3I	33	ARG	2.0
20	BI	47	GLY	2.0
24	3K	13	G	2.0
26	14	654(N)	G	2.0
12	3A	71	PRO	2.0
17	8A	20	THR	2.0
29	29	73	GLU	2.0
35	25	45	GLU	2.0
42	D8	32	THR	2.0
3	2E	79	ARG	2.0
11	2A	119	CYS	2.0
5	42	133	TYR	2.0
13	4A	48	LEU	2.0
32	59	113	VAL	2.0
33	69	25	TYR	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
22	5MU	1L	65	21/22	0.96	0.16	-	126,135,149,154	0
22	5MU	1K	65	21/22	0.92	0.15	-	109,126,139,143	0
22	PSU	1K	66	20/21	0.92	0.14	-	113,134,150,151	0
23	5MU	2L	65	21/22	0.94	0.13	-	116,128,142,149	0
23	OMG	2K	18	24/25	0.89	0.14	-	125,139,151,157	0
22	1MG	1K	38	24/25	0.95	0.15	-	93,100,106,107	0
23	PSU	2K	66	20/21	0.91	0.10	-	117,125,133,135	0
22	PSU	1K	39	20/21	0.93	0.15	-	97,105,110,111	0
22	PSU	1L	66	20/21	0.89	0.14	-	123,141,157,157	0
23	PSU	2L	39	20/21	0.95	0.13	-	95,108,114,117	0
23	H2U	2K	17	20/21	0.86	0.17	-	125,135,173,181	0
23	H2U	2L	17	20/21	0.90	0.16	-	129,137,180,190	0
23	PSU	2K	39	20/21	0.94	0.21	-	83,96,104,110	0
23	OMG	2L	18	24/25	0.93	0.16	-	136,144,154,157	0
22	PSU	1L	39	20/21	0.92	0.15	-	112,122,132,132	0
23	PSU	2L	66	20/21	0.93	0.11	-	120,131,136,140	0
22	1MG	1L	38	24/25	0.95	0.15	-	106,120,124,127	0
23	1MG	2L	38	24/25	0.96	0.13	-	103,110,121,121	0
23	1MG	2K	38	24/25	0.96	0.15	-	87,96,107,111	0
23	5MU	2K	65	21/22	0.97	0.08	-	119,125,131,134	0

6.3 Carbohydrates (i)

There are no carbohydrates in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3283	1/1	0.68	0.95	90.93	85,85,85,85	0
55	MG	14	3190	1/1	0.95	0.67	90.20	75,75,75,75	0
55	MG	14	3196	1/1	0.91	0.47	61.17	65,65,65,65	0
55	MG	14	3205	1/1	0.89	0.59	55.31	83,83,83,83	0
55	MG	13	1613	1/1	0.91	0.54	53.09	92,92,92,92	0
55	MG	14	3262	1/1	0.93	0.36	46.33	89,89,89,89	0
55	MG	1H	3314	1/1	0.68	0.69	42.75	92,92,92,92	0
55	MG	1H	3029	1/1	0.94	0.46	41.29	56,56,56,56	0
55	MG	14	3130	1/1	0.52	0.49	40.33	102,102,102,102	0
55	MG	1H	3279	1/1	0.65	0.66	39.28	86,86,86,86	0
55	MG	1H	3405	1/1	0.84	0.95	37.34	89,89,89,89	0
55	MG	13	1672	1/1	0.80	0.43	35.27	89,89,89,89	0
55	MG	14	3292	1/1	0.78	0.59	35.17	79,79,79,79	0
55	MG	1H	3363	1/1	0.95	0.67	35.05	54,54,54,54	0
55	MG	14	3373	1/1	0.92	1.13	34.77	74,74,74,74	0
55	MG	1H	3005	1/1	0.99	0.47	33.74	45,45,45,45	0
55	MG	13	1608	1/1	0.96	0.55	32.41	64,64,64,64	0
55	MG	14	3148	1/1	0.92	0.49	29.79	72,72,72,72	0
55	MG	14	3301	1/1	0.61	0.43	29.07	90,90,90,90	0
55	MG	1G	1685	1/1	0.94	0.44	28.34	92,92,92,92	0
55	MG	14	3350	1/1	0.92	0.41	27.60	84,84,84,84	0
55	MG	1H	3359	1/1	0.98	0.59	27.42	45,45,45,45	0
55	MG	14	3034	1/1	0.96	0.61	25.03	60,60,60,60	0
55	MG	14	3170	1/1	0.97	0.52	24.45	67,67,67,67	0
55	MG	1H	3108	1/1	0.98	0.68	24.20	58,58,58,58	0
55	MG	1H	3121	1/1	0.96	0.54	23.97	54,54,54,54	0
55	MG	14	3276	1/1	0.49	0.52	23.65	86,86,86,86	0
55	MG	1H	3130	1/1	0.96	0.53	23.53	70,70,70,70	0
55	MG	1G	1618	1/1	0.93	0.39	23.40	76,76,76,76	0
55	MG	14	3353	1/1	0.93	0.64	23.39	84,84,84,84	0
55	MG	14	3065	1/1	0.98	0.58	22.85	47,47,47,47	0
55	MG	14	3038	1/1	0.94	0.58	22.79	57,57,57,57	0
55	MG	14	3031	1/1	0.96	0.45	22.33	66,66,66,66	0
55	MG	1H	3125	1/1	0.77	0.60	21.86	73,73,73,73	0
55	MG	1H	3150	1/1	0.97	0.46	21.80	84,84,84,84	0
55	MG	1G	1687	1/1	0.93	0.40	21.31	101,101,101,101	0
55	MG	14	3146	1/1	0.98	0.40	21.07	73,73,73,73	0
55	MG	14	3044	1/1	0.95	0.75	21.04	79,79,79,79	0
55	MG	13	1724	1/1	0.95	0.46	20.36	63,63,63,63	0
55	MG	14	3071	1/1	0.94	0.57	19.80	48,48,48,48	0
55	MG	1H	3135	1/1	0.97	0.55	19.62	61,61,61,61	0
55	MG	13	1720	1/1	0.85	0.30	18.85	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3018	1/1	0.93	0.54	18.85	46,46,46,46	0
55	MG	14	3319	1/1	0.71	0.44	18.49	89,89,89,89	0
55	MG	14	3109	1/1	0.93	0.48	18.47	66,66,66,66	0
55	MG	1H	3173	1/1	0.90	0.40	17.89	70,70,70,70	0
55	MG	14	3074	1/1	0.81	0.39	17.87	53,53,53,53	0
55	MG	13	1713	1/1	0.54	0.42	17.70	99,99,99,99	0
55	MG	14	3072	1/1	0.97	0.52	17.45	52,52,52,52	0
55	MG	14	3040	1/1	0.95	0.81	17.36	59,59,59,59	0
55	MG	1H	3103	1/1	0.98	0.43	17.15	48,48,48,48	0
55	MG	1H	3326	1/1	0.98	0.49	17.14	51,51,51,51	0
55	MG	1H	3017	1/1	0.95	0.47	17.11	56,56,56,56	0
55	MG	1H	3092	1/1	0.91	0.43	16.84	73,73,73,73	0
55	MG	14	3173	1/1	0.70	0.44	16.63	76,76,76,76	0
55	MG	14	3090	1/1	0.98	0.43	16.35	58,58,58,58	0
55	MG	1H	3083	1/1	0.95	0.36	16.22	55,55,55,55	0
55	MG	13	1601	1/1	0.98	0.36	16.10	63,63,63,63	0
55	MG	14	3120	1/1	0.65	0.29	15.55	69,69,69,69	0
55	MG	1H	3216	1/1	0.91	0.41	15.55	65,65,65,65	0
55	MG	1H	3152	1/1	0.94	0.41	15.52	54,54,54,54	0
55	MG	1H	3001	1/1	0.97	0.46	15.47	51,51,51,51	0
55	MG	1H	3336	1/1	0.81	0.27	15.33	70,70,70,70	0
55	MG	1H	3197	1/1	0.97	0.48	15.30	48,48,48,48	0
55	MG	1H	3365	1/1	0.96	0.28	15.30	46,46,46,46	0
55	MG	14	3243	1/1	0.71	0.39	15.24	75,75,75,75	0
55	MG	14	3066	1/1	0.99	0.42	15.23	62,62,62,62	0
55	MG	1H	3097	1/1	0.98	0.47	15.23	48,48,48,48	0
55	MG	1H	3011	1/1	0.98	0.33	15.16	49,49,49,49	0
55	MG	13	1626	1/1	0.95	0.56	15.07	68,68,68,68	0
55	MG	1H	3263	1/1	0.87	0.42	14.96	67,67,67,67	0
55	MG	14	3121	1/1	0.89	0.42	14.92	69,69,69,69	0
55	MG	1H	3344	1/1	0.92	0.34	14.76	85,85,85,85	0
55	MG	1H	3120	1/1	0.95	0.42	14.67	53,53,53,53	0
55	MG	1H	3003	1/1	0.99	0.45	14.65	58,58,58,58	0
55	MG	14	3229	1/1	0.42	0.56	14.62	77,77,77,77	0
55	MG	1H	3098	1/1	0.98	0.47	14.58	40,40,40,40	0
55	MG	13	1635	1/1	0.88	0.28	14.37	101,101,101,101	0
55	MG	14	3011	1/1	0.97	0.39	13.97	48,48,48,48	0
55	MG	14	3037	1/1	0.98	0.43	13.93	58,58,58,58	0
55	MG	13	1716	1/1	0.93	0.27	13.57	103,103,103,103	0
55	MG	14	3059	1/1	0.95	0.37	13.50	54,54,54,54	0
55	MG	14	3155	1/1	0.78	0.41	13.29	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3161	1/1	0.85	0.39	13.08	80,80,80,80	0
55	MG	13	1638	1/1	0.97	0.39	12.95	74,74,74,74	0
55	MG	13	1681	1/1	0.95	0.27	12.94	91,91,91,91	0
55	MG	1H	3373	1/1	0.87	0.38	12.93	85,85,85,85	0
55	MG	1H	3039	1/1	0.94	0.40	12.73	66,66,66,66	0
55	MG	14	3140	1/1	0.87	0.26	12.60	108,108,108,108	0
55	MG	14	3009	1/1	0.98	0.44	12.56	62,62,62,62	0
55	MG	14	3274	1/1	0.87	0.25	12.50	83,83,83,83	0
55	MG	14	3067	1/1	0.97	0.38	12.32	54,54,54,54	0
55	MG	14	3207	1/1	0.97	0.49	12.18	92,92,92,92	0
55	MG	1G	1720	1/1	0.87	0.28	12.14	102,102,102,102	0
55	MG	14	3046	1/1	0.92	0.35	12.06	67,67,67,67	0
55	MG	1G	1603	1/1	0.98	0.49	12.03	65,65,65,65	0
55	MG	14	3024	1/1	0.97	0.38	11.99	79,79,79,79	0
55	MG	14	3224	1/1	0.94	0.48	11.91	73,73,73,73	0
55	MG	1H	3080	1/1	0.97	0.37	11.84	89,89,89,89	0
55	MG	13	1632	1/1	0.98	0.45	11.83	74,74,74,74	0
55	MG	13	1619	1/1	0.76	0.24	11.80	111,111,111,111	0
55	MG	1H	3281	1/1	0.95	0.36	11.64	65,65,65,65	0
55	MG	1H	3052	1/1	0.96	0.38	11.60	67,67,67,67	0
55	MG	14	3330	1/1	0.99	0.49	11.56	43,43,43,43	0
55	MG	1G	1686	1/1	0.96	0.26	11.52	108,108,108,108	0
55	MG	13	1697	1/1	0.95	0.52	11.50	67,67,67,67	0
55	MG	14	3093	1/1	0.97	0.32	11.41	60,60,60,60	0
55	MG	1H	3085	1/1	0.88	0.34	11.40	75,75,75,75	0
55	MG	13	1700	1/1	0.92	0.23	11.33	87,87,87,87	0
55	MG	1G	1728	1/1	0.81	0.26	11.25	92,92,92,92	0
55	MG	1G	1702	1/1	0.67	0.31	11.15	95,95,95,95	0
55	MG	14	3039	1/1	0.95	0.41	11.11	63,63,63,63	0
55	MG	14	3253	1/1	0.80	0.35	11.10	98,98,98,98	0
55	MG	14	3179	1/1	0.97	0.38	11.00	90,90,90,90	0
55	MG	1H	3009	1/1	0.96	0.32	10.99	56,56,56,56	0
55	MG	1H	3096	1/1	0.96	0.28	10.92	62,62,62,62	0
55	MG	1H	3310	1/1	0.97	0.35	10.91	52,52,52,52	0
55	MG	14	3150	1/1	0.86	0.25	10.87	92,92,92,92	0
55	MG	13	1629	1/1	0.93	0.30	10.81	65,65,65,65	0
55	MG	14	3032	1/1	0.84	0.48	10.80	71,71,71,71	0
55	MG	1G	1688	1/1	0.98	0.28	10.70	103,103,103,103	0
55	MG	1H	3118	1/1	0.95	0.39	10.61	74,74,74,74	0
55	MG	1G	1604	1/1	0.91	0.30	10.55	79,79,79,79	0
55	MG	14	3188	1/1	0.88	0.27	10.52	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	13	1709	1/1	0.96	0.30	10.52	99,99,99,99	0
55	MG	1H	3035	1/1	0.97	0.32	10.44	82,82,82,82	0
55	MG	14	3013	1/1	0.99	0.30	10.43	66,66,66,66	0
55	MG	14	3100	1/1	0.97	0.28	10.32	77,77,77,77	0
55	MG	1H	3244	1/1	0.94	0.26	10.32	92,92,92,92	0
55	MG	14	3030	1/1	0.92	0.28	10.23	70,70,70,70	0
55	MG	1H	3002	1/1	0.98	0.39	10.13	53,53,53,53	0
55	MG	13	1667	1/1	0.87	0.32	10.07	88,88,88,88	0
55	MG	14	3036	1/1	0.93	0.28	9.97	71,71,71,71	0
55	MG	1H	3058	1/1	0.96	0.27	9.96	67,67,67,67	0
55	MG	13	1661	1/1	0.95	0.31	9.91	89,89,89,89	0
55	MG	1H	3153	1/1	0.87	0.23	9.58	79,79,79,79	0
55	MG	1G	1622	1/1	0.98	0.37	9.56	95,95,95,95	0
55	MG	1H	3171	1/1	0.77	0.24	9.53	80,80,80,80	0
55	MG	13	1604	1/1	0.96	0.30	9.44	71,71,71,71	0
55	MG	1H	3067	1/1	0.95	0.44	9.32	68,68,68,68	0
55	MG	13	1622	1/1	0.79	0.30	9.31	85,85,85,85	0
55	MG	14	3363	1/1	0.88	0.32	9.29	67,67,67,67	0
55	MG	1H	3019	1/1	0.98	0.56	8.86	51,51,51,51	0
55	MG	1H	3355	1/1	0.99	0.37	8.78	62,62,62,62	0
55	MG	1G	1710	1/1	0.93	0.40	8.72	87,87,87,87	0
55	MG	1H	3142	1/1	0.95	0.21	8.66	68,68,68,68	0
55	MG	1H	3510	1/1	0.89	0.48	8.63	65,65,65,65	0
55	MG	14	3124	1/1	0.85	0.24	8.52	77,77,77,77	0
55	MG	13	1728	1/1	0.95	0.29	8.49	80,80,80,80	0
55	MG	1H	3102	1/1	0.96	0.38	8.36	64,64,64,64	0
55	MG	1H	3140	1/1	0.91	0.32	8.31	82,82,82,82	0
55	MG	13	1606	1/1	0.98	0.29	8.21	89,89,89,89	0
55	MG	1G	1709	1/1	0.98	0.27	8.15	81,81,81,81	0
55	MG	14	3017	1/1	0.98	0.27	8.10	70,70,70,70	0
55	MG	1H	3395	1/1	0.76	0.28	8.04	100,100,100,100	0
55	MG	1H	3168	1/1	0.95	0.30	8.00	72,72,72,72	0
55	MG	1H	3132	1/1	0.77	0.29	7.94	63,63,63,63	0
55	MG	1H	3323	1/1	0.81	0.22	7.88	83,83,83,83	0
55	MG	14	3153	1/1	0.95	0.65	7.88	71,71,71,71	0
55	MG	13	1636	1/1	0.96	0.21	7.85	73,73,73,73	0
55	MG	14	3183	1/1	0.96	0.28	7.84	64,64,64,64	0
55	MG	13	1602	1/1	0.98	0.28	7.76	85,85,85,85	0
55	MG	1H	3041	1/1	0.94	0.21	7.74	72,72,72,72	0
55	MG	14	3488	1/1	0.97	0.57	7.73	64,64,64,64	0
55	MG	1G	1676	1/1	0.95	0.30	7.72	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3290	1/1	0.91	0.28	7.55	71,71,71,71	0
55	MG	1G	1672	1/1	0.81	0.27	7.41	95,95,95,95	0
55	MG	1H	3071	1/1	0.91	0.37	7.39	74,74,74,74	0
55	MG	1G	1644	1/1	0.96	0.27	7.37	96,96,96,96	0
55	MG	1H	3299	1/1	0.78	0.20	7.31	79,79,79,79	0
55	MG	1H	3266	1/1	0.66	0.23	7.12	79,79,79,79	0
55	MG	14	3110	1/1	0.83	0.36	7.10	74,74,74,74	0
55	MG	1H	3055	1/1	0.99	0.25	6.93	66,66,66,66	0
55	MG	1G	1696	1/1	0.74	0.25	6.78	94,94,94,94	0
55	MG	1H	3268	1/1	0.85	0.27	6.69	66,66,66,66	0
55	MG	1H	3066	1/1	0.94	0.26	6.67	86,86,86,86	0
55	MG	14	3177	1/1	0.92	0.21	6.59	75,75,75,75	0
55	MG	14	3052	1/1	0.99	0.23	6.57	62,62,62,62	0
55	MG	1H	3021	1/1	0.99	0.38	6.53	43,43,43,43	0
55	MG	1H	3166	1/1	0.80	0.34	6.52	83,83,83,83	0
55	MG	14	3099	1/1	0.89	0.29	6.50	57,57,57,57	0
55	MG	1H	3254	1/1	0.96	0.29	6.49	56,56,56,56	0
55	MG	1H	3116	1/1	0.84	0.31	6.44	56,56,56,56	0
55	MG	1H	3213	1/1	0.78	0.25	6.34	55,55,55,55	0
55	MG	14	3197	1/1	0.98	0.29	6.32	82,82,82,82	0
55	MG	1H	3075	1/1	0.99	0.30	6.31	69,69,69,69	0
55	MG	1H	3226	1/1	0.68	0.23	6.24	93,93,93,93	0
55	MG	1H	3377	1/1	0.83	0.39	6.19	87,87,87,87	0
55	MG	1G	1602	1/1	0.98	0.38	6.18	80,80,80,80	0
55	MG	1G	1630	1/1	0.94	0.37	6.13	91,91,91,91	0
55	MG	1H	3484	1/1	0.92	0.25	6.00	104,104,104,104	0
55	MG	13	1615	1/1	0.94	0.24	5.92	88,88,88,88	0
55	MG	1H	3177	1/1	0.99	0.28	5.87	93,93,93,93	0
55	MG	1G	1722	1/1	0.90	0.32	5.86	84,84,84,84	0
55	MG	13	1731	1/1	0.88	0.19	5.84	82,82,82,82	0
55	MG	14	3172	1/1	0.98	0.38	5.65	69,69,69,69	0
55	MG	1H	3087	1/1	0.96	0.20	5.51	76,76,76,76	0
55	MG	1H	3352	1/1	0.76	0.23	5.45	87,87,87,87	0
55	MG	14	3005	1/1	0.98	0.29	5.44	62,62,62,62	0
55	MG	14	3366	1/1	0.92	0.24	5.43	89,89,89,89	0
55	MG	1H	3273	1/1	0.90	0.24	5.41	93,93,93,93	0
55	MG	14	3166	1/1	0.96	0.28	5.38	61,61,61,61	0
55	MG	14	3200	1/1	0.80	0.50	5.35	77,77,77,77	0
55	MG	1H	3509	1/1	0.95	0.46	5.32	47,47,47,47	0
55	MG	1G	1704	1/1	0.90	0.18	5.24	78,78,78,78	0
55	MG	1G	1621	1/1	0.98	0.28	5.16	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3108	1/1	0.98	0.30	5.09	61,61,61,61	0
55	MG	14	3241	1/1	0.92	0.23	5.02	83,83,83,83	0
55	MG	14	3285	1/1	0.82	0.33	4.94	72,72,72,72	0
55	MG	14	3490	1/1	0.96	0.53	4.75	81,81,81,81	0
55	MG	14	3280	1/1	0.72	0.17	4.67	87,87,87,87	0
55	MG	1H	3061	1/1	0.97	0.19	4.60	75,75,75,75	0
55	MG	1G	1701	1/1	0.68	0.19	4.58	119,119,119,119	0
55	MG	1G	1656	1/1	0.96	0.41	4.53	74,74,74,74	0
55	MG	29	301	1/1	0.85	0.42	4.52	88,88,88,88	0
55	MG	13	1688	1/1	0.83	0.18	4.43	92,92,92,92	0
55	MG	14	3041	1/1	0.98	0.33	4.39	53,53,53,53	0
55	MG	14	3206	1/1	0.97	0.23	4.37	92,92,92,92	0
55	MG	1H	3180	1/1	0.90	0.20	4.34	79,79,79,79	0
55	MG	2L	101	1/1	0.97	0.39	4.27	82,82,82,82	0
55	MG	14	3199	1/1	0.93	0.28	4.24	75,75,75,75	0
55	MG	16	201	1/1	0.83	0.20	4.12	97,97,97,97	0
55	MG	14	3300	1/1	0.98	0.28	4.07	64,64,64,64	0
55	MG	14	3042	1/1	0.97	0.38	4.06	47,47,47,47	0
55	MG	1H	3228	1/1	0.82	0.17	3.95	68,68,68,68	0
55	MG	13	1680	1/1	0.88	0.22	3.95	93,93,93,93	0
55	MG	1G	1649	1/1	0.90	0.20	3.91	109,109,109,109	0
55	MG	14	3094	1/1	0.97	0.30	3.90	60,60,60,60	0
55	MG	1H	3046	1/1	0.94	0.24	3.83	56,56,56,56	0
55	MG	1H	3060	1/1	0.98	0.35	3.75	59,59,59,59	0
55	MG	1H	3043	1/1	0.86	0.33	3.73	83,83,83,83	0
55	MG	1H	3148	1/1	0.97	0.31	3.73	75,75,75,75	0
55	MG	14	3314	1/1	0.92	0.21	3.72	90,90,90,90	0
55	MG	1H	3053	1/1	0.97	0.18	3.68	72,72,72,72	0
55	MG	1G	1613	1/1	0.72	0.21	3.46	92,92,92,92	0
55	MG	1H	3076	1/1	0.94	0.21	3.40	67,67,67,67	0
55	MG	13	1610	1/1	0.96	0.22	3.16	90,90,90,90	0
56	ZN	3E	302	1/1	0.98	0.36	3.15	86,86,86,86	0
55	MG	1G	1695	1/1	0.93	0.22	3.13	95,95,95,95	0
55	MG	1H	3025	1/1	0.90	0.24	3.08	55,55,55,55	0
55	MG	1H	3144	1/1	0.70	0.13	3.07	93,93,93,93	0
55	MG	14	3165	1/1	0.96	0.25	3.02	61,61,61,61	0
55	MG	1H	3369	1/1	0.92	0.20	2.97	86,86,86,86	0
55	MG	14	3225	1/1	0.93	0.18	2.96	87,87,87,87	0
55	MG	16	204	1/1	0.88	0.17	2.86	103,103,103,103	0
55	MG	1H	3217	1/1	0.93	0.22	2.77	56,56,56,56	0
56	ZN	C5	201	1/1	0.82	0.41	2.74	201,201,201,201	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3295	1/1	0.87	0.30	2.74	84,84,84,84	0
55	MG	1G	1641	1/1	0.95	0.19	2.73	91,91,91,91	0
55	MG	1H	3038	1/1	0.58	0.16	2.72	96,96,96,96	0
55	MG	1K	101	1/1	0.90	0.27	2.72	90,90,90,90	0
55	MG	1G	1608	1/1	0.98	0.20	2.68	99,99,99,99	0
55	MG	13	1609	1/1	0.95	0.29	2.67	80,80,80,80	0
56	ZN	G8	202	1/1	0.68	0.36	2.66	205,205,205,205	0
55	MG	1H	3016	1/1	0.98	0.26	2.56	70,70,70,70	0
55	MG	13	1639	1/1	0.90	0.17	2.46	85,85,85,85	0
55	MG	1H	3396	1/1	0.97	0.18	2.36	98,98,98,98	0
55	MG	1G	1619	1/1	0.98	0.21	2.32	105,105,105,105	0
55	MG	14	3105	1/1	0.87	0.18	2.28	90,90,90,90	0
55	MG	1H	3040	1/1	0.85	0.20	2.27	69,69,69,69	0
55	MG	1H	3113	1/1	0.93	0.17	2.26	78,78,78,78	0
55	MG	1H	3110	1/1	0.97	0.24	2.17	54,54,54,54	0
55	MG	1H	3115	1/1	0.94	0.26	2.07	73,73,73,73	0
55	MG	13	1711	1/1	0.86	0.15	2.05	107,107,107,107	0
55	MG	1H	3155	1/1	0.85	0.16	1.87	67,67,67,67	0
55	MG	14	3338	1/1	0.95	0.24	1.85	66,66,66,66	0
55	MG	1H	3388	1/1	0.82	0.45	1.75	90,90,90,90	0
55	MG	13	1696	1/1	0.78	0.23	1.75	73,73,73,73	0
55	MG	13	1674	1/1	0.77	0.20	1.66	112,112,112,112	0
55	MG	1H	3351	1/1	0.92	0.19	1.63	86,86,86,86	0
55	MG	1G	1713	1/1	0.86	0.26	1.63	100,100,100,100	0
55	MG	29	303	1/1	0.63	0.28	1.57	79,79,79,79	0
55	MG	13	1618	1/1	0.94	0.22	1.47	124,124,124,124	0
55	MG	1H	3209	1/1	0.99	0.51	1.46	63,63,63,63	0
55	MG	14	3118	1/1	0.89	0.19	1.44	69,69,69,69	0
55	MG	14	3026	1/1	0.81	0.10	1.38	83,83,83,83	0
55	MG	1G	1731	1/1	0.97	0.15	1.36	113,113,113,113	0
55	MG	11	301	1/1	0.82	0.34	1.29	53,53,53,53	0
55	MG	1H	3512	1/1	0.99	0.31	1.23	72,72,72,72	0
55	MG	14	3132	1/1	0.96	0.16	1.22	78,78,78,78	0
55	MG	14	3421	1/1	0.98	0.20	1.20	55,55,55,55	0
55	MG	14	3220	1/1	0.98	0.30	1.17	80,80,80,80	0
56	ZN	32	302	1/1	0.98	0.34	1.14	100,100,100,100	0
55	MG	85	201	1/1	0.90	0.22	1.11	83,83,83,83	0
55	MG	1G	1615	1/1	0.92	0.20	1.10	84,84,84,84	0
55	MG	1H	3186	1/1	0.82	0.15	1.02	76,76,76,76	0
55	MG	1G	1665	1/1	0.92	0.16	1.01	108,108,108,108	0
55	MG	14	3075	1/1	0.84	0.18	0.99	70,70,70,70	0
55	MG	1H	3093	1/1	0.99	0.18	0.98	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3103	1/1	0.88	0.18	0.97	73,73,73,73	0
55	MG	1H	3357	1/1	0.92	0.14	0.97	78,78,78,78	0
55	MG	1H	3044	1/1	0.91	0.23	0.84	63,63,63,63	0
55	MG	14	3117	1/1	0.96	0.19	0.72	73,73,73,73	0
55	MG	14	3249	1/1	0.91	0.13	0.59	100,100,100,100	0
55	MG	1J	201	1/1	0.98	0.18	0.57	115,115,115,115	0
55	MG	1G	1606	1/1	0.93	0.13	0.56	89,89,89,89	0
55	MG	1H	3045	1/1	0.91	0.18	0.52	64,64,64,64	0
55	MG	14	3106	1/1	0.94	0.22	0.47	80,80,80,80	0
55	MG	14	3302	1/1	0.99	0.16	0.46	85,85,85,85	0
55	MG	1G	1642	1/1	0.84	0.20	0.46	89,89,89,89	0
55	MG	14	3239	1/1	0.85	0.12	0.45	90,90,90,90	0
55	MG	2K	101	1/1	0.99	0.28	0.44	85,85,85,85	0
55	MG	1G	1646	1/1	0.97	0.19	0.39	109,109,109,109	0
55	MG	14	3193	1/1	0.79	0.36	0.39	83,83,83,83	0
55	MG	1H	3342	1/1	0.70	0.16	0.38	73,73,73,73	0
55	MG	21	302	1/1	0.63	0.23	0.23	77,77,77,77	0
55	MG	1H	3498	1/1	0.91	0.21	0.19	100,100,100,100	0
55	MG	14	3340	1/1	0.82	0.27	0.17	66,66,66,66	0
55	MG	1H	3106	1/1	0.98	0.22	0.16	47,47,47,47	0
55	MG	13	1605	1/1	0.98	0.21	0.11	86,86,86,86	0
55	MG	1H	3418	1/1	0.98	0.17	0.03	71,71,71,71	0
55	MG	1G	1694	1/1	0.96	0.18	-0.16	80,80,80,80	0
55	MG	14	3475	1/1	0.97	0.16	-0.36	104,104,104,104	0
55	MG	1H	3095	1/1	0.95	0.17	-0.38	58,58,58,58	0
55	MG	13	1679	1/1	0.83	0.16	-0.43	135,135,135,135	0
55	MG	1G	1743	1/1	0.92	0.18	-0.49	98,98,98,98	0
55	MG	13	1729	1/1	0.79	0.10	-0.50	122,122,122,122	0
55	MG	13	1642	1/1	0.87	0.13	-0.63	85,85,85,85	0
55	MG	14	3126	1/1	0.78	0.14	-0.66	83,83,83,83	0
55	MG	88	302	1/1	0.88	0.18	-0.68	95,95,95,95	0
55	MG	1H	3375	1/1	0.91	0.18	-0.71	70,70,70,70	0
55	MG	1H	3415	1/1	0.97	0.16	-0.76	59,59,59,59	0
55	MG	14	3228	1/1	0.74	0.14	-0.77	78,78,78,78	0
55	MG	88	301	1/1	0.96	0.29	-0.78	82,82,82,82	0
55	MG	14	3448	1/1	0.93	0.11	-0.78	109,109,109,109	0
55	MG	1H	3417	1/1	0.98	0.15	-0.79	70,70,70,70	0
55	MG	1H	3191	1/1	0.89	0.13	-0.81	75,75,75,75	0
55	MG	1G	1692	1/1	0.94	0.10	-0.82	100,100,100,100	0
55	MG	14	3186	1/1	0.97	0.18	-0.85	69,69,69,69	0
55	MG	14	3477	1/1	0.97	0.13	-0.86	63,63,63,63	0
55	MG	1G	1691	1/1	0.99	0.08	-0.94	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3349	1/1	0.89	0.15	-0.96	66,66,66,66	0
55	MG	1H	3442	1/1	0.97	0.14	-0.98	77,77,77,77	0
55	MG	45	202	1/1	0.93	0.15	-0.98	99,99,99,99	0
55	MG	1G	1611	1/1	0.98	0.10	-0.99	122,122,122,122	0
55	MG	14	3398	1/1	0.95	0.17	-0.99	66,66,66,66	0
56	ZN	5I	101	1/1	0.99	0.10	-1.00	109,109,109,109	0
55	MG	1G	1740	1/1	0.91	0.06	-1.08	112,112,112,112	0
55	MG	14	3240	1/1	0.97	0.13	-1.13	68,68,68,68	0
55	MG	14	3256	1/1	0.98	0.14	-1.17	95,95,95,95	0
56	ZN	5A	101	1/1	0.96	0.09	-1.19	125,125,125,125	0
55	MG	14	3462	1/1	0.97	0.16	-1.24	103,103,103,103	0
55	MG	1H	3437	1/1	0.99	0.13	-1.24	60,60,60,60	0
55	MG	1H	3511	1/1	0.89	0.09	-1.29	75,75,75,75	0
55	MG	1G	1738	1/1	0.62	0.07	-1.30	137,137,137,137	0
55	MG	13	1735	1/1	0.90	0.07	-1.33	111,111,111,111	0
55	MG	1H	3122	1/1	0.93	0.14	-1.35	68,68,68,68	0
55	MG	14	3409	1/1	0.94	0.16	-1.38	83,83,83,83	0
55	MG	13	1665	1/1	0.88	0.11	-1.40	103,103,103,103	0
55	MG	14	3456	1/1	0.82	0.13	-1.45	82,82,82,82	0
55	MG	14	3424	1/1	0.95	0.11	-1.47	72,72,72,72	0
55	MG	13	1714	1/1	0.91	0.08	-1.54	103,103,103,103	0
55	MG	14	3194	1/1	0.97	0.15	-1.58	66,66,66,66	0
55	MG	13	1732	1/1	0.89	0.06	-1.60	113,113,113,113	0
55	MG	14	3414	1/1	0.93	0.13	-1.61	85,85,85,85	0
55	MG	13	1745	1/1	0.98	0.13	-1.66	88,88,88,88	0
55	MG	14	3408	1/1	0.93	0.16	-1.70	63,63,63,63	0
55	MG	1H	3454	1/1	0.97	0.15	-1.73	94,94,94,94	0
55	MG	1H	3432	1/1	0.95	0.09	-1.73	58,58,58,58	0
55	MG	1H	3467	1/1	0.97	0.11	-1.79	67,67,67,67	0
55	MG	14	3397	1/1	0.99	0.15	-1.90	64,64,64,64	0
55	MG	1H	3505	1/1	0.98	0.09	-1.91	64,64,64,64	0
55	MG	14	3437	1/1	0.95	0.12	-2.02	88,88,88,88	0
55	MG	1H	3438	1/1	0.93	0.08	-2.02	75,75,75,75	0
55	MG	14	3022	1/1	0.92	0.09	-2.09	81,81,81,81	0
55	MG	1H	3424	1/1	0.95	0.13	-2.11	72,72,72,72	0
55	MG	14	3420	1/1	0.96	0.13	-2.12	91,91,91,91	0
55	MG	1H	3340	1/1	0.91	0.14	-2.22	75,75,75,75	0
55	MG	14	3287	1/1	0.93	0.08	-2.46	98,98,98,98	0
55	MG	13	1733	1/1	0.97	0.11	-2.49	95,95,95,95	0
55	MG	1H	3430	1/1	0.96	0.10	-2.49	87,87,87,87	0
55	MG	1H	3416	1/1	0.95	0.10	-2.53	60,60,60,60	0
55	MG	14	3461	1/1	0.85	0.06	-2.60	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3255	1/1	0.96	0.09	-2.60	90,90,90,90	0
55	MG	14	3489	1/1	0.85	0.07	-2.63	99,99,99,99	0
55	MG	14	3436	1/1	0.98	0.08	-2.65	69,69,69,69	0
55	MG	1H	3214	1/1	0.91	0.15	-2.66	56,56,56,56	0
55	MG	1H	3215	1/1	0.94	0.18	-2.75	45,45,45,45	0
55	MG	1G	1730	1/1	0.98	0.13	-2.80	77,77,77,77	0
55	MG	14	3426	1/1	0.98	0.11	-2.91	84,84,84,84	0
55	MG	13	1739	1/1	0.92	0.08	-2.91	111,111,111,111	0
55	MG	14	3445	1/1	0.90	0.10	-3.02	97,97,97,97	0
55	MG	1H	3473	1/1	0.94	0.12	-3.06	100,100,100,100	0
55	MG	1H	3485	1/1	0.94	0.07	-3.06	84,84,84,84	0
55	MG	14	3476	1/1	0.97	0.07	-3.10	65,65,65,65	0
55	MG	14	3481	1/1	0.93	0.11	-3.15	78,78,78,78	0
55	MG	14	3417	1/1	0.98	0.14	-3.21	72,72,72,72	0
55	MG	14	3401	1/1	0.90	0.15	-3.24	78,78,78,78	0
55	MG	14	3399	1/1	0.97	0.15	-3.24	75,75,75,75	0
55	MG	14	3346	1/1	0.98	0.14	-3.26	62,62,62,62	0
55	MG	1H	3421	1/1	0.94	0.11	-3.26	66,66,66,66	0
55	MG	1H	3137	1/1	0.97	0.11	-3.27	72,72,72,72	0
55	MG	14	3222	1/1	0.98	0.07	-3.49	73,73,73,73	0
55	MG	1H	3425	1/1	0.92	0.16	-3.61	62,62,62,62	0
55	MG	14	3400	1/1	0.64	0.10	-3.68	91,91,91,91	0
55	MG	1H	3466	1/1	0.95	0.08	-3.72	77,77,77,77	0
55	MG	1H	3475	1/1	0.90	0.09	-3.95	92,92,92,92	0
55	MG	14	3427	1/1	0.93	0.09	-4.01	97,97,97,97	0
55	MG	14	3403	1/1	0.92	0.06	-4.01	96,96,96,96	0
55	MG	14	3419	1/1	0.99	0.14	-4.11	56,56,56,56	0
55	MG	14	3406	1/1	0.97	0.13	-4.29	62,62,62,62	0
55	MG	14	3458	1/1	0.97	0.09	-4.42	91,91,91,91	0
55	MG	1H	3434	1/1	0.97	0.10	-4.53	72,72,72,72	0
55	MG	1H	3476	1/1	0.93	0.07	-4.56	119,119,119,119	0
55	MG	14	3405	1/1	0.93	0.09	-4.58	70,70,70,70	0
55	MG	14	3425	1/1	0.97	0.11	-4.86	66,66,66,66	0
55	MG	14	3402	1/1	0.96	0.13	-4.90	63,63,63,63	0
55	MG	1H	3444	1/1	0.95	0.04	-4.91	94,94,94,94	0
55	MG	1H	3502	1/1	0.98	0.10	-4.94	60,60,60,60	0
55	MG	14	3450	1/1	0.94	0.08	-5.34	65,65,65,65	0
55	MG	1H	3422	1/1	0.86	0.07	-5.39	85,85,85,85	0
55	MG	14	3416	1/1	0.93	0.11	-5.60	96,96,96,96	0
55	MG	1H	3440	1/1	0.99	0.10	-5.82	66,66,66,66	0
55	MG	14	3429	1/1	0.95	0.12	-5.90	72,72,72,72	0
55	MG	14	3433	1/1	0.85	0.10	-6.11	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3169	1/1	0.96	0.10	-6.14	55,55,55,55	0
55	MG	14	3412	1/1	0.95	0.11	-6.19	77,77,77,77	0
55	MG	1H	3458	1/1	0.98	0.06	-6.26	67,67,67,67	0
55	MG	1H	3489	1/1	0.95	0.09	-6.34	97,97,97,97	0
55	MG	1H	3433	1/1	0.97	0.08	-6.43	67,67,67,67	0
55	MG	1H	3464	1/1	0.90	0.07	-6.92	92,92,92,92	0
55	MG	1H	3483	1/1	0.98	0.08	-7.26	86,86,86,86	0
55	MG	14	3444	1/1	0.93	0.06	-7.51	106,106,106,106	0
55	MG	14	3482	1/1	0.96	0.11	-7.59	81,81,81,81	0
55	MG	1H	3446	1/1	0.86	0.11	-9.10	83,83,83,83	0
55	MG	1H	3439	1/1	0.98	0.11	-11.00	59,59,59,59	0
55	MG	13	1671	1/1	0.91	0.05	-11.67	106,106,106,106	0
55	MG	14	3422	1/1	0.84	0.13	-15.48	68,68,68,68	0
55	MG	1H	3179	1/1	0.89	0.28	-	71,71,71,71	0
55	MG	1H	3251	1/1	0.95	0.20	-	85,85,85,85	0
55	MG	1H	3462	1/1	0.94	0.09	-	91,91,91,91	0
55	MG	1H	3256	1/1	0.85	0.28	-	82,82,82,82	0
55	MG	1H	3257	1/1	0.82	0.34	-	82,82,82,82	0
55	MG	1G	1609	1/1	0.87	0.27	-	101,101,101,101	0
55	MG	1H	3348	1/1	0.91	0.35	-	88,88,88,88	0
55	MG	1G	1607	1/1	0.97	0.20	-	86,86,86,86	0
55	MG	14	3234	1/1	0.94	0.33	-	76,76,76,76	0
55	MG	14	3111	1/1	0.85	0.39	-	56,56,56,56	0
55	MG	1H	3431	1/1	0.97	0.06	-	74,74,74,74	0
55	MG	14	3236	1/1	0.69	0.32	-	119,119,119,119	0
55	MG	1H	3308	1/1	0.93	0.55	-	77,77,77,77	0
55	MG	14	3485	1/1	0.84	0.18	-	101,101,101,101	0
55	MG	13	1740	1/1	0.84	0.15	-	106,106,106,106	0
55	MG	1H	3366	1/1	0.96	0.16	-	76,76,76,76	0
55	MG	1H	3389	1/1	0.88	0.54	-	99,99,99,99	0
55	MG	1G	1659	1/1	0.72	0.61	-	83,83,83,83	0
55	MG	1G	1629	1/1	0.92	0.30	-	89,89,89,89	0
55	MG	13	1677	1/1	0.77	0.49	-	77,77,77,77	0
55	MG	13	1631	1/1	0.73	0.65	-	80,80,80,80	0
55	MG	1H	3451	1/1	0.80	0.07	-	105,105,105,105	0
55	MG	1H	3341	1/1	0.89	0.41	-	83,83,83,83	0
55	MG	14	3284	1/1	0.92	0.33	-	79,79,79,79	0
55	MG	1H	3291	1/1	0.96	0.35	-	117,117,117,117	0
55	MG	13	1675	1/1	0.77	0.32	-	87,87,87,87	0
55	MG	13	1645	1/1	0.86	0.48	-	84,84,84,84	0
55	MG	1H	3048	1/1	0.41	0.34	-	87,87,87,87	0
55	MG	1H	3506	1/1	0.98	0.08	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	13	1668	1/1	0.98	0.38	-	78,78,78,78	0
55	MG	14	3168	1/1	0.93	0.39	-	66,66,66,66	0
55	MG	1H	3300	1/1	0.90	0.49	-	91,91,91,91	0
55	MG	14	3345	1/1	0.96	0.15	-	89,89,89,89	0
55	MG	14	3294	1/1	0.90	0.52	-	69,69,69,69	0
55	MG	14	3331	1/1	0.96	0.42	-	63,63,63,63	0
55	MG	1H	3492	1/1	0.89	0.20	-	101,101,101,101	0
55	MG	14	3382	1/1	0.67	0.35	-	91,91,91,91	0
55	MG	1G	1716	1/1	0.88	0.21	-	98,98,98,98	0
55	MG	14	3439	1/1	0.96	0.06	-	105,105,105,105	0
55	MG	1G	1707	1/1	0.69	0.57	-	92,92,92,92	0
55	MG	14	3077	1/1	0.97	0.46	-	63,63,63,63	0
55	MG	14	3440	1/1	0.94	0.04	-	105,105,105,105	0
55	MG	14	3079	1/1	0.95	0.56	-	46,46,46,46	0
55	MG	1H	3224	1/1	0.94	0.23	-	80,80,80,80	0
55	MG	1H	3264	1/1	0.85	0.24	-	86,86,86,86	0
55	MG	14	3305	1/1	0.86	0.52	-	89,89,89,89	0
55	MG	1H	3126	1/1	0.86	0.71	-	84,84,84,84	0
55	MG	14	3273	1/1	0.83	0.97	-	87,87,87,87	0
55	MG	14	3261	1/1	0.83	0.47	-	91,91,91,91	0
55	MG	13	1652	1/1	0.97	0.34	-	94,94,94,94	0
55	MG	1H	3267	1/1	0.82	0.46	-	85,85,85,85	0
55	MG	14	3246	1/1	0.83	0.34	-	97,97,97,97	0
55	MG	1H	3082	1/1	0.96	0.17	-	70,70,70,70	0
55	MG	14	3410	1/1	0.98	0.13	-	68,68,68,68	0
55	MG	1H	3086	1/1	0.79	0.50	-	84,84,84,84	0
55	MG	1G	1650	1/1	0.95	0.22	-	92,92,92,92	0
55	MG	1H	3154	1/1	0.78	0.42	-	81,81,81,81	0
55	MG	5E	201	1/1	0.98	0.20	-	92,92,92,92	0
55	MG	14	3145	1/1	0.82	0.38	-	79,79,79,79	0
55	MG	32	301	1/1	0.85	0.43	-	86,86,86,86	0
55	MG	1H	3297	1/1	0.97	0.29	-	87,87,87,87	0
55	MG	14	3393	1/1	0.71	0.69	-	79,79,79,79	0
55	MG	1G	1727	1/1	0.84	0.30	-	98,98,98,98	0
55	MG	14	3321	1/1	0.86	0.59	-	110,110,110,110	0
55	MG	1H	3471	1/1	0.98	0.15	-	90,90,90,90	0
55	MG	14	3443	1/1	0.96	0.11	-	74,74,74,74	0
55	MG	1H	3253	1/1	0.90	0.28	-	90,90,90,90	0
55	MG	13	1620	1/1	0.52	0.22	-	92,92,92,92	0
55	MG	14	3028	1/1	0.90	0.46	-	46,46,46,46	0
55	MG	1H	3246	1/1	0.97	0.29	-	90,90,90,90	0
55	MG	14	3349	1/1	0.94	0.32	-	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3259	1/1	0.56	0.99	-	98,98,98,98	0
55	MG	1H	3143	1/1	0.93	0.31	-	96,96,96,96	0
55	MG	88	304	1/1	0.64	0.89	-	77,77,77,77	0
55	MG	1H	3211	1/1	0.80	0.49	-	104,104,104,104	0
55	MG	1H	3190	1/1	0.81	0.32	-	71,71,71,71	0
55	MG	1H	3465	1/1	0.85	0.11	-	108,108,108,108	0
55	MG	13	1727	1/1	0.72	0.46	-	90,90,90,90	0
55	MG	1H	3194	1/1	0.76	0.30	-	86,86,86,86	0
55	MG	1H	3495	1/1	0.61	0.07	-	112,112,112,112	0
55	MG	14	3068	1/1	0.94	0.52	-	57,57,57,57	0
55	MG	13	1666	1/1	0.85	0.47	-	78,78,78,78	0
55	MG	1H	3332	1/1	0.84	0.96	-	78,78,78,78	0
55	MG	14	3062	1/1	0.96	0.35	-	71,71,71,71	0
55	MG	14	3333	1/1	0.95	0.55	-	58,58,58,58	0
55	MG	1H	3474	1/1	0.91	0.09	-	102,102,102,102	0
55	MG	1H	3325	1/1	0.86	0.47	-	92,92,92,92	0
55	MG	1H	3022	1/1	0.97	0.37	-	57,57,57,57	0
55	MG	1H	3007	1/1	0.96	0.38	-	50,50,50,50	0
55	MG	13	1614	1/1	0.97	0.27	-	92,92,92,92	0
55	MG	1H	3441	1/1	0.75	0.09	-	103,103,103,103	0
55	MG	1H	3057	1/1	0.95	0.52	-	73,73,73,73	0
55	MG	13	1710	1/1	0.84	0.55	-	80,80,80,80	0
55	MG	1H	3353	1/1	0.93	0.45	-	75,75,75,75	0
55	MG	1H	3238	1/1	0.84	0.38	-	77,77,77,77	0
55	MG	14	3386	1/1	0.76	0.51	-	79,79,79,79	0
55	MG	14	3081	1/1	0.98	0.53	-	72,72,72,72	0
55	MG	14	3160	1/1	0.94	0.28	-	98,98,98,98	0
55	MG	1H	3167	1/1	0.87	0.24	-	75,75,75,75	0
55	MG	14	3339	1/1	0.92	0.42	-	71,71,71,71	0
55	MG	14	3404	1/1	0.95	0.21	-	105,105,105,105	0
55	MG	1H	3285	1/1	0.84	0.72	-	83,83,83,83	0
55	MG	1H	3015	1/1	0.99	0.52	-	53,53,53,53	0
55	MG	1H	3298	1/1	0.86	0.32	-	68,68,68,68	0
55	MG	1H	3337	1/1	0.74	0.32	-	82,82,82,82	0
55	MG	1H	3428	1/1	0.88	0.10	-	85,85,85,85	0
55	MG	1H	3088	1/1	0.98	0.48	-	44,44,44,44	0
55	MG	14	3003	1/1	0.95	0.27	-	63,63,63,63	0
55	MG	14	3252	1/1	0.41	0.73	-	97,97,97,97	0
55	MG	1H	3347	1/1	0.77	0.23	-	80,80,80,80	0
55	MG	1H	3293	1/1	0.83	0.44	-	78,78,78,78	0
55	MG	14	3086	1/1	0.84	0.30	-	77,77,77,77	0
55	MG	1H	3456	1/1	0.92	0.19	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3436	1/1	0.97	0.10	-	77,77,77,77	0
55	MG	13	1643	1/1	0.88	0.12	-	104,104,104,104	0
55	MG	1H	3409	1/1	0.96	0.20	-	75,75,75,75	0
55	MG	1H	3084	1/1	0.98	0.38	-	65,65,65,65	0
55	MG	13	1647	1/1	0.88	0.31	-	93,93,93,93	0
55	MG	1H	3445	1/1	0.94	0.10	-	86,86,86,86	0
55	MG	1G	1635	1/1	0.91	0.50	-	82,82,82,82	0
55	MG	85	202	1/1	0.84	0.37	-	79,79,79,79	0
55	MG	1H	3141	1/1	0.97	0.23	-	50,50,50,50	0
55	MG	1G	1660	1/1	0.93	0.21	-	82,82,82,82	0
55	MG	1H	3212	1/1	0.94	0.36	-	71,71,71,71	0
55	MG	14	3184	1/1	0.97	0.50	-	59,59,59,59	0
55	MG	14	3396	1/1	0.99	0.11	-	79,79,79,79	0
55	MG	16	203	1/1	0.91	0.46	-	102,102,102,102	0
55	MG	13	1734	1/1	0.97	0.13	-	93,93,93,93	0
55	MG	1H	3289	1/1	0.90	0.18	-	80,80,80,80	0
55	MG	14	3329	1/1	0.97	0.58	-	58,58,58,58	0
55	MG	1H	3227	1/1	0.94	0.27	-	61,61,61,61	0
55	MG	14	3085	1/1	0.96	0.41	-	58,58,58,58	0
55	MG	1G	1682	1/1	0.95	0.15	-	80,80,80,80	0
55	MG	1G	1634	1/1	0.88	0.43	-	77,77,77,77	0
55	MG	14	3152	1/1	0.78	0.44	-	99,99,99,99	0
55	MG	1H	3408	1/1	0.88	0.26	-	82,82,82,82	0
55	MG	1H	3139	1/1	0.96	0.18	-	63,63,63,63	0
55	MG	14	3327	1/1	0.97	0.10	-	98,98,98,98	0
55	MG	1H	3401	1/1	0.84	0.37	-	80,80,80,80	0
55	MG	14	3167	1/1	0.83	0.24	-	50,50,50,50	0
55	MG	14	3226	1/1	0.81	0.41	-	92,92,92,92	0
55	MG	13	1658	1/1	0.75	0.39	-	82,82,82,82	0
55	MG	14	3230	1/1	0.67	0.46	-	85,85,85,85	0
55	MG	14	3438	1/1	0.86	0.26	-	117,117,117,117	0
55	MG	14	3267	1/1	0.95	0.25	-	74,74,74,74	0
55	MG	1H	3117	1/1	0.92	0.57	-	74,74,74,74	0
55	MG	1H	3090	1/1	0.83	0.50	-	77,77,77,77	0
55	MG	14	3309	1/1	0.82	0.29	-	95,95,95,95	0
55	MG	14	3455	1/1	0.93	0.13	-	121,121,121,121	0
55	MG	1H	3508	1/1	0.85	0.43	-	103,103,103,103	0
55	MG	1H	3176	1/1	0.92	0.47	-	59,59,59,59	0
55	MG	14	3266	1/1	0.94	0.20	-	69,69,69,69	0
55	MG	1H	3381	1/1	0.78	0.89	-	79,79,79,79	0
55	MG	1H	3006	1/1	0.98	0.40	-	53,53,53,53	0
55	MG	1H	3111	1/1	0.98	0.56	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3237	1/1	0.91	0.25	-	74,74,74,74	0
55	MG	13	1723	1/1	0.82	0.47	-	88,88,88,88	0
55	MG	13	1644	1/1	0.89	0.88	-	91,91,91,91	0
55	MG	14	3020	1/1	0.85	0.48	-	80,80,80,80	0
55	MG	13	1715	1/1	0.89	0.59	-	88,88,88,88	0
55	MG	14	3388	1/1	0.70	0.72	-	94,94,94,94	0
55	MG	1G	1732	1/1	0.89	0.07	-	123,123,123,123	0
55	MG	14	3151	1/1	0.98	0.41	-	68,68,68,68	0
55	MG	1H	3318	1/1	0.91	0.18	-	50,50,50,50	0
55	MG	31	400	1/1	0.94	0.23	-	65,65,65,65	0
55	MG	1H	3320	1/1	0.94	0.24	-	82,82,82,82	0
55	MG	1H	3145	1/1	0.40	0.51	-	83,83,83,83	0
55	MG	1H	3174	1/1	0.85	0.41	-	74,74,74,74	0
55	MG	14	3158	1/1	0.94	0.41	-	68,68,68,68	0
55	MG	1G	1653	1/1	0.88	0.16	-	97,97,97,97	0
55	MG	1G	1711	1/1	0.91	0.42	-	88,88,88,88	0
55	MG	1H	3427	1/1	0.98	0.08	-	91,91,91,91	0
55	MG	1H	3099	1/1	0.88	0.46	-	59,59,59,59	0
55	MG	14	3010	1/1	0.97	0.35	-	54,54,54,54	0
55	MG	1H	3089	1/1	0.96	0.39	-	71,71,71,71	0
55	MG	14	3147	1/1	0.94	0.42	-	80,80,80,80	0
55	MG	13	1663	1/1	0.94	0.57	-	93,93,93,93	0
55	MG	1H	3287	1/1	0.87	0.28	-	75,75,75,75	0
55	MG	1H	3463	1/1	0.89	0.07	-	91,91,91,91	0
55	MG	14	3377	1/1	0.95	0.45	-	82,82,82,82	0
55	MG	14	3358	1/1	0.71	0.55	-	89,89,89,89	0
55	MG	1G	1742	1/1	0.69	0.09	-	131,131,131,131	0
55	MG	13	1692	1/1	0.96	0.56	-	52,52,52,52	0
55	MG	1G	1717	1/1	0.51	0.81	-	99,99,99,99	0
55	MG	1G	1674	1/1	0.67	0.25	-	113,113,113,113	0
55	MG	1G	1715	1/1	0.90	0.28	-	83,83,83,83	0
55	MG	P8	101	1/1	0.87	0.45	-	72,72,72,72	0
55	MG	1G	1733	1/1	0.97	0.06	-	93,93,93,93	0
55	MG	1H	3208	1/1	0.76	0.44	-	96,96,96,96	0
55	MG	14	3470	1/1	0.86	0.16	-	119,119,119,119	0
55	MG	1H	3157	1/1	0.94	0.68	-	60,60,60,60	0
55	MG	14	3171	1/1	0.56	0.45	-	103,103,103,103	0
55	MG	14	3007	1/1	0.99	0.50	-	68,68,68,68	0
55	MG	1G	1647	1/1	0.91	0.20	-	92,92,92,92	0
55	MG	13	1718	1/1	0.72	0.28	-	78,78,78,78	0
55	MG	14	3076	1/1	0.98	0.42	-	45,45,45,45	0
55	MG	14	3181	1/1	0.95	0.23	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1G	1670	1/1	0.80	0.33	-	117,117,117,117	0
55	MG	14	3131	1/1	0.77	0.49	-	93,93,93,93	0
55	MG	14	3286	1/1	0.89	0.54	-	91,91,91,91	0
55	MG	14	3019	1/1	0.95	0.26	-	80,80,80,80	0
55	MG	14	3175	1/1	0.68	0.89	-	95,95,95,95	0
55	MG	1H	3330	1/1	0.90	0.37	-	75,75,75,75	0
55	MG	1G	1658	1/1	0.83	0.77	-	78,78,78,78	0
55	MG	1H	3507	1/1	0.97	0.12	-	100,100,100,100	0
55	MG	13	1676	1/1	0.26	0.29	-	103,103,103,103	0
55	MG	13	1655	1/1	0.85	0.30	-	77,77,77,77	0
55	MG	1G	1729	1/1	0.56	0.51	-	89,89,89,89	0
55	MG	13	1705	1/1	0.74	0.61	-	102,102,102,102	0
55	MG	1G	1624	1/1	0.98	0.25	-	103,103,103,103	0
55	MG	14	3250	1/1	0.87	0.19	-	87,87,87,87	0
55	MG	14	3469	1/1	0.97	0.07	-	96,96,96,96	0
55	MG	1H	3151	1/1	0.90	0.27	-	81,81,81,81	0
55	MG	1H	3013	1/1	0.96	0.52	-	54,54,54,54	0
55	MG	1H	3360	1/1	0.97	0.37	-	70,70,70,70	0
55	MG	1G	1725	1/1	0.81	0.56	-	104,104,104,104	0
55	MG	14	3248	1/1	0.91	0.78	-	74,74,74,74	0
55	MG	13	1703	1/1	0.79	0.29	-	85,85,85,85	0
55	MG	14	3091	1/1	0.98	0.57	-	53,53,53,53	0
55	MG	14	3375	1/1	0.77	0.40	-	81,81,81,81	0
55	MG	14	3227	1/1	0.90	0.14	-	90,90,90,90	0
55	MG	14	3447	1/1	0.97	0.07	-	95,95,95,95	0
55	MG	1H	3091	1/1	0.98	0.46	-	58,58,58,58	0
55	MG	1H	3372	1/1	0.92	0.97	-	75,75,75,75	0
55	MG	14	3213	1/1	0.98	0.72	-	59,59,59,59	0
55	MG	14	3364	1/1	0.61	0.27	-	89,89,89,89	0
55	MG	1H	3315	1/1	0.88	0.40	-	92,92,92,92	0
55	MG	13	1708	1/1	0.93	0.41	-	81,81,81,81	0
55	MG	1G	1724	1/1	0.28	0.16	-	99,99,99,99	0
55	MG	1H	3261	1/1	0.73	0.30	-	85,85,85,85	0
55	MG	1H	3345	1/1	0.97	0.17	-	70,70,70,70	0
55	MG	1H	3339	1/1	0.90	0.23	-	88,88,88,88	0
55	MG	13	1662	1/1	0.83	0.11	-	98,98,98,98	0
55	MG	1H	3412	1/1	0.94	0.14	-	103,103,103,103	0
55	MG	14	3265	1/1	0.78	0.69	-	88,88,88,88	0
55	MG	1H	3455	1/1	0.96	0.12	-	62,62,62,62	0
55	MG	1H	3499	1/1	0.62	0.19	-	103,103,103,103	0
55	MG	1H	3027	1/1	0.99	0.43	-	51,51,51,51	0
55	MG	1H	3158	1/1	0.76	0.47	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	13	1684	1/1	0.71	0.41	-	98,98,98,98	0
55	MG	1H	3453	1/1	0.94	0.08	-	89,89,89,89	0
55	MG	1G	1669	1/1	0.89	0.42	-	100,100,100,100	0
55	MG	14	3235	1/1	0.64	0.51	-	91,91,91,91	0
55	MG	14	3060	1/1	0.80	0.71	-	80,80,80,80	0
55	MG	13	1746	1/1	0.96	0.20	-	100,100,100,100	0
55	MG	E5	202	1/1	0.84	0.79	-	92,92,92,92	0
55	MG	1G	1637	1/1	0.85	0.46	-	84,84,84,84	0
55	MG	1H	3032	1/1	0.96	0.35	-	79,79,79,79	0
55	MG	14	3157	1/1	0.95	0.56	-	83,83,83,83	0
55	MG	1G	1620	1/1	0.94	0.26	-	88,88,88,88	0
55	MG	14	3318	1/1	0.83	0.25	-	77,77,77,77	0
55	MG	14	3348	1/1	0.88	0.35	-	86,86,86,86	0
55	MG	14	3291	1/1	0.93	0.52	-	91,91,91,91	0
55	MG	14	3096	1/1	0.64	0.57	-	62,62,62,62	0
55	MG	14	3057	1/1	0.97	0.49	-	45,45,45,45	0
55	MG	14	3371	1/1	0.84	0.57	-	91,91,91,91	0
55	MG	14	3078	1/1	0.86	0.61	-	68,68,68,68	0
55	MG	1H	3247	1/1	0.96	0.44	-	77,77,77,77	0
55	MG	14	3460	1/1	0.89	0.14	-	114,114,114,114	0
55	MG	14	3281	1/1	0.91	0.20	-	79,79,79,79	0
55	MG	1H	3493	1/1	0.79	0.20	-	122,122,122,122	0
55	MG	14	3283	1/1	0.93	0.56	-	101,101,101,101	0
55	MG	1H	3202	1/1	0.89	0.72	-	71,71,71,71	0
55	MG	1H	3203	1/1	0.36	0.27	-	110,110,110,110	0
55	MG	1G	1627	1/1	0.89	0.46	-	88,88,88,88	0
55	MG	14	3464	1/1	0.85	0.18	-	116,116,116,116	0
55	MG	1H	3327	1/1	0.86	0.55	-	83,83,83,83	0
55	MG	1H	3452	1/1	0.97	0.11	-	91,91,91,91	0
55	MG	1H	3399	1/1	0.88	0.48	-	94,94,94,94	0
55	MG	14	3233	1/1	0.67	0.69	-	91,91,91,91	0
55	MG	14	3045	1/1	0.95	0.52	-	55,55,55,55	0
55	MG	1G	1614	1/1	0.89	0.30	-	98,98,98,98	0
55	MG	1H	3049	1/1	0.97	0.35	-	89,89,89,89	0
55	MG	1H	3222	1/1	0.90	0.19	-	91,91,91,91	0
55	MG	1H	3074	1/1	0.94	0.31	-	59,59,59,59	0
55	MG	13	1623	1/1	0.94	0.46	-	94,94,94,94	0
55	MG	13	1741	1/1	0.85	0.05	-	128,128,128,128	0
55	MG	14	3328	1/1	0.94	0.40	-	38,38,38,38	0
55	MG	1H	3128	1/1	0.98	0.47	-	66,66,66,66	0
55	MG	14	3308	1/1	0.81	0.39	-	89,89,89,89	0
55	MG	1G	1671	1/1	0.94	0.51	-	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3165	1/1	0.86	0.40	-	76,76,76,76	0
55	MG	1H	3258	1/1	0.96	0.11	-	92,92,92,92	0
55	MG	13	1737	1/1	0.88	0.11	-	114,114,114,114	0
55	MG	1H	3404	1/1	0.70	0.62	-	83,83,83,83	0
55	MG	14	3055	1/1	0.93	0.59	-	68,68,68,68	0
55	MG	1H	3262	1/1	0.66	0.25	-	93,93,93,93	0
55	MG	13	1640	1/1	0.94	0.30	-	73,73,73,73	0
55	MG	14	3390	1/1	0.78	0.29	-	70,70,70,70	0
55	MG	1H	3078	1/1	0.98	0.42	-	54,54,54,54	0
55	MG	1G	1705	1/1	0.78	0.38	-	105,105,105,105	0
55	MG	13	1712	1/1	0.87	0.61	-	86,86,86,86	0
55	MG	13	1673	1/1	0.14	0.50	-	145,145,145,145	0
55	MG	1H	3303	1/1	0.91	0.44	-	91,91,91,91	0
55	MG	14	3387	1/1	0.87	0.86	-	92,92,92,92	0
55	MG	13	1653	1/1	0.95	0.65	-	79,79,79,79	0
55	MG	I8	101	1/1	0.94	0.36	-	55,55,55,55	0
55	MG	1H	3047	1/1	0.96	0.10	-	96,96,96,96	0
55	MG	14	3343	1/1	0.92	0.32	-	75,75,75,75	0
55	MG	14	3459	1/1	0.87	0.10	-	122,122,122,122	0
55	MG	14	3187	1/1	0.76	0.31	-	81,81,81,81	0
55	MG	14	3351	1/1	0.90	0.42	-	104,104,104,104	0
55	MG	14	3354	1/1	0.92	0.77	-	76,76,76,76	0
55	MG	1G	1605	1/1	0.99	0.23	-	85,85,85,85	0
55	MG	1H	3133	1/1	0.87	0.40	-	79,79,79,79	0
55	MG	14	3352	1/1	0.71	0.50	-	99,99,99,99	0
55	MG	1H	3160	1/1	0.92	0.38	-	88,88,88,88	0
55	MG	14	3269	1/1	0.84	0.32	-	93,93,93,93	0
55	MG	13	1641	1/1	0.89	0.32	-	75,75,75,75	0
55	MG	14	3288	1/1	0.92	0.74	-	89,89,89,89	0
55	MG	1H	3392	1/1	0.77	0.30	-	86,86,86,86	0
55	MG	14	3159	1/1	0.59	0.41	-	102,102,102,102	0
55	MG	1H	3079	1/1	0.94	0.24	-	79,79,79,79	0
55	MG	98	201	1/1	0.90	0.62	-	71,71,71,71	0
55	MG	14	3143	1/1	0.90	0.72	-	64,64,64,64	0
55	MG	13	1698	1/1	0.74	0.40	-	89,89,89,89	0
55	MG	1H	3331	1/1	0.90	0.14	-	68,68,68,68	0
55	MG	13	1612	1/1	0.75	0.70	-	74,74,74,74	0
55	MG	1H	3472	1/1	0.95	0.06	-	86,86,86,86	0
55	MG	1H	3346	1/1	0.81	0.28	-	105,105,105,105	0
55	MG	13	1736	1/1	0.90	0.07	-	111,111,111,111	0
55	MG	14	3347	1/1	0.97	0.33	-	84,84,84,84	0
55	MG	1G	1632	1/1	0.78	0.28	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1G	1699	1/1	0.98	0.39	-	100,100,100,100	0
55	MG	14	3182	1/1	0.94	0.30	-	78,78,78,78	0
55	MG	14	3192	1/1	0.79	0.29	-	102,102,102,102	0
55	MG	13	1646	1/1	0.95	0.71	-	76,76,76,76	0
55	MG	1H	3182	1/1	0.97	0.58	-	59,59,59,59	0
55	MG	1H	3426	1/1	0.94	0.14	-	62,62,62,62	0
55	MG	14	3306	1/1	0.49	0.42	-	95,95,95,95	0
55	MG	14	3451	1/1	0.96	0.10	-	91,91,91,91	0
55	MG	14	3191	1/1	0.92	0.30	-	62,62,62,62	0
55	MG	16	205	1/1	0.85	0.40	-	87,87,87,87	0
55	MG	14	3370	1/1	0.85	0.56	-	88,88,88,88	0
55	MG	14	3463	1/1	0.75	0.09	-	119,119,119,119	0
55	MG	14	3209	1/1	0.93	0.23	-	91,91,91,91	0
55	MG	2L	102	1/1	0.95	0.35	-	71,71,71,71	0
55	MG	14	3125	1/1	0.91	0.47	-	75,75,75,75	0
55	MG	7A	101	1/1	0.82	0.17	-	85,85,85,85	0
55	MG	14	3218	1/1	0.97	0.35	-	57,57,57,57	0
55	MG	1H	3382	1/1	0.82	0.58	-	73,73,73,73	0
55	MG	1H	3479	1/1	0.75	0.07	-	103,103,103,103	0
55	MG	1G	1666	1/1	0.92	0.42	-	71,71,71,71	0
55	MG	1G	1667	1/1	0.93	0.20	-	84,84,84,84	0
55	MG	1H	3394	1/1	0.83	0.67	-	82,82,82,82	0
55	MG	1H	3028	1/1	0.96	0.32	-	52,52,52,52	0
55	MG	1H	3274	1/1	0.85	0.61	-	83,83,83,83	0
55	MG	1H	3504	1/1	0.87	0.14	-	95,95,95,95	0
55	MG	1H	3146	1/1	0.98	0.29	-	64,64,64,64	0
55	MG	14	3484	1/1	0.97	0.05	-	95,95,95,95	0
55	MG	1H	3386	1/1	0.95	0.59	-	87,87,87,87	0
55	MG	14	3407	1/1	0.97	0.16	-	66,66,66,66	0
55	MG	1H	3229	1/1	0.76	0.45	-	82,82,82,82	0
55	MG	1H	3147	1/1	0.94	0.33	-	81,81,81,81	0
55	MG	1H	3077	1/1	0.99	0.28	-	65,65,65,65	0
55	MG	14	3391	1/1	0.82	0.58	-	90,90,90,90	0
55	MG	1H	3107	1/1	0.93	0.85	-	76,76,76,76	0
55	MG	14	3457	1/1	0.92	0.05	-	103,103,103,103	0
55	MG	E5	201	1/1	0.95	0.24	-	62,62,62,62	0
55	MG	14	3113	1/1	0.95	0.26	-	76,76,76,76	0
55	MG	14	3001	1/1	0.76	0.71	-	81,81,81,81	0
55	MG	1H	3296	1/1	0.90	0.25	-	84,84,84,84	0
55	MG	14	3214	1/1	0.97	0.38	-	78,78,78,78	0
55	MG	1H	3178	1/1	0.94	0.50	-	69,69,69,69	0
55	MG	13	1654	1/1	0.93	0.29	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	13	1730	1/1	0.72	0.15	-	95,95,95,95	0
55	MG	G8	201	1/1	0.97	0.30	-	65,65,65,65	0
55	MG	14	3237	1/1	0.91	0.16	-	65,65,65,65	0
55	MG	14	3307	1/1	0.75	0.31	-	91,91,91,91	0
55	MG	1H	3068	1/1	0.95	0.27	-	83,83,83,83	0
55	MG	13	1693	1/1	0.98	0.61	-	62,62,62,62	0
55	MG	14	3134	1/1	0.87	0.27	-	76,76,76,76	0
55	MG	14	3254	1/1	0.99	0.10	-	117,117,117,117	0
55	MG	14	3297	1/1	0.92	0.34	-	85,85,85,85	0
55	MG	14	3029	1/1	0.96	0.49	-	63,63,63,63	0
55	MG	1H	3362	1/1	0.96	0.38	-	56,56,56,56	0
55	MG	13	1625	1/1	0.96	0.50	-	78,78,78,78	0
55	MG	14	3357	1/1	0.87	0.38	-	93,93,93,93	0
55	MG	1G	1628	1/1	0.88	0.47	-	93,93,93,93	0
55	MG	1H	3461	1/1	0.97	0.10	-	67,67,67,67	0
55	MG	1H	3163	1/1	0.94	0.39	-	83,83,83,83	0
55	MG	1H	3491	1/1	0.86	0.04	-	122,122,122,122	0
55	MG	1G	1648	1/1	0.91	0.39	-	82,82,82,82	0
55	MG	14	3189	1/1	0.83	0.22	-	91,91,91,91	0
55	MG	1H	3193	1/1	0.41	0.32	-	116,116,116,116	0
55	MG	14	3341	1/1	0.93	0.41	-	77,77,77,77	0
55	MG	13	1704	1/1	0.84	0.41	-	93,93,93,93	0
55	MG	14	3176	1/1	0.89	0.71	-	63,63,63,63	0
55	MG	13	1611	1/1	0.92	0.31	-	115,115,115,115	0
55	MG	14	3311	1/1	0.81	0.45	-	103,103,103,103	0
55	MG	14	3238	1/1	0.74	0.16	-	98,98,98,98	0
55	MG	1H	3321	1/1	0.95	0.47	-	80,80,80,80	0
55	MG	21	301	1/1	0.93	0.36	-	64,64,64,64	0
55	MG	13	1656	1/1	0.96	0.41	-	63,63,63,63	0
55	MG	1H	3447	1/1	0.94	0.20	-	77,77,77,77	0
55	MG	14	3374	1/1	0.66	0.43	-	102,102,102,102	0
55	MG	14	3178	1/1	0.98	0.20	-	89,89,89,89	0
55	MG	14	3272	1/1	0.73	0.43	-	90,90,90,90	0
55	MG	14	3107	1/1	0.98	0.58	-	50,50,50,50	0
55	MG	14	3383	1/1	0.97	0.21	-	95,95,95,95	0
55	MG	14	3097	1/1	0.92	0.41	-	91,91,91,91	0
55	MG	1H	3503	1/1	0.94	0.22	-	76,76,76,76	0
55	MG	14	3356	1/1	0.97	0.27	-	77,77,77,77	0
55	MG	1H	3329	1/1	0.88	0.39	-	62,62,62,62	0
55	MG	1H	3338	1/1	0.59	0.61	-	82,82,82,82	0
55	MG	1H	3020	1/1	0.98	0.36	-	68,68,68,68	0
55	MG	14	3290	1/1	0.88	0.46	-	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3129	1/1	0.53	0.33	-	86,86,86,86	0
55	MG	14	3332	1/1	0.93	0.35	-	80,80,80,80	0
55	MG	1H	3162	1/1	0.89	0.47	-	89,89,89,89	0
55	MG	13	1725	1/1	0.96	0.57	-	71,71,71,71	0
55	MG	1H	3390	1/1	0.81	0.46	-	86,86,86,86	0
55	MG	1H	3334	1/1	0.92	0.23	-	75,75,75,75	0
55	MG	1H	3286	1/1	0.95	0.30	-	94,94,94,94	0
55	MG	14	3058	1/1	0.96	0.51	-	53,53,53,53	0
55	MG	1H	3316	1/1	0.92	0.44	-	87,87,87,87	0
55	MG	14	3095	1/1	0.98	0.36	-	54,54,54,54	0
55	MG	1H	3443	1/1	0.98	0.04	-	90,90,90,90	0
55	MG	1H	3250	1/1	0.79	1.87	-	97,97,97,97	0
55	MG	1H	3457	1/1	0.95	0.11	-	79,79,79,79	0
55	MG	1G	1693	1/1	0.68	0.34	-	109,109,109,109	0
55	MG	14	3369	1/1	0.58	0.68	-	105,105,105,105	0
55	MG	1H	3070	1/1	0.85	0.70	-	73,73,73,73	0
55	MG	1H	3282	1/1	0.94	0.34	-	89,89,89,89	0
55	MG	1H	3134	1/1	0.86	0.56	-	67,67,67,67	0
55	MG	1H	3205	1/1	0.97	0.43	-	75,75,75,75	0
55	MG	14	3310	1/1	0.82	0.24	-	84,84,84,84	0
55	MG	14	3467	1/1	0.91	0.09	-	97,97,97,97	0
55	MG	14	3049	1/1	0.96	0.25	-	80,80,80,80	0
55	MG	1G	1735	1/1	0.93	0.06	-	97,97,97,97	0
55	MG	1G	1737	1/1	0.94	0.06	-	93,93,93,93	0
55	MG	13	1603	1/1	0.97	0.26	-	73,73,73,73	0
55	MG	14	3278	1/1	0.87	0.51	-	69,69,69,69	0
55	MG	14	3195	1/1	0.96	0.47	-	69,69,69,69	0
55	MG	14	3271	1/1	0.92	0.80	-	75,75,75,75	0
55	MG	1H	3169	1/1	0.69	0.34	-	90,90,90,90	0
55	MG	1H	3313	1/1	0.55	0.45	-	98,98,98,98	0
55	MG	14	3312	1/1	0.79	0.40	-	96,96,96,96	0
55	MG	1H	3391	1/1	0.70	0.25	-	78,78,78,78	0
55	MG	1G	1625	1/1	0.68	0.37	-	99,99,99,99	0
55	MG	1G	1617	1/1	0.95	0.58	-	72,72,72,72	0
55	MG	1G	1708	1/1	0.74	0.58	-	66,66,66,66	0
55	MG	1H	3131	1/1	0.98	0.46	-	65,65,65,65	0
55	MG	1H	3260	1/1	0.92	0.47	-	85,85,85,85	0
55	MG	1H	3199	1/1	0.90	0.16	-	74,74,74,74	0
55	MG	14	3480	1/1	0.96	0.04	-	92,92,92,92	0
55	MG	14	3268	1/1	0.93	1.03	-	69,69,69,69	0
55	MG	14	3035	1/1	0.66	0.71	-	91,91,91,91	0
55	MG	1H	3008	1/1	0.94	0.26	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3480	1/1	0.91	0.10	-	118,118,118,118	0
55	MG	14	3378	1/1	0.82	0.32	-	83,83,83,83	0
55	MG	14	3216	1/1	0.78	0.18	-	77,77,77,77	0
55	MG	1H	3101	1/1	0.96	0.49	-	60,60,60,60	0
55	MG	14	3468	1/1	0.93	0.32	-	107,107,107,107	0
55	MG	14	3008	1/1	0.97	0.37	-	61,61,61,61	0
55	MG	14	3244	1/1	0.85	0.78	-	75,75,75,75	0
55	MG	J8	101	1/1	0.98	0.47	-	65,65,65,65	0
55	MG	1H	3358	1/1	0.92	0.12	-	81,81,81,81	0
55	MG	14	3368	1/1	0.88	0.44	-	91,91,91,91	0
55	MG	1G	1700	1/1	0.82	0.45	-	99,99,99,99	0
55	MG	1H	3195	1/1	0.79	0.54	-	84,84,84,84	0
55	MG	13	1650	1/1	0.90	0.70	-	88,88,88,88	0
55	MG	1H	3482	1/1	0.94	0.06	-	83,83,83,83	0
55	MG	14	3466	1/1	0.95	0.12	-	103,103,103,103	0
55	MG	1H	3380	1/1	0.70	0.47	-	100,100,100,100	0
55	MG	14	3112	1/1	0.89	0.20	-	77,77,77,77	0
55	MG	1G	1633	1/1	0.89	0.70	-	73,73,73,73	0
55	MG	1H	3292	1/1	0.71	0.31	-	90,90,90,90	0
55	MG	14	3123	1/1	0.91	0.41	-	63,63,63,63	0
55	MG	14	3232	1/1	0.74	0.27	-	82,82,82,82	0
55	MG	1H	3403	1/1	0.94	0.56	-	79,79,79,79	0
55	MG	1H	3242	1/1	0.65	0.47	-	97,97,97,97	0
55	MG	1H	3023	1/1	0.97	0.45	-	48,48,48,48	0
55	MG	14	3380	1/1	0.90	0.78	-	93,93,93,93	0
55	MG	14	3142	1/1	0.92	0.49	-	77,77,77,77	0
55	MG	13	1670	1/1	0.60	0.29	-	99,99,99,99	0
55	MG	1H	3374	1/1	0.83	0.31	-	89,89,89,89	0
55	MG	13	1637	1/1	0.94	0.41	-	72,72,72,72	0
55	MG	78	201	1/1	0.91	0.21	-	74,74,74,74	0
55	MG	1H	3288	1/1	0.91	0.53	-	68,68,68,68	0
55	MG	14	3080	1/1	0.93	0.44	-	65,65,65,65	0
55	MG	13	1726	1/1	0.80	0.60	-	93,93,93,93	0
55	MG	14	3277	1/1	0.93	0.66	-	74,74,74,74	0
55	MG	14	3471	1/1	0.95	0.29	-	113,113,113,113	0
55	MG	14	3360	1/1	0.92	0.58	-	93,93,93,93	0
55	MG	14	3389	1/1	0.84	0.36	-	77,77,77,77	0
55	MG	1H	3054	1/1	0.98	0.52	-	51,51,51,51	0
55	MG	14	3204	1/1	0.70	0.56	-	89,89,89,89	0
55	MG	14	3012	1/1	0.93	0.41	-	48,48,48,48	0
55	MG	1H	3129	1/1	0.96	0.38	-	61,61,61,61	0
55	MG	2K	102	1/1	0.49	0.36	-	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3423	1/1	0.79	0.13	-	110,110,110,110	0
55	MG	1H	3450	1/1	0.90	0.06	-	74,74,74,74	0
55	MG	1G	1726	1/1	0.88	0.54	-	90,90,90,90	0
55	MG	14	3064	1/1	0.99	0.58	-	54,54,54,54	0
55	MG	14	3139	1/1	0.94	0.31	-	98,98,98,98	0
55	MG	1H	3411	1/1	0.82	0.16	-	87,87,87,87	0
55	MG	1H	3387	1/1	0.94	0.46	-	73,73,73,73	0
55	MG	14	3315	1/1	0.85	0.36	-	92,92,92,92	0
55	MG	14	3016	1/1	0.93	0.43	-	74,74,74,74	0
55	MG	14	3334	1/1	0.94	0.35	-	76,76,76,76	0
55	MG	14	3418	1/1	0.92	0.13	-	72,72,72,72	0
55	MG	13	1743	1/1	0.77	0.09	-	142,142,142,142	0
55	MG	1G	1680	1/1	0.60	0.32	-	88,88,88,88	0
55	MG	14	3442	1/1	0.93	0.07	-	109,109,109,109	0
55	MG	14	3298	1/1	0.96	0.45	-	54,54,54,54	0
55	MG	1H	3188	1/1	0.55	0.47	-	92,92,92,92	0
55	MG	1G	1639	1/1	0.87	0.77	-	79,79,79,79	0
55	MG	1G	1651	1/1	0.88	0.09	-	93,93,93,93	0
55	MG	14	3116	1/1	0.78	0.43	-	65,65,65,65	0
55	MG	1G	1683	1/1	0.93	0.16	-	132,132,132,132	0
55	MG	1H	3235	1/1	0.86	0.61	-	88,88,88,88	0
55	MG	1H	3221	1/1	0.98	0.70	-	57,57,57,57	0
55	MG	1G	1612	1/1	0.92	0.10	-	88,88,88,88	0
55	MG	1H	3232	1/1	0.84	0.14	-	90,90,90,90	0
55	MG	1G	1741	1/1	0.96	0.07	-	105,105,105,105	0
55	MG	14	3324	1/1	0.78	0.43	-	80,80,80,80	0
55	MG	1H	3187	1/1	0.95	0.30	-	66,66,66,66	0
55	MG	14	3322	1/1	0.56	0.19	-	93,93,93,93	0
55	MG	14	3289	1/1	0.90	0.34	-	98,98,98,98	0
55	MG	1H	3231	1/1	0.95	0.15	-	90,90,90,90	0
55	MG	1H	3127	1/1	0.97	0.40	-	58,58,58,58	0
55	MG	1H	3063	1/1	0.89	0.45	-	90,90,90,90	0
55	MG	13	1722	1/1	0.65	0.26	-	106,106,106,106	0
55	MG	14	3379	1/1	0.89	0.45	-	107,107,107,107	0
55	MG	14	3104	1/1	0.91	0.32	-	87,87,87,87	0
55	MG	14	3299	1/1	0.99	0.43	-	64,64,64,64	0
55	MG	14	3053	1/1	0.89	0.33	-	69,69,69,69	0
55	MG	14	3337	1/1	0.93	0.36	-	64,64,64,64	0
55	MG	1H	3252	1/1	0.95	0.41	-	79,79,79,79	0
55	MG	1G	1626	1/1	0.97	0.34	-	80,80,80,80	0
55	MG	14	3070	1/1	0.91	0.23	-	57,57,57,57	0
55	MG	13	1621	1/1	0.95	0.39	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3395	1/1	0.70	0.21	-	98,98,98,98	0
55	MG	14	3115	1/1	0.76	0.39	-	77,77,77,77	0
55	MG	14	3474	1/1	0.91	0.06	-	107,107,107,107	0
55	MG	1H	3124	1/1	0.86	0.40	-	68,68,68,68	0
55	MG	1H	3136	1/1	0.97	0.47	-	72,72,72,72	0
55	MG	1H	3311	1/1	0.93	0.11	-	65,65,65,65	0
55	MG	13	1738	1/1	0.92	0.07	-	100,100,100,100	0
55	MG	14	3002	1/1	0.93	0.52	-	61,61,61,61	0
55	MG	1H	3384	1/1	0.72	0.36	-	79,79,79,79	0
55	MG	14	3102	1/1	0.98	0.17	-	62,62,62,62	0
55	MG	1H	3119	1/1	0.98	0.71	-	75,75,75,75	0
55	MG	13	1695	1/1	0.77	0.29	-	92,92,92,92	0
55	MG	1H	3081	1/1	0.89	0.53	-	85,85,85,85	0
55	MG	1H	3004	1/1	0.98	0.39	-	60,60,60,60	0
55	MG	14	3018	1/1	0.98	0.41	-	52,52,52,52	0
55	MG	1H	3350	1/1	0.91	0.26	-	79,79,79,79	0
55	MG	1H	3481	1/1	0.91	0.06	-	116,116,116,116	0
55	MG	13	1627	1/1	0.73	0.81	-	85,85,85,85	0
55	MG	1G	1690	1/1	0.79	0.41	-	97,97,97,97	0
55	MG	14	3138	1/1	0.96	0.59	-	83,83,83,83	0
55	MG	14	3004	1/1	0.96	0.28	-	59,59,59,59	0
55	MG	14	3304	1/1	0.86	0.45	-	109,109,109,109	0
55	MG	14	3185	1/1	0.92	0.24	-	74,74,74,74	0
55	MG	1H	3036	1/1	0.81	0.40	-	77,77,77,77	0
55	MG	2K	103	1/1	0.89	0.14	-	143,143,143,143	0
55	MG	14	3355	1/1	0.95	0.55	-	71,71,71,71	0
55	MG	1H	3249	1/1	0.95	0.38	-	80,80,80,80	0
55	MG	1H	3234	1/1	0.84	0.21	-	78,78,78,78	0
55	MG	1G	1661	1/1	0.94	0.46	-	65,65,65,65	0
55	MG	1H	3114	1/1	0.98	0.33	-	69,69,69,69	0
55	MG	14	3098	1/1	0.84	0.43	-	87,87,87,87	0
55	MG	14	3394	1/1	0.94	0.32	-	90,90,90,90	0
55	MG	1H	3319	1/1	0.68	0.53	-	102,102,102,102	0
55	MG	14	3465	1/1	0.84	0.19	-	115,115,115,115	0
55	MG	14	3454	1/1	0.81	0.04	-	111,111,111,111	0
55	MG	1H	3185	1/1	0.97	0.42	-	66,66,66,66	0
55	MG	14	3336	1/1	0.94	0.39	-	70,70,70,70	0
55	MG	14	3056	1/1	0.92	0.53	-	71,71,71,71	0
55	MG	13	1669	1/1	0.81	0.66	-	97,97,97,97	0
55	MG	1H	3034	1/1	0.89	0.22	-	54,54,54,54	0
55	MG	1H	3460	1/1	0.95	0.15	-	72,72,72,72	0
55	MG	1G	1698	1/1	0.85	0.24	-	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3218	1/1	0.87	0.53	-	52,52,52,52	0
55	MG	14	3385	1/1	0.78	0.42	-	97,97,97,97	0
55	MG	1H	3494	1/1	0.57	0.15	-	125,125,125,125	0
55	MG	14	3025	1/1	0.98	0.27	-	82,82,82,82	0
55	MG	14	3015	1/1	0.99	0.37	-	69,69,69,69	0
55	MG	1H	3245	1/1	0.88	0.64	-	81,81,81,81	0
55	MG	14	3432	1/1	0.74	0.12	-	93,93,93,93	0
55	MG	1H	3241	1/1	0.66	0.42	-	92,92,92,92	0
55	MG	1H	3368	1/1	0.65	0.42	-	88,88,88,88	0
55	MG	1H	3429	1/1	0.91	0.08	-	91,91,91,91	0
55	MG	14	3264	1/1	0.69	0.37	-	78,78,78,78	0
55	MG	1H	3487	1/1	0.85	0.08	-	102,102,102,102	0
55	MG	14	3413	1/1	0.93	0.08	-	100,100,100,100	0
55	MG	13	1682	1/1	0.90	0.25	-	108,108,108,108	0
55	MG	13	1648	1/1	0.92	0.25	-	96,96,96,96	0
55	MG	1H	3031	1/1	0.97	0.31	-	57,57,57,57	0
55	MG	14	3323	1/1	0.75	0.41	-	79,79,79,79	0
55	MG	13	1691	1/1	0.97	0.37	-	89,89,89,89	0
55	MG	1H	3317	1/1	0.86	0.19	-	79,79,79,79	0
55	MG	13	1664	1/1	0.93	0.58	-	76,76,76,76	0
55	MG	14	3381	1/1	0.69	0.41	-	95,95,95,95	0
55	MG	14	3201	1/1	0.94	0.31	-	68,68,68,68	0
55	MG	1H	3322	1/1	0.93	0.27	-	109,109,109,109	0
55	MG	1H	3059	1/1	0.91	0.60	-	69,69,69,69	0
55	MG	1H	3328	1/1	0.93	0.33	-	70,70,70,70	0
55	MG	45	201	1/1	0.79	0.54	-	76,76,76,76	0
55	MG	1H	3354	1/1	0.69	0.21	-	107,107,107,107	0
55	MG	1H	3030	1/1	0.99	0.37	-	63,63,63,63	0
55	MG	1G	1675	1/1	0.84	0.16	-	102,102,102,102	0
55	MG	1H	3496	1/1	0.95	0.20	-	99,99,99,99	0
55	MG	13	1634	1/1	0.93	0.40	-	77,77,77,77	0
55	MG	1G	1643	1/1	0.97	0.27	-	78,78,78,78	0
55	MG	88	303	1/1	0.82	0.40	-	71,71,71,71	0
55	MG	14	3446	1/1	0.84	0.06	-	122,122,122,122	0
55	MG	14	3203	1/1	0.94	0.31	-	84,84,84,84	0
55	MG	14	3161	1/1	0.96	0.50	-	74,74,74,74	0
55	MG	1H	3033	1/1	0.62	0.24	-	92,92,92,92	0
55	MG	1H	3459	1/1	0.99	0.06	-	75,75,75,75	0
55	MG	1H	3105	1/1	0.96	0.49	-	50,50,50,50	0
55	MG	13	1742	1/1	0.91	0.11	-	111,111,111,111	0
55	MG	14	3441	1/1	0.94	0.03	-	102,102,102,102	0
55	MG	14	3275	1/1	0.77	0.47	-	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3304	1/1	0.95	0.57	-	82,82,82,82	0
55	MG	1J	202	1/1	0.86	0.13	-	107,107,107,107	0
55	MG	1H	3470	1/1	0.92	0.14	-	79,79,79,79	0
55	MG	29	302	1/1	0.98	0.41	-	65,65,65,65	0
55	MG	1H	3104	1/1	0.78	0.64	-	77,77,77,77	0
55	MG	1H	3192	1/1	0.95	0.49	-	88,88,88,88	0
55	MG	14	3313	1/1	0.82	0.71	-	82,82,82,82	0
55	MG	1H	3243	1/1	0.85	0.56	-	69,69,69,69	0
55	MG	1G	1723	1/1	0.92	0.08	-	87,87,87,87	0
55	MG	16	202	1/1	0.94	0.23	-	90,90,90,90	0
55	MG	14	3061	1/1	0.98	0.45	-	62,62,62,62	0
55	MG	1H	3497	1/1	0.86	0.09	-	113,113,113,113	0
55	MG	1H	3206	1/1	0.71	0.59	-	69,69,69,69	0
55	MG	14	3006	1/1	0.98	0.42	-	54,54,54,54	0
55	MG	1H	3397	1/1	0.88	0.40	-	76,76,76,76	0
55	MG	14	3259	1/1	0.87	0.78	-	88,88,88,88	0
55	MG	1G	1623	1/1	0.90	0.47	-	89,89,89,89	0
55	MG	1H	3312	1/1	0.91	0.17	-	88,88,88,88	0
55	MG	1G	1631	1/1	0.83	0.53	-	88,88,88,88	0
55	MG	14	3212	1/1	0.96	0.37	-	88,88,88,88	0
55	MG	14	3296	1/1	0.86	0.63	-	94,94,94,94	0
55	MG	1G	1654	1/1	0.82	0.59	-	97,97,97,97	0
55	MG	1H	3062	1/1	0.82	0.38	-	70,70,70,70	0
55	MG	14	3198	1/1	0.88	0.14	-	95,95,95,95	0
55	MG	1H	3051	1/1	0.94	0.22	-	74,74,74,74	0
55	MG	14	3180	1/1	0.97	0.28	-	82,82,82,82	0
55	MG	1H	3200	1/1	0.90	0.32	-	68,68,68,68	0
55	MG	1H	3378	1/1	0.98	0.20	-	84,84,84,84	0
55	MG	1H	3305	1/1	0.88	0.36	-	96,96,96,96	0
55	MG	1H	3196	1/1	0.95	0.41	-	77,77,77,77	0
55	MG	1H	3407	1/1	0.91	0.82	-	102,102,102,102	0
55	MG	14	3361	1/1	0.95	0.21	-	88,88,88,88	0
55	MG	1H	3270	1/1	0.90	0.25	-	99,99,99,99	0
55	MG	1G	1601	1/1	0.54	0.35	-	91,91,91,91	0
55	MG	1H	3010	1/1	0.96	0.43	-	48,48,48,48	0
55	MG	14	3434	1/1	0.90	0.18	-	89,89,89,89	0
55	MG	13	1633	1/1	0.93	0.41	-	59,59,59,59	0
55	MG	1H	3294	1/1	0.83	0.31	-	96,96,96,96	0
55	MG	1G	1736	1/1	0.95	0.07	-	114,114,114,114	0
55	MG	14	3367	1/1	0.45	0.40	-	102,102,102,102	0
55	MG	14	3083	1/1	0.97	0.42	-	68,68,68,68	0
55	MG	1H	3175	1/1	0.36	0.68	-	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	13	1701	1/1	0.95	0.41	-	83,83,83,83	0
55	MG	14	3316	1/1	0.93	0.31	-	78,78,78,78	0
55	MG	14	3043	1/1	0.85	0.92	-	83,83,83,83	0
55	MG	1G	1677	1/1	0.91	0.40	-	105,105,105,105	0
55	MG	14	3392	1/1	0.94	0.16	-	88,88,88,88	0
55	MG	1G	1610	1/1	0.86	0.29	-	86,86,86,86	0
55	MG	14	3376	1/1	0.95	0.21	-	59,59,59,59	0
55	MG	13	1657	1/1	0.73	0.23	-	90,90,90,90	0
55	MG	13	1687	1/1	0.95	0.74	-	90,90,90,90	0
55	MG	13	1628	1/1	0.98	0.47	-	64,64,64,64	0
55	MG	14	3431	1/1	0.90	0.06	-	86,86,86,86	0
55	MG	1H	3037	1/1	0.90	0.24	-	94,94,94,94	0
55	MG	1H	3284	1/1	0.95	0.21	-	69,69,69,69	0
55	MG	1H	3094	1/1	0.94	0.37	-	73,73,73,73	0
55	MG	1H	3220	1/1	0.96	0.39	-	55,55,55,55	0
55	MG	I8	102	1/1	0.89	0.12	-	108,108,108,108	0
55	MG	1H	3138	1/1	0.86	0.37	-	74,74,74,74	0
55	MG	14	3162	1/1	0.78	0.97	-	94,94,94,94	0
55	MG	1G	1712	1/1	0.74	0.12	-	87,87,87,87	0
55	MG	1H	3469	1/1	0.96	0.05	-	107,107,107,107	0
55	MG	1H	3383	1/1	0.86	0.26	-	90,90,90,90	0
55	MG	1G	1663	1/1	0.88	0.56	-	75,75,75,75	0
55	MG	14	3478	1/1	0.88	0.04	-	109,109,109,109	0
55	MG	14	3127	1/1	0.76	0.89	-	76,76,76,76	0
55	MG	1G	1718	1/1	0.95	0.40	-	76,76,76,76	0
55	MG	14	3069	1/1	0.98	0.36	-	65,65,65,65	0
55	MG	1H	3371	1/1	0.83	0.28	-	84,84,84,84	0
55	MG	1G	1616	1/1	0.92	0.53	-	62,62,62,62	0
55	MG	1G	1662	1/1	0.87	0.24	-	98,98,98,98	0
55	MG	13	1649	1/1	0.73	0.35	-	91,91,91,91	0
55	MG	14	3320	1/1	0.84	0.38	-	81,81,81,81	0
55	MG	14	3215	1/1	0.94	0.32	-	77,77,77,77	0
55	MG	14	3335	1/1	0.92	0.97	-	86,86,86,86	0
55	MG	1G	1681	1/1	0.95	0.17	-	86,86,86,86	0
55	MG	1H	3398	1/1	0.87	0.17	-	109,109,109,109	0
55	MG	1H	3343	1/1	0.76	0.77	-	90,90,90,90	0
55	MG	1H	3376	1/1	0.85	0.42	-	71,71,71,71	0
55	MG	14	3050	1/1	0.97	0.33	-	72,72,72,72	0
55	MG	14	3453	1/1	0.90	0.14	-	91,91,91,91	0
55	MG	13	1678	1/1	0.78	0.77	-	85,85,85,85	0
55	MG	13	1707	1/1	0.95	0.44	-	92,92,92,92	0
55	MG	14	3423	1/1	0.86	0.08	-	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3479	1/1	0.97	0.09	-	78,78,78,78	0
55	MG	1G	1721	1/1	0.94	0.17	-	102,102,102,102	0
55	MG	14	3114	1/1	0.97	0.50	-	81,81,81,81	0
55	MG	1H	3307	1/1	0.78	0.35	-	83,83,83,83	0
55	MG	1H	3414	1/1	0.89	0.58	-	97,97,97,97	0
55	MG	14	3073	1/1	0.95	0.34	-	70,70,70,70	0
55	MG	1H	3276	1/1	0.85	0.22	-	100,100,100,100	0
55	MG	13	1719	1/1	0.84	0.41	-	89,89,89,89	0
55	MG	1G	1636	1/1	0.93	0.20	-	93,93,93,93	0
55	MG	14	3027	1/1	0.92	0.25	-	85,85,85,85	0
55	MG	1G	1678	1/1	0.97	0.29	-	97,97,97,97	0
55	MG	14	3202	1/1	0.72	0.53	-	85,85,85,85	0
55	MG	14	3449	1/1	0.97	0.10	-	82,82,82,82	0
55	MG	1H	3012	1/1	0.99	0.29	-	52,52,52,52	0
55	MG	1H	3410	1/1	0.92	0.41	-	85,85,85,85	0
55	MG	1H	3219	1/1	0.91	0.28	-	64,64,64,64	0
55	MG	1H	3301	1/1	0.98	0.41	-	73,73,73,73	0
55	MG	1G	1638	1/1	0.96	0.38	-	95,95,95,95	0
55	MG	14	3303	1/1	0.92	0.41	-	71,71,71,71	0
55	MG	14	3122	1/1	0.93	0.61	-	84,84,84,84	0
55	MG	1H	3490	1/1	0.75	0.12	-	128,128,128,128	0
55	MG	1H	3056	1/1	0.91	0.34	-	75,75,75,75	0
55	MG	1H	3449	1/1	0.76	0.13	-	110,110,110,110	0
55	MG	1H	3230	1/1	0.89	0.50	-	84,84,84,84	0
55	MG	13	1699	1/1	0.90	0.61	-	72,72,72,72	0
55	MG	1G	1697	1/1	0.87	0.24	-	88,88,88,88	0
55	MG	3I	201	1/1	0.95	0.18	-	68,68,68,68	0
55	MG	13	1659	1/1	0.90	0.68	-	91,91,91,91	0
55	MG	14	3372	1/1	0.78	0.47	-	77,77,77,77	0
55	MG	1H	3278	1/1	0.90	0.42	-	84,84,84,84	0
55	MG	1H	3156	1/1	0.93	0.51	-	76,76,76,76	0
55	MG	14	3317	1/1	0.87	0.22	-	88,88,88,88	0
55	MG	14	3021	1/1	0.99	0.41	-	60,60,60,60	0
55	MG	13	1651	1/1	0.93	0.12	-	91,91,91,91	0
55	MG	1H	3477	1/1	0.94	0.05	-	92,92,92,92	0
55	MG	14	3279	1/1	0.94	0.38	-	80,80,80,80	0
55	MG	1H	3271	1/1	0.95	0.36	-	77,77,77,77	0
55	MG	14	3326	1/1	0.85	0.42	-	88,88,88,88	0
55	MG	1H	3149	1/1	0.96	0.65	-	74,74,74,74	0
55	MG	1H	3367	1/1	0.91	0.14	-	77,77,77,77	0
55	MG	1H	3478	1/1	0.86	0.05	-	118,118,118,118	0
55	MG	1H	3239	1/1	0.98	0.35	-	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3119	1/1	0.64	0.41	-	90,90,90,90	0
55	MG	14	3258	1/1	0.96	0.23	-	101,101,101,101	0
55	MG	25	201	1/1	0.72	0.32	-	107,107,107,107	0
55	MG	14	3023	1/1	0.93	0.26	-	56,56,56,56	0
55	MG	1G	1689	1/1	0.43	0.23	-	103,103,103,103	0
55	MG	14	3087	1/1	0.92	0.34	-	84,84,84,84	0
55	MG	1H	3393	1/1	0.94	0.22	-	58,58,58,58	0
55	MG	14	3342	1/1	0.82	0.59	-	99,99,99,99	0
55	MG	1H	3419	1/1	0.98	0.10	-	88,88,88,88	0
55	MG	14	3054	1/1	0.78	0.34	-	72,72,72,72	0
55	MG	14	3221	1/1	0.76	0.64	-	92,92,92,92	0
55	MG	1H	3164	1/1	0.77	0.50	-	66,66,66,66	0
55	MG	14	3047	1/1	0.98	0.25	-	67,67,67,67	0
55	MG	13	1607	1/1	0.94	0.18	-	77,77,77,77	0
55	MG	14	3282	1/1	0.84	0.47	-	89,89,89,89	0
55	MG	14	3435	1/1	0.96	0.09	-	117,117,117,117	0
55	MG	1H	3275	1/1	0.90	0.24	-	89,89,89,89	0
55	MG	14	3144	1/1	0.92	0.43	-	61,61,61,61	0
55	MG	14	3164	1/1	0.84	0.46	-	101,101,101,101	0
55	MG	14	3260	1/1	0.96	0.10	-	95,95,95,95	0
55	MG	14	3344	1/1	0.98	0.15	-	73,73,73,73	0
55	MG	13	1683	1/1	0.79	0.75	-	83,83,83,83	0
55	MG	14	3208	1/1	0.85	0.39	-	74,74,74,74	0
55	MG	14	3247	1/1	0.60	0.50	-	78,78,78,78	0
55	MG	1H	3204	1/1	0.81	0.34	-	83,83,83,83	0
55	MG	13	1690	1/1	0.86	0.61	-	90,90,90,90	0
55	MG	1H	3486	1/1	0.94	0.07	-	129,129,129,129	0
55	MG	1H	3400	1/1	0.50	0.45	-	94,94,94,94	0
55	MG	1G	1703	1/1	0.90	0.35	-	106,106,106,106	0
55	MG	1G	1664	1/1	0.92	0.32	-	95,95,95,95	0
55	MG	1H	3050	1/1	0.95	0.53	-	65,65,65,65	0
55	MG	1H	3413	1/1	0.89	0.24	-	89,89,89,89	0
55	MG	14	3452	1/1	0.94	0.17	-	94,94,94,94	0
55	MG	13	1717	1/1	0.85	0.37	-	100,100,100,100	0
55	MG	14	3359	1/1	0.81	0.43	-	90,90,90,90	0
55	MG	1H	3123	1/1	0.96	0.30	-	64,64,64,64	0
55	MG	13	1721	1/1	0.71	0.40	-	84,84,84,84	0
55	MG	13	1689	1/1	0.84	0.18	-	92,92,92,92	0
55	MG	14	3365	1/1	0.94	0.41	-	89,89,89,89	0
55	MG	1G	1668	1/1	0.86	0.49	-	96,96,96,96	0
55	MG	1H	3072	1/1	0.98	0.31	-	33,33,33,33	0
55	MG	14	3325	1/1	0.93	0.14	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	1H	3100	1/1	0.95	0.30	-	65,65,65,65	0
55	MG	14	3486	1/1	0.79	0.07	-	138,138,138,138	0
55	MG	14	3257	1/1	0.98	0.34	-	78,78,78,78	0
55	MG	1H	3295	1/1	0.79	0.34	-	87,87,87,87	0
55	MG	13	1616	1/1	0.90	0.21	-	102,102,102,102	0
55	MG	1G	1714	1/1	0.89	0.38	-	94,94,94,94	0
55	MG	1G	1719	1/1	0.47	0.31	-	118,118,118,118	0
55	MG	1H	3468	1/1	0.92	0.13	-	106,106,106,106	0
55	MG	1H	3069	1/1	0.94	0.32	-	69,69,69,69	0
55	MG	14	3242	1/1	0.91	0.24	-	98,98,98,98	0
55	MG	1H	3335	1/1	0.32	0.31	-	101,101,101,101	0
55	MG	14	3219	1/1	0.90	0.37	-	86,86,86,86	0
55	MG	1G	1640	1/1	0.91	0.52	-	90,90,90,90	0
55	MG	14	3088	1/1	0.97	0.32	-	73,73,73,73	0
55	MG	1H	3042	1/1	0.95	0.32	-	84,84,84,84	0
55	MG	1H	3435	1/1	0.96	0.08	-	80,80,80,80	0
55	MG	1G	1657	1/1	0.63	0.22	-	92,92,92,92	0
55	MG	14	3473	1/1	0.96	0.17	-	61,61,61,61	0
55	MG	1H	3356	1/1	0.88	0.32	-	100,100,100,100	0
55	MG	14	3483	1/1	0.92	0.12	-	104,104,104,104	0
55	MG	1H	3448	1/1	0.94	0.06	-	86,86,86,86	0
55	MG	14	3210	1/1	0.90	0.26	-	86,86,86,86	0
55	MG	14	3136	1/1	0.95	0.36	-	71,71,71,71	0
55	MG	1H	3201	1/1	0.96	0.24	-	62,62,62,62	0
55	MG	1H	3184	1/1	0.91	0.41	-	75,75,75,75	0
55	MG	1H	3277	1/1	0.97	0.30	-	74,74,74,74	0
55	MG	13	1686	1/1	0.55	0.56	-	93,93,93,93	0
55	MG	14	3174	1/1	0.95	0.52	-	61,61,61,61	0
55	MG	14	3362	1/1	0.88	0.22	-	77,77,77,77	0
55	MG	14	3487	1/1	0.93	0.12	-	103,103,103,103	0
55	MG	1H	3406	1/1	0.75	0.56	-	87,87,87,87	0
55	MG	1H	3236	1/1	0.98	0.18	-	72,72,72,72	0
55	MG	1H	3207	1/1	0.89	0.32	-	86,86,86,86	0
55	MG	14	3293	1/1	0.84	0.36	-	72,72,72,72	0
55	MG	1G	1655	1/1	0.63	0.33	-	108,108,108,108	0
55	MG	14	3051	1/1	0.97	0.45	-	55,55,55,55	0
55	MG	1G	1673	1/1	0.87	0.14	-	97,97,97,97	0
55	MG	14	3211	1/1	0.90	0.55	-	74,74,74,74	0
55	MG	14	3430	1/1	0.97	0.08	-	69,69,69,69	0
55	MG	14	3411	1/1	0.96	0.10	-	88,88,88,88	0
55	MG	1H	3255	1/1	0.98	0.21	-	72,72,72,72	0
55	MG	1H	3333	1/1	0.85	0.64	-	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3128	1/1	0.86	0.53	-	89,89,89,89	0
55	MG	1G	1706	1/1	0.93	0.38	-	91,91,91,91	0
55	MG	1H	3370	1/1	0.97	0.29	-	75,75,75,75	0
55	MG	14	3063	1/1	0.97	0.34	-	69,69,69,69	0
55	MG	1H	3225	1/1	0.81	0.39	-	80,80,80,80	0
55	MG	14	3082	1/1	0.86	0.45	-	76,76,76,76	0
55	MG	1H	3361	1/1	0.77	0.72	-	78,78,78,78	0
55	MG	14	3163	1/1	0.91	0.33	-	81,81,81,81	0
55	MG	1H	3280	1/1	0.94	0.18	-	92,92,92,92	0
55	MG	14	3149	1/1	0.85	0.37	-	77,77,77,77	0
55	MG	1H	3240	1/1	0.86	0.49	-	74,74,74,74	0
55	MG	14	3033	1/1	0.94	0.32	-	77,77,77,77	0
55	MG	1H	3223	1/1	0.77	0.31	-	68,68,68,68	0
55	MG	1H	3109	1/1	0.95	0.69	-	39,39,39,39	0
55	MG	1H	3306	1/1	0.92	0.33	-	84,84,84,84	0
55	MG	13	1685	1/1	0.92	0.45	-	103,103,103,103	0
55	MG	1G	1679	1/1	0.85	0.27	-	88,88,88,88	0
55	MG	1H	3170	1/1	0.87	0.40	-	75,75,75,75	0
55	MG	3E	301	1/1	0.87	0.47	-	109,109,109,109	0
55	MG	14	3156	1/1	0.88	0.42	-	82,82,82,82	0
55	MG	14	3384	1/1	0.87	0.24	-	92,92,92,92	0
55	MG	1G	1734	1/1	0.96	0.07	-	108,108,108,108	0
55	MG	14	3101	1/1	0.84	0.15	-	89,89,89,89	0
55	MG	1H	3159	1/1	0.97	0.26	-	76,76,76,76	0
55	MG	13	1694	1/1	0.89	0.76	-	88,88,88,88	0
55	MG	1H	3272	1/1	0.72	0.54	-	85,85,85,85	0
55	MG	14	3014	1/1	0.93	0.21	-	77,77,77,77	0
55	MG	1H	3026	1/1	0.99	0.27	-	53,53,53,53	0
55	MG	14	3428	1/1	0.92	0.06	-	95,95,95,95	0
55	MG	13	1744	1/1	0.87	0.08	-	117,117,117,117	0
55	MG	1H	3065	1/1	0.81	0.35	-	80,80,80,80	0
55	MG	1H	3198	1/1	0.68	0.34	-	113,113,113,113	0
55	MG	13	1617	1/1	0.94	0.32	-	83,83,83,83	0
55	MG	1H	3488	1/1	0.98	0.10	-	66,66,66,66	0
55	MG	13	1624	1/1	0.95	0.37	-	92,92,92,92	0
55	MG	14	3084	1/1	0.85	0.42	-	86,86,86,86	0
55	MG	14	3472	1/1	0.97	0.05	-	103,103,103,103	0
55	MG	1H	3064	1/1	0.98	0.32	-	95,95,95,95	0
55	MG	13	1630	1/1	0.97	0.27	-	65,65,65,65	0
55	MG	1H	3302	1/1	0.89	0.46	-	86,86,86,86	0
55	MG	1H	3024	1/1	0.94	0.44	-	58,58,58,58	0
55	MG	1H	3500	1/1	0.91	0.07	-	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	14	3415	1/1	0.99	0.09	-	71,71,71,71	0
55	MG	14	3141	1/1	0.91	0.45	-	78,78,78,78	0
55	MG	1H	3265	1/1	0.90	0.33	-	65,65,65,65	0
55	MG	1H	3248	1/1	0.56	0.42	-	106,106,106,106	0
55	MG	1H	3181	1/1	0.85	0.79	-	92,92,92,92	0
55	MG	1H	3364	1/1	0.96	0.56	-	75,75,75,75	0
55	MG	14	3133	1/1	0.81	0.85	-	76,76,76,76	0
55	MG	1H	3172	1/1	0.86	0.34	-	103,103,103,103	0
55	MG	14	3092	1/1	0.96	0.83	-	64,64,64,64	0
55	MG	13	1702	1/1	0.54	0.22	-	96,96,96,96	0
55	MG	1G	1645	1/1	0.73	0.22	-	80,80,80,80	0
55	MG	1H	3379	1/1	0.95	0.71	-	69,69,69,69	0
55	MG	1H	3112	1/1	0.93	0.69	-	69,69,69,69	0
55	MG	1H	3402	1/1	0.79	0.51	-	86,86,86,86	0
55	MG	13	1706	1/1	0.46	0.38	-	95,95,95,95	0
55	MG	1H	3269	1/1	0.86	0.32	-	99,99,99,99	0
55	MG	1H	3183	1/1	0.56	0.47	-	90,90,90,90	0
55	MG	1G	1684	1/1	0.96	0.10	-	109,109,109,109	0
55	MG	14	3263	1/1	0.87	0.44	-	92,92,92,92	0
55	MG	14	3217	1/1	0.80	0.32	-	98,98,98,98	0
55	MG	1H	3233	1/1	0.87	0.48	-	100,100,100,100	0
55	MG	14	3089	1/1	0.92	0.48	-	89,89,89,89	0
55	MG	1H	3073	1/1	0.64	0.66	-	68,68,68,68	0
55	MG	1H	3501	1/1	0.94	0.07	-	105,105,105,105	0
55	MG	14	3135	1/1	0.94	0.39	-	75,75,75,75	0
55	MG	1H	3014	1/1	0.97	0.50	-	40,40,40,40	0
55	MG	1G	1652	1/1	0.93	0.28	-	99,99,99,99	0
55	MG	1H	3309	1/1	0.95	0.34	-	78,78,78,78	0
55	MG	1H	3210	1/1	0.88	0.46	-	82,82,82,82	0
55	MG	14	3048	1/1	0.98	0.44	-	66,66,66,66	0
55	MG	14	3137	1/1	0.93	0.51	-	77,77,77,77	0
55	MG	1H	3420	1/1	0.97	0.06	-	99,99,99,99	0
55	MG	1H	3189	1/1	0.94	0.41	-	85,85,85,85	0
55	MG	14	3245	1/1	0.93	0.44	-	81,81,81,81	0
55	MG	1G	1739	1/1	0.90	0.24	-	107,107,107,107	0
55	MG	1H	3324	1/1	0.59	0.44	-	89,89,89,89	0
55	MG	1H	3385	1/1	0.93	0.22	-	106,106,106,106	0
55	MG	14	3251	1/1	0.94	0.54	-	74,74,74,74	0
55	MG	14	3270	1/1	0.70	0.36	-	87,87,87,87	0
55	MG	14	3154	1/1	0.91	0.47	-	81,81,81,81	0
55	MG	14	3231	1/1	0.87	0.49	-	79,79,79,79	0
55	MG	14	3223	1/1	0.57	0.40	-	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
55	MG	13	1660	1/1	0.86	0.17	-	99,99,99,99	0

6.5 Other polymers (i)

There are no such residues in this entry.