Full wwPDB X-ray Structure Validation Report ⓘ

Jan 3, 2024 – 01:06 am GMT

PDB ID	:	5IBB
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA, tRNAfMet and cognate tRNAVal in the A-site
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2016-02-22
Resolution	:	2.96 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
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

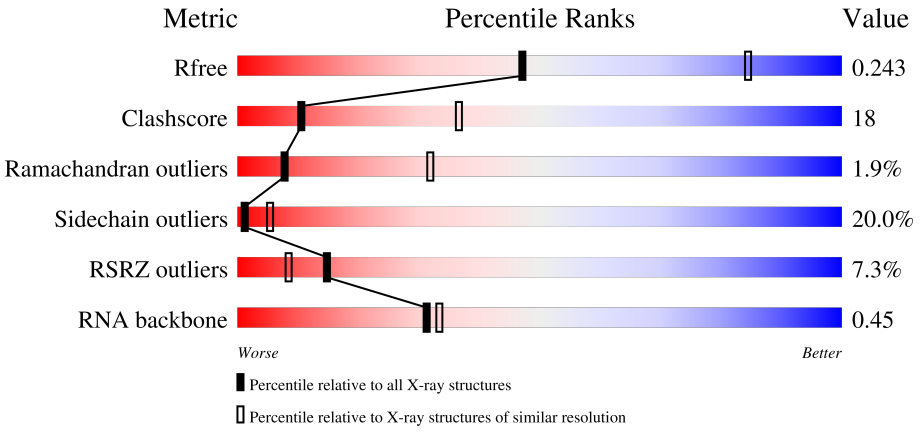
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 2.96 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}	130704	3104 (3.00-2.92)
Clashscore	141614	3462 (3.00-2.92)
Ramachandran outliers	138981	3340 (3.00-2.92)
Sidechain outliers	138945	3343 (3.00-2.92)
RSRZ outliers	127900	2986 (3.00-2.92)
RNA backbone	3102	1065 (3.22-2.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. 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	38% 44% 14%
1	1G	1522	42% 43% 12%
2	12	256	18% 30% 36% 13% 19%
2	1E	256	7% 30% 46% 14% 8%

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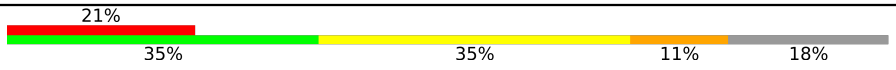
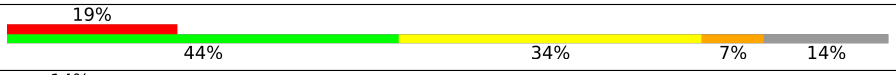
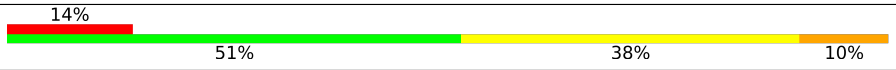
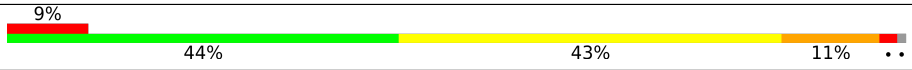
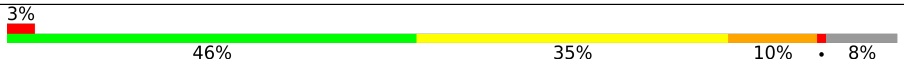
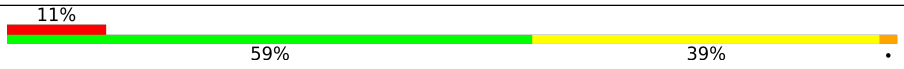
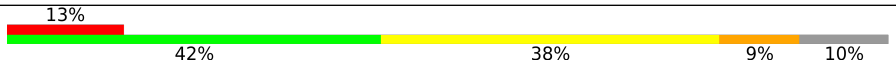
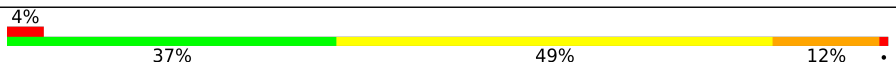
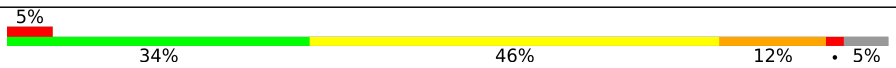
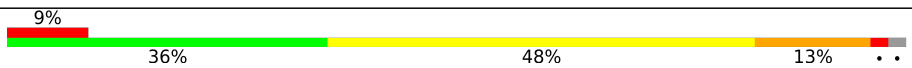
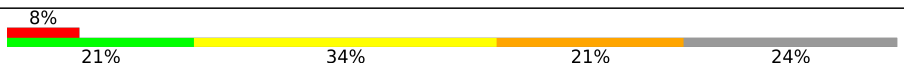
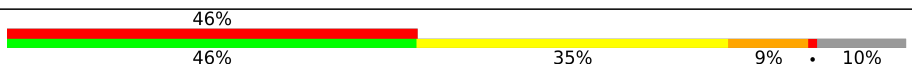
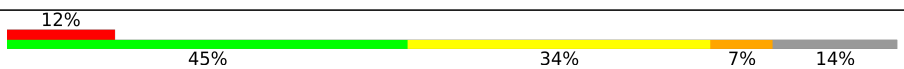
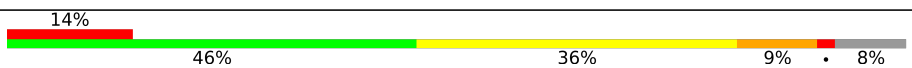
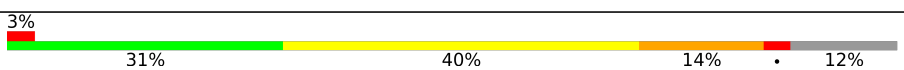
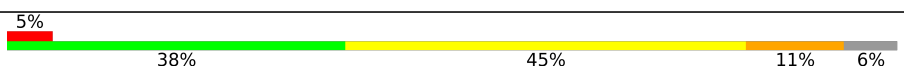
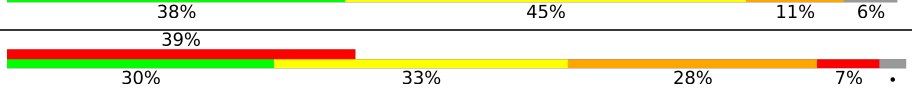
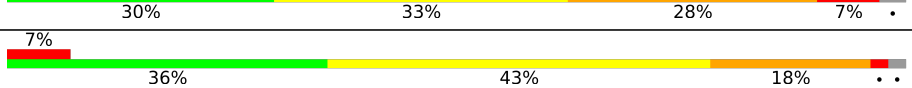
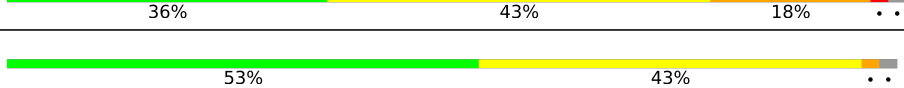
Mol	Chain	Length	Quality of chain
3	22	239	
3	2E	239	
4	32	209	
4	3E	209	
5	42	162	
5	4E	162	
6	52	101	
6	5E	101	
7	62	156	
7	6E	156	
8	72	138	
8	7E	138	
9	82	128	
9	8E	128	
10	1A	105	
10	1I	105	
11	2A	129	
11	2I	129	
12	3A	132	
12	3I	132	
13	4A	126	
13	4I	126	
14	5A	61	
14	5I	61	
15	6A	89	

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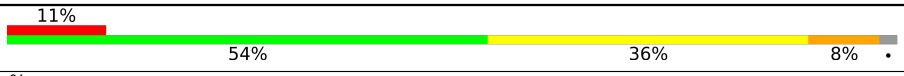
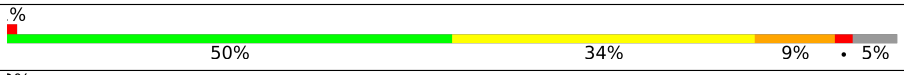
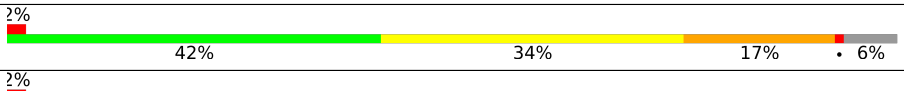
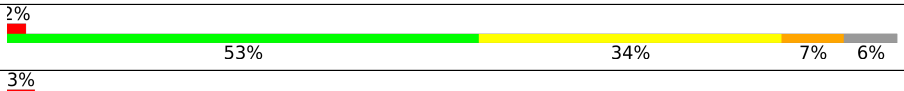
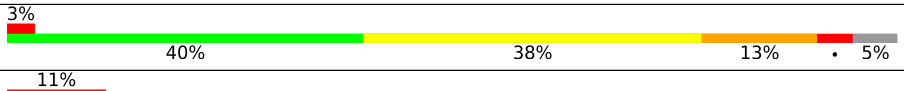
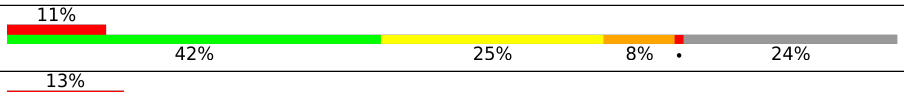
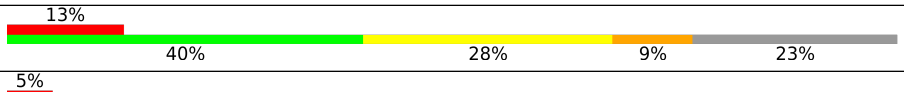
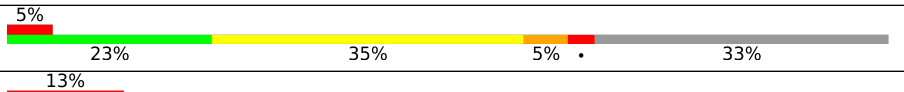
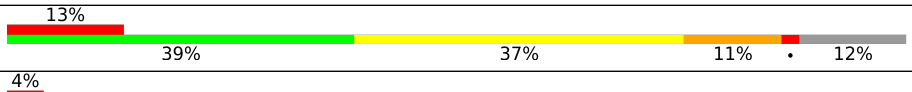
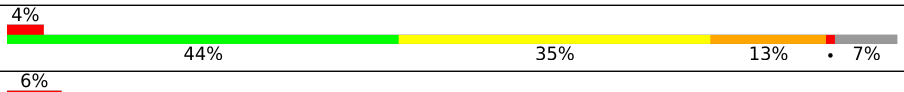
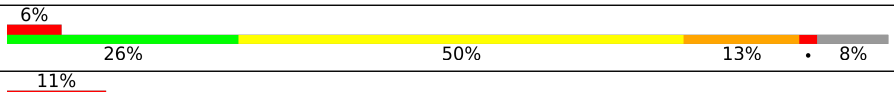
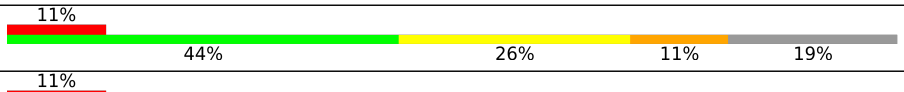
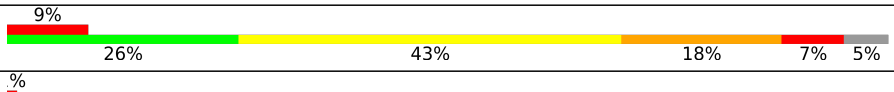
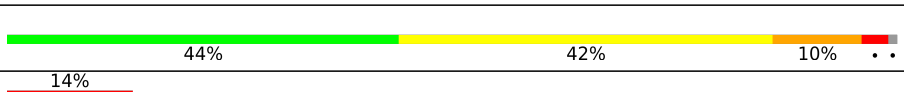
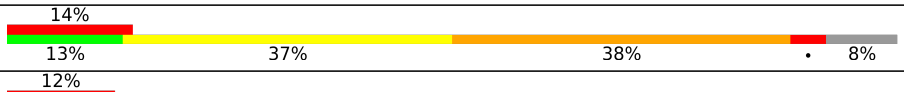
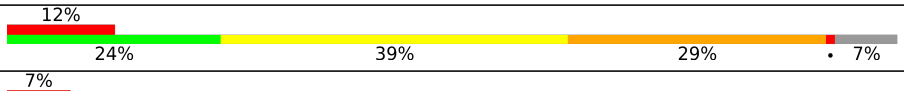
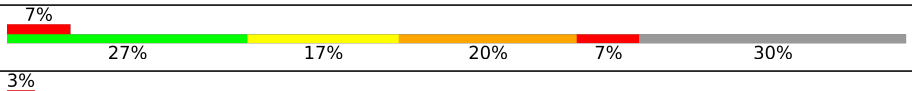
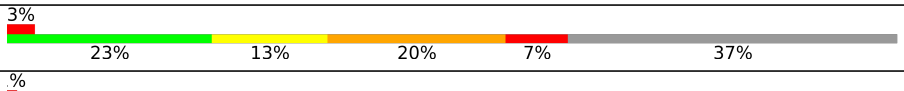
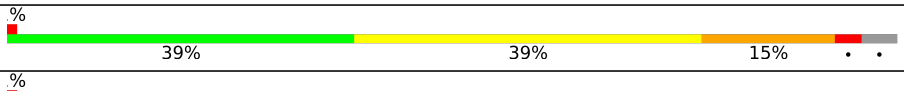
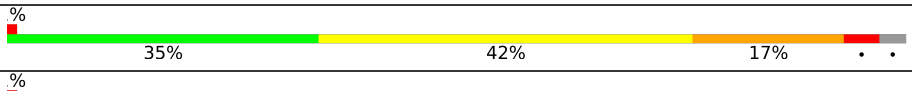
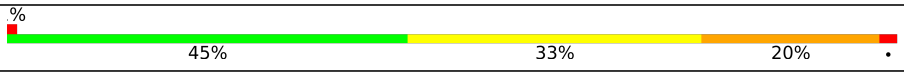
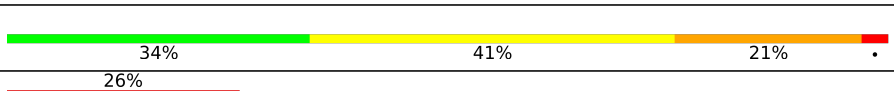
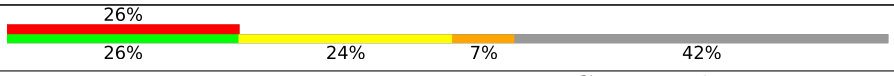
Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
23	2K	77	
23	2L	77	
24	3K	76	
24	3L	76	
25	4K	30	
25	4L	30	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	
28	71	229	

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Mol	Chain	Length	Quality of chain
28	79	229	5% 14% 7% 75%
29	11	276	% 59% 30% 8%
29	19	276	9% 56% 34% 8%
30	21	206	14% 49% 33% 14%
30	29	206	13% 44% 43% 10%
31	31	210	13% 58% 33% 5%
31	39	210	10% 39% 41% 14%
32	41	182	4% 43% 46% 8%
32	49	182	22% 35% 45% 19%
33	51	180	3% 43% 32% 19%
33	59	180	32% 36% 46% 10% 7%
34	61	148	14% 43% 41% 14%
34	69	148	11% 46% 37% 12%
35	15	140	17% 53% 38% 8%
35	58	140	8% 59% 29% 9%
36	25	122	11% 61% 30% 10%
36	68	122	% 62% 30% 7%
37	35	150	16% 46% 41% 10%
37	78	150	3% 44% 38% 13%
38	45	141	22% 45% 35% 16%
38	88	141	6% 53% 36% 7%
39	55	118	3% 48% 44% 8%
39	98	118	11% 64% 27% 9%
40	65	112	7% 31% 46% 21%
40	A8	112	15% 41% 47% 11%

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Mol	Chain	Length	Quality of chain
41	75	146	2% 39% 40% 10% 9%
41	B8	146	1% 40% 38% 15% 7%
42	85	118	8% 56% 31% 10%
42	C8	118	4% 42% 47% 5%
43	95	101	24% 48% 35% 15%
43	D8	101	13% 42% 42% 13%
44	A5	113	6% 50% 37% 11%
44	E8	113	5% 59% 31% 7%
45	B5	96	7% 56% 34% 5%
45	F8	96	2% 55% 40%
46	C5	110	24% 25% 50% 16% 5%
46	G8	110	2% 43% 35% 15% 6%
47	D5	206	23% 24% 29% 10% 35%
47	H8	206	38% 35% 32% 14% 17%
48	E5	85	1% 51% 31% 8% 11%
48	I8	85	2% 55% 29% 5% 9%
49	F5	98	5% 47% 38% 10%
49	J8	98	5% 47% 35% 12%
50	G5	72	7% 40% 36% 15%
50	K8	72	1% 36% 40% 14% 6%
51	H5	60	25% 42% 42% 13%
51	L8	60	38% 55%
52	I5	71	65% 20% 45% 21% 11%
52	M8	71	23% 18% 41% 24% 14%
53	J5	60	10% 48% 27% 17% 7%

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Mol	Chain	Length	Quality of chain
53	N8	60	17% 57% 27% 10% 7%
54	L5	49	2% 59% 31% 6%
54	P8	49	59% 31% 6%
55	M5	65	3% 43% 38% 14%
55	Q8	65	2% 46% 43% 6%
56	1L	76	22% 33% 34% 22% 9%

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
57	MG	13	1643	-	-	-	X
57	MG	13	1650	-	-	-	X
57	MG	13	1671	-	-	-	X
57	MG	13	1678	-	-	-	X
57	MG	13	1687	-	-	-	X
57	MG	13	1690	-	-	-	X
57	MG	14	3007	-	-	-	X
57	MG	14	3031	-	-	-	X
57	MG	14	3083	-	-	-	X
57	MG	14	3087	-	-	-	X
57	MG	14	3092	-	-	-	X
57	MG	14	3094	-	-	-	X
57	MG	14	3097	-	-	-	X
57	MG	14	3110	-	-	-	X
57	MG	14	3111	-	-	-	X
57	MG	14	3112	-	-	-	X
57	MG	14	3134	-	-	-	X
57	MG	14	3137	-	-	-	X
57	MG	14	3152	-	-	-	X
57	MG	14	3157	-	-	-	X
57	MG	14	3162	-	-	-	X
57	MG	14	3163	-	-	-	X
57	MG	14	3172	-	-	-	X
57	MG	14	3174	-	-	-	X
57	MG	14	3189	-	-	-	X
57	MG	14	3205	-	-	-	X
57	MG	14	3214	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	14	3226	-	-	-	X
57	MG	1G	1621	-	-	-	X
57	MG	1G	1630	-	-	-	X
57	MG	1H	3005	-	-	-	X
57	MG	1H	3009	-	-	-	X
57	MG	1H	3036	-	-	-	X
57	MG	1H	3058	-	-	-	X
57	MG	1H	3061	-	-	-	X
57	MG	1H	3072	-	-	-	X
57	MG	1H	3085	-	-	-	X
57	MG	1H	3086	-	-	-	X
57	MG	1H	3115	-	-	-	X
57	MG	1H	3120	-	-	-	X
57	MG	1H	3121	-	-	-	X
57	MG	1H	3123	-	-	-	X
57	MG	1H	3133	-	-	-	X
57	MG	1H	3179	-	-	-	X
57	MG	1H	3186	-	-	-	X
57	MG	1H	3187	-	-	-	X
57	MG	1H	3188	-	-	-	X
57	MG	1H	3189	-	-	-	X
57	MG	1H	3199	-	-	-	X
57	MG	1H	3204	-	-	-	X
57	MG	1H	3207	-	-	-	X
57	MG	1H	3211	-	-	-	X
57	MG	1H	3216	-	-	-	X
57	MG	1H	3217	-	-	-	X
57	MG	1H	3227	-	-	-	X
57	MG	1H	3232	-	-	-	X
57	MG	1H	3246	-	-	-	X
57	MG	1H	3260	-	-	-	X
57	MG	1H	3263	-	-	-	X
57	MG	1H	3274	-	-	-	X
57	MG	1H	3279	-	-	-	X
57	MG	1H	3282	-	-	-	X
57	MG	1H	3316	-	-	-	X
57	MG	1H	3317	-	-	-	X
57	MG	1H	3320	-	-	-	X
57	MG	2L	102	-	-	-	X
57	MG	2L	103	-	-	-	X
57	MG	4E	201	-	-	-	X
59	SF4	3E	301	-	-	X	-

2 Entry composition (i)

There are 61 unique types of molecules in this entry. The entry contains 296743 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	1496	Total	C	N	O	P	0	0	0
			32157	14313	5960	10388	1496			
1	1G	1506	Total	C	N	O	P	0	0	0
			32371	14409	6001	10456	1505			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
13	1542	G	U	conflict	GB 55771382
1G	1542	G	U	conflict	GB 55771382

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	235	Total	C	N	O	S	0	0	0
			1902	1215	340	342	5			
2	12	207	Total	C	N	O	S	0	0	0
			1696	1083	306	303	4			

- 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	195	Total	C	N	O	S	0	0	0
			1537	973	297	266	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1698	1064	338	289	7			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	149	Total	C	N	O	S	0	0	0
			1142	722	216	200	4			
5	42	149	Total	C	N	O	S	0	0	0
			1139	721	216	198	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	100	Total	C	N	O	S	0	0	0
			837	528	154	152	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	154	Total	C	N	O	S	0	0	0
			1242	770	250	216	6			
7	62	140	Total	C	N	O	S	0	0	0
			1120	695	223	196	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	137	Total	C	N	O	S	0	0	0
			1107	700	214	191	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	8E	126	Total	C	N	O	0	0	0
			1000	634	196	170			
9	82	121	Total	C	N	O	0	0	0
			953	605	186	162			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	95	Total	C	N	O	S	0	0	0
			754	471	148	134	1			
10	1A	80	Total	C	N	O		0	0	0
			646	403	129	114				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	111	Total	C	N	O	S	0	0	0
			823	512	154	154	3			
11	2A	113	Total	C	N	O	S	0	0	0
			835	520	156	156	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	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	119	Total	C	N	O	S	0	0	0
			942	582	194	164	2			
13	4A	111	Total	C	N	O	S	0	0	0
			893	552	183	156	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	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			
15	6A	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	83	Total	C	N	O	S	0	0	0
			700	443	139	117	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	68	Total	C	N	O	0	0	0
			549	352	105	92			
18	9A	67	Total	C	N	O	0	0	0
			544	349	104	91			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	82	Total	C	N	O	S	0	0	0
			661	422	123	114	2			
19	AA	62	Total	C	N	O	S	0	0	0
			481	306	85	88	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	C	N	O	0	0	0
			199	122	48	29			
21	1B	22	Total	C	N	O	0	0	0
			188	116	44	28			

- Molecule 22 is a RNA chain called tRNAVal.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1K	72	Total	C	N	O	P	0	0	0
			1540	688	274	506	72			

- Molecule 23 is a RNA chain called tRNAfMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	S	0	0	0
			1646	735	298	535	77	1			
23	2L	76	Total	C	N	O	P	S	0	0	0
			1626	726	296	527	76	1			

- Molecule 24 is a RNA chain called tRNAVal.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	70	Total	C	N	O	P	0	0	0
			1491	665	268	488	70			
24	3L	71	Total	C	N	O	P	0	0	0
			1513	675	272	495	71			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	21	Total	C	N	O	P	0	0	0
			462	207	96	138	21			
25	4L	19	Total	C	N	O	P	0	0	0
			417	187	86	125	19			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2841	Total	C	N	O	P	0	0	0
			61195	27234	11446	19674	2841			
26	14	2810	Total	C	N	O	P	0	0	0
			60535	26940	11330	19455	2810			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	UNK	conflict	GB 55771382
1H	654A	A	G	conflict	GB 55771382
1H	654E	C	G	conflict	GB 55771382
1H	654P	G	C	conflict	GB 55771382
1H	654T	A	C	conflict	GB 55771382
1H	1058	U	G	conflict	GB 55771382
1H	1080	A	C	conflict	GB 55771382
14	158	U	UNK	conflict	GB 55771382
14	654A	A	G	conflict	GB 55771382
14	654E	C	G	conflict	GB 55771382
14	654P	G	C	conflict	GB 55771382
14	654T	A	C	conflict	GB 55771382
14	1058	U	G	conflict	GB 55771382
14	1080	A	C	conflict	GB 55771382

- 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 L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	71	133	Total	C	N	O	S	0	0	0
			1033	651	194	187	1			
28	79	57	Total	C	N	O		0	0	0
			456	283	91	82				

- Molecule 29 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			
29	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

- Molecule 30 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	202	Total	C	N	O	S	0	0	0
			1505	951	281	267	6			
30	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 31 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
31	39	204	Total	C	N	O	S	0	0	0
			1602	1022	299	279	2			

- Molecule 32 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
32	49	181	Total	C	N	O	S	0	0	0
			1468	937	268	259	4			

- Molecule 33 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	174	Total	C	N	O	S	0	0	0
			1328	842	249	236	1			
33	59	167	Total	C	N	O	S	0	0	0
			1283	815	239	228	1			

- Molecule 34 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	69	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

- Molecule 35 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	58	137	Total	C	N	O	S	0	0	0
			1096	706	205	181	4			
35	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 36 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	68	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
36	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	78	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			
37	35	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	141	Total	C	N	O	S	0	0	0
			1117	712	211	187	7			
38	45	139	Total	C	N	O	S	0	0	0
			1104	705	209	184	6			

- Molecule 39 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	98	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
39	55	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			

- Molecule 40 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	A8	111	Total	C	N	O	0	0	0
			881	556	176	149			
40	65	110	Total	C	N	O	0	0	0
			876	553	175	148			

- Molecule 41 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	136	Total	C	N	O	S	0	0	0
			1124	700	231	192	1			
41	75	133	Total	C	N	O	S	0	0	0
			1109	691	228	189	1			

- Molecule 42 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	C8	115	Total	C	N	O	S	0	0	0
			950	603	199	147	1			
42	85	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 43 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	D8	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			
43	95	100	Total	C	N	O	S	0	0	0
			770	496	140	133	1			

- Molecule 44 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	E8	110	Total	C	N	O	S	0	0	0
			876	552	171	151	2			
44	A5	111	Total	C	N	O	S	0	0	0
			886	558	174	152	2			

- Molecule 45 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	95	Total	C	N	O	S	0	0	0
			743	482	134	126	1			
45	B5	94	Total	C	N	O		0	0	0
			735	477	133	125				

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	G8	103	Total	C	N	O	S	0	0	0
			777	501	145	126	5			
46	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

- Molecule 47 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	H8	170	Total	C	N	O	S	0	0	0
			1365	870	246	246	3			
47	D5	133	Total	C	N	O	S	0	0	0
			1079	694	194	189	2			

- Molecule 48 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	I8	77	Total	C	N	O	S	0	0	0
			611	378	129	103	1			
48	E5	76	Total	C	N	O	S	0	0	0
			603	372	128	102	1			

- Molecule 49 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	J8	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			
49	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	K8	68	Total	C	N	O	S	0	0	0
			575	358	116	100	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	G5	69	Total	C	N	O	S	0	0	0
			576	358	116	101	1			

- Molecule 51 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	L8	58	Total	C	N	O	0	0	0
			459	293	89	77			
51	H5	58	Total	C	N	O	0	0	0
			459	293	89	77			

- Molecule 52 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M8	61	Total	C	N	O	S	0	0	0
			479	299	86	89	5			
52	I5	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 53 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	N8	56	Total	C	N	O	S	0	0	0
			437	275	87	70	5			
53	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	P8	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			
54	L5	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			
55	M5	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			

- Molecule 56 is a RNA chain called tRNAVal.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1L	69	Total	C	N	O	P	0	0	0
			1469	656	262	482	69			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	13	148	Total	Mg	0	0
			148	148		
57	4E	1	Total	Mg	0	0
			1	1		
57	5E	1	Total	Mg	0	0
			1	1		
57	3I	1	Total	Mg	0	0
			1	1		
57	5I	1	Total	Mg	0	0
			1	1		
57	2K	4	Total	Mg	0	0
			4	4		
57	4K	2	Total	Mg	0	0
			2	2		
57	1H	548	Total	Mg	0	0
			548	548		
57	16	11	Total	Mg	0	0
			11	11		
57	11	2	Total	Mg	0	0
			2	2		
57	21	2	Total	Mg	0	0
			2	2		
57	31	2	Total	Mg	0	0
			2	2		
57	41	1	Total	Mg	0	0
			1	1		
57	68	2	Total	Mg	0	0
			2	2		
57	78	1	Total	Mg	0	0
			1	1		
57	88	3	Total	Mg	0	0
			3	3		
57	F8	1	Total	Mg	0	0
			1	1		
57	I8	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	J8	1	Total Mg 1 1	0	0
57	L8	1	Total Mg 1 1	0	0
57	P8	1	Total Mg 1 1	0	0
57	Q8	1	Total Mg 1 1	0	0
57	1G	133	Total Mg 133 133	0	0
57	42	1	Total Mg 1 1	0	0
57	3A	1	Total Mg 1 1	0	0
57	4A	1	Total Mg 1 1	0	0
57	9A	1	Total Mg 1 1	0	0
57	2L	3	Total Mg 3 3	0	0
57	4L	2	Total Mg 2 2	0	0
57	14	445	Total Mg 445 445	0	0
57	1J	7	Total Mg 7 7	0	0
57	19	1	Total Mg 1 1	0	0
57	29	2	Total Mg 2 2	0	0
57	39	2	Total Mg 2 2	0	0
57	25	2	Total Mg 2 2	0	0
57	35	2	Total Mg 2 2	0	0
57	45	1	Total Mg 1 1	0	0
57	B5	1	Total Mg 1 1	0	0
57	C5	1	Total Mg 1 1	0	0

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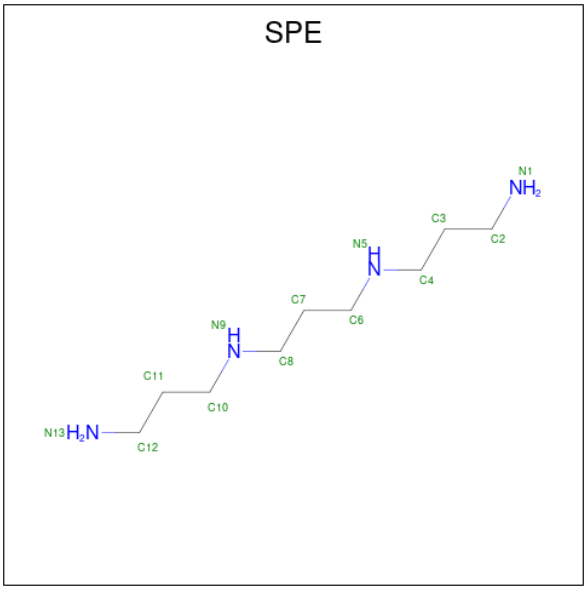
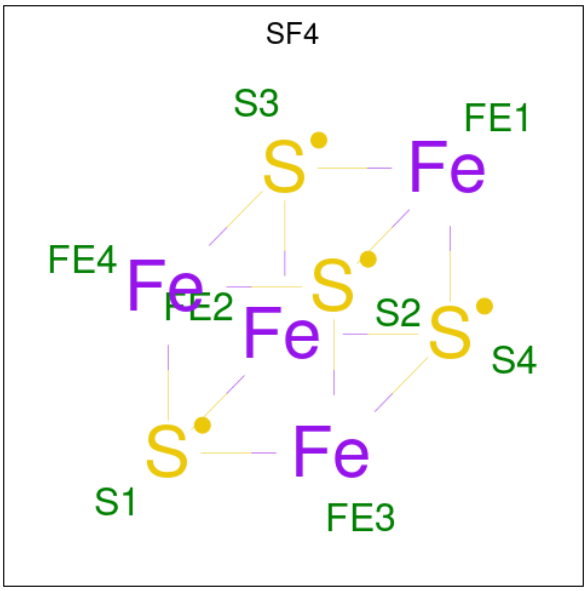
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	E5	1	Total Mg 1 1	0	0
57	M5	1	Total Mg 1 1	0	0

- Molecule 58 is THERMINE (three-letter code: SPE) (formula: $C_9H_{24}N_4$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	13	1	Total C N 13 9 4	0	0
58	1G	1	Total C N 13 9 4	0	0
58	14	1	Total C N 13 9 4	0	0
58	14	1	Total C N 13 9 4	0	0
58	1J	1	Total C N 13 9 4	0	0

- Molecule 59 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	3E	1	Total Fe S 8 4 4	0	0
59	32	1	Total Fe S 8 4 4	0	0

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	5I	1	Total Zn 1 1	0	0
60	G8	1	Total Zn 1 1	0	0
60	5A	1	Total Zn 1 1	0	0
60	C5	1	Total Zn 1 1	0	0

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	13	304	Total O 304 304	0	0
61	3E	1	Total O 1 1	0	0
61	4E	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1I	2	Total O 2 2	0	0
61	2I	1	Total O 1 1	0	0
61	3I	2	Total O 2 2	0	0
61	5I	2	Total O 2 2	0	0
61	7I	2	Total O 2 2	0	0
61	1K	1	Total O 1 1	0	0
61	2K	6	Total O 6 6	0	0
61	3K	1	Total O 1 1	0	0
61	4K	11	Total O 11 11	0	0
61	1H	1133	Total O 1133 1133	0	0
61	16	15	Total O 15 15	0	0
61	11	16	Total O 16 16	0	0
61	21	8	Total O 8 8	0	0
61	31	4	Total O 4 4	0	0
61	58	1	Total O 1 1	0	0
61	78	11	Total O 11 11	0	0
61	98	2	Total O 2 2	0	0
61	A8	3	Total O 3 3	0	0
61	B8	1	Total O 1 1	0	0
61	E8	1	Total O 1 1	0	0
61	F8	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	I8	6	Total O 6 6	0	0
61	K8	1	Total O 1 1	0	0
61	L8	1	Total O 1 1	0	0
61	P8	1	Total O 1 1	0	0
61	Q8	5	Total O 5 5	0	0
61	1G	391	Total O 391 391	0	0
61	22	1	Total O 1 1	0	0
61	42	1	Total O 1 1	0	0
61	52	3	Total O 3 3	0	0
61	3A	1	Total O 1 1	0	0
61	7A	1	Total O 1 1	0	0
61	9A	3	Total O 3 3	0	0
61	BA	2	Total O 2 2	0	0
61	4L	14	Total O 14 14	0	0
61	14	1135	Total O 1135 1135	0	0
61	1J	18	Total O 18 18	0	0
61	19	8	Total O 8 8	0	0
61	29	6	Total O 6 6	0	0
61	39	6	Total O 6 6	0	0
61	25	11	Total O 11 11	0	0
61	35	9	Total O 9 9	0	0

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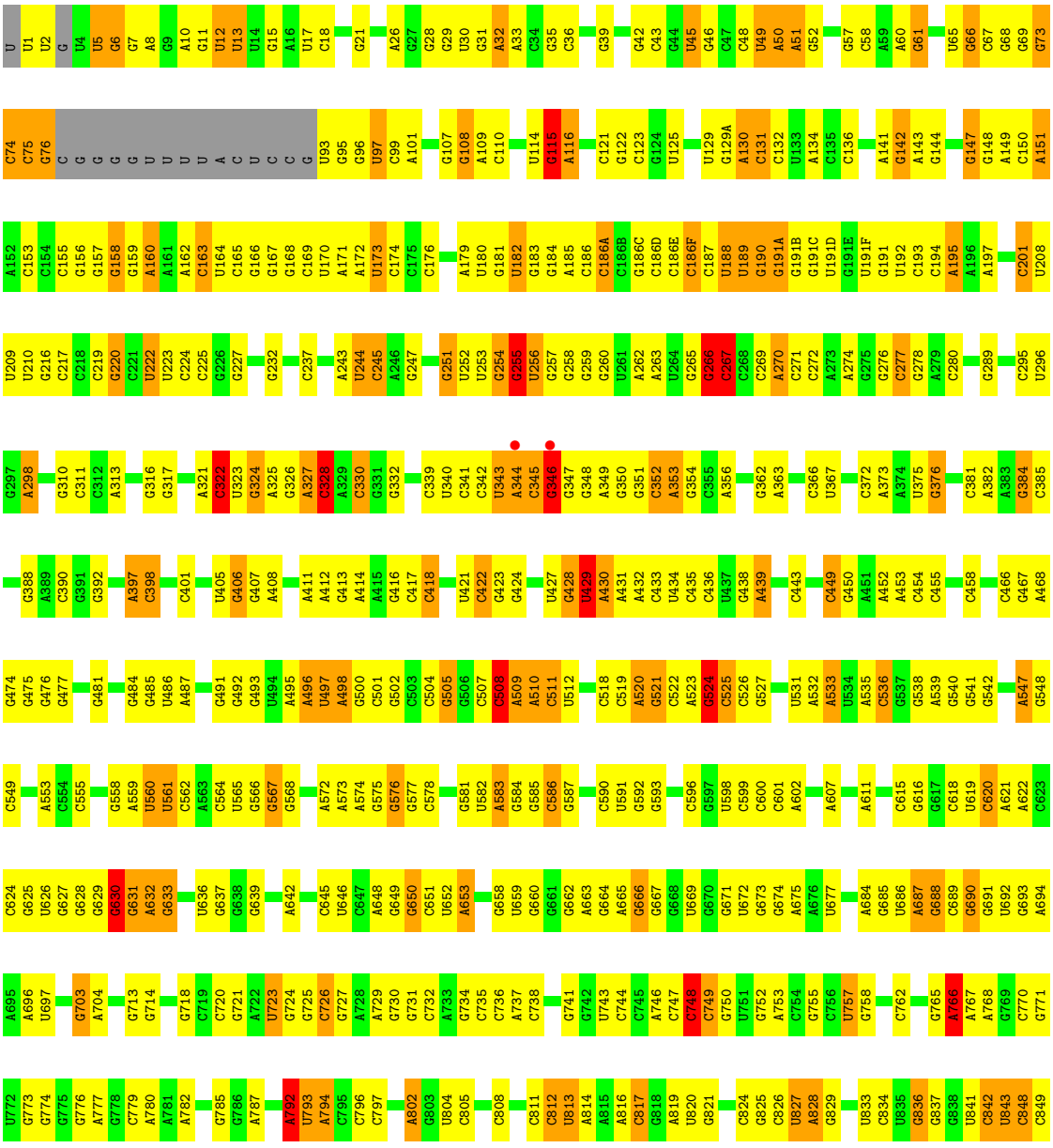
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	45	3	Total O 3 3	0	0
61	55	1	Total O 1 1	0	0
61	75	1	Total O 1 1	0	0
61	85	1	Total O 1 1	0	0
61	A5	1	Total O 1 1	0	0
61	C5	3	Total O 3 3	0	0
61	E5	5	Total O 5 5	0	0
61	F5	3	Total O 3 3	0	0
61	H5	1	Total O 1 1	0	0
61	M5	7	Total O 7 7	0	0

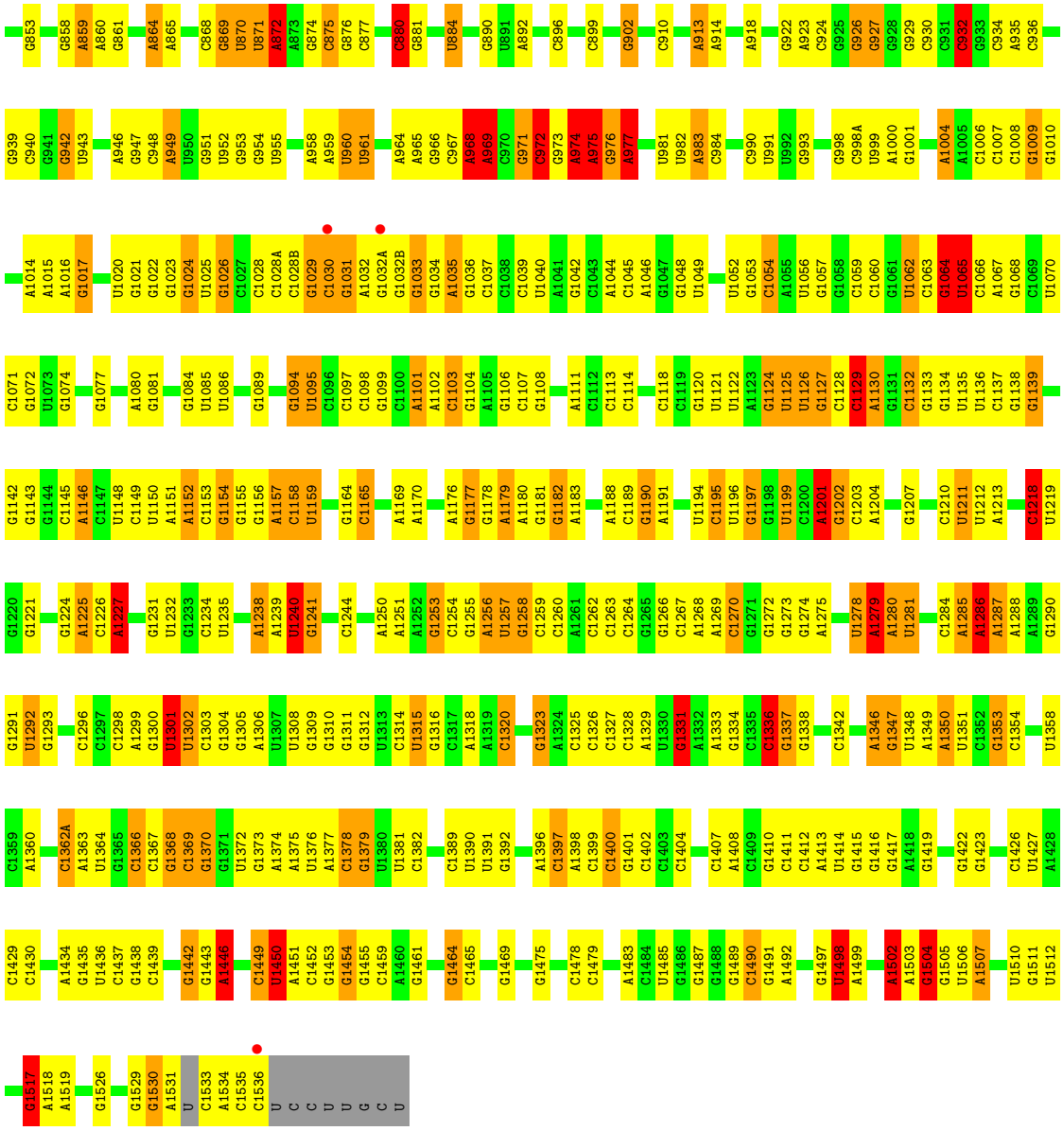
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes 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

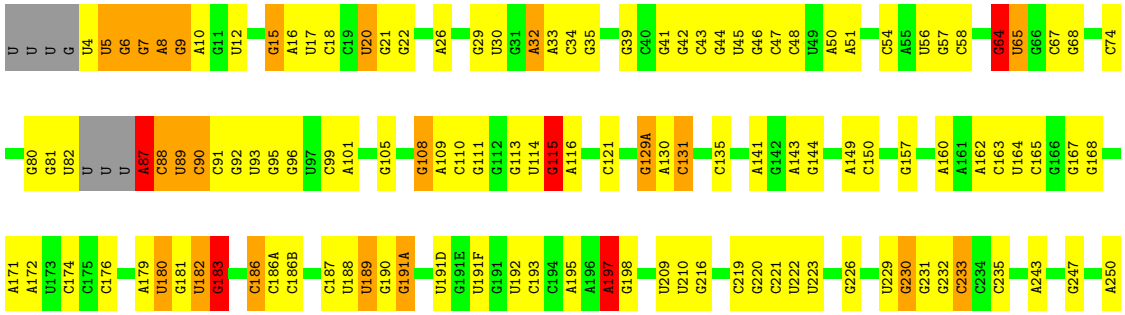
Chain 13:

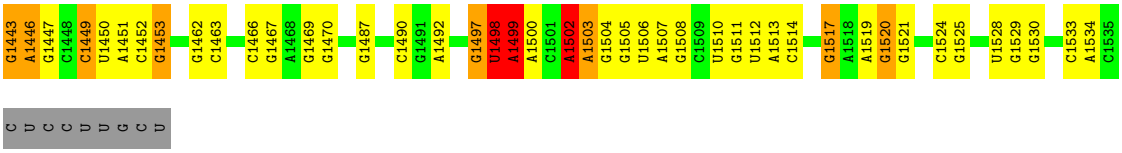




• Molecule 1: 16S ribosomal RNA

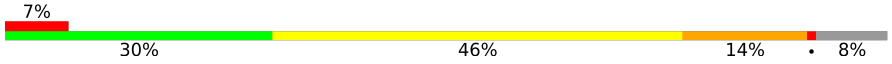
Chain 1G:

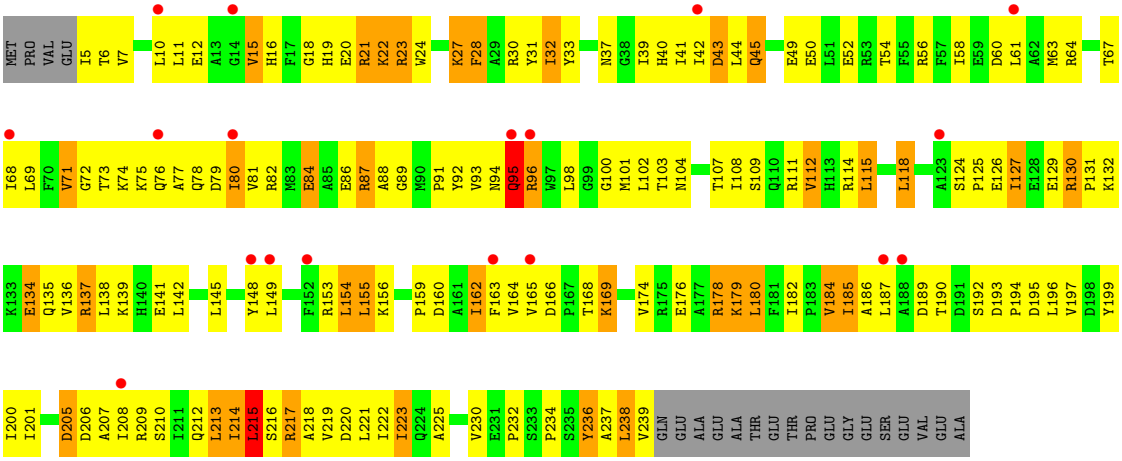




• Molecule 2: 30S ribosomal protein S2

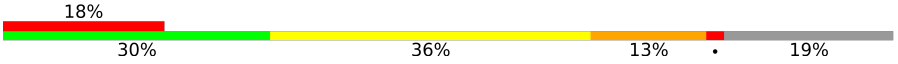
Chain 1E:

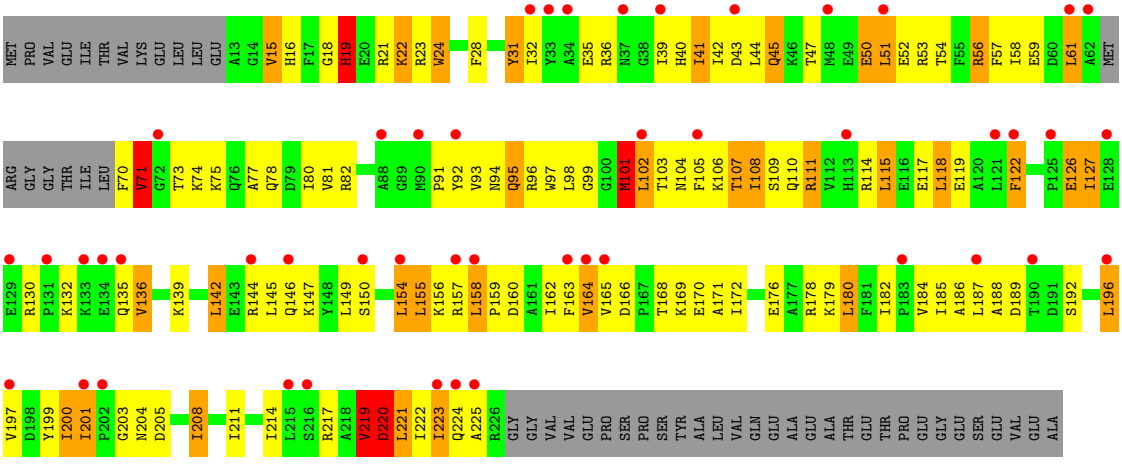




• Molecule 2: 30S ribosomal protein S2

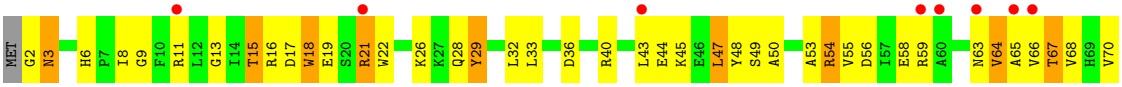
Chain 12:

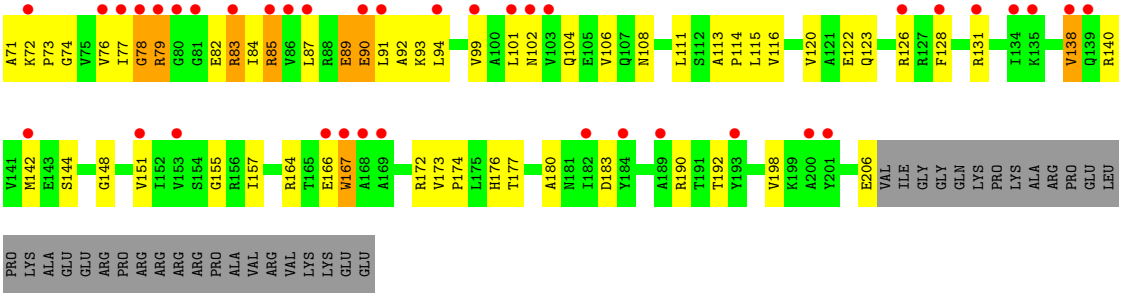




• Molecule 3: 30S ribosomal protein S3

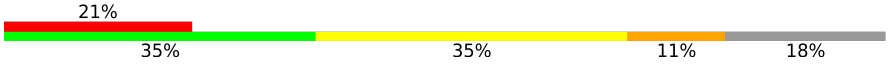
Chain 2E:

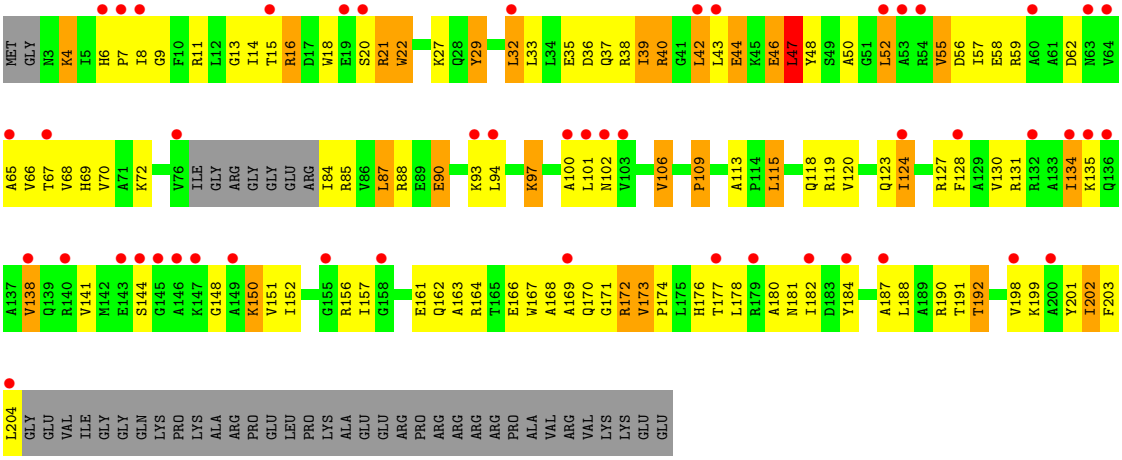




• Molecule 3: 30S ribosomal protein S3

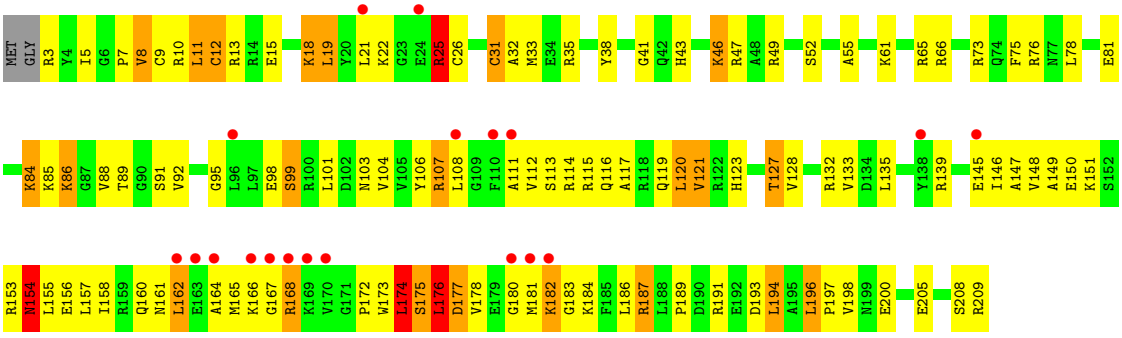
Chain 22:





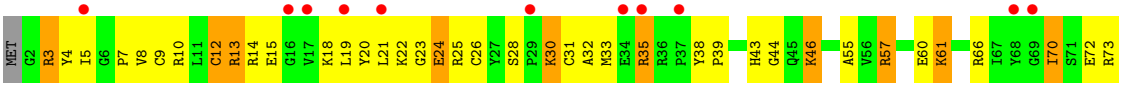
• Molecule 4: 30S ribosomal protein S4

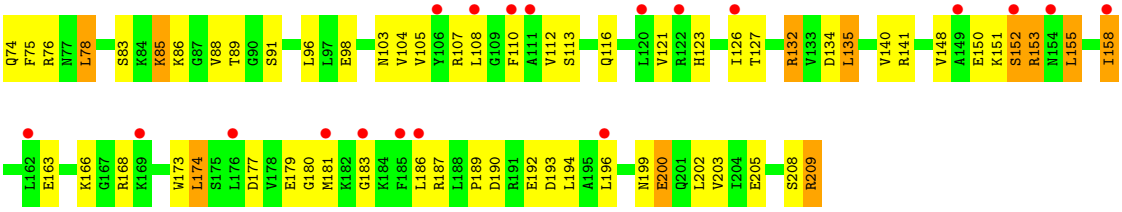
Chain 3E:



• Molecule 4: 30S ribosomal protein S4

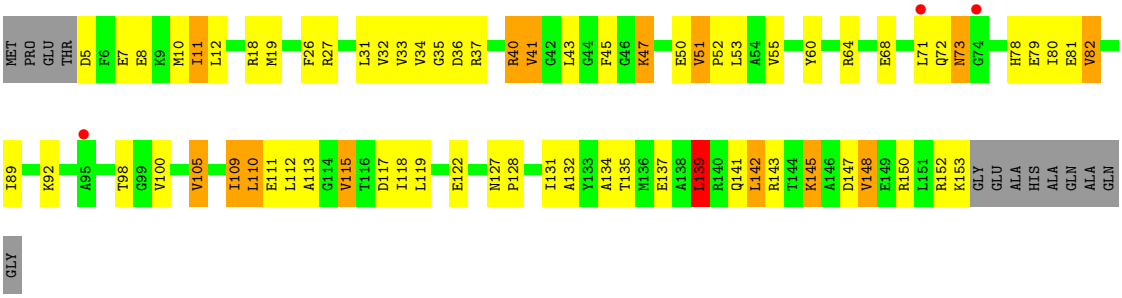
Chain 32:





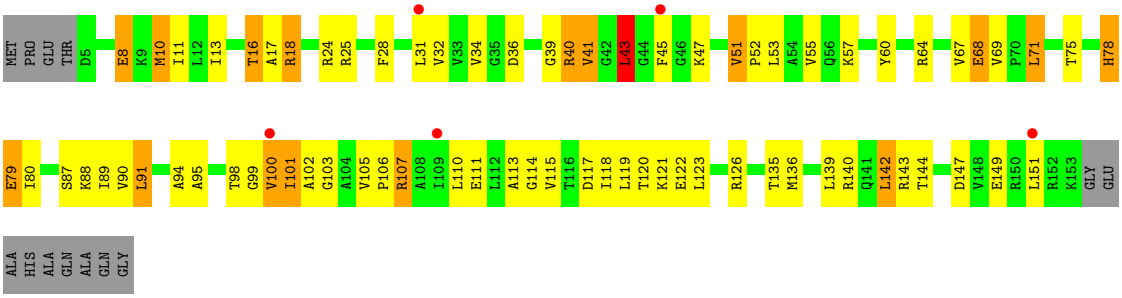
• Molecule 5: 30S ribosomal protein S5

Chain 4E:



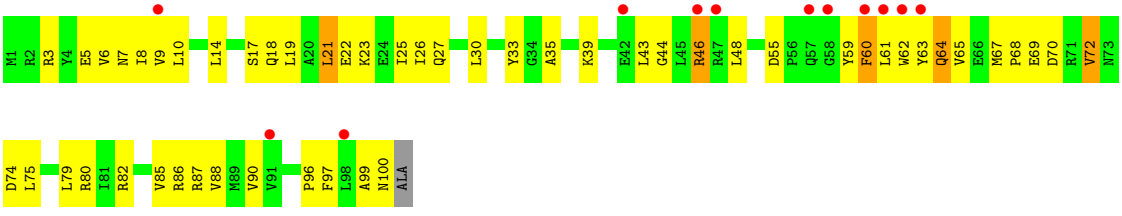
• Molecule 5: 30S ribosomal protein S5

Chain 42:



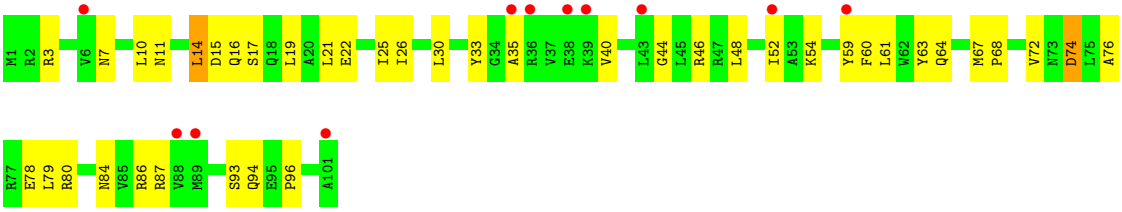
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



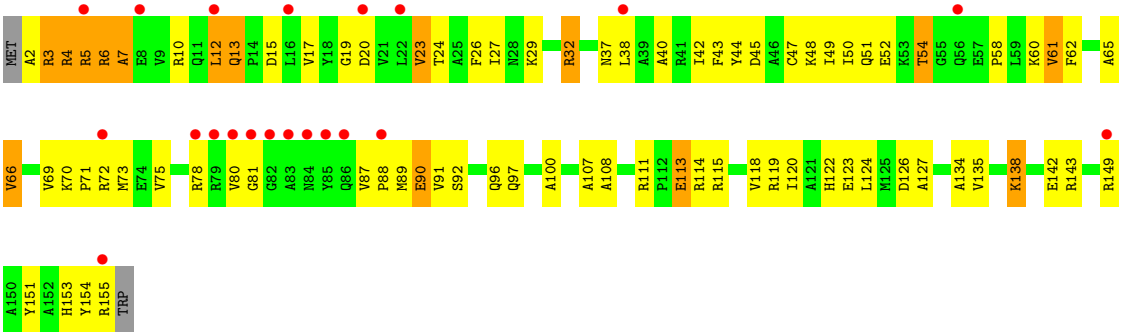
• Molecule 6: 30S ribosomal protein S6

Chain 52:



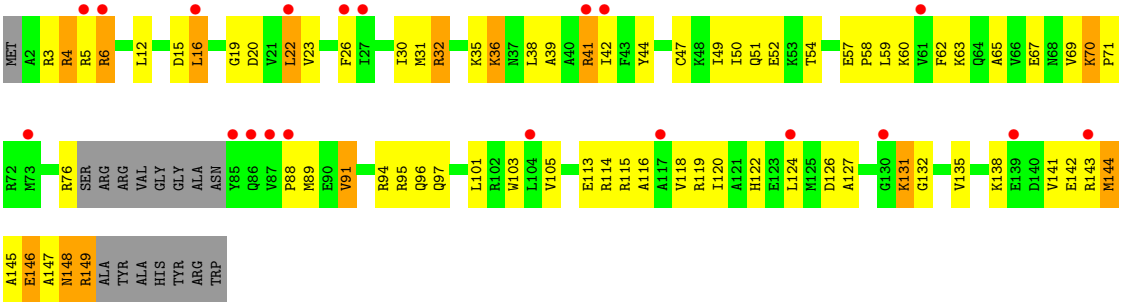
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



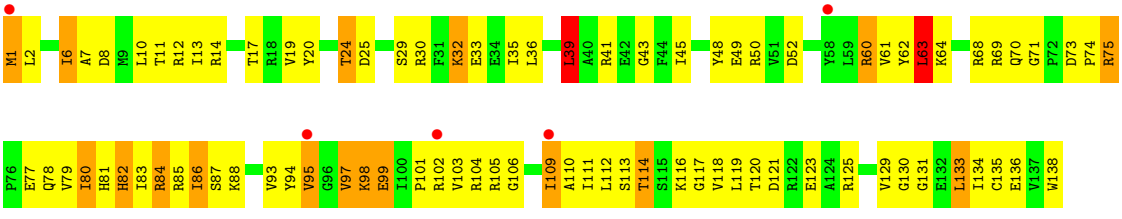
• Molecule 7: 30S ribosomal protein S7

Chain 62:



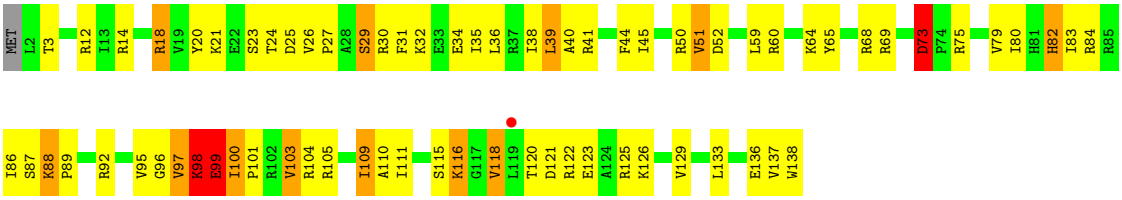
• Molecule 8: 30S ribosomal protein S8

Chain 7E:



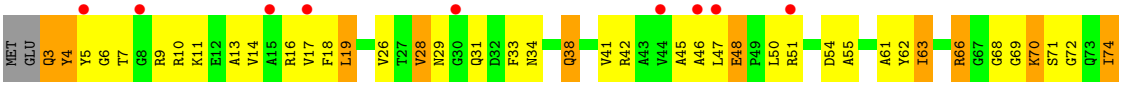
• Molecule 8: 30S ribosomal protein S8

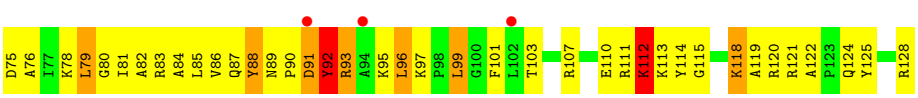
Chain 72:



• Molecule 9: 30S ribosomal protein S9

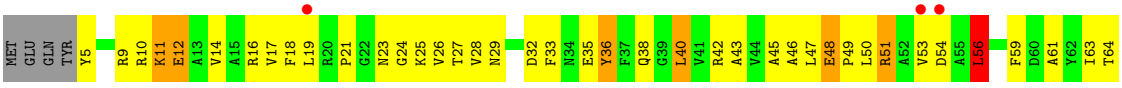
Chain 8E:

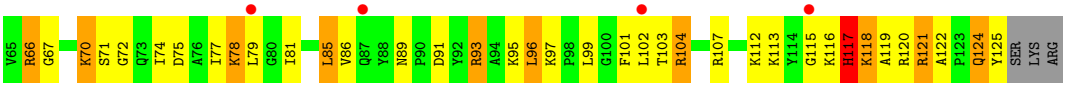




• Molecule 9: 30S ribosomal protein S9

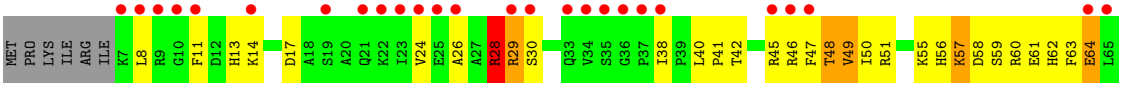
Chain 82:

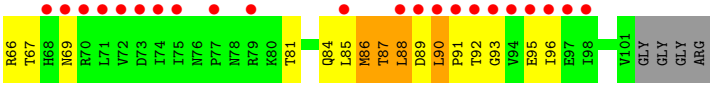




• Molecule 10: 30S ribosomal protein S10

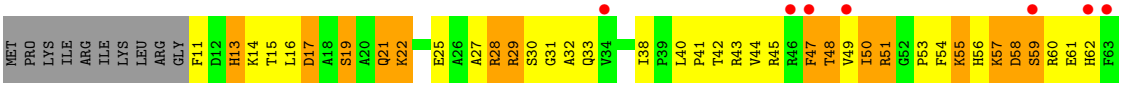
Chain 1I:

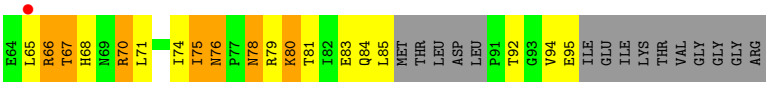




• Molecule 10: 30S ribosomal protein S10

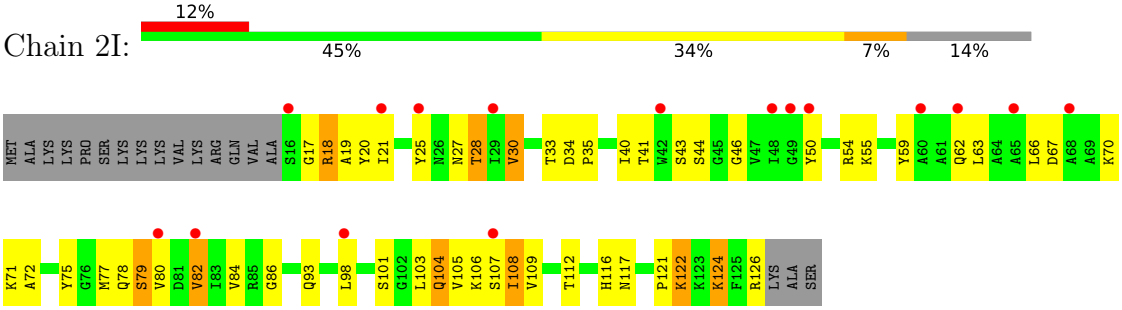
Chain 1A:





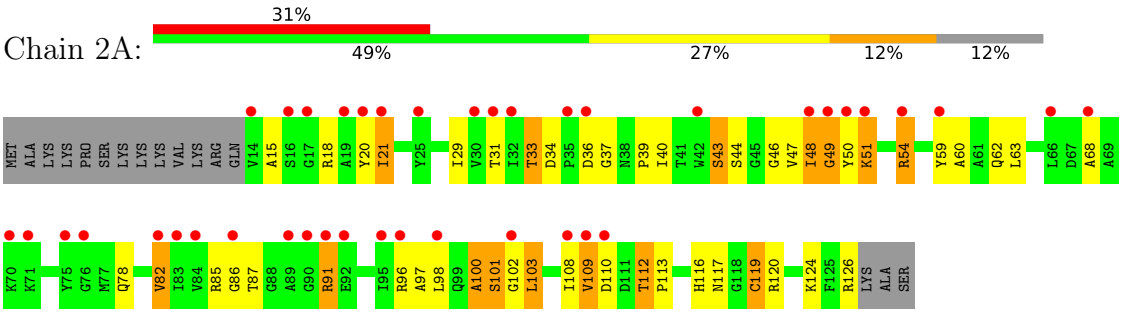
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



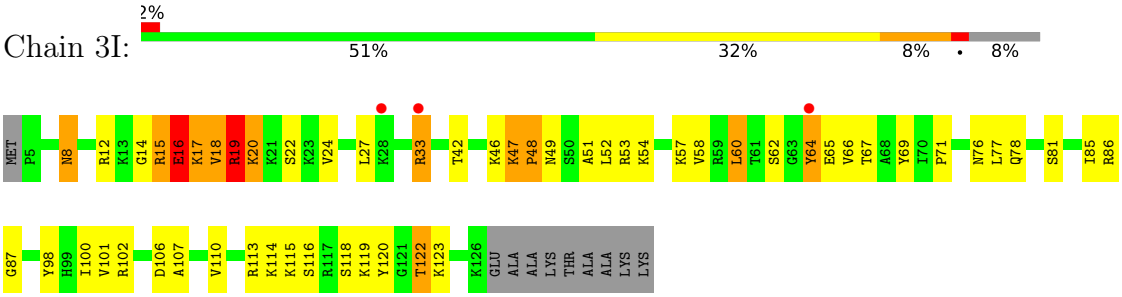
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



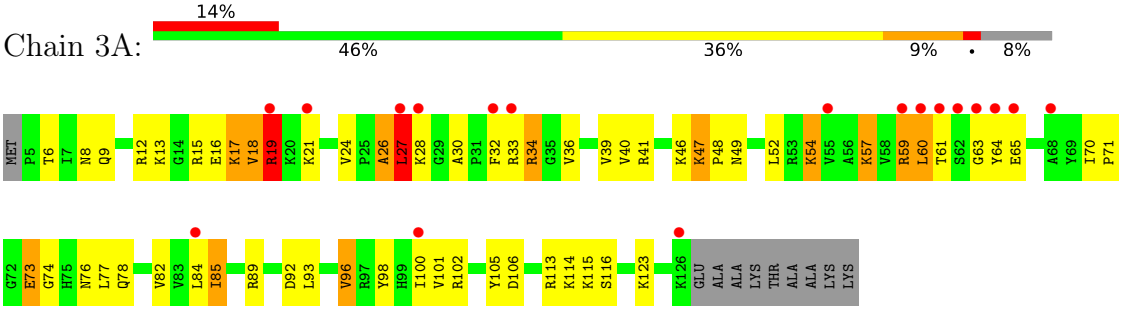
• Molecule 12: 30S ribosomal protein S12

Chain 3I:



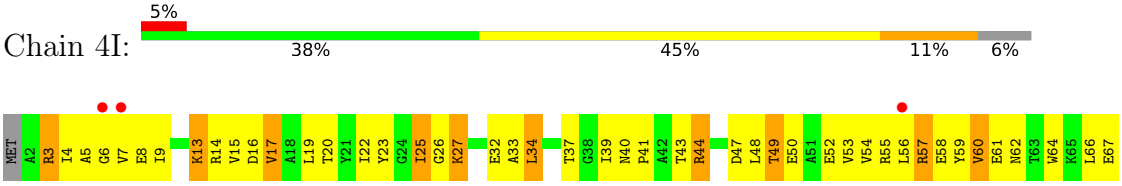
• Molecule 12: 30S ribosomal protein S12

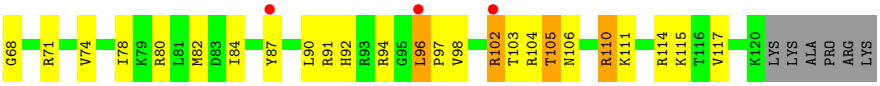
Chain 3A:



• Molecule 13: 30S ribosomal protein S13

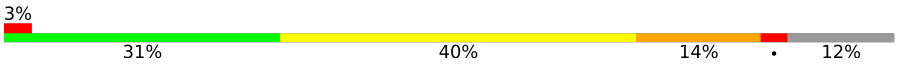
Chain 4I:

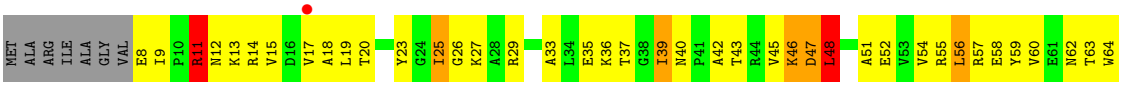


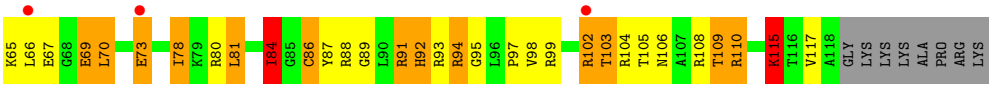


• Molecule 13: 30S ribosomal protein S13

Chain 4A:

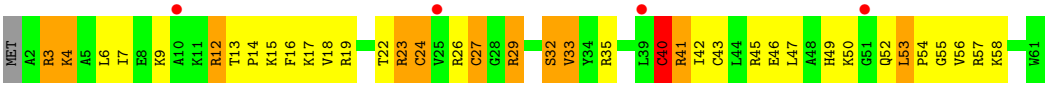






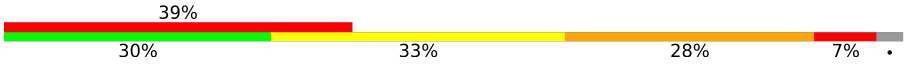
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



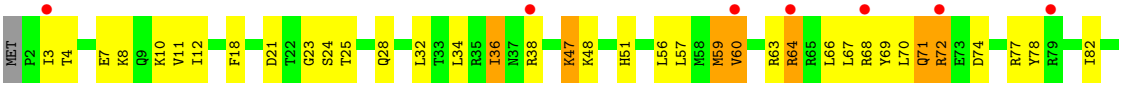
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



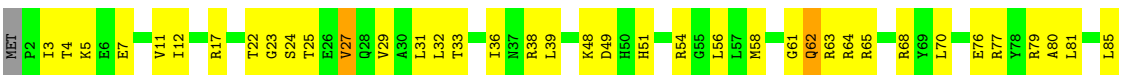
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



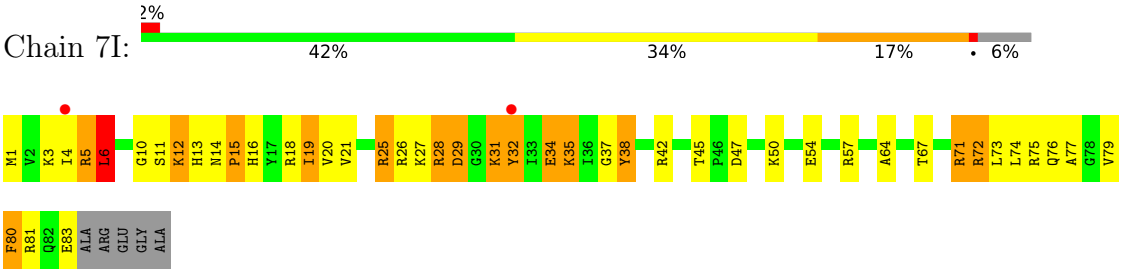
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



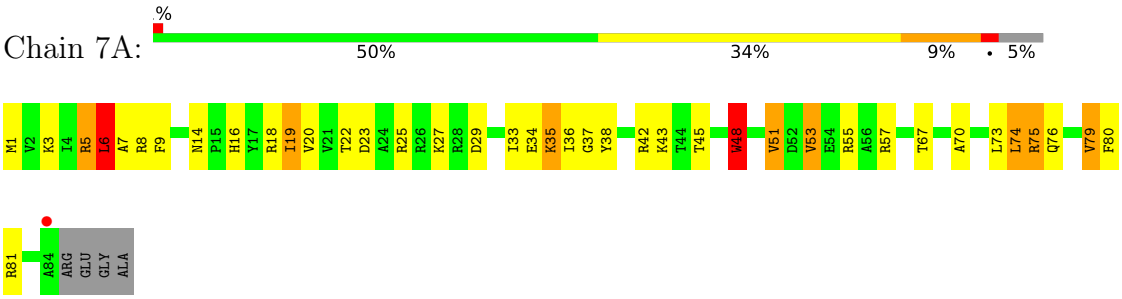
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



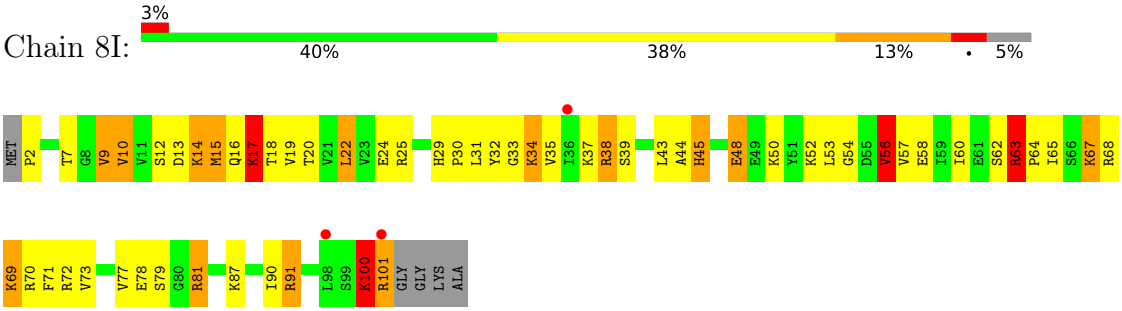
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



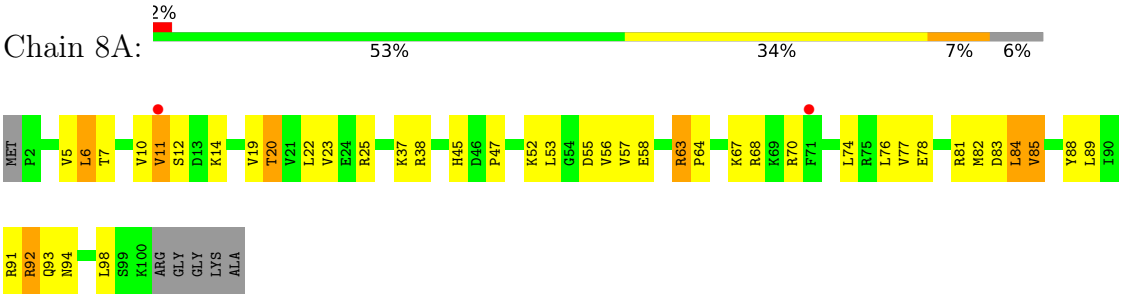
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



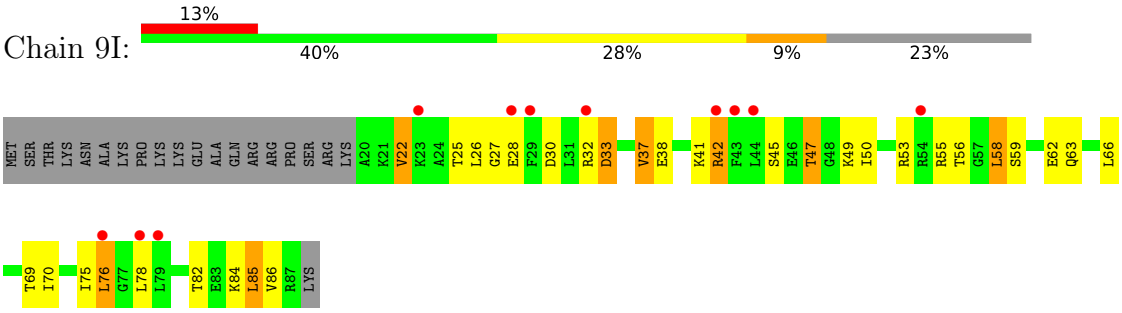
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



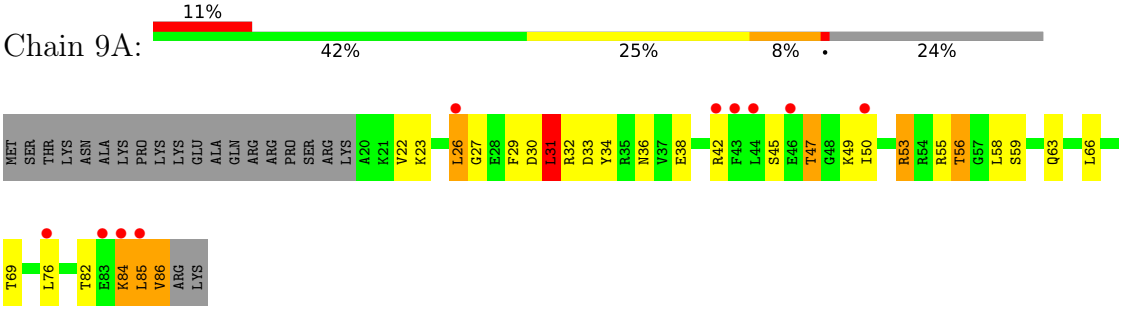
• Molecule 18: 30S ribosomal protein S18

Chain 9I:



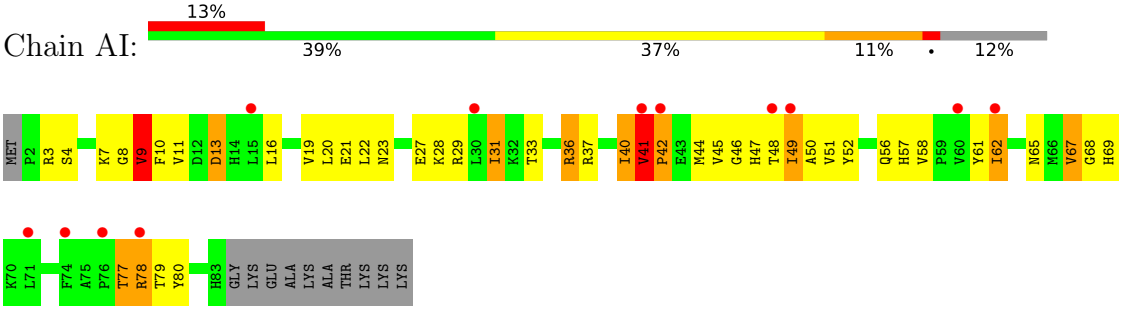
• Molecule 18: 30S ribosomal protein S18

Chain 9A:



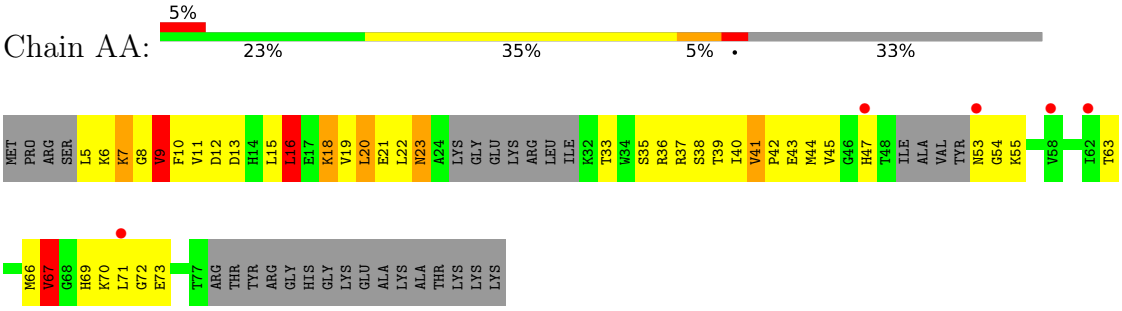
• Molecule 19: 30S ribosomal protein S19

Chain AI:



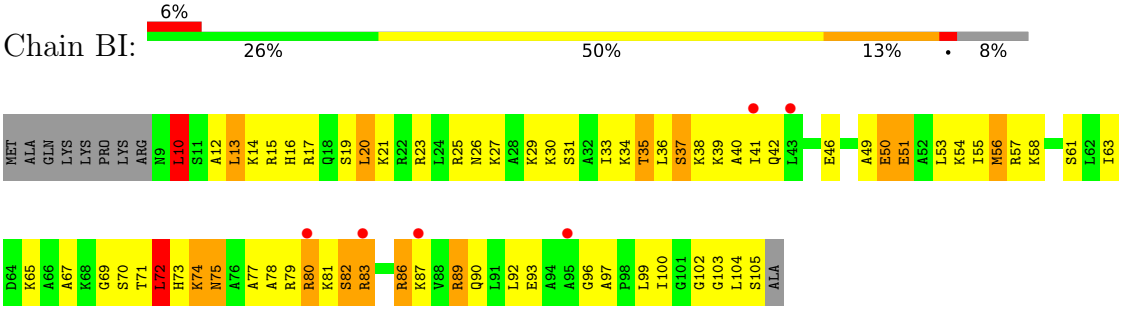
• Molecule 19: 30S ribosomal protein S19

Chain AA:



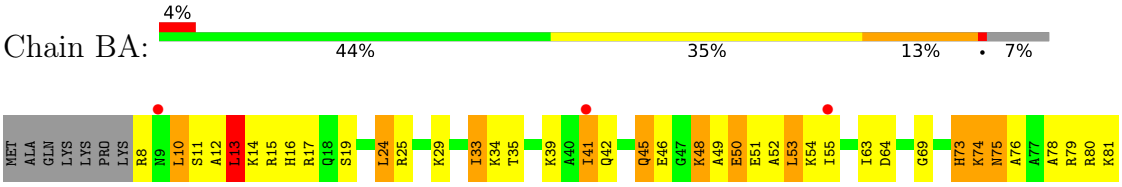
• Molecule 20: 30S ribosomal protein S20

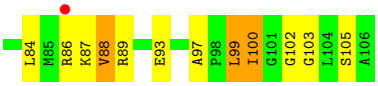
Chain BI:



• Molecule 20: 30S ribosomal protein S20

Chain BA:



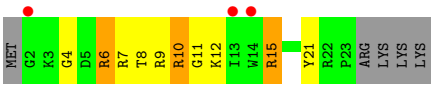


• Molecule 21: 30S ribosomal protein Thx

Chain 1F:

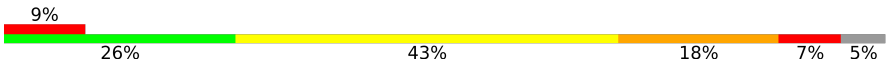
• Molecule 21: 30S ribosomal protein Thx

Chain 1B:



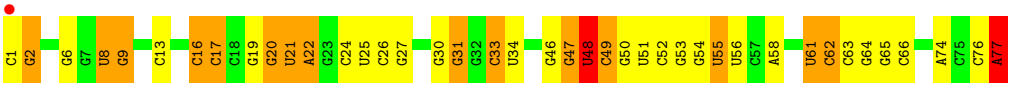
• Molecule 22: tRNAVal

Chain 1K:



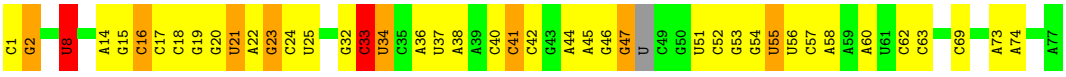
• Molecule 23: tRNAfMet

Chain 2K:



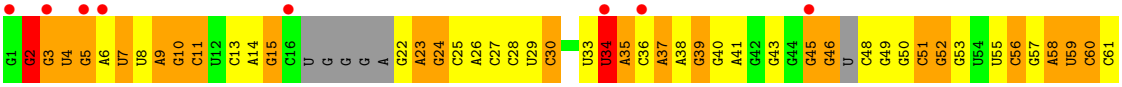
• Molecule 23: tRNAfMet

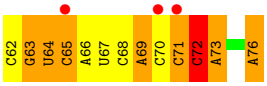
Chain 2L:



• Molecule 24: tRNAVal

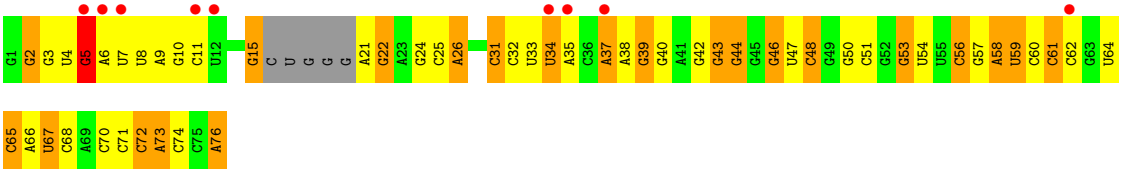
Chain 3K:





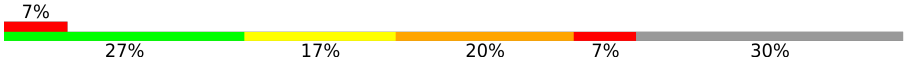
• Molecule 24: tRNAVal

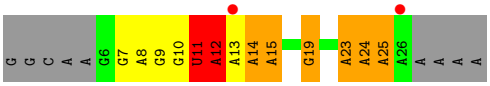
Chain 3L:



• Molecule 25: mRNA

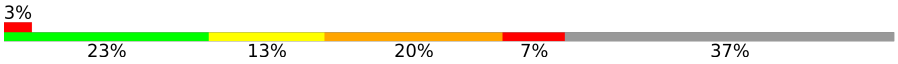
Chain 4K:





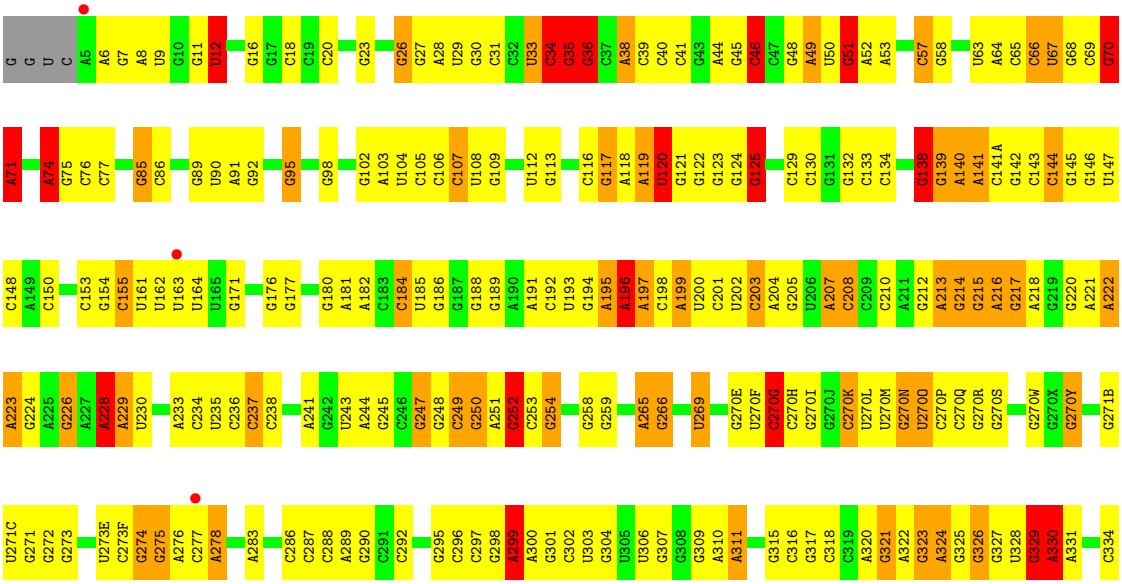
• Molecule 25: mRNA

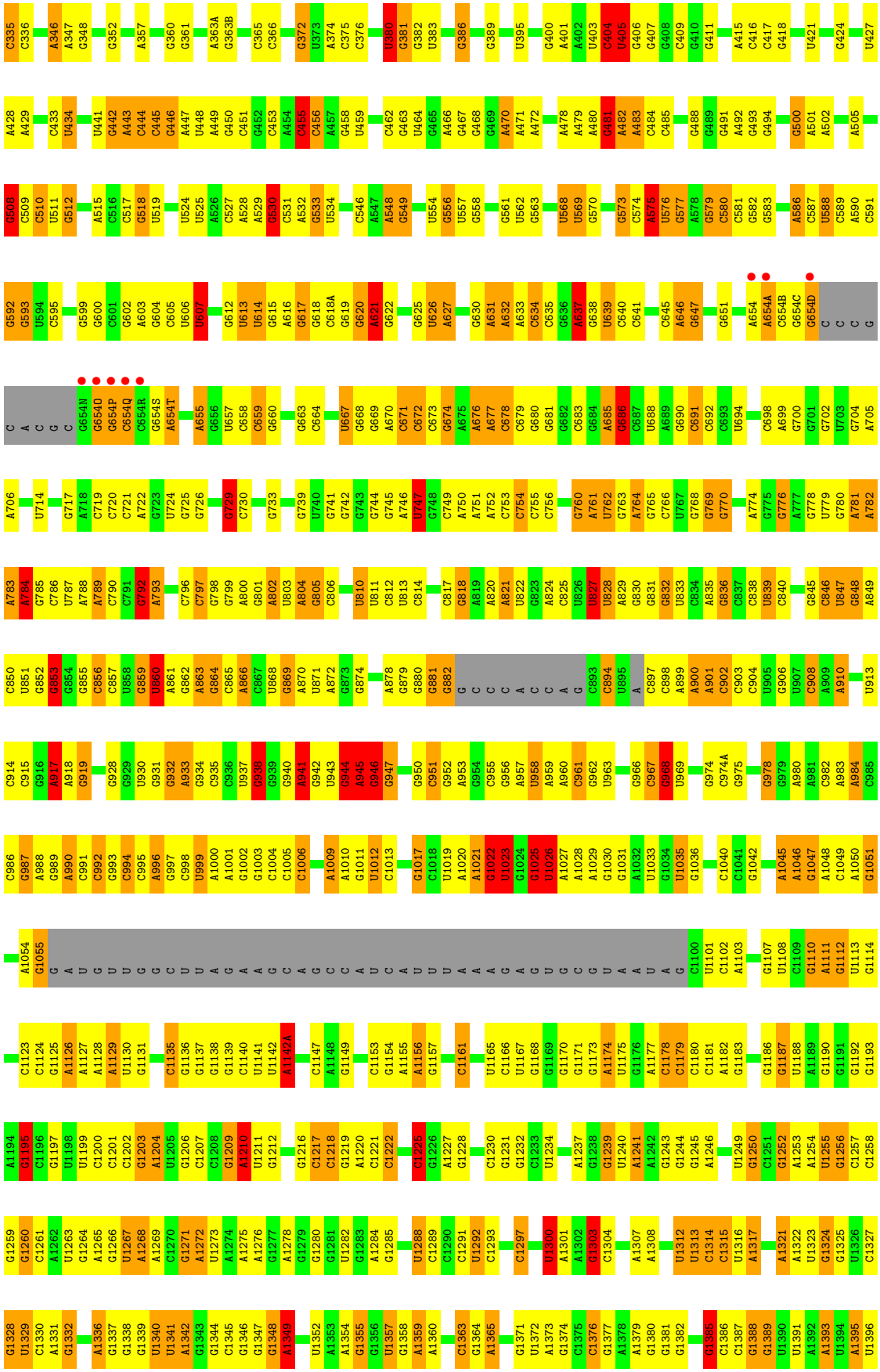
Chain 4L:

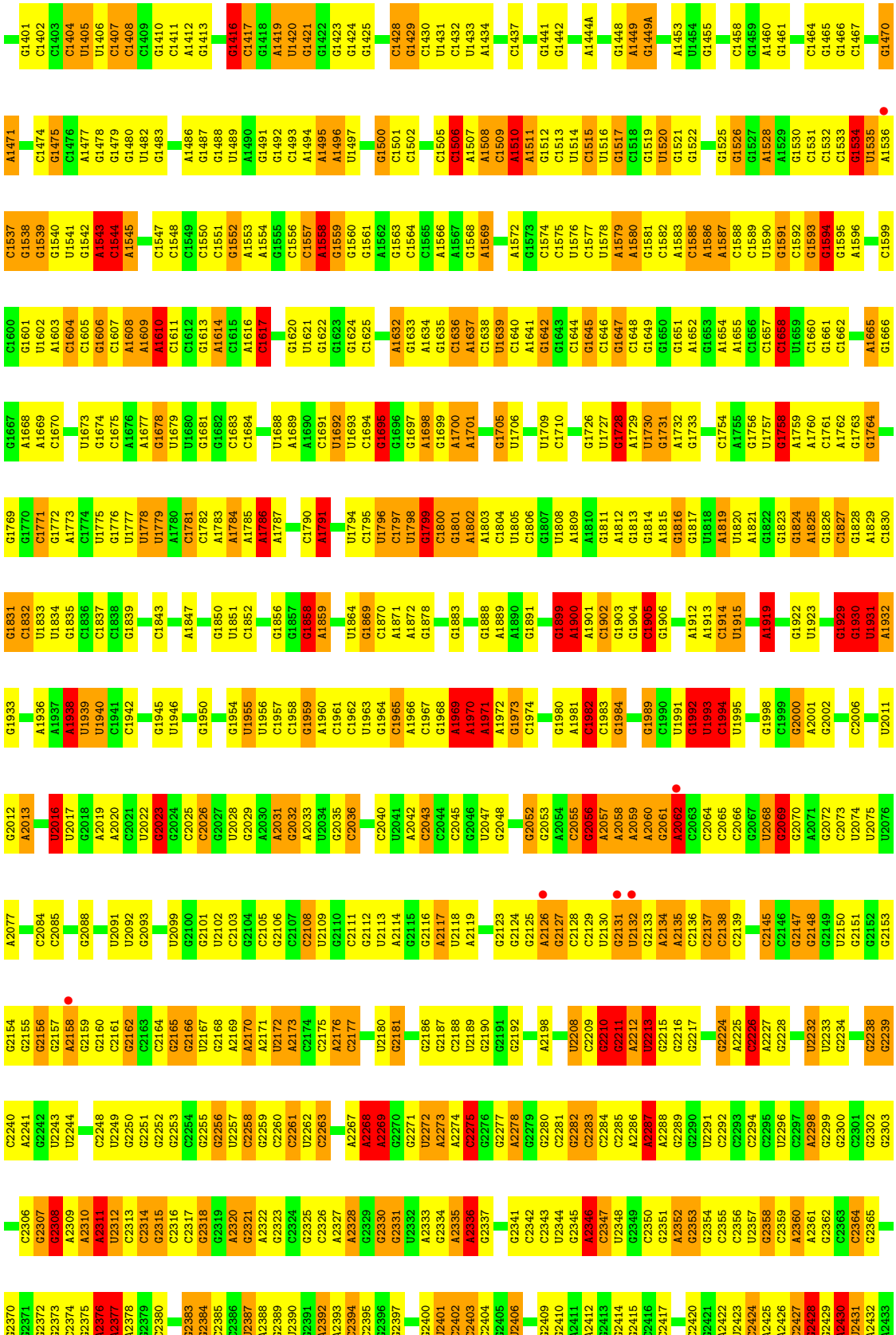


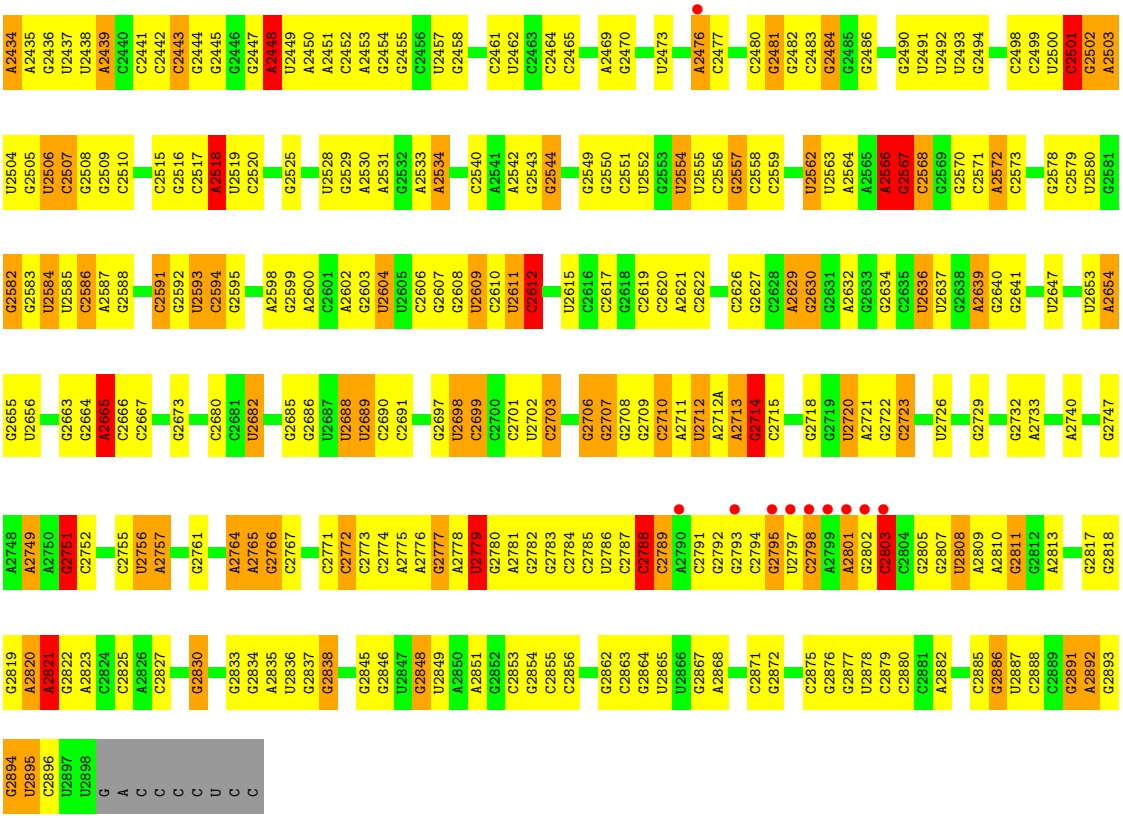
• Molecule 26: 23S ribosomal RNA

Chain 1H:



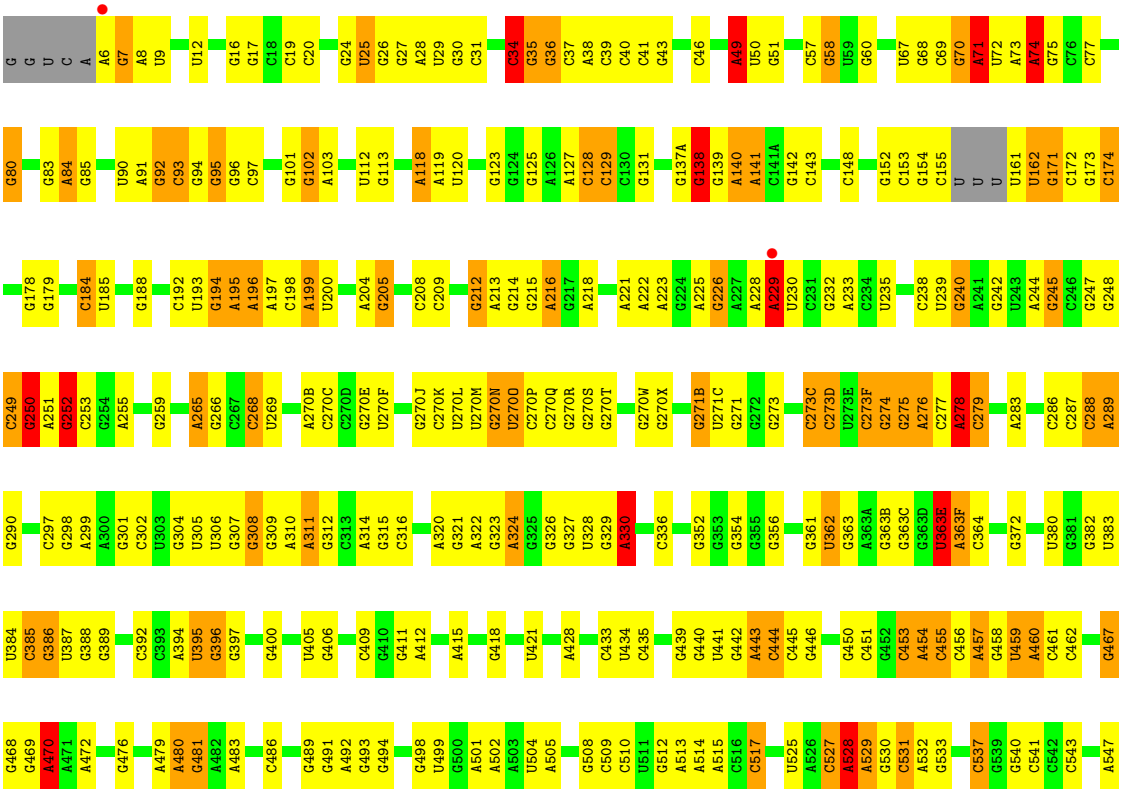


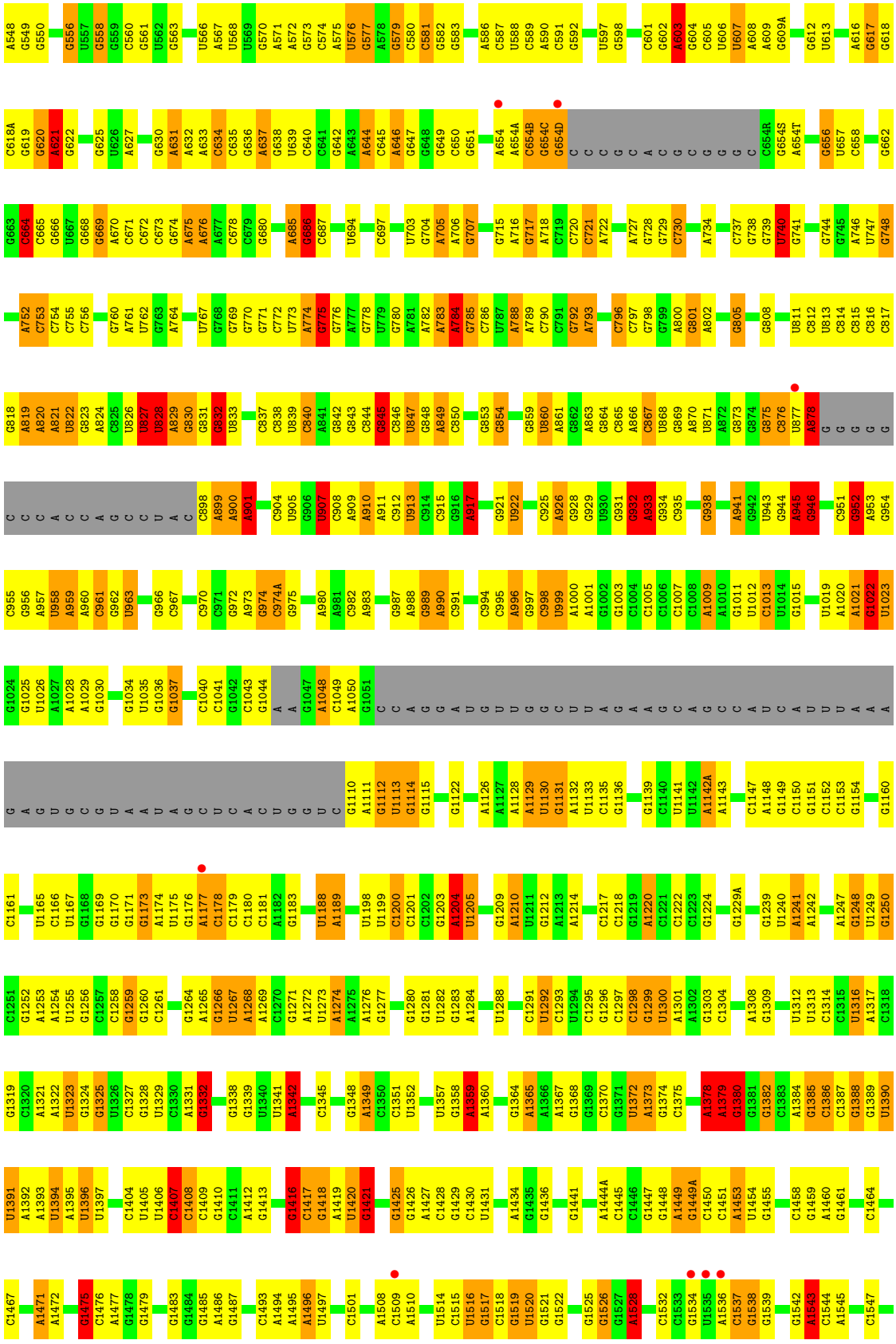


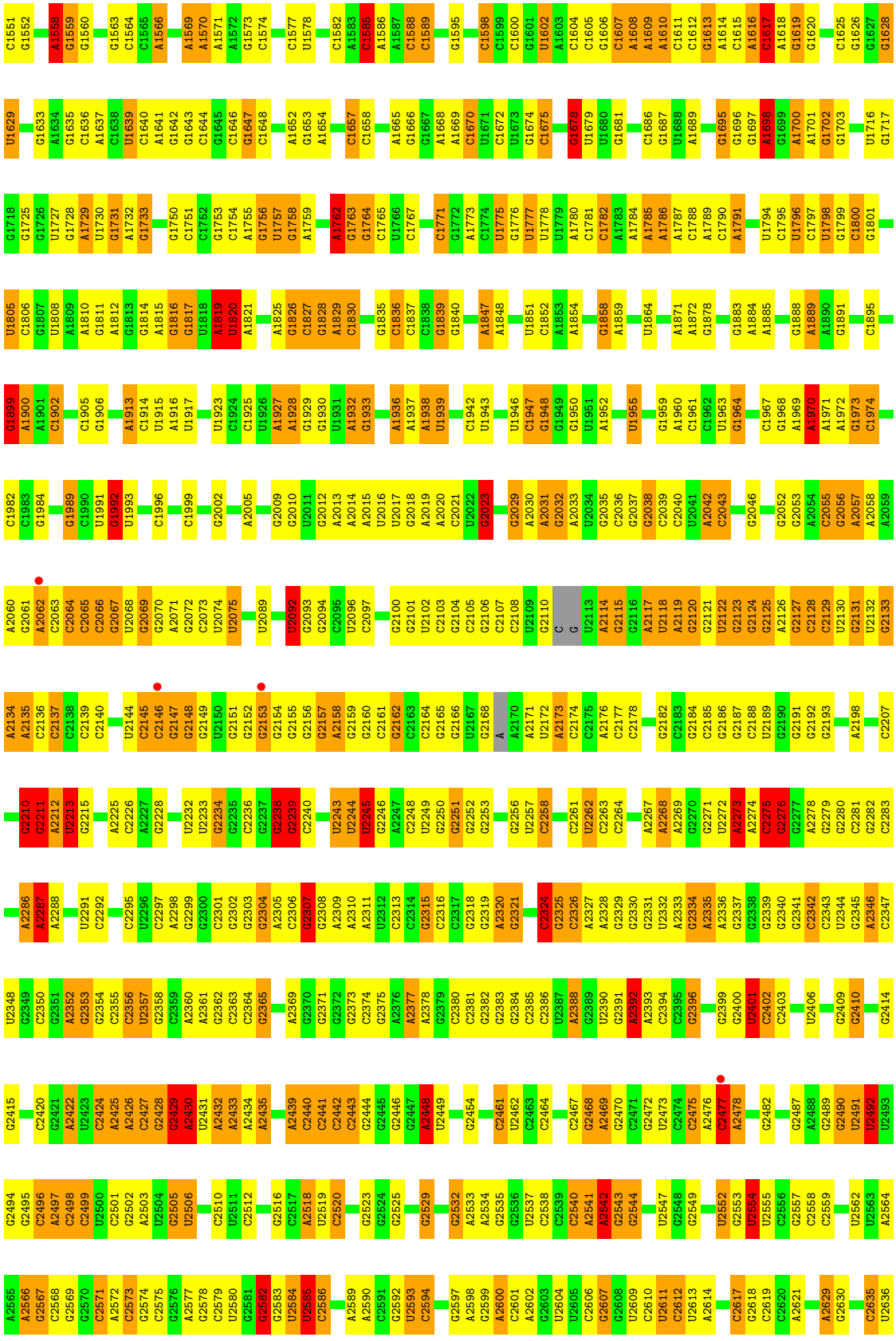


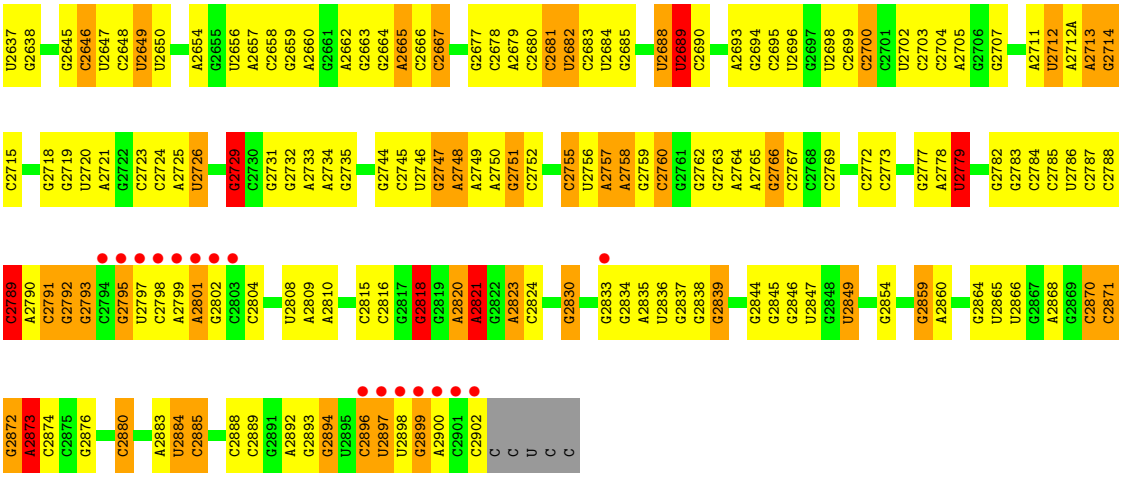
• Molecule 26: 23S ribosomal RNA

Chain 14:



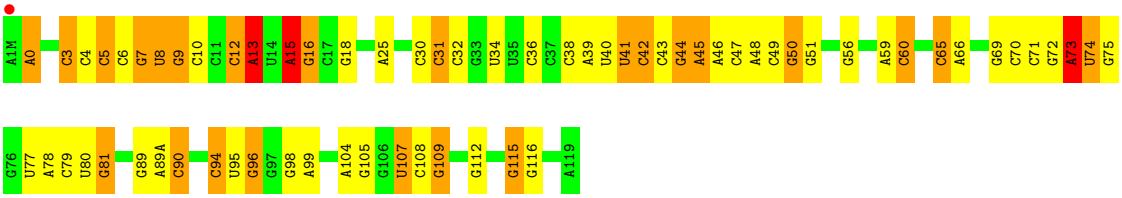






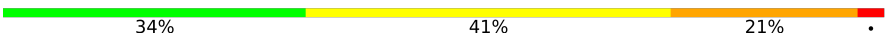
• Molecule 27: 5S ribosomal RNA

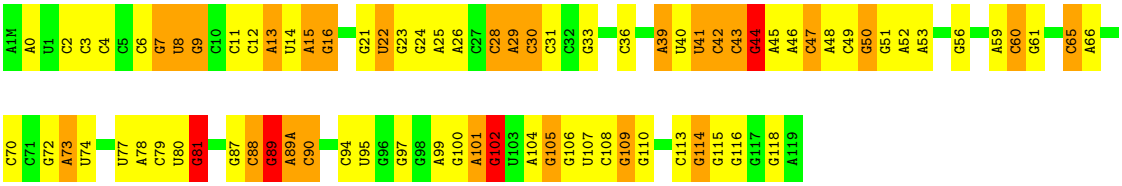
Chain 16:



• Molecule 27: 5S ribosomal RNA

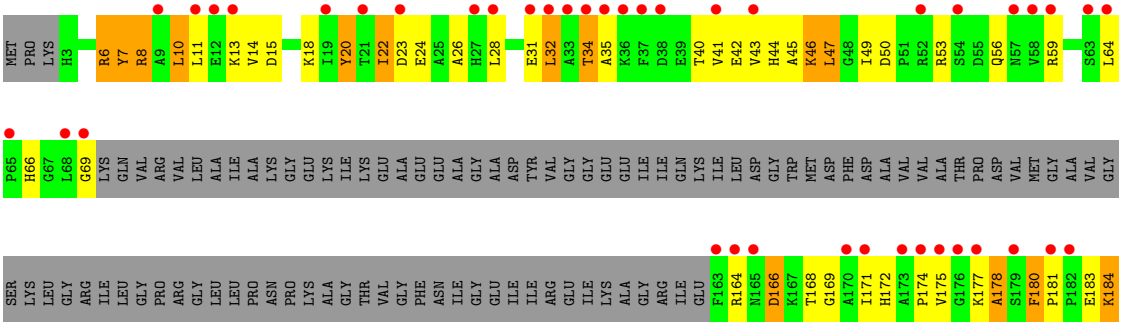
Chain 1J:

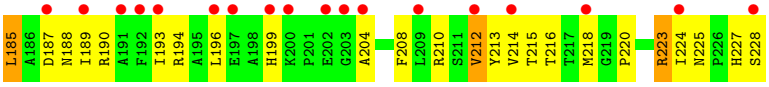




• Molecule 28: 50S ribosomal protein L1

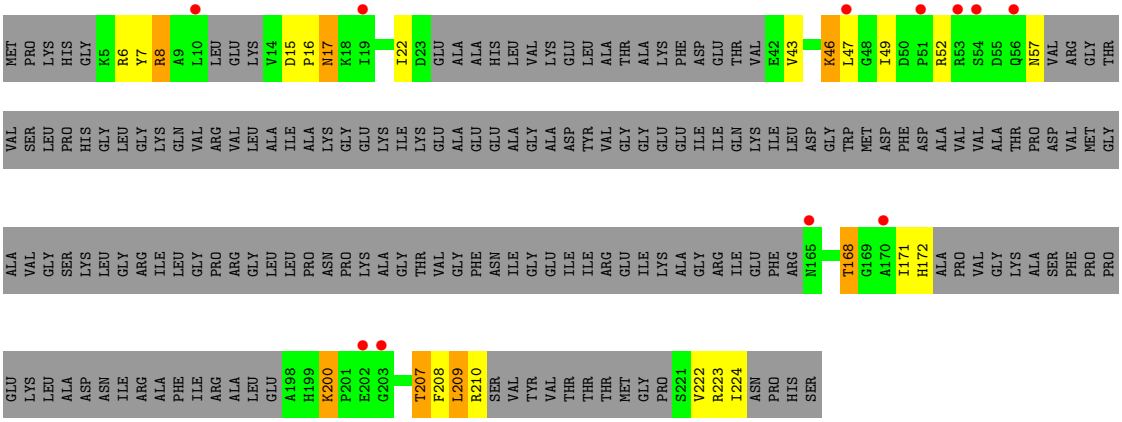
Chain 71:





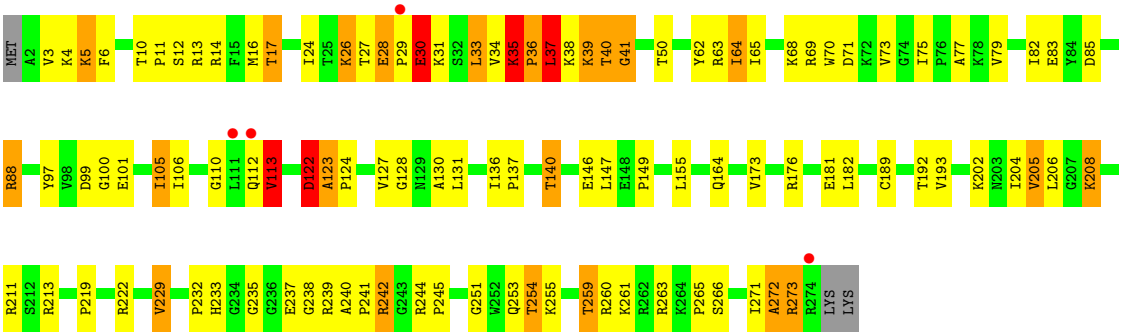
• Molecule 28: 50S ribosomal protein L1

Chain 79:



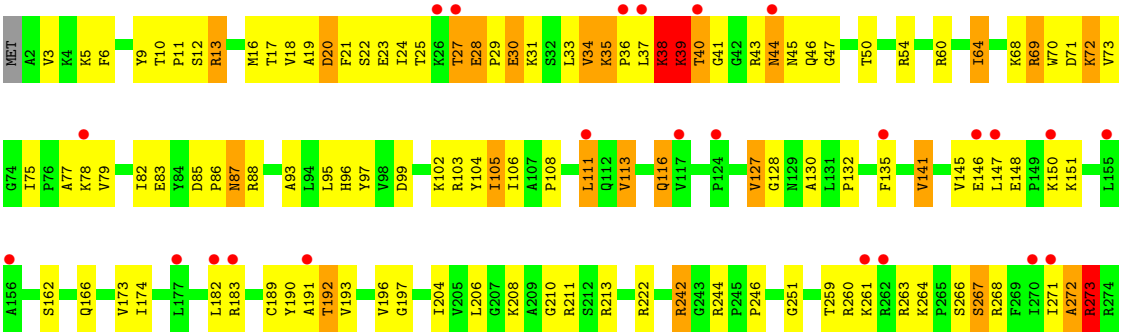
• Molecule 29: 50S ribosomal protein L2

Chain 11:



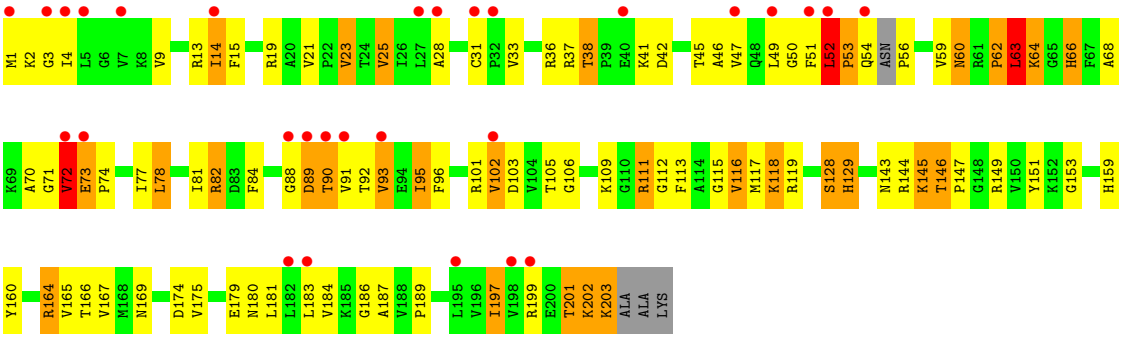
• Molecule 29: 50S ribosomal protein L2

Chain 19:



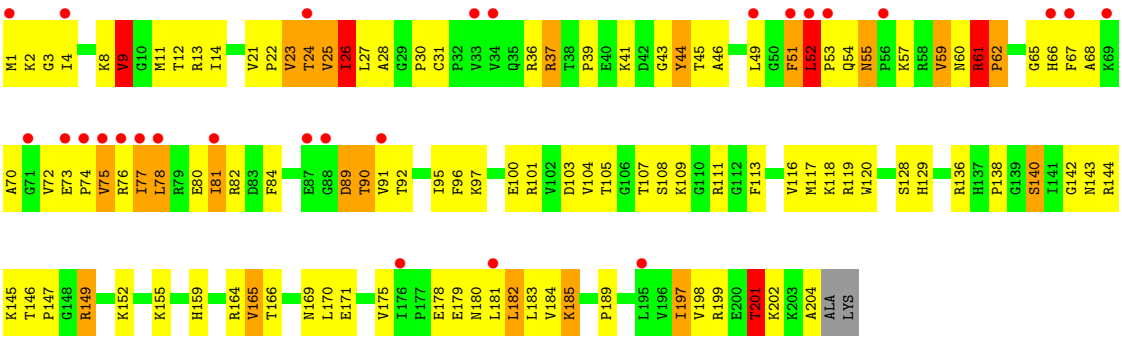
• Molecule 30: 50S ribosomal protein L3

Chain 21:



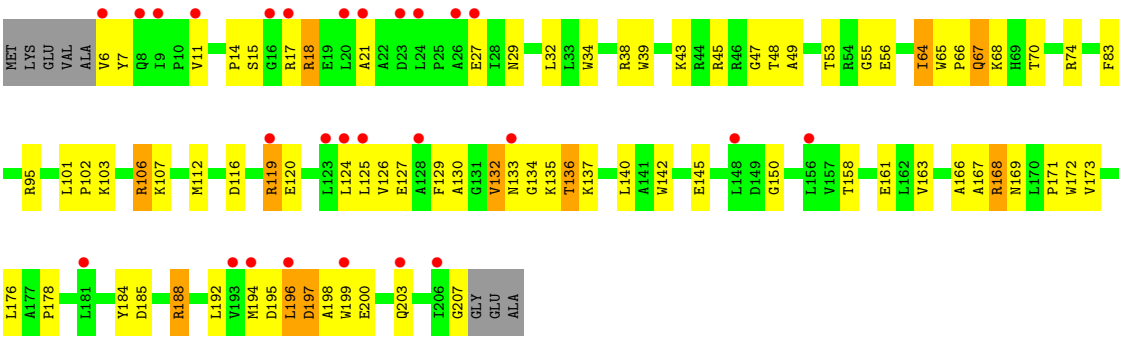
• Molecule 30: 50S ribosomal protein L3

Chain 29:



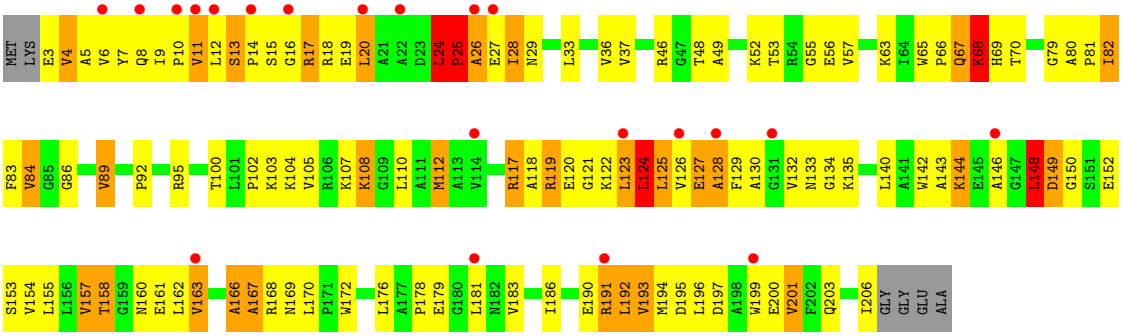
• Molecule 31: 50S ribosomal protein L4

Chain 31:



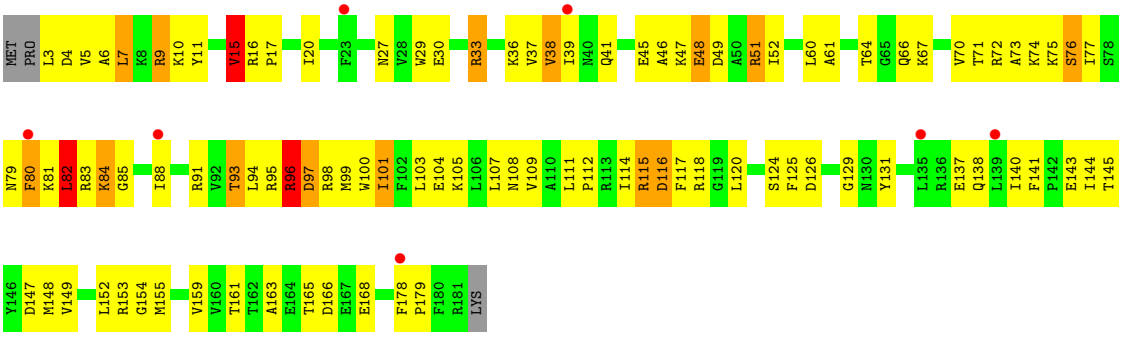
• Molecule 31: 50S ribosomal protein L4

Chain 39:



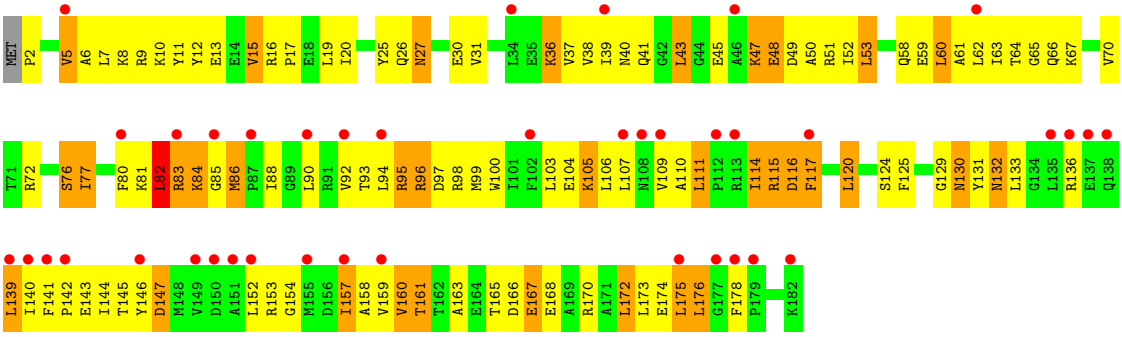
• Molecule 32: 50S ribosomal protein L5

Chain 41:



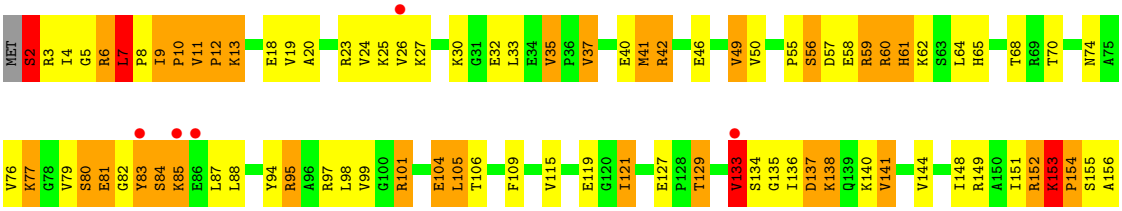
• Molecule 32: 50S ribosomal protein L5

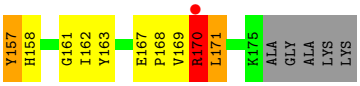
Chain 49:



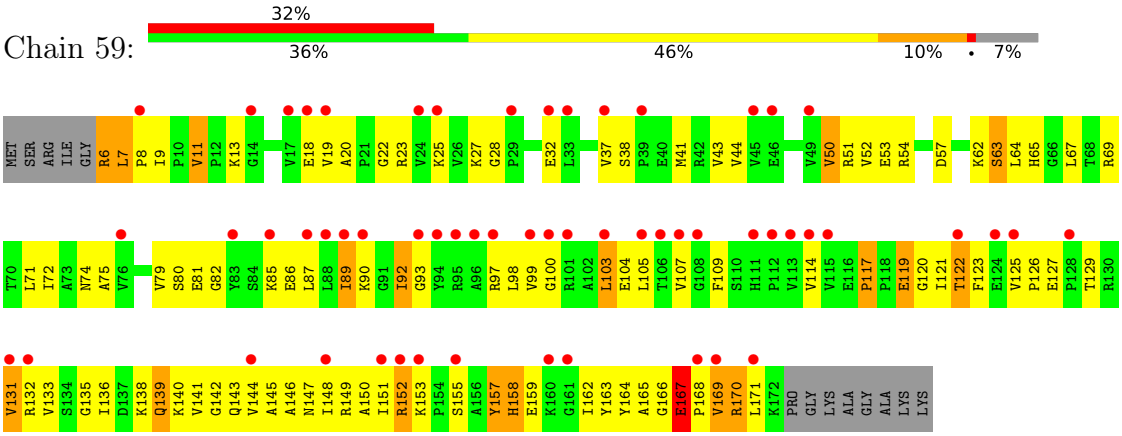
• Molecule 33: 50S ribosomal protein L6

Chain 51:

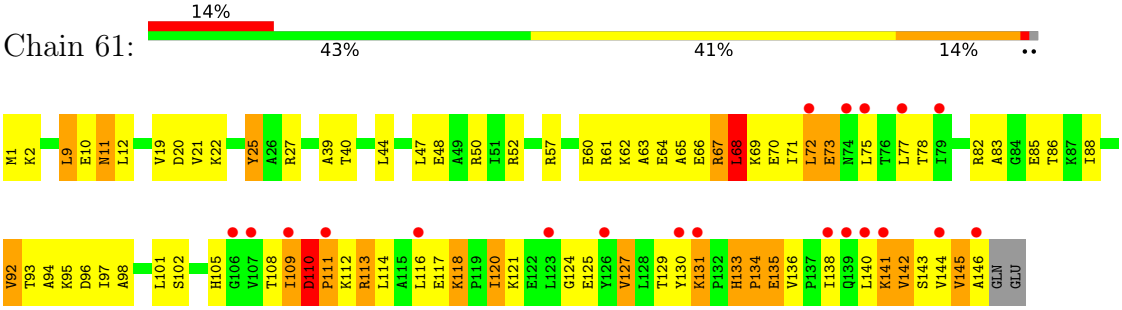




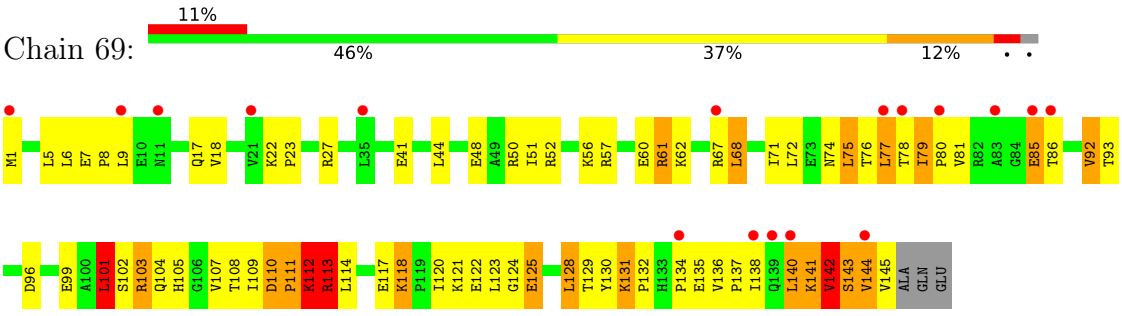
• Molecule 33: 50S ribosomal protein L6



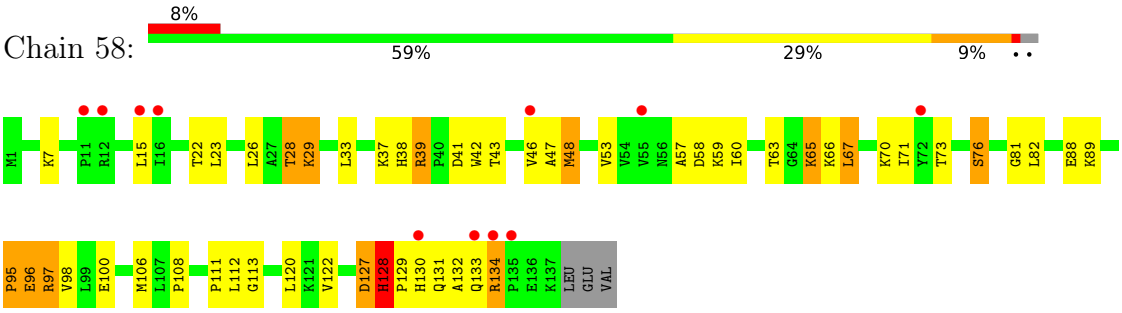
• Molecule 34: 50S ribosomal protein L9



• Molecule 34: 50S ribosomal protein L9

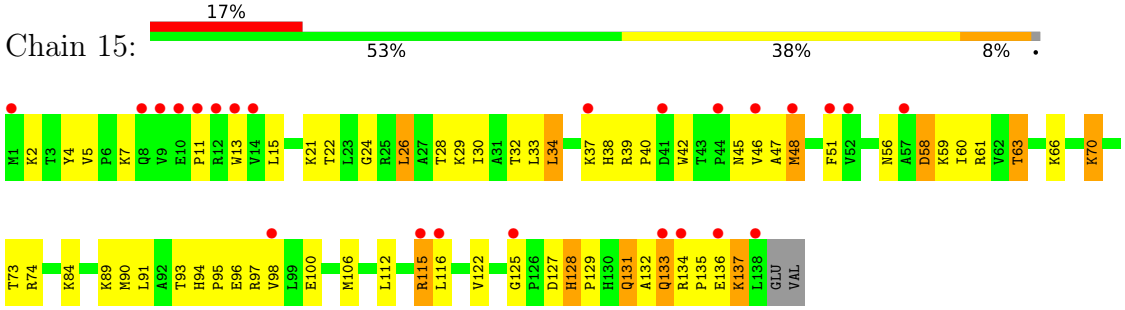


• Molecule 35: 50S ribosomal protein L13



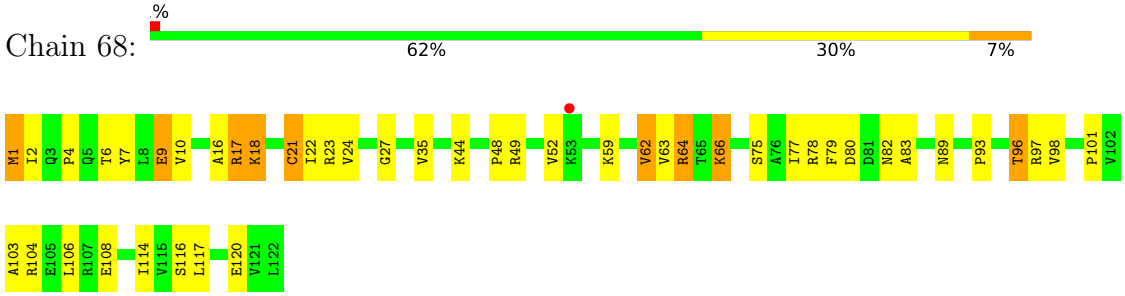
• Molecule 35: 50S ribosomal protein L13

Chain 15:



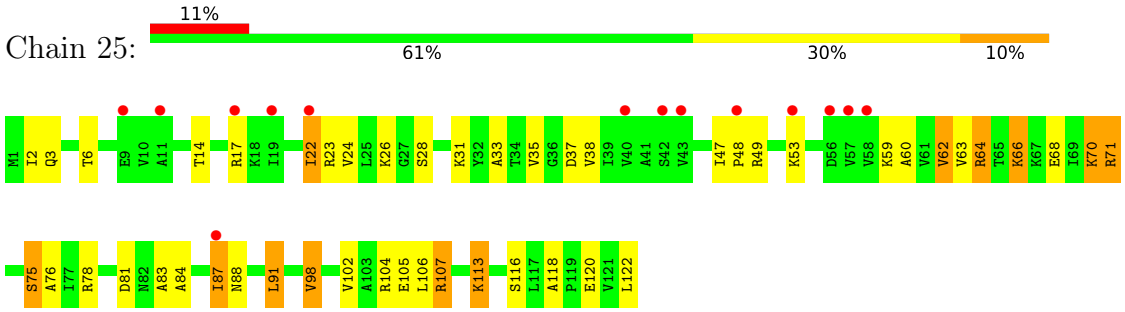
• Molecule 36: 50S ribosomal protein L14

Chain 68:



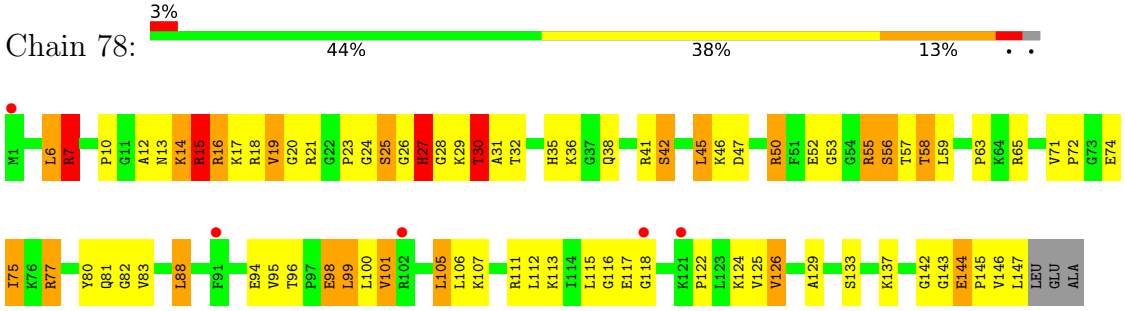
• Molecule 36: 50S ribosomal protein L14

Chain 25:



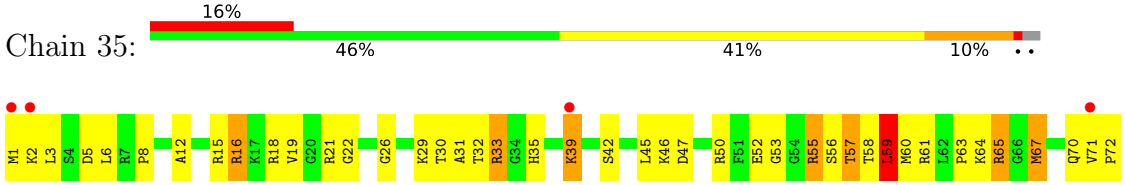
• Molecule 37: 50S ribosomal protein L15

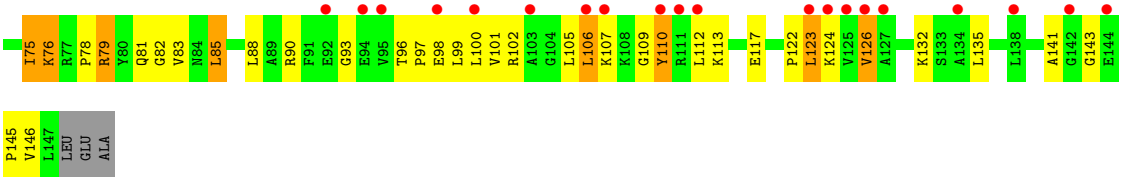
Chain 78:



• Molecule 37: 50S ribosomal protein L15

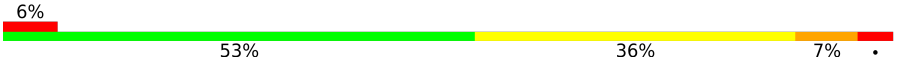
Chain 35:

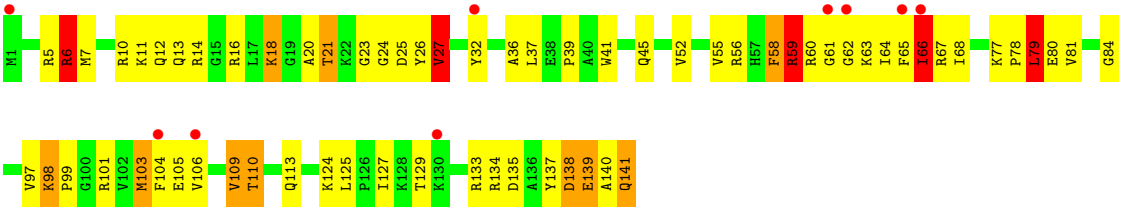




• Molecule 38: 50S ribosomal protein L16

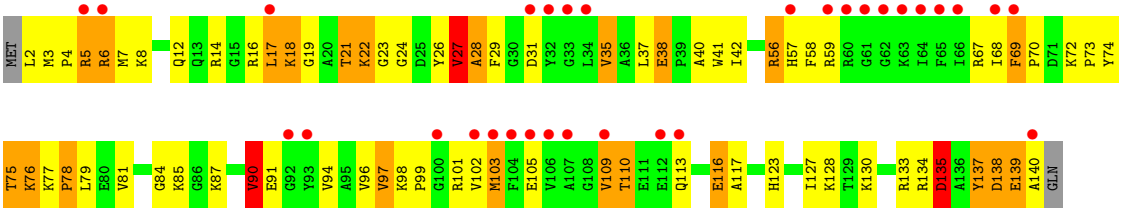
Chain 88:





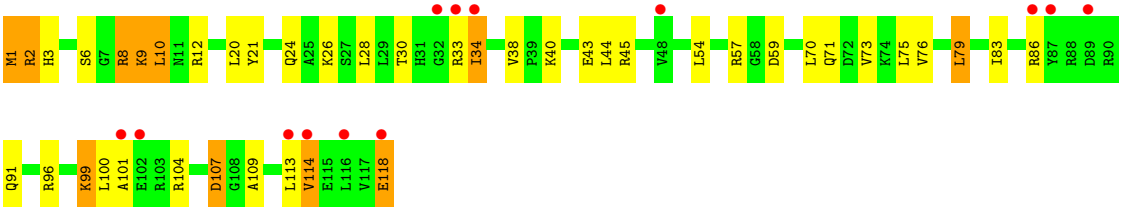
• Molecule 38: 50S ribosomal protein L16

Chain 45:



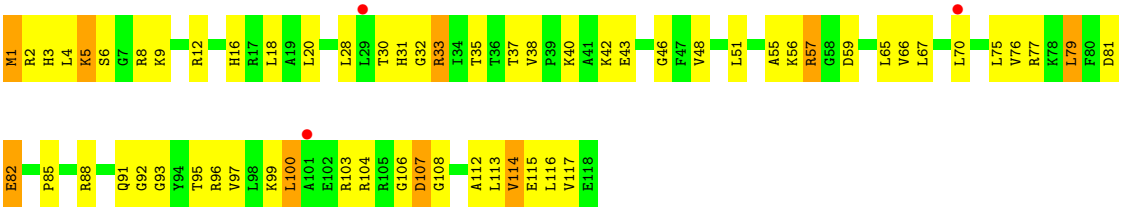
• Molecule 39: 50S ribosomal protein L17

Chain 98:



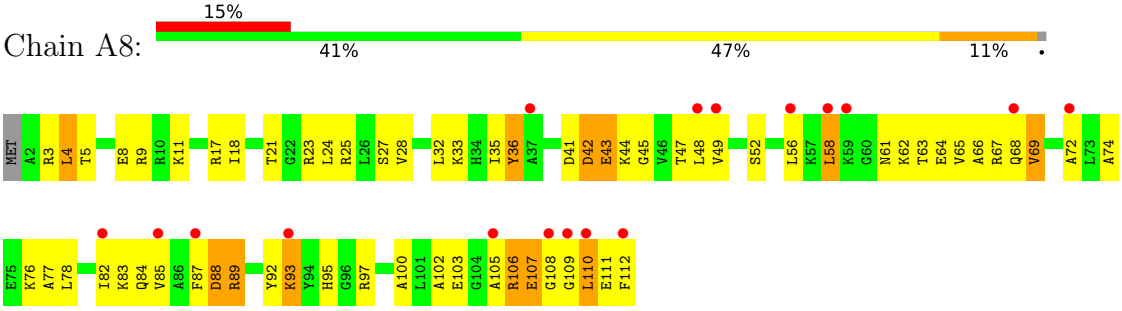
• Molecule 39: 50S ribosomal protein L17

Chain 55:



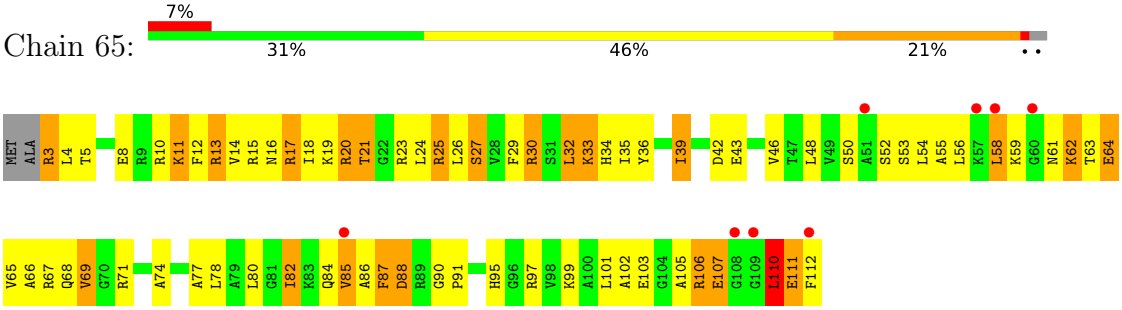
• Molecule 40: 50S ribosomal protein L18

Chain A8:



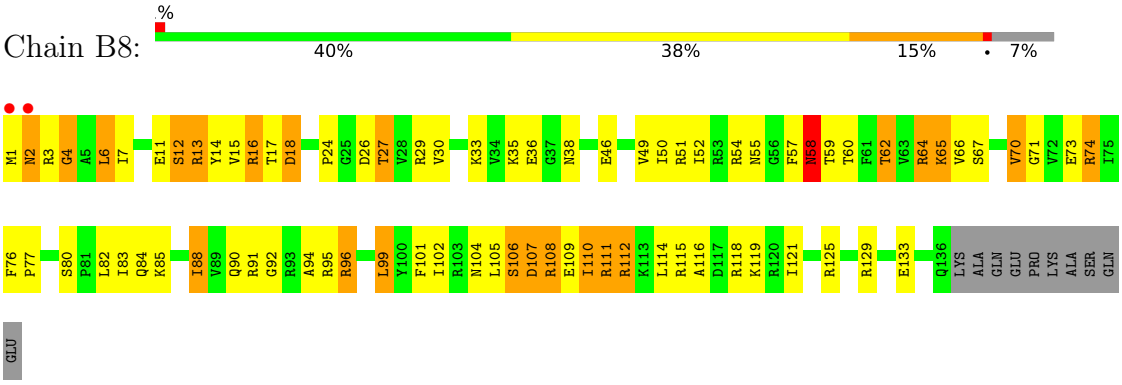
• Molecule 40: 50S ribosomal protein L18

Chain 65:



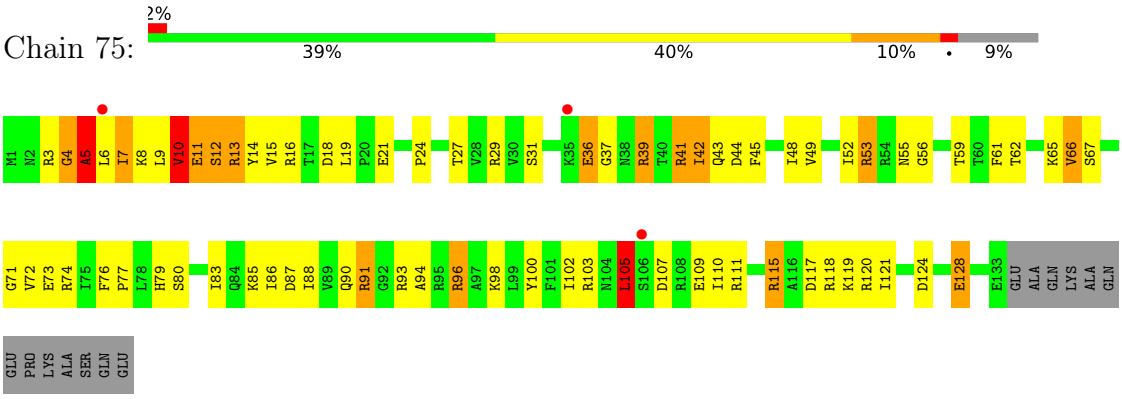
• Molecule 41: 50S ribosomal protein L19

Chain B8:



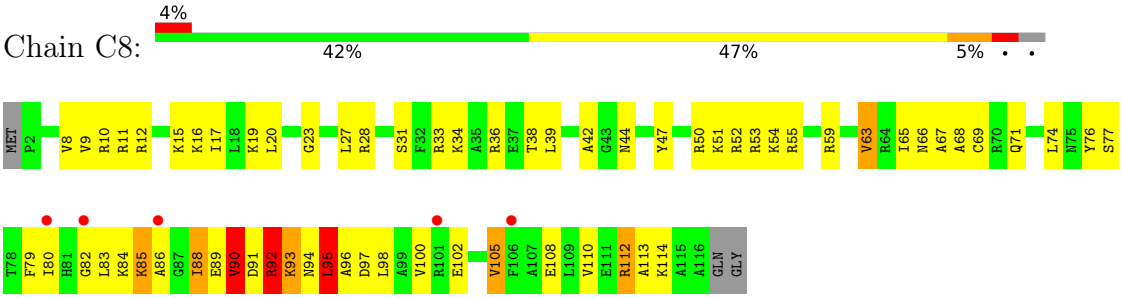
• Molecule 41: 50S ribosomal protein L19

Chain 75:



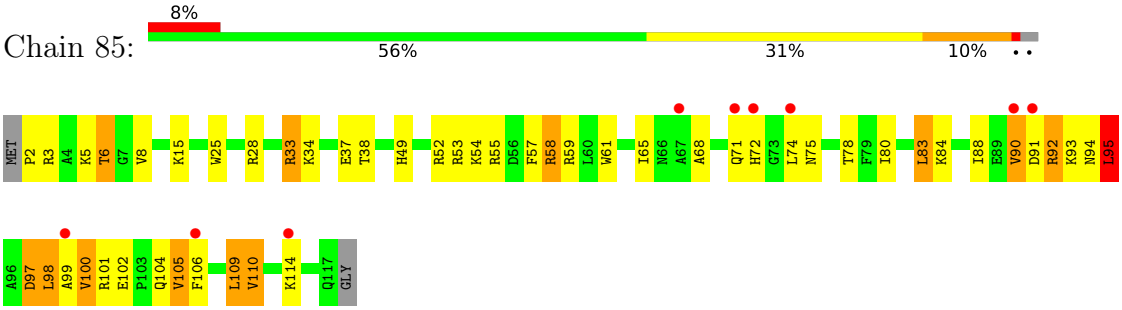
• Molecule 42: 50S ribosomal protein L20

Chain C8:



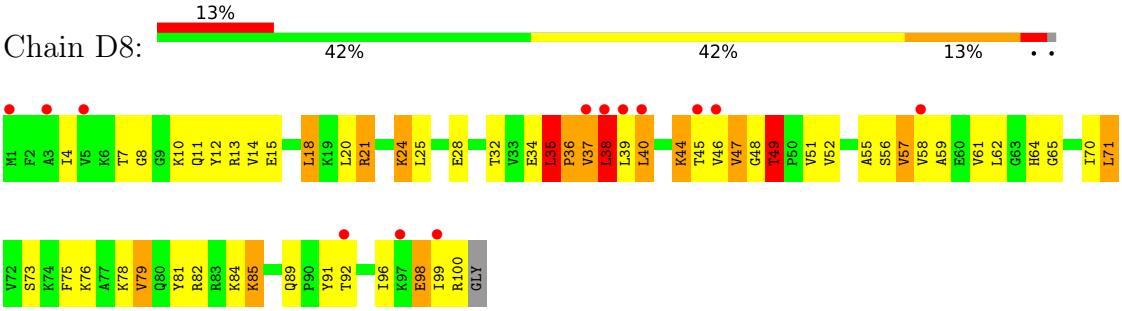
• Molecule 42: 50S ribosomal protein L20

Chain 85:



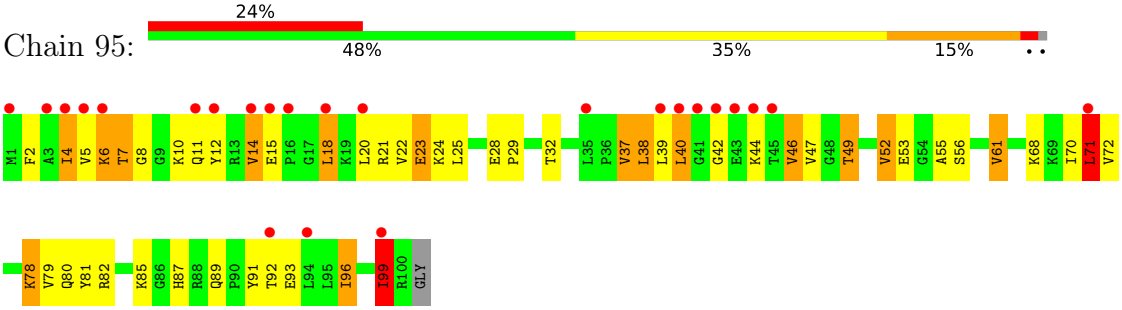
• Molecule 43: 50S ribosomal protein L21

Chain D8:



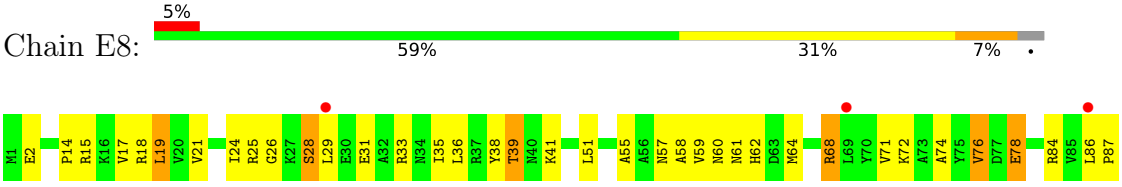
• Molecule 43: 50S ribosomal protein L21

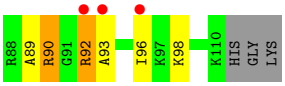
Chain 95:



• Molecule 44: 50S ribosomal protein L22

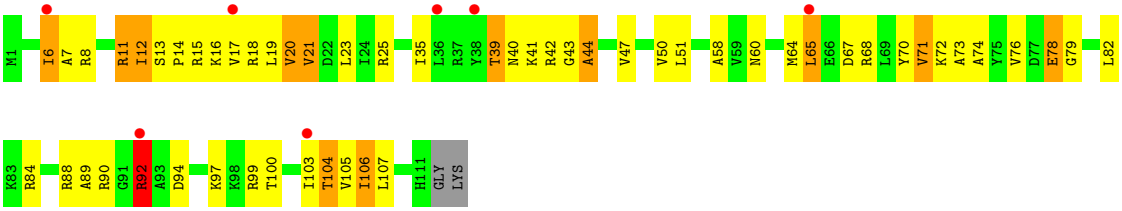
Chain E8:





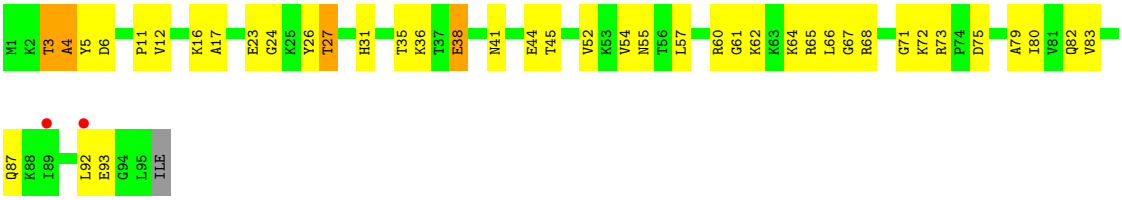
• Molecule 44: 50S ribosomal protein L22

Chain A5:



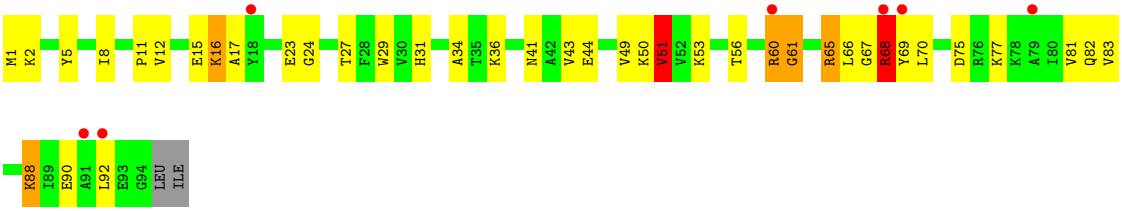
• Molecule 45: 50S ribosomal protein L23

Chain F8:



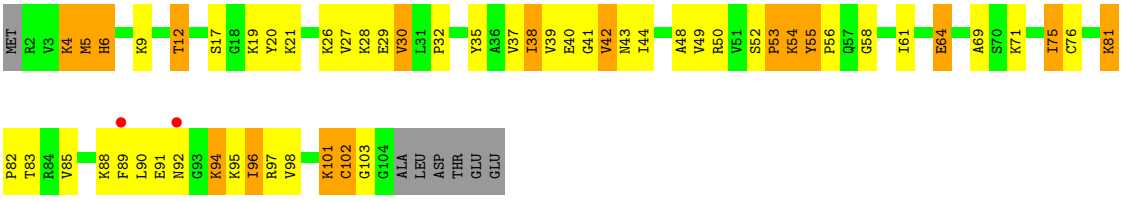
• Molecule 45: 50S ribosomal protein L23

Chain B5:



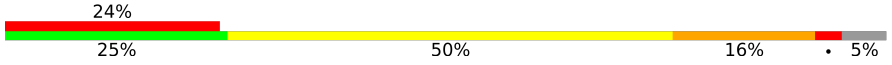
• Molecule 46: 50S ribosomal protein L24

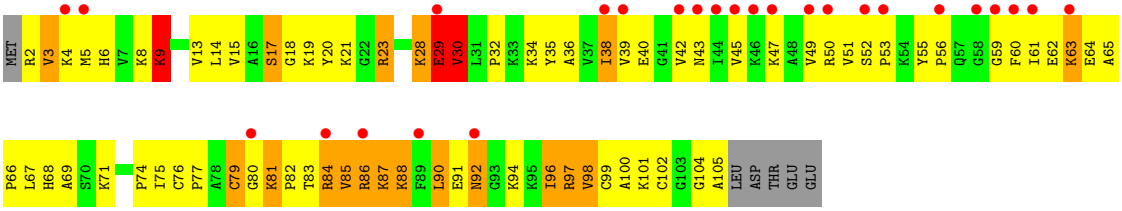
Chain G8:



• Molecule 46: 50S ribosomal protein L24

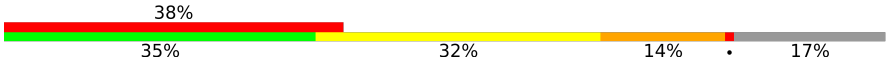
Chain C5:

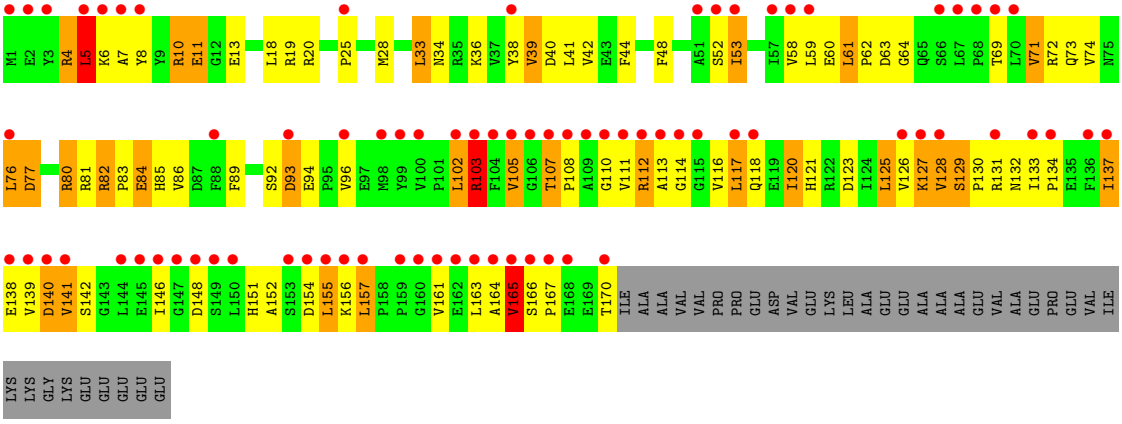




• Molecule 47: 50S ribosomal protein L25

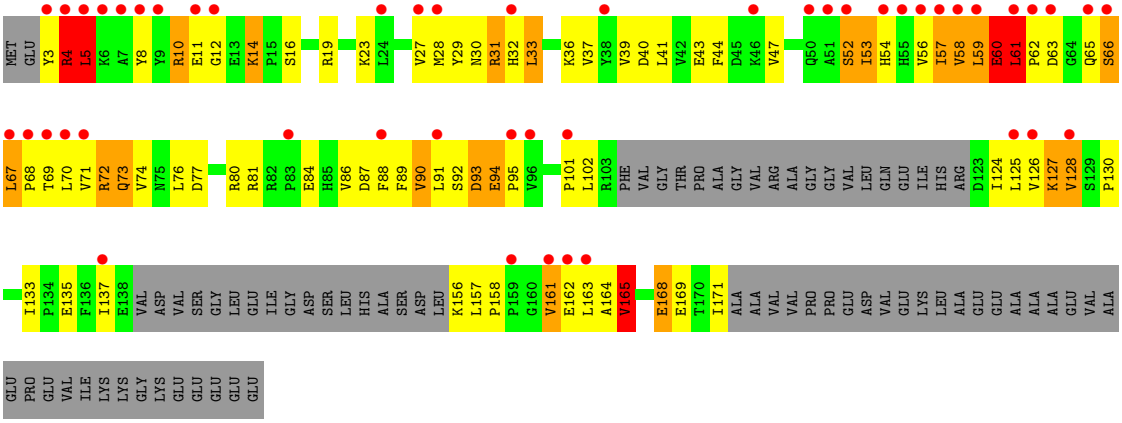
Chain H8:





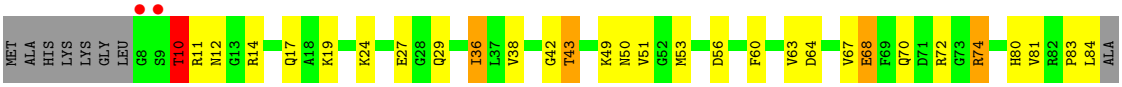
• Molecule 47: 50S ribosomal protein L25

Chain D5:



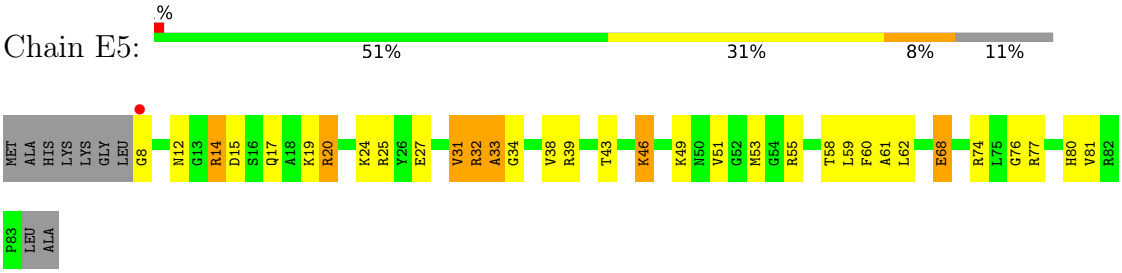
• Molecule 48: 50S ribosomal protein L27

Chain I8:



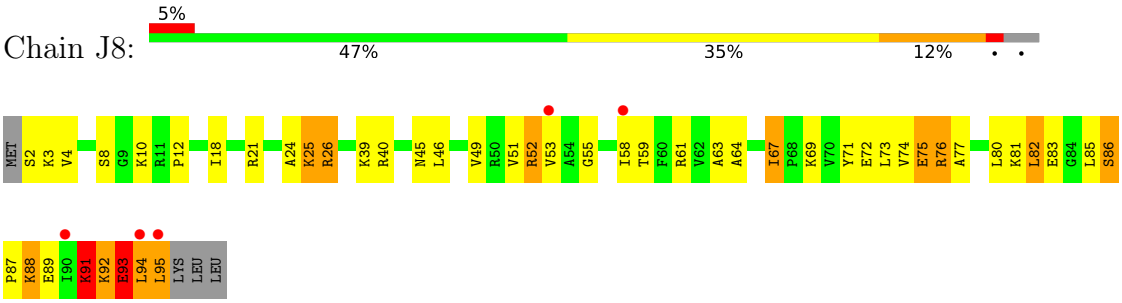
• Molecule 48: 50S ribosomal protein L27

Chain E5:



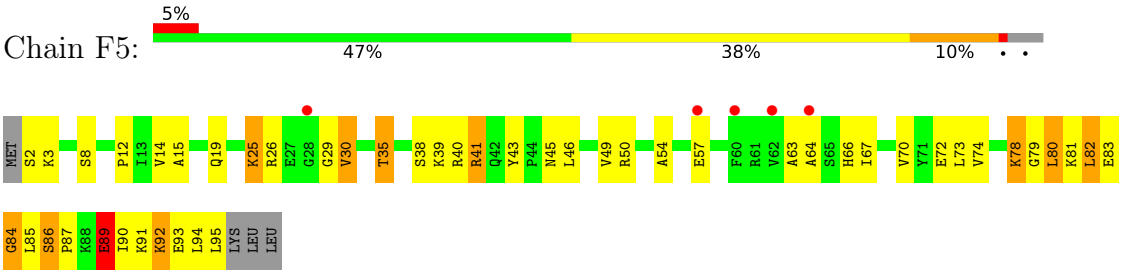
• Molecule 49: 50S ribosomal protein L28

Chain J8:



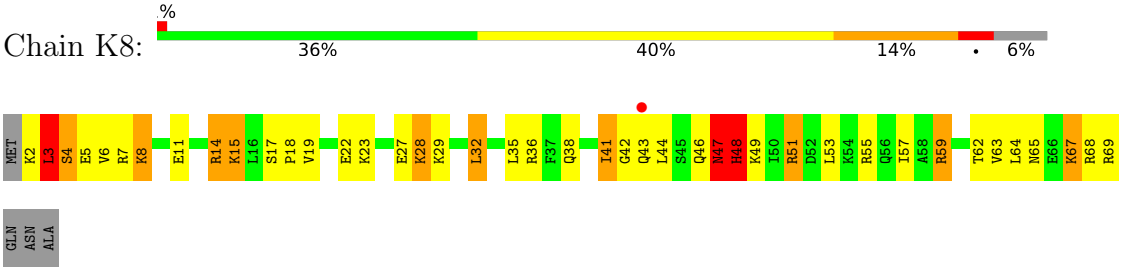
• Molecule 49: 50S ribosomal protein L28

Chain F5:



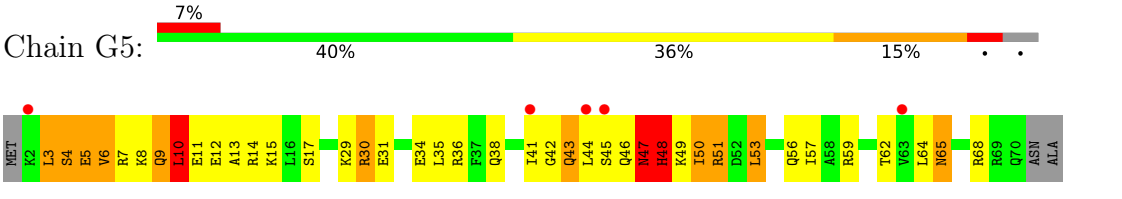
• Molecule 50: 50S ribosomal protein L29

Chain K8:



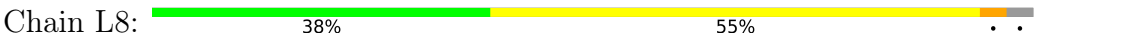
• Molecule 50: 50S ribosomal protein L29

Chain G5:



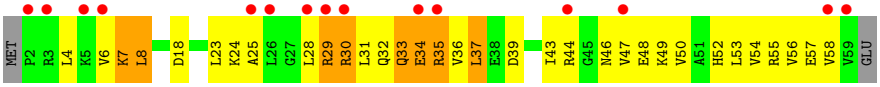
• Molecule 51: 50S ribosomal protein L30

Chain L8:



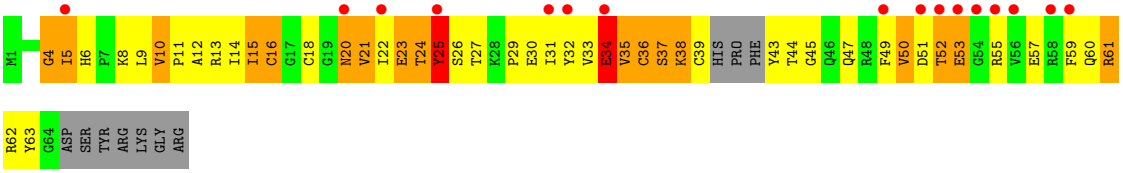
• Molecule 51: 50S ribosomal protein L30

Chain H5:



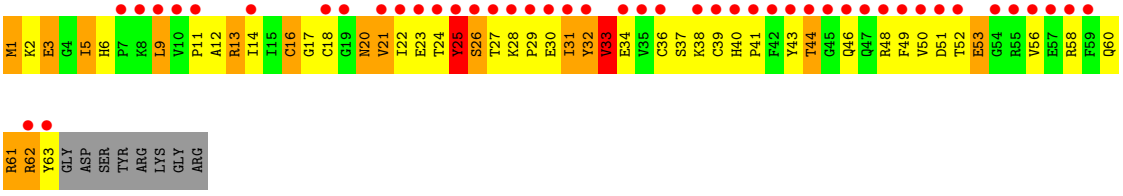
• Molecule 52: 50S ribosomal protein L31

Chain M8:



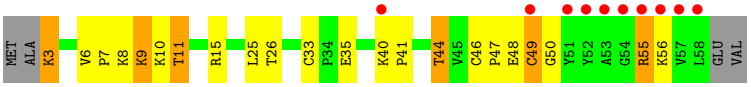
• Molecule 52: 50S ribosomal protein L31

Chain I5:



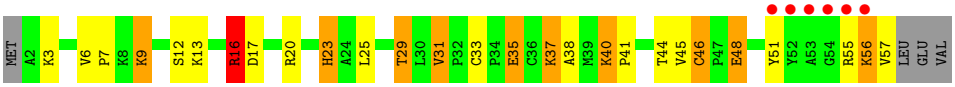
• Molecule 53: 50S ribosomal protein L32

Chain N8:



• Molecule 53: 50S ribosomal protein L32

Chain J5:

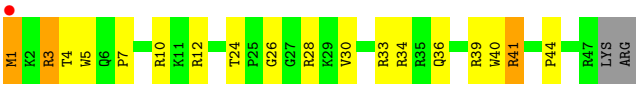


• Molecule 54: 50S ribosomal protein L34

Chain P8:

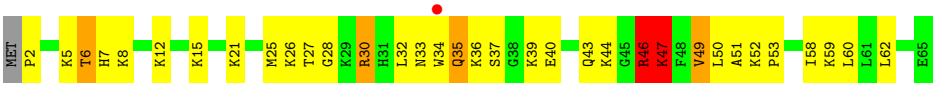
• Molecule 54: 50S ribosomal protein L34

Chain L5:



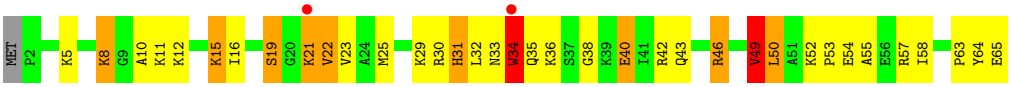
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



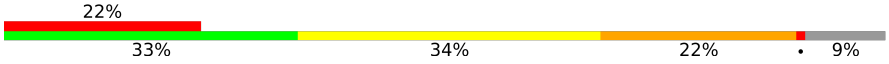
• Molecule 55: 50S ribosomal protein L35

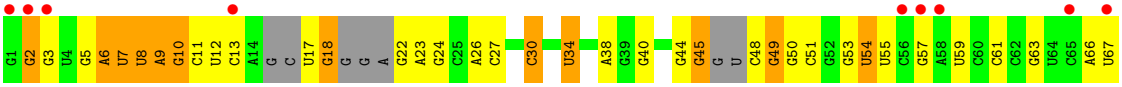
Chain M5:

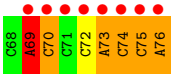


• Molecule 56: tRNAVal

Chain 1L:







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 448.90Å 620.80Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	146.68 – 2.96 146.68 – 2.96	Depositor EDS
% Data completeness (in resolution range)	99.8 (146.68-2.96) 89.3 (146.68-2.96)	Depositor EDS
R_{merge}	0.44	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.84 (at 2.96Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.201 , 0.243 0.201 , 0.243	Depositor DCC
R_{free} test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å^2)	75.4	Xtriage
Anisotropy	0.336	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 67.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	296743	wwPDB-VP
Average B, all atoms (Å^2)	97.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.49% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: 5MU, H2U, PSU, OMC, CM0, ZN, 4SU, 7MG, MG, 6MZ, SPE, SF4

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	0.67	6/35994 (0.0%)	1.30	243/56171 (0.4%)
1	1G	0.61	1/36236 (0.0%)	1.22	170/56555 (0.3%)
2	12	0.39	0/1727	0.70	1/2326 (0.0%)
2	1E	0.40	0/1936	0.66	1/2611 (0.0%)
3	22	0.62	1/1560 (0.1%)	0.65	1/2104 (0.0%)
3	2E	0.49	1/1629 (0.1%)	0.67	0/2195
4	32	0.45	0/1732	0.65	0/2318
4	3E	0.48	0/1728	0.73	4/2313 (0.2%)
5	42	0.46	0/1155	0.67	1/1555 (0.1%)
5	4E	0.46	0/1158	0.70	1/1559 (0.1%)
6	52	0.47	0/855	0.63	0/1154
6	5E	0.48	0/850	0.64	0/1147
7	62	0.42	0/1132	0.66	1/1514 (0.1%)
7	6E	0.45	0/1259	0.57	0/1686
8	72	0.41	0/1127	0.63	0/1517
8	7E	0.43	0/1135	0.71	1/1527 (0.1%)
9	82	0.41	0/971	0.74	1/1304 (0.1%)
9	8E	0.50	1/1019 (0.1%)	0.76	1/1367 (0.1%)
10	1A	0.74	2/658 (0.3%)	0.68	0/885
10	1I	0.41	0/767	0.72	2/1034 (0.2%)
11	2A	0.46	0/850	0.66	0/1150
11	2I	0.46	0/838	0.67	0/1133
12	3A	0.56	0/972	0.73	1/1301 (0.1%)
12	3I	0.61	0/972	0.79	0/1301
13	4A	0.42	0/903	0.69	1/1211 (0.1%)
13	4I	0.48	0/952	0.73	1/1277 (0.1%)
14	5A	0.46	0/495	0.89	2/657 (0.3%)
14	5I	0.63	2/500 (0.4%)	0.90	3/664 (0.5%)
15	6A	0.47	0/740	0.63	0/987
15	6I	0.47	0/740	0.70	0/987
16	7A	0.45	0/721	0.74	1/970 (0.1%)
16	7I	0.47	0/716	0.76	1/963 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.46	0/836	0.61	0/1117
17	8I	0.55	1/847 (0.1%)	0.77	1/1131 (0.1%)
18	9A	0.51	0/549	0.75	1/732 (0.1%)
18	9I	0.46	0/554	0.69	0/739
19	AA	0.43	0/490	0.75	2/662 (0.3%)
19	AI	0.42	0/676	0.79	1/910 (0.1%)
20	BA	0.40	0/764	0.71	0/1007
20	BI	0.56	1/748 (0.1%)	0.81	2/986 (0.2%)
21	1B	0.44	0/192	0.65	0/252
21	1F	0.44	0/203	0.67	0/266
22	1K	0.64	0/1595	1.19	11/2475 (0.4%)
23	2K	0.77	0/1721	1.38	7/2682 (0.3%)
23	2L	0.67	0/1698	1.28	12/2644 (0.5%)
24	3K	0.54	0/1663	1.20	16/2585 (0.6%)
24	3L	0.56	0/1689	1.16	11/2628 (0.4%)
25	4K	0.72	0/520	1.23	3/808 (0.4%)
25	4L	0.64	0/470	1.23	4/732 (0.5%)
26	14	0.81	39/67798 (0.1%)	1.49	1064/105832 (1.0%)
26	1H	0.95	95/68537 (0.1%)	1.67	1647/106989 (1.5%)
27	16	0.79	0/2928	1.48	37/4568 (0.8%)
27	1J	0.73	0/2928	1.34	23/4568 (0.5%)
28	71	0.32	0/1055	0.62	0/1425
28	79	0.31	0/459	0.58	0/608
29	11	0.68	1/2170 (0.0%)	0.94	6/2926 (0.2%)
29	19	0.61	0/2175	0.86	2/2933 (0.1%)
30	21	0.58	0/1537	0.92	3/2081 (0.1%)
30	29	0.53	0/1596	0.85	1/2153 (0.0%)
31	31	0.58	0/1620	0.78	2/2194 (0.1%)
31	39	0.54	1/1637 (0.1%)	0.84	2/2218 (0.1%)
32	41	0.51	1/1481 (0.1%)	0.71	1/1994 (0.1%)
32	49	0.42	0/1492	0.72	3/2008 (0.1%)
33	51	0.54	0/1354	0.95	5/1833 (0.3%)
33	59	0.36	0/1308	0.67	2/1771 (0.1%)
34	61	0.46	0/1151	0.80	4/1558 (0.3%)
34	69	0.45	0/1146	0.75	2/1551 (0.1%)
35	15	0.47	1/1131 (0.1%)	0.72	0/1525
35	58	0.52	0/1123	0.74	1/1514 (0.1%)
36	25	0.51	0/942	0.70	0/1269
36	68	0.54	0/942	0.74	0/1269
37	35	0.55	0/1139	0.90	3/1514 (0.2%)
37	78	0.64	0/1139	1.03	6/1514 (0.4%)
38	45	0.65	2/1125 (0.2%)	0.83	1/1505 (0.1%)
38	88	0.71	0/1138	0.92	2/1523 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	55	0.50	0/981	0.78	1/1312 (0.1%)
39	98	0.51	0/981	0.78	0/1312
40	65	0.52	0/886	0.83	0/1180
40	A8	0.56	0/891	0.78	0/1187
41	75	0.53	0/1123	0.83	4/1500 (0.3%)
41	B8	0.52	0/1138	0.82	1/1521 (0.1%)
42	85	0.52	0/977	0.73	0/1301
42	C8	0.57	0/968	0.85	4/1289 (0.3%)
43	95	0.49	0/781	0.81	1/1048 (0.1%)
43	D8	0.54	0/785	0.86	2/1052 (0.2%)
44	A5	0.54	0/897	0.76	1/1204 (0.1%)
44	E8	0.58	0/886	0.81	1/1189 (0.1%)
45	B5	0.53	0/749	0.72	1/1007 (0.1%)
45	F8	0.59	0/757	0.77	1/1017 (0.1%)
46	C5	0.54	0/807	0.89	0/1076
46	G8	0.64	0/790	0.93	3/1055 (0.3%)
47	D5	0.50	2/1103 (0.2%)	0.80	2/1494 (0.1%)
47	H8	0.48	0/1395	0.77	2/1890 (0.1%)
48	E5	0.62	0/611	0.83	0/814
48	I8	0.60	0/619	0.84	1/825 (0.1%)
49	F5	0.57	0/744	0.94	4/989 (0.4%)
49	J8	0.61	0/744	0.89	1/989 (0.1%)
50	G5	0.51	0/578	0.81	1/766 (0.1%)
50	K8	0.65	0/577	0.88	1/763 (0.1%)
51	H5	0.49	0/464	0.66	0/623
51	L8	0.49	0/464	0.73	0/623
52	I5	0.41	0/527	0.84	0/709
52	M8	0.54	0/486	0.87	2/652 (0.3%)
53	J5	0.51	0/448	0.83	1/606 (0.2%)
53	N8	0.58	0/451	0.75	0/610
54	L5	0.61	0/409	0.75	0/540
54	P8	0.78	0/409	0.96	3/540 (0.6%)
55	M5	0.61	1/524 (0.2%)	0.91	1/691 (0.1%)
55	Q8	0.67	0/524	0.96	2/691 (0.3%)
56	1L	0.53	0/1592	1.05	1/2472 (0.0%)
All	All	0.73	159/317359 (0.1%)	1.32	3368/475179 (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	5
2	1E	0	3
3	22	0	1
3	2E	0	1
4	32	0	2
4	3E	0	2
7	6E	0	1
8	72	0	2
8	7E	0	1
9	82	0	1
9	8E	0	2
10	1I	0	2
11	2A	0	2
12	3I	0	6
13	4A	0	4
13	4I	0	2
14	5A	0	5
14	5I	0	1
16	7I	0	1
17	8I	0	1
18	9I	0	1
19	AA	0	1
19	AI	0	1
20	BA	0	2
28	71	0	1
29	11	0	3
29	19	0	4
30	21	0	5
30	29	0	3
31	31	0	1
31	39	0	9
32	41	0	3
32	49	0	3
33	51	0	7
33	59	0	2
34	61	0	3
34	69	0	5
35	58	0	1
36	68	0	1
37	35	0	5
37	78	0	4
38	45	0	3
38	88	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
39	55	0	1
39	98	0	2
40	65	0	1
40	A8	0	3
41	75	0	3
41	B8	0	4
42	85	0	4
42	C8	0	3
43	95	0	3
43	D8	0	3
44	A5	0	1
45	B5	0	1
45	F8	0	1
46	C5	0	2
46	G8	0	4
47	D5	0	3
47	H8	0	3
49	F5	0	2
49	J8	0	4
50	G5	0	2
50	K8	0	2
52	I5	0	3
52	M8	0	4
54	P8	0	1
55	M5	0	1
55	Q8	0	2
All	All	0	180

All (159) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	22	173	VAL	C-N	19.50	1.71	1.34
10	1A	38	ILE	C-N	14.98	1.62	1.34
26	1H	1698	A	N9-C4	-11.67	1.30	1.37
26	1H	783	A	N3-C4	-10.65	1.28	1.34
20	BI	97	ALA	C-N	10.36	1.53	1.34
26	1H	783	A	N9-C4	-9.99	1.31	1.37
3	2E	173	VAL	C-N	9.93	1.53	1.34
26	1H	676	A	N9-C4	-9.82	1.31	1.37
26	1H	1698	A	N3-C4	-9.70	1.29	1.34
26	1H	1899	G	N9-C4	-9.36	1.30	1.38
26	1H	774	A	N9-C4	-9.35	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	676	A	N9-C8	8.59	1.44	1.37
26	1H	1950	G	C5-C4	8.51	1.44	1.38
26	1H	621	A	N9-C4	-8.36	1.32	1.37
26	14	774	A	N9-C4	-8.35	1.32	1.37
26	1H	1021	A	N9-C4	-8.29	1.32	1.37
38	45	69	PHE	C-N	8.24	1.50	1.34
26	14	2287	A	N9-C4	-8.18	1.32	1.37
26	14	783	A	N9-C4	-8.16	1.32	1.37
26	1H	71	A	N9-C4	-8.15	1.32	1.37
26	1H	783	A	C5-C6	-8.01	1.33	1.41
26	1H	2287	A	N9-C4	-7.97	1.33	1.37
26	1H	1899	G	N9-C8	7.91	1.43	1.37
26	1H	945	A	N1-C2	7.90	1.41	1.34
26	14	783	A	N3-C4	-7.88	1.30	1.34
26	1H	192	C	C2-N3	7.87	1.42	1.35
26	1H	1786	A	N3-C4	-7.85	1.30	1.34
26	14	528	A	N9-C4	-7.84	1.33	1.37
26	1H	71	A	C5-C4	7.53	1.44	1.38
26	1H	752	A	N9-C4	-7.47	1.33	1.37
26	1H	945	A	C2-N3	7.44	1.40	1.33
26	1H	676	A	C5-C4	7.42	1.44	1.38
26	14	2430	A	N9-C4	-7.38	1.33	1.37
26	1H	1678	G	N9-C8	7.37	1.43	1.37
26	1H	74	A	N9-C4	-7.33	1.33	1.37
26	1H	2430	A	N9-C4	-7.31	1.33	1.37
1	13	792	A	N9-C4	-7.26	1.33	1.37
26	1H	140	A	N9-C4	-7.13	1.33	1.37
26	14	74	A	N9-C4	-7.10	1.33	1.37
26	1H	2346	A	N3-C4	-7.05	1.30	1.34
26	1H	2062	A	N3-C4	7.02	1.39	1.34
26	1H	945	A	N7-C5	-7.02	1.35	1.39
26	1H	1899	G	N3-C4	-6.93	1.30	1.35
26	1H	1899	G	C2-N3	-6.92	1.27	1.32
26	14	800	A	N7-C5	6.90	1.43	1.39
26	14	71	A	N9-C4	-6.87	1.33	1.37
26	1H	138	G	N9-C8	6.87	1.42	1.37
26	1H	698	C	N1-C6	-6.82	1.33	1.37
26	1H	1950	G	N9-C8	6.80	1.42	1.37
9	8E	92	TYR	CD1-CE1	-6.75	1.29	1.39
26	14	2685	G	C6-O6	6.71	1.30	1.24
26	1H	776	G	N7-C5	-6.70	1.35	1.39
26	14	774	A	N9-C8	6.70	1.43	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2062	A	N7-C5	6.69	1.43	1.39
26	14	2346	A	N3-C4	-6.68	1.30	1.34
26	14	1786	A	N9-C4	-6.57	1.33	1.37
26	1H	1786	A	N9-C4	-6.55	1.33	1.37
26	14	676	A	N3-C4	-6.55	1.30	1.34
31	39	65	TRP	CB-CG	-6.52	1.38	1.50
47	D5	94	GLU	C-N	6.52	1.46	1.34
26	14	676	A	N9-C4	-6.47	1.33	1.37
26	1H	1966	A	N9-C4	-6.45	1.33	1.37
26	1H	71	A	C6-N6	-6.40	1.28	1.33
26	14	1332	G	C5-C4	6.39	1.42	1.38
26	14	1698	A	C5-C6	-6.38	1.35	1.41
26	1H	1142(A)	A	N9-C4	-6.38	1.34	1.37
26	1H	945	A	C5-C6	-6.31	1.35	1.41
26	1H	945	A	N9-C4	-6.31	1.34	1.37
47	D5	93	ASP	C-N	6.29	1.48	1.34
26	1H	265	A	N9-C4	-6.26	1.34	1.37
26	1H	2392	A	N9-C8	6.24	1.42	1.37
26	1H	789	A	N9-C4	-6.13	1.34	1.37
26	1H	71	A	N9-C8	6.12	1.42	1.37
14	5I	27	CYS	CB-SG	-6.10	1.71	1.82
26	1H	2490	G	C2-N3	6.09	1.37	1.32
1	13	792	A	C5-C6	-6.08	1.35	1.41
26	1H	1307	A	N3-C4	6.08	1.38	1.34
26	1H	945	A	C5-C4	6.07	1.43	1.38
26	1H	2062	A	N9-C4	6.07	1.41	1.37
26	14	1786	A	N3-C4	-6.06	1.31	1.34
26	1H	192	C	N3-C4	6.05	1.38	1.33
26	14	783	A	N7-C5	-6.02	1.35	1.39
26	1H	2072	G	C8-N7	-6.01	1.27	1.30
26	1H	2713	A	C5-C4	5.97	1.43	1.38
26	1H	774	A	N9-C8	5.93	1.42	1.37
26	1H	1614	A	N9-C4	-5.92	1.34	1.37
26	1H	676	A	N3-C4	-5.86	1.31	1.34
1	13	1502	A	C5-C6	-5.84	1.35	1.41
26	1H	1786	A	C5-C4	5.83	1.42	1.38
26	1H	1678	G	C5-C4	5.82	1.42	1.38
26	1H	1899	G	C8-N7	5.79	1.34	1.30
26	1H	1915	U	N1-C2	5.79	1.43	1.38
26	1H	2287	A	C5-C6	-5.78	1.35	1.41
26	14	774	A	C8-N7	5.77	1.35	1.31
1	13	50	A	N9-C4	5.71	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1899	G	C5-C4	5.68	1.42	1.38
26	14	567	A	N9-C4	-5.67	1.34	1.37
17	8I	56	VAL	CB-CG2	-5.67	1.41	1.52
26	14	783	A	C5-C6	-5.66	1.35	1.41
26	1H	1798	U	C4-O4	-5.65	1.19	1.23
26	1H	71	A	C5-C6	-5.62	1.35	1.41
26	1H	1349	A	N9-C8	5.61	1.42	1.37
26	1H	140	A	C5-C6	-5.57	1.36	1.41
26	1H	1786	A	N7-C5	-5.57	1.35	1.39
26	14	730	C	P-OP2	5.55	1.58	1.49
26	14	2346	A	N9-C4	-5.54	1.34	1.37
26	1H	1786	A	N1-C2	5.54	1.39	1.34
26	14	676	A	N9-C8	5.54	1.42	1.37
26	14	828	U	N3-C4	-5.53	1.33	1.38
26	1H	141	A	N9-C4	-5.50	1.34	1.37
26	1H	1888	G	N9-C4	5.50	1.42	1.38
1	1G	1358	U	N1-C2	5.50	1.43	1.38
26	14	2873	A	N3-C4	-5.46	1.31	1.34
26	1H	1649	G	N9-C4	5.46	1.42	1.38
26	1H	2346	A	N9-C4	-5.46	1.34	1.37
14	5I	52	GLN	C-N	5.43	1.46	1.34
26	1H	1678	G	N9-C4	-5.42	1.33	1.38
10	1A	76	ASN	C-N	-5.42	1.24	1.34
26	14	1308	A	N7-C5	-5.41	1.36	1.39
26	1H	1510	A	N9-C4	5.41	1.41	1.37
26	1H	2392	A	C5-C4	5.40	1.42	1.38
26	1H	677	A	N7-C5	-5.38	1.36	1.39
26	14	800	A	N9-C4	-5.38	1.34	1.37
26	14	71	A	C5-C4	5.37	1.42	1.38
26	14	945	A	N7-C5	-5.36	1.36	1.39
26	1H	2251	G	N9-C8	-5.35	1.34	1.37
26	1H	2432	A	N9-C4	-5.34	1.34	1.37
26	14	945	A	N9-C4	-5.31	1.34	1.37
26	1H	1950	G	C2-N3	5.26	1.36	1.32
29	11	122	ASP	CB-CG	5.26	1.62	1.51
38	45	76	LYS	C-N	5.25	1.46	1.34
32	41	15	VAL	CB-CG1	-5.25	1.41	1.52
26	1H	2392	A	C5-C6	-5.21	1.36	1.41
26	1H	1950	G	C8-N7	5.20	1.34	1.30
26	1H	1363	C	N3-C4	-5.17	1.30	1.33
26	14	788	A	N3-C4	5.17	1.38	1.34
26	1H	1559	G	N9-C4	-5.16	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2476	A	N9-C4	5.14	1.41	1.37
26	1H	1616	A	C5-C6	-5.14	1.36	1.41
26	14	330	A	N9-C4	-5.13	1.34	1.37
26	14	1786	A	C5-C6	-5.13	1.36	1.41
26	1H	1776	G	C8-N7	-5.11	1.27	1.30
26	1H	960	A	N9-C4	-5.10	1.34	1.37
35	15	106	MET	C-N	5.10	1.45	1.34
1	13	690	G	N9-C8	5.08	1.41	1.37
26	14	2432	A	N9-C4	-5.08	1.34	1.37
26	1H	1349	A	C5-C4	5.08	1.42	1.38
26	1H	827	U	N1-C2	-5.07	1.33	1.38
55	M5	34	TRP	CB-CG	5.06	1.59	1.50
26	14	1950	G	C5-C4	5.06	1.41	1.38
26	1H	783	A	N7-C5	-5.06	1.36	1.39
26	1H	245	G	N7-C5	-5.05	1.36	1.39
26	1H	2453	A	C5-C4	-5.05	1.35	1.38
26	1H	2062	A	C5-C6	5.05	1.45	1.41
1	13	1227	A	N9-C4	-5.05	1.34	1.37
26	1H	466	A	N9-C4	5.04	1.40	1.37
26	1H	960	A	N3-C4	-5.03	1.31	1.34
26	14	1698	A	N7-C5	-5.02	1.36	1.39
26	1H	57	C	C2-O2	5.01	1.28	1.24

All (3368) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N3-C4-N9	-25.58	110.65	126.00
26	1H	945	A	N1-C6-N6	24.24	133.14	118.60
26	1H	945	A	C6-C5-N7	-23.79	115.65	132.30
26	1H	945	A	C5-N7-C8	-20.19	93.80	103.90
26	1H	1899	G	N3-C4-C5	19.48	138.34	128.60
26	1H	945	A	C4-C5-N7	19.16	120.28	110.70
26	1H	783	A	C2-N3-C4	-18.57	101.32	110.60
26	1H	2287	A	C2-N3-C4	-18.12	101.54	110.60
26	1H	1786	A	C2-N3-C4	-17.26	101.97	110.60
26	1H	621	A	C2-N3-C4	-17.18	102.01	110.60
26	1H	1698	A	C2-N3-C4	-16.32	102.44	110.60
26	1H	71	A	C2-N3-C4	-16.29	102.45	110.60
26	1H	1786	A	N1-C2-N3	15.97	137.29	129.30
26	1H	1678	G	C2-N3-C4	-15.49	104.16	111.90
26	1H	74	A	C2-N3-C4	-15.39	102.91	110.60
26	1H	576	U	N3-C2-O2	-15.38	111.43	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2490	G	C4-C5-N7	15.31	116.93	110.80
26	1H	945	A	N7-C8-N9	15.27	121.43	113.80
26	1H	676	A	C5-N7-C8	-15.17	96.32	103.90
26	14	2873	A	C2-N3-C4	-14.97	103.11	110.60
26	1H	945	A	N9-C4-C5	-14.73	99.91	105.80
26	1H	1899	G	N3-C2-N2	-14.73	109.59	119.90
26	1H	1332	G	C5-N7-C8	-14.63	96.98	104.30
26	14	1786	A	C5-N7-C8	-14.54	96.63	103.90
26	14	2430	A	C2-N3-C4	-14.54	103.33	110.60
26	1H	676	A	C2-N3-C4	-14.52	103.34	110.60
26	1H	945	A	C5-C6-N6	-14.48	112.12	123.70
1	13	792	A	N1-C6-N6	14.45	127.27	118.60
26	14	1786	A	N7-C8-N9	14.33	120.96	113.80
26	1H	1678	G	C5-N7-C8	-14.22	97.19	104.30
26	1H	945	A	C4-C5-C6	14.15	124.08	117.00
26	1H	140	A	C5-N7-C8	-13.84	96.98	103.90
26	1H	1899	G	N9-C4-C5	13.84	110.93	105.40
26	1H	1786	A	N7-C8-N9	13.82	120.71	113.80
26	14	1698	A	N1-C6-N6	13.75	126.85	118.60
26	14	945	A	N1-C6-N6	13.74	126.84	118.60
26	14	1698	A	C2-N3-C4	-13.73	103.73	110.60
26	14	1332	G	C6-C5-N7	-13.71	122.17	130.40
26	1H	945	A	C2-N3-C4	-13.66	103.77	110.60
26	14	2287	A	C2-N3-C4	-13.61	103.80	110.60
26	1H	216	A	O5'-P-OP1	-13.58	93.48	105.70
26	1H	1899	G	C2-N3-C4	-13.44	105.18	111.90
26	1H	1332	G	C4-C5-N7	13.40	116.16	110.80
26	1H	2490	G	C5-N7-C8	-13.40	97.60	104.30
26	1H	1332	G	C6-C5-N7	-13.28	122.43	130.40
26	14	774	A	N3-C4-N9	-13.12	116.90	127.40
26	14	2873	A	N1-C2-N3	13.11	135.85	129.30
26	1H	1332	G	C2-N3-C4	-12.99	105.40	111.90
26	1H	31	C	O5'-P-OP1	-12.99	94.01	105.70
26	1H	774	A	N3-C4-N9	-12.90	117.08	127.40
26	14	774	A	N3-C4-C5	12.85	135.79	126.80
26	1H	676	A	N7-C8-N9	12.79	120.19	113.80
26	1H	2346	A	N1-C2-N3	12.77	135.68	129.30
26	1H	577	G	N1-C6-O6	12.75	127.55	119.90
26	14	1899	G	N1-C2-N2	-12.74	104.73	116.20
26	14	783	A	C2-N3-C4	-12.66	104.27	110.60
26	14	945	A	C2-N3-C4	-12.61	104.30	110.60
26	1H	2430	A	C2-N3-C4	-12.56	104.32	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1786	A	C5-N7-C8	-12.52	97.64	103.90
26	14	945	A	C6-C5-N7	-12.51	123.54	132.30
26	14	74	A	C2-N3-C4	-12.51	104.35	110.60
26	1H	774	A	N3-C4-C5	12.47	135.53	126.80
26	14	2518	A	N1-C6-N6	12.38	126.03	118.60
26	1H	140	A	N1-C6-N6	12.35	126.01	118.60
26	14	1698	A	C6-C5-N7	-12.32	123.68	132.30
26	14	330	A	C2-N3-C4	-12.23	104.49	110.60
26	1H	1332	G	N7-C8-N9	12.22	119.21	113.10
26	1H	1616	A	C5-N7-C8	-12.19	97.81	103.90
26	1H	192	C	C2-N3-C4	-12.11	113.84	119.90
26	14	1332	G	N7-C8-N9	12.08	119.14	113.10
1	13	792	A	C5-N7-C8	-12.02	97.89	103.90
26	1H	1021	A	C2-N3-C4	-11.98	104.61	110.60
26	1H	576	U	C5-C4-O4	11.97	133.08	125.90
26	1H	860	U	C4-C5-C6	11.89	126.83	119.70
26	1H	138	G	C4-C5-N7	11.80	115.52	110.80
26	1H	2346	A	C2-N3-C4	-11.79	104.71	110.60
26	14	783	A	N1-C6-N6	11.77	125.66	118.60
26	1H	2311	A	N1-C2-N3	11.76	135.18	129.30
26	14	1678	G	N7-C8-N9	11.73	118.97	113.10
26	14	2873	A	N7-C8-N9	11.71	119.65	113.80
26	1H	1786	A	C6-C5-N7	-11.69	124.12	132.30
26	1H	2346	A	O4'-C1'-N9	11.67	117.54	108.20
1	13	792	A	C4-C5-N7	11.63	116.51	110.70
26	1H	71	A	C5-N7-C8	-11.54	98.13	103.90
26	14	2873	A	C5-N7-C8	-11.53	98.14	103.90
26	1H	1678	G	N7-C8-N9	11.52	118.86	113.10
26	14	1332	G	C5-N7-C8	-11.50	98.55	104.30
26	14	1602	U	O5'-P-OP2	11.49	124.49	110.70
26	1H	621	A	N1-C2-N3	11.48	135.04	129.30
26	14	2346	A	C2-N3-C4	-11.48	104.86	110.60
26	1H	1678	G	N3-C4-C5	11.46	134.33	128.60
26	1H	783	A	N3-C4-C5	11.44	134.81	126.80
26	1H	141	A	C5-N7-C8	-11.43	98.19	103.90
26	14	828	U	C5-C4-O4	11.42	132.75	125.90
26	14	2492	U	O5'-P-OP1	-11.41	95.43	105.70
26	1H	783	A	N1-C6-N6	11.40	125.44	118.60
26	1H	1639	U	O5'-P-OP2	-11.37	95.47	105.70
26	14	783	A	C5-N7-C8	-11.36	98.22	103.90
26	14	1899	G	N3-C2-N2	11.35	127.84	119.90
26	1H	2287	A	C5-C6-N1	-11.31	112.05	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2713	A	C5-N7-C8	-11.30	98.25	103.90
26	14	1332	G	C2-N3-C4	-11.29	106.26	111.90
26	1H	1900	A	O5'-P-OP1	11.28	124.23	110.70
1	1G	1322	C	N1-C2-O2	11.28	125.67	118.90
26	1H	1496	A	N7-C8-N9	11.23	119.42	113.80
26	1H	783	A	C5-N7-C8	-11.18	98.31	103.90
1	1G	1054	C	O5'-P-OP1	-11.17	95.65	105.70
26	1H	140	A	C4-C5-N7	11.16	116.28	110.70
26	14	1899	G	C2-N3-C4	-11.10	106.35	111.90
26	14	1678	G	C5-N7-C8	-11.06	98.77	104.30
26	1H	621	A	C5-N7-C8	-11.06	98.37	103.90
26	14	1566	A	N1-C6-N6	11.03	125.22	118.60
26	1H	1971	A	O5'-P-OP1	-10.99	95.81	105.70
26	1H	1950	G	N7-C8-N9	10.98	118.59	113.10
26	1H	676	A	C8-N9-C4	-10.98	101.41	105.80
26	14	945	A	N1-C2-N3	10.95	134.78	129.30
26	1H	2392	A	C5-N7-C8	-10.94	98.43	103.90
26	1H	1678	G	C4-C5-N7	10.93	115.17	110.80
26	1H	774	A	C2-N3-C4	-10.92	105.14	110.60
26	14	528	A	C2-N3-C4	-10.92	105.14	110.60
1	13	792	A	C6-C5-N7	-10.88	124.69	132.30
26	1H	576	U	N1-C2-N3	10.88	121.43	114.90
26	1H	827	U	O5'-P-OP2	-10.84	95.94	105.70
26	1H	1698	A	N3-C4-C5	10.79	134.36	126.80
26	1H	2490	G	C6-C5-N7	-10.79	123.93	130.40
26	1H	1382	G	C5-C6-O6	-10.78	122.14	128.60
26	1H	2584	U	N3-C2-O2	-10.74	114.69	122.20
26	14	774	A	C2-N3-C4	-10.73	105.23	110.60
26	14	1342	A	N1-C2-N3	10.73	134.67	129.30
26	1H	676	A	N3-C4-N9	-10.69	118.85	127.40
26	14	1566	A	C5-C6-N6	-10.68	115.16	123.70
26	1H	2311	A	C2-N3-C4	-10.64	105.28	110.60
26	14	2873	A	C6-C5-N7	-10.64	124.85	132.30
26	14	1786	A	C2-N3-C4	-10.61	105.29	110.60
26	1H	1376	C	O5'-P-OP1	-10.61	96.15	105.70
26	1H	140	A	N7-C8-N9	10.61	119.10	113.80
26	1H	913	U	O5'-P-OP2	-10.58	96.18	105.70
26	1H	2430	A	O5'-P-OP2	-10.57	96.18	105.70
26	1H	1698	A	C5-N7-C8	-10.53	98.64	103.90
26	1H	1931	U	C5-C4-O4	10.51	132.21	125.90
26	14	1816	G	O5'-P-OP1	-10.50	96.25	105.70
26	1H	783	A	C5-C6-N1	-10.48	112.46	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1639	U	O5'-P-OP2	-10.47	96.28	105.70
26	14	140	A	C5-N7-C8	-10.43	98.68	103.90
26	1H	265	A	C2-N3-C4	-10.42	105.39	110.60
26	14	2688	U	C5-C4-O4	10.41	132.15	125.90
26	1H	1602	U	O5'-P-OP2	10.41	123.19	110.70
26	14	71	A	C5-N7-C8	-10.40	98.70	103.90
26	14	2282	G	O5'-P-OP1	-10.40	96.34	105.70
26	14	2023	G	O5'-P-OP2	-10.39	96.34	105.70
26	14	2477	C	N1-C2-O2	10.39	125.13	118.90
26	1H	1931	U	N3-C2-O2	-10.37	114.94	122.20
26	1H	1899	G	C8-N9-C1'	10.36	140.47	127.00
26	14	1678	G	C8-N9-C4	-10.34	102.26	106.40
26	14	2346	A	N1-C2-N3	10.34	134.47	129.30
26	14	1332	G	C4-C5-N7	10.32	114.93	110.80
26	1H	1332	G	N1-C6-O6	10.30	126.08	119.90
26	14	530	G	C6-C5-N7	-10.26	124.24	130.40
26	1H	676	A	N3-C4-C5	10.26	133.98	126.80
26	1H	1701	A	O5'-P-OP2	-10.23	96.50	105.70
26	1H	252	G	O5'-P-OP2	-10.21	96.51	105.70
26	1H	917	A	C2-N3-C4	-10.19	105.50	110.60
26	1H	2287	A	N3-C4-C5	10.19	133.94	126.80
26	14	2491	U	O5'-P-OP2	-10.17	96.55	105.70
26	1H	1899	G	C8-N9-C4	-10.14	102.34	106.40
24	3K	76	A	C5-N7-C8	-10.10	98.85	103.90
26	1H	120	U	C5-C6-N1	-10.09	117.66	122.70
26	1H	987	G	O5'-P-OP2	10.08	122.79	110.70
26	14	71	A	C2-N3-C4	-10.07	105.56	110.60
26	1H	2287	A	N1-C6-N6	10.05	124.63	118.60
26	14	1899	G	C6-C5-N7	-10.03	124.38	130.40
26	1H	1950	G	C8-N9-C4	-10.01	102.40	106.40
26	14	1786	A	C8-N9-C4	-10.01	101.80	105.80
26	1H	2713	A	N7-C8-N9	10.00	118.80	113.80
26	1H	74	A	N1-C2-N3	10.00	134.30	129.30
26	1H	978	G	O5'-P-OP2	-9.99	96.71	105.70
26	1H	2406	U	O5'-P-OP1	-9.98	96.72	105.70
26	1H	1616	A	C4-C5-N7	9.97	115.69	110.70
26	14	2281	C	O5'-P-OP1	-9.97	96.73	105.70
26	1H	1698	A	N3-C4-N9	-9.96	119.43	127.40
26	1H	1382	G	N1-C6-O6	9.95	125.87	119.90
26	1H	1496	A	C5-N7-C8	-9.95	98.93	103.90
26	1H	945	A	N1-C2-N3	9.94	134.27	129.30
26	1H	324	A	O5'-P-OP1	-9.93	96.76	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	783	A	N3-C4-N9	-9.90	119.48	127.40
26	1H	2352	A	O5'-P-OP1	-9.89	96.80	105.70
26	14	1616	A	C5-N7-C8	-9.89	98.95	103.90
1	13	255	G	O5'-P-OP2	-9.89	96.80	105.70
27	16	81	G	C4-C5-N7	9.84	114.74	110.80
26	1H	1950	G	C5-N7-C8	-9.82	99.39	104.30
1	1G	1502	A	C5-N7-C8	-9.82	98.99	103.90
1	13	792	A	O4'-C1'-N9	9.81	116.05	108.20
27	16	81	G	C5-N7-C8	-9.80	99.40	104.30
26	1H	192	C	N1-C2-O2	-9.76	113.04	118.90
26	1H	2330	G	C5-C6-O6	-9.76	122.75	128.60
26	1H	2430	A	O5'-P-OP1	9.75	122.40	110.70
26	14	140	A	N7-C8-N9	9.74	118.67	113.80
26	1H	2394	C	O5'-P-OP2	-9.73	96.94	105.70
26	1H	966	G	N1-C6-O6	-9.71	114.07	119.90
26	1H	71	A	N1-C6-N6	9.71	124.42	118.60
26	1H	2330	G	N1-C6-O6	9.70	125.72	119.90
26	1H	120	U	C4-C5-C6	9.70	125.52	119.70
26	1H	1786	A	C8-N9-C4	-9.70	101.92	105.80
26	14	1332	G	N1-C6-O6	9.69	125.71	119.90
26	14	1566	A	N9-C4-C5	-9.68	101.93	105.80
26	14	1602	U	O5'-P-OP1	-9.68	96.99	105.70
26	1H	117	G	O5'-P-OP2	-9.67	96.99	105.70
26	1H	2591	C	N1-C2-O2	-9.66	113.10	118.90
26	1H	941	A	O5'-P-OP1	-9.65	97.01	105.70
1	13	899	C	N1-C2-O2	-9.64	113.12	118.90
26	14	2559	C	O5'-P-OP1	-9.63	97.04	105.70
26	14	945	A	C5-N7-C8	-9.63	99.09	103.90
26	14	530	G	C4-C5-N7	9.62	114.65	110.80
26	1H	138	G	C5-C6-O6	-9.61	122.84	128.60
26	1H	828	U	N3-C2-O2	-9.59	115.49	122.20
26	1H	1678	G	N3-C4-N9	-9.57	120.26	126.00
26	1H	621	A	N1-C6-N6	9.56	124.34	118.60
26	1H	2346	A	N7-C8-N9	9.56	118.58	113.80
26	14	2346	A	O4'-C1'-N9	9.56	115.85	108.20
26	1H	51	G	O5'-P-OP1	-9.55	97.10	105.70
26	1H	49	A	O5'-P-OP2	-9.55	97.11	105.70
26	1H	2582	G	O5'-P-OP2	-9.54	97.11	105.70
26	1H	2490	G	N7-C8-N9	9.54	117.87	113.10
26	1H	2503	A	N1-C2-N3	-9.53	124.53	129.30
26	1H	71	A	N1-C2-N3	9.53	134.06	129.30
26	1H	1142(A)	A	C2-N3-C4	-9.51	105.84	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	C8	92	ARG	NE-CZ-NH1	9.51	125.06	120.30
26	14	774	A	C8-N9-C1'	9.50	144.80	127.70
26	1H	577	G	C5-C6-O6	-9.49	122.91	128.60
26	14	2873	A	N1-C6-N6	9.46	124.28	118.60
26	1H	1698	A	C5-C6-N1	-9.45	112.97	117.70
26	14	746	A	O5'-P-OP2	9.45	122.03	110.70
26	1H	71	A	C4-C5-N7	9.43	115.42	110.70
22	1K	76	A	N7-C8-N9	9.42	118.51	113.80
26	1H	1528	A	C8-N9-C4	-9.42	102.03	105.80
26	14	2287	A	N3-C4-C5	9.42	133.39	126.80
26	14	2335	A	O5'-P-OP1	-9.39	97.25	105.70
26	14	621	A	C2-N3-C4	-9.38	105.91	110.60
26	1H	1786	A	C4-C5-C6	9.37	121.69	117.00
26	14	1678	G	C2-N3-C4	-9.36	107.22	111.90
1	13	108	G	C4-N9-C1'	9.34	138.65	126.50
26	1H	2554	U	O5'-P-OP1	-9.28	97.34	105.70
26	1H	829	A	OP1-P-OP2	9.28	133.52	119.60
26	14	450	G	N1-C6-O6	-9.28	114.33	119.90
26	1H	226	G	O4'-C1'-N9	9.28	115.62	108.20
26	1H	140	A	C6-C5-N7	-9.27	125.81	132.30
26	1H	1950	G	C2-N3-C4	-9.24	107.28	111.90
26	1H	2070	G	N3-C2-N2	9.24	126.37	119.90
26	1H	2430	A	N3-C4-C5	9.23	133.26	126.80
26	1H	138	G	C5-N7-C8	-9.21	99.69	104.30
26	1H	2346	A	C8-N9-C4	-9.19	102.12	105.80
26	14	34	C	N1-C2-O2	9.17	124.40	118.90
26	1H	2023	G	O5'-P-OP1	-9.15	97.47	105.70
26	14	1342	A	C2-N3-C4	-9.15	106.03	110.60
26	14	2688	U	N3-C2-O2	-9.12	115.81	122.20
26	1H	1528	A	N7-C8-N9	9.12	118.36	113.80
26	1H	2688	U	N3-C2-O2	-9.12	115.82	122.20
47	H8	5	LEU	CA-CB-CG	9.12	136.27	115.30
26	1H	1543	A	C2-N3-C4	-9.11	106.05	110.60
26	1H	38	A	C2-N3-C4	9.10	115.15	110.60
1	13	1446	A	O4'-C1'-N9	9.09	115.47	108.20
26	14	800	A	C4-C5-C6	-9.09	112.45	117.00
26	14	568	U	C5-C4-O4	-9.09	120.45	125.90
26	1H	2518	A	C5-N7-C8	-9.09	99.36	103.90
23	2L	17	C	N1-C2-O2	9.06	124.34	118.90
26	1H	2392	A	N7-C8-N9	9.05	118.33	113.80
26	14	1781	C	C2-N1-C1'	9.05	128.75	118.80
26	1H	2430	A	N1-C6-N6	9.04	124.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	845	G	C6-C5-N7	-9.04	124.98	130.40
26	14	1698	A	N1-C2-N3	9.04	133.82	129.30
26	1H	1496	A	C8-N9-C4	-9.03	102.19	105.80
26	1H	1639	U	N3-C2-O2	-9.04	115.88	122.20
26	1H	2392	A	C4-C5-N7	9.03	115.21	110.70
26	14	1698	A	C4-C5-N7	9.03	115.21	110.70
26	14	1762	A	N1-C2-N3	9.02	133.81	129.30
26	1H	1363	C	N3-C4-N4	-9.01	111.69	118.00
26	14	774	A	C6-N1-C2	8.99	124.00	118.60
26	14	945	A	C4-C5-C6	8.99	121.50	117.00
26	1H	1324	G	N1-C6-O6	8.98	125.29	119.90
26	14	2275	C	C6-N1-C2	-8.98	116.71	120.30
1	13	880	C	O5'-P-OP2	-8.97	97.62	105.70
26	1H	846	C	O5'-P-OP1	-8.97	97.63	105.70
26	1H	2390	U	O5'-P-OP1	-8.95	97.64	105.70
26	14	2430	A	N1-C2-N3	8.94	133.77	129.30
26	14	783	A	C6-C5-N7	-8.94	126.04	132.30
26	14	2430	A	C5-C6-N1	-8.94	113.23	117.70
26	14	330	A	N1-C2-N3	8.93	133.76	129.30
26	1H	141	A	N7-C8-N9	8.92	118.26	113.80
26	1H	676	A	O4'-C1'-N9	8.92	115.33	108.20
26	1H	1616	A	N1-C6-N6	8.90	123.94	118.60
26	14	1786	A	C4-C5-N7	8.90	115.15	110.70
1	13	108	G	N3-C4-N9	8.89	131.34	126.00
26	1H	1382	G	C4-C5-N7	8.89	114.36	110.80
26	14	876	C	N1-C2-O2	8.89	124.23	118.90
26	14	1798	U	O5'-P-OP2	-8.88	97.71	105.70
26	14	1616	A	N7-C8-N9	8.86	118.23	113.80
26	1H	966	G	C5-C6-O6	8.85	133.91	128.60
26	14	1950	G	N7-C8-N9	8.85	117.53	113.10
26	1H	2518	A	N7-C8-N9	8.84	118.22	113.80
26	14	829	A	O5'-P-OP1	-8.84	97.74	105.70
26	14	2518	A	C6-C5-N7	-8.84	126.11	132.30
26	1H	1632	A	N1-C6-N6	8.84	123.90	118.60
26	1H	1835	G	N3-C4-C5	-8.83	124.19	128.60
26	1H	1602	U	O5'-P-OP1	-8.82	97.77	105.70
1	13	108	G	N3-C4-C5	-8.80	124.20	128.60
26	14	2430	A	N1-C6-N6	8.79	123.88	118.60
26	14	1812	A	O5'-P-OP2	-8.78	97.80	105.70
26	14	2518	A	C2-N3-C4	-8.78	106.21	110.60
26	14	2073	C	N1-C2-O2	-8.76	113.64	118.90
26	14	783	A	C4-C5-N7	8.75	115.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1698	A	C5-N7-C8	-8.73	99.53	103.90
26	1H	1950	G	C5-C6-O6	8.73	133.84	128.60
26	1H	2518	A	C8-N9-C4	-8.72	102.31	105.80
27	16	44	G	C4-N9-C1'	-8.72	115.17	126.50
26	1H	828	U	C5-C4-O4	8.71	131.13	125.90
26	14	1204	A	C2-N3-C4	-8.71	106.24	110.60
1	13	690	G	C8-N9-C4	-8.71	102.92	106.40
26	1H	1543	A	C5-C6-N1	-8.69	113.35	117.70
26	1H	1616	A	N7-C8-N9	8.68	118.14	113.80
26	1H	917	A	C5-N7-C8	-8.68	99.56	103.90
1	1G	1358	U	C2-N1-C1'	8.68	128.12	117.70
24	3K	76	A	N7-C8-N9	8.68	118.14	113.80
26	14	1781	C	O4'-C1'-N1	8.68	115.14	108.20
26	1H	71	A	O4'-C1'-N9	-8.67	101.26	108.20
26	14	774	A	C4-N9-C1'	-8.67	110.69	126.30
26	1H	1899	G	C6-C5-N7	8.67	135.60	130.40
26	1H	774	A	C8-N9-C1'	8.66	143.30	127.70
26	1H	793	A	O5'-P-OP2	-8.66	97.91	105.70
26	1H	2032	G	C2-N3-C4	-8.66	107.57	111.90
26	1H	1291	C	O5'-P-OP2	-8.64	97.92	105.70
26	14	1388	G	O5'-P-OP2	-8.64	97.92	105.70
26	14	828	U	N3-C4-O4	-8.64	113.35	119.40
26	1H	930	U	C5-C4-O4	8.64	131.08	125.90
1	1G	1502	A	N7-C8-N9	8.63	118.12	113.80
26	1H	1786	A	N1-C6-N6	8.61	123.77	118.60
26	14	530	G	N1-C6-O6	8.61	125.07	119.90
26	1H	2448	A	C5-C6-N6	-8.61	116.81	123.70
26	1H	783	A	C4-C5-N7	8.61	115.00	110.70
1	1G	1517	G	O5'-P-OP2	-8.60	97.96	105.70
26	1H	184	C	C6-N1-C2	8.59	123.74	120.30
26	14	2600	A	O5'-P-OP2	-8.58	97.98	105.70
26	1H	2330	G	C4-C5-N7	8.55	114.22	110.80
26	1H	2392	A	C2-N3-C4	-8.56	106.32	110.60
26	14	783	A	N7-C8-N9	8.55	118.07	113.80
26	1H	2392	A	N1-C6-N6	8.54	123.73	118.60
26	1H	2430	A	C5-C6-N1	-8.54	113.43	117.70
26	1H	778	G	N1-C6-O6	-8.54	114.78	119.90
26	1H	2070	G	N1-C6-O6	-8.54	114.78	119.90
26	1H	1021	A	C5-N7-C8	-8.54	99.63	103.90
26	1H	2688	U	C5-C4-O4	8.53	131.02	125.90
26	14	945	A	C4-C5-N7	8.53	114.96	110.70
1	13	1195	C	C6-N1-C2	-8.52	116.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2685	G	C5-C6-N1	-8.52	107.24	111.50
26	14	1332	G	N1-C2-N3	8.51	129.01	123.90
26	1H	621	A	C6-C5-N7	-8.51	126.34	132.30
26	1H	1496	A	C4-C5-N7	8.51	114.95	110.70
1	13	792	A	C2-N3-C4	-8.50	106.35	110.60
26	1H	1790	C	C2-N3-C4	-8.50	115.65	119.90
26	1H	330	A	C2-N3-C4	-8.49	106.36	110.60
26	1H	1695	G	OP1-P-OP2	8.48	132.32	119.60
26	1H	2682	U	O5'-P-OP2	-8.47	98.08	105.70
26	14	198	C	C6-N1-C2	-8.47	116.91	120.30
26	14	819	A	O5'-P-OP2	-8.46	98.09	105.70
1	13	1502	A	C2-N3-C4	-8.45	106.37	110.60
1	13	690	G	O4'-C1'-N9	8.45	114.96	108.20
1	13	690	G	N7-C8-N9	8.44	117.32	113.10
26	1H	451	C	C6-N1-C2	8.42	123.67	120.30
26	1H	380	U	N3-C2-O2	-8.42	116.31	122.20
26	14	216	A	O5'-P-OP1	-8.42	98.12	105.70
26	1H	123	G	C5-C6-O6	-8.42	123.55	128.60
26	1H	829	A	O5'-P-OP1	-8.42	98.12	105.70
26	14	1496	A	C5-N7-C8	-8.41	99.69	103.90
26	14	2490	G	N7-C8-N9	8.40	117.30	113.10
26	1H	676	A	C4-C5-N7	8.40	114.90	110.70
26	1H	1899	G	C5-N7-C8	-8.40	100.10	104.30
26	14	71	A	N1-C2-N3	8.39	133.50	129.30
26	14	783	A	C8-N9-C4	-8.39	102.44	105.80
26	14	2518	A	C4-C5-N7	8.39	114.90	110.70
26	1H	2346	A	C5-N7-C8	-8.39	99.71	103.90
26	14	252	G	O5'-P-OP2	-8.39	98.15	105.70
26	1H	446	G	N1-C6-O6	8.38	124.93	119.90
26	14	676	A	O4'-C1'-N9	8.38	114.90	108.20
26	1H	783	A	C6-C5-N7	-8.37	126.44	132.30
26	1H	1428	C	O5'-P-OP1	-8.37	98.17	105.70
27	16	81	G	N7-C8-N9	8.36	117.28	113.10
26	1H	2502	G	C5-N7-C8	-8.36	100.12	104.30
16	7I	6	LEU	CA-CB-CG	8.36	134.53	115.30
26	1H	2713	A	C2-N3-C4	-8.36	106.42	110.60
26	1H	1187	G	O5'-P-OP2	-8.36	98.18	105.70
26	1H	121	G	C8-N9-C4	-8.35	103.06	106.40
26	1H	2430	A	N3-C4-N9	-8.35	120.72	127.40
26	1H	956	G	N1-C6-O6	8.34	124.91	119.90
1	1G	1502	A	O5'-P-OP2	-8.34	98.19	105.70
26	14	694	U	O5'-P-OP2	-8.34	98.19	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3L	76	A	N1-C6-N6	8.33	123.60	118.60
26	1H	140	A	C5-C6-N6	-8.33	117.03	123.70
26	1H	2318	G	O4'-C1'-N9	8.33	114.86	108.20
26	1H	2448	A	N1-C6-N6	8.33	123.60	118.60
22	1K	76	A	C8-N9-C4	-8.30	102.48	105.80
1	13	792	A	C5-C6-N6	-8.29	117.07	123.70
4	3E	162	LEU	CA-CB-CG	8.29	134.37	115.30
26	14	790	C	O5'-P-OP2	-8.29	98.24	105.70
26	1H	778	G	C5-C6-O6	8.29	133.57	128.60
26	1H	1678	G	C6-C5-N7	-8.29	125.43	130.40
26	14	1566	A	C4-C5-N7	8.28	114.84	110.70
1	1G	817	C	C6-N1-C2	8.27	123.61	120.30
1	13	50	A	C8-N9-C4	-8.27	102.49	105.80
37	78	42	SER	C-N-CA	-8.27	104.94	122.30
26	14	1989	G	N3-C2-N2	-8.27	114.11	119.90
26	1H	2689	U	N3-C4-O4	-8.26	113.62	119.40
26	1H	2627	G	C5-C6-O6	-8.25	123.65	128.60
26	1H	1153	C	N1-C2-O2	-8.24	113.95	118.90
1	13	1502	A	C5-N7-C8	-8.24	99.78	103.90
26	1H	1496	A	C6-C5-N7	-8.24	126.53	132.30
1	1G	1502	A	C2-N3-C4	-8.24	106.48	110.60
26	14	1585	C	N1-C2-O2	8.24	123.84	118.90
26	1H	825	C	N3-C2-O2	8.24	127.67	121.90
26	1H	1776	G	O5'-P-OP2	-8.24	98.29	105.70
26	1H	1324	G	N3-C2-N2	-8.23	114.14	119.90
26	1H	382	G	O5'-P-OP1	-8.22	98.30	105.70
26	1H	122	G	C5-C6-O6	-8.22	123.67	128.60
26	14	687	C	O5'-P-OP1	-8.21	98.31	105.70
26	14	933	A	C5-N7-C8	-8.21	99.80	103.90
26	14	1762	A	C2-N3-C4	-8.20	106.50	110.60
1	13	108	G	C8-N9-C1'	-8.20	116.34	127.00
26	14	2700	C	C6-N1-C2	8.20	123.58	120.30
26	1H	2598	A	N9-C4-C5	-8.19	102.52	105.80
1	1G	1260	C	C6-N1-C2	-8.19	117.02	120.30
26	14	1698	A	C4-C5-C6	8.19	121.10	117.00
26	1H	829	A	O5'-P-OP2	-8.18	98.34	105.70
26	1H	621	A	N7-C8-N9	8.16	117.88	113.80
1	13	1504	G	O5'-P-OP1	-8.14	98.38	105.70
26	1H	1265	A	O5'-P-OP2	-8.14	98.38	105.70
26	1H	1395	A	O5'-P-OP1	-8.13	98.38	105.70
26	1H	2351	G	OP2-P-O3'	8.13	123.09	105.20
26	14	793	A	O5'-P-OP2	-8.13	98.38	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	884	U	O5'-P-OP2	-8.12	98.39	105.70
26	14	774	A	C4-C5-C6	-8.12	112.94	117.00
26	1H	1888	G	N3-C4-N9	8.12	130.87	126.00
26	1H	1681	G	N1-C6-O6	8.12	124.77	119.90
1	1G	1502	A	C6-C5-N7	-8.11	126.62	132.30
26	14	1950	G	C5-N7-C8	-8.11	100.24	104.30
26	14	2324	C	N3-C4-C5	8.11	125.14	121.90
26	14	1836	C	O5'-P-OP2	-8.11	98.40	105.70
26	1H	512	G	O4'-C1'-N9	8.10	114.68	108.20
26	14	208	C	C6-N1-C2	8.08	123.53	120.30
26	14	579	G	N3-C2-N2	-8.08	114.24	119.90
26	1H	2712	U	C2-N3-C4	-8.08	122.15	127.00
26	14	2554	U	O5'-P-OP1	-8.08	98.43	105.70
26	14	2713	A	C5-N7-C8	-8.07	99.86	103.90
1	13	1502	A	C4-C5-N7	8.07	114.73	110.70
50	K8	3	LEU	CA-CB-CG	8.07	133.86	115.30
26	1H	677	A	O5'-P-OP2	-8.06	98.44	105.70
26	1H	774	A	C6-N1-C2	8.06	123.44	118.60
1	1G	690	G	C5-N7-C8	-8.06	100.27	104.30
26	1H	199	A	N1-C2-N3	-8.05	125.28	129.30
26	1H	1785	A	C8-N9-C4	-8.05	102.58	105.80
26	1H	1477	A	O5'-P-OP2	-8.04	98.46	105.70
45	F8	23	GLU	C-N-CA	-8.04	105.41	122.30
26	1H	2070	G	N1-C2-N2	-8.03	108.97	116.20
26	14	913	U	O5'-P-OP2	-8.03	98.47	105.70
26	14	830	G	C8-N9-C4	8.02	109.61	106.40
26	1H	774	A	C5-C6-N1	-8.02	113.69	117.70
26	1H	2518	A	C6-C5-N7	-8.02	126.69	132.30
27	16	60	C	C6-N1-C2	-8.01	117.10	120.30
26	1H	1899	G	N1-C2-N2	8.01	123.40	116.20
26	1H	1982	C	O5'-P-OP2	-8.00	98.50	105.70
26	14	1616	A	C8-N9-C4	-8.00	102.60	105.80
26	14	2542	A	N7-C8-N9	-7.98	109.81	113.80
26	1H	774	A	C4-N9-C1'	-7.98	111.94	126.30
26	14	197	A	O5'-P-OP1	-7.98	98.52	105.70
26	14	676	A	C2-N3-C4	-7.97	106.62	110.60
26	14	577	G	N1-C6-O6	7.97	124.68	119.90
26	1H	762	U	C2-N1-C1'	7.96	127.26	117.70
26	1H	1610	A	N1-C6-N6	7.96	123.38	118.60
26	1H	129	C	C5-C4-N4	-7.96	114.63	120.20
1	1G	1322	C	N3-C2-O2	-7.96	116.33	121.90
26	1H	141	A	C4-C5-N7	7.95	114.67	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	199	A	C2-N3-C4	7.95	114.58	110.60
26	1H	617	G	O5'-P-OP2	-7.95	98.55	105.70
26	1H	945	A	C4-N9-C1'	7.95	140.60	126.30
26	1H	530	G	C2-N3-C4	-7.93	107.93	111.90
26	1H	265	A	C5-N7-C8	-7.93	99.93	103.90
26	14	1284	A	O5'-P-OP2	-7.93	98.56	105.70
26	14	676	A	N3-C4-N9	-7.93	121.06	127.40
1	1G	690	G	N7-C8-N9	7.92	117.06	113.10
26	14	2477	C	N3-C2-O2	-7.92	116.36	121.90
26	14	74	A	N3-C4-C5	7.92	132.34	126.80
26	1H	449	A	OP1-P-O3'	7.91	122.60	105.20
26	1H	459	U	O5'-P-OP2	-7.91	98.58	105.70
26	1H	258	G	N1-C6-O6	-7.91	115.16	119.90
23	2L	21	U	N3-C2-O2	-7.91	116.67	122.20
26	1H	74	A	C5-C6-N1	-7.89	113.76	117.70
26	1H	2360	A	O5'-P-OP2	-7.88	98.60	105.70
26	14	1021	A	C2-N3-C4	-7.88	106.66	110.60
26	14	2331	G	C5-C6-O6	-7.88	123.87	128.60
26	1H	621	A	C5-C6-N1	-7.88	113.76	117.70
26	1H	35	G	O5'-P-OP2	-7.87	98.61	105.70
26	1H	1255	U	N3-C4-O4	7.87	124.91	119.40
26	1H	1437	C	C6-N1-C2	-7.87	117.15	120.30
26	1H	1297	C	OP2-P-O3'	-7.87	87.90	105.20
26	1H	2062	A	C8-N9-C4	7.86	108.94	105.80
26	14	1314	C	N1-C2-O2	7.85	123.61	118.90
26	14	2065	C	N3-C2-O2	-7.84	116.41	121.90
1	1G	945	G	N1-C6-O6	7.84	124.60	119.90
26	1H	1022	G	N9-C4-C5	7.83	108.53	105.40
26	1H	2713	A	N1-C6-N6	7.82	123.29	118.60
1	13	974	A	O4'-C1'-N9	7.82	114.45	108.20
26	1H	382	G	OP1-P-O3'	7.82	122.39	105.20
26	1H	827	U	O5'-P-OP1	7.81	120.07	110.70
26	1H	1665	A	O5'-P-OP1	-7.81	98.67	105.70
26	1H	2688	U	N1-C2-N3	7.81	119.58	114.90
27	16	44	G	C8-N9-C1'	7.81	137.15	127.00
1	13	817	C	C6-N1-C2	7.80	123.42	120.30
26	14	84	A	C8-N9-C4	7.80	108.92	105.80
26	1H	1998	G	C8-N9-C4	7.79	109.52	106.40
26	14	2542	A	C8-N9-C4	7.79	108.92	105.80
26	1H	508	G	C6-C5-N7	-7.79	125.73	130.40
26	1H	1899	G	C4-C5-C6	-7.78	114.13	118.80
26	1H	1681	G	C4-C5-N7	7.78	113.91	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2501	C	C6-N1-C2	7.77	123.41	120.30
26	1H	1610	A	N9-C4-C5	-7.77	102.69	105.80
26	14	1496	A	N7-C8-N9	7.77	117.68	113.80
1	13	1158	C	N1-C2-O2	7.76	123.56	118.90
26	1H	400	G	N1-C6-O6	7.76	124.56	119.90
27	16	13	A	O5'-P-OP2	-7.76	98.71	105.70
26	1H	561	G	N3-C2-N2	7.76	125.33	119.90
26	1H	1649	G	N3-C4-C5	-7.76	124.72	128.60
26	1H	1779	U	O5'-P-OP1	-7.75	98.72	105.70
26	14	2498	C	O5'-P-OP2	-7.75	98.72	105.70
26	1H	141	A	N1-C6-N6	7.74	123.25	118.60
26	1H	1241	A	C2-N3-C4	-7.74	106.73	110.60
1	1G	1502	A	C4-C5-N7	7.74	114.57	110.70
26	1H	1591	G	C5-C6-O6	7.73	133.24	128.60
26	14	1992	G	C2-N3-C4	7.73	115.77	111.90
26	1H	933	A	O5'-P-OP2	-7.73	98.75	105.70
26	1H	2604	U	N1-C2-O2	7.72	128.21	122.80
26	14	209	C	C5-C4-N4	-7.72	114.80	120.20
26	14	2307	G	O4'-C1'-N9	7.72	114.38	108.20
26	14	1332	G	C4-N9-C1'	7.72	136.53	126.50
26	1H	71	A	N3-C4-C5	7.71	132.20	126.80
26	1H	860	U	C2-N1-C1'	7.71	126.96	117.70
26	14	2518	A	C5-N7-C8	-7.71	100.05	103.90
24	3L	76	A	C5-N7-C8	-7.71	100.05	103.90
26	14	2873	A	C4-C5-N7	7.71	114.55	110.70
26	1H	508	G	C4-N9-C1'	7.70	136.51	126.50
27	1J	44	G	C4-N9-C1'	-7.70	116.49	126.50
24	3K	76	A	C4-C5-N7	7.70	114.55	110.70
26	1H	210	C	N3-C4-C5	7.70	124.98	121.90
26	1H	744	G	O5'-P-OP2	-7.69	98.78	105.70
26	1H	1602	U	C5-C6-N1	-7.68	118.86	122.70
26	1H	1781	C	C6-N1-C2	7.68	123.37	120.30
26	14	676	A	N3-C4-C5	7.68	132.18	126.80
26	1H	2518	A	N1-C6-N6	7.68	123.21	118.60
26	1H	217	G	N3-C2-N2	-7.68	114.53	119.90
26	14	945	A	C5-C6-N6	-7.68	117.56	123.70
26	1H	1363	C	C5-C4-N4	7.67	125.57	120.20
1	13	792	A	N9-C4-C5	-7.67	102.73	105.80
26	1H	1379	A	N1-C6-N6	7.67	123.20	118.60
26	1H	1646	C	C6-N1-C2	7.66	123.37	120.30
26	14	876	C	N3-C2-O2	-7.66	116.54	121.90
26	14	2473	U	C2-N1-C1'	7.66	126.89	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	30	GLU	N-CA-C	-7.65	90.34	111.00
26	1H	1639	U	O5'-P-OP1	7.65	119.88	110.70
1	13	1517	G	O5'-P-OP2	-7.64	98.82	105.70
26	14	1984	G	O5'-P-OP2	-7.64	98.83	105.70
26	14	1781	C	C6-N1-C1'	-7.63	111.64	120.80
26	14	2062	A	C8-N9-C4	7.63	108.85	105.80
26	1H	140	A	O4'-C1'-N9	7.63	114.31	108.20
26	1H	967	C	O5'-P-OP2	-7.63	98.83	105.70
26	1H	2330	G	C6-C5-N7	-7.63	125.82	130.40
26	14	2477	C	C2-N1-C1'	7.62	127.19	118.80
26	1H	1591	G	N1-C6-O6	-7.61	115.33	119.90
26	1H	1678	G	C8-N9-C4	-7.61	103.36	106.40
26	1H	2490	G	C5-C6-O6	-7.61	124.04	128.60
26	14	1899	G	C4-C5-N7	7.60	113.84	110.80
26	1H	783	A	N7-C8-N9	7.60	117.60	113.80
26	1H	930	U	N3-C4-O4	-7.60	114.08	119.40
26	1H	2253	G	N1-C6-O6	7.60	124.46	119.90
26	1H	836	G	C2-N3-C4	7.59	115.70	111.90
26	1H	2713	A	C4-C5-N7	7.59	114.50	110.70
26	1H	1982	C	C6-N1-C2	-7.59	117.27	120.30
26	14	845	G	N1-C6-O6	7.58	124.45	119.90
1	13	125	U	C5-C4-O4	7.57	130.44	125.90
26	1H	633	A	N1-C6-N6	7.57	123.14	118.60
26	1H	2598	A	O5'-P-OP2	7.57	119.78	110.70
26	14	71	A	N7-C8-N9	7.56	117.58	113.80
1	13	524	G	O5'-P-OP1	-7.56	98.90	105.70
26	1H	2593	U	N3-C4-O4	-7.56	114.11	119.40
26	14	2066	C	C6-N1-C2	-7.56	117.28	120.30
26	1H	576	U	N3-C4-O4	-7.55	114.12	119.40
26	14	1011	G	O4'-C1'-N9	7.55	114.24	108.20
26	1H	125	G	C5-C6-O6	-7.54	124.08	128.60
26	1H	383	U	O5'-P-OP2	7.54	119.75	110.70
26	1H	1760	A	O5'-P-OP2	-7.54	98.91	105.70
26	1H	2392	A	C8-N9-C4	-7.53	102.79	105.80
26	1H	1888	G	N3-C4-C5	-7.53	124.84	128.60
26	14	12	U	N3-C2-O2	-7.52	116.94	122.20
26	14	772	C	O5'-P-OP1	-7.52	98.93	105.70
26	1H	334	C	O5'-P-OP1	-7.52	98.93	105.70
26	1H	1021	A	N3-C4-C5	7.51	132.06	126.80
26	1H	1681	G	C5-C6-O6	-7.51	124.10	128.60
26	14	74	A	C5-C6-N1	-7.51	113.95	117.70
26	14	676	A	C5-N7-C8	-7.50	100.15	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2503	A	C2-N3-C4	7.50	114.35	110.60
27	16	81	G	O4'-C1'-N9	7.50	114.20	108.20
26	14	34	C	C2-N1-C1'	7.50	127.05	118.80
26	14	2275	C	C5-C6-N1	7.50	124.75	121.00
26	1H	752	A	C2-N3-C4	-7.50	106.85	110.60
26	1H	671	C	C6-N1-C2	7.49	123.30	120.30
1	1G	945	G	C5-C6-O6	-7.49	124.11	128.60
26	1H	621	A	C4-C5-N7	7.49	114.44	110.70
26	1H	46	C	O5'-P-OP2	-7.48	98.97	105.70
26	1H	1899	G	C4-N9-C1'	-7.48	116.78	126.50
1	13	890	G	O4'-C1'-N9	7.47	114.18	108.20
26	14	2092	U	C5-C4-O4	7.47	130.38	125.90
26	1H	2070	G	C5-C6-O6	7.47	133.08	128.60
26	1H	1776	G	N9-C4-C5	-7.46	102.42	105.40
26	14	1698	A	C5-C6-N1	-7.46	113.97	117.70
27	1J	60	C	C6-N1-C2	-7.46	117.32	120.30
26	1H	1312	U	C5-C6-N1	-7.46	118.97	122.70
26	14	1835	G	O5'-P-OP1	-7.46	98.99	105.70
26	1H	2085	C	O5'-P-OP2	-7.45	98.99	105.70
26	1H	1544	C	N1-C2-O2	7.45	123.37	118.90
26	1H	752	A	C8-N9-C4	7.45	108.78	105.80
26	1H	205	G	O5'-P-OP2	-7.44	99.00	105.70
26	14	1914	C	C6-N1-C2	-7.44	117.32	120.30
26	14	697	C	O5'-P-OP1	-7.44	99.01	105.70
26	14	2432	A	N1-C6-N6	7.43	123.06	118.60
26	14	188	G	OP1-P-OP2	7.43	130.75	119.60
26	14	678	C	C6-N1-C2	7.43	123.27	120.30
26	14	774	A	C5-C6-N1	-7.43	113.99	117.70
1	13	690	G	C5-N7-C8	-7.42	100.59	104.30
26	1H	783	A	N9-C1'-C2'	-7.42	103.83	112.00
26	1H	2599	G	N1-C6-O6	-7.42	115.45	119.90
26	14	1786	A	C6-C5-N7	-7.42	127.10	132.30
26	14	49	A	P-O3'-C3'	7.42	128.60	119.70
26	14	2352	A	O5'-P-OP1	-7.42	99.02	105.70
26	1H	2392	A	C5-C6-N1	-7.42	113.99	117.70
26	1H	1332	G	C8-N9-C4	-7.41	103.43	106.40
26	1H	1761	C	C5-C4-N4	-7.41	115.01	120.20
27	16	44	G	C6-C5-N7	7.41	134.84	130.40
26	1H	1006	C	O5'-P-OP1	-7.40	99.04	105.70
26	1H	1379	A	C5-N7-C8	-7.39	100.20	103.90
26	14	1616	A	C4-C5-N7	7.39	114.40	110.70
26	1H	2346	A	C6-C5-N7	-7.39	127.12	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	73	A	O5'-P-OP2	-7.39	99.05	105.70
23	2L	21	U	N1-C2-O2	7.39	127.97	122.80
26	14	620	G	O5'-P-OP2	-7.39	99.05	105.70
26	14	2873	A	C5-C6-N1	-7.38	114.01	117.70
26	1H	140	A	C2-N3-C4	-7.38	106.91	110.60
26	1H	2713	A	C8-N9-C4	-7.38	102.85	105.80
26	1H	789	A	C2-N3-C4	-7.37	106.91	110.60
26	1H	945	A	C8-N9-C1'	-7.37	114.44	127.70
8	7E	39	LEU	CA-CB-CG	7.37	132.25	115.30
26	1H	1931	U	N1-C2-N3	7.37	119.32	114.90
24	3K	76	A	N1-C6-N6	7.37	123.02	118.60
1	1G	690	G	C8-N9-C4	-7.37	103.45	106.40
1	13	1407	C	N3-C4-N4	-7.36	112.85	118.00
26	1H	1758	G	N1-C6-O6	7.36	124.32	119.90
26	14	2490	G	C5-N7-C8	-7.36	100.62	104.30
26	1H	270(G)	C	C6-N1-C2	-7.36	117.36	120.30
26	1H	138	G	N7-C8-N9	7.35	116.78	113.10
26	1H	1970	A	O5'-P-OP2	-7.35	99.08	105.70
1	1G	1358	U	N1-C2-O2	7.35	127.94	122.80
26	1H	1914	C	N3-C2-O2	-7.35	116.76	121.90
26	1H	1203	G	C5-C6-O6	7.33	133.00	128.60
26	1H	1798	U	O5'-P-OP2	-7.33	99.10	105.70
1	1G	1286	A	N7-C8-N9	7.33	117.47	113.80
26	14	2307	G	C4-N9-C1'	7.33	136.02	126.50
26	1H	729	G	C8-N9-C4	-7.32	103.47	106.40
26	1H	2294	C	C6-N1-C2	-7.32	117.37	120.30
26	14	632	A	O5'-P-OP2	7.32	119.48	110.70
22	1K	76	A	O4'-C1'-N9	7.31	114.05	108.20
26	1H	71	A	N7-C8-N9	7.30	117.45	113.80
26	1H	2598	A	C8-N9-C4	7.30	108.72	105.80
26	1H	2609	U	C5-C6-N1	-7.30	119.05	122.70
26	14	2712	U	C5-C6-N1	-7.30	119.05	122.70
26	1H	951	C	N3-C4-N4	-7.29	112.90	118.00
26	14	678	C	N3-C4-C5	7.29	124.82	121.90
26	14	945	A	N7-C8-N9	7.29	117.44	113.80
26	1H	1022	G	C8-N9-C4	-7.28	103.49	106.40
29	11	41	GLY	C-N-CA	-7.28	107.01	122.30
26	14	2554	U	O5'-P-OP2	7.28	119.44	110.70
26	1H	1632	A	C4-C5-N7	7.28	114.34	110.70
26	1H	2032	G	O5'-P-OP1	-7.27	99.16	105.70
26	1H	677	A	C5-C6-N1	-7.26	114.07	117.70
26	1H	1622	G	N3-C2-N2	-7.26	114.82	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2506	U	N1-C2-O2	7.26	127.88	122.80
26	1H	2603	G	O5'-P-OP1	-7.26	99.17	105.70
26	14	867	C	O5'-P-OP1	-7.26	99.17	105.70
26	1H	982	C	C6-N1-C2	-7.26	117.40	120.30
26	14	2065	C	N1-C2-O2	7.25	123.25	118.90
26	1H	1835	G	C4-N9-C1'	7.25	135.93	126.50
1	1G	422	C	O4'-C1'-N1	7.25	114.00	108.20
26	1H	1639	U	N1-C2-O2	7.25	127.87	122.80
33	51	153	LYS	C-N-CD	-7.25	104.66	120.60
26	14	621	A	C5-C6-N1	-7.25	114.08	117.70
26	1H	1764	G	C5-C6-O6	7.24	132.94	128.60
26	14	1566	A	C8-N9-C4	7.24	108.70	105.80
26	1H	1888	G	C4-N9-C1'	7.24	135.91	126.50
27	16	115	G	C4-C5-N7	7.24	113.69	110.80
26	14	2409	G	N1-C6-O6	7.24	124.24	119.90
26	1H	2445	G	C5-C6-O6	7.23	132.94	128.60
26	14	1011	G	C4-N9-C1'	-7.23	117.10	126.50
26	1H	1914	C	C6-N1-C2	-7.23	117.41	120.30
26	1H	2713	A	C6-C5-N7	-7.23	127.24	132.30
26	14	2501	C	C2-N1-C1'	-7.22	110.85	118.80
26	1H	2427	C	O5'-P-OP2	7.22	119.36	110.70
26	14	579	G	N1-C2-N2	7.22	122.69	116.20
26	1H	1830	C	N3-C4-C5	7.21	124.79	121.90
34	61	110	ASP	C-N-CD	-7.21	104.74	120.60
26	14	2287	A	C5-C6-N1	-7.21	114.10	117.70
26	1H	2239	G	N3-C2-N2	7.20	124.94	119.90
1	13	974	A	N7-C8-N9	7.20	117.40	113.80
1	1G	1054	C	O5'-P-OP2	7.20	119.34	110.70
26	1H	2285	C	N3-C4-N4	-7.20	112.96	118.00
1	1G	1502	A	N1-C6-N6	7.20	122.92	118.60
27	16	115	G	C5-C6-O6	-7.19	124.28	128.60
26	14	2380	C	N1-C2-O2	-7.19	114.58	118.90
26	1H	1940	U	N3-C4-O4	7.19	124.43	119.40
35	58	76	SER	C-N-CA	-7.19	107.20	122.30
26	1H	330	A	N1-C2-N3	7.19	132.90	129.30
29	11	39	LYS	C-N-CA	7.18	139.66	121.70
26	14	462	C	O5'-P-OP2	-7.18	99.23	105.70
26	14	512	G	O4'-C1'-N9	7.18	113.95	108.20
26	14	2873	A	C4-C5-C6	7.18	120.59	117.00
26	14	783	A	N3-C4-C5	7.18	131.83	126.80
26	14	1974	C	O5'-P-OP2	-7.18	99.24	105.70
1	13	1158	C	C2-N1-C1'	7.18	126.70	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2751	G	C8-N9-C4	7.18	109.27	106.40
26	1H	1528	A	C5-N7-C8	-7.17	100.31	103.90
26	1H	1616	A	O4'-C1'-N9	7.17	113.94	108.20
26	1H	1950	G	C5-C6-N1	-7.17	107.91	111.50
26	1H	1249	U	O5'-P-OP1	-7.17	99.25	105.70
1	13	560	U	C5-C6-N1	7.17	126.28	122.70
26	14	2610	C	C5-C4-N4	-7.17	115.18	120.20
26	1H	1297	C	OP1-P-O3'	7.17	120.96	105.20
26	14	2585	U	N3-C2-O2	-7.17	117.19	122.20
26	1H	1915	U	N3-C2-O2	-7.16	117.19	122.20
26	1H	193	U	N1-C2-O2	-7.16	117.79	122.80
26	14	2346	A	C5-C6-N1	-7.15	114.12	117.70
26	1H	1617	C	N1-C2-O2	-7.15	114.61	118.90
26	1H	2772	C	C6-N1-C2	7.15	123.16	120.30
26	1H	1799	G	N1-C6-O6	-7.14	115.61	119.90
26	1H	195	A	P-O3'-C3'	7.14	128.27	119.70
26	1H	586	A	O5'-P-OP1	-7.14	99.27	105.70
26	1H	1969	A	C5-N7-C8	7.14	107.47	103.90
1	1G	449	C	N3-C2-O2	-7.14	116.90	121.90
26	1H	1624	G	N1-C6-O6	-7.14	115.62	119.90
1	13	266	G	C4-C5-N7	7.14	113.66	110.80
26	1H	938	G	C5-C6-O6	7.14	132.88	128.60
26	14	2566	A	O5'-P-OP2	-7.14	99.28	105.70
26	1H	2665	A	C2-N3-C4	-7.14	107.03	110.60
27	16	81	G	C6-C5-N7	-7.14	126.12	130.40
26	1H	2464	C	O5'-P-OP2	-7.13	99.28	105.70
29	19	38	LYS	C-N-CA	7.13	139.53	121.70
26	14	1408	C	N1-C2-O2	-7.13	114.62	118.90
26	1H	1835	G	N3-C4-N9	7.13	130.28	126.00
26	1H	1950	G	O4'-C1'-N9	7.13	113.90	108.20
26	1H	1340	U	C2-N3-C4	-7.12	122.73	127.00
1	13	974	A	C5-N7-C8	-7.12	100.34	103.90
1	13	1259	C	C6-N1-C2	-7.12	117.45	120.30
1	13	266	G	C5-N7-C8	-7.12	100.74	104.30
26	1H	788	A	N1-C6-N6	7.12	122.87	118.60
46	G8	81	LYS	N-CA-C	-7.12	91.79	111.00
1	13	125	U	C6-N1-C1'	7.11	131.16	121.20
26	1H	945	A	N3-C4-N9	7.11	133.09	127.40
26	14	845	G	C8-N9-C1'	-7.11	117.76	127.00
26	1H	1437	C	N3-C2-O2	-7.10	116.93	121.90
26	14	2713	A	N7-C8-N9	7.10	117.35	113.80
26	1H	1950	G	N3-C4-N9	-7.10	121.74	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1969	A	N7-C8-N9	-7.10	110.25	113.80
26	1H	2280	G	OP1-P-O3'	7.09	120.81	105.20
1	1G	1200	C	N1-C2-O2	7.09	123.16	118.90
26	14	2824	C	N1-C2-O2	-7.09	114.64	118.90
26	1H	222	A	P-O3'-C3'	7.09	128.20	119.70
26	1H	1346	G	C5-C6-O6	7.09	132.85	128.60
1	13	5	U	N3-C2-O2	-7.08	117.24	122.20
26	1H	1835	G	C2-N3-C4	7.08	115.44	111.90
26	14	2281	C	O5'-P-OP2	7.07	119.19	110.70
26	14	694	U	O5'-P-OP1	7.07	119.18	110.70
26	14	789	A	O5'-P-OP1	-7.07	99.34	105.70
26	14	2503	A	C5-C6-N6	-7.07	118.05	123.70
26	1H	2555	U	N1-C2-O2	-7.06	117.86	122.80
26	1H	2593	U	C5-C4-O4	7.06	130.14	125.90
14	5I	27	CYS	CA-CB-SG	-7.06	101.30	114.00
26	14	1812	A	OP1-P-OP2	7.05	130.17	119.60
26	1H	2375	G	OP2-P-O3'	7.04	120.70	105.20
26	1H	784	A	O4'-C1'-N9	7.04	113.83	108.20
26	1H	1959	G	C8-N9-C4	-7.04	103.58	106.40
26	14	845	G	C4-N9-C1'	7.04	135.65	126.50
26	1H	745	G	C5-C6-O6	-7.03	124.38	128.60
1	13	723	U	C2-N1-C1'	7.03	126.13	117.70
26	14	1626	G	N3-C2-N2	-7.02	114.98	119.90
26	14	2688	U	N3-C4-O4	-7.02	114.48	119.40
26	14	1786	A	C5-C6-N1	-7.02	114.19	117.70
26	1H	196	A	O4'-C1'-N9	7.02	113.82	108.20
26	1H	2045	C	C6-N1-C2	7.02	123.11	120.30
1	13	1354	C	C6-N1-C2	-7.01	117.50	120.30
26	1H	1604	C	N1-C2-O2	-7.01	114.69	118.90
26	1H	245	G	C5-C6-O6	-7.01	124.40	128.60
26	1H	2751	G	C6-C5-N7	7.01	134.60	130.40
1	1G	924	C	C6-N1-C2	-7.01	117.50	120.30
26	14	1829	A	O5'-P-OP1	-7.01	99.39	105.70
26	14	1312	U	O5'-P-OP1	-7.00	99.40	105.70
26	14	2818	G	C8-N9-C4	7.00	109.20	106.40
26	1H	1021	A	N3-C4-N9	-7.00	121.80	127.40
1	1G	1502	A	N1-C2-N3	7.00	132.80	129.30
26	1H	577	G	N3-C2-N2	-7.00	115.00	119.90
26	14	2073	C	O5'-P-OP1	-6.99	99.41	105.70
26	1H	500	G	O5'-P-OP1	-6.99	99.41	105.70
26	1H	577	G	C6-C5-N7	-6.99	126.21	130.40
26	1H	1404	C	O5'-P-OP2	-6.99	99.41	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1786	A	C4-C5-N7	6.99	114.19	110.70
26	1H	1764	G	N1-C6-O6	-6.99	115.71	119.90
26	1H	2501	C	C2-N1-C1'	-6.99	111.11	118.80
26	14	199	A	C2-N3-C4	6.98	114.09	110.60
26	14	828	U	N3-C2-O2	-6.98	117.31	122.20
26	14	752	A	P-O3'-C3'	6.98	128.08	119.70
26	1H	192	C	C5-C4-N4	-6.98	115.32	120.20
26	14	829	A	OP1-P-OP2	6.98	130.06	119.60
26	14	800	A	C5-N7-C8	-6.98	100.41	103.90
1	1G	1525	G	C5-C6-O6	6.97	132.78	128.60
26	14	775	G	N3-C4-N9	6.97	130.18	126.00
26	14	2518	A	O4'-C1'-N9	-6.97	102.62	108.20
1	13	49	U	P-O3'-C3'	6.96	128.06	119.70
26	14	372	G	O4'-C1'-N9	6.96	113.77	108.20
26	14	2335	A	N1-C6-N6	-6.96	114.42	118.60
26	1H	2540	C	C6-N1-C2	6.96	123.08	120.30
26	14	2392	A	C5-N7-C8	-6.96	100.42	103.90
26	14	2496	C	C6-N1-C2	-6.96	117.52	120.30
26	1H	1313	U	C5-C6-N1	6.96	126.18	122.70
1	13	5	U	N1-C2-O2	6.95	127.67	122.80
26	1H	678	C	N3-C4-C5	6.95	124.68	121.90
1	13	328	C	C2-N1-C1'	6.95	126.45	118.80
1	13	1207	G	O5'-P-OP2	-6.95	99.45	105.70
26	1H	1348	G	O5'-P-OP2	6.95	119.04	110.70
26	14	123	G	C5-C6-O6	-6.95	124.43	128.60
26	14	845	G	C4-C5-N7	6.95	113.58	110.80
26	14	140	A	C8-N9-C4	-6.95	103.02	105.80
1	1G	536	C	C6-N1-C2	-6.94	117.52	120.30
26	1H	140	A	OP2-P-O3'	6.94	120.47	105.20
26	14	2282	G	O5'-P-OP2	6.94	119.03	110.70
26	1H	2507	C	N3-C2-O2	-6.94	117.04	121.90
26	1H	120	U	N3-C2-O2	-6.94	117.34	122.20
26	1H	1023	U	O5'-P-OP1	-6.94	99.46	105.70
26	1H	335	C	C2-N3-C4	6.93	123.37	119.90
49	J8	95	LEU	CA-CB-CG	6.93	131.25	115.30
26	1H	141(A)	C	OP2-P-O3'	6.93	120.45	105.20
26	1H	975	G	O5'-P-OP1	-6.93	99.46	105.70
26	1H	121	G	N7-C8-N9	6.93	116.56	113.10
26	1H	1528	A	O4'-C1'-N9	6.92	113.74	108.20
26	1H	2609	U	C2-N1-C1'	-6.92	109.40	117.70
26	1H	1812	A	OP1-P-OP2	6.92	129.97	119.60
26	14	530	G	C5-C6-O6	-6.92	124.45	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2308	G	C6-N1-C2	6.91	129.25	125.10
26	1H	2578	G	N1-C6-O6	-6.91	115.75	119.90
26	14	1786	A	N9-C1'-C2'	6.91	122.98	114.00
1	1G	1321	C	N3-C4-N4	-6.91	113.16	118.00
1	13	1502	A	C6-C5-N7	-6.90	127.47	132.30
26	14	1610	A	C8-N9-C4	6.90	108.56	105.80
26	14	1700	A	O5'-P-OP2	6.90	118.98	110.70
26	14	917	A	O5'-P-OP1	-6.90	99.49	105.70
26	1H	2825	C	O5'-P-OP1	-6.90	99.49	105.70
26	14	2871	C	O5'-P-OP2	-6.90	99.49	105.70
26	1H	1300	U	N1-C2-N3	6.89	119.04	114.90
26	1H	1776	G	C5-C6-O6	-6.89	124.47	128.60
26	1H	129	C	N3-C4-N4	6.88	122.82	118.00
26	1H	669	G	OP1-P-OP2	-6.88	109.27	119.60
26	1H	1574	C	OP2-P-O3'	6.88	120.34	105.20
26	1H	124	G	C5-C6-O6	-6.88	124.47	128.60
1	13	1286	A	N7-C8-N9	6.88	117.24	113.80
26	1H	207	A	C2-N3-C4	-6.88	107.16	110.60
26	14	2053	G	C5-C6-O6	-6.88	124.47	128.60
32	49	120	LEU	CA-CB-CG	6.87	131.10	115.30
26	1H	2250	G	O5'-P-OP2	-6.87	99.52	105.70
26	1H	1303	G	N3-C2-N2	6.87	124.71	119.90
26	14	2491	U	OP1-P-O3'	6.86	120.30	105.20
26	1H	1698	A	C4-C5-N7	6.86	114.13	110.70
26	1H	1700	A	O5'-P-OP2	-6.86	99.53	105.70
26	1H	1758	G	C5-C6-O6	-6.86	124.48	128.60
27	1J	60	C	C5-C6-N1	6.86	124.43	121.00
26	1H	917	A	N1-C6-N6	6.85	122.71	118.60
1	13	1158	C	N3-C2-O2	-6.85	117.10	121.90
26	14	778	G	C5-C6-O6	6.85	132.71	128.60
26	1H	1379	A	C5-C6-N6	-6.85	118.22	123.70
1	1G	1260	C	C5-C6-N1	6.85	124.42	121.00
26	14	1300	U	O5'-P-OP1	6.85	118.92	110.70
26	14	2542	A	O5'-P-OP2	-6.85	99.54	105.70
26	1H	1759	A	O5'-P-OP1	-6.84	99.54	105.70
26	1H	2077	A	O5'-P-OP1	-6.84	99.54	105.70
26	14	141	A	C5-N7-C8	-6.84	100.48	103.90
26	1H	746	A	O4'-C1'-N9	6.84	113.67	108.20
24	3K	34	U	P-O3'-C3'	6.84	127.91	119.70
26	1H	845	G	P-O3'-C3'	6.84	127.91	119.70
26	1H	2507	C	C6-N1-C2	-6.84	117.56	120.30
1	1G	1128	C	N1-C2-O2	6.84	123.00	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	530	G	C5-N7-C8	-6.84	100.88	104.30
26	1H	1340	U	C5-C6-N1	-6.83	119.28	122.70
26	1H	451	C	N1-C2-O2	-6.83	114.80	118.90
26	14	1992	G	C8-N9-C4	-6.83	103.67	106.40
26	1H	917	A	N1-C2-N3	6.83	132.72	129.30
26	1H	1129	A	O5'-P-OP2	-6.83	99.55	105.70
26	14	2689	U	P-O3'-C3'	6.83	127.89	119.70
26	14	581	C	N3-C4-N4	-6.83	113.22	118.00
26	14	1332	G	C4-C5-C6	6.83	122.90	118.80
26	1H	265	A	N1-C6-N6	6.83	122.69	118.60
26	14	744	G	O5'-P-OP2	-6.83	99.56	105.70
55	M5	50	LEU	CA-CB-CG	-6.83	99.60	115.30
26	1H	694	U	O5'-P-OP1	6.82	118.89	110.70
26	14	1992	G	P-O3'-C3'	6.82	127.89	119.70
26	14	1614	A	N1-C6-N6	6.82	122.69	118.60
26	1H	1781	C	C2-N3-C4	-6.82	116.49	119.90
26	14	1313	U	C6-N1-C2	-6.82	116.91	121.00
26	1H	1955	U	C5-C6-N1	-6.81	119.29	122.70
26	1H	1796	U	C5-C6-N1	-6.81	119.29	122.70
26	1H	2042	A	O5'-P-OP2	-6.81	99.57	105.70
26	1H	2665	A	N1-C2-N3	6.81	132.71	129.30
26	1H	1966	A	C4-C5-C6	-6.81	113.60	117.00
1	13	313	A	O5'-P-OP2	-6.81	99.57	105.70
26	1H	2584	U	N1-C2-O2	6.81	127.56	122.80
27	16	6	C	N1-C2-O2	-6.81	114.81	118.90
1	1G	428	G	N3-C4-N9	-6.81	121.92	126.00
26	1H	36	G	O5'-P-OP2	-6.80	99.58	105.70
55	Q8	47	LYS	N-CA-C	-6.80	92.64	111.00
26	1H	998	C	OP1-P-O3'	6.80	120.15	105.20
26	1H	52	A	O5'-P-OP1	-6.79	99.58	105.70
26	1H	1831	G	OP2-P-O3'	6.79	120.15	105.20
26	1H	1559	G	N3-C4-C5	6.79	132.00	128.60
26	1H	1798	U	N3-C4-C5	6.79	118.67	114.60
26	14	382	G	O5'-P-OP1	-6.79	99.59	105.70
26	14	933	A	N1-C6-N6	6.79	122.67	118.60
1	13	328	C	N1-C2-O2	6.79	122.97	118.90
26	1H	2428	G	C2-N3-C4	6.79	115.30	111.90
1	1G	690	G	O4'-C1'-N9	6.79	113.63	108.20
26	14	2392	A	C5-C6-N1	-6.79	114.31	117.70
26	1H	2401	U	C5-C4-O4	-6.79	121.83	125.90
1	13	1369	C	O5'-P-OP2	-6.78	99.59	105.70
25	4L	24	A	C8-N9-C4	-6.78	103.09	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2575	C	C5-C4-N4	6.78	124.95	120.20
1	13	1519	A	C8-N9-C4	-6.78	103.09	105.80
26	1H	508	G	C4-C5-N7	6.78	113.51	110.80
26	14	1204	A	O4'-C1'-N9	6.78	113.62	108.20
26	14	2430	A	N3-C4-C5	6.78	131.54	126.80
26	14	1992	G	N1-C6-O6	-6.78	115.83	119.90
1	13	115	G	P-O3'-C3'	6.77	127.83	119.70
1	13	1498	U	P-O3'-C3'	6.77	127.82	119.70
26	1H	1355	G	N1-C6-O6	-6.77	115.84	119.90
26	1H	2417	C	O5'-P-OP2	-6.77	99.61	105.70
3	22	47	LEU	CA-CB-CG	6.77	130.87	115.30
26	1H	508	G	N7-C8-N9	6.77	116.48	113.10
26	14	2518	A	C5-C6-N6	-6.77	118.28	123.70
41	B8	13	ARG	N-CA-C	6.77	129.27	111.00
26	1H	639	U	C5-C4-O4	6.76	129.96	125.90
26	1H	915	C	N3-C2-O2	-6.76	117.16	121.90
26	1H	245	G	C6-C5-N7	-6.76	126.34	130.40
26	1H	1346	G	N1-C6-O6	-6.76	115.84	119.90
26	14	570	G	N3-C4-N9	6.76	130.06	126.00
26	1H	639	U	N3-C2-O2	-6.76	117.47	122.20
26	14	1899	G	C5-C6-N1	-6.76	108.12	111.50
34	69	68	LEU	CA-CB-CG	6.76	130.84	115.30
26	1H	632	A	O5'-P-OP2	6.76	118.81	110.70
26	14	1827	C	C6-N1-C2	-6.76	117.60	120.30
26	1H	2287	A	N3-C4-N9	-6.75	122.00	127.40
26	14	783	A	N3-C4-N9	-6.75	122.00	127.40
26	14	2518	A	N9-C4-C5	-6.75	103.10	105.80
26	1H	2354	G	C5-N7-C8	-6.75	100.92	104.30
26	1H	74	A	N3-C4-C5	6.75	131.52	126.80
26	1H	2330	G	C5-N7-C8	-6.75	100.93	104.30
26	14	2275	C	P-O3'-C3'	6.75	127.80	119.70
26	1H	1833	U	N3-C2-O2	-6.75	117.48	122.20
26	14	1992	G	N3-C4-C5	-6.75	125.23	128.60
26	1H	820	A	C6-N1-C2	6.74	122.65	118.60
26	14	71	A	C4-C5-N7	6.74	114.07	110.70
26	1H	2615	U	N1-C2-O2	6.74	127.52	122.80
26	1H	1021	A	N7-C8-N9	6.74	117.17	113.80
26	14	656	G	N1-C6-O6	6.74	123.94	119.90
26	14	74	A	N3-C4-N9	-6.73	122.02	127.40
26	14	2590	A	OP2-P-O3'	6.73	120.00	105.20
26	1H	2490	G	N3-C2-N2	6.73	124.61	119.90
1	1G	1498	U	P-O3'-C3'	6.73	127.77	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1301	U	P-O3'-C3'	6.72	127.77	119.70
26	1H	1129	A	N1-C6-N6	-6.72	114.57	118.60
26	1H	2490	G	N9-C4-C5	-6.72	102.71	105.40
26	1H	404	C	P-O3'-C3'	6.72	127.76	119.70
26	1H	1632	A	C5-N7-C8	-6.71	100.54	103.90
1	13	523	A	N1-C6-N6	6.71	122.63	118.60
20	BI	72	LEU	CA-CB-CG	6.71	130.74	115.30
30	21	129	HIS	C-N-CA	-6.71	108.21	122.30
26	14	2430	A	C5-N7-C8	-6.71	100.55	103.90
26	1H	683	C	N3-C4-C5	6.71	124.58	121.90
26	1H	1379	A	C4-C5-N7	6.71	114.05	110.70
26	1H	766	C	C5-C6-N1	-6.70	117.65	121.00
26	1H	1634	A	OP2-P-O3'	6.70	119.95	105.20
26	1H	1698	A	N1-C2-N3	6.70	132.65	129.30
26	1H	2502	G	N7-C8-N9	6.70	116.45	113.10
26	1H	2827	C	C2-N1-C1'	6.70	126.17	118.80
1	1G	528	C	O4'-C1'-N1	6.70	113.56	108.20
26	1H	132	G	C5-C6-O6	6.70	132.62	128.60
26	1H	2253	G	C8-N9-C4	6.70	109.08	106.40
1	1G	974	A	O4'-C1'-N9	6.69	113.55	108.20
26	14	828	U	C5-C6-N1	-6.69	119.35	122.70
26	1H	621	A	N3-C4-C5	6.69	131.48	126.80
26	1H	938	G	N1-C6-O6	-6.69	115.89	119.90
26	1H	77	C	C5-C4-N4	-6.69	115.52	120.20
26	1H	1620	G	C4-C5-N7	-6.69	108.12	110.80
26	1H	952	G	C8-N9-C4	-6.69	103.72	106.40
26	1H	2699	C	C6-N1-C2	6.68	122.97	120.30
26	1H	210	C	C2-N3-C4	-6.68	116.56	119.90
1	1G	690	G	C4-C5-N7	6.68	113.47	110.80
26	1H	750	A	OP1-P-O3'	6.68	119.89	105.20
26	1H	71	A	C6-C5-N7	-6.67	127.63	132.30
26	1H	1300	U	O5'-P-OP1	6.67	118.71	110.70
26	1H	1308	A	N1-C2-N3	6.67	132.64	129.30
26	1H	2047	U	N3-C4-C5	6.67	118.60	114.60
26	14	265	A	N7-C8-N9	6.67	117.14	113.80
1	1G	1487	G	O5'-P-OP1	6.67	118.70	110.70
1	13	792	A	N7-C8-N9	6.67	117.13	113.80
26	1H	2299	G	N1-C6-O6	6.67	123.90	119.90
26	14	737	C	N1-C2-O2	-6.66	114.90	118.90
26	14	1989	G	N1-C2-N2	6.66	122.19	116.20
26	14	2256	G	O5'-P-OP2	-6.66	99.71	105.70
26	14	1698	A	N9-C4-C5	-6.66	103.14	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1758	G	O5'-P-OP1	-6.66	99.71	105.70
26	14	2585	U	N1-C2-O2	6.65	127.46	122.80
1	13	422	C	P-O3'-C3'	6.65	127.68	119.70
1	13	1286	A	C8-N9-C4	-6.65	103.14	105.80
26	1H	530	G	C4-C5-N7	6.65	113.46	110.80
26	14	2280	G	OP1-P-O3'	6.65	119.83	105.20
26	1H	778	G	O5'-P-OP1	6.65	118.68	110.70
48	I8	10	THR	N-CA-C	-6.65	93.05	111.00
1	13	971	G	C4-C5-N7	-6.65	108.14	110.80
26	1H	2312	U	O5'-P-OP1	-6.64	99.72	105.70
23	2L	17	C	N3-C2-O2	-6.64	117.25	121.90
26	14	944	G	OP1-P-OP2	6.64	129.57	119.60
26	1H	1142(A)	A	N3-C4-C5	6.64	131.45	126.80
50	G5	10	LEU	CA-CB-CG	6.64	130.57	115.30
26	1H	1332	G	O4'-C1'-N9	-6.64	102.89	108.20
1	1G	1449	C	C2-N1-C1'	6.64	126.10	118.80
26	1H	620	G	O5'-P-OP2	-6.63	99.73	105.70
26	1H	733	G	N9-C4-C5	-6.63	102.75	105.40
26	14	2392	A	N7-C8-N9	6.63	117.11	113.80
26	1H	762	U	C6-N1-C1'	-6.63	111.92	121.20
1	13	578	C	O5'-P-OP1	-6.62	99.74	105.70
26	1H	576	U	C6-N1-C2	-6.62	117.03	121.00
26	1H	2277	G	C4-C5-N7	-6.62	108.15	110.80
26	1H	1210	A	N1-C6-N6	6.62	122.57	118.60
26	14	265	A	N1-C6-N6	6.62	122.57	118.60
26	14	2287	A	N3-C4-N9	-6.62	122.11	127.40
1	13	1464	G	C5-C6-O6	-6.62	124.63	128.60
26	1H	2454	G	N3-C2-N2	6.62	124.53	119.90
26	14	123	G	N1-C6-O6	6.61	123.87	119.90
46	G8	81	LYS	C-N-CD	-6.61	106.06	120.60
26	14	2440	C	O5'-P-OP1	-6.61	99.75	105.70
26	1H	491	G	O5'-P-OP1	-6.61	99.75	105.70
26	1H	754	C	C2-N3-C4	-6.61	116.60	119.90
26	1H	530	G	C5-N7-C8	-6.61	101.00	104.30
26	1H	1835	G	O5'-P-OP1	-6.61	99.75	105.70
26	1H	2073	C	N1-C2-O2	-6.61	114.94	118.90
1	1G	20	U	O5'-P-OP2	-6.61	99.75	105.70
26	14	2427	C	O5'-P-OP2	6.61	118.63	110.70
26	14	2286	A	N1-C6-N6	6.61	122.56	118.60
26	1H	825	C	C6-N1-C2	6.60	122.94	120.30
26	1H	1835	G	C8-N9-C4	-6.60	103.76	106.40
26	1H	1989	G	N3-C2-N2	-6.60	115.28	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2386	C	C6-N1-C2	6.60	122.94	120.30
26	14	195	A	N1-C6-N6	6.59	122.56	118.60
26	1H	1817	G	O5'-P-OP2	-6.59	99.77	105.70
26	1H	2380	C	C2-N3-C4	-6.59	116.61	119.90
1	13	792	A	N9-C1'-C2'	6.59	122.56	114.00
26	1H	862	G	N3-C4-C5	-6.58	125.31	128.60
26	1H	1786	A	C4-N9-C1'	6.58	138.15	126.30
26	14	2712	U	N3-C4-O4	-6.58	114.79	119.40
26	1H	1950	G	N3-C2-N2	6.58	124.51	119.90
1	1G	1286	A	C8-N9-C4	-6.58	103.17	105.80
26	1H	464	U	N3-C2-O2	-6.58	117.60	122.20
26	14	1644	C	C6-N1-C2	-6.58	117.67	120.30
26	14	2252	G	C8-N9-C4	6.57	109.03	106.40
26	1H	2712	U	C5-C6-N1	-6.57	119.42	122.70
26	14	775	G	N3-C2-N2	6.57	124.50	119.90
26	14	2598	A	N9-C4-C5	-6.57	103.17	105.80
26	1H	2503	A	O5'-P-OP1	6.57	118.58	110.70
26	14	2464	C	C6-N1-C2	6.57	122.93	120.30
26	1H	1798	U	N3-C4-O4	-6.56	114.81	119.40
1	13	827	U	N3-C2-O2	-6.56	117.61	122.20
26	1H	946	G	N3-C4-C5	6.56	131.88	128.60
26	1H	994	C	N1-C2-O2	-6.56	114.96	118.90
26	1H	1210	A	C8-N9-C4	-6.56	103.17	105.80
26	1H	617	G	O5'-P-OP1	6.56	118.57	110.70
26	1H	1621	U	N3-C2-O2	6.56	126.79	122.20
26	1H	1639	U	N3-C4-O4	-6.56	114.81	119.40
26	14	2335	A	O4'-C1'-N9	6.55	113.44	108.20
26	1H	458	G	O4'-C1'-N9	6.55	113.44	108.20
1	13	1366	C	O5'-P-OP1	-6.55	99.80	105.70
26	1H	917	A	O5'-P-OP1	-6.55	99.80	105.70
26	14	2501	C	C5-C6-N1	-6.55	117.72	121.00
26	1H	1564	C	N3-C4-N4	-6.55	113.42	118.00
26	1H	2452	C	N1-C2-O2	-6.55	114.97	118.90
26	1H	1404	C	OP1-P-OP2	6.54	129.42	119.60
26	1H	2689	U	N3-C2-O2	-6.54	117.62	122.20
14	5A	28	GLY	N-CA-C	6.54	129.46	113.10
26	1H	860	U	C5-C6-N1	-6.54	119.43	122.70
26	1H	1969	A	C8-N9-C4	6.54	108.42	105.80
26	14	71	A	N1-C6-N6	6.54	122.52	118.60
26	1H	2298	A	O5'-P-OP2	-6.54	99.81	105.70
26	1H	2311	A	N7-C8-N9	6.54	117.07	113.80
26	1H	915	C	N1-C2-O2	6.54	122.82	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1496	A	N1-C6-N6	6.54	122.52	118.60
26	1H	1604	C	O5'-P-OP1	-6.54	99.81	105.70
24	3L	76	A	C4-C5-N7	6.54	113.97	110.70
26	1H	1192	G	O5'-P-OP2	-6.54	99.82	105.70
1	13	697	U	C5-C4-O4	-6.53	121.98	125.90
1	13	913	A	P-O3'-C3'	6.53	127.54	119.70
26	1H	2544	G	C5-C6-O6	-6.53	124.68	128.60
26	14	1313	U	N1-C2-N3	6.53	118.82	114.90
26	14	1332	G	C8-N9-C4	-6.53	103.79	106.40
1	13	1502	A	N1-C6-N6	6.53	122.52	118.60
26	14	774	A	C5-N7-C8	-6.53	100.64	103.90
26	14	1950	G	O4'-C1'-N9	6.53	113.42	108.20
26	1H	679	C	C6-N1-C2	6.53	122.91	120.30
26	1H	1931	U	N3-C4-O4	-6.53	114.83	119.40
26	14	704	G	N3-C2-N2	-6.53	115.33	119.90
26	14	1763	G	O5'-P-OP2	-6.53	99.82	105.70
26	1H	999	U	OP1-P-OP2	-6.53	109.81	119.60
26	1H	1891	G	N1-C6-O6	6.53	123.82	119.90
26	1H	2040	C	O5'-P-OP1	-6.53	99.83	105.70
26	1H	381	G	OP1-P-O3'	6.52	119.55	105.20
26	14	954	G	N9-C4-C5	6.52	108.01	105.40
23	2L	41	C	O5'-P-OP1	-6.52	99.83	105.70
26	14	621	A	C5-N7-C8	-6.52	100.64	103.90
26	1H	951	C	C5-C4-N4	6.52	124.76	120.20
26	14	2594	C	O5'-P-OP2	-6.52	99.83	105.70
26	1H	74	A	C5-N7-C8	-6.52	100.64	103.90
26	1H	237	C	C6-N1-C2	6.51	122.91	120.30
26	1H	2557	G	N9-C4-C5	6.51	108.00	105.40
26	1H	576	U	C4-C5-C6	6.51	123.61	119.70
33	51	171	LEU	C-N-CA	6.51	137.98	121.70
42	C8	92	ARG	NE-CZ-NH2	-6.51	117.04	120.30
26	14	2873	A	C8-N9-C4	-6.51	103.20	105.80
26	1H	822	U	C6-N1-C2	-6.51	117.09	121.00
26	14	1950	G	C8-N9-C4	-6.51	103.80	106.40
26	1H	865	C	C6-N1-C2	6.50	122.90	120.30
26	14	1757	U	C5-C6-N1	-6.50	119.45	122.70
26	14	675	A	C8-N9-C4	6.50	108.40	105.80
26	1H	702	G	O5'-P-OP2	-6.50	99.85	105.70
26	1H	1616	A	C5-C6-N6	-6.50	118.50	123.70
23	2L	17	C	C2-N1-C1'	6.50	125.95	118.80
26	14	1771	C	N1-C2-O2	-6.50	115.00	118.90
26	14	2058	A	O5'-P-OP2	-6.50	99.85	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1314	C	C6-N1-C2	-6.50	117.70	120.30
26	1H	1784	A	O5'-P-OP1	6.50	118.49	110.70
26	1H	676	A	C5-C6-N1	-6.49	114.45	117.70
26	1H	2567	G	O5'-P-OP1	-6.49	99.86	105.70
26	1H	1900	A	O5'-P-OP2	-6.49	99.86	105.70
26	1H	760	G	N1-C6-O6	6.49	123.79	119.90
26	1H	1695	G	O5'-P-OP1	-6.49	99.86	105.70
26	14	2424	C	C6-N1-C2	6.49	122.90	120.30
34	69	131	LYS	C-N-CD	-6.49	106.33	120.60
26	1H	2023	G	C6-C5-N7	-6.49	126.51	130.40
26	1H	677	A	C4-C5-C6	6.48	120.24	117.00
26	14	1585	C	N3-C2-O2	-6.48	117.36	121.90
26	1H	2600	A	O5'-P-OP2	-6.48	99.87	105.70
26	14	265	A	C5-N7-C8	-6.48	100.66	103.90
1	13	974	A	C6-C5-N7	-6.47	127.77	132.30
26	1H	1241	A	N1-C2-N3	6.47	132.54	129.30
26	1H	2287	A	N1-C2-N3	6.47	132.54	129.30
26	1H	1272	A	O5'-P-OP2	-6.47	99.88	105.70
26	14	2838	G	O5'-P-OP1	-6.47	99.88	105.70
26	1H	383	U	C5-C6-N1	-6.46	119.47	122.70
26	1H	917	A	C5-C6-N1	-6.46	114.47	117.70
54	P8	33	ARG	NE-CZ-NH1	-6.46	117.07	120.30
26	1H	1973	G	N1-C6-O6	-6.46	116.03	119.90
26	1H	74	A	N3-C4-N9	-6.46	122.23	127.40
26	14	675	A	N9-C4-C5	-6.46	103.22	105.80
26	14	1544	C	N1-C2-O2	6.46	122.77	118.90
1	13	827	U	C2-N1-C1'	6.45	125.44	117.70
26	1H	1558	A	P-O3'-C3'	6.45	127.44	119.70
26	14	49	A	O5'-P-OP2	-6.45	99.89	105.70
26	14	954	G	C4-C5-N7	-6.45	108.22	110.80
26	14	2779	U	N3-C2-O2	-6.45	117.68	122.20
24	3K	72	C	C5-C6-N1	6.45	124.22	121.00
26	1H	122	G	C6-N1-C2	-6.45	121.23	125.10
26	1H	1804	C	OP1-P-OP2	-6.45	109.93	119.60
26	1H	1962	C	C6-N1-C2	-6.45	117.72	120.30
26	14	843	G	O5'-P-OP2	-6.45	99.90	105.70
26	1H	2035	G	N3-C4-N9	-6.44	122.13	126.00
20	BI	10	LEU	CA-CB-CG	6.44	130.12	115.30
26	1H	1806	C	O5'-P-OP2	-6.44	99.91	105.70
26	1H	2401	U	C5-C6-N1	6.44	125.92	122.70
26	14	1349	A	N1-C6-N6	6.44	122.46	118.60
26	14	2253	G	C5-C6-O6	-6.44	124.74	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	928	G	N1-C6-O6	6.43	123.76	119.90
26	1H	2598	A	N1-C6-N6	6.43	122.46	118.60
22	1K	76	A	C5-N7-C8	-6.43	100.68	103.90
26	1H	906	G	N1-C6-O6	-6.43	116.04	119.90
26	1H	1678	G	N1-C6-O6	6.43	123.76	119.90
1	1G	1157	A	P-O3'-C3'	6.43	127.42	119.70
26	14	2585	U	OP1-P-O3'	6.43	119.35	105.20
26	1H	2451	A	N1-C6-N6	-6.43	114.74	118.60
26	14	1299	G	O5'-P-OP2	6.43	118.42	110.70
26	14	510	C	O5'-P-OP2	-6.43	99.92	105.70
26	1H	508	G	N3-C4-N9	6.43	129.86	126.00
26	14	2346	A	C5-N7-C8	-6.43	100.69	103.90
26	1H	144	C	C5-C6-N1	-6.42	117.79	121.00
26	1H	1950	G	C6-N1-C2	6.42	128.96	125.10
24	3L	76	A	C2-N3-C4	-6.42	107.39	110.60
26	1H	1973	G	N3-C2-N2	6.42	124.39	119.90
26	1H	1912	A	O4'-C1'-N9	6.42	113.33	108.20
26	1H	2311	A	C5-N7-C8	-6.42	100.69	103.90
26	14	1830	C	C5-C4-N4	-6.42	115.71	120.20
26	14	2324	C	C6-N1-C2	6.42	122.87	120.30
26	14	467	G	O5'-P-OP2	-6.41	99.93	105.70
26	14	2598	A	N1-C6-N6	6.41	122.45	118.60
26	1H	860	U	N3-C2-O2	-6.41	117.71	122.20
26	1H	1966	A	N1-C2-N3	-6.41	126.09	129.30
26	14	1927	A	O5'-P-OP2	-6.41	99.93	105.70
26	14	2585	U	C2-N1-C1'	6.41	125.39	117.70
26	14	2688	U	N1-C2-N3	6.41	118.75	114.90
43	D8	35	LEU	CA-CB-CG	6.41	130.04	115.30
26	1H	1998	G	N7-C8-N9	-6.41	109.90	113.10
26	1H	955	C	O5'-P-OP2	-6.41	99.94	105.70
26	1H	1778	U	O5'-P-OP1	-6.41	99.94	105.70
26	14	2713	A	N1-C6-N6	6.41	122.44	118.60
26	1H	783	A	N1-C2-N3	6.40	132.50	129.30
26	1H	1559	G	C5-N7-C8	-6.40	101.10	104.30
31	31	176	LEU	CA-CB-CG	6.40	130.02	115.30
26	14	2448	A	N1-C6-N6	6.40	122.44	118.60
26	14	2682	U	O5'-P-OP2	-6.40	99.94	105.70
27	16	5	C	C2-N3-C4	-6.40	116.70	119.90
26	1H	1332	G	N3-C4-C5	6.40	131.80	128.60
26	14	2392	A	C2-N3-C4	-6.39	107.40	110.60
26	14	2598	A	OP2-P-O3'	6.39	119.27	105.20
26	14	933	A	C4-C5-N7	6.39	113.90	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	836	G	N1-C6-O6	-6.39	116.07	119.90
26	1H	2591	C	C5-C4-N4	-6.39	115.73	120.20
26	14	1825	A	O5'-P-OP2	-6.39	99.95	105.70
26	1H	1282	U	N1-C2-O2	-6.38	118.33	122.80
26	14	1827	C	N3-C2-O2	-6.38	117.43	121.90
1	13	902	G	N9-C4-C5	6.38	107.95	105.40
22	1K	49	G	C4-N9-C1'	-6.38	118.21	126.50
26	14	1616	A	O4'-C1'-N9	6.38	113.30	108.20
26	1H	207	A	N1-C6-N6	6.38	122.43	118.60
26	1H	2358	G	C6-N1-C2	-6.38	121.27	125.10
26	14	1254	A	C8-N9-C4	-6.38	103.25	105.80
1	13	872	A	O4'-C1'-N9	6.38	113.30	108.20
26	1H	2627	G	N1-C6-O6	6.38	123.73	119.90
26	1H	2706	G	N1-C6-O6	-6.38	116.08	119.90
26	14	1295	C	OP2-P-O3'	6.38	119.23	105.20
26	1H	1593	G	C8-N9-C4	-6.38	103.85	106.40
27	16	60	C	C5-C6-N1	6.38	124.19	121.00
26	1H	2056	G	N1-C6-O6	-6.37	116.08	119.90
26	1H	2392	A	C6-C5-N7	-6.37	127.84	132.30
24	3K	76	A	C6-C5-N7	-6.37	127.84	132.30
26	14	1589	C	O5'-P-OP2	6.37	118.34	110.70
26	1H	2445	G	N1-C6-O6	-6.37	116.08	119.90
26	1H	1973	G	N1-C2-N2	-6.37	110.47	116.20
1	13	932	C	O5'-P-OP1	6.37	118.34	110.70
26	1H	2068	U	C5-C4-O4	6.37	129.72	125.90
1	1G	1358	U	N3-C4-O4	6.37	123.86	119.40
26	1H	1616	A	C8-N9-C4	-6.36	103.25	105.80
26	1H	1888	G	C8-N9-C1'	-6.36	118.73	127.00
26	14	974(A)	C	N1-C2-O2	6.36	122.72	118.90
26	1H	1572	A	C2-N3-C4	-6.36	107.42	110.60
26	1H	917	A	C4-C5-N7	6.36	113.88	110.70
26	1H	1210	A	O5'-P-OP1	6.36	118.33	110.70
26	1H	1147	C	O5'-P-OP2	-6.36	99.98	105.70
26	14	1496	A	C4-C5-N7	6.35	113.88	110.70
26	14	528	A	N3-C4-C5	6.35	131.25	126.80
26	1H	917	A	C8-N9-C4	-6.35	103.26	105.80
26	14	1313	U	C2-N1-C1'	6.35	125.32	117.70
26	14	982	C	C5-C6-N1	6.35	124.17	121.00
26	14	1325	G	C5-C6-O6	-6.35	124.79	128.60
26	1H	1605	C	O5'-P-OP1	-6.34	99.99	105.70
26	1H	470	A	C5-N7-C8	-6.34	100.73	103.90
26	1H	2346	A	C4-C5-C6	6.34	120.17	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1989	G	O5'-P-OP2	-6.34	99.99	105.70
26	14	2029	G	N3-C2-N2	-6.34	115.46	119.90
1	13	690	G	C2-N3-C4	-6.34	108.73	111.90
26	1H	12	U	N3-C2-O2	-6.34	117.76	122.20
26	14	445	C	O5'-P-OP1	-6.34	100.00	105.70
26	14	1610	A	N9-C4-C5	-6.34	103.27	105.80
26	1H	446	G	C5-C6-O6	-6.33	124.80	128.60
26	14	2243	U	C5-C4-O4	-6.33	122.10	125.90
27	1J	30	C	C6-N1-C2	-6.33	117.77	120.30
1	13	585	G	C8-N9-C4	6.33	108.93	106.40
26	1H	1021	A	C5-C6-N1	-6.33	114.54	117.70
37	78	116	GLY	N-CA-C	6.33	128.92	113.10
26	1H	49	A	N1-C6-N6	6.33	122.40	118.60
26	1H	1823	G	N1-C6-O6	-6.33	116.10	119.90
26	1H	786	C	O5'-P-OP2	6.33	118.29	110.70
26	1H	1284	A	O5'-P-OP2	-6.33	100.01	105.70
26	14	1543	A	O5'-P-OP1	6.33	118.29	110.70
26	1H	674	G	N9-C4-C5	-6.32	102.87	105.40
26	1H	1203	G	N1-C6-O6	-6.32	116.11	119.90
1	13	910	C	C6-N1-C2	6.32	122.83	120.30
24	3K	76	A	O4'-C1'-N9	6.32	113.25	108.20
26	1H	673	C	C5-C4-N4	-6.32	115.78	120.20
26	1H	859	G	N3-C4-C5	6.32	131.76	128.60
26	14	1314	C	C2-N1-C1'	6.31	125.75	118.80
26	14	2297	C	O5'-P-OP1	-6.31	100.02	105.70
1	1G	1301	U	C2-N1-C1'	6.31	125.27	117.70
26	14	2032	G	N7-C8-N9	-6.31	109.95	113.10
26	1H	1342	A	N1-C6-N6	6.30	122.38	118.60
26	1H	1790	C	N3-C4-C5	6.30	124.42	121.90
26	14	1702	G	N9-C4-C5	-6.30	102.88	105.40
26	1H	1698	A	O4'-C1'-N9	6.30	113.24	108.20
26	1H	1970	A	O4'-C1'-N9	-6.30	103.16	108.20
26	14	74	A	N1-C6-N6	6.30	122.38	118.60
26	1H	1776	G	OP1-P-O3'	6.30	119.05	105.20
43	D8	38	LEU	CA-CB-CG	6.30	129.78	115.30
1	1G	913	A	P-O3'-C3'	6.30	127.25	119.70
26	14	574	C	N3-C4-N4	-6.30	113.59	118.00
26	1H	117	G	O5'-P-OP1	6.29	118.25	110.70
4	3E	174	LEU	CA-CB-CG	6.29	129.77	115.30
26	1H	825	C	N3-C4-N4	6.29	122.41	118.00
26	1H	1786	A	C5-C6-N1	-6.29	114.55	117.70
26	14	1391	U	O5'-P-OP2	6.29	118.25	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2498	C	O5'-P-OP1	6.29	118.25	110.70
1	13	1426	C	N3-C4-C5	-6.29	119.38	121.90
26	1H	806	C	N3-C4-C5	6.29	124.42	121.90
26	14	2392	A	C8-N9-C4	-6.29	103.29	105.80
26	1H	1632	A	C5-C6-N6	-6.28	118.67	123.70
26	1H	2275	C	OP1-P-O3'	6.28	119.03	105.20
26	14	1417	C	C5-C6-N1	6.28	124.14	121.00
26	1H	1899	G	N7-C8-N9	6.28	116.24	113.10
26	1H	145	G	C8-N9-C4	6.28	108.91	106.40
26	1H	1303	G	N1-C2-N2	-6.28	110.55	116.20
26	14	2286	A	N7-C8-N9	6.28	116.94	113.80
26	1H	733	G	N3-C4-N9	6.28	129.76	126.00
26	14	184	C	C6-N1-C2	6.28	122.81	120.30
26	14	2490	G	C4-C5-N7	6.28	113.31	110.80
22	1K	48	C	C6-N1-C2	-6.27	117.79	120.30
25	4K	12	A	C2-N3-C4	6.27	113.74	110.60
26	14	1359	A	C8-N9-C4	6.27	108.31	105.80
26	1H	198	C	N3-C4-C5	6.27	124.41	121.90
26	14	728	G	N3-C4-N9	6.27	129.76	126.00
26	1H	380	U	N3-C4-O4	-6.27	115.01	119.40
26	1H	799	G	C8-N9-C4	6.27	108.91	106.40
26	1H	2395	C	C5-C4-N4	-6.27	115.81	120.20
26	14	1925	C	N1-C2-O2	-6.26	115.14	118.90
26	1H	429	A	O5'-P-OP1	-6.26	100.06	105.70
26	1H	1929	G	O5'-P-OP2	-6.26	100.06	105.70
26	14	907	U	OP2-P-O3'	6.26	118.98	105.20
26	1H	1698	A	N1-C6-N6	6.26	122.36	118.60
26	14	444	C	N1-C2-O2	-6.26	115.14	118.90
26	14	1496	A	N1-C6-N6	6.26	122.36	118.60
26	1H	952	G	N7-C8-N9	6.26	116.23	113.10
26	1H	1374	G	O5'-P-OP2	6.26	118.21	110.70
1	13	817	C	C5-C4-N4	-6.25	115.82	120.20
26	14	1899	G	N7-C8-N9	6.25	116.23	113.10
1	13	125	U	N3-C4-C5	-6.25	110.85	114.60
26	14	1939	U	N3-C4-O4	-6.25	115.02	119.40
26	14	2307	G	N7-C8-N9	6.25	116.23	113.10
26	1H	1781	C	N1-C2-O2	-6.25	115.15	118.90
1	1G	1370	G	N1-C6-O6	6.25	123.65	119.90
26	1H	906	G	C6-C5-N7	6.25	134.15	130.40
27	16	115	G	C5-N7-C8	-6.25	101.17	104.30
1	1G	337	C	C6-N1-C2	-6.25	117.80	120.30
1	1G	1322	C	C2-N1-C1'	6.25	125.67	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2509	G	N1-C6-O6	-6.25	116.15	119.90
1	13	328	C	N3-C2-O2	-6.25	117.53	121.90
54	P8	23	ARG	NE-CZ-NH2	-6.24	117.18	120.30
18	9A	31	LEU	CA-CB-CG	6.24	129.65	115.30
26	14	707	G	N3-C2-N2	-6.24	115.53	119.90
23	2L	21	U	C6-N1-C2	-6.24	117.26	121.00
26	1H	508	G	C8-N9-C1'	-6.24	118.89	127.00
26	14	1928	A	OP1-P-OP2	6.24	128.96	119.60
26	1H	405	U	N3-C2-O2	-6.23	117.84	122.20
23	2K	9	G	C2-N3-C4	6.23	115.02	111.90
26	1H	270(G)	C	N3-C4-C5	-6.23	119.41	121.90
26	1H	951	C	N1-C2-O2	6.23	122.64	118.90
1	1G	108	G	C4-C5-N7	6.23	113.29	110.80
26	14	1678	G	C6-C5-N7	-6.23	126.66	130.40
26	14	2301	C	C6-N1-C2	-6.23	117.81	120.30
26	1H	1260	G	C5-C6-O6	6.23	132.34	128.60
38	88	79	LEU	CA-CB-CG	6.23	129.63	115.30
26	14	2490	G	C8-N9-C4	-6.23	103.91	106.40
1	13	1464	G	N1-C6-O6	6.23	123.64	119.90
26	1H	1616	A	C6-C5-N7	-6.23	127.94	132.30
26	1H	1942	C	C5-C6-N1	6.23	124.11	121.00
26	1H	1899	G	O4'-C1'-N9	6.22	113.18	108.20
26	1H	2518	A	C4-C5-N7	6.22	113.81	110.70
26	14	1633	G	C8-N9-C4	-6.22	103.91	106.40
26	14	1616	A	C6-C5-N7	-6.22	127.94	132.30
26	1H	138	G	C5-C6-N1	6.22	114.61	111.50
26	1H	2331	G	N1-C6-O6	6.22	123.63	119.90
26	14	1695	G	N3-C4-N9	6.22	129.73	126.00
26	1H	121	G	N3-C4-C5	-6.22	125.49	128.60
26	1H	1312	U	O5'-P-OP2	6.22	118.16	110.70
26	14	704	G	N1-C6-O6	6.21	123.63	119.90
26	1H	2287	A	C6-N1-C2	6.21	122.33	118.60
26	1H	2346	A	C4-N9-C1'	6.21	137.48	126.30
26	1H	2712	U	O4'-C1'-N1	6.21	113.17	108.20
26	1H	2751	G	N3-C4-C5	6.21	131.71	128.60
26	14	1678	G	C4-C5-N7	6.21	113.28	110.80
24	3L	76	A	N7-C8-N9	6.21	116.90	113.80
1	13	770	C	O5'-P-OP2	6.21	118.15	110.70
26	1H	621	A	O4'-C1'-N9	6.21	113.16	108.20
26	14	140	A	C4-C5-N7	6.21	113.80	110.70
32	49	2	PRO	N-CA-CB	6.21	110.75	103.30
26	1H	1970	A	OP2-P-O3'	6.20	118.84	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1981	A	C5-C6-N6	-6.20	118.74	123.70
26	14	2426	A	N1-C6-N6	6.20	122.32	118.60
26	1H	576	U	N1-C2-O2	6.20	127.14	122.80
26	1H	2579	C	C5-C6-N1	-6.20	117.90	121.00
26	14	312	G	O5'-P-OP1	-6.20	100.12	105.70
22	1K	49	G	O4'-C1'-N9	6.20	113.16	108.20
26	1H	2598	A	OP2-P-O3'	6.20	118.84	105.20
27	16	13	A	OP1-P-OP2	6.20	128.90	119.60
1	1G	1446	A	O4'-C1'-N9	6.20	113.16	108.20
26	1H	2490	G	O4'-C1'-N9	6.20	113.16	108.20
26	1H	2251	G	C4-C5-N7	-6.20	108.32	110.80
26	1H	2430	A	C5-N7-C8	-6.20	100.80	103.90
26	14	1304	C	N3-C2-O2	-6.19	117.57	121.90
26	14	1329	U	N1-C2-N3	6.19	118.61	114.90
26	1H	630	G	C4-N9-C1'	-6.19	118.45	126.50
26	1H	1799	G	N3-C2-N2	6.19	124.23	119.90
26	14	1210	A	C5-N7-C8	-6.19	100.81	103.90
27	1J	44	G	N7-C8-N9	-6.19	110.01	113.10
26	1H	1660	C	O5'-P-OP2	-6.19	100.13	105.70
26	1H	1416	G	O4'-C1'-N9	6.18	113.15	108.20
47	D5	4	ARG	NE-CZ-NH1	6.18	123.39	120.30
26	1H	752	A	N1-C6-N6	6.18	122.31	118.60
26	1H	2256	G	C5-C6-O6	6.18	132.31	128.60
1	13	834	C	O5'-P-OP2	-6.18	100.14	105.70
26	1H	1489	U	N3-C2-O2	-6.18	117.87	122.20
26	1H	1602	U	N1-C2-N3	6.18	118.61	114.90
26	14	459	U	N3-C2-O2	-6.18	117.87	122.20
26	1H	836	G	C8-N9-C4	-6.18	103.93	106.40
1	13	990	C	C6-N1-C2	-6.18	117.83	120.30
26	14	2873	A	C4-N9-C1'	6.18	137.42	126.30
26	14	395	U	O4'-C1'-N1	6.17	113.14	108.20
26	14	775	G	N9-C4-C5	-6.17	102.93	105.40
26	14	1830	C	N3-C4-C5	6.17	124.37	121.90
26	1H	1905	C	N1-C2-O2	6.17	122.60	118.90
27	16	41	U	C5-C6-N1	-6.17	119.61	122.70
26	1H	822	U	C5-C6-N1	6.17	125.79	122.70
26	14	80	G	O5'-P-OP1	-6.17	100.15	105.70
26	1H	1636	C	OP1-P-O3'	6.17	118.76	105.20
19	AA	16	LEU	CA-CB-CG	6.17	129.48	115.30
26	1H	930	U	N3-C2-O2	-6.17	117.89	122.20
26	1H	966	G	N3-C2-N2	6.17	124.22	119.90
26	1H	1332	G	C5-C6-N1	-6.16	108.42	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2502	G	C5-C6-N1	6.16	114.58	111.50
26	14	801	G	N1-C6-O6	-6.16	116.20	119.90
1	1G	1227	A	C8-N9-C4	-6.16	103.34	105.80
27	1J	81	G	C4-C5-N7	6.16	113.26	110.80
26	1H	1142(A)	A	C5-C6-N1	-6.16	114.62	117.70
27	1J	47	C	C6-N1-C2	6.15	122.76	120.30
26	1H	2035	G	C4-N9-C1'	-6.15	118.50	126.50
26	1H	2226	C	C6-N1-C2	6.15	122.76	120.30
26	1H	917	A	N7-C8-N9	6.15	116.88	113.80
26	1H	2064	C	N3-C4-N4	-6.15	113.69	118.00
26	1H	2232	U	C5-C4-O4	6.15	129.59	125.90
26	1H	2688	U	C4-C5-C6	6.15	123.39	119.70
26	1H	2586	C	OP1-P-O3'	6.15	118.73	105.20
1	1G	1358	U	N3-C2-O2	-6.15	117.90	122.20
26	14	727	A	O5'-P-OP1	-6.15	100.17	105.70
22	1K	49	G	C8-N9-C1'	6.15	134.99	127.00
26	1H	783	A	O5'-P-OP2	-6.14	100.17	105.70
26	1H	2595	G	N3-C4-C5	6.14	131.67	128.60
1	13	1502	A	N7-C8-N9	6.14	116.87	113.80
1	1G	428	G	C8-N9-C1'	6.14	134.98	127.00
1	13	1240	U	O4'-C1'-N1	6.14	113.11	108.20
1	13	1498	U	N1-C2-N3	6.14	118.58	114.90
26	1H	1824	G	O5'-P-OP2	-6.14	100.18	105.70
26	1H	2442	C	C2-N3-C4	-6.14	116.83	119.90
26	1H	2707	G	N3-C2-N2	-6.14	115.60	119.90
1	1G	300	A	C2-N3-C4	-6.13	107.53	110.60
24	3L	76	A	O4'-C1'-N9	6.13	113.11	108.20
26	14	1776	G	N3-C4-N9	6.13	129.68	126.00
26	1H	258	G	C5-C6-O6	6.13	132.28	128.60
26	1H	793	A	C5-C6-N6	-6.13	118.79	123.70
26	1H	686	G	N9-C4-C5	-6.13	102.95	105.40
26	1H	1617	C	O5'-P-OP1	-6.13	100.18	105.70
1	13	858	G	N3-C4-C5	-6.13	125.54	128.60
26	14	2346	A	N1-C6-N6	6.13	122.28	118.60
1	13	561	U	O5'-P-OP2	6.12	118.05	110.70
26	14	476	G	O5'-P-OP2	-6.12	100.19	105.70
26	14	1902	C	N3-C4-C5	6.12	124.35	121.90
26	1H	77	C	N3-C4-N4	6.12	122.28	118.00
26	14	2681	C	C5-C6-N1	-6.12	117.94	121.00
26	1H	845	G	OP1-P-O3'	6.12	118.66	105.20
26	1H	1621	U	N1-C2-O2	-6.12	118.52	122.80
26	14	1678	G	N3-C4-N9	-6.12	122.33	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	528	A	C5-N7-C8	-6.12	100.84	103.90
26	14	2681	C	N3-C4-N4	-6.12	113.72	118.00
26	14	2446	G	N1-C6-O6	-6.12	116.23	119.90
26	14	250	G	N3-C4-C5	-6.12	125.54	128.60
26	14	783	A	N1-C2-N3	6.11	132.36	129.30
22	1K	50	G	O5'-P-OP1	-6.11	100.20	105.70
26	1H	2035	G	C8-N9-C1'	6.11	134.95	127.00
26	1H	204	A	C2-N3-C4	6.11	113.66	110.60
26	1H	1225	C	C6-N1-C2	6.11	122.74	120.30
1	1G	1299	A	C4-N9-C1'	6.11	137.30	126.30
26	14	1266	G	C8-N9-C4	6.11	108.84	106.40
26	14	1639	U	O5'-P-OP1	6.11	118.03	110.70
26	1H	1984	G	C5-N7-C8	6.11	107.35	104.30
26	14	1011	G	C8-N9-C1'	6.11	134.94	127.00
26	1H	1241	A	C5-N7-C8	-6.11	100.85	103.90
26	1H	830	G	C8-N9-C4	-6.10	103.96	106.40
26	1H	1210	A	OP2-P-O3'	6.10	118.63	105.20
26	1H	1520	U	C5-C4-O4	6.10	129.56	125.90
1	1G	1416	G	O5'-P-OP2	-6.10	100.21	105.70
26	1H	146	G	C8-N9-C4	6.10	108.84	106.40
26	1H	1210	A	C6-C5-N7	-6.10	128.03	132.30
26	1H	1837	C	O5'-P-OP1	-6.10	100.21	105.70
26	1H	265	A	O4'-C1'-N9	6.10	113.08	108.20
26	1H	1315	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	16	G	O5'-P-OP2	-6.10	100.21	105.70
26	1H	324	A	O5'-P-OP2	6.10	118.02	110.70
26	1H	2699	C	N3-C4-C5	6.10	124.34	121.90
26	14	778	G	N1-C6-O6	-6.10	116.24	119.90
26	1H	671	C	N3-C4-N4	-6.10	113.73	118.00
1	13	1331	G	P-O3'-C3'	6.09	127.01	119.70
26	14	265	A	C6-C5-N7	-6.09	128.04	132.30
23	2L	21	U	C2-N1-C1'	6.09	125.01	117.70
26	14	2430	A	N3-C4-N9	-6.09	122.53	127.40
26	14	2388	A	C8-N9-C4	-6.08	103.37	105.80
1	13	723	U	C5-C6-N1	6.08	125.74	122.70
26	14	2426	A	N9-C4-C5	-6.08	103.37	105.80
26	14	2503	A	N1-C6-N6	6.08	122.25	118.60
1	13	690	G	C6-C5-N7	-6.08	126.75	130.40
26	14	209	C	C2-N3-C4	-6.08	116.86	119.90
26	14	1614	A	O4'-C1'-N9	6.08	113.06	108.20
26	1H	139	G	C5-C6-O6	-6.08	124.95	128.60
26	1H	686	G	N1-C2-N2	-6.08	110.73	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1973	G	C5-C6-O6	6.08	132.25	128.60
26	14	2870	C	C6-N1-C2	-6.08	117.87	120.30
5	42	43	LEU	CA-CB-CG	6.08	129.28	115.30
26	1H	464	U	N1-C2-O2	6.08	127.05	122.80
26	1H	2300	G	N3-C2-N2	-6.08	115.65	119.90
26	1H	210	C	C6-N1-C2	6.07	122.73	120.30
26	1H	908	C	O5'-P-OP2	-6.07	100.23	105.70
37	78	23	PRO	C-N-CA	-6.07	109.55	122.30
26	14	2073	C	O5'-P-OP2	6.07	117.99	110.70
26	14	2571	C	O5'-P-OP1	-6.07	100.24	105.70
26	1H	789	A	O4'-C1'-N9	-6.07	103.34	108.20
26	1H	2712	U	N3-C2-O2	-6.07	117.95	122.20
1	1G	1335	C	C6-N1-C2	6.07	122.73	120.30
26	14	1325	G	N1-C6-O6	6.07	123.54	119.90
26	1H	2058	A	O5'-P-OP2	-6.06	100.25	105.70
25	4L	23	A	OP1-P-O3'	6.06	118.53	105.20
26	1H	330	A	C5-N7-C8	-6.06	100.87	103.90
26	1H	1282	U	C5-C6-N1	-6.06	119.67	122.70
26	1H	1771	C	C2-N3-C4	-6.06	116.87	119.90
26	1H	2059	A	O4'-C1'-N9	6.06	113.05	108.20
26	1H	2316	C	C6-N1-C2	-6.06	117.88	120.30
26	14	784	A	OP1-P-O3'	6.06	118.52	105.20
26	1H	1502	C	O5'-P-OP1	-6.05	100.25	105.70
26	1H	2275	C	N1-C2-O2	6.05	122.53	118.90
26	14	2729	G	C6-C5-N7	-6.05	126.77	130.40
26	14	746	A	O5'-P-OP1	-6.05	100.25	105.70
27	1J	44	G	C8-N9-C1'	6.05	134.87	127.00
26	1H	1272	A	O4'-C1'-N9	6.04	113.03	108.20
26	1H	2258	C	OP1-P-O3'	6.04	118.50	105.20
1	1G	254	G	O5'-P-OP1	-6.04	100.26	105.70
1	1G	810	C	N1-C2-O2	6.04	122.53	118.90
26	14	1964	G	O5'-P-OP2	-6.04	100.26	105.70
26	1H	721	C	O5'-P-OP1	-6.04	100.27	105.70
26	1H	1022	G	N3-C2-N2	-6.04	115.67	119.90
26	1H	2424	C	OP1-P-OP2	6.04	128.66	119.60
1	1G	687	A	P-O3'-C3'	6.04	126.94	119.70
26	14	34	C	C6-N1-C1'	-6.04	113.56	120.80
26	14	1204	A	N3-C4-C5	6.04	131.03	126.80
26	14	2307	G	C8-N9-C4	-6.04	103.99	106.40
26	14	2380	C	N3-C4-N4	6.04	122.22	118.00
26	1H	2354	G	N7-C8-N9	6.03	116.12	113.10
26	14	828	U	N1-C2-N3	6.03	118.52	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	704	G	C4-C5-N7	-6.03	108.39	110.80
26	1H	2091	U	C5-C4-O4	6.03	129.52	125.90
26	14	845	G	N9-C4-C5	-6.03	102.99	105.40
26	1H	2811	G	N1-C6-O6	6.03	123.52	119.90
26	14	278	A	OP1-P-O3'	6.03	118.46	105.20
10	1I	89	ASP	C-N-CA	6.03	136.76	121.70
26	1H	1797	C	C5-C6-N1	-6.03	117.99	121.00
26	14	2448	A	O5'-P-OP2	6.02	117.93	110.70
26	14	1210	A	N1-C6-N6	6.02	122.21	118.60
26	1H	2314	C	O5'-P-OP2	-6.02	100.28	105.70
26	1H	2510	C	N3-C4-N4	-6.02	113.79	118.00
26	14	74	A	N1-C2-N3	6.02	132.31	129.30
26	14	238	C	N1-C2-O2	-6.02	115.29	118.90
26	14	2401	U	C5-C6-N1	6.02	125.71	122.70
27	1J	47	C	OP1-P-O3'	6.02	118.44	105.20
26	1H	2427	C	O5'-P-OP1	-6.02	100.28	105.70
26	1H	138	G	C6-C5-N7	-6.01	126.79	130.40
1	13	12	U	O5'-P-OP1	-6.01	100.29	105.70
1	13	932	C	C5-C6-N1	6.01	124.01	121.00
26	1H	2473	U	C2-N1-C1'	6.01	124.91	117.70
26	14	226	G	O4'-C1'-N9	6.01	113.01	108.20
1	13	1199	U	N3-C2-O2	-6.01	118.00	122.20
26	14	1021	A	N1-C2-N3	6.01	132.30	129.30
26	1H	2287	A	C5-N7-C8	-6.00	100.90	103.90
26	14	1786	A	N1-C6-N6	6.00	122.20	118.60
1	13	902	G	O5'-P-OP2	-6.00	100.30	105.70
26	1H	139	G	C6-N1-C2	-6.00	121.50	125.10
26	1H	2268	A	O5'-P-OP1	-6.00	100.30	105.70
1	1G	266	G	P-O3'-C3'	6.00	126.90	119.70
26	1H	1939	U	OP2-P-O3'	6.00	118.40	105.20
26	14	1964	G	N1-C6-O6	-6.00	116.30	119.90
26	14	613	U	N3-C2-O2	-6.00	118.00	122.20
26	14	800	A	C8-N9-C4	6.00	108.20	105.80
26	1H	1489	U	C5-C4-O4	6.00	129.50	125.90
26	1H	2251	G	C5-N7-C8	5.99	107.30	104.30
26	1H	203	C	N1-C2-O2	-5.99	115.31	118.90
26	1H	783	A	C8-N9-C4	-5.99	103.40	105.80
26	1H	801	G	C2-N3-C4	-5.99	108.90	111.90
10	1I	85	LEU	CA-CB-CG	5.99	129.07	115.30
26	1H	138	G	C8-N9-C4	-5.99	104.00	106.40
26	1H	778	G	OP1-P-OP2	-5.99	110.62	119.60
26	1H	1564	C	C5-C4-N4	5.99	124.39	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2550	G	C8-N9-C4	-5.99	104.00	106.40
26	14	1695	G	N3-C2-N2	5.99	124.09	119.90
26	1H	2555	U	N3-C2-O2	5.98	126.39	122.20
26	14	2287	A	N1-C6-N6	5.98	122.19	118.60
26	1H	140	A	C8-N9-C4	-5.98	103.41	105.80
26	14	574	C	C2-N1-C1'	-5.98	112.22	118.80
26	1H	66	C	C6-N1-C2	-5.97	117.91	120.30
26	1H	1568	G	OP1-P-OP2	-5.97	110.64	119.60
26	1H	1758	G	N3-C2-N2	-5.97	115.72	119.90
26	1H	1957	C	C5-C6-N1	-5.97	118.01	121.00
26	14	1372	U	N1-C2-N3	5.97	118.48	114.90
26	1H	683	C	C2-N3-C4	-5.97	116.91	119.90
26	1H	774	A	C4-C5-C6	-5.97	114.01	117.00
26	1H	1799	G	P-O3'-C3'	5.97	126.87	119.70
26	14	204	A	N1-C6-N6	5.97	122.18	118.60
26	14	2326	C	C6-N1-C2	-5.97	117.91	120.30
26	1H	483	A	C8-N9-C4	-5.97	103.41	105.80
2	1E	215	LEU	CA-CB-CG	5.97	129.03	115.30
26	1H	1382	G	N9-C4-C5	-5.97	103.01	105.40
26	1H	2689	U	C2-N3-C4	-5.97	123.42	127.00
26	14	1899	G	C5-N7-C8	-5.97	101.31	104.30
26	14	2712	U	C2-N3-C4	-5.97	123.42	127.00
1	13	322	C	C6-N1-C2	5.97	122.69	120.30
26	1H	1246	A	O5'-P-OP2	-5.97	100.33	105.70
1	13	1279	A	N7-C8-N9	5.97	116.78	113.80
26	1H	395	U	C5-C4-O4	-5.96	122.32	125.90
26	1H	865	C	O5'-P-OP2	5.96	117.86	110.70
26	1H	1429	G	C5-C6-O6	5.96	132.18	128.60
26	1H	468	G	C8-N9-C4	5.96	108.78	106.40
26	1H	2821	A	C8-N9-C4	5.96	108.19	105.80
26	1H	1332	G	N1-C2-N3	5.96	127.48	123.90
26	1H	2406	U	O5'-P-OP2	5.96	117.86	110.70
26	14	1384	A	N9-C4-C5	5.96	108.18	105.80
26	1H	779	U	N3-C4-C5	5.96	118.17	114.60
26	1H	1761	C	N3-C4-N4	5.96	122.17	118.00
26	1H	141(A)	C	OP1-P-O3'	-5.95	92.10	105.20
26	1H	1601	G	OP1-P-O3'	5.95	118.30	105.20
26	1H	2490	G	O5'-P-OP2	-5.95	100.34	105.70
26	14	481	G	O4'-C1'-N9	5.95	112.96	108.20
26	14	901	A	N7-C8-N9	5.95	116.78	113.80
26	14	2430	A	O5'-P-OP1	5.95	117.84	110.70
26	1H	729	G	N9-C4-C5	5.95	107.78	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	51	83	TYR	C-N-CA	5.95	136.57	121.70
23	2K	62	C	O5'-P-OP2	-5.95	100.35	105.70
26	1H	2715	C	N3-C4-C5	5.95	124.28	121.90
30	21	63	LEU	CB-CG-CD1	-5.95	100.89	111.00
1	1G	577	G	C5-C6-O6	5.95	132.17	128.60
26	14	796	C	N1-C2-O2	-5.95	115.33	118.90
26	14	1613	G	O5'-P-OP2	-5.95	100.35	105.70
26	1H	1347	G	OP1-P-O3'	5.95	118.28	105.20
9	8E	79	LEU	CA-CB-CG	-5.94	101.63	115.30
26	1H	2392	A	N3-C4-C5	5.94	130.96	126.80
26	1H	2346	A	C5-C6-N1	-5.94	114.73	117.70
26	1H	2491	U	N3-C2-O2	5.94	126.36	122.20
26	14	1606	G	C2-N3-C4	5.94	114.87	111.90
1	13	1158	C	C6-N1-C2	-5.94	117.92	120.30
26	1H	769	G	N3-C2-N2	5.94	124.06	119.90
26	1H	1596	A	OP2-P-O3'	5.94	118.27	105.20
26	1H	2689	U	N3-C4-C5	5.94	118.17	114.60
52	M8	38	LYS	N-CA-C	-5.94	94.96	111.00
26	14	208	C	N3-C2-O2	5.94	126.06	121.90
26	14	2755	C	C5-C6-N1	5.94	123.97	121.00
1	13	902	G	C8-N9-C4	-5.94	104.03	106.40
26	1H	754	C	N3-C4-C5	5.94	124.28	121.90
26	1H	1210	A	C2-N3-C4	-5.94	107.63	110.60
26	1H	2838	G	O5'-P-OP1	-5.94	100.36	105.70
26	14	2073	C	OP1-P-OP2	-5.94	110.69	119.60
26	1H	220	G	C5-C6-O6	-5.94	125.04	128.60
26	14	753	C	N3-C4-N4	-5.94	113.84	118.00
26	1H	835	A	C2-N3-C4	5.94	113.57	110.60
26	1H	2438	U	C5-C6-N1	-5.94	119.73	122.70
26	1H	129	C	C2-N3-C4	-5.93	116.93	119.90
26	1H	2595	G	C6-N1-C2	5.93	128.66	125.10
26	14	1404	C	O5'-P-OP2	-5.93	100.36	105.70
26	14	798	G	C5-C6-O6	5.93	132.16	128.60
26	14	1964	G	N3-C4-C5	-5.93	125.63	128.60
26	14	576	U	OP2-P-O3'	5.93	118.25	105.20
26	14	2210	G	C4-N9-C1'	5.93	134.21	126.50
26	1H	1327	C	N1-C2-O2	-5.93	115.34	118.90
26	1H	1681	G	N3-C4-C5	5.93	131.56	128.60
26	1H	71	A	C5-C6-N6	-5.93	118.96	123.70
26	1H	508	G	C8-N9-C4	-5.93	104.03	106.40
26	1H	2045	C	C5-C6-N1	-5.93	118.04	121.00
26	14	2492	U	O5'-P-OP2	5.93	117.81	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2269	A	O5'-P-OP1	-5.93	100.37	105.70
26	14	2251	G	N1-C6-O6	-5.92	116.34	119.90
26	14	2516	G	N1-C2-N2	-5.92	110.87	116.20
26	14	933	A	N7-C8-N9	5.92	116.76	113.80
26	1H	34	C	O5'-P-OP1	-5.92	100.37	105.70
26	1H	1790	C	OP1-P-O3'	5.92	118.22	105.20
26	1H	2249	U	N3-C4-O4	-5.92	115.25	119.40
27	16	9	G	OP2-P-O3'	5.92	118.23	105.20
26	1H	945	A	C5-C6-N1	-5.92	114.74	117.70
26	14	1681	G	C4-C5-N7	5.92	113.17	110.80
26	1H	1156	A	N9-C4-C5	-5.92	103.43	105.80
26	1H	1625	C	O5'-P-OP2	-5.92	100.37	105.70
26	1H	1825	A	N1-C6-N6	-5.92	115.05	118.60
26	14	1625	C	O5'-P-OP2	-5.92	100.38	105.70
26	1H	2347	C	OP2-P-O3'	5.91	118.21	105.20
26	14	2726	U	C5-C6-N1	-5.91	119.74	122.70
26	14	2304	G	N3-C4-N9	-5.91	122.45	126.00
26	1H	451	C	C5-C6-N1	-5.91	118.05	121.00
44	E8	19	LEU	CB-CG-CD2	-5.91	100.95	111.00
26	1H	1363	C	N3-C2-O2	-5.91	117.76	121.90
26	1H	1839	G	C8-N9-C1'	-5.91	119.32	127.00
26	1H	2449	U	N3-C2-O2	-5.91	118.06	122.20
26	1H	2568	C	N3-C2-O2	-5.91	117.77	121.90
26	1H	866	A	C4-N9-C1'	5.90	136.93	126.30
26	1H	508	G	N3-C4-C5	-5.90	125.65	128.60
26	1H	2515	C	O5'-P-OP1	5.90	117.78	110.70
26	1H	2723	C	N3-C2-O2	-5.90	117.77	121.90
26	14	2726	U	N3-C4-O4	-5.90	115.27	119.40
26	1H	1647	G	O5'-P-OP1	-5.90	100.39	105.70
26	14	1022	G	N9-C4-C5	5.90	107.76	105.40
26	14	2279	G	N1-C6-O6	-5.90	116.36	119.90
27	16	79	C	OP2-P-O3'	5.90	118.17	105.20
26	14	1762	A	C5-C6-N1	-5.90	114.75	117.70
26	1H	446	G	N9-C4-C5	-5.89	103.04	105.40
26	1H	2275	C	C5-C6-N1	5.89	123.95	121.00
34	61	110	ASP	C-N-CA	5.89	146.76	122.00
26	14	783	A	C5-C6-N1	-5.89	114.75	117.70
26	1H	1528	A	C2-N3-C4	-5.89	107.65	110.60
17	8I	63	ARG	NE-CZ-NH1	-5.89	117.36	120.30
26	14	530	G	N9-C4-C5	-5.89	103.04	105.40
26	14	784	A	P-O3'-C3'	5.89	126.77	119.70
26	14	2501	C	C2-N3-C4	-5.89	116.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	533	G	N3-C4-C5	5.89	131.54	128.60
1	1G	1358	U	C5-C4-O4	-5.89	122.37	125.90
26	14	252	G	O5'-P-OP1	5.89	117.76	110.70
26	1H	130	C	C5-C4-N4	-5.88	116.08	120.20
26	14	209	C	N3-C4-C5	5.88	124.25	121.90
26	1H	1936	A	O4'-C1'-N9	5.88	112.91	108.20
26	1H	1835	G	N7-C8-N9	5.88	116.04	113.10
26	1H	1899	G	C5-C6-O6	5.88	132.13	128.60
26	14	2409	G	C6-C5-N7	-5.88	126.87	130.40
26	14	138	G	O4'-C1'-N9	5.88	112.90	108.20
26	1H	1950	G	N3-C4-C5	5.88	131.54	128.60
26	14	2053	G	N1-C6-O6	5.88	123.43	119.90
26	1H	769	G	N1-C6-O6	-5.88	116.37	119.90
14	5A	47	LEU	CA-CB-CG	5.88	128.81	115.30
26	14	1316	U	N3-C2-O2	-5.88	118.09	122.20
26	14	2501	C	N1-C2-O2	-5.88	115.38	118.90
26	14	2315	G	OP1-P-O3'	5.87	118.12	105.20
26	14	2575	C	N3-C4-C5	-5.87	119.55	121.90
1	13	50	A	P-O3'-C3'	5.87	126.75	119.70
26	1H	383	U	C2-N1-C1'	-5.87	110.66	117.70
26	1H	1761	C	C6-N1-C2	5.87	122.65	120.30
26	1H	2374	C	C5-C6-N1	-5.87	118.07	121.00
1	1G	428	G	C4-N9-C1'	-5.87	118.87	126.50
26	14	141	A	C6-N1-C2	5.87	122.12	118.60
26	14	668	G	C8-N9-C4	5.87	108.75	106.40
26	1H	2318	G	N7-C8-N9	5.87	116.03	113.10
26	14	1899	G	N1-C2-N3	5.87	127.42	123.90
26	1H	1645	G	OP1-P-O3'	5.87	118.10	105.20
1	1G	523	A	N1-C6-N6	5.87	122.12	118.60
26	14	1614	A	C6-C5-N7	-5.87	128.19	132.30
26	14	1964	G	N3-C2-N2	5.87	124.01	119.90
26	1H	1632	A	N9-C4-C5	-5.86	103.45	105.80
26	1H	1790	C	P-O3'-C3'	5.86	126.74	119.70
1	1G	183	G	N1-C6-O6	5.86	123.42	119.90
26	14	2364	C	O5'-P-OP2	-5.86	100.42	105.70
27	1J	89	G	C4-N9-C1'	5.86	134.12	126.50
1	13	969	A	N1-C6-N6	5.86	122.12	118.60
26	1H	445	C	OP1-P-O3'	5.86	118.09	105.20
26	1H	2701	C	OP2-P-O3'	5.86	118.09	105.20
33	59	166	GLY	C-N-CA	5.86	136.34	121.70
5	4E	139	LEU	CA-CB-CG	5.86	128.77	115.30
26	14	2443	C	C5-C4-N4	-5.86	116.10	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1776	G	C4-C5-N7	5.85	113.14	110.80
26	1H	1806	C	OP1-P-OP2	5.85	128.38	119.60
26	1H	2609	U	C2-N3-C4	-5.85	123.49	127.00
26	14	385	C	O5'-P-OP1	-5.85	100.43	105.70
26	14	1806	C	O5'-P-OP2	-5.85	100.43	105.70
26	1H	863	A	O5'-P-OP2	-5.85	100.43	105.70
26	1H	2062	A	C2-N3-C4	5.85	113.53	110.60
1	1G	108	G	N3-C2-N2	5.85	124.00	119.90
26	14	1204	A	C5-C6-N1	-5.85	114.77	117.70
26	1H	376	C	N3-C2-O2	-5.85	117.80	121.90
26	1H	1022	G	P-O3'-C3'	5.85	126.72	119.70
26	1H	1610	A	C5-C6-N6	-5.85	119.02	123.70
1	1G	337	C	C5-C6-N1	5.85	123.92	121.00
26	1H	1797	C	C6-N1-C2	5.85	122.64	120.30
26	14	2712	U	O4'-C1'-N1	5.85	112.88	108.20
26	1H	853	G	O5'-P-OP2	-5.85	100.44	105.70
26	1H	1678	G	C5-C6-N1	-5.85	108.58	111.50
26	14	2598	A	C5-C6-N6	-5.85	119.02	123.70
1	13	1426	C	N3-C4-N4	5.84	122.09	118.00
26	1H	117	G	N9-C4-C5	-5.84	103.06	105.40
26	1H	405	U	C2-N1-C1'	5.84	124.71	117.70
26	1H	1835	G	N3-C2-N2	5.84	123.99	119.90
26	14	1614	A	C5-N7-C8	-5.84	100.98	103.90
26	1H	781	A	C8-N9-C4	5.84	108.14	105.80
26	1H	1981	A	N1-C6-N6	5.84	122.10	118.60
26	1H	2591	C	C2-N3-C4	-5.84	116.98	119.90
26	14	127	A	OP1-P-O3'	5.84	118.05	105.20
27	16	44	G	C4-C5-N7	-5.84	108.47	110.80
26	14	1961	C	N3-C4-N4	-5.84	113.91	118.00
26	1H	1705	G	N1-C6-O6	-5.83	116.40	119.90
1	1G	491	G	N1-C6-O6	5.83	123.40	119.90
26	14	963	U	O5'-P-OP2	5.83	117.70	110.70
26	14	363(E)	U	C2-N1-C1'	5.83	124.70	117.70
26	14	669	G	OP1-P-OP2	5.83	128.35	119.60
38	88	24	GLY	N-CA-C	-5.83	98.52	113.10
26	14	2402	C	C6-N1-C2	-5.83	117.97	120.30
26	14	2592	G	N3-C4-N9	5.83	129.50	126.00
1	13	971	G	O5'-P-OP2	-5.83	100.45	105.70
26	1H	1259	G	OP2-P-O3'	5.83	118.02	105.20
26	14	2401	U	C6-N1-C2	-5.83	117.50	121.00
53	J5	16	ARG	NE-CZ-NH1	5.83	123.21	120.30
1	13	125	U	C6-N1-C2	-5.83	117.50	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	505	G	C5-N7-C8	-5.83	101.39	104.30
26	1H	848	G	O5'-P-OP2	-5.83	100.46	105.70
26	1H	1157	G	C4-N9-C1'	5.83	134.07	126.50
26	14	1702	G	C8-N9-C4	5.83	108.73	106.40
26	14	2297	C	OP1-P-OP2	5.83	128.34	119.60
26	1H	213	A	C4-C5-N7	5.82	113.61	110.70
26	1H	2013	A	O5'-P-OP1	5.82	117.69	110.70
26	1H	103	A	C8-N9-C4	5.82	108.13	105.80
26	1H	488	G	O5'-P-OP2	-5.82	100.46	105.70
26	1H	800	A	C5-N7-C8	5.82	106.81	103.90
26	1H	1321	A	C8-N9-C4	5.82	108.13	105.80
26	14	1914	C	C2-N1-C1'	5.82	125.20	118.80
26	1H	245	G	N1-C6-O6	5.82	123.39	119.90
26	14	970	C	N1-C2-O2	-5.82	115.41	118.90
42	C8	27	LEU	CA-CB-CG	5.82	128.68	115.30
26	14	1131	G	O4'-C1'-N9	5.81	112.85	108.20
26	1H	144	C	C6-N1-C2	5.81	122.62	120.30
26	1H	1405	U	N1-C2-O2	5.81	126.87	122.80
26	1H	2557	G	C4-C5-N7	-5.81	108.47	110.80
27	1J	44	G	N3-C4-N9	-5.81	122.51	126.00
26	1H	1785	A	N7-C8-N9	5.81	116.70	113.80
26	14	385	C	OP1-P-OP2	5.81	128.31	119.60
27	1J	89(A)	A	O4'-C1'-N9	5.81	112.85	108.20
26	1H	577	G	C4-C5-C6	5.81	122.28	118.80
26	1H	2621	A	C2-N3-C4	-5.81	107.70	110.60
26	14	1950	G	C4-C5-N7	5.81	113.12	110.80
26	14	796	C	C2-N3-C4	-5.81	117.00	119.90
26	1H	825	C	C5-C4-N4	-5.80	116.14	120.20
26	1H	1239	G	OP2-P-O3'	5.80	117.97	105.20
26	14	1598	C	O5'-P-OP2	5.80	117.67	110.70
32	41	82	LEU	CA-CB-CG	5.80	128.65	115.30
1	13	186(A)	C	C6-N1-C2	-5.80	117.98	120.30
26	14	1607	C	C5-C6-N1	5.80	123.90	121.00
26	14	2713	A	C4-C5-N7	5.80	113.60	110.70
1	13	330	C	N1-C2-O2	5.80	122.38	118.90
26	1H	441	U	OP2-P-O3'	5.80	117.96	105.20
26	1H	857	C	OP1-P-OP2	5.80	128.30	119.60
46	G8	81	LYS	C-N-CA	5.80	146.36	122.00
26	14	2713	A	C2-N3-C4	-5.80	107.70	110.60
1	13	560	U	P-O3'-C3'	5.80	126.66	119.70
26	1H	1694	C	C6-N1-C2	5.79	122.62	120.30
26	1H	2827	C	C6-N1-C1'	-5.79	113.85	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2253	G	C5-C6-O6	-5.79	125.12	128.60
26	1H	1142(A)	A	N3-C4-N9	-5.79	122.77	127.40
27	16	81	G	C8-N9-C4	-5.79	104.08	106.40
26	14	1786	A	C4-N9-C1'	5.79	136.73	126.30
26	1H	1639	U	C5-C4-O4	5.79	129.37	125.90
1	13	974	A	N1-C6-N6	5.79	122.07	118.60
26	14	1316	U	N1-C2-O2	5.79	126.85	122.80
31	39	148	LEU	CB-CG-CD1	5.79	120.84	111.00
26	14	2435	A	C8-N9-C4	-5.79	103.48	105.80
1	13	1404	C	N3-C4-N4	-5.79	113.95	118.00
26	1H	2620	C	O5'-P-OP1	-5.79	100.49	105.70
16	7A	6	LEU	CA-CB-CG	5.78	128.60	115.30
1	13	1062	U	O5'-P-OP2	-5.78	100.50	105.70
26	1H	672	C	OP2-P-O3'	5.78	117.92	105.20
33	51	153	LYS	C-N-CA	5.78	146.26	122.00
26	1H	1673	U	C5-C6-N1	-5.78	119.81	122.70
1	1G	310	G	N3-C4-N9	-5.78	122.53	126.00
26	14	2332	U	N3-C4-O4	-5.78	115.36	119.40
26	1H	1561	G	C8-N9-C4	-5.77	104.09	106.40
26	1H	2507	C	N1-C2-O2	5.77	122.36	118.90
26	14	2544	G	N1-C6-O6	5.77	123.36	119.90
44	A5	92	ARG	NE-CZ-NH1	-5.77	117.41	120.30
26	1H	1515	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	2376	A	OP1-P-OP2	-5.77	110.94	119.60
26	14	71	A	C6-C5-N7	-5.77	128.26	132.30
26	1H	2506	U	C5-C6-N1	5.77	125.58	122.70
19	AA	20	LEU	CA-CB-CG	5.77	128.57	115.30
26	1H	383	U	O4'-C1'-N1	5.77	112.81	108.20
26	1H	2287	A	C4-C5-N7	5.77	113.58	110.70
26	1H	1380	G	O5'-P-OP2	-5.77	100.51	105.70
26	1H	733	G	N3-C2-N2	5.76	123.94	119.90
26	1H	1833	U	N3-C4-O4	-5.76	115.36	119.40
26	14	1968	G	C5-N7-C8	-5.76	101.42	104.30
1	1G	1240	U	C2-N1-C1'	-5.76	110.78	117.70
26	1H	1341	U	C5-C4-O4	-5.76	122.44	125.90
26	14	212	G	O5'-P-OP2	-5.76	100.52	105.70
26	1H	455	C	N3-C4-C5	5.76	124.20	121.90
26	1H	2595	G	C4-N9-C1'	-5.76	119.01	126.50
26	14	922	U	O5'-P-OP1	-5.76	100.52	105.70
26	1H	139	G	N3-C4-C5	-5.76	125.72	128.60
26	1H	451	C	N3-C2-O2	5.76	125.93	121.90
1	13	1498	U	C6-N1-C2	-5.75	117.55	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	123	G	N1-C6-O6	5.75	123.35	119.90
1	1G	981	U	C5-C4-O4	-5.75	122.45	125.90
26	1H	508	G	C5-N7-C8	-5.75	101.42	104.30
26	1H	630	G	C8-N9-C1'	5.75	134.48	127.00
26	1H	788	A	N9-C4-C5	-5.75	103.50	105.80
26	14	12	U	N1-C2-O2	5.75	126.83	122.80
26	14	2339	G	O5'-P-OP2	-5.75	100.52	105.70
14	5I	52	GLN	C-N-CA	-5.75	107.32	121.70
41	75	5	ALA	C-N-CA	5.75	136.07	121.70
54	P8	23	ARG	NE-CZ-NH1	5.75	123.17	120.30
26	1H	2443	C	N3-C4-N4	5.75	122.02	118.00
1	13	1519	A	C4-C5-C6	5.75	119.87	117.00
26	1H	2749	A	OP1-P-OP2	5.75	128.22	119.60
26	14	746	A	O4'-C1'-N9	5.75	112.80	108.20
26	1H	1635	G	OP1-P-OP2	-5.74	110.99	119.60
26	14	74	A	C5-N7-C8	-5.74	101.03	103.90
26	1H	828	U	N1-C2-O2	5.74	126.82	122.80
26	14	1280	G	N9-C1'-C2'	-5.74	105.68	112.00
26	14	1826	G	C4-C5-N7	-5.74	108.50	110.80
23	2K	74	A	N1-C6-N6	5.74	122.04	118.60
26	1H	805	G	O5'-P-OP1	-5.74	100.53	105.70
26	1H	821	A	O5'-P-OP2	-5.74	100.53	105.70
26	1H	1328	G	N3-C4-N9	5.74	129.44	126.00
26	1H	2779	U	C2-N3-C4	-5.74	123.56	127.00
26	14	1936	A	N9-C4-C5	-5.74	103.50	105.80
26	14	1382	G	OP2-P-O3'	5.74	117.82	105.20
26	1H	1520	U	N3-C2-O2	-5.74	118.19	122.20
26	1H	1625	C	N3-C4-N4	-5.74	113.98	118.00
23	2K	61	U	O5'-P-OP2	-5.73	100.54	105.70
26	1H	1210	A	N7-C8-N9	5.73	116.67	113.80
26	14	2055	C	C2-N1-C1'	-5.73	112.49	118.80
26	1H	1932	A	O5'-P-OP1	-5.73	100.54	105.70
26	14	470	A	C5-N7-C8	-5.73	101.03	103.90
26	14	2238	G	O4'-C1'-N9	-5.73	103.61	108.20
1	13	574	A	C8-N9-C4	5.73	108.09	105.80
26	1H	1790	C	C5-C6-N1	-5.73	118.14	121.00
1	1G	815	A	C8-N9-C4	5.73	108.09	105.80
26	14	330	A	C5-N7-C8	-5.73	101.04	103.90
26	1H	917	A	O5'-P-OP2	5.73	117.57	110.70
26	14	568	U	N3-C4-O4	5.72	123.41	119.40
26	14	1248	G	O5'-P-OP1	5.72	117.57	110.70
26	14	1292	U	O5'-P-OP2	-5.72	100.55	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	974	A	C8-N9-C4	-5.72	103.51	105.80
19	AI	41	VAL	C-N-CD	-5.72	108.02	120.60
24	3K	72	C	C6-N1-C2	-5.72	118.01	120.30
26	1H	238	C	C5-C6-N1	-5.72	118.14	121.00
26	14	915	C	N1-C2-O2	5.72	122.33	118.90
26	14	1973	G	C5-C6-O6	5.72	132.03	128.60
1	1G	64	G	P-O3'-C3'	5.72	126.56	119.70
26	14	1698	A	N7-C8-N9	5.72	116.66	113.80
26	14	2499	C	N1-C2-O2	-5.72	115.47	118.90
26	1H	680	G	C5-C6-O6	-5.71	125.17	128.60
26	1H	1317	A	OP1-P-O3'	5.71	117.77	105.20
26	1H	2062	A	P-O3'-C3'	-5.71	112.84	119.70
1	1G	872	A	C2-N3-C4	-5.71	107.74	110.60
26	1H	1328	G	O5'-P-OP1	5.71	117.55	110.70
26	1H	442	G	C8-N9-C4	-5.71	104.12	106.40
26	14	1786	A	N3-C4-C5	5.71	130.80	126.80
26	1H	1666	G	N3-C2-N2	-5.71	115.90	119.90
26	14	1332	G	C8-N9-C1'	-5.71	119.58	127.00
26	1H	859	G	C4-N9-C1'	-5.71	119.08	126.50
24	3L	74	C	C2-N1-C1'	5.71	125.08	118.80
26	1H	1776	G	N3-C4-N9	5.71	129.42	126.00
1	13	274	A	N1-C6-N6	-5.70	115.18	118.60
26	1H	1942	C	C4-C5-C6	-5.70	114.55	117.40
26	1H	1699	G	O5'-P-OP1	-5.70	100.57	105.70
26	1H	766	C	C6-N1-C2	5.70	122.58	120.30
26	1H	818	G	N7-C8-N9	-5.70	110.25	113.10
27	16	49	C	C5-C4-N4	-5.70	116.21	120.20
26	14	530	G	C4-N9-C1'	5.70	133.91	126.50
1	13	971	G	N9-C4-C5	5.70	107.68	105.40
1	13	1129	C	C2-N1-C1'	5.70	125.07	118.80
26	1H	2751	G	N1-C6-O6	-5.70	116.48	119.90
26	1H	258	G	N3-C2-N2	5.70	123.89	119.90
26	1H	917	A	C6-C5-N7	-5.70	128.31	132.30
26	1H	1557	C	O5'-P-OP2	-5.70	100.57	105.70
26	14	1142(A)	A	C2-N3-C4	-5.69	107.75	110.60
26	1H	2057	A	C6-N1-C2	-5.69	115.19	118.60
1	1G	518	C	O5'-P-OP1	5.69	117.53	110.70
26	14	570	G	C5-C6-O6	-5.69	125.19	128.60
26	14	2234	G	N3-C4-C5	-5.69	125.75	128.60
1	13	190	G	P-O3'-C3'	5.69	126.53	119.70
26	1H	742	G	C5-C6-O6	5.69	132.01	128.60
26	1H	1852	C	C6-N1-C2	-5.69	118.02	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	568	G	N1-C6-O6	-5.69	116.49	119.90
26	14	1668	A	N1-C2-N3	-5.69	126.45	129.30
26	14	1695	G	C6-C5-N7	-5.69	126.99	130.40
26	1H	74	A	N7-C8-N9	5.69	116.64	113.80
26	1H	847	U	C5-C6-N1	-5.69	119.86	122.70
26	1H	1620	G	C5-C6-O6	5.69	132.01	128.60
26	1H	2392	A	O4'-C1'-N9	5.69	112.75	108.20
26	14	459	U	C2-N3-C4	-5.69	123.59	127.00
26	1H	2318	G	C5-N7-C8	-5.68	101.46	104.30
26	14	1644	C	N3-C2-O2	-5.68	117.92	121.90
26	14	1771	C	C2-N3-C4	-5.68	117.06	119.90
26	14	2070	G	N1-C6-O6	-5.68	116.49	119.90
37	35	6	LEU	CA-CB-CG	-5.68	102.23	115.30
26	1H	1209	G	C5-C6-O6	-5.68	125.19	128.60
1	1G	1490	C	O5'-P-OP2	-5.68	100.59	105.70
27	1J	74	U	C5-C4-O4	5.68	129.31	125.90
26	1H	1161	C	O5'-P-OP2	5.68	117.52	110.70
26	14	1332	G	N1-C2-N2	-5.68	111.09	116.20
26	14	2544	G	C5-C6-O6	-5.68	125.19	128.60
1	13	508	C	N1-C2-O2	-5.68	115.49	118.90
26	1H	2401	U	C2-N1-C1'	5.68	124.51	117.70
26	14	2267	A	OP1-P-OP2	5.68	128.12	119.60
26	14	2320	A	N9-C4-C5	-5.68	103.53	105.80
1	13	1490	C	OP2-P-O3'	5.68	117.69	105.20
26	1H	788	A	C6-N1-C2	5.68	122.01	118.60
26	14	2607	G	O5'-P-OP2	-5.68	100.59	105.70
24	3K	76	A	C2-N3-C4	-5.67	107.76	110.60
26	1H	184	C	C5-C6-N1	-5.67	118.16	121.00
26	1H	2318	G	C8-N9-C4	-5.67	104.13	106.40
26	1H	1543	A	N1-C6-N6	5.67	122.00	118.60
26	1H	2084	C	C5-C6-N1	-5.67	118.17	121.00
26	14	113	G	N3-C4-C5	5.67	131.44	128.60
26	1H	196	A	C8-N9-C4	-5.67	103.53	105.80
1	13	1065	U	P-O3'-C3'	5.67	126.50	119.70
26	1H	633	A	C5-N7-C8	-5.67	101.07	103.90
26	1H	1950	G	N1-C2-N2	-5.67	111.10	116.20
26	14	674	G	N1-C6-O6	-5.67	116.50	119.90
29	19	272	ALA	C-N-CA	5.67	135.87	121.70
26	14	1616	A	C2-N3-C4	-5.67	107.77	110.60
26	1H	2503	A	O5'-P-OP2	-5.66	100.60	105.70
1	1G	1246	C	C6-N1-C2	-5.66	118.04	120.30
26	14	530	G	N7-C8-N9	5.66	115.93	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2443	C	C2-N3-C4	-5.66	117.07	119.90
26	1H	2036	C	OP2-P-O3'	5.66	117.64	105.20
1	13	1382	C	N1-C2-O2	5.66	122.29	118.90
26	14	1616	A	N1-C6-N6	5.66	121.99	118.60
26	1H	793	A	C2-N3-C4	5.65	113.43	110.60
26	1H	1419	A	OP2-P-O3'	5.65	117.64	105.20
26	1H	1665	A	N1-C6-N6	5.65	121.99	118.60
26	14	2448	A	C5-C6-N6	-5.65	119.18	123.70
1	13	449	C	C2-N1-C1'	5.65	125.02	118.80
26	14	1681	G	C5-N7-C8	-5.65	101.47	104.30
26	14	1698	A	C5-C6-N6	-5.65	119.18	123.70
26	1H	1621	U	N3-C4-O4	5.65	123.36	119.40
26	14	2689	U	OP2-P-O3'	5.65	117.63	105.20
26	1H	2275	C	C6-N1-C2	-5.65	118.04	120.30
26	1H	530	G	N3-C4-C5	5.64	131.42	128.60
26	1H	2402	C	C6-N1-C2	-5.64	118.04	120.30
26	14	1382	G	C5-C6-O6	-5.64	125.21	128.60
26	14	2592	G	N3-C4-C5	-5.64	125.78	128.60
26	1H	987	G	C8-N9-C1'	5.64	134.34	127.00
26	14	2429	G	OP1-P-OP2	-5.64	111.14	119.60
26	14	1417	C	C6-N1-C2	-5.64	118.04	120.30
26	1H	607	U	O5'-P-OP1	-5.64	100.62	105.70
23	2L	36	A	O5'-P-OP1	-5.64	100.62	105.70
26	14	2510	C	O5'-P-OP2	-5.64	100.62	105.70
1	13	869	G	N1-C6-O6	5.64	123.28	119.90
26	1H	930	U	O5'-P-OP2	-5.64	100.63	105.70
26	14	946	G	C8-N9-C4	5.64	108.66	106.40
26	14	2245	U	C4-C5-C6	-5.64	116.32	119.70
1	1G	681	C	C6-N1-C2	-5.64	118.05	120.30
26	14	2258	C	OP1-P-O3'	5.64	117.60	105.20
26	1H	2710	C	C6-N1-C2	5.63	122.55	120.30
26	1H	1759	A	OP1-P-OP2	5.63	128.05	119.60
26	14	2346	A	N7-C8-N9	5.63	116.62	113.80
26	1H	150	C	N3-C2-O2	-5.63	117.96	121.90
26	14	621	A	N7-C8-N9	5.63	116.62	113.80
26	1H	1679	U	N3-C4-O4	5.63	123.34	119.40
26	1H	1186	G	O5'-P-OP2	-5.63	100.64	105.70
27	16	15	A	O4'-C1'-N9	5.63	112.70	108.20
26	1H	825	C	N1-C2-O2	-5.62	115.53	118.90
1	1G	380	G	N3-C4-N9	-5.62	122.62	126.00
1	13	1259	C	C5-C6-N1	5.62	123.81	121.00
26	14	229	A	O4'-C1'-N9	5.62	112.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1628	G	O5'-P-OP2	-5.62	100.64	105.70
26	1H	671	C	N1-C2-O2	5.62	122.27	118.90
1	13	687	A	P-O3'-C3'	5.62	126.44	119.70
26	1H	679	C	C5-C6-N1	-5.62	118.19	121.00
26	1H	2622	C	O5'-P-OP2	-5.62	100.64	105.70
26	1H	2765	A	OP1-P-OP2	5.62	128.03	119.60
29	11	37	LEU	CB-CG-CD2	5.62	120.55	111.00
26	1H	1129	A	O4'-C1'-N9	5.62	112.69	108.20
26	14	2592	G	C4-N9-C1'	5.62	133.80	126.50
32	49	82	LEU	CA-CB-CG	5.62	128.22	115.30
26	1H	1324	G	N1-C2-N2	5.61	121.25	116.20
26	1H	1423	G	C8-N9-C4	5.61	108.65	106.40
26	1H	1437	C	C4-C5-C6	5.61	120.21	117.40
26	1H	2275	C	O5'-P-OP2	-5.61	100.65	105.70
26	14	1274	A	C5-C6-N6	-5.61	119.21	123.70
26	14	1528	A	N7-C8-N9	5.61	116.61	113.80
26	14	1777	U	OP2-P-O3'	5.61	117.55	105.20
1	13	766	A	C8-N9-C4	5.61	108.04	105.80
26	1H	113	G	N3-C4-C5	5.61	131.41	128.60
26	1H	2331	G	N3-C4-C5	5.61	131.41	128.60
26	14	1914	C	N3-C2-O2	-5.61	117.97	121.90
26	14	2713	A	C6-C5-N7	-5.61	128.37	132.30
26	1H	223	A	O5'-P-OP2	-5.61	100.66	105.70
26	1H	655	A	N7-C8-N9	5.61	116.60	113.80
26	1H	968	G	N1-C6-O6	-5.61	116.54	119.90
26	1H	2062	A	N3-C4-N9	5.61	131.88	127.40
42	C8	20	LEU	CA-CB-CG	5.61	128.19	115.30
26	14	123	G	C6-C5-N7	-5.61	127.04	130.40
26	14	194	G	O5'-P-OP2	5.61	117.43	110.70
26	14	2211	G	C8-N9-C1'	-5.61	119.71	127.00
26	1H	1610	A	C4-C5-N7	5.60	113.50	110.70
26	14	705	A	O5'-P-OP1	5.60	117.42	110.70
26	14	1129	A	O5'-P-OP2	-5.60	100.66	105.70
26	14	2365	G	O5'-P-OP2	-5.60	100.66	105.70
1	13	892	A	N1-C6-N6	5.60	121.96	118.60
1	1G	893	C	C6-N1-C2	5.60	122.54	120.30
1	13	1267	C	C2-N1-C1'	5.60	124.96	118.80
1	13	899	C	N3-C2-O2	5.60	125.82	121.90
26	1H	692	C	C6-N1-C2	5.60	122.54	120.30
26	1H	1475	G	N3-C2-N2	-5.60	115.98	119.90
26	1H	2803	C	N1-C2-O2	5.60	122.26	118.90
26	14	527	C	N3-C2-O2	5.60	125.82	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	119	A	N1-C2-N3	5.60	132.10	129.30
26	14	703	U	C5-C4-O4	5.60	129.26	125.90
26	1H	265	A	N7-C8-N9	5.59	116.60	113.80
26	1H	2052	G	OP2-P-O3'	5.59	117.51	105.20
26	14	71	A	P-O3'-C3'	5.59	126.41	119.70
26	1H	400	G	N3-C2-N2	-5.59	115.98	119.90
24	3L	76	A	C6-C5-N7	-5.59	128.38	132.30
26	14	1564	C	N1-C2-O2	5.59	122.25	118.90
26	14	1955	U	N1-C2-N3	5.59	118.25	114.90
26	14	2331	G	C8-N9-C4	5.59	108.64	106.40
26	14	2432	A	C2-N3-C4	-5.59	107.80	110.60
26	14	2490	G	O4'-C1'-N9	5.59	112.67	108.20
1	13	583	A	C8-N9-C4	5.59	108.04	105.80
1	1G	413	G	C4-C5-N7	-5.59	108.56	110.80
25	4L	24	A	N7-C8-N9	5.59	116.59	113.80
26	1H	865	C	OP1-P-OP2	-5.59	111.22	119.60
1	13	949	A	O5'-P-OP2	5.59	117.40	110.70
1	1G	817	C	C5-C6-N1	-5.59	118.21	121.00
13	4A	48	LEU	CA-CB-CG	5.59	128.15	115.30
26	14	1657	C	C6-N1-C2	-5.59	118.06	120.30
26	1H	2392	A	C6-N1-C2	5.58	121.95	118.60
26	14	2607	G	N1-C2-N2	-5.58	111.17	116.20
55	Q8	46	ARG	C-N-CA	5.58	135.66	121.70
26	14	1022	G	N1-C6-O6	-5.58	116.55	119.90
26	1H	861	A	C8-N9-C4	5.58	108.03	105.80
26	14	1471	A	N7-C8-N9	5.58	116.59	113.80
26	14	2821	A	C2-N3-C4	-5.58	107.81	110.60
26	1H	860	U	C6-N1-C1'	-5.58	113.39	121.20
26	1H	1637	A	N1-C6-N6	-5.58	115.25	118.60
26	1H	2336	A	O5'-P-OP1	-5.58	100.68	105.70
26	1H	2655	G	C8-N9-C1'	5.58	134.25	127.00
13	4I	96	LEU	CA-CB-CG	5.58	128.13	115.30
26	1H	122	G	N1-C6-O6	5.58	123.25	119.90
37	35	59	LEU	CA-CB-CG	5.58	128.12	115.30
1	13	861	G	N3-C4-C5	-5.57	125.81	128.60
1	13	966	G	C8-N9-C4	5.57	108.63	106.40
26	1H	1786	A	N9-C1'-C2'	5.57	121.25	114.00
26	14	1241	A	C2-N3-C4	-5.57	107.81	110.60
26	14	1959	G	C5-C6-O6	5.57	131.94	128.60
26	14	2313	C	C6-N1-C2	-5.57	118.07	120.30
1	13	902	G	N1-C6-O6	-5.57	116.56	119.90
26	1H	67	U	O5'-P-OP2	5.57	117.39	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2062	A	N9-C4-C5	-5.57	103.57	105.80
1	1G	777	A	O5'-P-OP2	-5.57	100.69	105.70
26	14	2420	C	O5'-P-OP2	5.57	117.39	110.70
26	14	528	A	N1-C2-N3	5.57	132.09	129.30
26	14	944	G	O5'-P-OP2	-5.57	100.69	105.70
26	14	1959	G	N1-C6-O6	-5.57	116.56	119.90
26	1H	121	G	C6-N1-C2	-5.57	121.76	125.10
1	1G	528	C	C2-N1-C1'	-5.57	112.67	118.80
26	14	668	G	N3-C4-C5	5.57	131.38	128.60
26	1H	630	G	N3-C4-N9	-5.57	122.66	126.00
26	1H	2277	G	C5-C6-O6	5.57	131.94	128.60
26	14	1252	G	O4'-C1'-N9	-5.57	103.75	108.20
26	14	1786	A	OP1-P-O3'	5.57	117.45	105.20
26	14	2388	A	O4'-C1'-N9	5.57	112.65	108.20
26	14	2276	G	O5'-P-OP1	-5.57	100.69	105.70
41	75	105	LEU	CA-CB-CG	5.57	128.10	115.30
26	1H	2886	G	C5-C6-O6	5.56	131.94	128.60
1	13	902	G	C5-C6-O6	5.56	131.94	128.60
26	1H	1559	G	C4-C5-N7	5.56	113.02	110.80
26	14	2755	C	C2-N1-C1'	5.56	124.92	118.80
26	1H	1605	C	C2-N3-C4	-5.56	117.12	119.90
26	1H	1984	G	N7-C8-N9	-5.56	110.32	113.10
26	1H	2761	G	C2-N3-C4	-5.56	109.12	111.90
26	14	489	G	N9-C4-C5	-5.56	103.18	105.40
1	13	776	G	O5'-P-OP1	-5.56	100.70	105.70
1	13	1381	U	O4'-C1'-N1	5.56	112.64	108.20
26	1H	192	C	N3-C4-C5	5.55	124.12	121.90
26	1H	1605	C	C4-C5-C6	5.55	120.18	117.40
26	1H	2703	C	C6-N1-C2	-5.55	118.08	120.30
31	39	82	ILE	CG1-CB-CG2	-5.55	99.18	111.40
26	1H	2412	A	C5-C6-N1	5.55	120.48	117.70
26	1H	2427	C	N1-C2-O2	-5.55	115.57	118.90
26	1H	2698	U	O5'-P-OP2	-5.55	100.70	105.70
1	1G	1400	C	N1-C2-O2	5.55	122.23	118.90
26	14	2461	C	N3-C4-N4	-5.55	114.12	118.00
26	14	686	G	C5-C6-O6	-5.55	125.27	128.60
26	1H	395	U	O5'-P-OP2	-5.55	100.71	105.70
26	1H	1193	G	N1-C6-O6	-5.55	116.57	119.90
26	1H	1203	G	N3-C2-N2	5.55	123.78	119.90
26	1H	2393	A	C5-C6-N1	-5.55	114.93	117.70
26	1H	2401	U	N3-C4-O4	5.55	123.28	119.40
26	14	845	G	C5-C6-O6	-5.55	125.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2649	U	N3-C4-O4	5.55	123.28	119.40
26	1H	1314	C	C2-N1-C1'	5.54	124.90	118.80
27	16	94	C	C6-N1-C2	-5.54	118.08	120.30
1	13	352	C	OP1-P-OP2	5.54	127.91	119.60
1	13	812	C	C6-N1-C2	5.54	122.52	120.30
1	13	1231	G	C5-C6-O6	-5.54	125.28	128.60
26	1H	745	G	N1-C6-O6	5.54	123.22	119.90
26	14	179	G	N9-C4-C5	-5.54	103.18	105.40
26	1H	1282	U	C2-N3-C4	-5.54	123.68	127.00
26	14	2029	G	N1-C2-N2	5.54	121.19	116.20
1	13	50	A	C2-N3-C4	5.54	113.37	110.60
26	1H	2516	G	C6-C5-N7	5.54	133.72	130.40
1	1G	972	C	OP2-P-O3'	5.54	117.38	105.20
26	14	1332	G	C5-C6-N1	-5.54	108.73	111.50
1	1G	1074	G	C5-C6-N1	-5.54	108.73	111.50
26	1H	2609	U	N1-C2-O2	-5.54	118.92	122.80
26	14	2258	C	N1-C2-O2	-5.54	115.58	118.90
26	1H	745	G	OP1-P-OP2	-5.53	111.30	119.60
26	1H	1902	C	C4-C5-C6	5.53	120.17	117.40
1	1G	1358	U	C6-N1-C1'	-5.53	113.45	121.20
26	14	1973	G	N3-C2-N2	5.53	123.77	119.90
26	14	2429	G	OP2-P-O3'	5.53	117.37	105.20
1	13	520	A	OP1-P-OP2	5.53	127.89	119.60
26	1H	990	A	OP2-P-O3'	5.53	117.37	105.20
26	1H	1137	G	OP1-P-O3'	5.53	117.37	105.20
26	14	932	G	N3-C4-N9	-5.53	122.68	126.00
26	14	952	G	O5'-P-OP2	5.53	117.33	110.70
26	1H	593	G	C5-N7-C8	5.53	107.06	104.30
27	1J	44	G	C6-C5-N7	5.53	133.72	130.40
1	13	346	G	N7-C8-N9	5.53	115.86	113.10
1	13	422	C	C6-N1-C2	-5.53	118.09	120.30
26	1H	207	A	C8-N9-C4	5.53	108.01	105.80
26	1H	2686	G	N3-C4-N9	5.53	129.32	126.00
26	14	1258	C	OP2-P-O3'	5.53	117.36	105.20
26	1H	467	G	C5-C6-O6	5.52	131.91	128.60
1	1G	945	G	C6-C5-N7	-5.52	127.09	130.40
26	1H	434	U	N1-C2-O2	-5.52	118.93	122.80
26	1H	822	U	N3-C2-O2	-5.52	118.33	122.20
26	14	1961	C	C5-C4-N4	5.52	124.07	120.20
1	13	1502	A	N9-C1'-C2'	5.52	121.18	114.00
26	14	2582	G	C6-C5-N7	-5.52	127.09	130.40
26	1H	2751	G	C4-C5-C6	-5.52	115.49	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	404	C	OP2-P-O3'	5.52	117.34	105.20
26	1H	481	G	O5'-P-OP2	-5.52	100.73	105.70
26	1H	1617	C	N3-C2-O2	5.52	125.76	121.90
26	1H	2604	U	N3-C2-O2	-5.52	118.34	122.20
26	14	97	C	OP1-P-OP2	5.52	127.88	119.60
26	14	773	U	C5-C6-N1	-5.52	119.94	122.70
26	14	1970	A	O4'-C1'-N9	-5.52	103.79	108.20
26	1H	329	G	O5'-P-OP2	-5.52	100.74	105.70
26	1H	1222	C	N3-C2-O2	-5.52	118.04	121.90
1	1G	1200	C	C2-N1-C1'	5.52	124.87	118.80
26	1H	2712	U	N3-C4-C5	5.51	117.91	114.60
1	1G	1084	G	N3-C4-C5	-5.51	125.84	128.60
1	1G	1259	C	C6-N1-C2	-5.51	118.09	120.30
25	4L	23	A	P-O3'-C3'	5.51	126.32	119.70
1	13	181	G	N3-C4-C5	-5.51	125.84	128.60
26	1H	1832	C	N1-C2-O2	5.51	122.21	118.90
26	14	1835	G	C4-N9-C1'	5.51	133.66	126.50
1	13	975	A	O4'-C1'-N9	-5.51	103.79	108.20
26	1H	1646	C	C5-C6-N1	-5.51	118.25	121.00
26	1H	2387	U	OP2-P-O3'	5.51	117.32	105.20
26	1H	2772	C	C5-C6-N1	-5.51	118.25	121.00
31	31	176	LEU	CB-CG-CD1	-5.51	101.63	111.00
26	1H	1675	C	C4-C5-C6	5.51	120.15	117.40
1	1G	1299	A	N7-C8-N9	5.51	116.55	113.80
26	1H	53	A	O5'-P-OP1	-5.50	100.75	105.70
26	1H	2848	G	O4'-C1'-N9	5.50	112.60	108.20
26	1H	987	G	OP1-P-OP2	-5.50	111.34	119.60
47	H8	157	LEU	CA-CB-CG	5.50	127.96	115.30
1	13	351	G	O5'-P-OP1	-5.50	100.75	105.70
26	14	1992	G	C5-C6-N1	5.50	114.25	111.50
1	1G	1359	C	C6-N1-C1'	-5.50	114.20	120.80
1	13	792	A	C3'-C2'-C1'	-5.50	97.10	101.50
26	1H	510	C	N3-C4-C5	-5.50	119.70	121.90
26	1H	667	U	N1-C2-O2	-5.50	118.95	122.80
26	1H	1331	A	OP1-P-O3'	5.50	117.30	105.20
26	14	770	G	O5'-P-OP2	5.50	117.30	110.70
26	1H	1677	A	OP1-P-OP2	-5.50	111.36	119.60
26	14	2371	G	C8-N9-C4	5.50	108.60	106.40
26	1H	1355	G	C5-C6-O6	5.50	131.90	128.60
26	1H	125	G	C8-N9-C4	5.49	108.60	106.40
26	1H	196	A	N7-C8-N9	5.49	116.55	113.80
26	1H	456	C	C6-N1-C2	5.49	122.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	655	A	C2-N3-C4	-5.49	107.85	110.60
26	1H	668	G	O4'-C1'-N9	5.49	112.59	108.20
26	1H	1210	A	P-O3'-C3'	5.49	126.29	119.70
26	1H	2655	G	N3-C4-N9	-5.49	122.70	126.00
26	14	2789	C	N1-C2-O2	-5.49	115.61	118.90
26	1H	139	G	C2-N3-C4	5.49	114.64	111.90
26	1H	216	A	P-O3'-C3'	5.49	126.29	119.70
26	1H	940	G	C5-C6-O6	-5.49	125.31	128.60
1	1G	1227	A	N7-C8-N9	5.49	116.55	113.80
26	14	826	U	C4-C5-C6	5.49	122.99	119.70
26	1H	112	U	C5-C4-O4	-5.49	122.61	125.90
26	14	788	A	N1-C6-N6	5.49	121.89	118.60
26	14	2211	G	C4-N9-C1'	5.49	133.63	126.50
33	59	103	LEU	CA-CB-CG	5.49	127.92	115.30
26	1H	270(Y)	G	N1-C6-O6	-5.49	116.61	119.90
26	1H	2271	G	N3-C4-C5	-5.49	125.86	128.60
26	14	441	U	O5'-P-OP1	-5.49	100.76	105.70
26	14	2830	G	C8-N9-C4	-5.49	104.20	106.40
26	1H	828	U	C2-N1-C1'	5.49	124.28	117.70
26	1H	1395	A	OP1-P-OP2	5.49	127.83	119.60
26	14	2092	U	N3-C4-O4	-5.49	115.56	119.40
26	1H	1408	C	C5-C4-N4	-5.48	116.36	120.20
26	1H	1510	A	C2-N3-C4	5.48	113.34	110.60
1	13	1202	G	C5-C6-O6	5.48	131.89	128.60
26	1H	2060	A	C4-C5-C6	-5.48	114.26	117.00
26	1H	2311	A	N1-C6-N6	5.48	121.89	118.60
26	1H	1808	U	N3-C2-O2	5.48	126.04	122.20
26	1H	122	G	C6-C5-N7	-5.48	127.11	130.40
26	1H	2480	C	C6-N1-C2	-5.48	118.11	120.30
26	14	832	G	C2-N3-C4	5.48	114.64	111.90
26	14	1585	C	C2-N1-C1'	5.48	124.82	118.80
1	1G	1322	C	O4'-C1'-N1	5.47	112.58	108.20
26	1H	265	A	N3-C4-C5	5.47	130.63	126.80
26	1H	1026	U	OP1-P-O3'	5.47	117.24	105.20
26	1H	1357	U	O5'-P-OP1	-5.47	100.77	105.70
26	14	1626	G	N1-C6-O6	5.47	123.18	119.90
26	14	1968	G	N3-C4-C5	5.47	131.34	128.60
1	1G	502	G	N1-C2-N2	5.47	121.12	116.20
26	14	1304	C	N1-C2-O2	5.47	122.18	118.90
26	14	2303	G	OP1-P-O3'	5.47	117.23	105.20
26	14	2326	C	O5'-P-OP1	-5.47	100.78	105.70
26	1H	856	C	O5'-P-OP1	-5.47	100.78	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1299	A	C6-C5-N7	-5.47	128.47	132.30
1	13	1407	C	C5-C4-N4	5.47	124.03	120.20
26	1H	30	G	OP1-P-O3'	5.46	117.22	105.20
26	14	1394	U	O5'-P-OP2	5.46	117.26	110.70
26	1H	1678	G	N1-C2-N3	5.46	127.18	123.90
1	13	833	U	C2-N1-C1'	-5.46	111.15	117.70
26	1H	704	G	N9-C4-C5	5.46	107.58	105.40
26	1H	1292	U	OP1-P-O3'	5.46	117.22	105.20
26	1H	2208	U	C5-C6-N1	-5.46	119.97	122.70
26	14	489	G	C4-C5-N7	5.46	112.98	110.80
26	14	1349	A	C4-C5-N7	5.46	113.43	110.70
26	14	2211	G	O5'-P-OP2	-5.46	100.79	105.70
26	1H	663	G	O5'-P-OP2	-5.46	100.79	105.70
26	1H	739	G	N7-C8-N9	-5.46	110.37	113.10
26	14	2273	A	O5'-P-OP2	-5.46	100.79	105.70
26	1H	1786	A	C6-N1-C2	-5.46	115.33	118.60
26	14	721	C	C6-N1-C2	5.46	122.48	120.30
26	1H	2239	G	N1-C6-O6	-5.45	116.63	119.90
26	1H	691	C	C6-N1-C2	5.45	122.48	120.30
26	14	2032	G	C5-N7-C8	5.45	107.03	104.30
26	14	2380	C	C5-C4-N4	-5.45	116.38	120.20
26	14	581	C	C5-C4-N4	5.45	124.02	120.20
26	1H	987	G	N3-C4-N9	-5.45	122.73	126.00
26	1H	1128	A	O5'-P-OP1	-5.45	100.80	105.70
26	14	383	U	C2-N1-C1'	-5.45	111.16	117.70
26	1H	245	G	N3-C4-N9	5.45	129.27	126.00
26	1H	326	G	C8-N9-C4	-5.45	104.22	106.40
26	1H	2210	G	P-O3'-C3'	5.45	126.24	119.70
26	1H	409	C	C6-N1-C2	5.45	122.48	120.30
26	1H	568	U	N3-C2-O2	5.45	126.01	122.20
26	1H	1256	G	C8-N9-C4	5.45	108.58	106.40
26	1H	2506	U	C2-N1-C1'	5.45	124.23	117.70
26	1H	213	A	C5-N7-C8	-5.44	101.18	103.90
26	1H	1217	C	N1-C2-O2	-5.44	115.63	118.90
26	14	1528	A	C5-N7-C8	-5.44	101.18	103.90
26	1H	2420	C	O5'-P-OP1	-5.44	100.80	105.70
26	14	1835	G	N3-C4-C5	-5.44	125.88	128.60
26	14	2386	C	N1-C2-O2	-5.44	115.64	118.90
26	1H	1827	C	C4-C5-C6	5.44	120.12	117.40
26	1H	2068	U	O5'-P-OP1	-5.44	100.80	105.70
26	14	771	G	C8-N9-C4	5.44	108.58	106.40
1	13	1450	U	N1-C2-O2	5.44	126.61	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2390	U	C6-N1-C2	-5.44	117.74	121.00
49	F5	84	GLY	N-CA-C	5.44	126.69	113.10
25	4K	12	A	C5-C6-N1	5.43	120.42	117.70
26	1H	762	U	N1-C2-O2	5.43	126.60	122.80
26	1H	784	A	N9-C4-C5	5.43	107.97	105.80
26	14	1765	C	N3-C4-C5	5.43	124.07	121.90
26	14	2477	C	C6-N1-C2	-5.43	118.13	120.30
27	1J	22	U	C6-N1-C2	-5.43	117.74	121.00
26	1H	212	G	OP2-P-O3'	5.43	117.15	105.20
26	1H	2241	A	O5'-P-OP1	-5.43	100.81	105.70
1	1G	525	C	C5-C6-N1	5.43	123.72	121.00
26	14	956	G	N1-C6-O6	5.43	123.16	119.90
26	1H	2249	U	O5'-P-OP1	-5.43	100.81	105.70
1	13	535	A	OP2-P-O3'	5.43	117.14	105.20
26	1H	2353	G	OP1-P-OP2	5.43	127.74	119.60
26	14	1762	A	C4-N9-C1'	5.43	136.07	126.30
49	F5	35	THR	C-N-CA	-5.43	110.91	122.30
26	1H	2552	U	N1-C2-O2	-5.42	119.00	122.80
52	M8	45	GLY	N-CA-C	-5.42	99.54	113.10
1	1G	577	G	N1-C6-O6	-5.42	116.65	119.90
26	14	1520	U	C5-C4-O4	5.42	129.16	125.90
26	1H	2296	U	N3-C4-O4	5.42	123.20	119.40
26	14	2315	G	C2-N3-C4	5.42	114.61	111.90
26	1H	2595	G	C8-N9-C1'	5.42	134.05	127.00
1	13	327	A	O5'-P-OP2	-5.42	100.82	105.70
26	1H	1260	G	N1-C6-O6	-5.42	116.65	119.90
26	14	1283	G	C4-C5-N7	-5.42	108.63	110.80
26	1H	113	G	N3-C4-N9	-5.42	122.75	126.00
26	1H	1992	G	P-O3'-C3'	5.42	126.20	119.70
26	1H	2434	A	OP2-P-O3'	5.42	117.12	105.20
26	1H	2615	U	N3-C2-O2	-5.42	118.41	122.20
1	1G	528	C	C6-N1-C1'	5.42	127.30	120.80
26	14	1390	U	N3-C2-O2	-5.42	118.41	122.20
26	14	1605	C	C4-C5-C6	5.42	120.11	117.40
26	1H	57	C	N1-C2-N3	-5.42	115.41	119.20
26	1H	1642	G	N3-C4-N9	-5.42	122.75	126.00
26	1H	1940	U	N1-C2-O2	-5.42	119.01	122.80
26	1H	1968	G	O5'-P-OP1	5.42	117.20	110.70
26	1H	2621	A	C8-N9-C4	5.42	107.97	105.80
1	1G	1498	U	O5'-P-OP1	-5.42	100.83	105.70
26	14	527	C	C6-N1-C2	5.42	122.47	120.30
26	1H	958	U	C6-N1-C2	-5.42	117.75	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1681	G	C6-C5-N7	-5.42	127.15	130.40
26	1H	2699	C	C5-C4-N4	-5.42	116.41	120.20
9	82	56	LEU	CA-CB-CG	5.42	127.75	115.30
1	13	748	C	P-O3'-C3'	5.41	126.20	119.70
26	1H	109	G	N1-C6-O6	-5.41	116.65	119.90
26	1H	400	G	C5-C6-O6	-5.41	125.35	128.60
1	1G	310	G	N3-C4-C5	5.41	131.31	128.60
1	1G	1257	U	C5-C6-N1	5.41	125.41	122.70
26	14	2540	C	O5'-P-OP2	-5.41	100.83	105.70
26	14	2779	U	C2-N3-C4	-5.41	123.75	127.00
26	14	2789	C	C6-N1-C1'	5.41	127.30	120.80
26	1H	1373	A	N7-C8-N9	-5.41	111.09	113.80
1	13	266	G	N7-C8-N9	5.41	115.81	113.10
1	13	1530	G	C5-N7-C8	-5.41	101.59	104.30
26	1H	859	G	C8-N9-C4	5.41	108.56	106.40
26	1H	1661	G	N1-C6-O6	-5.41	116.65	119.90
26	14	2763	G	N3-C4-N9	5.41	129.25	126.00
26	14	1968	G	C4-C5-N7	5.41	112.96	110.80
26	14	2357	U	O5'-P-OP2	-5.41	100.83	105.70
26	14	2516	G	OP2-P-O3'	5.41	117.10	105.20
26	14	2542	A	C5-N7-C8	5.41	106.61	103.90
26	1H	26	G	N3-C2-N2	5.41	123.69	119.90
1	1G	1403	C	C5-C6-N1	-5.41	118.30	121.00
26	14	1267	U	OP2-P-O3'	5.41	117.10	105.20
22	1K	75	C	N1-C2-O2	5.41	122.14	118.90
26	1H	2088	G	N1-C6-O6	5.41	123.14	119.90
26	1H	2260	C	N3-C4-N4	-5.41	114.22	118.00
1	1G	815	A	OP2-P-O3'	5.41	117.09	105.20
26	1H	1528	A	C5-C6-N1	-5.40	115.00	117.70
1	1G	1301	U	N1-C2-O2	5.40	126.58	122.80
26	14	2393	A	N1-C6-N6	5.40	121.84	118.60
1	13	974	A	C4-C5-N7	5.40	113.40	110.70
24	3K	72	C	C2-N3-C4	5.40	122.60	119.90
26	1H	2751	G	N7-C8-N9	-5.40	110.40	113.10
26	14	574	C	C5-C4-N4	5.40	123.98	120.20
26	14	1796	U	O5'-P-OP2	5.40	117.18	110.70
26	1H	1416	G	O5'-P-OP2	-5.40	100.84	105.70
26	14	1604	C	C5-C4-N4	-5.40	116.42	120.20
26	14	1614	A	N7-C8-N9	5.40	116.50	113.80
26	1H	961	C	OP1-P-O3'	5.40	117.07	105.20
26	1H	1288	U	C5-C4-O4	-5.40	122.66	125.90
26	1H	1796	U	C6-N1-C2	5.39	124.24	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	529	A	C8-N9-C4	-5.39	103.64	105.80
26	14	1817	G	O5'-P-OP2	-5.39	100.84	105.70
26	1H	1142(A)	A	N1-C6-N6	5.39	121.84	118.60
26	1H	1833	U	C5-C4-O4	5.39	129.14	125.90
26	1H	2572	A	C8-N9-C4	5.39	107.96	105.80
1	1G	552	U	OP2-P-O3'	5.39	117.06	105.20
26	14	1296	G	OP2-P-O3'	5.39	117.06	105.20
26	14	1982	C	O5'-P-OP2	-5.39	100.85	105.70
26	14	2307	G	C8-N9-C1'	-5.39	119.99	127.00
26	1H	1649	G	C8-N9-C4	-5.39	104.24	106.40
1	1G	8	A	N7-C8-N9	-5.39	111.11	113.80
26	14	1679	U	C6-N1-C2	-5.39	117.77	121.00
27	1J	102	G	C4-N9-C1'	-5.39	119.49	126.50
39	55	100	LEU	CA-CB-CG	-5.39	102.91	115.30
26	1H	2610	C	N1-C2-O2	5.39	122.13	118.90
26	14	1342	A	C5-C6-N1	-5.39	115.01	117.70
26	1H	721	C	N1-C2-O2	-5.39	115.67	118.90
26	1H	799	G	N9-C4-C5	-5.39	103.25	105.40
26	1H	2016	U	C5-C6-N1	-5.39	120.01	122.70
26	14	450	G	C6-C5-N7	5.39	133.63	130.40
26	14	1274	A	N1-C6-N6	5.39	121.83	118.60
26	1H	1823	G	N9-C4-C5	5.38	107.55	105.40
26	14	2789	C	C2-N1-C1'	-5.38	112.88	118.80
26	1H	800	A	N7-C8-N9	-5.38	111.11	113.80
26	1H	2282	G	O5'-P-OP1	-5.38	100.86	105.70
26	1H	747	U	OP1-P-OP2	5.38	127.67	119.60
26	14	704	G	C5-C6-O6	-5.38	125.37	128.60
26	14	800	A	N1-C2-N3	-5.38	126.61	129.30
26	14	1407	C	C4-C5-C6	-5.38	114.71	117.40
26	14	912	C	OP2-P-O3'	5.38	117.04	105.20
26	1H	1534	G	C4-N9-C1'	5.38	133.49	126.50
26	14	1558	A	P-O3'-C3'	5.38	126.15	119.70
26	14	1782	C	C5-C4-N4	-5.38	116.44	120.20
26	14	2688	U	C4-C5-C6	5.38	122.93	119.70
1	13	1519	A	N1-C2-N3	5.38	131.99	129.30
26	1H	23	G	N3-C2-N2	-5.38	116.14	119.90
27	16	38	C	OP2-P-O3'	5.38	117.03	105.20
1	1G	1259	C	C5-C6-N1	5.38	123.69	121.00
26	14	2505	G	OP2-P-O3'	5.38	117.03	105.20
26	14	2617	C	C6-N1-C2	5.38	122.45	120.30
1	13	1408	A	C8-N9-C4	-5.38	103.65	105.80
1	13	1381	U	C2-N1-C1'	5.37	124.15	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	445	C	OP2-P-O3'	-5.37	93.38	105.20
26	1H	752	A	N9-C4-C5	-5.37	103.65	105.80
26	1H	836	G	N9-C4-C5	5.37	107.55	105.40
26	1H	1950	G	C6-C5-N7	-5.37	127.17	130.40
26	1H	117	G	N3-C2-N2	5.37	123.66	119.90
26	1H	510	C	C2-N3-C4	5.37	122.59	119.90
1	1G	15	G	N3-C4-N9	5.37	129.22	126.00
26	14	2286	A	C6-C5-N7	-5.37	128.54	132.30
41	75	4	GLY	N-CA-C	-5.37	99.67	113.10
26	1H	1955	U	N3-C4-O4	-5.37	115.64	119.40
26	1H	134	C	C5-C6-N1	-5.37	118.31	121.00
26	1H	2261	C	OP2-P-O3'	5.37	117.01	105.20
26	1H	992	C	OP1-P-O3'	5.37	117.01	105.20
1	13	1064	G	P-O3'-C3'	5.37	126.14	119.70
26	1H	141	A	C2-N3-C4	-5.37	107.92	110.60
29	11	222	ARG	NE-CZ-NH2	-5.37	117.62	120.30
1	1G	525	C	N3-C4-N4	5.37	121.76	118.00
26	14	1695	G	N9-C4-C5	-5.37	103.25	105.40
26	14	2334	G	O4'-C1'-N9	-5.37	103.91	108.20
1	13	757	U	C5-C6-N1	-5.36	120.02	122.70
1	13	1279	A	C8-N9-C4	-5.36	103.66	105.80
26	1H	247	G	C8-N9-C4	5.36	108.55	106.40
26	1H	2311	A	C6-C5-N7	-5.36	128.54	132.30
26	14	1323	U	OP1-P-O3'	5.36	117.00	105.20
26	14	1885	A	C8-N9-C4	5.36	107.95	105.80
26	1H	2502	G	O5'-P-OP1	-5.36	100.88	105.70
1	13	182	U	N1-C2-O2	-5.36	119.05	122.80
1	13	1129	C	C5-C6-N1	5.36	123.68	121.00
26	1H	753	C	N3-C2-O2	-5.36	118.15	121.90
26	1H	2598	A	O5'-P-OP1	-5.36	100.88	105.70
27	16	36	C	C2-N3-C4	-5.36	117.22	119.90
37	35	33	ARG	C-N-CA	-5.36	111.04	122.30
26	1H	182	A	C8-N9-C4	5.36	107.94	105.80
26	14	472	A	N9-C4-C5	5.36	107.94	105.80
26	1H	1297	C	C5-C4-N4	5.36	123.95	120.20
26	1H	1496	A	C5-C6-N6	-5.36	119.42	123.70
26	1H	2476	A	C8-N9-C4	-5.36	103.66	105.80
26	14	113	G	C5-C6-O6	-5.36	125.39	128.60
26	14	383	U	O5'-P-OP1	-5.36	100.88	105.70
26	14	772	C	O5'-P-OP2	5.36	117.13	110.70
26	14	1342	A	C4-C5-C6	5.36	119.68	117.00
26	14	2248	C	N3-C2-O2	-5.36	118.15	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	463	G	C8-N9-C4	5.35	108.54	106.40
26	1H	847	U	C4-C5-C6	5.35	122.91	119.70
26	14	786	C	N3-C4-N4	-5.35	114.25	118.00
26	14	1022	G	P-O3'-C3'	5.35	126.12	119.70
26	14	2063	C	C6-N1-C2	-5.35	118.16	120.30
26	14	2362	G	O5'-P-OP2	5.35	117.12	110.70
26	14	2473	U	N1-C2-O2	5.35	126.55	122.80
26	1H	1382	G	C6-C5-N7	-5.35	127.19	130.40
26	14	179	G	C8-N9-C4	5.35	108.54	106.40
26	1H	1336	A	N1-C6-N6	-5.35	115.39	118.60
1	1G	857	C	C2-N1-C1'	5.35	124.69	118.80
1	1G	1281	U	N1-C2-O2	5.35	126.54	122.80
26	1H	107	C	C6-N1-C2	5.35	122.44	120.30
26	1H	869	G	N1-C2-N2	-5.35	111.39	116.20
26	1H	2540	C	N3-C4-C5	5.35	124.04	121.90
26	14	1277	G	OP1-P-OP2	5.35	127.62	119.60
26	1H	1665	A	O5'-P-OP2	5.34	117.11	110.70
26	1H	2026	C	OP1-P-OP2	5.34	127.61	119.60
26	1H	395	U	N3-C4-O4	5.34	123.14	119.40
26	1H	2595	G	N3-C4-N9	-5.34	122.79	126.00
23	2L	21	U	C5-C6-N1	5.34	125.37	122.70
26	1H	593	G	N7-C8-N9	-5.34	110.43	113.10
26	14	2424	C	O5'-P-OP1	-5.34	100.89	105.70
26	14	2334	G	OP1-P-O3'	5.34	116.94	105.20
26	14	2346	A	C6-C5-N7	-5.34	128.56	132.30
26	1H	1858	G	P-O3'-C3'	5.34	126.10	119.70
26	1H	2298	A	O5'-P-OP1	5.34	117.10	110.70
26	14	1563	G	OP2-P-O3'	5.34	116.94	105.20
26	14	2042	A	O5'-P-OP2	-5.34	100.90	105.70
26	14	2057	A	C5-C6-N6	-5.34	119.43	123.70
26	1H	2580	U	N3-C2-O2	-5.33	118.47	122.20
26	14	2267	A	C4-N9-C1'	5.33	135.90	126.30
26	1H	1668	A	C2-N3-C4	5.33	113.27	110.60
26	1H	2347	C	N3-C2-O2	-5.33	118.17	121.90
12	3A	27	LEU	CA-CB-CG	5.33	127.57	115.30
26	14	827	U	C2-N1-C1'	-5.33	111.30	117.70
1	13	811	C	C6-N1-C2	5.33	122.43	120.30
26	1H	1632	A	C6-C5-N7	-5.33	128.57	132.30
26	14	1964	G	N1-C2-N2	-5.33	111.40	116.20
26	1H	1675	C	N1-C2-O2	-5.33	115.70	118.90
27	16	81	G	C5-C6-O6	-5.33	125.40	128.60
26	14	140	A	C2-N3-C4	-5.33	107.94	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	664	C	C5-C6-N1	-5.33	118.34	121.00
26	14	2253	G	N1-C6-O6	5.33	123.10	119.90
26	1H	1365	A	C5-C6-N1	-5.33	115.04	117.70
26	14	308	G	O5'-P-OP2	-5.33	100.91	105.70
26	1H	659	C	C6-N1-C2	5.33	122.43	120.30
26	1H	1385	G	N3-C4-N9	-5.33	122.81	126.00
26	1H	2714	G	O5'-P-OP2	-5.33	100.91	105.70
26	14	205	G	C8-N9-C4	5.33	108.53	106.40
26	14	2688	U	C5-C6-N1	-5.33	120.04	122.70
26	1H	451	C	C2-N3-C4	-5.32	117.24	119.90
26	1H	2690	C	N1-C2-O2	-5.32	115.71	118.90
1	1G	267	C	O5'-P-OP1	-5.32	100.91	105.70
26	14	1820	U	O5'-P-OP1	-5.32	100.91	105.70
26	14	141	A	N7-C8-N9	5.32	116.46	113.80
26	1H	673	C	N3-C4-N4	5.32	121.72	118.00
26	1H	1312	U	O5'-P-OP1	-5.32	100.91	105.70
24	3L	74	C	C5-C6-N1	5.32	123.66	121.00
26	14	450	G	C5-C6-O6	5.32	131.79	128.60
26	14	1475	G	N7-C8-N9	5.32	115.76	113.10
26	1H	20	C	C2-N3-C4	-5.32	117.24	119.90
26	1H	265	A	C4-C5-N7	5.32	113.36	110.70
26	1H	741	G	N1-C6-O6	5.32	123.09	119.90
26	1H	2285	C	C5-C4-N4	5.32	123.92	120.20
26	1H	2294	C	C5-C6-N1	5.32	123.66	121.00
26	1H	2562	U	C5-C6-N1	-5.32	120.04	122.70
37	78	17	LYS	CA-CB-CG	5.32	125.10	113.40
1	13	429	U	O4'-C1'-N1	5.32	112.45	108.20
26	1H	470	A	C4-C5-N7	5.32	113.36	110.70
26	1H	1313	U	O4'-C1'-N1	5.32	112.45	108.20
1	1G	1525	G	C4-C5-N7	-5.32	108.67	110.80
26	14	1021	A	C8-N9-C4	-5.32	103.67	105.80
26	14	2613	U	C5-C6-N1	-5.32	120.04	122.70
30	29	44	TYR	CA-CB-CG	5.31	123.50	113.40
1	13	630	G	O5'-P-OP2	-5.31	100.92	105.70
1	13	1379	G	O5'-P-OP2	-5.31	100.92	105.70
26	1H	468	G	N9-C4-C5	-5.31	103.28	105.40
26	1H	620	G	C5-C6-O6	-5.31	125.41	128.60
26	1H	783	A	OP1-P-O3'	-5.31	93.51	105.20
26	14	195	A	C4-C5-C6	5.31	119.66	117.00
26	14	1471	A	C8-N9-C4	-5.31	103.67	105.80
26	14	2523	G	C6-C5-N7	-5.31	127.21	130.40
27	16	44	G	N3-C4-N9	-5.31	122.81	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	230	G	N3-C4-N9	-5.31	122.81	126.00
1	1G	690	G	C2-N3-C4	-5.31	109.24	111.90
26	1H	1563	G	OP2-P-O3'	5.31	116.88	105.20
26	1H	2035	G	N3-C4-C5	5.31	131.25	128.60
26	14	656	G	C5-C6-O6	-5.31	125.42	128.60
26	1H	704	G	N3-C2-N2	-5.31	116.19	119.90
1	1G	186	C	C6-N1-C2	-5.31	118.18	120.30
26	1H	1156	A	O4'-C1'-N9	-5.31	103.95	108.20
26	1H	2252	G	O5'-P-OP1	-5.31	100.92	105.70
26	14	70	G	N3-C2-N2	5.31	123.61	119.90
1	13	690	G	C4-C5-N7	5.30	112.92	110.80
26	1H	2346	A	C1'-O4'-C4'	-5.30	105.66	109.90
26	14	2038	G	C8-N9-C4	5.30	108.52	106.40
26	1H	380	U	C5-C4-O4	5.30	129.08	125.90
26	1H	627	A	OP1-P-O3'	5.30	116.87	105.20
26	14	1129	A	O4'-C1'-N9	5.30	112.44	108.20
26	14	1948	G	O5'-P-OP1	-5.30	100.93	105.70
1	13	125	U	C2-N1-C1'	-5.30	111.34	117.70
1	13	1201	A	O4'-C1'-N9	5.30	112.44	108.20
1	13	1489	G	C8-N9-C4	5.30	108.52	106.40
26	1H	49	A	N9-C4-C5	-5.30	103.68	105.80
26	14	301	G	C4-N9-C1'	-5.30	119.61	126.50
26	14	1128	A	C5-C6-N6	-5.30	119.46	123.70
26	1H	2032	G	N1-C2-N3	5.30	127.08	123.90
26	14	383	U	O4'-C1'-N1	5.30	112.44	108.20
26	14	1647	G	O5'-P-OP1	-5.30	100.93	105.70
1	13	525	C	C5-C6-N1	5.30	123.65	121.00
26	14	1261	C	O5'-P-OP1	-5.30	100.93	105.70
26	1H	2213	U	O4'-C1'-N1	5.30	112.44	108.20
1	13	768	A	C6-N1-C2	-5.29	115.42	118.60
26	1H	1705	G	C5-C6-O6	5.29	131.78	128.60
26	1H	760	G	C5-C6-O6	-5.29	125.42	128.60
26	1H	765	G	C5-C6-N1	-5.29	108.85	111.50
26	1H	839	U	C5-C4-O4	5.29	129.08	125.90
26	1H	1437	C	C2-N1-C1'	5.29	124.62	118.80
26	1H	1681	G	C5-N7-C8	-5.29	101.65	104.30
26	1H	2377	A	N1-C6-N6	5.29	121.78	118.60
26	1H	2779	U	C5-C6-N1	-5.29	120.05	122.70
26	14	1964	G	C5-C6-O6	5.29	131.78	128.60
26	1H	265	A	C5-C6-N1	-5.29	115.05	117.70
26	1H	1544	C	C2-N1-C1'	5.29	124.62	118.80
26	1H	1776	G	N1-C6-O6	5.29	123.08	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1495	A	OP1-P-O3'	5.29	116.84	105.20
26	1H	1966	A	N3-C4-N9	-5.29	123.17	127.40
1	1G	567	G	C2-N3-C4	-5.29	109.25	111.90
26	1H	906	G	N3-C4-N9	-5.29	122.83	126.00
26	1H	1758	G	N1-C2-N2	5.29	120.96	116.20
26	1H	1799	G	C2-N3-C4	5.29	114.54	111.90
26	1H	2655	G	C4-N9-C1'	-5.29	119.62	126.50
26	14	878	A	O4'-C1'-N9	5.29	112.43	108.20
26	14	2872	G	N3-C4-C5	-5.29	125.95	128.60
26	1H	860	U	O5'-P-OP1	5.29	117.04	110.70
1	1G	1499	A	C8-N9-C4	5.29	107.92	105.80
26	14	955	C	C6-N1-C1'	5.29	127.14	120.80
26	14	1283	G	C5-N7-C8	5.29	106.94	104.30
1	13	505	G	N7-C8-N9	5.29	115.74	113.10
26	1H	1204	A	N1-C6-N6	-5.29	115.43	118.60
26	14	140	A	O4'-C1'-N9	5.29	112.43	108.20
26	14	705	A	C2-N3-C4	-5.29	107.96	110.60
4	3E	25	ARG	NE-CZ-NH2	5.28	122.94	120.30
26	1H	1819	A	OP1-P-OP2	5.28	127.53	119.60
26	1H	2566	A	P-O3'-C3'	5.28	126.04	119.70
1	1G	353	A	N7-C8-N9	5.28	116.44	113.80
26	14	1564	C	N3-C4-N4	-5.28	114.30	118.00
26	14	2267	A	C8-N9-C1'	-5.28	118.19	127.70
27	1J	44	G	C8-N9-C4	5.28	108.51	106.40
26	1H	864	G	C2-N3-C4	5.28	114.54	111.90
26	1H	944	G	C4-N9-C1'	5.28	133.36	126.50
26	1H	1009	A	C8-N9-C4	5.28	107.91	105.80
56	1L	69	A	P-O3'-C3'	5.28	126.04	119.70
26	14	1200	C	C5-C6-N1	-5.28	118.36	121.00
26	14	2618	G	C5-C6-O6	5.28	131.77	128.60
1	13	277	C	OP2-P-O3'	5.28	116.81	105.20
26	1H	237	C	C2-N3-C4	-5.28	117.26	119.90
1	13	1437	C	C5-C4-N4	-5.28	116.51	120.20
26	1H	789	A	O5'-P-OP1	-5.28	100.95	105.70
26	14	265	A	C2-N3-C4	-5.28	107.96	110.60
26	14	621	A	O4'-C1'-N9	5.28	112.42	108.20
26	1H	2636	U	O4'-C1'-N1	5.28	112.42	108.20
26	14	1989	G	N9-C4-C5	5.27	107.51	105.40
26	14	141	A	N3-C4-C5	5.27	130.49	126.80
27	1J	44	G	N3-C4-C5	5.27	131.24	128.60
1	13	32	A	C8-N9-C4	-5.27	103.69	105.80
26	1H	102	G	OP1-P-O3'	5.27	116.80	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	449	C	N1-C2-O2	5.27	122.06	118.90
26	14	767	U	C5-C4-O4	5.27	129.06	125.90
26	1H	238	C	C4-C5-C6	5.27	120.03	117.40
26	1H	1004	C	N1-C2-O2	-5.27	115.74	118.90
26	1H	1787	A	N7-C8-N9	5.27	116.44	113.80
26	1H	2580	U	C2-N1-C1'	5.27	124.02	117.70
27	16	5	C	C5-C6-N1	-5.27	118.36	121.00
1	1G	266	G	O4'-C1'-N9	-5.27	103.98	108.20
26	14	1964	G	N3-C4-N9	5.27	129.16	126.00
26	1H	686	G	C8-N9-C4	5.27	108.51	106.40
26	14	705	A	O5'-P-OP2	-5.27	100.96	105.70
26	14	826	U	C5-C6-N1	-5.27	120.07	122.70
26	14	1733	G	N1-C6-O6	5.27	123.06	119.90
43	95	40	LEU	CA-CB-CG	5.27	127.42	115.30
26	1H	801	G	N1-C2-N3	5.27	127.06	123.90
26	1H	944	G	O5'-P-OP2	-5.27	100.96	105.70
26	1H	1393	A	N1-C6-N6	-5.27	115.44	118.60
1	13	328	C	C6-N1-C1'	-5.26	114.48	120.80
26	1H	641	C	O5'-P-OP2	5.26	117.02	110.70
26	1H	804	A	C8-N9-C4	5.26	107.91	105.80
26	1H	2326	C	C6-N1-C2	-5.26	118.19	120.30
26	14	826	U	N1-C2-N3	5.26	118.06	114.90
26	14	988	A	N7-C8-N9	5.26	116.43	113.80
26	1H	2639	A	C8-N9-C4	-5.26	103.69	105.80
1	1G	330	C	N1-C2-O2	5.26	122.06	118.90
27	16	90	C	N3-C4-C5	5.26	124.00	121.90
26	14	141	A	C2-N3-C4	-5.26	107.97	110.60
1	13	560	U	C6-N1-C2	-5.26	117.84	121.00
26	1H	655	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	999	U	C5-C4-O4	5.26	129.06	125.90
26	1H	1252	G	O4'-C1'-N9	-5.26	103.99	108.20
26	1H	1839	G	C4-N9-C1'	5.26	133.34	126.50
26	1H	2300	G	N9-C4-C5	5.26	107.50	105.40
26	1H	1017	G	N9-C4-C5	5.26	107.50	105.40
26	14	932	G	N3-C4-C5	5.26	131.23	128.60
26	14	2279	G	C5-C6-O6	5.26	131.75	128.60
26	14	2681	C	C5-C4-N4	5.26	123.88	120.20
26	14	2873	A	N9-C1'-C2'	5.26	120.83	114.00
1	13	943	U	C5-C4-O4	-5.25	122.75	125.90
26	1H	321	G	N1-C6-O6	5.25	123.05	119.90
26	1H	2718	G	N1-C6-O6	5.25	123.05	119.90
1	13	943	U	N3-C2-O2	5.25	125.88	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1950	G	C4-C5-N7	5.25	112.90	110.80
26	14	502	A	C2-N3-C4	-5.25	107.97	110.60
26	14	748	G	C4-N9-C1'	-5.25	119.67	126.50
26	1H	946	G	C8-N9-C4	5.25	108.50	106.40
1	1G	1151	A	O4'-C1'-N9	5.25	112.40	108.20
26	1H	1010	A	OP1-P-OP2	-5.25	111.72	119.60
26	14	242	G	C4-N9-C1'	-5.25	119.67	126.50
1	13	5	U	C2-N1-C1'	5.25	124.00	117.70
26	1H	591	C	N1-C2-O2	-5.25	115.75	118.90
26	14	2520	C	C5-C6-N1	-5.25	118.38	121.00
26	14	2580	U	C5-C4-O4	-5.25	122.75	125.90
1	13	896	C	N1-C2-O2	-5.25	115.75	118.90
1	1G	219	C	C6-N1-C2	-5.25	118.20	120.30
23	2L	40	C	C6-N1-C2	-5.25	118.20	120.30
1	1G	652	U	N1-C2-O2	5.25	126.47	122.80
1	1G	1390	U	C5-C4-O4	5.25	129.05	125.90
26	1H	1157	G	C6-C5-N7	-5.24	127.25	130.40
26	1H	1964	G	O4'-C1'-N9	-5.24	104.01	108.20
26	1H	2311	A	C8-N9-C4	-5.24	103.70	105.80
26	14	1210	A	N7-C8-N9	5.24	116.42	113.80
1	1G	1331	G	P-O3'-C3'	5.24	125.99	119.70
26	14	2286	A	C5-N7-C8	-5.24	101.28	103.90
26	1H	265	A	C6-C5-N7	-5.24	128.63	132.30
26	1H	2238	G	OP1-P-OP2	5.24	127.46	119.60
27	16	96	G	C5-C6-O6	-5.24	125.46	128.60
23	2L	18	C	C6-N1-C2	-5.24	118.20	120.30
26	1H	944	G	N7-C8-N9	5.24	115.72	113.10
26	1H	1197	G	C8-N9-C4	5.24	108.50	106.40
26	14	1936	A	O4'-C1'-N9	5.24	112.39	108.20
26	14	2064	C	OP1-P-OP2	5.24	127.46	119.60
26	1H	1919	A	O4'-C1'-N9	-5.24	104.01	108.20
26	14	951	C	OP1-P-O3'	5.24	116.72	105.20
26	1H	1634	A	N1-C6-N6	5.24	121.74	118.60
26	1H	2811	G	C4-C5-N7	5.24	112.89	110.80
26	14	499	U	N3-C2-O2	-5.24	118.54	122.20
26	14	2213	U	C2-N1-C1'	5.24	123.98	117.70
26	14	2612	C	N3-C4-N4	5.24	121.67	118.00
1	13	726	C	OP1-P-O3'	5.23	116.72	105.20
26	14	2473	U	C6-N1-C1'	-5.23	113.87	121.20
26	1H	36	G	OP2-P-O3'	5.23	116.71	105.20
26	1H	1965	C	N1-C2-O2	5.23	122.04	118.90
26	1H	2559	C	C5-C6-N1	-5.23	118.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	61	68	LEU	CA-CB-CG	5.23	127.33	115.30
26	14	1854	A	N9-C4-C5	5.23	107.89	105.80
26	1H	866	A	C8-N9-C1'	-5.23	118.29	127.70
26	1H	1610	A	C6-C5-N7	-5.23	128.64	132.30
26	1H	1954	G	N1-C6-O6	5.23	123.04	119.90
26	1H	681	G	OP2-P-O3'	5.23	116.70	105.20
26	1H	945	A	O4'-C1'-N9	5.23	112.38	108.20
26	14	680	G	C8-N9-C4	-5.23	104.31	106.40
26	14	771	G	N7-C8-N9	-5.23	110.48	113.10
26	14	1932	A	C8-N9-C4	5.23	107.89	105.80
26	1H	634	C	N3-C4-N4	-5.23	114.34	118.00
26	1H	1636	C	N1-C2-O2	-5.23	115.76	118.90
26	1H	2370	G	N1-C6-O6	-5.23	116.76	119.90
26	1H	2622	C	OP2-P-O3'	5.23	116.70	105.20
26	14	208	C	N1-C2-N3	-5.23	115.54	119.20
1	13	582	U	N3-C4-C5	5.23	117.73	114.60
26	1H	372	G	O4'-C1'-N9	5.23	112.38	108.20
26	1H	1280	G	N9-C1'-C2'	-5.23	106.25	112.00
26	1H	1594	G	N3-C2-N2	-5.23	116.24	119.90
34	61	72	LEU	CA-CB-CG	5.23	127.32	115.30
26	14	665	C	C6-N1-C2	5.23	122.39	120.30
1	13	961	U	OP2-P-O3'	5.22	116.69	105.20
26	1H	1698	A	N7-C8-N9	5.22	116.41	113.80
26	1H	1835	G	C8-N9-C1'	-5.22	120.21	127.00
26	14	845	G	N3-C4-N9	5.22	129.13	126.00
26	14	1282	U	O5'-P-OP1	-5.22	101.00	105.70
26	14	1516	U	N1-C2-O2	5.22	126.46	122.80
26	14	2239	G	N3-C2-N2	5.22	123.56	119.90
27	1J	65	C	O4'-C1'-N1	5.22	112.38	108.20
1	1G	1407	C	C5-C6-N1	5.22	123.61	121.00
26	14	330	A	N3-C4-C5	5.22	130.46	126.80
26	14	537	C	C5-C6-N1	5.22	123.61	121.00
26	1H	518	G	OP2-P-O3'	5.22	116.68	105.20
26	1H	1955	U	C5-C4-O4	5.22	129.03	125.90
26	14	912	C	C6-N1-C2	-5.22	118.21	120.30
1	1G	413	G	N1-C6-O6	-5.22	116.77	119.90
26	14	2685	G	N1-C6-O6	5.22	123.03	119.90
1	13	108	G	N7-C8-N9	5.22	115.71	113.10
1	13	972	C	OP2-P-O3'	5.22	116.67	105.20
26	1H	1035	U	C5-C4-O4	5.22	129.03	125.90
1	1G	903	G	N1-C6-O6	5.22	123.03	119.90
26	14	2320	A	N1-C6-N6	5.22	121.73	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	906	G	C5-C6-O6	5.21	131.73	128.60
26	1H	1506	C	C5-C6-N1	5.21	123.61	121.00
26	1H	2011	U	C2-N1-C1'	-5.21	111.44	117.70
26	14	1332	G	O4'-C1'-N9	-5.21	104.03	108.20
26	1H	671	C	N3-C4-C5	5.21	123.98	121.90
26	1H	1785	A	C4-C5-C6	5.21	119.61	117.00
26	14	2070	G	C5-N7-C8	5.21	106.91	104.30
1	13	522	C	O5'-P-OP2	-5.21	101.01	105.70
26	1H	148	C	C2-N3-C4	-5.21	117.29	119.90
26	1H	2238	G	O5'-P-OP2	-5.21	101.01	105.70
26	1H	2348	U	O5'-P-OP2	-5.21	101.01	105.70
1	1G	87	A	P-O3'-C3'	5.21	125.95	119.70
1	1G	345	C	P-O3'-C3'	5.21	125.95	119.70
1	1G	848	C	C5-C6-N1	5.21	123.61	121.00
1	13	520	A	N1-C6-N6	5.21	121.72	118.60
26	1H	1858	G	C4-N9-C1'	5.21	133.27	126.50
26	1H	2454	G	N1-C2-N2	-5.21	111.51	116.20
7	62	146	GLU	CA-CB-CG	5.21	124.86	113.40
26	14	1605	C	C5-C6-N1	-5.21	118.39	121.00
26	14	1643	G	O5'-P-OP2	-5.21	101.01	105.70
26	1H	2586	C	C5-C4-N4	-5.21	116.56	120.20
1	1G	1321	C	C2-N1-C1'	-5.21	113.07	118.80
26	14	528	A	N1-C6-N6	5.21	121.72	118.60
26	1H	1831	G	C8-N9-C4	-5.21	104.32	106.40
26	1H	680	G	O5'-P-OP1	-5.20	101.02	105.70
26	1H	830	G	N9-C4-C5	5.20	107.48	105.40
26	1H	874	G	O5'-P-OP2	-5.20	101.02	105.70
26	1H	2788	C	N3-C2-O2	-5.20	118.26	121.90
26	14	197	A	OP2-P-O3'	5.20	116.64	105.20
1	13	1530	G	N3-C4-C5	5.20	131.20	128.60
26	1H	1930	G	N1-C2-N3	-5.20	120.78	123.90
26	14	288	C	N1-C2-O2	5.20	122.02	118.90
26	14	1241	A	O4'-C1'-N9	5.20	112.36	108.20
26	14	2685	G	N3-C4-N9	-5.20	122.88	126.00
26	14	2823	A	N1-C6-N6	5.20	121.72	118.60
1	13	768	A	O5'-P-OP2	-5.20	101.02	105.70
26	1H	633	A	C6-C5-N7	-5.20	128.66	132.30
26	1H	1800	C	C6-N1-C2	-5.20	118.22	120.30
26	14	672	C	C4-C5-C6	5.20	120.00	117.40
26	14	1372	U	C2-N3-C4	-5.20	123.88	127.00
26	14	2432	A	C5-C6-N6	-5.20	119.54	123.70
26	1H	2501	C	C6-N1-C1'	5.20	127.04	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1267	U	OP2-P-O3'	5.20	116.63	105.20
26	1H	2708	G	C5-C6-O6	-5.20	125.48	128.60
1	1G	754	C	C2-N1-C1'	5.20	124.52	118.80
26	14	1416	G	C4-N9-C1'	-5.20	119.75	126.50
26	1H	481	G	O4'-C1'-N9	5.19	112.36	108.20
26	1H	1496	A	O4'-C1'-N9	5.19	112.36	108.20
26	14	2510	C	N3-C4-N4	-5.19	114.36	118.00
23	2K	31	G	C8-N9-C4	-5.19	104.32	106.40
26	1H	1993	U	OP2-P-O3'	5.19	116.62	105.20
26	14	25	U	N3-C2-O2	5.19	125.83	122.20
26	14	621	A	N1-C6-N6	5.19	121.72	118.60
26	14	1379	A	C5-N7-C8	-5.19	101.30	103.90
26	14	1396	U	O5'-P-OP1	-5.19	101.03	105.70
26	14	2055	C	OP1-P-O3'	5.19	116.62	105.20
26	1H	1614	A	OP1-P-OP2	5.19	127.39	119.60
26	14	778	G	N3-C2-N2	5.19	123.53	119.90
26	14	2477	C	C6-N1-C1'	-5.19	114.57	120.80
26	1H	162	U	C2-N1-C1'	5.19	123.93	117.70
26	1H	517	C	N1-C2-O2	-5.19	115.79	118.90
26	1H	283	A	OP2-P-O3'	5.19	116.61	105.20
26	1H	784	A	C5-C6-N6	5.19	127.85	123.70
26	1H	862	G	N3-C4-N9	5.19	129.11	126.00
26	1H	1572	A	N1-C6-N6	5.19	121.71	118.60
26	1H	1938	A	O4'-C1'-N9	5.19	112.35	108.20
26	1H	2055	C	N1-C2-O2	-5.19	115.79	118.90
26	1H	2299	G	O5'-P-OP2	5.19	116.92	110.70
26	1H	2712	U	P-O3'-C3'	5.19	125.92	119.70
24	3L	5	G	C8-N9-C4	-5.19	104.33	106.40
26	14	1441	G	C8-N9-C4	5.19	108.47	106.40
26	14	2433	A	N1-C6-N6	5.19	121.71	118.60
26	1H	1156	A	N1-C6-N6	5.19	121.71	118.60
26	1H	1332	G	C5-C6-O6	-5.19	125.49	128.60
26	1H	1914	C	C5-C4-N4	5.19	123.83	120.20
26	14	1314	C	C6-N1-C1'	-5.19	114.58	120.80
26	1H	1021	A	N1-C2-N3	5.18	131.89	129.30
26	1H	1574	C	C6-N1-C2	5.18	122.37	120.30
26	14	2057	A	N1-C6-N6	5.18	121.71	118.60
26	14	2386	C	N3-C2-O2	5.18	125.53	121.90
26	1H	1669	A	C4-C5-C6	5.18	119.59	117.00
26	1H	2599	G	C6-C5-N7	5.18	133.51	130.40
26	1H	1025	G	N9-C4-C5	5.18	107.47	105.40
26	14	1570	A	O5'-P-OP1	-5.18	101.04	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1948	G	O5'-P-OP2	5.18	116.92	110.70
26	14	2497	A	OP2-P-O3'	5.18	116.60	105.20
26	1H	205	G	N3-C2-N2	5.18	123.53	119.90
26	1H	1899	G	N1-C2-N3	5.18	127.01	123.90
26	14	1600	C	N3-C4-N4	-5.18	114.37	118.00
1	13	723	U	N1-C2-O2	5.18	126.42	122.80
26	1H	1700	A	OP1-P-OP2	5.18	127.37	119.60
26	14	1304	C	N3-C4-N4	-5.18	114.38	118.00
26	1H	517	C	C5-C4-N4	-5.18	116.58	120.20
26	1H	2516	G	O5'-P-OP2	-5.18	101.04	105.70
26	14	1496	A	C6-C5-N7	-5.18	128.68	132.30
26	1H	199	A	N1-C6-N6	-5.17	115.50	118.60
26	1H	637	A	C8-N9-C4	5.17	107.87	105.80
26	1H	827	U	N3-C2-O2	5.17	125.82	122.20
26	1H	2588	G	C8-N9-C4	5.17	108.47	106.40
26	1H	1966	A	N3-C4-C5	5.17	130.42	126.80
26	14	2442	C	C4-C5-C6	5.17	119.99	117.40
26	1H	139	G	O5'-P-OP1	-5.17	101.05	105.70
26	1H	792	G	OP2-P-O3'	5.17	116.58	105.20
26	1H	944	G	C8-N9-C1'	-5.17	120.28	127.00
26	1H	2571	C	N3-C4-N4	5.17	121.62	118.00
26	14	783	A	C5-C6-N6	-5.17	119.56	123.70
26	14	2029	G	N3-C4-N9	-5.17	122.90	126.00
26	14	2503	A	N3-C4-N9	5.17	131.54	127.40
26	1H	975	G	N1-C2-N2	5.17	120.85	116.20
26	14	1259	G	OP2-P-O3'	5.17	116.57	105.20
26	14	1566	A	C5-N7-C8	-5.17	101.31	103.90
26	14	1629	U	N3-C2-O2	-5.17	118.58	122.20
1	13	1057	G	O5'-P-OP2	-5.17	101.05	105.70
26	1H	35	G	C5-C6-O6	5.17	131.70	128.60
26	1H	828	U	C4-C5-C6	5.17	122.80	119.70
1	1G	1286	A	N1-C2-N3	5.17	131.88	129.30
26	14	1011	G	N3-C4-C5	5.17	131.18	128.60
26	14	1605	C	O5'-P-OP1	-5.17	101.05	105.70
26	14	1762	A	C6-C5-N7	-5.17	128.68	132.30
26	1H	599	G	C5-C6-O6	5.17	131.70	128.60
26	14	60	G	C8-N9-C4	-5.17	104.33	106.40
26	14	2291	U	OP2-P-O3'	5.17	116.56	105.20
26	1H	1031	G	C6-N1-C2	-5.17	122.00	125.10
26	1H	2023	G	N7-C8-N9	5.17	115.68	113.10
26	14	796	C	N3-C4-C5	5.17	123.97	121.90
26	14	2062	A	P-O3'-C3'	-5.17	113.50	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1611	C	C6-N1-C2	5.16	122.36	120.30
26	1H	2559	C	C2-N3-C4	-5.16	117.32	119.90
37	78	50	ARG	NE-CZ-NH2	5.16	122.88	120.30
1	1G	1449	C	C6-N1-C1'	-5.16	114.60	120.80
26	14	1950	G	C6-C5-N7	-5.16	127.30	130.40
26	14	1588	C	C6-N1-C2	-5.16	118.23	120.30
24	3K	71	C	N3-C2-O2	-5.16	118.29	121.90
26	1H	1428	C	C5-C6-N1	-5.16	118.42	121.00
26	1H	2688	U	C6-N1-C2	-5.16	117.90	121.00
26	14	1281	G	OP2-P-O3'	5.16	116.55	105.20
1	13	890	G	N3-C2-N2	5.16	123.51	119.90
24	3K	2	G	C4-C5-N7	5.16	112.86	110.80
26	1H	208	C	OP2-P-O3'	5.16	116.55	105.20
26	1H	733	G	N1-C2-N2	-5.16	111.56	116.20
26	1H	1673	U	C2-N1-C1'	-5.16	111.51	117.70
26	1H	2822	G	N9-C4-C5	-5.16	103.34	105.40
27	16	50	G	OP2-P-O3'	5.16	116.55	105.20
26	14	1775	U	N1-C2-O2	-5.16	119.19	122.80
26	14	2275	C	C2-N1-C1'	5.16	124.47	118.80
26	14	2585	U	C6-N1-C1'	-5.16	113.98	121.20
26	1H	752	A	N3-C4-C5	5.16	130.41	126.80
26	14	528	A	N3-C4-N9	-5.16	123.28	127.40
26	14	1611	C	O5'-P-OP2	5.16	116.89	110.70
26	1H	793	A	N1-C6-N6	5.15	121.69	118.60
26	1H	2579	C	C2-N3-C4	-5.15	117.32	119.90
1	13	880	C	N3-C2-O2	5.15	125.51	121.90
1	13	1336	C	C6-N1-C2	-5.15	118.24	120.30
14	5I	40	CYS	CA-CB-SG	-5.15	104.73	114.00
26	1H	982	C	N1-C2-O2	-5.15	115.81	118.90
26	1H	1757	U	C5-C6-N1	-5.15	120.12	122.70
26	14	198	C	N3-C4-C5	-5.15	119.84	121.90
26	1H	595	C	N3-C4-C5	5.15	123.96	121.90
26	1H	1691	C	OP1-P-O3'	5.15	116.53	105.20
26	1H	1973	G	N3-C4-C5	-5.15	126.03	128.60
26	1H	2249	U	N3-C4-C5	5.15	117.69	114.60
26	1H	2612	C	C2-N3-C4	5.15	122.48	119.90
26	14	785	G	N3-C2-N2	-5.15	116.30	119.90
27	1J	114	G	OP1-P-OP2	5.15	127.33	119.60
26	1H	802	A	OP2-P-O3'	5.15	116.53	105.20
26	1H	2091	U	N3-C2-O2	-5.15	118.60	122.20
26	14	1646	C	OP1-P-O3'	5.15	116.53	105.20
47	D5	61	LEU	CA-CB-CG	5.15	127.14	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	502	G	C2-N3-C4	5.15	114.47	111.90
26	14	1762	A	C4-C5-C6	5.15	119.57	117.00
1	1G	377	G	N1-C6-O6	-5.15	116.81	119.90
26	1H	1604	C	C2-N3-C4	-5.14	117.33	119.90
1	1G	931	C	N1-C2-O2	5.14	121.99	118.90
1	1G	1525	G	N1-C6-O6	-5.14	116.81	119.90
26	14	1785	A	C4-C5-C6	5.14	119.57	117.00
26	14	2443	C	N3-C4-N4	5.14	121.60	118.00
26	1H	105	C	C6-N1-C2	-5.14	118.24	120.30
26	1H	1929	G	O5'-P-OP1	5.14	116.87	110.70
26	1H	2346	A	N9-C1'-C2'	5.14	120.69	114.00
26	14	744	G	OP1-P-OP2	5.14	127.31	119.60
26	14	1917	U	C5-C6-N1	5.14	125.27	122.70
26	14	2779	U	C5-C6-N1	-5.14	120.13	122.70
26	14	2592	G	C8-N9-C1'	-5.14	120.32	127.00
26	1H	70	G	N1-C2-N2	-5.14	111.58	116.20
26	1H	1625	C	C5-C4-N4	5.14	123.80	120.20
26	1H	2389	G	OP1-P-O3'	5.14	116.51	105.20
1	1G	889	A	C8-N9-C4	-5.14	103.74	105.80
26	14	1939	U	OP2-P-O3'	5.14	116.51	105.20
26	1H	1285	G	OP2-P-O3'	5.14	116.50	105.20
26	1H	1613	G	N3-C2-N2	5.14	123.50	119.90
1	1G	197	A	N7-C8-N9	5.14	116.37	113.80
26	14	1519	G	C8-N9-C4	-5.14	104.34	106.40
26	1H	2345	G	OP1-P-O3'	5.14	116.50	105.20
26	1H	2346	A	N1-C6-N6	5.14	121.68	118.60
26	14	1605	C	OP1-P-OP2	5.14	127.31	119.60
26	1H	34	C	O5'-P-OP2	5.13	116.86	110.70
26	1H	213	A	C5-C6-N6	-5.13	119.59	123.70
26	1H	1815	A	OP1-P-O3'	5.13	116.50	105.20
26	1H	2069	G	O5'-P-OP1	-5.13	101.08	105.70
26	1H	2308	G	C5-C6-N1	-5.13	108.93	111.50
26	14	2262	U	C2-N1-C1'	-5.13	111.54	117.70
1	13	1469	G	C5-N7-C8	-5.13	101.73	104.30
26	1H	12	U	N1-C2-O2	5.13	126.39	122.80
26	14	1351	C	C5-C6-N1	-5.13	118.43	121.00
1	13	714	G	O5'-P-OP1	-5.13	101.08	105.70
26	1H	197	A	N1-C2-N3	5.13	131.87	129.30
26	1H	626	U	N1-C2-N3	5.13	117.98	114.90
26	1H	1930	G	C6-C5-N7	5.13	133.48	130.40
27	16	8	U	C5-C4-O4	5.13	128.98	125.90
1	1G	449	C	C6-N1-C2	-5.13	118.25	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1496	A	C8-N9-C4	-5.13	103.75	105.80
1	13	1397	C	OP2-P-O3'	5.13	116.49	105.20
26	1H	12	U	C2-N1-C1'	5.13	123.85	117.70
26	1H	685	A	C2-N3-C4	-5.13	108.04	110.60
26	1H	742	G	C4-C5-N7	-5.13	108.75	110.80
26	14	808	G	C5-N7-C8	5.13	106.86	104.30
26	14	2332	U	C5-C4-O4	5.13	128.98	125.90
1	13	802	A	N1-C6-N6	5.13	121.67	118.60
26	1H	510	C	C6-N1-C2	-5.13	118.25	120.30
26	1H	1962	C	C5-C6-N1	5.13	123.56	121.00
27	1J	81	G	C5-N7-C8	-5.13	101.74	104.30
26	1H	2450	A	O5'-P-OP2	-5.12	101.09	105.70
1	1G	115	G	P-O3'-C3'	5.12	125.85	119.70
26	14	988	A	N1-C6-N6	5.12	121.67	118.60
26	14	1777	U	N1-C2-N3	5.12	117.97	114.90
26	14	1933	G	C5-C6-N1	-5.12	108.94	111.50
26	1H	2534	A	C6-N1-C2	-5.12	115.53	118.60
1	1G	396	G	N3-C2-N2	5.12	123.49	119.90
1	1G	1299	A	C4-C5-C6	5.12	119.56	117.00
26	14	837	C	N1-C2-O2	5.12	121.97	118.90
26	1H	673	C	C2-N3-C4	-5.12	117.34	119.90
26	1H	2554	U	O5'-P-OP2	5.12	116.85	110.70
26	14	685	A	O4'-C1'-N9	5.12	112.30	108.20
26	1H	2249	U	C2-N1-C1'	-5.12	111.56	117.70
26	1H	789	A	N3-C4-C5	5.12	130.38	126.80
26	14	1826	G	N9-C4-C5	5.12	107.45	105.40
26	1H	1488	G	O5'-P-OP1	-5.12	101.09	105.70
26	1H	1599	C	O5'-P-OP1	-5.12	101.09	105.70
26	1H	2439	A	OP1-P-O3'	5.12	116.46	105.20
26	14	268	C	C6-N1-C2	-5.12	118.25	120.30
1	13	1512	U	O5'-P-OP2	-5.12	101.10	105.70
26	1H	1992	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	2328	A	N1-C2-N3	5.12	131.86	129.30
26	1H	2598	A	OP1-P-OP2	-5.12	111.93	119.60
26	14	2392	A	N3-C4-C5	5.12	130.38	126.80
1	13	1427	U	OP2-P-O3'	5.11	116.45	105.20
26	1H	1209	G	N1-C6-O6	5.11	122.97	119.90
26	1H	1728	G	C4-C5-N7	5.11	112.84	110.80
26	14	740	U	C5-C4-O4	5.11	128.97	125.90
26	14	845	G	C5-N7-C8	-5.11	101.74	104.30
26	14	1404	C	OP1-P-OP2	5.11	127.27	119.60
26	1H	2457	U	OP2-P-O3'	5.11	116.45	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	977	A	O5'-P-OP1	5.11	116.83	110.70
26	1H	620	G	C6-C5-N7	-5.11	127.33	130.40
26	14	1349	A	C5-C6-N6	-5.11	119.61	123.70
26	1H	1241	A	O4'-C1'-N9	5.11	112.29	108.20
1	1G	108	G	N9-C4-C5	-5.11	103.36	105.40
26	14	1385	G	O4'-C1'-N9	5.11	112.29	108.20
26	14	1820	U	O5'-P-OP2	5.11	116.83	110.70
26	1H	753	C	N1-C2-O2	5.11	121.96	118.90
26	1H	2451	A	C5-C6-N6	5.11	127.79	123.70
26	1H	2570	G	N3-C4-N9	-5.11	122.94	126.00
27	16	44	G	N9-C4-C5	5.11	107.44	105.40
26	14	1296	G	P-O3'-C3'	5.11	125.83	119.70
26	14	1619	G	O5'-P-OP2	-5.11	101.10	105.70
26	14	1764	G	C8-N9-C4	-5.11	104.36	106.40
26	14	2236	C	N3-C2-O2	-5.11	118.33	121.90
1	13	1232	U	O5'-P-OP2	-5.11	101.11	105.70
26	14	674	G	C5-C6-O6	5.11	131.66	128.60
26	14	2251	G	C4-C5-N7	-5.11	108.76	110.80
26	14	837	C	N3-C2-O2	-5.10	118.33	121.90
26	14	2035	G	O4'-C1'-N9	5.10	112.28	108.20
26	14	2464	C	N3-C4-C5	5.10	123.94	121.90
26	1H	1379	A	N9-C1'-C2'	5.10	120.63	114.00
26	14	740	U	N1-C2-O2	5.10	126.37	122.80
26	14	1617	C	C4-C5-C6	5.10	119.95	117.40
26	14	2252	G	N3-C2-N2	5.10	123.47	119.90
1	13	858	G	C4-N9-C1'	5.10	133.13	126.50
26	1H	1284	A	C5-N7-C8	-5.10	101.35	103.90
26	1H	2057	A	N1-C2-N3	5.10	131.85	129.30
1	1G	1197	G	O5'-P-OP1	-5.10	101.11	105.70
26	14	2599	G	N1-C6-O6	-5.10	116.84	119.90
26	14	2597	G	O5'-P-OP1	5.10	116.82	110.70
26	1H	48	G	O5'-P-OP2	-5.10	101.11	105.70
26	14	455	C	C5-C4-N4	-5.10	116.63	120.20
26	14	2584	U	N3-C2-O2	-5.10	118.63	122.20
26	1H	74	A	O4'-C1'-N9	-5.09	104.12	108.20
1	1G	536	C	C5-C6-N1	5.09	123.55	121.00
1	1G	1300	G	P-O3'-C3'	5.09	125.81	119.70
26	14	1189	A	OP1-P-OP2	-5.09	111.96	119.60
26	14	2552	U	C5-C4-O4	-5.09	122.84	125.90
1	13	346	G	C4-C5-N7	5.09	112.84	110.80
26	1H	797	C	C6-N1-C2	5.09	122.34	120.30
26	14	1992	G	N9-C4-C5	5.09	107.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	267	C	OP2-P-O3'	5.09	116.39	105.20
1	13	757	U	C2-N3-C4	-5.09	123.95	127.00
26	1H	631	A	C8-N9-C4	5.09	107.84	105.80
26	1H	820	A	C5-C6-N1	-5.09	115.16	117.70
26	1H	855	G	N3-C4-C5	-5.09	126.06	128.60
26	14	1604	C	N1-C2-O2	-5.09	115.85	118.90
26	14	1612	C	C6-N1-C2	5.09	122.34	120.30
26	14	1614	A	C4-C5-N7	5.09	113.25	110.70
1	13	968	A	C8-N9-C4	5.09	107.83	105.80
26	1H	51	G	N1-C6-O6	-5.09	116.85	119.90
26	1H	1776	G	C6-C5-N7	-5.09	127.35	130.40
26	1H	2256	G	N1-C2-N2	-5.09	111.62	116.20
4	3E	176	LEU	CA-CB-CG	-5.09	103.60	115.30
24	3K	71	C	N1-C2-O2	5.09	121.95	118.90
26	1H	533	G	C8-N9-C4	5.09	108.43	106.40
26	1H	1758	G	C8-N9-C4	5.09	108.43	106.40
26	1H	2333	A	OP1-P-O3'	5.09	116.39	105.20
24	3L	76	A	N9-C4-C5	-5.09	103.77	105.80
26	14	1528	A	N1-C6-N6	5.09	121.65	118.60
24	3K	2	G	N3-C4-N9	5.08	129.05	126.00
26	1H	2358	G	N3-C4-C5	-5.08	126.06	128.60
26	1H	798	G	N3-C2-N2	-5.08	116.34	119.90
1	1G	1281	U	N3-C2-O2	-5.08	118.64	122.20
26	14	1332	G	C5-C6-O6	-5.08	125.55	128.60
1	13	251	G	O4'-C1'-N9	-5.08	104.13	108.20
26	1H	1017	G	N3-C2-N2	-5.08	116.34	119.90
26	1H	2689	U	C5-C6-N1	-5.08	120.16	122.70
26	14	1574	C	OP2-P-O3'	5.08	116.38	105.20
23	2K	77	A	C8-N9-C4	5.08	107.83	105.80
26	14	2377	A	C8-N9-C4	5.08	107.83	105.80
26	1H	147	U	C6-N1-C2	5.08	124.05	121.00
26	1H	1956	U	N1-C2-O2	5.08	126.36	122.80
1	1G	525	C	N3-C4-C5	-5.08	119.87	121.90
26	14	148	C	C6-N1-C2	5.08	122.33	120.30
26	14	849	A	OP1-P-O3'	5.08	116.38	105.20
26	14	2392	A	N3-C4-N9	-5.08	123.34	127.40
26	14	2501	C	N3-C4-C5	5.08	123.93	121.90
26	1H	299	A	OP2-P-O3'	5.08	116.37	105.20
26	1H	881	G	C2-N3-C4	5.08	114.44	111.90
1	13	1218	C	N1-C2-O2	5.08	121.95	118.90
26	1H	500	G	OP1-P-OP2	5.08	127.21	119.60
26	1H	579	G	N1-C2-N2	5.08	120.77	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	671	C	C5-C6-N1	-5.08	118.46	121.00
26	1H	770	G	O5'-P-OP2	5.08	116.79	110.70
26	1H	906	G	N9-C4-C5	5.08	107.43	105.40
26	1H	2615	U	N3-C4-O4	-5.08	115.85	119.40
26	14	453	C	N3-C4-N4	-5.08	114.45	118.00
26	14	1255	U	C5-C4-O4	-5.08	122.86	125.90
1	13	45	U	OP2-P-O3'	5.07	116.36	105.20
26	1H	1300	U	C6-N1-C2	-5.07	117.96	121.00
26	1H	2032	G	OP1-P-O3'	5.07	116.36	105.20
1	1G	1528	U	C6-N1-C2	5.07	124.04	121.00
26	14	242	G	C8-N9-C1'	5.07	133.60	127.00
26	1H	966	G	N1-C2-N2	-5.07	111.64	116.20
26	1H	1423	G	N7-C8-N9	-5.07	110.56	113.10
26	14	2824	C	C5-C4-N4	-5.07	116.65	120.20
26	1H	1801	G	O4'-C1'-N9	5.07	112.25	108.20
26	1H	2484	G	OP1-P-OP2	5.07	127.20	119.60
26	1H	180	G	N9-C4-C5	-5.07	103.37	105.40
26	1H	1282	U	N3-C2-O2	5.07	125.75	122.20
26	1H	2448	A	C6-N1-C2	-5.07	115.56	118.60
26	14	586	A	OP1-P-O3'	5.07	116.35	105.20
26	14	2763	G	N3-C4-C5	-5.07	126.07	128.60
23	2K	48	U	P-O3'-C3'	5.07	125.78	119.70
26	1H	1025	G	C4-C5-N7	-5.07	108.77	110.80
26	1H	1126	A	O4'-C1'-N9	-5.07	104.15	108.20
26	1H	1791	A	C2-N3-C4	5.07	113.13	110.60
26	1H	2706	G	C5-C6-N1	5.07	114.03	111.50
26	14	223	A	C8-N9-C4	-5.07	103.77	105.80
26	14	250	G	N3-C4-N9	5.07	129.04	126.00
26	14	508	G	O5'-P-OP1	-5.07	101.14	105.70
26	14	822	U	N1-C2-N3	5.07	117.94	114.90
26	14	1566	A	O4'-C1'-N9	-5.07	104.15	108.20
26	14	1788	C	O5'-P-OP1	-5.07	101.14	105.70
1	13	533	A	C2-N3-C4	-5.06	108.07	110.60
26	1H	1123	C	C6-N1-C2	5.06	122.33	120.30
1	13	1518	A	C5-C6-N1	-5.06	115.17	117.70
26	1H	766	C	C2-N3-C4	-5.06	117.37	119.90
26	1H	1284	A	OP1-P-OP2	5.06	127.19	119.60
26	1H	1936	A	C5-C6-N6	-5.06	119.65	123.70
26	1H	1994	C	O5'-P-OP2	-5.06	101.14	105.70
1	1G	1139	G	N3-C4-C5	5.06	131.13	128.60
1	1G	1408	A	N1-C6-N6	-5.06	115.56	118.60
26	14	400	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	2380	C	N3-C2-O2	5.06	125.44	121.90
26	1H	1692	U	C5-C4-O4	-5.06	122.86	125.90
26	1H	2639	A	N7-C8-N9	5.06	116.33	113.80
26	1H	134	C	OP2-P-O3'	5.06	116.33	105.20
26	1H	1669	A	O4'-C1'-N9	5.06	112.25	108.20
29	11	272	ALA	C-N-CA	5.06	134.35	121.70
26	14	112	U	N3-C2-O2	-5.06	118.66	122.20
26	14	748	G	C8-N9-C1'	5.06	133.58	127.00
26	14	1767	C	C4-C5-C6	5.06	119.93	117.40
26	14	1964	G	C4-N9-C1'	5.06	133.08	126.50
49	F5	89	GLU	CA-CB-CG	5.06	124.53	113.40
26	1H	1658	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	1786	A	OP1-P-O3'	5.06	116.33	105.20
26	1H	2275	C	C5'-C4'-O4'	-5.06	103.03	109.10
26	1H	2402	C	N3-C2-O2	-5.06	118.36	121.90
37	78	45	LEU	CB-CG-CD1	-5.06	102.40	111.00
26	14	570	G	C5-C6-N1	5.06	114.03	111.50
26	14	2243	U	N3-C4-O4	5.06	122.94	119.40
41	75	13	ARG	N-CA-C	-5.06	97.34	111.00
22	1K	61	C	C2-N1-C1'	5.06	124.36	118.80
26	1H	447	A	O5'-P-OP2	5.06	116.77	110.70
26	1H	1210	A	O5'-P-OP2	-5.06	101.15	105.70
26	1H	1802	A	N1-C2-N3	5.06	131.83	129.30
26	1H	917	A	N3-C4-N9	-5.05	123.36	127.40
26	1H	2506	U	N3-C2-O2	-5.05	118.66	122.20
30	21	202	LYS	N-CA-C	5.05	124.65	111.00
26	1H	508	G	O5'-P-OP1	-5.05	101.15	105.70
26	1H	1915	U	C2-N3-C4	-5.05	123.97	127.00
1	1G	1502	A	N9-C1'-C2'	5.05	120.57	114.00
26	14	570	G	N9-C4-C5	-5.05	103.38	105.40
26	14	577	G	C5-C6-O6	-5.05	125.57	128.60
26	1H	141	A	N3-C4-C5	5.05	130.34	126.80
26	1H	861	A	N9-C4-C5	-5.05	103.78	105.80
26	1H	1556	C	N1-C2-O2	5.05	121.93	118.90
26	14	1342	A	N9-C1'-C2'	5.05	120.57	114.00
26	14	1771	C	C5-C4-N4	-5.05	116.66	120.20
26	1H	1129	A	OP1-P-OP2	5.05	127.17	119.60
26	1H	1357	U	C4-C5-C6	5.05	122.73	119.70
26	1H	2248	C	O5'-P-OP2	-5.05	101.16	105.70
1	1G	1225	A	C4-C5-C6	5.05	119.53	117.00
26	1H	2500	U	P-O3'-C3'	5.05	125.76	119.70
26	14	2607	G	N3-C2-N2	5.05	123.43	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	50	A	N9-C4-C5	5.05	107.82	105.80
1	13	586	C	C2-N3-C4	-5.05	117.38	119.90
26	1H	1195	G	O5'-P-OP2	-5.05	101.16	105.70
26	1H	1255	U	C5-C4-O4	-5.05	122.87	125.90
26	1H	1332	G	OP1-P-O3'	5.05	116.30	105.20
27	1J	41	U	C5-C6-N1	-5.05	120.18	122.70
1	13	942	G	OP1-P-O3'	5.04	116.30	105.20
26	1H	766	C	C2-N1-C1'	-5.04	113.25	118.80
1	1G	15	G	N3-C4-C5	-5.04	126.08	128.60
1	1G	1322	C	C6-N1-C1'	-5.04	114.75	120.80
26	14	672	C	N1-C2-O2	-5.04	115.87	118.90
25	4K	11	U	N1-C2-O2	5.04	126.33	122.80
26	1H	141	A	O5'-P-OP1	5.04	116.75	110.70
26	1H	321	G	C5-C6-O6	-5.04	125.57	128.60
26	14	686	G	N9-C4-C5	-5.04	103.38	105.40
26	14	2424	C	OP1-P-OP2	5.04	127.17	119.60
1	13	782	A	OP2-P-O3'	5.04	116.29	105.20
1	13	932	C	C2-N1-C1'	5.04	124.35	118.80
26	1H	462	C	O5'-P-OP2	-5.04	101.16	105.70
26	1H	945	A	N9-C1'-C2'	5.04	120.55	114.00
26	1H	984	A	P-O3'-C3'	5.04	125.75	119.70
26	1H	1620	G	C5-N7-C8	5.04	106.82	104.30
26	1H	2519	U	C5-C6-N1	-5.04	120.18	122.70
26	14	498	G	C5-C6-O6	-5.04	125.58	128.60
26	14	1805	U	N1-C2-N3	5.04	117.92	114.90
26	1H	1506	C	C2-N1-C1'	5.04	124.34	118.80
26	14	760	G	OP1-P-OP2	-5.04	112.04	119.60
26	14	1819	A	P-O3'-C3'	5.04	125.75	119.70
1	13	352	C	C5-C6-N1	5.04	123.52	121.00
1	1G	1126	U	P-O3'-C3'	5.04	125.74	119.70
26	14	2244	U	N1-C2-N3	5.04	117.92	114.90
1	13	186(A)	C	C5-C6-N1	5.04	123.52	121.00
1	13	1052	U	O5'-P-OP1	5.04	116.74	110.70
26	1H	1280	G	C8-N9-C4	5.04	108.41	106.40
26	1H	2712	U	N3-C4-O4	-5.04	115.88	119.40
26	14	2430	A	C6-C5-N7	-5.04	128.78	132.30
26	14	2818	G	N7-C8-N9	-5.04	110.58	113.10
26	1H	467	G	C4-C5-N7	-5.03	108.79	110.80
26	1H	1579	A	C8-N9-C4	-5.03	103.79	105.80
2	12	220	ASP	N-CA-C	5.03	124.59	111.00
26	14	603	A	C4-N9-C1'	5.03	135.36	126.30
26	14	2067	G	N9-C4-C5	5.03	107.41	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1775	U	C5-C6-N1	-5.03	120.18	122.70
1	13	186(A)	C	C2-N1-C1'	5.03	124.33	118.80
26	1H	2211	G	O5'-P-OP2	-5.03	101.17	105.70
26	14	530	G	C2-N3-C4	-5.03	109.39	111.90
26	14	1128	A	C5-C6-N1	5.03	120.22	117.70
27	1J	89	G	N3-C4-N9	5.03	129.02	126.00
26	1H	1662	C	N1-C2-O2	-5.03	115.88	118.90
26	14	2005	A	C8-N9-C4	5.03	107.81	105.80
26	14	2700	C	C5-C4-N4	-5.03	116.68	120.20
26	1H	575	A	N1-C6-N6	5.03	121.61	118.60
26	1H	1157	G	N3-C4-N9	5.03	129.01	126.00
26	1H	2626	C	N3-C4-C5	5.03	123.91	121.90
26	1H	2655	G	O4'-C1'-N9	5.03	112.22	108.20
1	13	817	C	N3-C2-O2	5.02	125.42	121.90
26	1H	133	C	OP2-P-O3'	5.02	116.25	105.20
26	1H	1156	A	O5'-P-OP2	-5.02	101.18	105.70
26	1H	2000	G	C5-N7-C8	5.02	106.81	104.30
26	1H	2591	C	OP2-P-O3'	5.02	116.25	105.20
27	16	43	C	C6-N1-C2	-5.02	118.29	120.30
26	14	800	A	N3-C4-C5	5.02	130.32	126.80
45	B5	23	GLU	C-N-CA	-5.02	111.75	122.30
49	F5	54	ALA	CB-CA-C	5.02	117.63	110.10
1	13	762	C	N3-C4-N4	-5.02	114.48	118.00
26	1H	569	U	N1-C2-O2	-5.02	119.29	122.80
26	1H	1234	U	N3-C2-O2	-5.02	118.69	122.20
26	1H	2697	G	OP1-P-OP2	5.02	127.13	119.60
26	14	558	G	N7-C8-N9	-5.02	110.59	113.10
1	13	1402	C	C5-C4-N4	5.02	123.71	120.20
26	1H	2494	G	C8-N9-C4	-5.02	104.39	106.40
26	14	821	A	P-O3'-C3'	5.02	125.72	119.70
26	14	2489	G	OP2-P-O3'	5.02	116.24	105.20
26	1H	2811	G	C6-C5-N7	-5.02	127.39	130.40
26	14	1380	G	N9-C4-C5	-5.02	103.39	105.40
26	14	1421	G	N3-C2-N2	-5.02	116.39	119.90
26	14	2593	U	OP2-P-O3'	5.02	116.24	105.20
26	1H	335	C	C5-C6-N1	5.02	123.51	121.00
26	14	1011	G	N3-C4-N9	-5.02	122.99	126.00
38	45	28	ALA	N-CA-C	5.02	124.54	111.00
26	14	2046	G	N1-C6-O6	-5.01	116.89	119.90
26	14	2089	U	C5-C4-O4	-5.01	122.89	125.90
26	14	2258	C	C4-C5-C6	5.01	119.91	117.40
26	14	2490	G	C6-C5-N7	-5.01	127.39	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2512	C	C6-N1-C2	5.01	122.31	120.30
1	1G	377	G	C5-C6-O6	5.01	131.61	128.60
26	14	301	G	N3-C4-N9	-5.01	122.99	126.00
1	13	875	C	O5'-P-OP2	-5.01	101.19	105.70
26	1H	123	G	C4-C5-N7	5.01	112.80	110.80
26	1H	2272	U	O5'-P-OP1	5.01	116.71	110.70
26	14	972	G	OP1-P-O3'	5.01	116.22	105.20
26	14	1378	A	O5'-P-OP1	-5.01	101.19	105.70
26	14	1900	A	C8-N9-C4	-5.01	103.80	105.80
1	13	1267	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	827	U	N1-C2-O2	-5.01	119.29	122.80
26	1H	864	G	N3-C4-N9	5.01	129.00	126.00
26	14	1585	C	C6-N1-C2	-5.01	118.30	120.30
26	14	1283	G	N3-C4-C5	-5.01	126.10	128.60
26	14	2519	U	O5'-P-OP2	-5.01	101.19	105.70
1	13	42	G	C8-N9-C4	5.01	108.40	106.40
26	1H	739	G	C8-N9-C4	5.01	108.40	106.40
26	1H	787	U	O5'-P-OP1	-5.01	101.19	105.70
26	1H	1405	U	N3-C2-O2	-5.01	118.70	122.20
33	51	171	LEU	CA-CB-CG	-5.01	103.79	115.30
26	14	1394	U	OP2-P-O3'	5.01	116.22	105.20
1	13	356	A	O4'-C1'-N9	5.00	112.20	108.20
26	1H	1850	G	C5-C6-N1	-5.00	109.00	111.50
26	1H	2518	A	C4-C5-C6	5.00	119.50	117.00
1	1G	630	G	O4'-C1'-N9	5.00	112.20	108.20
26	1H	228	A	C8-N9-C4	-5.00	103.80	105.80
26	1H	254	G	O5'-P-OP1	-5.00	101.20	105.70
26	1H	1129	A	C5-C6-N6	5.00	127.70	123.70
26	14	2075	U	OP2-P-O3'	5.00	116.21	105.20
26	14	2760	C	C6-N1-C2	-5.00	118.30	120.30
24	3K	76	A	C8-N9-C4	-5.00	103.80	105.80
26	14	527	C	C2-N1-C1'	-5.00	113.30	118.80
26	14	932	G	C4-N9-C1'	-5.00	120.00	126.50
26	14	2777	G	OP1-P-O3'	5.00	116.20	105.20

There are no chirality outliers.

All (180) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	122	ASP	Peptide
29	11	35	LYS	Peptide

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Mol	Chain	Res	Type	Group
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	220	ASP	Peptide
2	12	44	LEU	Peptide
29	19	197	GLY	Peptide
29	19	28	GLU	Peptide
29	19	39	LYS	Peptide
29	19	44	ASN	Peptide
2	1E	15	VAL	Peptide
2	1E	236	TYR	Peptide
2	1E	95	GLN	Peptide
10	1I	88	LEU	Peptide
10	1I	90	LEU	Peptide
30	21	153	GLY	Peptide
30	21	186	GLY	Peptide
30	21	53	PRO	Peptide
30	21	62	PRO	Peptide
30	21	72	VAL	Peptide
3	22	109	PRO	Peptide
30	29	201	THR	Peptide
30	29	61	ARG	Peptide
30	29	77	ILE	Peptide
11	2A	100	ALA	Peptide
11	2A	49	GLY	Peptide
3	2E	78	GLY	Peptide
31	31	196	LEU	Peptide
4	32	152	SER	Peptide
4	32	179	GLU	Peptide
37	35	106	LEU	Peptide
37	35	110	TYR	Peptide
37	35	22	GLY	Peptide
37	35	65	ARG	Peptide
37	35	70	GLN	Peptide
31	39	146	ALA	Peptide
31	39	148	LEU	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	26	ALA	Peptide
31	39	68	LYS	Peptide

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Mol	Chain	Res	Type	Group
31	39	89	VAL	Peptide
4	3E	154	ASN	Peptide
4	3E	175	SER	Peptide
12	3I	14	GLY	Peptide
12	3I	15	ARG	Peptide
12	3I	17	LYS	Peptide
12	3I	47	LYS	Peptide
12	3I	48	PRO	Peptide
12	3I	87	GLY	Peptide
32	41	76	SER	Peptide
32	41	82	LEU	Peptide
32	41	95	ARG	Peptide
38	45	135	ASP	Peptide
38	45	58	PHE	Peptide
38	45	78	PRO	Peptide
32	49	117	PHE	Peptide
32	49	13	GLU	Peptide
32	49	36	LYS	Peptide
13	4A	11	ARG	Peptide
13	4A	115	LYS	Peptide
13	4A	9	ILE	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	94	ARG	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	170	ARG	Peptide
33	51	2	SER	Peptide
33	51	7	LEU	Peptide
33	51	82	GLY	Peptide
39	55	117	VAL	Peptide
35	58	95	PRO	Peptide
33	59	117	PRO	Peptide
33	59	90	LYS	Peptide
14	5A	11	LYS	Peptide
14	5A	12	ARG	Peptide
14	5A	27	CYS	Peptide
14	5A	29	ARG	Peptide
14	5A	30	ALA	Peptide
14	5I	3	ARG	Peptide
34	61	11	ASN	Peptide

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Mol	Chain	Res	Type	Group
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
40	65	110	LEU	Peptide
36	68	27	GLY	Peptide
34	69	101	LEU	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	143	SER	Peptide
34	69	77	LEU	Peptide
7	6E	7	ALA	Peptide
28	71	178	ALA	Peptide
8	72	98	LYS	Peptide
8	72	99	GLU	Peptide
41	75	10	VAL	Peptide
41	75	12	SER	Peptide
41	75	5	ALA	Peptide
37	78	115	LEU	Peptide
37	78	20	GLY	Peptide
37	78	24	GLY	Peptide
37	78	26	GLY	Peptide
8	7E	63	LEU	Peptide
16	7I	15	PRO	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	95	LEU	Peptide
42	85	98	LEU	Peptide
38	88	139	GLU	Peptide
38	88	20	ALA	Peptide
38	88	23	GLY	Peptide
38	88	58	PHE	Peptide
9	8E	110	GLU	Peptide
9	8E	4	TYR	Peptide
17	8I	100	LYS	Peptide
43	95	49	THR	Peptide
43	95	78	LYS	Peptide
43	95	87	HIS	Peptide
39	98	44	LEU	Peptide
39	98	8	ARG	Peptide
18	9I	33	ASP	Peptide
44	A5	43	GLY	Peptide
40	A8	107	GLU	Peptide

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Mol	Chain	Res	Type	Group
40	A8	3	ARG	Peptide
40	A8	43	GLU	Peptide
19	AA	54	GLY	Peptide
19	AI	9	VAL	Peptide
45	B5	61	GLY	Peptide
41	B8	12	SER	Peptide
41	B8	133	GLU	Peptide
41	B8	4	GLY	Peptide
41	B8	58	ASN	Peptide
20	BA	13	LEU	Peptide
20	BA	48	LYS	Peptide
46	C5	100	ALA	Peptide
46	C5	99	CYS	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
42	C8	95	LEU	Peptide
47	D5	5	LEU	Peptide
47	D5	60	GLU	Peptide
47	D5	65	GLN	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	47	VAL	Peptide
49	F5	81	LYS	Peptide
49	F5	83	GLU	Peptide
45	F8	3	THR	Peptide
50	G5	42	GLY	Peptide
50	G5	47	ASN	Peptide
46	G8	5	MET	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	92	ASN	Peptide
47	H8	103	ARG	Peptide
47	H8	165	VAL	Peptide
47	H8	63	ASP	Peptide
52	I5	20	ASN	Peptide
52	I5	31	ILE	Peptide
52	I5	40	HIS	Peptide
49	J8	55	GLY	Peptide
49	J8	75	GLU	Peptide
49	J8	91	LYS	Peptide
49	J8	92	LYS	Peptide
50	K8	4	SER	Peptide

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Mol	Chain	Res	Type	Group
50	K8	46	GLN	Peptide
55	M5	49	VAL	Peptide
52	M8	25	TYR	Peptide
52	M8	35	VAL	Peptide
52	M8	37	SER	Peptide
52	M8	4	GLY	Peptide
54	P8	45	ALA	Peptide
55	Q8	30	ARG	Peptide
55	Q8	49	VAL	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16234	739	0
1	1G	32371	0	16342	719	0
2	12	1696	0	1730	124	0
2	1E	1902	0	1949	157	0
3	22	1537	0	1603	116	0
3	2E	1605	0	1668	76	0
4	32	1702	0	1764	95	0
4	3E	1698	0	1760	125	0
5	42	1139	0	1202	85	0
5	4E	1142	0	1204	68	0
6	52	842	0	857	26	0
6	5E	837	0	852	39	0
7	62	1120	0	1167	82	0
7	6E	1242	0	1286	80	0
8	72	1107	0	1165	65	0
8	7E	1115	0	1177	92	0
9	82	953	0	983	106	0
9	8E	1000	0	1031	100	0
10	1A	646	0	662	81	0
10	1I	754	0	769	44	0
11	2A	835	0	847	42	0
11	2I	823	0	832	33	0
12	3A	956	0	1046	64	0
12	3I	956	0	1046	39	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	4A	893	0	946	72	0
13	4I	942	0	997	76	0
14	5A	486	0	525	65	0
14	5I	491	0	532	49	0
15	6A	729	0	768	33	0
15	6I	729	0	768	38	0
16	7A	705	0	725	58	0
16	7I	700	0	720	77	0
17	8A	823	0	891	32	0
17	8I	834	0	904	84	0
18	9A	544	0	605	26	0
18	9I	549	0	607	33	0
19	AA	481	0	468	39	0
19	AI	661	0	683	55	0
20	BA	762	0	861	44	0
20	BI	746	0	843	98	0
21	1B	188	0	195	12	0
21	1F	199	0	208	19	0
22	1K	1540	0	787	25	0
23	2K	1646	0	843	25	0
23	2L	1626	0	836	27	0
24	3K	1491	0	761	59	0
24	3L	1513	0	770	34	0
25	4K	462	0	230	11	0
25	4L	417	0	207	12	0
26	14	60535	0	30516	1082	0
26	1H	61195	0	30847	1152	0
27	16	2617	0	1328	54	0
27	1J	2617	0	1328	88	0
28	71	1033	0	1048	71	0
28	79	456	0	460	21	0
29	11	2120	0	2197	112	0
29	19	2125	0	2199	96	0
30	21	1505	0	1526	85	0
30	29	1563	0	1629	139	0
31	31	1585	0	1632	61	0
31	39	1602	0	1649	118	0
32	41	1457	0	1514	101	0
32	49	1468	0	1520	112	0
33	51	1328	0	1396	108	0
33	59	1283	0	1352	87	0
34	61	1136	0	1223	75	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
34	69	1131	0	1218	60	0
35	15	1104	0	1180	56	0
35	58	1096	0	1169	52	0
36	25	932	0	996	42	0
36	68	932	0	996	40	0
37	35	1122	0	1206	76	0
37	78	1122	0	1206	84	0
38	45	1104	0	1159	88	0
38	88	1117	0	1168	67	0
39	55	967	0	1033	45	0
39	98	967	0	1033	33	0
40	65	876	0	938	99	0
40	A8	881	0	943	58	0
41	75	1109	0	1170	74	0
41	B8	1124	0	1179	78	0
42	85	959	0	1019	59	0
42	C8	950	0	1011	85	0
43	95	770	0	838	48	0
43	D8	774	0	849	58	0
44	A5	886	0	948	38	0
44	E8	876	0	941	43	0
45	B5	735	0	785	37	0
45	F8	743	0	794	30	0
46	C5	794	0	886	81	0
46	G8	777	0	857	42	0
47	D5	1079	0	1088	86	0
47	H8	1365	0	1391	106	0
48	E5	603	0	620	36	0
48	I8	611	0	631	24	0
49	F5	737	0	813	44	0
49	J8	737	0	813	58	0
50	G5	576	0	625	33	0
50	K8	575	0	634	42	0
51	H5	459	0	512	41	0
51	L8	459	0	512	18	0
52	I5	515	0	514	46	0
52	M8	479	0	475	53	0
53	J5	434	0	454	25	0
53	N8	437	0	460	21	0
54	L5	401	0	436	15	0
54	P8	401	0	436	9	0
55	M5	516	0	582	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	Q8	516	0	582	32	0
56	1L	1469	0	752	37	0
57	11	2	0	0	0	0
57	13	148	0	0	0	0
57	14	445	0	0	0	0
57	16	11	0	0	0	0
57	19	1	0	0	0	0
57	1G	133	0	0	0	0
57	1H	548	0	0	0	0
57	1J	7	0	0	0	0
57	21	2	0	0	0	0
57	25	2	0	0	0	0
57	29	2	0	0	0	0
57	2K	4	0	0	0	0
57	2L	3	0	0	0	0
57	31	2	0	0	0	0
57	35	2	0	0	0	0
57	39	2	0	0	0	0
57	3A	1	0	0	0	0
57	3I	1	0	0	0	0
57	41	1	0	0	0	0
57	42	1	0	0	0	0
57	45	1	0	0	0	0
57	4A	1	0	0	0	0
57	4E	1	0	0	0	0
57	4K	2	0	0	0	0
57	4L	2	0	0	0	0
57	5E	1	0	0	0	0
57	5I	1	0	0	0	0
57	68	2	0	0	0	0
57	78	1	0	0	0	0
57	88	3	0	0	0	0
57	9A	1	0	0	0	0
57	B5	1	0	0	0	0
57	C5	1	0	0	0	0
57	E5	1	0	0	0	0
57	F8	1	0	0	0	0
57	I8	1	0	0	0	0
57	J8	1	0	0	0	0
57	L8	1	0	0	0	0
57	M5	1	0	0	0	0
57	P8	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	Q8	1	0	0	0	0
58	13	13	0	22	3	0
58	14	26	0	46	11	0
58	1G	13	0	24	0	0
58	1J	13	0	24	1	0
59	32	8	0	0	1	0
59	3E	8	0	0	3	0
60	5A	1	0	0	0	0
60	5I	1	0	0	0	0
60	C5	1	0	0	0	0
60	G8	1	0	0	0	0
61	11	16	0	0	6	0
61	13	304	0	0	17	0
61	14	1135	0	0	56	0
61	16	15	0	0	1	0
61	19	8	0	0	0	0
61	1G	391	0	0	17	0
61	1H	1133	0	0	86	0
61	1I	2	0	0	0	0
61	1J	18	0	0	1	0
61	1K	1	0	0	0	0
61	21	8	0	0	0	0
61	22	1	0	0	0	0
61	25	11	0	0	1	0
61	29	6	0	0	0	0
61	2I	1	0	0	0	0
61	2K	6	0	0	0	0
61	31	4	0	0	0	0
61	35	9	0	0	4	0
61	39	6	0	0	0	0
61	3A	1	0	0	0	0
61	3E	1	0	0	0	0
61	3I	2	0	0	0	0
61	3K	1	0	0	0	0
61	42	1	0	0	0	0
61	45	3	0	0	0	0
61	4E	1	0	0	0	0
61	4K	11	0	0	0	0
61	4L	14	0	0	1	0
61	52	3	0	0	0	0
61	55	1	0	0	0	0
61	58	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	5I	2	0	0	0	0
61	75	1	0	0	0	0
61	78	11	0	0	5	0
61	7A	1	0	0	0	0
61	7I	2	0	0	1	0
61	85	1	0	0	0	0
61	98	2	0	0	0	0
61	9A	3	0	0	3	0
61	A5	1	0	0	0	0
61	A8	3	0	0	1	0
61	B8	1	0	0	0	0
61	BA	2	0	0	0	0
61	C5	3	0	0	0	0
61	E5	5	0	0	0	0
61	E8	1	0	0	0	0
61	F5	3	0	0	0	0
61	F8	1	0	0	0	0
61	H5	1	0	0	0	0
61	I8	6	0	0	1	0
61	K8	1	0	0	0	0
61	L8	1	0	0	1	0
61	M5	7	0	0	1	0
61	P8	1	0	0	0	0
61	Q8	5	0	0	1	0
All	All	296743	0	197188	8820	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 18.

All (8820) 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)
3:22:173:VAL:C	3:22:174:PRO:N	1.71	1.38
4:3E:25:ARG:NH1	59:3E:301:SF4:S3	2.12	1.23
19:AI:3:ARG:HE	19:AI:9:VAL:HG11	1.07	1.14
44:E8:89:ALA:O	44:E8:92:ARG:NH1	1.81	1.12
38:45:27:VAL:HB	38:45:28:ALA:HA	1.12	1.10
41:B8:108:ARG:HA	41:B8:111:ARG:HD3	1.35	1.09
52:M8:37:SER:HG	52:M8:43:TYR:N	1.49	1.08
14:5I:27:CYS:SG	14:5I:29:ARG:NH1	2.26	1.08
14:5A:12:ARG:NH1	14:5A:14:PRO:O	1.89	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1570:A:H5'	29:19:37:LEU:HD21	1.35	1.05
50:K8:4:SER:O	50:K8:8:LYS:NZ	1.89	1.04
27:1J:80:U:H2'	27:1J:81:G:H21	1.22	1.03
8:72:99:GLU:HB3	8:72:100:ILE:HB	1.38	1.03
26:1H:620:G:H4'	26:1H:621:A:H5"	1.40	1.01
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.04	1.01
26:1H:1204:A:H62	26:1H:1241:A:H2	1.01	1.00
34:61:112:LYS:O	34:61:113:ARG:NH1	1.93	1.00
24:3L:71:C:HO2'	26:14:1851:U:HO2'	1.06	1.00
1:1G:411:A:H62	1:1G:413:G:H21	1.07	0.99
26:14:2032:G:H21	30:29:146:THR:HG23	1.26	0.99
53:J5:40:LYS:NZ	53:J5:46:CYS:SG	2.35	0.98
38:45:27:VAL:HB	38:45:28:ALA:CA	1.94	0.97
40:65:62:LYS:HE3	40:65:97:ARG:HD2	1.43	0.97
16:7I:72:ARG:HB3	16:7I:72:ARG:HH11	1.27	0.96
33:51:11:VAL:HB	33:51:13:LYS:HZ1	1.31	0.96
1:1G:448:A:OP2	1:1G:485:G:N2	1.99	0.96
1:13:975:A:H4'	1:13:976:G:H5"	1.48	0.96
26:14:662:G:OP1	37:35:16:ARG:NH1	1.98	0.96
19:AI:78:ARG:NH1	19:AI:79:THR:O	1.96	0.96
25:4K:14:A:H4'	25:4K:15:A:H5'	1.43	0.96
26:1H:1110:G:HO2'	26:1H:1111:A:H8	0.96	0.95
4:32:25:ARG:HD3	4:32:30:LYS:HB3	1.46	0.95
18:9I:53:ARG:HA	18:9I:56:THR:HG22	1.48	0.95
32:41:77:ILE:HG13	32:41:82:LEU:HD21	1.47	0.95
53:N8:50:GLY:HA3	53:N8:56:LYS:HB3	1.48	0.95
26:1H:2308:G:H1	26:1H:2311:A:H2	0.98	0.95
34:61:109:ILE:HG23	34:61:113:ARG:HH22	1.30	0.95
44:A5:65:LEU:HD13	44:A5:68:ARG:HD2	1.49	0.94
30:29:171:GLU:H	30:29:185:LYS:HE3	1.31	0.94
47:D5:95:PRO:HB2	47:D5:127:LYS:HD3	1.50	0.94
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.47	0.94
26:1H:1816:G:OP2	29:11:39:LYS:NZ	1.99	0.94
37:35:39:LYS:NZ	61:35:301:HOH:O	2.01	0.94
26:14:141:A:H8	26:14:1595:G:H21	1.16	0.93
26:1H:607:U:H3	26:1H:621:A:H2	1.13	0.93
26:1H:49:A:N7	26:1H:120:U:H5	1.67	0.93
26:1H:1359:A:N1	26:1H:1372:U:N3	2.17	0.93
26:1H:1689:A:H62	26:1H:1698:A:H2	1.15	0.93
61:14:3623:HOH:O	39:55:3:HIS:NE2	2.01	0.92
50:K8:8:LYS:H	50:K8:8:LYS:HD2	1.33	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2711:A:OP2	61:14:3504:HOH:O	1.88	0.92
29:19:69:ARG:NH2	29:19:128:GLY:O	2.03	0.92
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.03	0.92
22:1K:76:A:H8	26:1H:2583:G:H21	1.08	0.92
2:12:102:LEU:HD11	2:12:176:GLU:HB3	1.52	0.92
29:11:238:GLY:O	61:11:401:HOH:O	1.86	0.91
27:1J:50:G:OP2	40:65:62:LYS:NZ	2.04	0.91
1:1G:1277:C:HO2'	1:1G:1279:A:H8	1.18	0.91
19:AI:41:VAL:HG11	19:AI:45:VAL:HG13	1.52	0.91
1:1G:950:U:OP2	13:4A:102:ARG:NH1	2.04	0.91
26:14:397:G:N7	61:14:3625:HOH:O	2.03	0.91
1:1G:413:G:O2'	1:1G:428:G:N2	2.03	0.91
7:62:146:GLU:HG2	7:62:147:ALA:H	1.37	0.91
43:D8:47:VAL:HG23	43:D8:48:GLY:H	1.36	0.90
44:A5:50:VAL:HG12	44:A5:105:VAL:HG12	1.52	0.90
42:C8:95:LEU:HD12	42:C8:97:ASP:HB3	1.51	0.90
8:72:86:ILE:HD11	8:72:133:LEU:HB3	1.53	0.90
26:14:2789:C:O2	26:14:2894:G:N2	2.04	0.90
50:G5:4:SER:HB3	50:G5:7:ARG:HB2	1.53	0.90
2:1E:18:GLY:H	2:1E:42:ILE:HG22	1.37	0.90
26:1H:67:U:H3	26:1H:74:A:H2	1.17	0.89
10:1I:46:ARG:HH22	10:1I:63:PHE:N	1.70	0.89
7:62:91:VAL:HG23	7:62:95:ARG:HG3	1.54	0.89
26:1H:1022:G:N2	26:1H:1023:U:O4	2.05	0.89
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.06	0.89
7:62:70:LYS:HD2	7:62:96:GLN:HB3	1.52	0.89
8:7E:102:ARG:NH2	8:7E:121:ASP:OD2	2.05	0.89
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.18	0.89
29:11:182:LEU:H	29:11:272:ALA:HB3	1.38	0.89
1:1G:376:G:H5"	16:7A:5:ARG:HE	1.38	0.89
44:A5:14:PRO:HG2	44:A5:78:GLU:HG2	1.54	0.89
5:42:39:GLY:O	5:42:40:ARG:NH1	2.06	0.88
16:7A:5:ARG:CZ	16:7A:6:LEU:H	1.85	0.88
3:22:11:ARG:HH22	3:22:181:ASN:H	1.15	0.88
35:15:112:LEU:HG	35:15:115:ARG:NH2	1.89	0.88
8:7E:111:ILE:HD11	8:7E:135:CYS:SG	2.14	0.88
52:I5:38:LYS:HD3	52:I5:44:THR:HB	1.56	0.88
26:14:1041:C:H42	26:14:1114:G:H1	1.20	0.88
1:13:323:U:H5'	20:BI:23:ARG:HE	1.39	0.87
1:13:1348:U:H3	1:13:1374:A:H2	1.23	0.87
4:3E:15:GLU:OE2	4:3E:66:ARG:NH2	2.06	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:8:A:N7	4:32:209:ARG:NH2	2.21	0.87
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.38	0.87
32:49:47:LYS:NZ	32:49:86:MET:SD	2.47	0.87
1:13:926:G:O2'	25:4K:12:A:N6	2.07	0.87
55:M5:43:GLN:O	55:M5:46:ARG:NH1	2.07	0.87
2:1E:87:ARG:HH21	2:1E:232:PRO:HG3	1.38	0.86
10:1I:28:ARG:HD2	10:1I:29:ARG:H	1.38	0.86
26:1H:1728:G:H8	26:1H:1732:A:H62	1.21	0.86
26:14:2839:G:H5'	39:55:46:GLY:HA2	1.56	0.86
2:12:54:THR:HA	2:12:57:PHE:HB2	1.57	0.86
10:1A:42:THR:HG22	10:1A:66:ARG:HH21	1.40	0.86
4:3E:18:LYS:NZ	59:3E:301:SF4:S1	2.48	0.86
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.41	0.86
41:B8:4:GLY:HA2	41:B8:7:ILE:HG12	1.56	0.86
30:29:54:GLN:HE22	30:29:57:LYS:HD3	1.39	0.86
44:E8:92:ARG:NH1	44:E8:92:ARG:HB2	1.89	0.86
26:14:2720:U:H3	26:14:2873:A:H2	1.20	0.86
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.56	0.86
1:1G:376:G:H5"	16:7A:5:ARG:NE	1.91	0.86
26:1H:2656:U:H3	26:1H:2665:A:H2	1.18	0.86
18:9A:53:ARG:HA	18:9A:56:THR:HG22	1.57	0.86
4:3E:88:VAL:HG22	4:3E:89:THR:HG22	1.56	0.86
49:J8:92:LYS:HD3	49:J8:93:GLU:HG3	1.55	0.86
1:13:932:C:OP1	7:6E:3:ARG:NE	2.09	0.85
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.09	0.85
4:3E:108:LEU:HD12	4:3E:146:ILE:HD11	1.58	0.85
14:5I:29:ARG:NE	14:5I:40:CYS:SG	2.50	0.85
16:7I:5:ARG:O	16:7I:20:VAL:N	2.07	0.85
33:51:153:LYS:HB3	33:51:155:SER:H	1.41	0.85
26:14:323:G:HO2'	26:14:1205:U:H3	1.22	0.85
37:78:32:THR:O	61:78:301:HOH:O	1.93	0.85
26:14:85:G:H5"	46:C5:30:VAL:HG21	1.57	0.85
26:14:815:C:OP1	43:95:85:LYS:NZ	2.08	0.85
13:4I:34:LEU:HD21	13:4I:41:PRO:HG3	1.59	0.85
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.58	0.85
47:H8:110:GLY:O	47:H8:112:ARG:NH1	2.08	0.85
5:42:100:VAL:HG13	5:42:107:ARG:HG3	1.56	0.85
13:4I:34:LEU:HD11	13:4I:41:PRO:HA	1.59	0.85
26:14:2747:G:H21	26:14:2757:A:H62	1.24	0.85
4:32:150:GLU:HG2	4:32:151:LYS:HG2	1.58	0.85
4:3E:108:LEU:HD21	4:3E:174:LEU:HG	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:35:LYS:HA	16:7I:35:LYS:NZ	1.91	0.85
19:AI:8:GLY:HA3	19:AI:9:VAL:HG13	1.58	0.85
29:19:182:LEU:H	29:19:272:ALA:HB3	1.37	0.85
26:1H:1138:G:H21	35:58:106:MET:HE3	1.40	0.84
46:G8:94:LYS:HD3	46:G8:95:LYS:H	1.40	0.84
26:14:1899:G:H21	26:14:1902:C:N4	1.73	0.84
29:19:44:ASN:HB3	29:19:45:ASN:HA	1.57	0.84
26:14:67:U:H3	26:14:74:A:H2	1.22	0.84
26:14:2127:G:H1	26:14:2161:C:H42	1.24	0.84
47:H8:4:ARG:CZ	47:H8:5:LEU:H	1.89	0.84
1:1G:1223:C:H5"	1:1G:1224:G:H5"	1.58	0.84
4:3E:167:GLY:HA2	29:19:135:PHE:HE1	1.39	0.84
26:1H:141:A:H8	26:1H:1595:G:H21	1.26	0.84
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.11	0.84
47:D5:3:TYR:O	47:D5:4:ARG:NH1	2.11	0.84
1:13:953:G:H5'	1:13:965:A:H61	1.43	0.84
1:13:1502:A:H2	1:13:1505:G:H1	1.26	0.84
19:AI:40:ILE:HG22	19:AI:41:VAL:HG13	1.60	0.84
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.41	0.84
3:22:164:ARG:HE	3:22:166:GLU:HG3	1.42	0.83
23:2K:33:OMC:HM22	23:2K:34:U:H5'	1.58	0.83
26:1H:676:A:H8	26:1H:2069:G:H21	1.24	0.83
26:1H:2789:C:O2	26:1H:2894:G:N2	2.10	0.83
33:51:12:PRO:O	33:51:13:LYS:NZ	2.10	0.83
1:1G:1502:A:H2	1:1G:1505:G:H1	1.21	0.83
7:62:20:ASP:HB3	7:62:23:VAL:HG12	1.60	0.83
9:82:66:ARG:CZ	9:82:67:GLY:H	1.92	0.83
26:1H:870:A:OP1	38:88:6:ARG:NE	2.11	0.83
26:14:1418:G:N7	61:14:3631:HOH:O	2.11	0.83
1:13:454:C:OP1	16:7I:71:ARG:NH1	2.12	0.83
9:8E:9:ARG:HG3	9:8E:14:VAL:HG13	1.58	0.83
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.59	0.83
26:14:780:G:H21	26:14:783:A:H62	1.26	0.83
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.61	0.83
47:H8:138:GLU:H	47:H8:156:LYS:HZ1	1.22	0.83
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.11	0.83
5:42:102:ALA:HB2	5:42:107:ARG:HH11	1.43	0.83
40:65:84:GLN:HA	40:65:110:LEU:HG	1.58	0.83
34:69:76:THR:HG21	34:69:140:LEU:HD22	1.61	0.83
38:45:138:ASP:N	38:45:139:GLU:HA	1.93	0.83
47:D5:101:PRO:HB2	47:D5:102:LEU:HB2	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:82:ARG:NH2	2:12:150:SER:OG	2.10	0.83
26:14:2541:A:N7	61:14:3633:HOH:O	2.12	0.83
30:29:144:ARG:HG2	30:29:145:LYS:H	1.43	0.83
51:H5:8:LEU:HB3	51:H5:30:ARG:HH12	1.44	0.83
8:7E:95:VAL:HG23	8:7E:99:GLU:HB2	1.58	0.83
28:71:194:ARG:HH22	28:71:227:HIS:HA	1.44	0.83
5:42:107:ARG:NH2	5:42:118:ILE:O	2.12	0.83
20:BA:12:ALA:O	20:BA:15:ARG:N	2.10	0.83
26:14:152:G:H1	26:14:174:C:H42	1.25	0.83
17:8I:16:GLN:O	17:8I:17:LYS:HE2	1.79	0.82
1:1G:1348:U:H3	1:1G:1374:A:H2	1.23	0.82
20:BI:78:ALA:O	20:BI:82:SER:OG	1.97	0.82
14:5A:3:ARG:HB2	14:5A:4:LYS:HD3	1.60	0.82
38:45:135:ASP:HB2	38:45:137:TYR:H	1.44	0.82
38:88:58:PHE:O	38:88:60:ARG:N	2.12	0.82
37:78:14:LYS:O	37:78:15:ARG:HB3	1.77	0.82
32:41:161:THR:HG22	32:41:163:ALA:H	1.44	0.82
2:12:102:LEU:HD13	2:12:180:LEU:HD21	1.60	0.82
1:13:1202:G:H1'	14:5I:29:ARG:HD2	1.62	0.82
22:1K:53:G:O3'	38:88:56:ARG:NH1	2.12	0.82
30:21:9:VAL:HG13	41:B8:3:ARG:HG3	1.61	0.82
51:L8:10:LYS:NZ	51:L8:15:TYR:OH	2.11	0.82
1:1G:975:A:H4'	1:1G:976:G:H5"	1.61	0.82
9:8E:83:ARG:HA	9:8E:86:VAL:HB	1.61	0.82
16:7I:74:LEU:HD22	16:7I:77:ALA:HB3	1.62	0.82
51:H5:39:ASP:OD1	51:H5:44:ARG:NH1	2.11	0.82
1:1G:1106:G:O3'	3:22:172:ARG:NH1	2.12	0.82
3:22:148:GLY:HA3	3:22:172:ARG:H	1.43	0.82
26:14:2821:A:OP2	61:14:3623:HOH:O	1.97	0.82
26:14:2334:G:O6	48:E5:74:ARG:NH2	2.13	0.81
9:8E:10:ARG:NH2	9:8E:71:SER:O	2.14	0.81
41:75:24:PRO:HD3	41:75:52:ILE:HG13	1.60	0.81
29:11:69:ARG:NH2	29:11:128:GLY:O	2.14	0.81
13:4A:89:GLY:HA2	13:4A:92:HIS:HB3	1.63	0.81
43:D8:44:LYS:O	43:D8:46:VAL:N	2.12	0.81
5:42:31:LEU:HD21	5:42:43:LEU:HD23	1.61	0.81
11:2A:86:GLY:O	11:2A:91:ARG:NH2	2.14	0.81
13:4I:3:ARG:HD2	13:4I:9:ILE:HB	1.61	0.81
29:11:35:LYS:HZ1	29:11:63:ARG:HD2	1.46	0.81
46:G8:54:LYS:HA	46:G8:56:PRO:HD3	1.60	0.81
37:35:55:ARG:HG2	37:35:56:SER:H	1.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:4:TYR:OH	9:8E:88:TYR:N	2.12	0.81
35:15:56:ASN:H	35:15:125:GLY:HA3	1.46	0.81
1:13:1305:G:N2	1:13:1331:G:H2'	1.96	0.80
37:78:31:ALA:O	37:78:32:THR:HG22	1.80	0.80
1:1G:869:G:N7	61:1G:1852:HOH:O	2.14	0.80
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	1.63	0.80
39:55:103:ARG:NH1	39:55:108:GLY:O	2.13	0.80
4:32:205:GLU:O	4:32:209:ARG:NH1	2.15	0.80
43:95:6:LYS:HE2	43:95:38:LEU:HD22	1.63	0.80
51:H5:30:ARG:CZ	51:H5:33:GLN:H	1.93	0.80
42:C8:92:ARG:HH21	42:C8:95:LEU:N	1.80	0.80
1:1G:808:C:OP1	15:6A:48:LYS:NZ	2.15	0.80
5:42:51:VAL:HG13	5:42:52:PRO:HD3	1.62	0.80
9:8E:10:ARG:NH1	9:8E:72:GLY:O	2.14	0.80
26:14:2392:A:H2	26:14:2424:C:H42	1.27	0.80
31:39:25:PRO:HA	31:39:27:GLU:HG2	1.63	0.80
1:13:8:A:N7	4:3E:208:SER:OG	2.14	0.80
26:1H:270(W):G:N7	61:1H:3739:HOH:O	2.14	0.80
8:72:109:ILE:HD11	8:72:111:ILE:HG12	1.64	0.80
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.63	0.80
3:2E:18:TRP:HB2	3:2E:21:ARG:NH2	1.96	0.80
1:13:812:C:N3	61:13:1831:HOH:O	2.14	0.80
1:13:1305:G:H22	1:13:1331:G:H2'	1.45	0.80
2:1E:27:LYS:NZ	2:1E:193:ASP:OD2	2.13	0.80
26:1H:860:U:H5	26:1H:917:A:C2	2.00	0.80
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.13	0.80
50:G5:47:ASN:O	50:G5:49:LYS:N	2.13	0.80
26:1H:988:A:C5	51:L8:13:ILE:HD11	2.16	0.80
5:42:122:GLU:O	5:42:126:ARG:NH1	2.14	0.80
46:C5:79:CYS:SG	46:C5:101:LYS:NZ	2.55	0.80
5:4E:11:ILE:HD11	5:4E:31:LEU:HD23	1.63	0.80
4:3E:25:ARG:NH2	59:3E:301:SF4:S4	2.54	0.79
26:1H:931:G:O2'	51:L8:24:LYS:NZ	2.14	0.79
51:H5:8:LEU:H	51:H5:30:ARG:HH22	1.26	0.79
26:1H:259:G:O2'	26:1H:621:A:O2'	2.00	0.79
49:J8:82:LEU:HD22	49:J8:88:LYS:HZ1	1.46	0.79
26:14:2589:A:OP1	61:14:3554:HOH:O	2.00	0.79
6:5E:46:ARG:HH21	6:5E:48:LEU:HD21	1.46	0.79
26:14:1339:G:OP1	45:B5:16:LYS:HE3	1.83	0.79
1:13:1304:G:OP2	61:13:1828:HOH:O	2.00	0.79
3:2E:18:TRP:HB2	3:2E:21:ARG:CZ	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:3:ARG:NE	19:AI:9:VAL:HG11	1.92	0.79
29:11:37:LEU:H	29:11:37:LEU:HD23	1.48	0.79
3:22:184:TYR:HD2	3:22:201:TYR:HE1	1.28	0.79
16:7I:5:ARG:HH21	16:7I:6:LEU:HB3	1.47	0.79
33:51:85:LYS:HD2	33:51:141:VAL:HG23	1.64	0.79
1:1G:468:A:O3'	16:7A:75:ARG:NH2	2.14	0.79
4:32:23:GLY:N	4:32:26:CYS:SG	2.55	0.79
14:5A:27:CYS:O	14:5A:29:ARG:NH2	2.15	0.79
26:14:607:U:H3	26:14:621:A:H2	1.31	0.79
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.83	0.79
33:51:85:LYS:HE2	33:51:133:VAL:HG13	1.64	0.79
26:14:863:A:P	38:45:22:LYS:HZ1	2.06	0.79
26:14:1019:U:H3	26:14:1142(A):A:H62	1.31	0.79
29:19:44:ASN:HA	29:19:47:GLY:H	1.47	0.79
47:D5:27:VAL:HG12	47:D5:36:LYS:HA	1.63	0.79
53:J5:16:ARG:HH11	53:J5:16:ARG:HG2	1.46	0.79
20:BI:42:GLN:NE2	20:BI:46:GLU:OE1	2.15	0.79
9:82:10:ARG:HH21	9:82:104:ARG:HE	1.28	0.79
33:59:142:GLY:HA2	33:59:145:ALA:HB3	1.65	0.79
14:5I:24:CYS:SG	14:5I:29:ARG:NH2	2.55	0.78
12:3A:27:LEU:HB3	12:3A:33:ARG:HD2	1.63	0.78
19:AA:66:MET:H	19:AA:67:VAL:HG22	1.48	0.78
26:14:259:G:H21	26:14:621:A:H8	1.31	0.78
37:35:85:LEU:HA	37:35:88:LEU:HD23	1.63	0.78
55:M5:43:GLN:HA	55:M5:46:ARG:HH22	1.46	0.78
40:A8:5:THR:HG22	40:A8:8:GLU:HG2	1.65	0.78
26:14:1022:G:H22	26:14:1142(A):A:H2	1.30	0.78
30:29:81:ILE:HG22	30:29:82:ARG:H	1.48	0.78
26:1H:827:U:OP2	61:1H:3717:HOH:O	2.01	0.78
12:3A:59:ARG:HH22	12:3A:63:GLY:H	1.32	0.78
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.17	0.78
26:1H:1798:U:H5'	29:11:259:THR:HG23	1.65	0.78
28:71:180:PHE:HB3	28:71:184:LYS:HE2	1.64	0.78
14:5A:46:GLU:N	14:5A:46:GLU:OE2	2.17	0.78
26:14:270(W):G:N7	61:14:3635:HOH:O	2.15	0.78
26:1H:747:U:O2'	44:E8:92:ARG:NH2	2.17	0.78
3:22:70:VAL:HG12	3:22:72:LYS:H	1.47	0.78
10:1A:28:ARG:NH1	10:1A:32:ALA:O	2.16	0.78
47:D5:4:ARG:HG2	47:D5:4:ARG:HH11	1.49	0.78
1:13:1391:U:H2'	1:13:1392:G:C8	2.19	0.78
26:14:1276:A:O2'	39:55:12:ARG:NH1	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:76:A:H8	26:1H:2394:C:H42	1.30	0.78
28:71:18:LYS:O	28:71:223:ARG:NH1	2.17	0.78
32:41:101:ILE:HG23	52:M8:25:TYR:CZ	2.18	0.78
1:1G:1259:C:N4	1:1G:1260:C:O2	2.16	0.78
40:65:61:ASN:OD1	40:65:62:LYS:N	2.15	0.78
41:75:117:ASP:OD2	41:75:120:ARG:NH1	2.17	0.78
1:13:1240:U:H1'	7:6E:32:ARG:CZ	2.13	0.78
1:1G:664:G:H22	1:1G:741:G:H1	1.28	0.78
1:1G:1108:G:H5'	3:22:176:HIS:HD2	1.49	0.78
5:42:142:LEU:O	5:42:143:ARG:NH1	2.16	0.78
11:2A:18:ARG:HB2	11:2A:33:THR:HG23	1.65	0.78
3:2E:82:GLU:OE1	3:2E:85:ARG:NH1	2.17	0.78
10:1I:46:ARG:NH2	10:1I:47:PHE:O	2.16	0.78
24:3K:49:G:N2	24:3K:64:U:O4	2.16	0.78
39:98:86:ARG:HH21	39:98:118:GLU:HG3	1.48	0.78
1:1G:1081:G:OP1	5:42:18:ARG:NH2	2.17	0.78
32:49:7:LEU:HD12	32:49:104:GLU:HG3	1.66	0.78
1:13:160:A:N6	1:13:346:G:O6	2.16	0.77
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.17	0.77
5:42:11:ILE:HD11	5:42:31:LEU:HD13	1.66	0.77
10:1A:25:GLU:HG3	10:1A:29:ARG:HB3	1.66	0.77
41:75:56:GLY:O	41:75:59:THR:HG23	1.84	0.77
26:1H:1112:G:H4'	33:51:2:SER:HB3	1.66	0.77
5:42:40:ARG:HH12	5:42:69:VAL:H	1.32	0.77
10:1A:51:ARG:NH2	10:1A:56:HIS:O	2.17	0.77
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.50	0.77
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.17	0.77
26:14:676:A:H8	26:14:2069:G:H21	1.32	0.77
26:14:818:G:OP2	61:14:3624:HOH:O	2.01	0.77
1:13:1372:U:H5"	9:8E:71:SER:HB3	1.66	0.77
26:1H:2256:G:N7	61:1H:3747:HOH:O	2.16	0.77
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.67	0.77
26:14:1364:G:OP2	49:F5:2:SER:N	2.18	0.77
31:39:191:ARG:HH11	31:39:191:ARG:HG3	1.47	0.77
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.65	0.77
33:51:46:GLU:HB2	33:51:49:VAL:HG12	1.65	0.77
26:14:877:U:O2	26:14:899:A:N6	2.16	0.77
9:8E:93:ARG:HA	9:8E:96:LEU:HB2	1.65	0.77
42:C8:92:ARG:NH2	42:C8:95:LEU:HD22	1.98	0.77
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.02	0.77
3:22:44:GLU:HA	3:22:47:LEU:HD13	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:79:VAL:HG12	43:95:80:GLN:H	1.48	0.77
26:1H:2706:G:O6	61:1H:3716:HOH:O	1.97	0.77
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.49	0.77
8:72:96:GLY:C	8:72:99:GLU:HG2	2.05	0.77
18:9I:59:SER:HB3	18:9I:62:GLU:HG3	1.66	0.77
26:1H:2819:G:OP1	61:1H:3719:HOH:O	2.03	0.77
49:J8:92:LYS:HD2	49:J8:95:LEU:H	1.48	0.77
4:32:25:ARG:NH1	4:32:30:LYS:H	1.83	0.77
19:AA:33:THR:HG22	19:AA:35:SER:H	1.49	0.77
40:65:16:ASN:O	40:65:20:ARG:NH2	2.17	0.77
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.67	0.77
12:3A:32:PHE:HB3	12:3A:84:LEU:HD21	1.66	0.77
17:8A:68:ARG:H	17:8A:70:ARG:HH11	1.33	0.77
48:E5:12:ASN:HA	48:E5:14:ARG:NH2	2.00	0.77
8:7E:114:THR:HG23	8:7E:116:LYS:H	1.48	0.77
26:1H:2751:G:N7	33:51:3:ARG:HG3	1.99	0.77
18:9A:84:LYS:HE2	18:9A:85:LEU:H	1.49	0.77
32:49:49:ASP:HB3	32:49:52:ILE:H	1.48	0.77
38:45:27:VAL:CB	38:45:28:ALA:HA	2.03	0.77
9:8E:42:ARG:NH2	9:8E:75:ASP:OD1	2.18	0.76
17:8I:17:LYS:HD2	17:8I:18:THR:HG23	1.67	0.76
50:K8:8:LYS:HD2	50:K8:8:LYS:N	1.99	0.76
10:1I:46:ARG:HH22	10:1I:63:PHE:H	1.30	0.76
20:BI:50:GLU:HA	20:BI:100:ILE:HG22	1.68	0.76
50:K8:8:LYS:H	50:K8:8:LYS:CD	1.98	0.76
4:32:13:ARG:NH1	4:32:38:TYR:O	2.18	0.76
42:85:90:VAL:HA	43:95:38:LEU:HD21	1.65	0.76
26:14:995:C:H42	35:15:2:LYS:HZ3	1.31	0.76
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.67	0.76
28:71:23:ASP:HB2	28:71:190:ARG:HH22	1.50	0.76
16:7I:45:THR:HG22	16:7I:47:ASP:H	1.49	0.76
26:1H:2499:C:OP1	61:1H:3720:HOH:O	2.04	0.76
29:11:235:GLY:O	61:11:402:HOH:O	2.03	0.76
5:42:39:GLY:HA3	5:42:71:LEU:HD11	1.67	0.76
13:4A:8:GLU:N	52:I5:34:GLU:OE1	2.19	0.76
4:3E:25:ARG:NH2	4:3E:26:CYS:SG	2.59	0.76
47:H8:103:ARG:HG2	47:H8:105:VAL:HG12	1.65	0.76
1:1G:842:C:O2'	1:1G:848:C:N3	2.17	0.76
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.01	0.76
34:61:93:THR:HG23	34:61:96:ASP:H	1.51	0.76
42:C8:92:ARG:NH1	43:D8:11:GLN:HG2	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:102:ALA:HB2	5:42:107:ARG:NH1	2.00	0.76
10:1A:51:ARG:NH1	10:1A:59:SER:O	2.18	0.76
26:14:878:A:H5"	26:14:900:A:H61	1.50	0.76
2:1E:176:GLU:O	2:1E:179:LYS:NZ	2.16	0.76
7:62:38:LEU:O	7:62:41:ARG:NH1	2.19	0.76
26:14:1702:G:N7	61:14:3649:HOH:O	2.19	0.76
2:12:51:LEU:O	2:12:54:THR:OG1	2.03	0.76
19:AA:18:LYS:O	19:AA:18:LYS:NZ	2.15	0.76
3:2E:71:ALA:HA	3:2E:106:VAL:HG22	1.68	0.76
39:98:30:THR:HG22	39:98:75:LEU:HD13	1.67	0.76
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.66	0.76
3:22:172:ARG:HE	3:22:174:PRO:HG3	1.51	0.76
26:1H:1204:A:N6	26:1H:1241:A:H2	1.81	0.75
42:C8:92:ARG:O	42:C8:94:ASN:N	2.19	0.75
2:12:95:GLN:NE2	2:12:147:LYS:O	2.19	0.75
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.68	0.75
17:8A:68:ARG:H	17:8A:70:ARG:NH1	1.84	0.75
44:A5:18:ARG:HG3	44:A5:76:VAL:HG13	1.67	0.75
1:1G:974:A:N3	14:5A:31:ARG:NH2	2.33	0.75
4:32:33:MET:O	4:32:35:ARG:NH2	2.20	0.75
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.22	0.75
27:1J:80:U:H2'	27:1J:81:G:N2	2.00	0.75
46:C5:79:CYS:SG	46:C5:97:ARG:NH1	2.60	0.75
1:13:630:G:N2	1:13:631:G:O6	2.19	0.75
16:7I:18:ARG:HH12	16:7I:19:ILE:HG13	1.50	0.75
26:1H:1006:C:OP2	61:1H:3718:HOH:O	2.03	0.75
33:51:6:ARG:HG2	33:51:7:LEU:HD22	1.67	0.75
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.20	0.75
30:29:39:PRO:HD3	30:29:45:THR:HG23	1.68	0.75
3:2E:8:ILE:HD11	14:5I:50:LYS:HA	1.69	0.75
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.68	0.75
1:1G:1255:G:N7	10:1A:43:ARG:NH2	2.34	0.75
26:14:1022:G:O2'	26:14:1023:U:OP2	2.05	0.75
11:2I:34:ASP:HB2	11:2I:35:PRO:HD2	1.69	0.75
30:21:197:ILE:HD11	30:21:199:ARG:HD3	1.68	0.75
1:1G:589:C:H42	1:1G:650:G:H1	1.33	0.75
45:B5:60:ARG:HG3	45:B5:61:GLY:N	2.00	0.75
16:7I:18:ARG:NH1	16:7I:37:GLY:O	2.19	0.75
37:78:36:LYS:O	61:78:302:HOH:O	2.04	0.75
8:72:51:VAL:HG21	8:72:60:ARG:HE	1.51	0.75
26:14:2729:G:O2'	30:29:185:LYS:NZ	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:132:ASN:HB3	32:49:158:ALA:HA	1.69	0.75
33:59:139:GLN:O	33:59:143:GLN:NE2	2.18	0.75
2:12:91:PRO:HG2	2:12:155:LEU:HB2	1.68	0.75
33:51:83:TYR:CE1	33:51:134:SER:HA	2.22	0.75
42:C8:85:LYS:HZ3	42:C8:86:ALA:H	1.34	0.75
1:1G:1321:C:H41	1:1G:1322:C:N4	1.85	0.75
26:14:2583:G:OP1	58:14:3445:SPE:H22	1.86	0.75
2:1E:7:VAL:HG21	2:1E:217:ARG:HG2	1.68	0.74
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.50	0.74
26:1H:2838:G:OP1	61:1H:3721:HOH:O	2.05	0.74
30:21:66:HIS:HA	30:21:68:ALA:H	1.51	0.74
1:1G:375:U:O3'	16:7A:5:ARG:NH2	2.20	0.74
13:4A:78:ILE:HA	13:4A:81:LEU:HB2	1.67	0.74
24:3L:72:C:H3'	24:3L:73:A:H5"	1.69	0.74
37:35:55:ARG:HG2	37:35:56:SER:N	2.02	0.74
26:1H:2711:A:OP2	61:1H:3608:HOH:O	2.05	0.74
1:13:877:C:H5"	8:7E:88:LYS:HD3	1.68	0.74
14:5I:26:ARG:NH1	14:5I:43:CYS:SG	2.60	0.74
26:1H:270(Y):G:O6	61:1H:3722:HOH:O	2.06	0.74
26:1H:780:G:H21	26:1H:783:A:H62	1.35	0.74
47:H8:103:ARG:HE	47:H8:139:VAL:N	1.85	0.74
1:1G:758:G:N7	61:1G:1854:HOH:O	2.20	0.74
1:1G:1239:A:H4'	1:1G:1240:U:H5"	1.69	0.74
2:12:180:LEU:H	2:12:180:LEU:HD22	1.50	0.74
33:51:4:ILE:O	33:51:6:ARG:NH1	2.21	0.74
49:J8:82:LEU:HD23	49:J8:83:GLU:HG2	1.68	0.74
34:69:57:ARG:O	34:69:61:ARG:NH1	2.20	0.74
47:D5:156:LYS:N	47:D5:171:ILE:O	2.20	0.74
47:D5:161:VAL:HG13	47:D5:162:GLU:HG2	1.68	0.74
1:13:322:C:O2'	20:BI:23:ARG:NH1	2.21	0.74
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.22	0.74
52:M8:57:GLU:O	52:M8:61:ARG:NH2	2.13	0.74
2:12:70:PHE:N	2:12:92:TYR:HA	2.03	0.74
4:32:153:ARG:HA	4:32:181:MET:HE1	1.69	0.74
9:82:46:ALA:O	9:82:78:LYS:NZ	2.20	0.74
31:39:24:LEU:HD21	31:39:119:ARG:HB3	1.69	0.74
41:75:31:SER:HB3	41:75:42:ILE:HD13	1.68	0.74
47:D5:4:ARG:NH1	47:D5:58:VAL:H	1.85	0.74
34:61:64:GLU:HA	34:61:67:ARG:HD3	1.68	0.74
47:H8:103:ARG:H	47:H8:103:ARG:HD2	1.53	0.74
10:1A:51:ARG:HG3	10:1A:60:ARG:HA	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:91:ARG:HG2	13:4A:98:VAL:HG12	1.69	0.74
28:79:223:ARG:NH1	28:79:224:ILE:O	2.19	0.74
29:19:38:LYS:HA	29:19:38:LYS:HE3	1.67	0.74
47:D5:5:LEU:HD22	47:D5:43:GLU:HG3	1.69	0.74
16:7I:18:ARG:HE	16:7I:35:LYS:HE3	1.52	0.74
26:1H:296:C:OP1	46:G8:4:LYS:NZ	2.19	0.74
33:51:10:PRO:HD2	33:51:50:VAL:O	1.88	0.74
33:51:153:LYS:HB3	33:51:155:SER:N	2.02	0.74
43:D8:47:VAL:CG2	43:D8:48:GLY:H	1.99	0.74
26:14:2681:C:H5	26:14:2725:A:H62	1.30	0.74
33:59:85:LYS:HD2	33:59:141:VAL:HB	1.69	0.74
4:3E:176:LEU:HD21	4:3E:183:GLY:HA2	1.70	0.74
30:21:128:SER:OG	30:21:129:HIS:N	2.20	0.74
31:31:107:LYS:HE2	31:31:207:GLY:H	1.53	0.74
9:82:40:LEU:HD21	9:82:43:ALA:HB2	1.70	0.74
35:15:131:GLN:H	35:15:134:ARG:HH12	1.36	0.74
2:1E:73:THR:HG22	2:1E:74:LYS:HG2	1.70	0.74
16:7I:32:TYR:CZ	16:7I:35:LYS:HE2	2.23	0.74
18:9I:37:VAL:HG23	18:9I:41:LYS:HD3	1.70	0.74
3:22:11:ARG:NH2	3:22:181:ASN:H	1.86	0.74
3:22:47:LEU:HD12	3:22:52:LEU:HD22	1.69	0.74
8:72:97:VAL:C	8:72:99:GLU:HB2	2.09	0.74
26:14:1670:C:OP1	61:14:3626:HOH:O	2.05	0.74
27:1J:43:C:O2'	32:49:95:ARG:NE	2.21	0.74
49:F5:91:LYS:HD3	49:F5:92:LYS:HD3	1.70	0.74
3:22:88:ARG:HG2	3:22:101:LEU:HD22	1.70	0.74
34:69:135:GLU:N	34:69:135:GLU:OE1	2.21	0.74
40:A8:106:ARG:NH1	40:A8:106:ARG:O	2.20	0.73
1:1G:1246:C:O2	1:1G:1291:G:N2	2.21	0.73
2:12:130:ARG:HH21	2:12:135:GLN:HE21	1.34	0.73
1:13:693:G:C5	25:4K:13:A:H5'	2.23	0.73
16:7I:74:LEU:HD21	16:7I:79:VAL:HB	1.68	0.73
40:A8:49:VAL:HG21	40:A8:77:ALA:HB2	1.69	0.73
7:62:146:GLU:CG	7:62:147:ALA:H	2.01	0.73
26:14:870:A:OP1	38:45:6:ARG:NE	2.21	0.73
51:H5:8:LEU:HB3	51:H5:30:ARG:NH1	2.02	0.73
1:13:1125:U:HO2'	1:13:1126:U:H6	1.33	0.73
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.21	0.73
26:1H:1678:G:N2	26:1H:1989:G:H22	1.86	0.73
30:21:147:PRO:HB2	30:21:149:ARG:HG2	1.70	0.73
47:H8:4:ARG:HE	47:H8:60:GLU:HG2	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:54:GLN:NE2	30:29:57:LYS:HD3	2.04	0.73
1:13:785:G:N7	61:13:1837:HOH:O	2.20	0.73
1:13:1286:A:C8	1:13:1287:A:H4'	2.23	0.73
11:2I:54:ARG:NH2	24:3K:39:G:O2'	2.20	0.73
26:1H:1939:U:O2'	61:1H:3662:HOH:O	2.06	0.73
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.53	0.73
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.69	0.73
47:H8:103:ARG:NE	47:H8:139:VAL:HG13	2.04	0.73
26:14:435:C:N3	61:14:3654:HOH:O	2.21	0.73
26:14:1689:A:H62	26:14:1698:A:H2	1.33	0.73
26:14:2520:C:H41	26:14:2542:A:H62	1.34	0.73
2:1E:178:ARG:NH1	8:7E:71:GLY:O	2.22	0.73
36:68:9:GLU:OE1	36:68:18:LYS:NZ	2.19	0.73
42:C8:92:ARG:HH22	42:C8:95:LEU:HD22	1.53	0.73
17:8I:54:GLY:O	17:8I:81:ARG:NH2	2.21	0.73
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.21	0.73
53:N8:49:CYS:SG	53:N8:50:GLY:N	2.60	0.73
26:14:821:A:O2'	26:14:946:G:OP2	2.04	0.73
27:1J:6:C:N4	27:1J:114:G:O6	2.19	0.73
29:19:39:LYS:HG3	29:19:40:THR:H	1.53	0.73
36:25:68:GLU:HG3	36:25:78:ARG:HE	1.54	0.73
37:35:26:GLY:O	61:35:302:HOH:O	2.05	0.73
9:8E:90:PRO:HA	9:8E:92:TYR:CE1	2.24	0.73
43:D8:65:GLY:HA3	43:D8:91:TYR:CZ	2.24	0.73
47:H8:4:ARG:NH2	47:H8:6:LYS:H	1.85	0.73
1:1G:353:A:H5'	1:1G:353:A:H8	1.52	0.73
1:1G:567:G:O2'	61:1G:1845:HOH:O	2.06	0.73
26:14:2378:A:O2'	40:65:21:THR:HG21	1.89	0.73
34:69:57:ARG:HB3	34:69:61:ARG:HH12	1.54	0.73
43:95:10:LYS:NZ	43:95:23:GLU:OE2	2.20	0.73
4:3E:103:ASN:OD1	4:3E:114:ARG:NH1	2.22	0.73
26:1H:528:A:O2'	26:1H:529:A:H5'	1.87	0.73
33:51:4:ILE:HG23	33:51:6:ARG:HH12	1.53	0.73
46:G8:97:ARG:CB	46:G8:98:VAL:HA	2.18	0.73
13:4A:11:ARG:HG3	13:4A:12:ASN:HB2	1.69	0.73
26:14:275:G:N2	26:14:276:A:N7	2.37	0.73
26:14:2287:A:H62	26:14:2344:U:H3	1.36	0.73
46:C5:76:CYS:HB3	46:C5:97:ARG:HE	1.52	0.73
1:13:824:C:O2'	8:7E:1:MET:SD	2.46	0.73
1:13:1239:A:H62	1:13:1299:A:H62	1.36	0.73
1:13:1279:A:O2'	1:13:1281:U:OP2	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:143:ARG:NH2	24:3K:41:A:O2'	2.22	0.73
27:16:12:C:N3	48:I8:74:ARG:NH1	2.37	0.73
40:A8:48:LEU:HD12	40:A8:82:ILE:HD11	1.71	0.73
34:61:110:ASP:H	34:61:113:ARG:NH2	1.87	0.73
7:62:32:ARG:H	7:62:32:ARG:CZ	2.02	0.73
17:8A:12:SER:HB3	17:8A:20:THR:HG23	1.71	0.73
26:14:1416:G:O2'	26:14:1417:C:O5'	2.05	0.73
32:49:6:ALA:O	32:49:9:ARG:N	2.21	0.73
40:65:67:ARG:HG2	40:65:71:ARG:HE	1.54	0.73
9:8E:48:GLU:HB2	9:8E:78:LYS:HZ1	1.54	0.72
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.22	0.72
16:7I:18:ARG:NH2	16:7I:19:ILE:O	2.21	0.72
26:1H:607:U:OP1	31:31:102:PRO:HA	1.88	0.72
26:1H:1534:G:H21	26:1H:1538:G:N2	1.87	0.72
26:1H:2392:A:H2	26:1H:2424:C:H42	1.36	0.72
1:1G:640:A:N3	8:72:115:SER:OG	2.23	0.72
10:1A:49:VAL:O	10:1A:60:ARG:HB2	1.89	0.72
10:1A:50:ILE:HG13	14:5A:41:ARG:HH12	1.54	0.72
26:14:2498:C:H3'	61:14:3535:HOH:O	1.88	0.72
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.70	0.72
26:1H:2131:G:H5'	26:1H:2132:U:H3'	1.70	0.72
34:61:78:THR:HG22	34:61:141:LYS:HB2	1.72	0.72
3:22:172:ARG:NH1	3:22:172:ARG:HA	2.04	0.72
3:22:184:TYR:CD2	3:22:201:TYR:HE1	2.07	0.72
26:14:931:G:O2'	51:H5:24:LYS:NZ	2.17	0.72
8:7E:119:LEU:HB3	8:7E:123:GLU:HB2	1.72	0.72
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.71	0.72
20:BI:53:LEU:HA	20:BI:56:MET:HB3	1.70	0.72
21:1F:9:ARG:H	21:1F:9:ARG:HD2	1.54	0.72
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.21	0.72
9:82:46:ALA:HB1	9:82:77:ILE:HD11	1.70	0.72
26:14:94:G:H21	50:G5:47:ASN:HD22	1.38	0.72
26:14:832:G:H5'	37:35:45:LEU:HD21	1.70	0.72
32:49:93:THR:O	32:49:95:ARG:NH1	2.21	0.72
34:69:81:VAL:H	34:69:143:SER:HB3	1.53	0.72
24:3K:22:G:N7	24:3K:46:G:N1	2.37	0.72
26:1H:191:A:N1	61:1H:3760:HOH:O	2.21	0.72
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.23	0.72
26:14:1455:G:OP2	61:14:3628:HOH:O	2.07	0.72
26:14:2491:U:OP2	58:14:3446:SPE:N5	2.19	0.72
26:14:2745:C:O2'	33:59:143:GLN:NE2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:802:A:H4'	61:14:4444:HOH:O	1.89	0.72
52:I5:13:ARG:HD3	52:I5:14:ILE:H	1.54	0.72
1:13:1129:C:H1'	1:13:1146:A:H61	1.55	0.72
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.22	0.72
40:65:62:LYS:HE3	40:65:97:ARG:CD	2.17	0.72
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.07	0.72
26:14:870:A:H5"	38:45:6:ARG:HG3	1.72	0.72
33:59:131:VAL:O	33:59:132:ARG:NH1	2.22	0.72
1:13:129(A):G:H4'	1:13:130:A:H5"	1.72	0.72
13:4I:57:ARG:NH1	13:4I:61:GLU:OE1	2.22	0.72
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.54	0.72
5:42:101:ILE:H	5:42:107:ARG:NH2	1.88	0.72
15:6A:33:THR:HG22	15:6A:63:ARG:HD2	1.71	0.72
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.23	0.72
4:3E:176:LEU:HD12	4:3E:177:ASP:H	1.55	0.72
48:I8:27:GLU:HG3	48:I8:68:GLU:HA	1.72	0.72
5:42:100:VAL:HG22	5:42:107:ARG:HE	1.55	0.72
26:14:71:A:H2	45:B5:31:HIS:HE2	1.38	0.72
38:45:38:GLU:HG3	38:45:127:ILE:HG13	1.70	0.72
2:1E:130:ARG:NH2	2:1E:131:PRO:O	2.22	0.71
35:58:67:LEU:HD23	35:58:88:GLU:HB3	1.71	0.71
1:1G:1317:C:N3	19:AA:37:ARG:NH1	2.38	0.71
26:14:1537:C:H2'	26:14:1538:G:C8	2.25	0.71
32:49:77:ILE:N	32:49:82:LEU:HD21	2.05	0.71
33:59:85:LYS:NZ	33:59:133:VAL:O	2.23	0.71
35:15:73:THR:HG22	35:15:84:LYS:HG2	1.71	0.71
37:35:16:ARG:HH21	37:35:16:ARG:HB2	1.54	0.71
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.22	0.71
26:1H:2879:C:OP2	61:1H:3723:HOH:O	2.07	0.71
38:88:66:ILE:O	38:88:104:PHE:N	2.23	0.71
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.23	0.71
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.08	0.71
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.72	0.71
2:1E:209:ARG:HD2	2:1E:239:VAL:HG13	1.71	0.71
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.23	0.71
52:M8:37:SER:HA	52:M8:39:CYS:HB2	1.72	0.71
26:14:958:U:OP2	38:45:14:ARG:NH1	2.22	0.71
15:6I:74:ASP:HB3	15:6I:77:ARG:HB2	1.72	0.71
17:8I:22:LEU:HD21	17:8I:39:SER:HB2	1.72	0.71
24:3K:34:U:O2'	24:3K:35:A:O5'	2.07	0.71
26:1H:2101:G:H1	26:1H:2188:C:H42	1.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:185:LEU:O	28:71:189:ILE:N	2.23	0.71
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.72	0.71
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.71	0.71
26:14:486:C:O2'	44:A5:60:ASN:ND2	2.23	0.71
26:1H:259:G:H21	26:1H:621:A:H8	1.39	0.71
26:1H:2751:G:C6	33:51:3:ARG:HB2	2.24	0.71
36:68:35:VAL:HG21	36:68:103:ALA:HB3	1.73	0.71
40:65:77:ALA:HB1	40:65:82:ILE:HG12	1.72	0.71
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.72	0.71
47:H8:138:GLU:H	47:H8:156:LYS:NZ	1.89	0.71
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.70	0.71
8:72:29:SER:HB3	8:72:32:LYS:HD2	1.73	0.71
34:69:74:ASN:OD1	34:69:75:LEU:N	2.21	0.71
51:H5:6:VAL:HG12	51:H5:56:VAL:HG23	1.73	0.71
1:13:15:G:H1'	5:4E:19:MET:HE1	1.72	0.71
1:13:1306:A:H61	1:13:1331:G:H1'	1.54	0.71
26:1H:1245:G:OP1	37:78:13:ASN:ND2	2.22	0.71
26:1H:2255:G:OP2	61:1H:3725:HOH:O	2.08	0.71
26:1H:2501:C:O2'	61:1H:3726:HOH:O	2.08	0.71
29:11:37:LEU:HD23	29:11:37:LEU:N	2.05	0.71
1:1G:411:A:H62	1:1G:413:G:N2	1.87	0.71
1:1G:949:A:OP1	13:4A:102:ARG:NH2	2.24	0.71
30:29:36:ARG:HH21	30:29:89:ASP:HB3	1.55	0.71
31:39:123:LEU:HD22	31:39:125:LEU:HD22	1.73	0.71
33:59:57:ASP:O	33:59:62:LYS:NZ	2.23	0.71
34:69:132:PRO:HB2	34:69:134:PRO:HD2	1.72	0.71
1:13:362:G:N7	61:13:1838:HOH:O	2.22	0.71
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.23	0.71
26:14:84:A:N6	26:14:102:G:O2'	2.18	0.71
27:1J:9:G:P	40:65:25:ARG:HH22	2.12	0.71
35:15:42:TRP:HA	35:15:48:MET:HE1	1.72	0.71
35:15:112:LEU:HG	35:15:115:ARG:HH21	1.55	0.71
53:J5:33:CYS:SG	53:J5:40:LYS:NZ	2.64	0.71
1:13:339:C:OP2	36:68:97:ARG:NH1	2.24	0.71
1:13:1465:C:OP2	41:B8:108:ARG:NH2	2.24	0.71
3:2E:18:TRP:HZ3	14:5I:55:GLY:H	1.38	0.71
26:1H:1970:A:H4'	26:1H:1971:A:OP1	1.90	0.71
26:14:602:G:HO2'	26:14:604:G:HO2'	1.34	0.71
26:14:1019:U:OP1	26:14:1035:U:O2'	2.06	0.71
50:G5:29:LYS:HE2	50:G5:57:ILE:HG21	1.73	0.71
51:H5:35:ARG:HD3	51:H5:37:LEU:HD21	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:28:G:O2'	1:13:296:U:OP1	2.08	0.71
1:13:163:C:O2'	1:13:164:U:O4'	2.07	0.71
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.55	0.71
26:14:71:A:OP2	26:14:71:A:H3'	1.90	0.71
26:14:1372:U:OP2	61:14:3629:HOH:O	2.08	0.71
33:59:159:GLU:O	33:59:163:TYR:OH	2.09	0.71
8:7E:11:THR:HG22	8:7E:14:ARG:HH22	1.56	0.70
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.26	0.70
26:1H:1824:G:H21	29:11:254:THR:HG23	1.56	0.70
39:98:34:ILE:HG22	39:98:114:VAL:HG13	1.72	0.70
32:49:76:SER:OG	32:49:84:LYS:NZ	2.19	0.70
26:1H:832:G:H5'	37:78:45:LEU:HD21	1.73	0.70
52:M8:52:THR:OG1	52:M8:53:GLU:N	2.23	0.70
1:1G:550:G:OP1	61:1G:1846:HOH:O	2.08	0.70
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.23	0.70
3:22:90:GLU:HA	3:22:93:LYS:HG3	1.73	0.70
3:22:184:TYR:HD2	3:22:201:TYR:CE1	2.07	0.70
26:14:212:G:N7	61:14:3661:HOH:O	2.24	0.70
26:14:842:G:N7	61:14:3660:HOH:O	2.24	0.70
26:14:1678:G:N2	26:14:1989:G:H22	1.89	0.70
5:42:139:LEU:HA	5:42:142:LEU:HD22	1.74	0.70
24:3L:5:G:H2'	24:3L:6:A:C8	2.25	0.70
27:1J:40:U:O4	52:I5:1:MET:N	2.23	0.70
2:1E:104:ASN:HB3	2:1E:108:ILE:HG13	1.74	0.70
4:3E:9:CYS:SG	4:3E:22:LYS:NZ	2.62	0.70
4:3E:176:LEU:HD21	4:3E:184:LYS:H	1.56	0.70
5:4E:33:VAL:HG21	5:4E:109:ILE:HA	1.73	0.70
26:1H:968:G:O6	61:1H:3724:HOH:O	2.08	0.70
26:1H:1325:G:OP1	61:1H:3727:HOH:O	2.08	0.70
32:41:72:ARG:NH2	32:41:84:LYS:O	2.20	0.70
33:51:168:PRO:HB2	33:51:170:ARG:HH12	1.54	0.70
41:B8:12:SER:HA	41:B8:14:TYR:H	1.54	0.70
26:1H:2572:A:C8	30:21:144:ARG:HD3	2.26	0.70
33:51:83:TYR:OH	33:51:133:VAL:O	2.08	0.70
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.37	0.70
27:1J:15:A:H3'	27:1J:16:G:H5'	1.73	0.70
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.72	0.70
1:13:376:G:O5'	16:7I:5:ARG:NH1	2.25	0.70
32:41:51:ARG:H	32:41:51:ARG:HH11	1.40	0.70
38:88:59:ARG:NH2	38:88:62:GLY:HA3	2.06	0.70
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:117:MET:HE1	30:29:136:ARG:HA	1.74	0.70
13:4I:68:GLY:HA3	32:41:115:ARG:CZ	2.22	0.70
26:1H:1381:G:N7	61:1H:3767:HOH:O	2.23	0.70
26:1H:1532:C:H42	26:1H:1539:G:H1	1.38	0.70
41:B8:11:GLU:HG2	41:B8:57:PHE:CD2	2.26	0.70
27:1J:44:G:H1'	27:1J:47:C:H42	1.55	0.70
49:F5:90:ILE:HA	49:F5:93:GLU:OE1	1.91	0.70
2:1E:94:ASN:H	2:1E:96:ARG:NH1	1.90	0.70
23:2K:62:C:H2'	23:2K:63:C:H6	1.54	0.70
35:58:73:THR:HB	35:58:82:LEU:HD11	1.74	0.70
5:42:40:ARG:CZ	5:42:68:GLU:HA	2.22	0.70
16:7A:75:ARG:CZ	16:7A:80:PHE:HB2	2.21	0.70
26:14:2749:A:H4'	33:59:62:LYS:HB3	1.72	0.70
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.73	0.70
1:13:601:C:H2'	1:13:602:A:H8	1.57	0.70
22:1K:50:G:H22	22:1K:64:U:H3	1.39	0.70
26:1H:2503:A:OP1	61:1H:3729:HOH:O	2.09	0.70
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.56	0.70
39:98:26:LYS:O	39:98:30:THR:HG23	1.91	0.70
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.73	0.70
26:14:1342:A:H2	26:14:1602:U:H3	1.40	0.70
26:14:1382:G:N7	61:14:3662:HOH:O	2.25	0.70
27:1J:42:C:OP1	32:49:67:LYS:NZ	2.24	0.70
29:19:5:LYS:HD2	29:19:6:PHE:H	1.55	0.70
52:I5:14:ILE:HD13	52:I5:33:VAL:HG11	1.74	0.70
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.25	0.70
9:8E:28:VAL:O	9:8E:31:GLN:N	2.23	0.70
20:BI:77:ALA:HA	20:BI:80:ARG:NE	2.07	0.70
32:41:66:GLN:OE1	32:41:98:ARG:NH1	2.25	0.70
26:14:566:U:H5"	37:35:29:LYS:HE3	1.73	0.70
30:29:61:ARG:HG3	30:29:61:ARG:O	1.92	0.70
44:A5:11:ARG:NH1	44:A5:99:ARG:O	2.25	0.70
26:1H:1269:A:OP2	61:1H:3730:HOH:O	2.10	0.69
26:1H:1899:G:N2	26:1H:1902:C:H5	1.90	0.69
1:1G:1221:G:H5'	19:AA:36:ARG:HH21	1.57	0.69
14:5A:24:CYS:HB3	14:5A:29:ARG:HH21	1.57	0.69
45:B5:65:ARG:HB3	45:B5:70:LEU:HB3	1.73	0.69
1:13:932:C:H5'	7:6E:3:ARG:HD2	1.74	0.69
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.73	0.69
16:7I:5:ARG:N	16:7I:20:VAL:O	2.25	0.69
46:C5:34:LYS:HD2	46:C5:36:ALA:HB2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:89:GLU:HB2	49:F5:92:LYS:HZ1	1.57	0.69
9:8E:92:TYR:HD1	9:8E:93:ARG:H	1.40	0.69
17:8I:56:VAL:HG22	17:8I:81:ARG:NH2	2.07	0.69
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.25	0.69
26:1H:2165:G:N7	26:1H:2166:G:N2	2.40	0.69
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.75	0.69
1:1G:1503:A:O2'	25:4L:12:A:N6	2.25	0.69
30:29:52:LEU:HD11	30:29:75:VAL:HG13	1.73	0.69
1:13:366:C:N3	61:13:1840:HOH:O	2.26	0.69
1:13:973:G:H3'	1:13:974:A:H5"	1.74	0.69
1:13:1133:G:H2'	1:13:1134:G:H8	1.57	0.69
20:BI:75:ASN:OD1	20:BI:75:ASN:N	2.24	0.69
26:1H:1364:G:OP2	49:J8:2:SER:OG	2.10	0.69
26:1H:2308:G:N1	26:1H:2311:A:H2	1.82	0.69
33:51:2:SER:C	33:51:3:ARG:HG2	2.13	0.69
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.25	0.69
14:5A:12:ARG:HD2	14:5A:14:PRO:HD2	1.72	0.69
56:1L:22:G:OP1	56:1L:48:C:N4	2.25	0.69
26:14:990:A:H5'	26:14:990:A:H8	1.58	0.69
20:BI:90:GLN:HA	20:BI:93:GLU:HB2	1.74	0.69
22:1K:57:G:H2'	22:1K:58:A:H5"	1.75	0.69
42:C8:85:LYS:HZ3	42:C8:86:ALA:N	1.91	0.69
49:J8:69:LYS:HE3	49:J8:95:LEU:HD11	1.73	0.69
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.72	0.69
31:39:181:LEU:HD11	31:39:186:ILE:HD11	1.74	0.69
35:15:131:GLN:H	35:15:134:ARG:NH1	1.90	0.69
49:F5:25:LYS:HA	49:F5:29:GLY:HA2	1.72	0.69
2:1E:87:ARG:NH2	2:1E:220:ASP:OD1	2.25	0.69
9:8E:80:GLY:O	9:8E:84:ALA:N	2.25	0.69
26:1H:2504:U:OP1	61:1H:3731:HOH:O	2.10	0.69
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.27	0.69
47:H8:103:ARG:HD2	47:H8:103:ARG:N	2.05	0.69
49:J8:64:ALA:HA	49:J8:67:ILE:HD12	1.73	0.69
49:J8:88:LYS:HD3	49:J8:89:GLU:HG2	1.73	0.69
26:14:2156:G:N7	26:14:2157:G:N2	2.40	0.69
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.26	0.69
43:95:53:GLU:H	43:95:53:GLU:CD	1.96	0.69
1:13:411:A:C4	1:13:413:G:H1'	2.26	0.69
9:8E:92:TYR:CD1	9:8E:93:ARG:N	2.60	0.69
17:8I:69:LYS:HE3	17:8I:71:PHE:H	1.58	0.69
1:1G:968:A:OP2	61:1G:1848:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.90	0.69
9:82:50:LEU:HD13	9:82:56:LEU:HB3	1.74	0.69
46:C5:75:ILE:HG23	46:C5:80:GLY:HA2	1.74	0.69
2:1E:69:LEU:HD23	2:1E:91:PRO:HB2	1.75	0.69
26:1H:1017:G:N7	61:1H:3770:HOH:O	2.25	0.69
26:1H:1112:G:O2'	33:51:2:SER:OG	2.09	0.69
26:1H:1791:A:H5'	29:11:206:LEU:HD12	1.74	0.69
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.57	0.69
26:1H:2397:G:OP1	49:J8:25:LYS:NZ	2.19	0.69
34:61:113:ARG:NH2	34:61:130:TYR:OH	2.26	0.69
37:78:16:ARG:H	37:78:16:ARG:HD2	1.56	0.69
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.28	0.69
4:32:18:LYS:HG2	4:32:33:MET:HG3	1.73	0.69
26:14:142:G:H5"	26:14:1598:C:O2'	1.92	0.69
26:14:871:U:OP2	38:45:5:ARG:NH1	2.25	0.69
26:14:900:A:H2'	26:14:901:A:H8	1.58	0.69
26:14:2334:G:O2'	40:65:13:ARG:NH2	2.26	0.69
31:39:10:PRO:HG2	31:39:18:ARG:HH22	1.56	0.69
38:45:22:LYS:HA	38:45:22:LYS:HZ2	1.57	0.69
48:E5:19:LYS:O	48:E5:20:ARG:HD3	1.92	0.69
8:7E:102:ARG:HH21	8:7E:125:ARG:HH22	1.39	0.69
26:1H:270(O):U:O2	34:61:52:ARG:NH2	2.26	0.69
42:C8:88:ILE:O	42:C8:90:VAL:N	2.26	0.69
1:1G:1296:C:O3'	13:4A:13:LYS:NZ	2.22	0.69
26:14:2306:C:H3'	26:14:2307:G:H5"	1.74	0.69
27:1J:100:G:H5"	58:1J:208:SPE:H121	1.75	0.69
29:19:69:ARG:HD3	29:19:105:ILE:HD11	1.73	0.69
33:59:7:LEU:HD12	33:59:8:PRO:HD3	1.75	0.69
5:4E:8:GLU:HG2	5:4E:34:VAL:HG12	1.74	0.69
13:4I:13:LYS:NZ	13:4I:14:ARG:HB2	2.08	0.69
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.25	0.69
42:C8:95:LEU:HG	42:C8:98:LEU:HG	1.75	0.69
26:14:252:G:OP2	37:35:50:ARG:NH2	2.26	0.69
44:A5:6:ILE:HB	44:A5:104:THR:HB	1.75	0.69
46:C5:17:SER:HB3	46:C5:71:LYS:HB2	1.74	0.69
2:1E:215:LEU:HA	2:1E:218:ALA:HB3	1.75	0.68
4:3E:11:LEU:HD13	4:3E:66:ARG:HD2	1.75	0.68
24:3K:72:C:H2'	24:3K:73:A:H5"	1.75	0.68
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.27	0.68
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.27	0.68
1:1G:1192:C:OP2	3:22:4:LYS:NZ	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:127:ILE:HG23	2:12:135:GLN:HE22	1.58	0.68
11:2A:48:ILE:HG13	11:2A:49:GLY:H	1.57	0.68
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.58	0.68
49:F5:89:GLU:O	49:F5:92:LYS:NZ	2.25	0.68
1:13:871:U:OP1	61:13:1829:HOH:O	2.10	0.68
7:6E:70:LYS:C	7:6E:138:LYS:HZ1	1.97	0.68
8:7E:95:VAL:HG11	8:7E:133:LEU:HD12	1.75	0.68
26:1H:1534:G:N1	26:1H:1539:G:N3	2.40	0.68
4:32:31:CYS:HB2	4:32:33:MET:O	1.94	0.68
26:14:848:G:H2'	26:14:849:A:H8	1.57	0.68
34:69:80:PRO:HA	34:69:143:SER:HB2	1.75	0.68
42:85:52:ARG:HA	42:85:55:ARG:HD3	1.75	0.68
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.92	0.68
49:J8:82:LEU:HD22	49:J8:88:LYS:NZ	2.08	0.68
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.26	0.68
1:1G:1053:G:H5"	1:1G:1054:C:H3'	1.74	0.68
56:1L:18:G:N2	56:1L:57:G:H1'	2.08	0.68
33:59:121:ILE:HG23	33:59:133:VAL:HB	1.74	0.68
1:13:165:C:H2'	1:13:166:G:C8	2.29	0.68
4:3E:84:LYS:HD2	4:3E:86:LYS:H	1.58	0.68
17:8I:67:LYS:HA	17:8I:70:ARG:HH21	1.58	0.68
20:BI:29:LYS:O	20:BI:33:ILE:HG23	1.94	0.68
21:1F:15:ARG:NH2	21:1F:17:THR:OG1	2.26	0.68
26:1H:424:G:N7	61:1H:3772:HOH:O	2.26	0.68
29:11:39:LYS:HB3	29:11:40:THR:HB	1.74	0.68
38:88:59:ARG:CZ	38:88:62:GLY:HA3	2.24	0.68
46:G8:12:THR:HG22	46:G8:26:LYS:HD3	1.75	0.68
49:J8:73:LEU:HD21	49:J8:92:LYS:HE2	1.76	0.68
3:22:8:ILE:O	3:22:11:ARG:N	2.26	0.68
7:62:91:VAL:HG22	7:62:96:GLN:HG3	1.75	0.68
1:13:1240:U:O2	7:6E:32:ARG:NH1	2.27	0.68
19:AI:3:ARG:HG2	19:AI:9:VAL:HG21	1.73	0.68
26:1H:218:A:H2	26:1H:235:U:H4'	1.58	0.68
1:1G:110:C:O2'	16:7A:25:ARG:O	2.12	0.68
3:22:11:ARG:HH22	3:22:181:ASN:N	1.90	0.68
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.26	0.68
44:A5:11:ARG:HH11	44:A5:11:ARG:HG2	1.58	0.68
45:B5:16:LYS:HE2	45:B5:17:ALA:H	1.59	0.68
20:BI:86:ARG:H	20:BI:86:ARG:NH1	1.92	0.68
23:2K:47:7MG:H81	23:2K:48:U:C5	2.28	0.68
42:C8:76:TYR:CZ	42:C8:80:ILE:HG13	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:92:LYS:HA	49:J8:93:GLU:HG2	1.75	0.68
1:1G:1239:A:O2'	7:62:114:ARG:NH1	2.23	0.68
38:45:26:TYR:CD1	38:45:27:VAL:HG22	2.29	0.68
51:H5:30:ARG:HG3	51:H5:33:GLN:HB3	1.74	0.68
1:13:1372:U:OP1	9:8E:72:GLY:N	2.26	0.68
9:8E:92:TYR:HD1	9:8E:93:ARG:N	1.92	0.68
26:1H:582:G:N7	61:1H:3774:HOH:O	2.27	0.68
26:14:2355:C:O2'	48:E5:20:ARG:NH2	2.27	0.68
16:7I:5:ARG:CZ	16:7I:6:LEU:H	2.07	0.68
26:1H:749:C:OP2	61:1H:3736:HOH:O	2.12	0.68
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.57	0.68
50:K8:11:GLU:O	50:K8:15:LYS:NZ	2.26	0.68
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.10	0.68
16:7A:43:LYS:HD3	16:7A:48:TRP:CG	2.29	0.68
26:14:162:U:H4'	26:14:171:G:C4	2.29	0.68
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.76	0.68
35:15:21:LYS:HB3	35:15:26:LEU:HD11	1.75	0.68
1:13:468:A:H3'	1:13:474:G:H8	1.57	0.68
46:G8:94:LYS:HD3	46:G8:95:LYS:N	2.07	0.68
1:1G:580:U:OP2	61:1G:1850:HOH:O	2.11	0.68
16:7A:5:ARG:O	16:7A:20:VAL:N	2.24	0.68
26:14:1021:A:H62	26:14:1141:U:H3	1.41	0.68
1:13:158:G:H2'	1:13:159:G:H8	1.59	0.68
2:1E:94:ASN:H	2:1E:96:ARG:HH11	1.42	0.68
9:8E:75:ASP:HA	9:8E:78:LYS:HG2	1.76	0.68
24:3K:5:G:H22	24:3K:68:C:H42	1.39	0.68
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.76	0.68
42:C8:92:ARG:HH22	42:C8:95:LEU:HD13	1.57	0.68
1:1G:189:U:O2	17:8A:63:ARG:NH2	2.25	0.68
1:1G:1112:C:N3	3:22:178:LEU:HD12	2.08	0.68
2:12:51:LEU:HD22	2:12:54:THR:HG23	1.76	0.68
26:14:275:G:O2'	26:14:276:A:O4'	2.07	0.68
26:14:2571:C:OP1	58:14:3446:SPE:H82	1.94	0.68
7:6E:3:ARG:HD3	7:6E:4:ARG:N	2.09	0.67
9:8E:4:TYR:HE1	9:8E:87:GLN:HB2	1.59	0.67
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.59	0.67
27:16:80:U:H2'	27:16:81:G:H21	1.59	0.67
1:1G:266:G:H5'	1:1G:268:C:H41	1.59	0.67
11:2A:85:ARG:HA	11:2A:112:THR:HG22	1.76	0.67
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.58	0.67
26:14:491:G:H2'	26:14:492:A:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:659:U:H2'	1:13:660:G:H8	1.59	0.67
8:7E:6:ILE:HG22	8:7E:32:LYS:HD3	1.75	0.67
8:7E:35:ILE:HG22	8:7E:118:VAL:HG21	1.76	0.67
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.30	0.67
40:A8:18:ILE:O	40:A8:21:THR:HG22	1.94	0.67
44:E8:26:GLY:H	44:E8:71:VAL:HG23	1.59	0.67
1:1G:192:U:H2'	1:1G:193:C:H6	1.58	0.67
1:1G:684:A:N6	61:1G:1862:HOH:O	2.27	0.67
1:1G:991:U:O4	1:1G:1212:U:O2'	2.09	0.67
1:1G:1392:G:N2	1:1G:1502:A:H8	1.92	0.67
12:3A:82:VAL:HG23	12:3A:105:TYR:HB3	1.76	0.67
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.77	0.67
28:71:15:ASP:HB3	28:71:223:ARG:NH2	2.09	0.67
41:B8:66:VAL:HA	41:B8:71:GLY:HA2	1.75	0.67
47:H8:4:ARG:NH2	47:H8:6:LYS:O	2.27	0.67
9:82:70:LYS:H	9:82:70:LYS:NZ	1.92	0.67
11:2A:109:VAL:HG13	18:9A:86:VAL:HG13	1.74	0.67
34:69:124:GLY:H	34:69:142:VAL:HG12	1.59	0.67
42:85:49:HIS:HA	42:85:52:ARG:HB3	1.76	0.67
35:58:133:GLN:HG2	35:58:134:ARG:H	1.59	0.67
42:C8:92:ARG:HD3	43:D8:11:GLN:HB3	1.77	0.67
2:12:96:ARG:HH12	2:12:98:LEU:HB3	1.59	0.67
2:12:180:LEU:HD23	2:12:182:ILE:HD13	1.74	0.67
5:42:80:ILE:HD13	8:72:104:ARG:NH2	2.09	0.67
13:4A:15:VAL:HG12	13:4A:45:VAL:HG22	1.75	0.67
14:5A:32:SER:HB3	14:5A:41:ARG:HB2	1.77	0.67
2:1E:154:LEU:HD23	2:1E:154:LEU:H	1.59	0.67
9:8E:48:GLU:H	9:8E:78:LYS:HE3	1.60	0.67
28:71:184:LYS:HE3	28:71:185:LEU:HB3	1.76	0.67
1:1G:974:A:O5'	14:5A:31:ARG:NH2	2.28	0.67
4:32:173:TRP:CD1	4:32:174:LEU:HD13	2.29	0.67
12:3A:76:ASN:ND2	12:3A:106:ASP:O	2.26	0.67
26:14:929:G:O6	61:14:3630:HOH:O	2.10	0.67
34:69:125:GLU:HB3	34:69:141:LYS:HD2	1.76	0.67
2:1E:21:ARG:O	2:1E:23:ARG:N	2.28	0.67
2:1E:179:LYS:HD3	2:1E:179:LYS:H	1.59	0.67
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.27	0.67
56:1L:6:A:O2'	56:1L:7:U:O5'	2.12	0.67
29:19:141:VAL:HG23	29:19:162:SER:HB2	1.76	0.67
1:13:555:C:OP2	12:3I:20:LYS:NZ	2.27	0.67
2:1E:73:THR:H	2:1E:77:ALA:HB3	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:66:LEU:O	15:6I:69:TYR:N	2.26	0.67
53:N8:40:LYS:NZ	53:N8:44:THR:O	2.22	0.67
1:1G:1117:G:O3'	9:82:104:ARG:HD2	1.93	0.67
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.77	0.67
34:69:72:LEU:HD11	34:69:107:VAL:HG11	1.75	0.67
41:75:27:THR:HG22	41:75:48:ILE:HG12	1.77	0.67
1:13:1366:C:O2'	10:1I:60:ARG:NH2	2.27	0.67
11:2A:100:ALA:O	11:2A:102:GLY:N	2.28	0.67
26:14:848:G:H2'	26:14:849:A:C8	2.30	0.67
27:1J:105:G:H5'	47:D5:31:ARG:HH21	1.59	0.67
36:25:24:VAL:HB	36:25:33:ALA:HB2	1.77	0.67
51:H5:30:ARG:NH2	51:H5:33:GLN:O	2.26	0.67
26:1H:880:G:H1	26:1H:897:C:H42	1.43	0.67
35:58:38:HIS:O	42:C8:67:ALA:HB1	1.95	0.67
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.77	0.67
24:3L:71:C:O2'	26:14:1851:U:O2'	2.02	0.67
36:25:49:ARG:HA	36:25:53:LYS:NZ	2.09	0.67
40:65:14:VAL:O	40:65:18:ILE:HD13	1.94	0.67
40:65:35:ILE:HG13	40:65:97:ARG:HH21	1.59	0.67
41:75:5:ALA:HB3	41:75:6:LEU:HB2	1.76	0.67
1:13:76:G:N2	1:13:93:U:O2'	2.28	0.67
9:8E:128:ARG:NH2	23:2K:34:U:OP2	2.28	0.67
10:1I:11:PHE:HE1	10:1I:67:THR:HG22	1.58	0.67
26:1H:270(N):G:N2	34:61:50:ARG:HH22	1.93	0.67
26:1H:833:U:O2	37:78:55:ARG:NH1	2.28	0.67
26:1H:2210:G:H4'	26:1H:2211:G:OP2	1.95	0.67
41:B8:12:SER:HB2	41:B8:15:VAL:H	1.59	0.67
42:C8:92:ARG:HH11	43:D8:11:GLN:HG2	1.59	0.67
1:1G:277:C:OP1	17:8A:68:ARG:NH2	2.28	0.67
1:1G:973:G:O2'	10:1A:55:LYS:HE3	1.94	0.67
26:14:389:G:N1	37:35:71:VAL:HG12	2.09	0.67
29:19:21:PHE:O	29:19:24:ILE:HG13	1.95	0.67
46:C5:82:PRO:HB2	46:C5:97:ARG:HB2	1.77	0.67
3:2E:64:VAL:HG22	3:2E:99:VAL:HA	1.77	0.66
9:8E:28:VAL:HG23	9:8E:63:ILE:HG23	1.77	0.66
43:D8:37:VAL:HG13	43:D8:51:VAL:HG21	1.77	0.66
1:1G:45:U:H2'	1:1G:46:G:C8	2.30	0.66
13:4A:102:ARG:H	13:4A:102:ARG:CZ	2.08	0.66
26:14:995:C:H42	35:15:2:LYS:NZ	1.93	0.66
26:14:2645:G:N7	61:14:3672:HOH:O	2.27	0.66
32:49:173:LEU:HB3	32:49:178:PHE:CZ	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:117:GLU:HG2	34:69:118:LYS:HD3	1.77	0.66
49:F5:78:LYS:NZ	49:F5:79:GLY:O	2.28	0.66
3:2E:59:ARG:HG2	3:2E:64:VAL:HA	1.77	0.66
8:7E:102:ARG:NH1	8:7E:103:VAL:H	1.94	0.66
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.77	0.66
26:1H:860:U:C5	26:1H:917:A:C2	2.84	0.66
26:1H:2402:C:O2'	26:1H:2403:C:OP2	2.12	0.66
28:71:8:ARG:NE	28:71:8:ARG:O	2.28	0.66
34:61:110:ASP:HB3	34:61:113:ARG:NH2	2.10	0.66
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.76	0.66
55:Q8:15:LYS:HB2	61:Q8:202:HOH:O	1.95	0.66
1:1G:736:C:H2'	1:1G:737:A:C8	2.29	0.66
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.28	0.66
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.11	0.66
19:AA:41:VAL:HG22	19:AA:43:GLU:H	1.60	0.66
26:14:1858:G:O2'	26:14:1884:A:N6	2.27	0.66
26:14:2816:C:O3'	39:55:99:LYS:NZ	2.28	0.66
27:1J:104:A:O3'	47:D5:31:ARG:NH2	2.28	0.66
37:35:31:ALA:O	37:35:32:THR:HG22	1.96	0.66
49:F5:84:GLY:HA3	49:F5:87:PRO:HD2	1.77	0.66
49:F5:89:GLU:HB2	49:F5:92:LYS:NZ	2.10	0.66
4:3E:164:ALA:O	4:3E:168:ARG:NH2	2.28	0.66
17:8I:56:VAL:HG21	17:8I:78:GLU:HB3	1.77	0.66
26:1H:969:U:O4	61:1H:3733:HOH:O	2.11	0.66
26:14:71:A:H5"	26:14:73:A:C8	2.30	0.66
26:14:273(F):C:H3'	26:14:274:G:H5"	1.76	0.66
32:49:129:GLY:O	32:49:130:ASN:ND2	2.28	0.66
3:2E:78:GLY:HA2	3:2E:83:ARG:HB2	1.76	0.66
20:BI:23:ARG:HB2	20:BI:23:ARG:CZ	2.25	0.66
20:BI:33:ILE:O	20:BI:37:SER:OG	2.12	0.66
26:1H:1042:G:H1	26:1H:1113:U:H3	1.42	0.66
26:1H:1332:G:OP1	61:1H:3734:HOH:O	2.11	0.66
26:1H:1604:C:OP1	61:1H:3741:HOH:O	2.14	0.66
33:51:25:LYS:NZ	33:51:32:GLU:OE1	2.27	0.66
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	1.76	0.66
50:K8:42:GLY:O	50:K8:44:LEU:N	2.28	0.66
8:72:98:LYS:N	8:72:99:GLU:HB2	2.10	0.66
42:85:92:ARG:NH2	43:95:11:GLN:H	1.93	0.66
52:I5:36:CYS:HB3	52:I5:41:PRO:HG2	1.77	0.66
1:13:507:C:OP2	1:13:508:C:O2'	2.10	0.66
9:8E:46:ALA:HA	9:8E:78:LYS:HD3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:18:ARG:HH21	16:7I:35:LYS:HZ2	1.43	0.66
26:1H:259:G:HO2'	26:1H:621:A:HO2'	1.34	0.66
30:21:116:VAL:O	30:21:117:MET:HB3	1.95	0.66
33:51:11:VAL:HB	33:51:13:LYS:NZ	2.10	0.66
52:M8:37:SER:OG	52:M8:43:TYR:N	2.27	0.66
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.29	0.66
1:13:1244:C:H6	21:1F:9:ARG:HH22	1.41	0.66
1:13:1417:G:O6	58:13:1748:SPE:N9	2.28	0.66
41:B8:108:ARG:CA	41:B8:111:ARG:HD3	2.21	0.66
47:H8:116:VAL:HG22	47:H8:146:ILE:HG12	1.78	0.66
1:1G:800:G:O6	61:1G:1847:HOH:O	2.08	0.66
1:13:1129:C:OP1	9:8E:16:ARG:NH2	2.28	0.66
2:1E:219:VAL:HA	2:1E:222:ILE:HD12	1.78	0.66
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.31	0.66
2:12:156:LYS:O	2:12:157:ARG:NH1	2.25	0.66
10:1A:54:PHE:C	10:1A:55:LYS:HE2	2.16	0.66
11:2A:43:SER:HB2	11:2A:68:ALA:HB2	1.78	0.66
16:7A:23:ASP:OD1	16:7A:25:ARG:HG2	1.96	0.66
26:14:2830:G:O6	61:14:3632:HOH:O	2.11	0.66
1:13:108:G:N7	20:BI:15:ARG:NE	2.44	0.66
4:3E:176:LEU:HD11	4:3E:183:GLY:HA2	1.78	0.66
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.26	0.66
26:1H:2321:G:H5"	26:1H:2322:A:OP2	1.95	0.66
29:11:35:LYS:HZ2	29:11:35:LYS:HB3	1.60	0.66
33:51:83:TYR:CG	33:51:84:SER:N	2.60	0.66
47:H8:126:VAL:HG23	47:H8:163:LEU:HA	1.76	0.66
26:14:1454:U:OP1	39:55:77:ARG:NH1	2.26	0.66
35:15:38:HIS:CD2	35:15:39:ARG:HG2	2.31	0.66
46:C5:50:ARG:HB2	46:C5:53:PRO:HG2	1.76	0.66
9:8E:10:ARG:NE	9:8E:75:ASP:HB2	2.11	0.66
26:1H:1781:C:O2	61:1H:3728:HOH:O	2.09	0.66
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.31	0.66
26:14:2273:A:H2'	26:14:2274:A:C8	2.31	0.66
31:39:3:GLU:OE1	31:39:3:GLU:N	2.29	0.66
32:49:82:LEU:HD23	32:49:82:LEU:O	1.95	0.66
32:49:107:LEU:HD21	32:49:178:PHE:HD2	1.58	0.66
7:6E:111:ARG:NH2	7:6E:126:ASP:OD2	2.29	0.66
26:1H:770:G:OP2	61:1H:3735:HOH:O	2.12	0.66
26:1H:990:A:OP2	61:1H:3635:HOH:O	2.14	0.66
26:1H:1315:C:OP2	61:1H:3734:HOH:O	2.14	0.66
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1670:C:OP1	61:1H:3742:HOH:O	2.14	0.66
33:51:85:LYS:O	33:51:85:LYS:HG2	1.96	0.66
47:H8:4:ARG:HH22	47:H8:5:LEU:HD13	1.61	0.66
9:82:121:ARG:HB2	9:82:121:ARG:CZ	2.22	0.66
12:3A:16:GLU:HG2	12:3A:19:ARG:HH12	1.61	0.66
14:5A:58:LYS:HA	14:5A:58:LYS:NZ	2.11	0.66
26:14:2656:U:H3	26:14:2665:A:H2	1.43	0.66
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.27	0.66
47:D5:30:ASN:HD22	47:D5:90:VAL:CG2	2.09	0.66
1:13:1086:U:H3	1:13:1099:G:H22	1.44	0.65
1:13:1118:C:H1'	1:13:1179:A:C4	2.31	0.65
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.14	0.65
29:11:239:ARG:N	61:11:404:HOH:O	2.27	0.65
32:41:105:LYS:HZ2	52:M8:26:SER:HB2	1.61	0.65
41:B8:11:GLU:HG2	41:B8:57:PHE:HD2	1.61	0.65
53:N8:40:LYS:HZ1	53:N8:46:CYS:N	1.94	0.65
2:12:142:LEU:HD13	2:12:146:GLN:HE22	1.62	0.65
26:14:1130:U:O2	30:29:149:ARG:NH1	2.27	0.65
26:14:2492:U:OP1	58:14:3446:SPE:H121	1.96	0.65
32:49:39:ILE:HG12	32:49:157:ILE:HG23	1.78	0.65
9:8E:79:LEU:HD11	9:8E:101:PHE:O	1.96	0.65
17:8I:7:THR:HG22	17:8I:58:GLU:HG2	1.79	0.65
30:21:38:THR:HG22	30:21:41:LYS:H	1.61	0.65
14:5A:26:ARG:HH21	14:5A:43:CYS:HB3	1.61	0.65
26:14:468:G:N7	54:L5:39:ARG:NH2	2.43	0.65
1:13:1062:U:H2'	1:13:1063:C:C6	2.31	0.65
3:2E:74:GLY:O	3:2E:83:ARG:NH2	2.30	0.65
4:3E:95:GLY:O	4:3E:99:SER:OG	2.15	0.65
11:2I:121:PRO:HG2	11:2I:126:ARG:HG2	1.77	0.65
24:3K:4:U:O4	24:3K:65:C:N4	2.29	0.65
30:21:109:LYS:O	30:21:111:ARG:NH1	2.29	0.65
33:51:97:ARG:NH2	33:51:104:GLU:OE2	2.30	0.65
1:1G:718:G:H5'	11:2A:117:ASN:ND2	2.12	0.65
7:62:76:ARG:HG3	7:62:89:MET:HG3	1.78	0.65
11:2A:86:GLY:H	11:2A:112:THR:HB	1.61	0.65
14:5A:26:ARG:NH2	14:5A:43:CYS:SG	2.70	0.65
26:14:1341:U:OP2	26:14:1394:U:O2'	2.11	0.65
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.62	0.65
38:45:110:THR:HG23	38:45:113:GLN:HB2	1.77	0.65
1:13:452:A:H1'	16:7I:72:ARG:NH2	2.10	0.65
1:13:664:G:H22	1:13:741:G:H1	1.42	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:766:A:OP2	61:13:1832:HOH:O	2.14	0.65
1:13:1226:C:H4'	19:AI:80:TYR:OH	1.96	0.65
18:9I:42:ARG:N	18:9I:42:ARG:HH11	1.93	0.65
26:1H:1355:G:O6	61:1H:3737:HOH:O	2.12	0.65
29:11:79:VAL:HG22	29:11:113:VAL:HA	1.76	0.65
42:C8:98:LEU:HD22	42:C8:105:VAL:HG11	1.78	0.65
1:1G:16:A:O2'	5:42:16:THR:HG22	1.96	0.65
1:1G:1221:G:H5'	19:AA:36:ARG:NH2	2.12	0.65
34:69:85:GLU:OE1	34:69:86:THR:N	2.30	0.65
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.30	0.65
26:1H:1314:C:OP1	61:1H:3734:HOH:O	2.14	0.65
41:B8:111:ARG:N	41:B8:111:ARG:HD2	2.10	0.65
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.11	0.65
50:K8:5:GLU:HA	50:K8:8:LYS:HD3	1.78	0.65
12:3A:27:LEU:HD13	12:3A:60:LEU:HG	1.79	0.65
35:15:115:ARG:NH2	35:15:116:LEU:HG	2.12	0.65
1:13:868:C:OP2	61:13:1834:HOH:O	2.15	0.65
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.21	0.65
24:3K:33:U:H2'	24:3K:34:U:H2'	1.77	0.65
26:1H:442:G:H21	31:31:48:THR:HG22	1.62	0.65
37:78:106:LEU:HG	37:78:106:LEU:O	1.95	0.65
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.78	0.65
9:82:10:ARG:NE	9:82:104:ARG:O	2.29	0.65
26:14:270(L):U:O2	34:69:50:ARG:HD3	1.96	0.65
26:14:1496:A:H8	26:14:1577:C:HO2'	1.42	0.65
37:35:93:GLY:H	37:35:123:LEU:HD21	1.62	0.65
52:I5:21:VAL:HG22	52:I5:22:ILE:H	1.61	0.65
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.77	0.65
24:3K:5:G:H21	24:3K:69:A:N6	1.93	0.65
26:1H:2210:G:H3'	26:1H:2211:G:C4	2.31	0.65
37:78:30:THR:HG21	37:78:35:HIS:H	1.62	0.65
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.25	0.65
15:6A:4:THR:N	15:6A:7:GLU:OE2	2.29	0.65
26:14:900:A:H2'	26:14:901:A:C8	2.32	0.65
1:13:36:C:OP1	12:3I:123:LYS:NZ	2.29	0.65
10:1I:86:MET:SD	10:1I:86:MET:N	2.69	0.65
20:BI:10:LEU:O	20:BI:13:LEU:HB3	1.97	0.65
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.31	0.65
38:88:65:PHE:O	38:88:66:ILE:HG13	1.97	0.65
42:C8:85:LYS:HZ3	42:C8:85:LYS:N	1.94	0.65
44:E8:18:ARG:HH12	44:E8:76:VAL:HG22	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:32:LEU:HA	50:K8:35:LEU:HD12	1.78	0.65
1:1G:181:G:O2'	1:1G:183:G:O6	2.15	0.65
31:39:13:SER:O	31:39:13:SER:OG	2.12	0.65
1:13:737:A:H2'	1:13:738:C:C6	2.32	0.65
4:3E:145:GLU:HA	4:3E:183:GLY:O	1.95	0.65
20:BI:49:ALA:HB3	20:BI:99:LEU:HD22	1.79	0.65
28:71:6:ARG:NH2	28:71:6:ARG:HB2	2.12	0.65
50:K8:28:LYS:HB3	50:K8:53:LEU:HD11	1.78	0.65
1:1G:964:A:N3	1:1G:969:A:O2'	2.24	0.65
11:2A:59:TYR:CZ	11:2A:63:LEU:HD11	2.32	0.65
26:14:1486:A:H2'	26:14:1487:G:C8	2.32	0.65
26:14:2873:A:H8	39:55:6:SER:N	1.94	0.65
31:39:27:GLU:O	31:39:28:ILE:HG12	1.97	0.65
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.77	0.65
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.30	0.65
45:B5:16:LYS:H	45:B5:16:LYS:HZ3	1.43	0.65
1:13:237:C:H5"	17:8I:25:ARG:NH2	2.12	0.65
1:13:1378:C:OP2	7:6E:6:ARG:NE	2.30	0.65
7:6E:12:LEU:HD22	7:6E:24:THR:HB	1.78	0.65
14:5I:29:ARG:NH2	14:5I:40:CYS:SG	2.70	0.65
15:6I:4:THR:HG22	15:6I:7:GLU:HG3	1.79	0.65
29:11:238:GLY:N	61:11:404:HOH:O	2.29	0.65
31:31:132:VAL:HG12	31:31:133:ASN:H	1.61	0.65
49:J8:51:VAL:HG21	49:J8:74:VAL:HG21	1.79	0.65
3:22:47:LEU:HG	3:22:52:LEU:HD13	1.78	0.65
4:32:57:ARG:NH1	4:32:205:GLU:OE1	2.30	0.65
26:14:2659:G:N2	26:14:2662:A:OP2	2.30	0.65
29:19:10:THR:OG1	29:19:13:ARG:HB2	1.97	0.65
31:39:25:PRO:HB2	31:39:27:GLU:H	1.62	0.65
2:1E:96:ARG:O	2:1E:96:ARG:HD3	1.96	0.64
4:3E:22:LYS:HB2	4:3E:25:ARG:HE	1.60	0.64
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.45	0.64
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.30	0.64
26:1H:2801:A:H2'	26:1H:2802:G:O4'	1.96	0.64
27:16:8:U:N3	27:16:112:G:O6	2.17	0.64
34:61:77:LEU:HD23	34:61:101:LEU:HG	1.77	0.64
36:68:59:LYS:NZ	36:68:89:ASN:OD1	2.30	0.64
36:68:63:VAL:HG12	36:68:106:LEU:HD11	1.78	0.64
5:42:105:VAL:HG22	5:42:106:PRO:HD3	1.79	0.64
56:1L:53:G:O3'	38:45:56:ARG:NH1	2.30	0.64
34:69:7:GLU:HG3	34:69:8:PRO:HD2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:100:GLY:O	2:1E:104:ASN:N	2.26	0.64
7:6E:91:VAL:HG13	7:6E:96:GLN:HG2	1.79	0.64
19:AI:40:ILE:HG13	19:AI:69:HIS:O	1.97	0.64
26:1H:997:G:OP1	42:C8:93:LYS:HG3	1.96	0.64
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.32	0.64
37:78:118:GLY:O	37:78:137:LYS:NZ	2.31	0.64
38:88:52:VAL:O	38:88:56:ARG:HG3	1.98	0.64
1:1G:376:G:OP1	16:7A:5:ARG:NH1	2.30	0.64
1:1G:1162:C:H42	1:1G:1174:G:H1	1.45	0.64
1:1G:1521:G:N3	61:1G:1867:HOH:O	2.29	0.64
13:4A:25:ILE:HD12	13:4A:26:GLY:H	1.62	0.64
26:14:2469:A:H8	38:45:56:ARG:HH21	1.43	0.64
61:14:3840:HOH:O	42:85:6:THR:HG22	1.96	0.64
29:19:166:GLN:HB2	29:19:174:ILE:HG22	1.77	0.64
34:69:93:THR:H	34:69:96:ASP:HB2	1.61	0.64
43:95:79:VAL:HG12	43:95:80:GLN:N	2.12	0.64
1:13:567:G:O6	12:3I:15:ARG:NH2	2.30	0.64
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.62	0.64
26:1H:593:G:N7	61:1H:3783:HOH:O	2.29	0.64
26:1H:2312:U:H5'	32:41:88:ILE:HD11	1.79	0.64
37:78:52:GLU:OE1	37:78:55:ARG:NH2	2.24	0.64
1:1G:920:U:H2'	1:1G:921:U:C6	2.33	0.64
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.79	0.64
12:3A:59:ARG:HB3	12:3A:65:GLU:HG2	1.79	0.64
26:14:85:G:C5'	46:C5:30:VAL:HG21	2.26	0.64
26:14:2607:G:H1	58:14:3445:SPE:H121	1.61	0.64
42:85:97:ASP:OD1	42:85:98:LEU:N	2.30	0.64
6:5E:33:TYR:HB2	6:5E:75:LEU:HD13	1.77	0.64
18:9I:42:ARG:H	18:9I:42:ARG:HD2	1.63	0.64
26:1H:1899:G:H22	26:1H:1902:C:H41	1.44	0.64
35:58:96:GLU:O	35:58:98:VAL:N	2.29	0.64
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.80	0.64
44:E8:92:ARG:HB2	44:E8:92:ARG:HH11	1.59	0.64
47:H8:92:SER:O	47:H8:130:PRO:HG2	1.97	0.64
55:Q8:46:ARG:HB2	55:Q8:47:LYS:HB2	1.79	0.64
1:1G:503:C:OP2	12:3A:116:SER:OG	2.12	0.64
46:C5:50:ARG:HH11	46:C5:53:PRO:HD2	1.62	0.64
7:6E:48:LYS:HE3	7:6E:52:GLU:HB2	1.80	0.64
22:1K:54:5MU:P	38:88:56:ARG:HH12	2.20	0.64
26:1H:1021:A:H3'	26:1H:1022:G:H5"	1.77	0.64
26:1H:1701:A:OP2	61:1H:3744:HOH:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:124:SER:HB2	32:41:131:TYR:CE1	2.33	0.64
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.24	0.64
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.79	0.64
5:42:100:VAL:HG22	5:42:107:ARG:NE	2.13	0.64
9:82:70:LYS:H	9:82:70:LYS:HZ2	1.45	0.64
15:6A:17:ARG:HH11	15:6A:17:ARG:HG3	1.62	0.64
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.63	0.64
36:25:78:ARG:NH1	41:75:73:GLU:OE2	2.31	0.64
47:D5:60:GLU:HG2	47:D5:66:SER:HA	1.79	0.64
1:13:468:A:H3'	1:13:474:G:C8	2.32	0.64
1:13:618:C:H5"	1:13:619:U:H5"	1.79	0.64
17:8I:56:VAL:CG2	17:8I:78:GLU:HB3	2.27	0.64
25:4K:23:A:O2'	25:4K:24:A:N7	2.24	0.64
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.32	0.64
47:H8:103:ARG:HD3	47:H8:139:VAL:HG22	1.80	0.64
52:M8:9:LEU:HD11	52:M8:25:TYR:CE1	2.32	0.64
1:1G:1080:A:H4'	5:42:16:THR:HG21	1.79	0.64
9:82:36:TYR:HD1	9:82:36:TYR:H	1.46	0.64
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.61	0.64
21:1B:12:LYS:HG2	21:1B:15:ARG:HH21	1.63	0.64
26:14:2873:A:H8	39:55:6:SER:H	1.44	0.64
1:13:1366:C:H2'	1:13:1367:C:H6	1.63	0.64
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.63	0.64
16:7I:75:ARG:NH1	61:7I:101:HOH:O	2.22	0.64
24:3K:29:U:H2'	24:3K:30:C:H5'	1.79	0.64
26:1H:2032:G:H21	30:21:146:THR:CG2	2.11	0.64
26:1H:2562:U:H1'	36:68:23:ARG:HE	1.63	0.64
1:1G:413:G:HO2'	1:1G:428:G:H22	1.42	0.64
1:1G:1107:C:O2	1:1G:1191:A:O2'	2.16	0.64
10:1A:66:ARG:NH1	10:1A:66:ARG:HA	2.13	0.64
14:5A:3:ARG:NH1	14:5A:4:LYS:HZ1	1.96	0.64
26:14:620:G:N3	26:14:620:G:H5'	2.13	0.64
26:14:2238:G:N7	61:14:3685:HOH:O	2.30	0.64
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.29	0.64
1:13:1:U:N3	1:13:630:G:H1'	2.12	0.64
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.31	0.64
1:1G:328:C:H4'	1:1G:329:A:H5"	1.80	0.64
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.79	0.64
2:12:165:VAL:HG23	2:12:166:ASP:H	1.63	0.64
26:14:2153:G:N2	26:14:2154:G:O6	2.31	0.64
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.63	0.64
13:4I:57:ARG:HH21	52:M8:35:VAL:HB	1.63	0.64
32:41:6:ALA:H	52:M8:23:GLU:HG3	1.62	0.64
16:7A:75:ARG:HD3	16:7A:80:PHE:HD2	1.62	0.64
26:14:2356:C:H4'	48:E5:20:ARG:HD2	1.79	0.64
32:49:115:ARG:H	32:49:115:ARG:HE	1.46	0.64
49:F5:80:LEU:HD12	49:F5:82:LEU:HD13	1.80	0.64
1:13:684:A:N6	61:13:1845:HOH:O	2.30	0.64
4:3E:81:GLU:O	4:3E:84:LYS:HG3	1.98	0.64
9:8E:45:ALA:O	9:8E:78:LYS:NZ	2.26	0.64
17:8I:100:LYS:NZ	17:8I:101:ARG:HH12	1.96	0.64
26:1H:269:U:OP1	61:1H:3745:HOH:O	2.15	0.64
33:51:24:VAL:HB	33:51:35:VAL:HG13	1.80	0.64
1:1G:1077:G:N2	1:1G:1080:A:OP2	2.30	0.64
2:12:74:LYS:NZ	2:12:205:ASP:O	2.30	0.64
29:19:145:VAL:HG13	29:19:191:ALA:HB2	1.78	0.64
34:69:111:PRO:O	34:69:112:LYS:NZ	2.31	0.64
3:2E:122:GLU:O	3:2E:126:ARG:HG2	1.97	0.63
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.80	0.63
1:1G:67:C:H2'	1:1G:68:G:C8	2.33	0.63
1:1G:258:G:O6	61:1G:1851:HOH:O	2.13	0.63
1:1G:1028:C:N3	1:1G:1033:G:N2	2.43	0.63
33:59:87:LEU:O	33:59:132:ARG:NH2	2.30	0.63
33:59:92:ILE:HG23	33:59:93:GLY:H	1.63	0.63
33:59:143:GLN:OE1	33:59:143:GLN:N	2.30	0.63
38:45:19:GLY:H	38:45:98:LYS:HZ1	1.46	0.63
47:D5:4:ARG:CZ	47:D5:59:LEU:H	2.11	0.63
52:I5:49:PHE:HD2	52:I5:50:VAL:HG22	1.63	0.63
26:1H:85:G:OP2	46:G8:9:LYS:HB2	1.99	0.63
26:1H:196:A:O4'	37:78:46:LYS:HE3	1.98	0.63
26:1H:1509:C:O2'	26:1H:1510:A:OP1	2.11	0.63
27:16:66:A:H61	27:16:107:U:H2'	1.62	0.63
28:71:35:ALA:HB2	28:71:218:MET:HG2	1.79	0.63
38:88:137:TYR:O	38:88:141:GLN:NE2	2.28	0.63
24:3L:3:G:H1	24:3L:70:C:H42	1.46	0.63
26:14:1171:G:O2'	26:14:1173:G:OP2	2.15	0.63
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.79	0.63
2:1E:37:ASN:HB3	2:1E:39:ILE:HG22	1.80	0.63
3:2E:18:TRP:N	3:2E:18:TRP:CD1	2.66	0.63
4:3E:162:LEU:HA	4:3E:165:MET:CB	2.29	0.63
7:6E:6:ARG:NE	7:6E:6:ARG:HA	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:92:TYR:CD1	9:8E:92:TYR:N	2.63	0.63
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.32	0.63
26:1H:330:A:HO2'	26:1H:331:A:H8	1.43	0.63
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.63	0.63
26:1H:1771:C:O2'	26:1H:1786:A:H8	1.81	0.63
28:71:45:ALA:HB2	28:71:212:VAL:HG22	1.80	0.63
34:61:110:ASP:OD2	34:61:112:LYS:N	2.24	0.63
34:61:112:LYS:HE2	34:61:116:LEU:HD22	1.80	0.63
49:J8:83:GLU:HG3	49:J8:85:LEU:H	1.62	0.63
1:1G:1372:U:O3'	7:62:36:LYS:NZ	2.31	0.63
12:3A:24:VAL:HG22	12:3A:98:TYR:CE2	2.32	0.63
26:14:2425:A:H5'	26:14:2427:C:O4'	1.98	0.63
27:1J:90:C:P	38:45:16:ARG:HH21	2.22	0.63
33:59:121:ILE:HG12	33:59:144:VAL:HG11	1.79	0.63
1:13:1015:A:H2'	1:13:1016:A:C8	2.33	0.63
15:6I:70:LEU:HB3	15:6I:78:TYR:HB2	1.79	0.63
17:8I:16:GLN:C	17:8I:17:LYS:HE2	2.19	0.63
18:9I:38:GLU:HA	18:9I:41:LYS:HE2	1.81	0.63
28:71:18:LYS:H	28:71:223:ARG:NH2	1.96	0.63
28:71:64:LEU:HD21	28:71:188:ASN:HD21	1.63	0.63
30:21:111:ARG:HD3	30:21:160:TYR:CD2	2.33	0.63
33:51:4:ILE:CG2	33:51:6:ARG:HH22	2.11	0.63
34:61:110:ASP:H	34:61:113:ARG:HH21	1.44	0.63
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.80	0.63
9:82:56:LEU:H	9:82:56:LEU:HD13	1.63	0.63
13:4A:13:LYS:HG3	13:4A:14:ARG:N	2.14	0.63
29:19:31:LYS:HZ3	29:19:33:LEU:HB3	1.63	0.63
36:25:47:ILE:HB	36:25:48:PRO:HD2	1.79	0.63
46:C5:38:ILE:HG22	46:C5:66:PRO:HA	1.80	0.63
2:1E:43:ASP:CG	2:1E:45:GLN:HE22	2.01	0.63
2:1E:136:VAL:HA	2:1E:139:LYS:HG2	1.80	0.63
12:3I:57:LYS:HD3	12:3I:67:THR:HG22	1.79	0.63
13:4I:3:ARG:NE	13:4I:3:ARG:HA	2.13	0.63
15:6I:82:ILE:O	15:6I:86:GLY:N	2.30	0.63
26:1H:639:U:H2'	26:1H:640:C:C6	2.34	0.63
26:1H:1899:G:H22	26:1H:1902:C:H5	1.38	0.63
1:1G:691:G:H1	11:2A:51:LYS:HZ1	1.46	0.63
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.79	0.63
5:42:40:ARG:NH1	5:42:68:GLU:HA	2.14	0.63
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	1.97	0.63
26:14:34:C:O2'	26:14:35:G:O5'	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:483:A:H4'	46:C5:49:VAL:HA	1.79	0.63
26:14:1778:U:H2'	26:14:1784:A:N6	2.13	0.63
26:14:2263:C:N4	48:E5:15:ASP:OD1	2.28	0.63
34:69:143:SER:OG	34:69:144:VAL:N	2.29	0.63
2:1E:96:ARG:NE	2:1E:148:TYR:O	2.31	0.63
4:3E:158:ILE:O	4:3E:162:LEU:HD23	1.97	0.63
8:7E:8:ASP:O	8:7E:12:ARG:HG3	1.98	0.63
9:8E:4:TYR:CE1	9:8E:87:GLN:HB2	2.33	0.63
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.31	0.63
31:31:184:TYR:O	31:31:188:ARG:HG3	1.98	0.63
5:42:107:ARG:NH1	5:42:120:THR:OG1	2.30	0.63
7:62:36:LYS:HD3	7:62:36:LYS:H	1.64	0.63
26:14:2540:C:OP2	61:14:3637:HOH:O	2.15	0.63
30:29:92:THR:H	30:29:95:ILE:HD13	1.62	0.63
46:C5:50:ARG:HD2	46:C5:53:PRO:HD2	1.80	0.63
47:D5:30:ASN:OD1	47:D5:32:HIS:N	2.31	0.63
8:7E:102:ARG:HH21	8:7E:125:ARG:NH2	1.97	0.63
18:9I:37:VAL:O	18:9I:41:LYS:HG3	1.99	0.63
26:1H:330:A:O2'	26:1H:331:A:H8	1.82	0.63
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.44	0.63
26:1H:1803:A:O3'	29:11:259:THR:OG1	2.15	0.63
32:41:107:LEU:HD21	32:41:178:PHE:CE1	2.33	0.63
33:51:153:LYS:HE2	33:51:154:PRO:N	2.14	0.63
16:7A:75:ARG:HD3	16:7A:80:PHE:CD2	2.34	0.63
26:14:247:G:H4'	26:14:386:G:C5	2.33	0.63
26:14:587:C:O2	37:35:33:ARG:NH1	2.32	0.63
26:14:2356:C:H4'	48:E5:20:ARG:CD	2.29	0.63
29:19:33:LEU:HD23	29:19:34:VAL:HG13	1.79	0.63
30:29:9:VAL:HG21	30:29:25:VAL:HB	1.81	0.63
1:13:449:C:H5	16:7I:42:ARG:HH11	1.46	0.63
1:13:869:G:OP2	61:13:1835:HOH:O	2.16	0.63
13:4I:13:LYS:HZ1	13:4I:14:ARG:HB2	1.63	0.63
26:1H:848:G:H2'	26:1H:849:A:C8	2.33	0.63
26:1H:1297:C:OP1	26:1H:2710:C:H4'	1.97	0.63
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.34	0.63
36:68:77:ILE:HD13	41:B8:74:ARG:HD2	1.79	0.63
1:1G:1073:U:OP2	5:42:57:LYS:NZ	2.26	0.63
30:29:170:LEU:HD23	30:29:185:LYS:HZ1	1.63	0.63
32:49:37:VAL:HG22	32:49:159:VAL:HG12	1.79	0.63
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.80	0.63
17:8I:16:GLN:O	17:8I:18:THR:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:57:G:H2'	24:3K:58:A:H5'	1.81	0.63
26:1H:754:C:H2'	26:1H:755:C:C6	2.34	0.63
26:1H:995:C:OP2	42:C8:54:LYS:NZ	2.32	0.63
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.33	0.63
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.62	0.63
43:D8:14:VAL:HG13	43:D8:96:ILE:HD13	1.80	0.63
55:Q8:28:GLY:HA3	55:Q8:44:LYS:HE3	1.81	0.63
11:2A:34:ASP:HB3	11:2A:40:ILE:HD11	1.81	0.63
11:2A:98:LEU:O	11:2A:101:SER:OG	2.13	0.63
26:14:994:C:H1'	43:95:10:LYS:HE2	1.81	0.63
26:14:1729:A:H2'	26:14:1731:G:N2	2.14	0.63
29:19:5:LYS:HD3	29:19:17:THR:HG22	1.80	0.63
31:39:143:ALA:O	31:39:148:LEU:HD22	1.99	0.63
41:75:16:ARG:HH21	41:75:19:LEU:HD21	1.63	0.63
1:13:1124:G:N7	1:13:1145:C:O2'	2.31	0.62
2:1E:130:ARG:HH12	2:1E:134:GLU:HB2	1.64	0.62
2:1E:185:ILE:HG12	2:1E:199:TYR:O	1.98	0.62
3:2E:15:THR:OG1	3:2E:16:ARG:N	2.31	0.62
5:4E:36:ASP:OD2	5:4E:40:ARG:NH2	2.29	0.62
20:BI:53:LEU:HD11	20:BI:100:ILE:HG23	1.80	0.62
20:BI:61:SER:O	20:BI:65:LYS:HG3	1.98	0.62
26:1H:1798:U:H5'	29:11:259:THR:CG2	2.29	0.62
47:H8:103:ARG:HG3	47:H8:138:GLU:HA	1.81	0.62
47:H8:125:LEU:HD13	47:H8:164:ALA:HB1	1.80	0.62
1:1G:973:G:H4'	10:1A:55:LYS:NZ	2.14	0.62
9:82:21:PRO:HA	9:82:59:PHE:HD1	1.62	0.62
10:1A:13:HIS:O	10:1A:17:ASP:HB2	1.99	0.62
12:3A:24:VAL:O	12:3A:26:ALA:N	2.31	0.62
16:7A:5:ARG:HH11	16:7A:67:THR:HG21	1.63	0.62
26:14:938:G:OP2	55:M5:52:LYS:NZ	2.32	0.62
26:14:2147:G:C5	26:14:2148:G:H1'	2.34	0.62
26:14:2782:G:OP2	61:14:3640:HOH:O	2.16	0.62
51:H5:30:ARG:NE	51:H5:33:GLN:H	1.95	0.62
1:13:277:C:OP1	17:8I:68:ARG:NH2	2.32	0.62
1:13:812:C:O2	61:13:1830:HOH:O	2.13	0.62
26:1H:1227:A:OP1	43:D8:84:LYS:NZ	2.32	0.62
49:J8:92:LYS:HD2	49:J8:95:LEU:N	2.14	0.62
7:62:3:ARG:HB3	7:62:4:ARG:NH2	2.14	0.62
9:82:116:LYS:HG2	9:82:120:ARG:H	1.63	0.62
1:13:601:C:H2'	1:13:602:A:C8	2.34	0.62
3:2E:79:ARG:HD3	11:2A:96:ARG:NH1	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:67:VAL:HG23	19:AI:68:GLY:H	1.64	0.62
24:3K:22:G:N2	24:3K:23:A:N7	2.47	0.62
34:61:21:VAL:HG21	34:61:25:TYR:HD2	1.64	0.62
50:K8:48:HIS:HA	50:K8:51:ARG:CZ	2.29	0.62
1:1G:957:U:H1'	1:1G:960:U:C5	2.34	0.62
1:1G:973:G:H5"	1:1G:974:A:H5"	1.80	0.62
7:62:113:GLU:OE1	7:62:122:HIS:ND1	2.32	0.62
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.32	0.62
29:19:79:VAL:HG23	29:19:113:VAL:HA	1.79	0.62
61:13:1802:HOH:O	4:3E:49:ARG:NH2	2.30	0.62
5:4E:45:PHE:CD2	5:4E:47:LYS:HE3	2.34	0.62
16:7I:35:LYS:HA	16:7I:35:LYS:HZ3	1.62	0.62
19:AI:3:ARG:CG	19:AI:9:VAL:HG21	2.29	0.62
26:1H:1049:C:N3	33:51:3:ARG:NH1	2.47	0.62
35:58:46:VAL:HG13	35:58:48:MET:H	1.64	0.62
44:E8:24:ILE:HG12	44:E8:36:LEU:HD21	1.81	0.62
31:39:27:GLU:HG3	31:39:112:MET:HG3	1.81	0.62
35:15:58:ASP:OD1	35:15:58:ASP:N	2.30	0.62
47:D5:52:SER:O	47:D5:52:SER:OG	2.14	0.62
1:13:141:A:H2'	1:13:142:G:H8	1.64	0.62
3:2E:8:ILE:O	3:2E:11:ARG:N	2.33	0.62
4:3E:98:GLU:HG2	4:3E:189:PRO:HG2	1.80	0.62
26:1H:253:C:OP2	55:Q8:5:LYS:NZ	2.31	0.62
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.13	0.62
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.34	0.62
29:11:5:LYS:NZ	29:11:6:PHE:H	1.98	0.62
42:C8:65:ILE:HG13	42:C8:96:ALA:HB2	1.81	0.62
1:1G:1060:C:HO2'	10:1A:56:HIS:HD1	1.43	0.62
4:32:60:GLU:OE2	4:32:199:ASN:N	2.29	0.62
26:14:330:A:H2	26:14:1210:A:HO2'	1.45	0.62
26:14:2680:C:OP2	30:29:111:ARG:NH2	2.32	0.62
30:29:25:VAL:HG12	30:29:26:ILE:H	1.63	0.62
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.32	0.62
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.63	0.62
50:G5:10:LEU:HA	50:G5:13:ALA:HB3	1.81	0.62
1:13:165:C:H2'	1:13:166:G:H8	1.64	0.62
1:13:686:U:O4	1:13:703:G:H1'	2.00	0.62
1:13:1111:A:H61	3:2E:177:THR:HG22	1.64	0.62
1:13:1315:U:HO2'	1:13:1360:A:HO2'	1.44	0.62
23:2K:62:C:H2'	23:2K:63:C:C6	2.34	0.62
31:31:178:PRO:HB3	31:31:198:ALA:HA	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:125:PHE:HB3	32:41:166:ASP:OD2	1.99	0.62
35:58:132:ALA:H	35:58:134:ARG:NH2	1.98	0.62
42:C8:92:ARG:NE	42:C8:94:ASN:HB3	2.15	0.62
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.81	0.62
12:3A:59:ARG:HH22	12:3A:63:GLY:N	1.95	0.62
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	1.82	0.62
32:49:67:LYS:H	52:I5:6:HIS:CD2	2.17	0.62
50:G5:43:GLN:NE2	50:G5:46:GLN:OE1	2.29	0.62
5:4E:51:VAL:HG13	5:4E:52:PRO:HD3	1.82	0.62
53:N8:41:PRO:O	53:N8:44:THR:OG1	2.17	0.62
13:4A:11:ARG:NH2	13:4A:46:LYS:HB3	2.15	0.62
13:4I:19:LEU:HB3	13:4I:25:ILE:HD11	1.82	0.62
1:1G:572:A:H5'	1:1G:573:A:OP2	1.98	0.62
1:1G:1226:C:H2'	13:4A:103:THR:HG23	1.82	0.62
11:2A:82:VAL:HG22	11:2A:108:ILE:HG12	1.81	0.62
44:A5:71:VAL:HA	44:A5:107:LEU:HD23	1.82	0.62
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.46	0.62
39:98:79:LEU:HA	39:98:83:ILE:CG1	2.30	0.62
44:E8:26:GLY:N	44:E8:71:VAL:HG23	2.15	0.62
1:1G:45:U:H2'	1:1G:46:G:H8	1.65	0.62
1:1G:980:C:N3	1:1G:1359:C:N4	2.45	0.62
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.34	0.62
7:62:59:LEU:HD23	7:62:60:LYS:HD3	1.82	0.62
8:72:83:ILE:HD11	8:72:137:VAL:HG13	1.80	0.62
18:9A:26:LEU:HD13	18:9A:27:GLY:H	1.64	0.62
23:2L:57:C:N3	32:49:83:ARG:NH2	2.46	0.62
26:14:2793:G:N2	26:14:2804:C:O2	2.33	0.62
30:29:68:ALA:C	30:29:70:ALA:H	2.02	0.62
40:65:34:HIS:CD2	40:65:54:LEU:HB2	2.34	0.62
47:D5:161:VAL:HG22	47:D5:162:GLU:H	1.65	0.62
54:L5:34:ARG:NH1	54:L5:41:ARG:O	2.32	0.62
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	1.81	0.62
12:3I:18:VAL:HA	12:3I:19:ARG:NH2	2.15	0.62
16:7I:18:ARG:HH11	16:7I:38:TYR:HA	1.65	0.62
20:BI:63:ILE:HB	20:BI:80:ARG:CZ	2.30	0.62
24:3K:5:G:N2	24:3K:68:C:H42	1.97	0.62
26:1H:963:U:OP1	61:1H:3746:HOH:O	2.16	0.62
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.99	0.62
26:1H:2751:G:O5'	33:51:4:ILE:HD13	2.00	0.62
28:71:41:VAL:HG12	28:71:216:THR:HG22	1.82	0.62
33:51:6:ARG:HG2	33:51:6:ARG:HH11	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:108:G:H5'	1:1G:109:A:H5"	1.81	0.62
1:1G:363:A:OP1	12:3A:33:ARG:NH1	2.33	0.62
26:14:1613:G:O2'	54:L5:3:ARG:HD2	1.99	0.62
26:14:1794:U:H2'	26:14:1795:C:H6	1.64	0.62
27:1J:105:G:H5'	47:D5:31:ARG:HE	1.65	0.62
31:39:117:ARG:HG3	31:39:122:LYS:HB2	1.81	0.62
45:B5:67:GLY:C	45:B5:69:TYR:H	2.02	0.62
1:13:323:U:H5'	20:BI:23:ARG:NE	2.11	0.61
1:13:376:G:H4'	16:7I:5:ARG:HH12	1.63	0.61
2:1E:54:THR:HG22	2:1E:199:TYR:HB3	1.82	0.61
2:1E:73:THR:HG23	2:1E:169:LYS:HG2	1.82	0.61
5:4E:137:GLU:OE1	5:4E:141:GLN:NE2	2.33	0.61
18:9I:42:ARG:HH11	18:9I:42:ARG:H	1.47	0.61
18:9I:58:LEU:HD13	18:9I:62:GLU:HB3	1.82	0.61
26:1H:2109:U:H1'	26:1H:2181:G:N2	2.15	0.61
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.00	0.61
33:51:84:SER:O	33:51:85:LYS:HD3	2.00	0.61
33:51:85:LYS:HZ2	33:51:141:VAL:HB	1.65	0.61
46:G8:97:ARG:HA	46:G8:101:LYS:HA	1.80	0.61
47:H8:134:PRO:HG3	47:H8:161:VAL:HG11	1.80	0.61
49:J8:87:PRO:HB2	49:J8:91:LYS:NZ	2.14	0.61
51:L8:4:LEU:HD11	51:L8:39:ASP:HA	1.82	0.61
1:1G:1069:C:O3'	5:42:25:ARG:NH2	2.33	0.61
1:1G:1274:G:N2	1:1G:1275:A:H62	1.98	0.61
5:42:40:ARG:HA	5:42:40:ARG:HH11	1.65	0.61
26:14:1416:G:O2'	26:14:1417:C:H6	1.83	0.61
27:1J:116:G:H4'	40:65:54:LEU:HD21	1.81	0.61
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.82	0.61
47:D5:30:ASN:HB3	47:D5:90:VAL:HG22	1.82	0.61
1:13:1485:U:O4	58:13:1748:SPE:H22	2.00	0.61
9:8E:81:ILE:HA	9:8E:84:ALA:HB3	1.81	0.61
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.33	0.61
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.32	0.61
34:61:94:ALA:HA	34:61:97:ILE:HD12	1.82	0.61
45:F8:27:THR:HB	45:F8:80:ILE:HG13	1.81	0.61
1:1G:1189:C:O2	61:1G:1849:HOH:O	2.11	0.61
1:1G:1349:A:C5'	9:82:121:ARG:HH22	2.13	0.61
31:39:148:LEU:O	31:39:150:GLY:N	2.32	0.61
38:45:4:PRO:HD3	38:45:70:PRO:O	1.99	0.61
42:85:104:GLN:HG2	43:95:44:LYS:HE2	1.82	0.61
1:13:1203:C:H4'	14:5I:27:CYS:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.01	0.61
26:1H:2729:G:H1'	30:21:187:ALA:HB2	1.80	0.61
47:H8:5:LEU:HD21	47:H8:39:VAL:HG22	1.82	0.61
1:1G:932:C:P	7:62:4:ARG:CZ	2.88	0.61
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.66	0.61
6:52:11:ASN:HB3	6:52:14:LEU:HD13	1.82	0.61
26:14:38:A:H2'	26:14:39:C:C6	2.35	0.61
30:29:52:LEU:CD2	30:29:76:ARG:H	2.13	0.61
26:1H:910:A:C5	38:88:13:GLN:HG3	2.35	0.61
26:1H:1190:G:H5"	37:78:32:THR:O	2.00	0.61
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.64	0.61
32:41:81:LYS:O	32:41:82:LEU:HD23	2.00	0.61
46:G8:96:ILE:HD11	46:G8:101:LYS:HB3	1.82	0.61
46:G8:102:CYS:SG	46:G8:103:GLY:N	2.73	0.61
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.30	0.61
2:12:211:ILE:HA	2:12:214:ILE:HD13	1.81	0.61
8:72:82:HIS:HE1	8:72:136:GLU:HG3	1.64	0.61
8:72:95:VAL:HG22	8:72:99:GLU:HG3	1.82	0.61
14:5A:11:LYS:HD2	14:5A:12:ARG:HA	1.83	0.61
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.36	0.61
26:14:2689:U:P	26:14:2719:G:H22	2.23	0.61
31:39:197:ASP:HA	31:39:200:GLU:HB2	1.83	0.61
1:13:671:G:H2'	1:13:672:U:H6	1.64	0.61
1:13:757:U:H2'	1:13:758:G:O4'	1.99	0.61
1:13:949:A:O5'	13:4I:102:ARG:NH1	2.31	0.61
1:13:1391:U:H2'	1:13:1392:G:H8	1.66	0.61
17:8I:67:LYS:HA	17:8I:70:ARG:NH2	2.15	0.61
32:41:112:PRO:HB2	52:M8:36:CYS:HA	1.81	0.61
35:58:96:GLU:C	35:58:98:VAL:H	2.03	0.61
37:78:75:ILE:HD12	37:78:75:ILE:H	1.66	0.61
41:B8:50:ILE:HA	41:B8:99:LEU:HD12	1.81	0.61
44:E8:29:LEU:HD11	44:E8:55:ALA:HB2	1.83	0.61
47:H8:4:ARG:NH2	47:H8:6:LYS:N	2.49	0.61
52:M8:9:LEU:HD11	52:M8:25:TYR:HE1	1.64	0.61
1:1G:15:G:H21	5:42:18:ARG:HH11	1.48	0.61
2:12:91:PRO:HG3	2:12:154:LEU:HG	1.81	0.61
2:12:136:VAL:O	2:12:139:LYS:NZ	2.30	0.61
3:22:9:GLY:HA3	14:5A:49:HIS:HA	1.81	0.61
26:14:1864:U:OP1	26:14:2410:G:O2'	2.17	0.61
30:29:51:PHE:O	30:29:52:LEU:HD23	2.00	0.61
32:49:130:ASN:HD22	32:49:161:THR:H	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:152:ARG:HH11	33:59:153:LYS:HE3	1.64	0.61
41:75:37:GLY:HA3	41:75:39:ARG:NH1	2.16	0.61
26:1H:947:G:O6	61:1H:3738:HOH:O	2.13	0.61
33:51:20:ALA:HB3	33:51:23:ARG:HG3	1.81	0.61
44:E8:18:ARG:NH1	44:E8:18:ARG:HB2	2.16	0.61
9:82:36:TYR:HD1	9:82:36:TYR:N	1.98	0.61
26:14:1899:G:H21	26:14:1902:C:H42	1.49	0.61
26:14:2377:A:H4'	40:65:111:GLU:HB2	1.82	0.61
30:29:31:CYS:HB2	30:29:91:VAL:HG22	1.83	0.61
53:J5:31:VAL:N	53:J5:40:LYS:O	2.33	0.61
1:13:673:G:H2'	1:13:674:G:C8	2.36	0.61
2:1E:16:HIS:CE1	2:1E:210:SER:HB2	2.36	0.61
26:1H:2118:U:O2	26:1H:2148:G:O2'	2.19	0.61
28:71:49:ILE:HD13	28:71:204:ALA:HA	1.81	0.61
39:98:107:ASP:HB3	39:98:109:ALA:H	1.64	0.61
1:1G:1349:A:H5"	9:82:121:ARG:HH22	1.65	0.61
8:72:12:ARG:HH11	8:72:26:VAL:HA	1.65	0.61
8:72:116:LYS:HD3	8:72:129:VAL:HG11	1.82	0.61
9:82:89:ASN:OD1	9:82:93:ARG:NH2	2.33	0.61
12:3A:33:ARG:O	12:3A:85:ILE:HG22	1.99	0.61
26:14:1049:C:N4	26:14:2751:G:O6	2.34	0.61
29:19:37:LEU:N	29:19:37:LEU:HD23	2.14	0.61
30:29:70:ALA:O	30:29:72:VAL:N	2.33	0.61
31:39:9:ILE:HG12	31:39:14:PRO:HA	1.83	0.61
34:69:52:ARG:O	34:69:56:LYS:HG2	1.99	0.61
35:15:132:ALA:N	35:15:134:ARG:HH12	1.98	0.61
1:13:1244:C:H42	1:13:1293:G:H1	1.47	0.61
4:3E:18:LYS:NZ	4:3E:18:LYS:HB3	2.16	0.61
8:7E:68:ARG:HG2	8:7E:70:GLN:HE22	1.65	0.61
14:5I:53:LEU:HD12	14:5I:56:VAL:HG21	1.83	0.61
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.35	0.61
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.01	0.61
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.80	0.61
1:1G:192:U:C4'	20:BA:103:GLY:HA2	2.31	0.61
7:62:148:ASN:OD1	7:62:149:ARG:NH1	2.30	0.61
12:3A:27:LEU:HB3	12:3A:33:ARG:CD	2.29	0.61
26:14:395:U:H2'	26:14:396:G:N7	2.16	0.61
30:29:54:GLN:HE22	30:29:57:LYS:H	1.49	0.61
36:25:68:GLU:HG2	36:25:78:ARG:HH21	1.64	0.61
36:25:75:SER:OG	41:75:74:ARG:NH2	2.34	0.61
38:45:28:ALA:HB1	38:45:29:PHE:HD1	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:82:PRO:CB	46:C5:97:ARG:HB2	2.31	0.61
20:BI:83:ARG:HA	20:BI:86:ARG:NH1	2.16	0.61
30:21:38:THR:HG22	30:21:41:LYS:HB3	1.81	0.61
43:D8:36:PRO:C	43:D8:38:LEU:H	2.04	0.61
46:G8:55:TYR:HB3	46:G8:58:GLY:HA3	1.82	0.61
1:1G:1350:A:OP2	9:82:121:ARG:NH2	2.34	0.61
2:12:223:ILE:HA	2:12:224:GLN:HG2	1.82	0.61
14:5A:26:ARG:HH21	14:5A:43:CYS:CB	2.14	0.61
36:25:26:LYS:NZ	36:25:37:ASP:OD1	2.34	0.61
47:D5:4:ARG:NH2	47:D5:57:ILE:HG23	2.16	0.61
5:4E:78:HIS:HA	8:7E:105:ARG:HG3	1.83	0.61
26:1H:2019:A:N7	53:N8:9:LYS:HE3	2.14	0.61
27:16:13:A:N1	27:16:69:G:O2'	2.27	0.61
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.36	0.61
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.65	0.61
1:1G:1367:C:H4'	10:1A:48:THR:HG21	1.82	0.61
1:1G:1372:U:OP1	9:82:72:GLY:N	2.34	0.61
12:3A:73:GLU:OE2	12:3A:74:GLY:N	2.33	0.61
21:1B:6:ARG:HA	21:1B:15:ARG:CZ	2.31	0.61
26:14:2228:G:OP1	29:19:261:LYS:HE2	2.00	0.61
26:14:2439:A:O2'	61:14:3642:HOH:O	2.16	0.61
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.41	0.61
1:13:455:C:H42	1:13:477:G:H1	1.49	0.60
1:13:659:U:H2'	1:13:660:G:C8	2.35	0.60
1:13:1000:A:H2'	1:13:1001:G:C8	2.36	0.60
2:1E:206:ASP:O	2:1E:210:SER:OG	2.19	0.60
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.34	0.60
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.00	0.60
26:1H:2469:A:H2	26:1H:2481:G:H21	1.47	0.60
26:1H:2469:A:O2'	38:88:56:ARG:NE	2.34	0.60
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.66	0.60
52:M8:22:ILE:O	52:M8:24:THR:OG1	2.19	0.60
1:1G:1373:G:P	7:62:36:LYS:HZ1	2.24	0.60
45:B5:36:LYS:HE3	45:B5:56:THR:HG22	1.83	0.60
49:F5:84:GLY:HA2	49:F5:85:LEU:HB3	1.82	0.60
1:13:110:C:O2'	16:7I:25:ARG:O	2.17	0.60
14:5I:29:ARG:NH1	14:5I:29:ARG:H	2.00	0.60
26:1H:588:U:H2'	26:1H:589:C:C6	2.35	0.60
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.29	0.60
32:41:41:GLN:HG3	32:41:60:LEU:HD11	1.83	0.60
46:G8:89:PHE:HD1	46:G8:90:LEU:N	1.98	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:54:THR:HA	2:12:57:PHE:CB	2.31	0.60
2:12:71:VAL:HG12	2:12:170:GLU:HG2	1.83	0.60
2:12:136:VAL:HG22	2:12:139:LYS:HZ1	1.66	0.60
10:1A:42:THR:HG22	10:1A:66:ARG:NH2	2.15	0.60
10:1A:44:VAL:HA	10:1A:66:ARG:NH1	2.16	0.60
26:14:388:G:H5'	49:F5:25:LYS:HG2	1.82	0.60
26:14:784:A:OP1	61:14:3641:HOH:O	2.16	0.60
26:14:2720:U:N3	26:14:2873:A:H2	1.95	0.60
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.31	0.60
32:49:43:LEU:HG	32:49:45:GLU:HB2	1.82	0.60
55:M5:43:GLN:C	55:M5:46:ARG:HH12	2.03	0.60
4:3E:22:LYS:CB	4:3E:25:ARG:HH21	2.13	0.60
11:2I:98:LEU:O	11:2I:101:SER:OG	2.13	0.60
26:1H:667:U:O2	55:Q8:2:PRO:HD2	2.01	0.60
26:1H:754:C:H2'	26:1H:755:C:H6	1.66	0.60
27:16:94:C:H2'	27:16:95:U:C6	2.35	0.60
49:J8:85:LEU:O	49:J8:88:LYS:NZ	2.33	0.60
1:1G:927:G:H1	1:1G:1390:U:H3	1.49	0.60
8:72:34:GLU:HB3	8:72:118:VAL:HG11	1.83	0.60
8:72:86:ILE:HG12	8:72:133:LEU:HD22	1.83	0.60
11:2A:110:ASP:O	18:9A:84:LYS:HE3	2.01	0.60
26:14:994:C:OP1	42:85:53:ARG:NH2	2.34	0.60
27:1J:15:A:H1'	27:1J:109:G:C8	2.36	0.60
31:39:24:LEU:HD22	31:39:25:PRO:HD3	1.83	0.60
31:39:66:PRO:O	31:39:67:GLN:HB3	1.99	0.60
32:49:130:ASN:HB3	32:49:160:VAL:HA	1.81	0.60
41:75:36:GLU:HG2	41:75:39:ARG:HH22	1.66	0.60
41:75:118:ARG:NH2	41:75:121:ILE:HD11	2.15	0.60
42:85:90:VAL:O	42:85:92:ARG:N	2.34	0.60
46:C5:9:LYS:HZ1	46:C5:29:GLU:HA	1.67	0.60
47:D5:4:ARG:CZ	47:D5:4:ARG:HA	2.31	0.60
19:AI:13:ASP:HA	19:AI:16:LEU:HD23	1.83	0.60
26:1H:270(H):C:H2'	26:1H:270(I):G:C8	2.36	0.60
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.36	0.60
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.33	0.60
33:51:85:LYS:NZ	33:51:141:VAL:HB	2.17	0.60
41:B8:18:ASP:OD1	41:B8:18:ASP:N	2.27	0.60
10:1A:66:ARG:NH2	10:1A:67:THR:O	2.34	0.60
20:BA:50:GLU:O	20:BA:54:LYS:HG2	2.02	0.60
26:14:1176:G:H8	26:14:1177:A:H2	1.48	0.60
26:14:2118:U:O2'	26:14:2145:C:N3	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2520:C:H41	26:14:2542:A:N6	1.99	0.60
31:39:53:THR:HG23	31:39:55:GLY:H	1.65	0.60
32:49:7:LEU:HD22	32:49:10:LYS:HD3	1.82	0.60
35:15:13:TRP:O	35:15:135:PRO:HD2	2.02	0.60
35:15:112:LEU:HA	35:15:115:ARG:HE	1.66	0.60
1:13:1315:U:O2'	1:13:1360:A:O2'	2.17	0.60
2:1E:16:HIS:CE1	2:1E:214:ILE:HD11	2.37	0.60
18:9I:45:SER:OG	18:9I:47:THR:HG23	2.01	0.60
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.37	0.60
26:1H:270(K):C:H1'	26:1H:270(N):G:H22	1.65	0.60
26:1H:792:G:H5"	26:1H:793:A:H5'	1.83	0.60
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.21	0.60
26:1H:2298:A:H62	26:1H:2318:G:H8	1.50	0.60
40:A8:45:GLY:HA3	61:A8:201:HOH:O	2.00	0.60
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.83	0.60
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.65	0.60
13:4A:37:THR:O	13:4A:55:ARG:NE	2.30	0.60
18:9A:56:THR:HG23	18:9A:58:LEU:H	1.67	0.60
26:14:94:G:N3	50:G5:47:ASN:ND2	2.49	0.60
26:14:1316:U:H2'	26:14:1317:A:C8	2.37	0.60
26:14:2137:C:H42	26:14:2155:G:H1	1.50	0.60
26:14:2245:U:H5"	26:14:2246:G:H5'	1.83	0.60
26:14:2537:U:H2'	26:14:2538:C:C6	2.36	0.60
5:4E:60:TYR:OH	5:4E:64:ARG:NH1	2.34	0.60
14:5I:9:LYS:HA	14:5I:12:ARG:HB2	1.83	0.60
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.83	0.60
26:1H:1055:G:N2	26:1H:1103:A:N7	2.50	0.60
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.37	0.60
27:16:44:G:H1'	27:16:47:C:N4	2.16	0.60
29:11:164:GLN:OE1	29:11:176:ARG:NH2	2.35	0.60
32:41:41:GLN:NE2	32:41:154:GLY:O	2.28	0.60
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.81	0.60
50:K8:3:LEU:HB3	50:K8:5:GLU:N	2.17	0.60
9:82:9:ARG:HG2	9:82:14:VAL:HG13	1.83	0.60
10:1A:32:ALA:HA	10:1A:76:ASN:HD21	1.65	0.60
13:4A:51:ALA:HA	13:4A:54:VAL:HG12	1.84	0.60
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.34	0.60
26:14:2286:A:H4'	26:14:2287:A:O4'	2.01	0.60
1:13:1314:C:OP2	19:AI:4:SER:OG	2.11	0.60
3:2E:18:TRP:HZ3	14:5I:55:GLY:N	1.99	0.60
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:86:C:H4'	26:1H:104:U:H1'	1.83	0.60
26:1H:2501:C:H5"	61:1H:3731:HOH:O	2.02	0.60
5:42:28:PHE:HZ	25:4L:25:A:HO2'	1.50	0.60
13:4A:97:PRO:HA	13:4A:110:ARG:HD2	1.84	0.60
23:2L:41:C:H2'	23:2L:42:C:H6	1.66	0.60
26:14:2272:U:H5"	26:14:2273:A:OP1	2.02	0.60
42:85:92:ARG:HH11	42:85:92:ARG:HG3	1.67	0.60
1:13:690:G:H22	11:2I:55:LYS:NZ	1.98	0.60
26:1H:2028:U:O4	61:1H:3743:HOH:O	2.15	0.60
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.36	0.60
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.29	0.60
31:31:7:TYR:O	31:31:21:ALA:HA	2.01	0.60
32:41:16:ARG:O	32:41:20:ILE:HG13	2.01	0.60
47:H8:80:ARG:HB3	47:H8:82:ARG:HD2	1.83	0.60
52:M8:14:ILE:HG23	52:M8:24:THR:HG23	1.83	0.60
1:1G:392:G:OP1	16:7A:8:ARG:NH2	2.32	0.60
30:29:52:LEU:HD21	30:29:76:ARG:H	1.66	0.60
30:29:171:GLU:O	30:29:184:VAL:HA	2.02	0.60
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.83	0.60
32:49:172:LEU:O	32:49:176:LEU:HD12	2.01	0.60
1:13:837:G:OP2	1:13:842:C:N4	2.35	0.60
4:3E:172:PRO:HB2	4:3E:187:ARG:HH12	1.65	0.60
16:7I:5:ARG:NE	16:7I:6:LEU:H	2.00	0.60
26:1H:1606:G:H5"	26:1H:1607:C:OP1	2.02	0.60
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.01	0.60
26:1H:2177:C:H5"	28:71:213:TYR:HB2	1.82	0.60
37:78:59:LEU:HB2	55:Q8:58:ILE:HD11	1.84	0.60
47:H8:138:GLU:O	47:H8:156:LYS:NZ	2.35	0.60
3:22:52:LEU:HG	3:22:69:HIS:O	2.01	0.60
8:72:51:VAL:HG11	8:72:60:ARG:HH21	1.67	0.60
6:5E:27:GLN:HA	6:5E:30:LEU:HD12	1.83	0.60
13:4I:23:TYR:HB3	13:4I:67:GLU:HB3	1.83	0.60
26:1H:34:C:O2'	26:1H:35:G:OP2	2.19	0.60
26:1H:1113:U:H5'	33:51:2:SER:N	2.16	0.60
26:1H:1250:G:N7	37:78:18:ARG:NH2	2.49	0.60
26:1H:1689:A:N6	26:1H:1698:A:H2	1.95	0.60
26:1H:1803:A:O2'	29:11:259:THR:HG21	2.02	0.60
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.84	0.60
26:1H:2402:C:H1'	26:1H:2403:C:H5	1.67	0.60
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.84	0.60
29:11:5:LYS:HZ2	29:11:6:PHE:H	1.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:881:G:OP1	12:3A:12:ARG:NH2	2.32	0.60
1:1G:948:C:OP1	13:4A:109:THR:OG1	2.20	0.60
1:1G:1019:C:H2'	1:1G:1020:U:C6	2.37	0.60
1:1G:1134:G:N2	1:1G:1140:C:O2	2.29	0.60
56:1L:5:G:H21	56:1L:69:A:H62	1.50	0.60
24:3L:56:C:C2	26:14:2114:A:H2	2.19	0.60
26:14:1250:G:H5"	61:14:4409:HOH:O	2.01	0.60
26:14:2698:U:O4	61:14:3643:HOH:O	2.16	0.60
39:55:55:ALA:HB2	39:55:79:LEU:HD13	1.84	0.60
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.82	0.59
20:BI:83:ARG:HA	20:BI:86:ARG:HH12	1.67	0.59
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.37	0.59
26:1H:2052:G:H4'	30:21:143:ASN:O	2.01	0.59
26:1H:2129:C:N4	26:1H:2159:G:O6	2.34	0.59
33:51:169:VAL:HG23	33:51:170:ARG:H	1.67	0.59
37:78:63:PRO:HB2	55:Q8:30:ARG:HH21	1.65	0.59
50:K8:3:LEU:HB3	50:K8:4:SER:C	2.22	0.59
1:1G:973:G:H4'	10:1A:55:LYS:CE	2.32	0.59
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.83	0.59
12:3A:26:ALA:HA	12:3A:98:TYR:HE2	1.65	0.59
16:7A:35:LYS:HD3	16:7A:35:LYS:H	1.66	0.59
19:AA:41:VAL:HG13	19:AA:44:MET:HG3	1.83	0.59
23:2L:24:C:H2'	23:2L:25:U:C6	2.36	0.59
31:39:28:ILE:HA	31:39:112:MET:HG2	1.83	0.59
2:1E:15:VAL:HG11	2:1E:210:SER:HB3	1.84	0.59
7:6E:69:VAL:HG12	7:6E:100:ALA:HA	1.83	0.59
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.14	0.59
24:3K:29:U:C2'	24:3K:30:C:H5'	2.32	0.59
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.19	0.59
32:41:47:LYS:HG3	32:41:48:GLU:H	1.67	0.59
13:4A:91:ARG:HD3	13:4A:97:PRO:O	2.01	0.59
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.35	0.59
55:M5:54:GLU:O	55:M5:58:ILE:HG22	2.02	0.59
1:13:1226:C:H2'	13:4I:103:THR:HB	1.83	0.59
1:13:1347:G:H5"	9:8E:107:ARG:HB3	1.85	0.59
8:7E:102:ARG:HH11	8:7E:106:GLY:H	1.50	0.59
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.59
32:41:120:LEU:HB2	32:41:179:PRO:O	2.02	0.59
1:1G:352:C:O2'	1:1G:354:G:OP1	2.15	0.59
1:1G:1392:G:H21	1:1G:1502:A:H8	1.47	0.59
3:22:47:LEU:HG	3:22:52:LEU:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:50:ALA:HB1	3:22:70:VAL:HG11	1.84	0.59
9:82:23:ASN:OD1	9:82:25:LYS:HG2	2.02	0.59
20:BA:73:HIS:HB3	20:BA:74:LYS:HD2	1.83	0.59
38:45:57:HIS:NE2	38:45:116:GLU:HG2	2.17	0.59
46:C5:76:CYS:HB3	46:C5:97:ARG:NE	2.15	0.59
55:M5:11:LYS:NZ	55:M5:65:GLU:OE2	2.30	0.59
26:1H:2128:C:H2'	26:1H:2129:C:C6	2.38	0.59
26:1H:2287:A:H62	26:1H:2344:U:H3	1.51	0.59
52:M8:60:GLN:HB2	52:M8:61:ARG:NH2	2.17	0.59
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.33	0.59
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.14	0.59
2:12:223:ILE:HA	2:12:224:GLN:CG	2.33	0.59
9:82:36:TYR:N	9:82:36:TYR:CD1	2.70	0.59
26:14:2619:C:OP1	30:29:152:LYS:NZ	2.29	0.59
32:49:170:ARG:NH2	32:49:174:GLU:OE1	2.34	0.59
35:15:115:ARG:CZ	35:15:116:LEU:HG	2.32	0.59
38:45:28:ALA:HB3	38:45:105:GLU:OE1	2.02	0.59
39:55:20:LEU:HD21	39:55:40:LYS:HD3	1.85	0.59
45:B5:16:LYS:H	45:B5:16:LYS:NZ	2.01	0.59
47:D5:14:LYS:NZ	47:D5:16:SER:HB3	2.17	0.59
1:13:674:G:H2'	1:13:675:A:H8	1.67	0.59
7:6E:26:PHE:CZ	7:6E:120:ILE:HD11	2.37	0.59
26:1H:719:C:H2'	26:1H:720:C:H6	1.66	0.59
28:71:15:ASP:O	28:71:223:ARG:NE	2.35	0.59
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.83	0.59
37:78:63:PRO:HG2	55:Q8:25:MET:HB2	1.85	0.59
41:B8:107:ASP:OD1	41:B8:107:ASP:N	2.28	0.59
43:D8:59:ALA:HB2	43:D8:96:ILE:HG22	1.85	0.59
46:G8:89:PHE:HD1	46:G8:90:LEU:H	1.48	0.59
47:H8:108:PRO:HB2	47:H8:112:ARG:NE	2.17	0.59
1:1G:778:G:H1'	11:2A:119:CYS:HB3	1.83	0.59
1:1G:1220:G:O3'	19:AA:36:ARG:NH2	2.35	0.59
26:14:77:C:OP1	50:G5:59:ARG:HD3	2.03	0.59
26:14:620:G:H4'	26:14:621:A:H5"	1.85	0.59
26:14:1364:G:OP1	49:F5:3:LYS:HG2	2.03	0.59
26:14:2103:C:H2'	26:14:2104:G:C8	2.37	0.59
1:13:961:U:O2	1:13:1201:A:N6	2.19	0.59
1:13:1129:C:H3'	1:13:1139:G:N7	2.17	0.59
1:13:1292:U:H2'	1:13:1293:G:C8	2.36	0.59
5:4E:53:LEU:H	5:4E:53:LEU:HD12	1.68	0.59
5:4E:89:ILE:HG12	5:4E:135:THR:HG22	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:27:LYS:HD3	21:1F:7:ARG:HH11	1.66	0.59
28:71:6:ARG:HB2	28:71:6:ARG:HH21	1.67	0.59
30:21:92:THR:O	30:21:95:ILE:HG13	2.02	0.59
34:61:73:GLU:HG3	34:61:136:VAL:HG13	1.83	0.59
45:F8:12:VAL:HG13	45:F8:27:THR:O	2.03	0.59
49:J8:88:LYS:HD3	49:J8:89:GLU:N	2.17	0.59
49:J8:92:LYS:HB3	49:J8:95:LEU:O	2.02	0.59
1:1G:362:G:O3'	12:3A:33:ARG:NH2	2.30	0.59
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.36	0.59
9:82:24:GLY:HA2	9:82:59:PHE:O	2.01	0.59
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.21	0.59
26:14:1049:C:N4	26:14:1110:G:O2'	2.35	0.59
26:14:2233:U:H2'	26:14:2234:G:C8	2.38	0.59
29:19:72:LYS:HB2	29:19:75:ILE:HD12	1.84	0.59
32:49:94:LEU:HA	32:49:95:ARG:HH11	1.68	0.59
40:65:56:LEU:HB3	40:65:58:LEU:HD23	1.84	0.59
46:C5:75:ILE:O	46:C5:97:ARG:NH2	2.32	0.59
1:13:1129:C:H42	1:13:1143:G:H1	1.48	0.59
4:3E:156:GLU:HB3	4:3E:160:GLN:HE22	1.68	0.59
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.17	0.59
9:8E:19:LEU:HD11	9:8E:84:ALA:HB1	1.84	0.59
13:4I:13:LYS:NZ	13:4I:17:VAL:HG13	2.16	0.59
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.02	0.59
28:71:49:ILE:HD12	28:71:50:ASP:H	1.67	0.59
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.15	0.59
43:D8:15:GLU:O	43:D8:96:ILE:HD11	2.03	0.59
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.37	0.59
5:42:110:LEU:O	5:42:115:VAL:HG22	2.02	0.59
8:72:120:THR:HG23	8:72:123:GLU:H	1.67	0.59
26:14:34:C:H1'	26:14:35:G:OP1	2.03	0.59
26:14:528:A:C2	26:14:2042:A:H2'	2.38	0.59
26:14:656:G:H2'	26:14:657:U:O4'	2.02	0.59
26:14:2491:U:P	58:14:3446:SPE:HN5	2.23	0.59
45:B5:67:GLY:O	45:B5:69:TYR:N	2.35	0.59
1:13:590:C:O3'	8:7E:30:ARG:NH1	2.32	0.59
1:13:976:G:OP1	14:5I:32:SER:N	2.34	0.59
2:1E:112:VAL:HA	2:1E:115:LEU:HD23	1.85	0.59
10:1I:26:ALA:O	10:1I:30:SER:OG	2.16	0.59
20:BI:77:ALA:HA	20:BI:80:ARG:CZ	2.32	0.59
26:1H:1434:A:H61	26:1H:1558:A:N6	1.99	0.59
32:41:76:SER:OG	32:41:84:LYS:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:82:GLY:HA2	37:78:113:LYS:O	2.01	0.59
38:88:59:ARG:NH1	38:88:61:GLY:O	2.36	0.59
39:98:100:LEU:HD11	39:98:113:LEU:HG	1.84	0.59
1:1G:410:G:OP2	4:32:25:ARG:HD2	2.03	0.59
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.84	0.59
35:15:90:MET:HG3	35:15:98:VAL:HG12	1.85	0.59
45:B5:34:ALA:O	45:B5:77:LYS:NZ	2.35	0.59
47:D5:127:LYS:O	47:D5:162:GLU:HB2	2.02	0.59
48:E5:32:ARG:O	48:E5:34:GLY:N	2.35	0.59
1:13:353:A:H8	1:13:353:A:H5'	1.68	0.59
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.35	0.59
1:13:1416:G:N7	58:13:1748:SPE:H71	2.18	0.59
6:5E:25:ILE:HD13	6:5E:82:ARG:HG3	1.85	0.59
8:7E:120:THR:OG1	8:7E:123:GLU:HG3	2.03	0.59
13:4I:39:ILE:HD12	13:4I:56:LEU:HG	1.85	0.59
16:7I:35:LYS:HA	16:7I:35:LYS:HZ2	1.68	0.59
17:8I:10:VAL:HA	17:8I:20:THR:O	2.03	0.59
17:8I:100:LYS:HZ2	17:8I:101:ARG:HH12	1.51	0.59
18:9I:38:GLU:OE2	18:9I:41:LYS:NZ	2.25	0.59
22:1K:18:G:N2	22:1K:57:G:H1'	2.17	0.59
25:4K:24:A:H2'	25:4K:25:A:C8	2.38	0.59
26:1H:302:C:H2'	26:1H:303:U:C6	2.37	0.59
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.38	0.59
29:11:31:LYS:HB2	29:11:34:VAL:CG2	2.33	0.59
36:68:35:VAL:HA	36:68:62:VAL:HG22	1.84	0.59
41:B8:125:ARG:O	41:B8:129:ARG:N	2.31	0.59
42:C8:92:ARG:HB3	43:D8:11:GLN:NE2	2.16	0.59
1:1G:376:G:OP1	16:7A:67:THR:HG21	2.03	0.59
1:1G:827:U:H3	1:1G:872:A:H62	1.50	0.59
7:62:67:GLU:HA	7:62:70:LYS:HG3	1.85	0.59
26:14:389:G:H1	37:35:71:VAL:HG12	1.68	0.59
26:14:612:G:N2	26:14:616:A:O2'	2.35	0.59
52:I5:16:CYS:HA	52:I5:33:VAL:HG13	1.85	0.59
1:13:1446:A:OP1	1:13:1446:A:H4'	2.02	0.59
8:7E:6:ILE:HG13	8:7E:7:ALA:N	2.18	0.59
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.02	0.59
15:6I:32:LEU:O	15:6I:36:ILE:HG23	2.02	0.59
20:BI:49:ALA:HA	20:BI:92:LEU:HD21	1.85	0.59
26:1H:98:G:OP1	50:K8:3:LEU:HA	2.03	0.59
26:1H:1665:A:N7	61:1H:3795:HOH:O	2.32	0.59
37:78:59:LEU:HD13	55:Q8:58:ILE:HD12	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:93:ASP:OD1	47:H8:131:ARG:NH1	2.36	0.59
50:K8:47:ASN:C	50:K8:49:LYS:H	2.06	0.59
1:1G:974:A:O4'	14:5A:31:ARG:NH2	2.35	0.59
1:1G:1379:G:OP2	7:62:6:ARG:NH1	2.36	0.59
4:32:57:ARG:HH11	4:32:205:GLU:HB3	1.67	0.59
14:5A:43:CYS:O	14:5A:47:LEU:HD22	2.02	0.59
24:3L:6:A:H61	24:3L:67:U:H3	1.51	0.59
26:14:1188:U:H5"	43:95:79:VAL:HG11	1.84	0.59
26:14:1342:A:H2	26:14:1602:U:N3	2.01	0.59
26:14:1379:A:H4'	26:14:1380:G:OP2	2.03	0.59
30:29:52:LEU:HB3	30:29:76:ARG:HH12	1.67	0.59
32:49:77:ILE:O	32:49:82:LEU:HD22	2.03	0.59
33:59:87:LEU:HD23	33:59:148:ILE:HD11	1.85	0.59
1:13:375:U:O3'	16:7I:5:ARG:NH2	2.36	0.58
1:13:1238:A:N3	1:13:1241:G:O2'	2.32	0.58
2:1E:80:ILE:HD11	2:1E:215:LEU:HD21	1.85	0.58
2:1E:130:ARG:CZ	2:1E:130:ARG:HB2	2.33	0.58
3:2E:78:GLY:HA2	3:2E:83:ARG:NE	2.18	0.58
26:1H:1187:G:H5"	43:D8:81:TYR:CE1	2.37	0.58
26:1H:2795:G:O6	26:1H:2803:C:N4	2.36	0.58
32:41:10:LYS:O	32:41:15:VAL:HG12	2.03	0.58
1:1G:362:G:O2'	12:3A:28:LYS:NZ	2.36	0.58
1:1G:946:A:H2'	1:1G:947:G:C8	2.38	0.58
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.67	0.58
7:62:115:ARG:O	7:62:118:VAL:HG22	2.02	0.58
26:14:2629:A:H2'	26:14:2629:A:N3	2.17	0.58
31:39:63:LYS:NZ	31:39:67:GLN:HB2	2.18	0.58
35:15:132:ALA:H	35:15:134:ARG:HH12	1.51	0.58
44:A5:72:LYS:HB3	44:A5:106:ILE:HD11	1.85	0.58
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.16	0.58
1:13:108:G:C8	20:BI:15:ARG:CZ	2.86	0.58
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.68	0.58
26:1H:527:C:OP2	26:1H:2779:U:H5	1.86	0.58
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.25	0.58
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.69	0.58
42:C8:82:GLY:O	42:C8:85:LYS:NZ	2.29	0.58
3:22:118:GLN:HG3	3:22:187:ALA:HB2	1.85	0.58
24:3L:72:C:C3'	24:3L:73:A:H5"	2.33	0.58
26:14:2375:G:N7	61:14:3692:HOH:O	2.32	0.58
26:14:2788:C:O2'	26:14:2809:A:N3	2.36	0.58
27:1J:95:U:O4	61:1J:305:HOH:O	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:40:PRO:HB3	42:85:68:ALA:HB2	1.84	0.58
41:75:16:ARG:HD3	41:75:79:HIS:HA	1.84	0.58
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.85	0.58
1:13:342:C:O2	1:13:347:G:N2	2.27	0.58
9:8E:42:ARG:NH1	9:8E:71:SER:OG	2.35	0.58
26:1H:142:G:O2'	45:F8:35:THR:HG21	2.02	0.58
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.66	0.58
32:41:11:TYR:HA	32:41:15:VAL:CG1	2.33	0.58
33:51:30:LYS:HE2	33:51:81:GLU:H	1.68	0.58
47:H8:10:ARG:HG2	47:H8:36:LYS:HG2	1.85	0.58
52:M8:14:ILE:HD11	52:M8:21:VAL:HG13	1.86	0.58
1:1G:1342:C:H1'	9:82:124:GLN:HG2	1.85	0.58
3:22:156:ARG:HG2	3:22:163:ALA:HB2	1.84	0.58
5:42:149:GLU:OE1	5:42:149:GLU:N	2.32	0.58
19:AA:66:MET:N	19:AA:67:VAL:HG22	2.18	0.58
26:14:273(C):C:H42	26:14:363(C):G:H1	1.52	0.58
27:1J:8:U:O3'	40:65:25:ARG:NH2	2.34	0.58
30:29:77:ILE:HB	30:29:78:LEU:HB2	1.85	0.58
30:29:116:VAL:O	30:29:117:MET:HB3	2.03	0.58
52:I5:13:ARG:O	52:I5:30:GLU:HG3	2.03	0.58
53:J5:40:LYS:NZ	53:J5:40:LYS:HB2	2.15	0.58
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.39	0.58
26:1H:919:G:H4'	27:16:81:G:H4'	1.85	0.58
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.04	0.58
26:1H:2124:G:O6	26:1H:2173:A:N6	2.35	0.58
26:1H:2749:A:P	33:51:4:ILE:HD11	2.43	0.58
47:H8:59:LEU:HD12	47:H8:69:THR:HG21	1.84	0.58
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.04	0.58
2:12:164:VAL:HG13	2:12:186:ALA:HB2	1.84	0.58
19:AA:22:LEU:HD23	19:AA:47:HIS:CD2	2.39	0.58
26:14:1485:G:H2'	26:14:1486:A:H8	1.68	0.58
26:14:2292:C:P	40:65:17:ARG:HH21	2.26	0.58
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.03	0.58
26:14:2801:A:H2'	26:14:2802:G:O4'	2.04	0.58
32:49:109:VAL:HG21	32:49:142:PRO:HG3	1.85	0.58
47:D5:157:LEU:HD23	47:D5:158:PRO:HD2	1.84	0.58
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.84	0.58
2:1E:87:ARG:HE	2:1E:232:PRO:HB3	1.67	0.58
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.68	0.58
26:1H:323:G:C8	31:31:171:PRO:HG3	2.39	0.58
26:1H:2801:A:OP2	26:1H:2895:U:O2'	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:193:ILE:HA	28:71:196:LEU:HD23	1.84	0.58
33:51:158:HIS:O	33:51:171:LEU:HD11	2.04	0.58
17:8A:10:VAL:HG12	17:8A:55:ASP:O	2.03	0.58
26:14:315:G:H2'	26:14:316:C:C6	2.39	0.58
26:14:853:G:C2'	26:14:854:G:H5'	2.33	0.58
26:14:1670:C:O2	30:29:129:HIS:NE2	2.28	0.58
46:C5:3:VAL:HG21	46:C5:32:PRO:HB2	1.84	0.58
1:13:13:U:OP1	61:13:1836:HOH:O	2.16	0.58
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.35	0.58
1:13:407:G:H2'	1:13:408:A:C8	2.39	0.58
1:13:674:G:H2'	1:13:675:A:C8	2.39	0.58
9:8E:86:VAL:HA	9:8E:92:TYR:OH	2.03	0.58
26:1H:2124:G:H4'	28:71:174:PRO:HG3	1.84	0.58
27:16:75:G:H21	47:H8:85:HIS:CE1	2.20	0.58
32:41:101:ILE:HG23	52:M8:25:TYR:CE1	2.38	0.58
34:61:130:TYR:O	34:61:131:LYS:HD3	2.04	0.58
1:1G:391:G:OP2	61:1G:1853:HOH:O	2.17	0.58
1:1G:1204:A:OP1	14:5A:3:ARG:NH2	2.36	0.58
1:1G:1249:C:H1'	9:82:70:LYS:HD3	1.86	0.58
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.03	0.58
4:32:104:VAL:O	4:32:108:LEU:HB2	2.03	0.58
9:82:42:ARG:NH2	9:82:71:SER:O	2.36	0.58
56:1L:30:C:H42	56:1L:40:G:H1	1.51	0.58
26:14:588:U:H2'	26:14:589:C:C6	2.38	0.58
26:14:2118:U:O2	26:14:2147:G:N2	2.37	0.58
34:69:99:GLU:HB3	34:69:103:ARG:HH12	1.67	0.58
44:A5:19:LEU:HB3	53:J5:25:LEU:HD11	1.86	0.58
52:I5:13:ARG:HG2	52:I5:24:THR:OG1	2.03	0.58
1:13:67:C:H2'	1:13:68:G:C8	2.38	0.58
10:1I:84:GLN:HA	10:1I:87:THR:HG22	1.86	0.58
13:4I:50:GLU:HA	13:4I:53:VAL:HG13	1.85	0.58
25:4K:12:A:H2'	25:4K:12:A:N3	2.18	0.58
26:1H:275:G:N2	26:1H:276:A:N7	2.41	0.58
26:1H:442:G:N2	31:31:48:THR:HG22	2.18	0.58
26:1H:2036:C:OP1	61:1H:3748:HOH:O	2.17	0.58
26:1H:2176:A:H1'	28:71:215:THR:HG21	1.85	0.58
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.04	0.58
33:51:40:GLU:OE2	33:51:60:ARG:NH2	2.32	0.58
37:78:81:GLN:OE1	37:78:106:LEU:HA	2.03	0.58
40:A8:72:ALA:O	40:A8:76:LYS:HG3	2.04	0.58
41:B8:16:ARG:NH2	41:B8:83:ILE:O	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:82:LEU:HD23	49:J8:83:GLU:H	1.68	0.58
1:1G:977:A:H2'	1:1G:978:A:H5"	1.86	0.58
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.04	0.58
7:62:30:ILE:O	7:62:32:ARG:NH1	2.36	0.58
9:82:28:VAL:HB	9:82:63:ILE:HG13	1.85	0.58
10:1A:54:PHE:O	10:1A:55:LYS:HE2	2.04	0.58
12:3A:60:LEU:HB3	12:3A:64:TYR:CD2	2.38	0.58
23:2L:51:U:H2'	23:2L:52:C:H6	1.69	0.58
26:14:1149:G:H2'	26:14:1150:C:C6	2.39	0.58
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.02	0.58
30:29:54:GLN:NE2	30:29:57:LYS:H	2.02	0.58
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.68	0.58
33:59:122:THR:O	33:59:133:VAL:HA	2.03	0.58
54:L5:5:TRP:NE1	54:L5:7:PRO:HG3	2.19	0.58
2:1E:49:GLU:N	2:1E:49:GLU:OE2	2.33	0.58
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.02	0.58
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.04	0.58
17:8I:56:VAL:HG23	17:8I:78:GLU:H	1.69	0.58
26:1H:50:U:H3'	26:1H:51:G:H5'	1.85	0.58
37:78:19:VAL:HG13	37:78:31:ALA:HB1	1.84	0.58
1:1G:141:A:H1'	1:1G:182:U:O2	2.04	0.58
1:1G:1306:A:N6	1:1G:1331:G:H1'	2.18	0.58
3:22:6:HIS:CG	14:5A:49:HIS:HB3	2.39	0.58
8:72:89:PRO:HA	8:72:92:ARG:HE	1.68	0.58
9:82:66:ARG:NE	9:82:67:GLY:H	2.02	0.58
56:1L:9:A:H5"	56:1L:11:C:H41	1.68	0.58
23:2L:62:C:H2'	23:2L:63:C:H6	1.69	0.58
26:14:547:A:H2'	26:14:548:A:C8	2.39	0.58
26:14:811:U:H2'	37:35:21:ARG:HA	1.85	0.58
26:14:1048:A:H5'	26:14:1110:G:H22	1.67	0.58
26:14:2356:C:H5'	48:E5:20:ARG:HE	1.69	0.58
30:29:52:LEU:CD2	30:29:74:PRO:HB2	2.33	0.58
37:35:82:GLY:HA2	37:35:113:LYS:O	2.04	0.58
1:13:1132:C:H2'	1:13:1133:G:C8	2.38	0.58
2:1E:174:VAL:O	2:1E:178:ARG:HG3	2.04	0.58
17:8I:81:ARG:HB3	17:8I:81:ARG:HH11	1.67	0.58
26:1H:631:A:OP2	55:Q8:47:LYS:NZ	2.36	0.58
26:1H:910:A:H62	38:88:12:GLN:HA	1.69	0.58
31:31:29:ASN:H	31:31:112:MET:CE	2.16	0.58
35:58:15:LEU:HB2	35:58:134:ARG:HB3	1.84	0.58
46:G8:96:ILE:HA	46:G8:102:CYS:O	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:77:ASP:HB3	47:H8:84:GLU:HG2	1.86	0.58
49:J8:92:LYS:HG3	49:J8:95:LEU:HB2	1.86	0.58
55:Q8:52:LYS:H	55:Q8:53:PRO:HD2	1.68	0.58
9:82:42:ARG:NH2	9:82:75:ASP:OD1	2.25	0.58
40:65:85:VAL:H	40:65:110:LEU:HG	1.68	0.58
42:85:92:ARG:HH11	42:85:94:ASN:HB3	1.68	0.58
1:13:142:G:H2'	1:13:143:A:C8	2.39	0.58
1:13:413:G:N2	1:13:428:G:H1'	2.18	0.58
1:13:737:A:H2'	1:13:738:C:H6	1.69	0.58
13:4I:23:TYR:HB3	13:4I:67:GLU:CB	2.34	0.58
24:3K:34:U:O2'	24:3K:35:A:H8	1.86	0.58
26:1H:813:U:H2'	26:1H:814:C:C6	2.39	0.58
26:1H:2747:G:O6	26:1H:2755:C:H5"	2.04	0.58
43:D8:37:VAL:HG23	43:D8:55:ALA:O	2.04	0.58
46:G8:17:SER:OG	46:G8:71:LYS:NZ	2.28	0.58
1:1G:559:A:OP1	5:42:126:ARG:NH2	2.36	0.58
56:1L:9:A:OP2	56:1L:13:C:N4	2.36	0.58
23:2L:16:C:O2'	23:2L:62:C:OP1	2.22	0.58
26:14:1430:C:H2'	26:14:1431:U:C6	2.39	0.58
26:14:2327:A:H2'	26:14:2328:A:C8	2.39	0.58
26:14:2429:G:O6	37:35:61:ARG:NH2	2.37	0.58
26:14:2611:U:H6	26:14:2611:U:H5'	1.68	0.58
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.35	0.58
30:29:54:GLN:HB2	30:29:72:VAL:HG22	1.84	0.58
49:F5:86:SER:O	49:F5:89:GLU:HG3	2.03	0.58
2:1E:216:SER:O	2:1E:219:VAL:HG12	2.03	0.57
3:2E:65:ALA:O	3:2E:67:THR:HG22	2.04	0.57
7:6E:3:ARG:CZ	7:6E:4:ARG:HB2	2.34	0.57
19:AI:40:ILE:HG22	19:AI:41:VAL:H	1.69	0.57
22:1K:18:G:O6	26:1H:897:C:O2'	2.22	0.57
24:3K:45:G:H4'	24:3K:46:G:OP1	2.04	0.57
26:1H:1931:U:H5	26:1H:1969:A:N7	2.01	0.57
32:41:96:ARG:O	32:41:97:ASP:HB2	2.03	0.57
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.04	0.57
12:3A:18:VAL:HG23	12:3A:19:ARG:N	2.19	0.57
12:3A:93:LEU:HB2	12:3A:96:VAL:HG11	1.85	0.57
16:7A:5:ARG:NE	16:7A:6:LEU:H	2.01	0.57
41:75:55:ASN:N	41:75:59:THR:HG22	2.17	0.57
1:13:881:G:P	12:3I:12:ARG:HH22	2.27	0.57
21:1F:9:ARG:HD3	21:1F:10:ARG:H	1.68	0.57
26:1H:200:U:O2	26:1H:386:G:N2	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1216:G:P	42:C8:12:ARG:HH21	2.27	0.57
26:1H:2062:A:N6	26:1H:2503:A:H62	2.02	0.57
26:1H:2448:A:OP1	61:1H:3720:HOH:O	2.17	0.57
27:16:42:C:N3	32:41:93:THR:HG23	2.19	0.57
28:71:18:LYS:H	28:71:223:ARG:CZ	2.16	0.57
33:51:11:VAL:HG23	33:51:76:VAL:HG11	1.86	0.57
34:61:75:LEU:HD21	34:61:105:HIS:ND1	2.19	0.57
34:61:117:GLU:N	34:61:117:GLU:OE2	2.37	0.57
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	1.85	0.57
16:7A:70:ALA:HA	16:7A:73:LEU:HD12	1.85	0.57
26:14:1434:A:H61	26:14:1558:A:N6	2.03	0.57
30:29:117:MET:HE1	30:29:136:ARG:CA	2.34	0.57
48:E5:53:MET:HG3	48:E5:59:LEU:HD23	1.85	0.57
4:3E:182:LYS:HD3	4:3E:184:LYS:NZ	2.20	0.57
16:7I:34:GLU:HG3	16:7I:35:LYS:N	2.18	0.57
24:3K:13:C:H42	24:3K:22:G:H1	1.52	0.57
28:71:214:VAL:HG23	28:71:224:ILE:HG12	1.85	0.57
1:1G:991:U:O2	1:1G:993:G:H8	1.86	0.57
1:1G:1206:G:H5'	3:22:190:ARG:HH12	1.69	0.57
1:1G:1226:C:H6	13:4A:103:THR:HG23	1.69	0.57
13:4A:33:ALA:HA	13:4A:59:TYR:CE2	2.39	0.57
13:4A:40:ASN:HB3	13:4A:43:THR:HG23	1.86	0.57
56:1L:5:G:N2	56:1L:69:A:H62	2.01	0.57
31:39:36:VAL:HG11	31:39:183:VAL:HG21	1.85	0.57
40:65:3:ARG:HH11	40:65:3:ARG:HG3	1.69	0.57
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.39	0.57
26:1H:674:G:O2'	31:31:74:ARG:HG3	2.04	0.57
26:1H:1856:G:O6	61:1H:3740:HOH:O	2.14	0.57
26:1H:2518:A:H8	26:1H:2518:A:H5'	1.68	0.57
26:1H:2787:C:H5'	30:21:63:LEU:HD11	1.86	0.57
35:58:57:ALA:C	35:58:59:LYS:H	2.06	0.57
1:1G:1095:U:P	1:1G:1108:G:H1	2.26	0.57
2:12:75:LYS:H	2:12:78:GLN:HG3	1.68	0.57
3:22:52:LEU:HD21	3:22:68:VAL:HG13	1.86	0.57
5:42:17:ALA:O	5:42:18:ARG:NH1	2.37	0.57
5:42:102:ALA:HB3	5:42:107:ARG:HG2	1.87	0.57
8:72:84:ARG:NH2	8:72:136:GLU:OE1	2.24	0.57
10:1A:50:ILE:HG23	10:1A:60:ARG:NH1	2.19	0.57
26:14:528:A:O2'	26:14:529:A:H5'	2.04	0.57
26:14:579:G:H2'	26:14:580:C:C6	2.40	0.57
26:14:1152:C:H5"	42:85:80:ILE:HD11	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:65:GLY:O	30:29:68:ALA:HB2	2.05	0.57
30:29:72:VAL:HG13	30:29:74:PRO:HG3	1.86	0.57
32:49:144:ILE:HD12	32:49:144:ILE:O	2.04	0.57
39:55:82:GLU:H	39:55:85:PRO:HG2	1.69	0.57
40:65:110:LEU:HD13	40:65:111:GLU:OE1	2.04	0.57
1:13:1077:G:N2	1:13:1080:A:OP2	2.36	0.57
1:13:1306:A:N6	1:13:1331:G:H1'	2.20	0.57
4:3E:81:GLU:OE1	4:3E:139:ARG:NH2	2.36	0.57
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.04	0.57
26:1H:2006:C:OP1	61:1H:3605:HOH:O	2.17	0.57
26:1H:2058:A:OP1	61:1H:3750:HOH:O	2.17	0.57
28:71:40:THR:HG22	28:71:177:LYS:HA	1.86	0.57
30:21:31:CYS:HB2	30:21:91:VAL:HG23	1.87	0.57
32:41:64:THR:HB	32:41:94:LEU:HD21	1.86	0.57
35:58:96:GLU:O	35:58:98:VAL:HG12	2.04	0.57
38:88:58:PHE:HB3	38:88:59:ARG:NH1	2.20	0.57
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.19	0.57
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.85	0.57
8:72:73:ASP:HB2	8:72:75:ARG:NH2	2.19	0.57
9:82:99:LEU:HD13	9:82:101:PHE:HE2	1.69	0.57
26:14:625:G:N7	37:35:107:LYS:NZ	2.52	0.57
26:14:2032:G:OP2	26:14:2454:G:O2'	2.17	0.57
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.87	0.57
40:65:78:LEU:HD12	40:65:107:GLU:HB3	1.87	0.57
47:D5:4:ARG:HG2	47:D5:58:VAL:HG23	1.87	0.57
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.07	0.57
52:I5:13:ARG:HD3	52:I5:14:ILE:N	2.19	0.57
1:13:141:A:H2'	1:13:142:G:C8	2.39	0.57
26:1H:860:U:C5	26:1H:917:A:H2	2.21	0.57
26:1H:1899:G:H22	26:1H:1902:C:N4	2.02	0.57
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.40	0.57
32:41:51:ARG:H	32:41:51:ARG:NH1	2.03	0.57
34:61:125:GLU:OE2	34:61:141:LYS:HG3	2.04	0.57
37:78:16:ARG:H	37:78:16:ARG:CD	2.16	0.57
37:78:30:THR:CG2	37:78:35:HIS:H	2.17	0.57
43:D8:28:GLU:O	43:D8:61:VAL:HG21	2.04	0.57
46:G8:41:GLY:HA2	46:G8:64:GLU:OE1	2.04	0.57
49:J8:86:SER:HA	49:J8:88:LYS:HZ2	1.69	0.57
1:1G:576:G:N2	1:1G:759:A:OP1	2.35	0.57
7:62:113:GLU:HB3	7:62:118:VAL:HG23	1.87	0.57
10:1A:44:VAL:HA	10:1A:66:ARG:CZ	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:66:ARG:HA	10:1A:66:ARG:CZ	2.34	0.57
20:BA:16:HIS:O	20:BA:19:SER:OG	2.15	0.57
26:14:1786:A:C2	26:14:2606:C:H1'	2.39	0.57
30:29:57:LYS:HA	30:29:59:VAL:HG13	1.86	0.57
31:39:104:LYS:O	31:39:108:LYS:HG3	2.04	0.57
37:35:59:LEU:O	37:35:59:LEU:HD22	2.04	0.57
40:65:103:GLU:O	40:65:106:ARG:HD2	2.05	0.57
1:13:61:G:OP2	20:BI:10:LEU:HD23	2.05	0.57
1:13:262:A:H2'	1:13:263:A:C8	2.40	0.57
26:1H:1217:C:H2'	26:1H:1218:C:H5"	1.86	0.57
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.20	0.57
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.34	0.57
32:41:49:ASP:OD1	32:41:51:ARG:HD2	2.03	0.57
40:A8:78:LEU:HD22	40:A8:108:GLY:HA2	1.86	0.57
41:B8:12:SER:CB	41:B8:15:VAL:H	2.16	0.57
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.51	0.57
43:D8:15:GLU:C	43:D8:96:ILE:HD11	2.25	0.57
55:Q8:49:VAL:HG12	55:Q8:49:VAL:O	2.05	0.57
1:1G:677:U:H3	1:1G:713:G:H22	1.53	0.57
1:1G:756:C:H2'	1:1G:757:U:O4'	2.04	0.57
6:52:22:GLU:O	6:52:25:ILE:HG13	2.04	0.57
9:82:117:HIS:O	9:82:118:LYS:HB2	2.05	0.57
16:7A:74:LEU:HD23	16:7A:79:VAL:HG11	1.87	0.57
24:3L:4:U:H2'	24:3L:5:G:O4'	2.04	0.57
26:14:192:C:O2'	26:14:802:A:N3	2.34	0.57
26:14:491:G:H2'	26:14:492:A:H8	1.69	0.57
26:14:1794:U:H2'	26:14:1795:C:C6	2.38	0.57
32:49:77:ILE:H	32:49:82:LEU:HD21	1.66	0.57
33:59:167:GLU:HB3	33:59:169:VAL:HG23	1.86	0.57
38:45:19:GLY:O	38:45:98:LYS:HB3	2.05	0.57
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.37	0.57
1:13:977:A:H1'	1:13:982:U:O4	2.04	0.57
3:2E:77:ILE:O	3:2E:84:ILE:HG13	2.04	0.57
4:3E:52:SER:H	4:3E:55:ALA:HB3	1.70	0.57
13:4I:48:LEU:HD12	13:4I:53:VAL:HG12	1.87	0.57
17:8I:87:LYS:HA	17:8I:90:ILE:HG12	1.86	0.57
26:1H:226:G:H21	26:1H:228:A:H2	1.52	0.57
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.69	0.57
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.05	0.57
29:11:137:PRO:O	29:11:140:THR:OG1	2.22	0.57
26:14:271(B):G:N7	26:14:421:U:H2'	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:860:U:H1'	26:14:2268:A:H5'	1.87	0.57
42:85:92:ARG:C	42:85:94:ASN:H	2.08	0.57
45:B5:16:LYS:HE2	45:B5:17:ALA:N	2.19	0.57
47:D5:43:GLU:OE2	47:D5:43:GLU:N	2.32	0.57
1:13:340:U:OP1	36:68:96:THR:HG21	2.04	0.57
1:13:524:G:H2'	1:13:525:C:C6	2.40	0.57
3:2E:56:ASP:HB2	3:2E:67:THR:HG23	1.87	0.57
4:3E:89:THR:HG23	4:3E:91:SER:H	1.70	0.57
9:8E:88:TYR:CD1	9:8E:89:ASN:HB2	2.39	0.57
20:BI:80:ARG:HD3	20:BI:81:LYS:N	2.19	0.57
26:1H:185:U:H4'	26:1H:218:A:H4'	1.87	0.57
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.37	0.57
30:21:38:THR:CG2	30:21:41:LYS:H	2.17	0.57
31:31:197:ASP:O	31:31:199:TRP:N	2.37	0.57
32:41:29:TRP:O	32:41:33:ARG:NH1	2.37	0.57
48:I8:63:VAL:HG23	48:I8:64:ASP:O	2.04	0.57
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.38	0.57
1:1G:999:U:H2'	1:1G:1000:A:C8	2.40	0.57
1:1G:1251:A:H5'	9:82:12:GLU:HG3	1.86	0.57
14:5A:47:LEU:HD23	14:5A:48:ALA:N	2.20	0.57
17:8A:89:LEU:O	17:8A:92:ARG:NE	2.37	0.57
26:14:2232:U:P	49:F5:40:ARG:HH12	2.28	0.57
26:14:2425:A:H4'	26:14:2426:A:H5"	1.87	0.57
31:39:191:ARG:HG3	31:39:191:ARG:NH1	2.16	0.57
32:49:59:GLU:CD	32:49:153:ARG:HH22	2.08	0.57
1:13:143:A:H2	1:13:220:G:H1	1.53	0.57
1:13:256:U:H2'	1:13:257:G:C8	2.39	0.57
2:1E:162:ILE:O	2:1E:185:ILE:HG22	2.05	0.57
26:1H:2776:A:H4'	26:1H:2777:G:H5"	1.86	0.57
38:88:59:ARG:HD2	38:88:61:GLY:HA3	1.87	0.57
41:B8:74:ARG:HG2	41:B8:76:PHE:CZ	2.40	0.57
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.05	0.57
45:F8:3:THR:O	45:F8:4:ALA:C	2.43	0.57
50:K8:29:LYS:HD3	50:K8:57:ILE:HD13	1.87	0.57
1:1G:1519:A:H5"	1:1G:1520:G:OP2	2.04	0.57
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.70	0.57
24:3L:8:U:O2'	24:3L:48:C:O2	2.18	0.57
27:1J:14:U:H4'	27:1J:15:A:OP2	2.04	0.57
40:65:62:LYS:HA	40:65:65:VAL:HG22	1.87	0.57
1:13:540:G:H2'	1:13:541:G:O4'	2.04	0.56
2:1E:52:GLU:HG2	2:1E:56:ARG:HH12	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:134:GLU:O	2:1E:137:ARG:NE	2.38	0.56
13:4I:20:THR:HG22	13:4I:26:GLY:HA2	1.87	0.56
16:7I:5:ARG:HH11	16:7I:5:ARG:HG3	1.69	0.56
26:1H:1348:G:H2'	26:1H:1349:A:H5"	1.87	0.56
28:71:7:TYR:OH	28:71:220:PRO:HG3	2.06	0.56
38:88:79:LEU:HD13	38:88:80:GLU:HG3	1.87	0.56
49:J8:85:LEU:O	49:J8:88:LYS:HD2	2.05	0.56
49:J8:92:LYS:HD2	49:J8:95:LEU:HB2	1.87	0.56
54:P8:35:ARG:HG3	54:P8:42:LEU:HD21	1.86	0.56
26:14:1200:C:H1'	42:85:2:PRO:HG3	1.87	0.56
26:14:2573:C:O4'	58:14:3446:SPE:H122	2.05	0.56
27:1J:7:G:H5"	27:1J:7:G:H8	1.69	0.56
32:49:17:PRO:HA	32:49:20:ILE:HG22	1.86	0.56
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.40	0.56
41:75:37:GLY:HA3	41:75:39:ARG:HH12	1.70	0.56
44:A5:25:ARG:NH1	44:A5:74:ALA:O	2.37	0.56
46:C5:97:ARG:HD3	46:C5:102:CYS:HB3	1.87	0.56
1:13:813:U:OP2	1:13:816:A:N6	2.36	0.56
1:13:1060:C:P	14:5I:45:ARG:HH22	2.28	0.56
1:13:1280:A:H3'	1:13:1281:U:H5'	1.86	0.56
1:13:1497:G:H2'	1:13:1498:U:H5'	1.87	0.56
9:8E:86:VAL:O	9:8E:92:TYR:OH	2.23	0.56
20:BI:83:ARG:HH11	20:BI:86:ARG:NH1	2.03	0.56
26:1H:270(N):G:H21	34:61:50:ARG:HH22	1.53	0.56
26:1H:1219:G:OP2	42:C8:19:LYS:NZ	2.38	0.56
26:1H:1639:U:O2'	26:1H:1640:C:H5'	2.05	0.56
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.05	0.56
39:98:118:GLU:OE1	39:98:118:GLU:HA	2.04	0.56
44:E8:29:LEU:HD23	44:E8:33:ARG:HG3	1.87	0.56
47:H8:8:TYR:HD2	47:H8:38:TYR:CE2	2.24	0.56
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.88	0.56
4:32:43:HIS:HA	4:32:46:LYS:NZ	2.20	0.56
26:14:878:A:H5"	26:14:900:A:N6	2.18	0.56
26:14:1332:G:N2	26:14:1609:A:HO2'	2.01	0.56
26:14:2065:C:H1'	26:14:2449:U:H3	1.69	0.56
26:14:2261:C:H1'	26:14:2388:A:N3	2.19	0.56
26:14:2719:G:O6	61:14:3638:HOH:O	2.15	0.56
29:19:96:HIS:CE1	29:19:102:LYS:HE2	2.40	0.56
31:39:3:GLU:HA	31:39:24:LEU:HD12	1.87	0.56
32:49:58:GLN:HG2	32:49:61:ALA:HB3	1.87	0.56
32:49:59:GLU:OE1	32:49:153:ARG:NH2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:64:ARG:HG3	36:25:83:ALA:HB3	1.86	0.56
36:25:66:LYS:HD2	36:25:81:ASP:HA	1.87	0.56
51:H5:55:ARG:NH2	51:H5:57:GLU:OE2	2.38	0.56
52:I5:2:LYS:HB3	52:I5:6:HIS:ND1	2.20	0.56
1:13:322:C:O2'	20:BI:23:ARG:CZ	2.53	0.56
1:13:542:G:P	4:3E:10:ARG:HH22	2.28	0.56
1:13:765:G:H5"	1:13:766:A:OP1	2.05	0.56
2:1E:19:HIS:O	2:1E:39:ILE:HD11	2.05	0.56
5:4E:80:ILE:HD12	8:7E:104:ARG:HH12	1.68	0.56
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.05	0.56
13:4I:3:ARG:NH1	13:4I:6:GLY:O	2.38	0.56
23:2K:24:C:H2'	23:2K:25:U:C6	2.40	0.56
26:1H:1216:G:OP2	42:C8:12:ARG:NH2	2.34	0.56
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.39	0.56
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.04	0.56
26:1H:2336:A:H61	48:I8:43:THR:HB	1.69	0.56
26:1H:2787:C:H4'	30:21:63:LEU:HD21	1.87	0.56
28:71:212:VAL:O	28:71:224:ILE:HG13	2.05	0.56
29:11:37:LEU:N	29:11:37:LEU:CD2	2.67	0.56
44:E8:14:PRO:HG2	44:E8:78:GLU:HB2	1.86	0.56
48:I8:10:THR:O	48:I8:12:ASN:N	2.38	0.56
50:K8:4:SER:HB2	50:K8:7:ARG:H	1.69	0.56
1:1G:371:G:O2'	1:1G:373:A:N7	2.36	0.56
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.04	0.56
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.14	0.56
1:1G:1352:C:H42	1:1G:1370:G:H1	1.52	0.56
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.04	0.56
7:62:146:GLU:HG2	7:62:147:ALA:N	2.15	0.56
13:4A:20:THR:HA	13:4A:25:ILE:HD13	1.86	0.56
24:3L:15:G:H2'	24:3L:60:C:H1'	1.87	0.56
26:14:67:U:N3	26:14:74:A:H2	1.96	0.56
26:14:229:A:H2	26:14:418:G:H4'	1.70	0.56
26:14:1338:G:N3	26:14:1393:A:H2	2.03	0.56
26:14:2275:C:H6	26:14:2275:C:H5'	1.70	0.56
26:14:2898:U:H2'	26:14:2899:G:H5"	1.88	0.56
27:1J:13:A:H5"	27:1J:15:A:C6	2.40	0.56
27:1J:70:C:H42	27:1J:106:G:H1	1.53	0.56
28:79:15:ASP:HB2	28:79:16:PRO:HD2	1.88	0.56
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.04	0.56
31:39:132:VAL:HG12	31:39:163:VAL:HG12	1.87	0.56
37:35:16:ARG:HB2	37:35:16:ARG:NH2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.87	0.56
46:C5:74:PRO:O	46:C5:82:PRO:HD2	2.05	0.56
1:13:1103:C:H5"	2:1E:98:LEU:HD13	1.87	0.56
1:13:1256:A:N6	1:13:1278:U:OP2	2.38	0.56
26:1H:2820:A:OP2	39:98:2:ARG:NH2	2.38	0.56
27:16:15:A:H1'	27:16:109:G:C8	2.40	0.56
29:11:39:LYS:NZ	61:11:403:HOH:O	2.20	0.56
29:11:70:TRP:O	29:11:73:VAL:HG23	2.06	0.56
32:41:101:ILE:HG23	52:M8:25:TYR:CE2	2.39	0.56
50:K8:5:GLU:CA	50:K8:8:LYS:HD3	2.36	0.56
1:1G:620:C:H2'	1:1G:621:A:O4'	2.04	0.56
2:12:18:GLY:HA2	2:12:41:ILE:HA	1.87	0.56
2:12:178:ARG:HD2	2:12:196:LEU:O	2.05	0.56
23:2L:51:U:H2'	23:2L:52:C:C6	2.40	0.56
24:3L:59:U:H2'	24:3L:60:C:H5'	1.87	0.56
26:14:1405:U:H2'	26:14:1406:U:C6	2.40	0.56
33:59:71:LEU:O	33:59:75:ALA:N	2.36	0.56
37:35:8:PRO:HB2	37:35:12:ALA:HB3	1.87	0.56
46:C5:5:MET:HE3	46:C5:32:PRO:HA	1.88	0.56
4:3E:22:LYS:H	4:3E:25:ARG:HH21	1.53	0.56
5:4E:152:ARG:HD2	8:7E:64:LYS:HZ1	1.71	0.56
9:8E:99:LEU:HB3	9:8E:101:PHE:CE2	2.41	0.56
15:6I:68:ARG:O	15:6I:72:ARG:NE	2.38	0.56
26:1H:796:C:H2'	26:1H:797:C:C6	2.41	0.56
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.40	0.56
26:1H:1543:A:C8	26:1H:1545:A:H5"	2.41	0.56
44:E8:18:ARG:HB2	44:E8:18:ARG:HH11	1.70	0.56
1:1G:17:U:H2'	1:1G:18:C:C6	2.40	0.56
1:1G:192:U:H2'	1:1G:193:C:C6	2.39	0.56
1:1G:1003:G:N2	1:1G:1037:C:O2	2.38	0.56
1:1G:1382:C:O2	24:3L:34:U:H5'	2.05	0.56
8:72:14:ARG:O	8:72:18:ARG:HG2	2.06	0.56
15:6A:29:VAL:HG11	15:6A:81:LEU:HD21	1.86	0.56
26:14:2269:A:OP1	61:14:3644:HOH:O	2.17	0.56
26:14:2287:A:N6	26:14:2344:U:H3	2.01	0.56
26:14:2567:G:H2'	26:14:2568:C:C6	2.40	0.56
30:29:116:VAL:HG21	30:29:138:PRO:HB3	1.87	0.56
31:39:127:GLU:HB3	31:39:196:LEU:HD22	1.88	0.56
36:25:49:ARG:HA	36:25:53:LYS:HZ1	1.69	0.56
7:6E:113:GLU:HG2	7:6E:119:ARG:HG2	1.88	0.56
8:7E:111:ILE:HD13	8:7E:134:ILE:HB	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.87	0.56
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.38	0.56
38:88:77:LYS:HE3	38:88:84:GLY:O	2.06	0.56
54:P8:41:ARG:NH1	54:P8:42:LEU:H	2.02	0.56
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.05	0.56
3:22:172:ARG:HA	3:22:172:ARG:HH11	1.68	0.56
26:14:29:U:H2'	26:14:30:G:C8	2.40	0.56
26:14:1188:U:H4'	43:95:79:VAL:HG11	1.88	0.56
26:14:1786:A:H2	26:14:2606:C:H1'	1.71	0.56
26:14:2096:U:H3	26:14:2193:G:H1	1.53	0.56
27:1J:94:C:H2'	27:1J:95:U:C6	2.41	0.56
30:29:77:ILE:HG22	30:29:78:LEU:HD23	1.86	0.56
31:39:124:LEU:HD23	31:39:191:ARG:NH2	2.19	0.56
32:49:61:ALA:HA	32:49:66:GLN:O	2.05	0.56
32:49:139:LEU:HA	32:49:144:ILE:HD11	1.86	0.56
33:59:119:GLU:OE2	33:59:120:GLY:N	2.38	0.56
37:35:52:GLU:OE2	55:M5:57:ARG:NH2	2.38	0.56
1:13:1204:A:OP1	14:5I:3:ARG:NH2	2.38	0.56
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.20	0.56
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.06	0.56
9:8E:17:VAL:HG12	9:8E:63:ILE:HB	1.88	0.56
16:7I:74:LEU:HD11	16:7I:79:VAL:HB	1.86	0.56
26:1H:570:G:O6	61:1H:3720:HOH:O	2.17	0.56
34:61:66:GLU:HA	34:61:69:LYS:HB3	1.86	0.56
40:A8:41:ASP:OD2	40:A8:44:LYS:HD2	2.06	0.56
41:B8:2:ASN:HD21	41:B8:6:LEU:HD13	1.70	0.56
1:1G:87:A:H4'	1:1G:88:C:OP1	2.06	0.56
1:1G:1053:G:H4'	1:1G:1054:C:O5'	2.04	0.56
3:22:88:ARG:CZ	3:22:101:LEU:HD13	2.35	0.56
4:32:121:VAL:O	4:32:134:ASP:HA	2.06	0.56
9:82:77:ILE:O	9:82:81:ILE:HG12	2.04	0.56
10:1A:17:ASP:O	10:1A:21:GLN:HB2	2.05	0.56
26:14:1485:G:H2'	26:14:1486:A:C8	2.41	0.56
26:14:1771:C:HO2'	26:14:1786:A:H8	1.53	0.56
26:14:1871:A:H2'	26:14:1872:A:C8	2.40	0.56
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.86	0.56
27:1J:105:G:H5'	47:D5:31:ARG:NH2	2.19	0.56
34:69:110:ASP:OD2	34:69:112:LYS:HE3	2.05	0.56
47:D5:39:VAL:HG12	47:D5:40:ASP:N	2.21	0.56
1:13:793:U:H5'	1:13:794:A:H5"	1.87	0.56
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:29:ARG:H	14:5I:29:ARG:HH11	1.53	0.56
23:2K:16:C:OP2	23:2K:17:C:N4	2.39	0.56
26:1H:6:A:H4'	35:58:129:PRO:HB3	1.88	0.56
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.88	0.56
26:1H:2180:U:H2'	26:1H:2181:G:C8	2.41	0.56
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.87	0.56
33:51:10:PRO:O	33:51:11:VAL:HG13	2.05	0.56
38:88:10:ARG:HH21	38:88:11:LYS:HE3	1.69	0.56
38:88:139:GLU:HG2	38:88:140:ALA:O	2.06	0.56
47:H8:52:SER:O	47:H8:52:SER:OG	2.18	0.56
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.88	0.56
3:22:57:ILE:HG22	3:22:66:VAL:HG12	1.88	0.56
9:82:49:PRO:HD3	9:82:78:LYS:HZ1	1.70	0.56
26:14:1210:A:H5'	26:14:1210:A:H8	1.70	0.56
30:29:101:ARG:HH12	30:29:185:LYS:HE2	1.69	0.56
31:39:25:PRO:C	31:39:27:GLU:N	2.57	0.56
33:59:155:SER:O	33:59:170:ARG:NH1	2.38	0.56
1:13:843:U:OP1	1:13:848:C:N4	2.39	0.56
1:13:1130:A:H5'	9:8E:18:PHE:CE2	2.41	0.56
8:7E:7:ALA:HB2	8:7E:85:ARG:NH1	2.20	0.56
14:5I:27:CYS:SG	14:5I:29:ARG:CZ	2.93	0.56
16:7I:4:ILE:HG23	16:7I:64:ALA:HB1	1.87	0.56
22:1K:17:H2U:O4	22:1K:55:PSU:H1'	2.06	0.56
26:1H:870:A:P	38:88:6:ARG:HH21	2.28	0.56
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.88	0.56
40:A8:89:ARG:HG2	40:A8:92:TYR:O	2.06	0.56
1:1G:1015:A:N3	1:1G:1218:C:O2'	2.39	0.56
1:1G:1081:G:H5'	5:42:18:ARG:HD2	1.88	0.56
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.41	0.56
1:1G:1418:A:H2	26:14:1948:G:N3	2.04	0.56
4:32:8:VAL:HG22	4:32:21:LEU:HD13	1.88	0.56
10:1A:78:ASN:CG	10:1A:80:LYS:HE3	2.27	0.56
16:7A:27:LYS:HZ2	16:7A:27:LYS:HB2	1.71	0.56
17:8A:92:ARG:HB3	17:8A:92:ARG:CZ	2.35	0.56
26:14:19:C:H2'	26:14:20:C:H6	1.70	0.56
26:14:1165:U:H2'	26:14:1166:C:C6	2.41	0.56
26:14:2067:G:H4'	61:14:4153:HOH:O	2.06	0.56
46:C5:29:GLU:HG2	46:C5:30:VAL:H	1.70	0.56
4:3E:88:VAL:O	4:3E:92:VAL:HG23	2.06	0.56
8:7E:81:HIS:HB2	8:7E:138:TRP:CE3	2.41	0.56
13:4I:13:LYS:HE2	13:4I:17:VAL:HG22	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:74:C:H2'	22:1K:75:C:H5'	1.87	0.56
24:3K:53:G:N2	24:3K:61:C:N3	2.40	0.56
26:1H:747:U:H4'	44:E8:92:ARG:NH2	2.20	0.56
26:1H:761:A:N7	61:1H:3800:HOH:O	2.33	0.56
26:1H:1813:G:H1'	29:11:50:THR:OG1	2.05	0.56
33:51:101:ARG:H	33:51:101:ARG:HD3	1.69	0.56
40:A8:61:ASN:ND2	40:A8:64:GLU:OE1	2.36	0.56
41:B8:12:SER:HB2	41:B8:15:VAL:HG13	1.88	0.56
52:M8:14:ILE:HB	52:M8:31:ILE:HD11	1.88	0.56
1:1G:540:G:H2'	1:1G:541:G:O4'	2.05	0.56
4:32:25:ARG:HG2	4:32:30:LYS:NZ	2.20	0.56
15:6A:76:GLU:HG3	15:6A:79:ARG:HH21	1.70	0.56
17:8A:89:LEU:HA	17:8A:92:ARG:NH2	2.21	0.56
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.88	0.56
26:14:330:A:H2	26:14:1210:A:O2'	1.89	0.56
26:14:2121:G:H1	26:14:2177:C:H42	1.52	0.56
26:14:2748:A:H1'	33:59:67:LEU:HD22	1.88	0.56
31:39:67:GLN:O	31:39:67:GLN:HG3	2.05	0.56
31:39:157:VAL:HG21	31:39:194:MET:HE3	1.88	0.56
38:45:22:LYS:HB2	38:45:23:GLY:HA2	1.88	0.56
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.06	0.56
52:I5:61:ARG:HA	52:I5:61:ARG:CZ	2.36	0.56
1:13:179:A:H2'	1:13:180:U:H6	1.71	0.55
1:13:192:U:H1'	20:BI:103:GLY:HA2	1.87	0.55
9:8E:115:GLY:HA2	10:1I:58:ASP:OD1	2.06	0.55
12:3I:17:LYS:HE2	12:3I:18:VAL:HG23	1.87	0.55
19:AI:11:VAL:HG11	19:AI:16:LEU:HB3	1.87	0.55
26:1H:71:A:H5'	26:1H:71:A:H8	1.71	0.55
26:1H:484:C:H2'	26:1H:485:C:C6	2.41	0.55
26:1H:1042:G:N2	26:1H:1113:U:O2	2.21	0.55
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.20	0.55
27:16:15:A:H3'	27:16:16:G:H5'	1.86	0.55
41:B8:111:ARG:O	41:B8:112:ARG:HB3	2.07	0.55
43:D8:34:GLU:HG2	43:D8:56:SER:OG	2.05	0.55
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.05	0.55
48:I8:70:GLN:OE1	48:I8:72:ARG:HD2	2.05	0.55
2:12:82:ARG:CZ	2:12:92:TYR:HE2	2.18	0.55
26:14:818:G:OP2	61:14:3646:HOH:O	2.18	0.55
26:14:1009:A:O2'	42:85:59:ARG:NH2	2.38	0.55
26:14:1757:U:H3	26:14:1762:A:H2	1.53	0.55
26:14:1858:G:H2'	26:14:1883:G:H22	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:67:ARG:HD3	40:65:71:ARG:HH21	1.71	0.55
48:E5:46:LYS:HE2	48:E5:77:ARG:O	2.06	0.55
2:1E:234:PRO:HB2	2:1E:236:TYR:H	1.70	0.55
4:3E:114:ARG:HA	4:3E:117:ALA:HB3	1.88	0.55
4:3E:162:LEU:HA	4:3E:165:MET:HB3	1.89	0.55
10:1I:26:ALA:HB1	10:1I:84:GLN:HG2	1.88	0.55
16:7I:18:ARG:NH1	16:7I:19:ILE:H	2.04	0.55
24:3K:51:C:N4	24:3K:52:G:O6	2.40	0.55
24:3K:52:G:O6	24:3K:62:C:N4	2.39	0.55
26:1H:184:C:H2'	26:1H:185:U:C6	2.41	0.55
26:1H:860:U:H5	26:1H:917:A:N1	2.03	0.55
26:1H:1266:G:O4'	44:E8:15:ARG:NH2	2.37	0.55
26:1H:2032:G:H21	30:21:146:THR:HG23	1.71	0.55
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.42	0.55
28:71:49:ILE:HD11	28:71:56:GLN:CD	2.27	0.55
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.87	0.55
26:14:2023:G:OP2	26:14:2617:C:H4'	2.06	0.55
26:14:2572:A:OP1	26:14:2574:G:O2'	2.23	0.55
43:95:28:GLU:O	43:95:61:VAL:HG11	2.05	0.55
4:3E:145:GLU:HG3	4:3E:184:LYS:HZ1	1.71	0.55
7:6E:3:ARG:HD3	7:6E:4:ARG:HB2	1.87	0.55
26:1H:302:C:H2'	26:1H:303:U:H6	1.72	0.55
26:1H:618:G:OP2	31:31:106:ARG:NH1	2.35	0.55
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.41	0.55
26:1H:2787:C:C4'	30:21:63:LEU:HD11	2.35	0.55
26:1H:2882:A:OP1	39:98:96:ARG:NH1	2.38	0.55
27:16:90:C:H5'	38:88:18:LYS:HA	1.89	0.55
32:41:37:VAL:HG11	32:41:103:LEU:HD11	1.88	0.55
45:F8:3:THR:O	45:F8:5:TYR:N	2.39	0.55
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.20	0.55
1:1G:674:G:N2	1:1G:717:C:O2	2.38	0.55
9:82:32:ASP:HB3	9:82:35:GLU:HB2	1.89	0.55
10:1A:11:PHE:HE1	10:1A:67:THR:HG22	1.71	0.55
12:3A:93:LEU:HB2	12:3A:96:VAL:CG1	2.37	0.55
16:7A:6:LEU:HA	16:7A:18:ARG:O	2.06	0.55
26:14:84:A:H5"	46:C5:8:LYS:NZ	2.21	0.55
26:14:1847:A:H8	26:14:1847:A:OP1	1.89	0.55
26:14:2392:A:H2	26:14:2424:C:N4	2.02	0.55
30:29:37:ARG:O	30:29:45:THR:HA	2.07	0.55
37:35:39:LYS:HE3	37:35:45:LEU:HD11	1.87	0.55
41:75:115:ARG:HH11	41:75:115:ARG:HG3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:2:PHE:H	43:95:42:GLY:H	1.53	0.55
43:95:4:ILE:HG13	43:95:4:ILE:O	2.05	0.55
49:F5:91:LYS:HG2	49:F5:92:LYS:H	1.72	0.55
1:13:184:G:H2'	1:13:185:A:H8	1.71	0.55
1:13:244:U:H4'	1:13:245:C:O5'	2.07	0.55
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.39	0.55
1:13:652:U:O2'	1:13:653:A:O5'	2.24	0.55
6:5E:60:PHE:CZ	18:9I:78:LEU:HD21	2.42	0.55
23:2K:48:U:H4'	23:2K:49:C:H5'	1.88	0.55
26:1H:71:A:H5'	26:1H:71:A:C8	2.41	0.55
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.21	0.55
26:1H:2630:G:H1	26:1H:2788:C:H42	1.54	0.55
33:51:56:SER:OG	33:51:57:ASP:N	2.39	0.55
36:68:7:TYR:OH	36:68:44:LYS:HG3	2.06	0.55
55:Q8:37:SER:O	55:Q8:40:GLU:N	2.38	0.55
1:1G:1373:G:H4'	7:62:31:MET:HE3	1.88	0.55
2:12:15:VAL:HG22	2:12:16:HIS:CE1	2.41	0.55
18:9A:22:VAL:HG12	18:9A:55:ARG:O	2.05	0.55
23:2L:54:G:H2'	23:2L:55:5MU:C6	2.42	0.55
26:14:1808:U:H5"	61:14:3923:HOH:O	2.07	0.55
26:14:2068:U:N3	26:14:2430:A:C2	2.72	0.55
35:15:96:GLU:HB2	35:15:122:VAL:HG23	1.88	0.55
40:65:62:LYS:O	40:65:65:VAL:HG22	2.06	0.55
41:75:10:VAL:HG23	41:75:11:GLU:N	2.21	0.55
47:D5:69:THR:HG22	47:D5:90:VAL:HG12	1.88	0.55
55:M5:22:VAL:HG13	55:M5:55:ALA:HB1	1.88	0.55
1:13:475:G:H2'	1:13:476:G:C8	2.41	0.55
1:13:1399:C:C2	1:13:1502:A:N6	2.75	0.55
4:3E:128:VAL:HG22	4:3E:146:ILE:HG22	1.87	0.55
10:1I:48:THR:HB	10:1I:62:HIS:CE1	2.42	0.55
26:1H:600:G:N2	26:1H:605:C:O3'	2.40	0.55
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.07	0.55
26:1H:1478:G:O6	26:1H:1510:A:N6	2.39	0.55
31:31:29:ASN:H	31:31:112:MET:HE3	1.72	0.55
33:51:157:TYR:O	33:51:158:HIS:ND1	2.40	0.55
41:B8:12:SER:CA	41:B8:14:TYR:H	2.19	0.55
42:C8:108:GLU:HB2	43:D8:44:LYS:HE2	1.88	0.55
1:1G:376:G:OP1	16:7A:5:ARG:CZ	2.55	0.55
1:1G:997:U:H2'	1:1G:998:G:C8	2.42	0.55
1:1G:1081:G:H5'	5:42:18:ARG:NE	2.22	0.55
26:14:1639:U:H4'	26:14:2699:C:H4'	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:19:VAL:HG22	33:59:20:ALA:H	1.71	0.55
42:85:91:ASP:C	42:85:93:LYS:H	2.10	0.55
1:13:362:G:N7	61:13:1848:HOH:O	2.33	0.55
1:13:501:C:H2'	1:13:502:G:C8	2.41	0.55
1:13:669:U:OP1	15:6I:48:LYS:NZ	2.35	0.55
1:13:814:A:N7	1:13:816:A:C4	2.75	0.55
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.22	0.55
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.42	0.55
26:1H:2409:G:N7	61:1H:3798:HOH:O	2.33	0.55
27:16:48:A:H4'	40:A8:95:HIS:HD2	1.71	0.55
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.22	0.55
32:41:101:ILE:HG12	52:M8:25:TYR:CG	2.41	0.55
33:51:85:LYS:HE2	33:51:133:VAL:CG1	2.36	0.55
34:61:75:LEU:HD21	34:61:105:HIS:CE1	2.42	0.55
37:78:125:VAL:O	37:78:144:GLU:HB2	2.06	0.55
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.40	0.55
1:1G:1150:U:H4'	10:1A:41:PRO:HG3	1.89	0.55
1:1G:1378:C:H5"	7:62:6:ARG:HH22	1.72	0.55
3:22:37:GLN:OE1	3:22:40:ARG:NH1	2.39	0.55
3:22:191:THR:HG22	3:22:192:THR:H	1.72	0.55
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.87	0.55
26:14:1828:G:OP2	26:14:1828:G:H8	1.89	0.55
40:65:27:SER:HA	40:65:88:ASP:HB2	1.88	0.55
41:75:77:PRO:HG2	41:75:80:SER:HB2	1.89	0.55
1:13:397:A:C6	1:13:548:G:N7	2.74	0.55
2:1E:118:LEU:HD22	2:1E:142:LEU:HB2	1.87	0.55
3:2E:108:ASN:HB3	3:2E:111:LEU:HB2	1.88	0.55
4:3E:65:ARG:HG2	4:3E:75:PHE:CD1	2.42	0.55
6:5E:6:VAL:HG22	6:5E:90:VAL:HG22	1.88	0.55
15:6I:36:ILE:HG22	15:6I:59:MET:HE3	1.89	0.55
26:1H:1173:G:H5'	26:1H:1174:A:N1	2.21	0.55
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.36	0.55
61:1H:3631:HOH:O	31:31:55:GLY:HA2	2.07	0.55
30:21:51:PHE:CE2	30:21:52:LEU:HD13	2.42	0.55
31:31:66:PRO:O	31:31:67:GLN:HB3	2.06	0.55
32:41:77:ILE:CG1	32:41:82:LEU:HD21	2.27	0.55
37:78:96:THR:H	37:78:99:LEU:HD21	1.71	0.55
40:A8:74:ALA:HB1	40:A8:108:GLY:HA3	1.88	0.55
42:C8:85:LYS:NZ	42:C8:86:ALA:H	2.01	0.55
1:1G:58:C:O2'	1:1G:388:G:N7	2.39	0.55
1:1G:504:C:H41	12:3A:115:LYS:HE3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:652:U:O2'	1:1G:653:A:N3	2.36	0.55
1:1G:1153:C:OP1	10:1A:14:LYS:NZ	2.39	0.55
3:22:13:GLY:HA2	14:5A:57:ARG:CZ	2.36	0.55
8:72:100:ILE:HG12	8:72:101:PRO:HD2	1.87	0.55
9:82:93:ARG:HH11	9:82:96:LEU:HD13	1.72	0.55
10:1A:25:GLU:CD	10:1A:28:ARG:HB3	2.27	0.55
56:1L:75:C:H2'	56:1L:76:A:O4'	2.06	0.55
26:14:384:U:H2'	26:14:385:C:H6	1.71	0.55
26:14:994:C:O2'	26:14:996:A:OP1	2.21	0.55
30:29:53:PRO:O	30:29:74:PRO:HB3	2.07	0.55
31:39:8:GLN:HB2	31:39:9:ILE:HG13	1.89	0.55
32:49:11:TYR:O	32:49:16:ARG:HB3	2.05	0.55
35:15:33:LEU:HD23	35:15:38:HIS:ND1	2.21	0.55
37:35:19:VAL:HB	37:35:31:ALA:HB1	1.88	0.55
38:45:57:HIS:ND1	38:45:117:ALA:HB2	2.22	0.55
39:55:2:ARG:O	39:55:3:HIS:HD2	1.90	0.55
1:13:164:U:H2'	1:13:165:C:C6	2.41	0.55
1:13:491:G:H2'	1:13:492:G:O4'	2.06	0.55
3:2E:73:PRO:HA	3:2E:76:VAL:HG12	1.89	0.55
17:8I:25:ARG:O	17:8I:37:LYS:HA	2.07	0.55
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.06	0.55
26:1H:26:G:C6	26:1H:27:G:N1	2.74	0.55
26:1H:214:G:H4'	26:1H:214:G:OP1	2.06	0.55
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.07	0.55
35:58:129:PRO:O	35:58:134:ARG:NH2	2.40	0.55
50:K8:23:LYS:NZ	50:K8:27:GLU:OE2	2.33	0.55
1:1G:673:G:H2'	1:1G:674:G:C8	2.41	0.55
6:52:7:ASN:HD22	18:9A:76:LEU:HD11	1.70	0.55
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.87	0.55
9:82:17:VAL:HA	9:82:63:ILE:HG22	1.87	0.55
9:82:46:ALA:HB1	9:82:77:ILE:CD1	2.37	0.55
10:1A:22:LYS:NZ	10:1A:25:GLU:HB3	2.22	0.55
26:14:326:G:N7	61:14:3700:HOH:O	2.33	0.55
26:14:1416:G:HO2'	26:14:1417:C:P	2.29	0.55
26:14:1425:G:N2	26:14:1573:G:N7	2.54	0.55
26:14:2461:C:H2'	26:14:2462:U:C6	2.41	0.55
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.87	0.55
38:45:26:TYR:HD1	38:45:27:VAL:HG22	1.71	0.55
41:75:118:ARG:CZ	41:75:121:ILE:HD11	2.37	0.55
42:85:75:ASN:OD1	42:85:78:THR:OG1	2.20	0.55
1:13:417:C:H2'	1:13:418:C:H6	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:237:ALA:O	2:1E:239:VAL:N	2.40	0.55
3:2E:92:ALA:HB2	3:2E:99:VAL:HG22	1.89	0.55
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.06	0.55
6:5E:5:GLU:HA	6:5E:63:TYR:O	2.07	0.55
13:4I:13:LYS:HE3	13:4I:14:ARG:H	1.72	0.55
20:BI:86:ARG:O	20:BI:89:ARG:NH2	2.40	0.55
26:1H:29:U:O4'	42:C8:11:ARG:NH2	2.40	0.55
26:1H:784:A:C5	29:11:229:VAL:HG21	2.42	0.55
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.07	0.55
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.18	0.55
26:1H:2177:C:O2'	28:71:46:LYS:NZ	2.40	0.55
29:11:33:LEU:HD23	29:11:33:LEU:H	1.72	0.55
41:B8:1:MET:HA	41:B8:2:ASN:CB	2.36	0.55
41:B8:1:MET:HA	41:B8:2:ASN:HB3	1.89	0.55
47:H8:139:VAL:HG12	47:H8:155:LEU:HG	1.87	0.55
51:L8:35:ARG:HB3	51:L8:37:LEU:HD21	1.89	0.55
52:M8:49:PHE:O	52:M8:50:VAL:HG22	2.06	0.55
1:1G:953:G:H5'	1:1G:965:A:H61	1.71	0.55
3:22:106:VAL:HG13	3:22:109:PRO:HG3	1.89	0.55
10:1A:50:ILE:HG13	14:5A:41:ARG:HH22	1.72	0.55
26:14:1819:A:H4'	26:14:1820:U:O5'	2.06	0.55
26:14:2275:C:H5'	26:14:2275:C:C6	2.42	0.55
30:29:54:GLN:HB2	30:29:72:VAL:CG2	2.37	0.55
39:55:8:ARG:HE	39:55:43:GLU:HG2	1.72	0.55
1:13:8:A:N6	4:3E:205:GLU:O	2.40	0.55
1:13:922:G:H1'	5:4E:19:MET:HB3	1.88	0.55
1:13:1182:G:H4'	1:13:1183:A:H5"	1.88	0.55
1:13:1320:C:N3	19:AI:36:ARG:HG3	2.22	0.55
4:3E:101:LEU:HD22	4:3E:121:VAL:HG11	1.88	0.55
5:4E:135:THR:O	5:4E:139:LEU:HD22	2.07	0.55
7:6E:3:ARG:HD3	7:6E:4:ARG:H	1.71	0.55
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.72	0.55
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.54	0.55
16:7I:20:VAL:HG12	16:7I:35:LYS:HZ1	1.71	0.55
26:1H:1586:A:H3'	26:1H:1587:A:H8	1.71	0.55
26:1H:2002:G:OP2	39:98:9:LYS:NZ	2.40	0.55
33:51:6:ARG:HH11	33:51:7:LEU:HD22	1.72	0.55
51:L8:9:VAL:HG22	51:L8:53:LEU:O	2.07	0.55
52:M8:13:ARG:NH2	52:M8:20:ASN:HB3	2.22	0.55
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.89	0.55
26:14:443:A:H1'	26:14:1201:C:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2795:G:H4'	26:14:2798:C:H5	1.72	0.55
26:14:2839:G:H5'	39:55:46:GLY:CA	2.35	0.55
29:19:41:GLY:HA3	29:19:43:ARG:HG3	1.88	0.55
32:49:41:GLN:NE2	32:49:154:GLY:O	2.36	0.55
32:49:99:MET:O	32:49:103:LEU:HB2	2.07	0.55
35:15:47:ALA:HB1	35:15:115:ARG:NH1	2.21	0.55
41:75:117:ASP:O	41:75:121:ILE:HG23	2.07	0.55
47:D5:130:PRO:HA	47:D5:133:ILE:HD11	1.87	0.55
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.07	0.55
1:13:130:A:C5'	17:8I:63:ARG:HH12	2.18	0.54
5:4E:111:GLU:HA	5:4E:115:VAL:HG23	1.89	0.54
9:8E:50:LEU:HD11	9:8E:81:ILE:HG21	1.88	0.54
14:5I:15:LYS:HG3	14:5I:16:PHE:CD2	2.42	0.54
20:BI:80:ARG:HD3	20:BI:81:LYS:H	1.72	0.54
26:1H:582:G:H2'	26:1H:583:G:C8	2.41	0.54
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.41	0.54
26:1H:1991:U:H2'	26:1H:1992:G:H5"	1.89	0.54
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.06	0.54
44:E8:58:ALA:HB1	44:E8:64:MET:HB2	1.88	0.54
47:H8:4:ARG:NH1	47:H8:5:LEU:H	2.05	0.54
4:32:32:ALA:H	4:32:35:ARG:HE	1.54	0.54
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.07	0.54
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.72	0.54
24:3L:31:C:H5'	24:3L:32:C:OP2	2.07	0.54
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.06	0.54
26:14:1771:C:O2'	26:14:1786:A:H8	1.89	0.54
26:14:2315:G:H2'	26:14:2316:C:C6	2.42	0.54
26:14:2557:G:H2'	26:14:2558:C:C6	2.41	0.54
31:39:15:SER:OG	31:39:16:GLY:N	2.40	0.54
32:49:94:LEU:HA	32:49:95:ARG:NH1	2.21	0.54
42:85:92:ARG:HG3	42:85:94:ASN:HB3	1.88	0.54
48:E5:20:ARG:HH21	48:E5:24:LYS:HE3	1.72	0.54
50:G5:4:SER:HA	50:G5:7:ARG:H	1.72	0.54
1:13:792:A:H4'	1:13:793:U:O5'	2.07	0.54
2:1E:238:LEU:H	2:1E:238:LEU:HD22	1.72	0.54
11:2I:59:TYR:O	11:2I:63:LEU:HD12	2.07	0.54
13:4I:17:VAL:O	13:4I:20:THR:OG1	2.14	0.54
13:4I:68:GLY:HA3	32:41:115:ARG:NH2	2.22	0.54
19:AI:33:THR:HG22	19:AI:49:ILE:HD11	1.89	0.54
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.72	0.54
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:28:MET:HE2	47:H8:59:LEU:HD13	1.88	0.54
1:1G:6:G:H4'	1:1G:298:A:H4'	1.89	0.54
1:1G:826:C:H2'	1:1G:827:U:C6	2.42	0.54
5:42:31:LEU:HG	5:42:45:PHE:HB2	1.90	0.54
11:2A:29:ILE:HD13	11:2A:44:SER:HB2	1.89	0.54
13:4A:59:TYR:O	13:4A:63:THR:OG1	2.14	0.54
19:AA:41:VAL:HG23	52:I5:63:TYR:HB3	1.90	0.54
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.42	0.54
26:14:824:A:H1'	26:14:2358:G:N7	2.21	0.54
26:14:2689:U:OP2	26:14:2719:G:N2	2.40	0.54
40:65:84:GLN:HA	40:65:110:LEU:CG	2.35	0.54
42:85:68:ALA:O	42:85:71:GLN:HG2	2.07	0.54
48:E5:20:ARG:NH2	48:E5:24:LYS:HE3	2.22	0.54
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.07	0.54
2:1E:19:HIS:NE2	2:1E:206:ASP:HB2	2.22	0.54
7:6E:20:ASP:OD1	7:6E:23:VAL:HB	2.07	0.54
10:1I:46:ARG:NH2	10:1I:63:PHE:H	2.03	0.54
11:2I:67:ASP:O	11:2I:71:LYS:HG2	2.06	0.54
26:1H:18:C:H4'	42:C8:23:GLY:O	2.07	0.54
26:1H:249:C:O2	55:Q8:12:LYS:NZ	2.34	0.54
26:1H:1230:C:H2'	26:1H:1231:G:H8	1.72	0.54
26:1H:1970:A:P	61:1H:3775:HOH:O	2.65	0.54
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.42	0.54
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.42	0.54
29:11:35:LYS:HB3	29:11:35:LYS:NZ	2.14	0.54
30:21:72:VAL:HG13	30:21:73:GLU:HA	1.90	0.54
30:21:105:THR:HG23	30:21:166:THR:HG23	1.89	0.54
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.42	0.54
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.42	0.54
16:7A:37:GLY:HA3	16:7A:51:VAL:HA	1.88	0.54
26:14:833:U:O2	37:35:55:ARG:NH1	2.38	0.54
26:14:1999:C:H4'	26:14:2723:C:O2	2.07	0.54
29:19:27:THR:HG22	29:19:29:PRO:O	2.07	0.54
42:85:92:ARG:HH21	43:95:10:LYS:HA	1.73	0.54
55:M5:15:LYS:HB3	61:M5:204:HOH:O	2.08	0.54
5:4E:110:LEU:HD21	5:4E:118:ILE:HD13	1.88	0.54
13:4I:71:ARG:HA	13:4I:74:VAL:HG22	1.87	0.54
20:BI:86:ARG:CZ	20:BI:86:ARG:HB2	2.34	0.54
26:1H:176:G:O2'	26:1H:177:G:H5'	2.07	0.54
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.08	0.54
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1939:U:OP1	26:1H:2604:U:O2'	2.21	0.54
26:1H:2592:G:C6	26:1H:2593:U:C4	2.96	0.54
47:H8:128:VAL:HG13	47:H8:161:VAL:HG12	1.88	0.54
50:K8:51:ARG:HH11	50:K8:51:ARG:H	1.55	0.54
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.08	0.54
14:5A:4:LYS:O	14:5A:7:ILE:N	2.40	0.54
26:14:1678:G:H22	26:14:1989:G:H22	1.55	0.54
26:14:2394:C:H5"	37:35:64:LYS:HD3	1.90	0.54
26:14:2468:G:H3'	26:14:2476:A:C2	2.43	0.54
32:49:11:TYR:OH	32:49:16:ARG:NH2	2.38	0.54
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.90	0.54
55:M5:22:VAL:O	55:M5:50:LEU:HB3	2.06	0.54
1:13:1323:G:H4'	1:13:1362(A):C:N3	2.23	0.54
2:1E:101:MET:HA	2:1E:108:ILE:HD12	1.90	0.54
2:1E:162:ILE:HG22	2:1E:184:VAL:HA	1.88	0.54
8:7E:36:LEU:HA	8:7E:39:LEU:HD12	1.88	0.54
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.28	0.54
18:9I:42:ARG:HB3	18:9I:42:ARG:NH1	2.22	0.54
26:1H:2383:G:C2'	26:1H:2384:G:H5'	2.38	0.54
26:1H:2775:A:N6	61:1H:3695:HOH:O	2.39	0.54
27:16:73:A:C4	27:16:104:A:C2	2.96	0.54
43:D8:39:LEU:O	43:D8:40:LEU:HD12	2.07	0.54
44:E8:2:GLU:OE1	44:E8:72:LYS:NZ	2.31	0.54
47:H8:116:VAL:HG13	47:H8:146:ILE:HD13	1.89	0.54
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.07	0.54
1:1G:973:G:H3'	14:5A:31:ARG:HH22	1.73	0.54
4:32:70:ILE:HD13	4:32:75:PHE:HB2	1.89	0.54
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.89	0.54
12:3A:24:VAL:O	12:3A:24:VAL:HG13	2.07	0.54
12:3A:59:ARG:HA	12:3A:65:GLU:H	1.71	0.54
26:14:30:G:H2'	26:14:31:C:C6	2.42	0.54
26:14:1169:G:H1	26:14:1180:C:H42	1.53	0.54
26:14:1316:U:H2'	26:14:1317:A:H8	1.71	0.54
26:14:2415:G:H4'	37:35:67:MET:N	2.23	0.54
31:39:6:VAL:HG23	31:39:124:LEU:HA	1.88	0.54
42:85:84:LYS:HA	42:85:84:LYS:HZ2	1.72	0.54
46:C5:81:LYS:O	46:C5:81:LYS:NZ	2.37	0.54
52:I5:11:PRO:HB3	52:I5:25:TYR:CZ	2.43	0.54
55:M5:8:LYS:HB3	55:M5:12:LYS:HE3	1.88	0.54
1:13:266:G:H5"	1:13:267:C:C5	2.42	0.54
1:13:342:C:C2	1:13:348:G:C2	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1177:G:O6	1:13:1178:G:N2	2.41	0.54
1:13:1378:C:OP2	1:13:1378:C:H3'	2.07	0.54
1:13:1497:G:C2'	1:13:1498:U:H5'	2.38	0.54
4:3E:154:ASN:OD1	4:3E:154:ASN:N	2.40	0.54
5:4E:131:ILE:O	5:4E:135:THR:HG23	2.08	0.54
7:6E:115:ARG:O	7:6E:118:VAL:HG12	2.07	0.54
8:7E:24:THR:O	8:7E:61:VAL:HG22	2.07	0.54
24:3K:56:C:H2'	24:3K:57:G:O4'	2.08	0.54
26:1H:28:A:OP2	61:1H:3752:HOH:O	2.18	0.54
26:1H:273(E):U:H2'	26:1H:273(F):C:H5'	1.90	0.54
26:1H:320:A:H2'	31:31:136:THR:HG21	1.89	0.54
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.89	0.54
26:1H:557:U:H2'	26:1H:558:G:H8	1.72	0.54
26:1H:1341:U:H4'	61:1H:3627:HOH:O	2.06	0.54
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.08	0.54
29:11:70:TRP:CD1	29:11:70:TRP:C	2.80	0.54
46:G8:39:VAL:O	46:G8:42:VAL:HG22	2.08	0.54
55:Q8:33:ASN:OD1	55:Q8:36:LYS:NZ	2.26	0.54
2:12:132:LYS:O	2:12:136:VAL:HB	2.08	0.54
2:12:158:LEU:HD23	2:12:159:PRO:HD2	1.90	0.54
3:22:14:ILE:HG13	3:22:15:THR:H	1.72	0.54
7:62:65:ALA:O	7:62:69:VAL:HG23	2.08	0.54
15:6A:29:VAL:O	15:6A:33:THR:HG23	2.06	0.54
23:2L:57:C:H1'	32:49:76:SER:HB3	1.89	0.54
26:14:848:G:C4	26:14:933:A:H8	2.26	0.54
26:14:2378:A:H5'	40:65:111:GLU:HG2	1.89	0.54
26:14:2472:G:H1	26:14:2477:C:P	2.31	0.54
26:14:2795:G:H4'	26:14:2798:C:C5	2.43	0.54
30:29:26:ILE:HG22	30:29:28:ALA:N	2.23	0.54
48:E5:51:VAL:HG12	48:E5:81:VAL:HG23	1.89	0.54
1:13:267:C:OP1	17:8I:67:LYS:HG2	2.08	0.54
1:13:649:G:H2'	1:13:650:G:H8	1.72	0.54
7:6E:24:THR:HA	7:6E:27:ILE:HG22	1.90	0.54
13:4I:60:VAL:HG12	13:4I:64:TRP:HZ3	1.73	0.54
26:1H:64:A:O3'	45:F8:71:GLY:HA3	2.08	0.54
26:1H:106:C:H2'	26:1H:107:C:C6	2.43	0.54
26:1H:635:C:O2'	26:1H:639:U:OP1	2.21	0.54
26:1H:994:C:O2	43:D8:10:LYS:HE3	2.08	0.54
26:1H:1165:U:H2'	26:1H:1166:C:H6	1.73	0.54
32:41:105:LYS:NZ	52:M8:26:SER:HB2	2.22	0.54
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:101:ILE:H	5:42:107:ARG:HH21	1.54	0.54
16:7A:23:ASP:OD2	16:7A:25:ARG:NH1	2.41	0.54
26:14:7:G:H2'	26:14:8:A:C8	2.43	0.54
26:14:1386:C:H2'	26:14:1387:C:C6	2.43	0.54
61:14:3905:HOH:O	48:E5:14:ARG:HD3	2.08	0.54
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.90	0.54
32:49:15:VAL:HG23	32:49:19:LEU:HD13	1.90	0.54
34:69:111:PRO:C	34:69:112:LYS:HG3	2.28	0.54
39:55:106:GLY:O	39:55:107:ASP:HB3	2.07	0.54
40:65:14:VAL:HG11	40:65:90:GLY:O	2.08	0.54
43:95:29:PRO:HA	43:95:61:VAL:HG11	1.90	0.54
1:13:186(E):C:H42	1:13:191(B):G:H1	1.53	0.54
2:1E:100:GLY:HA2	2:1E:103:THR:OG1	2.07	0.54
3:2E:29:TYR:OH	14:5I:54:PRO:O	2.17	0.54
11:2I:104:GLN:O	11:2I:104:GLN:NE2	2.36	0.54
16:7I:74:LEU:HD21	16:7I:79:VAL:CB	2.37	0.54
26:1H:2172:U:H5'	26:1H:2173:A:OP2	2.07	0.54
26:1H:2262:U:C2'	26:1H:2263:C:H5'	2.37	0.54
38:88:135:ASP:O	38:88:138:ASP:N	2.33	0.54
52:M8:25:TYR:CD1	52:M8:26:SER:HA	2.43	0.54
53:N8:35:GLU:HB2	53:N8:49:CYS:SG	2.48	0.54
1:1G:1070:U:H2'	1:1G:1071:C:H6	1.73	0.54
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.08	0.54
2:12:47:THR:HA	2:12:50:GLU:CD	2.28	0.54
3:22:138:VAL:HG12	3:22:151:VAL:HG23	1.89	0.54
8:72:99:GLU:CB	8:72:100:ILE:HB	2.26	0.54
10:1A:22:LYS:HZ1	10:1A:25:GLU:HB3	1.72	0.54
26:14:769:G:O6	61:14:3636:HOH:O	2.15	0.54
26:14:1359:A:H62	26:14:1372:U:H3	1.54	0.54
26:14:2320:A:H1'	26:14:2321:G:C6	2.43	0.54
27:1J:60:C:H2'	27:1J:61:G:H8	1.73	0.54
30:29:52:LEU:HB3	30:29:76:ARG:NH1	2.22	0.54
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.73	0.54
3:2E:120:VAL:HG23	3:2E:198:VAL:HG11	1.89	0.54
4:3E:22:LYS:HB2	4:3E:25:ARG:HH21	1.73	0.54
7:6E:42:ILE:HD12	7:6E:43:PHE:N	2.22	0.54
24:3K:59:U:H3'	24:3K:60:C:C5'	2.37	0.54
26:1H:71:A:H2	45:F8:31:HIS:NE2	1.97	0.54
26:1H:265:A:H1'	26:1H:266:G:O4'	2.08	0.54
26:1H:783:A:H8	26:1H:784:A:H4'	1.71	0.54
26:1H:2712:U:H2'	26:1H:2714:G:H5"	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:59:ARG:HE	28:71:164:ARG:HE	1.54	0.54
35:58:108:PRO:O	35:58:113:GLY:HA3	2.08	0.54
49:J8:86:SER:HA	49:J8:88:LYS:NZ	2.23	0.54
52:M8:13:ARG:HH22	52:M8:20:ASN:HB3	1.73	0.54
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.90	0.54
1:1G:1060:C:O2'	10:1A:56:HIS:ND1	2.36	0.54
1:1G:1281:U:P	1:1G:1282:C:H41	2.31	0.54
3:22:58:GLU:HB2	3:22:65:ALA:HB3	1.90	0.54
4:32:24:GLU:N	4:32:24:GLU:OE2	2.41	0.54
4:32:163:GLU:OE2	4:32:166:LYS:NZ	2.41	0.54
12:3A:70:ILE:HG12	12:3A:100:ILE:HD12	1.90	0.54
13:4A:58:GLU:O	13:4A:62:ASN:ND2	2.35	0.54
18:9A:84:LYS:CE	18:9A:85:LEU:H	2.21	0.54
26:14:796:C:H2'	26:14:797:C:C6	2.43	0.54
26:14:1486:A:H2'	26:14:1487:G:H8	1.72	0.54
26:14:2547:U:O2	36:25:23:ARG:NH2	2.40	0.54
32:49:60:LEU:HA	32:49:63:ILE:HG22	1.89	0.54
32:49:114:ILE:CG1	32:49:117:PHE:HB2	2.38	0.54
38:45:28:ALA:HB1	38:45:29:PHE:CD1	2.42	0.54
45:B5:51:VAL:HA	45:B5:82:GLN:O	2.08	0.54
45:B5:53:LYS:HB3	45:B5:82:GLN:HB3	1.90	0.54
1:13:114:U:H2'	1:13:115:G:C8	2.43	0.54
1:13:475:G:H2'	1:13:476:G:H8	1.73	0.54
1:13:1125:U:C4	1:13:1126:U:C4	2.96	0.54
1:13:1159:U:O4'	1:13:1182:G:N2	2.40	0.54
1:13:1347:G:HO2'	1:13:1373:G:H1	1.55	0.54
5:4E:152:ARG:HD3	8:7E:43:GLY:HA3	1.89	0.54
7:6E:62:PHE:HA	7:6E:124:LEU:HD22	1.89	0.54
26:1H:719:C:H2'	26:1H:720:C:C6	2.43	0.54
26:1H:919:G:N2	26:1H:2269:A:OP2	2.40	0.54
26:1H:1332:G:N2	26:1H:1609:A:HO2'	2.06	0.54
28:71:13:LYS:NZ	28:71:31:GLU:OE2	2.35	0.54
28:71:20:TYR:HB2	28:71:223:ARG:O	2.07	0.54
38:88:66:ILE:CG1	38:88:67:ARG:H	2.20	0.54
40:A8:5:THR:CG2	40:A8:8:GLU:HG2	2.35	0.54
41:B8:12:SER:CB	41:B8:15:VAL:HG13	2.38	0.54
1:1G:92:G:H2'	1:1G:93:U:O4'	2.08	0.54
26:14:479:A:H4'	26:14:480:A:OP1	2.07	0.54
30:29:2:LYS:HE3	30:29:95:ILE:O	2.08	0.54
47:D5:30:ASN:HD22	47:D5:90:VAL:HG21	1.72	0.54
2:1E:63:MET:HB2	2:1E:225:ALA:HB1	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:82:MET:C	13:4I:84:ILE:H	2.12	0.53
14:5I:33:VAL:HA	14:5I:40:CYS:HA	1.88	0.53
19:AI:3:ARG:NH2	19:AI:7:LYS:HE2	2.23	0.53
20:BI:89:ARG:O	20:BI:93:GLU:N	2.37	0.53
24:3K:5:G:H2'	24:3K:6:A:C8	2.44	0.53
26:1H:818:G:OP2	61:1H:3753:HOH:O	2.19	0.53
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.43	0.53
26:1H:2281:C:O2'	26:1H:2282:G:H5'	2.08	0.53
31:31:6:VAL:HG22	31:31:119:ARG:NE	2.22	0.53
31:31:34:TRP:HB2	37:78:6:LEU:HG	1.91	0.53
33:51:83:TYR:CZ	33:51:133:VAL:O	2.60	0.53
33:51:121:ILE:HA	33:51:134:SER:O	2.08	0.53
41:B8:12:SER:OG	41:B8:15:VAL:HG22	2.08	0.53
41:B8:65:LYS:HE3	41:B8:67:SER:HB2	1.89	0.53
43:D8:47:VAL:CG2	43:D8:48:GLY:N	2.69	0.53
1:1G:44:G:H2'	1:1G:45:U:O4'	2.08	0.53
1:1G:947:G:H2'	1:1G:948:C:O4'	2.09	0.53
3:22:22:TRP:HE1	3:22:57:ILE:CD1	2.21	0.53
4:32:25:ARG:NH1	4:32:25:ARG:O	2.41	0.53
7:62:26:PHE:O	7:62:30:ILE:HG13	2.08	0.53
12:3A:39:VAL:HG13	12:3A:57:LYS:HD3	1.89	0.53
26:14:748:G:C8	44:A5:89:ALA:HB1	2.43	0.53
33:59:138:LYS:O	33:59:141:VAL:HG22	2.08	0.53
37:35:79:ARG:HG3	37:35:110:TYR:CG	2.41	0.53
51:H5:30:ARG:CG	51:H5:33:GLN:HB3	2.39	0.53
1:13:486:U:H2'	1:13:487:A:C8	2.43	0.53
1:13:1126:U:C4	1:13:1127:G:C4	2.97	0.53
9:8E:10:ARG:CZ	9:8E:75:ASP:HB2	2.39	0.53
9:8E:86:VAL:HA	9:8E:92:TYR:CZ	2.43	0.53
26:1H:508:G:N3	26:1H:508:G:H5"	2.22	0.53
26:1H:1112:G:H4'	33:51:2:SER:CB	2.38	0.53
26:1H:2062:A:H62	26:1H:2503:A:H62	1.56	0.53
26:1H:2126:A:H1'	26:1H:2162:G:H21	1.73	0.53
26:1H:2444:G:OP1	31:31:67:GLN:NE2	2.41	0.53
32:41:114:ILE:HG23	32:41:115:ARG:O	2.09	0.53
33:51:6:ARG:HD3	33:51:65:HIS:ND1	2.23	0.53
33:51:64:LEU:O	33:51:68:THR:OG1	2.21	0.53
47:H8:103:ARG:NH2	47:H8:137:ILE:HB	2.23	0.53
52:M8:52:THR:HG1	52:M8:53:GLU:H	1.50	0.53
1:1G:183:G:O5'	1:1G:183:G:H8	1.90	0.53
4:32:18:LYS:NZ	4:32:31:CYS:SG	2.80	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.28	0.53
9:82:75:ASP:HA	9:82:78:LYS:HG2	1.90	0.53
26:14:527:C:H4'	26:14:528:A:O5'	2.08	0.53
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.43	0.53
26:14:1332:G:C8	26:14:1332:G:H5'	2.43	0.53
26:14:1412:A:H2'	26:14:1413:G:C8	2.44	0.53
26:14:2718:G:N7	61:14:3673:HOH:O	2.33	0.53
31:39:20:LEU:HD23	31:39:203:GLN:OE1	2.08	0.53
33:59:141:VAL:HG23	33:59:142:GLY:H	1.74	0.53
37:35:107:LYS:HG3	37:35:107:LYS:O	2.07	0.53
1:13:972:C:O3'	10:1I:57:LYS:HG3	2.07	0.53
1:13:1101:A:H4'	1:13:1102:A:O5'	2.07	0.53
1:13:1150:U:H4'	10:1I:41:PRO:HG3	1.90	0.53
2:1E:16:HIS:NE2	2:1E:210:SER:O	2.41	0.53
7:6E:38:LEU:O	7:6E:42:ILE:HG13	2.09	0.53
9:8E:92:TYR:O	9:8E:95:LYS:N	2.35	0.53
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.41	0.53
17:8I:45:HIS:CD2	17:8I:65:ILE:HG12	2.43	0.53
24:3K:63:G:O4'	28:71:53:ARG:NH2	2.26	0.53
26:1H:330:A:O2'	26:1H:331:A:C8	2.61	0.53
26:1H:671:C:OP1	37:78:42:SER:O	2.26	0.53
26:1H:852:G:O2'	26:1H:853:G:H5'	2.08	0.53
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.07	0.53
26:1H:1864:U:H2'	26:1H:1869:G:H5"	1.90	0.53
26:1H:2068:U:H3	26:1H:2430:A:H2	1.50	0.53
34:61:88:ILE:O	34:61:121:LYS:NZ	2.41	0.53
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.08	0.53
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.72	0.53
26:14:96:G:H4'	50:G5:48:HIS:CE1	2.42	0.53
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.09	0.53
27:1J:49:C:OP2	40:65:30:ARG:NH1	2.42	0.53
41:75:93:ARG:HH11	41:75:93:ARG:HG2	1.74	0.53
1:13:186:C:O3'	20:BI:82:SER:HB3	2.09	0.53
1:13:413:G:H22	1:13:428:G:H1'	1.74	0.53
3:2E:120:VAL:CG2	3:2E:198:VAL:HG11	2.38	0.53
13:4I:4:ILE:HD12	13:4I:5:ALA:O	2.07	0.53
21:1F:9:ARG:HD2	21:1F:9:ARG:N	2.23	0.53
26:1H:1174:A:H1'	26:1H:1178:C:N4	2.24	0.53
26:1H:2331:G:H4'	48:I8:42:GLY:HA3	1.89	0.53
26:1H:2864:G:OP1	41:B8:119:LYS:HD2	2.08	0.53
28:71:7:TYR:HA	28:71:10:LEU:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:69:GLY:HA3	28:71:177:LYS:HG3	1.90	0.53
29:11:30:GLU:HB2	29:11:35:LYS:HE2	1.91	0.53
47:H8:139:VAL:HA	47:H8:155:LEU:HD11	1.90	0.53
1:1G:527:G:O6	12:3A:49:ASN:ND2	2.39	0.53
1:1G:1024:G:H4'	1:1G:1024:G:OP1	2.07	0.53
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.44	0.53
2:12:184:VAL:HG23	2:12:197:VAL:HA	1.91	0.53
3:22:18:TRP:N	3:22:18:TRP:CD1	2.76	0.53
9:82:119:ALA:O	9:82:120:ARG:HB2	2.08	0.53
17:8A:94:ASN:O	17:8A:98:LEU:HD13	2.08	0.53
26:14:2019:A:N7	53:J5:9:LYS:HE3	2.23	0.53
46:C5:76:CYS:O	46:C5:97:ARG:NH2	2.40	0.53
47:D5:43:GLU:O	47:D5:47:VAL:HG13	2.07	0.53
1:13:107:G:H2'	1:13:108:G:O4'	2.09	0.53
1:13:859:A:H2'	1:13:860:A:C8	2.44	0.53
3:2E:89:GLU:O	3:2E:93:LYS:N	2.39	0.53
5:4E:110:LEU:HD22	5:4E:118:ILE:HG21	1.89	0.53
17:8I:31:LEU:HD23	17:8I:32:TYR:CE1	2.44	0.53
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.44	0.53
26:1H:1843:C:H5'	29:11:253:GLN:OE1	2.08	0.53
32:41:143:GLU:OE1	52:M8:26:SER:OG	2.21	0.53
38:88:58:PHE:C	38:88:59:ARG:HG3	2.28	0.53
47:H8:11:GLU:OE1	47:H8:36:LYS:HD3	2.08	0.53
47:H8:25:PRO:O	47:H8:85:HIS:HA	2.08	0.53
1:1G:54:C:N4	1:1G:353:A:OP2	2.42	0.53
1:1G:1053:G:C5'	1:1G:1054:C:H3'	2.39	0.53
4:32:209:ARG:N	4:32:209:ARG:CZ	2.71	0.53
7:62:16:LEU:HD21	9:82:45:ALA:HB2	1.91	0.53
26:14:336:C:OP1	46:C5:83:THR:HG23	2.09	0.53
26:14:1154:G:C5'	42:85:59:ARG:HH12	2.20	0.53
26:14:1203:G:H3'	26:14:1204:A:H5"	1.91	0.53
26:14:1217:C:OP1	42:85:15:LYS:HE2	2.08	0.53
26:14:2415:G:H4'	37:35:67:MET:H	1.73	0.53
26:14:2734:A:H1'	30:29:204:ALA:HB2	1.89	0.53
29:19:182:LEU:N	29:19:272:ALA:HB3	2.17	0.53
33:59:157:TYR:HA	33:59:170:ARG:NH2	2.23	0.53
35:15:66:LYS:O	35:15:70:LYS:HB3	2.08	0.53
1:13:1316:G:N2	1:13:1318:A:H3'	2.24	0.53
5:4E:37:ARG:NH1	5:4E:37:ARG:HB2	2.24	0.53
7:6E:108:ALA:HA	7:6E:111:ARG:HD2	1.91	0.53
26:1H:660:G:H21	37:78:12:ALA:HA	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.43	0.53
26:1H:1359:A:C2	26:1H:1372:U:O4	2.61	0.53
26:1H:2562:U:H1'	36:68:23:ARG:NE	2.22	0.53
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.44	0.53
28:71:20:TYR:O	28:71:225:ASN:N	2.41	0.53
1:1G:266:G:H5"	1:1G:267:C:C5	2.43	0.53
1:1G:458:C:H2'	1:1G:464:G:H8	1.73	0.53
1:1G:957:U:H1'	1:1G:960:U:H5	1.73	0.53
1:1G:957:U:O2'	1:1G:959:A:N7	2.33	0.53
1:1G:1108:G:H5'	3:22:176:HIS:CD2	2.38	0.53
10:1A:65:LEU:HD12	14:5A:55:GLY:O	2.08	0.53
12:3A:59:ARG:CZ	12:3A:59:ARG:HB2	2.38	0.53
17:8A:67:LYS:HA	17:8A:70:ARG:NH1	2.24	0.53
26:14:1686:C:H2'	26:14:1687:G:O4'	2.09	0.53
32:49:173:LEU:HB3	32:49:178:PHE:HZ	1.72	0.53
46:C5:29:GLU:HG2	46:C5:30:VAL:N	2.24	0.53
47:D5:77:ASP:OD1	47:D5:80:ARG:HD3	2.08	0.53
47:D5:126:VAL:HG23	47:D5:163:LEU:HA	1.90	0.53
1:13:411:A:C5	1:13:413:G:H1'	2.43	0.53
1:13:1423:G:P	36:68:49:ARG:HH22	2.32	0.53
2:1E:7:VAL:HG11	2:1E:217:ARG:HH21	1.74	0.53
11:2I:82:VAL:HG13	11:2I:108:ILE:HG23	1.91	0.53
15:6I:3:ILE:HG12	15:6I:38:ARG:HD2	1.90	0.53
26:1H:646:A:H2'	26:1H:647:G:O4'	2.08	0.53
26:1H:1416:G:O2'	26:1H:1417:C:OP2	2.22	0.53
26:1H:1799:G:OP1	29:11:260:ARG:HD2	2.07	0.53
26:1H:2331:G:C4'	48:I8:42:GLY:HA3	2.39	0.53
33:51:23:ARG:HH21	33:51:25:LYS:HD2	1.72	0.53
34:61:110:ASP:HB3	34:61:113:ARG:HH21	1.73	0.53
41:B8:58:ASN:C	41:B8:58:ASN:HD22	2.12	0.53
42:C8:85:LYS:NZ	42:C8:85:LYS:H	2.06	0.53
42:C8:88:ILE:C	42:C8:90:VAL:H	2.11	0.53
1:1G:1107:C:O5'	3:22:172:ARG:NH2	2.42	0.53
1:1G:1357:A:H2'	1:1G:1358:U:H5'	1.91	0.53
2:12:47:THR:HB	2:12:201:ILE:HG22	1.89	0.53
3:22:87:LEU:HD12	3:22:88:ARG:HE	1.73	0.53
4:32:31:CYS:HA	59:32:301:SF4:S2	2.49	0.53
16:7A:53:VAL:HB	16:7A:79:VAL:HG12	1.90	0.53
16:7A:75:ARG:NH1	16:7A:80:PHE:H	2.06	0.53
24:3L:65:C:H2'	24:3L:66:A:H8	1.74	0.53
26:14:1796:U:H2'	26:14:1797:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2304:G:H4'	32:49:133:LEU:HA	1.90	0.53
26:14:2360:A:H2'	26:14:2361:A:O4'	2.08	0.53
26:14:2772:C:H2'	26:14:2773:C:C6	2.44	0.53
29:19:130:ALA:HA	29:19:192:THR:HA	1.91	0.53
36:25:120:GLU:HG2	36:25:122:LEU:HG	1.91	0.53
55:M5:23:VAL:HG12	55:M5:49:VAL:HG12	1.91	0.53
1:13:266:G:O3'	17:8I:67:LYS:HE3	2.09	0.53
1:13:1064:G:H4'	1:13:1065:U:OP1	2.09	0.53
1:13:1435:G:H2'	1:13:1436:U:C6	2.44	0.53
4:3E:176:LEU:CD2	4:3E:183:GLY:HA2	2.37	0.53
5:4E:122:GLU:OE1	5:4E:131:ILE:HD13	2.08	0.53
9:8E:50:LEU:HB3	9:8E:55:ALA:O	2.09	0.53
24:3K:9:A:HO2'	24:3K:46:G:H8	1.55	0.53
26:1H:70:G:H21	26:1H:71:A:N6	2.07	0.53
26:1H:612:G:N2	26:1H:616:A:O2'	2.42	0.53
26:1H:1899:G:H1	26:1H:1902:C:H41	1.56	0.53
29:11:123:ALA:HB3	29:11:131:LEU:HG	1.91	0.53
29:11:273:ARG:O	29:11:273:ARG:HG2	2.08	0.53
30:21:88:GLY:O	30:21:89:ASP:HB2	2.08	0.53
41:B8:88:ILE:HD13	41:B8:91:ARG:HD3	1.90	0.53
1:1G:683:G:H2'	1:1G:684:A:C8	2.44	0.53
1:1G:1316:G:H2'	1:1G:1317:C:H5"	1.90	0.53
5:42:89:ILE:HG12	5:42:135:THR:HG22	1.90	0.53
9:82:49:PRO:HD3	9:82:78:LYS:NZ	2.23	0.53
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.43	0.53
31:39:127:GLU:OE1	31:39:127:GLU:N	2.42	0.53
31:39:133:ASN:HA	31:39:162:LEU:HD13	1.91	0.53
33:59:157:TYR:HA	33:59:170:ARG:CZ	2.39	0.53
40:65:85:VAL:H	40:65:110:LEU:CG	2.22	0.53
46:C5:51:VAL:C	46:C5:53:PRO:HD3	2.29	0.53
51:H5:8:LEU:H	51:H5:30:ARG:NH2	2.01	0.53
1:13:45:U:H2'	1:13:46:G:C8	2.44	0.53
1:13:1028(A):C:N4	1:13:1029:G:N7	2.56	0.53
1:13:1219:U:OP1	14:5I:19:ARG:NH2	2.38	0.53
1:13:1266:G:N2	1:13:1270:C:N3	2.57	0.53
1:13:1378:C:OP2	7:6E:6:ARG:CZ	2.56	0.53
1:13:1399:C:H4'	1:13:1400:C:O5'	2.09	0.53
2:1E:10:LEU:HD22	2:1E:217:ARG:HH22	1.74	0.53
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.09	0.53
8:7E:103:VAL:HG21	8:7E:110:ALA:HB2	1.91	0.53
13:4I:34:LEU:HD11	13:4I:41:PRO:CA	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:64:ARG:O	15:6I:68:ARG:HG2	2.09	0.53
26:1H:783:A:C8	26:1H:784:A:H4'	2.44	0.53
26:1H:1021:A:H62	26:1H:1141:U:H3	1.55	0.53
26:1H:2503:A:H4'	61:1H:3731:HOH:O	2.08	0.53
35:58:130:HIS:C	35:58:134:ARG:HH12	2.12	0.53
37:78:63:PRO:HB2	55:Q8:30:ARG:NH2	2.23	0.53
40:A8:93:LYS:HD2	40:A8:95:HIS:HB2	1.90	0.53
41:B8:111:ARG:HD2	41:B8:111:ARG:H	1.72	0.53
1:1G:114:U:H2'	1:1G:115:G:C8	2.44	0.53
1:1G:607:A:H2'	1:1G:608:A:O4'	2.09	0.53
1:1G:661:G:H1	1:1G:744:C:H42	1.57	0.53
2:12:130:ARG:HH21	2:12:135:GLN:NE2	2.04	0.53
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.44	0.53
10:1A:51:ARG:CG	10:1A:60:ARG:HA	2.39	0.53
12:3A:18:VAL:O	12:3A:19:ARG:HD3	2.08	0.53
16:7A:43:LYS:HA	16:7A:48:TRP:HB3	1.90	0.53
26:14:140:A:H8	26:14:1408:C:HO2'	1.51	0.53
26:14:2238:G:H2'	26:14:2238:G:N3	2.24	0.53
33:59:44:VAL:HG22	33:59:51:ARG:H	1.72	0.53
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.90	0.53
47:D5:8:TYR:CD1	47:D5:62:PRO:HG3	2.44	0.53
51:H5:18:ASP:OD1	51:H5:18:ASP:N	2.41	0.53
2:1E:32:ILE:HD13	2:1E:40:HIS:HB3	1.90	0.53
5:4E:105:VAL:O	5:4E:109:ILE:HG23	2.09	0.53
15:6I:88:ARG:NH2	26:1H:714:U:OP2	2.41	0.53
20:BI:74:LYS:HB3	20:BI:75:ASN:OD1	2.08	0.53
26:1H:194:G:H2'	26:1H:195:A:O4'	2.08	0.53
26:1H:1050:A:N6	26:1H:1051:G:O6	2.41	0.53
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.09	0.53
29:11:17:THR:CG2	29:11:204:ILE:HA	2.38	0.53
38:88:137:TYR:HB3	47:H8:76:LEU:HD13	1.89	0.53
38:88:140:ALA:O	38:88:141:GLN:HG2	2.09	0.53
1:1G:490:G:OP1	4:32:132:ARG:NH2	2.42	0.53
1:1G:1422:G:O3'	36:25:49:ARG:NH2	2.41	0.53
2:12:82:ARG:HG3	2:12:94:ASN:ND2	2.24	0.53
3:22:32:LEU:O	3:22:36:ASP:HB2	2.09	0.53
16:7A:5:ARG:CZ	16:7A:6:LEU:N	2.65	0.53
23:2L:24:C:H2'	23:2L:25:U:H6	1.74	0.53
26:14:83:G:O6	61:14:3648:HOH:O	2.19	0.53
26:14:273:G:H1	26:14:364:C:H42	1.57	0.53
26:14:959:A:N6	26:14:960:A:N1	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:996:A:H4'	42:85:92:ARG:CZ	2.39	0.53
26:14:2356:C:H5'	48:E5:20:ARG:NE	2.24	0.53
26:14:2688:U:H5	26:14:2720:U:OP2	1.92	0.53
30:29:9:VAL:O	41:75:3:ARG:HD2	2.09	0.53
31:39:49:ALA:O	31:39:92:PRO:HB2	2.09	0.53
31:39:170:LEU:HD22	31:39:172:TRP:HE1	1.73	0.53
34:69:125:GLU:OE1	34:69:141:LYS:HG3	2.09	0.53
35:15:96:GLU:H	35:15:96:GLU:CD	2.12	0.53
39:55:57:ARG:HD2	39:55:59:ASP:OD2	2.08	0.53
49:F5:67:ILE:O	49:F5:70:VAL:HG13	2.09	0.53
51:H5:30:ARG:HG2	51:H5:31:LEU:O	2.09	0.53
52:I5:22:ILE:HG12	52:I5:23:GLU:H	1.74	0.53
1:13:322:C:O2'	20:BI:23:ARG:NH2	2.42	0.52
1:13:345:C:H4'	1:13:346:G:C5	2.44	0.52
1:13:690:G:H2'	1:13:691:G:O4'	2.09	0.52
9:8E:3:GLN:HG3	9:8E:4:TYR:N	2.23	0.52
17:8I:81:ARG:HB3	17:8I:81:ARG:NH1	2.24	0.52
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.44	0.52
27:16:30:C:H2'	27:16:31:C:H5'	1.91	0.52
35:58:132:ALA:O	35:58:134:ARG:NH1	2.42	0.52
38:88:138:ASP:N	38:88:138:ASP:OD1	2.41	0.52
42:C8:96:ALA:O	42:C8:100:VAL:HG23	2.09	0.52
43:D8:76:LYS:HB2	43:D8:81:TYR:HB3	1.91	0.52
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.77	0.52
2:12:28:PHE:CZ	2:12:189:ASP:HA	2.44	0.52
7:62:36:LYS:HA	7:62:39:ALA:HB3	1.91	0.52
21:1B:6:ARG:HA	21:1B:15:ARG:NH2	2.24	0.52
26:14:289:A:H3'	26:14:290:G:H8	1.74	0.52
26:14:603:A:H8	26:14:604:G:H1'	1.74	0.52
26:14:2207:C:O2'	29:19:151:LYS:NZ	2.40	0.52
33:59:146:ALA:O	33:59:150:ALA:N	2.28	0.52
47:D5:4:ARG:NH2	47:D5:59:LEU:H	2.06	0.52
52:I5:56:VAL:HG23	52:I5:60:GLN:HE22	1.75	0.52
1:13:486:U:H2'	1:13:487:A:H8	1.74	0.52
1:13:718:G:C8	11:2I:116:HIS:HB3	2.45	0.52
1:13:953:G:H2'	1:13:954:G:O4'	2.08	0.52
2:1E:18:GLY:HA3	2:1E:41:ILE:HA	1.91	0.52
4:3E:22:LYS:HD2	4:3E:25:ARG:HE	1.73	0.52
12:3I:17:LYS:HD3	12:3I:18:VAL:H	1.74	0.52
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.91	0.52
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2685:G:O6	61:1H:3749:HOH:O	2.17	0.52
42:C8:102:GLU:OE2	43:D8:13:ARG:NH2	2.42	0.52
43:D8:37:VAL:O	43:D8:38:LEU:HD22	2.08	0.52
50:K8:64:LEU:HD11	50:K8:68:ARG:NH1	2.24	0.52
1:1G:952:U:H4'	1:1G:964:A:N1	2.25	0.52
1:1G:978:A:H1'	1:1G:1322:C:C4	2.45	0.52
7:62:142:GLU:OE1	7:62:142:GLU:N	2.42	0.52
9:82:10:ARG:HA	9:82:10:ARG:CZ	2.38	0.52
26:14:525:U:H5"	26:14:556:G:H5'	1.91	0.52
26:14:528:A:C2	26:14:2043:C:H4'	2.44	0.52
26:14:720:C:H2'	26:14:721:C:C6	2.44	0.52
26:14:1899:G:H21	26:14:1902:C:H41	1.54	0.52
30:29:117:MET:HE1	30:29:136:ARG:CB	2.39	0.52
32:49:173:LEU:HD13	32:49:178:PHE:HZ	1.74	0.52
33:59:27:LYS:HG2	33:59:32:GLU:HB2	1.91	0.52
40:65:5:THR:OG1	40:65:8:GLU:HG3	2.09	0.52
1:13:468:A:H4'	16:7I:80:PHE:CD1	2.44	0.52
1:13:1278:U:H5'	1:13:1279:A:O4'	2.08	0.52
2:1E:100:GLY:O	2:1E:102:LEU:N	2.42	0.52
3:2E:17:ASP:O	3:2E:54:ARG:NH2	2.41	0.52
11:2I:79:SER:HB2	11:2I:104:GLN:NE2	2.25	0.52
14:5I:3:ARG:O	14:5I:6:LEU:N	2.42	0.52
17:8I:17:LYS:HB3	17:8I:17:LYS:HZ3	1.73	0.52
26:1H:764:A:H2	29:11:219:PRO:HG3	1.74	0.52
26:1H:2378:A:H4'	40:A8:23:ARG:NH1	2.25	0.52
27:16:10:C:H4'	61:16:313:HOH:O	2.09	0.52
28:71:166:ASP:OD1	28:71:169:GLY:N	2.43	0.52
34:61:62:LYS:HA	34:61:133:HIS:HE1	1.74	0.52
35:58:42:TRP:HA	35:58:48:MET:SD	2.48	0.52
46:G8:42:VAL:HG23	46:G8:43:ASN:H	1.73	0.52
47:H8:103:ARG:HH12	47:H8:137:ILE:HG13	1.73	0.52
1:1G:772:U:H2'	1:1G:773:G:O4'	2.10	0.52
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.45	0.52
1:1G:1240:U:H4'	1:1G:1241:G:OP2	2.08	0.52
13:4A:57:ARG:NH2	52:I5:17:GLY:O	2.39	0.52
16:7A:6:LEU:HD23	16:7A:19:ILE:HG23	1.92	0.52
26:14:34:C:O2'	26:14:35:G:H8	1.92	0.52
26:14:80:G:N7	61:14:3701:HOH:O	2.34	0.52
26:14:2593:U:H2'	26:14:2594:C:C6	2.45	0.52
28:79:43:VAL:HG11	28:79:222:VAL:HG11	1.91	0.52
32:49:63:ILE:HG23	32:49:64:THR:HG23	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:98:LEU:HA	42:85:100:VAL:O	2.08	0.52
55:M5:53:PRO:O	55:M5:57:ARG:HG3	2.09	0.52
2:1E:18:GLY:N	2:1E:42:ILE:HG22	2.17	0.52
2:1E:154:LEU:O	2:1E:155:LEU:HB2	2.09	0.52
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.56	0.52
26:1H:2131:G:H1'	26:1H:2158:A:C6	2.44	0.52
29:11:5:LYS:NZ	29:11:16:MET:O	2.40	0.52
3:22:38:ARG:HH12	3:22:42:LEU:HD23	1.75	0.52
4:32:108:LEU:HD13	4:32:174:LEU:HG	1.91	0.52
26:14:871:U:OP1	38:45:5:ARG:HD3	2.09	0.52
26:14:1009:A:OP1	35:15:37:LYS:NZ	2.42	0.52
27:1J:11:C:OP2	27:1J:12:C:N4	2.31	0.52
40:65:64:GLU:OE2	40:65:65:VAL:HG13	2.09	0.52
41:75:7:ILE:O	41:75:10:VAL:HG22	2.09	0.52
49:F5:19:GLN:HB2	49:F5:35:THR:O	2.09	0.52
52:I5:3:GLU:O	52:I5:3:GLU:HG2	2.10	0.52
1:13:376:G:O2'	16:7I:28:ARG:HG2	2.10	0.52
1:13:960:U:O4	19:AI:78:ARG:NE	2.42	0.52
2:1E:109:SER:HB3	2:1E:156:LYS:HZ2	1.74	0.52
4:3E:43:HIS:HA	4:3E:46:LYS:NZ	2.25	0.52
6:5E:96:PRO:HB3	18:9I:30:ASP:OD2	2.10	0.52
18:9I:32:ARG:HA	18:9I:69:THR:HG21	1.91	0.52
24:3K:9:A:H3'	24:3K:10:G:C8	2.44	0.52
24:3K:28:C:H2'	24:3K:29:U:C6	2.44	0.52
26:1H:49:A:N7	26:1H:120:U:C5	2.60	0.52
26:1H:155:C:H5'	26:1H:161:U:OP2	2.10	0.52
32:41:67:LYS:H	52:M8:6:HIS:CE1	2.27	0.52
38:88:59:ARG:HD2	38:88:61:GLY:CA	2.40	0.52
45:F8:35:THR:CG2	45:F8:38:GLU:H	2.23	0.52
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.90	0.52
46:G8:94:LYS:O	46:G8:96:ILE:HG22	2.09	0.52
1:1G:413:G:O2'	1:1G:414:A:OP2	2.27	0.52
5:42:89:ILE:HG21	5:42:135:THR:HA	1.91	0.52
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.45	0.52
26:14:67:U:H2'	26:14:68:G:H8	1.74	0.52
26:14:140:A:C8	26:14:1408:C:O2'	2.63	0.52
26:14:558:G:H5'	35:15:112:LEU:HD22	1.91	0.52
26:14:1036:G:H2'	26:14:1037:G:O4'	2.10	0.52
26:14:1372:U:H2'	26:14:1373:A:O4'	2.10	0.52
33:59:109:PHE:HZ	33:59:152:ARG:NE	2.07	0.52
35:15:91:LEU:O	35:15:95:PRO:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:68:GLU:H	36:25:68:GLU:CD	2.12	0.52
36:25:113:LYS:H	36:25:113:LYS:HD2	1.75	0.52
1:13:136:C:H42	1:13:227:G:H1	1.57	0.52
1:13:1164:G:C6	1:13:1165:C:C4	2.97	0.52
6:5E:87:ARG:NH1	18:9I:75:ILE:O	2.42	0.52
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.75	0.52
7:6E:26:PHE:CE2	7:6E:120:ILE:HD11	2.44	0.52
10:1I:11:PHE:CE1	10:1I:67:THR:HG22	2.43	0.52
16:7I:14:ASN:HD22	16:7I:42:ARG:HH21	1.58	0.52
19:AI:31:ILE:HG23	19:AI:49:ILE:HA	1.92	0.52
26:1H:1049:C:H42	33:51:3:ARG:CZ	2.22	0.52
27:16:15:A:H5'	27:16:16:G:C8	2.44	0.52
39:98:104:ARG:NH2	39:98:107:ASP:OD2	2.39	0.52
43:D8:21:ARG:HD2	43:D8:91:TYR:CE1	2.44	0.52
45:F8:60:ARG:HD2	45:F8:75:ASP:OD1	2.10	0.52
50:K8:4:SER:HA	50:K8:6:VAL:HG13	1.91	0.52
1:1G:972:C:O3'	10:1A:57:LYS:HE3	2.10	0.52
1:1G:1095:U:H5"	1:1G:1109:C:O2	2.10	0.52
2:12:97:TRP:CH2	2:12:101:MET:HG3	2.45	0.52
3:22:174:PRO:HB2	3:22:177:THR:HG23	1.92	0.52
9:82:10:ARG:NE	9:82:10:ARG:HA	2.25	0.52
26:14:302:C:O5'	46:C5:81:LYS:HE3	2.09	0.52
26:14:2295:C:OP1	40:65:10:ARG:NH1	2.43	0.52
26:14:2441:C:O2'	26:14:2442:C:H5'	2.10	0.52
26:14:2688:U:H1'	26:14:2721:A:N6	2.25	0.52
33:59:140:LYS:HA	33:59:143:GLN:CD	2.29	0.52
51:H5:7:LYS:HZ1	51:H5:33:GLN:C	2.13	0.52
51:H5:30:ARG:HD2	51:H5:33:GLN:CD	2.30	0.52
55:M5:40:GLU:HA	55:M5:43:GLN:HB2	1.90	0.52
1:13:474:G:H5"	16:7I:81:ARG:CZ	2.40	0.52
1:13:819:A:H4'	1:13:820:U:OP2	2.08	0.52
3:2E:16:ARG:NH1	3:2E:183:ASP:OD1	2.43	0.52
3:2E:74:GLY:C	3:2E:83:ARG:HH22	2.13	0.52
9:8E:10:ARG:NH2	9:8E:75:ASP:H	2.07	0.52
13:4I:48:LEU:CD1	13:4I:53:VAL:HG12	2.40	0.52
14:5I:29:ARG:NH2	14:5I:40:CYS:H	2.08	0.52
20:BI:80:ARG:HH11	20:BI:81:LYS:HB3	1.75	0.52
26:1H:139:G:N3	26:1H:141:A:N1	2.58	0.52
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.58	0.52
26:1H:1036:G:OP2	33:51:59:ARG:NE	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)
26:1H:1338:G:N7	45:F8:62:LYS:NZ	2.53	0.52
26:1H:2129:C:H5"	28:71:6:ARG:NH2	2.25	0.52
26:1H:2820:A:P	39:98:2:ARG:HH22	2.32	0.52
32:41:137:GLU:HG2	32:41:140:ILE:HD12	1.92	0.52
40:A8:25:ARG:NH1	40:A8:42:ASP:OD1	2.38	0.52
43:D8:37:VAL:HG22	43:D8:52:VAL:O	2.10	0.52
2:12:142:LEU:HD13	2:12:146:GLN:NE2	2.25	0.52
6:52:74:ASP:OD1	6:52:74:ASP:N	2.43	0.52
18:9A:30:ASP:OD2	61:9A:201:HOH:O	2.19	0.52
19:AA:13:ASP:O	19:AA:16:LEU:HG	2.10	0.52
24:3L:76:A:H8	26:14:2394:C:H42	1.58	0.52
26:14:666:G:H5"	37:35:47:ASP:O	2.08	0.52
26:14:1154:G:H5"	42:85:59:ARG:HH12	1.74	0.52
26:14:1464:C:HO2'	26:14:1528:A:H8	1.55	0.52
26:14:1536:A:C8	26:14:1537:C:H1'	2.45	0.52
26:14:1758:G:C2	26:14:2696:U:H5'	2.45	0.52
26:14:1789:A:OP2	29:19:222:ARG:NH1	2.41	0.52
26:14:2129:C:H5"	26:14:2130:U:C5	2.45	0.52
26:14:2324:C:H5"	26:14:2325:G:H5'	1.92	0.52
29:19:5:LYS:HD2	29:19:6:PHE:N	2.24	0.52
30:29:128:SER:OG	30:29:129:HIS:N	2.42	0.52
31:39:157:VAL:HG11	31:39:181:LEU:HD13	1.92	0.52
32:49:48:GLU:OE1	32:49:49:ASP:HB2	2.10	0.52
38:45:37:LEU:HD21	38:45:130:LYS:HE2	1.90	0.52
39:55:57:ARG:HH11	39:55:59:ASP:CG	2.13	0.52
47:D5:69:THR:HB	47:D5:88:PHE:HB3	1.92	0.52
1:13:7:G:H5'	1:13:298:A:O4'	2.08	0.52
1:13:1074:G:O2'	1:13:1101:A:N1	2.35	0.52
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.45	0.52
4:3E:176:LEU:HD21	4:3E:183:GLY:CA	2.39	0.52
6:5E:8:ILE:HD11	6:5E:79:LEU:HD23	1.92	0.52
7:6E:5:ARG:O	7:6E:5:ARG:NE	2.43	0.52
19:AI:13:ASP:HA	19:AI:16:LEU:CD2	2.39	0.52
26:1H:479:A:N3	26:1H:481:G:H5"	2.24	0.52
26:1H:483:A:H5"	46:G8:50:ARG:HE	1.75	0.52
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.24	0.52
26:1H:2228:G:OP1	29:11:261:LYS:NZ	2.42	0.52
44:E8:35:ILE:O	44:E8:39:THR:HG22	2.10	0.52
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	1.91	0.52
51:L8:43:ILE:O	51:L8:47:VAL:HG23	2.10	0.52
1:1G:652:U:H1'	1:1G:653:A:H2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4L:22:A:N6	61:4L:206:HOH:O	2.41	0.52
26:14:38:A:H1'	31:39:48:THR:HB	1.91	0.52
26:14:287:C:H2'	26:14:288:C:H6	1.75	0.52
26:14:2125:G:H21	26:14:2173:A:N6	2.07	0.52
27:1J:15:A:H5'	27:1J:16:G:H8	1.74	0.52
27:1J:73:A:C4	27:1J:104:A:C2	2.98	0.52
32:49:143:GLU:O	52:I5:28:LYS:HE2	2.10	0.52
41:75:91:ARG:HB2	41:75:121:ILE:HG22	1.91	0.52
41:75:124:ASP:O	41:75:128:GLU:HB2	2.09	0.52
50:G5:4:SER:H	50:G5:6:VAL:HG13	1.74	0.52
1:13:130:A:N3	1:13:263:A:O2'	2.39	0.52
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.74	0.52
9:8E:83:ARG:CA	9:8E:86:VAL:HB	2.36	0.52
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.43	0.52
26:1H:270(L):U:N1	34:61:50:ARG:HG2	2.25	0.52
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.43	0.52
27:16:94:C:H2'	27:16:95:U:H6	1.74	0.52
29:11:17:THR:HG22	29:11:205:VAL:H	1.75	0.52
36:68:80:ASP:HB2	41:B8:70:VAL:HG23	1.91	0.52
1:1G:108:G:H5'	1:1G:109:A:C5'	2.39	0.52
1:1G:490:G:P	4:32:132:ARG:HH22	2.32	0.52
1:1G:691:G:H1	11:2A:51:LYS:NZ	2.07	0.52
10:1A:15:THR:O	10:1A:19:SER:OG	2.28	0.52
14:5A:3:ARG:CZ	14:5A:4:LYS:HZ1	2.22	0.52
26:14:302:C:OP1	46:C5:81:LYS:NZ	2.43	0.52
26:14:307:G:N2	26:14:309:G:H3'	2.25	0.52
26:14:324:A:OP1	31:39:168:ARG:NH2	2.43	0.52
28:79:200:LYS:NZ	28:79:208:PHE:HD2	2.08	0.52
31:39:163:VAL:O	31:39:167:ALA:HB2	2.10	0.52
35:15:112:LEU:O	35:15:115:ARG:NE	2.42	0.52
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.91	0.52
1:13:186(C):G:H2'	1:13:186(D):C:C6	2.45	0.52
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.45	0.52
1:13:947:G:H2'	1:13:948:C:O4'	2.10	0.52
1:13:1262:C:H2'	1:13:1263:C:C6	2.45	0.52
1:13:1349:A:H2'	1:13:1350:A:H8	1.75	0.52
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.09	0.52
15:6I:56:LEU:O	15:6I:60:VAL:HG12	2.09	0.52
16:7I:18:ARG:NH1	16:7I:38:TYR:HA	2.24	0.52
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.40	0.52
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2125:G:H5'	28:71:40:THR:HG21	1.91	0.52
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.10	0.52
41:B8:12:SER:HA	41:B8:14:TYR:N	2.22	0.52
1:1G:1059:C:O3'	14:5A:45:ARG:NH2	2.43	0.52
2:12:104:ASN:HB3	2:12:108:ILE:HG23	1.92	0.52
9:82:102:LEU:O	9:82:103:THR:OG1	2.26	0.52
10:1A:51:ARG:HH22	10:1A:56:HIS:HB2	1.75	0.52
26:14:84:A:H3'	46:C5:8:LYS:HD2	1.90	0.52
26:14:270(B):A:N7	26:14:270(X):G:N2	2.57	0.52
26:14:550:G:O2'	26:14:1220:A:N3	2.37	0.52
26:14:2131:G:H5"	26:14:2133:G:H4'	1.91	0.52
28:79:46:LYS:H	28:79:46:LYS:HD2	1.72	0.52
30:29:23:VAL:O	30:29:24:THR:HG22	2.10	0.52
1:13:685:G:O2'	1:13:686:U:H5'	2.10	0.51
1:13:1034:G:O2'	1:13:1035:A:H5'	2.10	0.51
1:13:1379:G:OP2	7:6E:6:ARG:HD3	2.10	0.51
1:13:1392:G:H21	1:13:1502:A:H8	1.58	0.51
3:2E:6:HIS:CD2	14:5I:49:HIS:HB3	2.45	0.51
11:2I:18:ARG:HG3	11:2I:33:THR:OG1	2.10	0.51
13:4I:15:VAL:HG22	13:4I:43:THR:O	2.09	0.51
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.10	0.51
19:AI:8:GLY:HA3	19:AI:9:VAL:CG1	2.35	0.51
26:1H:1348:G:C2'	26:1H:1349:A:H5"	2.40	0.51
26:1H:1388:G:O2'	26:1H:1389:G:H5'	2.10	0.51
29:11:35:LYS:HZ3	29:11:63:ARG:HA	1.75	0.51
40:A8:88:ASP:O	40:A8:89:ARG:HB3	2.10	0.51
44:E8:92:ARG:HB2	44:E8:92:ARG:CZ	2.40	0.51
1:1G:328:C:H4'	1:1G:329:A:C5'	2.40	0.51
1:1G:838:G:HO2'	1:1G:841:U:H5	1.57	0.51
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.09	0.51
3:22:44:GLU:HA	3:22:47:LEU:HB3	1.92	0.51
6:52:11:ASN:O	6:52:14:LEU:HD22	2.10	0.51
8:72:103:VAL:HG11	8:72:136:GLU:HB2	1.91	0.51
19:AA:20:LEU:HD12	19:AA:21:GLU:HB3	1.92	0.51
19:AA:40:ILE:HD13	19:AA:69:HIS:O	2.10	0.51
26:14:1570:A:H2'	26:14:1571:A:C8	2.45	0.51
26:14:2131:G:N2	26:14:2157:G:O2'	2.37	0.51
26:14:2475:C:H3'	26:14:2476:A:H5"	1.91	0.51
26:14:2684:U:H1'	36:25:70:LYS:HZ1	1.75	0.51
31:39:123:LEU:O	31:39:125:LEU:N	2.39	0.51
33:59:63:SER:O	33:59:67:LEU:HD23	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H5:7:LYS:HZ3	51:H5:34:GLU:HA	1.74	0.51
1:13:8:A:H62	4:3E:208:SER:HB3	1.75	0.51
2:1E:88:ALA:HB2	2:1E:219:VAL:CG2	2.40	0.51
13:4I:97:PRO:HD3	13:4I:110:ARG:HB3	1.92	0.51
26:1H:404:C:O2'	26:1H:405:U:OP2	2.20	0.51
26:1H:2392:A:H2	26:1H:2424:C:N4	2.07	0.51
27:16:78:A:C2	27:16:99:A:C4	2.99	0.51
31:31:48:THR:HG22	31:31:48:THR:O	2.10	0.51
33:51:5:GLY:HA2	33:51:8:PRO:HD2	1.92	0.51
33:51:170:ARG:HB2	33:51:170:ARG:CZ	2.38	0.51
1:1G:730:G:C5	1:1G:731:G:H1'	2.45	0.51
1:1G:1259:C:O2'	1:1G:1283:G:N2	2.33	0.51
2:12:71:VAL:CG2	2:12:164:VAL:HA	2.41	0.51
2:12:166:ASP:OD2	2:12:169:LYS:HG3	2.11	0.51
13:4A:60:VAL:HG23	13:4A:64:TRP:CZ3	2.44	0.51
56:1L:76:A:H2'	26:14:2584:U:H1'	1.92	0.51
26:14:34:C:HO2'	26:14:35:G:H8	1.57	0.51
26:14:634:C:H2'	26:14:635:C:C6	2.45	0.51
26:14:847:U:OP2	61:14:3630:HOH:O	2.18	0.51
26:14:994:C:OP2	42:85:54:LYS:NZ	2.42	0.51
26:14:1147:C:H2'	26:14:1148:A:H8	1.75	0.51
26:14:2162:G:O2'	26:14:2173:A:OP1	2.27	0.51
26:14:2784:C:H1'	30:29:37:ARG:HH21	1.75	0.51
28:79:171:ILE:HG12	28:79:172:HIS:H	1.75	0.51
34:69:76:THR:HG23	34:69:77:LEU:N	2.24	0.51
37:35:83:VAL:HG12	37:35:112:LEU:HD11	1.91	0.51
46:C5:29:GLU:OE1	46:C5:38:ILE:HG23	2.11	0.51
1:13:926:G:HO2'	25:4K:12:A:N6	2.07	0.51
8:7E:73:ASP:OD1	8:7E:75:ARG:NE	2.40	0.51
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.92	0.51
17:8I:12:SER:HB2	17:8I:14:LYS:HD2	1.93	0.51
17:8I:13:ASP:H	17:8I:14:LYS:HZ3	1.58	0.51
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.45	0.51
26:1H:1754:C:OP1	41:B8:96:ARG:NH1	2.38	0.51
26:1H:2137:C:O2'	26:1H:2155:G:N2	2.44	0.51
26:1H:2749:A:OP2	33:51:4:ILE:HD11	2.10	0.51
29:11:12:SER:O	29:11:16:MET:HB2	2.10	0.51
38:88:14:ARG:HG2	38:88:41:TRP:HH2	1.76	0.51
42:C8:92:ARG:CZ	42:C8:94:ASN:HB3	2.39	0.51
44:E8:19:LEU:HB3	53:N8:25:LEU:HD11	1.91	0.51
47:H8:156:LYS:HZ3	47:H8:156:LYS:HB2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:51:ALA:HB1	55:Q8:52:LYS:HA	1.93	0.51
1:1G:157:G:H1	1:1G:164:U:H3	1.58	0.51
1:1G:1063:C:OP2	1:1G:1064:G:O2'	2.27	0.51
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.29	0.51
2:12:70:PHE:HB3	2:12:163:PHE:O	2.09	0.51
9:82:89:ASN:O	9:82:93:ARG:NH2	2.43	0.51
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.43	0.51
26:14:646:A:H2'	26:14:647:G:O4'	2.10	0.51
26:14:2228:G:O6	61:14:3639:HOH:O	2.16	0.51
27:1J:9:G:OP1	40:65:25:ARG:NH2	2.42	0.51
29:19:39:LYS:HG3	29:19:40:THR:N	2.22	0.51
34:69:92:VAL:HG22	34:69:120:ILE:HB	1.92	0.51
37:35:107:LYS:O	37:35:109:GLY:N	2.35	0.51
38:45:40:ALA:HB2	38:45:127:ILE:HD13	1.92	0.51
46:C5:68:HIS:O	46:C5:71:LYS:HG3	2.11	0.51
47:D5:39:VAL:HG12	47:D5:40:ASP:H	1.76	0.51
48:E5:53:MET:HA	48:E5:58:THR:O	2.10	0.51
1:13:157:G:H2'	1:13:158:G:C8	2.45	0.51
1:13:179:A:H2'	1:13:180:U:C6	2.45	0.51
2:1E:80:ILE:O	2:1E:84:GLU:HB2	2.10	0.51
2:1E:96:ARG:HG2	2:1E:148:TYR:HA	1.93	0.51
6:5E:19:LEU:O	6:5E:23:LYS:HB2	2.10	0.51
9:8E:79:LEU:O	9:8E:83:ARG:HG2	2.10	0.51
26:1H:557:U:H2'	26:1H:558:G:C8	2.46	0.51
26:1H:606:U:H4'	26:1H:658:C:H4'	1.93	0.51
36:68:98:VAL:HG21	36:68:114:ILE:HG23	1.91	0.51
37:78:32:THR:C	61:78:301:HOH:O	2.44	0.51
38:88:110:THR:HG23	38:88:113:GLN:OE1	2.10	0.51
50:K8:41:ILE:HD11	50:K8:44:LEU:HG	1.91	0.51
1:1G:1086:U:O5'	1:1G:1086:U:H6	1.94	0.51
4:32:24:GLU:HG2	4:32:25:ARG:H	1.76	0.51
9:82:48:GLU:HB3	9:82:101:PHE:CE1	2.46	0.51
26:14:571:A:H5'	26:14:2030:A:N7	2.26	0.51
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.10	0.51
26:14:1209:G:H21	26:14:1210:A:H62	1.58	0.51
26:14:1543:A:H4'	26:14:1543:A:OP1	2.10	0.51
26:14:2065:C:H1'	26:14:2449:U:N3	2.26	0.51
26:14:2123:G:N3	28:79:172:HIS:HD2	2.09	0.51
29:19:12:SER:O	29:19:16:MET:HB2	2.11	0.51
30:29:70:ALA:C	30:29:72:VAL:H	2.13	0.51
38:45:75:THR:HG21	38:45:87:LYS:HE3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:11:LYS:NZ	40:65:91:PRO:HD3	2.25	0.51
46:C5:35:TYR:CE2	46:C5:69:ALA:HB3	2.45	0.51
1:13:280:C:O2'	17:8I:38:ARG:NH2	2.43	0.51
1:13:1015:A:H2'	1:13:1016:A:H8	1.75	0.51
1:13:1234:C:H2'	1:13:1235:U:C6	2.45	0.51
1:13:1326:C:P	21:1F:15:ARG:NH2	2.84	0.51
9:8E:6:GLY:HA3	9:8E:84:ALA:HB2	1.92	0.51
24:3K:11:C:N4	24:3K:24:G:H1	2.09	0.51
26:1H:286:C:H2'	26:1H:287:C:H6	1.76	0.51
26:1H:1728:G:C6	26:1H:1730:U:H5"	2.45	0.51
26:1H:2740:A:C6	26:1H:2764:A:C8	2.97	0.51
34:61:133:HIS:HB2	34:61:134:PRO:HD2	1.93	0.51
49:J8:92:LYS:CD	49:J8:93:GLU:HG3	2.35	0.51
1:1G:976:G:OP1	14:5A:32:SER:N	2.36	0.51
2:12:155:LEU:HD21	2:12:159:PRO:HD3	1.91	0.51
10:1A:16:LEU:HD11	10:1A:70:ARG:CZ	2.41	0.51
11:2A:33:THR:OG1	11:2A:34:ASP:N	2.44	0.51
12:3A:17:LYS:O	12:3A:18:VAL:HG22	2.11	0.51
26:14:67:U:H2'	26:14:68:G:C8	2.45	0.51
26:14:817:C:O2'	26:14:839:U:OP1	2.23	0.51
26:14:907:U:O3'	38:45:101:ARG:NH2	2.44	0.51
26:14:1166:C:H2'	26:14:1167:U:C6	2.46	0.51
26:14:1169:G:H1	26:14:1180:C:N4	2.09	0.51
26:14:1357:U:H2'	26:14:1358:G:O4'	2.10	0.51
26:14:2607:G:N7	58:14:3445:SPE:H41	2.25	0.51
30:29:89:ASP:O	30:29:90:THR:OG1	2.29	0.51
32:49:161:THR:HG1	32:49:163:ALA:H	1.52	0.51
33:59:146:ALA:HA	33:59:149:ARG:HB3	1.92	0.51
38:45:135:ASP:HB2	38:45:137:TYR:N	2.22	0.51
38:45:139:GLU:OE2	47:D5:76:LEU:HD13	2.11	0.51
55:M5:34:TRP:HA	55:M5:34:TRP:CE3	2.45	0.51
1:13:1084:G:C5	1:13:1085:U:C4	2.99	0.51
1:13:1133:G:H2'	1:13:1134:G:C8	2.41	0.51
1:13:1325:C:O3'	21:1F:15:ARG:NH2	2.43	0.51
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.10	0.51
26:1H:638:G:C5	26:1H:651:G:C2	2.98	0.51
26:1H:831:G:N2	37:78:53:GLY:O	2.43	0.51
26:1H:881:G:H3'	26:1H:881:G:N3	2.26	0.51
26:1H:1940:U:H5"	61:1H:3692:HOH:O	2.11	0.51
26:1H:2123:G:H2'	26:1H:2124:G:O4'	2.11	0.51
33:51:12:PRO:C	33:51:13:LYS:HZ2	2.05	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:92:ARG:HH22	42:C8:95:LEU:CD2	2.21	0.51
52:M8:4:GLY:C	52:M8:5:ILE:HG22	2.31	0.51
1:1G:735:C:H2'	1:1G:736:C:H6	1.75	0.51
2:12:91:PRO:CG	2:12:155:LEU:HB2	2.40	0.51
2:12:162:ILE:HG23	2:12:182:ILE:HG21	1.93	0.51
3:22:40:ARG:O	3:22:44:GLU:N	2.37	0.51
9:82:26:VAL:O	9:82:33:PHE:HB3	2.11	0.51
10:1A:11:PHE:CE1	10:1A:67:THR:HG22	2.44	0.51
26:14:323:G:O2'	26:14:1205:U:N3	2.31	0.51
26:14:813:U:H2'	26:14:814:C:C6	2.45	0.51
26:14:975:G:H1'	26:14:990:A:C2	2.45	0.51
32:49:76:SER:CB	32:49:84:LYS:HZ1	2.20	0.51
33:59:54:ARG:HB3	33:59:65:HIS:HB2	1.92	0.51
33:59:164:TYR:CG	33:59:165:ALA:N	2.78	0.51
34:69:112:LYS:O	34:69:113:ARG:HB2	2.09	0.51
37:35:81:GLN:OE1	37:35:107:LYS:HB3	2.11	0.51
40:65:64:GLU:H	40:65:64:GLU:CD	2.13	0.51
1:13:57:G:H2'	1:13:58:C:C6	2.46	0.51
1:13:628:G:H2'	1:13:629:G:C8	2.45	0.51
8:7E:39:LEU:HD13	8:7E:45:ILE:HD11	1.92	0.51
12:3I:86:ARG:HG3	12:3I:101:VAL:HG22	1.92	0.51
13:4I:5:ALA:HB2	13:4I:61:GLU:HG2	1.92	0.51
24:3K:3:G:H5"	24:3K:4:U:OP2	2.09	0.51
26:1H:780:G:H21	26:1H:783:A:N6	2.06	0.51
26:1H:847:U:C5	26:1H:933:A:N1	2.79	0.51
26:1H:1171:G:H2'	26:1H:1174:A:N1	2.25	0.51
28:71:43:VAL:HG13	28:71:214:VAL:HA	1.93	0.51
30:21:38:THR:O	30:21:42:ASP:N	2.42	0.51
30:21:96:PHE:O	30:21:175:VAL:HG21	2.10	0.51
30:21:105:THR:HG22	30:21:106:GLY:H	1.76	0.51
33:51:4:ILE:HG21	33:51:6:ARG:HH22	1.75	0.51
34:61:110:ASP:HB3	34:61:113:ARG:CZ	2.41	0.51
41:B8:24:PRO:HD3	41:B8:52:ILE:HD12	1.92	0.51
46:G8:94:LYS:HE2	46:G8:94:LYS:HA	1.92	0.51
50:K8:47:ASN:O	50:K8:49:LYS:N	2.43	0.51
51:L8:7:LYS:HB2	51:L8:34:GLU:HG2	1.91	0.51
1:1G:858:G:N7	61:1G:1852:HOH:O	2.35	0.51
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.10	0.51
24:3L:43:G:O2'	24:3L:44:G:O5'	2.26	0.51
26:14:899:A:H2'	26:14:900:A:H8	1.75	0.51
26:14:2541:A:H5"	26:14:2542:A:OP2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2660:A:H8	26:14:2660:A:OP1	1.94	0.51
29:19:260:ARG:NH1	29:19:264:LYS:HD3	2.26	0.51
31:39:118:ALA:HB2	31:39:123:LEU:HD12	1.91	0.51
38:45:109:VAL:HG22	38:45:113:GLN:OE1	2.11	0.51
41:75:10:VAL:O	41:75:12:SER:N	2.44	0.51
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.46	0.51
44:A5:92:ARG:NH1	44:A5:94:ASP:OD1	2.43	0.51
45:B5:11:PRO:HB3	45:B5:92:LEU:HD11	1.93	0.51
46:C5:59:GLY:O	46:C5:61:ILE:HG12	2.11	0.51
47:D5:77:ASP:HB2	47:D5:84:GLU:HG2	1.92	0.51
1:13:376:G:O5'	16:7I:5:ARG:CZ	2.59	0.51
1:13:401:C:O2'	1:13:621:A:N3	2.38	0.51
1:13:429:U:H1'	1:13:430:A:H5"	1.93	0.51
1:13:443:C:H42	1:13:491:G:H1	1.58	0.51
1:13:964:A:N3	1:13:969:A:O2'	2.31	0.51
1:13:1053:G:N7	1:13:1199:U:H3'	2.25	0.51
1:13:1346:A:H2'	7:6E:10:ARG:HH22	1.76	0.51
16:7I:11:SER:HB2	16:7I:14:ASN:HB3	1.91	0.51
17:8I:45:HIS:HB3	17:8I:72:ARG:HB3	1.93	0.51
19:AI:22:LEU:HD22	19:AI:27:GLU:O	2.11	0.51
20:BI:104:LEU:HD23	20:BI:105:SER:N	2.26	0.51
26:1H:657:U:H2'	26:1H:658:C:C6	2.46	0.51
26:1H:847:U:H5"	61:1H:3764:HOH:O	2.11	0.51
26:1H:957:A:N1	26:1H:2458:G:H4'	2.25	0.51
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.46	0.51
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.09	0.51
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.46	0.51
34:61:109:ILE:HG23	34:61:113:ARG:NH2	2.12	0.51
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.10	0.51
47:H8:4:ARG:HH22	47:H8:6:LYS:H	1.54	0.51
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.44	0.51
2:12:40:HIS:CD2	2:12:41:ILE:H	2.29	0.51
3:22:20:SER:OG	3:22:57:ILE:HD11	2.10	0.51
5:42:103:GLY:O	5:42:106:PRO:HD2	2.09	0.51
8:72:73:ASP:HB2	8:72:75:ARG:HH22	1.74	0.51
14:5A:29:ARG:CB	14:5A:31:ARG:H	2.22	0.51
20:BA:46:GLU:HB3	20:BA:48:LYS:HZ3	1.75	0.51
26:14:1815:A:P	29:19:54:ARG:HH12	2.34	0.51
26:14:1942:C:OP2	26:14:1943:U:O2'	2.21	0.51
34:69:109:ILE:HG13	34:69:130:TYR:CZ	2.45	0.51
34:69:128:LEU:O	34:69:138:ILE:HG22	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:30:ILE:HG22	35:15:34:LEU:HD22	1.93	0.51
35:15:96:GLU:O	35:15:100:GLU:HB2	2.10	0.51
36:25:91:LEU:HD11	61:25:306:HOH:O	2.11	0.51
40:65:62:LYS:HE3	40:65:97:ARG:CG	2.40	0.51
43:95:6:LYS:N	43:95:6:LYS:HZ2	2.09	0.51
50:G5:10:LEU:HD12	50:G5:14:ARG:NH1	2.26	0.51
1:13:1291:G:H2'	1:13:1292:U:C6	2.46	0.51
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.11	0.51
4:3E:13:ARG:HD2	4:3E:38:TYR:O	2.11	0.51
4:3E:22:LYS:HB2	4:3E:25:ARG:NE	2.26	0.51
4:3E:52:SER:O	4:3E:55:ALA:N	2.44	0.51
4:3E:194:LEU:HD21	6:52:17:SER:OG	2.11	0.51
24:3K:70:C:H2'	24:3K:71:C:C6	2.46	0.51
26:1H:365:C:OP2	61:1H:3754:HOH:O	2.19	0.51
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.11	0.51
27:16:90:C:P	38:88:16:ARG:HH21	2.34	0.51
34:61:68:LEU:HA	34:61:71:ILE:HD13	1.92	0.51
49:J8:58:ILE:HD12	49:J8:87:PRO:HD3	1.92	0.51
52:M8:18:CYS:HB3	52:M8:39:CYS:SG	2.51	0.51
1:1G:1346:A:H5"	9:82:120:ARG:NH2	2.26	0.51
4:32:200:GLU:O	4:32:203:VAL:HG22	2.11	0.51
12:3A:8:ASN:O	12:3A:12:ARG:HG3	2.10	0.51
12:3A:82:VAL:N	12:3A:106:ASP:OD2	2.38	0.51
24:3L:2:G:N2	24:3L:72:C:H1'	2.26	0.51
26:14:228:A:H2'	26:14:230:U:O4'	2.11	0.51
26:14:384:U:H2'	26:14:385:C:C6	2.46	0.51
26:14:860:U:C1'	26:14:2268:A:H5'	2.41	0.51
26:14:1141:U:OP2	35:15:63:THR:OG1	2.29	0.51
26:14:1570:A:H4'	29:19:37:LEU:HD11	1.92	0.51
26:14:2250:G:OP2	26:14:2275:C:H2'	2.11	0.51
26:14:2607:G:OP2	58:14:3445:SPE:H21	2.11	0.51
26:14:2635:C:H5"	30:29:77:ILE:HD13	1.93	0.51
26:14:2836:U:H2'	26:14:2837:G:C8	2.46	0.51
29:19:206:LEU:O	29:19:211:ARG:HD3	2.10	0.51
32:49:36:LYS:HE3	32:49:93:THR:HG21	1.93	0.51
32:49:106:LEU:HA	32:49:110:ALA:HB3	1.93	0.51
37:35:79:ARG:HD2	37:35:110:TYR:HB2	1.93	0.51
46:C5:75:ILE:HG22	46:C5:76:CYS:N	2.26	0.51
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.93	0.51
1:13:269:C:H2'	1:13:270:A:C8	2.46	0.51
1:13:1126:U:O2	1:13:1280:A:C8	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:71:VAL:HA	2:1E:93:VAL:O	2.10	0.51
4:3E:177:ASP:OD2	4:3E:180:GLY:HA3	2.11	0.51
4:3E:182:LYS:HD3	4:3E:184:LYS:HZ3	1.76	0.51
5:4E:33:VAL:HG13	5:4E:112:LEU:HD12	1.93	0.51
7:6E:3:ARG:NE	7:6E:4:ARG:HB2	2.26	0.51
13:4I:37:THR:HB	13:4I:55:ARG:HG2	1.93	0.51
13:4I:60:VAL:HG12	13:4I:64:TRP:CZ3	2.46	0.51
29:11:26:LYS:HZ1	29:11:31:LYS:HE2	1.76	0.51
29:11:29:PRO:C	29:11:30:GLU:HG2	2.30	0.51
34:61:124:GLY:H	34:61:142:VAL:HG23	1.75	0.51
36:68:64:ARG:HB2	36:68:79:PHE:CG	2.45	0.51
40:A8:106:ARG:HG2	40:A8:107:GLU:HG2	1.93	0.51
43:D8:51:VAL:HG22	43:D8:52:VAL:O	2.11	0.51
50:K8:51:ARG:O	50:K8:55:ARG:HG2	2.11	0.51
55:Q8:52:LYS:N	55:Q8:53:PRO:HD2	2.25	0.51
1:1G:1316:G:N2	1:1G:1319:A:O5'	2.36	0.51
3:22:150:LYS:HA	3:22:169:ALA:HB3	1.92	0.51
5:42:95:ALA:O	5:42:98:THR:HG23	2.10	0.51
8:72:99:GLU:HB3	8:72:100:ILE:CB	2.26	0.51
26:14:868:U:H2'	26:14:869:G:O4'	2.11	0.51
26:14:2365:G:H4'	48:E5:60:PHE:CZ	2.46	0.51
27:1J:8:U:O5'	40:65:15:ARG:NH2	2.42	0.51
29:19:242:ARG:N	29:19:242:ARG:HD3	2.24	0.51
34:69:74:ASN:CG	34:69:75:LEU:H	2.13	0.51
46:C5:84:ARG:NH1	46:C5:85:VAL:O	2.44	0.51
47:D5:40:ASP:HB3	47:D5:43:GLU:OE1	2.10	0.51
1:13:170:U:H2'	1:13:171:A:H8	1.76	0.50
1:13:323:U:O5'	1:13:323:U:H6	1.94	0.50
1:13:1049:U:OP1	14:5I:3:ARG:HG2	2.11	0.50
1:13:1178:G:OP2	9:8E:97:LYS:NZ	2.42	0.50
2:1E:68:ILE:O	2:1E:91:PRO:HD2	2.11	0.50
5:4E:89:ILE:HG21	5:4E:135:THR:HA	1.91	0.50
12:3I:18:VAL:HA	12:3I:19:ARG:CZ	2.40	0.50
18:9I:56:THR:HG21	18:9I:63:GLN:OE1	2.10	0.50
20:BI:40:ALA:N	20:BI:55:ILE:HD11	2.26	0.50
26:1H:548:A:H2'	26:1H:549:G:H5'	1.94	0.50
26:1H:1500:G:O2'	29:11:100:GLY:O	2.23	0.50
26:1H:2170:A:OP2	26:1H:2170:A:H3'	2.11	0.50
27:16:50:G:OP1	40:A8:63:THR:OG1	2.17	0.50
33:51:83:TYR:CE1	33:51:84:SER:O	2.64	0.50
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.34	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:3:LEU:H	50:K8:4:SER:HA	1.76	0.50
1:1G:15:G:N2	5:42:18:ARG:HH11	2.08	0.50
1:1G:1240:U:OP2	7:62:116:ALA:N	2.43	0.50
8:72:86:ILE:HG13	8:72:87:SER:H	1.76	0.50
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.93	0.50
26:14:1248:G:C5	42:85:3:ARG:HB2	2.46	0.50
26:14:2137:C:N4	26:14:2155:G:H1	2.08	0.50
26:14:2542:A:N3	26:14:2542:A:H5"	2.26	0.50
28:79:6:ARG:HB3	28:79:8:ARG:HH21	1.75	0.50
30:29:101:ARG:NH1	30:29:185:LYS:HE2	2.26	0.50
47:D5:30:ASN:OD1	47:D5:33:LEU:N	2.43	0.50
50:G5:64:LEU:O	50:G5:64:LEU:HD23	2.11	0.50
1:13:322:C:H41	1:13:328:C:H6	1.59	0.50
1:13:688:G:H2'	1:13:689:C:H6	1.76	0.50
1:13:1071:C:H2'	1:13:1072:G:C8	2.45	0.50
19:AI:65:ASN:OD1	19:AI:65:ASN:N	2.43	0.50
20:BI:82:SER:HB2	20:BI:83:ARG:CZ	2.41	0.50
22:1K:34:CM0:O5'	22:1K:34:CM0:H6	2.10	0.50
26:1H:574:C:H4'	26:1H:575:A:O5'	2.11	0.50
26:1H:755:C:H2'	26:1H:756:C:C6	2.47	0.50
29:11:147:LEU:HD13	29:11:155:LEU:HD11	1.93	0.50
37:78:124:LYS:HA	37:78:143:GLY:O	2.11	0.50
41:B8:99:LEU:HB3	41:B8:101:PHE:CE1	2.45	0.50
42:C8:59:ARG:O	42:C8:63:VAL:HG12	2.12	0.50
43:D8:18:LEU:HD13	43:D8:20:LEU:HB2	1.93	0.50
46:G8:49:VAL:HG11	46:G8:61:ILE:HG23	1.92	0.50
47:H8:76:LEU:HA	47:H8:83:PRO:HA	1.93	0.50
47:H8:128:VAL:HG12	47:H8:129:SER:H	1.76	0.50
1:1G:818:G:O2'	1:1G:819:A:H5'	2.10	0.50
1:1G:952:U:H2'	1:1G:953:G:H8	1.76	0.50
1:1G:972:C:O2'	10:1A:57:LYS:HE3	2.11	0.50
1:1G:1190:G:H5'	3:22:176:HIS:CE1	2.46	0.50
3:22:170:GLN:HG2	3:22:171:GLY:H	1.77	0.50
4:32:148:VAL:O	4:32:152:SER:OG	2.24	0.50
7:62:88:PRO:O	7:62:89:MET:HG2	2.11	0.50
56:1L:53:G:H3'	56:1L:54:5MU:H71	1.92	0.50
26:14:831:G:O6	61:14:3645:HOH:O	2.17	0.50
26:14:863:A:OP1	38:45:22:LYS:NZ	2.42	0.50
26:14:1859:A:N6	26:14:1883:G:O2'	2.44	0.50
26:14:2064:C:H2'	26:14:2065:C:C6	2.46	0.50
31:39:8:GLN:NE2	31:39:8:GLN:O	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:136:GLU:HG2	35:15:137:LYS:O	2.11	0.50
41:75:80:SER:HB3	41:75:83:ILE:HG13	1.92	0.50
42:85:95:LEU:O	42:85:98:LEU:HG	2.11	0.50
44:A5:82:LEU:HD22	44:A5:84:ARG:NH2	2.26	0.50
1:13:191(F):U:H2'	1:13:191:G:C8	2.47	0.50
1:13:222:U:H2'	1:13:223:U:C6	2.47	0.50
1:13:323:U:C4'	20:BI:23:ARG:HH21	2.24	0.50
1:13:664:G:N2	1:13:741:G:H1	2.09	0.50
1:13:1113:C:H2'	1:13:1114:C:H6	1.77	0.50
1:13:1225:A:OP1	13:4I:102:ARG:HB2	2.10	0.50
7:6E:80:VAL:HG22	7:6E:81:GLY:H	1.76	0.50
17:8I:45:HIS:H	17:8I:72:ARG:HA	1.76	0.50
19:AI:68:GLY:HA3	52:M8:59:PHE:HD2	1.76	0.50
26:1H:2056:G:C2	26:1H:2057:A:C8	2.99	0.50
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.74	0.50
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.12	0.50
32:41:115:ARG:HG3	32:41:116:ASP:OD2	2.11	0.50
34:61:65:ALA:O	34:61:69:LYS:N	2.44	0.50
44:E8:18:ARG:HH11	44:E8:76:VAL:HG13	1.77	0.50
44:E8:29:LEU:HD23	44:E8:29:LEU:O	2.11	0.50
47:H8:76:LEU:HD23	47:H8:76:LEU:H	1.76	0.50
47:H8:151:HIS:HA	47:H8:170:THR:HA	1.93	0.50
1:1G:56:U:H2'	1:1G:57:G:C8	2.46	0.50
1:1G:269:C:H2'	1:1G:270:A:C8	2.46	0.50
1:1G:353:A:H5'	1:1G:353:A:C8	2.39	0.50
1:1G:967:C:H2'	1:1G:968:A:C8	2.45	0.50
1:1G:1350:A:P	9:82:121:ARG:NH2	2.84	0.50
2:12:187:LEU:HD12	2:12:201:ILE:O	2.12	0.50
5:42:51:VAL:O	5:42:55:VAL:HG23	2.11	0.50
7:62:116:ALA:O	7:62:120:ILE:HD12	2.12	0.50
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.93	0.50
13:4A:65:LYS:HE2	52:I5:52:THR:OG1	2.11	0.50
20:BA:42:GLN:O	20:BA:45:GLN:HB3	2.11	0.50
26:14:244:A:C2	26:14:255:A:C4	3.00	0.50
29:19:30:GLU:CD	29:19:30:GLU:H	2.13	0.50
30:29:143:ASN:HD22	30:29:147:PRO:CD	2.23	0.50
32:49:77:ILE:H	32:49:82:LEU:HD11	1.76	0.50
38:45:77:LYS:NZ	38:45:84:GLY:HA3	2.26	0.50
1:13:269:C:H2'	1:13:270:A:H8	1.76	0.50
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.32	0.50
3:2E:64:VAL:HG23	3:2E:66:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:145:GLU:CG	4:3E:184:LYS:HZ1	2.25	0.50
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.12	0.50
6:5E:99:ALA:O	18:9I:28:GLU:HA	2.11	0.50
10:1I:64:GLU:O	14:5I:56:VAL:HA	2.11	0.50
16:7I:18:ARG:HH21	16:7I:35:LYS:NZ	2.08	0.50
23:2K:47:7MG:H81	23:2K:48:U:H5	1.72	0.50
26:1H:764:A:N3	29:11:213:ARG:NH1	2.60	0.50
26:1H:1580:A:H8	26:1H:1580:A:OP2	1.94	0.50
28:71:7:TYR:OH	28:71:32:LEU:HG	2.12	0.50
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.41	0.50
40:A8:35:ILE:HG13	40:A8:97:ARG:HH21	1.76	0.50
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.12	0.50
1:1G:384:G:H2'	1:1G:385:C:C6	2.46	0.50
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.27	0.50
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.46	0.50
3:22:13:GLY:HA2	14:5A:57:ARG:NE	2.27	0.50
13:4A:47:ASP:O	13:4A:48:LEU:HD13	2.11	0.50
14:5A:53:LEU:HD23	14:5A:53:LEU:O	2.12	0.50
56:1L:9:A:H3'	56:1L:10:G:C8	2.46	0.50
26:14:1771:C:H1'	26:14:1786:A:C8	2.46	0.50
26:14:2520:C:N4	26:14:2542:A:H62	2.07	0.50
29:19:19:ALA:HB2	29:19:204:ILE:HD11	1.94	0.50
30:29:4:ILE:HD13	30:29:28:ALA:HB1	1.91	0.50
31:39:117:ARG:HG2	31:39:192:LEU:HB2	1.94	0.50
41:75:21:GLU:O	41:75:91:ARG:NH2	2.45	0.50
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.11	0.50
46:C5:85:VAL:HG23	46:C5:96:ILE:O	2.12	0.50
53:J5:55:ARG:O	53:J5:56:LYS:HD3	2.11	0.50
1:13:130:A:P	17:8I:63:ARG:HH12	2.34	0.50
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.46	0.50
2:1E:168:THR:HG23	2:1E:192:SER:HB2	1.92	0.50
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.94	0.50
7:6E:62:PHE:O	7:6E:66:VAL:HG13	2.12	0.50
14:5I:29:ARG:CZ	14:5I:40:CYS:SG	3.00	0.50
17:8I:43:LEU:HB2	17:8I:69:LYS:CD	2.41	0.50
22:1K:55:PSU:O5'	22:1K:55:PSU:H6	1.94	0.50
22:1K:76:A:H8	26:1H:2583:G:N2	1.92	0.50
26:1H:106:C:H2'	26:1H:107:C:H6	1.75	0.50
26:1H:442:G:C4	26:1H:444:C:C5	2.99	0.50
26:1H:987:G:O2'	26:1H:1000:A:N3	2.43	0.50
26:1H:1359:A:N1	26:1H:1372:U:C4	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2000:G:N7	61:1H:3803:HOH:O	2.34	0.50
26:1H:2335:A:C8	26:1H:2337:G:C5	3.00	0.50
29:11:38:LYS:O	29:11:39:LYS:HG3	2.11	0.50
32:41:98:ARG:O	32:41:101:ILE:HG22	2.12	0.50
34:61:21:VAL:HG22	34:61:22:LYS:H	1.76	0.50
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.94	0.50
34:61:112:LYS:HB3	34:61:113:ARG:HD3	1.93	0.50
35:58:23:LEU:HD13	35:58:60:ILE:HG21	1.93	0.50
40:A8:35:ILE:HD11	40:A8:97:ARG:HE	1.76	0.50
47:H8:105:VAL:HG13	47:H8:139:VAL:O	2.11	0.50
1:1G:712:A:H2'	1:1G:713:G:C8	2.46	0.50
3:22:150:LYS:NZ	3:22:169:ALA:O	2.45	0.50
9:82:77:ILE:C	9:82:77:ILE:HD12	2.31	0.50
10:1A:50:ILE:O	14:5A:41:ARG:NH2	2.45	0.50
26:14:483:A:H5'	46:C5:49:VAL:HG22	1.94	0.50
26:14:1019:U:H2'	26:14:1020:A:H8	1.77	0.50
26:14:1525:G:H2'	26:14:1526:G:H8	1.77	0.50
26:14:2352:A:C2	48:E5:33:ALA:O	2.65	0.50
33:59:85:LYS:NZ	33:59:86:GLU:OE2	2.44	0.50
37:35:63:PRO:HG2	55:M5:25:MET:HB2	1.94	0.50
38:45:28:ALA:HB2	38:45:67:ARG:NH1	2.27	0.50
39:55:97:VAL:HA	39:55:113:LEU:O	2.12	0.50
1:13:725:G:H2'	1:13:726:C:H6	1.76	0.50
1:13:843:U:H5"	1:13:848:C:C5	2.47	0.50
1:13:1318:A:H1'	19:AI:37:ARG:HH11	1.77	0.50
3:2E:18:TRP:HZ3	14:5I:55:GLY:CA	2.23	0.50
6:5E:7:ASN:HB3	18:9I:76:LEU:HD21	1.93	0.50
16:7I:72:ARG:HH11	16:7I:72:ARG:CB	2.12	0.50
20:BI:10:LEU:HD22	20:BI:12:ALA:H	1.76	0.50
24:3K:5:G:H2'	24:3K:6:A:H8	1.76	0.50
26:1H:234:C:H2'	26:1H:235:U:H6	1.75	0.50
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.46	0.50
32:41:111:LEU:O	32:41:114:ILE:HG22	2.12	0.50
34:61:40:THR:O	34:61:44:LEU:HB2	2.11	0.50
34:61:69:LYS:HG3	34:61:136:VAL:HG22	1.94	0.50
1:1G:256:U:H2'	1:1G:257:G:C8	2.46	0.50
9:82:99:LEU:HB3	9:82:101:PHE:CD2	2.47	0.50
10:1A:30:SER:C	10:1A:80:LYS:HZ3	2.14	0.50
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.77	0.50
16:7A:75:ARG:HH22	16:7A:81:ARG:HA	1.76	0.50
19:AA:20:LEU:O	19:AA:23:ASN:ND2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4L:14:A:O2'	25:4L:15:A:O5'	2.26	0.50
26:14:142:G:H2'	26:14:143:C:C6	2.46	0.50
26:14:717:G:H2'	26:14:718:A:O4'	2.11	0.50
26:14:1814:G:OP1	29:19:40:THR:HG21	2.12	0.50
26:14:1939:U:OP1	26:14:2604:U:O2'	2.30	0.50
26:14:2067:G:O2'	26:14:2069:G:H5"	2.10	0.50
26:14:2151:G:C2	26:14:2152:G:H1'	2.46	0.50
26:14:2896:C:H2'	26:14:2897:U:H4'	1.92	0.50
27:1J:101:A:OP2	27:1J:101:A:H8	1.93	0.50
27:1J:104:A:OP1	47:D5:72:ARG:NH2	2.45	0.50
31:39:9:ILE:HG23	31:39:12:LEU:O	2.12	0.50
35:15:24:GLY:O	35:15:28:THR:HG23	2.11	0.50
36:25:63:VAL:HB	36:25:102:VAL:HG12	1.93	0.50
1:13:153:C:H42	1:13:168:G:H1	1.59	0.50
1:13:381:C:H2'	1:13:382:A:O4'	2.12	0.50
1:13:1009:G:C2	1:13:1021:G:C6	2.99	0.50
1:13:1120:G:H2'	1:13:1121:U:C6	2.46	0.50
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	1.92	0.50
12:3I:113:ARG:HB3	12:3I:122:THR:HG21	1.94	0.50
13:4I:23:TYR:CD1	13:4I:67:GLU:HA	2.46	0.50
14:5I:3:ARG:HG3	14:5I:4:LYS:H	1.76	0.50
16:7I:6:LEU:HA	16:7I:18:ARG:O	2.12	0.50
26:1H:569:U:C4	26:1H:570:G:C6	3.00	0.50
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.94	0.50
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.76	0.50
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.47	0.50
27:16:75:G:H21	47:H8:85:HIS:HE1	1.60	0.50
30:21:72:VAL:HG22	30:21:74:PRO:HD3	1.93	0.50
35:58:26:LEU:HD23	35:58:60:ILE:HD11	1.94	0.50
36:68:4:PRO:HA	36:68:21:CYS:O	2.12	0.50
39:98:86:ARG:HH21	39:98:118:GLU:CG	2.21	0.50
40:A8:111:GLU:HB2	40:A8:112:PHE:CE2	2.47	0.50
52:M8:16:CYS:SG	52:M8:36:CYS:N	2.81	0.50
1:1G:742:G:H5'	15:6A:58:MET:HE3	1.93	0.50
1:1G:1287:A:N3	1:1G:1353:G:O2'	2.34	0.50
5:42:10:MET:HB2	5:42:32:VAL:HG12	1.93	0.50
24:3L:58:A:O2'	24:3L:61:C:N4	2.44	0.50
26:14:2320:A:H61	26:14:2333:A:H2'	1.77	0.50
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.46	0.50
33:59:6:ARG:O	33:59:52:VAL:HG21	2.12	0.50
37:35:59:LEU:HG	55:M5:58:ILE:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:5:ARG:HG2	38:45:5:ARG:HH11	1.76	0.50
1:13:1148:U:O2'	9:8E:66:ARG:NH1	2.44	0.50
19:AI:41:VAL:HB	19:AI:42:PRO:C	2.31	0.50
24:3K:36:C:C4	24:3K:37:A:H1'	2.46	0.50
26:1H:950:G:H2'	26:1H:951:C:C6	2.46	0.50
26:1H:2895:U:H2'	26:1H:2896:C:C6	2.46	0.50
29:11:10:THR:OG1	29:11:13:ARG:HB2	2.12	0.50
38:88:66:ILE:HG13	38:88:67:ARG:H	1.77	0.50
43:D8:37:VAL:HG13	43:D8:51:VAL:CG2	2.42	0.50
1:1G:376:G:P	16:7A:5:ARG:CZ	3.00	0.50
1:1G:821:G:H2'	1:1G:822:C:H6	1.77	0.50
2:12:52:GLU:N	2:12:52:GLU:OE2	2.44	0.50
16:7A:5:ARG:NH1	16:7A:67:THR:HG21	2.27	0.50
26:14:17:G:H4'	42:85:25:TRP:CH2	2.47	0.50
26:14:361:G:H2'	26:14:362:U:O2	2.11	0.50
26:14:493:G:H2'	26:14:494:G:O4'	2.11	0.50
26:14:1889:A:N1	26:14:2234:G:H1'	2.27	0.50
26:14:1915:U:H2'	26:14:1916:A:O4'	2.11	0.50
26:14:2147:G:H2'	26:14:2148:G:H4'	1.94	0.50
26:14:2239:G:H5'	29:19:251:GLY:HA3	1.93	0.50
26:14:2477:C:O2	26:14:2477:C:H2'	2.10	0.50
29:19:11:PRO:O	29:19:12:SER:OG	2.24	0.50
42:85:105:VAL:O	42:85:109:LEU:HD12	2.12	0.50
1:13:1296:C:OP1	13:4I:44:ARG:NH2	2.44	0.50
7:6E:20:ASP:OD2	7:6E:23:VAL:N	2.36	0.50
9:8E:71:SER:HA	9:8E:74:ILE:HD13	1.93	0.50
14:5I:4:LYS:HA	14:5I:7:ILE:HD12	1.93	0.50
16:7I:5:ARG:NH2	16:7I:6:LEU:HB3	2.22	0.50
17:8I:38:ARG:HD3	17:8I:39:SER:O	2.11	0.50
18:9I:26:LEU:HD23	18:9I:27:GLY:N	2.27	0.50
22:1K:9:A:N6	22:1K:23:A:OP2	2.44	0.50
23:2K:16:C:O2'	23:2K:62:C:OP1	2.30	0.50
26:1H:999:U:H5"	26:1H:1154:G:O6	2.12	0.50
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.93	0.50
33:51:94:TYR:HA	33:51:106:THR:O	2.12	0.50
41:B8:12:SER:OG	41:B8:13:ARG:N	2.45	0.50
42:C8:11:ARG:O	42:C8:15:LYS:HG3	2.12	0.50
1:1G:922:G:N3	1:1G:1398:A:H2	2.10	0.50
1:1G:1081:G:H5'	5:42:18:ARG:CD	2.42	0.50
1:1G:1373:G:H4'	7:62:31:MET:CE	2.41	0.50
2:12:197:VAL:CG2	2:12:200:ILE:HD11	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:59:TYR:O	11:2A:63:LEU:HD12	2.11	0.50
19:AA:19:VAL:O	19:AA:23:ASN:ND2	2.43	0.50
26:14:1009:A:H1'	42:85:59:ARG:CZ	2.42	0.50
26:14:1628:G:H2'	26:14:1629:U:C6	2.46	0.50
26:14:1858:G:H2'	26:14:1883:G:N2	2.27	0.50
26:14:2773:C:OP1	30:29:166:THR:OG1	2.28	0.50
29:19:182:LEU:HB2	29:19:271:ILE:HB	1.94	0.50
30:29:13:ARG:HH21	41:75:77:PRO:HB3	1.76	0.50
30:29:120:TRP:CE3	30:29:155:LYS:HD3	2.47	0.50
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.47	0.50
32:49:139:LEU:HA	32:49:144:ILE:CD1	2.41	0.50
44:A5:7:ALA:N	44:A5:103:ILE:O	2.43	0.50
1:13:67:C:H2'	1:13:68:G:H8	1.74	0.49
1:13:584:G:OP1	17:8I:91:ARG:NH1	2.45	0.49
5:4E:73:ASN:OD1	5:4E:73:ASN:N	2.44	0.49
14:5I:27:CYS:SG	14:5I:29:ARG:HD3	2.51	0.49
15:6I:63:ARG:HH21	15:6I:64:ARG:HH12	1.58	0.49
26:1H:573:G:O2'	26:1H:574:C:H3'	2.11	0.49
26:1H:760:G:H5"	61:1H:3833:HOH:O	2.11	0.49
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.47	0.49
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.45	0.49
26:1H:2062:A:N3	26:1H:2062:A:C2'	2.75	0.49
26:1H:2138:C:C2	26:1H:2154:G:N2	2.80	0.49
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.12	0.49
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.47	0.49
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.47	0.49
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.45	0.49
33:51:149:ARG:HG3	33:51:162:ILE:O	2.12	0.49
35:58:132:ALA:H	35:58:134:ARG:HH22	1.59	0.49
1:1G:135:C:C2	16:7A:1:MET:HB3	2.47	0.49
1:1G:405:U:H5"	1:1G:406:G:O4'	2.11	0.49
1:1G:457:C:H2'	1:1G:458:C:C6	2.46	0.49
1:1G:690:G:H2'	1:1G:691:G:O4'	2.12	0.49
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.47	0.49
1:1G:1226:C:OP2	13:4A:103:THR:HG21	2.11	0.49
4:32:14:ARG:HH11	4:32:14:ARG:HG3	1.76	0.49
7:62:59:LEU:O	7:62:63:LYS:HG3	2.12	0.49
13:4A:105:THR:HG22	13:4A:106:ASN:N	2.27	0.49
17:8A:83:ASP:OD1	17:8A:84:LEU:N	2.45	0.49
26:14:1183:G:H4'	51:H5:29:ARG:HH22	1.76	0.49
26:14:1323:U:H2'	26:14:1324:G:H5'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2329:G:H2'	26:14:2330:G:O4'	2.12	0.49
30:29:23:VAL:HG11	30:29:183:LEU:HD23	1.94	0.49
33:59:140:LYS:HA	33:59:143:GLN:NE2	2.27	0.49
34:69:102:SER:OG	34:69:103:ARG:N	2.45	0.49
35:15:21:LYS:HB3	35:15:26:LEU:CD1	2.41	0.49
38:45:26:TYR:CD1	38:45:27:VAL:HG13	2.47	0.49
39:55:91:GLN:O	39:55:91:GLN:HG2	2.12	0.49
47:D5:14:LYS:HZ1	47:D5:16:SER:HB3	1.77	0.49
51:H5:46:ASN:O	51:H5:50:VAL:HG22	2.12	0.49
55:M5:15:LYS:HG2	55:M5:16:ILE:N	2.26	0.49
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.11	0.49
1:13:417:C:H2'	1:13:418:C:C6	2.47	0.49
1:13:1257:U:H5'	1:13:1258:G:C8	2.46	0.49
1:13:1326:C:H2'	1:13:1327:C:C6	2.46	0.49
4:3E:22:LYS:H	4:3E:25:ARG:NH2	2.10	0.49
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.94	0.49
7:6E:71:PRO:HG2	7:6E:91:VAL:HG11	1.92	0.49
8:7E:11:THR:HG22	8:7E:14:ARG:HH12	1.77	0.49
9:8E:70:LYS:O	9:8E:74:ILE:HD12	2.12	0.49
18:9I:42:ARG:HH11	18:9I:42:ARG:HB3	1.76	0.49
26:1H:524:U:H4'	26:1H:554:U:H4'	1.93	0.49
26:1H:576:U:H2'	26:1H:577:G:C8	2.47	0.49
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.78	0.49
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.12	0.49
26:1H:2352:A:H2'	26:1H:2353:G:O4'	2.12	0.49
26:1H:2637:U:OP1	30:21:82:ARG:NH1	2.40	0.49
27:16:44:G:H1'	27:16:47:C:H42	1.77	0.49
37:78:19:VAL:HA	37:78:27:HIS:HB3	1.93	0.49
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.46	0.49
42:C8:69:CYS:SG	42:C8:79:PHE:CD2	3.06	0.49
44:E8:41:LYS:HE3	53:N8:25:LEU:HD21	1.94	0.49
47:H8:103:ARG:CZ	47:H8:139:VAL:HG13	2.42	0.49
1:1G:191(F):U:N3	20:BA:105:SER:OG	2.37	0.49
1:1G:600:C:OP1	8:72:97:VAL:HG22	2.12	0.49
1:1G:1022:G:H2'	1:1G:1023:G:O4'	2.11	0.49
4:32:208:SER:OG	4:32:209:ARG:NH2	2.40	0.49
5:42:100:VAL:HG13	5:42:107:ARG:CG	2.35	0.49
15:6A:12:ILE:HG13	15:6A:31:LEU:HD21	1.94	0.49
17:8A:56:VAL:CG1	17:8A:78:GLU:HG3	2.42	0.49
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.93	0.49
18:9A:45:SER:OG	18:9A:47:THR:OG1	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:267:SER:O	29:19:268:ARG:HG2	2.12	0.49
30:29:77:ILE:O	30:29:77:ILE:HD12	2.13	0.49
36:25:35:VAL:HA	36:25:62:VAL:HG22	1.93	0.49
1:13:949:A:H3'	13:4I:102:ARG:HH12	1.75	0.49
1:13:1266:G:N2	1:13:1269:A:OP2	2.39	0.49
2:1E:74:LYS:HG3	2:1E:75:LYS:H	1.77	0.49
6:5E:43:LEU:O	6:5E:43:LEU:HD23	2.12	0.49
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.47	0.49
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.13	0.49
8:7E:80:ILE:H	8:7E:80:ILE:HD12	1.77	0.49
9:8E:10:ARG:HG3	9:8E:11:LYS:HG2	1.93	0.49
26:1H:524:U:H2'	26:1H:525:U:C6	2.47	0.49
26:1H:724:U:H2'	26:1H:725:G:O4'	2.12	0.49
26:1H:1050:A:N7	33:51:3:ARG:NH2	2.59	0.49
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.12	0.49
29:11:127:VAL:HA	29:11:193:VAL:HG22	1.93	0.49
33:51:23:ARG:NH2	33:51:25:LYS:HD2	2.27	0.49
34:61:77:LEU:CD2	34:61:101:LEU:HG	2.40	0.49
41:B8:35:LYS:HE3	41:B8:38:ASN:HA	1.93	0.49
43:D8:56:SER:O	43:D8:100:ARG:N	2.45	0.49
46:G8:5:MET:HE1	46:G8:32:PRO:HA	1.94	0.49
1:1G:413:G:HO2'	1:1G:414:A:P	2.35	0.49
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.77	0.49
1:1G:1274:G:H21	1:1G:1275:A:H62	1.60	0.49
8:72:88:LYS:O	8:72:92:ARG:HD3	2.12	0.49
15:6A:36:ILE:HG23	15:6A:56:LEU:HD11	1.94	0.49
56:1L:17:U:O2'	56:1L:18:G:OP2	2.21	0.49
26:14:309:G:H4'	46:C5:18:GLY:HA3	1.94	0.49
26:14:637:A:H2'	37:35:117:GLU:OE2	2.13	0.49
26:14:818:G:H5'	26:14:839:U:OP1	2.11	0.49
26:14:1198:U:H2'	26:14:1199:U:C6	2.47	0.49
26:14:2262:U:H4'	26:14:2328:A:C2	2.47	0.49
32:49:5:VAL:HA	52:I5:23:GLU:CD	2.33	0.49
37:35:57:THR:HG22	37:35:60:MET:H	1.77	0.49
38:45:135:ASP:HA	47:D5:81:ARG:HH12	1.77	0.49
46:C5:29:GLU:OE2	46:C5:38:ILE:HG12	2.12	0.49
50:G5:38:GLN:O	50:G5:41:ILE:HG12	2.11	0.49
1:13:539:A:H2'	1:13:540:G:C8	2.48	0.49
1:13:583:A:O2'	17:8I:91:ARG:HD3	2.12	0.49
1:13:1106:G:H5"	3:2E:172:ARG:HG2	1.94	0.49
1:13:1369:C:H2'	1:13:1370:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:84:GLU:OE1	2:1E:219:VAL:HG11	2.12	0.49
4:3E:104:VAL:HA	4:3E:107:ARG:HB2	1.95	0.49
4:3E:176:LEU:CG	4:3E:183:GLY:HA2	2.42	0.49
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.45	0.49
26:1H:1899:G:N2	26:1H:1902:C:H41	2.07	0.49
26:1H:1945:G:H2'	26:1H:1946:U:H6	1.74	0.49
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.26	0.49
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.45	0.49
26:1H:2751:G:N7	33:51:3:ARG:NH1	2.60	0.49
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.47	0.49
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.95	0.49
40:A8:106:ARG:HD3	40:A8:106:ARG:N	2.27	0.49
42:C8:92:ARG:NH2	42:C8:95:LEU:N	2.57	0.49
1:1G:1208:C:H2'	1:1G:1209:C:H6	1.77	0.49
1:1G:1333:A:H2'	1:1G:1334:G:O4'	2.12	0.49
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.93	0.49
10:1A:48:THR:OG1	10:1A:62:HIS:ND1	2.43	0.49
13:4A:84:ILE:HG13	13:4A:84:ILE:O	2.12	0.49
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.27	0.49
16:7A:18:ARG:HA	16:7A:38:TYR:HA	1.94	0.49
26:14:755:C:H2'	26:14:756:C:C6	2.47	0.49
26:14:869:G:N2	26:14:870:A:H1'	2.26	0.49
26:14:931:G:HO2'	51:H5:24:LYS:HZ1	1.51	0.49
26:14:2695:C:H2'	26:14:2696:U:C6	2.46	0.49
30:29:111:ARG:HA	39:55:1:MET:SD	2.52	0.49
33:59:52:VAL:HG23	33:59:65:HIS:HE2	1.78	0.49
33:59:89:ILE:O	33:59:89:ILE:HG12	2.13	0.49
34:69:103:ARG:HG2	34:69:104:GLN:N	2.26	0.49
35:15:26:LEU:HD12	35:15:29:LYS:NZ	2.27	0.49
40:65:16:ASN:O	40:65:20:ARG:CZ	2.61	0.49
44:A5:40:ASN:O	44:A5:41:LYS:HG3	2.13	0.49
49:F5:85:LEU:HD23	49:F5:86:SER:N	2.27	0.49
52:I5:13:ARG:NH2	52:I5:21:VAL:HG12	2.28	0.49
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.28	0.49
1:13:1286:A:H8	1:13:1287:A:H4'	1.72	0.49
26:1H:307:G:N7	61:1H:3810:HOH:O	2.35	0.49
26:1H:1464:C:O2'	26:1H:1528:A:H8	1.96	0.49
26:1H:1695:G:N7	29:11:14:ARG:NH2	2.61	0.49
26:1H:2262:U:OP1	26:1H:2387:U:O2'	2.26	0.49
28:71:8:ARG:NH1	28:71:11:LEU:HB3	2.27	0.49
31:31:65:TRP:HB2	31:31:66:PRO:CD	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:59:ARG:NH1	38:88:61:GLY:C	2.66	0.49
50:K8:42:GLY:C	50:K8:44:LEU:H	2.15	0.49
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.12	0.49
11:2A:48:ILE:HG13	11:2A:49:GLY:N	2.27	0.49
13:4A:84:ILE:HB	19:AA:63:THR:HG21	1.95	0.49
14:5A:12:ARG:HH22	14:5A:17:LYS:HA	1.76	0.49
26:14:41:C:H2'	26:14:43:G:H8	1.76	0.49
26:14:57:C:H2'	26:14:58:G:O4'	2.12	0.49
26:14:322:A:OP2	31:39:169:ASN:HB2	2.13	0.49
26:14:823:G:H2'	26:14:824:A:C8	2.48	0.49
26:14:1332:G:N2	26:14:1609:A:O2'	2.45	0.49
26:14:2074:U:H2'	26:14:2075:U:C6	2.48	0.49
26:14:2432:A:H2'	26:14:2433:A:C8	2.48	0.49
27:1J:28:C:OP1	40:65:36:TYR:OH	2.22	0.49
31:39:7:TYR:HE1	31:39:17:ARG:N	2.10	0.49
32:49:77:ILE:H	32:49:82:LEU:CD2	2.24	0.49
42:85:99:ALA:HB2	42:85:106:PHE:CD1	2.47	0.49
46:C5:40:GLU:OE1	46:C5:40:GLU:N	2.46	0.49
1:13:427:U:OP1	4:3E:13:ARG:NH2	2.43	0.49
1:13:825:G:H2'	1:13:826:C:H6	1.77	0.49
1:13:1148:U:H2'	1:13:1149:C:O4'	2.13	0.49
2:1E:168:THR:HG23	2:1E:192:SER:CB	2.42	0.49
5:4E:37:ARG:HB2	5:4E:37:ARG:HH11	1.77	0.49
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.92	0.49
13:4I:5:ALA:HB2	13:4I:61:GLU:CG	2.43	0.49
24:3K:15:G:H8	24:3K:15:G:O5'	1.95	0.49
26:1H:270(N):G:H21	34:61:50:ARG:NH2	2.11	0.49
26:1H:588:U:O4	26:1H:670:A:H1'	2.13	0.49
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.47	0.49
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.43	0.49
32:41:11:TYR:O	32:41:15:VAL:HG13	2.13	0.49
32:41:72:ARG:NH1	32:41:73:ALA:H	2.11	0.49
1:1G:457:C:H2'	1:1G:458:C:H6	1.76	0.49
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.47	0.49
1:1G:1072:G:C5	1:1G:1073:U:C4	3.01	0.49
1:1G:1107:C:P	3:22:172:ARG:CZ	3.01	0.49
1:1G:1308:U:H5"	13:4A:98:VAL:HG22	1.95	0.49
2:12:220:ASP:H	2:12:222:ILE:HD13	1.77	0.49
8:72:51:VAL:HG21	8:72:60:ARG:HB2	1.94	0.49
20:BA:75:ASN:OD1	20:BA:75:ASN:N	2.45	0.49
56:1L:26:A:H62	56:1L:44:G:H22	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:631:A:O2'	37:35:67:MET:HB3	2.12	0.49
26:14:1365:A:OP2	49:F5:3:LYS:HB2	2.13	0.49
26:14:1501:C:N4	61:14:3650:HOH:O	2.20	0.49
26:14:2472:G:N2	26:14:2529:G:O6	2.46	0.49
26:14:2649:U:H2'	26:14:2650:U:C6	2.47	0.49
26:14:2859:G:C8	26:14:2859:G:H3'	2.48	0.49
27:1J:44:G:H1'	27:1J:47:C:N4	2.23	0.49
32:49:8:LYS:O	32:49:11:TYR:HB3	2.13	0.49
38:45:12:GLN:HG2	38:45:73:PRO:HD2	1.94	0.49
40:65:29:PHE:HD1	40:65:30:ARG:N	2.11	0.49
41:75:73:GLU:OE1	41:75:103:ARG:HD3	2.12	0.49
44:A5:97:LYS:HE2	44:A5:99:ARG:HH21	1.77	0.49
1:13:160:A:C6	1:13:344:A:H8	2.31	0.49
1:13:501:C:H2'	1:13:502:G:H8	1.76	0.49
1:13:677:U:H3	1:13:713:G:H22	1.59	0.49
1:13:859:A:H2'	1:13:860:A:H8	1.76	0.49
4:3E:32:ALA:HA	4:3E:35:ARG:HG3	1.93	0.49
11:2I:20:TYR:O	11:2I:30:VAL:HA	2.12	0.49
26:1H:234:C:H2'	26:1H:235:U:C6	2.47	0.49
26:1H:254:G:O6	55:Q8:5:LYS:HG2	2.12	0.49
26:1H:484:C:H2'	26:1H:485:C:H6	1.77	0.49
26:1H:592:G:H5"	26:1H:592:G:H8	1.77	0.49
26:1H:634:C:H2'	26:1H:635:C:C6	2.46	0.49
26:1H:1206:G:C6	26:1H:1207:C:C4	3.01	0.49
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.13	0.49
26:1H:2444:G:OP2	31:31:68:LYS:HD2	2.12	0.49
28:71:22:ILE:O	28:71:26:ALA:N	2.46	0.49
29:11:237:GLU:N	61:11:406:HOH:O	2.46	0.49
32:41:37:VAL:HG22	32:41:99:MET:HG3	1.93	0.49
33:51:121:ILE:HG12	33:51:144:VAL:HG21	1.94	0.49
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.93	0.49
40:A8:49:VAL:HG11	40:A8:77:ALA:HA	1.94	0.49
3:22:87:LEU:HB2	3:22:88:ARG:HD2	1.94	0.49
5:42:28:PHE:HZ	25:4L:25:A:O2'	1.95	0.49
5:42:39:GLY:HA2	5:42:113:ALA:O	2.12	0.49
12:3A:40:VAL:HG21	12:3A:77:LEU:O	2.12	0.49
18:9A:33:ASP:HA	61:9A:203:HOH:O	2.12	0.49
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.95	0.49
26:14:6:A:H2'	26:14:6:A:N3	2.27	0.49
26:14:196:A:OP2	37:35:46:LYS:NZ	2.45	0.49
26:14:200:U:O2	26:14:386:G:N2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:274:G:H2'	26:14:275:G:H1'	1.95	0.49
26:14:630:G:N2	26:14:633:A:OP2	2.40	0.49
26:14:1049:C:O2'	26:14:1113:U:O2'	2.28	0.49
26:14:1883:G:HO2'	26:14:1884:A:H8	1.59	0.49
33:59:103:LEU:HD21	33:59:133:VAL:HG11	1.94	0.49
33:59:152:ARG:NE	33:59:152:ARG:HA	2.25	0.49
37:35:97:PRO:C	37:35:99:LEU:H	2.14	0.49
47:D5:4:ARG:HH22	47:D5:57:ILE:HG23	1.76	0.49
50:G5:51:ARG:HH11	50:G5:51:ARG:HB2	1.77	0.49
1:13:188:U:H2'	1:13:189:U:H5"	1.93	0.49
4:3E:46:LYS:NZ	4:3E:46:LYS:HB2	2.28	0.49
5:4E:113:ALA:O	5:4E:115:VAL:HG22	2.13	0.49
6:5E:14:LEU:HG	6:5E:18:GLN:HB2	1.93	0.49
8:7E:10:LEU:HD21	8:7E:135:CYS:SG	2.53	0.49
26:1H:1416:G:H21	26:1H:1586:A:H62	1.61	0.49
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.12	0.49
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.11	0.49
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.48	0.49
32:41:80:PHE:CD2	32:41:82:LEU:HD22	2.47	0.49
33:51:56:SER:OG	33:51:58:GLU:HG2	2.12	0.49
38:88:27:VAL:HG13	38:88:138:ASP:OD2	2.13	0.49
1:1G:619:U:N3	4:32:134:ASP:OD1	2.42	0.49
1:1G:624:C:H2'	1:1G:625:G:H8	1.77	0.49
1:1G:792:A:H4'	1:1G:793:U:O5'	2.13	0.49
1:1G:932:C:OP2	7:62:4:ARG:NH2	2.46	0.49
1:1G:1373:G:H5"	7:62:36:LYS:HD2	1.94	0.49
8:72:82:HIS:HB3	8:72:138:TRP:NE1	2.28	0.49
20:BA:33:ILE:O	20:BA:33:ILE:HG12	2.13	0.49
20:BA:76:ALA:O	20:BA:80:ARG:HG3	2.13	0.49
26:14:19:C:H2'	26:14:20:C:C6	2.48	0.49
26:14:83:G:N2	26:14:103:A:OP2	2.39	0.49
26:14:868:U:C4	26:14:869:G:N7	2.81	0.49
26:14:2543:G:H2'	26:14:2544:G:C8	2.48	0.49
27:1J:105:G:H5'	47:D5:31:ARG:NE	2.26	0.49
29:19:70:TRP:CE2	29:19:150:LYS:HD3	2.48	0.49
1:13:194:C:H2'	1:13:195:A:H5"	1.95	0.49
1:13:376:G:H5"	1:13:376:G:H8	1.77	0.49
1:13:658:G:H2'	1:13:659:U:H6	1.78	0.49
1:13:953:G:H5'	1:13:965:A:N6	2.21	0.49
1:13:1126:U:C4	1:13:1127:G:C5	3.01	0.49
2:1E:94:ASN:OD1	2:1E:96:ARG:NH1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:8:ILE:HD11	14:5I:50:LYS:CA	2.41	0.49
8:7E:109:ILE:HD11	8:7E:111:ILE:HG23	1.95	0.49
19:AI:41:VAL:HG12	19:AI:44:MET:CB	2.43	0.49
26:1H:125:G:OP2	54:P8:23:ARG:NH2	2.44	0.49
26:1H:336:C:H5"	46:G8:6:HIS:CD2	2.48	0.49
26:1H:880:G:H1	26:1H:897:C:N4	2.08	0.49
26:1H:1195:G:N7	37:78:15:ARG:NH2	2.61	0.49
26:1H:1535:U:H5"	26:1H:1537:C:H42	1.78	0.49
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.12	0.49
28:71:66:HIS:CG	28:71:180:PHE:CE2	3.01	0.49
31:31:11:VAL:HA	31:31:125:LEU:O	2.13	0.49
34:61:2:LYS:HB3	34:61:39:ALA:HB3	1.94	0.49
34:61:61:ARG:HD3	34:61:61:ARG:HA	1.64	0.49
34:61:110:ASP:N	34:61:113:ARG:NH2	2.59	0.49
37:78:63:PRO:HD3	55:Q8:27:THR:HG22	1.94	0.49
38:88:60:ARG:HG3	38:88:60:ARG:O	2.12	0.49
39:98:33:ARG:NH2	53:N8:55:ARG:HB3	2.28	0.49
41:B8:1:MET:HB3	41:B8:1:MET:HE2	1.65	0.49
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.93	0.49
50:K8:59:ARG:O	50:K8:63:VAL:HG23	2.13	0.49
52:M8:4:GLY:O	52:M8:6:HIS:N	2.45	0.49
1:1G:605:U:H2'	1:1G:606:G:O4'	2.13	0.49
1:1G:821:G:H2'	1:1G:822:C:C6	2.48	0.49
1:1G:957:U:H2'	1:1G:959:A:OP2	2.12	0.49
10:1A:22:LYS:HE2	10:1A:29:ARG:HH12	1.78	0.49
10:1A:30:SER:HB3	10:1A:80:LYS:HZ2	1.78	0.49
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.78	0.49
56:1L:17:U:O2'	56:1L:57:G:N2	2.46	0.49
26:14:94:G:N2	50:G5:47:ASN:HD22	2.07	0.49
26:14:1430:C:H2'	26:14:1431:U:H6	1.76	0.49
26:14:1946:U:H2'	26:14:1947:C:C6	2.48	0.49
29:19:60:ARG:HD3	29:19:86:PRO:HB2	1.94	0.49
31:39:148:LEU:HD12	31:39:172:TRP:CH2	2.48	0.49
31:39:154:VAL:HA	31:39:191:ARG:O	2.12	0.49
38:45:27:VAL:HG23	38:45:28:ALA:HB2	1.93	0.49
39:55:38:VAL:HG22	39:55:112:ALA:HB2	1.95	0.49
42:85:91:ASP:O	42:85:93:LYS:N	2.46	0.49
44:A5:11:ARG:NH1	44:A5:11:ARG:HG2	2.27	0.49
51:H5:30:ARG:C	51:H5:30:ARG:HD3	2.32	0.49
1:13:954:G:H2'	1:13:955:U:C6	2.48	0.49
1:13:1504:G:OP1	1:13:1507:A:H4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.13	0.49
4:3E:197:PRO:HD3	6:52:16:GLN:HG3	1.95	0.49
5:4E:145:LYS:O	5:4E:148:VAL:HG22	2.13	0.49
8:7E:87:SER:CB	8:7E:93:VAL:H	2.26	0.49
10:1I:48:THR:HB	10:1I:62:HIS:ND1	2.28	0.49
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.13	0.49
20:BI:19:SER:O	20:BI:23:ARG:NH2	2.45	0.49
20:BI:38:LYS:O	20:BI:41:ILE:HG13	2.13	0.49
24:3K:71:C:O2	26:1H:1851:U:O2'	2.29	0.49
25:4K:19:G:H2'	25:4K:19:G:N3	2.27	0.49
26:1H:1264:G:H5'	53:N8:11:THR:HG21	1.95	0.49
26:1H:1533:C:C6	26:1H:1534:G:H5"	2.48	0.49
29:11:30:GLU:HB2	29:11:35:LYS:HD3	1.94	0.49
29:11:68:LYS:HB3	29:11:70:TRP:CH2	2.48	0.49
34:61:127:VAL:HA	34:61:138:ILE:O	2.12	0.49
37:78:13:ASN:O	37:78:15:ARG:N	2.46	0.49
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.78	0.49
42:C8:28:ARG:NE	42:C8:38:THR:OG1	2.45	0.49
49:J8:87:PRO:HB2	49:J8:91:LYS:HZ3	1.77	0.49
49:J8:92:LYS:HE3	49:J8:95:LEU:HD12	1.95	0.49
1:1G:1497:G:H2'	1:1G:1498:U:H5'	1.94	0.49
3:22:90:GLU:HB2	3:22:93:LYS:HE2	1.95	0.49
4:32:22:LYS:HB2	4:32:26:CYS:SG	2.53	0.49
5:42:80:ILE:HD13	8:72:104:ARG:HH21	1.77	0.49
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.48	0.49
10:1A:50:ILE:HG13	14:5A:41:ARG:NH1	2.25	0.49
26:14:1171:G:O2'	26:14:1173:G:O4'	2.30	0.49
26:14:1204:A:H2	26:14:1241:A:N1	2.11	0.49
26:14:2123:G:O2'	28:79:172:HIS:HB2	2.12	0.49
26:14:2146:C:H4'	26:14:2147:G:C8	2.48	0.49
27:1J:36:C:N3	27:1J:49:C:O2'	2.42	0.49
27:1J:43:C:OP1	52:I5:6:HIS:HE1	1.96	0.49
29:19:70:TRP:CD1	29:19:70:TRP:C	2.87	0.49
31:39:5:ALA:O	31:39:17:ARG:NE	2.46	0.49
32:49:63:ILE:HD11	32:49:141:PHE:CD2	2.48	0.49
32:49:84:LYS:N	32:49:84:LYS:HZ3	2.11	0.49
45:B5:12:VAL:HG23	45:B5:17:ALA:HB2	1.94	0.49
47:D5:92:SER:O	47:D5:94:GLU:N	2.45	0.49
1:13:60:A:H4'	1:13:61:G:H5'	1.94	0.48
1:13:160:A:C6	1:13:344:A:C8	3.00	0.48
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1218:C:OP2	14:5I:9:LYS:NZ	2.43	0.48
4:3E:84:LYS:HE2	4:3E:86:LYS:HB3	1.94	0.48
4:3E:85:LYS:HE3	4:3E:89:THR:HA	1.95	0.48
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.13	0.48
17:8I:17:LYS:HB3	17:8I:17:LYS:NZ	2.27	0.48
26:1H:817:C:H4'	26:1H:932:G:C5	2.48	0.48
26:1H:1255:U:O2'	61:1H:3755:HOH:O	2.20	0.48
26:1H:1614:A:P	26:1H:1614:A:H8	2.36	0.48
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.12	0.48
28:71:46:LYS:H	28:71:46:LYS:HD2	1.78	0.48
28:71:184:LYS:HZ2	28:71:185:LEU:HA	1.77	0.48
29:11:24:ILE:HA	29:11:82:ILE:HD11	1.95	0.48
30:21:119:ARG:HD2	30:21:160:TYR:HB2	1.95	0.48
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.43	0.48
42:C8:108:GLU:OE1	42:C8:112:ARG:NH1	2.42	0.48
1:1G:135:C:O2	16:7A:1:MET:HB3	2.13	0.48
1:1G:512:U:H2'	1:1G:513:C:C6	2.48	0.48
1:1G:529:G:O6	12:3A:49:ASN:HA	2.12	0.48
1:1G:978:A:O2'	1:1G:1322:C:N4	2.46	0.48
1:1G:1068:G:N2	1:1G:1191:A:N3	2.56	0.48
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.78	0.48
1:1G:1435:G:H2'	1:1G:1436:U:C5	2.48	0.48
2:12:114:ARG:O	2:12:118:LEU:HD23	2.12	0.48
10:1A:66:ARG:NH1	10:1A:67:THR:H	2.11	0.48
26:14:588:U:O4	26:14:670:A:H1'	2.13	0.48
26:14:1242:A:N1	37:35:2:LYS:NZ	2.61	0.48
30:29:52:LEU:HD11	30:29:75:VAL:HG22	1.94	0.48
32:49:5:VAL:HB	32:49:8:LYS:HB3	1.94	0.48
35:15:11:PRO:HG2	35:15:51:PHE:HE1	1.77	0.48
39:55:38:VAL:O	39:55:42:LYS:HG3	2.13	0.48
40:65:63:THR:O	40:65:66:ALA:HB3	2.13	0.48
52:I5:48:ARG:HG2	52:I5:49:PHE:H	1.78	0.48
1:13:1031:G:H2'	1:13:1032:A:H5'	1.96	0.48
2:1E:180:LEU:HB3	2:1E:182:ILE:HG13	1.95	0.48
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.48	0.48
13:4I:13:LYS:HZ3	13:4I:17:VAL:HG13	1.75	0.48
13:4I:23:TYR:HD1	13:4I:67:GLU:HA	1.76	0.48
13:4I:49:THR:O	13:4I:52:GLU:N	2.46	0.48
17:8I:45:HIS:HD2	17:8I:65:ILE:HG12	1.78	0.48
26:1H:686:G:OP1	54:P8:11:LYS:NZ	2.46	0.48
26:1H:868:U:C4	26:1H:869:G:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:934:G:H2'	26:1H:935:C:C6	2.48	0.48
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.12	0.48
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.48	0.48
26:1H:2239:G:H5'	29:11:251:GLY:HA3	1.94	0.48
26:1H:2483:C:O2	38:88:124:LYS:HE3	2.13	0.48
28:71:215:THR:HG22	28:71:216:THR:O	2.13	0.48
31:31:39:TRP:CH2	31:31:106:ARG:HD3	2.47	0.48
42:C8:110:VAL:O	42:C8:114:LYS:HG3	2.13	0.48
47:H8:33:LEU:HD22	47:H8:34:ASN:H	1.76	0.48
1:1G:187:C:H2'	1:1G:188:U:O4'	2.12	0.48
1:1G:232:G:H2'	1:1G:233:C:O4'	2.13	0.48
1:1G:281:G:H8	1:1G:281:G:OP2	1.97	0.48
1:1G:309:G:O2'	1:1G:607:A:N1	2.44	0.48
1:1G:520:A:N1	1:1G:536:C:H1'	2.28	0.48
7:62:38:LEU:HG	7:62:41:ARG:NH2	2.28	0.48
27:1J:15:A:H5'	27:1J:16:G:C8	2.48	0.48
27:1J:78:A:H2'	27:1J:79:C:O4'	2.13	0.48
29:19:31:LYS:NZ	29:19:33:LEU:HB3	2.28	0.48
32:49:17:PRO:O	32:49:20:ILE:HG22	2.13	0.48
37:35:79:ARG:HG3	37:35:110:TYR:CD1	2.48	0.48
40:65:64:GLU:CD	40:65:64:GLU:N	2.67	0.48
40:65:110:LEU:HA	40:65:111:GLU:HG3	1.95	0.48
1:13:406:G:H5"	4:3E:5:ILE:HG21	1.95	0.48
1:13:590:C:P	8:7E:29:SER:HG	2.34	0.48
1:13:626:U:H2'	1:13:627:G:C8	2.48	0.48
6:5E:3:ARG:HD2	6:5E:64:GLN:OE1	2.13	0.48
8:7E:7:ALA:O	8:7E:11:THR:HG23	2.13	0.48
8:7E:11:THR:HG22	8:7E:14:ARG:NH2	2.27	0.48
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.78	0.48
16:7I:18:ARG:O	16:7I:20:VAL:HG13	2.13	0.48
23:2K:1:C:H2'	23:2K:2:G:H5'	1.95	0.48
26:1H:1278:A:O2'	39:98:34:ILE:HD11	2.13	0.48
26:1H:1324:G:C4	26:1H:1328:G:O6	2.67	0.48
26:1H:1825:A:O4'	29:11:254:THR:HG21	2.13	0.48
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.13	0.48
32:41:39:ILE:HG23	32:41:155:MET:HE3	1.95	0.48
34:61:93:THR:HG23	34:61:96:ASP:N	2.26	0.48
36:68:104:ARG:HD3	41:B8:36:GLU:HG2	1.94	0.48
40:A8:84:GLN:HA	40:A8:111:GLU:OE2	2.14	0.48
41:B8:105:LEU:C	41:B8:107:ASP:H	2.17	0.48
47:H8:103:ARG:HG3	47:H8:137:ILE:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:280:C:H3'	1:1G:281:G:H5'	1.95	0.48
1:1G:1302:U:C5	13:4A:17:VAL:HG21	2.48	0.48
9:82:99:LEU:HB3	9:82:101:PHE:CE2	2.48	0.48
10:1A:42:THR:HG23	10:1A:68:HIS:HA	1.95	0.48
11:2A:21:ILE:HG13	11:2A:21:ILE:O	2.13	0.48
13:4A:45:VAL:HA	13:4A:48:LEU:HD21	1.95	0.48
26:14:910:A:N3	26:14:2264:C:O2'	2.39	0.48
26:14:1543:A:H1'	26:14:1545:A:H1'	1.95	0.48
26:14:1628:G:H2'	26:14:1629:U:H6	1.77	0.48
26:14:2212:A:O2'	26:14:2213:U:O5'	2.30	0.48
32:49:27:ASN:HB3	32:49:30:GLU:HG3	1.94	0.48
34:69:76:THR:O	34:69:78:THR:HG22	2.13	0.48
38:45:38:GLU:HG3	38:45:127:ILE:CG1	2.41	0.48
42:85:92:ARG:HH11	42:85:92:ARG:CG	2.26	0.48
43:95:37:VAL:HB	43:95:52:VAL:HG13	1.95	0.48
55:M5:34:TRP:HA	55:M5:34:TRP:HE3	1.79	0.48
1:13:1060:C:H5'	14:5I:45:ARG:NH2	2.28	0.48
9:8E:79:LEU:HA	9:8E:82:ALA:HB3	1.94	0.48
10:1I:61:GLU:OE1	14:5I:49:HIS:HE1	1.96	0.48
14:5I:53:LEU:O	14:5I:56:VAL:HG22	2.13	0.48
17:8I:20:THR:HG22	17:8I:43:LEU:HD23	1.95	0.48
17:8I:67:LYS:HA	17:8I:67:LYS:HD3	1.75	0.48
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.78	0.48
22:1K:74:C:N4	26:1H:2507:C:O3'	2.46	0.48
26:1H:65:C:H2'	26:1H:66:C:H6	1.78	0.48
26:1H:589:C:H2'	26:1H:590:A:C8	2.49	0.48
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.48	0.48
26:1H:2029:G:N7	26:1H:2031:A:H5'	2.29	0.48
26:1H:2186:G:H2'	26:1H:2187:G:H8	1.78	0.48
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.49	0.48
30:21:84:PHE:CE2	30:21:91:VAL:HG11	2.48	0.48
35:58:66:LYS:O	35:58:70:LYS:HB3	2.12	0.48
43:D8:21:ARG:HD2	43:D8:91:TYR:CD1	2.48	0.48
52:M8:10:VAL:HG22	52:M8:11:PRO:HD2	1.95	0.48
1:1G:130:A:O2'	1:1G:131:C:O5'	2.25	0.48
1:1G:559:A:H4'	1:1G:560:U:H5"	1.95	0.48
1:1G:1206:G:OP1	3:22:190:ARG:NH2	2.46	0.48
1:1G:1227:A:H8	1:1G:1227:A:H3'	1.78	0.48
3:22:21:ARG:HH22	10:1A:11:PHE:HB2	1.78	0.48
13:4A:54:VAL:HA	13:4A:57:ARG:HG3	1.93	0.48
17:8A:57:VAL:HG12	17:8A:76:LEU:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:10:PHE:HB2	52:I5:63:TYR:CE2	2.49	0.48
23:2L:2:G:H5'	48:E5:8:GLY:HA2	1.95	0.48
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.48	0.48
26:14:2543:G:H21	26:14:2646:C:H5"	1.78	0.48
26:14:2645:G:H3'	26:14:2646:C:H5'	1.95	0.48
28:79:200:LYS:HZ2	28:79:208:PHE:HD2	1.61	0.48
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.96	0.48
30:29:51:PHE:HB3	30:29:76:ARG:NH1	2.29	0.48
31:39:110:LEU:HD21	31:39:206:ILE:HD11	1.94	0.48
42:85:61:TRP:HB3	42:85:93:LYS:O	2.13	0.48
44:A5:106:ILE:O	44:A5:106:ILE:HG13	2.13	0.48
1:13:407:G:P	4:3E:115:ARG:HH21	2.36	0.48
1:13:932:C:P	7:6E:3:ARG:NE	2.86	0.48
1:13:1375:A:O2'	7:6E:29:LYS:NZ	2.46	0.48
2:1E:112:VAL:HG21	2:1E:153:ARG:HA	1.96	0.48
3:2E:40:ARG:HE	3:2E:55:VAL:HG13	1.78	0.48
3:2E:78:GLY:CA	3:2E:83:ARG:HB2	2.41	0.48
4:3E:176:LEU:HD11	4:3E:183:GLY:CA	2.43	0.48
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.13	0.48
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.44	0.48
17:8I:81:ARG:NH1	17:8I:81:ARG:H	2.12	0.48
19:AI:22:LEU:O	19:AI:28:LYS:NZ	2.46	0.48
26:1H:142:G:H2'	26:1H:143:C:C6	2.48	0.48
26:1H:189:G:P	49:J8:39:LYS:HE3	2.53	0.48
26:1H:811:U:H2'	37:78:21:ARG:HA	1.95	0.48
26:1H:2129:C:OP1	28:71:6:ARG:NE	2.46	0.48
26:1H:2137:C:O2	26:1H:2155:G:N1	2.45	0.48
30:21:46:ALA:HB2	30:21:82:ARG:HA	1.93	0.48
30:21:66:HIS:CG	30:21:66:HIS:O	2.67	0.48
33:51:83:TYR:HB2	33:51:135:GLY:O	2.13	0.48
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.47	0.48
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.13	0.48
1:1G:489:C:H2'	1:1G:490:G:C8	2.49	0.48
1:1G:932:C:OP2	7:62:4:ARG:CZ	2.61	0.48
1:1G:1048:G:OP1	14:5A:4:LYS:HG2	2.13	0.48
18:9A:56:THR:HG21	18:9A:63:GLN:OE1	2.13	0.48
26:14:363(F):A:OP2	26:14:363(F):A:H8	1.96	0.48
26:14:392:C:H5"	26:14:409:C:H5"	1.96	0.48
26:14:2577:A:H2'	26:14:2614:A:N6	2.28	0.48
26:14:2693:A:H2'	26:14:2694:G:H8	1.78	0.48
31:39:148:LEU:HD12	31:39:172:TRP:HH2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:779:C:H2'	1:13:780:A:O4'	2.14	0.48
3:2E:113:ALA:N	3:2E:183:ASP:OD2	2.42	0.48
5:4E:82:VAL:HG11	5:4E:134:ALA:O	2.13	0.48
9:8E:48:GLU:HB3	9:8E:101:PHE:CZ	2.48	0.48
25:4K:11:U:H4'	25:4K:12:A:OP2	2.11	0.48
26:1H:818:G:H4'	26:1H:838:C:O3'	2.13	0.48
26:1H:850:C:O3'	51:L8:49:LYS:HE2	2.12	0.48
26:1H:1199:U:H2'	26:1H:1200:C:C6	2.49	0.48
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.13	0.48
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.77	0.48
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.79	0.48
26:1H:2031:A:N3	26:1H:2455:G:O2'	2.35	0.48
26:1H:2124:G:N2	28:71:42:GLU:OE2	2.23	0.48
27:16:39:A:O2'	27:16:46:A:N1	2.44	0.48
29:11:85:ASP:OD2	29:11:88:ARG:HD2	2.12	0.48
40:A8:111:GLU:HB2	40:A8:112:PHE:CD2	2.48	0.48
42:C8:95:LEU:HD21	43:D8:4:ILE:HG12	1.96	0.48
45:F8:60:ARG:NH1	45:F8:72:LYS:HE3	2.28	0.48
54:P8:41:ARG:HG3	54:P8:43:THR:O	2.14	0.48
1:1G:589:C:N3	1:1G:650:G:N2	2.38	0.48
1:1G:1232:U:OP1	9:82:124:GLN:NE2	2.46	0.48
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.28	0.48
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.49	0.48
1:1G:1502:A:H2	1:1G:1505:G:N1	2.01	0.48
3:22:43:LEU:HD13	3:22:47:LEU:HB2	1.94	0.48
3:22:123:GLN:O	3:22:128:PHE:HD1	1.96	0.48
5:42:94:ALA:HB1	5:42:98:THR:HG21	1.94	0.48
5:42:107:ARG:O	5:42:111:GLU:N	2.40	0.48
8:72:12:ARG:NH1	8:72:26:VAL:HA	2.28	0.48
11:2A:33:THR:HA	11:2A:39:PRO:HA	1.95	0.48
20:BA:41:ILE:HD12	20:BA:88:VAL:HG23	1.96	0.48
24:3L:53:G:H2'	24:3L:54:U:H5'	1.96	0.48
26:14:84:A:H5"	46:C5:8:LYS:CE	2.43	0.48
26:14:827:U:H2'	26:14:2430:A:C2	2.49	0.48
26:14:1152:C:H5"	42:85:80:ILE:CD1	2.43	0.48
26:14:2261:C:O2'	26:14:2262:U:H5'	2.12	0.48
26:14:2273:A:H2'	26:14:2274:A:H8	1.77	0.48
26:14:2494:G:H2'	26:14:2495:G:H8	1.78	0.48
26:14:2648:C:H2'	26:14:2649:U:C6	2.49	0.48
41:75:5:ALA:HB3	41:75:6:LEU:CB	2.44	0.48
1:13:109:A:H5'	1:13:110:C:C5	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:416:G:H2'	1:13:417:C:C6	2.49	0.48
1:13:1129:C:N4	1:13:1143:G:H1	2.11	0.48
5:4E:127:ASN:O	5:4E:131:ILE:HG12	2.13	0.48
12:3I:42:THR:HA	12:3I:53:ARG:O	2.14	0.48
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.33	0.48
18:9I:42:ARG:N	18:9I:42:ARG:HD2	2.24	0.48
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.13	0.48
20:BI:33:ILE:HG13	20:BI:34:LYS:N	2.28	0.48
26:1H:35:G:H2'	26:1H:36:G:O4'	2.14	0.48
28:71:26:ALA:O	28:71:185:LEU:HD11	2.13	0.48
29:11:244:ARG:HB2	29:11:245:PRO:HD2	1.95	0.48
30:21:103:ASP:OD1	30:21:201:THR:HG23	2.13	0.48
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.49	0.48
44:E8:25:ARG:NH1	44:E8:74:ALA:O	2.46	0.48
47:H8:13:GLU:HB3	47:H8:18:LEU:HD21	1.95	0.48
47:H8:121:HIS:HB3	47:H8:123:ASP:O	2.13	0.48
1:1G:390:C:H2'	1:1G:391:G:C8	2.49	0.48
23:2L:44:A:H2'	23:2L:45:A:C8	2.48	0.48
26:14:91:A:C2'	26:14:92:G:H5'	2.43	0.48
26:14:635:C:O2'	26:14:639:U:OP1	2.25	0.48
26:14:875:G:H2'	26:14:876:C:H5'	1.95	0.48
33:59:52:VAL:HG11	33:59:69:ARG:HB2	1.95	0.48
38:45:140:ALA:HB1	47:D5:73:GLN:HA	1.96	0.48
42:85:84:LYS:NZ	42:85:88:ILE:O	2.27	0.48
1:13:255:G:H3'	1:13:256:U:C6	2.48	0.48
1:13:266:G:O3'	17:8I:67:LYS:HB2	2.14	0.48
1:13:339:C:H2'	1:13:340:U:C6	2.49	0.48
1:13:611:A:H61	1:13:629:G:H1	1.61	0.48
1:13:1326:C:OP1	21:1F:15:ARG:NH2	2.44	0.48
7:6E:51:GLN:HB3	7:6E:58:PRO:HG3	1.95	0.48
8:7E:85:ARG:NE	8:7E:87:SER:O	2.46	0.48
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.78	0.48
13:4I:13:LYS:HZ3	13:4I:17:VAL:HG22	1.79	0.48
17:8I:69:LYS:CE	17:8I:69:LYS:HA	2.42	0.48
26:1H:607:U:N3	26:1H:621:A:C2	2.72	0.48
26:1H:839:U:H2'	26:1H:840:C:C6	2.48	0.48
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.14	0.48
26:1H:1359:A:H2	26:1H:1372:U:O4	1.97	0.48
26:1H:1644:C:H2'	26:1H:1645:G:H5'	1.96	0.48
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.29	0.48
26:1H:2117:A:H2'	26:1H:2147:G:N2	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2771:C:H2'	26:1H:2772:C:H6	1.79	0.48
30:21:105:THR:OG1	30:21:199:ARG:NH1	2.46	0.48
42:C8:83:LEU:HD12	42:C8:113:ALA:HB2	1.96	0.48
47:H8:52:SER:O	47:H8:53:ILE:HG12	2.14	0.48
1:1G:1181:G:N2	1:1G:1182:G:O2'	2.47	0.48
1:1G:1206:G:C6	1:1G:1207:G:C5	3.02	0.48
2:12:96:ARG:HH12	2:12:98:LEU:CB	2.25	0.48
8:72:29:SER:HB3	8:72:32:LYS:CD	2.42	0.48
8:72:38:ILE:HD11	8:72:118:VAL:O	2.14	0.48
9:82:46:ALA:CB	9:82:77:ILE:HD11	2.43	0.48
23:2L:41:C:H2'	23:2L:42:C:C6	2.49	0.48
26:14:827:U:H2'	26:14:2430:A:H2	1.78	0.48
26:14:1309:G:H4'	54:L5:7:PRO:HB2	1.96	0.48
26:14:1973:G:H2'	26:14:1974:C:C6	2.48	0.48
26:14:2820:A:OP1	39:55:2:ARG:NH2	2.43	0.48
31:39:122:LYS:HD2	31:39:191:ARG:HD2	1.96	0.48
32:49:94:LEU:C	32:49:95:ARG:HD3	2.34	0.48
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.48	0.48
43:95:18:LEU:O	43:95:96:ILE:HG23	2.14	0.48
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.95	0.48
45:B5:60:ARG:HG3	45:B5:61:GLY:H	1.77	0.48
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.13	0.48
1:13:232:G:H1'	1:13:262:A:N1	2.29	0.48
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.48	0.48
1:13:727:G:N2	1:13:730:G:OP2	2.43	0.48
1:13:1210:C:C2'	1:13:1211:U:H5'	2.44	0.48
8:7E:101:PRO:HG3	8:7E:133:LEU:HD11	1.96	0.48
22:1K:63:G:OP2	22:1K:63:G:H8	1.97	0.48
26:1H:270(E):G:C5	26:1H:270(F):U:C4	3.01	0.48
26:1H:270(N):G:H4'	26:1H:270(O):U:C4	2.48	0.48
26:1H:1769:G:O2'	26:1H:1958:C:OP1	2.17	0.48
26:1H:2794:C:H42	26:1H:2803:C:H42	1.61	0.48
27:16:18:G:H1	27:16:65:C:H42	1.62	0.48
33:51:77:LYS:HE2	33:51:138:LYS:HD2	1.94	0.48
39:98:34:ILE:HD12	39:98:34:ILE:HA	1.68	0.48
42:C8:9:VAL:HG23	42:C8:10:ARG:N	2.29	0.48
47:H8:69:THR:HA	47:H8:89:PHE:O	2.13	0.48
50:K8:18:PRO:O	50:K8:22:GLU:HG3	2.14	0.48
1:1G:57:G:H2'	1:1G:58:C:C6	2.49	0.48
1:1G:976:G:C8	1:1G:1358:U:H1'	2.49	0.48
1:1G:1202:G:H21	14:5A:26:ARG:NH2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.13	0.48
2:12:78:GLN:HG2	2:12:94:ASN:O	2.13	0.48
4:32:158:ILE:H	4:32:158:ILE:HG13	1.38	0.48
8:72:100:ILE:HG21	8:72:125:ARG:HH11	1.79	0.48
8:72:110:ALA:H	8:72:121:ASP:HB2	1.77	0.48
21:1B:12:LYS:CG	21:1B:15:ARG:HH21	2.24	0.48
26:14:34:C:HO2'	26:14:35:G:P	2.37	0.48
26:14:71:A:C2	45:B5:31:HIS:NE2	2.74	0.48
26:14:581:C:H2'	26:14:582:G:H8	1.79	0.48
26:14:729:G:H2'	26:14:1775:U:H1'	1.96	0.48
26:14:1406:U:H2'	26:14:1407:C:C6	2.49	0.48
26:14:1448:G:H2'	26:14:1449:A:C8	2.48	0.48
26:14:1759:A:H4'	26:14:2715:C:O4'	2.14	0.48
26:14:1786:A:H1'	26:14:1938:A:N6	2.29	0.48
26:14:2014:A:H2'	26:14:2015:A:C8	2.49	0.48
26:14:2791:C:HO2'	26:14:2792:G:P	2.37	0.48
31:39:6:VAL:O	31:39:125:LEU:HB2	2.14	0.48
33:59:107:VAL:HG11	33:59:152:ARG:HG3	1.96	0.48
33:59:140:LYS:HE3	33:59:143:GLN:HG2	1.96	0.48
40:65:106:ARG:HD3	40:65:106:ARG:N	2.29	0.48
50:G5:10:LEU:HD22	50:G5:59:ARG:HD2	1.96	0.48
1:13:255:G:O2'	17:8I:17:LYS:NZ	2.47	0.48
1:13:397:A:H3'	1:13:397:A:N3	2.28	0.48
1:13:564:C:OP1	12:3I:15:ARG:HD2	2.13	0.48
1:13:872:A:C4	1:13:874:G:N7	2.82	0.48
1:13:1286:A:H2	21:1F:18:TYR:OH	1.97	0.48
23:2K:46:G:H8	23:2K:46:G:O5'	1.97	0.48
26:1H:962:G:H2'	26:1H:963:U:C6	2.48	0.48
26:1H:1155:A:OP1	42:C8:55:ARG:HD3	2.14	0.48
26:1H:1478:G:HO2'	26:1H:1558:A:H2	1.62	0.48
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.78	0.48
26:1H:2880:C:H1'	39:98:91:GLN:O	2.14	0.48
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.96	0.48
32:41:114:ILE:CG2	32:41:117:PHE:HB2	2.43	0.48
36:68:9:GLU:HG3	36:68:17:ARG:NH2	2.29	0.48
41:B8:88:ILE:HG13	41:B8:88:ILE:O	2.13	0.48
42:C8:85:LYS:NZ	42:C8:86:ALA:N	2.61	0.48
49:J8:92:LYS:NZ	49:J8:93:GLU:HG3	2.29	0.48
50:K8:2:LYS:HE2	50:K8:6:VAL:HG12	1.94	0.48
1:1G:583:A:H2'	1:1G:584:G:O4'	2.13	0.48
1:1G:1373:G:C5'	7:62:36:LYS:HD2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:122:PHE:CZ	2:12:142:LEU:HD11	2.48	0.48
4:32:189:PRO:HB2	4:32:194:LEU:HD11	1.96	0.48
8:72:96:GLY:O	8:72:99:GLU:HG2	2.13	0.48
10:1A:16:LEU:HD21	10:1A:70:ARG:HB3	1.96	0.48
16:7A:5:ARG:HH22	16:7A:6:LEU:HD12	1.79	0.48
20:BA:75:ASN:HA	20:BA:78:ALA:HB3	1.96	0.48
56:1L:50:G:H2'	56:1L:51:C:H5'	1.96	0.48
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.13	0.48
26:14:910:A:H62	38:45:12:GLN:HA	1.79	0.48
26:14:1019:U:H2'	26:14:1020:A:C8	2.49	0.48
30:29:9:VAL:CG2	30:29:25:VAL:HB	2.44	0.48
30:29:60:ASN:OD1	30:29:61:ARG:N	2.47	0.48
31:39:134:GLY:HA2	31:39:166:ALA:HB2	1.95	0.48
33:59:140:LYS:HD2	33:59:143:GLN:NE2	2.28	0.48
38:45:85:LYS:HE2	48:E5:8:GLY:N	2.28	0.48
38:45:137:TYR:C	38:45:139:GLU:HA	2.34	0.48
39:55:33:ARG:NH1	39:55:115:GLU:OE2	2.29	0.48
46:C5:81:LYS:HE2	46:C5:81:LYS:HB2	1.49	0.48
49:F5:8:SER:HB3	49:F5:66:HIS:CD2	2.48	0.48
50:G5:31:GLU:O	50:G5:35:LEU:HD12	2.14	0.48
52:I5:43:TYR:CG	52:I5:43:TYR:O	2.67	0.48
1:13:26:A:N6	1:13:558:G:O2'	2.47	0.47
1:13:186:C:H2'	1:13:186(A):C:C6	2.49	0.47
1:13:1179:A:H2'	1:13:1180:A:O4'	2.14	0.47
3:2E:50:ALA:O	3:2E:70:VAL:HG13	2.13	0.47
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.66	0.47
4:3E:176:LEU:CD1	4:3E:183:GLY:HA2	2.43	0.47
7:6E:3:ARG:CD	7:6E:4:ARG:HB2	2.44	0.47
16:7I:72:ARG:HD2	16:7I:73:LEU:HD23	1.96	0.47
26:1H:568:U:O4	61:1H:3672:HOH:O	2.15	0.47
26:1H:747:U:C1'	44:E8:92:ARG:HH21	2.27	0.47
26:1H:2134:A:HO2'	26:1H:2159:G:N2	2.11	0.47
30:21:111:ARG:HA	39:98:1:MET:HE3	1.96	0.47
31:31:29:ASN:HB3	31:31:112:MET:HE1	1.96	0.47
32:41:11:TYR:OH	32:41:16:ARG:NH1	2.41	0.47
37:78:46:LYS:O	37:78:47:ASP:HB3	2.14	0.47
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.96	0.47
51:L8:3:ARG:HB2	51:L8:59:VAL:HG23	1.96	0.47
1:1G:860:A:H2'	1:1G:861:G:O4'	2.14	0.47
1:1G:1160:G:H1	1:1G:1176:A:H61	1.60	0.47
1:1G:1372:U:H2'	1:1G:1373:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.44	0.47
14:5A:26:ARG:HH12	14:5A:27:CYS:HB3	1.79	0.47
23:2L:15:G:H2'	23:2L:60:A:N1	2.28	0.47
26:14:670:A:H4'	26:14:671:C:O5'	2.14	0.47
26:14:2129:C:H5"	26:14:2130:U:H5	1.78	0.47
26:14:2658:C:O3'	33:59:158:HIS:NE2	2.43	0.47
26:14:2760:C:H1'	33:59:139:GLN:HE22	1.79	0.47
26:14:2783:G:H2'	26:14:2784:C:C6	2.49	0.47
27:1J:88:C:H1'	27:1J:89:G:OP1	2.14	0.47
33:59:11:VAL:HG12	33:59:13:LYS:HG3	1.95	0.47
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.96	0.47
38:45:19:GLY:O	38:45:99:PRO:HD2	2.14	0.47
41:75:88:ILE:HG12	41:75:91:ARG:NH2	2.28	0.47
47:D5:52:SER:O	47:D5:53:ILE:HG12	2.14	0.47
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.29	0.47
53:J5:38:ALA:CB	53:J5:48:GLU:HG3	2.45	0.47
1:13:322:C:H5	1:13:328:C:C5	2.31	0.47
1:13:1176:A:H2'	1:13:1177:G:O4'	2.14	0.47
1:13:1298:C:P	7:6E:114:ARG:HH22	2.36	0.47
4:3E:98:GLU:OE2	4:3E:107:ARG:NH1	2.43	0.47
4:3E:127:THR:HG22	4:3E:147:ALA:H	1.78	0.47
5:4E:128:PRO:HA	5:4E:131:ILE:CG1	2.44	0.47
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	1.96	0.47
9:8E:10:ARG:NH1	9:8E:76:ALA:H	2.12	0.47
11:2I:86:GLY:HA2	11:2I:112:THR:HG23	1.96	0.47
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.14	0.47
20:BI:53:LEU:HA	20:BI:56:MET:CB	2.42	0.47
26:1H:529:A:H8	26:1H:530:G:C6	2.32	0.47
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.45	0.47
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.48	0.47
30:21:95:ILE:HG13	30:21:95:ILE:H	1.45	0.47
34:61:113:ARG:CZ	34:61:130:TYR:HE1	2.27	0.47
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.37	0.47
47:H8:44:PHE:CE2	47:H8:86:VAL:HG21	2.49	0.47
48:I8:70:GLN:HB2	48:I8:80:HIS:HE2	1.79	0.47
1:1G:573:A:H5'	1:1G:573:A:H8	1.79	0.47
1:1G:1055:A:O2'	3:22:161:GLU:OE1	2.24	0.47
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.14	0.47
2:12:58:ILE:HD12	2:12:59:GLU:HA	1.95	0.47
2:12:119:GLU:HG2	2:12:122:PHE:CZ	2.49	0.47
3:22:115:LEU:HD23	3:22:115:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:94:ARG:O	7:62:97:GLN:HB3	2.14	0.47
10:1A:81:THR:O	10:1A:84:GLN:HG3	2.14	0.47
13:4A:88:ARG:HG2	13:4A:98:VAL:HB	1.96	0.47
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.54	0.47
26:14:273(D):C:H42	26:14:363(B):G:H1	1.62	0.47
26:14:581:C:H2'	26:14:582:G:C8	2.49	0.47
26:14:934:G:H2'	26:14:935:C:H6	1.79	0.47
26:14:1113:U:OP1	26:14:2751:G:N2	2.47	0.47
26:14:1388:G:O2'	26:14:1389:G:H5'	2.14	0.47
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.44	0.47
26:14:2477:C:HO2'	26:14:2478:A:P	2.37	0.47
26:14:2820:A:C6	39:55:4:LEU:HD11	2.49	0.47
27:1J:2:C:H2'	27:1J:3:C:H6	1.80	0.47
31:39:110:LEU:HD12	31:39:181:LEU:HD23	1.95	0.47
32:49:20:ILE:HD11	32:49:25:TYR:O	2.14	0.47
33:59:9:ILE:HG23	33:59:50:VAL:O	2.14	0.47
33:59:151:ILE:O	33:59:152:ARG:NE	2.39	0.47
37:35:39:LYS:NZ	37:35:39:LYS:HB3	2.28	0.47
38:45:19:GLY:H	38:45:98:LYS:NZ	2.12	0.47
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.49	0.47
40:65:85:VAL:O	40:65:110:LEU:HD11	2.13	0.47
41:75:18:ASP:OD1	41:75:18:ASP:N	2.41	0.47
49:F5:94:LEU:HD22	49:F5:94:LEU:H	1.79	0.47
50:G5:6:VAL:HA	50:G5:9:GLN:HB3	1.95	0.47
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.45	0.47
1:13:407:G:OP1	4:3E:115:ARG:NE	2.42	0.47
2:1E:126:GLU:HA	2:1E:129:GLU:HG2	1.96	0.47
4:3E:84:LYS:HZ3	4:3E:86:LYS:N	2.12	0.47
4:3E:101:LEU:CD1	4:3E:133:VAL:HG21	2.44	0.47
10:1I:28:ARG:CD	10:1I:29:ARG:H	2.19	0.47
10:1I:42:THR:HG21	10:1I:66:ARG:HB3	1.97	0.47
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.78	0.47
13:4I:13:LYS:CE	13:4I:17:VAL:HG22	2.44	0.47
16:7I:26:ARG:HD2	16:7I:31:LYS:O	2.14	0.47
20:BI:73:HIS:HB3	20:BI:74:LYS:NZ	2.29	0.47
23:2K:26:C:H2'	23:2K:27:G:O4'	2.14	0.47
23:2K:65:G:H2'	23:2K:66:C:O4'	2.14	0.47
26:1H:218:A:C2	26:1H:235:U:H4'	2.43	0.47
26:1H:415:A:H2'	26:1H:416:C:O4'	2.14	0.47
26:1H:1337:G:C4	26:1H:1338:G:C8	3.03	0.47
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.79	0.47
29:11:27:THR:OG1	29:11:28:GLU:N	2.46	0.47
29:11:39:LYS:HB3	29:11:40:THR:CB	2.43	0.47
29:11:105:ILE:HD12	29:11:105:ILE:HA	1.53	0.47
32:41:7:LEU:HD23	32:41:100:TRP:CE3	2.49	0.47
33:51:5:GLY:HA2	33:51:8:PRO:CD	2.44	0.47
33:51:10:PRO:C	33:51:11:VAL:HG22	2.33	0.47
33:51:85:LYS:CD	33:51:141:VAL:HG23	2.39	0.47
34:61:117:GLU:O	34:61:118:LYS:HG3	2.13	0.47
45:F8:11:PRO:HB3	45:F8:92:LEU:HD21	1.96	0.47
1:1G:599:C:H5"	8:72:95:VAL:O	2.14	0.47
1:1G:1226:C:OP1	13:4A:91:ARG:NH2	2.47	0.47
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.79	0.47
3:22:38:ARG:NH1	3:22:42:LEU:HD23	2.29	0.47
10:1A:13:HIS:HB3	10:1A:68:HIS:ND1	2.29	0.47
16:7A:5:ARG:HH11	16:7A:67:THR:CG2	2.28	0.47
16:7A:34:GLU:OE1	16:7A:55:ARG:NH2	2.46	0.47
26:14:1222:C:C2	26:14:1229(A):G:C2	3.03	0.47
30:29:76:ARG:CZ	30:29:76:ARG:HB3	2.43	0.47
30:29:108:SER:HB3	30:29:165:VAL:HG11	1.96	0.47
31:39:152:GLU:HA	31:39:190:GLU:OE2	2.14	0.47
39:55:51:LEU:HD23	39:55:66:VAL:HG22	1.95	0.47
40:65:29:PHE:CD1	40:65:30:ARG:N	2.82	0.47
42:85:104:GLN:NE2	42:85:105:VAL:HG12	2.29	0.47
3:2E:90:GLU:O	3:2E:94:LEU:N	2.44	0.47
3:2E:155:GLY:O	3:2E:157:ILE:HD12	2.14	0.47
5:4E:41:VAL:HG22	5:4E:113:ALA:HB2	1.95	0.47
8:7E:81:HIS:N	8:7E:138:TRP:O	2.41	0.47
15:6I:63:ARG:HE	15:6I:64:ARG:NH2	2.12	0.47
15:6I:63:ARG:NE	15:6I:64:ARG:HH22	2.11	0.47
15:6I:68:ARG:HA	15:6I:72:ARG:NH2	2.29	0.47
26:1H:67:U:N3	26:1H:74:A:H2	1.98	0.47
26:1H:910:A:N7	38:88:13:GLN:HG3	2.30	0.47
26:1H:1464:C:O2'	26:1H:1528:A:C8	2.66	0.47
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.49	0.47
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.49	0.47
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.29	0.47
49:J8:92:LYS:CD	49:J8:95:LEU:HB2	2.44	0.47
1:1G:1276:G:H2'	1:1G:1277:C:H6	1.78	0.47
4:32:31:CYS:HB2	4:32:35:ARG:HH21	1.80	0.47
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:38:LEU:HG	7:62:41:ARG:CZ	2.43	0.47
7:62:41:ARG:HG2	7:62:42:ILE:N	2.29	0.47
10:1A:84:GLN:NE2	10:1A:85:LEU:HG	2.30	0.47
20:BA:14:LYS:HZ3	20:BA:17:ARG:NH1	2.11	0.47
23:2L:33:OMC:O2'	23:2L:34:U:H6	1.98	0.47
26:14:26:G:C6	26:14:27:G:N1	2.83	0.47
26:14:322:A:H3'	31:39:169:ASN:OD1	2.14	0.47
26:14:1035:U:H2'	26:14:1036:G:C8	2.48	0.47
26:14:1386:C:OP2	26:14:1396:U:H5	1.97	0.47
26:14:2037:G:H2'	26:14:2038:G:C8	2.49	0.47
26:14:2152:G:C6	26:14:2153:G:H1'	2.47	0.47
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.48	0.47
40:65:26:LEU:O	40:65:88:ASP:HB2	2.14	0.47
52:I5:9:LEU:HD12	52:I5:26:SER:HA	1.95	0.47
52:I5:12:ALA:CB	52:I5:29:PRO:HA	2.44	0.47
55:M5:8:LYS:HD3	55:M5:8:LYS:N	2.29	0.47
1:13:693:G:N7	25:4K:13:A:H5'	2.28	0.47
1:13:939:G:H2'	1:13:940:C:C6	2.50	0.47
1:13:1125:U:O2'	1:13:1126:U:H6	1.92	0.47
1:13:1478:C:H2'	1:13:1479:C:C6	2.49	0.47
2:1E:19:HIS:CE1	2:1E:206:ASP:H	2.32	0.47
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.41	0.47
5:4E:11:ILE:HD12	5:4E:12:LEU:HB2	1.97	0.47
8:7E:113:SER:HB3	8:7E:134:ILE:HD11	1.97	0.47
9:8E:85:LEU:O	9:8E:92:TYR:HE2	1.96	0.47
17:8I:9:VAL:HG13	17:8I:81:ARG:HH21	1.78	0.47
26:1H:303:U:H2'	26:1H:304:G:H8	1.78	0.47
26:1H:651:G:OP2	55:Q8:21:LYS:HE3	2.14	0.47
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.79	0.47
26:1H:1533:C:H6	26:1H:1534:G:H5"	1.79	0.47
26:1H:2563:U:H1'	26:1H:2566:A:N6	2.30	0.47
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.95	0.47
27:16:40:U:C1'	27:16:45:A:H61	2.28	0.47
32:41:72:ARG:NH1	32:41:85:GLY:C	2.68	0.47
32:41:72:ARG:CZ	32:41:85:GLY:O	2.62	0.47
36:68:17:ARG:C	36:68:17:ARG:HE	2.18	0.47
38:88:21:THR:OG1	38:88:101:ARG:N	2.47	0.47
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.96	0.47
42:C8:90:VAL:HA	43:D8:39:LEU:HD13	1.97	0.47
43:D8:47:VAL:HG23	43:D8:48:GLY:N	2.16	0.47
47:H8:103:ARG:HE	47:H8:138:GLU:C	2.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:310:G:P	16:7A:27:LYS:HZ1	2.37	0.47
1:1G:604:G:H2'	1:1G:605:U:O4'	2.14	0.47
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.14	0.47
1:1G:960:U:O2	1:1G:1225:A:N7	2.48	0.47
1:1G:1086:U:H2'	1:1G:1087:G:H8	1.80	0.47
1:1G:1157:A:N1	1:1G:1178:G:N2	2.60	0.47
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.48	0.47
2:12:178:ARG:HH12	8:72:68:ARG:HH22	1.63	0.47
3:22:182:ILE:HG12	3:22:203:PHE:HD1	1.79	0.47
4:32:7:PRO:HB2	4:32:10:ARG:HD2	1.96	0.47
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.96	0.47
14:5A:47:LEU:HD21	14:5A:53:LEU:HD13	1.96	0.47
16:7A:7:ALA:HB1	16:7A:29:ASP:HA	1.94	0.47
24:3L:5:G:H21	24:3L:68:C:H42	1.61	0.47
26:14:1274:A:N3	26:14:1297:C:H1'	2.29	0.47
26:14:2021:C:OP1	53:J5:12:SER:OG	2.31	0.47
26:14:2298:A:H61	26:14:2318:G:H2'	1.78	0.47
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.62	0.47
26:14:2552:U:O5'	26:14:2552:U:H6	1.97	0.47
26:14:2723:C:OP2	30:29:109:LYS:NZ	2.48	0.47
27:1J:78:A:C2	27:1J:99:A:C4	3.02	0.47
32:49:96:ARG:H	32:49:96:ARG:HG3	1.30	0.47
33:59:86:GLU:HB3	33:59:132:ARG:NH1	2.29	0.47
41:75:11:GLU:O	41:75:15:VAL:HG23	2.14	0.47
41:75:105:LEU:O	41:75:110:ILE:HG13	2.15	0.47
45:B5:43:VAL:HG22	45:B5:51:VAL:HG11	1.96	0.47
1:13:430:A:OP2	4:3E:8:VAL:HG23	2.13	0.47
1:13:1510:U:H1'	1:13:1526:G:N2	2.30	0.47
4:3E:176:LEU:HD21	4:3E:184:LYS:N	2.26	0.47
5:4E:100:VAL:HA	5:4E:118:ILE:HG22	1.96	0.47
5:4E:152:ARG:HD2	5:4E:152:ARG:C	2.35	0.47
9:8E:17:VAL:HA	9:8E:63:ILE:HB	1.95	0.47
15:6I:63:ARG:HE	15:6I:64:ARG:HH22	1.62	0.47
24:3K:4:U:H2'	24:3K:5:G:C4	2.50	0.47
26:1H:7:G:H2'	26:1H:8:A:O4'	2.15	0.47
26:1H:65:C:H2'	26:1H:66:C:C6	2.50	0.47
26:1H:821:A:H2'	26:1H:946:G:H5"	1.95	0.47
26:1H:1705:G:C5	26:1H:1706:U:C4	3.03	0.47
26:1H:2723:C:H5"	39:98:1:MET:HE2	1.96	0.47
29:11:123:ALA:CB	29:11:131:LEU:HG	2.44	0.47
33:51:55:PRO:HB2	33:51:61:HIS:HE1	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:83:TYR:CD1	33:51:134:SER:HA	2.50	0.47
35:58:65:LYS:HB2	35:58:65:LYS:HE3	1.41	0.47
2:12:126:GLU:HB3	2:12:130:ARG:NH1	2.30	0.47
2:12:130:ARG:NH2	2:12:135:GLN:HE21	2.07	0.47
4:32:22:LYS:O	4:32:113:SER:HB3	2.15	0.47
4:32:74:GLN:O	4:32:78:LEU:HD12	2.15	0.47
5:42:110:LEU:HD13	5:42:118:ILE:HG21	1.97	0.47
6:52:22:GLU:OE1	6:52:84:ASN:ND2	2.30	0.47
7:62:146:GLU:CG	7:62:147:ALA:N	2.74	0.47
20:BA:10:LEU:HD13	20:BA:12:ALA:HB3	1.96	0.47
56:1L:8:U:H3'	56:1L:13:C:H42	1.80	0.47
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.50	0.47
26:14:582:G:H2'	26:14:583:G:C8	2.50	0.47
26:14:1204:A:N1	26:14:1241:A:H2	2.13	0.47
26:14:1827:C:C2'	26:14:1828:G:H5'	2.45	0.47
26:14:2002:G:OP2	39:55:9:LYS:NZ	2.48	0.47
26:14:2124:G:H2'	26:14:2124:G:N3	2.30	0.47
26:14:2130:U:H1'	26:14:2159:G:O6	2.14	0.47
27:1J:50:G:P	40:65:62:LYS:HE2	2.55	0.47
31:39:11:VAL:HG22	31:39:12:LEU:N	2.30	0.47
36:25:60:ALA:HB1	36:25:84:ALA:HB1	1.96	0.47
37:35:59:LEU:HD21	55:M5:10:ALA:HA	1.96	0.47
37:35:78:PRO:HA	37:35:110:TYR:CD2	2.50	0.47
41:75:102:ILE:HA	41:75:105:LEU:HD23	1.95	0.47
52:I5:37:SER:HG	52:I5:39:CYS:HG	1.57	0.47
1:13:147:G:H2'	1:13:148:G:C8	2.49	0.47
1:13:150:C:H2'	1:13:151:A:H8	1.79	0.47
1:13:671:G:H2'	1:13:672:U:C6	2.48	0.47
1:13:953:G:C6	1:13:954:G:C4	3.02	0.47
1:13:1125:U:N3	10:1I:38:ILE:HD13	2.30	0.47
1:13:1203:C:H2'	1:13:1204:A:O4'	2.14	0.47
1:13:1378:C:P	7:6E:6:ARG:HH21	2.38	0.47
1:13:1490:C:O2'	1:13:1491:G:H5'	2.15	0.47
2:1E:72:GLY:HA2	2:1E:165:VAL:CG1	2.44	0.47
2:1E:176:GLU:HA	2:1E:179:LYS:HE3	1.97	0.47
3:2E:123:GLN:HB3	3:2E:128:PHE:HD2	1.79	0.47
3:2E:138:VAL:O	3:2E:142:MET:HG2	2.15	0.47
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.97	0.47
7:6E:15:ASP:HB3	7:6E:19:GLY:H	1.78	0.47
8:7E:114:THR:OG1	8:7E:130:GLY:O	2.32	0.47
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:102:ARG:NH2	13:4I:106:ASN:OD1	2.48	0.47
16:7I:32:TYR:CE1	16:7I:35:LYS:HE2	2.50	0.47
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.14	0.47
20:BI:27:LYS:O	20:BI:30:LYS:N	2.47	0.47
26:1H:229:A:N6	26:1H:417:C:O2'	2.42	0.47
26:1H:303:U:H2'	26:1H:304:G:C8	2.49	0.47
26:1H:478:A:C6	26:1H:480:A:C6	3.02	0.47
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.80	0.47
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.37	0.47
26:1H:2001:A:H2'	26:1H:2002:G:H8	1.76	0.47
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.13	0.47
26:1H:2130:U:H2'	26:1H:2131:G:N7	2.29	0.47
26:1H:2430:A:H8	26:1H:2431:U:C5	2.33	0.47
26:1H:2517:C:C2	26:1H:2542:A:N6	2.82	0.47
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.80	0.47
30:21:111:ARG:HD3	30:21:160:TYR:CE2	2.49	0.47
31:31:116:ASP:O	31:31:120:GLU:HG3	2.15	0.47
32:41:105:LYS:HE3	32:41:143:GLU:OE1	2.15	0.47
33:51:154:PRO:HB2	33:51:163:TYR:CZ	2.49	0.47
35:58:47:ALA:HB2	35:58:112:LEU:CD1	2.44	0.47
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.45	0.47
41:B8:1:MET:HE1	41:B8:3:ARG:HB2	1.96	0.47
52:M8:15:ILE:HD12	52:M8:16:CYS:N	2.29	0.47
1:1G:32:A:C2	1:1G:33:A:C4	3.03	0.47
1:1G:74:C:H42	1:1G:96:G:H1	1.63	0.47
1:1G:160:A:H1'	1:1G:344:A:N7	2.30	0.47
1:1G:188:U:O2'	1:1G:189:U:H5'	2.15	0.47
1:1G:310:G:P	16:7A:27:LYS:NZ	2.88	0.47
1:1G:356:A:N7	61:1G:1876:HOH:O	2.35	0.47
1:1G:407:G:H2'	1:1G:408:A:C8	2.50	0.47
1:1G:600:C:H2'	1:1G:601:C:H6	1.80	0.47
1:1G:710:G:OP1	6:52:54:LYS:NZ	2.26	0.47
1:1G:804:U:H5"	1:1G:805:C:OP2	2.14	0.47
1:1G:828:A:N6	1:1G:858:G:O2'	2.43	0.47
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.49	0.47
1:1G:1469:G:H2'	1:1G:1470:G:C8	2.50	0.47
2:12:43:ASP:OD2	2:12:45:GLN:HB2	2.15	0.47
2:12:78:GLN:O	2:12:81:VAL:HG22	2.13	0.47
3:22:47:LEU:HD23	3:22:48:TYR:HA	1.96	0.47
5:42:41:VAL:HG23	5:42:67:VAL:HG13	1.97	0.47
7:62:15:ASP:HB2	7:62:23:VAL:HG13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:18:ARG:HB2	11:2A:33:THR:CG2	2.39	0.47
16:7A:5:ARG:NH2	16:7A:6:LEU:H	2.11	0.47
16:7A:75:ARG:HD3	16:7A:75:ARG:HA	1.46	0.47
18:9A:32:ARG:O	61:9A:202:HOH:O	2.21	0.47
56:1L:18:G:OP2	56:1L:18:G:C8	2.67	0.47
56:1L:69:A:H1'	56:1L:70:C:O5'	2.14	0.47
25:4L:7:G:P	25:4L:7:G:H8	2.38	0.47
26:14:572:A:OP2	43:95:78:LYS:HE2	2.15	0.47
26:14:1204:A:N1	26:14:1241:A:C2	2.83	0.47
26:14:1392:A:N6	26:14:1393:A:N6	2.63	0.47
26:14:1839:G:H5"	26:14:1840:G:OP2	2.15	0.47
26:14:2104:G:N1	26:14:2186:G:C2	2.82	0.47
26:14:2105:C:H42	26:14:2184:G:H1	1.61	0.47
26:14:2335:A:H5"	40:65:13:ARG:NH1	2.30	0.47
26:14:2340:G:O2'	26:14:2341:G:H5'	2.14	0.47
26:14:2425:A:H5"	26:14:2426:A:H3'	1.96	0.47
26:14:2646:C:H2'	26:14:2647:U:O4'	2.14	0.47
26:14:2680:C:H5'	30:29:189:PRO:HA	1.96	0.47
26:14:2815:C:H5'	53:J5:29:THR:HG21	1.97	0.47
27:1J:60:C:H2'	27:1J:61:G:C8	2.49	0.47
29:19:35:LYS:HE2	29:19:35:LYS:HB3	1.61	0.47
30:29:197:ILE:HD11	30:29:199:ARG:HD3	1.97	0.47
31:39:7:TYR:CE1	31:39:17:ARG:N	2.83	0.47
32:49:81:LYS:HB3	32:49:82:LEU:H	1.51	0.47
32:49:163:ALA:HB1	32:49:168:GLU:HB2	1.97	0.47
33:59:87:LEU:H	33:59:132:ARG:NH1	2.13	0.47
39:55:12:ARG:HG2	39:55:16:HIS:CE1	2.49	0.47
40:65:110:LEU:HA	40:65:110:LEU:HD22	1.72	0.47
41:75:29:ARG:HD3	41:75:44:ASP:OD2	2.14	0.47
43:95:68:LYS:HD3	43:95:68:LYS:HA	1.70	0.47
47:D5:30:ASN:HD22	47:D5:90:VAL:HG22	1.77	0.47
1:13:626:U:H5"	16:7I:38:TYR:CD2	2.50	0.47
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.27	0.47
3:2E:53:ALA:HB2	3:2E:115:LEU:HD11	1.97	0.47
5:4E:89:ILE:CG1	5:4E:135:THR:HG22	2.45	0.47
13:4I:13:LYS:HE3	13:4I:13:LYS:HB3	1.56	0.47
19:AI:9:VAL:HG23	52:M8:63:TYR:CE2	2.50	0.47
26:1H:947:G:N3	26:1H:984:A:H2	2.13	0.47
27:16:30:C:H2'	27:16:31:C:C5'	2.44	0.47
28:71:59:ARG:CZ	28:71:164:ARG:HG3	2.45	0.47
29:11:182:LEU:N	29:11:272:ALA:HB3	2.19	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:143:GLU:OE2	32:41:143:GLU:N	2.42	0.47
35:58:53:VAL:HG11	35:58:128:HIS:HD2	1.79	0.47
37:78:105:LEU:O	37:78:106:LEU:HB3	2.14	0.47
37:78:106:LEU:HD13	37:78:112:LEU:HD13	1.97	0.47
38:88:78:PRO:HB2	38:88:81:VAL:CG1	2.45	0.47
38:88:140:ALA:C	38:88:141:GLN:HG2	2.35	0.47
40:A8:106:ARG:HB2	40:A8:110:LEU:HG	1.96	0.47
1:1G:162:A:O5'	1:1G:162:A:H8	1.98	0.47
1:1G:745:C:H2'	1:1G:746:A:C8	2.49	0.47
2:12:219:VAL:HB	2:12:220:ASP:C	2.36	0.47
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.96	0.47
4:32:86:LYS:HD3	4:32:86:LYS:HA	1.60	0.47
13:4A:73:GLU:H	13:4A:73:GLU:HG2	1.54	0.47
16:7A:9:PHE:CE1	16:7A:18:ARG:HD2	2.48	0.47
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.15	0.47
17:8A:82:MET:O	17:8A:85:VAL:HG13	2.14	0.47
26:14:543:C:H42	26:14:550:G:H1	1.61	0.47
26:14:602:G:OP2	26:14:602:G:H8	1.98	0.47
26:14:1131:G:O6	26:14:2040:C:H1'	2.14	0.47
26:14:1665:A:H2'	26:14:1666:G:O4'	2.15	0.47
26:14:2152:G:N3	26:14:2152:G:H2'	2.30	0.47
26:14:2320:A:N6	26:14:2333:A:H2'	2.29	0.47
32:49:15:VAL:HB	32:49:175:LEU:HB3	1.97	0.47
38:45:35:VAL:HA	38:45:101:ARG:O	2.15	0.47
43:95:70:ILE:O	43:95:70:ILE:HG22	2.15	0.47
46:C5:76:CYS:SG	46:C5:77:PRO:HD2	2.54	0.47
1:13:376:G:P	16:7I:5:ARG:NH2	2.88	0.47
1:13:591:U:P	8:7E:30:ARG:NH1	2.88	0.47
2:1E:96:ARG:CB	2:1E:148:TYR:HD1	2.28	0.47
2:1E:96:ARG:HB3	2:1E:148:TYR:HD1	1.80	0.47
4:3E:43:HIS:HA	4:3E:46:LYS:HZ1	1.79	0.47
4:3E:162:LEU:HA	4:3E:165:MET:HB2	1.95	0.47
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.29	0.47
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.15	0.47
13:4I:66:LEU:HD23	13:4I:66:LEU:HA	1.71	0.47
26:1H:287:C:H2'	26:1H:288:C:H6	1.79	0.47
26:1H:289:A:H2'	26:1H:290:G:O4'	2.15	0.47
26:1H:690:G:H2'	26:1H:691:C:C6	2.50	0.47
26:1H:1364:G:OP1	49:J8:3:LYS:HG2	2.15	0.47
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.80	0.47
26:1H:1588:C:H2'	26:1H:1589:C:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2068:U:N3	26:1H:2430:A:C2	2.74	0.47
61:1H:3907:HOH:O	31:31:68:LYS:HE2	2.15	0.47
36:68:35:VAL:HG21	36:68:103:ALA:CB	2.43	0.47
37:78:65:ARG:HD3	55:Q8:25:MET:SD	2.55	0.47
38:88:64:ILE:HG12	38:88:106:VAL:HG12	1.97	0.47
42:C8:88:ILE:C	42:C8:90:VAL:N	2.68	0.47
52:M8:14:ILE:HG12	52:M8:21:VAL:HG22	1.96	0.47
1:1G:192:U:H4'	20:BA:103:GLY:HA2	1.97	0.47
1:1G:297:G:N2	1:1G:300:A:OP2	2.46	0.47
1:1G:521:G:OP1	12:3A:73:GLU:OE2	2.33	0.47
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.48	0.47
1:1G:1380:U:C4	7:62:3:ARG:HG3	2.50	0.47
1:1G:1469:G:H2'	1:1G:1470:G:H8	1.78	0.47
4:32:39:PRO:O	4:32:44:GLY:HA3	2.15	0.47
9:82:116:LYS:HG3	9:82:121:ARG:O	2.15	0.47
19:AA:42:PRO:HA	19:AA:45:VAL:HG13	1.97	0.47
26:14:39:C:H2'	26:14:40:C:C6	2.50	0.47
26:14:49:A:H5"	26:14:51:G:O4'	2.15	0.47
26:14:273(F):C:H3'	26:14:274:G:C5'	2.43	0.47
26:14:451:C:H41	26:14:454:A:H5'	1.80	0.47
26:14:1434:A:H61	26:14:1558:A:H62	1.63	0.47
26:14:1551:C:H2'	26:14:1552:G:O4'	2.14	0.47
26:14:1805:U:O2	29:19:50:THR:HB	2.14	0.47
26:14:2016:U:H2'	26:14:2017:U:C6	2.50	0.47
26:14:2065:C:H2'	26:14:2066:C:C6	2.50	0.47
26:14:2666:C:H3'	26:14:2667:C:H6	1.80	0.47
27:1J:42:C:O2	32:49:92:VAL:HA	2.14	0.47
27:1J:66:A:H61	27:1J:107:U:H2'	1.80	0.47
29:19:72:LYS:HB2	29:19:72:LYS:HE3	1.68	0.47
31:39:143:ALA:CB	31:39:148:LEU:HD13	2.45	0.47
31:39:178:PRO:HG2	31:39:179:GLU:OE2	2.15	0.47
47:D5:4:ARG:HH11	47:D5:4:ARG:CG	2.25	0.47
55:M5:52:LYS:N	55:M5:53:PRO:HD2	2.30	0.47
55:M5:63:PRO:HG2	55:M5:64:TYR:CE2	2.50	0.47
1:13:509:A:O2'	1:13:510:A:OP1	2.21	0.47
1:13:729:A:H2'	1:13:730:G:O4'	2.15	0.47
1:13:808:C:OP1	15:6I:48:LYS:HE3	2.15	0.47
1:13:924:C:O2'	1:13:1502:A:N6	2.48	0.47
1:13:932:C:C5'	7:6E:3:ARG:HD2	2.42	0.47
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.14	0.47
7:6E:107:ALA:HB3	7:6E:134:ALA:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.50	0.47
20:BI:80:ARG:H	20:BI:80:ARG:HD2	1.80	0.47
26:1H:236:C:H2'	26:1H:237:C:C6	2.50	0.47
26:1H:336:C:OP1	46:G8:83:THR:HG23	2.14	0.47
26:1H:363(A):A:H2'	26:1H:363(B):G:H8	1.80	0.47
26:1H:625:G:N7	37:78:107:LYS:NZ	2.62	0.47
26:1H:1243:G:O3'	37:78:7:ARG:NH1	2.47	0.47
26:1H:1586:A:H5"	26:1H:1586:A:N3	2.30	0.47
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.97	0.47
26:1H:2217:G:N7	61:1H:3632:HOH:O	2.44	0.47
29:11:110:GLY:O	29:11:112:GLN:NE2	2.48	0.47
30:21:36:ARG:HG2	30:21:47:VAL:HG12	1.96	0.47
34:61:112:LYS:C	34:61:113:ARG:HD3	2.34	0.47
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.28	0.47
37:78:126:VAL:HG12	37:78:147:LEU:HD11	1.97	0.47
47:H8:128:VAL:CG1	47:H8:161:VAL:HG12	2.46	0.47
1:1G:64:G:H4'	1:1G:65:U:O5'	2.14	0.47
1:1G:535:A:H5"	61:1G:1922:HOH:O	2.15	0.47
1:1G:591:U:P	8:72:30:ARG:HD3	2.55	0.47
1:1G:628:G:H2'	1:1G:629:G:C8	2.49	0.47
1:1G:828:A:H2'	1:1G:829:G:O4'	2.16	0.47
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.48	0.47
1:1G:1228:C:OP1	13:4A:115:LYS:HG3	2.15	0.47
3:22:7:PRO:HG2	3:22:184:TYR:HB2	1.96	0.47
7:62:4:ARG:HD3	7:62:4:ARG:HA	1.28	0.47
7:62:145:ALA:HB3	11:2A:59:TYR:CE2	2.50	0.47
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.97	0.47
23:2L:20:G:C2	23:2L:58:A:N3	2.83	0.47
23:2L:33:OMC:H6	23:2L:33:OMC:O5'	1.98	0.47
26:14:467:G:OP1	54:L5:33:ARG:HD2	2.15	0.47
26:14:715:G:H2'	26:14:716:A:O4'	2.15	0.47
26:14:1114:G:H2'	26:14:1115:G:C8	2.50	0.47
26:14:2129:C:H5'	26:14:2130:U:OP2	2.14	0.47
26:14:2880:C:O2	39:55:93:GLY:N	2.36	0.47
27:1J:40:U:O2	27:1J:43:C:H3'	2.15	0.47
27:1J:41:U:H5	32:49:70:VAL:O	1.98	0.47
42:85:90:VAL:HG13	43:95:4:ILE:HD11	1.96	0.47
43:95:40:LEU:O	43:95:46:VAL:N	2.43	0.47
45:B5:67:GLY:O	45:B5:68:ARG:NH1	2.49	0.47
46:C5:23:ARG:NH1	46:C5:23:ARG:HB2	2.30	0.47
50:G5:4:SER:HA	50:G5:5:GLU:C	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H5:8:LEU:HB2	51:H5:28:LEU:HD13	1.96	0.47
1:13:186(F):C:H5"	1:13:187:C:OP2	2.15	0.46
1:13:324:G:O5'	20:BI:70:SER:HB3	2.15	0.46
1:13:872:A:C5	1:13:874:G:C8	3.03	0.46
1:13:1104:G:O5'	2:1E:111:ARG:HD2	2.15	0.46
1:13:1260:C:H4'	1:13:1284:C:H5'	1.97	0.46
2:1E:80:ILE:HG13	2:1E:81:VAL:N	2.29	0.46
2:1E:103:THR:HG23	2:1E:176:GLU:OE1	2.15	0.46
5:4E:26:PHE:O	5:4E:27:ARG:HG3	2.15	0.46
7:6E:13:GLN:O	7:6E:24:THR:HG21	2.15	0.46
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.48	0.46
13:4I:82:MET:O	13:4I:84:ILE:N	2.49	0.46
15:6I:56:LEU:HA	15:6I:59:MET:HE2	1.97	0.46
26:1H:76:C:O3'	50:K8:59:ARG:HD3	2.16	0.46
26:1H:453:C:OP1	61:1H:3757:HOH:O	2.20	0.46
26:1H:991:C:H2'	26:1H:992:C:H6	1.80	0.46
26:1H:1019:U:H3	26:1H:1142(A):A:H62	1.62	0.46
26:1H:1323:U:OP1	44:E8:84:ARG:HD2	2.15	0.46
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.30	0.46
26:1H:1929:G:H4'	26:1H:1930:G:OP1	2.15	0.46
26:1H:2311:A:H8	32:41:88:ILE:HG21	1.80	0.46
26:1H:2787:C:C5'	30:21:63:LEU:HD11	2.45	0.46
42:C8:66:ASN:HB2	42:C8:76:TYR:HB2	1.95	0.46
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.15	0.46
47:H8:105:VAL:HG13	47:H8:139:VAL:H	1.80	0.46
1:1G:171:A:H2'	1:1G:172:A:C8	2.50	0.46
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.30	0.46
1:1G:1292:U:H5'	9:82:38:GLN:HE22	1.78	0.46
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.50	0.46
1:1G:1396:A:H4'	1:1G:1397:C:H5"	1.97	0.46
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.50	0.46
10:1A:44:VAL:HG13	10:1A:66:ARG:HD3	1.96	0.46
26:14:6:A:O2'	35:15:129:PRO:HB3	2.15	0.46
26:14:185:U:H4'	26:14:218:A:H4'	1.97	0.46
26:14:1636:C:H2'	26:14:1637:A:C8	2.49	0.46
26:14:2094:G:P	34:69:22:LYS:HE2	2.54	0.46
30:29:9:VAL:HG22	30:29:26:ILE:O	2.14	0.46
31:39:4:VAL:HA	31:39:19:GLU:OE2	2.15	0.46
40:65:95:HIS:N	40:65:99:LYS:HB2	2.30	0.46
48:E5:20:ARG:HH22	48:E5:39:ARG:HG3	1.79	0.46
48:E5:49:LYS:HG2	48:E5:80:HIS:ND1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:131:C:H2'	1:13:132:C:C6	2.50	0.46
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.38	0.46
1:13:659:U:C2	1:13:660:G:C8	3.03	0.46
1:13:864:A:H5"	1:13:865:A:OP2	2.15	0.46
1:13:949:A:H3'	13:4I:102:ARG:NH1	2.30	0.46
1:13:1095:U:OP1	1:13:1108:G:N2	2.42	0.46
2:1E:18:GLY:CA	2:1E:42:ILE:H	2.28	0.46
5:4E:37:ARG:HA	5:4E:113:ALA:HA	1.98	0.46
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.14	0.46
7:6E:138:LYS:HD3	7:6E:138:LYS:C	2.35	0.46
12:3I:60:LEU:HD11	12:3I:85:ILE:HD11	1.96	0.46
13:4I:87:TYR:O	13:4I:91:ARG:HG2	2.16	0.46
19:AI:8:GLY:C	19:AI:9:VAL:HG22	2.35	0.46
26:1H:375:C:H5"	61:1H:3889:HOH:O	2.13	0.46
26:1H:1614:A:C2	44:E8:93:ALA:HB2	2.50	0.46
26:1H:1665:A:H5"	36:68:66:LYS:HG3	1.97	0.46
26:1H:1939:U:O2	61:1H:3751:HOH:O	2.18	0.46
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.15	0.46
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.50	0.46
26:1H:2355:C:H4'	48:I8:24:LYS:HG3	1.97	0.46
27:16:48:A:H4'	40:A8:95:HIS:CD2	2.49	0.46
28:71:184:LYS:O	28:71:187:ASP:HB3	2.15	0.46
28:71:190:ARG:O	28:71:194:ARG:HG2	2.15	0.46
33:51:129:THR:O	33:51:129:THR:OG1	2.32	0.46
37:78:28:GLY:O	37:78:30:THR:N	2.48	0.46
42:C8:92:ARG:HH22	42:C8:95:LEU:CD1	2.25	0.46
45:F8:12:VAL:HG22	45:F8:17:ALA:HB2	1.98	0.46
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.80	0.46
1:1G:1280:A:O5'	10:1A:40:LEU:HD21	2.15	0.46
2:12:98:LEU:H	2:12:98:LEU:HD23	1.78	0.46
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.51	0.46
5:42:105:VAL:HG22	5:42:106:PRO:CD	2.46	0.46
26:14:601:C:OP1	31:39:108:LYS:HE3	2.15	0.46
26:14:644:A:C2	26:14:2369:A:H1'	2.51	0.46
26:14:1265:A:O4'	26:14:1267:U:C6	2.68	0.46
29:19:16:MET:HG3	29:19:206:LEU:O	2.15	0.46
31:39:121:GLY:O	31:39:122:LYS:HD3	2.15	0.46
32:49:145:THR:O	32:49:146:TYR:HB3	2.15	0.46
34:69:99:GLU:HB3	34:69:103:ARG:NH1	2.29	0.46
38:45:97:VAL:HG21	38:45:103:MET:CE	2.45	0.46
40:65:3:ARG:HG3	40:65:4:LEU:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:52:SER:O	47:D5:54:HIS:N	2.48	0.46
1:13:258:G:H2'	1:13:259:G:H8	1.80	0.46
1:13:586:C:H2'	1:13:587:G:O4'	2.15	0.46
1:13:587:G:H3'	61:13:1801:HOH:O	2.15	0.46
1:13:692:U:OP1	11:2I:124:LYS:HE3	2.16	0.46
1:13:967:C:OP2	1:13:968:A:O2'	2.31	0.46
1:13:1287:A:H2'	1:13:1288:A:C8	2.50	0.46
1:13:1459:C:OP1	20:BI:31:SER:OG	2.31	0.46
2:1E:109:SER:O	2:1E:112:VAL:N	2.49	0.46
3:2E:13:GLY:CA	14:5I:57:ARG:HH12	2.28	0.46
10:1I:46:ARG:HH21	10:1I:47:PHE:C	2.16	0.46
13:4I:4:ILE:HD11	13:4I:22:ILE:HG12	1.97	0.46
17:8I:67:LYS:HD3	17:8I:70:ARG:NH2	2.30	0.46
20:BI:53:LEU:CD1	20:BI:102:GLY:HA3	2.46	0.46
26:1H:330:A:H2	26:1H:1210:A:O2'	1.98	0.46
26:1H:676:A:H2	26:1H:802:A:H61	1.63	0.46
26:1H:1268:A:C2	26:1H:2013:A:C4	3.03	0.46
26:1H:1419:A:C8	26:1H:1421:G:C6	3.03	0.46
26:1H:2131:G:H1'	26:1H:2158:A:N1	2.31	0.46
26:1H:2287:A:C2	26:1H:2346:A:C2	3.03	0.46
28:71:22:ILE:HG13	28:71:228:SER:C	2.36	0.46
28:71:215:THR:HG22	28:71:216:THR:N	2.30	0.46
35:58:63:THR:O	35:58:66:LYS:HG3	2.15	0.46
38:88:5:ARG:HG3	38:88:6:ARG:HH12	1.80	0.46
38:88:32:TYR:CD1	38:88:133:ARG:HA	2.50	0.46
39:98:10:LEU:O	39:98:12:ARG:NH1	2.47	0.46
41:B8:2:ASN:ND2	41:B8:6:LEU:HD13	2.31	0.46
43:D8:36:PRO:O	43:D8:38:LEU:N	2.44	0.46
1:1G:181:G:N2	1:1G:182:U:O4	2.39	0.46
1:1G:272:C:H2'	1:1G:273:A:H8	1.80	0.46
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.50	0.46
1:1G:1054:C:N3	56:1L:34:U:H1'	2.30	0.46
1:1G:1371:G:OP2	9:82:11:LYS:NZ	2.46	0.46
2:12:111:ARG:HD3	2:12:111:ARG:HA	1.44	0.46
2:12:185:ILE:HD11	2:12:199:TYR:HD2	1.80	0.46
2:12:185:ILE:HG23	2:12:199:TYR:O	2.14	0.46
2:12:208:ILE:HA	2:12:211:ILE:HG12	1.97	0.46
7:62:47:CYS:O	7:62:50:ILE:HG13	2.16	0.46
9:82:17:VAL:HG22	9:82:63:ILE:HG22	1.98	0.46
17:8A:88:TYR:O	17:8A:92:ARG:NH2	2.37	0.46
23:2L:14:A:C4	23:2L:23:G:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:251:A:H5"	37:35:50:ARG:HH21	1.81	0.46
26:14:453:C:O2	26:14:457:A:O2'	2.33	0.46
26:14:996:A:C2	26:14:997:G:C8	3.04	0.46
26:14:1520:U:H2'	26:14:1521:G:O4'	2.15	0.46
26:14:1798:U:H5'	29:19:259:THR:OG1	2.14	0.46
26:14:1826:G:H4'	29:19:242:ARG:CZ	2.46	0.46
26:14:2148:G:H2'	26:14:2149:G:H8	1.79	0.46
27:1J:21:G:H2'	27:1J:22:U:O4'	2.15	0.46
27:1J:39:A:N6	52:I5:1:MET:H3	2.13	0.46
29:19:71:ASP:CG	29:19:103:ARG:HH12	2.19	0.46
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.39	0.46
31:39:126:VAL:O	31:39:196:LEU:N	2.49	0.46
31:39:144:LYS:HA	31:39:148:LEU:CD2	2.45	0.46
31:39:197:ASP:O	31:39:201:VAL:HG12	2.15	0.46
36:25:98:VAL:HG22	36:25:118:ALA:HA	1.98	0.46
45:B5:24:GLY:O	45:B5:83:VAL:HG12	2.15	0.46
46:C5:28:LYS:HG3	46:C5:38:ILE:HG13	1.96	0.46
2:1E:31:TYR:O	2:1E:43:ASP:HB2	2.15	0.46
4:3E:101:LEU:HD11	4:3E:133:VAL:HG21	1.97	0.46
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.15	0.46
4:3E:120:LEU:HD12	4:3E:120:LEU:HA	1.71	0.46
5:4E:50:GLU:HB2	5:4E:53:LEU:HD13	1.95	0.46
9:8E:114:TYR:CE2	10:1I:59:SER:HA	2.46	0.46
16:7I:18:ARG:NH1	16:7I:19:ILE:N	2.63	0.46
20:BI:57:ARG:HE	20:BI:102:GLY:HA2	1.81	0.46
26:1H:12:U:O2	26:1H:12:U:H2'	2.14	0.46
26:1H:657:U:H2'	26:1H:658:C:H6	1.79	0.46
26:1H:2443:C:OP1	31:31:68:LYS:HD3	2.15	0.46
26:1H:2612:C:OP2	53:N8:3:LYS:HE3	2.16	0.46
27:16:77:U:OP1	47:H8:19:ARG:NH2	2.48	0.46
32:41:3:LEU:HA	32:41:97:ASP:OD2	2.16	0.46
33:51:40:GLU:OE1	33:51:61:HIS:NE2	2.48	0.46
35:58:37:LYS:HD2	42:C8:63:VAL:HG21	1.96	0.46
36:68:64:ARG:O	36:68:82:ASN:HA	2.15	0.46
41:B8:90:GLN:OE1	41:B8:91:ARG:N	2.39	0.46
42:C8:47:TYR:CD1	42:C8:47:TYR:C	2.89	0.46
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.51	0.46
2:12:145:LEU:O	2:12:149:LEU:HB2	2.15	0.46
2:12:162:ILE:HG12	2:12:184:VAL:HG12	1.96	0.46
2:12:220:ASP:OD1	2:12:225:ALA:N	2.46	0.46
4:32:173:TRP:CD2	4:32:189:PRO:HB3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:5:ARG:HD2	16:7A:5:ARG:HA	1.50	0.46
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.15	0.46
19:AA:66:MET:HB3	19:AA:69:HIS:CG	2.50	0.46
56:1L:72:C:O2	56:1L:73:A:N6	2.48	0.46
26:14:1043:C:H42	26:14:1112:G:H1	1.63	0.46
26:14:1298:C:H5"	26:14:1299:G:OP2	2.15	0.46
26:14:1475:G:H5'	26:14:1476:C:OP2	2.15	0.46
26:14:2121:G:H2'	26:14:2122:U:C6	2.50	0.46
26:14:2187:G:C5	26:14:2188:C:C4	3.03	0.46
26:14:2396:G:H4'	49:F5:30:VAL:H	1.79	0.46
26:14:2461:C:H2'	26:14:2462:U:H6	1.79	0.46
26:14:2823:A:OP1	30:29:159:HIS:NE2	2.28	0.46
28:79:207:THR:O	28:79:210:ARG:NH1	2.49	0.46
32:49:63:ILE:HD11	32:49:141:PHE:CG	2.50	0.46
34:69:110:ASP:HB3	34:69:112:LYS:NZ	2.30	0.46
38:45:78:PRO:O	38:45:81:VAL:HG13	2.14	0.46
41:75:5:ALA:H	41:75:6:LEU:HB3	1.80	0.46
44:A5:20:VAL:HG21	44:A5:44:ALA:H	1.80	0.46
47:D5:126:VAL:HG22	47:D5:127:LYS:H	1.79	0.46
1:13:1414:U:H2'	1:13:1415:G:H8	1.81	0.46
1:13:1510:U:H2'	1:13:1511:G:C8	2.50	0.46
2:1E:19:HIS:CG	2:1E:20:GLU:HG2	2.51	0.46
20:BI:82:SER:O	20:BI:86:ARG:NH1	2.48	0.46
22:1K:57:G:C2'	22:1K:58:A:H5"	2.44	0.46
26:1H:270(L):U:H2'	34:61:50:ARG:HE	1.81	0.46
26:1H:1442:G:C2	26:1H:1550:C:O2	2.69	0.46
26:1H:2065:C:H2'	26:1H:2066:C:H6	1.81	0.46
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.45	0.46
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.51	0.46
29:11:77:ALA:HB2	29:11:97:TYR:CG	2.50	0.46
31:31:134:GLY:CA	31:31:166:ALA:HB2	2.45	0.46
37:78:38:GLN:HA	37:78:41:ARG:HG2	1.96	0.46
38:88:127:ILE:H	38:88:127:ILE:HG13	1.64	0.46
39:98:71:GLN:O	39:98:71:GLN:HG3	2.16	0.46
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.84	0.46
42:C8:90:VAL:O	42:C8:92:ARG:N	2.48	0.46
1:1G:814:A:N7	1:1G:816:A:C4	2.84	0.46
1:1G:1081:G:P	5:42:18:ARG:NH2	2.89	0.46
1:1G:1167:A:H2'	1:1G:1169:A:O4'	2.14	0.46
8:72:34:GLU:HB3	8:72:118:VAL:CG1	2.46	0.46
12:3A:82:VAL:CG2	12:3A:105:TYR:HB3	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.96	0.46
15:6A:64:ARG:O	15:6A:68:ARG:HG2	2.15	0.46
19:AA:38:SER:HB2	19:AA:71:LEU:HD23	1.98	0.46
26:14:288:C:H2'	26:14:289:A:C8	2.51	0.46
26:14:850:C:O3'	51:H5:49:LYS:HE2	2.15	0.46
26:14:853:G:O2'	26:14:854:G:H5'	2.15	0.46
26:14:1268:A:H2'	26:14:1269:A:O4'	2.14	0.46
26:14:1292:U:H2'	26:14:1293:C:C6	2.50	0.46
26:14:1585:C:O2	26:14:1585:C:H2'	2.14	0.46
26:14:2092:U:H5	26:14:2226:C:OP2	1.98	0.46
26:14:2135:A:O2'	26:14:2160:G:H4'	2.16	0.46
26:14:2607:G:H1	58:14:3445:SPE:C12	2.27	0.46
26:14:2883:A:H5'	26:14:2884:U:H5'	1.97	0.46
29:19:44:ASN:CB	29:19:45:ASN:HA	2.35	0.46
33:59:140:LYS:CE	33:59:143:GLN:HG2	2.46	0.46
38:45:84:GLY:HA2	38:45:85:LYS:CB	2.46	0.46
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.96	0.46
49:F5:50:ARG:HD2	49:F5:57:GLU:OE1	2.15	0.46
49:F5:92:LYS:HA	49:F5:95:LEU:HB2	1.98	0.46
52:I5:62:ARG:O	52:I5:63:TYR:HB2	2.16	0.46
1:13:564:C:P	12:3I:15:ARG:HH11	2.38	0.46
1:13:827:U:C5	1:13:872:A:N1	2.83	0.46
2:1E:19:HIS:HE2	2:1E:206:ASP:HB2	1.80	0.46
2:1E:124:SER:HB3	2:1E:125:PRO:HD2	1.96	0.46
4:3E:111:ALA:HB2	4:3E:120:LEU:CD2	2.45	0.46
6:5E:60:PHE:CE2	18:9I:78:LEU:HD21	2.50	0.46
9:8E:50:LEU:HD12	9:8E:50:LEU:H	1.81	0.46
11:2I:40:ILE:HD12	11:2I:77:MET:HE1	1.97	0.46
11:2I:40:ILE:O	11:2I:41:THR:HG23	2.15	0.46
12:3I:20:LYS:HE2	12:3I:20:LYS:HB2	1.65	0.46
16:7I:80:PHE:HD1	16:7I:80:PHE:O	1.99	0.46
26:1H:751:A:H5'	44:E8:90:ARG:HA	1.96	0.46
26:1H:1048:A:H61	33:51:3:ARG:HD2	1.81	0.46
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.51	0.46
30:21:101:ARG:HD3	30:21:169:ASN:OD1	2.16	0.46
47:H8:125:LEU:HD13	47:H8:164:ALA:CB	2.46	0.46
48:I8:10:THR:HG22	48:I8:11:ARG:H	1.81	0.46
49:J8:75:GLU:O	49:J8:77:ALA:N	2.48	0.46
1:1G:430:A:OP2	4:32:8:VAL:HG12	2.16	0.46
1:1G:1207:G:C6	1:1G:1208:C:C4	3.04	0.46
4:32:3:ARG:HB2	4:32:4:TYR:H	1.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:54:G:H3'	23:2L:55:5MU:H71	1.96	0.46
26:14:618:G:H2'	26:14:618(A):C:O4'	2.16	0.46
26:14:754:C:H2'	26:14:755:C:C6	2.51	0.46
26:14:780:G:H21	26:14:783:A:N6	2.05	0.46
26:14:996:A:N6	26:14:1160:G:C6	2.83	0.46
26:14:1416:G:O2'	26:14:1417:C:C6	2.67	0.46
26:14:2747:G:O6	26:14:2755:C:H5"	2.16	0.46
30:29:81:ILE:HG22	30:29:82:ARG:N	2.25	0.46
33:59:9:ILE:HD12	33:59:51:ARG:HA	1.96	0.46
37:35:107:LYS:HE2	37:35:107:LYS:HB2	1.66	0.46
38:45:74:TYR:O	38:45:90:VAL:O	2.34	0.46
39:55:2:ARG:HA	39:55:5:LYS:NZ	2.30	0.46
40:65:33:LYS:HG3	40:65:34:HIS:N	2.30	0.46
41:75:21:GLU:OE2	41:75:21:GLU:N	2.40	0.46
43:95:53:GLU:OE2	43:95:53:GLU:N	2.41	0.46
47:D5:60:GLU:HA	47:D5:61:LEU:HG	1.98	0.46
1:13:158:G:C4	1:13:159:G:C8	3.04	0.46
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.97	0.46
1:13:1014:A:H2'	1:13:1015:A:C8	2.51	0.46
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.48	0.46
1:13:1244:C:O5'	21:1F:9:ARG:NH1	2.49	0.46
2:1E:136:VAL:HA	2:1E:139:LYS:HE3	1.97	0.46
5:4E:41:VAL:HG22	5:4E:113:ALA:CB	2.45	0.46
20:BI:89:ARG:HG2	20:BI:90:GLN:N	2.30	0.46
23:2K:16:C:OP1	23:2K:16:C:H4'	2.15	0.46
24:3K:48:C:H5	24:3K:59:U:O2	1.99	0.46
26:1H:33:U:H4'	26:1H:34:C:OP1	2.16	0.46
26:1H:236:C:H2'	26:1H:237:C:H6	1.80	0.46
26:1H:674:G:H1'	31:31:74:ARG:HE	1.81	0.46
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.16	0.46
26:1H:2611:U:H3'	26:1H:2611:U:OP2	2.16	0.46
27:16:59:A:H2'	27:16:60:C:H6	1.80	0.46
29:11:28:GLU:HA	29:11:28:GLU:OE2	2.16	0.46
32:41:49:ASP:CG	32:41:52:ILE:HG12	2.36	0.46
32:41:82:LEU:HG	32:41:82:LEU:O	2.16	0.46
37:78:32:THR:HG21	61:78:304:HOH:O	2.15	0.46
43:D8:32:THR:HG23	43:D8:58:VAL:HG13	1.96	0.46
48:I8:14:ARG:NH1	61:I8:1403:HOH:O	2.48	0.46
50:K8:5:GLU:O	50:K8:8:LYS:HG2	2.16	0.46
1:1G:149:A:O2'	1:1G:150:C:H5'	2.16	0.46
1:1G:1128:C:H4'	9:82:16:ARG:HH22	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.34	0.46
1:1G:1238:A:H62	1:1G:1301:U:H3	1.64	0.46
3:22:35:GLU:OE2	3:22:59:ARG:NH2	2.48	0.46
4:32:150:GLU:C	4:32:152:SER:H	2.18	0.46
7:62:41:ARG:CZ	7:62:42:ILE:HG13	2.46	0.46
9:82:47:LEU:O	9:82:50:LEU:HG	2.16	0.46
12:3A:28:LYS:HG3	12:3A:30:ALA:HB2	1.96	0.46
19:AA:16:LEU:O	19:AA:19:VAL:HG12	2.16	0.46
56:1L:2:G:H2'	56:1L:2:G:N3	2.31	0.46
26:14:607:U:OP1	31:39:102:PRO:HA	2.15	0.46
26:14:1188:U:H4'	43:95:79:VAL:CG1	2.45	0.46
26:14:2657:A:N6	26:14:2664:G:O2'	2.48	0.46
29:19:72:LYS:HD3	29:19:97:TYR:CZ	2.51	0.46
32:49:47:LYS:HZ1	32:49:82:LEU:HA	1.80	0.46
33:59:37:VAL:HG13	33:59:38:SER:O	2.16	0.46
40:65:87:PHE:CZ	40:65:102:ALA:HB2	2.50	0.46
41:75:120:ARG:HG3	41:75:120:ARG:HH11	1.81	0.46
42:85:61:TRP:O	42:85:65:ILE:HG13	2.16	0.46
42:85:80:ILE:HA	42:85:83:LEU:HB2	1.98	0.46
46:C5:75:ILE:HG13	46:C5:80:GLY:O	2.15	0.46
47:D5:58:VAL:HA	47:D5:68:PRO:HA	1.98	0.46
47:D5:101:PRO:CB	47:D5:102:LEU:HB2	2.40	0.46
1:13:57:G:C5	1:13:58:C:C4	3.03	0.46
1:13:983:A:H1'	1:13:1049:U:O2	2.16	0.46
1:13:1226:C:H4'	1:13:1227:A:OP1	2.16	0.46
2:1E:60:ASP:HB3	2:1E:64:ARG:CZ	2.46	0.46
3:2E:131:ARG:NH2	3:2E:167:TRP:O	2.49	0.46
8:7E:98:LYS:HE2	8:7E:98:LYS:HB2	1.43	0.46
11:2I:43:SER:OG	11:2I:44:SER:N	2.48	0.46
15:6I:68:ARG:O	15:6I:72:ARG:CZ	2.64	0.46
15:6I:74:ASP:CB	15:6I:77:ARG:HB2	2.43	0.46
16:7I:18:ARG:HH21	16:7I:35:LYS:CE	2.29	0.46
23:2K:20:G:C4	23:2K:58:A:C2	3.03	0.46
24:3K:56:C:H1'	26:1H:2169:A:H62	1.81	0.46
26:1H:107:C:H2'	26:1H:108:U:H6	1.81	0.46
26:1H:247:G:H4'	26:1H:386:G:C5	2.50	0.46
26:1H:286:C:H2'	26:1H:287:C:C6	2.50	0.46
26:1H:306:U:H2'	26:1H:307:G:O4'	2.16	0.46
26:1H:686:G:H8	54:P8:6:GLN:O	1.99	0.46
26:1H:994:C:H5"	26:1H:995:C:OP1	2.15	0.46
26:1H:1006:C:C2	26:1H:1138:G:N2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.98	0.46
26:1H:1161:C:O2'	43:D8:8:GLY:HA2	2.16	0.46
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.16	0.46
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.16	0.46
29:11:26:LYS:HB2	29:11:83:GLU:HG2	1.98	0.46
33:51:55:PRO:HB2	33:51:61:HIS:CE1	2.51	0.46
34:61:75:LEU:HD11	34:61:105:HIS:CD2	2.51	0.46
38:88:63:LYS:HD3	38:88:63:LYS:HA	1.68	0.46
49:J8:73:LEU:HD23	49:J8:73:LEU:HA	1.78	0.46
1:1G:269:C:H2'	1:1G:270:A:H8	1.80	0.46
1:1G:922:G:C2	1:1G:923:A:C4	3.04	0.46
1:1G:1245:A:H61	1:1G:1292:U:H3	1.63	0.46
1:1G:1280:A:O2'	1:1G:1281:U:H5'	2.16	0.46
9:82:11:LYS:HB2	9:82:11:LYS:HZ2	1.81	0.46
9:82:48:GLU:HA	9:82:51:ARG:HD2	1.97	0.46
56:1L:48:C:HO2'	56:1L:59:U:C1'	2.29	0.46
26:14:1607:C:H4'	26:14:1608:A:O5'	2.16	0.46
26:14:1996:C:O3'	61:14:3652:HOH:O	2.20	0.46
30:29:31:CYS:HB3	30:29:49:LEU:HB2	1.97	0.46
31:39:11:VAL:CG2	31:39:12:LEU:H	2.29	0.46
31:39:27:GLU:HG3	31:39:112:MET:CG	2.46	0.46
31:39:157:VAL:HA	31:39:176:LEU:O	2.15	0.46
32:49:12:TYR:HA	32:49:16:ARG:HD2	1.98	0.46
51:H5:33:GLN:O	51:H5:33:GLN:HG2	2.13	0.46
55:M5:43:GLN:HA	55:M5:46:ARG:NH2	2.24	0.46
1:13:129(A):G:C2	1:13:188:U:O2'	2.68	0.46
1:13:397:A:H5'	1:13:398:C:OP1	2.16	0.46
1:13:453:A:C6	1:13:454:C:C4	3.04	0.46
1:13:652:U:C4	1:13:752:G:N3	2.84	0.46
1:13:1286:A:H2	21:1F:18:TYR:HH	1.63	0.46
1:13:1320:C:O2	19:AI:36:ARG:NH1	2.49	0.46
2:1E:60:ASP:HB3	2:1E:64:ARG:HH12	1.81	0.46
3:2E:77:ILE:HG13	3:2E:78:GLY:H	1.81	0.46
7:6E:72:ARG:HG3	7:6E:142:GLU:OE1	2.15	0.46
11:2I:62:GLN:O	11:2I:66:LEU:HG	2.16	0.46
19:AI:47:HIS:O	19:AI:62:ILE:HD12	2.16	0.46
20:BI:13:LEU:CD1	20:BI:14:LYS:HD3	2.46	0.46
20:BI:92:LEU:O	20:BI:96:GLY:HA3	2.16	0.46
26:1H:1051:G:OP2	26:1H:1051:G:H8	1.98	0.46
26:1H:1210:A:H5"	26:1H:1212:G:O4'	2.15	0.46
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:112:LYS:O	34:61:114:LEU:HD22	2.16	0.46
36:68:10:VAL:HG13	36:68:17:ARG:O	2.16	0.46
1:1G:26:A:N6	1:1G:558:G:O2'	2.36	0.46
1:1G:272:C:H2'	1:1G:273:A:C8	2.51	0.46
1:1G:580:U:H2'	1:1G:581:G:O4'	2.16	0.46
1:1G:706:A:H1'	11:2A:31:THR:HG21	1.98	0.46
1:1G:1227:A:H3'	1:1G:1227:A:C8	2.51	0.46
6:52:86:ARG:O	6:52:87:ARG:HG2	2.15	0.46
8:72:100:ILE:HG23	8:72:101:PRO:O	2.15	0.46
12:3A:85:ILE:HD11	12:3A:98:TYR:CG	2.51	0.46
14:5A:4:LYS:O	14:5A:7:ILE:HG22	2.16	0.46
26:14:68:G:H2'	26:14:69:C:C6	2.51	0.46
26:14:71:A:H5'	26:14:71:A:C8	2.51	0.46
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.47	0.46
26:14:2262:U:P	48:E5:19:LYS:HZ2	2.39	0.46
26:14:2271:G:H2'	26:14:2272:U:C6	2.50	0.46
26:14:2688:U:C5	26:14:2720:U:OP2	2.69	0.46
26:14:2849:U:H4'	26:14:2868:A:C2	2.51	0.46
30:29:51:PHE:CG	30:29:52:LEU:N	2.84	0.46
40:65:34:HIS:ND1	40:65:53:SER:OG	2.41	0.46
41:75:10:VAL:HG23	41:75:11:GLU:H	1.79	0.46
47:D5:52:SER:C	47:D5:54:HIS:H	2.19	0.46
47:D5:168:GLU:OE1	47:D5:169:GLU:HB2	2.16	0.46
49:F5:93:GLU:HB3	49:F5:94:LEU:HD22	1.98	0.46
50:G5:43:GLN:HB2	50:G5:45:SER:H	1.80	0.46
52:I5:26:SER:OG	52:I5:27:THR:N	2.47	0.46
53:J5:55:ARG:HD2	53:J5:55:ARG:HA	1.84	0.46
1:13:255:G:H4'	17:8I:17:LYS:HZ2	1.81	0.46
1:13:724:G:C2	1:13:725:G:C8	3.03	0.46
1:13:804:U:H5"	1:13:805:C:OP2	2.16	0.46
1:13:1034:G:N2	1:13:1035:A:N7	2.63	0.46
1:13:1189:C:P	10:1I:51:ARG:HH22	2.39	0.46
1:13:1284:C:H2'	1:13:1285:A:N7	2.31	0.46
1:13:1389:C:H2'	1:13:1390:U:O4'	2.16	0.46
1:13:1410:G:H2'	1:13:1411:C:C6	2.51	0.46
2:1E:73:THR:O	2:1E:78:GLN:NE2	2.49	0.46
4:3E:162:LEU:HD11	4:3E:181:MET:HG2	1.97	0.46
26:1H:583:G:N2	26:1H:1258:C:C2	2.84	0.46
26:1H:613:U:C4	26:1H:614:U:C4	3.04	0.46
26:1H:863:A:H2'	26:1H:864:G:H8	1.81	0.46
26:1H:2213:U:H1'	49:J8:52:ARG:NH2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.31	0.46
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.80	0.46
26:1H:2830:G:H5"	26:1H:2830:G:H8	1.79	0.46
28:71:18:LYS:O	28:71:223:ARG:CZ	2.64	0.46
30:21:117:MET:O	30:21:118:LYS:HB3	2.16	0.46
31:31:6:VAL:HG21	31:31:119:ARG:HA	1.97	0.46
37:78:27:HIS:ND1	37:78:27:HIS:N	2.63	0.46
38:88:18:LYS:O	38:88:98:LYS:NZ	2.46	0.46
42:C8:92:ARG:NH2	42:C8:95:LEU:HD13	2.29	0.46
45:F8:65:ARG:HG2	45:F8:67:GLY:H	1.81	0.46
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.51	0.46
49:J8:93:GLU:HB2	49:J8:94:LEU:H	1.44	0.46
53:N8:47:PRO:HB2	53:N8:48:GLU:OE2	2.15	0.46
1:1G:7:G:H5'	1:1G:298:A:O4'	2.15	0.46
1:1G:262:A:C6	1:1G:263:A:C6	3.04	0.46
1:1G:373:A:C2	1:1G:374:A:C8	3.04	0.46
1:1G:1098:C:H2'	1:1G:1099:G:O4'	2.16	0.46
1:1G:1304:G:N1	1:1G:1332:A:OP2	2.33	0.46
3:22:131:ARG:O	3:22:135:LYS:HG2	2.16	0.46
4:32:76:ARG:HA	4:32:76:ARG:HD2	1.78	0.46
5:42:16:THR:HB	5:42:18:ARG:NH2	2.31	0.46
5:42:91:LEU:HD23	5:42:120:THR:HG22	1.98	0.46
9:82:71:SER:HA	9:82:74:ILE:HD12	1.97	0.46
12:3A:33:ARG:HB3	12:3A:60:LEU:HD21	1.98	0.46
26:14:451:C:H4'	31:39:52:LYS:HE3	1.96	0.46
26:14:590:A:H2'	26:14:591:C:O4'	2.16	0.46
26:14:1250:G:N7	37:35:18:ARG:NH2	2.64	0.46
26:14:1826:G:H2'	26:14:1827:C:O4'	2.16	0.46
26:14:2127:G:H2'	26:14:2128:C:O4'	2.16	0.46
26:14:2432:A:C2	49:F5:35:THR:HG22	2.51	0.46
26:14:2865:U:C4	26:14:2866:U:C4	3.04	0.46
31:39:11:VAL:HG13	31:39:13:SER:OG	2.16	0.46
31:39:148:LEU:HG	31:39:149:ASP:CA	2.46	0.46
32:49:111:LEU:HD13	32:49:111:LEU:HA	1.76	0.46
34:69:41:GLU:HA	34:69:44:LEU:HB2	1.97	0.46
46:C5:47:LYS:HA	46:C5:60:PHE:CD1	2.50	0.46
47:D5:43:GLU:HG2	47:D5:44:PHE:N	2.31	0.46
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.16	0.45
8:7E:36:LEU:O	8:7E:39:LEU:HD12	2.17	0.45
8:7E:60:ARG:HD3	8:7E:62:TYR:OH	2.17	0.45
8:7E:111:ILE:CD1	8:7E:135:CYS:H	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:17:VAL:HA	13:4I:20:THR:HG23	1.98	0.45
20:BI:63:ILE:HB	20:BI:80:ARG:NH2	2.31	0.45
20:BI:73:HIS:HB3	20:BI:74:LYS:HD3	1.98	0.45
26:1H:994:C:H3'	42:C8:54:LYS:NZ	2.31	0.45
26:1H:1338:G:O2'	26:1H:1393:A:N1	2.42	0.45
26:1H:1858:G:O2'	26:1H:1859:A:OP2	2.18	0.45
26:1H:1931:U:O2	26:1H:1931:U:O4'	2.34	0.45
26:1H:1992:G:O2'	26:1H:1993:U:OP2	2.30	0.45
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.51	0.45
26:1H:2314:C:H5"	32:41:38:VAL:HG11	1.98	0.45
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.49	0.45
31:31:18:ARG:H	31:31:18:ARG:HG3	1.55	0.45
40:A8:105:ALA:O	40:A8:109:GLY:HA3	2.16	0.45
41:B8:24:PRO:O	41:B8:94:ALA:HB2	2.16	0.45
43:D8:82:ARG:HH11	43:D8:82:ARG:HG3	1.81	0.45
44:E8:36:LEU:HA	44:E8:39:THR:HG23	1.98	0.45
47:H8:155:LEU:HA	47:H8:155:LEU:HD13	1.58	0.45
1:1G:519:C:H2'	1:1G:520:A:O4'	2.16	0.45
1:1G:938:A:N3	1:1G:1376:U:O2'	2.36	0.45
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.51	0.45
3:22:150:LYS:HZ2	3:22:169:ALA:C	2.19	0.45
4:32:153:ARG:NH1	4:32:181:MET:HG3	2.31	0.45
6:52:14:LEU:HD21	6:52:19:LEU:HD12	1.96	0.45
9:82:70:LYS:O	9:82:74:ILE:HG13	2.16	0.45
9:82:115:GLY:HA3	10:1A:58:ASP:HB3	1.99	0.45
13:4A:73:GLU:HG3	52:I5:52:THR:HG21	1.98	0.45
13:4A:102:ARG:H	13:4A:102:ARG:NE	2.13	0.45
20:BA:25:ARG:O	20:BA:29:LYS:HG3	2.16	0.45
26:14:118:A:N3	26:14:178:G:H1'	2.31	0.45
26:14:240:G:O6	61:14:3651:HOH:O	2.20	0.45
26:14:764:A:N1	26:14:1789:A:O2'	2.43	0.45
26:14:953:A:OP2	38:45:16:ARG:HD3	2.15	0.45
26:14:1405:U:H2'	26:14:1406:U:H6	1.81	0.45
26:14:1420:U:O2'	26:14:1421:G:OP1	2.34	0.45
26:14:2439:A:H5'	26:14:2439:A:C8	2.52	0.45
26:14:2734:A:H2'	26:14:2735:G:O4'	2.16	0.45
28:79:200:LYS:HZ2	28:79:208:PHE:HB2	1.80	0.45
41:75:65:LYS:HD2	41:75:65:LYS:HA	1.77	0.45
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.16	0.45
50:G5:5:GLU:O	50:G5:8:LYS:N	2.49	0.45
1:13:428:G:O4'	1:13:430:A:C8	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:495:A:H4'	1:13:496:A:OP1	2.15	0.45
1:13:1157:A:N6	1:13:1178:G:H21	2.14	0.45
8:7E:98:LYS:H	8:7E:98:LYS:HZ3	1.64	0.45
10:1I:14:LYS:HD3	10:1I:14:LYS:HA	1.75	0.45
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.45	0.45
17:8I:56:VAL:HG22	17:8I:81:ARG:CZ	2.45	0.45
26:1H:195:A:OP1	37:78:46:LYS:HE2	2.17	0.45
26:1H:1983:C:O2'	26:1H:1984:G:H5'	2.16	0.45
28:71:22:ILE:HG22	28:71:189:ILE:HD13	1.96	0.45
30:21:174:ASP:OD1	30:21:175:VAL:N	2.50	0.45
39:98:26:LYS:HE2	39:98:70:LEU:O	2.16	0.45
39:98:79:LEU:HA	39:98:83:ILE:HG12	1.98	0.45
52:M8:9:LEU:HD12	52:M8:9:LEU:HA	1.76	0.45
1:1G:1022:G:C6	1:1G:1023:G:N7	2.85	0.45
1:1G:1388:C:H2'	1:1G:1389:C:C6	2.51	0.45
2:12:197:VAL:HG22	2:12:200:ILE:HD11	1.97	0.45
11:2A:62:GLN:HB2	11:2A:97:ALA:HB2	1.98	0.45
15:6A:24:SER:OG	15:6A:27:VAL:HG12	2.16	0.45
16:7A:67:THR:HG23	16:7A:70:ALA:H	1.81	0.45
56:1L:5:G:H21	56:1L:69:A:N6	2.14	0.45
26:14:1538:G:H2'	26:14:1539:G:H8	1.81	0.45
26:14:1851:U:H2'	26:14:1852:C:O4'	2.16	0.45
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.50	0.45
26:14:2101:G:H2'	26:14:2102:U:O4'	2.16	0.45
26:14:2821:A:H3'	61:14:3531:HOH:O	2.14	0.45
34:69:123:LEU:HA	34:69:142:VAL:CG1	2.47	0.45
34:69:128:LEU:O	34:69:138:ILE:N	2.40	0.45
38:45:42:ILE:HD13	38:45:97:VAL:CG1	2.46	0.45
41:75:24:PRO:HA	41:75:49:VAL:O	2.16	0.45
43:95:21:ARG:NH2	43:95:93:GLU:OE2	2.49	0.45
46:C5:62:GLU:C	46:C5:63:LYS:HG3	2.36	0.45
47:D5:44:PHE:HA	47:D5:47:VAL:HG22	1.98	0.45
1:13:182:U:H5	1:13:183:G:C4	2.35	0.45
1:13:942:G:C2	1:13:1342:C:C2	3.04	0.45
1:13:1000:A:H2'	1:13:1001:G:H8	1.80	0.45
1:13:1097:C:O2'	1:13:1169:A:N3	2.39	0.45
1:13:1342:C:H4'	9:8E:125:TYR:HB3	1.98	0.45
2:1E:21:ARG:HG2	2:1E:22:LYS:HB2	1.99	0.45
9:8E:90:PRO:HA	9:8E:92:TYR:CZ	2.51	0.45
26:1H:346:A:H5"	26:1H:347:A:OP2	2.15	0.45
26:1H:900:A:H5'	26:1H:901:A:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:918:A:H8	26:1H:918:A:O5'	1.99	0.45
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.51	0.45
26:1H:2784:C:O3'	30:21:41:LYS:HD2	2.16	0.45
26:1H:2817:G:OP1	39:98:99:LYS:HE2	2.16	0.45
27:16:44:G:C2	27:16:48:A:C2	3.04	0.45
28:71:18:LYS:O	28:71:18:LYS:HG3	2.17	0.45
34:61:131:LYS:HZ3	34:61:131:LYS:HB2	1.82	0.45
36:68:101:PRO:HD2	41:B8:70:VAL:CG1	2.46	0.45
37:78:59:LEU:HB2	55:Q8:58:ILE:CD1	2.46	0.45
40:A8:108:GLY:O	40:A8:110:LEU:HD12	2.16	0.45
41:B8:6:LEU:HD12	41:B8:6:LEU:HA	1.77	0.45
41:B8:102:ILE:HB	41:B8:110:ILE:HD13	1.98	0.45
46:G8:30:VAL:HB	46:G8:37:VAL:HG12	1.98	0.45
47:H8:39:VAL:HG13	47:H8:40:ASP:O	2.16	0.45
49:J8:8:SER:OG	49:J8:10:LYS:HG3	2.16	0.45
1:1G:489:C:H2'	1:1G:490:G:H8	1.82	0.45
1:1G:567:G:H2'	1:1G:568:G:O4'	2.16	0.45
1:1G:1058:G:H2'	1:1G:1059:C:O4'	2.16	0.45
1:1G:1226:C:P	13:4A:103:THR:HG21	2.57	0.45
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.50	0.45
1:1G:1305:G:H8	1:1G:1305:G:OP2	1.98	0.45
1:1G:1356:G:H2'	1:1G:1357:A:O4'	2.16	0.45
2:12:97:TRP:CZ2	2:12:99:GLY:HA2	2.51	0.45
2:12:101:MET:O	2:12:105:PHE:HB2	2.15	0.45
3:22:56:ASP:O	3:22:66:VAL:HA	2.16	0.45
8:72:109:ILE:HG23	8:72:137:VAL:HB	1.98	0.45
15:6A:76:GLU:HG3	15:6A:79:ARG:NH2	2.31	0.45
16:7A:75:ARG:HH22	16:7A:81:ARG:CA	2.30	0.45
26:14:270(E):G:H2'	26:14:270(F):U:H6	1.81	0.45
26:14:1757:U:N3	26:14:1762:A:H2	2.13	0.45
26:14:2542:A:H4'	26:14:2542:A:OP1	2.15	0.45
26:14:2885:C:OP2	61:14:3653:HOH:O	2.21	0.45
27:1J:23:G:C2	27:1J:24:G:O6	2.70	0.45
31:39:123:LEU:HD11	31:39:199:TRP:HZ3	1.81	0.45
33:59:147:ASN:O	33:59:151:ILE:HG13	2.16	0.45
45:B5:1:MET:N	50:G5:29:LYS:HE3	2.32	0.45
46:C5:15:VAL:HG23	46:C5:21:LYS:HA	1.98	0.45
1:13:147:G:H2'	1:13:148:G:H8	1.81	0.45
1:13:148:G:H2'	1:13:149:A:C8	2.51	0.45
1:13:1328:C:OP1	21:1F:21:TYR:OH	2.33	0.45
1:13:1350:A:C2	1:13:1351:U:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:43:LEU:HB3	3:2E:47:LEU:HD21	1.99	0.45
4:3E:153:ARG:CZ	4:3E:181:MET:HB2	2.47	0.45
5:4E:43:LEU:HD11	5:4E:132:ALA:HB1	1.98	0.45
7:6E:113:GLU:CG	7:6E:119:ARG:HG2	2.47	0.45
8:7E:109:ILE:HG13	8:7E:120:THR:HB	1.98	0.45
8:7E:114:THR:HG22	8:7E:117:GLY:O	2.16	0.45
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.97	0.45
26:1H:259:G:N2	26:1H:621:A:H8	2.09	0.45
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.16	0.45
26:1H:631:A:N3	26:1H:2415:G:O2'	2.41	0.45
26:1H:810:U:OP1	61:1H:3756:HOH:O	2.20	0.45
26:1H:863:A:H2'	26:1H:864:G:C8	2.51	0.45
26:1H:1029:A:H2'	26:1H:1030:G:O4'	2.17	0.45
26:1H:1582:C:HO2'	26:1H:1586:A:H8	1.58	0.45
26:1H:2317:C:H2'	26:1H:2318:G:H5'	1.98	0.45
26:1H:2551:C:OP1	61:1H:3758:HOH:O	2.20	0.45
27:16:40:U:H1'	27:16:45:A:H61	1.80	0.45
29:11:17:THR:CG2	29:11:205:VAL:H	2.29	0.45
29:11:149:PRO:HD3	29:11:189:CYS:SG	2.56	0.45
36:68:16:ALA:HB2	36:68:52:VAL:HG21	1.98	0.45
43:D8:98:GLU:OE1	43:D8:99:ILE:HG13	2.17	0.45
44:E8:59:VAL:HG23	44:E8:60:ASN:N	2.32	0.45
47:H8:151:HIS:NE2	47:H8:154:ASP:OD2	2.49	0.45
52:M8:13:ARG:NH2	52:M8:22:ILE:HG12	2.32	0.45
55:Q8:39:LYS:O	55:Q8:43:GLN:HG3	2.16	0.45
1:1G:509:A:C8	1:1G:509:A:H3'	2.51	0.45
1:1G:737:A:H2'	1:1G:738:C:C6	2.51	0.45
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.50	0.45
1:1G:1259:C:C4	1:1G:1260:C:H1'	2.51	0.45
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.30	0.45
2:12:115:LEU:O	2:12:119:GLU:N	2.43	0.45
7:62:71:PRO:HD3	7:62:103:TRP:HZ3	1.81	0.45
26:14:28:A:C2	26:14:513:A:C8	3.04	0.45
26:14:1425:G:H2'	26:14:1426:G:O4'	2.16	0.45
26:14:1678:G:H8	26:14:1678:G:O5'	1.99	0.45
27:1J:2:C:H2'	27:1J:3:C:C6	2.51	0.45
30:29:116:VAL:O	30:29:117:MET:CB	2.65	0.45
33:59:97:ARG:HG2	33:59:98:LEU:H	1.81	0.45
38:45:68:ILE:HD13	38:45:103:MET:HB3	1.97	0.45
38:45:135:ASP:CB	38:45:137:TYR:H	2.24	0.45
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.38	0.45
1:13:1227:A:P	13:4I:111:LYS:HZ1	2.40	0.45
2:1E:56:ARG:HH11	2:1E:56:ARG:HB2	1.81	0.45
2:1E:156:LYS:HA	2:1E:156:LYS:HD2	1.45	0.45
7:6E:40:ALA:HB1	7:6E:44:TYR:CE2	2.52	0.45
9:8E:114:TYR:H	9:8E:114:TYR:HD1	1.65	0.45
17:8I:13:ASP:H	17:8I:14:LYS:NZ	2.14	0.45
26:1H:871:U:OP2	38:88:6:ARG:NH2	2.48	0.45
26:1H:1434:A:H61	26:1H:1558:A:H62	1.63	0.45
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.51	0.45
26:1H:1535:U:H6	26:1H:1538:G:H21	1.65	0.45
26:1H:2058:A:H5"	61:1H:3750:HOH:O	2.15	0.45
26:1H:2287:A:C2	26:1H:2346:A:H2	2.34	0.45
26:1H:2287:A:N1	26:1H:2346:A:H2	2.15	0.45
30:21:13:ARG:O	30:21:14:ILE:HD13	2.17	0.45
31:31:64:ILE:HG23	31:31:65:TRP:CE3	2.51	0.45
32:41:138:GLN:HE22	32:41:152:LEU:HA	1.82	0.45
34:61:63:ALA:O	34:61:67:ARG:HB3	2.17	0.45
34:61:143:SER:OG	34:61:144:VAL:HG22	2.17	0.45
37:78:65:ARG:HB3	61:78:306:HOH:O	2.16	0.45
40:A8:58:LEU:HD12	40:A8:58:LEU:H	1.82	0.45
41:B8:108:ARG:HA	41:B8:111:ARG:HH11	1.82	0.45
46:G8:35:TYR:CE2	46:G8:69:ALA:HB3	2.51	0.45
52:M8:25:TYR:CD1	52:M8:25:TYR:C	2.90	0.45
1:1G:509:A:H5"	4:32:55:ALA:HB2	1.99	0.45
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.81	0.45
1:1G:1288:A:N1	1:1G:1371:G:H1'	2.31	0.45
2:12:122:PHE:HZ	2:12:142:LEU:HD11	1.82	0.45
2:12:164:VAL:HG22	2:12:186:ALA:HB1	1.98	0.45
3:22:44:GLU:HG3	3:22:47:LEU:HD22	1.97	0.45
10:1A:53:PRO:HA	14:5A:42:ILE:HG21	1.99	0.45
10:1A:70:ARG:HH21	10:1A:94:VAL:HG12	1.81	0.45
12:3A:73:GLU:OE2	12:3A:73:GLU:HA	2.17	0.45
14:5A:12:ARG:CZ	14:5A:13:THR:HA	2.47	0.45
19:AA:36:ARG:HA	19:AA:71:LEU:HD11	1.97	0.45
24:3L:31:C:H42	24:3L:39:G:H1	1.63	0.45
26:14:302:C:P	46:C5:81:LYS:HE3	2.57	0.45
26:14:801:G:OP2	31:39:55:GLY:HA2	2.16	0.45
26:14:1675:C:H6	26:14:1675:C:O5'	1.98	0.45
26:14:2094:G:OP1	34:69:22:LYS:HE2	2.17	0.45
26:14:2621:A:OP1	30:29:119:ARG:NH2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:22:PRO:O	30:29:185:LYS:HA	2.16	0.45
31:39:5:ALA:HB3	31:39:17:ARG:NH2	2.32	0.45
38:45:19:GLY:N	38:45:98:LYS:HZ1	2.13	0.45
40:65:15:ARG:O	40:65:19:LYS:HD2	2.16	0.45
49:F5:3:LYS:O	49:F5:12:PRO:HD3	2.16	0.45
51:H5:7:LYS:O	51:H5:54:VAL:HA	2.16	0.45
1:13:51:A:OP2	1:13:52:G:H8	2.00	0.45
1:13:324:G:N1	1:13:327:A:OP2	2.41	0.45
1:13:827:U:C4	1:13:870:U:C4	3.05	0.45
8:7E:129:VAL:HG23	8:7E:130:GLY:H	1.81	0.45
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.47	0.45
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.98	0.45
15:6I:3:ILE:HD13	15:6I:34:LEU:HG	1.99	0.45
15:6I:72:ARG:NE	15:6I:72:ARG:H	2.15	0.45
20:BI:72:LEU:HD11	20:BI:80:ARG:HE	1.82	0.45
26:1H:518:G:H2'	26:1H:519:U:C6	2.51	0.45
26:1H:1730:U:HO2'	26:1H:1731:G:P	2.40	0.45
26:1H:2310:A:N1	32:41:80:PHE:HE1	2.14	0.45
29:11:17:THR:HG22	29:11:204:ILE:HA	1.99	0.45
32:41:131:TYR:HB3	32:41:159:VAL:CG2	2.47	0.45
34:61:113:ARG:O	34:61:114:LEU:HD13	2.16	0.45
46:G8:75:ILE:HA	46:G8:75:ILE:HD12	1.57	0.45
47:H8:110:GLY:O	47:H8:111:VAL:HG22	2.16	0.45
51:L8:28:LEU:HA	51:L8:33:GLN:NE2	2.32	0.45
1:1G:998:G:H22	1:1G:1043:C:H42	1.65	0.45
1:1G:1399:C:C2	1:1G:1502:A:N6	2.85	0.45
2:12:197:VAL:HG13	2:12:200:ILE:HG13	1.97	0.45
3:22:38:ARG:HH12	3:22:42:LEU:HB2	1.82	0.45
6:52:35:ALA:HA	6:52:67:MET:HB3	1.97	0.45
9:82:93:ARG:NH1	9:82:96:LEU:HD13	2.31	0.45
10:1A:27:ALA:O	10:1A:30:SER:HB3	2.17	0.45
56:1L:30:C:N4	56:1L:40:G:H1	2.14	0.45
26:14:298:G:H5"	26:14:299:A:OP1	2.16	0.45
26:14:748:G:OP2	44:A5:88:ARG:HB3	2.16	0.45
26:14:900:A:C2'	26:14:901:A:H8	2.28	0.45
26:14:2117:A:H2'	26:14:2118:U:C5	2.50	0.45
26:14:2695:C:H2'	26:14:2696:U:H6	1.80	0.45
31:39:158:THR:HB	31:39:195:ASP:HB2	1.99	0.45
35:15:15:LEU:HB2	35:15:134:ARG:HB3	1.97	0.45
38:45:127:ILE:HD12	38:45:127:ILE:HA	1.86	0.45
40:65:29:PHE:HD1	40:65:30:ARG:H	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:88:ILE:CD1	43:95:49:THR:HA	2.47	0.45
45:B5:50:LYS:O	45:B5:51:VAL:HG22	2.17	0.45
47:D5:29:TYR:CE2	47:D5:87:ASP:HB3	2.51	0.45
55:M5:33:ASN:O	55:M5:36:LYS:N	2.34	0.45
1:13:75:C:H4'	1:13:76:G:OP1	2.17	0.45
1:13:1225:A:H2'	1:13:1226:C:C5	2.52	0.45
1:13:1438:G:H2'	1:13:1439:C:C6	2.52	0.45
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.99	0.45
2:1E:114:ARG:NH2	2:1E:141:GLU:OE1	2.39	0.45
3:2E:16:ARG:HE	3:2E:16:ARG:HB3	1.62	0.45
4:3E:155:LEU:O	4:3E:158:ILE:HG13	2.16	0.45
5:4E:11:ILE:HG13	5:4E:12:LEU:N	2.32	0.45
17:8I:16:GLN:HB3	17:8I:17:LYS:HZ3	1.82	0.45
20:BI:71:THR:CG2	20:BI:72:LEU:H	2.21	0.45
24:3K:2:G:O2'	24:3K:3:G:OP1	2.34	0.45
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.24	0.45
26:1H:1519:G:C6	26:1H:1520:U:C4	3.05	0.45
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.32	0.45
26:1H:1826:G:H4'	29:11:242:ARG:CZ	2.47	0.45
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.16	0.45
32:41:38:VAL:HA	32:41:93:THR:HA	1.98	0.45
32:41:105:LYS:NZ	52:M8:25:TYR:CE2	2.85	0.45
34:61:75:LEU:HD21	34:61:105:HIS:CG	2.51	0.45
34:61:113:ARG:CZ	34:61:130:TYR:CE1	3.00	0.45
36:68:22:ILE:HG21	36:68:22:ILE:HD13	1.67	0.45
40:A8:110:LEU:O	40:A8:111:GLU:HB2	2.16	0.45
43:D8:48:GLY:O	43:D8:49:THR:O	2.35	0.45
44:E8:38:TYR:OH	53:N8:47:PRO:HG2	2.16	0.45
1:1G:396:G:O2'	1:1G:398:C:OP1	2.30	0.45
1:1G:434:U:H2'	1:1G:435:C:C6	2.51	0.45
1:1G:1378:C:O2	7:62:76:ARG:NH2	2.31	0.45
2:12:75:LYS:N	2:12:78:GLN:HG3	2.32	0.45
4:32:150:GLU:HA	4:32:153:ARG:CG	2.46	0.45
6:52:10:LEU:HD13	6:52:61:LEU:HD13	1.97	0.45
7:62:41:ARG:NH1	7:62:42:ILE:HG13	2.31	0.45
7:62:101:LEU:O	7:62:105:VAL:HG23	2.17	0.45
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.99	0.45
20:BA:14:LYS:HZ3	20:BA:17:ARG:CZ	2.30	0.45
25:4L:11:U:H2'	25:4L:12:A:H4'	1.98	0.45
26:14:95:G:O2'	50:G5:48:HIS:HB3	2.17	0.45
26:14:460:A:H2'	26:14:461:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:608:A:OP1	31:39:100:THR:HG21	2.16	0.45
26:14:898:C:H5"	26:14:899:A:OP1	2.17	0.45
26:14:1000:A:N6	26:14:1001:A:N1	2.65	0.45
26:14:1021:A:H8	26:14:1021:A:H3'	1.82	0.45
26:14:1176:G:C8	26:14:1177:A:H2	2.32	0.45
26:14:1188:U:O2'	26:14:1189:A:H5'	2.16	0.45
26:14:1291:C:H2'	26:14:1292:U:C6	2.52	0.45
26:14:1569:A:O2'	29:19:37:LEU:HD13	2.17	0.45
26:14:2309:A:H8	26:14:2309:A:O5'	1.99	0.45
27:1J:48:A:H4'	40:65:95:HIS:CD2	2.51	0.45
27:1J:87:G:N2	27:1J:89:G:H3'	2.30	0.45
27:1J:109:G:C6	27:1J:110:G:C5	3.05	0.45
30:29:96:PHE:O	30:29:175:VAL:HG21	2.17	0.45
31:39:63:LYS:HZ1	31:39:67:GLN:HB2	1.82	0.45
32:49:60:LEU:HD21	32:49:90:LEU:HD23	1.98	0.45
44:A5:50:VAL:HG12	44:A5:105:VAL:CG1	2.37	0.45
46:C5:2:ARG:NH1	46:C5:2:ARG:HA	2.32	0.45
1:13:1336:C:H6	1:13:1336:C:H5"	1.81	0.45
2:1E:31:TYR:HB3	2:1E:42:ILE:HD11	1.98	0.45
17:8I:48:GLU:O	17:8I:50:LYS:HG2	2.16	0.45
17:8I:52:LYS:HD3	17:8I:53:LEU:O	2.17	0.45
26:1H:670:A:H4'	26:1H:671:C:O5'	2.16	0.45
26:1H:803:U:C4	26:1H:804:A:N7	2.85	0.45
26:1H:856:C:H5'	48:I8:27:GLU:OE2	2.16	0.45
26:1H:1001:A:N6	26:1H:1154:G:O2'	2.45	0.45
26:1H:1508:A:O2'	26:1H:1509:C:O5'	2.32	0.45
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.99	0.45
27:16:12:C:OP2	27:16:12:C:H6	2.00	0.45
30:21:23:VAL:HG21	30:21:183:LEU:HB3	1.99	0.45
30:21:102:VAL:HG22	30:21:199:ARG:O	2.16	0.45
39:98:2:ARG:CZ	39:98:2:ARG:HB3	2.44	0.45
41:B8:33:LYS:HG3	41:B8:82:LEU:O	2.17	0.45
41:B8:51:ARG:HH21	41:B8:62:THR:HG21	1.82	0.45
45:F8:16:LYS:HA	45:F8:16:LYS:HD2	1.76	0.45
50:K8:14:ARG:O	50:K8:15:LYS:HG2	2.16	0.45
54:P8:10:ARG:O	54:P8:14:LYS:HG2	2.17	0.45
1:1G:624:C:H2'	1:1G:625:G:C8	2.51	0.45
1:1G:951:G:HO2'	1:1G:972:C:H5	1.63	0.45
1:1G:1148:U:O3'	9:82:14:VAL:HG11	2.16	0.45
3:22:67:THR:HA	3:22:102:ASN:HB3	1.98	0.45
3:22:87:LEU:H	3:22:87:LEU:HG	1.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:192:GLU:OE1	4:32:192:GLU:N	2.34	0.45
7:62:144:MET:H	7:62:144:MET:HG3	1.46	0.45
9:82:11:LYS:NZ	9:82:11:LYS:HB2	2.31	0.45
13:4A:15:VAL:HG13	13:4A:43:THR:O	2.17	0.45
15:6A:33:THR:HG21	15:6A:85:LEU:HD13	1.98	0.45
15:6A:54:ARG:HG2	15:6A:58:MET:HE2	1.99	0.45
20:BA:74:LYS:HG2	20:BA:75:ASN:N	2.31	0.45
26:14:244:A:H2'	26:14:245:G:O4'	2.17	0.45
26:14:274:G:H2'	26:14:275:G:C1'	2.47	0.45
26:14:673:C:H5"	31:39:81:PRO:HD2	1.99	0.45
26:14:860:U:C2	26:14:2268:A:C8	3.05	0.45
26:14:1727:U:H2'	26:14:1728:G:O4'	2.17	0.45
26:14:2648:C:H2'	26:14:2649:U:H6	1.81	0.45
27:1J:50:G:OP2	27:1J:50:G:H8	1.98	0.45
27:1J:72:G:O2'	27:1J:104:A:N6	2.46	0.45
27:1J:77:U:H4'	47:D5:84:GLU:OE2	2.17	0.45
27:1J:113:C:H4'	40:65:46:VAL:HG22	1.98	0.45
30:29:30:PRO:HD3	30:29:180:ASN:ND2	2.32	0.45
1:13:521:G:OP2	12:3I:54:LYS:HE2	2.16	0.45
1:13:691:G:H1'	1:13:696:A:N6	2.32	0.45
1:13:1126:U:C5	1:13:1127:G:N7	2.84	0.45
1:13:1292:U:H2'	1:13:1293:G:H8	1.79	0.45
1:13:1298:C:H4'	1:13:1299:A:O4'	2.16	0.45
1:13:1326:C:H2'	1:13:1327:C:H6	1.82	0.45
5:4E:60:TYR:CE1	5:4E:64:ARG:HD2	2.51	0.45
5:4E:92:LYS:HB3	5:4E:119:LEU:HB2	1.99	0.45
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.71	0.45
10:1I:61:GLU:OE2	14:5I:45:ARG:HD2	2.17	0.45
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.49	0.45
20:BI:74:LYS:HE2	20:BI:74:LYS:HB2	1.34	0.45
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.52	0.45
26:1H:1174:A:H1'	26:1H:1178:C:H41	1.82	0.45
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.52	0.45
26:1H:1705:G:C6	26:1H:1706:U:N3	2.84	0.45
26:1H:2211:G:O2'	26:1H:2212:A:OP1	2.28	0.45
26:1H:2586:C:O5'	26:1H:2586:C:H6	2.00	0.45
26:1H:2591:C:P	29:11:239:ARG:HG3	2.57	0.45
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.17	0.45
28:71:46:LYS:HZ2	28:71:46:LYS:HB3	1.82	0.45
32:41:74:LYS:O	32:41:84:LYS:NZ	2.50	0.45
32:41:144:ILE:HA	32:41:148:MET:SD	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:7:LEU:H	33:51:7:LEU:CD2	2.29	0.45
38:88:10:ARG:NH2	38:88:11:LYS:HE3	2.31	0.45
41:B8:27:THR:HG23	41:B8:90:GLN:HB3	1.98	0.45
45:F8:3:THR:O	45:F8:6:ASP:N	2.31	0.45
48:I8:10:THR:O	48:I8:11:ARG:HB2	2.17	0.45
48:I8:17:GLN:O	48:I8:19:LYS:HE3	2.17	0.45
1:1G:358:U:H2'	1:1G:359:U:H6	1.81	0.45
1:1G:652:U:O2'	1:1G:653:A:H5"	2.17	0.45
1:1G:1008:C:H42	1:1G:1021:G:H22	1.64	0.45
1:1G:1352:C:N4	1:1G:1370:G:H1	2.15	0.45
3:22:172:ARG:CZ	3:22:173:VAL:H	2.30	0.45
7:62:15:ASP:O	7:62:19:GLY:HA2	2.17	0.45
9:82:121:ARG:CZ	9:82:121:ARG:CB	2.94	0.45
24:3L:58:A:HO2'	24:3L:61:C:N4	2.15	0.45
26:14:286:C:H2'	26:14:287:C:C6	2.52	0.45
26:14:515:A:H1'	26:14:581:C:H1'	1.98	0.45
26:14:1000:A:C6	26:14:1001:A:N1	2.85	0.45
26:14:1204:A:C2	26:14:1241:A:N1	2.84	0.45
26:14:1239:G:H2'	26:14:1240:U:O4'	2.17	0.45
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.82	0.45
26:14:1777:U:O2'	26:14:1778:U:H5'	2.17	0.45
26:14:2427:C:H5"	26:14:2428:G:OP1	2.17	0.45
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.98	0.45
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.29	0.45
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.51	0.45
39:55:51:LEU:HD22	39:55:70:LEU:HD13	1.99	0.45
39:55:56:LYS:HE3	39:55:88:ARG:HA	1.99	0.45
51:H5:7:LYS:NZ	51:H5:34:GLU:HA	2.31	0.45
1:13:187:C:O2	1:13:191(A):G:N1	2.50	0.45
1:13:345:C:H4'	1:13:346:G:C8	2.52	0.45
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.49	0.45
1:13:633:G:OP2	1:13:633:G:H8	1.99	0.45
2:1E:185:ILE:HG12	2:1E:199:TYR:HB2	1.99	0.45
7:6E:138:LYS:NZ	7:6E:138:LYS:HB2	2.31	0.45
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.16	0.45
13:4I:67:GLU:OE2	32:41:115:ARG:NH1	2.49	0.45
19:AI:46:GLY:HA2	19:AI:61:TYR:HE1	1.82	0.45
20:BI:30:LYS:HA	20:BI:33:ILE:HG12	1.98	0.45
21:1F:2:GLY:O	21:1F:4:GLY:N	2.50	0.45
22:1K:23:A:H2'	22:1K:24:G:H8	1.82	0.45
23:2K:1:C:C2'	23:2K:2:G:H5'	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:275:G:N2	26:1H:278:A:H61	2.15	0.45
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.81	0.45
26:1H:1922:G:H2'	26:1H:1923:U:C6	2.51	0.45
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.52	0.45
31:31:53:THR:O	31:31:56:GLU:N	2.47	0.45
34:61:60:GLU:O	34:61:64:GLU:HB2	2.17	0.45
36:68:64:ARG:HB2	36:68:79:PHE:CD1	2.52	0.45
42:C8:92:ARG:HH21	42:C8:95:LEU:H	1.61	0.45
47:H8:4:ARG:HD3	47:H8:58:VAL:H	1.80	0.45
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.05	0.45
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.41	0.45
1:1G:719:C:C5	1:1G:720:C:C4	3.04	0.45
1:1G:1321:C:N4	1:1G:1322:C:N4	2.59	0.45
3:22:87:LEU:HD12	3:22:88:ARG:NE	2.31	0.45
3:22:162:GLN:NE2	25:4L:24:A:N3	2.43	0.45
10:1A:84:GLN:HE22	10:1A:85:LEU:HG	1.82	0.45
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.16	0.45
20:BA:55:ILE:H	20:BA:55:ILE:HG13	1.55	0.45
20:BA:69:GLY:O	20:BA:73:HIS:CD2	2.70	0.45
26:14:729:G:H2'	26:14:1775:U:O2	2.17	0.45
26:14:921:G:H2'	26:14:922:U:C6	2.52	0.45
26:14:1620:G:O4'	54:L5:1:MET:N	2.46	0.45
26:14:2134:A:C6	26:14:2158:A:H8	2.35	0.45
26:14:2399:G:H2'	26:14:2400:G:O4'	2.17	0.45
26:14:2699:C:H2'	26:14:2700:C:O4'	2.17	0.45
31:39:68:LYS:HB3	31:39:69:HIS:CD2	2.52	0.45
33:59:152:ARG:H	33:59:162:ILE:HD11	1.82	0.45
37:35:2:LYS:HG2	37:35:3:LEU:N	2.31	0.45
38:45:69:PHE:CD1	38:45:70:PRO:HD2	2.52	0.45
40:65:30:ARG:HD2	40:65:97:ARG:HD3	1.98	0.45
43:95:99:ILE:O	43:95:99:ILE:HG13	2.17	0.45
46:C5:62:GLU:O	46:C5:63:LYS:HG3	2.17	0.45
55:M5:46:ARG:HB3	55:M5:46:ARG:CZ	2.47	0.45
1:13:134:A:H1'	1:13:325:A:C5	2.52	0.44
1:13:160:A:N6	1:13:343:U:O2'	2.44	0.44
1:13:254:G:O4'	17:8I:15:MET:HE3	2.17	0.44
1:13:407:G:H2'	1:13:408:A:H8	1.82	0.44
1:13:498:A:H4'	1:13:500:G:OP1	2.17	0.44
1:13:691:G:H2'	1:13:692:U:C6	2.52	0.44
2:1E:44:LEU:HD23	2:1E:44:LEU:HA	1.79	0.44
5:4E:80:ILE:HG13	5:4E:81:GLU:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:78:ARG:NH1	7:6E:154:TYR:O	2.50	0.44
7:6E:151:TYR:HA	7:6E:153:HIS:CE1	2.52	0.44
15:6I:63:ARG:HG2	15:6I:67:LEU:HD12	2.00	0.44
26:1H:872:A:H4'	38:88:66:ILE:HD11	1.98	0.44
26:1H:880:G:H8	26:1H:880:G:O5'	1.99	0.44
26:1H:1588:C:H2'	26:1H:1589:C:C6	2.52	0.44
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.51	0.44
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.18	0.44
28:71:49:ILE:HD12	28:71:50:ASP:N	2.29	0.44
29:11:254:THR:HG23	29:11:254:THR:O	2.17	0.44
31:31:192:LEU:HD21	31:31:194:MET:HE3	1.98	0.44
32:41:72:ARG:CZ	32:41:72:ARG:HB3	2.46	0.44
35:58:28:THR:HG22	35:58:29:LYS:N	2.31	0.44
35:58:43:THR:HB	35:58:46:VAL:CG1	2.47	0.44
35:58:76:SER:OG	35:58:81:GLY:HA3	2.17	0.44
35:58:96:GLU:C	35:58:98:VAL:N	2.69	0.44
49:J8:2:SER:HA	49:J8:4:VAL:HG13	1.98	0.44
49:J8:92:LYS:CG	49:J8:95:LEU:HB2	2.46	0.44
50:K8:14:ARG:HA	50:K8:67:LYS:HE3	1.97	0.44
51:L8:13:ILE:O	61:L8:201:HOH:O	2.21	0.44
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.17	0.44
1:1G:1167:A:C6	1:1G:1169:A:C6	3.04	0.44
1:1G:1255:G:OP1	10:1A:45:ARG:NH1	2.43	0.44
1:1G:1378:C:C5	1:1G:1379:G:C4	3.05	0.44
3:22:35:GLU:HA	3:22:38:ARG:HB3	1.98	0.44
4:32:25:ARG:HA	4:32:25:ARG:NE	2.33	0.44
56:1L:8:U:H3'	56:1L:13:C:N4	2.31	0.44
26:14:128:C:H2'	26:14:129:C:O4'	2.18	0.44
26:14:932:G:H4'	26:14:933:A:O5'	2.17	0.44
26:14:1149:G:C2	26:14:1150:C:C4	3.05	0.44
26:14:1784:A:H4'	26:14:1785:A:C5'	2.48	0.44
26:14:1810:A:H2'	26:14:1811:G:O4'	2.17	0.44
26:14:2271:G:C6	26:14:2272:U:C4	3.05	0.44
27:1J:3:C:H2'	27:1J:4:C:C6	2.52	0.44
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.97	0.44
37:35:39:LYS:HB3	61:35:307:HOH:O	2.16	0.44
41:75:100:TYR:O	41:75:103:ARG:HG3	2.17	0.44
46:C5:97:ARG:HG2	46:C5:97:ARG:O	2.16	0.44
47:D5:95:PRO:HA	47:D5:128:VAL:O	2.17	0.44
53:J5:38:ALA:HB3	53:J5:48:GLU:HG3	1.99	0.44
1:13:1034:G:H2'	1:13:1034:G:N3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:30:LEU:HB3	6:5E:35:ALA:HB3	1.98	0.44
8:7E:29:SER:HG	8:7E:30:ARG:H	1.65	0.44
9:8E:89:ASN:O	9:8E:91:ASP:N	2.43	0.44
16:7I:3:LYS:HB3	16:7I:5:ARG:HG2	2.00	0.44
20:BI:36:LEU:CD2	20:BI:58:LYS:HG2	2.48	0.44
24:3K:7:U:H2'	24:3K:49:G:H5'	1.99	0.44
24:3K:9:A:O2'	24:3K:46:G:H8	2.00	0.44
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.82	0.44
26:1H:1363:C:H2'	26:1H:1364:G:O4'	2.16	0.44
29:11:39:LYS:HB3	29:11:40:THR:CA	2.47	0.44
35:58:67:LEU:O	35:58:88:GLU:HG2	2.17	0.44
40:A8:66:ALA:HA	40:A8:69:VAL:CG1	2.47	0.44
46:G8:28:LYS:HE3	46:G8:40:GLU:HB2	1.99	0.44
47:H8:33:LEU:HD22	47:H8:34:ASN:N	2.31	0.44
47:H8:107:THR:HG22	47:H8:108:PRO:HD3	1.98	0.44
1:1G:109:A:H5'	1:1G:110:C:H5	1.81	0.44
1:1G:143:A:O3'	1:1G:144:G:H8	2.01	0.44
1:1G:322:C:H5	1:1G:328:C:H5	1.65	0.44
1:1G:685:G:C2	1:1G:686:U:C4	3.05	0.44
1:1G:1008:C:N4	1:1G:1021:G:H22	2.15	0.44
2:12:107:THR:O	2:12:110:GLN:HB2	2.17	0.44
9:82:5:TYR:OH	9:82:16:ARG:HG2	2.18	0.44
11:2A:36:ASP:OD1	11:2A:37:GLY:N	2.51	0.44
11:2A:59:TYR:CE2	11:2A:63:LEU:HD11	2.51	0.44
12:3A:47:LYS:CB	12:3A:48:PRO:HD2	2.47	0.44
14:5A:26:ARG:NH1	14:5A:26:ARG:O	2.50	0.44
26:14:138:G:N2	45:B5:44:GLU:OE2	2.37	0.44
26:14:433:C:C4	26:14:434:U:O4	2.70	0.44
26:14:639:U:H2'	26:14:640:C:C6	2.51	0.44
26:14:844:C:C2'	26:14:845:G:H5'	2.47	0.44
26:14:928:G:H2'	26:14:929:G:O4'	2.17	0.44
26:14:962:G:H2'	26:14:963:U:C6	2.52	0.44
26:14:1757:U:C2	26:14:1762:A:H2	2.35	0.44
26:14:2124:G:H1'	26:14:2176:A:C2	2.52	0.44
26:14:2748:A:H1'	33:59:67:LEU:CD2	2.45	0.44
26:14:2758:A:H2'	26:14:2759:G:O4'	2.17	0.44
29:19:35:LYS:HB3	29:19:35:LYS:HZ3	1.82	0.44
30:29:52:LEU:HD21	30:29:75:VAL:N	2.32	0.44
30:29:181:LEU:HD11	41:75:6:LEU:HD11	1.99	0.44
32:49:47:LYS:NZ	32:49:83:ARG:H	2.14	0.44
33:59:170:ARG:HD2	33:59:170:ARG:HA	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:122:LEU:HD23	41:75:43:GLN:NE2	2.32	0.44
1:13:322:C:O3'	20:BI:23:ARG:CZ	2.65	0.44
1:13:405:U:O2'	1:13:497:U:H5'	2.17	0.44
1:13:452:A:O2'	1:13:453:A:O4'	2.31	0.44
1:13:511:C:H4'	4:3E:43:HIS:CD2	2.52	0.44
1:13:1020:U:H2'	1:13:1021:G:C8	2.52	0.44
1:13:1226:C:C5	13:4I:104:ARG:HA	2.53	0.44
1:13:1333:A:H2'	1:13:1334:G:O4'	2.17	0.44
2:1E:81:VAL:HG12	2:1E:215:LEU:HD11	1.98	0.44
6:5E:63:TYR:HB3	6:5E:65:VAL:HG23	1.99	0.44
11:2I:75:TYR:CG	11:2I:75:TYR:O	2.71	0.44
19:AI:41:VAL:HG12	19:AI:44:MET:HB2	1.99	0.44
26:1H:492:A:H2'	26:1H:493:G:O4'	2.17	0.44
26:1H:962:G:H2'	26:1H:963:U:H6	1.82	0.44
26:1H:1029:A:N1	26:1H:2465:C:O2'	2.44	0.44
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.16	0.44
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.18	0.44
26:1H:2592:G:C5	26:1H:2593:U:C4	3.04	0.44
26:1H:2722:G:H2'	26:1H:2723:C:C6	2.52	0.44
26:1H:2864:G:H2'	26:1H:2865:U:O4'	2.17	0.44
27:16:66:A:C5	27:16:108:C:C5	3.06	0.44
32:41:115:ARG:CZ	32:41:116:ASP:H	2.30	0.44
32:41:131:TYR:O	32:41:159:VAL:HG22	2.17	0.44
45:F8:52:VAL:CG2	45:F8:82:GLN:HG3	2.47	0.44
52:M8:13:ARG:NH1	52:M8:22:ILE:HA	2.32	0.44
1:1G:1080:A:H4'	5:42:16:THR:CG2	2.47	0.44
1:1G:1368:G:OP2	9:82:112:LYS:HG3	2.17	0.44
3:22:100:ALA:O	3:22:101:LEU:HG	2.17	0.44
4:32:25:ARG:HG2	4:32:30:LYS:HZ1	1.80	0.44
5:42:71:LEU:HD21	5:42:113:ALA:O	2.17	0.44
6:52:48:LEU:HD13	6:52:52:ILE:HG13	1.99	0.44
16:7A:5:ARG:NH1	16:7A:6:LEU:HG	2.32	0.44
26:14:90:U:H4'	26:14:91:A:H5'	1.99	0.44
26:14:171:G:H2'	26:14:172:C:C6	2.53	0.44
26:14:253:C:OP2	55:M5:5:LYS:NZ	2.33	0.44
26:14:314:A:H2'	26:14:315:G:C8	2.52	0.44
26:14:1040:C:H2'	26:14:1041:C:C6	2.52	0.44
26:14:2126:A:H2	26:14:2162:G:H22	1.65	0.44
26:14:2287:A:N1	26:14:2346:A:C2	2.86	0.44
29:19:93:ALA:N	29:19:105:ILE:O	2.45	0.44
30:29:44:TYR:O	30:29:45:THR:OG1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:60:ASN:O	30:29:61:ARG:HB3	2.17	0.44
30:29:89:ASP:OD1	30:29:89:ASP:N	2.49	0.44
32:49:11:TYR:HA	32:49:15:VAL:HG13	1.99	0.44
38:45:90:VAL:HB	38:45:91:GLU:H	1.53	0.44
41:75:105:LEU:HD12	41:75:109:GLU:HB3	1.99	0.44
42:85:88:ILE:HD13	43:95:49:THR:HA	1.99	0.44
49:F5:41:ARG:HD3	49:F5:43:TYR:HE1	1.82	0.44
52:I5:53:GLU:CD	52:I5:58:ARG:HB2	2.38	0.44
1:13:29:G:O2'	1:13:30:U:H5'	2.17	0.44
1:13:73:G:O2'	1:13:74:C:OP1	2.32	0.44
1:13:108:G:N2	1:13:326:G:O6	2.51	0.44
1:13:142:G:H2'	1:13:143:A:H8	1.80	0.44
1:13:224:C:H2'	1:13:225:C:C6	2.51	0.44
1:13:295:C:H2'	1:13:296:U:O4'	2.17	0.44
1:13:509:A:C8	1:13:509:A:H3'	2.53	0.44
1:13:750:G:N3	15:6I:23:GLY:HA3	2.32	0.44
1:13:973:G:OP1	10:1I:57:LYS:NZ	2.29	0.44
1:13:1033:G:C6	1:13:1034:G:C8	3.06	0.44
1:13:1089:G:C2	1:13:1097:C:C2	3.05	0.44
1:13:1255:G:P	10:1I:45:ARG:HH12	2.40	0.44
1:13:1376:U:H2'	1:13:1377:A:C8	2.52	0.44
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.53	0.44
4:3E:108:LEU:HD13	4:3E:176:LEU:HD23	1.98	0.44
4:3E:176:LEU:HA	4:3E:176:LEU:HD13	1.43	0.44
8:7E:45:ILE:HG22	8:7E:63:LEU:HA	1.99	0.44
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.39	0.44
13:4I:13:LYS:HZ2	13:4I:14:ARG:HB2	1.83	0.44
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.52	0.44
20:BI:83:ARG:HD3	20:BI:86:ARG:NH2	2.32	0.44
26:1H:322:A:P	31:31:168:ARG:HH21	2.39	0.44
26:1H:1728:G:N1	26:1H:1730:U:H5"	2.32	0.44
26:1H:2302:G:H2'	26:1H:2303:G:H8	1.82	0.44
26:1H:2401:U:H2'	26:1H:2402:C:O4'	2.17	0.44
29:11:27:THR:O	29:11:29:PRO:N	2.50	0.44
33:51:83:TYR:HE1	33:51:85:LYS:HZ3	1.60	0.44
37:78:94:GLU:OE2	37:78:124:LYS:HD3	2.18	0.44
46:G8:40:GLU:HA	46:G8:64:GLU:OE1	2.16	0.44
49:J8:86:SER:N	49:J8:87:PRO:HD2	2.32	0.44
1:1G:437:U:H5'	4:32:155:LEU:HD13	1.99	0.44
1:1G:736:C:H2'	1:1G:737:A:H8	1.77	0.44
1:1G:1378:C:C5'	7:62:6:ARG:HH22	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:148:VAL:HG23	4:32:181:MET:O	2.18	0.44
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.36	0.44
9:82:66:ARG:NH1	9:82:66:ARG:HA	2.33	0.44
19:AA:11:VAL:HG22	19:AA:39:THR:HB	1.98	0.44
26:14:70:G:H21	26:14:71:A:H62	1.65	0.44
26:14:387:U:H4'	26:14:388:G:O5'	2.18	0.44
26:14:1013:C:H42	26:14:1149:G:H1	1.64	0.44
26:14:1178:C:H2'	26:14:1179:C:C6	2.52	0.44
26:14:1790:C:H5"	26:14:1791:A:OP1	2.17	0.44
26:14:2009:G:N3	39:55:107:ASP:HA	2.33	0.44
26:14:2056:G:C2	26:14:2057:A:C8	3.05	0.44
28:79:17:ASN:H	28:79:17:ASN:ND2	2.16	0.44
29:19:13:ARG:HA	29:19:13:ARG:HD2	1.77	0.44
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.98	0.44
30:29:9:VAL:HG12	41:75:3:ARG:O	2.17	0.44
30:29:105:THR:HG21	30:29:164:ARG:CZ	2.48	0.44
33:59:18:GLU:HB2	33:59:25:LYS:HB2	1.99	0.44
35:15:132:ALA:H	35:15:134:ARG:NH1	2.13	0.44
44:A5:73:ALA:HB3	44:A5:106:ILE:HG12	1.99	0.44
45:B5:5:TYR:CE1	50:G5:30:ARG:HB2	2.52	0.44
47:D5:61:LEU:HD13	47:D5:62:PRO:O	2.17	0.44
51:H5:8:LEU:CD2	51:H5:53:LEU:HB3	2.47	0.44
55:M5:33:ASN:O	55:M5:34:TRP:C	2.56	0.44
1:13:363:A:N7	12:3I:33:ARG:NH2	2.65	0.44
1:13:648:A:N6	1:13:649:G:O6	2.50	0.44
2:1E:185:ILE:CG1	2:1E:199:TYR:HB2	2.46	0.44
9:8E:5:TYR:CE1	9:8E:16:ARG:HB2	2.52	0.44
20:BI:50:GLU:HG3	20:BI:51:GLU:N	2.33	0.44
22:1K:48:C:H4'	22:1K:49:G:C5'	2.48	0.44
23:2K:54:G:O2'	23:2K:55:5MU:H5"	2.17	0.44
26:1H:527:C:OP2	26:1H:2779:U:C5	2.70	0.44
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.18	0.44
26:1H:2278:A:OP1	38:88:10:ARG:NH2	2.51	0.44
26:1H:2287:A:N1	26:1H:2346:A:C2	2.86	0.44
26:1H:2787:C:H4'	30:21:63:LEU:HD11	1.98	0.44
29:11:136:ILE:HG22	29:11:140:THR:OG1	2.18	0.44
36:68:101:PRO:HG3	41:B8:67:SER:OG	2.18	0.44
45:F8:26:TYR:HD1	45:F8:92:LEU:HD12	1.83	0.44
47:H8:4:ARG:CZ	47:H8:59:LEU:HA	2.48	0.44
49:J8:2:SER:OG	49:J8:2:SER:O	2.26	0.44
50:K8:5:GLU:C	50:K8:8:LYS:HD3	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:855:G:C2	1:1G:856:C:C2	3.06	0.44
1:1G:1202:G:N3	14:5A:42:ILE:HD13	2.31	0.44
1:1G:1268:A:N3	1:1G:1326:C:O2'	2.51	0.44
1:1G:1289:A:OP1	21:1B:10:ARG:NH2	2.50	0.44
2:12:95:GLN:N	2:12:95:GLN:OE1	2.50	0.44
4:32:25:ARG:HA	4:32:25:ARG:CZ	2.47	0.44
7:62:20:ASP:HB3	7:62:23:VAL:CG1	2.42	0.44
8:72:83:ILE:HD13	8:72:83:ILE:HA	1.73	0.44
10:1A:55:LYS:HD3	10:1A:55:LYS:HA	1.33	0.44
21:1B:12:LYS:HD3	21:1B:15:ARG:HH21	1.83	0.44
56:1L:49:G:H2'	56:1L:50:G:C8	2.52	0.44
24:3L:65:C:H2'	24:3L:66:A:C8	2.52	0.44
26:14:152:G:H1	26:14:174:C:N4	2.04	0.44
26:14:2185:C:H2'	26:14:2186:G:C8	2.52	0.44
26:14:2400:G:H2'	26:14:2401:U:C6	2.52	0.44
26:14:2873:A:C8	39:55:6:SER:N	2.71	0.44
37:35:46:LYS:HE2	37:35:46:LYS:HB3	1.81	0.44
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.99	0.44
40:65:67:ARG:HH12	40:65:103:GLU:HB2	1.82	0.44
41:75:102:ILE:HA	41:75:105:LEU:CD2	2.47	0.44
43:95:6:LYS:CE	43:95:38:LEU:HD22	2.42	0.44
43:95:52:VAL:HG22	43:95:55:ALA:HB3	1.99	0.44
46:C5:104:GLY:HA2	46:C5:105:ALA:HA	1.65	0.44
49:F5:49:VAL:HG21	49:F5:67:ILE:HD12	1.98	0.44
1:13:184:G:H2'	1:13:185:A:C8	2.52	0.44
1:13:620:C:C6	4:3E:135:LEU:HD13	2.52	0.44
1:13:626:U:C2	1:13:627:G:C8	3.06	0.44
1:13:628:G:H2'	1:13:629:G:H8	1.83	0.44
1:13:953:G:C2	1:13:954:G:H1'	2.53	0.44
1:13:1179:A:H4'	9:8E:103:THR:HA	2.00	0.44
1:13:1268:A:N3	1:13:1326:C:O2'	2.50	0.44
3:2E:32:LEU:O	3:2E:59:ARG:NH2	2.50	0.44
4:3E:104:VAL:O	4:3E:107:ARG:N	2.51	0.44
5:4E:35:GLY:N	5:4E:112:LEU:HD13	2.32	0.44
5:4E:150:ARG:CZ	5:4E:150:ARG:HB2	2.47	0.44
9:8E:48:GLU:O	9:8E:51:ARG:HG2	2.17	0.44
15:6I:8:LYS:O	15:6I:12:ILE:HG13	2.17	0.44
16:7I:5:ARG:NH2	16:7I:6:LEU:O	2.50	0.44
17:8I:14:LYS:HZ3	17:8I:53:LEU:CD1	2.31	0.44
17:8I:100:LYS:HG2	17:8I:101:ARG:CZ	2.48	0.44
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:671:C:O2'	26:1H:672:C:H5'	2.17	0.44
26:1H:705:A:H2'	26:1H:706:A:O4'	2.18	0.44
26:1H:848:G:H2'	26:1H:849:A:H8	1.79	0.44
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.53	0.44
29:11:65:ILE:HD13	29:11:88:ARG:NH1	2.33	0.44
32:41:138:GLN:OE1	32:41:153:ARG:N	2.46	0.44
33:51:4:ILE:HG23	33:51:6:ARG:NH1	2.27	0.44
35:58:97:ARG:HA	35:58:100:GLU:HB2	1.98	0.44
37:78:30:THR:HG21	37:78:35:HIS:N	2.31	0.44
37:78:106:LEU:O	37:78:107:LYS:C	2.56	0.44
46:G8:90:LEU:HA	46:G8:91:GLU:HA	1.53	0.44
1:1G:10:A:OP2	5:42:126:ARG:HD2	2.18	0.44
1:1G:29:G:C5	1:1G:30:U:C5	3.06	0.44
1:1G:512:U:H2'	1:1G:513:C:H6	1.81	0.44
1:1G:1177:G:H8	1:1G:1177:G:OP2	2.01	0.44
1:1G:1217:C:OP1	14:5A:9:LYS:HD2	2.18	0.44
2:12:102:LEU:HD12	2:12:103:THR:HG23	1.98	0.44
2:12:189:ASP:HB3	2:12:203:GLY:O	2.17	0.44
4:32:43:HIS:HA	4:32:46:LYS:HZ1	1.82	0.44
7:62:132:GLY:H	7:62:135:VAL:HG22	1.82	0.44
26:14:226:G:H21	26:14:228:A:H62	1.65	0.44
26:14:287:C:H2'	26:14:288:C:C6	2.53	0.44
26:14:1449:A:H5'	26:14:1449(A):G:OP2	2.17	0.44
26:14:1678:G:N2	26:14:1989:G:N2	2.61	0.44
26:14:2122:U:H2'	26:14:2123:G:O4'	2.17	0.44
26:14:2243:U:H2'	26:14:2244:U:C6	2.53	0.44
26:14:2299:G:N1	26:14:2318:G:C8	2.86	0.44
29:19:20:ASP:OD1	29:19:22:SER:OG	2.16	0.44
30:29:202:LYS:HD2	30:29:202:LYS:N	2.32	0.44
33:59:141:VAL:N	33:59:143:GLN:OE1	2.50	0.44
40:65:58:LEU:HD13	40:65:58:LEU:HA	1.85	0.44
54:L5:26:GLY:O	54:L5:30:VAL:HG23	2.18	0.44
1:13:271:C:H2'	1:13:272:C:H6	1.83	0.44
1:13:418:C:H1'	1:13:540:G:O2'	2.18	0.44
1:13:648:A:C6	1:13:649:G:C6	3.06	0.44
1:13:1449:C:H5"	1:13:1450:U:OP2	2.18	0.44
7:6E:15:ASP:HB3	7:6E:19:GLY:N	2.33	0.44
12:3I:15:ARG:HB3	12:3I:16:GLU:OE1	2.17	0.44
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.17	0.44
26:1H:116:C:H2'	26:1H:117:G:C8	2.52	0.44
26:1H:527:C:N4	26:1H:2777:G:O2'	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:602:G:N2	26:1H:655:A:C8	2.83	0.44
26:1H:729:G:O5'	29:11:208:LYS:NZ	2.51	0.44
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.17	0.44
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.99	0.44
29:11:232:PRO:HB3	29:11:244:ARG:CZ	2.48	0.44
39:98:20:LEU:HD21	39:98:40:LYS:HD3	1.99	0.44
1:1G:271:C:H2'	1:1G:272:C:H6	1.83	0.44
1:1G:278:G:O4'	1:1G:282:A:H1'	2.18	0.44
1:1G:590:C:H2'	1:1G:591:U:C6	2.53	0.44
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.40	0.44
2:12:77:ALA:O	2:12:81:VAL:HG13	2.18	0.44
2:12:97:TRP:CE3	2:12:98:LEU:N	2.86	0.44
4:32:19:LEU:HB2	4:32:21:LEU:HD11	2.00	0.44
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.50	0.44
4:32:108:LEU:HD12	4:32:108:LEU:HA	1.85	0.44
6:52:26:ILE:O	6:52:30:LEU:HD12	2.18	0.44
8:72:73:ASP:HB2	8:72:75:ARG:CZ	2.48	0.44
9:82:93:ARG:HA	9:82:93:ARG:HD3	1.63	0.44
13:4A:35:GLU:HG3	13:4A:36:LYS:N	2.33	0.44
26:14:195:A:H4'	26:14:251:A:O2'	2.17	0.44
26:14:239:U:H2'	26:14:240:G:O4'	2.18	0.44
26:14:305:U:H2'	26:14:306:U:C6	2.52	0.44
26:14:1657:C:H2'	26:14:1658:C:C6	2.53	0.44
26:14:1750:G:O2'	26:14:1751:C:H5'	2.18	0.44
26:14:2864:G:C6	26:14:2865:U:N3	2.86	0.44
29:19:30:GLU:HB3	29:19:35:LYS:NZ	2.33	0.44
30:29:26:ILE:HG22	30:29:27:LEU:C	2.38	0.44
33:59:104:GLU:HA	33:59:114:VAL:HG12	2.00	0.44
34:69:113:ARG:O	34:69:131:LYS:HG2	2.18	0.44
38:45:57:HIS:CE1	38:45:116:GLU:HG2	2.53	0.44
45:B5:16:LYS:H	45:B5:16:LYS:CE	2.31	0.44
1:13:458:C:N4	1:13:475:G:O6	2.51	0.44
1:13:619:U:C2	4:3E:135:LEU:HD11	2.52	0.44
1:13:848:C:H2'	1:13:849:C:O4'	2.17	0.44
1:13:1129:C:H4'	1:13:1130:A:OP1	2.17	0.44
1:13:1287:A:H2	1:13:1353:G:N3	2.16	0.44
1:13:1392:G:N2	1:13:1502:A:H8	2.15	0.44
1:13:1412:C:H2'	1:13:1413:A:C8	2.53	0.44
3:2E:157:ILE:HB	3:2E:164:ARG:HH11	1.83	0.44
6:5E:17:SER:O	6:5E:21:LEU:HD12	2.18	0.44
13:4I:40:ASN:HB3	13:4I:43:THR:OG1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:450:G:O6	61:1H:3757:HOH:O	2.21	0.44
26:1H:782:A:H5'	26:1H:783:A:C2	2.53	0.44
26:1H:2436:G:C5	26:1H:2437:U:C5	3.06	0.44
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.18	0.44
32:41:27:ASN:HB3	32:41:30:GLU:HG3	1.99	0.44
34:61:113:ARG:O	34:61:113:ARG:HG2	2.18	0.44
38:88:32:TYR:O	38:88:105:GLU:HA	2.18	0.44
45:F8:36:LYS:HE2	45:F8:54:VAL:O	2.16	0.44
52:M8:39:CYS:O	52:M8:43:TYR:N	2.51	0.44
1:1G:42:G:H2'	1:1G:43:C:O4'	2.17	0.44
1:1G:440:A:H3'	1:1G:442:C:C6	2.53	0.44
1:1G:555:C:H2'	1:1G:556:C:C6	2.53	0.44
1:1G:590:C:H2'	1:1G:591:U:H6	1.83	0.44
1:1G:952:U:H2'	1:1G:953:G:C8	2.53	0.44
1:1G:1378:C:P	7:62:6:ARG:HH12	2.41	0.44
3:22:173:VAL:C	3:22:174:PRO:CA	2.78	0.44
7:62:22:LEU:HD23	7:62:62:PHE:HE2	1.83	0.44
9:82:86:VAL:HG22	9:82:93:ARG:HD2	1.99	0.44
19:AA:66:MET:HA	19:AA:67:VAL:O	2.17	0.44
26:14:192:C:H2'	26:14:193:U:H5'	2.00	0.44
26:14:270(R):G:H2'	26:14:270(S):G:C8	2.53	0.44
26:14:307:G:H21	26:14:330:A:H62	1.65	0.44
26:14:945:A:C4	26:14:2448:A:C2	3.04	0.44
26:14:987:G:O2'	26:14:1000:A:N3	2.45	0.44
26:14:2105:C:H2'	26:14:2106:G:O4'	2.18	0.44
26:14:2107:C:H42	26:14:2182:G:H1	1.63	0.44
26:14:2262:U:O2'	26:14:2263:C:H5'	2.18	0.44
29:19:85:ASP:OD1	29:19:87:ASN:ND2	2.50	0.44
30:29:68:ALA:O	30:29:70:ALA:N	2.50	0.44
32:49:93:THR:HG22	32:49:95:ARG:HD2	1.99	0.44
34:69:117:GLU:HG2	34:69:118:LYS:H	1.83	0.44
39:55:67:LEU:CD1	39:55:76:VAL:HG11	2.48	0.44
40:65:11:LYS:HZ2	40:65:11:LYS:HG3	1.65	0.44
40:65:35:ILE:HG22	40:65:101:LEU:HD12	2.00	0.44
1:13:416:G:C5	1:13:417:C:C4	3.06	0.44
1:13:439:A:C4	1:13:496:A:C2	3.06	0.44
1:13:562:C:C2	12:3I:16:GLU:OE1	2.71	0.44
1:13:828:A:H2'	1:13:829:G:O4'	2.17	0.44
1:13:939:G:C6	1:13:940:C:N4	2.86	0.44
1:13:1022:G:H2'	1:13:1023:G:H8	1.83	0.44
1:13:1033:G:H2'	1:13:1034:G:H5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1244:C:C6	21:1F:9:ARG:NH2	2.85	0.44
1:13:1262:C:H2'	1:13:1263:C:H6	1.82	0.44
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.63	0.44
1:13:1366:C:H2'	1:13:1367:C:C6	2.49	0.44
1:13:1464:G:H2'	1:13:1465:C:C6	2.53	0.44
2:1E:7:VAL:HG11	2:1E:217:ARG:HE	1.83	0.44
11:2I:109:VAL:HA	18:9I:85:LEU:O	2.18	0.44
19:AI:20:LEU:HD23	19:AI:23:ASN:OD1	2.18	0.44
20:BI:20:LEU:HD23	20:BI:21:LYS:HG3	2.00	0.44
24:3K:64:U:H3'	24:3K:65:C:O4'	2.17	0.44
25:4K:12:A:H4'	25:4K:13:A:OP1	2.18	0.44
26:1H:1006:C:O2	35:58:106:MET:HG2	2.17	0.44
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.52	0.44
26:1H:1209:G:H21	26:1H:1210:A:H62	1.64	0.44
26:1H:1252:G:N7	42:C8:36:ARG:NH1	2.62	0.44
26:1H:1358:G:N2	26:1H:1372:U:C5	2.86	0.44
26:1H:1784:A:H5"	61:1H:4054:HOH:O	2.17	0.44
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.16	0.44
29:11:36:PRO:HD2	29:11:62:TYR:O	2.18	0.44
29:11:70:TRP:CD1	29:11:71:ASP:N	2.86	0.44
29:11:77:ALA:HB2	29:11:97:TYR:CD2	2.52	0.44
35:58:96:GLU:HB2	35:58:122:VAL:HG12	2.00	0.44
37:78:71:VAL:HG13	37:78:72:PRO:HD3	2.00	0.44
40:A8:5:THR:HG22	40:A8:8:GLU:CG	2.44	0.44
40:A8:41:ASP:O	40:A8:45:GLY:N	2.51	0.44
40:A8:87:PHE:CE1	40:A8:102:ALA:HB2	2.53	0.44
40:A8:100:ALA:HA	40:A8:103:GLU:HG2	1.99	0.44
49:J8:24:ALA:HB1	49:J8:26:ARG:HG3	1.99	0.44
49:J8:92:LYS:HD3	49:J8:93:GLU:CG	2.36	0.44
51:L8:8:LEU:HG	51:L8:31:LEU:HD22	2.00	0.44
1:1G:622:A:C8	1:1G:623:C:C6	3.06	0.44
1:1G:1086:U:H2'	1:1G:1087:G:C8	2.53	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.16	0.44
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.53	0.44
4:32:83:SER:HA	4:32:89:THR:HG23	1.99	0.44
4:32:126:ILE:HG22	4:32:127:THR:N	2.32	0.44
11:2A:91:ARG:CZ	11:2A:91:ARG:HB2	2.48	0.44
16:7A:27:LYS:HZ2	16:7A:27:LYS:CB	2.28	0.44
24:3L:50:G:H22	24:3L:64:U:H3	1.66	0.44
26:14:92:G:H2'	26:14:93:C:H6	1.81	0.44
26:14:212:G:H2'	26:14:213:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:576:U:H2'	26:14:577:G:C8	2.53	0.44
26:14:705:A:H1'	29:19:9:TYR:CE2	2.53	0.44
26:14:1525:G:H2'	26:14:1526:G:C8	2.53	0.44
26:14:2490:G:O2'	58:14:3446:SPE:H41	2.18	0.44
30:29:113:PHE:HA	30:29:159:HIS:HD2	1.83	0.44
31:39:144:LYS:HA	31:39:148:LEU:HD22	1.99	0.44
32:49:43:LEU:HD12	32:49:43:LEU:HA	1.72	0.44
32:49:61:ALA:O	32:49:65:GLY:N	2.50	0.44
39:55:56:LYS:HE2	39:55:56:LYS:HB3	1.85	0.44
40:65:65:VAL:O	40:65:69:VAL:HG12	2.18	0.44
51:H5:23:LEU:HD11	51:H5:53:LEU:HD23	2.00	0.44
51:H5:30:ARG:HD3	51:H5:30:ARG:N	2.32	0.44
1:13:129:U:H4'	1:13:130:A:OP1	2.18	0.43
1:13:435:C:H2'	1:13:436:C:H6	1.81	0.43
1:13:1244:C:N4	1:13:1293:G:H1	2.14	0.43
2:1E:149:LEU:HD23	2:1E:149:LEU:HA	1.86	0.43
2:1E:187:LEU:HA	2:1E:201:ILE:HG13	1.98	0.43
3:2E:18:TRP:C	3:2E:21:ARG:HE	2.21	0.43
5:4E:31:LEU:HD13	5:4E:45:PHE:CD1	2.53	0.43
20:BI:57:ARG:HH21	20:BI:102:GLY:CA	2.30	0.43
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.83	0.43
26:1H:1814:G:OP1	29:11:40:THR:HG21	2.18	0.43
26:1H:2164:C:H3'	26:1H:2165:G:H5'	2.00	0.43
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.53	0.43
26:1H:2528:U:H2'	26:1H:2530:A:O5'	2.18	0.43
33:51:138:LYS:O	33:51:141:VAL:HG22	2.18	0.43
42:C8:92:ARG:HD3	43:D8:11:GLN:CB	2.47	0.43
46:G8:39:VAL:HB	46:G8:42:VAL:HG22	2.00	0.43
47:H8:108:PRO:HB2	47:H8:112:ARG:CZ	2.47	0.43
55:Q8:32:LEU:O	55:Q8:36:LYS:HE3	2.18	0.43
1:1G:422:C:O2'	1:1G:423:G:N2	2.51	0.43
1:1G:532:A:N6	1:1G:1206:G:O2'	2.51	0.43
1:1G:543:C:OP1	4:32:14:ARG:HD2	2.18	0.43
1:1G:998(A):C:O2	1:1G:1042:G:N2	2.43	0.43
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.18	0.43
1:1G:1176:A:C6	1:1G:1177:G:C6	3.06	0.43
2:12:168:THR:HA	2:12:171:ALA:HB2	2.00	0.43
2:12:182:ILE:H	2:12:182:ILE:HD12	1.83	0.43
7:62:65:ALA:HB1	7:62:127:ALA:HB3	2.00	0.43
8:72:68:ARG:HD3	8:72:69:ARG:O	2.17	0.43
8:72:103:VAL:HG21	8:72:109:ILE:C	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:20:TYR:HE1	11:2A:33:THR:HG21	1.83	0.43
17:8A:37:LYS:O	17:8A:38:ARG:HD3	2.18	0.43
26:14:270(F):U:H3	26:14:270(T):G:H1	1.65	0.43
26:14:867:C:N4	26:14:868:U:O4	2.51	0.43
26:14:934:G:H2'	26:14:935:C:C6	2.53	0.43
26:14:2562:U:H1'	36:25:23:ARG:NE	2.33	0.43
27:1J:14:U:H5'	27:1J:70:C:O2	2.17	0.43
40:65:99:LYS:HE2	40:65:103:GLU:OE2	2.17	0.43
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.17	0.43
44:A5:79:GLY:HA3	44:A5:100:THR:HG22	1.99	0.43
47:D5:36:LYS:HE3	47:D5:36:LYS:HB2	1.81	0.43
1:13:392:G:H5'	16:7I:12:LYS:NZ	2.33	0.43
1:13:511:C:C2	1:13:512:U:C5	3.06	0.43
1:13:1189:C:OP2	10:1I:51:ARG:NH2	2.51	0.43
1:13:1329:A:OP1	13:4I:27:LYS:NZ	2.52	0.43
2:1E:195:ASP:O	8:7E:74:PRO:HG3	2.18	0.43
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.99	0.43
10:1I:50:ILE:HG22	10:1I:60:ARG:HD3	2.00	0.43
13:4I:3:ARG:CZ	13:4I:7:VAL:O	2.66	0.43
16:7I:5:ARG:HD3	16:7I:67:THR:OG1	2.18	0.43
20:BI:10:LEU:HD13	20:BI:13:LEU:N	2.33	0.43
26:1H:153:C:H2'	26:1H:154:G:O4'	2.19	0.43
26:1H:365:C:H2'	26:1H:366:C:O4'	2.18	0.43
26:1H:851:U:O2'	51:L8:42:ALA:O	2.36	0.43
26:1H:1655:A:H4'	30:21:115:GLY:H	1.83	0.43
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.17	0.43
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.18	0.43
27:16:40:U:H1'	27:16:45:A:N6	2.33	0.43
27:16:66:A:N6	27:16:107:U:H2'	2.29	0.43
28:71:14:VAL:HG21	28:71:32:LEU:HD21	2.00	0.43
32:41:36:LYS:HA	32:41:94:LEU:O	2.18	0.43
33:51:121:ILE:HD13	33:51:140:LYS:HG2	1.99	0.43
37:78:107:LYS:HD2	37:78:107:LYS:HA	1.80	0.43
39:98:73:VAL:HA	39:98:76:VAL:HG12	2.00	0.43
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.33	0.43
47:H8:81:ARG:HG3	47:H8:81:ARG:O	2.17	0.43
55:Q8:60:LEU:HD12	55:Q8:60:LEU:HA	1.71	0.43
1:1G:235:C:C5'	17:8A:70:ARG:HG2	2.43	0.43
1:1G:991:U:C5	1:1G:1212:U:H1'	2.52	0.43
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.53	0.43
1:1G:1160:G:H2'	1:1G:1161:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:51:LEU:HD13	2:12:54:THR:HG21	1.99	0.43
5:42:8:GLU:HB3	5:42:34:VAL:HG12	2.00	0.43
6:52:7:ASN:ND2	18:9A:76:LEU:HD11	2.32	0.43
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.53	0.43
14:5A:47:LEU:HD23	14:5A:48:ALA:H	1.83	0.43
20:BA:97:ALA:O	20:BA:99:LEU:HD22	2.17	0.43
25:4L:24:A:H3'	25:4L:24:A:H8	1.83	0.43
26:14:470:A:H5"	26:14:470:A:H8	1.82	0.43
26:14:861:A:C2	26:14:917:A:C4	3.06	0.43
26:14:1132:A:H2'	26:14:1133:U:C6	2.53	0.43
26:14:1374:G:H2'	26:14:1375:C:O4'	2.18	0.43
26:14:1475:G:C2	26:14:1519:G:N3	2.87	0.43
26:14:2746:U:O3'	33:59:138:LYS:HE3	2.18	0.43
27:1J:102:G:N2	47:D5:73:GLN:OE1	2.51	0.43
30:29:46:ALA:HB1	30:29:80:GLU:O	2.18	0.43
31:39:82:ILE:HG23	31:39:82:ILE:HD12	1.60	0.43
31:39:122:LYS:HA	31:39:191:ARG:NH1	2.33	0.43
34:69:23:PRO:O	34:69:27:ARG:HG2	2.18	0.43
34:69:75:LEU:HD23	34:69:76:THR:N	2.34	0.43
36:25:68:GLU:CG	36:25:78:ARG:HH21	2.30	0.43
39:55:28:LEU:HD12	39:55:114:VAL:HB	1.99	0.43
39:55:48:VAL:HG21	39:55:95:THR:HG21	2.00	0.43
42:85:110:VAL:O	42:85:114:LYS:HG2	2.18	0.43
45:B5:12:VAL:HG12	45:B5:29:TRP:CE2	2.54	0.43
46:C5:20:TYR:CZ	46:C5:42:VAL:HA	2.53	0.43
46:C5:71:LYS:HB3	46:C5:71:LYS:HE2	1.70	0.43
50:G5:50:ILE:H	50:G5:50:ILE:HG12	1.45	0.43
1:13:666:G:H5"	1:13:732:C:O2	2.18	0.43
1:13:983:A:H5"	1:13:984:C:OP2	2.18	0.43
1:13:1263:C:H2'	1:13:1264:C:H6	1.83	0.43
1:13:1301:U:O2'	1:13:1302:U:H3'	2.18	0.43
9:8E:19:LEU:H	9:8E:19:LEU:HD12	1.81	0.43
10:1I:84:GLN:O	10:1I:88:LEU:HB3	2.18	0.43
24:3K:38:A:H2'	24:3K:39:G:O4'	2.18	0.43
26:1H:824:A:O2'	26:1H:2358:G:O6	2.26	0.43
26:1H:1292:U:H2'	26:1H:1293:C:H6	1.83	0.43
26:1H:1303:G:O2'	26:1H:1304:C:H5'	2.19	0.43
26:1H:1386:C:OP2	26:1H:1396:U:H5	2.01	0.43
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.18	0.43
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.53	0.43
26:1H:1688:U:O2	26:1H:1700:A:H5"	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2232:U:OP2	49:J8:40:ARG:NH1	2.43	0.43
26:1H:2292:C:P	40:A8:17:ARG:HH22	2.41	0.43
26:1H:2335:A:N7	26:1H:2337:G:C5	2.87	0.43
26:1H:2427:C:H5"	26:1H:2428:G:OP1	2.18	0.43
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.17	0.43
26:1H:2766:G:H5"	26:1H:2767:C:OP2	2.19	0.43
31:31:47:GLY:HA3	31:31:95:ARG:O	2.18	0.43
32:41:141:PHE:HB2	32:41:144:ILE:HD13	1.99	0.43
35:58:57:ALA:O	35:58:59:LYS:N	2.50	0.43
35:58:130:HIS:O	35:58:134:ARG:NH1	2.45	0.43
45:F8:24:GLY:O	45:F8:83:VAL:HG22	2.18	0.43
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.48	0.43
47:H8:4:ARG:HH12	47:H8:5:LEU:CD1	2.31	0.43
1:1G:20:U:H2'	1:1G:21:G:O4'	2.18	0.43
1:1G:87:A:O2'	1:1G:88:C:H5"	2.17	0.43
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.53	0.43
1:1G:464:G:H1'	1:1G:468:A:H61	1.83	0.43
1:1G:562:C:H1'	12:3A:15:ARG:HD2	2.00	0.43
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.19	0.43
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.33	0.43
14:5A:34:TYR:CD2	14:5A:44:LEU:HD11	2.52	0.43
15:6A:32:LEU:O	15:6A:36:ILE:HG13	2.18	0.43
26:14:460:A:C2	26:14:470:A:C4	3.07	0.43
26:14:616:A:H4'	26:14:617:G:OP1	2.18	0.43
26:14:1003:G:N2	26:14:1153:C:C2	2.86	0.43
26:14:1453:A:O2'	26:14:1454:U:H2'	2.18	0.43
26:14:2384:G:OP1	48:E5:55:ARG:NE	2.51	0.43
26:14:2845:G:H5"	41:75:55:ASN:HA	1.99	0.43
30:29:14:ILE:HB	41:75:14:TYR:CZ	2.53	0.43
30:29:52:LEU:HD22	30:29:76:ARG:NH1	2.34	0.43
30:29:143:ASN:HD22	30:29:147:PRO:HD3	1.83	0.43
31:39:124:LEU:HB3	31:39:193:VAL:HB	2.00	0.43
32:49:77:ILE:H	32:49:82:LEU:CD1	2.31	0.43
40:65:39:ILE:HG22	40:65:48:LEU:HB2	2.00	0.43
40:65:59:LYS:HA	40:65:59:LYS:HD2	1.79	0.43
45:B5:12:VAL:HG12	45:B5:29:TRP:CD1	2.52	0.43
1:13:10:A:O2'	1:13:11:G:H5'	2.18	0.43
1:13:265:G:O2'	17:8I:67:LYS:N	2.51	0.43
1:13:825:G:H2'	1:13:826:C:C6	2.53	0.43
1:13:976:G:C8	1:13:1358:U:C2	3.07	0.43
1:13:1130:A:C2	1:13:1146:A:C4	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:101:LEU:HD23	3:2E:102:ASN:N	2.33	0.43
5:4E:128:PRO:HA	5:4E:131:ILE:HG13	2.00	0.43
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.50	0.43
14:5I:47:LEU:O	14:5I:50:LYS:HG3	2.17	0.43
16:7I:18:ARG:HD2	16:7I:18:ARG:HA	1.89	0.43
17:8I:44:ALA:HA	17:8I:69:LYS:HE2	1.99	0.43
19:AI:21:GLU:OE2	19:AI:22:LEU:HG	2.19	0.43
20:BI:83:ARG:HA	20:BI:83:ARG:HD3	1.66	0.43
24:3K:2:G:H2'	24:3K:3:G:C8	2.53	0.43
26:1H:57:C:H2'	26:1H:58:G:O4'	2.18	0.43
26:1H:191:A:H2	61:1H:3817:HOH:O	2.01	0.43
26:1H:814:C:O2'	26:1H:1225:C:N3	2.50	0.43
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.17	0.43
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.51	0.43
29:11:40:THR:HG23	29:11:41:GLY:N	2.33	0.43
33:51:26:VAL:HG23	33:51:79:VAL:HG11	2.00	0.43
33:51:80:SER:O	33:51:81:GLU:HG3	2.18	0.43
34:61:1:MET:O	34:61:20:ASP:HA	2.19	0.43
40:A8:87:PHE:HE2	40:A8:89:ARG:HB2	1.84	0.43
42:C8:17:ILE:HG23	42:C8:39:LEU:HD12	2.00	0.43
42:C8:105:VAL:HG23	43:D8:44:LYS:HG3	2.00	0.43
1:1G:600:C:H2'	1:1G:601:C:C6	2.52	0.43
1:1G:878:G:H1'	8:72:3:THR:HG21	2.00	0.43
1:1G:1152:A:OP1	10:1A:68:HIS:ND1	2.51	0.43
1:1G:1281:U:O4	10:1A:71:LEU:HD11	2.18	0.43
3:22:52:LEU:HD11	3:22:68:VAL:HG13	2.00	0.43
9:82:18:PHE:CG	9:82:19:LEU:N	2.85	0.43
10:1A:32:ALA:HA	10:1A:76:ASN:ND2	2.32	0.43
10:1A:55:LYS:O	10:1A:56:HIS:CD2	2.72	0.43
17:8A:7:THR:HG22	17:8A:58:GLU:HG2	2.01	0.43
26:14:560:C:H2'	26:14:561:G:O4'	2.18	0.43
26:14:618(A):C:OP2	31:39:103:LYS:HE2	2.18	0.43
26:14:864:G:N2	26:14:913:U:C2	2.86	0.43
26:14:1167:U:C2	26:14:1183:G:N2	2.87	0.43
26:14:2186:G:H2'	26:14:2187:G:H8	1.83	0.43
26:14:2257:U:O2'	26:14:2258:C:H5'	2.18	0.43
27:1J:88:C:H4'	27:1J:89:G:OP2	2.18	0.43
28:79:15:ASP:O	28:79:223:ARG:HB2	2.18	0.43
29:19:273:ARG:O	29:19:275:LYS:N	2.51	0.43
30:29:8:LYS:O	30:29:9:VAL:HG23	2.18	0.43
31:39:148:LEU:HG	31:39:149:ASP:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:116:ASP:O	32:49:117:PHE:HB3	2.19	0.43
33:59:27:LYS:HD3	33:59:28:GLY:N	2.34	0.43
40:65:13:ARG:NE	40:65:13:ARG:HA	2.30	0.43
47:D5:94:GLU:OE2	47:D5:95:PRO:HD2	2.19	0.43
49:F5:26:ARG:HH11	49:F5:26:ARG:HG3	1.84	0.43
1:13:123:C:OP1	1:13:311:C:O2'	2.33	0.43
1:13:192:U:C1'	20:BI:103:GLY:HA2	2.48	0.43
1:13:450:G:N7	1:13:481:G:C6	2.87	0.43
1:13:583:A:O3'	17:8I:91:ARG:NH1	2.51	0.43
1:13:651:C:H2'	1:13:652:U:C6	2.53	0.43
1:13:1097:C:H1'	1:13:1170:A:H1'	2.00	0.43
1:13:1126:U:C5	1:13:1127:G:C5	3.06	0.43
1:13:1240:U:H1'	7:6E:32:ARG:NH2	2.33	0.43
1:13:1379:G:O6	7:6E:2:ALA:HB3	2.18	0.43
1:13:1434:A:H2'	1:13:1435:G:O4'	2.18	0.43
2:1E:102:LEU:HB3	2:1E:180:LEU:CD2	2.49	0.43
3:2E:56:ASP:CB	3:2E:67:THR:HG23	2.49	0.43
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.59	0.43
5:4E:7:GLU:O	5:4E:34:VAL:HA	2.18	0.43
8:7E:1:MET:HB2	8:7E:2:LEU:H	1.58	0.43
9:8E:4:TYR:O	9:8E:19:LEU:HD12	2.18	0.43
16:7I:18:ARG:NH1	16:7I:19:ILE:HG13	2.24	0.43
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.53	0.43
19:AI:9:VAL:HB	19:AI:10:PHE:HB2	2.01	0.43
22:1K:17:H2U:H4'	22:1K:60:C:C5	2.53	0.43
26:1H:143:C:H2'	26:1H:144:C:H6	1.83	0.43
26:1H:299:A:N6	26:1H:300:A:N6	2.67	0.43
26:1H:699:A:H2'	26:1H:700:G:O4'	2.18	0.43
26:1H:1260:G:H2'	26:1H:1261:C:C6	2.53	0.43
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.18	0.43
26:1H:2053:G:H5'	30:21:144:ARG:O	2.19	0.43
26:1H:2056:G:N3	26:1H:2056:G:H2'	2.33	0.43
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.54	0.43
27:16:12:C:C2	48:I8:74:ARG:NH1	2.86	0.43
29:11:106:ILE:HG21	29:11:106:ILE:HD13	1.76	0.43
37:78:100:LEU:HD23	37:78:100:LEU:HA	1.67	0.43
41:B8:116:ALA:HB1	41:B8:121:ILE:HD11	2.01	0.43
52:M8:15:ILE:HD11	52:M8:32:TYR:CE1	2.53	0.43
1:1G:89:U:O2'	1:1G:90:C:O5'	2.32	0.43
1:1G:976:G:H8	1:1G:1358:U:O2'	2.02	0.43
1:1G:1053:G:O6	1:1G:1199:U:H2'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1372:U:H5"	9:82:71:SER:HB2	2.00	0.43
2:12:50:GLU:OE1	2:12:50:GLU:N	2.50	0.43
2:12:56:ARG:HA	2:12:56:ARG:HD2	1.68	0.43
3:22:16:ARG:HE	3:22:16:ARG:HB3	1.36	0.43
8:72:73:ASP:HB2	8:72:75:ARG:NH1	2.33	0.43
9:82:26:VAL:HG23	9:82:61:ALA:O	2.19	0.43
14:5A:58:LYS:HA	14:5A:58:LYS:HZ2	1.80	0.43
26:14:39:C:O2	31:39:46:ARG:NH2	2.51	0.43
26:14:67:U:N3	26:14:74:A:C2	2.70	0.43
26:14:540:G:H2'	26:14:541:C:H6	1.83	0.43
26:14:774:A:O2'	26:14:775:G:H5"	2.19	0.43
26:14:1126:A:H8	26:14:1126:A:OP1	2.01	0.43
26:14:1392:A:C6	26:14:1393:A:C6	3.06	0.43
26:14:2345:G:N3	26:14:2381:C:H2'	2.34	0.43
27:1J:50:G:OP1	40:65:62:LYS:HE2	2.19	0.43
27:1J:51:G:C6	27:1J:52:A:C2	3.06	0.43
33:59:7:LEU:H	33:59:7:LEU:HG	1.68	0.43
34:69:48:GLU:O	34:69:51:ILE:HG22	2.19	0.43
34:69:79:ILE:HD11	34:69:140:LEU:HD13	2.00	0.43
35:15:5:VAL:O	35:15:7:LYS:NZ	2.45	0.43
35:15:56:ASN:N	35:15:125:GLY:HA3	2.25	0.43
38:45:27:VAL:CB	38:45:28:ALA:CA	2.82	0.43
38:45:38:GLU:HG3	38:45:127:ILE:CD1	2.48	0.43
40:65:64:GLU:O	40:65:68:GLN:HG3	2.18	0.43
44:A5:12:ILE:HD12	44:A5:42:ARG:HD3	2.00	0.43
46:C5:43:ASN:OD1	46:C5:64:GLU:HA	2.18	0.43
1:13:730:G:C5	1:13:731:G:H1'	2.53	0.43
1:13:1296:C:H4'	1:13:1302:U:C5	2.54	0.43
2:1E:32:ILE:HG13	2:1E:33:TYR:N	2.33	0.43
5:4E:110:LEU:HD23	5:4E:115:VAL:HG21	2.01	0.43
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.47	0.43
9:8E:5:TYR:OH	9:8E:7:THR:HB	2.18	0.43
16:7I:37:GLY:HA3	16:7I:50:LYS:O	2.19	0.43
19:AI:27:GLU:N	19:AI:27:GLU:OE1	2.50	0.43
20:BI:69:GLY:O	20:BI:73:HIS:CD2	2.71	0.43
22:1K:43:G:H2'	22:1K:44:G:C8	2.54	0.43
24:3K:9:A:O2'	24:3K:46:G:O4'	2.32	0.43
24:3K:15:G:H1	24:3K:48:C:N4	2.16	0.43
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.53	0.43
26:1H:455:C:N3	26:1H:472:A:H2'	2.33	0.43
26:1H:658:C:H2'	26:1H:659:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:852:G:H2'	26:1H:853:G:C8	2.52	0.43
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.54	0.43
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.49	0.43
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.53	0.43
34:61:85:GLU:OE1	34:61:86:THR:HG23	2.19	0.43
37:78:88:LEU:HD12	37:78:88:LEU:HA	1.75	0.43
41:B8:64:ARG:HB2	41:B8:73:GLU:HG2	2.01	0.43
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.19	0.43
49:J8:46:LEU:HD12	49:J8:46:LEU:HA	1.85	0.43
49:J8:92:LYS:HZ2	49:J8:93:GLU:HG3	1.84	0.43
1:1G:114:U:O2'	1:1G:115:G:H5'	2.18	0.43
1:1G:474:G:P	16:7A:75:ARG:NE	2.91	0.43
1:1G:503:C:H6	1:1G:503:C:O5'	2.01	0.43
1:1G:765:G:C6	1:1G:812:C:C2	3.07	0.43
1:1G:980:C:H3'	1:1G:981:U:C6	2.54	0.43
1:1G:1160:G:H2'	1:1G:1161:C:H6	1.83	0.43
1:1G:1187:G:OP1	9:82:113:LYS:NZ	2.52	0.43
1:1G:1386:G:C2	1:1G:1387:G:C8	3.07	0.43
2:12:22:LYS:HE2	2:12:22:LYS:HB3	1.77	0.43
2:12:200:ILE:HA	2:12:200:ILE:HD13	1.48	0.43
6:52:44:GLY:HA2	6:52:59:TYR:CE2	2.54	0.43
9:82:85:LEU:HD11	9:82:93:ARG:NH1	2.34	0.43
13:4A:60:VAL:HG23	13:4A:64:TRP:CE3	2.54	0.43
13:4A:105:THR:HG22	13:4A:106:ASN:H	1.83	0.43
18:9A:36:ASN:HB2	18:9A:38:GLU:OE2	2.19	0.43
24:3L:22:G:H8	24:3L:46:G:H21	1.67	0.43
26:14:140:A:H8	26:14:1408:C:O2'	1.98	0.43
26:14:973:A:O4'	26:14:1188:U:C6	2.71	0.43
26:14:1321:A:H2'	26:14:1322:A:O4'	2.19	0.43
26:14:2118:U:H1'	26:14:2147:G:H21	1.82	0.43
26:14:2785:C:H5'	30:29:41:LYS:HE2	2.01	0.43
28:79:46:LYS:HD2	28:79:46:LYS:N	2.32	0.43
30:29:1:MET:HA	30:29:84:PHE:HB2	2.00	0.43
34:69:121:LYS:O	34:69:122:GLU:HG2	2.18	0.43
36:25:71:ARG:NH2	36:25:105:GLU:OE1	2.41	0.43
39:55:12:ARG:HG2	39:55:16:HIS:ND1	2.32	0.43
40:65:102:ALA:HA	40:65:105:ALA:HB3	2.01	0.43
42:85:92:ARG:HG2	43:95:11:GLN:HB2	1.98	0.43
46:C5:45:VAL:HA	46:C5:61:ILE:O	2.18	0.43
49:F5:46:LEU:HD12	49:F5:46:LEU:HA	1.82	0.43
51:H5:7:LYS:HZ1	51:H5:34:GLU:N	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:I5:62:ARG:HD2	52:I5:62:ARG:N	2.33	0.43
55:M5:38:GLY:O	55:M5:42:ARG:HB2	2.19	0.43
1:13:265:G:H5'	17:8I:64:PRO:O	2.18	0.43
1:13:662:G:H2'	1:13:663:A:C8	2.54	0.43
1:13:688:G:H2'	1:13:689:C:C6	2.54	0.43
1:13:724:G:H2'	1:13:725:G:H8	1.83	0.43
1:13:1060:C:HO2'	10:1I:56:HIS:HD1	1.65	0.43
1:13:1145:C:H4'	1:13:1146:A:H5'	2.00	0.43
1:13:1156:G:H2'	1:13:1157:A:H5"	2.01	0.43
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.19	0.43
2:1E:28:PHE:HE2	2:1E:189:ASP:O	1.99	0.43
4:3E:113:SER:O	4:3E:117:ALA:N	2.36	0.43
7:6E:90:GLU:O	7:6E:90:GLU:HG2	2.18	0.43
15:6I:60:VAL:HG23	15:6I:64:ARG:NH2	2.32	0.43
22:1K:73:A:H5"	22:1K:73:A:N3	2.34	0.43
26:1H:95:G:O2'	50:K8:48:HIS:HB3	2.18	0.43
26:1H:196:A:C8	37:78:46:LYS:HD2	2.54	0.43
26:1H:297:C:H2'	26:1H:298:G:O4'	2.18	0.43
26:1H:317:G:C2	26:1H:318:C:C2	3.07	0.43
26:1H:389:G:H1	37:78:71:VAL:HG12	1.84	0.43
26:1H:482:A:H5"	26:1H:483:A:OP1	2.18	0.43
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.53	0.43
26:1H:1581:G:C6	26:1H:1582:C:C4	3.07	0.43
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.17	0.43
26:1H:2112:G:N2	26:1H:2170:A:H61	2.16	0.43
26:1H:2688:U:H5	26:1H:2720:U:OP2	2.01	0.43
27:16:41:U:C5	32:41:70:VAL:HG22	2.53	0.43
30:21:13:ARG:NH2	41:B8:77:PRO:HB3	2.33	0.43
34:61:101:LEU:HD23	34:61:101:LEU:HA	1.83	0.43
40:A8:8:GLU:HA	40:A8:11:LYS:HB3	2.01	0.43
47:H8:60:GLU:O	47:H8:61:LEU:HB3	2.18	0.43
48:I8:36:ILE:HG13	48:I8:36:ILE:O	2.17	0.43
50:K8:7:ARG:HG2	50:K8:8:LYS:HZ2	1.82	0.43
52:M8:12:ALA:HB1	52:M8:29:PRO:HA	1.99	0.43
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.53	0.43
1:1G:345:C:H5'	1:1G:346:G:C5	2.53	0.43
1:1G:345:C:H4'	1:1G:346:G:O5'	2.18	0.43
1:1G:560:U:H4'	1:1G:561:U:O5'	2.18	0.43
1:1G:1162:C:N4	1:1G:1174:G:H1	2.14	0.43
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.53	0.43
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.53	0.43
1:1G:1462:G:H2'	1:1G:1463:C:C6	2.54	0.43
2:12:187:LEU:HA	2:12:201:ILE:O	2.18	0.43
3:22:11:ARG:NH1	3:22:182:ILE:H	2.17	0.43
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.51	0.43
8:72:39:LEU:HD13	8:72:39:LEU:HA	1.83	0.43
12:3A:59:ARG:HB2	12:3A:59:ARG:NH1	2.34	0.43
17:8A:81:ARG:NH2	17:8A:84:LEU:HD22	2.34	0.43
20:BA:24:LEU:HD13	20:BA:24:LEU:HA	1.85	0.43
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.34	0.43
20:BA:74:LYS:CG	20:BA:75:ASN:H	2.31	0.43
23:2L:32:G:C6	23:2L:33:OMC:N4	2.86	0.43
26:14:57:C:O5'	26:14:57:C:H6	2.01	0.43
26:14:184:C:H2'	26:14:185:U:C6	2.54	0.43
26:14:540:G:H2'	26:14:541:C:C6	2.53	0.43
26:14:606:U:H4'	26:14:658:C:H4'	2.01	0.43
26:14:654(C):G:H2'	26:14:654(D):G:H5'	2.01	0.43
26:14:734:A:O2'	26:14:1635:G:H5'	2.18	0.43
26:14:2121:G:N3	28:79:168:THR:HG21	2.34	0.43
26:14:2319:G:N7	40:65:3:ARG:HB3	2.34	0.43
26:14:2534:A:C2	26:14:2535:G:H1'	2.52	0.43
31:39:11:VAL:CG2	31:39:12:LEU:N	2.82	0.43
33:59:119:GLU:CD	33:59:120:GLY:H	2.20	0.43
39:55:30:THR:HG22	39:55:31:HIS:ND1	2.33	0.43
41:75:117:ASP:OD2	41:75:120:ARG:HG3	2.19	0.43
47:D5:74:VAL:HB	47:D5:86:VAL:HG23	2.00	0.43
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.33	0.43
1:13:345:C:O2'	1:13:346:G:N3	2.51	0.43
1:13:658:G:H2'	1:13:659:U:C6	2.54	0.43
1:13:736:C:H2'	1:13:737:A:C8	2.53	0.43
1:13:1053:G:O5'	1:13:1054:C:H3'	2.19	0.43
1:13:1127:G:C6	1:13:1128:C:C2	3.07	0.43
7:6E:66:VAL:O	7:6E:70:LYS:HG3	2.19	0.43
9:8E:92:TYR:HD1	9:8E:92:TYR:N	2.11	0.43
14:5I:24:CYS:SG	14:5I:29:ARG:NH1	2.92	0.43
23:2K:20:G:C5	23:2K:58:A:C2	3.06	0.43
26:1H:89:G:OP2	26:1H:90:U:O2'	2.29	0.43
26:1H:228:A:C8	26:1H:230:U:H1'	2.53	0.43
26:1H:271(B):G:N7	26:1H:421:U:H2'	2.33	0.43
26:1H:315:G:C6	26:1H:316:C:C4	3.07	0.43
26:1H:442:G:C6	26:1H:444:C:N4	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:511:U:C5	26:1H:512:G:C5	3.06	0.43
26:1H:870:A:O5'	38:88:6:ARG:NH2	2.52	0.43
26:1H:1028:A:N6	26:1H:1125:G:H2'	2.34	0.43
26:1H:1797:C:O2'	29:11:259:THR:HG22	2.19	0.43
26:1H:1816:G:H8	29:11:62:TYR:CZ	2.37	0.43
26:1H:2360:A:H2'	26:1H:2361:A:O4'	2.18	0.43
28:71:181:PRO:HD2	28:71:184:LYS:HD2	2.00	0.43
31:31:66:PRO:HD2	31:31:70:THR:HG21	2.00	0.43
32:41:107:LEU:HD13	32:41:107:LEU:HA	1.86	0.43
33:51:85:LYS:NZ	33:51:133:VAL:HG22	2.33	0.43
40:A8:106:ARG:HD3	40:A8:106:ARG:H	1.84	0.43
44:E8:92:ARG:O	44:E8:93:ALA:HB3	2.19	0.43
47:H8:4:ARG:CG	47:H8:58:VAL:HG22	2.49	0.43
1:1G:298:A:H2'	1:1G:299:G:O4'	2.19	0.43
1:1G:688:G:H2'	1:1G:689:C:H6	1.84	0.43
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.54	0.43
1:1G:978:A:HO2'	1:1G:1322:C:N4	2.16	0.43
1:1G:1055:A:C5	1:1G:1206:G:C2	3.07	0.43
3:22:11:ARG:NH1	3:22:180:ALA:HB3	2.33	0.43
3:22:62:ASP:O	3:22:97:LYS:HB2	2.18	0.43
3:22:97:LYS:HE3	3:22:97:LYS:HB3	1.91	0.43
4:32:13:ARG:O	4:32:14:ARG:HB3	2.18	0.43
4:32:85:LYS:HG3	4:32:86:LYS:N	2.33	0.43
7:62:50:ILE:HD11	7:62:58:PRO:HA	2.00	0.43
8:72:44:PHE:HE2	8:72:109:ILE:HG21	1.83	0.43
10:1A:68:HIS:CD2	10:1A:68:HIS:N	2.86	0.43
19:AA:9:VAL:HB	19:AA:10:PHE:H	1.60	0.43
26:14:91:A:O2'	26:14:92:G:H5'	2.19	0.43
26:14:729:G:C6	29:19:208:LYS:HB2	2.53	0.43
26:14:764:A:H5'	29:19:210:GLY:CA	2.49	0.43
26:14:1675:C:O2	30:29:128:SER:OG	2.37	0.43
26:14:1733:G:H8	26:14:1733:G:O5'	2.01	0.43
26:14:2363:C:O2	48:E5:39:ARG:NH2	2.50	0.43
27:1J:29:A:OP2	40:65:32:LEU:HD12	2.18	0.43
27:1J:43:C:H4'	32:49:95:ARG:NH2	2.34	0.43
31:39:17:ARG:HD2	31:39:17:ARG:HA	1.41	0.43
31:39:160:ASN:CG	31:39:163:VAL:HG13	2.40	0.43
32:49:37:VAL:HG23	32:49:99:MET:HE3	2.00	0.43
33:59:67:LEU:HD13	33:59:67:LEU:HA	1.78	0.43
34:69:81:VAL:N	34:69:143:SER:HB3	2.29	0.43
34:69:93:THR:N	34:69:96:ASP:HB2	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:21:LYS:O	35:15:60:ILE:HG13	2.19	0.43
36:25:113:LYS:H	36:25:113:LYS:CD	2.29	0.43
43:95:7:THR:CG2	43:95:22:VAL:HG21	2.48	0.43
44:A5:35:ILE:O	44:A5:39:THR:HB	2.18	0.43
1:13:35:G:O2'	12:3I:118:SER:O	2.23	0.43
1:13:167:G:H2'	1:13:168:G:O4'	2.17	0.43
1:13:468:A:H5'	1:13:474:G:OP2	2.19	0.43
1:13:627:G:H2'	1:13:628:G:H8	1.84	0.43
1:13:636:U:H2'	1:13:637:G:C8	2.53	0.43
1:13:636:U:H5'	17:8I:2:PRO:HG3	2.01	0.43
1:13:1015:A:N3	1:13:1218:C:O2'	2.44	0.43
1:13:1483:A:H2	26:1H:1959:G:N3	2.17	0.43
3:2E:79:ARG:HD3	11:2A:96:ARG:HH11	1.81	0.43
3:2E:92:ALA:HB2	3:2E:99:VAL:CG2	2.48	0.43
3:2E:99:VAL:HG23	3:2E:99:VAL:O	2.19	0.43
12:3I:51:ALA:O	12:3I:52:LEU:HD23	2.19	0.43
26:1H:783:A:C8	26:1H:783:A:H3'	2.54	0.43
26:1H:847:U:H5	26:1H:933:A:N1	2.17	0.43
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.84	0.43
26:1H:1385:G:O2'	26:1H:1396:U:C6	2.71	0.43
26:1H:2101:G:H2'	26:1H:2102:U:O4'	2.18	0.43
31:31:66:PRO:HD2	31:31:70:THR:CG2	2.49	0.43
32:41:109:VAL:HG13	52:M8:33:VAL:HG11	2.00	0.43
33:51:59:ARG:HD3	33:51:59:ARG:N	2.34	0.43
41:B8:105:LEU:O	41:B8:107:ASP:N	2.51	0.43
42:C8:98:LEU:HD22	42:C8:105:VAL:CG1	2.48	0.43
47:H8:48:PHE:CE1	47:H8:71:VAL:HG21	2.53	0.43
50:K8:4:SER:HB2	50:K8:7:ARG:N	2.33	0.43
1:1G:197:A:C6	1:1G:221:C:H4'	2.54	0.43
1:1G:757:U:H2'	1:1G:758:G:O4'	2.18	0.43
1:1G:940:C:C2	1:1G:941:G:C8	3.07	0.43
1:1G:1107:C:C5'	3:22:172:ARG:HH22	2.32	0.43
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.19	0.43
5:42:101:ILE:N	5:42:107:ARG:NH2	2.62	0.43
10:1A:51:ARG:NH2	10:1A:56:HIS:HB2	2.33	0.43
15:6A:33:THR:HG22	15:6A:63:ARG:CD	2.46	0.43
26:14:310:A:OP1	46:C5:17:SER:O	2.37	0.43
26:14:844:C:C5	26:14:845:G:C6	3.06	0.43
26:14:1268:A:C2	26:14:2013:A:C4	3.07	0.43
26:14:1519:G:C6	26:14:1520:U:N3	2.87	0.43
26:14:1542:G:O5'	26:14:1543:A:H5"	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1927:A:H2'	26:14:1928:A:C8	2.54	0.43
26:14:2115:G:O6	26:14:2117:A:H8	2.02	0.43
30:29:39:PRO:HD3	30:29:45:THR:CG2	2.44	0.43
30:29:143:ASN:HD22	30:29:147:PRO:HD2	1.84	0.43
36:25:87:ILE:HA	36:25:87:ILE:HD12	1.76	0.43
38:45:41:TRP:HZ3	38:45:74:TYR:HE1	1.67	0.43
40:65:74:ALA:HB2	40:65:105:ALA:O	2.19	0.43
41:75:66:VAL:HA	41:75:71:GLY:HA2	2.00	0.43
52:I5:34:GLU:C	52:I5:36:CYS:H	2.22	0.43
1:13:147:G:N2	1:13:176:C:O2	2.52	0.43
1:13:565:U:H3'	1:13:566:G:H2'	2.00	0.43
1:13:1291:G:P	7:6E:37:ASN:HD22	2.42	0.43
2:1E:45:GLN:CD	2:1E:45:GLN:H	2.21	0.43
2:1E:114:ARG:O	2:1E:118:LEU:HD12	2.18	0.43
2:1E:163:PHE:CD1	2:1E:185:ILE:HG23	2.54	0.43
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.19	0.43
5:4E:10:MET:SD	5:4E:32:VAL:HG22	2.59	0.43
6:5E:8:ILE:HD11	6:5E:79:LEU:CD2	2.49	0.43
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	2.00	0.43
7:6E:71:PRO:HA	7:6E:138:LYS:NZ	2.33	0.43
9:8E:48:GLU:HB2	9:8E:78:LYS:NZ	2.29	0.43
11:2I:63:LEU:HD12	11:2I:63:LEU:H	1.83	0.43
13:4I:92:HIS:CE1	13:4I:98:VAL:HG11	2.54	0.43
15:6I:57:LEU:HD23	15:6I:57:LEU:HA	1.75	0.43
22:1K:42:G:H2'	22:1K:43:G:C8	2.54	0.43
26:1H:38:A:H2'	26:1H:39:C:C6	2.53	0.43
26:1H:781:A:C8	29:11:219:PRO:HG2	2.54	0.43
26:1H:1586:A:H3'	26:1H:1587:A:C8	2.52	0.43
26:1H:1705:G:C6	26:1H:1706:U:C4	3.07	0.43
26:1H:2210:G:H5'	26:1H:2211:G:C5	2.54	0.43
27:16:15:A:C5'	27:16:16:G:C8	3.01	0.43
29:11:11:PRO:O	29:11:13:ARG:N	2.51	0.43
31:31:126:VAL:O	31:31:195:ASP:HA	2.19	0.43
33:51:74:ASN:ND2	33:51:138:LYS:HD3	2.34	0.43
34:61:135:GLU:OE2	34:61:135:GLU:N	2.52	0.43
42:C8:68:ALA:O	42:C8:71:GLN:HB2	2.19	0.43
51:L8:46:ASN:O	51:L8:50:VAL:HG22	2.18	0.43
1:1G:950:U:O4	13:4A:105:THR:HG21	2.18	0.43
1:1G:980:C:H3'	1:1G:981:U:H6	1.82	0.43
1:1G:1053:G:H4'	1:1G:1054:C:H3'	2.01	0.43
1:1G:1276:G:H2'	1:1G:1277:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1305:G:H5”	21:1B:4:GLY:C	2.39	0.43
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.52	0.43
1:1G:1402:C:O2	1:1G:1500:A:N1	2.52	0.43
2:12:50:GLU:HG3	2:12:201:ILE:HG23	2.01	0.43
2:12:108:ILE:HG13	2:12:109:SER:N	2.34	0.43
6:52:76:ALA:O	6:52:80:ARG:HG3	2.19	0.43
9:82:97:LYS:HB2	9:82:102:LEU:HD21	2.00	0.43
10:1A:78:ASN:OD1	10:1A:78:ASN:N	2.45	0.43
12:3A:60:LEU:H	12:3A:64:TYR:HB2	1.84	0.43
20:BA:100:ILE:H	20:BA:100:ILE:HG13	1.56	0.43
56:1L:9:A:C8	56:1L:45:G:C6	3.07	0.43
26:14:58:G:OP1	45:B5:75:ASP:HB2	2.18	0.43
26:14:85:G:P	46:C5:30:VAL:HG11	2.59	0.43
26:14:252:G:P	37:35:50:ARG:HH22	2.41	0.43
26:14:1183:G:O3’	51:H5:29:ARG:NH2	2.51	0.43
26:14:1218:C:OP2	42:85:15:LYS:HE3	2.19	0.43
26:14:1932:A:H2’	26:14:1933:G:O4’	2.19	0.43
26:14:1969:A:H5’	61:14:3750:HOH:O	2.18	0.43
26:14:2286:A:C8	26:14:2287:A:N6	2.87	0.43
26:14:2637:U:C4	26:14:2638:G:C6	3.07	0.43
26:14:2748:A:H2’	26:14:2749:A:H8	1.84	0.43
30:29:26:ILE:HB	30:29:182:LEU:HD23	2.00	0.43
30:29:39:PRO:HA	30:29:43:GLY:CA	2.49	0.43
30:29:117:MET:HE1	30:29:136:ARG:HB3	2.01	0.43
38:45:77:LYS:HZ3	38:45:84:GLY:HA3	1.84	0.43
44:A5:6:ILE:HD11	44:A5:8:ARG:HG3	2.01	0.43
46:C5:85:VAL:CG2	46:C5:98:VAL:HB	2.49	0.43
47:D5:4:ARG:CZ	47:D5:58:VAL:H	2.32	0.43
49:F5:92:LYS:O	49:F5:94:LEU:N	2.52	0.43
55:M5:19:SER:OG	55:M5:21:LYS:NZ	2.50	0.43
1:13:663:A:H5’	1:13:836:G:OP1	2.19	0.42
1:13:1023:G:H3’	1:13:1024:G:H5”	2.01	0.42
1:13:1068:G:N7	1:13:1094:G:H2’	2.33	0.42
1:13:1374:A:H2’	1:13:1375:A:H5’	2.01	0.42
2:1E:32:ILE:HA	2:1E:42:ILE:HD12	2.00	0.42
3:2E:22:TRP:CZ2	14:5I:54:PRO:HG2	2.54	0.42
3:2E:174:PRO:HB2	3:2E:177:THR:HG23	2.01	0.42
6:5E:18:GLN:HA	6:5E:21:LEU:HB2	2.01	0.42
8:7E:20:TYR:HE2	8:7E:75:ARG:HG2	1.84	0.42
17:8I:56:VAL:HG13	17:8I:81:ARG:NH2	2.34	0.42
24:3K:4:U:O2	24:3K:5:G:N2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:528:A:N7	26:1H:2043:C:H5'	2.34	0.42
26:1H:576:U:O2	26:1H:576:U:O5'	2.36	0.42
26:1H:783:A:C8	26:1H:783:A:C3'	3.02	0.42
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.81	0.42
26:1H:2310:A:H62	32:41:79:ASN:HD22	1.68	0.42
26:1H:2771:C:H5"	30:21:202:LYS:HD2	2.01	0.42
27:16:7:G:H2'	27:16:8:U:O4'	2.19	0.42
30:21:105:THR:HG1	30:21:199:ARG:HH12	1.66	0.42
31:31:32:LEU:HD23	31:31:32:LEU:C	2.40	0.42
37:78:52:GLU:HG3	37:78:57:THR:HG22	2.01	0.42
38:88:104:PHE:O	38:88:105:GLU:HB3	2.18	0.42
38:88:138:ASP:HA	38:88:139:GLU:HA	1.61	0.42
44:E8:28:SER:OG	44:E8:31:GLU:HG2	2.19	0.42
45:F8:55:ASN:O	45:F8:79:ALA:HA	2.19	0.42
46:G8:42:VAL:CG2	46:G8:43:ASN:N	2.80	0.42
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.34	0.42
1:1G:625:G:H2'	1:1G:626:U:C6	2.54	0.42
1:1G:811:C:N4	61:1G:1905:HOH:O	2.52	0.42
1:1G:983:A:N1	1:1G:1222:G:N2	2.59	0.42
2:12:40:HIS:CD2	2:12:41:ILE:N	2.87	0.42
4:32:31:CYS:H	4:32:35:ARG:NH2	2.17	0.42
5:42:88:LYS:HB3	5:42:123:LEU:HB2	2.01	0.42
5:42:101:ILE:H	5:42:101:ILE:HG12	1.71	0.42
14:5A:12:ARG:NH1	14:5A:13:THR:HA	2.33	0.42
17:8A:11:VAL:HG11	17:8A:88:TYR:CD2	2.54	0.42
19:AA:40:ILE:HG22	19:AA:67:VAL:HA	2.00	0.42
24:3L:21:A:H2'	24:3L:21:A:N3	2.34	0.42
26:14:17:G:H4'	42:85:25:TRP:CZ3	2.53	0.42
26:14:815:C:H2'	26:14:816:C:C6	2.54	0.42
26:14:933:A:H5'	61:14:4393:HOH:O	2.19	0.42
26:14:998:C:H2'	26:14:999:U:O5'	2.18	0.42
26:14:1131:G:C2	26:14:1132:A:C4	3.07	0.42
26:14:1900:A:N1	26:14:1970:A:C6	2.87	0.42
26:14:2171:A:H8	26:14:2171:A:H3'	1.83	0.42
27:1J:15:A:C5'	27:1J:16:G:H8	2.32	0.42
27:1J:30:C:H2'	27:1J:31:C:H5'	2.00	0.42
27:1J:102:G:H8	27:1J:102:G:OP2	2.02	0.42
29:19:127:VAL:HA	29:19:193:VAL:HG22	1.99	0.42
30:29:97:LYS:N	30:29:100:GLU:OE1	2.48	0.42
30:29:166:THR:HG21	30:29:199:ARG:HH22	1.84	0.42
33:59:37:VAL:HG22	33:59:38:SER:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:52:ARG:HG2	34:69:56:LYS:HE3	2.00	0.42
34:69:128:LEU:O	34:69:137:PRO:HA	2.19	0.42
38:45:137:TYR:N	38:45:137:TYR:CD1	2.87	0.42
43:95:55:ALA:O	43:95:56:SER:OG	2.26	0.42
46:C5:8:LYS:HD3	46:C5:8:LYS:HA	1.28	0.42
1:13:115:G:H4'	1:13:116:A:O5'	2.19	0.42
1:13:130:A:O2'	1:13:131:C:O5'	2.28	0.42
1:13:342:C:N4	1:13:343:U:O4	2.52	0.42
1:13:474:G:H2'	1:13:475:G:H8	1.84	0.42
1:13:692:U:O2'	1:13:694:A:N7	2.39	0.42
1:13:696:A:N1	1:13:797:C:O2'	2.44	0.42
1:13:1320:C:C4	19:AI:36:ARG:HG3	2.54	0.42
1:13:1347:G:C5	9:8E:107:ARG:NH1	2.82	0.42
2:1E:72:GLY:HA2	2:1E:165:VAL:HG11	2.01	0.42
2:1E:95:GLN:HB2	2:1E:96:ARG:HG3	2.00	0.42
4:3E:22:LYS:N	4:3E:25:ARG:HH21	2.17	0.42
7:6E:27:ILE:HD11	7:6E:40:ALA:CA	2.50	0.42
9:8E:6:GLY:O	9:8E:17:VAL:N	2.45	0.42
9:8E:86:VAL:HA	9:8E:92:TYR:CE2	2.54	0.42
15:6I:71:GLN:N	15:6I:72:ARG:HH21	2.16	0.42
19:AI:51:VAL:O	19:AI:58:VAL:N	2.40	0.42
20:BI:54:LYS:HA	20:BI:57:ARG:NH1	2.34	0.42
26:1H:562:U:C4	26:1H:2036:C:O4'	2.72	0.42
26:1H:1012:U:H5	35:58:28:THR:HG21	1.84	0.42
26:1H:1026:U:H6	26:1H:1026:U:H2'	1.53	0.42
26:1H:1045:A:OP1	26:1H:1046:A:H3'	2.19	0.42
26:1H:1266:G:O5'	44:E8:15:ARG:NH2	2.52	0.42
26:1H:1344:G:C2	26:1H:1385:G:C8	3.07	0.42
26:1H:1904:G:H2'	26:1H:1905:C:O5'	2.19	0.42
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.19	0.42
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.67	0.42
26:1H:2359:C:O2'	37:78:58:THR:HG21	2.19	0.42
29:11:123:ALA:HA	29:11:124:PRO:HD2	1.77	0.42
30:21:23:VAL:CG2	30:21:183:LEU:HB3	2.50	0.42
30:21:93:VAL:HG21	30:21:180:ASN:HA	2.00	0.42
32:41:60:LEU:HA	32:41:60:LEU:HD23	1.69	0.42
32:41:77:ILE:HD12	32:41:79:ASN:H	1.84	0.42
32:41:114:ILE:HD13	32:41:114:ILE:HG21	1.70	0.42
35:58:133:GLN:HG2	35:58:134:ARG:N	2.31	0.42
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.34	0.42
41:B8:2:ASN:O	41:B8:6:LEU:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:66:ASN:HD22	42:C8:76:TYR:HB3	1.84	0.42
48:I8:51:VAL:HG12	48:I8:81:VAL:HG23	2.01	0.42
54:P8:37:LYS:O	54:P8:37:LYS:HG3	2.19	0.42
1:1G:481:G:O2'	1:1G:483:C:N4	2.52	0.42
1:1G:652:U:H1'	1:1G:653:A:C2	2.53	0.42
2:12:136:VAL:HA	2:12:139:LYS:HD3	2.01	0.42
3:22:11:ARG:HH22	3:22:180:ALA:N	2.17	0.42
5:42:78:HIS:CD2	5:42:142:LEU:HD12	2.54	0.42
5:42:90:VAL:O	5:42:120:THR:HA	2.19	0.42
13:4A:37:THR:HG21	13:4A:56:LEU:HA	2.01	0.42
14:5A:46:GLU:O	14:5A:49:HIS:HB2	2.19	0.42
20:BA:11:SER:HA	20:BA:13:LEU:HD23	2.01	0.42
26:14:41:C:H2'	26:14:43:G:C8	2.54	0.42
26:14:68:G:H2'	26:14:69:C:H6	1.84	0.42
26:14:636:G:N7	37:35:113:LYS:NZ	2.54	0.42
26:14:1514:U:O2'	26:14:1515:C:H5'	2.19	0.42
26:14:1799:G:OP1	29:19:260:ARG:HD2	2.19	0.42
26:14:2104:G:C6	26:14:2105:C:N4	2.87	0.42
26:14:2784:C:O2	30:29:37:ARG:NH2	2.51	0.42
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.49	0.42
31:39:28:ILE:H	31:39:112:MET:HG2	1.84	0.42
36:25:75:SER:OG	36:25:76:ALA:N	2.52	0.42
40:65:3:ARG:HG3	40:65:3:ARG:NH1	2.34	0.42
47:D5:10:ARG:HG3	47:D5:37:VAL:O	2.19	0.42
47:D5:40:ASP:OD1	47:D5:41:LEU:N	2.52	0.42
1:13:277:C:P	17:8I:68:ARG:NH2	2.92	0.42
1:13:347:G:H2'	1:13:348:G:O4'	2.20	0.42
1:13:625:G:H4'	16:7I:16:HIS:CG	2.54	0.42
1:13:929:G:C6	1:13:930:C:C4	3.07	0.42
1:13:949:A:P	13:4I:102:ARG:NH1	2.92	0.42
1:13:1067:A:N1	1:13:1108:G:O2'	2.46	0.42
1:13:1210:C:H2'	1:13:1211:U:H5'	1.99	0.42
1:13:1234:C:H2'	1:13:1235:U:H6	1.83	0.42
1:13:1336:C:H4'	1:13:1337:G:O5'	2.19	0.42
1:13:1429:C:H2'	1:13:1430:C:C6	2.54	0.42
2:1E:185:ILE:HD13	2:1E:186:ALA:N	2.34	0.42
3:2E:19:GLU:N	3:2E:21:ARG:HH21	2.17	0.42
4:3E:177:ASP:HB3	4:3E:182:LYS:HE3	2.01	0.42
5:4E:34:VAL:HG23	5:4E:34:VAL:O	2.19	0.42
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.53	0.42
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:50:ALA:HA	19:AI:58:VAL:O	2.19	0.42
20:BI:83:ARG:HD3	20:BI:86:ARG:CZ	2.49	0.42
24:3K:57:G:C2'	24:3K:58:A:H5'	2.48	0.42
26:1H:327:G:H2'	26:1H:328:U:C6	2.53	0.42
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.87	0.42
26:1H:1055:G:N2	26:1H:1103:A:C8	2.86	0.42
26:1H:1410:G:H2'	26:1H:1411:C:C6	2.54	0.42
26:1H:2402:C:H1'	26:1H:2403:C:C5	2.50	0.42
27:16:77:U:P	47:H8:19:ARG:HH22	2.42	0.42
32:41:20:ILE:HG13	32:41:20:ILE:H	1.70	0.42
33:51:24:VAL:HG23	33:51:37:VAL:HG11	2.00	0.42
38:88:58:PHE:HB3	38:88:59:ARG:HG3	2.01	0.42
40:A8:65:VAL:O	40:A8:69:VAL:HG12	2.19	0.42
44:E8:68:ARG:NE	44:E8:68:ARG:HA	2.34	0.42
53:N8:33:CYS:CB	53:N8:46:CYS:HG	2.31	0.42
1:1G:828:A:H5"	1:1G:859:A:C2	2.53	0.42
1:1G:974:A:OP1	14:5A:31:ARG:NH1	2.51	0.42
1:1G:1128:C:H1'	1:1G:1146:A:H61	1.84	0.42
1:1G:1152:A:H2'	1:1G:1153:C:C6	2.53	0.42
2:12:52:GLU:OE1	2:12:53:ARG:HG3	2.18	0.42
3:22:150:LYS:HA	3:22:169:ALA:CB	2.48	0.42
4:32:88:VAL:HG23	4:32:91:SER:HB2	2.00	0.42
5:42:147:ASP:O	5:42:151:LEU:HD13	2.19	0.42
8:72:51:VAL:CG2	8:72:60:ARG:HB2	2.49	0.42
10:1A:47:PHE:CZ	14:5A:37:PHE:CE1	3.08	0.42
11:2A:15:ALA:HB1	11:2A:78:GLN:HG3	2.01	0.42
20:BA:33:ILE:HG13	20:BA:63:ILE:HG13	2.00	0.42
23:2L:22:A:N6	23:2L:47:7MG:C4	2.87	0.42
24:3L:50:G:H2'	24:3L:51:C:C6	2.54	0.42
26:14:458:G:O2'	26:14:469:G:O6	2.25	0.42
26:14:1331:A:O2'	26:14:1332:G:H8	2.02	0.42
26:14:1429:G:H2'	26:14:1430:C:C6	2.54	0.42
26:14:2356:C:C5	26:14:2357:U:C4	3.07	0.42
26:14:2772:C:H2'	26:14:2773:C:H6	1.82	0.42
26:14:2888:C:H2'	26:14:2889:C:H6	1.82	0.42
29:19:34:VAL:O	29:19:35:LYS:HB3	2.20	0.42
30:29:13:ARG:HA	30:29:21:VAL:O	2.19	0.42
30:29:23:VAL:O	30:29:184:VAL:O	2.37	0.42
30:29:23:VAL:HA	30:29:184:VAL:O	2.19	0.42
30:29:54:GLN:HE21	30:29:55:ASN:HB2	1.84	0.42
31:39:83:PHE:O	31:39:84:VAL:HB	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:96:ARG:C	32:49:98:ARG:H	2.22	0.42
33:59:152:ARG:HD3	33:59:153:LYS:HG3	2.00	0.42
34:69:123:LEU:HA	34:69:142:VAL:HG11	2.02	0.42
36:25:59:LYS:HB3	36:25:87:ILE:HG22	2.00	0.42
40:65:61:ASN:CG	40:65:62:LYS:H	2.17	0.42
42:85:92:ARG:HB2	43:95:11:GLN:OE1	2.19	0.42
43:95:79:VAL:CG1	43:95:80:GLN:N	2.81	0.42
49:F5:41:ARG:HB2	49:F5:43:TYR:CE1	2.54	0.42
50:G5:45:SER:O	50:G5:45:SER:OG	2.33	0.42
1:13:342:C:C2'	1:13:343:U:H5'	2.48	0.42
1:13:600:C:OP1	8:7E:97:VAL:HG22	2.20	0.42
1:13:977:A:O2'	1:13:981:U:N3	2.46	0.42
1:13:1251:A:H1'	1:13:1369:C:O2'	2.18	0.42
4:3E:9:CYS:O	4:3E:13:ARG:HG3	2.20	0.42
4:3E:22:LYS:HB2	4:3E:25:ARG:NH2	2.34	0.42
4:3E:175:SER:O	4:3E:176:LEU:HB2	2.20	0.42
7:6E:50:ILE:O	7:6E:54:THR:HG23	2.19	0.42
9:8E:75:ASP:O	9:8E:78:LYS:HB2	2.20	0.42
13:4I:54:VAL:HA	13:4I:57:ARG:HB3	2.01	0.42
26:1H:654(B):C:H2'	26:1H:654(C):G:C8	2.53	0.42
26:1H:654(D):G:N2	26:1H:654(Q):C:O2	2.52	0.42
26:1H:1231:G:H2'	26:1H:1232:G:H8	1.85	0.42
26:1H:1263:U:O2'	53:N8:11:THR:HG23	2.20	0.42
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.84	0.42
26:1H:1479:G:O6	26:1H:1510:A:N6	2.52	0.42
26:1H:1535:U:H5"	26:1H:1537:C:N4	2.34	0.42
26:1H:2443:C:O2'	26:1H:2444:G:H5'	2.19	0.42
29:11:75:ILE:HD13	29:11:99:ASP:OD2	2.19	0.42
30:21:15:PHE:HA	30:21:19:ARG:O	2.18	0.42
33:51:42:ARG:H	33:51:42:ARG:HD2	1.84	0.42
50:K8:4:SER:CB	50:K8:7:ARG:H	2.31	0.42
52:M8:34:GLU:H	52:M8:34:GLU:HG3	1.44	0.42
1:1G:313:A:H2'	1:1G:314:C:C6	2.54	0.42
2:12:115:LEU:O	2:12:119:GLU:HG3	2.20	0.42
5:42:8:GLU:CB	5:42:34:VAL:HG12	2.49	0.42
6:52:60:PHE:C	6:52:61:LEU:HD12	2.40	0.42
14:5A:24:CYS:HB3	14:5A:29:ARG:NH2	2.29	0.42
14:5A:43:CYS:HA	14:5A:46:GLU:OE2	2.20	0.42
19:AA:20:LEU:HG	19:AA:21:GLU:OE1	2.19	0.42
56:1L:9:A:H8	56:1L:45:G:C6	2.37	0.42
24:3L:25:C:H2'	24:3L:26:A:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:194:G:H2'	26:14:195:A:O4'	2.19	0.42
26:14:571:A:N6	26:14:2499:C:O3'	2.51	0.42
26:14:995:C:N4	35:15:2:LYS:HG2	2.33	0.42
26:14:996:A:N3	26:14:997:G:C8	2.88	0.42
26:14:1479:G:O2'	26:14:1558:A:H5'	2.19	0.42
26:14:2056:G:H2'	26:14:2056:G:N3	2.33	0.42
26:14:2731:G:C6	26:14:2732:G:O6	2.73	0.42
26:14:2844:G:N2	26:14:2874:C:C2	2.87	0.42
30:29:52:LEU:HD21	30:29:76:ARG:N	2.33	0.42
32:49:175:LEU:HD13	32:49:175:LEU:HA	1.86	0.42
33:59:117:PRO:HB3	33:59:121:ILE:HG22	2.01	0.42
36:25:17:ARG:HD3	36:25:17:ARG:HA	1.72	0.42
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.51	0.42
36:25:107:ARG:CZ	41:75:36:GLU:HG3	2.49	0.42
43:95:5:VAL:O	43:95:11:GLN:HA	2.20	0.42
46:C5:52:SER:CB	46:C5:56:PRO:HA	2.50	0.42
47:D5:72:ARG:HA	47:D5:72:ARG:HD2	1.23	0.42
49:F5:91:LYS:O	49:F5:92:LYS:C	2.58	0.42
52:I5:61:ARG:HA	52:I5:61:ARG:NE	2.35	0.42
53:J5:55:ARG:HH21	53:J5:57:VAL:HG22	1.84	0.42
1:13:255:G:H3'	1:13:256:U:H6	1.84	0.42
1:13:255:G:H4'	17:8I:17:LYS:CE	2.49	0.42
1:13:375:U:H4'	16:7I:6:LEU:CD2	2.49	0.42
1:13:590:C:H5"	8:7E:30:ARG:NH1	2.34	0.42
1:13:693:G:H2'	1:13:694:A:C8	2.54	0.42
1:13:720:C:H2'	1:13:721:G:C8	2.54	0.42
1:13:724:G:N3	1:13:725:G:C8	2.87	0.42
1:13:827:U:C5	1:13:870:U:C4	3.07	0.42
1:13:1170:A:H8	1:13:1170:A:O5'	2.01	0.42
2:1E:21:ARG:C	2:1E:23:ARG:H	2.22	0.42
2:1E:60:ASP:HB3	2:1E:64:ARG:NH2	2.34	0.42
6:5E:62:TRP:C	6:5E:63:TYR:CD1	2.93	0.42
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.19	0.42
13:4I:67:GLU:O	13:4I:71:ARG:HG3	2.19	0.42
15:6I:21:ASP:OD2	15:6I:24:SER:OG	2.29	0.42
17:8I:78:GLU:O	17:8I:78:GLU:HG2	2.20	0.42
19:AI:78:ARG:HD3	19:AI:79:THR:O	2.20	0.42
26:1H:654(O):G:H8	26:1H:654(P):G:H1'	1.84	0.42
26:1H:990:A:H2	43:D8:76:LYS:HZ1	1.67	0.42
26:1H:1300:U:H3'	61:1H:3765:HOH:O	2.20	0.42
26:1H:1323:U:H2'	26:1H:1324:G:H5'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1376:C:H2'	26:1H:1377:G:O4'	2.20	0.42
26:1H:1569:A:O2'	29:11:37:LEU:HD13	2.19	0.42
26:1H:2436:G:C6	26:1H:2437:U:C4	3.07	0.42
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.19	0.42
26:1H:2639:A:H2'	26:1H:2640:G:O4'	2.20	0.42
26:1H:2845:G:H5"	41:B8:54:ARG:O	2.19	0.42
26:1H:2851:A:H8	26:1H:2851:A:O5'	2.03	0.42
28:71:46:LYS:NZ	28:71:46:LYS:H	2.17	0.42
31:31:6:VAL:HG22	31:31:119:ARG:CZ	2.50	0.42
33:51:9:ILE:HD12	33:51:9:ILE:N	2.35	0.42
34:61:27:ARG:HD2	49:J8:71:TYR:CE1	2.54	0.42
37:78:52:GLU:HB3	37:78:55:ARG:HD2	2.02	0.42
37:78:144:GLU:HA	37:78:145:PRO:HD3	1.90	0.42
1:1G:176:C:OP1	20:BA:29:LYS:HE2	2.19	0.42
1:1G:544:G:C6	1:1G:545:C:C4	3.07	0.42
1:1G:983:A:H5"	1:1G:984:C:OP2	2.20	0.42
1:1G:1059:C:OP2	3:22:199:LYS:NZ	2.49	0.42
1:1G:1128:C:H5"	9:82:16:ARG:HH22	1.84	0.42
1:1G:1239:A:H2'	7:62:114:ARG:HH22	1.85	0.42
2:12:201:ILE:H	2:12:201:ILE:HG12	1.50	0.42
3:22:168:ALA:O	3:22:169:ALA:HB2	2.20	0.42
4:32:25:ARG:HH12	4:32:28:SER:C	2.22	0.42
6:52:67:MET:HB2	6:52:68:PRO:HD2	2.00	0.42
7:62:3:ARG:HB3	7:62:4:ARG:CZ	2.50	0.42
8:72:26:VAL:HG23	8:72:27:PRO:O	2.20	0.42
9:82:79:LEU:HD12	9:82:79:LEU:HA	1.82	0.42
10:1A:50:ILE:N	14:5A:41:ARG:NH2	2.68	0.42
11:2A:46:GLY:HA2	11:2A:50:TYR:O	2.19	0.42
12:3A:47:LYS:HB3	12:3A:48:PRO:HD2	2.01	0.42
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.34	0.42
24:3L:9:A:H5'	24:3L:11:C:H41	1.84	0.42
26:14:249:C:H4'	26:14:250:G:O5'	2.20	0.42
26:14:271(B):G:O2'	26:14:421:U:OP2	2.28	0.42
26:14:321:G:OP1	31:39:135:LYS:NZ	2.52	0.42
26:14:597:U:H2'	26:14:598:G:C8	2.54	0.42
26:14:839:U:H2'	26:14:840:C:C6	2.55	0.42
26:14:870:A:H5"	38:45:6:ARG:HB2	2.01	0.42
26:14:1332:G:H8	26:14:1332:G:H2'	1.70	0.42
26:14:2348:U:O4	26:14:2382:G:N1	2.53	0.42
26:14:2766:G:N3	26:14:2766:G:H2'	2.34	0.42
26:14:2787:C:O2'	30:29:61:ARG:O	2.30	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:4:C:H42	27:1J:116:G:H1	1.67	0.42
27:1J:104:A:H2'	27:1J:105:G:O4'	2.20	0.42
29:19:25:THR:O	29:19:27:THR:N	2.52	0.42
31:39:11:VAL:HG22	31:39:12:LEU:H	1.84	0.42
31:39:135:LYS:HE3	31:39:135:LYS:HB3	1.66	0.42
32:49:115:ARG:HH22	32:49:136:ARG:NH1	2.17	0.42
40:65:80:LEU:HD12	40:65:80:LEU:HA	1.77	0.42
41:75:115:ARG:H	41:75:115:ARG:HG2	1.61	0.42
46:C5:40:GLU:HG3	46:C5:64:GLU:OE1	2.19	0.42
46:C5:88:LYS:HZ3	46:C5:90:LEU:N	2.16	0.42
48:E5:31:VAL:HG13	48:E5:32:ARG:H	1.85	0.42
55:M5:31:HIS:O	55:M5:32:LEU:HB2	2.20	0.42
1:13:66:G:O4'	1:13:173:U:C4	2.73	0.42
1:13:406:G:H2'	1:13:407:G:H8	1.84	0.42
1:13:780:A:OP1	11:2I:122:LYS:NZ	2.51	0.42
1:13:1353:G:OP1	21:1F:10:ARG:NH1	2.37	0.42
2:1E:87:ARG:NH2	2:1E:232:PRO:HG3	2.19	0.42
3:2E:26:LYS:H	3:2E:26:LYS:HG3	1.55	0.42
3:2E:44:GLU:O	3:2E:48:TYR:HB2	2.20	0.42
4:3E:13:ARG:HB3	4:3E:38:TYR:O	2.19	0.42
9:8E:4:TYR:CE2	9:8E:88:TYR:HB2	2.55	0.42
13:4I:74:VAL:O	13:4I:78:ILE:HG13	2.19	0.42
18:9I:38:GLU:O	18:9I:42:ARG:NH2	2.52	0.42
24:3K:76:A:H8	26:1H:2394:C:N4	2.09	0.42
26:1H:40:C:H2'	26:1H:41:C:O4'	2.20	0.42
26:1H:500:G:N2	26:1H:502:A:H3'	2.34	0.42
26:1H:604:G:C6	26:1H:625:G:C2	3.08	0.42
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.54	0.42
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.49	0.42
27:16:74:U:H2'	27:16:75:G:O4'	2.19	0.42
27:16:89:G:C6	27:16:89(A):A:C6	3.07	0.42
28:71:171:ILE:HA	28:71:171:ILE:HD13	1.77	0.42
30:21:59:VAL:HG23	30:21:60:ASN:OD1	2.20	0.42
31:31:150:GLY:HA2	31:31:172:TRP:CD2	2.55	0.42
32:41:7:LEU:HD13	32:41:104:GLU:HA	2.01	0.42
34:61:10:GLU:O	34:61:11:ASN:HB2	2.20	0.42
34:61:75:LEU:HD11	34:61:105:HIS:CG	2.54	0.42
36:68:108:GLU:H	36:68:108:GLU:HG3	1.67	0.42
37:78:6:LEU:HD12	37:78:6:LEU:HA	1.65	0.42
40:A8:106:ARG:HA	40:A8:110:LEU:H	1.85	0.42
46:G8:35:TYR:CD2	46:G8:69:ALA:HB3	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:130:PRO:HA	47:H8:133:ILE:HD11	2.00	0.42
52:M8:24:THR:HB	52:M8:25:TYR:H	1.54	0.42
1:1G:4:U:O4	8:72:105:ARG:HD3	2.19	0.42
1:1G:5:U:H6	1:1G:5:U:H5'	1.85	0.42
1:1G:271:C:H2'	1:1G:272:C:C6	2.55	0.42
1:1G:779:C:H2'	1:1G:780:A:O4'	2.20	0.42
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.19	0.42
1:1G:1203:C:H2'	1:1G:1204:A:H8	1.84	0.42
1:1G:1347:G:N2	1:1G:1374:A:OP2	2.39	0.42
4:32:61:LYS:NZ	4:32:72:GLU:OE2	2.46	0.42
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.83	0.42
15:6A:38:ARG:HE	15:6A:38:ARG:HB3	1.65	0.42
17:8A:45:HIS:CD2	17:8A:47:PRO:HD3	2.54	0.42
26:14:270(N):G:H2'	26:14:270(O):U:H5'	2.01	0.42
26:14:642:G:H21	26:14:646:A:H2	1.67	0.42
26:14:868:U:C2	26:14:869:G:C8	3.08	0.42
26:14:1030:G:OP2	38:45:128:LYS:HG2	2.19	0.42
26:14:1367:A:H5"	26:14:1368:G:OP2	2.20	0.42
26:14:1771:C:HO2'	26:14:1786:A:C1'	2.31	0.42
26:14:1787:A:O4'	26:14:2589:A:H4'	2.19	0.42
26:14:2158:A:H1'	26:14:2159:G:C8	2.54	0.42
26:14:2210:G:H2'	26:14:2211:G:N7	2.35	0.42
26:14:2334:G:O3'	40:65:13:ARG:NE	2.53	0.42
26:14:2677:G:H2'	26:14:2678:C:C6	2.54	0.42
28:79:7:TYR:O	28:79:7:TYR:CG	2.72	0.42
29:19:70:TRP:HZ3	29:19:146:GLU:OE1	2.02	0.42
30:29:68:ALA:C	30:29:70:ALA:N	2.70	0.42
30:29:170:LEU:HA	30:29:185:LYS:HZ1	1.84	0.42
32:49:11:TYR:HA	32:49:15:VAL:CG1	2.50	0.42
36:25:71:ARG:HH21	36:25:105:GLU:CD	2.21	0.42
37:35:123:LEU:HD22	37:35:123:LEU:HA	1.82	0.42
40:65:64:GLU:OE2	40:65:65:VAL:N	2.52	0.42
45:B5:1:MET:HA	45:B5:2:LYS:HA	1.70	0.42
46:C5:35:TYR:CD2	46:C5:69:ALA:HB3	2.54	0.42
53:J5:37:LYS:HA	53:J5:37:LYS:HD2	1.79	0.42
1:13:193:C:O2'	1:13:194:C:H5'	2.20	0.42
1:13:392:G:H5'	16:7I:12:LYS:HZ3	1.84	0.42
1:13:427:U:H3'	1:13:428:G:H2'	2.01	0.42
1:13:562:C:C4	12:3I:16:GLU:OE2	2.73	0.42
1:13:575:G:H4'	1:13:576:G:O5'	2.20	0.42
1:13:621:A:H2'	1:13:622:A:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:747:C:OP2	1:13:748:C:N4	2.52	0.42
1:13:946:A:H2'	1:13:947:G:C8	2.55	0.42
1:13:1098:C:C2	1:13:1099:G:C8	3.07	0.42
1:13:1154:G:C4	1:13:1155:G:C8	3.07	0.42
1:13:1442:G:H1	1:13:1461:G:H21	1.68	0.42
2:1E:213:LEU:HD23	2:1E:213:LEU:H	1.85	0.42
4:3E:153:ARG:O	4:3E:158:ILE:HD11	2.19	0.42
5:4E:78:HIS:NE2	5:4E:142:LEU:HD12	2.35	0.42
7:6E:71:PRO:HA	7:6E:138:LYS:HZ1	1.85	0.42
11:2I:107:SER:C	11:2I:108:ILE:HG12	2.39	0.42
12:3I:76:ASN:ND2	12:3I:106:ASP:O	2.52	0.42
17:8I:20:THR:HG22	17:8I:43:LEU:CD2	2.49	0.42
24:3K:72:C:C2'	24:3K:73:A:H5"	2.46	0.42
26:1H:620:G:H4'	26:1H:621:A:C5'	2.28	0.42
26:1H:747:U:C4'	44:E8:92:ARG:NH2	2.81	0.42
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.19	0.42
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.19	0.42
26:1H:1541:U:H2'	26:1H:1542:G:O4'	2.19	0.42
26:1H:1983:C:C2'	26:1H:1984:G:H5'	2.50	0.42
26:1H:2619:C:H4'	30:21:151:TYR:O	2.20	0.42
27:16:3:C:H2'	27:16:4:C:H6	1.85	0.42
34:61:12:LEU:HG	34:61:19:VAL:HG11	2.00	0.42
35:58:33:LEU:HD23	35:58:38:HIS:CE1	2.54	0.42
35:58:95:PRO:O	35:58:96:GLU:CD	2.58	0.42
37:78:113:LYS:HA	37:78:129:ALA:O	2.20	0.42
38:88:37:LEU:HD23	38:88:37:LEU:HA	1.68	0.42
41:B8:84:GLN:HG2	41:B8:85:LYS:HG2	2.01	0.42
45:F8:5:TYR:O	50:K8:36:ARG:NH2	2.52	0.42
47:H8:127:LYS:NZ	47:H8:127:LYS:HB2	2.34	0.42
50:K8:2:LYS:HG2	50:K8:5:GLU:OE1	2.19	0.42
1:1G:109:A:H5'	1:1G:110:C:C5	2.55	0.42
1:1G:222:U:H2'	1:1G:223:U:C6	2.55	0.42
1:1G:944:G:OP1	61:1G:1856:HOH:O	2.22	0.42
1:1G:1023:G:H5"	1:1G:1024:G:H21	1.85	0.42
1:1G:1080:A:C4'	5:42:16:THR:HG21	2.49	0.42
1:1G:1157:A:O4'	1:1G:1158:C:C6	2.73	0.42
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.49	0.42
1:1G:1181:G:N1	1:1G:1182:G:H1'	2.35	0.42
4:32:13:ARG:H	4:32:13:ARG:HG2	1.50	0.42
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.54	0.42
12:3A:27:LEU:HD13	12:3A:60:LEU:CG	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:69:GLU:OE2	13:4A:70:LEU:N	2.46	0.42
13:4A:81:LEU:HD12	13:4A:81:LEU:HA	1.78	0.42
17:8A:6:LEU:HD22	17:8A:23:VAL:HG11	2.02	0.42
26:14:720:C:H2'	26:14:721:C:H6	1.82	0.42
26:14:820:A:N3	26:14:943:U:H4'	2.35	0.42
26:14:873:G:C2	26:14:905:U:O2	2.73	0.42
26:14:1021:A:H3'	26:14:1021:A:C8	2.54	0.42
26:14:1616:A:H8	61:14:4295:HOH:O	2.02	0.42
26:14:2343:C:O2'	26:14:2373:G:O2'	2.32	0.42
26:14:2443:C:O2'	26:14:2444:G:H5'	2.20	0.42
26:14:2448:A:OP1	61:14:3656:HOH:O	2.22	0.42
26:14:2854:G:C2	26:14:2864:G:C2	3.07	0.42
27:1J:59:A:H2'	27:1J:60:C:O4'	2.19	0.42
33:59:80:SER:HB2	33:59:81:GLU:OE2	2.20	0.42
33:59:123:PHE:CD2	33:59:131:VAL:HG23	2.55	0.42
33:59:141:VAL:HG23	33:59:142:GLY:N	2.33	0.42
34:69:74:ASN:CG	34:69:75:LEU:N	2.70	0.42
34:69:101:LEU:H	34:69:101:LEU:HD23	1.85	0.42
35:15:133:GLN:HB2	35:15:134:ARG:H	1.74	0.42
36:25:107:ARG:NE	41:75:36:GLU:HG3	2.35	0.42
43:95:81:TYR:C	43:95:82:ARG:HD2	2.40	0.42
47:D5:124:ILE:HD12	47:D5:125:LEU:H	1.84	0.42
49:F5:84:GLY:CA	49:F5:85:LEU:HB3	2.48	0.42
52:I5:32:TYR:HB3	52:I5:33:VAL:H	1.69	0.42
1:13:277:C:H2'	1:13:278:G:H8	1.84	0.42
1:13:322:C:H5	1:13:328:C:C6	2.38	0.42
1:13:660:G:C2	1:13:746:A:C2	3.08	0.42
4:3E:173:TRP:CD1	4:3E:174:LEU:HD22	2.55	0.42
4:3E:186:LEU:HD13	4:3E:186:LEU:HA	1.85	0.42
10:1I:46:ARG:HA	10:1I:64:GLU:OE1	2.18	0.42
19:AI:22:LEU:HD23	19:AI:22:LEU:HA	1.69	0.42
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.43	0.42
20:BI:104:LEU:HD23	20:BI:105:SER:H	1.84	0.42
24:3K:27:C:H42	24:3K:43:G:H1	1.67	0.42
26:1H:202:U:H2'	26:1H:203:C:O4'	2.19	0.42
26:1H:321:G:O3'	31:31:168:ARG:NH2	2.50	0.42
26:1H:919:G:H5'	27:16:81:G:H1'	2.02	0.42
26:1H:1225:C:O2'	43:D8:85:LYS:HA	2.20	0.42
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.84	0.42
26:1H:1500:G:H5"	26:1H:1501:C:OP2	2.20	0.42
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1684:C:C2	26:1H:1705:G:N2	2.88	0.42
26:1H:2426:A:H4'	26:1H:2427:C:OP2	2.20	0.42
27:16:15:A:C5'	27:16:16:G:H8	2.33	0.42
28:71:64:LEU:HD21	28:71:188:ASN:ND2	2.32	0.42
30:21:72:VAL:HG13	30:21:73:GLU:CA	2.50	0.42
30:21:81:ILE:O	30:21:81:ILE:HG22	2.19	0.42
30:21:101:ARG:C	30:21:201:THR:OG1	2.58	0.42
43:D8:61:VAL:HG23	43:D8:61:VAL:O	2.20	0.42
47:H8:10:ARG:NH2	47:H8:36:LYS:HE2	2.35	0.42
47:H8:59:LEU:HA	47:H8:59:LEU:HD23	1.78	0.42
47:H8:156:LYS:NZ	47:H8:156:LYS:HB2	2.33	0.42
48:I8:49:LYS:O	48:I8:50:ASN:HB2	2.19	0.42
1:1G:164:U:H2'	1:1G:165:C:C6	2.55	0.42
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.18	0.42
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.52	0.42
1:1G:567:G:C2	1:1G:568:G:H1'	2.55	0.42
1:1G:668:G:O4'	15:6A:49:ASP:HB2	2.19	0.42
1:1G:1349:A:O3'	9:82:121:ARG:NH2	2.53	0.42
2:12:158:LEU:HD22	2:12:182:ILE:HD11	2.02	0.42
3:22:152:ILE:CG1	3:22:199:LYS:HB2	2.49	0.42
10:1A:70:ARG:NH2	10:1A:95:GLU:HB3	2.34	0.42
11:2A:78:GLN:O	11:2A:103:LEU:HD22	2.19	0.42
12:3A:26:ALA:HA	12:3A:98:TYR:CE2	2.49	0.42
56:1L:26:A:H61	56:1L:44:G:H1	1.67	0.42
56:1L:74:C:H3'	56:1L:75:C:C6	2.55	0.42
26:14:289:A:H3'	26:14:290:G:C8	2.54	0.42
26:14:311:A:C6	26:14:328:U:C4	3.08	0.42
26:14:531:C:OP1	26:14:561:G:N1	2.47	0.42
26:14:686:G:N2	26:14:788:A:H61	2.17	0.42
26:14:740:U:H2'	26:14:741:G:C8	2.55	0.42
26:14:747:U:O2	26:14:2014:A:H1'	2.20	0.42
26:14:1183:G:OP2	26:14:1183:G:H8	2.02	0.42
26:14:1198:U:O2	26:14:1249:U:H1'	2.20	0.42
26:14:1436:G:H1'	26:14:1477:A:O2'	2.19	0.42
26:14:2119:A:C6	26:14:2171:A:H2	2.38	0.42
29:19:68:LYS:HD3	29:19:70:TRP:CZ2	2.55	0.42
30:29:70:ALA:C	30:29:72:VAL:N	2.72	0.42
31:39:124:LEU:HA	31:39:124:LEU:HD22	1.73	0.42
32:49:50:ALA:HA	32:49:53:LEU:HD22	2.01	0.42
32:49:97:ASP:H	32:49:100:TRP:HD1	1.67	0.42
40:65:30:ARG:HE	40:65:30:ARG:HB3	1.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:28:LYS:HE2	46:C5:38:ILE:HD11	2.01	0.42
52:I5:33:VAL:HG22	52:I5:36:CYS:HA	2.02	0.42
1:13:68:G:N2	1:13:69:G:H1'	2.35	0.42
1:13:155:C:C4	1:13:156:G:N7	2.88	0.42
1:13:1014:A:C2	1:13:1219:U:H1'	2.55	0.42
1:13:1022:G:H2'	1:13:1023:G:C8	2.55	0.42
1:13:1070:U:H2'	1:13:1071:C:H6	1.83	0.42
1:13:1454:G:H2'	1:13:1455:G:C8	2.55	0.42
2:1E:132:LYS:O	2:1E:135:GLN:HG2	2.20	0.42
2:1E:208:ILE:H	2:1E:208:ILE:HG13	1.59	0.42
3:2E:8:ILE:HG13	3:2E:9:GLY:H	1.83	0.42
5:4E:147:ASP:N	5:4E:147:ASP:OD1	2.53	0.42
6:5E:80:ARG:NH1	6:5E:88:VAL:O	2.50	0.42
7:6E:15:ASP:O	7:6E:19:GLY:HA2	2.19	0.42
12:3I:60:LEU:HB3	12:3I:64:TYR:HB2	2.02	0.42
13:4I:20:THR:HG22	13:4I:27:LYS:H	1.85	0.42
24:3K:63:G:N2	24:3K:64:U:H1'	2.35	0.42
26:1H:241:A:H5"	61:1H:4521:HOH:O	2.20	0.42
26:1H:272:G:H2'	26:1H:273:G:O4'	2.20	0.42
26:1H:287:C:H2'	26:1H:288:C:C6	2.55	0.42
26:1H:579:G:H2'	26:1H:580:C:C6	2.55	0.42
26:1H:880:G:N2	26:1H:897:C:N3	2.68	0.42
26:1H:942:G:H5'	61:1H:3629:HOH:O	2.20	0.42
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.55	0.42
26:1H:2309:A:C6	26:1H:2310:A:N7	2.88	0.42
26:1H:2792:G:C6	26:1H:2805:G:N1	2.88	0.42
28:71:10:LEU:HD21	28:71:34:THR:HG23	2.02	0.42
28:71:185:LEU:HD12	28:71:189:ILE:HD12	2.02	0.42
29:11:34:VAL:O	29:11:64:ILE:HG13	2.20	0.42
30:21:70:ALA:N	30:21:71:GLY:HA3	2.35	0.42
30:21:181:LEU:HD23	30:21:181:LEU:HA	1.85	0.42
32:41:46:ALA:HB1	32:41:49:ASP:O	2.20	0.42
32:41:61:ALA:HA	32:41:66:GLN:O	2.19	0.42
33:51:6:ARG:HG3	33:51:65:HIS:CE1	2.54	0.42
36:68:75:SER:OG	41:B8:74:ARG:NH1	2.51	0.42
36:68:77:ILE:HA	36:68:77:ILE:HD12	1.82	0.42
38:88:5:ARG:O	38:88:6:ARG:NH1	2.53	0.42
45:F8:64:LYS:HE3	45:F8:73:ARG:NH2	2.34	0.42
50:K8:47:ASN:C	50:K8:49:LYS:N	2.73	0.42
1:1G:186(B):C:OP1	20:BA:86:ARG:NH1	2.53	0.42
1:1G:730:G:O6	15:6A:51:HIS:NE2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1135:U:O2'	1:1G:1138:G:O6	2.36	0.42
1:1G:1157:A:H61	1:1G:1177:G:H1	1.66	0.42
3:22:39:ILE:HG13	3:22:40:ARG:N	2.35	0.42
3:22:124:ILE:HD12	3:22:127:ARG:HA	2.02	0.42
9:82:117:HIS:HB2	9:82:121:ARG:HB3	2.02	0.42
13:4A:13:LYS:HG3	13:4A:14:ARG:H	1.82	0.42
15:6A:62:GLN:O	15:6A:65:ARG:N	2.53	0.42
56:1L:49:G:H2'	56:1L:50:G:H8	1.84	0.42
25:4L:24:A:H2'	25:4L:25:A:C2	2.55	0.42
26:14:265:A:H1'	26:14:266:G:O4'	2.20	0.42
26:14:1820:U:H4'	26:14:1821:A:OP2	2.20	0.42
26:14:2125:G:H21	26:14:2173:A:H62	1.67	0.42
26:14:2537:U:H2'	26:14:2538:C:H6	1.81	0.42
26:14:2582:G:C2	26:14:2583:G:C8	3.08	0.42
29:19:35:LYS:HA	29:19:64:ILE:HG22	2.02	0.42
29:19:106:ILE:O	29:19:108:PRO:HD3	2.20	0.42
32:49:19:LEU:HD21	32:49:172:LEU:HB2	2.00	0.42
32:49:106:LEU:O	32:49:110:ALA:HB3	2.20	0.42
32:49:147:ASP:OD1	32:49:147:ASP:N	2.53	0.42
35:15:15:LEU:O	35:15:136:GLU:HA	2.20	0.42
36:25:104:ARG:HD3	41:75:36:GLU:HB2	2.00	0.42
37:35:29:LYS:HG2	37:35:30:THR:N	2.35	0.42
37:35:97:PRO:C	37:35:99:LEU:N	2.73	0.42
37:35:124:LYS:HD2	37:35:143:GLY:O	2.20	0.42
1:13:256:U:H2'	1:13:257:G:H8	1.84	0.42
1:13:384:G:H2'	1:13:385:C:C6	2.54	0.42
1:13:452:A:H2'	1:13:453:A:C8	2.55	0.42
1:13:725:G:C4	1:13:726:C:C5	3.07	0.42
1:13:951:G:HO2'	1:13:972:C:H5	1.68	0.42
1:13:981:U:H5	1:13:982:U:HO2'	1.65	0.42
1:13:1036:G:H5'	1:13:1037:C:OP2	2.20	0.42
1:13:1194:U:H2'	1:13:1195:C:C6	2.55	0.42
2:1E:102:LEU:HB3	2:1E:180:LEU:HD23	2.02	0.42
2:1E:217:ARG:HG3	2:1E:220:ASP:OD2	2.20	0.42
3:2E:140:ARG:O	3:2E:144:SER:HB3	2.19	0.42
8:7E:112:LEU:HD21	8:7E:131:GLY:N	2.35	0.42
11:2I:72:ALA:HB1	11:2I:77:MET:HE3	2.01	0.42
16:7I:20:VAL:HG12	16:7I:35:LYS:NZ	2.35	0.42
17:8I:67:LYS:CA	17:8I:70:ARG:HH21	2.31	0.42
24:3K:22:G:N7	24:3K:46:G:C2	2.88	0.42
26:1H:654(D):G:H2'	26:1H:654(D):G:N3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:660:G:N2	37:78:12:ALA:HA	2.35	0.42
26:1H:941:A:H4'	61:1H:4233:HOH:O	2.19	0.42
26:1H:1973:G:H2'	26:1H:1974:C:C6	2.54	0.42
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.55	0.42
26:1H:2313:C:H4'	32:41:91:ARG:HG3	2.01	0.42
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.55	0.42
26:1H:2587:A:N6	26:1H:2608:G:O2'	2.50	0.42
26:1H:2653:U:H2'	26:1H:2654:A:C8	2.55	0.42
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.85	0.42
27:16:70:C:H2'	27:16:71:C:H6	1.85	0.42
32:41:4:ASP:OD1	32:41:9:ARG:NH2	2.53	0.42
34:61:9:LEU:HD12	34:61:9:LEU:HA	1.76	0.42
37:78:55:ARG:HG2	37:78:56:SER:N	2.35	0.42
42:C8:83:LEU:HG	42:C8:88:ILE:HB	2.01	0.42
43:D8:71:LEU:CD2	43:D8:84:LYS:HE2	2.50	0.42
1:1G:9:G:OP2	5:42:121:LYS:HD2	2.20	0.42
1:1G:407:G:H2'	1:1G:408:A:H8	1.84	0.42
1:1G:458:C:H2'	1:1G:464:G:C8	2.54	0.42
1:1G:539:A:H2'	1:1G:540:G:C8	2.55	0.42
1:1G:652:U:O4	1:1G:752:G:H1'	2.19	0.42
1:1G:1081:G:OP1	5:42:18:ARG:CZ	2.67	0.42
1:1G:1342:C:O2'	9:82:124:GLN:HA	2.19	0.42
5:42:10:MET:HE3	5:42:10:MET:HB3	1.85	0.42
7:62:47:CYS:HB3	7:62:58:PRO:HB3	2.02	0.42
7:62:126:ASP:HB3	7:62:131:LYS:O	2.19	0.42
10:1A:47:PHE:CZ	14:5A:37:PHE:HE1	2.38	0.42
10:1A:49:VAL:HG22	10:1A:61:GLU:O	2.19	0.42
13:4A:14:ARG:HB3	13:4A:42:ALA:HA	2.01	0.42
15:6A:68:ARG:HA	15:6A:68:ARG:HD3	1.83	0.42
19:AA:41:VAL:HG22	19:AA:43:GLU:HB2	2.02	0.42
26:14:36:G:O6	61:14:3655:HOH:O	2.22	0.42
26:14:278:A:OP2	26:14:278:A:H2'	2.20	0.42
26:14:439:G:H2'	26:14:440:G:C8	2.54	0.42
26:14:828:U:C5	26:14:829:A:N6	2.88	0.42
26:14:962:G:H2'	26:14:963:U:H6	1.85	0.42
26:14:1378:A:H5'	54:L5:10:ARG:HH12	1.84	0.42
26:14:1515:C:H2'	26:14:1516:U:C6	2.55	0.42
26:14:1532:C:H42	26:14:1539:G:H1	1.67	0.42
26:14:1657:C:H2'	26:14:1658:C:H6	1.85	0.42
26:14:2448:A:N6	61:14:3791:HOH:O	2.50	0.42
26:14:2846:G:H2'	26:14:2847:U:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2888:C:H2'	26:14:2889:C:C6	2.55	0.42
33:59:120:GLY:O	33:59:135:GLY:HA3	2.20	0.42
34:69:76:THR:CG2	34:69:140:LEU:HA	2.50	0.42
35:15:90:MET:SD	35:15:97:ARG:HD2	2.60	0.42
37:35:85:LEU:O	37:35:88:LEU:HB2	2.20	0.42
41:75:90:GLN:HG3	41:75:91:ARG:N	2.35	0.42
46:C5:85:VAL:HG21	46:C5:98:VAL:HB	2.01	0.42
47:D5:59:LEU:HD22	47:D5:59:LEU:HA	1.91	0.42
1:13:880:C:OP1	12:3I:8:ASN:HB3	2.20	0.41
1:13:926:G:H5"	1:13:927:G:O5'	2.20	0.41
1:13:1016:A:H2'	1:13:1017:G:O4'	2.19	0.41
1:13:1133:G:C4	1:13:1134:G:C8	3.08	0.41
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.60	0.41
13:4I:3:ARG:NE	13:4I:7:VAL:O	2.53	0.41
20:BI:54:LYS:HA	20:BI:57:ARG:HH12	1.84	0.41
26:1H:141:A:C8	26:1H:1408:C:H1'	2.55	0.41
26:1H:229:A:HO2'	26:1H:230:U:P	2.42	0.41
26:1H:1049:C:N3	33:51:3:ARG:CZ	2.83	0.41
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.55	0.41
26:1H:1797:C:O2'	29:11:259:THR:CG2	2.68	0.41
26:1H:2153:G:H2'	26:1H:2154:G:C8	2.55	0.41
26:1H:2322:A:H2'	26:1H:2323:G:O4'	2.20	0.41
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.35	0.41
28:71:180:PHE:HA	28:71:181:PRO:HD3	1.80	0.41
30:21:25:VAL:HG11	41:B8:7:ILE:HG22	2.03	0.41
30:21:46:ALA:HB1	30:21:82:ARG:H	1.85	0.41
30:21:50:GLY:HA2	30:21:78:LEU:HA	2.02	0.41
32:41:47:LYS:HD2	32:41:81:LYS:HB2	2.01	0.41
33:51:170:ARG:HA	33:51:171:LEU:HB2	2.02	0.41
35:58:127:ASP:O	35:58:128:HIS:HB3	2.18	0.41
37:78:28:GLY:O	37:78:29:LYS:C	2.55	0.41
40:A8:62:LYS:HA	40:A8:65:VAL:HG12	2.01	0.41
42:C8:92:ARG:O	42:C8:92:ARG:NE	2.30	0.41
1:1G:179:A:H2'	1:1G:180:U:C6	2.55	0.41
1:1G:362:G:H5"	12:3A:34:ARG:NH2	2.35	0.41
1:1G:363:A:H8	12:3A:33:ARG:HH21	1.67	0.41
1:1G:601:C:H2'	1:1G:602:A:C8	2.55	0.41
1:1G:1127:G:H2'	1:1G:1128:C:H6	1.84	0.41
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.54	0.41
1:1G:1246:C:H41	21:1B:9:ARG:HH12	1.68	0.41
1:1G:1305:G:O2'	1:1G:1306:A:C8	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1338:G:C6	1:1G:1339:A:C6	3.08	0.41
5:42:99:GLY:O	5:42:117:ASP:HA	2.19	0.41
9:82:33:PHE:C	9:82:36:TYR:HE1	2.24	0.41
11:2A:48:ILE:HD13	11:2A:63:LEU:HB2	2.02	0.41
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.70	0.41
23:2L:37:U:H2'	23:2L:38:A:O4'	2.20	0.41
26:14:152:G:N2	26:14:174:C:N3	2.49	0.41
26:14:297:C:N4	26:14:298:G:C6	2.88	0.41
26:14:323:G:H2'	31:39:169:ASN:ND2	2.35	0.41
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.20	0.41
26:14:2335:A:OP1	40:65:13:ARG:HD2	2.20	0.41
26:14:2342:C:O2'	26:14:2374:C:H5"	2.20	0.41
28:79:200:LYS:HD2	28:79:209:LEU:HD21	2.02	0.41
37:35:75:ILE:H	37:35:75:ILE:HG12	1.67	0.41
38:45:31:ASP:O	38:45:133:ARG:O	2.37	0.41
46:C5:67:LEU:HD12	46:C5:67:LEU:HA	1.76	0.41
1:13:97:U:H2'	1:13:99:C:C6	2.55	0.41
1:13:323:U:H5'	20:BI:23:ARG:HH21	1.85	0.41
1:13:636:U:H2'	1:13:637:G:H8	1.85	0.41
1:13:874:G:C6	1:13:875:C:C4	3.09	0.41
1:13:1004:A:N7	1:13:1026:G:N7	2.67	0.41
1:13:1347:G:H22	1:13:1374:A:P	2.40	0.41
2:1E:21:ARG:CZ	2:1E:22:LYS:HB3	2.50	0.41
2:1E:207:ALA:O	2:1E:210:SER:OG	2.38	0.41
8:7E:102:ARG:HH11	8:7E:106:GLY:N	2.17	0.41
16:7I:74:LEU:CD2	16:7I:79:VAL:HB	2.45	0.41
19:AI:9:VAL:CG1	19:AI:10:PHE:HB2	2.51	0.41
19:AI:9:VAL:HG12	19:AI:10:PHE:HB2	2.03	0.41
20:BI:54:LYS:O	20:BI:57:ARG:HB2	2.19	0.41
26:1H:207:A:H2'	26:1H:208:C:O4'	2.20	0.41
26:1H:654(O):G:H3'	26:1H:654(P):G:O4'	2.20	0.41
26:1H:688:U:H6	26:1H:688:U:O5'	2.03	0.41
26:1H:902:C:O2'	26:1H:903:C:H5'	2.20	0.41
26:1H:937:U:H2'	26:1H:938:G:O4'	2.20	0.41
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.19	0.41
26:1H:1449:A:N3	26:1H:1530:G:H1'	2.35	0.41
26:1H:2117:A:H2'	26:1H:2147:G:H22	1.86	0.41
26:1H:2145:C:H5	26:1H:2148:G:H21	1.69	0.41
26:1H:2227:A:H4'	29:11:265:PRO:HD3	2.02	0.41
27:16:41:U:H5	32:41:70:VAL:O	2.02	0.41
30:21:71:GLY:O	30:21:72:VAL:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:105:LEU:HD11	33:51:151:ILE:HD12	2.02	0.41
35:58:57:ALA:C	35:58:59:LYS:N	2.73	0.41
39:98:54:LEU:HA	39:98:54:LEU:HD23	1.76	0.41
47:H8:112:ARG:HD2	47:H8:112:ARG:HA	1.74	0.41
50:K8:65:ASN:O	50:K8:69:ARG:HG3	2.20	0.41
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.55	0.41
55:Q8:6:THR:HG22	55:Q8:62:LEU:HA	2.01	0.41
1:1G:512:U:C2	1:1G:513:C:C5	3.08	0.41
1:1G:811:C:H4'	1:1G:900:A:N6	2.35	0.41
1:1G:1240:U:O2	7:62:32:ARG:NH1	2.53	0.41
2:12:54:THR:O	2:12:57:PHE:N	2.53	0.41
2:12:142:LEU:HD23	2:12:142:LEU:HA	1.85	0.41
8:72:31:PHE:O	8:72:35:ILE:HG13	2.20	0.41
10:1A:62:HIS:HB3	14:5A:59:ALA:HB3	2.02	0.41
12:3A:6:THR:N	12:3A:9:GLN:OE1	2.44	0.41
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	2.02	0.41
24:3L:72:C:H5'	24:3L:73:A:OP2	2.20	0.41
26:14:34:C:O2	26:14:34:C:H2'	2.19	0.41
26:14:95:G:N2	50:G5:51:ARG:HH22	2.17	0.41
26:14:675:A:OP1	31:39:63:LYS:HE2	2.21	0.41
26:14:908:C:O2'	26:14:909:A:H5'	2.21	0.41
26:14:1161:C:O2'	43:95:8:GLY:HA2	2.19	0.41
26:14:1324:G:H4'	26:14:1616:A:C2	2.55	0.41
26:14:1342:A:C2	26:14:1397:U:C2	3.08	0.41
26:14:2724:C:OP1	30:29:118:LYS:HE3	2.20	0.41
29:19:23:GLU:HG2	29:19:82:ILE:HD11	2.02	0.41
29:19:31:LYS:HZ3	29:19:31:LYS:HG3	1.74	0.41
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.55	0.41
30:29:104:VAL:HG22	30:29:198:VAL:HG22	2.02	0.41
41:75:6:LEU:HD12	41:75:6:LEU:HA	1.72	0.41
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.20	0.41
52:I5:49:PHE:CD2	52:I5:50:VAL:HG22	2.48	0.41
53:J5:41:PRO:HG2	53:J5:44:THR:OG1	2.20	0.41
1:13:252:U:H5'	1:13:253:U:OP2	2.20	0.41
1:13:259:G:C6	1:13:260:G:C5	3.09	0.41
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.55	0.41
1:13:652:U:HO2'	1:13:653:A:P	2.42	0.41
1:13:652:U:O4	1:13:752:G:O2'	2.25	0.41
1:13:865:A:C2	1:13:918:A:H4'	2.54	0.41
1:13:952:U:H4'	1:13:964:A:N1	2.36	0.41
2:1E:94:ASN:OD1	2:1E:95:GLN:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:60:TYR:CZ	5:4E:64:ARG:HD2	2.55	0.41
8:7E:97:VAL:HG13	8:7E:129:VAL:C	2.41	0.41
17:8I:69:LYS:CE	17:8I:71:PHE:H	2.31	0.41
18:9I:37:VAL:HG12	18:9I:78:LEU:HB3	2.02	0.41
26:1H:360:G:H2'	26:1H:361:G:O4'	2.20	0.41
26:1H:994:C:H3'	42:C8:54:LYS:HZ1	1.85	0.41
26:1H:1408:C:C2	26:1H:1595:G:N2	2.88	0.41
26:1H:1665:A:H1'	36:68:1:MET:HG3	2.02	0.41
26:1H:1899:G:N2	26:1H:1902:C:C5	2.69	0.41
26:1H:1982:C:H5"	26:1H:1983:C:OP2	2.20	0.41
27:16:31:C:H2'	27:16:32:C:H6	1.86	0.41
30:21:52:LEU:HD12	30:21:52:LEU:HA	1.89	0.41
30:21:64:LYS:O	30:21:66:HIS:HB3	2.20	0.41
32:41:104:GLU:HG2	52:M8:23:GLU:OE2	2.20	0.41
32:41:145:THR:C	32:41:147:ASP:H	2.24	0.41
33:51:168:PRO:HB2	33:51:170:ARG:HH22	1.85	0.41
34:61:57:ARG:O	34:61:61:ARG:HG2	2.21	0.41
44:E8:18:ARG:NH1	44:E8:76:VAL:HG22	2.34	0.41
47:H8:151:HIS:CG	47:H8:152:ALA:H	2.37	0.41
1:1G:660:G:H2'	1:1G:661:G:O4'	2.20	0.41
1:1G:784:C:H4'	26:14:1837:C:OP1	2.21	0.41
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.55	0.41
2:12:58:ILE:HD11	2:12:221:LEU:HB3	2.02	0.41
13:4A:11:ARG:NE	13:4A:12:ASN:H	2.18	0.41
13:4A:29:ARG:HD3	13:4A:64:TRP:CE2	2.54	0.41
20:BA:53:LEU:HD22	20:BA:102:GLY:O	2.21	0.41
20:BA:84:LEU:O	20:BA:88:VAL:HB	2.21	0.41
24:3L:15:G:C2	24:3L:59:U:C2	3.08	0.41
26:14:229:A:H5'	26:14:230:U:OP1	2.19	0.41
26:14:609:A:H2'	26:14:609(A):G:O4'	2.19	0.41
26:14:1517:G:H2'	26:14:1518:C:C6	2.55	0.41
26:14:1615:C:C5	26:14:1617:C:C4	3.08	0.41
26:14:1753:G:N1	26:14:1756:G:C2	2.88	0.41
26:14:1996:C:OP1	36:25:31:LYS:HE2	2.20	0.41
26:14:2171:A:H3'	26:14:2171:A:C8	2.54	0.41
26:14:2271:G:C5	26:14:2272:U:C4	3.08	0.41
26:14:2553:G:H5"	26:14:2554:U:OP2	2.20	0.41
26:14:2600:A:H2'	26:14:2601:C:C6	2.56	0.41
26:14:2698:U:H2'	26:14:2699:C:C6	2.55	0.41
29:19:5:LYS:CD	29:19:6:PHE:H	2.29	0.41
29:19:242:ARG:HG2	29:19:246:PRO:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:51:PHE:CD2	30:29:76:ARG:CZ	3.04	0.41
32:49:88:ILE:HD12	32:49:88:ILE:HA	1.74	0.41
32:49:145:THR:C	32:49:147:ASP:H	2.23	0.41
34:69:74:ASN:O	34:69:75:LEU:HB2	2.19	0.41
38:45:72:LYS:HB3	38:45:94:VAL:HG23	2.02	0.41
40:65:106:ARG:N	40:65:106:ARG:CD	2.84	0.41
44:A5:6:ILE:HA	44:A5:104:THR:HA	2.02	0.41
47:D5:61:LEU:HD21	47:D5:67:LEU:HD23	2.02	0.41
51:H5:30:ARG:CZ	51:H5:33:GLN:N	2.72	0.41
51:H5:43:ILE:O	51:H5:47:VAL:HG23	2.20	0.41
54:L5:24:THR:O	54:L5:28:ARG:HG3	2.20	0.41
1:13:17:U:H2'	1:13:18:C:C6	2.56	0.41
1:13:114:U:O2'	1:13:115:G:H5'	2.20	0.41
1:13:562:C:C2	12:3I:16:GLU:CD	2.94	0.41
1:13:827:U:C5	1:13:870:U:C5	3.08	0.41
6:5E:10:LEU:HD12	6:5E:61:LEU:CD1	2.50	0.41
8:7E:70:GLN:OE1	8:7E:70:GLN:HA	2.19	0.41
13:4I:13:LYS:NZ	13:4I:17:VAL:HG22	2.36	0.41
19:AI:33:THR:CG2	19:AI:49:ILE:HD11	2.51	0.41
23:2K:64:G:H2'	23:2K:65:G:H8	1.86	0.41
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.61	0.41
26:1H:244:A:H4'	37:78:74:GLU:HB2	2.02	0.41
26:1H:1288:U:H4'	26:1H:1289:C:OP2	2.21	0.41
26:1H:1324:G:C5	26:1H:1328:G:O6	2.73	0.41
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.55	0.41
26:1H:2862:G:C5	26:1H:2863:C:C5	3.09	0.41
26:1H:2877:G:H2'	26:1H:2878:U:O4'	2.20	0.41
29:11:5:LYS:HG3	29:11:6:PHE:N	2.35	0.41
29:11:35:LYS:NZ	29:11:63:ARG:HA	2.36	0.41
30:21:54:GLN:O	30:21:56:PRO:C	2.57	0.41
33:51:40:GLU:HB2	33:51:41:MET:HE2	2.03	0.41
34:61:145:VAL:HG22	34:61:146:ALA:H	1.85	0.41
41:B8:1:MET:CE	41:B8:3:ARG:HB2	2.50	0.41
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.20	0.41
47:H8:102:LEU:HD12	47:H8:137:ILE:HG13	2.02	0.41
47:H8:103:ARG:H	47:H8:103:ARG:HH11	1.68	0.41
51:L8:8:LEU:HD23	51:L8:30:ARG:O	2.19	0.41
1:1G:426:G:OP1	4:32:38:TYR:OH	2.26	0.41
1:1G:445:G:H2'	1:1G:446:G:H8	1.85	0.41
1:1G:1072:G:C6	1:1G:1073:U:C4	3.08	0.41
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1216:G:H2'	1:1G:1217:C:H6	1.85	0.41
1:1G:1217:C:H2'	1:1G:1218:C:O4'	2.20	0.41
1:1G:1359:C:H4'	1:1G:1360:A:OP2	2.20	0.41
3:22:130:VAL:O	3:22:134:ILE:HG23	2.20	0.41
3:22:170:GLN:HG2	3:22:171:GLY:N	2.35	0.41
4:32:73:ARG:HA	4:32:73:ARG:HD2	1.77	0.41
5:42:36:ASP:OD2	5:42:40:ARG:HB2	2.21	0.41
26:14:270(M):U:H5"	26:14:270(N):G:OP1	2.20	0.41
26:14:304:G:H2'	26:14:305:U:C6	2.55	0.41
26:14:739:G:H8	26:14:739:G:OP2	2.03	0.41
26:14:1048:A:H5"	26:14:1110:G:H1	1.85	0.41
26:14:1214:A:H8	26:14:1214:A:O5'	2.03	0.41
26:14:1259:G:H2'	26:14:1260:G:C8	2.56	0.41
26:14:1409:C:H2'	26:14:1410:G:O4'	2.20	0.41
26:14:2335:A:C8	26:14:2337:G:C5	3.08	0.41
26:14:2391:G:O6	26:14:2425:A:H8	2.02	0.41
26:14:2712:U:H2'	26:14:2714:G:H5"	2.02	0.41
27:1J:29:A:C2	27:1J:56:G:C2	3.08	0.41
27:1J:116:G:H4'	40:65:54:LEU:CD2	2.50	0.41
32:49:64:THR:HG22	32:49:94:LEU:HD11	2.02	0.41
32:49:114:ILE:O	32:49:114:ILE:HG13	2.19	0.41
38:45:42:ILE:HD13	38:45:97:VAL:HG13	2.02	0.41
43:95:14:VAL:HG12	43:95:15:GLU:H	1.85	0.41
52:I5:13:ARG:HD3	52:I5:14:ILE:HG13	2.02	0.41
1:13:652:U:H1'	1:13:653:A:C2	2.56	0.41
1:13:958:A:C6	1:13:959:A:N1	2.88	0.41
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.30	0.41
2:1E:93:VAL:HG13	2:1E:96:ARG:HD3	2.02	0.41
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	2.01	0.41
4:3E:196:LEU:H	4:3E:196:LEU:HD12	1.86	0.41
6:5E:14:LEU:HB3	6:5E:19:LEU:CD1	2.51	0.41
7:6E:4:ARG:HD3	7:6E:4:ARG:HA	1.82	0.41
8:7E:33:GLU:HG2	8:7E:48:TYR:CE2	2.54	0.41
16:7I:4:ILE:HA	16:7I:21:VAL:HA	2.01	0.41
16:7I:12:LYS:O	16:7I:13:HIS:HB2	2.21	0.41
20:BI:14:LYS:HB3	20:BI:17:ARG:NE	2.36	0.41
26:1H:58:G:N2	26:1H:70:G:C4	2.89	0.41
26:1H:380:U:H2'	26:1H:381:G:H8	1.85	0.41
26:1H:969:U:OP1	51:L8:17:LYS:HG2	2.20	0.41
26:1H:1655:A:H4'	30:21:115:GLY:N	2.35	0.41
26:1H:1798:U:C5'	29:11:259:THR:HG23	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1994:C:O2'	26:1H:1995:U:H5'	2.21	0.41
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.54	0.41
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.54	0.41
29:11:181:GLU:HB2	29:11:273:ARG:HB2	2.02	0.41
32:41:7:LEU:N	32:41:104:GLU:OE2	2.39	0.41
33:51:6:ARG:CG	33:51:7:LEU:N	2.83	0.41
33:51:153:LYS:HE2	33:51:153:LYS:C	2.41	0.41
36:68:66:LYS:HA	36:68:79:PHE:O	2.21	0.41
36:68:116:SER:HG	36:68:117:LEU:H	1.67	0.41
38:88:39:PRO:HA	38:88:97:VAL:O	2.21	0.41
47:H8:103:ARG:HE	47:H8:139:VAL:HG13	1.79	0.41
52:M8:24:THR:O	52:M8:25:TYR:CD2	2.73	0.41
1:1G:198:G:C6	1:1G:220:G:C2	3.08	0.41
1:1G:562:C:H4'	1:1G:563:A:O5'	2.19	0.41
1:1G:1023:G:C8	1:1G:1024:G:N3	2.89	0.41
1:1G:1226:C:C6	13:4A:103:THR:HG23	2.52	0.41
1:1G:1519:A:H3'	1:1G:1520:G:O4'	2.21	0.41
2:12:102:LEU:H	2:12:102:LEU:HG	1.20	0.41
3:22:43:LEU:O	3:22:47:LEU:HB3	2.20	0.41
5:42:100:VAL:CG2	5:42:107:ARG:HE	2.28	0.41
9:82:40:LEU:O	9:82:40:LEU:HD23	2.21	0.41
12:3A:18:VAL:C	12:3A:19:ARG:HD3	2.41	0.41
15:6A:56:LEU:HD12	15:6A:56:LEU:HA	1.83	0.41
26:14:566:U:OP1	37:35:29:LYS:HD2	2.21	0.41
26:14:792:G:H5"	26:14:793:A:H5'	2.03	0.41
26:14:1991:U:H2'	26:14:1992:G:H5"	2.01	0.41
26:14:2340:G:H2'	26:14:2341:G:H8	1.86	0.41
26:14:2567:G:H2'	26:14:2568:C:H6	1.86	0.41
27:1J:13:A:H2'	27:1J:70:C:O2'	2.21	0.41
27:1J:15:A:H1'	27:1J:109:G:N9	2.35	0.41
29:19:72:LYS:HD3	29:19:97:TYR:CE2	2.56	0.41
30:29:169:ASN:OD1	30:29:201:THR:HG21	2.21	0.41
31:39:127:GLU:N	31:39:127:GLU:CD	2.74	0.41
33:59:99:VAL:HG23	33:59:100:GLY:H	1.84	0.41
37:35:45:LEU:HA	37:35:45:LEU:HD23	1.64	0.41
42:85:33:ARG:O	42:85:37:GLU:HG3	2.20	0.41
43:95:28:GLU:HB3	43:95:29:PRO:HD2	2.02	0.41
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	2.03	0.41
46:C5:5:MET:HB2	46:C5:8:LYS:NZ	2.36	0.41
1:13:1085:U:C2	1:13:1094:G:O6	2.73	0.41
1:13:1342:C:H1'	9:8E:124:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1348:U:N3	1:13:1374:A:H2	2.03	0.41
1:13:1349:A:OP2	9:8E:118:LYS:NZ	2.54	0.41
3:2E:11:ARG:HE	3:2E:180:ALA:HB3	1.84	0.41
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.41
6:5E:97:PHE:HB3	18:9I:32:ARG:HG3	2.03	0.41
7:6E:118:VAL:HG22	7:6E:122:HIS:CE1	2.55	0.41
8:7E:29:SER:HB3	8:7E:32:LYS:NZ	2.35	0.41
8:7E:102:ARG:HD3	8:7E:106:GLY:N	2.36	0.41
10:1I:46:ARG:NH2	10:1I:63:PHE:O	2.54	0.41
16:7I:29:ASP:OD1	16:7I:29:ASP:N	2.53	0.41
16:7I:54:GLU:O	16:7I:57:ARG:HB2	2.21	0.41
17:8I:10:VAL:HG22	17:8I:53:LEU:HA	2.02	0.41
19:AI:41:VAL:HG13	19:AI:41:VAL:H	1.56	0.41
19:AI:52:TYR:HB2	19:AI:57:HIS:HD2	1.86	0.41
20:BI:13:LEU:HD11	20:BI:14:LYS:HD3	2.02	0.41
26:1H:46:C:OP2	26:1H:215:G:H2'	2.20	0.41
26:1H:250:G:C6	26:1H:251:A:C6	3.08	0.41
26:1H:270(E):G:H2'	26:1H:270(F):U:C6	2.56	0.41
26:1H:403:U:H3'	61:1H:3855:HOH:O	2.21	0.41
26:1H:501:A:H8	26:1H:501:A:O5'	2.03	0.41
26:1H:944:G:H5"	26:1H:945:A:C5'	2.51	0.41
26:1H:947:G:N3	26:1H:984:A:C2	2.88	0.41
26:1H:1480:G:N1	26:1H:1482:U:O2	2.54	0.41
26:1H:1638:C:O3'	26:1H:2709:G:N2	2.54	0.41
26:1H:1654:A:OP2	39:98:1:MET:N	2.47	0.41
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.56	0.41
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.21	0.41
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.35	0.41
26:1H:2853:C:H2'	26:1H:2854:G:C8	2.56	0.41
30:21:23:VAL:HG11	30:21:183:LEU:HD13	2.02	0.41
31:31:101:LEU:HD12	31:31:102:PRO:HD2	2.01	0.41
33:51:95:ARG:HE	33:51:95:ARG:HB3	1.37	0.41
36:68:9:GLU:O	36:68:83:ALA:HA	2.20	0.41
47:H8:111:VAL:C	47:H8:112:ARG:HD3	2.41	0.41
49:J8:81:LYS:HA	49:J8:81:LYS:HD3	1.63	0.41
1:1G:375:U:C2'	1:1G:376:G:H5'	2.50	0.41
1:1G:587:G:OP1	8:72:89:PRO:HB3	2.20	0.41
1:1G:895:G:H2'	1:1G:896:C:C6	2.55	0.41
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.56	0.41
1:1G:1320:C:O2	19:AA:72:GLY:HA3	2.21	0.41
2:12:42:ILE:H	2:12:42:ILE:HD12	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:74:LYS:HB3	2:12:74:LYS:HE2	1.77	0.41
4:32:12:CYS:SG	4:32:18:LYS:HA	2.61	0.41
4:32:43:HIS:CD2	4:32:46:LYS:HE2	2.56	0.41
4:32:46:LYS:HB2	4:32:46:LYS:HZ3	1.85	0.41
7:62:91:VAL:HA	7:62:95:ARG:HE	1.86	0.41
7:62:113:GLU:HB3	7:62:118:VAL:CG2	2.50	0.41
7:62:114:ARG:HB3	7:62:114:ARG:HH11	1.86	0.41
13:4A:60:VAL:HG23	13:4A:64:TRP:HZ3	1.85	0.41
14:5A:28:GLY:HA3	14:5A:29:ARG:NH1	2.36	0.41
17:8A:91:ARG:HG2	17:8A:91:ARG:HH11	1.85	0.41
18:9A:36:ASN:ND2	18:9A:38:GLU:OE2	2.54	0.41
19:AA:7:LYS:H	19:AA:7:LYS:HG3	1.55	0.41
56:1L:76:A:O2'	26:14:2583:G:N2	2.47	0.41
25:4L:24:A:H3'	25:4L:24:A:C8	2.56	0.41
26:14:196:A:C4	26:14:805:G:C6	3.09	0.41
26:14:279:C:H42	26:14:361:G:H1	1.69	0.41
26:14:849:A:N1	51:H5:25:ALA:HB2	2.36	0.41
26:14:1324:G:C4	26:14:1328:G:O6	2.74	0.41
26:14:2010:G:H5"	44:A5:42:ARG:HB2	2.02	0.41
26:14:2302:G:C6	26:14:2315:G:C6	3.08	0.41
26:14:2578:G:N7	30:29:140:SER:HB2	2.35	0.41
26:14:2748:A:N3	33:59:67:LEU:HD21	2.35	0.41
28:79:46:LYS:HZ3	28:79:46:LYS:HB3	1.84	0.41
32:49:7:LEU:HA	32:49:10:LYS:HB3	2.03	0.41
32:49:49:ASP:OD2	32:49:51:ARG:NH2	2.53	0.41
34:69:7:GLU:HG3	34:69:8:PRO:CD	2.49	0.41
37:35:2:LYS:O	37:35:5:ASP:HB2	2.20	0.41
38:45:22:LYS:HZ2	38:45:22:LYS:CA	2.29	0.41
38:45:137:TYR:CD2	47:D5:76:LEU:HD11	2.55	0.41
42:85:97:ASP:O	42:85:100:VAL:HG22	2.20	0.41
43:95:24:LYS:HA	43:95:92:THR:OG1	2.20	0.41
47:D5:8:TYR:HA	47:D5:62:PRO:HD2	2.03	0.41
47:D5:28:MET:HA	47:D5:88:PHE:O	2.20	0.41
47:D5:60:GLU:CG	47:D5:66:SER:HA	2.48	0.41
50:G5:65:ASN:O	50:G5:68:ARG:HB2	2.20	0.41
53:J5:20:ARG:HG2	53:J5:23:HIS:CD2	2.56	0.41
1:13:201:C:H42	1:13:216:G:H1	1.69	0.41
1:13:345:C:H4'	1:13:346:G:N7	2.35	0.41
1:13:433:C:H2'	1:13:434:U:C6	2.55	0.41
1:13:615:C:C2	1:13:616:G:C8	3.09	0.41
1:13:631:G:H21	1:13:632:A:H1'	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:734:G:C6	1:13:735:C:C4	3.08	0.41
1:13:1129:C:C4	1:13:1139:G:C4	3.09	0.41
1:13:1134:G:H2'	1:13:1135:U:H5'	2.03	0.41
2:1E:54:THR:O	2:1E:58:ILE:HG13	2.21	0.41
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.45	0.41
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.41	0.41
7:6E:42:ILE:HG13	7:6E:42:ILE:H	1.60	0.41
7:6E:44:TYR:HE2	9:8E:41:VAL:HG11	1.86	0.41
8:7E:84:ARG:O	8:7E:135:CYS:HB2	2.20	0.41
9:8E:33:PHE:HD1	9:8E:34:ASN:OD1	2.03	0.41
9:8E:89:ASN:N	9:8E:90:PRO:HD3	2.35	0.41
12:3I:27:LEU:HA	12:3I:33:ARG:HG3	2.03	0.41
20:BI:89:ARG:NH2	20:BI:90:GLN:H	2.19	0.41
26:1H:184:C:H2'	26:1H:185:U:H6	1.82	0.41
26:1H:309:G:N3	26:1H:329:G:O2'	2.46	0.41
26:1H:322:A:OP2	31:31:169:ASN:HB2	2.21	0.41
26:1H:374:A:C2	26:1H:401:A:C4	3.09	0.41
26:1H:882:G:H1	26:1H:894:C:N4	2.19	0.41
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.50	0.41
26:1H:1264:G:H5'	53:N8:11:THR:HG23	2.01	0.41
26:1H:1609:A:O2'	26:1H:1610:A:H5'	2.21	0.41
26:1H:1644:C:C2'	26:1H:1645:G:H5'	2.51	0.41
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.21	0.41
26:1H:2061:G:H3'	61:1H:3603:HOH:O	2.21	0.41
26:1H:2335:A:C8	26:1H:2337:G:N7	2.88	0.41
26:1H:2680:C:H5'	30:21:189:PRO:HA	2.03	0.41
26:1H:2853:C:H2'	26:1H:2854:G:H8	1.86	0.41
32:41:97:ASP:O	32:41:100:TRP:N	2.54	0.41
34:61:112:LYS:HD2	34:61:112:LYS:HA	1.84	0.41
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.56	0.41
37:78:98:GLU:O	37:78:101:VAL:HG22	2.20	0.41
41:B8:1:MET:HA	41:B8:2:ASN:OD1	2.20	0.41
45:F8:41:ASN:O	45:F8:45:THR:HG23	2.20	0.41
47:H8:61:LEU:HG	47:H8:62:PRO:O	2.20	0.41
47:H8:164:ALA:O	47:H8:165:VAL:HG22	2.20	0.41
49:J8:53:VAL:CG2	49:J8:74:VAL:HG22	2.51	0.41
49:J8:88:LYS:HD3	49:J8:89:GLU:H	1.81	0.41
1:1G:12:U:O2'	1:1G:526:C:H4'	2.21	0.41
1:1G:34:C:H2'	1:1G:35:G:C8	2.56	0.41
1:1G:358:U:H2'	1:1G:359:U:C6	2.56	0.41
1:1G:393:A:H5'	1:1G:483:C:O2'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:591:U:H2'	1:1G:592:G:C8	2.54	0.41
1:1G:1007:C:H2'	1:1G:1008:C:H6	1.86	0.41
1:1G:1063:C:H3'	1:1G:1064:G:H2'	2.03	0.41
1:1G:1130:A:N6	1:1G:1131:G:O6	2.53	0.41
1:1G:1206:G:H5"	3:22:190:ARG:HH22	1.86	0.41
1:1G:1215:G:C2	1:1G:1216:G:C8	3.09	0.41
2:12:197:VAL:HG13	2:12:200:ILE:CG1	2.50	0.41
3:22:85:ARG:C	3:22:87:LEU:H	2.22	0.41
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	2.01	0.41
16:7A:57:ARG:NE	16:7A:79:VAL:O	2.54	0.41
20:BA:29:LYS:O	20:BA:33:ILE:HG22	2.21	0.41
21:1B:6:ARG:H	21:1B:6:ARG:HG2	1.51	0.41
21:1B:12:LYS:HG2	21:1B:15:ARG:NH2	2.32	0.41
25:4L:23:A:O2'	25:4L:24:A:H5"	2.20	0.41
26:14:389:G:H22	37:35:72:PRO:HD3	1.85	0.41
26:14:783:A:H3'	26:14:783:A:C8	2.56	0.41
26:14:1210:A:H5'	26:14:1210:A:C8	2.53	0.41
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.56	0.41
29:19:77:ALA:O	29:19:116:GLN:HA	2.21	0.41
30:29:179:GLU:HG3	41:75:9:LEU:HD22	2.01	0.41
42:85:92:ARG:CG	42:85:92:ARG:NH1	2.83	0.41
43:95:39:LEU:HG	43:95:46:VAL:O	2.20	0.41
46:C5:38:ILE:HG13	46:C5:38:ILE:O	2.19	0.41
55:M5:21:LYS:HZ3	55:M5:21:LYS:HG2	1.43	0.41
1:13:443:C:N4	1:13:491:G:H1	2.19	0.41
1:13:567:G:H2'	1:13:568:G:O4'	2.20	0.41
1:13:1030:C:H2'	1:13:1031:G:H8	1.85	0.41
1:13:1044:A:C5	1:13:1045:C:H1'	2.56	0.41
1:13:1250:A:H2'	1:13:1251:A:C8	2.55	0.41
1:13:1326:C:P	21:1F:15:ARG:HH22	2.43	0.41
1:13:1351:U:O4	9:8E:118:LYS:HE2	2.20	0.41
2:1E:163:PHE:CE1	2:1E:185:ILE:HD12	2.56	0.41
3:2E:3:ASN:OD1	3:2E:3:ASN:N	2.53	0.41
4:3E:65:ARG:HG2	4:3E:75:PHE:CG	2.55	0.41
4:3E:84:LYS:HD2	4:3E:84:LYS:C	2.41	0.41
4:3E:101:LEU:HD23	4:3E:101:LEU:C	2.41	0.41
6:5E:97:PHE:CB	18:9I:32:ARG:HG3	2.50	0.41
14:5I:42:ILE:O	14:5I:46:GLU:HG3	2.20	0.41
15:6I:47:LYS:HB3	15:6I:47:LYS:HE3	1.73	0.41
26:1H:307:G:N2	26:1H:310:A:C8	2.88	0.41
26:1H:639:U:O2'	26:1H:640:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:768:G:C6	26:1H:769:G:C5	3.08	0.41
26:1H:1045:A:C8	26:1H:1047:G:C2	3.08	0.41
26:1H:1583:A:H5'	26:1H:1585:C:C6	2.55	0.41
26:1H:2138:C:H42	26:1H:2153:G:H1	1.69	0.41
26:1H:2356:C:H2'	26:1H:2357:U:O4'	2.20	0.41
26:1H:2685:G:P	41:B8:51:ARG:HH22	2.44	0.41
31:31:196:LEU:C	31:31:197:ASP:O	2.58	0.41
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.56	0.41
33:51:115:VAL:HG11	33:51:148:ILE:HD11	2.03	0.41
42:C8:92:ARG:HH11	43:D8:11:GLN:C	2.23	0.41
44:E8:57:ASN:O	44:E8:62:HIS:HD2	2.03	0.41
49:J8:45:ASN:O	49:J8:63:ALA:HA	2.21	0.41
1:1G:406:G:H5'	4:32:5:ILE:HD11	2.03	0.41
1:1G:972:C:O2'	10:1A:57:LYS:CE	2.68	0.41
1:1G:1037:C:H2'	1:1G:1038:C:H6	1.86	0.41
1:1G:1128:C:H1'	1:1G:1146:A:N6	2.36	0.41
1:1G:1392:G:N2	1:1G:1502:A:C8	2.80	0.41
2:12:19:HIS:HB2	2:12:42:ILE:HD11	2.02	0.41
3:22:120:VAL:CG2	3:22:198:VAL:HG11	2.51	0.41
3:22:152:ILE:HG13	3:22:199:LYS:HB2	2.03	0.41
13:4A:11:ARG:NH2	13:4A:12:ASN:HA	2.36	0.41
18:9A:84:LYS:HD2	18:9A:84:LYS:HA	1.73	0.41
23:2L:8:4SU:O2'	23:2L:22:A:N1	2.48	0.41
26:14:37:C:H4'	26:14:451:C:OP1	2.21	0.41
26:14:1007:C:P	35:15:37:LYS:HZ3	2.44	0.41
26:14:1316:U:O2'	26:14:1317:A:H5'	2.20	0.41
26:14:1420:U:HO2'	26:14:1421:G:P	2.44	0.41
26:14:2106:G:C2	26:14:2184:G:C2	3.09	0.41
26:14:2135:A:C8	26:14:2156:G:N2	2.88	0.41
26:14:2177:C:C2	28:79:172:HIS:HE1	2.39	0.41
26:14:2186:G:H2'	26:14:2187:G:C8	2.55	0.41
26:14:2274:A:C5	26:14:2276:G:C8	3.08	0.41
29:19:31:LYS:HE3	29:19:102:LYS:NZ	2.36	0.41
29:19:206:LEU:HA	29:19:206:LEU:HD23	1.77	0.41
31:39:25:PRO:C	31:39:27:GLU:H	2.24	0.41
32:49:173:LEU:HD22	32:49:178:PHE:CZ	2.56	0.41
35:15:45:ASN:OD1	35:15:46:VAL:HG13	2.21	0.41
41:75:5:ALA:O	41:75:8:LYS:HB2	2.21	0.41
47:D5:4:ARG:HA	47:D5:4:ARG:NE	2.36	0.41
47:D5:164:ALA:O	47:D5:165:VAL:HB	2.20	0.41
48:E5:17:GLN:O	48:E5:19:LYS:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:79:GLY:O	49:F5:80:LEU:HD13	2.20	0.41
49:F5:95:LEU:HA	49:F5:95:LEU:HD23	1.74	0.41
53:J5:48:GLU:H	53:J5:48:GLU:HG2	1.37	0.41
1:13:108:G:C6	1:13:109:A:N1	2.88	0.41
1:13:219:C:H2'	1:13:220:G:O4'	2.21	0.41
1:13:276:G:O3'	17:8I:68:ARG:NH2	2.49	0.41
1:13:323:U:C5'	20:BI:23:ARG:HH21	2.33	0.41
1:13:431:A:H2'	1:13:432:A:O4'	2.20	0.41
1:13:492:G:C6	1:13:493:G:C4	3.09	0.41
1:13:749:C:H2'	1:13:750:G:H8	1.86	0.41
1:13:1009:G:C2	1:13:1010:G:C8	3.09	0.41
1:13:1103:C:H2'	1:13:1104:G:O4'	2.21	0.41
1:13:1153:C:H2'	1:13:1154:G:O4'	2.21	0.41
1:13:1348:U:N3	1:13:1374:A:C2	2.85	0.41
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.51	0.41
5:4E:45:PHE:CE2	5:4E:47:LYS:HE3	2.56	0.41
9:8E:69:GLY:O	9:8E:72:GLY:N	2.54	0.41
10:1I:28:ARG:H	10:1I:28:ARG:HG3	1.65	0.41
11:2I:21:ILE:HG13	11:2I:30:VAL:HG12	2.03	0.41
12:3I:71:PRO:O	12:3I:102:ARG:NH1	2.40	0.41
13:4I:4:ILE:HD12	13:4I:5:ALA:N	2.35	0.41
13:4I:33:ALA:HA	13:4I:59:TYR:HE2	1.85	0.41
16:7I:1:MET:SD	16:7I:3:LYS:NZ	2.94	0.41
16:7I:81:ARG:HB2	16:7I:81:ARG:HH11	1.86	0.41
17:8I:29:HIS:HB3	17:8I:33:GLY:H	1.85	0.41
19:AI:68:GLY:HA3	52:M8:59:PHE:CD2	2.55	0.41
24:3K:52:G:H2'	24:3K:53:G:O4'	2.20	0.41
26:1H:29:U:C4'	42:C8:11:ARG:HH22	2.32	0.41
26:1H:44:A:O2'	26:1H:45:G:H5'	2.20	0.41
26:1H:68:G:H2'	26:1H:69:C:O4'	2.20	0.41
26:1H:140:A:C8	26:1H:1408:C:O2'	2.69	0.41
26:1H:292:C:H42	26:1H:348:G:H1	1.69	0.41
26:1H:301:G:C4	26:1H:302:C:C5	3.08	0.41
26:1H:311:A:C6	26:1H:328:U:C4	3.09	0.41
26:1H:442:G:N3	31:31:48:THR:HG21	2.36	0.41
26:1H:443:A:H3'	31:31:45:ARG:HH21	1.85	0.41
26:1H:515:A:H1'	26:1H:581:C:H1'	2.03	0.41
26:1H:558:G:OP1	35:58:111:PRO:HD2	2.20	0.41
26:1H:934:G:H2'	26:1H:935:C:H6	1.86	0.41
26:1H:1167:U:C2	26:1H:1183:G:N2	2.89	0.41
26:1H:1260:G:C6	26:1H:1261:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1271:G:N2	26:1H:1617:C:O4'	2.54	0.41
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.85	0.41
26:1H:1388:G:C2'	26:1H:1389:G:H5'	2.51	0.41
26:1H:1579:A:H2'	26:1H:1580:A:O4'	2.20	0.41
26:1H:1614:A:N7	61:1H:3819:HOH:O	2.37	0.41
26:1H:1652:A:OP1	39:98:8:ARG:NH1	2.53	0.41
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.56	0.41
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.86	0.41
26:1H:1993:U:C2'	26:1H:1994:C:H5'	2.51	0.41
26:1H:2259:G:C2	26:1H:2282:G:N1	2.89	0.41
26:1H:2302:G:C4	26:1H:2303:G:C8	3.08	0.41
26:1H:2312:U:O3'	32:41:71:THR:HG21	2.21	0.41
26:1H:2362:G:P	55:Q8:44:LYS:HZ1	2.43	0.41
26:1H:2663:G:C6	26:1H:2664:G:C4	3.09	0.41
29:11:130:ALA:C	29:11:131:LEU:HD12	2.40	0.41
29:11:271:ILE:HD13	29:11:271:ILE:HG21	1.85	0.41
30:21:3:GLY:HA3	30:21:81:ILE:HD12	2.02	0.41
30:21:89:ASP:OD1	30:21:90:THR:N	2.50	0.41
30:21:112:GLY:O	30:21:159:HIS:HA	2.20	0.41
35:58:97:ARG:H	35:58:100:GLU:HG3	1.86	0.41
37:78:75:ILE:H	37:78:75:ILE:CD1	2.27	0.41
38:88:27:VAL:HG22	38:88:27:VAL:O	2.20	0.41
39:98:21:TYR:OH	39:98:43:GLU:HG2	2.21	0.41
42:C8:34:LYS:HB3	42:C8:34:LYS:HE3	1.77	0.41
42:C8:44:ASN:ND2	43:D8:75:PHE:O	2.53	0.41
44:E8:24:ILE:HD12	44:E8:24:ILE:O	2.21	0.41
49:J8:72:GLU:O	49:J8:76:ARG:HG2	2.21	0.41
49:J8:92:LYS:HA	49:J8:93:GLU:CG	2.47	0.41
52:M8:62:ARG:CZ	52:M8:63:TYR:HE1	2.34	0.41
1:1G:57:G:C6	1:1G:58:C:C4	3.08	0.41
1:1G:229:U:H2'	1:1G:230:G:O4'	2.21	0.41
1:1G:695:A:OP1	11:2A:54:ARG:NH2	2.44	0.41
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.56	0.41
1:1G:1249:C:C1'	9:82:70:LYS:HD3	2.51	0.41
1:1G:1328:C:OP1	21:1B:21:TYR:OH	2.28	0.41
2:12:24:TRP:C	2:12:24:TRP:CD1	2.94	0.41
2:12:31:TYR:O	2:12:32:ILE:HG12	2.21	0.41
3:22:150:LYS:HE2	3:22:167:TRP:CE3	2.55	0.41
3:22:180:ALA:HB1	3:22:203:PHE:CE1	2.56	0.41
5:42:71:LEU:H	5:42:71:LEU:HD12	1.85	0.41
5:42:110:LEU:HD23	5:42:110:LEU:HA	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:29:SER:O	8:72:32:LYS:HG2	2.21	0.41
9:82:70:LYS:HB2	9:82:70:LYS:HE2	1.65	0.41
10:1A:31:GLY:N	10:1A:80:LYS:HZ3	2.19	0.41
13:4A:87:TYR:N	19:AA:73:GLU:O	2.53	0.41
17:8A:89:LEU:HA	17:8A:89:LEU:HD23	1.80	0.41
56:1L:38:A:H5'	26:14:1913:A:C6	2.56	0.41
24:3L:37:A:H2'	24:3L:38:A:O4'	2.21	0.41
26:14:84:A:OP1	46:C5:8:LYS:HE3	2.21	0.41
26:14:601:C:O2	26:14:605:C:H4'	2.21	0.41
26:14:671:C:OP1	37:35:42:SER:O	2.39	0.41
26:14:706:A:H2'	26:14:707:G:O4'	2.20	0.41
26:14:818:G:H4'	26:14:838:C:O3'	2.21	0.41
26:14:850:C:O5'	26:14:850:C:H6	2.04	0.41
26:14:957:A:H5'	38:45:76:LYS:HD2	2.01	0.41
26:14:960:A:H5"	26:14:961:C:OP1	2.21	0.41
26:14:1034:G:H2'	26:14:1035:U:O4'	2.20	0.41
26:14:1771:C:C1'	26:14:1786:A:C8	3.04	0.41
26:14:2120:G:H2'	26:14:2121:G:C8	2.56	0.41
26:14:2298:A:H2'	26:14:2299:G:O4'	2.20	0.41
26:14:2352:A:N1	48:E5:33:ALA:O	2.53	0.41
26:14:2441:C:OP2	26:14:2586:C:O2'	2.32	0.41
26:14:2467:C:H4'	38:45:123:HIS:CG	2.56	0.41
26:14:2494:G:C5	26:14:2495:G:N7	2.89	0.41
26:14:2667:C:O2	33:59:109:PHE:HB3	2.21	0.41
26:14:2704:C:H2'	26:14:2705:A:O4'	2.20	0.41
26:14:2785:C:C2'	26:14:2786:U:H5'	2.51	0.41
27:1J:44:G:C2	27:1J:48:A:C2	3.09	0.41
27:1J:80:U:O2'	27:1J:81:G:H5'	2.21	0.41
27:1J:90:C:H5'	38:45:18:LYS:HA	2.03	0.41
28:79:46:LYS:HD3	28:79:210:ARG:HG3	2.03	0.41
29:19:79:VAL:HG12	29:19:95:LEU:HD22	2.03	0.41
30:29:27:LEU:O	30:29:27:LEU:HG	2.20	0.41
30:29:52:LEU:HD11	30:29:75:VAL:CG1	2.49	0.41
30:29:66:HIS:CG	30:29:67:PHE:N	2.88	0.41
31:39:20:LEU:HD12	31:39:20:LEU:HA	1.94	0.41
31:39:95:ARG:HH11	31:39:95:ARG:HD2	1.72	0.41
31:39:120:GLU:O	31:39:120:GLU:HG2	2.19	0.41
32:49:111:LEU:O	32:49:114:ILE:HG23	2.21	0.41
33:59:20:ALA:CB	33:59:23:ARG:HG3	2.51	0.41
33:59:117:PRO:HB3	33:59:121:ILE:CG2	2.51	0.41
34:69:109:ILE:HD12	34:69:109:ILE:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:4:TYR:CD1	42:85:100:VAL:HG21	2.55	0.41
35:15:26:LEU:HD13	35:15:26:LEU:N	2.36	0.41
35:15:96:GLU:HB2	35:15:122:VAL:CG2	2.50	0.41
36:25:63:VAL:HG12	36:25:106:LEU:HD11	2.03	0.41
36:25:87:ILE:HG23	36:25:88:ASN:O	2.21	0.41
37:35:47:ASP:HB3	37:35:50:ARG:H	1.86	0.41
38:45:17:LEU:HD21	38:45:41:TRP:HE1	1.85	0.41
40:65:21:THR:H	40:65:21:THR:HG22	1.54	0.41
41:75:36:GLU:HG2	41:75:39:ARG:NH2	2.34	0.41
45:B5:49:VAL:HB	45:B5:83:VAL:CG2	2.51	0.41
45:B5:67:GLY:C	45:B5:69:TYR:N	2.72	0.41
50:G5:4:SER:CB	50:G5:7:ARG:HB2	2.38	0.41
50:G5:35:LEU:CD1	50:G5:53:LEU:HD12	2.51	0.41
1:13:771:G:N7	61:13:1852:HOH:O	2.36	0.41
1:13:773:G:O3'	29:11:202:LYS:NZ	2.52	0.41
1:13:1177:G:H5"	9:8E:97:LYS:NZ	2.36	0.41
1:13:1298:C:H4'	1:13:1299:A:C4	2.56	0.41
1:13:1442:G:C6	1:13:1446:A:C6	3.09	0.41
4:3E:103:ASN:ND2	4:3E:107:ARG:HG3	2.36	0.41
4:3E:151:LYS:HE3	4:3E:151:LYS:HB2	1.89	0.41
6:5E:9:VAL:HG22	6:5E:60:PHE:CE1	2.56	0.41
9:8E:5:TYR:HE1	9:8E:16:ARG:HB2	1.85	0.41
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.44	0.41
26:1H:91:A:H2'	26:1H:92:G:O4'	2.21	0.41
26:1H:918:A:O2'	27:16:96:G:N2	2.49	0.41
26:1H:1170:G:N2	26:1H:1180:C:C2	2.89	0.41
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.21	0.41
26:1H:1692:U:O2'	26:1H:1693:U:H2'	2.21	0.41
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.56	0.41
26:1H:2092:U:H4'	26:1H:2093:G:O5'	2.21	0.41
27:16:32:C:C2	27:16:51:G:N2	2.88	0.41
27:16:71:C:C2	27:16:72:G:C8	3.09	0.41
28:71:47:LEU:HA	28:71:208:PHE:O	2.21	0.41
30:21:14:ILE:O	30:21:15:PHE:HB2	2.21	0.41
31:31:6:VAL:N	31:31:119:ARG:NH2	2.68	0.41
31:31:103:LYS:HA	31:31:106:ARG:HG3	2.03	0.41
33:51:83:TYR:O	33:51:84:SER:OG	2.29	0.41
38:88:109:VAL:HG13	38:88:113:GLN:HB3	2.02	0.41
41:B8:54:ARG:HA	41:B8:59:THR:OG1	2.22	0.41
47:H8:117:LEU:C	47:H8:118:GLN:HG2	2.41	0.41
1:1G:554:C:H2'	1:1G:555:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:836:G:C6	1:1G:851:G:C6	3.09	0.41
1:1G:918:A:H2'	1:1G:919:A:O4'	2.20	0.41
1:1G:976:G:P	14:5A:32:SER:H	2.42	0.41
1:1G:977:A:C8	1:1G:1223:C:N3	2.89	0.41
2:12:217:ARG:O	2:12:219:VAL:HG13	2.21	0.41
11:2A:50:TYR:CD2	11:2A:60:ALA:HB2	2.56	0.41
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.31	0.41
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.21	0.41
56:1L:11:C:H2'	56:1L:12:U:C6	2.56	0.41
26:14:527:C:OP2	26:14:2779:U:H5	2.04	0.41
26:14:898:C:H2'	26:14:899:A:C2	2.56	0.41
26:14:1639:U:O2'	26:14:1640:C:H5'	2.21	0.41
26:14:1641:A:H2'	26:14:1642:G:O4'	2.20	0.41
26:14:2134:A:C5	26:14:2158:A:C8	3.09	0.41
26:14:2274:A:C6	26:14:2276:G:C8	3.09	0.41
26:14:2898:U:H6	26:14:2898:U:O5'	2.04	0.41
30:29:144:ARG:HG2	30:29:145:LYS:N	2.22	0.41
33:59:20:ALA:O	33:59:22:GLY:N	2.48	0.41
35:15:22:THR:HA	35:15:61:ARG:O	2.21	0.41
38:45:22:LYS:HZ3	38:45:22:LYS:HG2	1.66	0.41
38:45:31:ASP:HA	38:45:134:ARG:HH21	1.86	0.41
43:95:71:LEU:HA	43:95:71:LEU:HD13	1.53	0.41
45:B5:88:LYS:HZ2	45:B5:90:GLU:HB2	1.86	0.41
46:C5:92:ASN:O	46:C5:94:LYS:HD3	2.21	0.41
51:H5:30:ARG:NH1	51:H5:31:LEU:HA	2.36	0.41
1:13:6:G:H22	5:4E:98:THR:HG22	1.86	0.40
1:13:255:G:H4'	17:8I:17:LYS:NZ	2.36	0.40
1:13:542:G:H5'	4:3E:41:GLY:HA3	2.03	0.40
1:13:645:C:H2'	1:13:646:U:O4'	2.21	0.40
1:13:865:A:H2	1:13:918:A:H4'	1.85	0.40
1:13:922:G:C6	1:13:923:A:C6	3.09	0.40
1:13:1309:G:C6	1:13:1310:G:C5	3.09	0.40
1:13:1310:G:O2'	1:13:1311:G:H5'	2.20	0.40
2:1E:50:GLU:O	2:1E:54:THR:HG23	2.21	0.40
2:1E:78:GLN:C	2:1E:79:ASP:HA	2.41	0.40
2:1E:96:ARG:HB3	2:1E:148:TYR:CD1	2.55	0.40
2:1E:145:LEU:O	2:1E:149:LEU:HB2	2.21	0.40
4:3E:148:VAL:HG12	4:3E:149:ALA:O	2.21	0.40
7:6E:58:PRO:O	7:6E:61:VAL:HG13	2.21	0.40
8:7E:86:ILE:HG22	8:7E:87:SER:N	2.36	0.40
18:9I:26:LEU:HD23	18:9I:27:GLY:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:30:LYS:O	20:BI:33:ILE:HG12	2.21	0.40
22:1K:74:C:H41	26:1H:2508:G:H5'	1.85	0.40
23:2K:76:C:H3'	23:2K:77:A:H3'	2.03	0.40
24:3K:48:C:C5	24:3K:59:U:H1'	2.56	0.40
24:3K:50:G:C2	24:3K:51:C:N3	2.89	0.40
26:1H:34:C:OP2	26:1H:34:C:C2	2.74	0.40
26:1H:493:G:H2'	26:1H:494:G:O4'	2.20	0.40
26:1H:631:A:H2'	26:1H:632:A:O4'	2.21	0.40
26:1H:762:U:H4'	26:1H:763:G:O5'	2.22	0.40
26:1H:943:U:C4	26:1H:944:G:N7	2.89	0.40
26:1H:978:G:C2	26:1H:986:C:C2	3.09	0.40
26:1H:1020:A:H4'	26:1H:1021:A:O5'	2.20	0.40
26:1H:1168:G:C2	26:1H:1182:A:C2	3.09	0.40
26:1H:1371:G:H2'	26:1H:1372:U:H5	1.86	0.40
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.55	0.40
26:1H:1465:G:C4	26:1H:1466:G:C8	3.09	0.40
26:1H:1632:A:C6	26:1H:1633:G:C6	3.09	0.40
26:1H:1805:U:O2	29:11:50:THR:HB	2.21	0.40
26:1H:2592:G:C5	26:1H:2593:U:C5	3.09	0.40
31:31:14:PRO:HD2	31:31:127:GLU:OE2	2.21	0.40
33:51:80:SER:C	33:51:81:GLU:HG3	2.41	0.40
35:58:46:VAL:HG13	35:58:48:MET:N	2.34	0.40
36:68:93:PRO:HG3	36:68:114:ILE:HG12	2.03	0.40
44:E8:96:ILE:HG21	44:E8:96:ILE:HD13	1.72	0.40
47:H8:53:ILE:O	47:H8:53:ILE:HG13	2.21	0.40
47:H8:103:ARG:C	47:H8:103:ARG:CD	2.89	0.40
52:M8:14:ILE:HD11	52:M8:21:VAL:CG1	2.50	0.40
1:1G:814:A:H2'	1:1G:816:A:H5'	2.03	0.40
1:1G:1307:U:H2'	1:1G:1308:U:C6	2.56	0.40
2:12:61:LEU:HG	2:12:160:ASP:OD1	2.21	0.40
2:12:70:PHE:N	2:12:93:VAL:H	2.18	0.40
3:22:29:TYR:HD1	3:22:29:TYR:O	2.04	0.40
4:32:70:ILE:HD12	4:32:70:ILE:H	1.86	0.40
5:42:100:VAL:HG22	5:42:118:ILE:HG22	2.03	0.40
8:72:36:LEU:HD12	8:72:59:LEU:HD13	2.03	0.40
9:82:23:ASN:HD22	9:82:23:ASN:H	1.68	0.40
14:5A:37:PHE:CE2	14:5A:53:LEU:HD12	2.56	0.40
17:8A:10:VAL:CG2	17:8A:19:VAL:HB	2.51	0.40
26:14:218:A:H2	26:14:235:U:H4'	1.85	0.40
26:14:517:C:P	53:J5:13:LYS:HZ3	2.44	0.40
26:14:636:G:O2'	26:14:638:G:O2'	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:664:C:H4'	26:14:941:A:OP1	2.22	0.40
26:14:925:C:H2'	26:14:926:A:H8	1.86	0.40
26:14:952:G:C6	26:14:966:G:C6	3.09	0.40
26:14:995:C:C4	42:85:57:PHE:CZ	3.09	0.40
26:14:997:G:O2'	26:14:998:C:H5'	2.21	0.40
26:14:2029:G:H2'	26:14:2031:A:OP1	2.20	0.40
26:14:2353:G:H4'	48:E5:33:ALA:HB3	2.03	0.40
26:14:2532:G:H2'	26:14:2533:A:C8	2.56	0.40
32:49:167:GLU:H	32:49:167:GLU:HG2	1.71	0.40
34:69:128:LEU:HD13	34:69:128:LEU:HA	1.50	0.40
36:25:122:LEU:HD13	41:75:72:VAL:HG11	2.02	0.40
37:35:99:LEU:HD23	37:35:102:ARG:NH1	2.36	0.40
37:35:126:VAL:HA	37:35:145:PRO:HD2	2.02	0.40
41:75:3:ARG:N	41:75:4:GLY:HA3	2.36	0.40
48:E5:46:LYS:HZ1	48:E5:76:GLY:HA3	1.86	0.40
49:F5:41:ARG:HD3	49:F5:43:TYR:CE1	2.56	0.40
51:H5:7:LYS:HE2	51:H5:7:LYS:HB2	1.85	0.40
53:J5:35:GLU:H	53:J5:35:GLU:HG2	1.49	0.40
1:13:520:A:N1	1:13:536:C:H1'	2.36	0.40
1:13:1048:G:OP2	14:5I:4:LYS:NZ	2.54	0.40
1:13:1132:C:H2'	1:13:1133:G:H8	1.80	0.40
1:13:1455:G:H5"	20:BI:31:SER:HB2	2.03	0.40
61:13:1902:HOH:O	10:1I:57:LYS:HD2	2.20	0.40
2:1E:164:VAL:HG22	2:1E:186:ALA:HB1	2.04	0.40
2:1E:220:ASP:HA	2:1E:223:ILE:HD11	2.02	0.40
4:3E:174:LEU:HB2	4:3E:184:LYS:O	2.20	0.40
12:3I:77:LEU:HD21	12:3I:107:ALA:HB2	2.03	0.40
15:6I:24:SER:O	15:6I:28:GLN:HG3	2.21	0.40
16:7I:74:LEU:HD21	16:7I:79:VAL:CG2	2.51	0.40
20:BI:83:ARG:HH11	20:BI:86:ARG:CZ	2.34	0.40
23:2K:21:U:O2'	23:2K:22:A:H5'	2.21	0.40
26:1H:725:G:C6	26:1H:726:G:N1	2.90	0.40
26:1H:996:A:C2	26:1H:997:G:C8	3.09	0.40
26:1H:1509:C:O3'	26:1H:1510:A:H4'	2.20	0.40
26:1H:1544:C:O2	26:1H:1544:C:H2'	2.22	0.40
26:1H:1553:A:HO2'	26:1H:1554:A:H8	1.67	0.40
26:1H:1730:U:O2'	26:1H:1731:G:OP1	2.35	0.40
26:1H:1900:A:C8	26:1H:1900:A:C5'	3.03	0.40
26:1H:2810:A:H2'	26:1H:2811:G:O4'	2.21	0.40
30:21:53:PRO:O	30:21:56:PRO:HD2	2.21	0.40
32:41:77:ILE:HD12	32:41:79:ASN:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:46:VAL:HG11	35:58:48:MET:HE3	2.03	0.40
38:88:36:ALA:O	38:88:99:PRO:HA	2.22	0.40
38:88:55:VAL:HG12	38:88:64:ILE:HD12	2.03	0.40
38:88:68:ILE:HD13	38:88:103:MET:HB3	2.03	0.40
41:B8:114:LEU:HD13	41:B8:114:LEU:HA	1.72	0.40
46:G8:82:PRO:HB2	46:G8:98:VAL:H	1.87	0.40
47:H8:120:ILE:HG21	47:H8:170:THR:C	2.42	0.40
1:1G:625:G:H2'	1:1G:626:U:H6	1.85	0.40
1:1G:952:U:C5	13:4A:104:ARG:NH2	2.89	0.40
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.56	0.40
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.56	0.40
2:12:168:THR:CG2	2:12:192:SER:HA	2.51	0.40
5:42:101:ILE:HD11	5:42:119:LEU:HD23	2.03	0.40
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.85	0.40
17:8A:63:ARG:HE	17:8A:63:ARG:HB3	1.75	0.40
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	2.04	0.40
18:9A:53:ARG:HE	18:9A:59:SER:C	2.25	0.40
56:1L:26:A:N6	56:1L:44:G:H1	2.19	0.40
26:14:527:C:OP2	26:14:2779:U:C5	2.75	0.40
26:14:1180:C:H2'	26:14:1181:C:C6	2.56	0.40
26:14:1288:U:C2	26:14:1327:C:O2	2.74	0.40
26:14:1618:A:N3	26:14:1618:A:O2'	2.44	0.40
26:14:1716:U:O2'	26:14:1717:G:H5'	2.22	0.40
26:14:1757:U:O2	26:14:1762:A:H2	2.05	0.40
26:14:1757:U:O2	26:14:1762:A:C2	2.74	0.40
26:14:1800:C:P	29:19:183:ARG:HH12	2.44	0.40
26:14:2506:U:C2	26:14:2585:U:O4	2.74	0.40
26:14:2645:G:N2	26:14:2767:C:OP2	2.54	0.40
30:29:11:MET:HA	30:29:24:THR:HA	2.03	0.40
30:29:117:MET:HB3	30:29:117:MET:HE3	1.82	0.40
31:39:128:ALA:O	31:39:130:ALA:N	2.54	0.40
32:49:53:LEU:HD12	32:49:90:LEU:HD13	2.02	0.40
32:49:105:LYS:O	32:49:109:VAL:HG12	2.22	0.40
33:59:92:ILE:HG23	33:59:93:GLY:N	2.32	0.40
37:35:65:ARG:HB3	61:35:309:HOH:O	2.22	0.40
37:35:76:LYS:CE	37:35:76:LYS:HA	2.50	0.40
45:B5:16:LYS:HZ2	45:B5:16:LYS:HG3	1.78	0.40
49:F5:50:ARG:HE	49:F5:50:ARG:HB2	1.71	0.40
51:H5:52:HIS:CD2	51:H5:53:LEU:HD13	2.56	0.40
1:13:258:G:H2'	1:13:259:G:C8	2.57	0.40
1:13:642:A:N3	8:7E:113:SER:OG	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:666:G:OP1	1:13:666:G:H8	2.04	0.40
1:13:743:U:H2'	1:13:744:C:C6	2.57	0.40
1:13:1054:C:OP2	1:13:1197:G:OP2	2.39	0.40
1:13:1106:G:C6	1:13:1107:C:C4	3.09	0.40
1:13:1301:U:H1'	1:13:1302:U:OP1	2.21	0.40
1:13:1349:A:H2'	1:13:1350:A:C8	2.55	0.40
1:13:1517:G:H1'	26:1H:1919:A:O3'	2.21	0.40
2:1E:201:ILE:HG13	2:1E:201:ILE:O	2.21	0.40
5:4E:142:LEU:HD12	5:4E:142:LEU:HA	1.86	0.40
8:7E:39:LEU:HD13	8:7E:45:ILE:CG1	2.51	0.40
8:7E:111:ILE:HD12	8:7E:111:ILE:O	2.21	0.40
12:3I:119:LYS:H	12:3I:119:LYS:HG3	1.60	0.40
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.36	0.40
17:8I:34:LYS:HG2	17:8I:35:VAL:N	2.36	0.40
17:8I:56:VAL:O	17:8I:77:VAL:HG22	2.22	0.40
19:AI:40:ILE:HG22	19:AI:41:VAL:CG1	2.40	0.40
24:3K:24:G:C6	24:3K:25:C:N4	2.89	0.40
24:3K:56:C:C4	26:1H:2112:G:C6	3.08	0.40
26:1H:143:C:H2'	26:1H:144:C:C6	2.56	0.40
26:1H:185:U:H2'	26:1H:186:G:H8	1.86	0.40
26:1H:380:U:H5"	49:J8:18:ILE:HD12	2.03	0.40
26:1H:433:C:C4	26:1H:434:U:O4	2.74	0.40
26:1H:1156:A:O4'	42:C8:51:LYS:HE3	2.21	0.40
26:1H:1482:U:O4	26:1H:1510:A:H1'	2.22	0.40
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.21	0.40
26:1H:2567:G:H2'	26:1H:2568:C:C6	2.56	0.40
26:1H:2667:C:H1'	33:51:109:PHE:CD1	2.57	0.40
28:71:46:LYS:H	28:71:46:LYS:HZ3	1.68	0.40
34:61:97:ILE:HG12	34:61:140:LEU:HD13	2.03	0.40
40:A8:36:TYR:HB3	40:A8:52:SER:HB3	2.03	0.40
55:Q8:8:LYS:HB3	55:Q8:12:LYS:HE3	2.03	0.40
1:1G:157:G:C2	1:1G:165:C:C2	3.09	0.40
1:1G:474:G:H5"	16:7A:81:ARG:HH21	1.85	0.40
1:1G:521:G:O5'	12:3A:73:GLU:HG2	2.21	0.40
1:1G:558:G:H2'	1:1G:559:A:H2	1.86	0.40
1:1G:942:G:C2	1:1G:1342:C:C2	3.09	0.40
1:1G:1015:A:N6	1:1G:1016:A:C6	2.89	0.40
1:1G:1223:C:H5"	1:1G:1224:G:C5'	2.42	0.40
1:1G:1249:C:O2'	9:82:66:ARG:NH2	2.47	0.40
3:22:46:GLU:H	3:22:46:GLU:HG2	1.54	0.40
3:22:150:LYS:HE3	3:22:169:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:111:GLU:O	5:42:114:GLY:N	2.43	0.40
6:52:94:GLN:OE1	18:9A:32:ARG:HD3	2.20	0.40
7:62:144:MET:O	7:62:146:GLU:HB3	2.21	0.40
13:4A:66:LEU:HD23	13:4A:66:LEU:HA	1.89	0.40
13:4A:80:ARG:O	13:4A:84:ILE:HG13	2.22	0.40
13:4A:86:CYS:O	13:4A:89:GLY:N	2.45	0.40
16:7A:22:THR:HA	16:7A:33:ILE:HD12	2.04	0.40
19:AA:40:ILE:HD11	19:AA:71:LEU:HB3	2.03	0.40
23:2L:44:A:C2	23:2L:45:A:C5	3.09	0.40
26:14:513:A:C2	26:14:514:A:C4	3.09	0.40
26:14:657:U:H2'	26:14:658:C:C6	2.57	0.40
26:14:738:G:C6	26:14:739:G:C2	3.08	0.40
26:14:1264:G:H2'	26:14:2014:A:N6	2.36	0.40
26:14:2014:A:H4'	44:A5:92:ARG:HH12	1.86	0.40
26:14:2422:A:H8	26:14:2422:A:H2'	1.75	0.40
26:14:2786:U:H5"	30:29:66:HIS:CB	2.50	0.40
27:1J:46:A:H2'	27:1J:47:C:C6	2.56	0.40
33:59:82:GLY:HA3	33:59:135:GLY:O	2.21	0.40
34:69:5:LEU:HD12	34:69:17:GLN:O	2.20	0.40
38:45:24:GLY:O	38:45:102:VAL:HG23	2.21	0.40
38:45:28:ALA:N	38:45:105:GLU:OE2	2.54	0.40
40:65:85:VAL:HG23	40:65:86:ALA:N	2.36	0.40
44:A5:21:VAL:HG12	44:A5:47:VAL:HG21	2.03	0.40
49:F5:15:ALA:O	49:F5:40:ARG:HG3	2.21	0.40
51:H5:7:LYS:O	51:H5:55:ARG:N	2.46	0.40
52:I5:13:ARG:HG3	52:I5:22:ILE:HA	2.04	0.40
52:I5:14:ILE:H	52:I5:14:ILE:HG13	1.61	0.40
1:13:101:A:H8	1:13:101:A:OP2	2.03	0.40
1:13:255:G:H4'	17:8I:17:LYS:HD3	2.04	0.40
1:13:599:C:H2'	1:13:600:C:H6	1.87	0.40
1:13:1253:G:H2'	1:13:1254:C:C6	2.57	0.40
1:13:1378:C:P	7:6E:6:ARG:HE	2.44	0.40
2:1E:21:ARG:NE	2:1E:22:LYS:HB3	2.36	0.40
2:1E:86:GLU:C	2:1E:89:GLY:H	2.24	0.40
2:1E:155:LEU:HG	2:1E:159:PRO:HD3	2.03	0.40
6:5E:10:LEU:HD12	6:5E:61:LEU:HD11	2.04	0.40
7:6E:88:PRO:HG3	7:6E:149:ARG:HA	2.02	0.40
18:9I:41:LYS:HE3	18:9I:41:LYS:HB2	1.83	0.40
22:1K:21:A:C6	22:1K:47:U:C2	3.09	0.40
26:1H:34:C:O2'	26:1H:35:G:P	2.80	0.40
26:1H:299:A:H62	26:1H:300:A:N6	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:525:U:H5'	26:1H:556:G:OP1	2.22	0.40
26:1H:1202:C:N4	26:1H:1203:G:C6	2.90	0.40
26:1H:1530:G:H2'	26:1H:1531:C:O4'	2.21	0.40
26:1H:1632:A:O5'	26:1H:1632:A:H8	2.04	0.40
26:1H:1834:U:H4'	26:1H:1969:A:C6	2.57	0.40
26:1H:2048:G:N7	61:1H:3820:HOH:O	2.37	0.40
26:1H:2308:G:N1	26:1H:2311:A:C2	2.65	0.40
26:1H:2533:A:OP1	26:1H:2665:A:H1'	2.21	0.40
27:16:0:A:H8	27:16:0:A:OP2	2.04	0.40
30:21:202:LYS:N	30:21:203:LYS:HA	2.36	0.40
33:51:19:VAL:HG12	33:51:20:ALA:N	2.35	0.40
39:98:101:ALA:HA	53:N8:44:THR:HG21	2.04	0.40
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	2.04	0.40
40:A8:62:LYS:O	40:A8:65:VAL:HG12	2.21	0.40
43:D8:35:LEU:CD2	43:D8:57:VAL:HG13	2.51	0.40
45:F8:41:ASN:OD1	45:F8:41:ASN:N	2.53	0.40
47:H8:4:ARG:HD3	47:H8:58:VAL:N	2.37	0.40
47:H8:4:ARG:HD3	47:H8:59:LEU:N	2.36	0.40
47:H8:140:ASP:HB3	47:H8:141:VAL:H	1.66	0.40
49:J8:61:ARG:HH11	49:J8:61:ARG:HD3	1.74	0.40
1:1G:6:G:H22	5:42:98:THR:HG22	1.86	0.40
1:1G:186(A):C:O2	20:BA:105:SER:HB2	2.21	0.40
1:1G:554:C:H2'	1:1G:555:C:H6	1.86	0.40
1:1G:1055:A:H5"	1:1G:1056:U:OP2	2.20	0.40
1:1G:1129:C:H5	1:1G:1141:C:N4	2.19	0.40
1:1G:1318:A:O2'	19:AA:37:ARG:HB2	2.22	0.40
1:1G:1524:C:OP1	11:2A:120:ARG:NH1	2.55	0.40
2:12:73:THR:HG21	2:12:97:TRP:H	1.86	0.40
3:22:44:GLU:O	3:22:47:LEU:HD22	2.21	0.40
3:22:52:LEU:CD2	3:22:55:VAL:HG13	2.51	0.40
4:32:57:ARG:H	4:32:57:ARG:HG2	1.49	0.40
20:BA:46:GLU:HB2	20:BA:48:LYS:HG2	2.03	0.40
23:2L:73:A:N6	23:2L:74:A:N6	2.69	0.40
26:14:137(A):G:H2'	26:14:139:G:N7	2.37	0.40
26:14:686:G:N7	54:L5:5:TRP:CH2	2.90	0.40
26:14:1558:A:H4'	26:14:1559:G:H2'	2.04	0.40
26:14:1754:C:H2'	26:14:1755:A:C8	2.56	0.40
26:14:1839:G:H2'	26:14:1839:G:N3	2.37	0.40
26:14:2847:U:P	41:75:98:LYS:HZ3	2.45	0.40
31:39:7:TYR:HD1	31:39:17:ARG:NH1	2.20	0.40
35:15:112:LEU:CG	35:15:115:ARG:HH21	2.31	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:3:LEU:HA	37:35:3:LEU:HD23	1.69	0.40
39:55:2:ARG:HA	39:55:5:LYS:HZ1	1.87	0.40
39:55:100:LEU:HD21	39:55:113:LEU:CD2	2.51	0.40
43:95:38:LEU:O	43:95:39:LEU:HB2	2.22	0.40
44:A5:14:PRO:HA	44:A5:17:VAL:HG12	2.04	0.40
50:G5:3:LEU:HD22	50:G5:4:SER:OG	2.21	0.40
1:13:724:G:O2'	1:13:725:G:H5'	2.20	0.40
1:13:998:G:H2'	1:13:998(A):C:C6	2.56	0.40
1:13:1095:U:P	1:13:1108:G:H1	2.44	0.40
1:13:1142:G:H2'	1:13:1143:G:O4'	2.22	0.40
1:13:1244:C:OP2	21:1F:9:ARG:CZ	2.69	0.40
1:13:1262:C:H42	1:13:1273:G:H1	1.69	0.40
1:13:1346:A:C4	7:6E:10:ARG:NH1	2.90	0.40
2:1E:61:LEU:HD21	2:1E:68:ILE:HD11	2.03	0.40
5:4E:110:LEU:HD21	5:4E:118:ILE:CD1	2.52	0.40
7:6E:6:ARG:NE	7:6E:6:ARG:CA	2.82	0.40
8:7E:6:ILE:HG13	8:7E:85:ARG:NH1	2.37	0.40
17:8I:43:LEU:HB2	17:8I:69:LYS:HD2	2.04	0.40
22:1K:7:U:C2	22:1K:49:G:N2	2.90	0.40
26:1H:325:G:H2'	26:1H:326:G:H8	1.86	0.40
26:1H:445:C:O2'	26:1H:446:G:H5'	2.22	0.40
26:1H:527:C:H4'	26:1H:528:A:O5'	2.21	0.40
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.56	0.40
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.56	0.40
26:1H:1551:C:C2'	26:1H:1552:G:H5'	2.51	0.40
26:1H:2154:G:C2	26:1H:2155:G:N7	2.89	0.40
26:1H:2287:A:C4	26:1H:2289:G:C8	3.10	0.40
26:1H:2469:A:H2'	26:1H:2470:G:O4'	2.21	0.40
26:1H:2566:A:H4'	26:1H:2567:G:O5'	2.21	0.40
26:1H:2593:U:O2'	26:1H:2594:C:H5'	2.22	0.40
32:41:129:GLY:O	32:41:161:THR:HB	2.22	0.40
40:A8:18:ILE:HD13	40:A8:88:ASP:HA	2.03	0.40
42:C8:91:ASP:O	42:C8:92:ARG:C	2.60	0.40
1:1G:110:C:H2'	1:1G:111:G:O4'	2.22	0.40
1:1G:113:G:O4'	1:1G:354:G:H4'	2.21	0.40
1:1G:167:G:O2'	1:1G:168:G:H5'	2.21	0.40
1:1G:363:A:P	12:3A:34:ARG:HH21	2.44	0.40
1:1G:429:U:H3'	4:32:9:CYS:SG	2.61	0.40
1:1G:476:G:H2'	1:1G:477:G:H8	1.87	0.40
1:1G:620:C:C6	4:32:135:LEU:HD13	2.56	0.40
1:1G:751:U:H4'	15:6A:24:SER:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:949:A:H1'	1:1G:1364:U:O2	2.21	0.40
1:1G:983:A:H2	1:1G:984:C:C6	2.40	0.40
1:1G:1225:A:H5"	13:4A:103:THR:HG22	2.04	0.40
1:1G:1259:C:HO2'	1:1G:1283:G:H21	1.60	0.40
1:1G:1310:G:O2'	1:1G:1311:G:H5'	2.22	0.40
1:1G:1319:A:H4'	19:AA:70:LYS:NZ	2.37	0.40
2:12:28:PHE:HE1	2:12:188:ALA:HB1	1.86	0.40
3:22:88:ARG:HD2	3:22:88:ARG:N	2.37	0.40
4:32:177:ASP:O	4:32:180:GLY:N	2.38	0.40
5:42:17:ALA:C	5:42:18:ARG:CZ	2.90	0.40
13:4A:89:GLY:CA	13:4A:92:HIS:HB3	2.43	0.40
20:BA:17:ARG:H	20:BA:17:ARG:HG3	1.76	0.40
20:BA:97:ALA:C	20:BA:99:LEU:H	2.25	0.40
24:3L:6:A:N6	24:3L:67:U:H3	2.18	0.40
26:14:7:G:H2'	26:14:8:A:H8	1.82	0.40
26:14:24:G:C6	26:14:25:U:N3	2.90	0.40
26:14:270(C):C:N3	26:14:270(X):G:N2	2.70	0.40
26:14:320:A:H4'	26:14:322:A:N7	2.37	0.40
26:14:831:G:N2	37:35:53:GLY:O	2.54	0.40
26:14:974:G:C4	26:14:989:G:C2	3.10	0.40
26:14:1151:G:C2	26:14:1152:C:C2	3.10	0.40
26:14:1412:A:H2'	26:14:1413:G:H8	1.85	0.40
26:14:2287:A:C2	26:14:2346:A:C2	3.10	0.40
26:14:2678:C:H2'	26:14:2679:A:O4'	2.22	0.40
26:14:2870:C:H2'	26:14:2871:C:O4'	2.22	0.40
27:1J:11:C:H3'	27:1J:12:C:C6	2.57	0.40
27:1J:101:A:OP2	27:1J:101:A:C8	2.74	0.40
31:39:80:ALA:O	31:39:83:PHE:HB2	2.22	0.40
32:49:93:THR:HG22	32:49:95:ARG:CD	2.51	0.40
34:69:68:LEU:HA	34:69:71:ILE:HG12	2.03	0.40
35:15:131:GLN:HG3	35:15:132:ALA:H	1.86	0.40
36:25:22:ILE:HD12	36:25:22:ILE:HA	1.89	0.40
37:35:122:PRO:CB	37:35:141:ALA:HB1	2.52	0.40
38:45:26:TYR:CD1	38:45:27:VAL:CG2	3.03	0.40
40:65:86:ALA:O	40:65:87:PHE:HB2	2.22	0.40
41:75:93:ARG:HG2	41:75:93:ARG:NH1	2.35	0.40
48:E5:24:LYS:O	48:E5:25:ARG:HD3	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	12	203/256 (79%)	172 (85%)	25 (12%)	6 (3%)	4 20
2	1E	231/256 (90%)	188 (81%)	41 (18%)	2 (1%)	17 51
3	22	191/239 (80%)	167 (87%)	24 (13%)	0	100 100
3	2E	203/239 (85%)	181 (89%)	22 (11%)	0	100 100
4	32	206/209 (99%)	183 (89%)	22 (11%)	1 (0%)	29 64
4	3E	205/209 (98%)	190 (93%)	15 (7%)	0	100 100
5	42	147/162 (91%)	140 (95%)	7 (5%)	0	100 100
5	4E	147/162 (91%)	140 (95%)	6 (4%)	1 (1%)	22 56
6	52	99/101 (98%)	97 (98%)	2 (2%)	0	100 100
6	5E	98/101 (97%)	93 (95%)	5 (5%)	0	100 100
7	62	136/156 (87%)	123 (90%)	13 (10%)	0	100 100
7	6E	152/156 (97%)	140 (92%)	12 (8%)	0	100 100
8	72	135/138 (98%)	125 (93%)	7 (5%)	3 (2%)	6 28
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	22 56
9	82	119/128 (93%)	101 (85%)	17 (14%)	1 (1%)	19 53
9	8E	124/128 (97%)	101 (82%)	19 (15%)	4 (3%)	4 19
10	1A	76/105 (72%)	70 (92%)	6 (8%)	0	100 100
10	1I	93/105 (89%)	82 (88%)	10 (11%)	1 (1%)	14 46
11	2A	111/129 (86%)	102 (92%)	7 (6%)	2 (2%)	8 33
11	2I	109/129 (84%)	98 (90%)	10 (9%)	1 (1%)	17 51
12	3A	120/132 (91%)	101 (84%)	14 (12%)	5 (4%)	3 13
12	3I	120/132 (91%)	106 (88%)	11 (9%)	3 (2%)	5 25
13	4A	109/126 (86%)	98 (90%)	9 (8%)	2 (2%)	8 33
13	4I	117/126 (93%)	97 (83%)	20 (17%)	0	100 100
14	5A	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	8 33

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3 17
15	6A	85/89 (96%)	83 (98%)	2 (2%)	0	100 100
15	6I	85/89 (96%)	81 (95%)	4 (5%)	0	100 100
16	7A	82/88 (93%)	76 (93%)	5 (6%)	1 (1%)	13 43
16	7I	81/88 (92%)	79 (98%)	2 (2%)	0	100 100
17	8A	97/105 (92%)	91 (94%)	6 (6%)	0	100 100
17	8I	98/105 (93%)	89 (91%)	7 (7%)	2 (2%)	7 30
18	9A	65/88 (74%)	61 (94%)	4 (6%)	0	100 100
18	9I	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	10 38
19	AA	56/93 (60%)	49 (88%)	5 (9%)	2 (4%)	3 16
19	AI	80/93 (86%)	67 (84%)	8 (10%)	5 (6%)	1 6
20	BA	97/106 (92%)	85 (88%)	10 (10%)	2 (2%)	7 29
20	BI	95/106 (90%)	82 (86%)	13 (14%)	0	100 100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100 100
21	1F	21/27 (78%)	19 (90%)	2 (10%)	0	100 100
28	71	129/229 (56%)	116 (90%)	12 (9%)	1 (1%)	19 53
28	79	45/229 (20%)	40 (89%)	4 (9%)	1 (2%)	6 28
29	11	271/276 (98%)	241 (89%)	21 (8%)	9 (3%)	4 18
29	19	272/276 (99%)	243 (89%)	25 (9%)	4 (2%)	10 38
30	21	200/206 (97%)	154 (77%)	37 (18%)	9 (4%)	2 12
30	29	202/206 (98%)	155 (77%)	35 (17%)	12 (6%)	1 7
31	31	200/210 (95%)	179 (90%)	18 (9%)	3 (2%)	10 38
31	39	202/210 (96%)	159 (79%)	35 (17%)	8 (4%)	3 14
32	41	177/182 (97%)	156 (88%)	18 (10%)	3 (2%)	9 34
32	49	179/182 (98%)	159 (89%)	19 (11%)	1 (1%)	25 60
33	51	172/180 (96%)	138 (80%)	23 (13%)	11 (6%)	1 5
33	59	165/180 (92%)	129 (78%)	30 (18%)	6 (4%)	3 16
34	61	144/148 (97%)	120 (83%)	21 (15%)	3 (2%)	7 29
34	69	143/148 (97%)	113 (79%)	27 (19%)	3 (2%)	7 29
35	15	136/140 (97%)	124 (91%)	11 (8%)	1 (1%)	22 56
35	58	135/140 (96%)	115 (85%)	17 (13%)	3 (2%)	6 28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	25	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
36	68	120/122 (98%)	116 (97%)	4 (3%)	0	100	100
37	35	145/150 (97%)	117 (81%)	27 (19%)	1 (1%)	22	56
37	78	145/150 (97%)	116 (80%)	21 (14%)	8 (6%)	2	8
38	45	137/141 (97%)	115 (84%)	19 (14%)	3 (2%)	6	28
38	88	139/141 (99%)	121 (87%)	12 (9%)	6 (4%)	2	12
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	17	51
39	98	116/118 (98%)	107 (92%)	7 (6%)	2 (2%)	9	34
40	65	108/112 (96%)	91 (84%)	16 (15%)	1 (1%)	17	51
40	A8	109/112 (97%)	92 (84%)	15 (14%)	2 (2%)	8	33
41	75	131/146 (90%)	120 (92%)	8 (6%)	3 (2%)	6	27
41	B8	134/146 (92%)	120 (90%)	12 (9%)	2 (2%)	10	38
42	85	114/118 (97%)	102 (90%)	12 (10%)	0	100	100
42	C8	113/118 (96%)	105 (93%)	3 (3%)	5 (4%)	2	12
43	95	98/101 (97%)	81 (83%)	14 (14%)	3 (3%)	4	19
43	D8	98/101 (97%)	88 (90%)	8 (8%)	2 (2%)	7	30
44	A5	109/113 (96%)	103 (94%)	5 (5%)	1 (1%)	17	51
44	E8	108/113 (96%)	100 (93%)	8 (7%)	0	100	100
45	B5	92/96 (96%)	81 (88%)	9 (10%)	2 (2%)	6	28
45	F8	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	14	46
46	C5	102/110 (93%)	71 (70%)	24 (24%)	7 (7%)	1	4
46	G8	101/110 (92%)	82 (81%)	15 (15%)	4 (4%)	3	14
47	D5	127/206 (62%)	102 (80%)	21 (16%)	4 (3%)	4	19
47	H8	168/206 (82%)	132 (79%)	32 (19%)	4 (2%)	6	26
48	E5	74/85 (87%)	66 (89%)	7 (10%)	1 (1%)	11	39
48	I8	75/85 (88%)	68 (91%)	6 (8%)	1 (1%)	12	41
49	F5	92/98 (94%)	80 (87%)	11 (12%)	1 (1%)	14	46
49	J8	92/98 (94%)	86 (94%)	4 (4%)	2 (2%)	6	28
50	G5	67/72 (93%)	62 (92%)	2 (3%)	3 (4%)	2	12
50	K8	66/72 (92%)	60 (91%)	3 (4%)	3 (4%)	2	12
51	H5	56/60 (93%)	55 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	L8	56/60 (93%)	51 (91%)	5 (9%)	0	100 100
52	I5	61/71 (86%)	28 (46%)	28 (46%)	5 (8%)	1 3
52	M8	57/71 (80%)	39 (68%)	13 (23%)	5 (9%)	1 3
53	J5	54/60 (90%)	50 (93%)	4 (7%)	0	100 100
53	N8	54/60 (90%)	49 (91%)	5 (9%)	0	100 100
54	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100 100
54	P8	45/49 (92%)	43 (96%)	2 (4%)	0	100 100
55	M5	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	4 19
55	Q8	62/65 (95%)	52 (84%)	7 (11%)	3 (5%)	2 11
All	All	11163/12404 (90%)	9756 (87%)	1192 (11%)	215 (2%)	8 32

All (215) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	8E	111	ARG
18	9I	22	VAL
19	AI	41	VAL
30	21	77	ILE
37	78	25	SER
38	88	59	ARG
42	C8	89	GLU
43	D8	45	THR
47	H8	165	VAL
52	M8	5	ILE
52	M8	50	VAL
2	12	219	VAL
8	72	99	GLU
9	82	118	LYS
30	29	25	VAL
31	39	28	ILE
31	39	84	VAL
32	49	5	VAL
39	55	107	ASP
41	75	10	VAL
41	75	11	GLU
47	D5	53	ILE
47	D5	165	VAL
48	E5	33	ALA
49	F5	30	VAL

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Mol	Chain	Res	Type
52	I5	5	ILE
8	7E	86	ILE
12	3I	16	GLU
12	3I	48	PRO
19	AI	9	VAL
19	AI	67	VAL
29	11	122	ASP
30	21	62	PRO
30	21	72	VAL
30	21	118	LYS
33	51	10	PRO
33	51	84	SER
33	51	157	TYR
34	61	83	ALA
38	88	6	ARG
38	88	66	ILE
38	88	134	ARG
42	C8	93	LYS
45	F8	4	ALA
48	I8	10	THR
49	J8	93	GLU
50	K8	48	HIS
55	Q8	50	LEU
2	12	71	VAL
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
16	7A	48	TRP
19	AA	9	VAL
29	19	273	ARG
30	29	9	VAL
30	29	59	VAL
31	39	25	PRO
31	39	128	ALA
31	39	149	ASP
34	69	113	ARG
38	45	27	VAL
40	65	87	PHE
45	B5	68	ARG
46	C5	29	GLU
47	D5	161	VAL
50	G5	48	HIS

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Mol	Chain	Res	Type
10	1I	28	ARG
29	11	3	VAL
29	11	273	ARG
30	21	21	VAL
30	21	64	LYS
32	41	97	ASP
33	51	12	PRO
33	51	138	LYS
34	61	145	VAL
35	58	97	ARG
37	78	15	ARG
42	C8	90	VAL
43	D8	49	THR
46	G8	81	LYS
49	J8	76	ARG
52	M8	53	GLU
55	Q8	35	GLN
2	12	122	PHE
20	BA	13	LEU
29	19	40	THR
30	29	26	ILE
30	29	51	PHE
30	29	78	LEU
31	39	26	ALA
31	39	124	LEU
33	59	92	ILE
46	C5	92	ASN
52	I5	25	TYR
55	M5	34	TRP
2	1E	22	LYS
9	8E	92	TYR
9	8E	112	LYS
11	2I	82	VAL
12	3I	19	ARG
17	8I	17	LYS
30	21	82	ARG
31	31	197	ASP
33	51	137	ASP
33	51	154	PRO
35	58	22	THR
35	58	128	HIS
37	78	14	LYS

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Mol	Chain	Res	Type
37	78	27	HIS
37	78	30	THR
39	98	45	ARG
40	A8	88	ASP
41	B8	106	SER
46	G8	53	PRO
50	K8	43	GLN
50	K8	47	ASN
55	Q8	47	LYS
8	72	98	LYS
13	4A	95	GLY
30	29	81	ILE
30	29	90	THR
31	39	167	ALA
38	45	90	VAL
41	75	94	ALA
43	95	71	LEU
44	A5	44	ALA
46	C5	17	SER
47	D5	61	LEU
50	G5	5	GLU
50	G5	47	ASN
52	I5	33	VAL
55	M5	35	GLN
14	5I	13	THR
14	5I	14	PRO
17	8I	79	SER
28	71	178	ALA
29	11	30	GLU
29	11	40	THR
29	11	240	ALA
30	21	89	ASP
31	31	130	ALA
32	41	96	ARG
33	51	170	ARG
34	61	133	HIS
37	78	19	VAL
39	98	3	HIS
40	A8	4	LEU
52	M8	25	TYR
2	12	101	MET
4	32	153	ARG

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Mol	Chain	Res	Type
8	72	73	ASP
12	3A	19	ARG
12	3A	47	LYS
14	5A	29	ARG
33	59	168	PRO
34	69	111	PRO
35	15	128	HIS
38	45	79	LEU
46	C5	9	LYS
46	C5	19	LYS
5	4E	115	VAL
9	8E	29	ASN
29	11	28	GLU
30	21	52	LEU
32	41	5	VAL
33	51	27	LYS
33	51	87	LEU
38	88	79	LEU
41	B8	110	ILE
42	C8	92	ARG
46	G8	42	VAL
47	H8	94	GLU
52	M8	34	GLU
13	4A	84	ILE
28	79	22	ILE
30	29	52	LEU
30	29	62	PRO
33	59	167	GLU
37	35	57	THR
45	B5	51	VAL
19	AI	40	ILE
29	11	36	PRO
12	3A	96	VAL
43	95	72	VAL
43	95	99	ILE
29	11	123	ALA
37	78	95	VAL
38	88	27	VAL
42	C8	88	ILE
47	H8	53	ILE
47	H8	141	VAL
2	12	39	ILE

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Mol	Chain	Res	Type
11	2A	48	ILE
19	AA	67	VAL
33	59	131	VAL
46	C5	3	VAL
46	C5	30	VAL
2	1E	127	ILE
31	31	132	VAL
2	12	223	ILE
29	19	3	VAL
30	29	61	ARG
33	59	169	VAL
34	69	144	VAL
33	51	133	VAL
37	78	7	ARG
46	G8	76	CYS
20	BA	100	ILE
29	19	36	PRO
30	29	55	ASN
52	I5	31	ILE
52	I5	21	VAL
33	59	126	PRO
19	AI	42	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	12	179/220 (81%)	136 (76%)	43 (24%)	0 2
2	1E	202/220 (92%)	152 (75%)	50 (25%)	0 2
3	22	154/188 (82%)	119 (77%)	35 (23%)	1 3
3	2E	159/188 (85%)	127 (80%)	32 (20%)	1 5
4	32	180/181 (99%)	151 (84%)	29 (16%)	2 10
4	3E	180/181 (99%)	141 (78%)	39 (22%)	1 4
5	42	114/123 (93%)	88 (77%)	26 (23%)	1 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	4E	115/123 (94%)	93 (81%)	22 (19%)	1 6
6	52	90/90 (100%)	79 (88%)	11 (12%)	5 19
6	5E	90/90 (100%)	82 (91%)	8 (9%)	9 32
7	62	114/127 (90%)	91 (80%)	23 (20%)	1 5
7	6E	125/127 (98%)	101 (81%)	24 (19%)	1 6
8	72	118/119 (99%)	94 (80%)	24 (20%)	1 5
8	7E	119/119 (100%)	96 (81%)	23 (19%)	1 6
9	82	92/99 (93%)	67 (73%)	25 (27%)	0 1
9	8E	97/99 (98%)	77 (79%)	20 (21%)	1 4
10	1A	71/92 (77%)	46 (65%)	25 (35%)	0 1
10	1I	81/92 (88%)	66 (82%)	15 (18%)	1 7
11	2A	85/99 (86%)	69 (81%)	16 (19%)	1 7
11	2I	84/99 (85%)	69 (82%)	15 (18%)	2 7
12	3A	103/109 (94%)	84 (82%)	19 (18%)	1 7
12	3I	103/109 (94%)	86 (84%)	17 (16%)	2 9
13	4A	91/101 (90%)	62 (68%)	29 (32%)	0 1
13	4I	94/101 (93%)	72 (77%)	22 (23%)	1 3
14	5A	49/50 (98%)	26 (53%)	23 (47%)	0 0
14	5I	49/50 (98%)	35 (71%)	14 (29%)	0 1
15	6A	79/80 (99%)	74 (94%)	5 (6%)	18 48
15	6I	79/80 (99%)	70 (89%)	9 (11%)	5 21
16	7A	72/74 (97%)	60 (83%)	12 (17%)	2 9
16	7I	72/74 (97%)	55 (76%)	17 (24%)	1 3
17	8A	94/97 (97%)	78 (83%)	16 (17%)	2 9
17	8I	95/97 (98%)	72 (76%)	23 (24%)	0 2
18	9A	58/77 (75%)	45 (78%)	13 (22%)	1 3
18	9I	58/77 (75%)	43 (74%)	15 (26%)	0 2
19	AA	52/80 (65%)	41 (79%)	11 (21%)	1 4
19	AI	72/80 (90%)	60 (83%)	12 (17%)	2 9
20	BA	76/82 (93%)	56 (74%)	20 (26%)	0 2
20	BI	75/82 (92%)	57 (76%)	18 (24%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
21	1B	17/22 (77%)	13 (76%)	4 (24%)	1 3
21	1F	18/22 (82%)	15 (83%)	3 (17%)	2 9
28	71	109/181 (60%)	84 (77%)	25 (23%)	1 3
28	79	48/181 (26%)	37 (77%)	11 (23%)	1 3
29	11	214/218 (98%)	189 (88%)	25 (12%)	5 20
29	19	214/218 (98%)	179 (84%)	35 (16%)	2 9
30	21	155/166 (93%)	121 (78%)	34 (22%)	1 4
30	29	165/166 (99%)	145 (88%)	20 (12%)	5 19
31	31	161/166 (97%)	139 (86%)	22 (14%)	3 15
31	39	163/166 (98%)	129 (79%)	34 (21%)	1 4
32	41	153/156 (98%)	131 (86%)	22 (14%)	3 13
32	49	153/156 (98%)	112 (73%)	41 (27%)	0 2
33	51	143/148 (97%)	104 (73%)	39 (27%)	0 1
33	59	139/148 (94%)	113 (81%)	26 (19%)	1 7
34	61	122/124 (98%)	97 (80%)	25 (20%)	1 5
34	69	122/124 (98%)	93 (76%)	29 (24%)	0 2
35	15	117/119 (98%)	100 (86%)	17 (14%)	3 13
35	58	116/119 (98%)	100 (86%)	16 (14%)	3 14
36	25	100/100 (100%)	83 (83%)	17 (17%)	2 9
36	68	100/100 (100%)	88 (88%)	12 (12%)	5 19
37	35	114/116 (98%)	89 (78%)	25 (22%)	1 4
37	78	114/116 (98%)	91 (80%)	23 (20%)	1 5
38	45	109/111 (98%)	82 (75%)	27 (25%)	0 2
38	88	110/111 (99%)	92 (84%)	18 (16%)	2 9
39	55	101/101 (100%)	86 (85%)	15 (15%)	3 12
39	98	101/101 (100%)	85 (84%)	16 (16%)	2 10
40	65	87/88 (99%)	57 (66%)	30 (34%)	0 1
40	A8	87/88 (99%)	72 (83%)	15 (17%)	2 8
41	75	117/127 (92%)	98 (84%)	19 (16%)	2 10
41	B8	117/127 (92%)	90 (77%)	27 (23%)	1 3
42	85	93/94 (99%)	78 (84%)	15 (16%)	2 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
42	C8	92/94 (98%)	80 (87%)	12 (13%)	4 16
43	95	81/82 (99%)	60 (74%)	21 (26%)	0 2
43	D8	82/82 (100%)	60 (73%)	22 (27%)	0 2
44	A5	91/92 (99%)	74 (81%)	17 (19%)	1 7
44	E8	90/92 (98%)	80 (89%)	10 (11%)	6 22
45	B5	74/78 (95%)	64 (86%)	10 (14%)	4 15
45	F8	75/78 (96%)	69 (92%)	6 (8%)	12 37
46	C5	85/91 (93%)	62 (73%)	23 (27%)	0 1
46	G8	83/91 (91%)	65 (78%)	18 (22%)	1 4
47	D5	118/179 (66%)	90 (76%)	28 (24%)	1 2
47	H8	151/179 (84%)	112 (74%)	39 (26%)	0 2
48	E5	61/67 (91%)	53 (87%)	8 (13%)	4 16
48	I8	62/67 (92%)	53 (86%)	9 (14%)	3 13
49	F5	79/83 (95%)	65 (82%)	14 (18%)	2 8
49	J8	79/83 (95%)	65 (82%)	14 (18%)	2 8
50	G5	63/67 (94%)	42 (67%)	21 (33%)	0 1
50	K8	64/67 (96%)	48 (75%)	16 (25%)	0 2
51	H5	50/52 (96%)	39 (78%)	11 (22%)	1 4
51	L8	50/52 (96%)	40 (80%)	10 (20%)	1 5
52	I5	57/63 (90%)	39 (68%)	18 (32%)	0 1
52	M8	52/63 (82%)	33 (64%)	19 (36%)	0 0
53	J5	48/52 (92%)	34 (71%)	14 (29%)	0 1
53	N8	49/52 (94%)	39 (80%)	10 (20%)	1 5
54	L5	38/42 (90%)	33 (87%)	5 (13%)	4 16
54	P8	38/42 (90%)	32 (84%)	6 (16%)	2 10
55	M5	54/55 (98%)	42 (78%)	12 (22%)	1 3
55	Q8	54/55 (98%)	48 (89%)	6 (11%)	6 22
All	All	9419/10256 (92%)	7533 (80%)	1886 (20%)	1 5

All (1886) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	6	THR

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Mol	Chain	Res	Type
2	1E	11	LEU
2	1E	21	ARG
2	1E	23	ARG
2	1E	24	TRP
2	1E	27	LYS
2	1E	28	PHE
2	1E	30	ARG
2	1E	32	ILE
2	1E	43	ASP
2	1E	45	GLN
2	1E	67	THR
2	1E	71	VAL
2	1E	76	GLN
2	1E	80	ILE
2	1E	84	GLU
2	1E	87	ARG
2	1E	95	GLN
2	1E	96	ARG
2	1E	107	THR
2	1E	112	VAL
2	1E	115	LEU
2	1E	118	LEU
2	1E	127	ILE
2	1E	130	ARG
2	1E	134	GLU
2	1E	137	ARG
2	1E	138	LEU
2	1E	154	LEU
2	1E	155	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	169	LYS
2	1E	178	ARG
2	1E	179	LYS
2	1E	180	LEU
2	1E	184	VAL
2	1E	185	ILE
2	1E	196	LEU
2	1E	197	VAL
2	1E	200	ILE
2	1E	205	ASP
2	1E	212	GLN

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Mol	Chain	Res	Type
2	1E	213	LEU
2	1E	214	ILE
2	1E	215	LEU
2	1E	217	ARG
2	1E	223	ILE
2	1E	230	VAL
2	1E	238	LEU
3	2E	3	ASN
3	2E	15	THR
3	2E	18	TRP
3	2E	21	ARG
3	2E	28	GLN
3	2E	29	TYR
3	2E	33	LEU
3	2E	36	ASP
3	2E	45	LYS
3	2E	47	LEU
3	2E	49	SER
3	2E	54	ARG
3	2E	64	VAL
3	2E	67	THR
3	2E	68	VAL
3	2E	72	LYS
3	2E	79	ARG
3	2E	83	ARG
3	2E	85	ARG
3	2E	87	LEU
3	2E	89	GLU
3	2E	90	GLU
3	2E	91	LEU
3	2E	104	GLN
3	2E	116	VAL
3	2E	138	VAL
3	2E	151	VAL
3	2E	166	GLU
3	2E	167	TRP
3	2E	190	ARG
3	2E	192	THR
3	2E	206	GLU
4	3E	3	ARG
4	3E	8	VAL
4	3E	11	LEU

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Mol	Chain	Res	Type
4	3E	12	CYS
4	3E	18	LYS
4	3E	19	LEU
4	3E	21	LEU
4	3E	25	ARG
4	3E	31	CYS
4	3E	46	LYS
4	3E	47	ARG
4	3E	61	LYS
4	3E	76	ARG
4	3E	78	LEU
4	3E	84	LYS
4	3E	86	LYS
4	3E	99	SER
4	3E	106	TYR
4	3E	107	ARG
4	3E	120	LEU
4	3E	121	VAL
4	3E	127	THR
4	3E	132	ARG
4	3E	150	GLU
4	3E	154	ASN
4	3E	166	LYS
4	3E	168	ARG
4	3E	174	LEU
4	3E	176	LEU
4	3E	177	ASP
4	3E	178	VAL
4	3E	182	LYS
4	3E	187	ARG
4	3E	191	ARG
4	3E	194	LEU
4	3E	196	LEU
4	3E	198	VAL
4	3E	200	GLU
4	3E	209	ARG
5	4E	5	ASP
5	4E	11	ILE
5	4E	18	ARG
5	4E	40	ARG
5	4E	41	VAL
5	4E	47	LYS

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Mol	Chain	Res	Type
5	4E	51	VAL
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	73	ASN
5	4E	79	GLU
5	4E	82	VAL
5	4E	105	VAL
5	4E	109	ILE
5	4E	110	LEU
5	4E	117	ASP
5	4E	139	LEU
5	4E	142	LEU
5	4E	145	LYS
5	4E	148	VAL
5	4E	153	LYS
6	5E	21	LEU
6	5E	46	ARG
6	5E	55	ASP
6	5E	60	PHE
6	5E	64	GLN
6	5E	72	VAL
6	5E	74	ASP
6	5E	86	ARG
7	6E	3	ARG
7	6E	4	ARG
7	6E	5	ARG
7	6E	6	ARG
7	6E	12	LEU
7	6E	13	GLN
7	6E	17	VAL
7	6E	23	VAL
7	6E	32	ARG
7	6E	47	CYS
7	6E	54	THR
7	6E	60	LYS
7	6E	61	VAL
7	6E	66	VAL
7	6E	73	MET
7	6E	75	VAL
7	6E	87	VAL
7	6E	89	MET

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Mol	Chain	Res	Type
7	6E	90	GLU
7	6E	97	GLN
7	6E	113	GLU
7	6E	135	VAL
7	6E	138	LYS
7	6E	155	ARG
8	7E	1	MET
8	7E	6	ILE
8	7E	19	VAL
8	7E	24	THR
8	7E	32	LYS
8	7E	39	LEU
8	7E	50	ARG
8	7E	52	ASP
8	7E	60	ARG
8	7E	63	LEU
8	7E	69	ARG
8	7E	75	ARG
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	84	ARG
8	7E	95	VAL
8	7E	97	VAL
8	7E	98	LYS
8	7E	99	GLU
8	7E	109	ILE
8	7E	114	THR
8	7E	133	LEU
9	8E	3	GLN
9	8E	19	LEU
9	8E	28	VAL
9	8E	38	GLN
9	8E	47	LEU
9	8E	48	GLU
9	8E	54	ASP
9	8E	63	ILE
9	8E	66	ARG
9	8E	70	LYS
9	8E	74	ILE
9	8E	88	TYR
9	8E	91	ASP

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Mol	Chain	Res	Type
9	8E	92	TYR
9	8E	93	ARG
9	8E	96	LEU
9	8E	99	LEU
9	8E	112	LYS
9	8E	113	LYS
9	8E	118	LYS
10	1I	8	LEU
10	1I	17	ASP
10	1I	24	VAL
10	1I	28	ARG
10	1I	29	ARG
10	1I	48	THR
10	1I	49	VAL
10	1I	55	LYS
10	1I	57	LYS
10	1I	64	GLU
10	1I	81	THR
10	1I	86	MET
10	1I	87	THR
10	1I	95	GLU
10	1I	96	ILE
11	2I	18	ARG
11	2I	25	TYR
11	2I	28	THR
11	2I	30	VAL
11	2I	70	LYS
11	2I	79	SER
11	2I	84	VAL
11	2I	93	GLN
11	2I	104	GLN
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	117	ASN
11	2I	122	LYS
11	2I	124	LYS
12	3I	8	ASN
12	3I	16	GLU
12	3I	18	VAL
12	3I	19	ARG
12	3I	20	LYS

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Mol	Chain	Res	Type
12	3I	22	SER
12	3I	33	ARG
12	3I	46	LYS
12	3I	60	LEU
12	3I	62	SER
12	3I	64	TYR
12	3I	78	GLN
12	3I	81	SER
12	3I	100	ILE
12	3I	115	LYS
12	3I	116	SER
12	3I	122	THR
13	4I	3	ARG
13	4I	8	GLU
13	4I	13	LYS
13	4I	17	VAL
13	4I	25	ILE
13	4I	27	LYS
13	4I	32	GLU
13	4I	34	LEU
13	4I	44	ARG
13	4I	47	ASP
13	4I	49	THR
13	4I	57	ARG
13	4I	60	VAL
13	4I	80	ARG
13	4I	90	LEU
13	4I	96	LEU
13	4I	102	ARG
13	4I	105	THR
13	4I	110	ARG
13	4I	114	ARG
13	4I	115	LYS
13	4I	117	VAL
14	5I	4	LYS
14	5I	12	ARG
14	5I	17	LYS
14	5I	18	VAL
14	5I	22	THR
14	5I	23	ARG
14	5I	24	CYS
14	5I	29	ARG

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Mol	Chain	Res	Type
14	5I	32	SER
14	5I	33	VAL
14	5I	35	ARG
14	5I	40	CYS
14	5I	41	ARG
14	5I	53	LEU
15	6I	10	LYS
15	6I	25	THR
15	6I	36	ILE
15	6I	47	LYS
15	6I	59	MET
15	6I	60	VAL
15	6I	64	ARG
15	6I	71	GLN
15	6I	72	ARG
16	7I	5	ARG
16	7I	6	LEU
16	7I	12	LYS
16	7I	19	ILE
16	7I	25	ARG
16	7I	28	ARG
16	7I	29	ASP
16	7I	31	LYS
16	7I	32	TYR
16	7I	34	GLU
16	7I	35	LYS
16	7I	38	TYR
16	7I	71	ARG
16	7I	72	ARG
16	7I	76	GLN
16	7I	80	PHE
16	7I	83	GLU
17	8I	9	VAL
17	8I	10	VAL
17	8I	14	LYS
17	8I	15	MET
17	8I	17	LYS
17	8I	19	VAL
17	8I	22	LEU
17	8I	24	GLU
17	8I	34	LYS
17	8I	38	ARG

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Mol	Chain	Res	Type
17	8I	45	HIS
17	8I	48	GLU
17	8I	56	VAL
17	8I	57	VAL
17	8I	60	ILE
17	8I	62	SER
17	8I	63	ARG
17	8I	67	LYS
17	8I	69	LYS
17	8I	81	ARG
17	8I	91	ARG
17	8I	100	LYS
17	8I	101	ARG
18	9I	22	VAL
18	9I	25	THR
18	9I	33	ASP
18	9I	37	VAL
18	9I	42	ARG
18	9I	47	THR
18	9I	49	LYS
18	9I	50	ILE
18	9I	55	ARG
18	9I	58	LEU
18	9I	76	LEU
18	9I	82	THR
18	9I	84	LYS
18	9I	85	LEU
18	9I	86	VAL
19	AI	9	VAL
19	AI	13	ASP
19	AI	19	VAL
19	AI	29	ARG
19	AI	31	ILE
19	AI	36	ARG
19	AI	48	THR
19	AI	49	ILE
19	AI	56	GLN
19	AI	62	ILE
19	AI	77	THR
19	AI	78	ARG
20	BI	10	LEU
20	BI	13	LEU

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Mol	Chain	Res	Type
20	BI	16	HIS
20	BI	20	LEU
20	BI	35	THR
20	BI	37	SER
20	BI	50	GLU
20	BI	51	GLU
20	BI	56	MET
20	BI	72	LEU
20	BI	74	LYS
20	BI	75	ASN
20	BI	80	ARG
20	BI	82	SER
20	BI	83	ARG
20	BI	86	ARG
20	BI	87	LYS
20	BI	89	ARG
21	1F	6	ARG
21	1F	9	ARG
21	1F	10	ARG
28	71	6	ARG
28	71	7	TYR
28	71	8	ARG
28	71	10	LEU
28	71	20	TYR
28	71	22	ILE
28	71	24	GLU
28	71	28	LEU
28	71	32	LEU
28	71	34	THR
28	71	44	HIS
28	71	46	LYS
28	71	47	LEU
28	71	166	ASP
28	71	168	THR
28	71	172	HIS
28	71	175	VAL
28	71	180	PHE
28	71	183	GLU
28	71	184	LYS
28	71	185	LEU
28	71	199	HIS
28	71	210	ARG

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Mol	Chain	Res	Type
28	71	212	VAL
28	71	223	ARG
29	11	4	LYS
29	11	5	LYS
29	11	17	THR
29	11	26	LYS
29	11	33	LEU
29	11	35	LYS
29	11	37	LEU
29	11	64	ILE
29	11	88	ARG
29	11	101	GLU
29	11	105	ILE
29	11	113	VAL
29	11	140	THR
29	11	173	VAL
29	11	192	THR
29	11	205	VAL
29	11	208	LYS
29	11	211	ARG
29	11	229	VAL
29	11	233	HIS
29	11	242	ARG
29	11	254	THR
29	11	255	LYS
29	11	259	THR
29	11	266	SER
30	21	1	MET
30	21	2	LYS
30	21	14	ILE
30	21	23	VAL
30	21	25	VAL
30	21	33	VAL
30	21	38	THR
30	21	45	THR
30	21	49	LEU
30	21	52	LEU
30	21	60	ASN
30	21	63	LEU
30	21	66	HIS
30	21	72	VAL
30	21	73	GLU

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Mol	Chain	Res	Type
30	21	78	LEU
30	21	90	THR
30	21	93	VAL
30	21	95	ILE
30	21	102	VAL
30	21	111	ARG
30	21	113	PHE
30	21	116	VAL
30	21	128	SER
30	21	145	LYS
30	21	146	THR
30	21	164	ARG
30	21	165	VAL
30	21	167	VAL
30	21	179	GLU
30	21	184	VAL
30	21	197	ILE
30	21	201	THR
30	21	203	LYS
31	31	15	SER
31	31	17	ARG
31	31	18	ARG
31	31	27	GLU
31	31	38	ARG
31	31	43	LYS
31	31	64	ILE
31	31	67	GLN
31	31	106	ARG
31	31	119	ARG
31	31	124	LEU
31	31	136	THR
31	31	137	LYS
31	31	140	LEU
31	31	145	GLU
31	31	158	THR
31	31	161	GLU
31	31	163	VAL
31	31	168	ARG
31	31	188	ARG
31	31	200	GLU
31	31	203	GLN
32	41	7	LEU

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Mol	Chain	Res	Type
32	41	9	ARG
32	41	15	VAL
32	41	33	ARG
32	41	38	VAL
32	41	45	GLU
32	41	48	GLU
32	41	51	ARG
32	41	75	LYS
32	41	80	PHE
32	41	82	LEU
32	41	83	ARG
32	41	84	LYS
32	41	93	THR
32	41	96	ARG
32	41	101	ILE
32	41	108	ASN
32	41	115	ARG
32	41	116	ASP
32	41	118	ARG
32	41	126	ASP
32	41	149	VAL
33	51	2	SER
33	51	6	ARG
33	51	7	LEU
33	51	9	ILE
33	51	11	VAL
33	51	13	LYS
33	51	18	GLU
33	51	33	LEU
33	51	35	VAL
33	51	37	VAL
33	51	41	MET
33	51	42	ARG
33	51	49	VAL
33	51	56	SER
33	51	59	ARG
33	51	60	ARG
33	51	61	HIS
33	51	62	LYS
33	51	70	THR
33	51	77	LYS
33	51	80	SER

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Mol	Chain	Res	Type
33	51	81	GLU
33	51	85	LYS
33	51	88	LEU
33	51	95	ARG
33	51	98	LEU
33	51	99	VAL
33	51	101	ARG
33	51	104	GLU
33	51	105	LEU
33	51	119	GLU
33	51	121	ILE
33	51	127	GLU
33	51	129	THR
33	51	133	VAL
33	51	136	ILE
33	51	141	VAL
33	51	153	LYS
33	51	167	GLU
34	61	9	LEU
34	61	25	TYR
34	61	47	LEU
34	61	48	GLU
34	61	67	ARG
34	61	68	LEU
34	61	70	GLU
34	61	72	LEU
34	61	73	GLU
34	61	92	VAL
34	61	95	LYS
34	61	102	SER
34	61	108	THR
34	61	109	ILE
34	61	110	ASP
34	61	111	PRO
34	61	113	ARG
34	61	118	LYS
34	61	120	ILE
34	61	127	VAL
34	61	129	THR
34	61	131	LYS
34	61	135	GLU
34	61	141	LYS

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Mol	Chain	Res	Type
34	61	142	VAL
35	58	7	LYS
35	58	28	THR
35	58	29	LYS
35	58	39	ARG
35	58	48	MET
35	58	58	ASP
35	58	65	LYS
35	58	67	LEU
35	58	71	ILE
35	58	89	LYS
35	58	96	GLU
35	58	120	LEU
35	58	127	ASP
35	58	128	HIS
35	58	131	GLN
35	58	134	ARG
36	68	1	MET
36	68	9	GLU
36	68	17	ARG
36	68	18	LYS
36	68	21	CYS
36	68	24	VAL
36	68	62	VAL
36	68	64	ARG
36	68	66	LYS
36	68	78	ARG
36	68	96	THR
36	68	120	GLU
37	78	6	LEU
37	78	7	ARG
37	78	10	PRO
37	78	15	ARG
37	78	16	ARG
37	78	25	SER
37	78	27	HIS
37	78	30	THR
37	78	55	ARG
37	78	56	SER
37	78	58	THR
37	78	75	ILE
37	78	77	ARG

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Mol	Chain	Res	Type
37	78	83	VAL
37	78	88	LEU
37	78	98	GLU
37	78	99	LEU
37	78	101	VAL
37	78	105	LEU
37	78	126	VAL
37	78	133	SER
37	78	144	GLU
37	78	146	VAL
38	88	6	ARG
38	88	7	MET
38	88	18	LYS
38	88	21	THR
38	88	25	ASP
38	88	26	TYR
38	88	27	VAL
38	88	45	GLN
38	88	59	ARG
38	88	66	ILE
38	88	79	LEU
38	88	98	LYS
38	88	103	MET
38	88	109	VAL
38	88	110	THR
38	88	129	THR
38	88	138	ASP
38	88	141	GLN
39	98	1	MET
39	98	2	ARG
39	98	6	SER
39	98	9	LYS
39	98	10	LEU
39	98	24	GLN
39	98	28	LEU
39	98	34	ILE
39	98	38	VAL
39	98	57	ARG
39	98	59	ASP
39	98	79	LEU
39	98	99	LYS
39	98	107	ASP

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Mol	Chain	Res	Type
39	98	114	VAL
39	98	118	GLU
40	A8	4	LEU
40	A8	28	VAL
40	A8	33	LYS
40	A8	36	TYR
40	A8	42	ASP
40	A8	47	THR
40	A8	56	LEU
40	A8	58	LEU
40	A8	68	GLN
40	A8	69	VAL
40	A8	83	LYS
40	A8	89	ARG
40	A8	93	LYS
40	A8	106	ARG
40	A8	110	LEU
41	B8	2	ASN
41	B8	6	LEU
41	B8	16	ARG
41	B8	17	THR
41	B8	18	ASP
41	B8	27	THR
41	B8	30	VAL
41	B8	49	VAL
41	B8	55	ASN
41	B8	58	ASN
41	B8	62	THR
41	B8	64	ARG
41	B8	65	LYS
41	B8	70	VAL
41	B8	74	ARG
41	B8	88	ILE
41	B8	96	ARG
41	B8	99	LEU
41	B8	104	ASN
41	B8	106	SER
41	B8	107	ASP
41	B8	108	ARG
41	B8	109	GLU
41	B8	111	ARG
41	B8	112	ARG

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Mol	Chain	Res	Type
41	B8	115	ARG
41	B8	118	ARG
42	C8	8	VAL
42	C8	31	SER
42	C8	52	ARG
42	C8	63	VAL
42	C8	74	LEU
42	C8	77	SER
42	C8	84	LYS
42	C8	85	LYS
42	C8	92	ARG
42	C8	95	LEU
42	C8	105	VAL
42	C8	112	ARG
43	D8	7	THR
43	D8	12	TYR
43	D8	18	LEU
43	D8	21	ARG
43	D8	24	LYS
43	D8	25	LEU
43	D8	35	LEU
43	D8	37	VAL
43	D8	38	LEU
43	D8	40	LEU
43	D8	49	THR
43	D8	57	VAL
43	D8	62	LEU
43	D8	64	HIS
43	D8	70	ILE
43	D8	71	LEU
43	D8	73	SER
43	D8	78	LYS
43	D8	79	VAL
43	D8	85	LYS
43	D8	89	GLN
43	D8	98	GLU
44	E8	21	VAL
44	E8	28	SER
44	E8	39	THR
44	E8	51	LEU
44	E8	68	ARG
44	E8	76	VAL

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Mol	Chain	Res	Type
44	E8	78	GLU
44	E8	90	ARG
44	E8	92	ARG
44	E8	98	LYS
45	F8	27	THR
45	F8	38	GLU
45	F8	66	LEU
45	F8	68	ARG
45	F8	87	GLN
45	F8	93	GLU
46	G8	4	LYS
46	G8	6	HIS
46	G8	12	THR
46	G8	19	LYS
46	G8	21	LYS
46	G8	30	VAL
46	G8	38	ILE
46	G8	44	ILE
46	G8	52	SER
46	G8	55	TYR
46	G8	64	GLU
46	G8	75	ILE
46	G8	85	VAL
46	G8	88	LYS
46	G8	94	LYS
46	G8	96	ILE
46	G8	101	LYS
46	G8	102	CYS
47	H8	4	ARG
47	H8	5	LEU
47	H8	10	ARG
47	H8	11	GLU
47	H8	20	ARG
47	H8	33	LEU
47	H8	39	VAL
47	H8	41	LEU
47	H8	42	VAL
47	H8	61	LEU
47	H8	71	VAL
47	H8	72	ARG
47	H8	73	GLN
47	H8	74	VAL

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Mol	Chain	Res	Type
47	H8	76	LEU
47	H8	77	ASP
47	H8	80	ARG
47	H8	82	ARG
47	H8	84	GLU
47	H8	93	ASP
47	H8	96	VAL
47	H8	102	LEU
47	H8	103	ARG
47	H8	105	VAL
47	H8	107	THR
47	H8	112	ARG
47	H8	117	LEU
47	H8	120	ILE
47	H8	125	LEU
47	H8	127	LYS
47	H8	128	VAL
47	H8	129	SER
47	H8	132	ASN
47	H8	137	ILE
47	H8	140	ASP
47	H8	142	SER
47	H8	148	ASP
47	H8	155	LEU
47	H8	157	LEU
48	I8	29	GLN
48	I8	36	ILE
48	I8	38	VAL
48	I8	43	THR
48	I8	53	MET
48	I8	60	PHE
48	I8	67	VAL
48	I8	68	GLU
48	I8	74	ARG
49	J8	21	ARG
49	J8	25	LYS
49	J8	26	ARG
49	J8	49	VAL
49	J8	52	ARG
49	J8	59	THR
49	J8	67	ILE
49	J8	80	LEU

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Mol	Chain	Res	Type
49	J8	82	LEU
49	J8	86	SER
49	J8	88	LYS
49	J8	91	LYS
49	J8	93	GLU
49	J8	94	LEU
50	K8	3	LEU
50	K8	8	LYS
50	K8	14	ARG
50	K8	15	LYS
50	K8	17	SER
50	K8	19	VAL
50	K8	28	LYS
50	K8	32	LEU
50	K8	38	GLN
50	K8	41	ILE
50	K8	47	ASN
50	K8	48	HIS
50	K8	51	ARG
50	K8	59	ARG
50	K8	62	THR
50	K8	67	LYS
51	L8	6	VAL
51	L8	13	ILE
51	L8	31	LEU
51	L8	32	GLN
51	L8	36	VAL
51	L8	40	THR
51	L8	44	ARG
51	L8	55	ARG
51	L8	56	VAL
51	L8	57	GLU
52	M8	8	LYS
52	M8	10	VAL
52	M8	15	ILE
52	M8	16	CYS
52	M8	20	ASN
52	M8	21	VAL
52	M8	23	GLU
52	M8	24	THR
52	M8	27	THR
52	M8	30	GLU

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Mol	Chain	Res	Type
52	M8	34	GLU
52	M8	36	CYS
52	M8	38	LYS
52	M8	44	THR
52	M8	47	GLN
52	M8	51	ASP
52	M8	52	THR
52	M8	55	ARG
52	M8	61	ARG
53	N8	3	LYS
53	N8	6	VAL
53	N8	8	LYS
53	N8	9	LYS
53	N8	11	THR
53	N8	15	ARG
53	N8	26	THR
53	N8	44	THR
53	N8	49	CYS
53	N8	55	ARG
54	P8	1	MET
54	P8	4	THR
54	P8	8	ASN
54	P8	12	ARG
54	P8	41	ARG
54	P8	42	LEU
55	Q8	6	THR
55	Q8	26	LYS
55	Q8	34	TRP
55	Q8	35	GLN
55	Q8	46	ARG
55	Q8	59	LYS
2	12	15	VAL
2	12	19	HIS
2	12	21	ARG
2	12	23	ARG
2	12	24	TRP
2	12	31	TYR
2	12	35	GLU
2	12	36	ARG
2	12	41	ILE
2	12	45	GLN
2	12	50	GLU

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Mol	Chain	Res	Type
2	12	51	LEU
2	12	56	ARG
2	12	61	LEU
2	12	71	VAL
2	12	80	ILE
2	12	95	GLN
2	12	101	MET
2	12	102	LEU
2	12	106	LYS
2	12	107	THR
2	12	108	ILE
2	12	111	ARG
2	12	115	LEU
2	12	117	GLU
2	12	118	LEU
2	12	126	GLU
2	12	127	ILE
2	12	136	VAL
2	12	142	LEU
2	12	144	ARG
2	12	154	LEU
2	12	155	LEU
2	12	158	LEU
2	12	164	VAL
2	12	172	ILE
2	12	179	LYS
2	12	180	LEU
2	12	196	LEU
2	12	200	ILE
2	12	201	ILE
2	12	208	ILE
2	12	221	LEU
3	22	4	LYS
3	22	16	ARG
3	22	21	ARG
3	22	22	TRP
3	22	27	LYS
3	22	29	TYR
3	22	32	LEU
3	22	33	LEU
3	22	39	ILE
3	22	40	ARG

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Mol	Chain	Res	Type
3	22	42	LEU
3	22	44	GLU
3	22	46	GLU
3	22	47	LEU
3	22	52	LEU
3	22	55	VAL
3	22	87	LEU
3	22	90	GLU
3	22	94	LEU
3	22	97	LYS
3	22	106	VAL
3	22	115	LEU
3	22	119	ARG
3	22	124	ILE
3	22	134	ILE
3	22	138	VAL
3	22	141	VAL
3	22	144	SER
3	22	150	LYS
3	22	157	ILE
3	22	172	ARG
3	22	188	LEU
3	22	192	THR
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	12	CYS
4	32	13	ARG
4	32	24	GLU
4	32	30	LYS
4	32	35	ARG
4	32	46	LYS
4	32	57	ARG
4	32	61	LYS
4	32	70	ILE
4	32	78	LEU
4	32	85	LYS
4	32	96	LEU
4	32	107	ARG
4	32	132	ARG
4	32	135	LEU
4	32	140	VAL

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Mol	Chain	Res	Type
4	32	141	ARG
4	32	155	LEU
4	32	158	ILE
4	32	168	ARG
4	32	174	LEU
4	32	186	LEU
4	32	187	ARG
4	32	190	ASP
4	32	196	LEU
4	32	200	GLU
4	32	202	LEU
4	32	209	ARG
5	42	8	GLU
5	42	10	MET
5	42	13	ILE
5	42	16	THR
5	42	18	ARG
5	42	24	ARG
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	47	LYS
5	42	51	VAL
5	42	53	LEU
5	42	68	GLU
5	42	71	LEU
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	87	SER
5	42	91	LEU
5	42	100	VAL
5	42	101	ILE
5	42	107	ARG
5	42	136	MET
5	42	140	ARG
5	42	142	LEU
5	42	144	THR
6	52	3	ARG
6	52	14	LEU
6	52	15	ASP
6	52	21	LEU

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Mol	Chain	Res	Type
6	52	40	VAL
6	52	46	ARG
6	52	64	GLN
6	52	72	VAL
6	52	74	ASP
6	52	79	LEU
6	52	93	SER
7	62	4	ARG
7	62	5	ARG
7	62	6	ARG
7	62	12	LEU
7	62	16	LEU
7	62	22	LEU
7	62	32	ARG
7	62	35	LYS
7	62	36	LYS
7	62	41	ARG
7	62	49	ILE
7	62	51	GLN
7	62	52	GLU
7	62	54	THR
7	62	57	GLU
7	62	70	LYS
7	62	91	VAL
7	62	131	LYS
7	62	138	LYS
7	62	143	ARG
7	62	144	MET
7	62	148	ASN
7	62	149	ARG
8	72	18	ARG
8	72	21	LYS
8	72	23	SER
8	72	24	THR
8	72	25	ASP
8	72	29	SER
8	72	39	LEU
8	72	41	ARG
8	72	50	ARG
8	72	51	VAL
8	72	52	ASP
8	72	73	ASP

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Mol	Chain	Res	Type
8	72	80	ILE
8	72	82	HIS
8	72	88	LYS
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	103	VAL
8	72	109	ILE
8	72	116	LYS
8	72	118	VAL
8	72	122	ARG
8	72	126	LYS
9	82	11	LYS
9	82	12	GLU
9	82	27	THR
9	82	29	ASN
9	82	36	TYR
9	82	40	LEU
9	82	48	GLU
9	82	51	ARG
9	82	53	VAL
9	82	54	ASP
9	82	56	LEU
9	82	64	THR
9	82	66	ARG
9	82	70	LYS
9	82	78	LYS
9	82	85	LEU
9	82	91	ASP
9	82	93	ARG
9	82	95	LYS
9	82	96	LEU
9	82	104	ARG
9	82	107	ARG
9	82	117	HIS
9	82	121	ARG
9	82	124	GLN
10	1A	13	HIS
10	1A	17	ASP
10	1A	19	SER
10	1A	21	GLN
10	1A	22	LYS

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Mol	Chain	Res	Type
10	1A	28	ARG
10	1A	29	ARG
10	1A	47	PHE
10	1A	48	THR
10	1A	50	ILE
10	1A	51	ARG
10	1A	55	LYS
10	1A	57	LYS
10	1A	58	ASP
10	1A	59	SER
10	1A	66	ARG
10	1A	67	THR
10	1A	70	ARG
10	1A	74	ILE
10	1A	75	ILE
10	1A	78	ASN
10	1A	79	ARG
10	1A	80	LYS
10	1A	83	GLU
10	1A	92	THR
11	2A	21	ILE
11	2A	33	THR
11	2A	43	SER
11	2A	47	VAL
11	2A	51	LYS
11	2A	54	ARG
11	2A	82	VAL
11	2A	87	THR
11	2A	91	ARG
11	2A	103	LEU
11	2A	109	VAL
11	2A	112	THR
11	2A	116	HIS
11	2A	119	CYS
11	2A	124	LYS
11	2A	126	ARG
12	3A	13	LYS
12	3A	17	LYS
12	3A	19	ARG
12	3A	21	LYS
12	3A	27	LEU
12	3A	34	ARG

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Mol	Chain	Res	Type
12	3A	36	VAL
12	3A	41	ARG
12	3A	46	LYS
12	3A	54	LYS
12	3A	57	LYS
12	3A	59	ARG
12	3A	60	LEU
12	3A	61	THR
12	3A	73	GLU
12	3A	78	GLN
12	3A	85	ILE
12	3A	89	ARG
12	3A	123	LYS
13	4A	11	ARG
13	4A	19	LEU
13	4A	25	ILE
13	4A	27	LYS
13	4A	39	ILE
13	4A	46	LYS
13	4A	47	ASP
13	4A	48	LEU
13	4A	52	GLU
13	4A	56	LEU
13	4A	69	GLU
13	4A	70	LEU
13	4A	73	GLU
13	4A	78	ILE
13	4A	81	LEU
13	4A	84	ILE
13	4A	86	CYS
13	4A	91	ARG
13	4A	92	HIS
13	4A	93	ARG
13	4A	94	ARG
13	4A	99	ARG
13	4A	102	ARG
13	4A	103	THR
13	4A	108	ARG
13	4A	109	THR
13	4A	110	ARG
13	4A	115	LYS
13	4A	117	VAL

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Mol	Chain	Res	Type
14	5A	3	ARG
14	5A	6	LEU
14	5A	11	LYS
14	5A	12	ARG
14	5A	15	LYS
14	5A	16	PHE
14	5A	17	LYS
14	5A	18	VAL
14	5A	22	THR
14	5A	23	ARG
14	5A	24	CYS
14	5A	26	ARG
14	5A	32	SER
14	5A	41	ARG
14	5A	42	ILE
14	5A	43	CYS
14	5A	44	LEU
14	5A	46	GLU
14	5A	47	LEU
14	5A	53	LEU
14	5A	56	VAL
14	5A	57	ARG
14	5A	58	LYS
15	6A	3	ILE
15	6A	5	LYS
15	6A	11	VAL
15	6A	27	VAL
15	6A	62	GLN
16	7A	5	ARG
16	7A	6	LEU
16	7A	19	ILE
16	7A	35	LYS
16	7A	45	THR
16	7A	48	TRP
16	7A	51	VAL
16	7A	53	VAL
16	7A	74	LEU
16	7A	75	ARG
16	7A	76	GLN
16	7A	79	VAL
17	8A	5	VAL
17	8A	6	LEU

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Mol	Chain	Res	Type
17	8A	11	VAL
17	8A	14	LYS
17	8A	20	THR
17	8A	22	LEU
17	8A	25	ARG
17	8A	52	LYS
17	8A	53	LEU
17	8A	63	ARG
17	8A	74	LEU
17	8A	77	VAL
17	8A	84	LEU
17	8A	85	VAL
17	8A	92	ARG
17	8A	93	GLN
18	9A	26	LEU
18	9A	29	PHE
18	9A	31	LEU
18	9A	42	ARG
18	9A	47	THR
18	9A	50	ILE
18	9A	53	ARG
18	9A	56	THR
18	9A	66	LEU
18	9A	82	THR
18	9A	84	LYS
18	9A	85	LEU
18	9A	86	VAL
19	AA	7	LYS
19	AA	9	VAL
19	AA	12	ASP
19	AA	15	LEU
19	AA	16	LEU
19	AA	18	LYS
19	AA	23	ASN
19	AA	41	VAL
19	AA	53	ASN
19	AA	55	LYS
19	AA	67	VAL
20	BA	8	ARG
20	BA	10	LEU
20	BA	13	LEU
20	BA	24	LEU

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Mol	Chain	Res	Type
20	BA	33	ILE
20	BA	34	LYS
20	BA	35	THR
20	BA	39	LYS
20	BA	41	ILE
20	BA	45	GLN
20	BA	50	GLU
20	BA	51	GLU
20	BA	53	LEU
20	BA	73	HIS
20	BA	74	LYS
20	BA	75	ASN
20	BA	87	LYS
20	BA	88	VAL
20	BA	93	GLU
20	BA	99	LEU
21	1B	6	ARG
21	1B	7	ARG
21	1B	10	ARG
21	1B	15	ARG
28	79	8	ARG
28	79	17	ASN
28	79	46	LYS
28	79	47	LEU
28	79	49	ILE
28	79	52	ARG
28	79	57	ASN
28	79	168	THR
28	79	200	LYS
28	79	207	THR
28	79	209	LEU
29	19	13	ARG
29	19	18	VAL
29	19	20	ASP
29	19	27	THR
29	19	28	GLU
29	19	30	GLU
29	19	34	VAL
29	19	35	LYS
29	19	38	LYS
29	19	39	LYS
29	19	46	GLN

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Mol	Chain	Res	Type
29	19	64	ILE
29	19	69	ARG
29	19	72	LYS
29	19	73	VAL
29	19	78	LYS
29	19	87	ASN
29	19	99	ASP
29	19	105	ILE
29	19	111	LEU
29	19	113	VAL
29	19	116	GLN
29	19	127	VAL
29	19	141	VAL
29	19	147	LEU
29	19	173	VAL
29	19	192	THR
29	19	196	VAL
29	19	213	ARG
29	19	242	ARG
29	19	244	ARG
29	19	263	ARG
29	19	266	SER
29	19	267	SER
29	19	273	ARG
30	29	9	VAL
30	29	12	THR
30	29	23	VAL
30	29	24	THR
30	29	26	ILE
30	29	37	ARG
30	29	52	LEU
30	29	61	ARG
30	29	73	GLU
30	29	75	VAL
30	29	89	ASP
30	29	107	THR
30	29	140	SER
30	29	149	ARG
30	29	165	VAL
30	29	178	GLU
30	29	182	LEU
30	29	185	LYS

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Mol	Chain	Res	Type
30	29	197	ILE
30	29	201	THR
31	39	4	VAL
31	39	11	VAL
31	39	13	SER
31	39	17	ARG
31	39	24	LEU
31	39	29	ASN
31	39	33	LEU
31	39	37	VAL
31	39	57	VAL
31	39	67	GLN
31	39	68	LYS
31	39	70	THR
31	39	89	VAL
31	39	107	LYS
31	39	108	LYS
31	39	112	MET
31	39	117	ARG
31	39	119	ARG
31	39	123	LEU
31	39	124	LEU
31	39	125	LEU
31	39	127	GLU
31	39	140	LEU
31	39	144	LYS
31	39	148	LEU
31	39	153	SER
31	39	157	VAL
31	39	158	THR
31	39	161	GLU
31	39	163	VAL
31	39	191	ARG
31	39	192	LEU
31	39	193	VAL
31	39	201	VAL
32	49	15	VAL
32	49	26	GLN
32	49	27	ASN
32	49	31	VAL
32	49	38	VAL
32	49	40	ASN

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Mol	Chain	Res	Type
32	49	43	LEU
32	49	47	LYS
32	49	48	GLU
32	49	53	LEU
32	49	60	LEU
32	49	62	LEU
32	49	76	SER
32	49	77	ILE
32	49	80	PHE
32	49	82	LEU
32	49	83	ARG
32	49	84	LYS
32	49	86	MET
32	49	95	ARG
32	49	96	ARG
32	49	105	LYS
32	49	111	LEU
32	49	114	ILE
32	49	115	ARG
32	49	116	ASP
32	49	120	LEU
32	49	130	ASN
32	49	132	ASN
32	49	139	LEU
32	49	140	ILE
32	49	147	ASP
32	49	152	LEU
32	49	157	ILE
32	49	160	VAL
32	49	161	THR
32	49	165	THR
32	49	167	GLU
32	49	172	LEU
32	49	175	LEU
32	49	176	LEU
33	59	6	ARG
33	59	7	LEU
33	59	11	VAL
33	59	41	MET
33	59	43	VAL
33	59	50	VAL
33	59	53	GLU

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Mol	Chain	Res	Type
33	59	63	SER
33	59	64	LEU
33	59	74	ASN
33	59	79	VAL
33	59	89	ILE
33	59	105	LEU
33	59	119	GLU
33	59	122	THR
33	59	125	VAL
33	59	127	GLU
33	59	129	THR
33	59	136	ILE
33	59	139	GLN
33	59	152	ARG
33	59	157	TYR
33	59	158	HIS
33	59	167	GLU
33	59	170	ARG
33	59	171	LEU
34	69	1	MET
34	69	6	LEU
34	69	9	LEU
34	69	18	VAL
34	69	60	GLU
34	69	61	ARG
34	69	62	LYS
34	69	67	ARG
34	69	75	LEU
34	69	79	ILE
34	69	85	GLU
34	69	92	VAL
34	69	101	LEU
34	69	103	ARG
34	69	105	HIS
34	69	108	THR
34	69	110	ASP
34	69	112	LYS
34	69	113	ARG
34	69	114	LEU
34	69	118	LYS
34	69	125	GLU
34	69	128	LEU

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Mol	Chain	Res	Type
34	69	129	THR
34	69	136	VAL
34	69	140	LEU
34	69	141	LYS
34	69	142	VAL
34	69	145	VAL
35	15	26	LEU
35	15	32	THR
35	15	34	LEU
35	15	48	MET
35	15	58	ASP
35	15	59	LYS
35	15	63	THR
35	15	70	LYS
35	15	74	ARG
35	15	89	LYS
35	15	93	THR
35	15	94	HIS
35	15	115	ARG
35	15	127	ASP
35	15	131	GLN
35	15	133	GLN
35	15	137	LYS
36	25	3	GLN
36	25	14	THR
36	25	22	ILE
36	25	28	SER
36	25	38	VAL
36	25	62	VAL
36	25	64	ARG
36	25	66	LYS
36	25	70	LYS
36	25	71	ARG
36	25	75	SER
36	25	87	ILE
36	25	91	LEU
36	25	98	VAL
36	25	107	ARG
36	25	113	LYS
36	25	116	SER
37	35	1	MET
37	35	15	ARG

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Mol	Chain	Res	Type
37	35	16	ARG
37	35	35	HIS
37	35	39	LYS
37	35	55	ARG
37	35	58	THR
37	35	59	LEU
37	35	67	MET
37	35	75	ILE
37	35	76	LYS
37	35	79	ARG
37	35	85	LEU
37	35	90	ARG
37	35	96	THR
37	35	98	GLU
37	35	100	LEU
37	35	101	VAL
37	35	105	LEU
37	35	106	LEU
37	35	123	LEU
37	35	126	VAL
37	35	132	LYS
37	35	135	LEU
37	35	146	VAL
38	45	2	LEU
38	45	3	MET
38	45	5	ARG
38	45	6	ARG
38	45	7	MET
38	45	8	LYS
38	45	17	LEU
38	45	18	LYS
38	45	21	THR
38	45	22	LYS
38	45	27	VAL
38	45	35	VAL
38	45	38	GLU
38	45	56	ARG
38	45	59	ARG
38	45	75	THR
38	45	90	VAL
38	45	96	VAL
38	45	97	VAL

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Mol	Chain	Res	Type
38	45	103	MET
38	45	109	VAL
38	45	110	THR
38	45	116	GLU
38	45	135	ASP
38	45	137	TYR
38	45	138	ASP
38	45	139	GLU
39	55	1	MET
39	55	5	LYS
39	55	18	LEU
39	55	33	ARG
39	55	35	THR
39	55	37	THR
39	55	57	ARG
39	55	65	LEU
39	55	75	LEU
39	55	79	LEU
39	55	81	ASP
39	55	82	GLU
39	55	96	ARG
39	55	104	ARG
39	55	114	VAL
40	65	3	ARG
40	65	11	LYS
40	65	12	PHE
40	65	13	ARG
40	65	17	ARG
40	65	20	ARG
40	65	21	THR
40	65	24	LEU
40	65	25	ARG
40	65	27	SER
40	65	30	ARG
40	65	32	LEU
40	65	33	LYS
40	65	39	ILE
40	65	42	ASP
40	65	43	GLU
40	65	50	SER
40	65	52	SER
40	65	58	LEU

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Mol	Chain	Res	Type
40	65	62	LYS
40	65	64	GLU
40	65	69	VAL
40	65	82	ILE
40	65	85	VAL
40	65	88	ASP
40	65	106	ARG
40	65	107	GLU
40	65	110	LEU
40	65	111	GLU
40	65	112	PHE
41	75	7	ILE
41	75	13	ARG
41	75	36	GLU
41	75	39	ARG
41	75	41	ARG
41	75	42	ILE
41	75	53	ARG
41	75	62	THR
41	75	66	VAL
41	75	67	SER
41	75	85	LYS
41	75	86	ILE
41	75	87	ASP
41	75	91	ARG
41	75	96	ARG
41	75	105	LEU
41	75	111	ARG
41	75	115	ARG
41	75	128	GLU
42	85	5	LYS
42	85	6	THR
42	85	8	VAL
42	85	33	ARG
42	85	58	ARG
42	85	74	LEU
42	85	83	LEU
42	85	92	ARG
42	85	95	LEU
42	85	97	ASP
42	85	100	VAL
42	85	101	ARG

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Mol	Chain	Res	Type
42	85	105	VAL
42	85	109	LEU
42	85	110	VAL
43	95	4	ILE
43	95	6	LYS
43	95	7	THR
43	95	12	TYR
43	95	14	VAL
43	95	18	LEU
43	95	20	LEU
43	95	23	GLU
43	95	25	LEU
43	95	32	THR
43	95	37	VAL
43	95	38	LEU
43	95	46	VAL
43	95	47	VAL
43	95	52	VAL
43	95	61	VAL
43	95	71	LEU
43	95	89	GLN
43	95	91	TYR
43	95	96	ILE
43	95	99	ILE
44	A5	6	ILE
44	A5	11	ARG
44	A5	12	ILE
44	A5	20	VAL
44	A5	21	VAL
44	A5	23	LEU
44	A5	39	THR
44	A5	51	LEU
44	A5	65	LEU
44	A5	67	ASP
44	A5	70	TYR
44	A5	71	VAL
44	A5	78	GLU
44	A5	90	ARG
44	A5	92	ARG
44	A5	104	THR
44	A5	106	ILE
45	B5	15	GLU

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Mol	Chain	Res	Type
45	B5	16	LYS
45	B5	27	THR
45	B5	51	VAL
45	B5	60	ARG
45	B5	65	ARG
45	B5	66	LEU
45	B5	68	ARG
45	B5	81	VAL
45	B5	88	LYS
46	C5	4	LYS
46	C5	6	HIS
46	C5	9	LYS
46	C5	13	VAL
46	C5	23	ARG
46	C5	28	LYS
46	C5	29	GLU
46	C5	30	VAL
46	C5	38	ILE
46	C5	55	TYR
46	C5	63	LYS
46	C5	79	CYS
46	C5	81	LYS
46	C5	84	ARG
46	C5	85	VAL
46	C5	86	ARG
46	C5	87	LYS
46	C5	88	LYS
46	C5	90	LEU
46	C5	91	GLU
46	C5	96	ILE
46	C5	97	ARG
46	C5	98	VAL
47	D5	4	ARG
47	D5	5	LEU
47	D5	10	ARG
47	D5	14	LYS
47	D5	19	ARG
47	D5	31	ARG
47	D5	33	LEU
47	D5	52	SER
47	D5	56	VAL
47	D5	57	ILE

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Mol	Chain	Res	Type
47	D5	58	VAL
47	D5	59	LEU
47	D5	60	GLU
47	D5	66	SER
47	D5	67	LEU
47	D5	70	LEU
47	D5	71	VAL
47	D5	72	ARG
47	D5	73	GLN
47	D5	90	VAL
47	D5	91	LEU
47	D5	93	ASP
47	D5	127	LYS
47	D5	128	VAL
47	D5	135	GLU
47	D5	137	ILE
47	D5	165	VAL
47	D5	168	GLU
48	E5	14	ARG
48	E5	20	ARG
48	E5	31	VAL
48	E5	32	ARG
48	E5	38	VAL
48	E5	43	THR
48	E5	46	LYS
48	E5	68	GLU
49	F5	14	VAL
49	F5	25	LYS
49	F5	38	SER
49	F5	39	LYS
49	F5	41	ARG
49	F5	72	GLU
49	F5	73	LEU
49	F5	74	VAL
49	F5	78	LYS
49	F5	80	LEU
49	F5	82	LEU
49	F5	86	SER
49	F5	89	GLU
49	F5	92	LYS
50	G5	3	LEU
50	G5	4	SER

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Mol	Chain	Res	Type
50	G5	6	VAL
50	G5	9	GLN
50	G5	10	LEU
50	G5	11	GLU
50	G5	12	GLU
50	G5	15	LYS
50	G5	17	SER
50	G5	30	ARG
50	G5	34	GLU
50	G5	43	GLN
50	G5	44	LEU
50	G5	47	ASN
50	G5	48	HIS
50	G5	50	ILE
50	G5	51	ARG
50	G5	53	LEU
50	G5	56	GLN
50	G5	62	THR
50	G5	65	ASN
51	H5	7	LYS
51	H5	8	LEU
51	H5	29	ARG
51	H5	30	ARG
51	H5	32	GLN
51	H5	33	GLN
51	H5	34	GLU
51	H5	35	ARG
51	H5	37	LEU
51	H5	48	GLU
51	H5	58	VAL
52	I5	1	MET
52	I5	3	GLU
52	I5	5	ILE
52	I5	9	LEU
52	I5	13	ARG
52	I5	16	CYS
52	I5	18	CYS
52	I5	20	ASN
52	I5	25	TYR
52	I5	26	SER
52	I5	32	TYR
52	I5	33	VAL

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Mol	Chain	Res	Type
52	I5	44	THR
52	I5	46	GLN
52	I5	51	ASP
52	I5	53	GLU
52	I5	61	ARG
52	I5	62	ARG
53	J5	6	VAL
53	J5	9	LYS
53	J5	16	ARG
53	J5	23	HIS
53	J5	29	THR
53	J5	31	VAL
53	J5	35	GLU
53	J5	37	LYS
53	J5	40	LYS
53	J5	45	VAL
53	J5	46	CYS
53	J5	48	GLU
53	J5	51	TYR
53	J5	56	LYS
54	L5	1	MET
54	L5	3	ARG
54	L5	4	THR
54	L5	36	GLN
54	L5	41	ARG
55	M5	8	LYS
55	M5	15	LYS
55	M5	19	SER
55	M5	21	LYS
55	M5	22	VAL
55	M5	29	LYS
55	M5	30	ARG
55	M5	31	HIS
55	M5	34	TRP
55	M5	40	GLU
55	M5	46	ARG
55	M5	49	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (21) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	45	GLN

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Mol	Chain	Res	Type
6	5E	18	GLN
8	7E	70	GLN
11	2I	104	GLN
28	71	56	GLN
34	61	133	HIS
50	K8	46	GLN
52	M8	20	ASN
2	12	16	HIS
2	12	135	GLN
8	72	82	HIS
11	2A	117	ASN
19	AA	14	HIS
28	79	172	HIS
30	29	54	GLN
30	29	55	ASN
31	39	8	GLN
32	49	130	ASN
38	45	123	HIS
47	D5	132	ASN
50	G5	47	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	348 (23%)	34 (2%)
1	1G	1505/1522 (98%)	323 (21%)	33 (2%)
22	1K	67/76 (88%)	36 (53%)	4 (5%)
23	2K	76/77 (98%)	20 (26%)	1 (1%)
23	2L	75/77 (97%)	10 (13%)	2 (2%)
24	3K	67/76 (88%)	37 (55%)	3 (4%)
24	3L	69/76 (90%)	32 (46%)	1 (1%)
25	4K	19/30 (63%)	12 (63%)	2 (10%)
25	4L	18/30 (60%)	10 (55%)	2 (11%)
26	14	2803/2917 (96%)	638 (22%)	37 (1%)
26	1H	2836/2917 (97%)	590 (20%)	43 (1%)
27	16	121/122 (99%)	24 (19%)	0
27	1J	121/122 (99%)	34 (28%)	2 (1%)
56	1L	65/76 (85%)	24 (36%)	2 (3%)
All	All	9335/9640 (96%)	2138 (22%)	166 (1%)

All (2138) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	12	U
1	13	13	U
1	13	21	G
1	13	31	G
1	13	32	A
1	13	33	A
1	13	39	G
1	13	43	C
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	61	G
1	13	65	U
1	13	66	G
1	13	73	G
1	13	74	C
1	13	75	C
1	13	76	G
1	13	95	G
1	13	96	G
1	13	97	U
1	13	116	A
1	13	121	C
1	13	122	G
1	13	130	A
1	13	131	C
1	13	142	G
1	13	144	G
1	13	147	G
1	13	151	A
1	13	158	G
1	13	160	A
1	13	162	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(F)	C

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Mol	Chain	Res	Type
1	13	188	U
1	13	189	U
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	220	G
1	13	222	U
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	254	G
1	13	255	G
1	13	256	U
1	13	266	G
1	13	267	C
1	13	270	A
1	13	289	G
1	13	298	A
1	13	316	G
1	13	317	G
1	13	321	A
1	13	322	C
1	13	324	G
1	13	328	C
1	13	330	C
1	13	332	G
1	13	341	C
1	13	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	349	A
1	13	350	G
1	13	352	C
1	13	353	A

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Mol	Chain	Res	Type
1	13	354	G
1	13	367	U
1	13	372	C
1	13	373	A
1	13	376	G
1	13	384	G
1	13	388	G
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	414	A
1	13	418	C
1	13	421	U
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	466	C
1	13	467	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	498	A
1	13	504	C
1	13	505	G
1	13	508	C
1	13	509	A
1	13	510	A
1	13	511	C
1	13	518	C
1	13	519	C
1	13	521	G
1	13	524	G
1	13	526	C
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	536	C

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Mol	Chain	Res	Type
1	13	547	A
1	13	549	C
1	13	559	A
1	13	561	U
1	13	567	G
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	581	G
1	13	592	G
1	13	593	G
1	13	596	C
1	13	607	A
1	13	620	C
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G
1	13	650	G
1	13	653	A
1	13	665	A
1	13	666	G
1	13	687	A
1	13	688	G
1	13	704	A
1	13	723	U
1	13	749	C
1	13	753	A
1	13	755	G
1	13	766	A
1	13	767	A
1	13	774	G
1	13	777	A
1	13	787	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	796	C
1	13	802	A
1	13	813	U

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Mol	Chain	Res	Type
1	13	817	C
1	13	821	G
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	853	G
1	13	859	A
1	13	864	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	876	G
1	13	880	C
1	13	884	U
1	13	902	G
1	13	913	A
1	13	914	A
1	13	926	G
1	13	927	G
1	13	932	C
1	13	934	C
1	13	935	A
1	13	936	C
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	972	C
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	993	G
1	13	999	U
1	13	1004	A
1	13	1006	C
1	13	1007	C

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Mol	Chain	Res	Type
1	13	1008	C
1	13	1009	G
1	13	1017	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	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1033	G
1	13	1035	A
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1046	A
1	13	1054	C
1	13	1056	U
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	1103	C
1	13	1122	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	1132	C
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1146	A
1	13	1151	A

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Mol	Chain	Res	Type
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1165	C
1	13	1177	G
1	13	1179	A
1	13	1181	G
1	13	1182	G
1	13	1188	A
1	13	1190	G
1	13	1191	A
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1211	U
1	13	1212	U
1	13	1213	A
1	13	1218	C
1	13	1224	G
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1270	C
1	13	1272	G
1	13	1274	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1290	G

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Mol	Chain	Res	Type
1	13	1292	U
1	13	1300	G
1	13	1302	U
1	13	1303	C
1	13	1312	G
1	13	1315	U
1	13	1320	C
1	13	1323	G
1	13	1331	G
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1362(A)	C
1	13	1363	A
1	13	1364	U
1	13	1368	G
1	13	1370	G
1	13	1378	C
1	13	1396	A
1	13	1397	C
1	13	1398	A
1	13	1400	C
1	13	1401	G
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1449	C
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1475	G
1	13	1487	G
1	13	1492	A
1	13	1499	A
1	13	1502	A

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Mol	Chain	Res	Type
1	13	1503	A
1	13	1504	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1531	A
1	13	1534	A
1	13	1535	C
1	13	1536	C
22	1K	4	U
22	1K	5	G
22	1K	6	A
22	1K	8	U
22	1K	9	A
22	1K	11	C
22	1K	15	G
22	1K	18	G
22	1K	22	G
22	1K	25	C
22	1K	29	U
22	1K	31	C
22	1K	33	U
22	1K	38	A
22	1K	41	A
22	1K	44	G
22	1K	45	G
22	1K	49	G
22	1K	50	G
22	1K	51	C
22	1K	52	G
22	1K	56	C
22	1K	60	C
22	1K	61	C
22	1K	62	C
22	1K	63	G
22	1K	64	U
22	1K	66	A
22	1K	68	C
22	1K	69	A
22	1K	70	C

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Mol	Chain	Res	Type
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
22	1K	76	A
23	2K	2	G
23	2K	6	G
23	2K	9	G
23	2K	13	C
23	2K	16	C
23	2K	17	C
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	30	G
23	2K	31	G
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	51	U
23	2K	52	C
23	2K	53	G
23	2K	61	U
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	5	G
24	3K	7	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	14	A
24	3K	15	G
24	3K	23	A
24	3K	24	G
24	3K	26	A
24	3K	30	C
24	3K	34	U
24	3K	35	A

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Mol	Chain	Res	Type
24	3K	37	A
24	3K	39	G
24	3K	40	G
24	3K	45	G
24	3K	46	G
24	3K	51	C
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	U
24	3K	60	C
24	3K	63	G
24	3K	64	U
24	3K	65	C
24	3K	66	A
24	3K	67	U
24	3K	69	A
24	3K	72	C
24	3K	73	A
25	4K	7	G
25	4K	8	A
25	4K	9	G
25	4K	10	G
25	4K	11	U
25	4K	12	A
25	4K	14	A
25	4K	15	A
25	4K	19	G
25	4K	23	A
25	4K	24	A
25	4K	25	A
26	1H	9	U
26	1H	11	G
26	1H	12	U
26	1H	33	U
26	1H	34	C
26	1H	35	G
26	1H	36	G
26	1H	46	C
26	1H	51	G
26	1H	63	U

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Mol	Chain	Res	Type
26	1H	70	G
26	1H	71	A
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	95	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	138	G
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	201	C
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	217	G
26	1H	221	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	233	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	266	G
26	1H	269	U
26	1H	270(G)	C
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G

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Mol	Chain	Res	Type
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	335	C
26	1H	346	A
26	1H	352	G
26	1H	357	A
26	1H	372	G
26	1H	380	U
26	1H	386	G
26	1H	405	U
26	1H	406	G
26	1H	407	G
26	1H	411	G
26	1H	418	G
26	1H	427	U
26	1H	428	A
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	455	C
26	1H	456	C
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C

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Mol	Chain	Res	Type
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	573	G
26	1H	575	A
26	1H	580	C
26	1H	586	A
26	1H	588	U
26	1H	592	G
26	1H	603	A
26	1H	607	U
26	1H	613	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	619	G
26	1H	621	A
26	1H	622	G
26	1H	626	U
26	1H	627	A
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	647	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(P)	G
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	677	A
26	1H	678	C
26	1H	686	G

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Mol	Chain	Res	Type
26	1H	717	G
26	1H	722	A
26	1H	729	G
26	1H	730	C
26	1H	747	U
26	1H	761	A
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	789	A
26	1H	790	C
26	1H	792	G
26	1H	805	G
26	1H	810	U
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	832	G
26	1H	836	G
26	1H	846	C
26	1H	853	G
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	878	A
26	1H	879	G
26	1H	882	G
26	1H	894	C
26	1H	898	C
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	904	C
26	1H	908	C
26	1H	910	A
26	1H	914	C
26	1H	917	A
26	1H	919	G
26	1H	932	G
26	1H	938	G

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Mol	Chain	Res	Type
26	1H	941	A
26	1H	944	G
26	1H	945	A
26	1H	946	G
26	1H	947	G
26	1H	953	A
26	1H	959	A
26	1H	961	C
26	1H	967	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	989	G
26	1H	996	A
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1051	G
26	1H	1054	A
26	1H	1055	G
26	1H	1101	U
26	1H	1102	C
26	1H	1110	G
26	1H	1111	A
26	1H	1112	G
26	1H	1129	A
26	1H	1130	U
26	1H	1131	G

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Mol	Chain	Res	Type
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G
26	1H	1174	A
26	1H	1175	U
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1195	G
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1254	A
26	1H	1256	G
26	1H	1267	U
26	1H	1268	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1276	A
26	1H	1300	U
26	1H	1301	A
26	1H	1303	G
26	1H	1329	U
26	1H	1342	A
26	1H	1345	C
26	1H	1349	A
26	1H	1352	U
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1385	G
26	1H	1388	G

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Mol	Chain	Res	Type
26	1H	1389	G
26	1H	1391	U
26	1H	1395	A
26	1H	1407	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1428	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1453	A
26	1H	1455	G
26	1H	1458	C
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1470	G
26	1H	1471	A
26	1H	1483	G
26	1H	1492	G
26	1H	1493	C
26	1H	1494	A
26	1H	1495	A
26	1H	1497	U
26	1H	1500	G
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1522	G
26	1H	1526	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1539	G

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Mol	Chain	Res	Type
26	1H	1540	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1547	C
26	1H	1548	C
26	1H	1552	G
26	1H	1558	A
26	1H	1559	G
26	1H	1560	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	1594	G
26	1H	1606	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1658	C
26	1H	1674	G
26	1H	1695	G
26	1H	1728	G
26	1H	1729	A
26	1H	1731	G
26	1H	1733	G
26	1H	1758	G
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1772	G
26	1H	1773	A
26	1H	1779	U
26	1H	1782	C
26	1H	1786	A

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Mol	Chain	Res	Type
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1809	A
26	1H	1811	G
26	1H	1816	G
26	1H	1829	A
26	1H	1847	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1899	G
26	1H	1900	A
26	1H	1901	A
26	1H	1905	C
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1915	U
26	1H	1919	A
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1955	U
26	1H	1960	A
26	1H	1961	C
26	1H	1963	U
26	1H	1965	C
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1992	G
26	1H	1993	U
26	1H	1994	C

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Mol	Chain	Res	Type
26	1H	2016	U
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2033	A
26	1H	2043	C
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2069	G
26	1H	2099	U
26	1H	2108	C
26	1H	2111	C
26	1H	2113	U
26	1H	2114	A
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2126	A
26	1H	2127	G
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	2137	C
26	1H	2138	C
26	1H	2139	C
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2162	G
26	1H	2165	G
26	1H	2166	G
26	1H	2167	U

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Mol	Chain	Res	Type
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2177	C
26	1H	2181	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	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	2216	G
26	1H	2224	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2240	C
26	1H	2263	C
26	1H	2267	A
26	1H	2268	A
26	1H	2269	A
26	1H	2273	A
26	1H	2275	C
26	1H	2278	A
26	1H	2283	C
26	1H	2286	A
26	1H	2287	A
26	1H	2288	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2311	A
26	1H	2315	G
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G

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Mol	Chain	Res	Type
26	1H	2335	A
26	1H	2336	A
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2364	C
26	1H	2372	G
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2384	G
26	1H	2385	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2414	G
26	1H	2422	A
26	1H	2423	U
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2434	A
26	1H	2435	A
26	1H	2439	A
26	1H	2441	C
26	1H	2448	A
26	1H	2476	A
26	1H	2477	C
26	1H	2482	G
26	1H	2484	G
26	1H	2486	G
26	1H	2501	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2518	A
26	1H	2520	C
26	1H	2525	G
26	1H	2529	G
26	1H	2531	A

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Mol	Chain	Res	Type
26	1H	2549	G
26	1H	2554	U
26	1H	2556	C
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2582	G
26	1H	2594	C
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2629	A
26	1H	2630	G
26	1H	2632	A
26	1H	2634	G
26	1H	2636	U
26	1H	2641	G
26	1H	2654	A
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2682	U
26	1H	2689	U
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	2720	U
26	1H	2721	A
26	1H	2726	U
26	1H	2732	G
26	1H	2733	A
26	1H	2751	G
26	1H	2752	C
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G

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Mol	Chain	Res	Type
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2780	G
26	1H	2783	G
26	1H	2788	C
26	1H	2789	C
26	1H	2791	C
26	1H	2793	G
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2823	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2848	G
26	1H	2871	C
26	1H	2872	G
26	1H	2885	C
26	1H	2886	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G
26	1H	2895	U
27	16	0	A
27	16	3	C
27	16	5	C
27	16	7	G
27	16	9	G
27	16	12	C
27	16	13	A
27	16	15	A

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Mol	Chain	Res	Type
27	16	16	G
27	16	25	A
27	16	31	C
27	16	34	U
27	16	42	C
27	16	45	A
27	16	56	G
27	16	65	C
27	16	73	A
27	16	74	U
27	16	98	G
27	16	105	G
27	16	107	U
27	16	109	G
27	16	115	G
27	16	116	G
1	1G	5	U
1	1G	6	G
1	1G	7	G
1	1G	9	G
1	1G	22	G
1	1G	32	A
1	1G	39	G
1	1G	41	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	65	U
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	95	G
1	1G	99	C
1	1G	101	A
1	1G	105	G
1	1G	116	A
1	1G	121	C
1	1G	129(A)	G
1	1G	131	C

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Mol	Chain	Res	Type
1	1G	163	C
1	1G	174	C
1	1G	180	U
1	1G	182	U
1	1G	183	G
1	1G	186	C
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	209	U
1	1G	210	U
1	1G	216	G
1	1G	226	G
1	1G	231	G
1	1G	233	C
1	1G	243	A
1	1G	247	G
1	1G	251	G
1	1G	259	G
1	1G	266	G
1	1G	267	C
1	1G	274	A
1	1G	281	G
1	1G	289	G
1	1G	316	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
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	365	U
1	1G	367	U
1	1G	372	C

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Mol	Chain	Res	Type
1	1G	384	G
1	1G	388	G
1	1G	396	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	422	C
1	1G	423	G
1	1G	429	U
1	1G	430	A
1	1G	438	G
1	1G	439	A
1	1G	442	C
1	1G	452	A
1	1G	453	A
1	1G	456	C
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	478	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
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	531	U
1	1G	532	A
1	1G	533	A
1	1G	534	U
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C

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Mol	Chain	Res	Type
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	581	G
1	1G	604	G
1	1G	607	A
1	1G	614	A
1	1G	617	G
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	666	G
1	1G	687	A
1	1G	688	G
1	1G	693	G
1	1G	701	C
1	1G	702	A
1	1G	722	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	742	G
1	1G	749	C
1	1G	750	G
1	1G	777	A
1	1G	778	G
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	805	C
1	1G	809	G
1	1G	816	A
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	842	C
1	1G	843	U

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Mol	Chain	Res	Type
1	1G	848	C
1	1G	857	C
1	1G	859	A
1	1G	873	A
1	1G	914	A
1	1G	915	A
1	1G	926	G
1	1G	927	G
1	1G	931	C
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	942	G
1	1G	960	U
1	1G	961	U
1	1G	963	G
1	1G	964	A
1	1G	968	A
1	1G	969	A
1	1G	972	C
1	1G	974	A
1	1G	976	G
1	1G	977	A
1	1G	980	C
1	1G	982	U
1	1G	983	A
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	996	A
1	1G	1001	G
1	1G	1002	G
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1016	A
1	1G	1021	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1028	C
1	1G	1028(A)	C

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Mol	Chain	Res	Type
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032	A
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1037	C
1	1G	1040	U
1	1G	1046	A
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1063	C
1	1G	1071	C
1	1G	1081	G
1	1G	1094	G
1	1G	1095	U
1	1G	1101	A
1	1G	1107	C
1	1G	1118	C
1	1G	1123	A
1	1G	1124	G
1	1G	1125	U
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1133	G
1	1G	1135	U
1	1G	1136	U
1	1G	1137	C
1	1G	1139	G
1	1G	1140	C
1	1G	1146	A
1	1G	1147	C
1	1G	1151	A
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U

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Mol	Chain	Res	Type
1	1G	1160	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1184	G
1	1G	1185	G
1	1G	1188	A
1	1G	1189	C
1	1G	1190	G
1	1G	1196	U
1	1G	1197	G
1	1G	1199	U
1	1G	1201	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1223	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A
1	1G	1240	U
1	1G	1250	A
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1268	A
1	1G	1275	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C

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Mol	Chain	Res	Type
1	1G	1319	A
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1358	U
1	1G	1359	C
1	1G	1360	A
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1368	G
1	1G	1370	G
1	1G	1382	C
1	1G	1398	A
1	1G	1401	G
1	1G	1404	C
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1447	G
1	1G	1450	U
1	1G	1451	A
1	1G	1453	G
1	1G	1492	A
1	1G	1497	G
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	1508	G
1	1G	1517	G
1	1G	1520	G
1	1G	1529	G

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Mol	Chain	Res	Type
1	1G	1530	G
1	1G	1533	C
1	1G	1534	A
56	1L	2	G
56	1L	3	G
56	1L	6	A
56	1L	7	U
56	1L	8	U
56	1L	9	A
56	1L	10	G
56	1L	18	G
56	1L	23	A
56	1L	24	G
56	1L	27	C
56	1L	30	C
56	1L	34	U
56	1L	45	G
56	1L	49	G
56	1L	61	C
56	1L	63	G
56	1L	66	A
56	1L	67	U
56	1L	70	C
56	1L	73	A
56	1L	74	C
56	1L	75	C
56	1L	76	A
23	2L	2	G
23	2L	8	4SU
23	2L	16	C
23	2L	19	G
23	2L	21	U
23	2L	23	G
23	2L	34	U
23	2L	46	G
23	2L	53	G
23	2L	69	C
24	3L	2	G
24	3L	5	G
24	3L	7	U
24	3L	10	G
24	3L	15	G

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Mol	Chain	Res	Type
24	3L	22	G
24	3L	24	G
24	3L	26	A
24	3L	31	C
24	3L	33	U
24	3L	34	U
24	3L	35	A
24	3L	37	A
24	3L	39	G
24	3L	40	G
24	3L	42	G
24	3L	43	G
24	3L	44	G
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	53	G
24	3L	56	C
24	3L	57	G
24	3L	58	A
24	3L	59	U
24	3L	61	C
24	3L	62	C
24	3L	65	C
24	3L	67	U
24	3L	72	C
24	3L	73	A
25	4L	8	A
25	4L	9	G
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	14	A
25	4L	15	A
25	4L	23	A
25	4L	24	A
25	4L	25	A
26	14	7	G
26	14	9	U
26	14	16	G
26	14	34	C
26	14	35	G

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Mol	Chain	Res	Type
26	14	36	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	58	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	92	G
26	14	93	C
26	14	95	G
26	14	101	G
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	131	G
26	14	138	G
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
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	225	A
26	14	229	A
26	14	232	G
26	14	233	A
26	14	240	G

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Mol	Chain	Res	Type
26	14	245	G
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	268	C
26	14	269	U
26	14	270(J)	G
26	14	270(K)	C
26	14	270(N)	G
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(C)	C
26	14	273(D)	C
26	14	273(F)	C
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	283	A
26	14	289	A
26	14	308	G
26	14	311	A
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	352	G
26	14	354	G
26	14	356	G
26	14	362	U
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	380	U
26	14	386	G
26	14	394	A
26	14	396	G

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Mol	Chain	Res	Type
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	415	A
26	14	428	A
26	14	442	G
26	14	443	A
26	14	444	C
26	14	446	G
26	14	454	A
26	14	455	C
26	14	456	C
26	14	457	A
26	14	460	A
26	14	470	A
26	14	480	A
26	14	481	G
26	14	501	A
26	14	504	U
26	14	505	A
26	14	509	C
26	14	517	C
26	14	528	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	573	G
26	14	575	A
26	14	592	G
26	14	603	A
26	14	607	U
26	14	617	G
26	14	619	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	631	A

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Mol	Chain	Res	Type
26	14	634	C
26	14	637	A
26	14	644	A
26	14	645	C
26	14	646	A
26	14	649	G
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	664	C
26	14	669	G
26	14	686	G
26	14	717	G
26	14	722	A
26	14	730	C
26	14	740	U
26	14	752	A
26	14	753	C
26	14	761	A
26	14	762	U
26	14	775	G
26	14	776	G
26	14	782	A
26	14	784	A
26	14	785	G
26	14	792	G
26	14	805	G
26	14	812	C
26	14	819	A
26	14	820	A
26	14	822	U
26	14	827	U
26	14	828	U
26	14	830	G
26	14	832	G
26	14	840	C

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Mol	Chain	Res	Type
26	14	845	G
26	14	846	C
26	14	847	U
26	14	854	G
26	14	859	G
26	14	860	U
26	14	865	C
26	14	866	A
26	14	875	G
26	14	878	A
26	14	899	A
26	14	900	A
26	14	901	A
26	14	904	C
26	14	907	U
26	14	910	A
26	14	911	A
26	14	917	A
26	14	926	A
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	952	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	967	C
26	14	974	G
26	14	974(A)	C
26	14	980	A
26	14	983	A
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	999	U
26	14	1005	C
26	14	1009	A
26	14	1012	U

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Mol	Chain	Res	Type
26	14	1013	C
26	14	1015	G
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1029	A
26	14	1037	G
26	14	1044	G
26	14	1048	A
26	14	1050	A
26	14	1111	A
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1143	A
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1188	U
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1220	A
26	14	1224	G
26	14	1247	A
26	14	1250	G
26	14	1253	A
26	14	1256	G
26	14	1268	A
26	14	1271	G
26	14	1272	A

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Mol	Chain	Res	Type
26	14	1273	U
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1319	G
26	14	1325	G
26	14	1332	G
26	14	1342	A
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1370	C
26	14	1373	A
26	14	1378	A
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1390	U
26	14	1391	U
26	14	1395	A
26	14	1407	C
26	14	1416	G
26	14	1418	G
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1425	G
26	14	1427	A
26	14	1428	C
26	14	1444(A)	A
26	14	1445	C
26	14	1447	G
26	14	1449	A
26	14	1449(A)	G
26	14	1451	C
26	14	1453	A

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Mol	Chain	Res	Type
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	1472	A
26	14	1475	G
26	14	1483	G
26	14	1493	C
26	14	1494	A
26	14	1495	A
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1517	G
26	14	1522	G
26	14	1526	G
26	14	1528	A
26	14	1534	G
26	14	1537	C
26	14	1538	G
26	14	1543	A
26	14	1547	C
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1578	U
26	14	1582	C
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1589	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1617	C
26	14	1619	G
26	14	1647	G
26	14	1648	C

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Mol	Chain	Res	Type
26	14	1652	A
26	14	1653	G
26	14	1654	A
26	14	1669	A
26	14	1670	C
26	14	1672	C
26	14	1674	G
26	14	1675	C
26	14	1678	G
26	14	1695	G
26	14	1696	G
26	14	1697	G
26	14	1698	A
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1725	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1732	A
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1816	G
26	14	1819	A
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1830	C
26	14	1836	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G

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Mol	Chain	Res	Type
26	14	1878	G
26	14	1888	G
26	14	1889	A
26	14	1891	G
26	14	1895	C
26	14	1899	G
26	14	1905	C
26	14	1906	G
26	14	1913	A
26	14	1923	U
26	14	1929	G
26	14	1930	G
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1947	C
26	14	1952	A
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U
26	14	2018	G
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2033	A
26	14	2036	C
26	14	2039	C
26	14	2043	C
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2069	G
26	14	2071	A
26	14	2072	G

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Mol	Chain	Res	Type
26	14	2092	U
26	14	2093	G
26	14	2097	C
26	14	2100	G
26	14	2108	C
26	14	2110	G
26	14	2114	A
26	14	2115	G
26	14	2117	A
26	14	2118	U
26	14	2119	A
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2124	G
26	14	2125	G
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	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	2153	G
26	14	2157	G
26	14	2158	A
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2168	G
26	14	2172	U

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Mol	Chain	Res	Type
26	14	2173	A
26	14	2174	C
26	14	2178	C
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	2238	G
26	14	2239	G
26	14	2240	C
26	14	2245	U
26	14	2249	U
26	14	2251	G
26	14	2268	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
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	2321	G
26	14	2324	C
26	14	2325	G
26	14	2326	C
26	14	2336	A
26	14	2342	C
26	14	2347	C
26	14	2350	C
26	14	2353	G
26	14	2354	G

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Mol	Chain	Res	Type
26	14	2356	C
26	14	2383	G
26	14	2385	C
26	14	2392	A
26	14	2396	G
26	14	2401	U
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2410	G
26	14	2414	G
26	14	2422	A
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	2440	C
26	14	2441	C
26	14	2448	A
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2475	C
26	14	2477	C
26	14	2478	A
26	14	2482	G
26	14	2487	G
26	14	2492	U
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2505	G
26	14	2506	U
26	14	2518	A
26	14	2525	G
26	14	2529	G
26	14	2532	G
26	14	2541	A

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Mol	Chain	Res	Type
26	14	2542	A
26	14	2543	G
26	14	2549	G
26	14	2554	U
26	14	2555	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2579	C
26	14	2582	G
26	14	2585	U
26	14	2586	C
26	14	2602	A
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2630	G
26	14	2635	C
26	14	2636	U
26	14	2646	C
26	14	2654	A
26	14	2663	G
26	14	2665	A
26	14	2667	C
26	14	2682	U
26	14	2689	U
26	14	2690	C
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	2729	G
26	14	2733	A
26	14	2744	G
26	14	2747	G
26	14	2748	A
26	14	2750	A

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Mol	Chain	Res	Type
26	14	2751	G
26	14	2752	C
26	14	2757	A
26	14	2758	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2778	A
26	14	2779	U
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2795	G
26	14	2797	U
26	14	2799	A
26	14	2801	A
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2839	G
26	14	2849	U
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2876	G
26	14	2880	C
26	14	2884	U
26	14	2885	C
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2896	C
26	14	2897	U

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Mol	Chain	Res	Type
26	14	2899	G
26	14	2900	A
26	14	2902	C
27	1J	0	A
27	1J	7	G
27	1J	8	U
27	1J	9	G
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	25	A
27	1J	26	A
27	1J	28	C
27	1J	29	A
27	1J	33	G
27	1J	39	A
27	1J	42	C
27	1J	43	C
27	1J	44	G
27	1J	45	A
27	1J	50	G
27	1J	53	A
27	1J	65	C
27	1J	73	A
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	97	G
27	1J	101	A
27	1J	102	G
27	1J	105	G
27	1J	108	C
27	1J	109	G
27	1J	115	G
27	1J	118	G

All (166) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U

Continued on next page...

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Mol	Chain	Res	Type
1	13	31	G
1	13	49	U
1	13	50	A
1	13	73	G
1	13	75	C
1	13	115	G
1	13	190	G
1	13	244	U
1	13	266	G
1	13	422	C
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U
1	13	871	U
1	13	913	A
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1129	C
1	13	1256	A
1	13	1285	A
1	13	1301	U
1	13	1336	C
1	13	1397	C
1	13	1443	G
1	13	1498	U
1	13	1533	C
22	1K	21	A
22	1K	48	C
22	1K	49	G
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	34	U
24	3K	45	G
25	4K	11	U

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Mol	Chain	Res	Type
25	4K	24	A
26	1H	34	C
26	1H	125	G
26	1H	196	A
26	1H	222	A
26	1H	249	C
26	1H	404	C
26	1H	508	G
26	1H	587	C
26	1H	685	A
26	1H	764	A
26	1H	776	G
26	1H	859	G
26	1H	1022	G
26	1H	1026	U
26	1H	1110	G
26	1H	1178	C
26	1H	1210	A
26	1H	1253	A
26	1H	1275	A
26	1H	1420	U
26	1H	1493	C
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1617	C
26	1H	1730	U
26	1H	1762	A
26	1H	1799	G
26	1H	1858	G
26	1H	1900	A
26	1H	1992	G
26	1H	2172	U
26	1H	2210	G
26	1H	2275	C
26	1H	2346	A
26	1H	2422	A
26	1H	2439	A
26	1H	2447	G
26	1H	2481	G

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Mol	Chain	Res	Type
26	1H	2566	A
26	1H	2756	U
1	1G	64	G
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	466	C
1	1G	485	G
1	1G	509	A
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	793	U
1	1G	913	A
1	1G	992	U
1	1G	1053	G
1	1G	1125	U
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1298	C
1	1G	1300	G
1	1G	1359	C
1	1G	1397	C
1	1G	1442	G
1	1G	1449	C
1	1G	1498	U
1	1G	1533	C
56	1L	6	A
56	1L	69	A
23	2L	1	C
23	2L	33	OMC
24	3L	58	A
25	4L	22	A
25	4L	23	A

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Mol	Chain	Res	Type
26	14	34	C
26	14	49	A
26	14	71	A
26	14	101	G
26	14	128	C
26	14	199	A
26	14	278	A
26	14	470	A
26	14	685	A
26	14	752	A
26	14	998	C
26	14	1022	G
26	14	1325	G
26	14	1379	A
26	14	1420	U
26	14	1494	A
26	14	1497	U
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1762	A
26	14	1819	A
26	14	1992	G
26	14	2062	A
26	14	2212	A
26	14	2275	C
26	14	2402	C
26	14	2406	U
26	14	2425	A
26	14	2439	A
26	14	2477	C
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2756	U
26	14	2791	C
26	14	2859	G
27	1J	88	C
27	1J	89	G

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

17 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	$\#\|Z\| > 2$
23	4SU	2L	8	23	18,21,22	1.94	3 (16%)	26,30,33	2.59	4 (15%)
23	OMC	2K	33	23	19,22,23	1.81	3 (15%)	26,31,34	1.09	3 (11%)
22	CM0	1K	34	22	22,26,27	3.97	7 (31%)	28,37,40	1.54	4 (14%)
56	PSU	1L	55	56	18,21,22	1.38	1 (5%)	22,30,33	1.51	4 (18%)
22	6MZ	1K	37	22	18,25,26	2.22	4 (22%)	16,36,39	2.30	3 (18%)
23	4SU	2K	8	23	18,21,22	1.91	3 (16%)	26,30,33	2.56	4 (15%)
23	5MU	2K	55	23,57	19,22,23	3.85	5 (26%)	28,32,35	3.22	8 (28%)
23	OMC	2L	33	23	19,22,23	1.80	4 (21%)	26,31,34	1.03	1 (3%)
23	5MU	2L	55	23	19,22,23	3.93	5 (26%)	28,32,35	3.04	9 (32%)
22	PSU	1K	55	22	18,21,22	1.36	1 (5%)	22,30,33	1.75	4 (18%)
22	H2U	1K	17	22	18,21,22	2.13	4 (22%)	21,30,33	2.38	5 (23%)
23	PSU	2L	56	23	18,21,22	1.14	1 (5%)	22,30,33	1.58	2 (9%)
23	7MG	2L	47	23	22,26,27	2.83	8 (36%)	29,39,42	3.00	10 (34%)
23	7MG	2K	47	23	22,26,27	3.09	6 (27%)	29,39,42	2.81	11 (37%)
23	PSU	2K	56	23	18,21,22	1.16	2 (11%)	22,30,33	2.02	4 (18%)
56	5MU	1L	54	56	19,22,23	3.87	5 (26%)	28,32,35	3.17	9 (32%)
22	5MU	1K	54	22	19,22,23	3.90	5 (26%)	28,32,35	2.99	7 (25%)

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
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
22	CM0	1K	34	22	-	6/12/30/31	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	PSU	1L	55	56	-	2/7/25/26	0/2/2/2
22	6MZ	1K	37	22	-	2/5/27/28	0/3/3/3
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23,57	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	55	22	-	2/7/25/26	0/2/2/2
22	H2U	1K	17	22	-	1/7/38/39	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	7MG	2L	47	23	-	3/7/37/38	0/3/3/3
23	7MG	2K	47	23	-	0/7/37/38	0/3/3/3
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
56	5MU	1L	54	56	-	0/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2

All (67) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	34	CM0	C6-C5	14.10	1.50	1.34
22	1K	54	5MU	C2-N1	12.81	1.59	1.38
23	2L	55	5MU	C2-N1	12.78	1.59	1.38
56	1L	54	5MU	C2-N1	12.69	1.58	1.38
23	2K	55	5MU	C2-N1	12.54	1.58	1.38
23	2K	47	7MG	C5-N7	8.40	1.45	1.35
23	2L	47	7MG	C5-N7	8.40	1.45	1.35
23	2K	47	7MG	C4-N9	-7.75	1.28	1.37
22	1K	37	6MZ	C6-N6	7.71	1.47	1.35
22	1K	34	CM0	C2-N3	6.48	1.49	1.38
22	1K	17	H2U	C2-N1	6.35	1.44	1.35
22	1K	34	CM0	C2-N1	6.25	1.48	1.38
23	2L	55	5MU	C2-N3	6.21	1.49	1.38
23	2L	47	7MG	C4-N3	6.20	1.49	1.34
56	1L	54	5MU	C4-N3	-6.16	1.27	1.38
23	2K	55	5MU	C2-N3	6.02	1.48	1.38
22	1K	54	5MU	C2-N3	5.91	1.48	1.38
23	2K	47	7MG	C4-N3	5.88	1.48	1.34
23	2L	8	4SU	C5-C4	5.87	1.50	1.42
23	2K	55	5MU	C4-N3	-5.78	1.28	1.38
56	1L	54	5MU	C2-N3	5.75	1.48	1.38
23	2L	55	5MU	C4-N3	-5.74	1.28	1.38
22	1K	54	5MU	C6-N1	5.59	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	54	5MU	C4-N3	-5.57	1.28	1.38
23	2K	55	5MU	C6-N1	5.50	1.47	1.38
23	2L	55	5MU	C6-N1	5.50	1.47	1.38
23	2K	8	4SU	C5-C4	5.46	1.49	1.42
56	1L	54	5MU	C6-N1	5.40	1.47	1.38
23	2L	55	5MU	C4-C5	5.03	1.53	1.44
22	1K	54	5MU	C4-C5	4.90	1.52	1.44
56	1L	55	PSU	C6-C5	4.90	1.41	1.35
22	1K	34	CM0	C6-N1	4.73	1.46	1.38
23	2K	33	OMC	C2-N3	4.66	1.45	1.36
23	2L	47	7MG	C4-N9	-4.66	1.32	1.37
23	2L	33	OMC	C2-N3	4.58	1.45	1.36
22	1K	55	PSU	C6-C5	4.57	1.40	1.35
56	1L	54	5MU	C4-C5	4.54	1.52	1.44
23	2K	33	OMC	C4-N4	4.50	1.44	1.33
23	2K	55	5MU	C4-C5	4.49	1.52	1.44
23	2K	47	7MG	C5-C4	-4.44	1.23	1.38
23	2K	8	4SU	C2-N1	4.35	1.45	1.38
23	2L	33	OMC	C4-N4	4.26	1.43	1.33
22	1K	34	CM0	C4-N3	4.17	1.46	1.38
22	1K	17	H2U	C2-N3	4.11	1.45	1.38
23	2L	47	7MG	C5-C4	-3.75	1.25	1.38
23	2L	56	PSU	C6-C5	3.69	1.39	1.35
23	2K	56	PSU	C6-C5	3.65	1.39	1.35
23	2K	33	OMC	C5-C4	3.63	1.51	1.42
23	2L	33	OMC	C5-C4	3.62	1.51	1.42
23	2L	8	4SU	C2-N1	3.61	1.44	1.38
23	2K	47	7MG	C2-N2	3.48	1.42	1.34
22	1K	17	H2U	C4-N3	3.44	1.43	1.37
23	2L	8	4SU	C6-N1	3.20	1.45	1.38
23	2L	47	7MG	C2-N2	3.08	1.41	1.34
22	1K	37	6MZ	C5-C4	-3.08	1.32	1.40
23	2K	8	4SU	C6-N1	2.91	1.45	1.38
23	2L	47	7MG	C8-N9	2.71	1.47	1.46
22	1K	37	6MZ	C2-N3	2.70	1.36	1.32
22	1K	17	H2U	C6-N1	-2.62	1.42	1.47
22	1K	34	CM0	O2-C2	-2.55	1.18	1.23
23	2L	47	7MG	C5-C6	2.25	1.49	1.43
23	2L	47	7MG	C6-N1	-2.18	1.34	1.38
22	1K	37	6MZ	C9-N6	2.18	1.48	1.45
22	1K	34	CM0	O5-C5	2.13	1.41	1.36
23	2K	47	7MG	C6-N1	-2.09	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	56	PSU	C4-C5	-2.06	1.38	1.44
23	2L	33	OMC	C6-N1	2.03	1.42	1.38

All (92) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C4-N3	10.74	124.48	115.31
56	1L	54	5MU	C5-C4-N3	10.28	124.09	115.31
22	1K	54	5MU	C5-C4-N3	10.26	124.07	115.31
23	2L	55	5MU	C5-C4-N3	9.92	123.78	115.31
23	2K	8	4SU	C4-N3-C2	-8.58	119.00	127.34
23	2L	8	4SU	C4-N3-C2	-8.55	119.03	127.34
22	1K	17	H2U	C4-N3-C2	-7.66	119.43	125.79
23	2L	8	4SU	C5-C4-N3	7.52	121.67	114.69
23	2K	8	4SU	C5-C4-N3	7.11	121.28	114.69
23	2L	47	7MG	C4-C5-N7	7.03	115.29	105.53
23	2K	47	7MG	C4-C5-N7	6.76	114.92	105.53
23	2K	55	5MU	C4-N3-C2	-6.30	119.19	127.35
23	2K	55	5MU	O4-C4-C5	-6.17	117.75	124.90
23	2L	47	7MG	C6-C5-N7	-6.13	122.27	131.91
56	1L	54	5MU	C4-N3-C2	-6.10	119.46	127.35
22	1K	37	6MZ	C9-N6-C6	-5.81	117.87	122.87
23	2L	55	5MU	C4-N3-C2	-5.80	119.85	127.35
23	2L	47	7MG	CM7-N7-C5	5.75	141.25	126.40
23	2K	47	7MG	CM7-N7-C5	5.70	141.11	126.40
23	2K	47	7MG	C5-C4-N9	5.70	113.75	106.35
23	2L	47	7MG	C5-C4-N9	5.69	113.73	106.35
56	1L	54	5MU	C6-C5-C4	5.68	122.78	118.03
22	1K	37	6MZ	N3-C2-N1	-5.63	119.88	128.68
23	2L	47	7MG	C5-C4-N3	-5.57	117.52	128.13
22	1K	54	5MU	C5-C6-N1	-5.47	117.71	123.34
56	1L	54	5MU	C5-C6-N1	-5.43	117.76	123.34
23	2K	55	5MU	C5-C6-N1	-5.41	117.78	123.34
56	1L	54	5MU	O4-C4-C5	-5.35	118.70	124.90
22	1K	54	5MU	C4-N3-C2	-5.33	120.45	127.35
23	2K	55	5MU	C6-C5-C4	5.24	122.41	118.03
23	2K	56	PSU	N1-C2-N3	5.20	121.02	115.13
22	1K	54	5MU	O4-C4-C5	-5.11	118.98	124.90
23	2L	55	5MU	C6-C5-C4	5.08	122.28	118.03
22	1K	17	H2U	N3-C2-N1	5.03	121.97	116.65
23	2K	47	7MG	C5-C6-N1	5.01	119.82	110.99
23	2L	55	5MU	O4-C4-C5	-4.95	119.16	124.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	34	CM0	C4-N3-C2	-4.84	121.09	127.35
22	1K	54	5MU	C6-C5-C4	4.81	122.05	118.03
23	2K	56	PSU	C4-N3-C2	-4.80	119.43	126.34
23	2L	47	7MG	C5-C6-N1	4.79	119.43	110.99
23	2L	55	5MU	C5-C6-N1	-4.79	118.42	123.34
23	2L	55	5MU	C5M-C5-C6	-4.53	116.81	122.85
23	2L	47	7MG	C2-N3-C4	4.48	120.28	112.30
23	2L	56	PSU	C4-N3-C2	-4.46	119.91	126.34
22	1K	55	PSU	N1-C2-N3	4.39	120.10	115.13
56	1L	54	5MU	C5M-C5-C6	-4.20	117.25	122.85
23	2K	47	7MG	C6-C5-N7	-4.17	125.35	131.91
23	2K	8	4SU	N3-C2-N1	4.08	120.30	114.89
23	2L	8	4SU	N3-C2-N1	4.07	120.29	114.89
23	2L	33	OMC	O2'-C2'-C1'	4.00	116.89	109.08
22	1K	55	PSU	C6-N1-C2	-3.98	118.61	122.68
22	1K	54	5MU	C5M-C5-C6	-3.94	117.58	122.85
23	2K	8	4SU	C5-C4-S4	-3.90	119.44	124.47
23	2K	47	7MG	C2-N3-C4	3.88	119.20	112.30
22	1K	34	CM0	N3-C2-N1	3.86	120.01	114.89
23	2K	55	5MU	C5M-C5-C6	-3.77	117.81	122.85
23	2L	8	4SU	C5-C4-S4	-3.72	119.67	124.47
23	2K	47	7MG	O6-C6-C5	-3.61	118.69	127.54
23	2L	56	PSU	N1-C2-N3	3.52	119.12	115.13
23	2K	47	7MG	C5-C4-N3	-3.50	121.47	128.13
56	1L	55	PSU	N1-C2-N3	3.46	119.05	115.13
23	2K	56	PSU	C6-N1-C2	-3.44	119.16	122.68
22	1K	55	PSU	O2-C2-N1	-3.39	119.06	122.79
23	2L	55	5MU	C6-N1-C2	-3.37	117.88	121.30
56	1L	54	5MU	C6-N1-C2	-3.34	117.92	121.30
22	1K	55	PSU	C4-N3-C2	-3.31	121.57	126.34
23	2L	47	7MG	C2-N1-C6	-3.29	119.11	125.10
22	1K	17	H2U	C5-C4-N3	3.27	120.32	116.65
23	2K	47	7MG	N9-C8-N7	-3.24	98.75	103.38
56	1L	55	PSU	C4-N3-C2	-3.11	121.85	126.34
22	1K	37	6MZ	C2-N1-C6	2.99	119.15	116.59
56	1L	55	PSU	C6-N1-C2	-2.95	119.66	122.68
23	2K	55	5MU	C6-N1-C2	-2.94	118.32	121.30
56	1L	55	PSU	O2-C2-N1	-2.92	119.57	122.79
22	1K	17	H2U	O2-C2-N1	-2.90	119.47	123.11
23	2K	47	7MG	C2-N1-C6	-2.84	119.92	125.10
23	2K	56	PSU	O2-C2-N1	-2.78	119.73	122.79
23	2L	47	7MG	O6-C6-C5	-2.75	120.79	127.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	17	H2U	C5-C6-N1	2.60	120.18	111.61
22	1K	34	CM0	O2-C2-N1	-2.57	119.37	122.79
23	2K	33	OMC	N4-C4-N3	2.47	122.30	117.97
22	1K	54	5MU	C1'-N1-C2	2.38	121.88	117.57
22	1K	34	CM0	C6-N1-C2	-2.36	118.91	121.30
56	1L	54	5MU	N3-C2-N1	2.34	118.00	114.89
56	1L	54	5MU	C1'-N1-C2	2.25	121.65	117.57
23	2K	33	OMC	C6-C5-C4	2.24	121.12	117.50
23	2L	55	5MU	C1'-N1-C2	2.24	121.62	117.57
23	2K	55	5MU	N3-C2-N1	2.20	117.82	114.89
23	2K	47	7MG	N2-C2-N1	2.20	121.40	116.71
23	2L	47	7MG	N9-C4-N3	2.20	128.75	125.47
23	2L	55	5MU	N3-C2-N1	2.18	117.79	114.89
23	2K	33	OMC	C1'-N1-C2	2.10	123.11	118.42

There are no chirality outliers.

All (16) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	34	CM0	O4'-C4'-C5'-O5'
23	2L	47	7MG	C2'-C1'-N9-C8
22	1K	34	CM0	C3'-C4'-C5'-O5'
22	1K	34	CM0	O5-C7-C8-O8
22	1K	34	CM0	C6-C5-O5-C7
22	1K	34	CM0	O5-C7-C8-O9
22	1K	34	CM0	C4-C5-O5-C7
22	1K	37	6MZ	O4'-C4'-C5'-O5'
22	1K	37	6MZ	C3'-C4'-C5'-O5'
22	1K	55	PSU	O4'-C1'-C5-C4
56	1L	55	PSU	O4'-C1'-C5-C4
23	2L	47	7MG	O4'-C4'-C5'-O5'
22	1K	17	H2U	C4'-C5'-O5'-P
22	1K	55	PSU	O4'-C1'-C5-C6
56	1L	55	PSU	O4'-C1'-C5-C6
23	2L	47	7MG	C3'-C4'-C5'-O5'

There are no ring outliers.

13 monomers are involved in 22 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	8	4SU	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2K	33	OMC	1	0
22	1K	34	CM0	1	0
23	2K	8	4SU	1	0
23	2K	55	5MU	3	0
23	2L	33	OMC	3	0
23	2L	55	5MU	3	0
22	1K	55	PSU	2	0
22	1K	17	H2U	2	0
23	2L	47	7MG	1	0
23	2K	47	7MG	2	0
56	1L	54	5MU	1	0
22	1K	54	5MU	1	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1355 ligands modelled in this entry, 1348 are monoatomic - leaving 7 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
58	SPE	14	3445	26	12,12,12	0.58	0	11,11,11	0.89	0
59	SF4	32	301	4	0,12,12	-	-	-		
58	SPE	1J	208	-	12,12,12	0.40	0	11,11,11	0.88	0
58	SPE	13	1748	1	12,12,12	0.49	0	11,11,11	0.97	1 (9%)
58	SPE	14	3446	-	12,12,12	0.73	0	11,11,11	0.98	1 (9%)
59	SF4	3E	301	4	0,12,12	-	-	-		
58	SPE	1G	1733	-	12,12,12	0.40	0	11,11,11	0.91	0

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
58	SPE	14	3445	26	-	6/10/10/10	-
59	SF4	32	301	4	-	-	0/6/5/5
58	SPE	1J	208	-	-	5/10/10/10	-
58	SPE	13	1748	1	-	7/10/10/10	-
58	SPE	14	3446	-	-	5/10/10/10	-
59	SF4	3E	301	4	-	-	0/6/5/5
58	SPE	1G	1733	-	-	4/10/10/10	-

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
58	13	1748	SPE	C11-C10-N9	-2.43	105.58	112.14
58	14	3446	SPE	C11-C10-N9	-2.39	105.69	112.14

There are no chirality outliers.

All (27) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	14	3445	SPE	C2-C3-C4-N5
58	14	3446	SPE	N9-C10-C11-C12
58	13	1748	SPE	C2-C3-C4-N5
58	13	1748	SPE	N9-C10-C11-C12
58	13	1748	SPE	C7-C6-N5-C4
58	1J	208	SPE	N5-C6-C7-C8
58	1G	1733	SPE	C3-C4-N5-C6
58	13	1748	SPE	N5-C6-C7-C8
58	14	3446	SPE	C6-C7-C8-N9
58	1J	208	SPE	C3-C4-N5-C6
58	1J	208	SPE	C11-C10-N9-C8
58	1G	1733	SPE	C10-C11-C12-N13
58	14	3446	SPE	N1-C2-C3-C4
58	13	1748	SPE	C3-C4-N5-C6
58	14	3445	SPE	N9-C10-C11-C12
58	1G	1733	SPE	N9-C10-C11-C12
58	14	3446	SPE	C7-C6-N5-C4
58	1J	208	SPE	N1-C2-C3-C4
58	14	3446	SPE	C11-C10-N9-C8
58	13	1748	SPE	C6-C7-C8-N9

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Mol	Chain	Res	Type	Atoms
58	14	3445	SPE	N5-C6-C7-C8
58	14	3445	SPE	C6-C7-C8-N9
58	14	3445	SPE	C7-C6-N5-C4
58	13	1748	SPE	C10-C11-C12-N13
58	1G	1733	SPE	N1-C2-C3-C4
58	1J	208	SPE	C7-C6-N5-C4
58	14	3445	SPE	C11-C10-N9-C8

There are no ring outliers.

6 monomers are involved in 19 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	14	3445	SPE	5	0
59	32	301	SF4	1	0
58	1J	208	SPE	1	0
58	13	1748	SPE	3	0
58	14	3446	SPE	6	0
59	3E	301	SF4	3	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
2	1E	1
25	4K	1
3	22	1
10	1A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	1E	78:GLN	C	79:ASP	N	4.14
1	4K	25:A	O3'	26:A	P	3.23
1	22	173:VAL	C	174:PRO	N	1.71
1	1A	38:ILE	C	39:PRO	N	1.62

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	1496/1522 (98%)	-0.40	5 (0%) 94 87	57, 98, 164, 235	0
1	1G	1506/1522 (98%)	-0.45	4 (0%) 94 87	68, 105, 166, 238	0
2	12	207/256 (80%)	1.12	47 (22%) 0 0	121, 148, 168, 185	0
2	1E	235/256 (91%)	0.46	18 (7%) 13 7	108, 135, 160, 171	0
3	22	195/239 (81%)	1.28	49 (25%) 0 0	113, 131, 152, 164	0
3	2E	205/239 (85%)	1.21	46 (22%) 0 0	85, 107, 142, 149	0
4	32	208/209 (99%)	0.84	30 (14%) 2 1	84, 101, 123, 132	0
4	3E	207/209 (99%)	0.55	19 (9%) 9 5	77, 103, 125, 132	0
5	42	149/162 (91%)	0.16	5 (3%) 45 29	91, 111, 128, 149	0
5	4E	149/162 (91%)	0.21	3 (2%) 65 48	79, 98, 118, 135	0
6	52	101/101 (100%)	0.84	11 (10%) 5 3	81, 97, 110, 131	0
6	5E	100/101 (99%)	0.91	12 (12%) 4 2	83, 99, 113, 123	0
7	62	140/156 (89%)	0.89	20 (14%) 2 1	103, 119, 131, 138	0
7	6E	154/156 (98%)	0.98	21 (13%) 3 1	98, 113, 138, 162	0
8	72	137/138 (99%)	-0.18	1 (0%) 87 76	90, 114, 125, 128	0
8	7E	138/138 (100%)	0.07	5 (3%) 42 28	87, 102, 113, 120	0
9	82	121/128 (94%)	0.41	7 (5%) 23 14	101, 144, 160, 164	0
9	8E	126/128 (98%)	0.66	12 (9%) 8 5	84, 133, 153, 157	0
10	1A	80/105 (76%)	0.31	8 (10%) 7 4	111, 138, 152, 156	0
10	1I	95/105 (90%)	2.01	48 (50%) 0 0	80, 127, 155, 159	0
11	2A	113/129 (87%)	1.68	40 (35%) 0 0	78, 103, 117, 120	0
11	2I	111/129 (86%)	0.91	16 (14%) 2 1	70, 99, 115, 125	0
12	3A	122/132 (92%)	0.84	18 (14%) 2 1	74, 91, 116, 132	0
12	3I	122/132 (92%)	0.30	3 (2%) 57 40	65, 76, 103, 112	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	111/126 (88%)	0.33	4 (3%) 42 28	102, 129, 143, 152	0
13	4I	119/126 (94%)	0.30	6 (5%) 28 18	87, 111, 129, 139	0
14	5A	59/61 (96%)	1.73	24 (40%) 0 0	118, 129, 141, 142	0
14	5I	60/61 (98%)	0.43	4 (6%) 17 10	83, 97, 112, 119	0
15	6A	87/89 (97%)	-0.04	0 100 100	79, 100, 115, 117	0
15	6I	87/89 (97%)	0.80	10 (11%) 4 3	75, 94, 109, 116	0
16	7A	84/88 (95%)	0.03	1 (1%) 79 63	85, 98, 119, 145	0
16	7I	83/88 (94%)	0.13	2 (2%) 59 42	91, 107, 132, 147	0
17	8A	99/105 (94%)	0.14	2 (2%) 65 48	89, 100, 117, 120	0
17	8I	100/105 (95%)	0.32	3 (3%) 50 34	81, 98, 108, 115	0
18	9A	67/88 (76%)	0.87	10 (14%) 2 1	87, 101, 125, 129	0
18	9I	68/88 (77%)	0.94	11 (16%) 1 1	85, 100, 125, 128	0
19	AA	62/93 (66%)	0.27	5 (8%) 12 6	118, 142, 155, 158	0
19	AI	82/93 (88%)	0.77	12 (14%) 2 1	95, 110, 128, 136	0
20	BA	99/106 (93%)	0.43	4 (4%) 38 25	85, 104, 128, 140	0
20	BI	97/106 (91%)	0.25	6 (6%) 20 12	103, 117, 138, 145	0
21	1B	22/27 (81%)	0.92	3 (13%) 3 1	110, 116, 124, 134	0
21	1F	23/27 (85%)	0.76	3 (13%) 3 2	90, 98, 106, 108	0
22	1K	67/76 (88%)	0.62	7 (10%) 6 4	80, 167, 196, 203	0
23	2K	72/77 (93%)	-0.22	1 (1%) 75 59	68, 89, 116, 129	0
23	2L	71/77 (92%)	-0.04	0 100 100	78, 100, 132, 145	0
24	3K	70/76 (92%)	0.66	11 (15%) 2 1	71, 198, 222, 224	0
24	3L	71/76 (93%)	0.66	9 (12%) 3 2	78, 191, 215, 218	0
25	4K	21/30 (70%)	0.83	2 (9%) 8 5	69, 129, 212, 213	0
25	4L	19/30 (63%)	0.27	1 (5%) 26 16	85, 144, 210, 210	0
26	14	2810/2917 (96%)	-0.12	30 (1%) 80 65	54, 81, 180, 237	0
26	1H	2841/2917 (97%)	-0.12	27 (0%) 82 68	44, 70, 166, 244	0
27	16	122/122 (100%)	-0.66	1 (0%) 86 73	65, 87, 105, 180	0
27	1J	122/122 (100%)	-0.71	0 100 100	79, 106, 125, 185	0
28	71	133/229 (58%)	2.14	60 (45%) 0 0	136, 194, 219, 229	0
28	79	57/229 (24%)	0.84	11 (19%) 1 0	136, 178, 198, 205	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	11	273/276 (98%)	0.32	4 (1%) 73 57	44, 62, 78, 94	0
29	19	274/276 (99%)	0.84	24 (8%) 10 5	50, 72, 87, 102	0
30	21	202/206 (98%)	0.87	29 (14%) 2 1	49, 82, 115, 123	0
30	29	204/206 (99%)	0.78	27 (13%) 3 2	57, 88, 124, 135	0
31	31	202/210 (96%)	0.75	27 (13%) 3 1	46, 75, 108, 123	0
31	39	204/210 (97%)	0.66	21 (10%) 6 4	57, 95, 139, 164	0
32	41	179/182 (98%)	0.35	7 (3%) 39 25	75, 95, 124, 138	0
32	49	181/182 (99%)	1.04	40 (22%) 0 0	99, 118, 142, 156	0
33	51	174/180 (96%)	0.09	6 (3%) 45 29	76, 99, 116, 128	0
33	59	167/180 (92%)	1.60	57 (34%) 0 0	123, 190, 216, 225	0
34	61	146/148 (98%)	0.75	20 (13%) 3 1	75, 119, 134, 148	0
34	69	145/148 (97%)	0.57	17 (11%) 4 2	80, 115, 138, 144	0
35	15	138/140 (98%)	1.02	24 (17%) 1 1	76, 98, 124, 139	0
35	58	137/140 (97%)	0.55	11 (8%) 12 7	64, 84, 113, 134	0
36	25	122/122 (100%)	0.79	14 (11%) 4 3	68, 81, 97, 107	0
36	68	122/122 (100%)	0.49	1 (0%) 86 73	57, 72, 87, 93	0
37	35	147/150 (98%)	0.89	24 (16%) 1 1	58, 93, 121, 133	0
37	78	147/150 (98%)	0.32	5 (3%) 45 29	46, 77, 98, 106	0
38	45	139/141 (98%)	1.17	31 (22%) 0 0	70, 94, 112, 126	0
38	88	141/141 (100%)	0.45	9 (6%) 19 11	57, 74, 97, 117	0
39	55	118/118 (100%)	0.17	3 (2%) 57 40	61, 77, 92, 109	0
39	98	118/118 (100%)	0.80	13 (11%) 5 3	58, 76, 94, 104	0
40	65	110/112 (98%)	0.61	8 (7%) 15 8	82, 100, 119, 130	0
40	A8	111/112 (99%)	1.03	17 (15%) 2 1	73, 86, 104, 112	0
41	75	133/146 (91%)	0.17	3 (2%) 60 43	76, 88, 117, 142	0
41	B8	136/146 (93%)	0.04	2 (1%) 73 57	66, 83, 121, 152	0
42	85	116/118 (98%)	0.68	9 (7%) 13 7	65, 91, 116, 123	0
42	C8	115/118 (97%)	0.36	5 (4%) 35 22	57, 75, 96, 106	0
43	95	100/101 (99%)	1.23	24 (24%) 0 0	65, 108, 126, 132	0
43	D8	100/101 (99%)	0.92	13 (13%) 3 2	56, 92, 111, 125	0
44	A5	111/113 (98%)	0.61	7 (6%) 20 11	62, 73, 95, 128	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	E8	110/113 (97%)	0.47	6 (5%) 25 15	57, 69, 90, 101	0
45	B5	94/96 (97%)	0.41	7 (7%) 14 8	66, 80, 103, 111	0
45	F8	95/96 (98%)	0.13	2 (2%) 63 46	50, 66, 91, 99	0
46	C5	104/110 (94%)	1.58	26 (25%) 0 0	84, 110, 143, 150	0
46	G8	103/110 (93%)	0.21	2 (1%) 66 49	74, 91, 118, 125	0
47	D5	133/206 (64%)	1.70	48 (36%) 0 0	93, 123, 150, 159	0
47	H8	170/206 (82%)	2.15	78 (45%) 0 0	77, 112, 191, 198	0
48	E5	76/85 (89%)	0.06	1 (1%) 77 61	58, 82, 94, 108	0
48	I8	77/85 (90%)	-0.17	2 (2%) 56 39	54, 70, 87, 98	0
49	F5	94/98 (95%)	0.67	5 (5%) 26 16	61, 76, 117, 123	0
49	J8	94/98 (95%)	0.53	5 (5%) 26 16	49, 70, 115, 135	0
50	G5	69/72 (95%)	0.64	5 (7%) 15 8	77, 96, 113, 130	0
50	K8	68/72 (94%)	0.07	1 (1%) 73 57	60, 76, 94, 124	0
51	H5	58/60 (96%)	1.35	15 (25%) 0 0	73, 90, 118, 123	0
51	L8	58/60 (96%)	0.09	0 100 100	59, 75, 94, 101	0
52	I5	63/71 (88%)	3.48	46 (73%) 0 0	132, 174, 191, 195	0
52	M8	61/71 (85%)	1.37	16 (26%) 0 0	96, 137, 167, 174	0
53	J5	56/60 (93%)	0.62	6 (10%) 6 3	57, 81, 130, 140	0
53	N8	56/60 (93%)	1.22	10 (17%) 1 1	50, 83, 145, 155	0
54	L5	47/49 (95%)	0.18	1 (2%) 63 46	51, 61, 82, 96	0
54	P8	47/49 (95%)	0.05	0 100 100	44, 53, 68, 89	0
55	M5	64/65 (98%)	0.54	2 (3%) 49 32	64, 76, 89, 114	0
55	Q8	64/65 (98%)	0.06	1 (1%) 72 55	52, 64, 78, 91	0
56	1L	67/76 (88%)	1.41	17 (25%) 0 0	98, 180, 207, 210	0
All	All	20742/22044 (94%)	0.30	1522 (7%) 15 8	44, 93, 167, 244	0

All (1522) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
26	14	2902	C	15.3
46	C5	59	GLY	14.8
52	I5	52	THR	11.4
26	14	2901	C	11.2
43	D8	37	VAL	11.2

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Mol	Chain	Res	Type	RSRZ
28	71	175	VAL	11.0
53	N8	54	GLY	10.9
47	H8	111	VAL	10.9
53	N8	55	ARG	10.4
47	D5	66	SER	9.7
33	59	96	ALA	9.4
26	14	2795	G	8.6
47	H8	5	LEU	8.6
2	12	62	ALA	8.6
40	A8	110	LEU	8.6
14	5A	39	LEU	8.6
33	59	17	VAL	8.5
29	19	26	LYS	8.4
47	H8	141	VAL	8.3
28	71	58	VAL	8.3
49	J8	94	LEU	8.3
53	N8	58	LEU	8.2
52	I5	31	ILE	8.2
33	59	105	LEU	8.1
46	C5	44	ILE	8.1
14	5A	38	GLY	8.1
12	3A	28	LYS	8.0
28	71	193	ILE	8.0
26	14	2898	U	7.9
52	I5	57	GLU	7.9
28	71	228	SER	7.8
37	35	110	TYR	7.8
26	14	2899	G	7.6
50	G5	45	SER	7.6
26	14	2900	A	7.5
43	D8	45	THR	7.4
1	13	344	A	7.3
47	H8	146	ILE	7.3
46	C5	49	VAL	7.2
56	1L	71	C	7.2
28	71	19	ILE	7.2
28	71	164	ARG	7.0
47	H8	106	GLY	7.0
53	N8	57	VAL	6.9
49	J8	95	LEU	6.9
50	G5	44	LEU	6.8
46	C5	58	GLY	6.8

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Mol	Chain	Res	Type	RSRZ
52	I5	40	HIS	6.7
56	1L	1	G	6.7
28	71	176	GLY	6.7
47	D5	68	PRO	6.7
56	1L	76	A	6.6
56	1L	69	A	6.5
46	C5	47	LYS	6.5
26	1H	2798	C	6.4
12	3A	64	TYR	6.4
30	29	78	LEU	6.4
47	H8	149	SER	6.4
12	3A	61	THR	6.4
47	H8	144	LEU	6.4
3	22	64	VAL	6.3
52	I5	22	ILE	6.3
10	1I	71	LEU	6.3
52	I5	28	LYS	6.2
38	45	104	PHE	6.2
52	I5	29	PRO	6.2
52	I5	24	THR	6.2
56	1L	74	C	6.2
46	C5	45	VAL	6.1
26	1H	1536	A	6.1
33	59	95	ARG	6.1
40	65	109	GLY	6.1
10	1I	72	VAL	6.1
30	29	76	ARG	6.0
10	1A	63	PHE	6.0
26	14	2802	G	5.9
14	5A	34	TYR	5.9
52	I5	56	VAL	5.9
47	H8	107	THR	5.9
52	M8	55	ARG	5.8
47	D5	58	VAL	5.8
3	22	146	ALA	5.8
52	I5	58	ARG	5.7
50	K8	43	GLN	5.7
22	1K	76	A	5.7
33	59	97	ARG	5.6
14	5A	51	GLY	5.6
30	29	71	GLY	5.6
53	N8	53	ALA	5.6

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Mol	Chain	Res	Type	RSRZ
26	14	1509	C	5.6
3	22	204	LEU	5.6
47	D5	9	TYR	5.5
25	4K	13	A	5.5
47	H8	104	PHE	5.5
53	J5	55	ARG	5.5
2	12	39	ILE	5.5
31	39	22	ALA	5.5
47	D5	50	GLN	5.5
10	1I	38	ILE	5.5
28	71	13	LYS	5.4
52	I5	39	CYS	5.4
30	21	90	THR	5.4
47	H8	1	MET	5.4
4	3E	167	GLY	5.4
2	12	224	GLN	5.4
7	6E	81	GLY	5.4
47	H8	110	GLY	5.4
52	I5	54	GLY	5.4
7	6E	78	ARG	5.4
43	95	44	LYS	5.3
40	65	60	GLY	5.3
26	1H	2795	G	5.3
26	14	2897	U	5.3
32	49	142	PRO	5.3
47	H8	153	SER	5.3
6	5E	46	ARG	5.3
3	22	177	THR	5.2
46	C5	60	PHE	5.2
46	C5	63	LYS	5.2
12	3A	27	LEU	5.2
33	59	131	VAL	5.2
47	D5	57	ILE	5.2
38	45	33	GLY	5.2
28	71	187	ASP	5.2
12	3I	64	TYR	5.1
10	1I	91	PRO	5.1
1	1G	1032	A	5.1
7	6E	84	ASN	5.1
56	1L	73	A	5.1
3	2E	72	LYS	5.1
38	45	102	VAL	5.1

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Mol	Chain	Res	Type	RSRZ
47	H8	164	ALA	5.1
56	1L	3	G	5.1
26	14	2799	A	5.0
52	I5	42	PHE	5.0
33	59	45	VAL	5.0
33	59	128	PRO	5.0
26	1H	2799	A	5.0
30	21	89	ASP	5.0
30	21	54	GLN	5.0
34	69	78	THR	5.0
56	1L	75	C	4.9
31	39	14	PRO	4.9
52	I5	47	GLN	4.9
47	H8	145	GLU	4.9
2	12	223	ILE	4.9
12	3A	63	GLY	4.9
2	12	131	PRO	4.9
33	59	100	GLY	4.9
40	65	108	GLY	4.9
47	H8	148	ASP	4.9
35	15	51	PHE	4.9
3	22	101	LEU	4.9
10	1I	34	VAL	4.8
14	5A	37	PHE	4.8
33	59	99	VAL	4.8
52	I5	35	VAL	4.8
47	H8	118	GLN	4.8
47	H8	165	VAL	4.8
6	5E	47	ARG	4.8
47	H8	147	GLY	4.7
32	49	139	LEU	4.7
43	95	1	MET	4.7
10	1A	34	VAL	4.7
40	A8	112	PHE	4.7
10	1I	74	ILE	4.7
46	C5	53	PRO	4.7
28	71	27	HIS	4.7
31	39	20	LEU	4.7
33	59	115	VAL	4.7
2	1E	10	LEU	4.7
52	I5	10	VAL	4.7
44	E8	92	ARG	4.6

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Mol	Chain	Res	Type	RSRZ
26	14	2794	C	4.6
10	1I	8	LEU	4.6
28	71	174	PRO	4.6
47	D5	56	VAL	4.6
26	14	2798	C	4.6
26	14	2896	C	4.6
4	3E	163	GLU	4.6
52	I5	63	TYR	4.6
47	H8	109	ALA	4.6
33	59	94	TYR	4.6
2	12	165	VAL	4.6
18	9A	85	LEU	4.6
11	2A	91	ARG	4.6
51	H5	2	PRO	4.5
10	1I	22	LYS	4.5
56	1L	70	C	4.5
30	29	88	GLY	4.5
27	16	1(M)	A	4.5
10	1I	29	ARG	4.5
28	71	59	ARG	4.5
11	2A	50	TYR	4.5
31	31	6	VAL	4.5
47	D5	69	THR	4.5
33	59	90	LYS	4.5
4	32	34	GLU	4.5
33	59	111	HIS	4.5
47	H8	113	ALA	4.5
28	71	209	LEU	4.5
11	2A	49	GLY	4.5
37	35	106	LEU	4.5
33	59	89	ILE	4.4
10	1I	10	GLY	4.4
3	2E	167	TRP	4.4
52	M8	53	GLU	4.4
11	2A	96	ARG	4.4
14	5A	53	LEU	4.4
47	H8	70	LEU	4.4
28	71	43	VAL	4.4
5	42	109	ILE	4.4
28	71	173	ALA	4.4
3	2E	193	TYR	4.4
32	49	182	LYS	4.4

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Mol	Chain	Res	Type	RSRZ
53	N8	51	TYR	4.4
11	2A	95	ILE	4.3
47	D5	3	TYR	4.3
37	35	138	LEU	4.3
47	H8	156	LYS	4.3
7	6E	82	GLY	4.3
2	12	163	PHE	4.3
38	45	64	ILE	4.3
13	4I	6	GLY	4.3
4	3E	110	PHE	4.3
52	I5	43	TYR	4.3
52	I5	55	ARG	4.3
32	41	88	ILE	4.3
47	H8	59	LEU	4.3
47	H8	155	LEU	4.3
38	45	105	GLU	4.3
33	59	33	LEU	4.3
10	1I	19	SER	4.3
28	71	35	ALA	4.2
29	19	44	ASN	4.2
28	71	171	ILE	4.2
4	3E	145	GLU	4.2
33	59	14	GLY	4.2
9	8E	94	ALA	4.2
52	I5	27	THR	4.2
3	22	53	ALA	4.2
14	5A	52	GLN	4.2
1	13	1032(A)	G	4.2
10	1I	46	ARG	4.2
28	71	64	LEU	4.2
33	59	155	SER	4.2
47	D5	8	TYR	4.2
24	3L	6	A	4.2
35	15	8	GLN	4.2
3	2E	86	VAL	4.2
10	1I	94	VAL	4.2
52	I5	32	TYR	4.2
46	C5	29	GLU	4.2
2	12	154	LEU	4.1
3	2E	200	ALA	4.1
52	M8	32	TYR	4.2
53	J5	51	TYR	4.2

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Mol	Chain	Res	Type	RSRZ
35	15	138	LEU	4.1
30	21	91	VAL	4.1
51	H5	26	LEU	4.1
3	2E	79	ARG	4.1
28	71	212	VAL	4.1
7	6E	85	TYR	4.1
2	12	129	GLU	4.1
30	29	51	PHE	4.1
42	85	90	VAL	4.1
32	49	155	MET	4.1
38	88	104	PHE	4.1
2	12	134	GLU	4.1
32	49	150	ASP	4.1
3	2E	87	LEU	4.1
28	79	54	SER	4.1
30	21	88	GLY	4.0
3	22	135	LYS	4.0
35	15	12	ARG	4.0
7	62	42	ILE	4.0
43	95	6	LYS	4.0
3	2E	101	LEU	4.0
28	71	9	ALA	4.0
30	29	69	LYS	4.0
30	29	77	ILE	4.0
2	12	133	LYS	4.0
3	22	198	VAL	4.0
34	69	80	PRO	4.0
10	1I	90	LEU	4.0
47	H8	114	GLY	4.0
10	1I	97	GLU	4.0
34	61	141	LYS	4.0
40	A8	49	VAL	4.0
34	61	123	LEU	4.0
47	H8	134	PRO	3.9
3	22	132	ARG	3.9
24	3K	45	G	3.9
28	71	11	LEU	3.9
3	22	158	GLY	3.9
28	71	12	GLU	3.9
33	59	25	LYS	3.9
32	49	177	GLY	3.9
11	2A	30	VAL	3.9

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Mol	Chain	Res	Type	RSRZ
9	8E	102	LEU	3.9
26	14	229	A	3.9
35	15	133	GLN	3.9
31	39	27	GLU	3.9
51	H5	3	ARG	3.9
37	35	71	VAL	3.9
47	H8	108	PRO	3.9
38	45	34	LEU	3.9
7	62	86	GLN	3.9
33	59	106	THR	3.9
14	5A	25	VAL	3.9
39	98	33	ARG	3.9
4	3E	111	ALA	3.9
43	95	3	ALA	3.9
7	62	27	ILE	3.9
11	2A	83	ILE	3.9
43	D8	38	LEU	3.9
46	C5	50	ARG	3.9
33	59	168	PRO	3.9
12	3A	62	SER	3.9
43	95	40	LEU	3.8
47	D5	67	LEU	3.8
26	1H	2790	A	3.8
3	22	102	ASN	3.8
28	71	199	HIS	3.8
2	1E	96	ARG	3.8
38	45	65	PHE	3.8
52	I5	23	GLU	3.8
11	2A	84	VAL	3.8
15	6I	60	VAL	3.8
52	I5	44	THR	3.8
35	15	136	GLU	3.8
52	I5	25	TYR	3.8
3	22	60	ALA	3.8
4	32	149	ALA	3.8
47	D5	51	ALA	3.8
28	71	32	LEU	3.8
32	49	34	LEU	3.8
18	9A	84	LYS	3.8
30	29	73	GLU	3.8
38	45	60	ARG	3.8
47	H8	133	ILE	3.8

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Mol	Chain	Res	Type	RSRZ
34	61	140	LEU	3.8
3	2E	201	TYR	3.8
35	15	9	VAL	3.8
37	35	125	VAL	3.8
14	5A	41	ARG	3.7
31	39	16	GLY	3.7
47	H8	159	PRO	3.7
43	95	12	TYR	3.7
2	12	202	PRO	3.7
47	H8	167	PRO	3.7
22	1K	71	C	3.7
31	31	9	ILE	3.7
31	31	196	LEU	3.7
7	6E	79	ARG	3.7
52	M8	58	ARG	3.7
32	49	138	GLN	3.7
53	N8	52	TYR	3.7
2	1E	188	ALA	3.7
11	2A	35	PRO	3.7
28	71	65	PRO	3.7
30	29	181	LEU	3.7
52	I5	9	LEU	3.7
33	51	85	LYS	3.7
14	5A	49	HIS	3.7
52	I5	41	PRO	3.7
45	B5	92	LEU	3.7
47	D5	27	VAL	3.7
28	71	33	ALA	3.7
33	59	39	PRO	3.7
33	59	124	GLU	3.7
47	H8	166	SER	3.7
52	M8	56	VAL	3.7
43	95	39	LEU	3.7
33	59	113	VAL	3.7
38	45	63	LYS	3.6
7	6E	5	ARG	3.6
26	1H	2803	C	3.6
28	71	69	GLY	3.6
18	9I	28	GLU	3.6
30	21	4	ILE	3.6
52	I5	51	ASP	3.6
11	2I	107	SER	3.6

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Mol	Chain	Res	Type	RSRZ
3	22	42	LEU	3.6
30	29	56	PRO	3.6
32	49	62	LEU	3.6
37	35	1	MET	3.6
18	9I	42	ARG	3.6
2	12	102	LEU	3.6
10	1I	37	PRO	3.6
32	49	179	PRO	3.6
46	C5	46	LYS	3.6
10	1A	47	PHE	3.6
11	2A	109	VAL	3.6
43	95	15	GLU	3.6
47	H8	127	LYS	3.6
6	52	35	ALA	3.6
21	1B	2	GLY	3.6
40	65	58	LEU	3.6
24	3K	65	C	3.6
1	1G	1032(A)	G	3.6
53	N8	56	LYS	3.6
24	3L	12	U	3.5
3	22	143	GLU	3.5
31	39	26	ALA	3.5
46	C5	5	MET	3.5
47	H8	102	LEU	3.5
47	D5	5	LEU	3.5
6	5E	57	GLN	3.5
40	A8	58	LEU	3.5
47	H8	96	VAL	3.5
4	32	35	ARG	3.5
52	M8	25	TYR	3.5
51	H5	58	VAL	3.5
31	39	10	PRO	3.5
26	14	2801	A	3.5
30	29	1	MET	3.5
18	9I	78	LEU	3.5
47	D5	125	LEU	3.5
35	15	10	GLU	3.5
35	15	115	ARG	3.5
28	71	203	GLY	3.5
47	D5	28	MET	3.5
47	D5	163	LEU	3.5
10	1I	24	VAL	3.5

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Mol	Chain	Res	Type	RSRZ
7	6E	22	LEU	3.5
3	2E	103	VAL	3.5
11	2I	82	VAL	3.5
26	14	1535	U	3.5
36	25	53	LYS	3.5
47	D5	59	LEU	3.5
52	M8	59	PHE	3.5
11	2A	16	SER	3.4
11	2A	75	TYR	3.4
11	2A	108	ILE	3.4
53	J5	52	TYR	3.4
12	3A	32	PHE	3.4
30	29	67	PHE	3.4
6	5E	62	TRP	3.4
7	62	16	LEU	3.4
2	12	92	TYR	3.4
11	2A	21	ILE	3.4
11	2A	82	VAL	3.4
33	59	46	GLU	3.4
7	6E	16	LEU	3.4
40	A8	48	LEU	3.4
47	H8	98	MET	3.4
10	1I	75	ILE	3.4
20	BA	55	ILE	3.4
43	95	4	ILE	3.4
47	D5	128	VAL	3.4
52	M8	54	GLY	3.4
28	79	10	LEU	3.4
52	I5	11	PRO	3.4
2	12	164	VAL	3.4
31	39	11	VAL	3.4
2	12	128	GLU	3.4
3	2E	80	GLY	3.4
47	H8	162	GLU	3.4
28	71	181	PRO	3.4
33	59	29	PRO	3.4
47	D5	61	LEU	3.4
10	1I	96	ILE	3.4
21	1B	13	ILE	3.4
32	49	39	ILE	3.4
7	62	61	VAL	3.4
33	59	132	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
33	59	85	LYS	3.4
38	45	6	ARG	3.4
19	AI	49	ILE	3.4
28	71	31	GLU	3.4
38	45	103	MET	3.4
46	C5	61	ILE	3.4
52	I5	30	GLU	3.4
14	5A	47	LEU	3.4
26	1H	163	U	3.4
29	19	147	LEU	3.4
33	59	152	ARG	3.4
4	32	154	ASN	3.4
26	1H	2793	G	3.3
12	3A	59	ARG	3.3
30	21	49	LEU	3.3
34	61	72	LEU	3.3
38	45	66	ILE	3.3
47	D5	71	VAL	3.3
4	3E	166	LYS	3.3
56	1L	72	C	3.3
38	45	32	TYR	3.3
14	5A	44	LEU	3.3
18	9A	26	LEU	3.3
30	21	198	VAL	3.3
47	D5	4	ARG	3.3
51	H5	6	VAL	3.3
34	61	77	LEU	3.3
15	6I	64	ARG	3.3
40	A8	59	LYS	3.3
37	35	126	VAL	3.3
39	98	102	GLU	3.3
42	85	91	ASP	3.3
47	D5	55	HIS	3.3
47	H8	99	TYR	3.3
30	21	3	GLY	3.3
12	3A	65	GLU	3.3
35	15	1	MET	3.3
33	59	101	ARG	3.3
52	I5	46	GLN	3.3
6	5E	58	GLY	3.3
31	31	206	ILE	3.3
3	2E	85	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
4	3E	168	ARG	3.3
19	AI	78	ARG	3.3
31	31	203	GLN	3.3
28	71	63	SER	3.3
33	59	76	VAL	3.3
3	22	136	GLN	3.3
3	2E	91	LEU	3.3
4	3E	21	LEU	3.3
31	31	199	TRP	3.3
33	59	103	LEU	3.3
10	1I	35	SER	3.2
26	14	1536	A	3.2
46	C5	4	LYS	3.2
52	I5	21	VAL	3.2
2	12	72	GLY	3.2
48	E5	8	GLY	3.2
32	41	80	PHE	3.2
32	49	141	PHE	3.2
26	14	2146	C	3.2
17	8I	36	ILE	3.2
28	71	57	ASN	3.2
47	D5	65	GLN	3.2
18	9I	29	PHE	3.2
15	6I	87	ILE	3.2
52	M8	22	ILE	3.2
47	H8	66	SER	3.2
7	6E	56	GLN	3.2
33	59	32	GLU	3.2
31	31	123	LEU	3.2
7	62	5	ARG	3.2
26	1H	2797	U	3.2
11	2A	92	GLU	3.2
36	25	48	PRO	3.2
1	1G	1029	G	3.2
40	65	112	PHE	3.2
4	3E	169	LYS	3.2
33	59	107	VAL	3.2
42	85	99	ALA	3.2
3	2E	184	TYR	3.2
32	49	108	ASN	3.2
11	2A	54	ARG	3.2
6	5E	60	PHE	3.2

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Mol	Chain	Res	Type	RSRZ
10	1I	70	ARG	3.2
31	31	8	GLN	3.2
4	32	120	LEU	3.2
11	2A	70	LYS	3.2
28	71	224	ILE	3.2
3	2E	76	VAL	3.2
39	55	101	ALA	3.2
3	22	94	LEU	3.2
4	3E	162	LEU	3.2
7	62	73	MET	3.2
19	AI	30	LEU	3.2
31	31	20	LEU	3.2
31	39	114	VAL	3.1
45	B5	68	ARG	3.1
47	H8	131	ARG	3.1
11	2A	31	THR	3.1
42	C8	82	GLY	3.1
11	2I	98	LEU	3.1
14	5I	39	LEU	3.1
47	D5	62	PRO	3.1
14	5A	50	LYS	3.1
42	C8	80	ILE	3.1
47	H8	76	LEU	3.1
28	71	192	PHE	3.1
47	H8	154	ASP	3.1
55	M5	34	TRP	3.1
4	32	126	ILE	3.1
3	22	76	VAL	3.1
28	71	41	VAL	3.1
34	69	144	VAL	3.1
2	1E	14	GLY	3.1
3	22	184	TYR	3.1
3	22	144	SER	3.1
30	21	32	PRO	3.1
2	12	201	ILE	3.1
26	1H	2476	A	3.1
3	22	65	ALA	3.1
11	2A	90	GLY	3.1
30	29	75	VAL	3.1
26	1H	654(Q)	C	3.1
31	39	12	LEU	3.1
35	58	15	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
4	3E	181	MET	3.1
6	5E	63	TYR	3.1
33	59	49	VAL	3.1
50	G5	63	VAL	3.1
35	58	12	ARG	3.1
4	3E	96	LEU	3.1
44	A5	38	TYR	3.1
30	21	14	ILE	3.1
52	I5	45	GLY	3.1
32	49	149	VAL	3.1
33	59	19	VAL	3.1
35	15	13	TRP	3.1
3	22	93	LYS	3.1
2	12	34	ALA	3.1
17	8I	98	LEU	3.1
32	49	90	LEU	3.1
11	2A	42	TRP	3.1
35	15	41	ASP	3.1
3	22	8	ILE	3.1
10	1I	23	ILE	3.1
34	61	109	ILE	3.1
47	H8	38	TYR	3.1
35	15	46	VAL	3.0
43	95	5	VAL	3.0
47	H8	7	ALA	3.0
3	22	124	ILE	3.0
11	2A	25	TYR	3.0
46	C5	43	ASN	3.0
26	14	654(D)	G	3.0
47	H8	51	ALA	3.0
51	H5	25	ALA	3.0
2	12	105	PHE	3.0
8	7E	109	ILE	3.0
35	15	37	LYS	3.0
40	A8	68	GLN	3.0
2	12	121	LEU	3.0
47	H8	138	GLU	3.0
52	I5	34	GLU	3.0
28	71	36	LYS	3.0
47	H8	115	GLY	3.0
38	45	106	VAL	3.0
3	22	100	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
38	45	59	ARG	3.0
30	21	51	PHE	3.0
2	12	146	GLN	3.0
7	6E	155	ARG	3.0
24	3K	71	C	3.0
46	C5	92	ASN	3.0
4	32	68	TYR	3.0
1	13	1536	C	3.0
26	14	877	U	3.0
30	21	40	GLU	3.0
53	J5	53	ALA	3.0
34	69	140	LEU	3.0
43	95	18	LEU	3.0
51	H5	28	LEU	3.0
30	21	199	ARG	3.0
8	7E	1	MET	3.0
19	AA	47	HIS	3.0
31	31	193	VAL	3.0
7	6E	83	ALA	3.0
34	61	146	ALA	3.0
2	12	187	LEU	3.0
32	49	102	PHE	3.0
28	71	179	SER	3.0
3	2E	139	GLN	3.0
6	5E	9	VAL	3.0
47	H8	126	VAL	3.0
52	I5	50	VAL	3.0
33	59	83	TYR	3.0
47	H8	150	LEU	3.0
10	1I	93	GLY	3.0
18	9A	76	LEU	2.9
32	49	146	TYR	2.9
3	22	145	GLY	2.9
10	1I	7	LYS	2.9
10	1I	36	GLY	2.9
34	69	11	ASN	2.9
22	1K	50	G	2.9
38	88	106	VAL	2.9
31	39	181	LEU	2.9
4	3E	180	GLY	2.9
52	I5	19	GLY	2.9
2	12	157	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
47	H8	58	VAL	2.9
32	41	139	LEU	2.9
34	61	116	LEU	2.9
47	H8	117	LEU	2.9
9	8E	46	ALA	2.9
24	3K	6	A	2.9
52	I5	36	CYS	2.9
4	3E	24	GLU	2.9
7	62	139	GLU	2.9
24	3L	34	U	2.9
2	12	37	ASN	2.9
52	M8	31	ILE	2.9
31	39	6	VAL	2.9
2	12	88	ALA	2.9
20	BI	95	ALA	2.9
29	19	177	LEU	2.9
6	52	88	VAL	2.9
39	98	118	GLU	2.9
47	D5	95	PRO	2.9
2	12	144	ARG	2.9
10	1I	79	ARG	2.9
22	1K	73	A	2.9
34	61	130	TYR	2.9
35	58	16	ILE	2.9
2	12	158	LEU	2.9
9	82	115	GLY	2.9
33	59	108	GLY	2.9
46	C5	84	ARG	2.9
47	D5	159	PRO	2.9
32	49	140	ILE	2.9
13	4A	66	LEU	2.9
31	31	17	ARG	2.9
47	D5	70	LEU	2.9
52	I5	7	PRO	2.9
2	12	33	TYR	2.9
3	22	134	ILE	2.9
41	B8	2	ASN	2.9
33	59	114	VAL	2.9
43	95	42	GLY	2.9
24	3L	5	G	2.9
35	15	116	LEU	2.9
10	1A	59	SER	2.8

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Mol	Chain	Res	Type	RSRZ
52	I5	18	CYS	2.8
2	1E	76	GLN	2.8
11	2A	48	ILE	2.8
19	AI	62	ILE	2.8
9	8E	8	GLY	2.8
32	49	113	ARG	2.8
38	45	61	GLY	2.8
47	H8	105	VAL	2.8
47	D5	52	SER	2.8
56	1L	2	G	2.8
3	22	67	THR	2.8
19	AI	48	THR	2.8
3	2E	83	ARG	2.8
33	59	161	GLY	2.8
38	88	61	GLY	2.8
19	AI	41	VAL	2.8
30	21	5	LEU	2.8
37	78	1	MET	2.8
24	3L	37	A	2.8
12	3A	19	ARG	2.8
28	71	21	THR	2.8
38	45	68	ILE	2.8
13	4I	7	VAL	2.8
33	51	86	GLU	2.8
43	95	16	PRO	2.8
32	41	23	PHE	2.8
3	2E	66	VAL	2.8
3	2E	99	VAL	2.8
36	25	57	VAL	2.8
46	C5	42	VAL	2.8
36	25	42	SER	2.8
11	2I	49	GLY	2.8
33	59	151	ILE	2.8
44	A5	6	ILE	2.8
3	22	128	PHE	2.8
11	2I	42	TRP	2.8
45	B5	69	TYR	2.8
29	19	191	ALA	2.8
43	D8	1	MET	2.8
47	H8	103	ARG	2.8
28	71	182	PRO	2.8
31	31	156	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
47	D5	162	GLU	2.8
41	75	35	LYS	2.8
3	22	7	PRO	2.8
4	32	183	GLY	2.8
39	98	32	GLY	2.8
4	32	176	LEU	2.8
6	5E	91	VAL	2.8
10	1I	45	ARG	2.8
35	58	130	HIS	2.8
40	A8	108	GLY	2.8
56	1L	57	G	2.8
46	C5	56	PRO	2.8
4	32	108	LEU	2.8
10	1A	62	HIS	2.8
40	65	51	ALA	2.8
3	22	54	ARG	2.7
9	82	54	ASP	2.7
19	AI	71	LEU	2.7
41	75	106	SER	2.7
36	25	87	ILE	2.7
4	32	196	LEU	2.7
9	82	102	LEU	2.7
32	49	5	VAL	2.7
47	H8	157	LEU	2.7
14	5I	10	ALA	2.7
3	2E	131	ARG	2.7
28	71	34	THR	2.7
28	71	177	LYS	2.7
11	2A	17	GLY	2.7
48	I8	8	GLY	2.7
54	L5	1	MET	2.7
10	1I	77	PRO	2.7
29	11	29	PRO	2.7
12	3A	60	LEU	2.7
47	D5	126	VAL	2.7
47	D5	161	VAL	2.7
51	H5	59	VAL	2.7
32	49	83	ARG	2.7
47	H8	168	GLU	2.7
4	32	5	ILE	2.7
4	32	110	PHE	2.7
14	5A	36	PHE	2.7

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Mol	Chain	Res	Type	RSRZ
31	31	133	ASN	2.7
4	3E	170	VAL	2.7
6	52	39	LYS	2.7
34	61	107	VAL	2.7
36	25	43	VAL	2.7
43	95	20	LEU	2.7
46	C5	52	SER	2.7
51	H5	30	ARG	2.7
2	12	190	THR	2.7
3	22	15	THR	2.7
4	32	17	VAL	2.7
30	29	49	LEU	2.7
36	25	58	VAL	2.7
11	2A	68	ALA	2.7
26	1H	2132	U	2.7
38	45	5	ARG	2.7
29	19	182	LEU	2.7
32	49	159	VAL	2.7
37	35	92	GLU	2.7
52	M8	34	GLU	2.7
2	12	150	SER	2.7
30	29	66	HIS	2.7
28	71	200	LYS	2.7
2	12	90	MET	2.7
52	I5	59	PHE	2.7
3	22	179	ARG	2.7
17	8I	101	ARG	2.7
32	49	157	ILE	2.7
33	59	148	ILE	2.7
52	M8	52	THR	2.7
34	69	21	VAL	2.7
34	69	77	LEU	2.7
14	5A	30	ALA	2.7
31	39	146	ALA	2.7
4	32	181	MET	2.7
6	52	36	ARG	2.7
20	BI	41	ILE	2.7
4	32	186	LEU	2.7
37	35	98	GLU	2.7
19	AI	76	PRO	2.7
55	M5	21	LYS	2.7
2	1E	123	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
31	31	26	ALA	2.7
32	49	151	ALA	2.7
26	14	1534	G	2.7
36	25	17	ARG	2.7
30	29	176	ILE	2.6
28	71	202	GLU	2.6
2	12	43	ASP	2.6
3	2E	102	ASN	2.6
32	49	92	VAL	2.6
33	59	24	VAL	2.6
47	D5	96	VAL	2.6
7	62	88	PRO	2.6
35	58	135	PRO	2.6
3	2E	60	ALA	2.6
11	2I	68	ALA	2.6
52	I5	49	PHE	2.6
20	BI	87	LYS	2.6
52	I5	8	LYS	2.6
10	1I	33	GLN	2.6
47	H8	161	VAL	2.6
17	8A	71	PHE	2.6
47	D5	88	PHE	2.6
49	F5	60	PHE	2.6
3	2E	166	GLU	2.6
42	85	72	HIS	2.6
28	71	196	LEU	2.6
8	7E	95	VAL	2.6
47	H8	100	VAL	2.6
49	F5	62	VAL	2.6
53	J5	54	GLY	2.6
40	A8	72	ALA	2.6
14	5A	42	ILE	2.6
31	39	8	GLN	2.6
34	69	139	GLN	2.6
3	22	43	LEU	2.6
7	62	41	ARG	2.6
10	1A	65	LEU	2.6
14	5A	26	ARG	2.6
33	59	87	LEU	2.6
35	15	134	ARG	2.6
47	H8	67	LEU	2.6
46	C5	80	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
4	32	169	LYS	2.6
29	19	27	THR	2.6
37	35	144	GLU	2.6
26	1H	654(R)	C	2.6
47	H8	57	ILE	2.6
3	22	52	LEU	2.6
56	1L	67	U	2.6
2	12	197	VAL	2.6
53	J5	56	LYS	2.6
19	AA	53	ASN	2.6
47	H8	68	PRO	2.6
47	H8	170	THR	2.6
6	52	89	MET	2.6
28	79	19	ILE	2.6
30	21	1	MET	2.6
51	H5	5	LYS	2.6
35	58	46	VAL	2.6
36	25	9	GLU	2.6
29	19	36	PRO	2.6
31	31	21	ALA	2.6
46	C5	86	ARG	2.6
42	85	71	GLN	2.6
47	D5	137	ILE	2.6
11	2I	25	TYR	2.6
11	2A	51	LYS	2.6
10	1I	92	THR	2.6
28	71	189	ILE	2.6
3	22	6	HIS	2.6
26	1H	277	C	2.6
37	35	95	VAL	2.6
43	D8	46	VAL	2.6
49	F5	57	GLU	2.6
3	22	147	LYS	2.6
40	A8	105	ALA	2.6
3	2E	134	ILE	2.5
11	2A	32	ILE	2.5
30	29	81	ILE	2.5
11	2A	66	LEU	2.5
11	2A	98	LEU	2.5
37	78	118	GLY	2.5
24	3L	35	A	2.5
43	D8	5	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
56	1L	58	A	2.5
30	29	4	ILE	2.5
35	58	133	GLN	2.5
38	45	62	GLY	2.5
38	45	92	GLY	2.5
7	62	22	LEU	2.5
13	4I	96	LEU	2.5
3	22	138	VAL	2.5
28	79	53	ARG	2.5
26	14	654	A	2.5
3	2E	128	PHE	2.5
10	1I	30	SER	2.5
4	32	158	ILE	2.5
9	8E	30	GLY	2.5
11	2I	21	ILE	2.5
33	59	153	LYS	2.5
3	2E	43	LEU	2.5
30	21	183	LEU	2.5
30	29	52	LEU	2.5
44	E8	86	LEU	2.5
35	15	52	VAL	2.5
24	3K	16	C	2.5
32	49	178	PHE	2.5
34	69	83	ALA	2.5
10	1I	95	GLU	2.5
34	61	139	GLN	2.5
9	82	79	LEU	2.5
14	5I	25	VAL	2.5
35	15	98	VAL	2.5
36	68	53	LYS	2.5
23	2K	1	C	2.5
47	D5	38	TYR	2.5
26	1H	2126	A	2.5
47	H8	163	LEU	2.5
1	1G	1031	G	2.5
47	H8	139	VAL	2.5
43	95	92	THR	2.5
47	H8	6	LYS	2.5
3	2E	11	ARG	2.5
31	31	128	ALA	2.5
51	H5	35	ARG	2.5
37	35	123	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
3	2E	153	VAL	2.5
30	29	91	VAL	2.5
53	N8	40	LYS	2.5
21	1B	14	TRP	2.5
31	31	16	GLY	2.5
38	88	62	GLY	2.5
19	AA	71	LEU	2.5
31	39	123	LEU	2.5
20	BA	9	ASN	2.5
3	2E	138	VAL	2.5
38	88	1	MET	2.5
38	88	65	PHE	2.5
11	2A	86	GLY	2.5
22	1K	68	C	2.5
31	31	24	LEU	2.5
47	H8	52	SER	2.5
32	49	109	VAL	2.5
32	49	137	GLU	2.5
33	51	170	ARG	2.5
33	59	125	VAL	2.5
42	C8	101	ARG	2.5
7	6E	20	ASP	2.5
37	35	134	ALA	2.5
16	7I	4	ILE	2.5
26	1H	654(N)	G	2.5
29	19	124	PRO	2.4
29	19	155	LEU	2.5
34	69	138	ILE	2.5
39	98	113	LEU	2.5
20	BI	80	ARG	2.4
26	14	2797	U	2.4
28	71	165	ASN	2.4
34	61	131	LYS	2.4
52	I5	38	LYS	2.4
28	71	170	ALA	2.4
42	C8	86	ALA	2.4
29	19	40	THR	2.4
4	32	21	LEU	2.4
7	6E	8	GLU	2.4
14	5A	46	GLU	2.4
18	9I	76	LEU	2.4
47	H8	3	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
47	D5	91	LEU	2.4
19	AI	74	PHE	2.4
47	H8	136	PHE	2.4
50	G5	2	LYS	2.4
28	71	38	ASP	2.4
30	29	24	THR	2.4
36	25	19	ILE	2.4
47	H8	112	ARG	2.4
28	71	68	LEU	2.4
42	85	74	LEU	2.4
33	59	8	PRO	2.4
7	6E	149	ARG	2.4
18	9A	50	ILE	2.4
26	1H	2158	A	2.4
31	31	124	LEU	2.4
9	8E	44	VAL	2.4
40	A8	87	PHE	2.4
8	7E	102	ARG	2.4
12	3I	33	ARG	2.4
42	85	114	LYS	2.4
4	3E	108	LEU	2.4
30	21	182	LEU	2.4
32	49	107	LEU	2.4
11	2A	20	TYR	2.4
11	2I	80	VAL	2.4
10	1I	73	ASP	2.4
28	79	203	GLY	2.4
45	B5	60	ARG	2.4
10	1I	64	GLU	2.4
12	3A	68	ALA	2.4
2	1E	61	LEU	2.4
30	21	195	LEU	2.4
34	61	75	LEU	2.4
9	82	53	VAL	2.4
11	2A	14	VAL	2.4
42	C8	106	PHE	2.4
22	1K	66	A	2.4
11	2A	36	ASP	2.4
41	B8	1	MET	2.4
43	95	43	GLU	2.4
3	22	169	ALA	2.4
9	8E	15	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
16	7A	84	ALA	2.4
6	5E	98	LEU	2.4
15	6I	85	LEU	2.4
19	AA	62	ILE	2.4
30	29	195	LEU	2.4
32	49	175	LEU	2.4
34	61	79	ILE	2.4
47	H8	137	ILE	2.4
13	4A	17	VAL	2.4
18	9A	43	PHE	2.4
24	3K	5	G	2.4
19	AI	60	VAL	2.4
47	H8	8	TYR	2.4
34	69	86	THR	2.4
55	Q8	34	TRP	2.4
40	A8	37	ALA	2.4
2	1E	42	ILE	2.4
2	1E	80	ILE	2.4
2	12	196	LEU	2.4
29	19	271	ILE	2.4
32	41	135	LEU	2.4
3	2E	59	ARG	2.4
12	3A	33	ARG	2.4
18	9A	42	ARG	2.4
32	49	136	ARG	2.4
52	I5	48	ARG	2.4
29	19	135	PHE	2.4
9	8E	17	VAL	2.4
30	21	72	VAL	2.4
30	21	73	GLU	2.4
38	45	93	TYR	2.4
38	45	109	VAL	2.4
28	71	54	SER	2.4
2	12	32	ILE	2.4
4	32	122	ARG	2.4
29	19	37	LEU	2.4
33	59	171	LEU	2.4
44	A5	92	ARG	2.4
24	3L	11	C	2.4
3	2E	151	VAL	2.3
4	32	16	GLY	2.3
35	58	55	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
4	32	111	ALA	2.3
7	6E	72	ARG	2.3
40	65	57	LYS	2.3
3	2E	182	ILE	2.3
5	4E	71	LEU	2.3
43	95	35	LEU	2.3
45	F8	92	LEU	2.3
47	H8	2	GLU	2.3
24	3K	70	C	2.3
24	3L	62	C	2.3
52	M8	49	PHE	2.3
30	21	47	VAL	2.3
33	51	26	VAL	2.3
43	95	14	VAL	2.3
35	15	11	PRO	2.3
3	2E	126	ARG	2.3
13	4I	56	LEU	2.3
34	69	35	LEU	2.3
39	55	29	LEU	2.3
26	1H	654(D)	G	2.3
26	14	2833	G	2.3
40	A8	109	GLY	2.3
43	95	41	GLY	2.3
7	62	87	VAL	2.3
38	45	57	HIS	2.3
15	6I	88	ARG	2.3
34	61	126	TYR	2.3
42	85	67	ALA	2.3
18	9I	44	LEU	2.3
29	11	111	LEU	2.3
43	95	94	LEU	2.3
31	39	199	TRP	2.3
1	13	346	G	2.3
40	A8	93	LYS	2.3
21	1F	15	ARG	2.3
26	14	2803	C	2.3
31	31	23	ASP	2.3
45	B5	79	ALA	2.3
32	49	152	LEU	2.3
3	2E	63	ASN	2.3
14	5A	58	LYS	2.3
14	5I	51	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
48	I8	9	SER	2.3
29	19	183	ARG	2.3
29	19	117	VAL	2.3
51	H5	47	VAL	2.3
26	1H	2801	A	2.3
28	79	51	PRO	2.3
30	21	31	CYS	2.3
2	1E	148	TYR	2.3
51	H5	34	GLU	2.3
2	1E	187	LEU	2.3
3	2E	77	ILE	2.3
6	5E	61	LEU	2.3
31	39	131	GLY	2.3
47	H8	69	THR	2.3
6	52	6	VAL	2.3
18	9I	23	LYS	2.3
56	1L	56	C	2.3
3	22	182	ILE	2.3
28	79	47	LEU	2.3
43	95	71	LEU	2.3
2	12	122	PHE	2.3
49	F5	28	GLY	2.3
52	M8	20	ASN	2.3
3	22	103	VAL	2.3
47	D5	46	LYS	2.3
2	12	125	PRO	2.3
11	2A	110	ASP	2.3
10	1I	65	LEU	2.3
10	1A	46	ARG	2.3
11	2A	19	ALA	2.3
14	5A	35	ARG	2.3
18	9I	32	ARG	2.3
33	51	83	TYR	2.3
37	35	103	ALA	2.3
39	98	34	ILE	2.3
52	M8	5	ILE	2.3
26	1H	654(O)	G	2.3
12	3A	55	VAL	2.3
39	98	48	VAL	2.3
47	D5	83	PRO	2.3
9	8E	47	LEU	2.3
12	3A	84	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
21	1F	2	GLY	2.3
28	71	191	ALA	2.3
47	D5	12	GLY	2.3
4	3E	182	LYS	2.3
29	19	146	GLU	2.3
33	59	18	GLU	2.3
28	79	165	ASN	2.2
11	2I	16	SER	2.2
33	59	122	THR	2.2
31	31	119	ARG	2.2
47	H8	140	ASP	2.2
3	22	187	ALA	2.2
4	32	37	PRO	2.2
32	49	112	PRO	2.2
38	45	140	ALA	2.2
39	98	116	LEU	2.2
47	H8	25	PRO	2.2
6	52	52	ILE	2.2
1	13	1030	C	2.2
32	41	178	PHE	2.2
13	4I	102	ARG	2.2
19	AA	58	VAL	2.2
28	71	52	ARG	2.2
28	71	214	VAL	2.2
30	21	93	VAL	2.2
31	39	163	VAL	2.2
2	12	113	HIS	2.2
47	D5	6	LYS	2.2
3	2E	78	GLY	2.2
3	22	155	GLY	2.2
7	6E	38	LEU	2.2
2	1E	152	PHE	2.2
28	71	218	MET	2.2
16	7I	32	TYR	2.2
34	69	85	GLU	2.2
26	14	2477	C	2.2
3	22	140	ARG	2.2
3	2E	94	LEU	2.2
20	BA	41	ILE	2.2
31	31	27	GLU	2.2
49	F5	64	ALA	2.2
35	58	72	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
24	3K	36	C	2.2
29	19	78	LYS	2.2
30	29	33	VAL	2.2
35	15	14	VAL	2.2
34	61	74	ASN	2.2
47	H8	93	ASP	2.2
18	9A	44	LEU	2.2
18	9A	46	GLU	2.2
7	62	26	PHE	2.2
11	2I	65	ALA	2.2
30	21	28	ALA	2.2
36	25	11	ALA	2.2
39	55	70	LEU	2.2
44	A5	36	LEU	2.2
10	1I	21	GLN	2.2
15	6I	38	ARG	2.2
6	52	59	TYR	2.2
21	1F	14	TRP	2.2
3	22	19	GLU	2.2
4	32	152	SER	2.2
5	42	151	LEU	2.2
26	14	1177	A	2.2
28	71	28	LEU	2.2
43	D8	40	LEU	2.2
44	E8	29	LEU	2.2
2	12	183	PRO	2.2
11	2A	89	ALA	2.2
28	79	170	ALA	2.2
32	49	80	PHE	2.2
34	69	134	PRO	2.2
35	15	57	ALA	2.2
37	35	127	ALA	2.2
52	I5	26	SER	2.2
47	D5	54	HIS	2.2
28	79	56	GLN	2.2
8	7E	58	TYR	2.2
30	21	7	VAL	2.2
31	39	126	VAL	2.2
33	59	37	VAL	2.2
43	D8	58	VAL	2.2
4	32	69	GLY	2.2
18	9A	83	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
9	8E	51	ARG	2.2
10	1I	9	ARG	2.2
6	52	101	ALA	2.2
12	3I	28	LYS	2.2
34	69	9	LEU	2.2
37	78	121	LYS	2.2
11	2I	29	ILE	2.2
11	2I	48	ILE	2.2
43	D8	3	ALA	2.2
43	D8	92	THR	2.2
44	E8	93	ALA	2.2
26	14	6	A	2.2
10	1A	49	VAL	2.2
7	62	143	ARG	2.2
33	59	160	LYS	2.2
38	88	130	LYS	2.2
10	1I	89	ASP	2.2
29	19	111	LEU	2.2
32	49	94	LEU	2.2
38	88	66	ILE	2.2
46	C5	38	ILE	2.2
30	29	53	PRO	2.2
34	61	111	PRO	2.2
34	69	1	MET	2.2
35	15	44	PRO	2.2
2	1E	165	VAL	2.2
6	5E	42	GLU	2.2
7	6E	80	VAL	2.2
20	BA	86	ARG	2.2
29	19	150	LYS	2.2
34	61	144	VAL	2.2
36	25	40	VAL	2.2
40	65	85	VAL	2.2
44	A5	17	VAL	2.2
2	1E	149	LEU	2.2
7	6E	12	LEU	2.2
25	4L	9	G	2.2
26	1H	654(P)	G	2.2
26	1H	2131	G	2.2
26	1H	2802	G	2.2
32	49	117	PHE	2.2
44	A5	65	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
46	G8	92	ASN	2.2
56	1L	65	C	2.2
3	2E	65	ALA	2.2
11	2I	60	ALA	2.2
2	12	135	GLN	2.2
38	45	113	GLN	2.2
13	4A	102	ARG	2.2
35	58	134	ARG	2.2
37	35	94	GLU	2.2
37	35	111	ARG	2.2
43	D8	97	LYS	2.2
11	2A	59	TYR	2.2
35	15	125	GLY	2.1
4	32	19	LEU	2.1
7	62	104	LEU	2.1
31	31	181	LEU	2.1
52	M8	51	ASP	2.1
15	6I	3	ILE	2.1
47	H8	53	ILE	2.1
26	14	2153	G	2.1
33	59	112	PRO	2.1
37	78	102	ARG	2.1
32	49	85	GLY	2.1
33	59	144	VAL	2.1
39	98	87	TYR	2.1
45	B5	18	TYR	2.1
19	AI	15	LEU	2.1
28	71	163	PHE	2.1
33	59	88	LEU	2.1
37	78	91	PHE	2.1
38	45	69	PHE	2.1
42	85	106	PHE	2.1
43	D8	39	LEU	2.1
3	2E	169	ALA	2.1
5	4E	95	ALA	2.1
12	3A	126	LYS	2.1
38	45	107	ALA	2.1
43	95	99	ILE	2.1
52	I5	14	ILE	2.1
34	69	67	ARG	2.1
10	1I	68	HIS	2.1
24	3K	1	G	2.1

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Mol	Chain	Res	Type	RSRZ
33	51	133	VAL	2.1
46	C5	39	VAL	2.1
4	3E	138	TYR	2.1
38	88	32	TYR	2.1
2	12	51	LEU	2.1
5	42	45	PHE	2.1
10	1I	88	LEU	2.1
18	9I	79	LEU	2.1
31	31	125	LEU	2.1
4	3E	164	ALA	2.1
30	29	87	GLU	2.1
31	39	128	ALA	2.1
44	A5	103	ILE	2.1
49	J8	58	ILE	2.1
3	2E	142	MET	2.1
35	58	11	PRO	2.1
47	D5	101	PRO	2.1
3	22	20	SER	2.1
5	4E	74	GLY	2.1
24	3K	3	G	2.1
37	35	2	LYS	2.1
43	95	45	THR	2.1
7	62	124	LEU	2.1
9	8E	5	TYR	2.1
3	2E	21	ARG	2.1
18	9I	43	PHE	2.1
32	49	135	LEU	2.1
38	45	31	ASP	2.1
46	C5	89	PHE	2.1
47	H8	88	PHE	2.1
2	1E	68	ILE	2.1
3	2E	189	ALA	2.1
7	6E	86	GLN	2.1
52	I5	62	ARG	2.1
26	1H	5	A	2.1
29	19	156	ALA	2.1
40	A8	82	ILE	2.1
50	G5	41	ILE	2.1
53	N8	49	CYS	2.1
3	22	63	ASN	2.1
10	1I	69	ASN	2.1
14	5A	54	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
30	29	74	PRO	2.1
5	42	31	LEU	2.1
20	BI	83	ARG	2.1
28	79	202	GLU	2.1
3	22	149	ALA	2.1
24	3L	7	U	2.1
25	4K	26	A	2.1
26	14	2062	A	2.1
37	35	142	GLY	2.1
14	5A	23	ARG	2.1
2	12	215	LEU	2.1
6	52	43	LEU	2.1
10	1I	47	PHE	2.1
13	4A	73	GLU	2.1
46	G8	89	PHE	2.1
9	8E	91	ASP	2.1
3	2E	168	ALA	2.1
32	41	39	ILE	2.1
12	3A	21	LYS	2.1
14	5A	55	GLY	2.1
47	H8	160	GLY	2.1
4	32	29	PRO	2.1
15	6I	68	ARG	2.1
18	9I	54	ARG	2.1
19	AI	42	PRO	2.1
40	A8	85	VAL	2.1
10	1I	25	GLU	2.1
8	72	119	LEU	2.1
10	1I	11	PHE	2.1
31	31	148	LEU	2.1
3	2E	135	LYS	2.1
28	71	23	ASP	2.1
29	11	112	GLN	2.1
36	25	56	ASP	2.1
39	98	89	ASP	2.1
2	12	225	ALA	2.1
44	E8	96	ILE	2.1
45	F8	89	ILE	2.1
11	2A	102	GLY	2.1
7	62	6	ARG	2.1
3	2E	90	GLU	2.1
30	21	102	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
30	29	34	VAL	2.1
49	J8	53	VAL	2.1
26	1H	654	A	2.1
26	1H	2062	A	2.1
30	21	27	LEU	2.1
30	21	52	LEU	2.1
37	35	107	LYS	2.1
37	35	112	LEU	2.1
10	1I	26	ALA	2.1
10	1I	98	ILE	2.1
11	2I	50	TYR	2.1
13	4I	87	TYR	2.1
32	49	46	ALA	2.1
47	D5	7	ALA	2.1
7	62	130	GLY	2.1
11	2A	76	GLY	2.1
14	5A	29	ARG	2.1
15	6I	72	ARG	2.1
34	61	106	GLY	2.1
51	H5	44	ARG	2.1
6	52	38	GLU	2.1
35	15	48	MET	2.1
47	H8	128	VAL	2.1
47	D5	11	GLU	2.1
7	6E	88	PRO	2.1
37	35	124	LYS	2.1
2	1E	163	PHE	2.1
4	32	185	PHE	2.1
28	71	37	PHE	2.1
9	82	87	GLN	2.0
47	D5	32	HIS	2.0
56	1L	13	C	2.0
2	1E	208	ILE	2.0
47	D5	63	ASP	2.0
3	22	200	ALA	2.0
7	62	117	ALA	2.0
15	6I	79	ARG	2.0
24	3K	34	U	2.0
39	98	101	ALA	2.0
32	49	87	PRO	2.0
33	59	169	VAL	2.0
43	95	11	GLN	2.0

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Mol	Chain	Res	Type	RSRZ
29	19	262	ARG	2.0
31	39	191	ARG	2.0
36	25	22	ILE	2.0
51	H5	29	ARG	2.0
3	2E	81	GLY	2.0
4	32	106	TYR	2.0
7	62	85	TYR	2.0
22	1K	69	A	2.0
38	45	112	GLU	2.0
31	31	11	VAL	2.0
31	31	194	MET	2.0
39	98	114	VAL	2.0
9	82	19	LEU	2.0
11	2I	62	GLN	2.0
20	BI	43	LEU	2.0
41	75	6	LEU	2.0
44	E8	69	LEU	2.0
47	D5	24	LEU	2.0
29	11	274	ARG	2.0
10	1I	14	LYS	2.0
11	2A	71	LYS	2.0
12	3A	100	ILE	2.0
29	19	270	ILE	2.0
28	71	197	GLU	2.0
33	59	93	GLY	2.0
38	45	100	GLY	2.0
2	1E	95	GLN	2.0
10	1I	85	LEU	2.0
37	35	100	LEU	2.0
39	98	86	ARG	2.0
29	19	261	LYS	2.0
34	61	138	ILE	2.0
43	D8	99	ILE	2.0
49	J8	90	ILE	2.0
2	12	216	SER	2.0
28	71	204	ALA	2.0
45	B5	91	ALA	2.0
5	42	100	VAL	2.0
17	8A	11	VAL	2.0
26	1H	654(A)	A	2.0
2	12	48	MET	2.0
2	12	61	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
3	22	32	LEU	2.0
4	32	162	LEU	2.0
37	35	39	LYS	2.0
38	45	17	LEU	2.0
40	A8	56	LEU	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. 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	B-factors(Å^2)	Q<0.9
56	PSU	1L	55	20/21	0.73	0.29	118,133,146,147	0
22	H2U	1K	17	20/21	0.81	0.12	119,145,154,154	0
23	7MG	2L	47	24/25	0.84	0.16	92,112,117,118	0
22	PSU	1K	55	20/21	0.84	0.25	102,116,131,132	0
23	OMC	2L	33	21/22	0.90	0.18	83,94,97,100	0
56	5MU	1L	54	21/22	0.91	0.22	117,124,131,143	0
22	5MU	1K	54	21/22	0.92	0.19	100,106,117,129	0
23	PSU	2K	56	20/21	0.92	0.11	93,98,106,114	0
23	4SU	2L	8	20/21	0.93	0.15	104,106,109,112	0
23	PSU	2L	56	20/21	0.93	0.10	105,114,120,120	0
23	7MG	2K	47	24/25	0.94	0.12	90,98,109,111	0
23	4SU	2K	8	20/21	0.95	0.13	84,88,92,94	0
23	5MU	2K	55	21/22	0.95	0.12	99,102,106,113	0
22	CM0	1K	34	25/26	0.95	0.13	72,89,106,107	0
23	OMC	2K	33	21/22	0.96	0.17	72,79,82,89	0
23	5MU	2L	55	21/22	0.96	0.09	111,115,122,127	0
22	6MZ	1K	37	23/24	0.97	0.13	61,79,86,90	0

6.3 Carbohydrates (i)

There are no monosaccharides 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. 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	B-factors(Å^2)	Q<0.9
57	MG	1G	1712	1/1	0.14	0.13	142,142,142,142	0
57	MG	13	1736	1/1	0.20	0.10	104,104,104,104	0
57	MG	1H	3246	1/1	0.24	0.48	72,72,72,72	0
57	MG	14	3386	1/1	0.28	0.15	93,93,93,93	0
57	MG	14	3438	1/1	0.31	0.12	101,101,101,101	0
57	MG	1H	3509	1/1	0.35	0.18	88,88,88,88	0
57	MG	14	3327	1/1	0.41	0.12	100,100,100,100	0
57	MG	14	3428	1/1	0.43	0.16	109,109,109,109	0
57	MG	1J	206	1/1	0.44	0.17	109,109,109,109	0
57	MG	14	3173	1/1	0.45	0.16	98,98,98,98	0
57	MG	1H	3216	1/1	0.45	0.54	89,89,89,89	0
57	MG	14	3436	1/1	0.46	0.22	96,96,96,96	0
57	MG	14	3174	1/1	0.46	0.45	83,83,83,83	0
57	MG	4L	101	1/1	0.46	0.09	110,110,110,110	0
57	MG	1G	1686	1/1	0.47	0.10	107,107,107,107	0
57	MG	1H	3118	1/1	0.47	0.33	83,83,83,83	0
57	MG	1G	1714	1/1	0.47	0.19	99,99,99,99	0
57	MG	1G	1630	1/1	0.47	0.49	106,106,106,106	0
57	MG	14	3214	1/1	0.48	0.76	93,93,93,93	0
57	MG	14	3349	1/1	0.49	0.07	105,105,105,105	0
57	MG	1G	1717	1/1	0.49	0.10	99,99,99,99	0
57	MG	13	1707	1/1	0.49	0.17	92,92,92,92	0
57	MG	1H	3205	1/1	0.51	0.32	90,90,90,90	0
57	MG	1H	3210	1/1	0.51	0.37	83,83,83,83	0
57	MG	13	1686	1/1	0.51	0.33	104,104,104,104	0
57	MG	13	1726	1/1	0.51	0.19	103,103,103,103	0
57	MG	14	3293	1/1	0.51	0.15	72,72,72,72	0
57	MG	1H	3198	1/1	0.51	0.22	108,108,108,108	0
57	MG	1H	3402	1/1	0.52	0.10	79,79,79,79	0
57	MG	14	3443	1/1	0.53	0.14	92,92,92,92	0
57	MG	1H	3515	1/1	0.53	0.16	98,98,98,98	0
57	MG	14	3423	1/1	0.54	0.37	92,92,92,92	0
57	MG	14	3216	1/1	0.54	0.14	106,106,106,106	0
57	MG	1G	1702	1/1	0.54	0.13	95,95,95,95	0
57	MG	1G	1675	1/1	0.54	0.12	107,107,107,107	0
57	MG	13	1671	1/1	0.54	0.79	91,91,91,91	0
57	MG	1G	1691	1/1	0.54	0.13	99,99,99,99	0
57	MG	13	1668	1/1	0.55	0.13	121,121,121,121	0
57	MG	1H	3274	1/1	0.55	0.46	83,83,83,83	0
57	MG	1H	3261	1/1	0.56	0.40	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3266	1/1	0.56	0.29	89,89,89,89	0
57	MG	16	206	1/1	0.56	0.38	77,77,77,77	0
57	MG	13	1732	1/1	0.56	0.15	118,118,118,118	0
57	MG	1H	3010	1/1	0.56	0.25	78,78,78,78	0
57	MG	14	3422	1/1	0.56	0.17	100,100,100,100	0
57	MG	13	1645	1/1	0.57	0.30	78,78,78,78	0
57	MG	1G	1695	1/1	0.57	0.07	112,112,112,112	0
57	MG	1G	1715	1/1	0.57	0.12	119,119,119,119	0
57	MG	13	1654	1/1	0.57	0.09	113,113,113,113	0
57	MG	14	3405	1/1	0.58	0.09	91,91,91,91	0
57	MG	1H	3168	1/1	0.58	0.16	80,80,80,80	0
57	MG	14	3282	1/1	0.58	0.15	105,105,105,105	0
57	MG	1H	3188	1/1	0.58	0.68	95,95,95,95	0
57	MG	1H	3524	1/1	0.59	0.17	96,96,96,96	0
57	MG	1H	3295	1/1	0.59	0.15	70,70,70,70	0
57	MG	1H	3217	1/1	0.60	0.42	80,80,80,80	0
57	MG	1H	3061	1/1	0.60	0.45	76,76,76,76	0
57	MG	14	3409	1/1	0.60	0.25	95,95,95,95	0
57	MG	1G	1700	1/1	0.60	0.11	109,109,109,109	0
57	MG	14	3031	1/1	0.60	0.44	86,86,86,86	0
57	MG	39	302	1/1	0.60	0.30	67,67,67,67	0
57	MG	1H	3095	1/1	0.61	0.33	69,69,69,69	0
57	MG	1H	3238	1/1	0.61	0.36	87,87,87,87	0
57	MG	1G	1643	1/1	0.62	0.33	83,83,83,83	0
57	MG	1H	3520	1/1	0.62	0.11	97,97,97,97	0
57	MG	14	3157	1/1	0.62	0.69	89,89,89,89	0
57	MG	14	3291	1/1	0.62	0.14	90,90,90,90	0
57	MG	1G	1684	1/1	0.62	0.07	120,120,120,120	0
57	MG	1H	3182	1/1	0.62	0.26	90,90,90,90	0
57	MG	14	3284	1/1	0.63	0.11	72,72,72,72	0
57	MG	1G	1710	1/1	0.63	0.31	102,102,102,102	0
57	MG	1H	3289	1/1	0.63	0.31	78,78,78,78	0
57	MG	14	3208	1/1	0.63	0.20	78,78,78,78	0
57	MG	25	201	1/1	0.63	0.09	118,118,118,118	0
57	MG	1H	3525	1/1	0.64	0.08	134,134,134,134	0
57	MG	1H	3496	1/1	0.64	0.12	98,98,98,98	0
57	MG	1H	3212	1/1	0.64	0.19	65,65,65,65	0
57	MG	13	1677	1/1	0.64	0.29	92,92,92,92	0
57	MG	13	1743	1/1	0.64	0.13	153,153,153,153	0
57	MG	1H	3232	1/1	0.64	0.49	85,85,85,85	0
57	MG	14	3435	1/1	0.65	0.12	93,93,93,93	0
57	MG	14	3390	1/1	0.65	0.18	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3086	1/1	0.65	0.26	64,64,64,64	0
57	MG	13	1678	1/1	0.65	0.59	94,94,94,94	0
57	MG	1J	205	1/1	0.65	0.10	87,87,87,87	0
57	MG	14	3162	1/1	0.65	0.60	67,67,67,67	0
57	MG	1H	3077	1/1	0.65	0.25	56,56,56,56	0
57	MG	1H	3186	1/1	0.65	0.42	94,94,94,94	0
57	MG	1H	3104	1/1	0.66	0.29	88,88,88,88	0
57	MG	1H	3415	1/1	0.66	0.21	72,72,72,72	0
57	MG	13	1741	1/1	0.66	0.12	110,110,110,110	0
57	MG	1H	3500	1/1	0.66	0.09	93,93,93,93	0
57	MG	1G	1707	1/1	0.66	0.22	108,108,108,108	0
57	MG	1H	3508	1/1	0.66	0.08	84,84,84,84	0
57	MG	14	3092	1/1	0.66	0.49	81,81,81,81	0
57	MG	14	3147	1/1	0.66	0.10	69,69,69,69	0
57	MG	1H	3535	1/1	0.66	0.24	93,93,93,93	0
57	MG	13	1733	1/1	0.67	0.10	106,106,106,106	0
57	MG	14	3111	1/1	0.67	0.48	86,86,86,86	0
57	MG	14	3397	1/1	0.67	0.07	109,109,109,109	0
57	MG	14	3008	1/1	0.67	0.40	90,90,90,90	0
57	MG	1H	3180	1/1	0.67	0.38	88,88,88,88	0
57	MG	14	3295	1/1	0.67	0.29	90,90,90,90	0
57	MG	1G	1680	1/1	0.67	0.29	91,91,91,91	0
57	MG	14	3218	1/1	0.67	0.28	84,84,84,84	0
57	MG	1H	3263	1/1	0.68	0.47	91,91,91,91	0
57	MG	1H	3133	1/1	0.68	0.48	78,78,78,78	0
57	MG	1H	3439	1/1	0.68	0.05	95,95,95,95	0
57	MG	1H	3448	1/1	0.68	0.19	86,86,86,86	0
57	MG	1H	3479	1/1	0.68	0.17	75,75,75,75	0
57	MG	1H	3204	1/1	0.68	0.41	81,81,81,81	0
57	MG	1H	3211	1/1	0.68	0.49	79,79,79,79	0
57	MG	1H	3218	1/1	0.68	0.21	81,81,81,81	0
57	MG	1G	1701	1/1	0.68	0.08	101,101,101,101	0
57	MG	14	3416	1/1	0.69	0.05	89,89,89,89	0
57	MG	1H	3120	1/1	0.69	0.46	96,96,96,96	0
57	MG	14	3393	1/1	0.69	0.08	118,118,118,118	0
57	MG	1G	1719	1/1	0.69	0.06	119,119,119,119	0
57	MG	14	3136	1/1	0.69	0.12	127,127,127,127	0
57	MG	4K	101	1/1	0.69	0.27	86,86,86,86	0
57	MG	14	3053	1/1	0.70	0.08	72,72,72,72	0
57	MG	14	3189	1/1	0.70	0.66	85,85,85,85	0
57	MG	1H	3504	1/1	0.70	0.19	93,93,93,93	0
57	MG	14	3380	1/1	0.70	0.16	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3103	1/1	0.70	0.30	82,82,82,82	0
57	MG	1H	3316	1/1	0.70	0.48	89,89,89,89	0
57	MG	1G	1728	1/1	0.70	0.05	114,114,114,114	0
57	MG	2L	102	1/1	0.70	0.63	90,90,90,90	0
57	MG	1H	3380	1/1	0.70	0.13	59,59,59,59	0
57	MG	1H	3154	1/1	0.70	0.14	66,66,66,66	0
57	MG	13	1650	1/1	0.70	0.40	85,85,85,85	0
57	MG	1H	3483	1/1	0.71	0.08	103,103,103,103	0
57	MG	1H	3321	1/1	0.71	0.37	90,90,90,90	0
57	MG	1H	3373	1/1	0.71	0.14	89,89,89,89	0
57	MG	13	1630	1/1	0.71	0.25	87,87,87,87	0
57	MG	1H	3250	1/1	0.71	0.38	93,93,93,93	0
57	MG	14	3298	1/1	0.71	0.24	56,56,56,56	0
57	MG	1H	3282	1/1	0.71	0.43	89,89,89,89	0
57	MG	1H	3260	1/1	0.71	0.43	98,98,98,98	0
57	MG	14	3376	1/1	0.71	0.12	78,78,78,78	0
57	MG	14	3083	1/1	0.71	0.68	87,87,87,87	0
57	MG	1H	3517	1/1	0.71	0.12	87,87,87,87	0
57	MG	1H	3199	1/1	0.71	0.42	78,78,78,78	0
57	MG	1H	3078	1/1	0.71	0.37	79,79,79,79	0
57	MG	14	3261	1/1	0.71	0.20	67,67,67,67	0
57	MG	1H	3227	1/1	0.72	0.41	79,79,79,79	0
57	MG	1H	3464	1/1	0.72	0.18	48,48,48,48	0
57	MG	14	3217	1/1	0.72	0.20	77,77,77,77	0
57	MG	14	3404	1/1	0.72	0.15	100,100,100,100	0
57	MG	14	3087	1/1	0.72	0.54	58,58,58,58	0
57	MG	1H	3155	1/1	0.72	0.21	91,91,91,91	0
57	MG	13	1683	1/1	0.72	0.20	72,72,72,72	0
57	MG	14	3134	1/1	0.72	0.42	71,71,71,71	0
57	MG	1H	3222	1/1	0.72	0.39	64,64,64,64	0
57	MG	14	3148	1/1	0.73	0.36	63,63,63,63	0
57	MG	1H	3009	1/1	0.73	0.43	77,77,77,77	0
57	MG	1H	3258	1/1	0.73	0.39	84,84,84,84	0
57	MG	13	1681	1/1	0.73	0.25	68,68,68,68	0
57	MG	1H	3036	1/1	0.73	0.75	70,70,70,70	0
57	MG	1G	1650	1/1	0.73	0.15	114,114,114,114	0
57	MG	14	3402	1/1	0.73	0.14	118,118,118,118	0
57	MG	1G	1651	1/1	0.73	0.15	105,105,105,105	0
57	MG	1H	3086	1/1	0.73	0.40	66,66,66,66	0
57	MG	1H	3422	1/1	0.73	0.14	101,101,101,101	0
57	MG	1H	3265	1/1	0.73	0.15	77,77,77,77	0
57	MG	1G	1685	1/1	0.74	0.12	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3396	1/1	0.74	0.14	109,109,109,109	0
57	MG	14	3097	1/1	0.74	0.43	90,90,90,90	0
57	MG	1H	3269	1/1	0.74	0.36	86,86,86,86	0
57	MG	14	3244	1/1	0.74	0.22	58,58,58,58	0
57	MG	1H	3072	1/1	0.74	0.66	72,72,72,72	0
57	MG	1H	3279	1/1	0.74	0.46	76,76,76,76	0
57	MG	14	3140	1/1	0.74	0.34	89,89,89,89	0
57	MG	1G	1731	1/1	0.74	0.08	114,114,114,114	0
57	MG	1G	1696	1/1	0.74	0.13	91,91,91,91	0
57	MG	14	3426	1/1	0.74	0.07	126,126,126,126	0
57	MG	1H	3434	1/1	0.74	0.19	68,68,68,68	0
57	MG	1H	3115	1/1	0.74	0.91	84,84,84,84	0
57	MG	1G	1652	1/1	0.74	0.33	94,94,94,94	0
57	MG	1G	1657	1/1	0.74	0.21	82,82,82,82	0
57	MG	1H	3443	1/1	0.74	0.14	53,53,53,53	0
57	MG	14	3207	1/1	0.74	0.28	85,85,85,85	0
57	MG	1H	3528	1/1	0.74	0.11	96,96,96,96	0
57	MG	1H	3121	1/1	0.74	0.94	80,80,80,80	0
57	MG	14	3391	1/1	0.74	0.24	103,103,103,103	0
57	MG	1H	3278	1/1	0.75	0.31	83,83,83,83	0
57	MG	1H	3322	1/1	0.75	0.32	100,100,100,100	0
57	MG	14	3094	1/1	0.75	0.94	70,70,70,70	0
57	MG	1H	3189	1/1	0.75	0.43	78,78,78,78	0
57	MG	13	1685	1/1	0.75	0.38	91,91,91,91	0
57	MG	14	3191	1/1	0.75	0.31	82,82,82,82	0
57	MG	14	3205	1/1	0.75	0.43	79,79,79,79	0
57	MG	13	1663	1/1	0.75	0.25	90,90,90,90	0
57	MG	1H	3187	1/1	0.75	1.20	81,81,81,81	0
57	MG	14	3077	1/1	0.75	0.20	84,84,84,84	0
57	MG	16	211	1/1	0.75	0.12	99,99,99,99	0
57	MG	13	1665	1/1	0.75	0.30	88,88,88,88	0
57	MG	1H	3294	1/1	0.76	0.15	90,90,90,90	0
57	MG	4E	201	1/1	0.76	0.46	85,85,85,85	0
57	MG	1H	3125	1/1	0.76	0.22	63,63,63,63	0
57	MG	1G	1644	1/1	0.76	0.37	107,107,107,107	0
57	MG	1G	1645	1/1	0.76	0.06	93,93,93,93	0
57	MG	14	3110	1/1	0.76	0.52	72,72,72,72	0
57	MG	14	3370	1/1	0.76	0.24	87,87,87,87	0
57	MG	2K	102	1/1	0.76	0.31	92,92,92,92	0
57	MG	13	1679	1/1	0.76	0.28	86,86,86,86	0
57	MG	14	3007	1/1	0.76	0.65	72,72,72,72	0
57	MG	14	3437	1/1	0.76	0.07	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3005	1/1	0.76	0.72	74,74,74,74	0
57	MG	13	1643	1/1	0.76	0.42	86,86,86,86	0
57	MG	13	1625	1/1	0.76	0.31	93,93,93,93	0
57	MG	1H	3201	1/1	0.76	0.36	88,88,88,88	0
57	MG	1H	3221	1/1	0.76	0.28	64,64,64,64	0
57	MG	14	3172	1/1	0.76	0.49	82,82,82,82	0
57	MG	1H	3317	1/1	0.77	0.48	83,83,83,83	0
57	MG	13	1687	1/1	0.77	1.03	82,82,82,82	0
57	MG	14	3137	1/1	0.77	0.42	68,68,68,68	0
57	MG	14	3398	1/1	0.77	0.07	99,99,99,99	0
57	MG	14	3230	1/1	0.77	0.32	81,81,81,81	0
57	MG	1G	1647	1/1	0.77	0.26	102,102,102,102	0
57	MG	1H	3179	1/1	0.77	0.41	67,67,67,67	0
57	MG	14	3025	1/1	0.77	0.27	80,80,80,80	0
57	MG	14	3151	1/1	0.77	0.20	87,87,87,87	0
57	MG	1H	3117	1/1	0.77	0.37	54,54,54,54	0
57	MG	13	1702	1/1	0.77	0.08	107,107,107,107	0
57	MG	1G	1653	1/1	0.77	0.28	103,103,103,103	0
57	MG	1H	3185	1/1	0.77	0.35	90,90,90,90	0
57	MG	1H	3477	1/1	0.77	0.07	83,83,83,83	0
57	MG	1G	1619	1/1	0.77	0.29	86,86,86,86	0
57	MG	14	3351	1/1	0.77	0.18	104,104,104,104	0
57	MG	1G	1621	1/1	0.77	0.74	86,86,86,86	0
57	MG	1H	3157	1/1	0.77	0.13	73,73,73,73	0
57	MG	1G	1724	1/1	0.77	0.08	94,94,94,94	0
57	MG	1G	1638	1/1	0.77	0.11	93,93,93,93	0
57	MG	29	301	1/1	0.77	0.27	75,75,75,75	0
57	MG	1H	3519	1/1	0.77	0.10	83,83,83,83	0
57	MG	14	3215	1/1	0.77	0.18	72,72,72,72	0
57	MG	14	3226	1/1	0.78	0.46	83,83,83,83	0
57	MG	1H	3372	1/1	0.78	0.12	76,76,76,76	0
57	MG	1H	3273	1/1	0.78	0.14	69,69,69,69	0
57	MG	1H	3521	1/1	0.78	0.25	86,86,86,86	0
57	MG	13	1673	1/1	0.78	0.36	80,80,80,80	0
57	MG	14	3152	1/1	0.78	0.65	86,86,86,86	0
57	MG	1H	3397	1/1	0.78	0.17	58,58,58,58	0
57	MG	1H	3526	1/1	0.78	0.11	113,113,113,113	0
57	MG	1H	3308	1/1	0.78	0.35	56,56,56,56	0
57	MG	14	3082	1/1	0.78	0.33	90,90,90,90	0
57	MG	1H	3404	1/1	0.78	0.12	65,65,65,65	0
57	MG	1H	3313	1/1	0.78	0.17	74,74,74,74	0
57	MG	1H	3421	1/1	0.78	0.14	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1616	1/1	0.78	0.32	88,88,88,88	0
57	MG	1G	1681	1/1	0.78	0.11	96,96,96,96	0
57	MG	1G	1723	1/1	0.78	0.16	94,94,94,94	0
57	MG	13	1651	1/1	0.78	0.29	97,97,97,97	0
57	MG	1H	3058	1/1	0.78	0.43	77,77,77,77	0
57	MG	13	1746	1/1	0.78	0.12	119,119,119,119	0
57	MG	13	1731	1/1	0.78	0.05	90,90,90,90	0
57	MG	2L	103	1/1	0.78	0.43	75,75,75,75	0
57	MG	1H	3542	1/1	0.79	0.33	90,90,90,90	0
57	MG	1H	3320	1/1	0.79	0.41	80,80,80,80	0
57	MG	14	3232	1/1	0.79	0.28	56,56,56,56	0
57	MG	1H	3101	1/1	0.79	0.14	65,65,65,65	0
57	MG	68	201	1/1	0.79	0.23	78,78,78,78	0
57	MG	13	1695	1/1	0.79	0.11	82,82,82,82	0
57	MG	1H	3206	1/1	0.79	0.24	91,91,91,91	0
57	MG	1H	3207	1/1	0.79	0.71	87,87,87,87	0
57	MG	1H	3171	1/1	0.79	0.30	90,90,90,90	0
57	MG	1H	3085	1/1	0.79	0.42	75,75,75,75	0
57	MG	13	1742	1/1	0.79	0.10	98,98,98,98	0
57	MG	1G	1692	1/1	0.79	0.09	105,105,105,105	0
57	MG	14	3348	1/1	0.79	0.10	101,101,101,101	0
57	MG	9A	101	1/1	0.79	0.25	115,115,115,115	0
57	MG	13	1614	1/1	0.79	0.28	88,88,88,88	0
57	MG	14	3355	1/1	0.79	0.14	107,107,107,107	0
57	MG	14	3112	1/1	0.79	0.43	99,99,99,99	0
57	MG	14	3374	1/1	0.79	0.11	83,83,83,83	0
57	MG	14	3131	1/1	0.79	0.35	70,70,70,70	0
57	MG	1H	3100	1/1	0.79	0.16	62,62,62,62	0
57	MG	1H	3416	1/1	0.79	0.06	89,89,89,89	0
57	MG	1H	3498	1/1	0.79	0.16	85,85,85,85	0
57	MG	1H	3420	1/1	0.79	0.07	102,102,102,102	0
57	MG	1G	1632	1/1	0.80	0.05	99,99,99,99	0
57	MG	14	3198	1/1	0.80	0.20	86,86,86,86	0
57	MG	1G	1711	1/1	0.80	0.12	108,108,108,108	0
57	MG	1H	3067	1/1	0.80	0.17	62,62,62,62	0
57	MG	1G	1683	1/1	0.80	0.04	113,113,113,113	0
57	MG	1H	3123	1/1	0.80	0.60	65,65,65,65	0
57	MG	1H	3348	1/1	0.80	0.14	49,49,49,49	0
57	MG	14	3081	1/1	0.80	0.35	81,81,81,81	0
57	MG	16	203	1/1	0.80	0.12	78,78,78,78	0
57	MG	13	1690	1/1	0.80	0.43	100,100,100,100	0
57	MG	1H	3184	1/1	0.80	0.24	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3484	1/1	0.80	0.15	84,84,84,84	0
57	MG	1H	3374	1/1	0.80	0.11	86,86,86,86	0
57	MG	14	3243	1/1	0.80	0.08	82,82,82,82	0
57	MG	14	3163	1/1	0.80	0.84	84,84,84,84	0
57	MG	1H	3161	1/1	0.80	0.33	93,93,93,93	0
57	MG	1H	3003	1/1	0.80	0.47	65,65,65,65	0
57	MG	1H	3139	1/1	0.80	0.14	54,54,54,54	0
57	MG	1G	1676	1/1	0.80	0.07	100,100,100,100	0
58	SPE	1J	208	13/13	0.80	0.22	94,98,105,105	0
57	MG	1G	1664	1/1	0.81	0.19	73,73,73,73	0
57	MG	1G	1674	1/1	0.81	0.18	78,78,78,78	0
57	MG	1G	1620	1/1	0.81	0.27	79,79,79,79	0
57	MG	1H	3008	1/1	0.81	0.47	75,75,75,75	0
57	MG	14	3158	1/1	0.81	0.37	76,76,76,76	0
57	MG	13	1724	1/1	0.81	0.17	73,73,73,73	0
57	MG	13	1684	1/1	0.81	0.30	74,74,74,74	0
57	MG	1H	3330	1/1	0.81	0.17	47,47,47,47	0
57	MG	1H	3414	1/1	0.81	0.06	95,95,95,95	0
57	MG	1H	3165	1/1	0.81	0.20	59,59,59,59	0
57	MG	14	3177	1/1	0.81	0.31	82,82,82,82	0
57	MG	1H	3315	1/1	0.81	0.36	99,99,99,99	0
57	MG	1H	3518	1/1	0.81	0.12	101,101,101,101	0
57	MG	1G	1648	1/1	0.81	0.39	79,79,79,79	0
57	MG	14	3434	1/1	0.81	0.14	115,115,115,115	0
57	MG	1G	1694	1/1	0.81	0.10	94,94,94,94	0
57	MG	13	1657	1/1	0.81	0.41	80,80,80,80	0
57	MG	1H	3088	1/1	0.81	0.22	61,61,61,61	0
57	MG	1G	1697	1/1	0.81	0.07	110,110,110,110	0
57	MG	L8	101	1/1	0.81	0.35	86,86,86,86	0
57	MG	1J	201	1/1	0.81	0.29	86,86,86,86	0
57	MG	1H	3377	1/1	0.81	0.24	75,75,75,75	0
57	MG	14	3378	1/1	0.81	0.11	86,86,86,86	0
57	MG	14	3021	1/1	0.81	0.15	76,76,76,76	0
57	MG	1H	3523	1/1	0.81	0.23	84,84,84,84	0
57	MG	14	3387	1/1	0.81	0.12	89,89,89,89	0
57	MG	35	202	1/1	0.81	0.35	84,84,84,84	0
57	MG	14	3224	1/1	0.81	0.16	113,113,113,113	0
57	MG	1H	3340	1/1	0.82	0.31	70,70,70,70	0
57	MG	1H	3235	1/1	0.82	0.51	99,99,99,99	0
57	MG	14	3324	1/1	0.82	0.25	66,66,66,66	0
57	MG	1H	3364	1/1	0.82	0.12	72,72,72,72	0
57	MG	14	3343	1/1	0.82	0.08	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3411	1/1	0.82	0.27	93,93,93,93	0
57	MG	13	1740	1/1	0.82	0.05	132,132,132,132	0
57	MG	1H	3270	1/1	0.82	0.35	61,61,61,61	0
57	MG	1H	3527	1/1	0.82	0.11	107,107,107,107	0
57	MG	14	3220	1/1	0.82	0.29	73,73,73,73	0
57	MG	13	1723	1/1	0.82	0.12	83,83,83,83	0
57	MG	14	3168	1/1	0.82	0.27	87,87,87,87	0
57	MG	13	1691	1/1	0.82	0.20	65,65,65,65	0
57	MG	13	1688	1/1	0.82	0.52	72,72,72,72	0
57	MG	14	3379	1/1	0.82	0.09	99,99,99,99	0
57	MG	1H	3048	1/1	0.82	0.25	43,43,43,43	0
57	MG	14	3381	1/1	0.82	0.28	74,74,74,74	0
57	MG	1H	3462	1/1	0.82	0.20	53,53,53,53	0
57	MG	14	3256	1/1	0.82	0.16	54,54,54,54	0
57	MG	1H	3223	1/1	0.82	0.23	80,80,80,80	0
57	MG	1H	3084	1/1	0.82	0.60	68,68,68,68	0
57	MG	14	3062	1/1	0.82	0.86	71,71,71,71	0
57	MG	14	3395	1/1	0.82	0.10	91,91,91,91	0
57	MG	88	202	1/1	0.82	0.32	72,72,72,72	0
58	SPE	14	3446	13/13	0.82	0.28	68,79,87,89	0
57	MG	13	1728	1/1	0.82	0.14	112,112,112,112	0
57	MG	13	1662	1/1	0.83	0.19	76,76,76,76	0
57	MG	14	3104	1/1	0.83	0.19	84,84,84,84	0
57	MG	1G	1722	1/1	0.83	0.12	101,101,101,101	0
57	MG	1H	3122	1/1	0.83	0.27	67,67,67,67	0
57	MG	1G	1682	1/1	0.83	0.08	105,105,105,105	0
57	MG	1H	3296	1/1	0.83	0.30	81,81,81,81	0
57	MG	14	3133	1/1	0.83	0.29	58,58,58,58	0
57	MG	1H	3038	1/1	0.83	0.60	65,65,65,65	0
57	MG	1H	3311	1/1	0.83	0.20	93,93,93,93	0
57	MG	1H	3473	1/1	0.83	0.12	76,76,76,76	0
57	MG	14	3138	1/1	0.83	0.34	86,86,86,86	0
57	MG	14	3239	1/1	0.83	0.17	59,59,59,59	0
57	MG	13	1734	1/1	0.83	0.07	100,100,100,100	0
57	MG	13	1745	1/1	0.83	0.06	111,111,111,111	0
57	MG	1H	3111	1/1	0.83	0.50	73,73,73,73	0
57	MG	14	3149	1/1	0.83	0.67	71,71,71,71	0
57	MG	14	3274	1/1	0.83	0.14	81,81,81,81	0
57	MG	1H	3228	1/1	0.83	0.34	70,70,70,70	0
57	MG	1H	3486	1/1	0.83	0.10	89,89,89,89	0
57	MG	1H	3530	1/1	0.83	0.10	98,98,98,98	0
57	MG	14	3027	1/1	0.83	0.25	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3183	1/1	0.83	0.25	73,73,73,73	0
57	MG	1H	3149	1/1	0.83	0.29	86,86,86,86	0
57	MG	14	3317	1/1	0.83	0.16	64,64,64,64	0
57	MG	14	3165	1/1	0.83	0.44	74,74,74,74	0
57	MG	13	1708	1/1	0.83	0.09	95,95,95,95	0
57	MG	14	3442	1/1	0.83	0.21	75,75,75,75	0
57	MG	1H	3327	1/1	0.83	0.11	65,65,65,65	0
57	MG	1G	1709	1/1	0.83	0.14	87,87,87,87	0
57	MG	1H	3087	1/1	0.83	0.38	79,79,79,79	0
57	MG	1G	1662	1/1	0.83	0.90	94,94,94,94	0
57	MG	14	3187	1/1	0.83	0.33	90,90,90,90	0
57	MG	14	3085	1/1	0.83	0.47	81,81,81,81	0
57	MG	13	1682	1/1	0.83	0.28	85,85,85,85	0
57	MG	35	201	1/1	0.83	0.16	86,86,86,86	0
57	MG	13	1672	1/1	0.83	0.83	86,86,86,86	0
57	MG	F8	101	1/1	0.83	0.42	86,86,86,86	0
57	MG	1H	3516	1/1	0.83	0.09	79,79,79,79	0
57	MG	13	1699	1/1	0.84	0.09	102,102,102,102	0
57	MG	14	3246	1/1	0.84	0.18	72,72,72,72	0
57	MG	1H	3522	1/1	0.84	0.20	91,91,91,91	0
57	MG	1H	3307	1/1	0.84	0.64	72,72,72,72	0
57	MG	14	3272	1/1	0.84	0.07	78,78,78,78	0
57	MG	1H	3418	1/1	0.84	0.09	86,86,86,86	0
57	MG	1G	1670	1/1	0.84	0.21	88,88,88,88	0
57	MG	14	3116	1/1	0.84	0.28	66,66,66,66	0
57	MG	1H	3220	1/1	0.84	0.15	89,89,89,89	0
57	MG	14	3406	1/1	0.84	0.10	90,90,90,90	0
57	MG	14	3190	1/1	0.84	0.33	79,79,79,79	0
57	MG	14	3410	1/1	0.84	0.07	116,116,116,116	0
57	MG	1G	1704	1/1	0.84	0.07	107,107,107,107	0
57	MG	1H	3248	1/1	0.84	0.39	96,96,96,96	0
57	MG	14	3421	1/1	0.84	0.20	98,98,98,98	0
57	MG	14	3301	1/1	0.84	0.07	117,117,117,117	0
57	MG	14	3314	1/1	0.84	0.13	83,83,83,83	0
57	MG	14	3199	1/1	0.84	0.56	68,68,68,68	0
57	MG	14	3427	1/1	0.84	0.18	92,92,92,92	0
57	MG	1H	3370	1/1	0.84	0.17	59,59,59,59	0
57	MG	1G	1678	1/1	0.84	0.15	73,73,73,73	0
57	MG	1H	3127	1/1	0.84	0.37	84,84,84,84	0
57	MG	14	3211	1/1	0.84	0.42	85,85,85,85	0
57	MG	14	3213	1/1	0.84	0.39	76,76,76,76	0
57	MG	1H	3158	1/1	0.84	0.48	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3190	1/1	0.84	0.41	75,75,75,75	0
57	MG	14	3362	1/1	0.84	0.09	97,97,97,97	0
57	MG	1H	3281	1/1	0.84	0.21	67,67,67,67	0
57	MG	1H	3544	1/1	0.84	0.08	84,84,84,84	0
57	MG	13	1653	1/1	0.84	0.53	94,94,94,94	0
57	MG	1G	1720	1/1	0.84	0.05	106,106,106,106	0
57	MG	1H	3098	1/1	0.84	0.53	78,78,78,78	0
57	MG	13	1623	1/1	0.84	0.40	80,80,80,80	0
57	MG	14	3161	1/1	0.84	0.88	79,79,79,79	0
57	MG	1H	3325	1/1	0.84	0.38	88,88,88,88	0
57	MG	13	1697	1/1	0.84	0.11	78,78,78,78	0
57	MG	1G	1729	1/1	0.84	0.10	104,104,104,104	0
57	MG	14	3222	1/1	0.85	0.58	88,88,88,88	0
57	MG	14	3052	1/1	0.85	0.46	79,79,79,79	0
57	MG	41	201	1/1	0.85	0.11	62,62,62,62	0
57	MG	1H	3323	1/1	0.85	0.23	75,75,75,75	0
57	MG	14	3066	1/1	0.85	0.36	59,59,59,59	0
57	MG	14	3075	1/1	0.85	0.35	89,89,89,89	0
57	MG	1H	3449	1/1	0.85	0.41	80,80,80,80	0
57	MG	13	1727	1/1	0.85	0.17	90,90,90,90	0
57	MG	13	1669	1/1	0.85	0.30	92,92,92,92	0
57	MG	14	3394	1/1	0.85	0.14	63,63,63,63	0
57	MG	14	3252	1/1	0.85	0.25	62,62,62,62	0
57	MG	13	1642	1/1	0.85	0.17	72,72,72,72	0
57	MG	1H	3410	1/1	0.85	0.08	106,106,106,106	0
57	MG	14	3271	1/1	0.85	0.06	72,72,72,72	0
57	MG	1H	3332	1/1	0.85	0.15	50,50,50,50	0
57	MG	1H	3276	1/1	0.85	0.36	90,90,90,90	0
57	MG	14	3281	1/1	0.85	0.07	95,95,95,95	0
57	MG	2K	103	1/1	0.85	0.38	89,89,89,89	0
57	MG	14	3181	1/1	0.85	0.34	81,81,81,81	0
57	MG	14	3286	1/1	0.85	0.06	93,93,93,93	0
57	MG	14	3288	1/1	0.85	0.15	77,77,77,77	0
57	MG	1H	3350	1/1	0.85	0.20	57,57,57,57	0
57	MG	14	3420	1/1	0.85	0.08	96,96,96,96	0
57	MG	14	3292	1/1	0.85	0.11	85,85,85,85	0
57	MG	1H	3106	1/1	0.85	0.18	68,68,68,68	0
57	MG	1H	3108	1/1	0.85	0.32	69,69,69,69	0
57	MG	1H	3191	1/1	0.85	0.29	72,72,72,72	0
57	MG	42	201	1/1	0.85	0.11	116,116,116,116	0
57	MG	1H	3429	1/1	0.85	0.18	56,56,56,56	0
57	MG	14	3203	1/1	0.85	0.43	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3537	1/1	0.85	0.21	61,61,61,61	0
57	MG	1H	3197	1/1	0.85	0.35	80,80,80,80	0
57	MG	14	3331	1/1	0.85	0.16	79,79,79,79	0
57	MG	14	3335	1/1	0.85	0.14	63,63,63,63	0
57	MG	1H	3436	1/1	0.85	0.12	65,65,65,65	0
57	MG	1H	3545	1/1	0.85	0.07	116,116,116,116	0
57	MG	1H	3511	1/1	0.85	0.05	92,92,92,92	0
57	MG	1H	3082	1/1	0.85	0.39	76,76,76,76	0
57	MG	14	3352	1/1	0.85	0.11	84,84,84,84	0
57	MG	1J	207	1/1	0.85	0.10	92,92,92,92	0
57	MG	16	208	1/1	0.85	0.37	79,79,79,79	0
57	MG	13	1700	1/1	0.85	0.07	86,86,86,86	0
57	MG	14	3367	1/1	0.85	0.08	99,99,99,99	0
57	MG	14	3368	1/1	0.85	0.12	74,74,74,74	0
57	MG	31	302	1/1	0.85	0.21	73,73,73,73	0
57	MG	M5	101	1/1	0.85	0.10	86,86,86,86	0
58	SPE	13	1748	13/13	0.85	0.24	60,77,82,87	0
58	SPE	1G	1733	13/13	0.85	0.10	98,101,104,105	0
57	MG	14	3032	1/1	0.85	0.45	80,80,80,80	0
57	MG	14	3041	1/1	0.85	0.63	76,76,76,76	0
57	MG	14	3276	1/1	0.86	0.07	95,95,95,95	0
57	MG	1H	3075	1/1	0.86	0.19	61,61,61,61	0
57	MG	1H	3145	1/1	0.86	0.61	62,62,62,62	0
57	MG	14	3283	1/1	0.86	0.09	71,71,71,71	0
57	MG	1H	3513	1/1	0.86	0.11	80,80,80,80	0
57	MG	1H	3424	1/1	0.86	0.05	100,100,100,100	0
57	MG	1G	1725	1/1	0.86	0.11	113,113,113,113	0
57	MG	1H	3303	1/1	0.86	0.47	76,76,76,76	0
57	MG	1H	3352	1/1	0.86	0.08	84,84,84,84	0
57	MG	14	3200	1/1	0.86	0.28	98,98,98,98	0
57	MG	1H	3099	1/1	0.86	0.37	84,84,84,84	0
57	MG	1H	3231	1/1	0.86	0.21	67,67,67,67	0
57	MG	3A	201	1/1	0.86	0.25	77,77,77,77	0
57	MG	4A	201	1/1	0.86	0.21	96,96,96,96	0
57	MG	14	3209	1/1	0.86	0.33	65,65,65,65	0
57	MG	14	3319	1/1	0.86	0.10	78,78,78,78	0
57	MG	13	1615	1/1	0.86	0.23	73,73,73,73	0
57	MG	1H	3444	1/1	0.86	0.10	73,73,73,73	0
57	MG	1G	1624	1/1	0.86	0.43	76,76,76,76	0
57	MG	1H	3233	1/1	0.86	0.19	110,110,110,110	0
57	MG	14	3004	1/1	0.86	0.23	73,73,73,73	0
57	MG	14	3429	1/1	0.86	0.09	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3234	1/1	0.86	0.74	76,76,76,76	0
57	MG	1H	3458	1/1	0.86	0.14	82,82,82,82	0
57	MG	1H	3113	1/1	0.86	0.26	64,64,64,64	0
57	MG	1H	3378	1/1	0.86	0.09	65,65,65,65	0
57	MG	14	3353	1/1	0.86	0.12	90,90,90,90	0
57	MG	1H	3466	1/1	0.86	0.03	89,89,89,89	0
57	MG	14	3359	1/1	0.86	0.06	86,86,86,86	0
57	MG	1H	3124	1/1	0.86	0.52	73,73,73,73	0
57	MG	1H	3388	1/1	0.86	0.18	58,58,58,58	0
57	MG	1H	3277	1/1	0.86	0.53	82,82,82,82	0
57	MG	13	1632	1/1	0.86	0.39	90,90,90,90	0
57	MG	1H	3200	1/1	0.86	0.34	73,73,73,73	0
57	MG	13	1664	1/1	0.86	0.19	69,69,69,69	0
57	MG	1H	3164	1/1	0.86	0.14	64,64,64,64	0
57	MG	25	202	1/1	0.86	0.17	110,110,110,110	0
57	MG	1H	3284	1/1	0.86	0.34	71,71,71,71	0
57	MG	1H	3259	1/1	0.86	0.43	92,92,92,92	0
57	MG	14	3078	1/1	0.86	0.35	64,64,64,64	0
57	MG	1G	1666	1/1	0.86	0.08	103,103,103,103	0
57	MG	1H	3331	1/1	0.86	0.23	53,53,53,53	0
57	MG	14	3273	1/1	0.86	0.16	70,70,70,70	0
57	MG	13	1674	1/1	0.86	0.38	92,92,92,92	0
57	MG	1H	3488	1/1	0.87	0.07	88,88,88,88	0
57	MG	1G	1727	1/1	0.87	0.09	93,93,93,93	0
57	MG	14	3316	1/1	0.87	0.09	90,90,90,90	0
57	MG	1H	3493	1/1	0.87	0.05	102,102,102,102	0
57	MG	1G	1689	1/1	0.87	0.16	89,89,89,89	0
57	MG	14	3223	1/1	0.87	0.31	87,87,87,87	0
57	MG	1H	3224	1/1	0.87	0.44	90,90,90,90	0
57	MG	14	3225	1/1	0.87	0.11	95,95,95,95	0
57	MG	14	3334	1/1	0.87	0.07	94,94,94,94	0
57	MG	14	3415	1/1	0.87	0.10	101,101,101,101	0
57	MG	13	1660	1/1	0.87	0.50	96,96,96,96	0
57	MG	14	3419	1/1	0.87	0.20	110,110,110,110	0
57	MG	14	3341	1/1	0.87	0.08	91,91,91,91	0
57	MG	1H	3209	1/1	0.87	0.41	52,52,52,52	0
57	MG	1H	3042	1/1	0.87	0.41	67,67,67,67	0
57	MG	14	3093	1/1	0.87	0.24	79,79,79,79	0
57	MG	14	3424	1/1	0.87	0.13	94,94,94,94	0
57	MG	1H	3080	1/1	0.87	0.52	103,103,103,103	0
57	MG	14	3176	1/1	0.87	0.35	69,69,69,69	0
57	MG	1H	3292	1/1	0.87	0.23	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3062	1/1	0.87	0.26	40,40,40,40	0
57	MG	14	3431	1/1	0.87	0.23	60,60,60,60	0
57	MG	14	3357	1/1	0.87	0.09	96,96,96,96	0
57	MG	13	1737	1/1	0.87	0.10	98,98,98,98	0
57	MG	1H	3394	1/1	0.87	0.07	74,74,74,74	0
57	MG	14	3268	1/1	0.87	0.13	86,86,86,86	0
57	MG	1H	3070	1/1	0.87	0.40	56,56,56,56	0
57	MG	14	3369	1/1	0.87	0.11	92,92,92,92	0
57	MG	1H	3450	1/1	0.87	0.20	59,59,59,59	0
57	MG	14	3129	1/1	0.87	0.47	75,75,75,75	0
57	MG	1H	3102	1/1	0.87	0.59	66,66,66,66	0
57	MG	1H	3202	1/1	0.87	0.98	82,82,82,82	0
57	MG	14	3201	1/1	0.87	0.73	95,95,95,95	0
57	MG	1H	3406	1/1	0.87	0.16	46,46,46,46	0
57	MG	1H	3338	1/1	0.87	0.17	63,63,63,63	0
57	MG	14	3383	1/1	0.87	0.14	92,92,92,92	0
57	MG	1G	1607	1/1	0.87	0.27	92,92,92,92	0
57	MG	1H	3275	1/1	0.87	0.60	67,67,67,67	0
57	MG	1H	3051	1/1	0.87	0.47	76,76,76,76	0
57	MG	1H	3312	1/1	0.87	0.23	94,94,94,94	0
57	MG	1H	3056	1/1	0.87	0.43	73,73,73,73	0
57	MG	1G	1623	1/1	0.87	0.49	75,75,75,75	0
58	SPE	14	3445	13/13	0.87	0.36	70,76,79,79	0
57	MG	1H	3360	1/1	0.87	0.15	76,76,76,76	0
57	MG	1H	3177	1/1	0.87	0.61	77,77,77,77	0
57	MG	1H	3019	1/1	0.88	0.30	61,61,61,61	0
57	MG	14	3155	1/1	0.88	0.30	80,80,80,80	0
57	MG	1H	3367	1/1	0.88	0.15	56,56,56,56	0
57	MG	1H	3309	1/1	0.88	0.72	74,74,74,74	0
57	MG	1G	1693	1/1	0.88	0.06	84,84,84,84	0
57	MG	14	3264	1/1	0.88	0.21	52,52,52,52	0
57	MG	1H	3105	1/1	0.88	0.43	79,79,79,79	0
57	MG	1H	3442	1/1	0.88	0.21	69,69,69,69	0
57	MG	1H	3089	1/1	0.88	0.28	66,66,66,66	0
57	MG	1H	3092	1/1	0.88	0.18	74,74,74,74	0
57	MG	1H	3445	1/1	0.88	0.16	44,44,44,44	0
57	MG	14	3056	1/1	0.88	0.32	80,80,80,80	0
57	MG	14	3280	1/1	0.88	0.11	97,97,97,97	0
57	MG	1H	3094	1/1	0.88	0.50	68,68,68,68	0
57	MG	1G	1633	1/1	0.88	0.17	89,89,89,89	0
57	MG	14	3072	1/1	0.88	0.16	57,57,57,57	0
57	MG	1G	1703	1/1	0.88	0.08	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3242	1/1	0.88	0.12	74,74,74,74	0
57	MG	1H	3245	1/1	0.88	0.52	78,78,78,78	0
57	MG	1H	3452	1/1	0.88	0.09	75,75,75,75	0
57	MG	1H	3134	1/1	0.88	0.23	44,44,44,44	0
57	MG	14	3193	1/1	0.88	0.38	95,95,95,95	0
57	MG	1H	3391	1/1	0.88	0.19	50,50,50,50	0
57	MG	13	1647	1/1	0.88	0.27	91,91,91,91	0
57	MG	1H	3395	1/1	0.88	0.10	84,84,84,84	0
57	MG	1H	3249	1/1	0.88	0.30	68,68,68,68	0
57	MG	1H	3533	1/1	0.88	0.20	44,44,44,44	0
57	MG	14	3204	1/1	0.88	0.78	80,80,80,80	0
57	MG	1H	3474	1/1	0.88	0.09	82,82,82,82	0
57	MG	14	3323	1/1	0.88	0.12	83,83,83,83	0
57	MG	13	1620	1/1	0.88	0.29	57,57,57,57	0
57	MG	1G	1721	1/1	0.88	0.07	107,107,107,107	0
57	MG	1G	1661	1/1	0.88	0.18	99,99,99,99	0
57	MG	14	3332	1/1	0.88	0.10	80,80,80,80	0
57	MG	14	3210	1/1	0.88	0.17	80,80,80,80	0
57	MG	1H	3147	1/1	0.88	0.43	64,64,64,64	0
57	MG	1H	3286	1/1	0.88	0.29	87,87,87,87	0
57	MG	1H	3065	1/1	0.88	0.18	50,50,50,50	0
57	MG	1G	1669	1/1	0.88	0.11	99,99,99,99	0
57	MG	14	3126	1/1	0.88	0.22	75,75,75,75	0
57	MG	1H	3203	1/1	0.88	0.36	74,74,74,74	0
57	MG	13	1739	1/1	0.88	0.05	92,92,92,92	0
57	MG	1J	202	1/1	0.88	0.09	84,84,84,84	0
57	MG	13	1635	1/1	0.88	0.22	99,99,99,99	0
57	MG	13	1706	1/1	0.88	0.09	103,103,103,103	0
57	MG	1H	3297	1/1	0.88	0.17	78,78,78,78	0
57	MG	14	3358	1/1	0.88	0.09	88,88,88,88	0
57	MG	1H	3301	1/1	0.88	0.27	70,70,70,70	0
57	MG	1H	3502	1/1	0.88	0.10	90,90,90,90	0
57	MG	14	3366	1/1	0.88	0.12	98,98,98,98	0
57	MG	13	1637	1/1	0.88	0.11	79,79,79,79	0
57	MG	14	3227	1/1	0.88	0.27	76,76,76,76	0
57	MG	88	203	1/1	0.88	0.20	76,76,76,76	0
57	MG	1H	3267	1/1	0.88	0.53	68,68,68,68	0
57	MG	14	3238	1/1	0.88	0.15	66,66,66,66	0
57	MG	14	3375	1/1	0.88	0.06	84,84,84,84	0
57	MG	1H	3425	1/1	0.88	0.17	74,74,74,74	0
57	MG	1G	1605	1/1	0.88	0.31	82,82,82,82	0
57	MG	14	3039	1/1	0.89	0.41	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3237	1/1	0.89	0.17	73,73,73,73	0
57	MG	13	1626	1/1	0.89	0.28	67,67,67,67	0
57	MG	14	3167	1/1	0.89	0.28	76,76,76,76	0
57	MG	1G	1698	1/1	0.89	0.12	105,105,105,105	0
57	MG	14	3385	1/1	0.89	0.13	80,80,80,80	0
57	MG	1H	3241	1/1	0.89	0.13	64,64,64,64	0
57	MG	1G	1637	1/1	0.89	0.12	113,113,113,113	0
57	MG	1H	3379	1/1	0.89	0.17	58,58,58,58	0
57	MG	14	3275	1/1	0.89	0.07	74,74,74,74	0
57	MG	1H	3495	1/1	0.89	0.06	94,94,94,94	0
57	MG	1H	3541	1/1	0.89	0.10	67,67,67,67	0
57	MG	14	3178	1/1	0.89	0.50	92,92,92,92	0
57	MG	14	3179	1/1	0.89	0.23	71,71,71,71	0
57	MG	1H	3172	1/1	0.89	0.25	84,84,84,84	0
57	MG	14	3183	1/1	0.89	0.61	65,65,65,65	0
57	MG	14	3400	1/1	0.89	0.09	76,76,76,76	0
57	MG	1G	1646	1/1	0.89	0.07	83,83,83,83	0
57	MG	14	3287	1/1	0.89	0.07	73,73,73,73	0
57	MG	13	1616	1/1	0.89	0.29	82,82,82,82	0
57	MG	1H	3128	1/1	0.89	0.14	79,79,79,79	0
57	MG	14	3408	1/1	0.89	0.07	111,111,111,111	0
57	MG	1H	3392	1/1	0.89	0.20	52,52,52,52	0
57	MG	16	204	1/1	0.89	0.26	70,70,70,70	0
57	MG	14	3294	1/1	0.89	0.11	114,114,114,114	0
57	MG	14	3413	1/1	0.89	0.27	81,81,81,81	0
57	MG	16	205	1/1	0.89	0.10	66,66,66,66	0
57	MG	1H	3130	1/1	0.89	0.72	87,87,87,87	0
57	MG	1H	3193	1/1	0.89	0.51	93,93,93,93	0
57	MG	14	3307	1/1	0.89	0.15	72,72,72,72	0
57	MG	1H	3447	1/1	0.89	0.12	66,66,66,66	0
57	MG	11	301	1/1	0.89	0.64	60,60,60,60	0
57	MG	1H	3304	1/1	0.89	0.42	85,85,85,85	0
57	MG	14	3099	1/1	0.89	0.34	77,77,77,77	0
57	MG	14	3425	1/1	0.89	0.10	91,91,91,91	0
57	MG	1H	3401	1/1	0.89	0.20	63,63,63,63	0
57	MG	1G	1667	1/1	0.89	0.12	90,90,90,90	0
57	MG	1G	1668	1/1	0.89	0.06	95,95,95,95	0
57	MG	1H	3195	1/1	0.89	0.16	59,59,59,59	0
57	MG	14	3113	1/1	0.89	0.31	57,57,57,57	0
57	MG	14	3432	1/1	0.89	0.15	103,103,103,103	0
57	MG	14	3433	1/1	0.89	0.11	69,69,69,69	0
57	MG	88	201	1/1	0.89	0.16	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	5I	101	1/1	0.89	0.08	80,80,80,80	0
57	MG	1H	3006	1/1	0.89	0.43	71,71,71,71	0
57	MG	1H	3280	1/1	0.89	0.54	68,68,68,68	0
57	MG	J8	101	1/1	0.89	0.61	79,79,79,79	0
57	MG	13	1710	1/1	0.89	0.10	82,82,82,82	0
57	MG	P8	101	1/1	0.89	0.34	71,71,71,71	0
57	MG	1H	3214	1/1	0.89	0.26	86,86,86,86	0
57	MG	1H	3469	1/1	0.89	0.09	93,93,93,93	0
57	MG	1G	1611	1/1	0.89	0.68	77,77,77,77	0
57	MG	4L	102	1/1	0.89	0.11	108,108,108,108	0
57	MG	1H	3114	1/1	0.89	0.66	67,67,67,67	0
57	MG	1G	1618	1/1	0.89	0.24	89,89,89,89	0
57	MG	1H	3285	1/1	0.89	0.41	96,96,96,96	0
57	MG	14	3363	1/1	0.89	0.09	102,102,102,102	0
57	MG	14	3365	1/1	0.89	0.17	96,96,96,96	0
57	MG	1H	3371	1/1	0.89	0.14	56,56,56,56	0
57	MG	14	3236	1/1	0.89	0.15	70,70,70,70	0
57	MG	C5	201	1/1	0.89	0.08	103,103,103,103	0
57	MG	14	3154	1/1	0.89	0.14	87,87,87,87	0
57	MG	1H	3478	1/1	0.89	0.06	78,78,78,78	0
57	MG	13	1735	1/1	0.89	0.08	111,111,111,111	0
57	MG	1H	3287	1/1	0.89	0.39	78,78,78,78	0
57	MG	14	3160	1/1	0.89	0.32	92,92,92,92	0
57	MG	1G	1625	1/1	0.89	0.12	98,98,98,98	0
57	MG	14	3267	1/1	0.90	0.08	86,86,86,86	0
57	MG	1H	3456	1/1	0.90	0.15	41,41,41,41	0
57	MG	14	3035	1/1	0.90	0.85	79,79,79,79	0
57	MG	14	3384	1/1	0.90	0.07	88,88,88,88	0
57	MG	1H	3390	1/1	0.90	0.10	68,68,68,68	0
57	MG	14	3040	1/1	0.90	0.40	72,72,72,72	0
57	MG	14	3171	1/1	0.90	0.16	57,57,57,57	0
57	MG	14	3389	1/1	0.90	0.17	94,94,94,94	0
57	MG	1H	3162	1/1	0.90	0.32	68,68,68,68	0
57	MG	1H	3037	1/1	0.90	0.35	71,71,71,71	0
57	MG	14	3392	1/1	0.90	0.05	112,112,112,112	0
57	MG	2K	101	1/1	0.90	0.31	63,63,63,63	0
57	MG	1H	3531	1/1	0.90	0.21	76,76,76,76	0
57	MG	1G	1636	1/1	0.90	0.07	91,91,91,91	0
57	MG	14	3063	1/1	0.90	0.36	52,52,52,52	0
57	MG	1H	3167	1/1	0.90	0.14	60,60,60,60	0
57	MG	1H	3471	1/1	0.90	0.07	73,73,73,73	0
57	MG	14	3399	1/1	0.90	0.14	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1667	1/1	0.90	0.85	96,96,96,96	0
57	MG	14	3401	1/1	0.90	0.29	85,85,85,85	0
57	MG	1H	3044	1/1	0.90	0.67	81,81,81,81	0
57	MG	1H	3126	1/1	0.90	0.22	75,75,75,75	0
57	MG	1H	3176	1/1	0.90	0.34	62,62,62,62	0
57	MG	13	1738	1/1	0.90	0.10	70,70,70,70	0
57	MG	14	3407	1/1	0.90	0.04	83,83,83,83	0
57	MG	16	201	1/1	0.90	0.16	83,83,83,83	0
57	MG	14	3194	1/1	0.90	0.69	87,87,87,87	0
57	MG	14	3296	1/1	0.90	0.20	62,62,62,62	0
57	MG	13	1649	1/1	0.90	0.23	72,72,72,72	0
57	MG	14	3412	1/1	0.90	0.10	101,101,101,101	0
57	MG	1G	1713	1/1	0.90	0.13	113,113,113,113	0
57	MG	14	3305	1/1	0.90	0.10	78,78,78,78	0
57	MG	13	1609	1/1	0.90	0.25	71,71,71,71	0
57	MG	14	3418	1/1	0.90	0.09	101,101,101,101	0
57	MG	14	3308	1/1	0.90	0.23	58,58,58,58	0
57	MG	13	1730	1/1	0.90	0.08	81,81,81,81	0
57	MG	1G	1716	1/1	0.90	0.07	92,92,92,92	0
57	MG	1H	3255	1/1	0.90	0.23	73,73,73,73	0
57	MG	1G	1654	1/1	0.90	0.36	94,94,94,94	0
57	MG	13	1670	1/1	0.90	0.23	100,100,100,100	0
57	MG	14	3101	1/1	0.90	0.26	90,90,90,90	0
57	MG	1G	1660	1/1	0.90	0.28	75,75,75,75	0
57	MG	1H	3137	1/1	0.90	0.17	57,57,57,57	0
57	MG	1H	3356	1/1	0.90	0.12	75,75,75,75	0
57	MG	1H	3357	1/1	0.90	0.20	62,62,62,62	0
57	MG	1H	3423	1/1	0.90	0.08	66,66,66,66	0
57	MG	1G	1726	1/1	0.90	0.06	113,113,113,113	0
57	MG	1H	3358	1/1	0.90	0.15	40,40,40,40	0
57	MG	78	201	1/1	0.90	0.07	57,57,57,57	0
57	MG	13	1633	1/1	0.90	0.21	87,87,87,87	0
57	MG	1H	3299	1/1	0.90	0.13	78,78,78,78	0
57	MG	1G	1672	1/1	0.90	0.10	92,92,92,92	0
57	MG	1H	3140	1/1	0.90	0.20	40,40,40,40	0
57	MG	14	3440	1/1	0.90	0.10	98,98,98,98	0
57	MG	1H	3141	1/1	0.90	0.31	66,66,66,66	0
57	MG	13	1619	1/1	0.90	0.22	53,53,53,53	0
57	MG	13	1719	1/1	0.90	0.10	71,71,71,71	0
57	MG	1H	3116	1/1	0.90	0.18	82,82,82,82	0
57	MG	14	3229	1/1	0.90	0.17	90,90,90,90	0
57	MG	13	1624	1/1	0.90	0.12	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3097	1/1	0.90	0.49	83,83,83,83	0
57	MG	1G	1610	1/1	0.90	0.24	69,69,69,69	0
57	MG	14	3005	1/1	0.90	0.30	50,50,50,50	0
57	MG	1H	3194	1/1	0.90	0.26	71,71,71,71	0
57	MG	1H	3119	1/1	0.90	0.21	62,62,62,62	0
57	MG	1H	3033	1/1	0.90	0.22	73,73,73,73	0
57	MG	14	3371	1/1	0.90	0.10	90,90,90,90	0
57	MG	14	3373	1/1	0.90	0.13	97,97,97,97	0
57	MG	E5	101	1/1	0.90	0.08	100,100,100,100	0
57	MG	14	3024	1/1	0.90	0.13	77,77,77,77	0
57	MG	14	3159	1/1	0.90	0.39	93,93,93,93	0
57	MG	1H	3386	1/1	0.90	0.16	48,48,48,48	0
57	MG	14	3377	1/1	0.90	0.09	64,64,64,64	0
57	MG	13	1656	1/1	0.90	0.25	87,87,87,87	0
57	MG	1H	3455	1/1	0.90	0.15	42,42,42,42	0
57	MG	14	3195	1/1	0.91	0.27	78,78,78,78	0
57	MG	14	3289	1/1	0.91	0.06	90,90,90,90	0
57	MG	14	3196	1/1	0.91	0.44	68,68,68,68	0
57	MG	1H	3181	1/1	0.91	0.16	94,94,94,94	0
57	MG	1H	3152	1/1	0.91	0.31	51,51,51,51	0
57	MG	1H	3027	1/1	0.91	0.35	84,84,84,84	0
57	MG	1G	1673	1/1	0.91	0.17	71,71,71,71	0
57	MG	14	3202	1/1	0.91	0.26	83,83,83,83	0
57	MG	Q8	101	1/1	0.91	0.26	81,81,81,81	0
57	MG	1H	3385	1/1	0.91	0.08	77,77,77,77	0
57	MG	1G	1606	1/1	0.91	0.13	84,84,84,84	0
57	MG	14	3123	1/1	0.91	0.38	60,60,60,60	0
57	MG	13	1718	1/1	0.91	0.07	88,88,88,88	0
57	MG	14	3313	1/1	0.91	0.15	87,87,87,87	0
57	MG	1H	3239	1/1	0.91	0.51	92,92,92,92	0
57	MG	1H	3208	1/1	0.91	0.44	78,78,78,78	0
57	MG	1G	1612	1/1	0.91	0.20	82,82,82,82	0
57	MG	1H	3109	1/1	0.91	0.34	79,79,79,79	0
57	MG	14	3002	1/1	0.91	0.70	68,68,68,68	0
57	MG	13	1602	1/1	0.91	0.26	78,78,78,78	0
57	MG	13	1613	1/1	0.91	0.18	81,81,81,81	0
57	MG	14	3330	1/1	0.91	0.13	64,64,64,64	0
57	MG	13	1603	1/1	0.91	0.12	116,116,116,116	0
57	MG	1H	3329	1/1	0.91	0.20	50,50,50,50	0
57	MG	14	3016	1/1	0.91	0.34	63,63,63,63	0
57	MG	1G	1622	1/1	0.91	0.35	85,85,85,85	0
57	MG	14	3338	1/1	0.91	0.08	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3467	1/1	0.91	0.08	85,85,85,85	0
57	MG	1H	3163	1/1	0.91	0.20	74,74,74,74	0
57	MG	14	3346	1/1	0.91	0.07	92,92,92,92	0
57	MG	13	1646	1/1	0.91	0.32	97,97,97,97	0
57	MG	1G	1629	1/1	0.91	0.14	97,97,97,97	0
57	MG	14	3156	1/1	0.91	0.16	71,71,71,71	0
57	MG	1H	3251	1/1	0.91	0.22	77,77,77,77	0
57	MG	1H	3336	1/1	0.91	0.16	50,50,50,50	0
57	MG	1H	3536	1/1	0.91	0.17	60,60,60,60	0
57	MG	14	3356	1/1	0.91	0.10	67,67,67,67	0
57	MG	14	3235	1/1	0.91	0.21	65,65,65,65	0
57	MG	1H	3252	1/1	0.91	0.49	81,81,81,81	0
57	MG	1H	3254	1/1	0.91	0.90	75,75,75,75	0
57	MG	13	1636	1/1	0.91	0.28	103,103,103,103	0
57	MG	14	3241	1/1	0.91	0.09	100,100,100,100	0
57	MG	1H	3482	1/1	0.91	0.20	102,102,102,102	0
57	MG	1H	3349	1/1	0.91	0.19	67,67,67,67	0
57	MG	14	3439	1/1	0.91	0.14	99,99,99,99	0
57	MG	14	3166	1/1	0.91	0.76	82,82,82,82	0
57	MG	14	3441	1/1	0.91	0.26	102,102,102,102	0
57	MG	14	3247	1/1	0.91	0.19	60,60,60,60	0
57	MG	1H	3417	1/1	0.91	0.11	74,74,74,74	0
57	MG	14	3444	1/1	0.91	0.27	85,85,85,85	0
57	MG	1H	3192	1/1	0.91	0.27	76,76,76,76	0
57	MG	1H	3079	1/1	0.91	0.28	45,45,45,45	0
57	MG	13	1608	1/1	0.91	0.13	71,71,71,71	0
57	MG	1H	3494	1/1	0.91	0.09	98,98,98,98	0
57	MG	16	207	1/1	0.91	0.08	84,84,84,84	0
57	MG	1H	3169	1/1	0.91	0.93	82,82,82,82	0
57	MG	1H	3262	1/1	0.91	0.24	71,71,71,71	0
57	MG	13	1659	1/1	0.91	0.64	85,85,85,85	0
57	MG	1G	1655	1/1	0.91	0.14	70,70,70,70	0
57	MG	1H	3012	1/1	0.91	0.22	84,84,84,84	0
57	MG	1H	3306	1/1	0.91	0.29	70,70,70,70	0
57	MG	14	3185	1/1	0.91	0.12	76,76,76,76	0
57	MG	1H	3175	1/1	0.91	0.14	64,64,64,64	0
57	MG	13	1711	1/1	0.91	0.12	102,102,102,102	0
57	MG	1H	3023	1/1	0.91	0.12	72,72,72,72	0
57	MG	1H	3310	1/1	0.91	0.68	87,87,87,87	0
57	MG	14	3388	1/1	0.91	0.31	89,89,89,89	0
57	MG	1H	3148	1/1	0.91	0.22	80,80,80,80	0
57	MG	1H	3025	1/1	0.91	0.24	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3272	1/1	0.92	0.31	80,80,80,80	0
57	MG	13	1606	1/1	0.92	0.33	77,77,77,77	0
57	MG	1H	3247	1/1	0.92	0.38	101,101,101,101	0
57	MG	1H	3066	1/1	0.92	0.18	65,65,65,65	0
57	MG	13	1747	1/1	0.92	0.11	110,110,110,110	0
57	MG	1H	3069	1/1	0.92	0.28	60,60,60,60	0
57	MG	1H	3166	1/1	0.92	0.26	56,56,56,56	0
57	MG	1G	1635	1/1	0.92	0.26	102,102,102,102	0
57	MG	14	3248	1/1	0.92	0.12	57,57,57,57	0
57	MG	1H	3512	1/1	0.92	0.17	97,97,97,97	0
57	MG	14	3417	1/1	0.92	0.11	89,89,89,89	0
57	MG	1H	3225	1/1	0.92	0.20	74,74,74,74	0
57	MG	1H	3253	1/1	0.92	0.66	71,71,71,71	0
57	MG	14	3103	1/1	0.92	0.81	75,75,75,75	0
57	MG	1H	3026	1/1	0.92	0.40	52,52,52,52	0
57	MG	14	3107	1/1	0.92	0.24	65,65,65,65	0
57	MG	1H	3408	1/1	0.92	0.08	69,69,69,69	0
57	MG	1H	3362	1/1	0.92	0.07	56,56,56,56	0
57	MG	13	1715	1/1	0.92	0.13	114,114,114,114	0
57	MG	1H	3365	1/1	0.92	0.15	62,62,62,62	0
57	MG	14	3115	1/1	0.92	0.41	48,48,48,48	0
57	MG	14	3006	1/1	0.92	0.25	79,79,79,79	0
57	MG	14	3117	1/1	0.92	0.14	58,58,58,58	0
57	MG	1H	3090	1/1	0.92	0.76	77,77,77,77	0
57	MG	1H	3369	1/1	0.92	0.26	54,54,54,54	0
57	MG	14	3127	1/1	0.92	0.35	62,62,62,62	0
57	MG	14	3015	1/1	0.92	0.24	73,73,73,73	0
57	MG	1H	3053	1/1	0.92	0.76	66,66,66,66	0
57	MG	1H	3419	1/1	0.92	0.07	78,78,78,78	0
57	MG	14	3022	1/1	0.92	0.35	44,44,44,44	0
57	MG	1H	3002	1/1	0.92	0.39	82,82,82,82	0
57	MG	1H	3153	1/1	0.92	0.23	82,82,82,82	0
57	MG	1G	1705	1/1	0.92	0.11	124,124,124,124	0
57	MG	13	1744	1/1	0.92	0.04	90,90,90,90	0
57	MG	14	3142	1/1	0.92	0.20	76,76,76,76	0
57	MG	14	3146	1/1	0.92	0.30	51,51,51,51	0
57	MG	1G	1602	1/1	0.92	0.11	81,81,81,81	0
57	MG	1G	1659	1/1	0.92	0.38	72,72,72,72	0
57	MG	1H	3059	1/1	0.92	0.42	72,72,72,72	0
57	MG	14	3302	1/1	0.92	0.13	86,86,86,86	0
57	MG	1H	3529	1/1	0.92	0.43	78,78,78,78	0
57	MG	1H	3213	1/1	0.92	0.26	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3049	1/1	0.92	0.32	57,57,57,57	0
57	MG	14	3310	1/1	0.92	0.14	64,64,64,64	0
57	MG	1H	3178	1/1	0.92	0.24	57,57,57,57	0
57	MG	1H	3428	1/1	0.92	0.16	68,68,68,68	0
57	MG	1H	3016	1/1	0.92	0.39	47,47,47,47	0
57	MG	1G	1615	1/1	0.92	0.39	91,91,91,91	0
57	MG	13	1622	1/1	0.92	0.35	74,74,74,74	0
57	MG	1G	1617	1/1	0.92	0.36	86,86,86,86	0
57	MG	1H	3435	1/1	0.92	0.10	60,60,60,60	0
57	MG	1H	3540	1/1	0.92	0.10	81,81,81,81	0
57	MG	1H	3298	1/1	0.92	0.14	83,83,83,83	0
57	MG	14	3231	1/1	0.92	0.67	80,80,80,80	0
57	MG	1H	3083	1/1	0.92	0.48	71,71,71,71	0
57	MG	1H	3271	1/1	0.92	0.31	77,77,77,77	0
57	MG	1H	3173	1/1	0.93	0.74	89,89,89,89	0
57	MG	13	1676	1/1	0.93	0.34	92,92,92,92	0
57	MG	14	3098	1/1	0.93	0.67	62,62,62,62	0
57	MG	1H	3020	1/1	0.93	0.26	47,47,47,47	0
57	MG	1H	3543	1/1	0.93	0.10	70,70,70,70	0
57	MG	1H	3257	1/1	0.93	0.36	51,51,51,51	0
57	MG	1H	3324	1/1	0.93	0.40	66,66,66,66	0
57	MG	1H	3431	1/1	0.93	0.09	60,60,60,60	0
57	MG	13	1704	1/1	0.93	0.10	77,77,77,77	0
57	MG	1H	3024	1/1	0.93	0.23	51,51,51,51	0
57	MG	14	3001	1/1	0.93	0.16	52,52,52,52	0
57	MG	14	3297	1/1	0.93	0.19	66,66,66,66	0
57	MG	1H	3229	1/1	0.93	0.38	64,64,64,64	0
57	MG	14	3299	1/1	0.93	0.21	58,58,58,58	0
57	MG	13	1720	1/1	0.93	0.04	100,100,100,100	0
57	MG	1H	3440	1/1	0.93	0.16	61,61,61,61	0
57	MG	13	1658	1/1	0.93	0.48	75,75,75,75	0
57	MG	13	1694	1/1	0.93	0.05	94,94,94,94	0
57	MG	1G	1641	1/1	0.93	0.11	88,88,88,88	0
57	MG	1H	3156	1/1	0.93	0.26	66,66,66,66	0
57	MG	31	301	1/1	0.93	0.26	63,63,63,63	0
57	MG	14	3130	1/1	0.93	0.39	70,70,70,70	0
57	MG	14	3018	1/1	0.93	0.34	78,78,78,78	0
57	MG	1G	1699	1/1	0.93	0.08	93,93,93,93	0
57	MG	14	3414	1/1	0.93	0.22	100,100,100,100	0
57	MG	1H	3028	1/1	0.93	0.42	62,62,62,62	0
57	MG	1H	3236	1/1	0.93	0.36	70,70,70,70	0
57	MG	1H	3268	1/1	0.93	0.66	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3026	1/1	0.93	0.12	69,69,69,69	0
57	MG	68	202	1/1	0.93	0.22	83,83,83,83	0
57	MG	14	3221	1/1	0.93	0.12	91,91,91,91	0
57	MG	14	3141	1/1	0.93	0.22	76,76,76,76	0
57	MG	14	3028	1/1	0.93	0.31	61,61,61,61	0
57	MG	1H	3399	1/1	0.93	0.19	54,54,54,54	0
57	MG	1H	3302	1/1	0.93	0.51	81,81,81,81	0
57	MG	13	1631	1/1	0.93	0.24	78,78,78,78	0
57	MG	1H	3107	1/1	0.93	0.43	72,72,72,72	0
57	MG	14	3344	1/1	0.93	0.08	88,88,88,88	0
57	MG	1H	3034	1/1	0.93	0.38	72,72,72,72	0
57	MG	1H	3407	1/1	0.93	0.04	77,77,77,77	0
57	MG	14	3043	1/1	0.93	0.39	83,83,83,83	0
57	MG	14	3046	1/1	0.93	0.42	76,76,76,76	0
57	MG	14	3234	1/1	0.93	0.11	56,56,56,56	0
57	MG	1H	3461	1/1	0.93	0.15	48,48,48,48	0
57	MG	1G	1658	1/1	0.93	0.26	84,84,84,84	0
57	MG	13	1709	1/1	0.93	0.04	69,69,69,69	0
57	MG	14	3054	1/1	0.93	0.27	49,49,49,49	0
57	MG	1H	3409	1/1	0.93	0.11	55,55,55,55	0
57	MG	1H	3131	1/1	0.93	0.34	75,75,75,75	0
57	MG	3I	201	1/1	0.93	0.26	64,64,64,64	0
57	MG	14	3064	1/1	0.93	0.30	62,62,62,62	0
57	MG	1G	1718	1/1	0.93	0.11	91,91,91,91	0
57	MG	14	3071	1/1	0.93	0.24	63,63,63,63	0
57	MG	14	3250	1/1	0.93	0.15	76,76,76,76	0
57	MG	1H	3112	1/1	0.93	0.32	79,79,79,79	0
57	MG	14	3074	1/1	0.93	0.27	81,81,81,81	0
57	MG	1J	203	1/1	0.93	0.23	91,91,91,91	0
57	MG	14	3257	1/1	0.93	0.14	69,69,69,69	0
57	MG	14	3260	1/1	0.93	0.12	55,55,55,55	0
57	MG	1H	3470	1/1	0.93	0.07	73,73,73,73	0
57	MG	19	301	1/1	0.93	0.39	57,57,57,57	0
57	MG	14	3076	1/1	0.93	0.17	89,89,89,89	0
57	MG	39	301	1/1	0.93	0.13	95,95,95,95	0
57	MG	1G	1609	1/1	0.93	0.44	96,96,96,96	0
57	MG	13	1618	1/1	0.93	0.58	60,60,60,60	0
57	MG	13	1644	1/1	0.93	0.06	82,82,82,82	0
57	MG	1H	3073	1/1	0.93	0.58	59,59,59,59	0
57	MG	1H	3314	1/1	0.93	0.19	88,88,88,88	0
57	MG	1H	3170	1/1	0.93	0.27	79,79,79,79	0
57	MG	1H	3074	1/1	0.93	0.41	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3182	1/1	0.93	0.12	82,82,82,82	0
57	MG	14	3279	1/1	0.93	0.26	83,83,83,83	0
57	MG	1H	3480	1/1	0.93	0.12	53,53,53,53	0
57	MG	13	1652	1/1	0.93	0.22	68,68,68,68	0
57	MG	14	3186	1/1	0.93	0.17	74,74,74,74	0
57	MG	1G	1730	1/1	0.93	0.06	94,94,94,94	0
57	MG	14	3108	1/1	0.94	0.84	77,77,77,77	0
57	MG	1H	3387	1/1	0.94	0.13	53,53,53,53	0
57	MG	13	1639	1/1	0.94	0.17	73,73,73,73	0
57	MG	1H	3032	1/1	0.94	0.19	56,56,56,56	0
57	MG	1G	1604	1/1	0.94	0.30	103,103,103,103	0
57	MG	1H	3481	1/1	0.94	0.07	80,80,80,80	0
57	MG	1H	3342	1/1	0.94	0.16	42,42,42,42	0
57	MG	1G	1708	1/1	0.94	0.04	140,140,140,140	0
57	MG	14	3118	1/1	0.94	0.09	73,73,73,73	0
57	MG	14	3122	1/1	0.94	0.29	84,84,84,84	0
57	MG	1H	3011	1/1	0.94	0.23	73,73,73,73	0
57	MG	13	1634	1/1	0.94	0.31	78,78,78,78	0
57	MG	14	3029	1/1	0.94	0.23	73,73,73,73	0
57	MG	14	3030	1/1	0.94	0.44	89,89,89,89	0
57	MG	1H	3013	1/1	0.94	0.32	37,37,37,37	0
57	MG	14	3212	1/1	0.94	0.33	94,94,94,94	0
57	MG	1H	3015	1/1	0.94	0.40	65,65,65,65	0
57	MG	14	3312	1/1	0.94	0.07	80,80,80,80	0
57	MG	14	3033	1/1	0.94	0.66	75,75,75,75	0
57	MG	14	3034	1/1	0.94	0.24	48,48,48,48	0
57	MG	1H	3489	1/1	0.94	0.09	69,69,69,69	0
57	MG	1H	3354	1/1	0.94	0.10	73,73,73,73	0
57	MG	1H	3230	1/1	0.94	0.22	87,87,87,87	0
57	MG	14	3320	1/1	0.94	0.18	46,46,46,46	0
57	MG	13	1661	1/1	0.94	0.20	92,92,92,92	0
57	MG	13	1693	1/1	0.94	0.12	84,84,84,84	0
57	MG	1H	3093	1/1	0.94	0.32	71,71,71,71	0
57	MG	14	3145	1/1	0.94	0.12	85,85,85,85	0
57	MG	13	1716	1/1	0.94	0.09	55,55,55,55	0
57	MG	1H	3045	1/1	0.94	0.22	42,42,42,42	0
57	MG	1H	3096	1/1	0.94	0.31	53,53,53,53	0
57	MG	1H	3453	1/1	0.94	0.19	58,58,58,58	0
57	MG	1H	3047	1/1	0.94	0.26	55,55,55,55	0
57	MG	14	3057	1/1	0.94	0.45	84,84,84,84	0
57	MG	14	3153	1/1	0.94	0.58	65,65,65,65	0
57	MG	1H	3510	1/1	0.94	0.07	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1628	1/1	0.94	0.61	76,76,76,76	0
57	MG	1G	1677	1/1	0.94	0.07	97,97,97,97	0
57	MG	1H	3368	1/1	0.94	0.20	59,59,59,59	0
57	MG	14	3067	1/1	0.94	0.35	69,69,69,69	0
57	MG	1H	3457	1/1	0.94	0.09	45,45,45,45	0
57	MG	1G	1631	1/1	0.94	0.14	82,82,82,82	0
57	MG	14	3073	1/1	0.94	0.31	48,48,48,48	0
57	MG	1H	3022	1/1	0.94	0.33	41,41,41,41	0
57	MG	1H	3004	1/1	0.94	0.71	79,79,79,79	0
57	MG	1G	1634	1/1	0.94	0.18	93,93,93,93	0
57	MG	1H	3240	1/1	0.94	0.37	67,67,67,67	0
57	MG	1H	3463	1/1	0.94	0.17	48,48,48,48	0
57	MG	14	3080	1/1	0.94	0.34	51,51,51,51	0
57	MG	14	3169	1/1	0.94	0.14	53,53,53,53	0
57	MG	1G	1688	1/1	0.94	0.11	89,89,89,89	0
57	MG	13	1629	1/1	0.94	0.33	56,56,56,56	0
57	MG	14	3447	1/1	0.94	0.53	69,69,69,69	0
57	MG	1G	1690	1/1	0.94	0.08	114,114,114,114	0
57	MG	14	3262	1/1	0.94	0.16	66,66,66,66	0
57	MG	1H	3326	1/1	0.94	0.12	47,47,47,47	0
57	MG	1G	1639	1/1	0.94	0.12	103,103,103,103	0
57	MG	1G	1640	1/1	0.94	0.24	92,92,92,92	0
57	MG	14	3088	1/1	0.94	0.18	53,53,53,53	0
57	MG	14	3091	1/1	0.94	0.41	66,66,66,66	0
57	MG	13	1680	1/1	0.94	0.35	84,84,84,84	0
57	MG	14	3003	1/1	0.94	0.49	54,54,54,54	0
57	MG	1H	3244	1/1	0.94	0.32	77,77,77,77	0
57	MG	14	3184	1/1	0.94	0.25	72,72,72,72	0
57	MG	14	3277	1/1	0.94	0.17	59,59,59,59	0
57	MG	1H	3150	1/1	0.94	0.30	67,67,67,67	0
57	MG	14	3382	1/1	0.94	0.09	72,72,72,72	0
57	MG	1H	3151	1/1	0.94	0.12	59,59,59,59	0
57	MG	13	1638	1/1	0.94	0.08	78,78,78,78	0
57	MG	1H	3334	1/1	0.94	0.21	42,42,42,42	0
57	MG	14	3010	1/1	0.94	0.26	50,50,50,50	0
57	MG	14	3013	1/1	0.94	0.44	63,63,63,63	0
57	MG	14	3285	1/1	0.94	0.09	79,79,79,79	0
57	MG	14	3106	1/1	0.94	0.79	94,94,94,94	0
57	MG	13	1722	1/1	0.94	0.12	77,77,77,77	0
60	ZN	C5	202	1/1	0.94	0.12	151,151,151,151	0
57	MG	14	3188	1/1	0.95	0.51	76,76,76,76	0
57	MG	1G	1608	1/1	0.95	0.10	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3319	1/1	0.95	0.17	56,56,56,56	0
57	MG	1H	3007	1/1	0.95	0.16	58,58,58,58	0
57	MG	1H	3001	1/1	0.95	0.29	61,61,61,61	0
57	MG	1H	3437	1/1	0.95	0.17	46,46,46,46	0
57	MG	1H	3393	1/1	0.95	0.10	69,69,69,69	0
57	MG	14	3121	1/1	0.95	0.28	55,55,55,55	0
57	MG	1H	3300	1/1	0.95	0.24	87,87,87,87	0
57	MG	1H	3539	1/1	0.95	0.11	45,45,45,45	0
57	MG	14	3124	1/1	0.95	0.35	82,82,82,82	0
57	MG	14	3125	1/1	0.95	0.47	70,70,70,70	0
57	MG	1H	3441	1/1	0.95	0.17	44,44,44,44	0
57	MG	1G	1671	1/1	0.95	0.09	86,86,86,86	0
57	MG	1H	3226	1/1	0.95	0.54	60,60,60,60	0
57	MG	14	3050	1/1	0.95	0.48	77,77,77,77	0
57	MG	14	3206	1/1	0.95	0.26	101,101,101,101	0
57	MG	1H	3196	1/1	0.95	0.18	56,56,56,56	0
57	MG	14	3403	1/1	0.95	0.06	83,83,83,83	0
57	MG	14	3132	1/1	0.95	0.30	78,78,78,78	0
57	MG	1H	3491	1/1	0.95	0.16	62,62,62,62	0
57	MG	14	3303	1/1	0.95	0.18	70,70,70,70	0
57	MG	1H	3492	1/1	0.95	0.07	83,83,83,83	0
57	MG	14	3055	1/1	0.95	0.29	50,50,50,50	0
57	MG	13	1617	1/1	0.95	0.69	78,78,78,78	0
57	MG	1H	3546	1/1	0.95	0.10	41,41,41,41	0
57	MG	14	3139	1/1	0.95	0.48	84,84,84,84	0
57	MG	14	3058	1/1	0.95	0.27	83,83,83,83	0
57	MG	13	1717	1/1	0.95	0.10	53,53,53,53	0
57	MG	1G	1626	1/1	0.95	0.24	68,68,68,68	0
57	MG	14	3143	1/1	0.95	0.42	54,54,54,54	0
57	MG	14	3219	1/1	0.95	0.43	54,54,54,54	0
57	MG	1H	3363	1/1	0.95	0.15	47,47,47,47	0
57	MG	1H	3146	1/1	0.95	0.64	58,58,58,58	0
57	MG	1H	3328	1/1	0.95	0.18	46,46,46,46	0
57	MG	14	3325	1/1	0.95	0.21	52,52,52,52	0
57	MG	14	3068	1/1	0.95	0.37	64,64,64,64	0
57	MG	14	3069	1/1	0.95	0.13	93,93,93,93	0
57	MG	14	3150	1/1	0.95	0.19	81,81,81,81	0
57	MG	1H	3366	1/1	0.95	0.16	63,63,63,63	0
57	MG	1H	3451	1/1	0.95	0.12	83,83,83,83	0
57	MG	1H	3129	1/1	0.95	0.51	69,69,69,69	0
57	MG	14	3336	1/1	0.95	0.07	65,65,65,65	0
57	MG	14	3337	1/1	0.95	0.11	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1687	1/1	0.95	0.11	95,95,95,95	0
57	MG	14	3430	1/1	0.95	0.13	88,88,88,88	0
57	MG	16	210	1/1	0.95	0.06	78,78,78,78	0
57	MG	1H	3215	1/1	0.95	0.41	69,69,69,69	0
57	MG	14	3233	1/1	0.95	0.26	54,54,54,54	0
57	MG	1H	3174	1/1	0.95	0.20	37,37,37,37	0
57	MG	1H	3031	1/1	0.95	0.43	74,74,74,74	0
57	MG	1H	3288	1/1	0.95	0.29	77,77,77,77	0
57	MG	14	3350	1/1	0.95	0.10	61,61,61,61	0
57	MG	13	1705	1/1	0.95	0.18	83,83,83,83	0
57	MG	1H	3459	1/1	0.95	0.15	64,64,64,64	0
57	MG	1H	3337	1/1	0.95	0.19	44,44,44,44	0
57	MG	14	3084	1/1	0.95	0.30	87,87,87,87	0
57	MG	14	3164	1/1	0.95	0.32	80,80,80,80	0
57	MG	1G	1642	1/1	0.95	0.23	82,82,82,82	0
57	MG	13	1666	1/1	0.95	0.13	78,78,78,78	0
57	MG	14	3009	1/1	0.95	0.26	68,68,68,68	0
57	MG	1H	3376	1/1	0.95	0.09	45,45,45,45	0
57	MG	1H	3339	1/1	0.95	0.22	43,43,43,43	0
57	MG	14	3364	1/1	0.95	0.07	85,85,85,85	0
57	MG	14	3170	1/1	0.95	0.34	87,87,87,87	0
57	MG	14	3014	1/1	0.95	0.33	62,62,62,62	0
57	MG	4K	102	1/1	0.95	0.07	93,93,93,93	0
57	MG	1H	3076	1/1	0.95	0.16	39,39,39,39	0
57	MG	1H	3343	1/1	0.95	0.19	44,44,44,44	0
57	MG	14	3263	1/1	0.95	0.12	56,56,56,56	0
57	MG	14	3019	1/1	0.95	0.18	53,53,53,53	0
57	MG	14	3372	1/1	0.95	0.13	79,79,79,79	0
57	MG	1H	3344	1/1	0.95	0.13	46,46,46,46	0
57	MG	14	3100	1/1	0.95	0.31	61,61,61,61	0
57	MG	1H	3346	1/1	0.95	0.14	53,53,53,53	0
57	MG	B5	101	1/1	0.95	0.12	85,85,85,85	0
57	MG	14	3180	1/1	0.95	0.15	65,65,65,65	0
57	MG	1H	3472	1/1	0.95	0.16	62,62,62,62	0
57	MG	1G	1601	1/1	0.95	0.19	70,70,70,70	0
57	MG	1H	3426	1/1	0.95	0.05	76,76,76,76	0
57	MG	1H	3256	1/1	0.95	0.28	67,67,67,67	0
57	MG	1H	3476	1/1	0.95	0.12	68,68,68,68	0
57	MG	14	3278	1/1	0.95	0.12	80,80,80,80	0
57	MG	1H	3138	1/1	0.95	0.46	41,41,41,41	0
57	MG	1H	3389	1/1	0.95	0.12	68,68,68,68	0
57	MG	14	3175	1/1	0.96	0.08	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1689	1/1	0.96	0.40	85,85,85,85	0
57	MG	1H	3468	1/1	0.96	0.11	68,68,68,68	0
57	MG	1H	3029	1/1	0.96	0.21	63,63,63,63	0
57	MG	1H	3219	1/1	0.96	0.54	82,82,82,82	0
57	MG	14	3095	1/1	0.96	0.34	74,74,74,74	0
57	MG	1H	3063	1/1	0.96	0.17	53,53,53,53	0
57	MG	1H	3064	1/1	0.96	0.36	63,63,63,63	0
57	MG	14	3011	1/1	0.96	0.39	51,51,51,51	0
57	MG	14	3012	1/1	0.96	0.41	60,60,60,60	0
57	MG	13	1648	1/1	0.96	0.17	77,77,77,77	0
57	MG	14	3102	1/1	0.96	0.14	73,73,73,73	0
57	MG	1H	3534	1/1	0.96	0.12	92,92,92,92	0
57	MG	1H	3160	1/1	0.96	0.43	68,68,68,68	0
57	MG	14	3105	1/1	0.96	0.35	73,73,73,73	0
57	MG	1H	3475	1/1	0.96	0.06	83,83,83,83	0
57	MG	13	1610	1/1	0.96	0.35	73,73,73,73	0
57	MG	14	3192	1/1	0.96	0.39	82,82,82,82	0
57	MG	13	1692	1/1	0.96	0.16	61,61,61,61	0
57	MG	14	3020	1/1	0.96	0.42	61,61,61,61	0
57	MG	13	1621	1/1	0.96	0.21	56,56,56,56	0
57	MG	13	1612	1/1	0.96	0.21	76,76,76,76	0
57	MG	1H	3427	1/1	0.96	0.07	66,66,66,66	0
57	MG	2K	104	1/1	0.96	0.06	89,89,89,89	0
57	MG	13	1725	1/1	0.96	0.10	90,90,90,90	0
57	MG	1H	3040	1/1	0.96	0.32	36,36,36,36	0
57	MG	1H	3432	1/1	0.96	0.23	56,56,56,56	0
57	MG	14	3120	1/1	0.96	0.28	75,75,75,75	0
57	MG	1H	3485	1/1	0.96	0.06	83,83,83,83	0
57	MG	16	202	1/1	0.96	0.31	78,78,78,78	0
57	MG	1H	3433	1/1	0.96	0.13	61,61,61,61	0
57	MG	1H	3487	1/1	0.96	0.10	72,72,72,72	0
57	MG	1H	3381	1/1	0.96	0.10	48,48,48,48	0
57	MG	1H	3382	1/1	0.96	0.22	54,54,54,54	0
57	MG	1H	3490	1/1	0.96	0.11	65,65,65,65	0
57	MG	14	3036	1/1	0.96	0.26	47,47,47,47	0
57	MG	14	3037	1/1	0.96	0.34	57,57,57,57	0
57	MG	14	3315	1/1	0.96	0.10	86,86,86,86	0
57	MG	14	3038	1/1	0.96	0.36	69,69,69,69	0
57	MG	1H	3383	1/1	0.96	0.13	53,53,53,53	0
57	MG	1H	3264	1/1	0.96	0.25	59,59,59,59	0
57	MG	1H	3017	1/1	0.96	0.29	53,53,53,53	0
57	MG	1H	3043	1/1	0.96	0.41	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	21	301	1/1	0.96	0.24	62,62,62,62	0
57	MG	1H	3341	1/1	0.96	0.18	48,48,48,48	0
57	MG	13	1627	1/1	0.96	0.24	85,85,85,85	0
57	MG	1H	3497	1/1	0.96	0.06	79,79,79,79	0
57	MG	1H	3305	1/1	0.96	0.23	71,71,71,71	0
57	MG	13	1696	1/1	0.96	0.15	83,83,83,83	0
57	MG	1H	3046	1/1	0.96	0.24	49,49,49,49	0
57	MG	14	3144	1/1	0.96	0.30	56,56,56,56	0
57	MG	1H	3446	1/1	0.96	0.07	60,60,60,60	0
57	MG	1H	3505	1/1	0.96	0.06	79,79,79,79	0
57	MG	14	3228	1/1	0.96	1.16	86,86,86,86	0
57	MG	14	3340	1/1	0.96	0.07	69,69,69,69	0
57	MG	1G	1656	1/1	0.96	0.23	66,66,66,66	0
57	MG	14	3060	1/1	0.96	0.55	56,56,56,56	0
57	MG	1H	3347	1/1	0.96	0.20	56,56,56,56	0
57	MG	1H	3021	1/1	0.96	0.34	63,63,63,63	0
57	MG	14	3347	1/1	0.96	0.07	101,101,101,101	0
57	MG	I8	101	1/1	0.96	0.05	69,69,69,69	0
57	MG	1H	3110	1/1	0.96	0.26	65,65,65,65	0
57	MG	1H	3396	1/1	0.96	0.14	64,64,64,64	0
57	MG	1H	3143	1/1	0.96	0.15	66,66,66,66	0
57	MG	1G	1663	1/1	0.96	0.20	76,76,76,76	0
57	MG	14	3070	1/1	0.96	0.33	82,82,82,82	0
57	MG	14	3240	1/1	0.96	0.12	62,62,62,62	0
57	MG	1H	3144	1/1	0.96	0.41	64,64,64,64	0
57	MG	1G	1665	1/1	0.96	0.20	78,78,78,78	0
57	MG	1H	3353	1/1	0.96	0.13	64,64,64,64	0
57	MG	13	1605	1/1	0.96	0.24	70,70,70,70	0
57	MG	14	3360	1/1	0.96	0.06	94,94,94,94	0
57	MG	1G	1603	1/1	0.96	0.26	79,79,79,79	0
57	MG	13	1714	1/1	0.96	0.08	100,100,100,100	0
57	MG	1H	3405	1/1	0.96	0.16	46,46,46,46	0
57	MG	1H	3052	1/1	0.96	0.35	50,50,50,50	0
57	MG	14	3253	1/1	0.96	0.22	53,53,53,53	0
57	MG	14	3254	1/1	0.96	0.17	52,52,52,52	0
57	MG	2L	101	1/1	0.96	0.53	77,77,77,77	0
57	MG	13	1641	1/1	0.96	0.25	68,68,68,68	0
57	MG	45	201	1/1	0.96	0.12	74,74,74,74	0
57	MG	13	1655	1/1	0.96	0.14	65,65,65,65	0
57	MG	1H	3057	1/1	0.96	0.26	72,72,72,72	0
57	MG	13	1701	1/1	0.96	0.04	69,69,69,69	0
57	MG	13	1749	1/1	0.96	0.14	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3060	1/1	0.96	0.33	51,51,51,51	0
57	MG	14	3265	1/1	0.96	0.16	52,52,52,52	0
57	MG	14	3266	1/1	0.96	0.11	72,72,72,72	0
57	MG	1G	1614	1/1	0.96	0.29	82,82,82,82	0
57	MG	1G	1679	1/1	0.96	0.07	93,93,93,93	0
60	ZN	G8	201	1/1	0.96	0.10	131,131,131,131	0
57	MG	14	3089	1/1	0.96	0.43	79,79,79,79	0
57	MG	14	3339	1/1	0.97	0.14	49,49,49,49	0
57	MG	1H	3503	1/1	0.97	0.06	47,47,47,47	0
57	MG	1H	3333	1/1	0.97	0.21	67,67,67,67	0
57	MG	14	3342	1/1	0.97	0.11	82,82,82,82	0
57	MG	1H	3243	1/1	0.97	0.22	79,79,79,79	0
57	MG	1H	3335	1/1	0.97	0.12	53,53,53,53	0
57	MG	1H	3548	1/1	0.97	0.14	70,70,70,70	0
57	MG	14	3042	1/1	0.97	0.45	69,69,69,69	0
57	MG	13	1640	1/1	0.97	0.47	77,77,77,77	0
57	MG	14	3044	1/1	0.97	0.50	48,48,48,48	0
57	MG	14	3045	1/1	0.97	0.32	61,61,61,61	0
57	MG	1G	1613	1/1	0.97	0.34	83,83,83,83	0
57	MG	14	3047	1/1	0.97	0.26	81,81,81,81	0
57	MG	13	1628	1/1	0.97	0.39	79,79,79,79	0
57	MG	14	3354	1/1	0.97	0.09	73,73,73,73	0
57	MG	1H	3091	1/1	0.97	0.39	77,77,77,77	0
57	MG	14	3051	1/1	0.97	0.31	72,72,72,72	0
57	MG	1H	3438	1/1	0.97	0.12	50,50,50,50	0
57	MG	13	1607	1/1	0.97	0.26	80,80,80,80	0
57	MG	1H	3514	1/1	0.97	0.08	76,76,76,76	0
57	MG	13	1712	1/1	0.97	0.09	101,101,101,101	0
57	MG	14	3361	1/1	0.97	0.04	80,80,80,80	0
57	MG	1H	3290	1/1	0.97	0.13	87,87,87,87	0
57	MG	16	209	1/1	0.97	0.03	68,68,68,68	0
57	MG	1H	3291	1/1	0.97	0.20	78,78,78,78	0
57	MG	14	3059	1/1	0.97	0.26	70,70,70,70	0
57	MG	13	1675	1/1	0.97	0.18	104,104,104,104	0
57	MG	1H	3293	1/1	0.97	0.45	46,46,46,46	0
57	MG	1H	3413	1/1	0.97	0.12	59,59,59,59	0
57	MG	1H	3318	1/1	0.97	0.19	54,54,54,54	0
57	MG	14	3065	1/1	0.97	0.35	60,60,60,60	0
57	MG	1G	1627	1/1	0.97	0.20	77,77,77,77	0
57	MG	1H	3035	1/1	0.97	0.32	80,80,80,80	0
57	MG	13	1601	1/1	0.97	0.32	74,74,74,74	0
57	MG	1H	3049	1/1	0.97	0.43	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3237	1/1	0.97	0.15	56,56,56,56	0
57	MG	1H	3135	1/1	0.97	0.20	42,42,42,42	0
57	MG	14	3017	1/1	0.97	0.48	60,60,60,60	0
57	MG	14	3306	1/1	0.97	0.13	86,86,86,86	0
57	MG	1H	3050	1/1	0.97	0.30	54,54,54,54	0
57	MG	1H	3081	1/1	0.97	0.16	55,55,55,55	0
57	MG	14	3309	1/1	0.97	0.06	71,71,71,71	0
57	MG	5E	201	1/1	0.97	0.27	75,75,75,75	0
57	MG	1H	3454	1/1	0.97	0.13	48,48,48,48	0
57	MG	1H	3018	1/1	0.97	0.50	55,55,55,55	0
57	MG	14	3023	1/1	0.97	0.41	82,82,82,82	0
57	MG	13	1729	1/1	0.97	0.06	73,73,73,73	0
57	MG	1H	3532	1/1	0.97	0.12	103,103,103,103	0
57	MG	29	302	1/1	0.97	0.13	52,52,52,52	0
57	MG	1H	3068	1/1	0.97	0.57	71,71,71,71	0
57	MG	14	3318	1/1	0.97	0.07	75,75,75,75	0
57	MG	1H	3359	1/1	0.97	0.10	60,60,60,60	0
57	MG	1H	3054	1/1	0.97	0.29	37,37,37,37	0
57	MG	14	3322	1/1	0.97	0.12	64,64,64,64	0
57	MG	14	3255	1/1	0.97	0.17	52,52,52,52	0
57	MG	1H	3361	1/1	0.97	0.04	74,74,74,74	0
57	MG	1H	3055	1/1	0.97	0.26	60,60,60,60	0
57	MG	14	3258	1/1	0.97	0.09	71,71,71,71	0
57	MG	14	3329	1/1	0.97	0.11	60,60,60,60	0
57	MG	14	3259	1/1	0.97	0.06	63,63,63,63	0
57	MG	1H	3071	1/1	0.97	0.41	57,57,57,57	0
57	MG	1H	3430	1/1	0.97	0.14	61,61,61,61	0
57	MG	1H	3465	1/1	0.97	0.12	63,63,63,63	0
57	MG	1H	3283	1/1	0.97	0.35	146,146,146,146	0
57	MG	14	3090	1/1	0.97	0.49	65,65,65,65	0
57	MG	1G	1732	1/1	0.97	0.05	114,114,114,114	0
57	MG	1G	1734	1/1	0.97	0.16	84,84,84,84	0
57	MG	1H	3039	1/1	0.98	0.28	40,40,40,40	0
57	MG	14	3326	1/1	0.98	0.09	60,60,60,60	0
57	MG	13	1604	1/1	0.98	0.32	77,77,77,77	0
57	MG	14	3328	1/1	0.98	0.19	56,56,56,56	0
57	MG	1H	3142	1/1	0.98	0.12	64,64,64,64	0
57	MG	1H	3501	1/1	0.98	0.15	75,75,75,75	0
57	MG	1H	3041	1/1	0.98	0.25	51,51,51,51	0
57	MG	14	3128	1/1	0.98	0.33	88,88,88,88	0
57	MG	1H	3398	1/1	0.98	0.16	61,61,61,61	0
57	MG	14	3242	1/1	0.98	0.19	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3061	1/1	0.98	0.65	56,56,56,56	0
57	MG	1H	3460	1/1	0.98	0.14	48,48,48,48	0
57	MG	14	3245	1/1	0.98	0.17	56,56,56,56	0
57	MG	1H	3132	1/1	0.98	0.27	88,88,88,88	0
57	MG	14	3290	1/1	0.98	0.08	66,66,66,66	0
57	MG	14	3096	1/1	0.98	0.24	50,50,50,50	0
57	MG	1H	3506	1/1	0.98	0.09	61,61,61,61	0
57	MG	14	3249	1/1	0.98	0.18	60,60,60,60	0
57	MG	14	3135	1/1	0.98	0.21	69,69,69,69	0
57	MG	14	3345	1/1	0.98	0.08	83,83,83,83	0
57	MG	14	3251	1/1	0.98	0.18	63,63,63,63	0
57	MG	1H	3507	1/1	0.98	0.04	74,74,74,74	0
57	MG	1H	3400	1/1	0.98	0.13	59,59,59,59	0
57	MG	1H	3014	1/1	0.98	0.38	43,43,43,43	0
57	MG	1H	3384	1/1	0.98	0.07	61,61,61,61	0
57	MG	14	3300	1/1	0.98	0.20	73,73,73,73	0
57	MG	11	302	1/1	0.98	0.07	47,47,47,47	0
57	MG	1H	3403	1/1	0.98	0.17	50,50,50,50	0
57	MG	21	302	1/1	0.98	0.13	46,46,46,46	0
57	MG	14	3304	1/1	0.98	0.13	68,68,68,68	0
57	MG	1H	3355	1/1	0.98	0.13	67,67,67,67	0
57	MG	13	1703	1/1	0.98	0.14	66,66,66,66	0
57	MG	1H	3538	1/1	0.98	0.06	58,58,58,58	0
57	MG	1H	3159	1/1	0.98	0.29	74,74,74,74	0
57	MG	14	3109	1/1	0.98	0.52	74,74,74,74	0
57	MG	13	1611	1/1	0.98	0.11	85,85,85,85	0
57	MG	1H	3136	1/1	0.98	0.17	45,45,45,45	0
57	MG	13	1713	1/1	0.98	0.11	65,65,65,65	0
57	MG	14	3079	1/1	0.98	0.34	61,61,61,61	0
57	MG	14	3048	1/1	0.98	0.28	67,67,67,67	0
57	MG	14	3269	1/1	0.98	0.14	63,63,63,63	0
57	MG	1H	3375	1/1	0.98	0.18	48,48,48,48	0
57	MG	1H	3412	1/1	0.98	0.10	51,51,51,51	0
57	MG	1G	1649	1/1	0.98	0.37	89,89,89,89	0
57	MG	14	3119	1/1	0.98	0.37	79,79,79,79	0
57	MG	14	3321	1/1	0.98	0.07	64,64,64,64	0
57	MG	1G	1706	1/1	0.98	0.07	79,79,79,79	0
60	ZN	5I	102	1/1	0.98	0.11	98,98,98,98	0
57	MG	1H	3030	1/1	0.98	0.34	75,75,75,75	0
57	MG	13	1698	1/1	0.98	0.04	94,94,94,94	0
57	MG	1H	3351	1/1	0.99	0.11	59,59,59,59	0
57	MG	14	3270	1/1	0.99	0.09	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3345	1/1	0.99	0.11	51,51,51,51	0
57	MG	14	3114	1/1	0.99	0.43	63,63,63,63	0
57	MG	1J	204	1/1	0.99	0.12	88,88,88,88	0
57	MG	13	1721	1/1	0.99	0.06	62,62,62,62	0
57	MG	14	3333	1/1	0.99	0.06	66,66,66,66	0
59	SF4	3E	301	8/8	0.99	0.17	86,90,100,103	0
59	SF4	32	301	8/8	0.99	0.15	90,99,108,116	0
57	MG	1H	3499	1/1	0.99	0.09	52,52,52,52	0
57	MG	1H	3411	1/1	0.99	0.09	80,80,80,80	0
60	ZN	5A	101	1/1	0.99	0.09	123,123,123,123	0
57	MG	14	3311	1/1	0.99	0.10	68,68,68,68	0
57	MG	1H	3547	1/1	1.00	0.28	61,61,61,61	0
57	MG	14	3197	1/1	1.00	0.20	78,78,78,78	0

6.5 Other polymers (i)

There are no such residues in this entry.