Full wwPDB X-ray Structure Validation Report (i)

Oct 8, 2023 – 02:12 PM EDT

PDB ID	:	6GSL
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA, tRNAfMet and cognate tRNAArg in the A-site
Authors	:	Rozov, A.; Yusupov, M.; Yusupova, G.
Deposited on	:	2018-06-14
Resolution	:	3.16 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 (i) 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 (i)) were used in the production of this report:

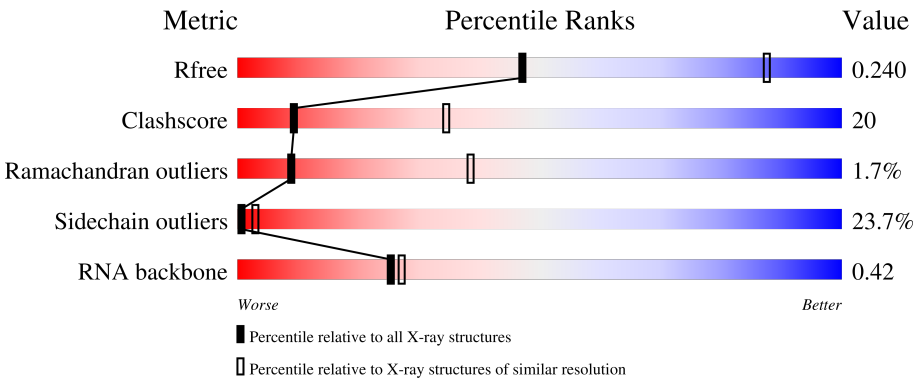
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.16 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	1665 (3.20-3.12)
Clashscore	141614	1804 (3.20-3.12)
Ramachandran outliers	138981	1770 (3.20-3.12)
Sidechain outliers	138945	1769 (3.20-3.12)
RNA backbone	3102	1073 (3.50-2.82)

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%

Mol	Chain	Length	Quality of chain
1	13	1522	28% 45% 22% • •
1	1G	1522	33% 45% 19% • •
2	12	256	30% 46% 14% • 7%
2	1E	256	28% 48% 13% • 10%
3	22	239	38% 34% 9% 18%
3	2E	239	48% 32% 6% 14%

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Mol	Chain	Length	Quality of chain
4	32	209	42% 44% 14%
4	3E	209	50% 41% 9% •
5	42	162	41% 38% 14% 7%
5	4E	162	49% 34% 9% 8%
6	52	101	58% 33% 8% •
6	5E	101	57% 37% 6%
7	62	156	38% 41% 8% • 12%
7	6E	156	52% 41% 6% •
8	72	138	51% 39% 9%
8	7E	138	37% 53% 10%
9	82	128	37% 52% 7% • •
9	8E	128	42% 41% 14% • •
10	1A	105	28% 48% 19% 6%
10	1I	105	36% 44% 13% • 6%
11	2A	129	45% 33% 9% 12%
11	2I	129	40% 37% 9% 14%
12	3A	132	43% 36% 11% • 8%
12	3I	132	39% 42% 11% 8%
13	4A	126	31% 41% 14% • 12%
13	4I	126	44% 40% 10% 6%
14	5A	61	38% 44% 10% • 7%
14	5I	61	39% 46% 15%
15	6A	89	49% 46% • •
15	6I	89	47% 46% • •
16	7A	88	50% 41% 5% 5%

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Mol	Chain	Length	Quality of chain
16	7I	88	38% 45% 11% 6%
17	8A	105	51% 38% 5% 6%
17	8I	105	34% 53% 8% 5%
18	9A	88	43% 26% 7% 24%
18	9I	88	32% 35% 8% • 24%
19	AA	93	29% 28% 10% 33%
19	AI	93	40% 32% 12% • 14%
20	BA	106	39% 39% 12% • 8%
20	BI	106	31% 46% 14% • 8%
21	1B	27	33% 48% 7% 11%
21	1F	27	41% 44% • 11%
22	1K	77	21% 40% 26% 6% 6%
22	1L	77	26% 32% 31% 6% •
23	2K	77	34% 38% 18% 10%
23	2L	77	30% 47% 17% 6%
24	3K	77	22% 27% 38% 8% 5%
24	3L	77	17% 35% 36% 8% •
25	4K	27	15% 30% 30% • 22%
25	4L	27	26% 11% 22% • 37%
26	14	2917	28% 44% 22% 5% •
26	1H	2917	25% 43% 25% 6% •
27	16	122	32% 36% 25% 7%
27	1J	122	29% 49% 14% 8%
28	71	229	25% 27% 7% 41%
28	79	229	30% 23% • 43%

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Mol	Chain	Length	Quality of chain
29	11	276	51% 37% 10%
29	19	276	54% 33% 11%
30	21	206	40% 42% 15%
30	29	206	44% 40% 14%
31	31	210	49% 38% 10%
31	39	210	30% 50% 16%
32	41	182	42% 45% 11%
32	49	182	36% 46% 16%
33	51	180	43% 34% 14% 5%
33	59	180	36% 42% 14% 5%
34	18	125	5% 15% 76%
34	28	125	14% 6% 76%
35	61	148	46% 38% 12%
35	69	148	36% 42% 19%
36	38	173	18% 28% 21% 15% 17%
37	48	147	29% 46% 20%
38	15	140	51% 40% 6%
38	58	140	42% 42% 13%
39	25	122	51% 34% 13%
39	68	122	61% 33% 6%
40	35	150	36% 39% 21%
40	78	150	36% 45% 16%
41	45	141	35% 40% 21%
41	88	141	50% 45% 6%
42	55	118	55% 39% 6%

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Mol	Chain	Length	Quality of chain
42	98	118	44% 47% 9%
43	65	112	30% 46% 18%
43	A8	112	39% 45% 13%
44	75	146	34% 47% 11% 8%
44	B8	146	32% 49% 13% 7%
45	85	118	47% 42% 9%
45	C8	118	49% 38% 7%
46	95	101	37% 49% 10%
46	D8	101	49% 34% 16%
47	A5	113	49% 40% 10%
47	E8	113	63% 29% 7%
48	B5	96	46% 45% 7%
48	F8	96	53% 34% 11%
49	C5	110	35% 40% 17% 5%
49	G8	110	43% 41% 10% 5%
50	D5	206	38% 41% 16%
50	H8	206	31% 35% 12% 20%
51	E5	85	54% 28% 9% 8%
51	I8	85	53% 31% 9% 5%
52	F5	98	43% 36% 15%
52	J8	98	55% 31% 9% 5%
53	G5	72	38% 39% 14% 8%
53	K8	72	36% 42% 15%
54	H5	60	65% 28%
54	L8	60	48% 37% 12%

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Mol	Chain	Length	Quality of chain
55	M8	71	21% 28% 18% 32%
56	J5	60	47% 37% 10% 7%
56	N8	60	42% 30% 12% 17%
57	O8	54	13% 50% 19% • 17%
58	L5	49	49% 43% • •
58	P8	49	49% 43% • •
59	M5	65	38% 43% 12% 5% •
59	Q8	65	49% 35% 11% • •

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
61	SF4	32	303	-	-	X	-
61	SF4	3E	303	-	-	X	-

2 Entry composition (i)

There are 63 unique types of molecules in this entry. The entry contains 306138 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
			Total	C	N	O	P			
1	13	1512	32497	14464	6017	10504	1512	0	0	0
1	1G	1509	32437	14437	6010	10481	1509	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	1E	231	1874	1199	334	336	5	0	0	0
2	12	237	1924	1228	344	347	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	2E	205	1605	1011	313	280	1	0	0	0
3	22	195	1533	969	297	266	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	3E	207	1690	1058	336	289	7	0	0	0
4	32	208	1702	1066	339	290	7	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	4E	149	1142	722	216	200	4	0	0	0
5	42	151	1155	729	218	204	4	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	6E	154	1242	770	250	216	6	0	0	0
7	62	138	1110	689	221	194	6	0	0	0

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
9	8E	126	1000	634	196	170	0	0	0
9	82	124	983	624	190	169	0	0	0

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	3I	122	956	603	193	159	1	0	0	0
12	3A	121	947	597	191	158	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	4I	119	936	579	191	164	2	0	0	0
13	4A	111	887	549	180	156	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	5I	61	499	317	105	72	5	0	0	0
14	5A	57	466	297	97	68	4	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
16	7I	83	700	443	139	117	1	0	0	0
16	7A	84	705	446	140	118	1	0	0	0

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
18	9I	67	544	349	104	91	0	0	0
18	9A	67	544	349	104	91	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
19	AI	80	643	411	118	112	2	0	0	0
19	AA	62	481	306	85	88	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	BI	98	751	464	158	127	2	0	0	0
20	BA	98	757	467	161	127	2	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
21	1F	24	208	128	50	30	0	0	0
21	1B	24	208	128	50	30	0	0	0

- Molecule 22 is a RNA chain called tRNAArg.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	P	S			
22	1K	72	1544	690	282	498	72	2	0	0	0
22	1L	74	1584	708	287	513	74	2	0	0	0

- Molecule 23 is a RNA chain called tRNAfMet.

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

- Molecule 24 is a RNA chain called tRNAArg.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
24	3K	73	1561	696	285	507	73	0	0	0
24	3L	74	1581	705	287	515	74	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
3K	6	U	C	conflict	GB 1387059712
3L	6	U	C	conflict	GB 1387059712

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
25	4K	21	462	207	97	137	21	0	0	0
25	4L	17	374	167	77	113	17	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
26	1H	2895	62351	27751	11658	20047	2895	0	0	0
26	14	2895	62347	27751	11660	20042	2894	0	0	0

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
			Total	C	N	O	P			
27	16	122	2617	1166	486	844	121	0	0	0
27	1J	122	2617	1166	486	844	121	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	71	134	1043	659	196	187	1	0	0	0
28	79	130	1010	637	188	184	1	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	21	203	1558	985	298	269	6	0	0	0
30	29	203	1558	985	298	269	6	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
31	31	202	1585	1011	297	275	2	0	0	0
31	39	206	1610	1026	301	281	2	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
33	51	171	1312	832	246	233	1	0	0	0
33	59	171	1312	832	246	233	1	0	0	0

- Molecule 34 is a protein called 50S ribosomal protein L7/L12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
34	18	30	237	150	38	48	1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
34	28	30	237	150	38	48	1	0	0	0

- Molecule 35 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
35	61	145	1131	723	200	207	1	0	0	0
			Total	C	N	O	S			
35	69	145	1131	723	200	207	1	0	0	0

- Molecule 36 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	38	143	1089	694	191	202	2	0	0	0

- Molecule 37 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
37	48	142	1047	665	184	193	5	0	0	0

- Molecule 38 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	58	137	1096	706	205	181	4	0	0	0
			Total	C	N	O	S			
38	15	137	1096	707	205	181	3	0	0	0

- Molecule 39 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
39	68	122	932	588	171	169	4	0	0	0
			Total	C	N	O	S			
39	25	122	932	588	171	169	4	0	0	0

- Molecule 40 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
40	78	147	1122	698	229	192	3	0	0	0
40	35	148	1130	704	230	193	3	0	0	0

- Molecule 41 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
41	88	141	1113	709	210	187	7	0	0	0
41	45	138	1099	702	208	183	6	0	0	0

- Molecule 42 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
42	98	118	967	604	203	159	1	0	0	0
42	55	118	967	604	203	159	1	0	0	0

- Molecule 43 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
43	A8	111	881	556	176	149	0	0	0
43	65	110	876	553	175	148	0	0	0

- Molecule 44 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	B8	136	1132	704	232	195	1	0	0	0
44	75	134	1115	694	229	192		0	0	0

- Molecule 45 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	C8	115	950	603	199	147	1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	85	117	963	610	202	150	1	0	0	0

- Molecule 46 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	D8	101	778	501	142	134	1	0	0	0
			Total	C	N	O	S			
46	95	100	774	499	141	133	1	0	0	0

- Molecule 47 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	E8	112	890	560	175	153	2	0	0	0
			Total	C	N	O	S			
47	A5	111	886	558	174	152	2	0	0	0

- Molecule 48 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
48	F8	95	743	482	134	126	1	0	0	0
			Total	C	N	O	S			
48	B5	94	738	479	133	125	1	0	0	0

- Molecule 49 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
49	G8	105	784	504	147	128	5	0	0	0
			Total	C	N	O	S			
49	C5	106	785	504	147	129	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
50	H8	165	1330	851	241	236	2	0	0	0
			Total	C	N	O	S			
50	D5	200	1582	1008	279	292	3	0	0	0

- Molecule 51 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
51	I8	81	630	389	133	107	1	0	0	0
51	E5	78	616	381	130	104	1	0	0	0

- Molecule 52 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	J8	93	729	457	145	126	1	0	0	0
52	F5	94	737	463	146	127	1	0	0	0

- Molecule 53 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	K8	69	576	358	116	101	1	0	0	0
53	G5	66	558	346	113	98	1	0	0	0

- Molecule 54 is a protein called 50S ribosomal protein L30.

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

- Molecule 55 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
55	M8	48	371	237	62	67	5	0	0	0

- Molecule 56 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
56	N8	50	386	241	77	63	5	0	0	0

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

- Molecule 57 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
57	O8	45	389	241	79	65	4	0	0	0

- Molecule 58 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
58	P8	47	401	246	99	54	2	0	0	0
58	L5	47	409	251	102	54	2	0	0	0

- Molecule 59 is a protein called 50S ribosomal protein L35.

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

- Molecule 60 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
60	13	227	227	227	0	0
60	3E	2	2	2	0	0
60	5E	2	2	2	0	0
60	6I	1	1	1	0	0
60	1K	2	2	2	0	0
60	2K	7	7	7	0	0
60	4K	1	1	1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
60	1H	669	669	669	0	0
60	16	20	20	20	0	0
60	11	6	6	6	0	0
60	21	2	2	2	0	0
60	31	2	2	2	0	0
60	41	1	1	1	0	0
60	78	1	1	1	0	0
60	88	4	4	4	0	0
60	98	2	2	2	0	0
60	I8	2	2	2	0	0
60	N8	1	1	1	0	0
60	P8	1	1	1	0	0
60	Q8	1	1	1	0	0
60	1G	167	167	167	0	0
60	32	2	2	2	0	0
60	52	1	1	1	0	0
60	2A	1	1	1	0	0
60	1L	1	1	1	0	0
60	2L	2	2	2	0	0
60	4L	2	2	2	0	0
60	14	607	607	607	0	0

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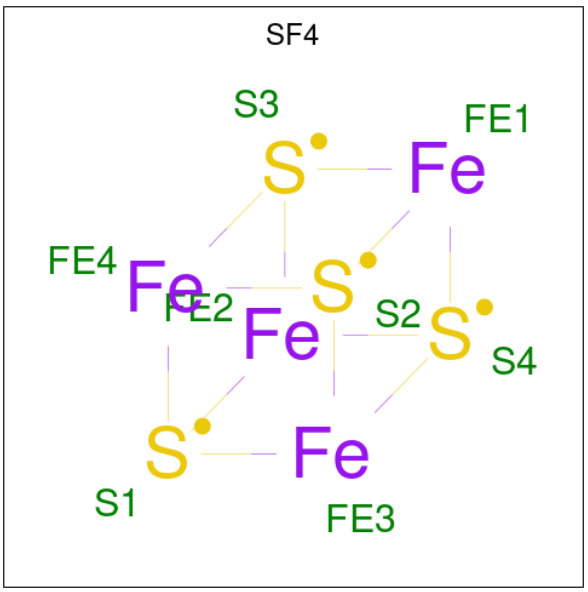
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
60	1J	8	8	8	0	0
60	29	5	5	5	0	0
60	39	2	2	2	0	0
60	25	2	2	2	0	0
60	35	1	1	1	0	0
60	45	2	2	2	0	0
60	55	2	2	2	0	0
60	75	1	1	1	0	0
60	C5	1	1	1	0	0
60	E5	1	1	1	0	0
60	F5	1	1	1	0	0
60	M5	1	1	1	0	0

- Molecule 61 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	3E	1	Total Fe S 8 4 4	0	0
61	32	1	Total Fe S 8 4 4	0	0

- Molecule 62 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	5I	1	Total Zn 1 1	0	0
62	5A	1	Total Zn 1 1	0	0

- Molecule 63 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	13	544	Total O 544 544	0	0
63	1E	1	Total O 1 1	0	0
63	3E	1	Total O 1 1	0	0
63	4E	2	Total O 2 2	0	0
63	8E	1	Total O 1 1	0	0
63	1I	1	Total O 1 1	0	0
63	3I	5	Total O 5 5	0	0
63	5I	3	Total O 3 3	0	0
63	6I	4	Total O 4 4	0	0
63	BI	1	Total O 1 1	0	0
63	1F	1	Total O 1 1	0	0
63	1K	1	Total O 1 1	0	0
63	2K	16	Total O 16 16	0	0
63	4K	13	Total O 13 13	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1H	1966	Total O 1966 1966	0	0
63	16	42	Total O 42 42	0	0
63	11	12	Total O 12 12	0	0
63	21	9	Total O 9 9	0	0
63	31	8	Total O 8 8	0	0
63	58	3	Total O 3 3	0	0
63	78	10	Total O 10 10	0	0
63	88	7	Total O 7 7	0	0
63	98	1	Total O 1 1	0	0
63	A8	2	Total O 2 2	0	0
63	B8	3	Total O 3 3	0	0
63	C8	7	Total O 7 7	0	0
63	D8	1	Total O 1 1	0	0
63	F8	1	Total O 1 1	0	0
63	G8	3	Total O 3 3	0	0
63	I8	5	Total O 5 5	0	0
63	J8	10	Total O 10 10	0	0
63	L8	4	Total O 4 4	0	0
63	P8	1	Total O 1 1	0	0
63	Q8	7	Total O 7 7	0	0
63	1G	397	Total O 397 397	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	32	5	Total O 5 5	0	0
63	42	1	Total O 1 1	0	0
63	52	4	Total O 4 4	0	0
63	3A	2	Total O 2 2	0	0
63	5A	1	Total O 1 1	0	0
63	6A	1	Total O 1 1	0	0
63	7A	2	Total O 2 2	0	0
63	9A	2	Total O 2 2	0	0
63	BA	2	Total O 2 2	0	0
63	2L	7	Total O 7 7	0	0
63	4L	8	Total O 8 8	0	0
63	14	1520	Total O 1520 1520	0	0
63	1J	23	Total O 23 23	0	0
63	19	12	Total O 12 12	0	0
63	29	9	Total O 9 9	0	0
63	39	8	Total O 8 8	0	0
63	15	1	Total O 1 1	0	0
63	25	13	Total O 13 13	0	0
63	35	5	Total O 5 5	0	0
63	45	4	Total O 4 4	0	0
63	85	4	Total O 4 4	0	0

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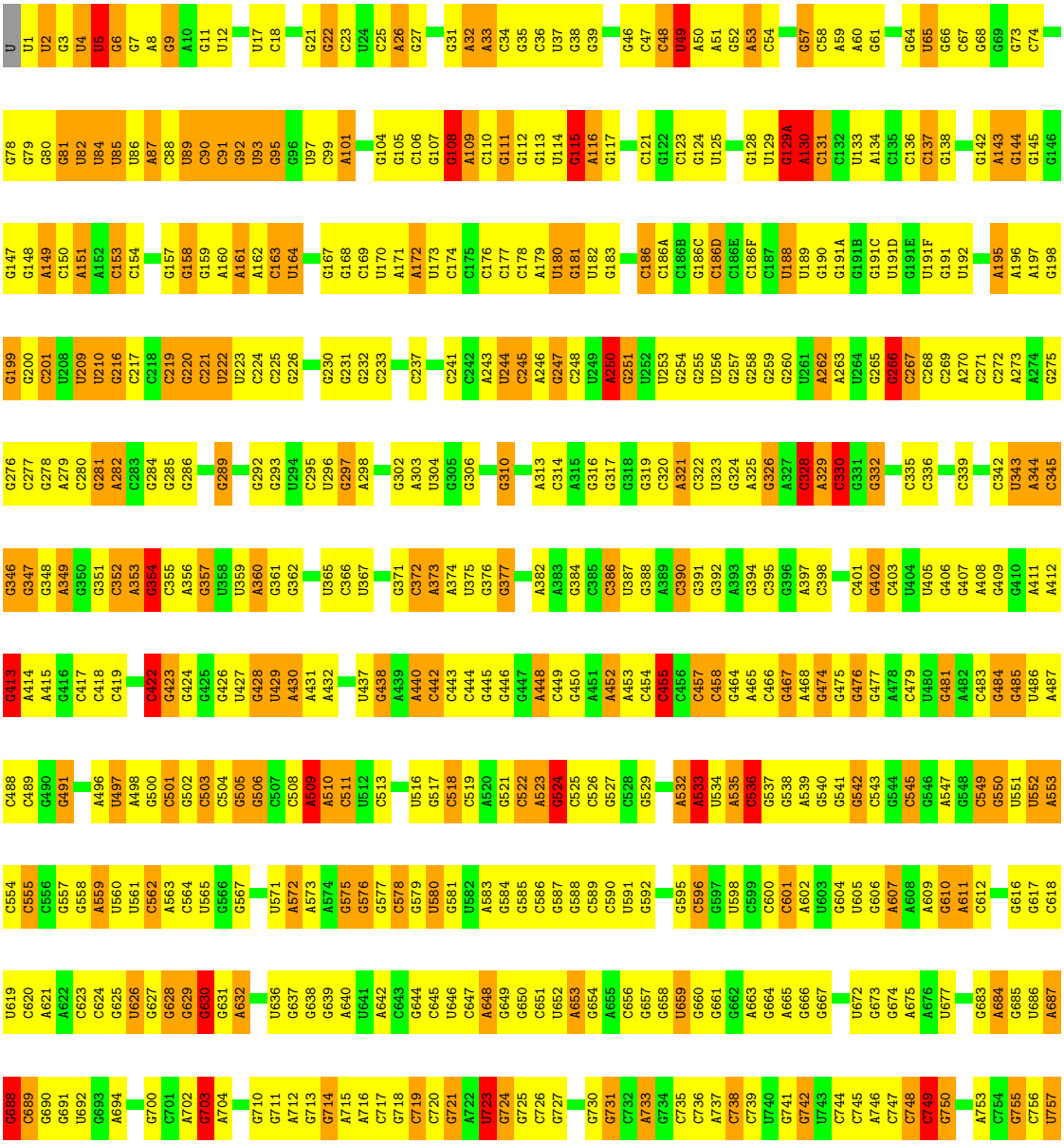
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
63	A5	1	1	1	0	0
			Total	O		
63	B5	1	1	1	0	0
			Total	O		
63	C5	1	1	1	0	0
			Total	O		
63	E5	3	3	3	0	0
			Total	O		
63	F5	6	6	6	0	0
			Total	O		
63	L5	2	2	2	0	0
			Total	O		
63	M5	9	9	9	0	0

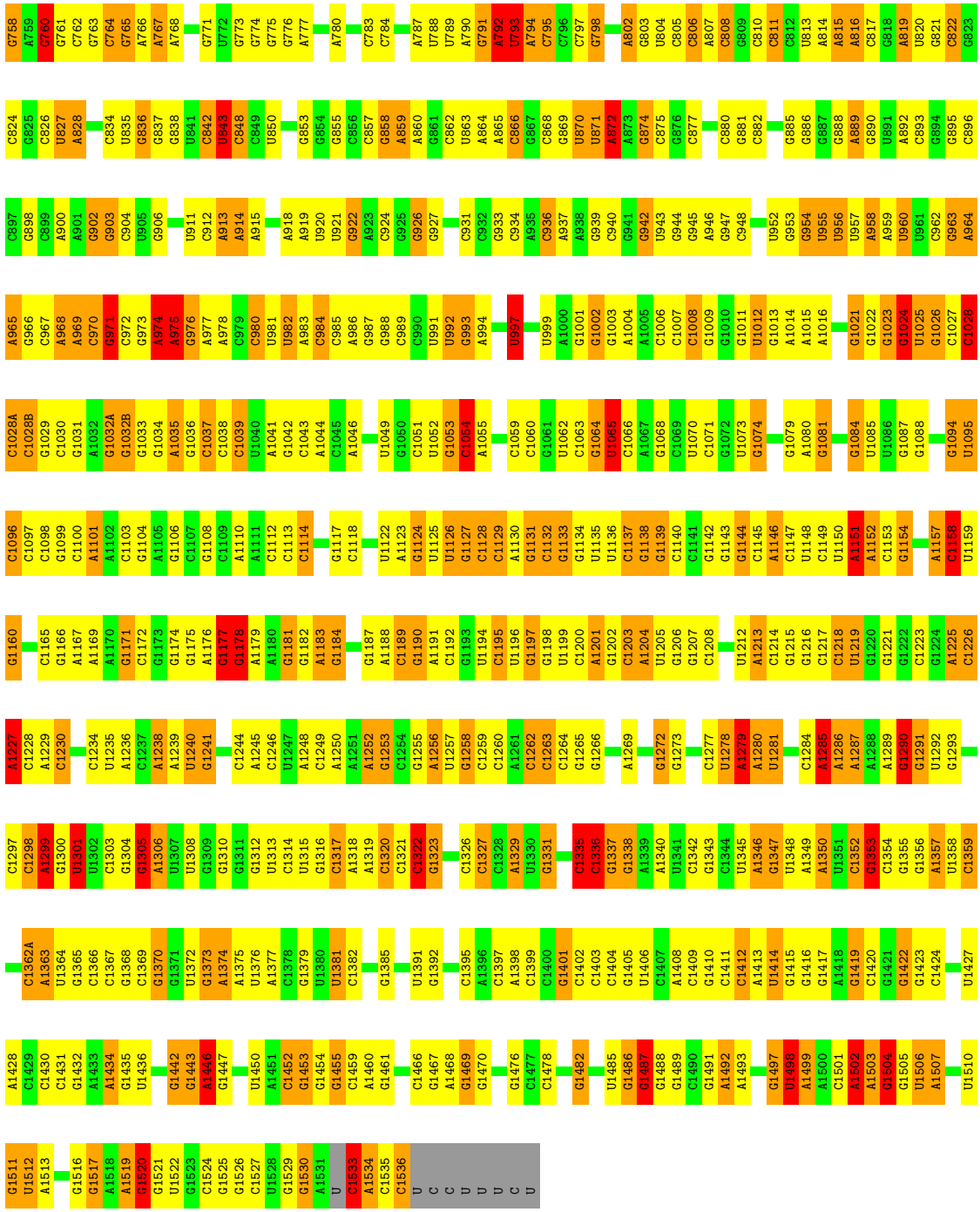
3 Residue-property plots (i)

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. 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. 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

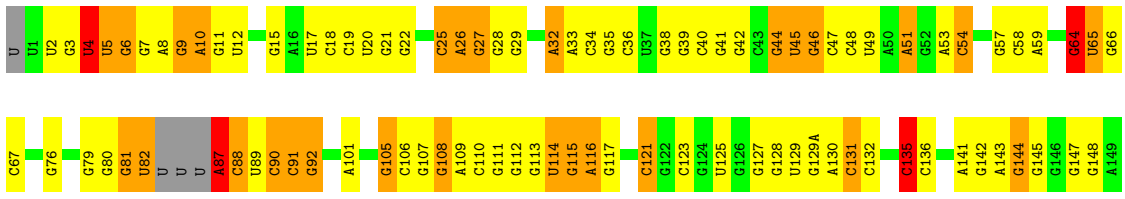
Chain 13: 28% 45% 22%



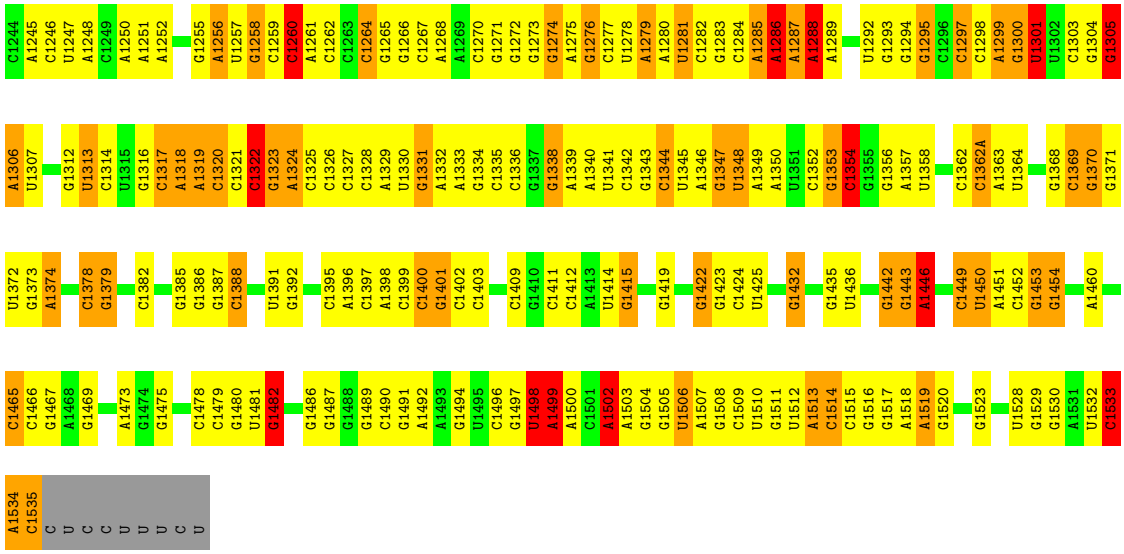


• Molecule 1: 16S ribosomal RNA

Chain 1G:

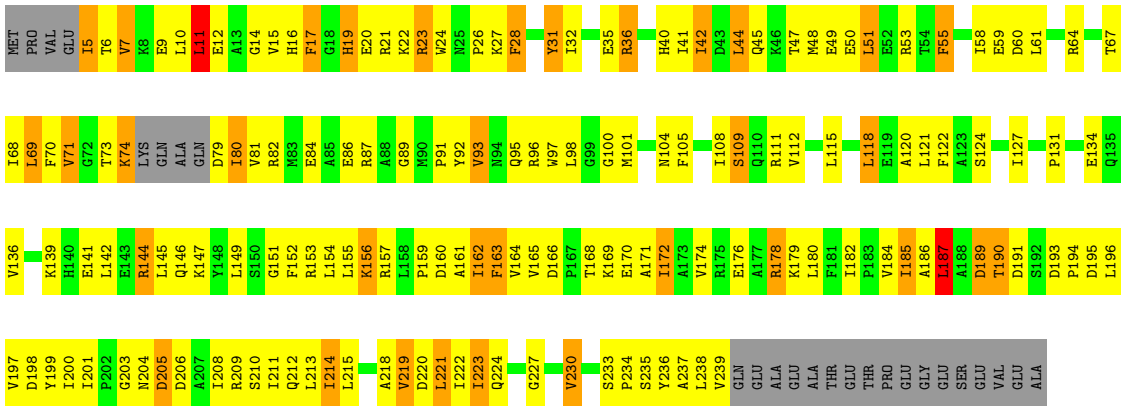


C150 C155 G158 G159 A160 A161 A162 C163 U164 C165 G166 G167 U173 C174 C175 C176 C177 C178 A179 U180 G181 U182 G183 C186 C186A C186B G186C C186D C186E C186F C187 U188 U189 G190 G191A U191D G191E U191F G191 U192 C193 C194 A195 A196 A197 G198 G199 G200 C201 U208 U209 U210 G216 C217
C221 U222 U223 C224 C225 G226 G227 G232 C233 C234 C235 G236 C237 C238 U239 C240 A243 U244 C245 A246 G247 A250 G251 U252 U253 G254 G257 G258 G259 G260 U261 G266 C267 C272 A273 A274 G275 G276 C277 G278 A279 C280 G281 G286 U287 A288 G289 C290 C295 U296 G297 A298
G299 A300 A315 C320 A321 C322 U323 G324 A325 G326 A327 G328 A329 C330 G331 G332 G333 C337 U340 C341 A344 G345 G346 G347 G350 G351 G352 A353 G354 U359 A360 G361 G362 A363 C366 U367 G371 C372 A373 A374 U375 G376 G377 G380 C381 A382 A383 C386
C390 G394 C395 G396 A397 C398 G402 U405 G406 G407 A408 G409 G410 A411 A412 G413 A414 A415 G416 C419 U420 U421 C422 G423 G424 G425 G426 U427 G428 U429 A430 A431 U434 C435 C436 U437 G438 A439 A440 C442 C443 G447 A448 C449 G450 A451 A452 A453 C458 G464 A465 C466 G467
A468 G474 G475 G481 A482 C483 G484 G485 U486 A487 C488 G493 U494 A495 A496 U497 A498 G500 C501 G502 C503 C504 G505 G506 C507 C508 G509 A510 C511 U512 C513 C514 G515 U516 G517 C518 C519 A520 G521 C522 A523 C526 G527 C528 G529 G530 U531 A532 A533 U534 A535 C536 G537 G538 A539 G540 G541
G542 A547 G550 C555 C556 G557 G558 A559 U560 U561 C562 A563 C564 U565 G566 G567 G570 U571 A572 A573 A574 G575 G576 G577 C578 G579 U580 G581 U582 A583 G584 G588 C589 C590 U591 G592 C596 G597 C600 C601 A602 U603 G604 U605 G606 A607 A608 C612 C613 A614 C615 G616
G617 C618 U619 C620 A621 A622 C623 C624 G625 U626 G627 G628 G629 G630 G631 A632 G637 G638 C645 U646 C647 G650 C651 U652 A653 C656 G660 A663 G664 A665 G666 U669 G670 G673 G674 A675 A676 U677 U678 C679 G683 A684 G685 U686 A687 G688 C689 G690 G691 U692 G693
A694 A695 A696 C699 G700 C701 A702 G703 A704 U705 A706 C707 C708 G711 A712 G713 G714 A715 A716 C717 G718 C719 C720 G721 A722 U723 G724 G725 C726 G727 A728 A729 G730 G731 C735 C736 A737 C738 C739 U740 G741 G742 C745 A746 C747 C748 C749 G750 U751 G752 A753 C754 G755 C756 U757 G758
A759 G760 C764 G765 A766 A767 A768 G769 G774 G775 G776 A777 G778 C779 A780 C784 G785 G786 A787 U788 U789 A790 G791 A792 U793 A794 G800 U804 C805 C811 C812 A815 A816 C817 G818 A819 U820 G821 G825 C826 U827 A828 G829 U833 C834 G837 G838 U841 C842 U843
C848 C849 U850 G851 G852 G853 G854 G855 C856 C857 G858 A859 A860 G861 C862 U863 A864 A865 C866 G867 C868 A869 U870 U871 A872 A873 G874 C875 G878 C879 C880 G881 C882 G885 A889 G890 U891 A892 C897 G898 C899 A900 A901 C904 U905 G906 A909 C910 A913 A914 A915 G916 G917
A918 A919 U920 U921 G922 A923 G926 G927 G928 G929 C932 G933 C934 A935 C936 G939 U940 G941 G942 U943 G944 G947 C948 A949 U950 G953 G954 U955 U956 U957 A958 A959 U960 U961 C962 G963 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983
C984 C985 A986 G987 C990 U991 U992 G993 A994 C995 A996 U997 G998 C998A U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1011 A1014 A1015 A1016 G1017 C1018 C1019 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1028A C1028B G1029 C1030 G1031 A1032 G1032A G1032B G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041
G1042 C1043 A1044 C1045 A1046 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 C1071 C1072 U1073 G1077 U1078 G1079 A1080 G1081 G1084 U1085 U1086 G1087 G1088 G1089 U1090 U1091 A1092 A1093 G1094 U1095 C1096 C1097 C1098 G1099 C1100 A1101 A1102 C1103 G1104 A1105 G1106 C1107 G1108 C1109 A1110 A1111
C1112 C1113 C1114 G1117 C1118 C1119 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 A1134 U1135 U1136 C1137 C1138 G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 C1153 G1154 G1155 G1156 A1157 C1158 U1159 C1160 C1161 C1162 C1163 A1170 G1171 C1172 G1173 G1174 G1175 A1176 G1177 G1178 A1179
A1180 G1181 G1182 A1183 G1184 G1185 A1188 C1189 G1190 A1191 C1192 C1195 U1196 G1197 G1198 U1199 C1200 A1201 G1202 C1203 A1204 U1205 G1206 G1207 C1208 C1209 C1210 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 G1220 G1221 G1222 C1223 G1224 A1225 C1226 A1227 C1228 U1232 G1233 C1234 U1235 A1236 C1237 A1238 A1239 U1240 G1241 C1242 C1243



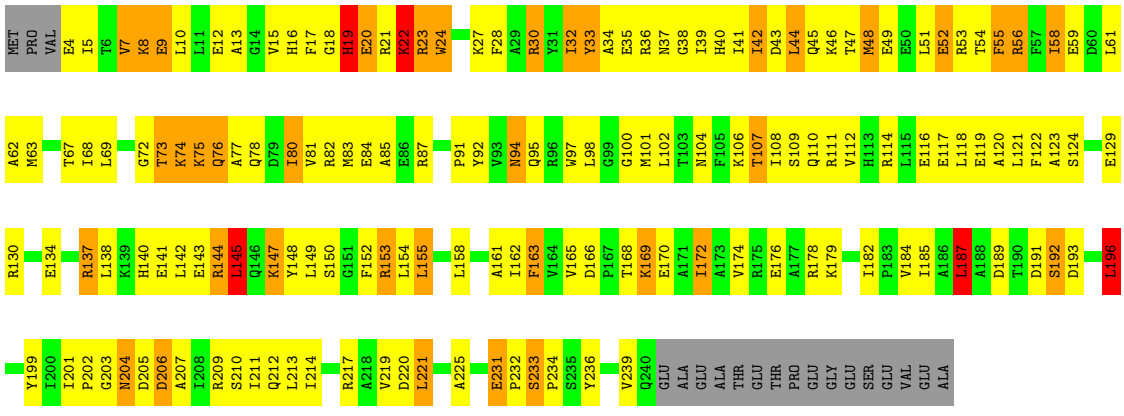
- Molecule 2: 30S ribosomal protein S2

Chain 1E: 28% 48% 13% • 10%



- Molecule 2: 30S ribosomal protein S2

Chain 12: 30% 46% 14% • 7%



- Molecule 3: 30S ribosomal protein S3

Chain 2E: 48% 32% 6% 14%

MET G2 N3 K4 I5 H6 P7 I8 R11 L12 G13 I14 T15 R16 D17 W18 E19 S20 R21 W22 Y23 K26 R30 H31 L32 E35 D36 Q37 R38 I39 R40 E44 L47 Y48 S49 L52 A53 R54 E58 R59 N63 V64 A65 K72 P73 G74 V75 V76 I77 G78

R79 R83 L91 T95 G96 K97 N98 V99 Q104 E105 L111 V116 R119 Q123 I124 E125 R126 R127 F128 A129 V130 R131 R132 A133 I134 K135 Q136 A137 V138 Q139 R140 S144 V153 S154 Q162 E166 Q170 G171 R172 L175 H176 R179 A180 N181 I182

D183 Y184 L188 A189 R190 T191 T192 V195 Y201 I202 E206 VAL ILE GLY GLY GLN LYS PRO LYS ALA ARG PRO GLU LEU PRO LYS ALA GLU GLU ARG PRO ARG ARG ARG ARG PRO ALA VAL ARG VAL LYS LYS GLU GLU

- Molecule 3: 30S ribosomal protein S3

Chain 22: 38% 34% 9% 18%

MET G2 N3 K4 I5 H6 P7 I8 G9 F10 R11 I14 T15 R16 D17 W18 E19 S20 R21 W22 K27 Q28 Y29 L32 L33 L34 E35 D36 Q37 R40 G41 L42 L43 E44 K45 E46 L47 Y48 S49 A50 G51 L52 A53 R54 V55 D56 I57 E58 R59 D62 N63 V64 V68 H69

V70 A71 K72 P73 G74 V75 V76 ILE GLY ARG GLY GLY GLU ARG I84 R85 V86 L87 R88 E89 E90 L91 L94 T95 G96 K97 N98 V99 A100 L101 N102 V103 N108 P109 N110 L111 S112 A113 P114 L115 V116 A117 Q118 R119 V120 A121 E125 A129 V130 R131 R132 A133 I134 A137 V138

Q139 R140 V141 M142 E143 S144 G148 A149 K150 V151 I152 V153 S154 G155 R156 G159 W167 A168 A169 R172 L175 H176 T177 L178 R179 A180 N181 A189 R190 T191 T192 Y193 G194 V195 L196 G197 V198 K199 A200 Y201 I202 F203 LEU GLY GLU VAL ILE GLY GLY GLN LYS PRO LYS ALA

ARG PRO GLU LEU PRO LYS ALA GLU GLU ARG PRO ARG ARG ARG ARG PRO ALA VAL ARG VAL LYS LYS GLU GLU

- Molecule 4: 30S ribosomal protein S4

Chain 3E: 50% 41% 9%

MET GLY R3 P7 V8 C9 R10 L11 C12 R13 R14 E15 G16 V17 K18 L19 Y20 L21 K22 R25 C26 P29 K30 C31 A32 M33 E34 R35 R36 P37 Y38 G41 Q42 H43 K46 R50 Y54 A55 V56 R57 L58 R59 E60 L64 R65 R66 I67 I70 Q74 F75

R76 N77 L78 A82 K85 V88 T89 G90 S91 V92 F93 L96 L97 E98 S99 D102 N103 V104 R107 L108 G109 F110 A111 V112 S113 R114 R115 Q116 R122 H123 I126 T127 R132 L135 P136 S137 Y138 R139 V140 R141 V148 A149 E150 K151 S152 R153 N154 L155 E156

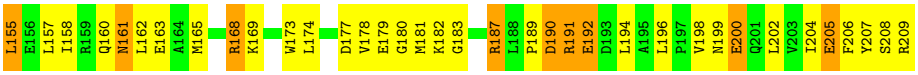
L157 I158 R159 Q160 N161 L162 E163 A164 M165 K166 G167 R168 W173 L174 S175 L176 M181 K184 R187 L188 P189 D190 R191 E192 D193 L194 A195 L196 P197 V198 N199 E200 Q201 L202 Y207 S208 R209

- Molecule 4: 30S ribosomal protein S4

Chain 32: 42% 44% 14%

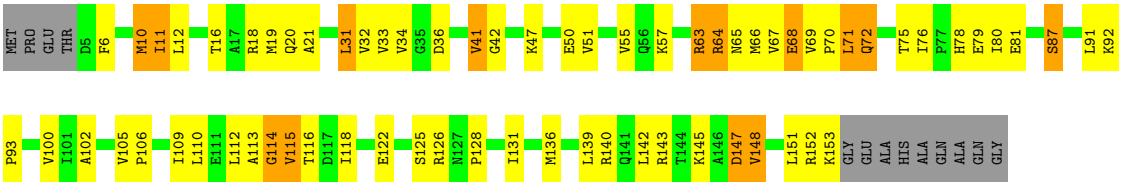
MET G2 R3 Y4 P7 V8 C9 R10 L11 C12 R13 R14 E15 G16 V17 K18 L19 Y20 L21 K22 G23 E24 R25 C26 Y27 S28 P29 K30 C31 A32 M33 E34 R35 R36 P37 Y38 P39 H43 G44 Q45 R49 R50 P51 S52 D53 R57 L58 R59 E60 K61 Q62 K63 L64 S71 E72

R73 Q74 F75 R76 N77 L78 F79 A82 S83 V88 T89 G90 L94 G95 L96 L97 E98 L101 D102 N103 V104 V105 L108 G109 F110 A111 V112 R115 Q116 A117 R118 Q119 L120 V121 R122 H123 T127 D134 L135 P136 S137 Y138 R139 V140 V148 A149 E150 K151 S152 R153 N154



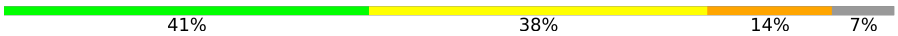
• Molecule 5: 30S ribosomal protein S5

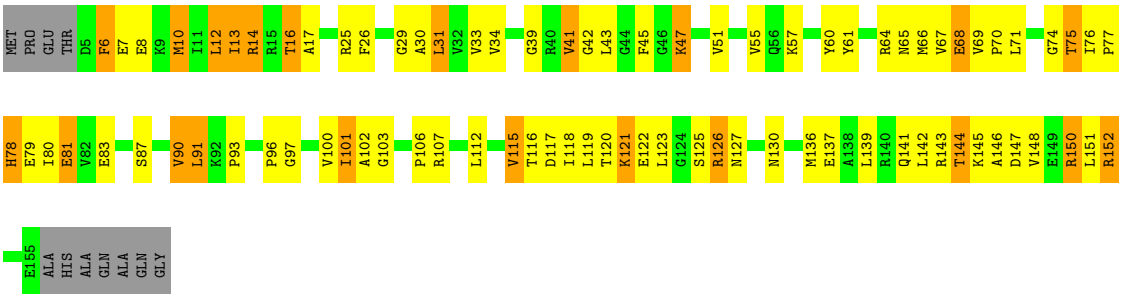
Chain 4E:



• Molecule 5: 30S ribosomal protein S5

Chain 42:



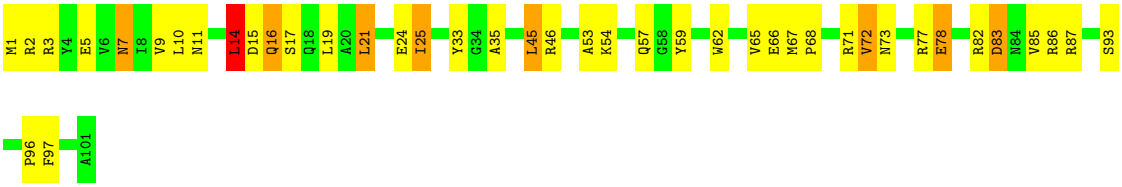


• Molecule 6: 30S ribosomal protein S6

Chain 5E:

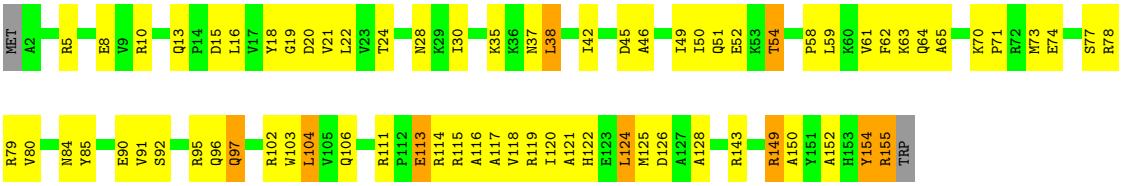
• Molecule 6: 30S ribosomal protein S6

Chain 52:



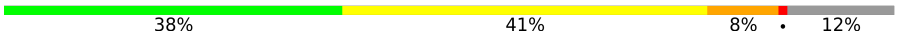
• Molecule 7: 30S ribosomal protein S7

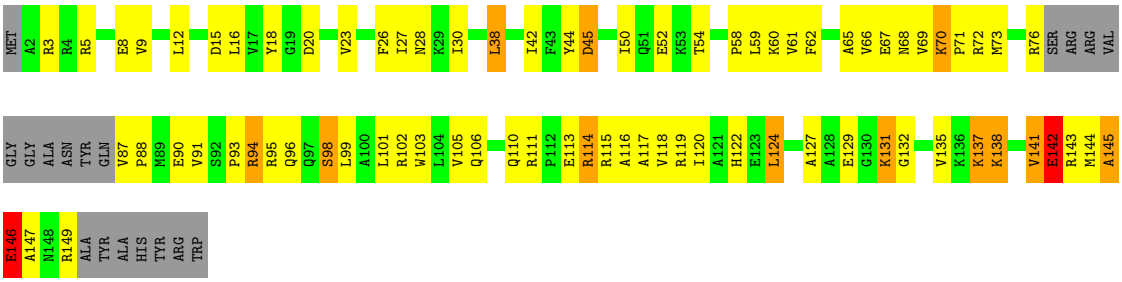
Chain 6E:



• Molecule 7: 30S ribosomal protein S7

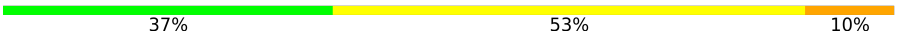
Chain 62:

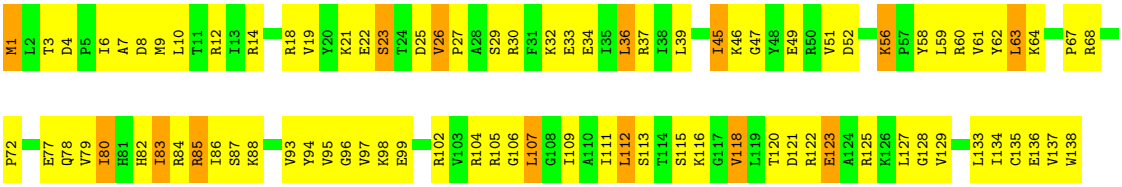




• Molecule 8: 30S ribosomal protein S8

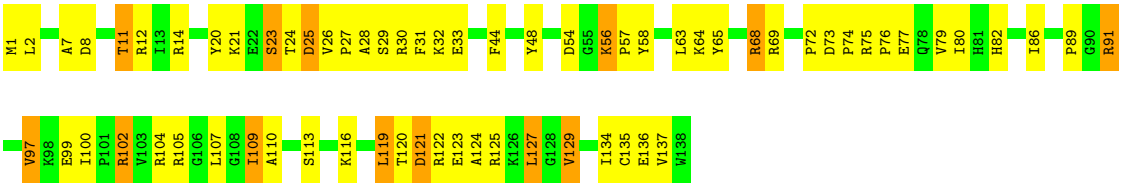
Chain 7E:





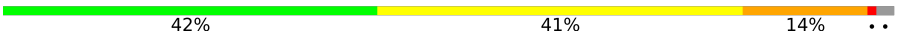
• Molecule 8: 30S ribosomal protein S8

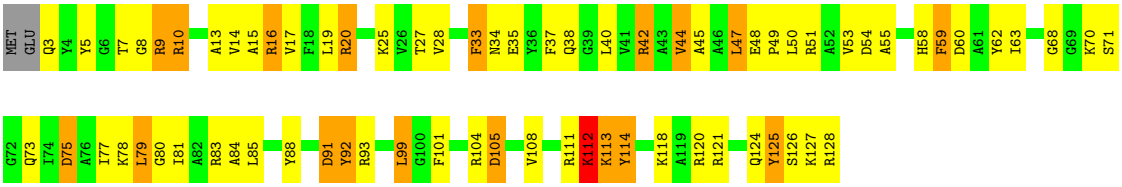
Chain 72:



• Molecule 9: 30S ribosomal protein S9

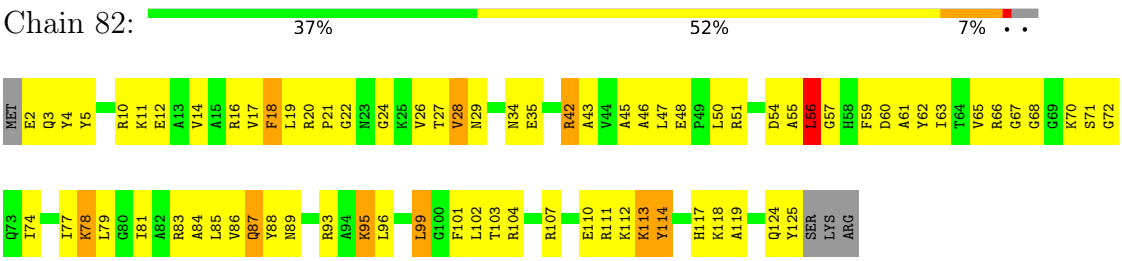
Chain 8E:





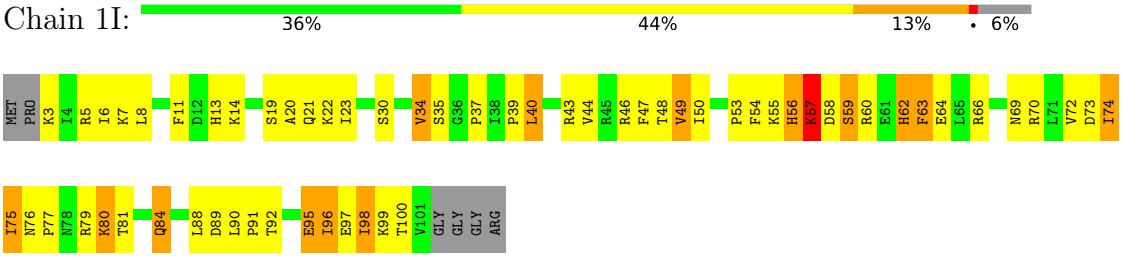
- Molecule 9: 30S ribosomal protein S9

Chain 82:



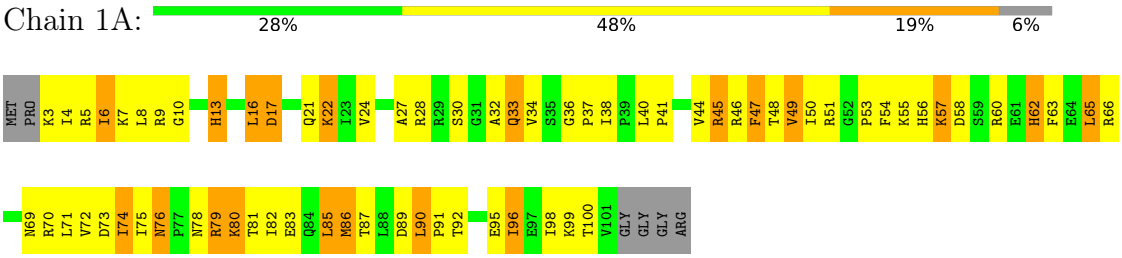
- Molecule 10: 30S ribosomal protein S10

Chain 1I:



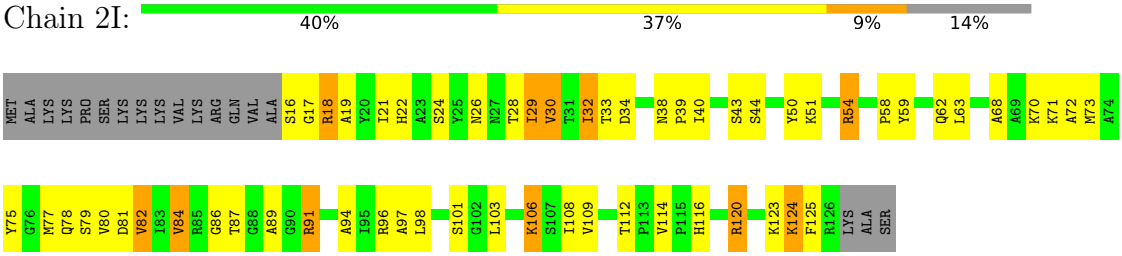
- Molecule 10: 30S ribosomal protein S10

Chain 1A:



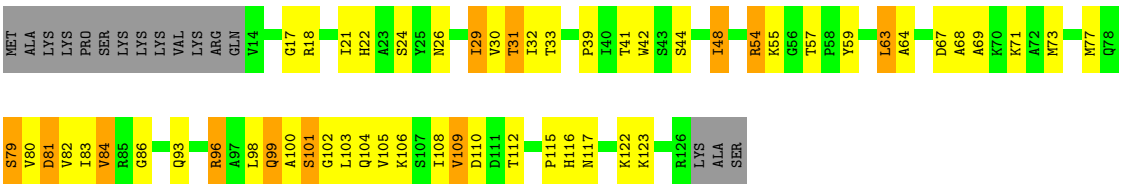
- Molecule 11: 30S ribosomal protein S11

Chain 2I:



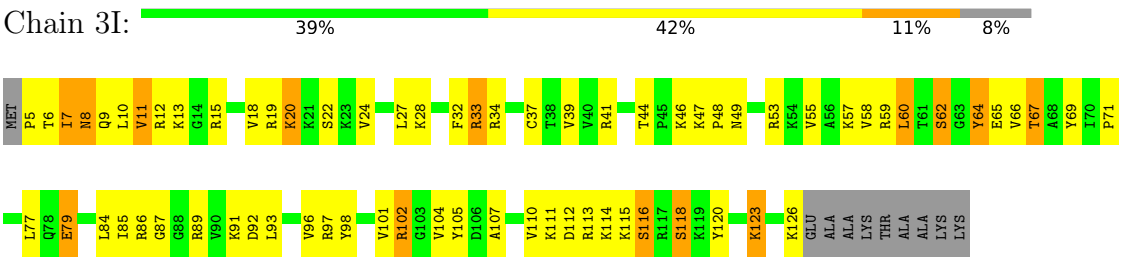
- Molecule 11: 30S ribosomal protein S11

Chain 2A:



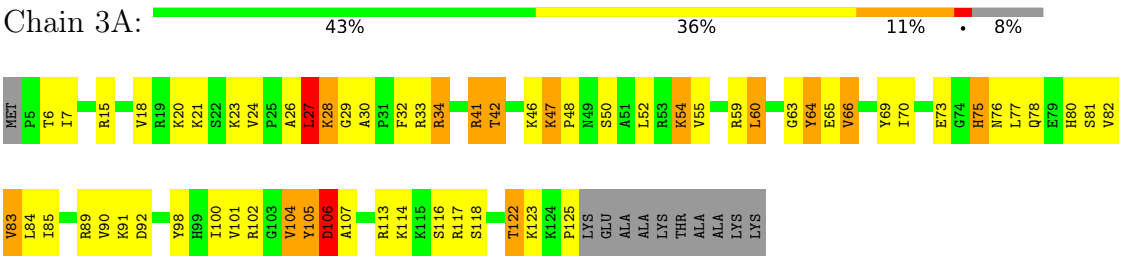
- Molecule 12: 30S ribosomal protein S12

Chain 3I:



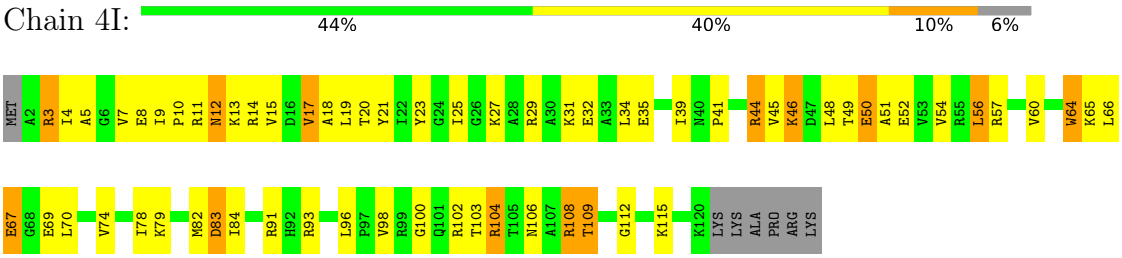
- Molecule 12: 30S ribosomal protein S12

Chain 3A:



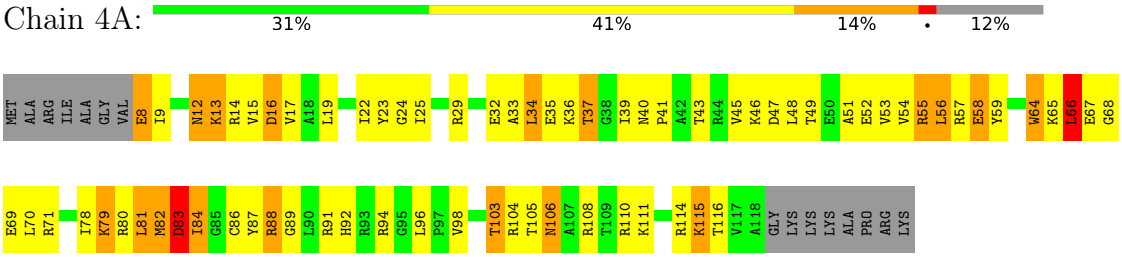
- Molecule 13: 30S ribosomal protein S13

Chain 4I:



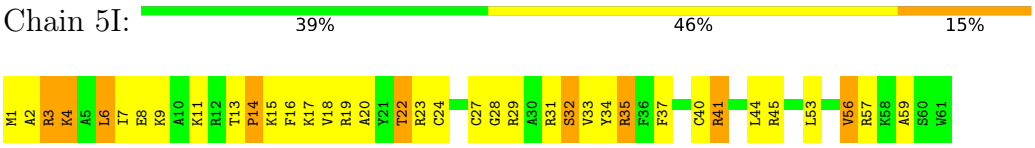
- Molecule 13: 30S ribosomal protein S13

Chain 4A:



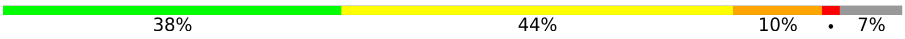
- Molecule 14: 30S ribosomal protein S14 type Z

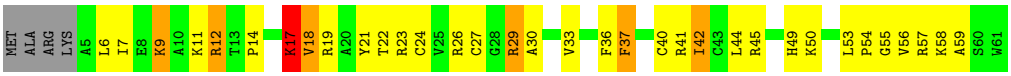
Chain 5I:



- Molecule 14: 30S ribosomal protein S14 type Z

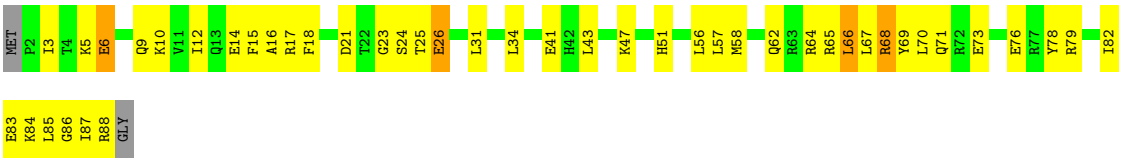
Chain 5A:





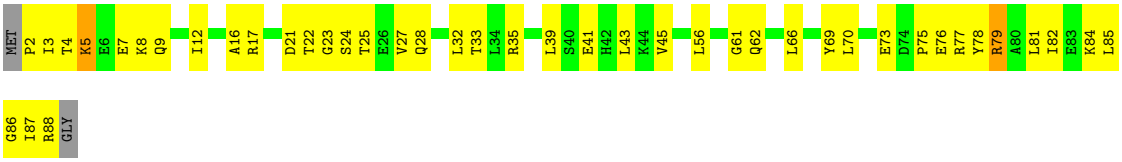
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



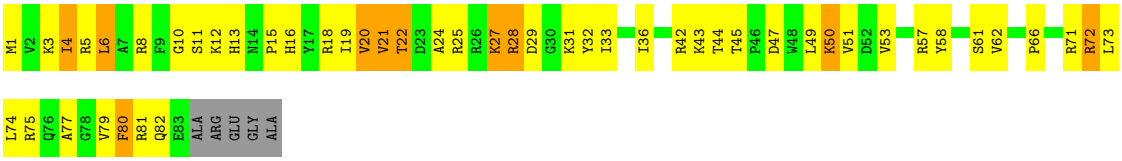
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



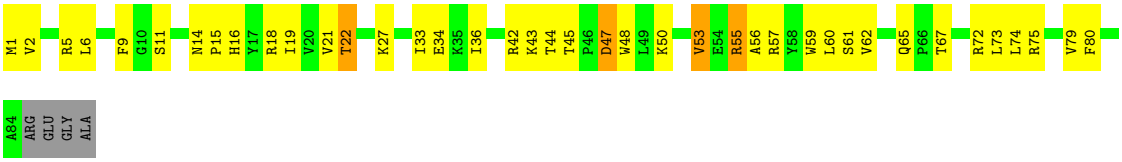
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



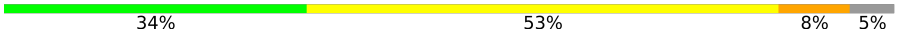
• Molecule 16: 30S ribosomal protein S16

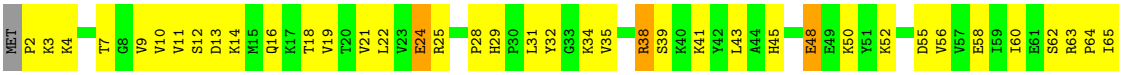
Chain 7A:

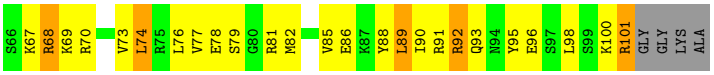


• Molecule 17: 30S ribosomal protein S17

Chain 8I:

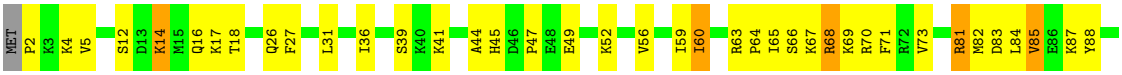






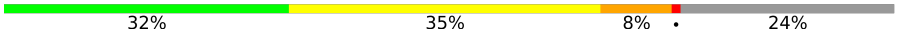
- Molecule 17: 30S ribosomal protein S17

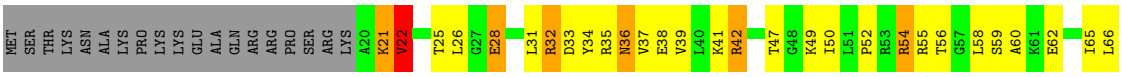
Chain 8A:

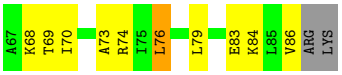


- Molecule 18: 30S ribosomal protein S18

Chain 9I:

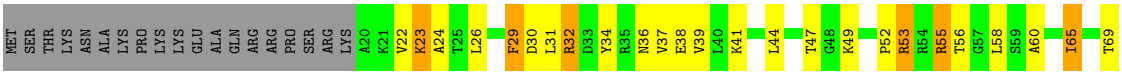


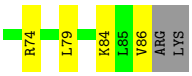




- Molecule 18: 30S ribosomal protein S18

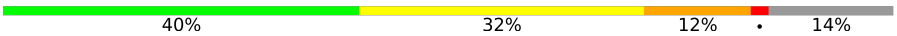
Chain 9A:

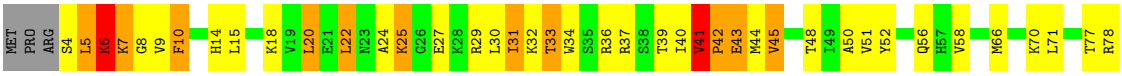


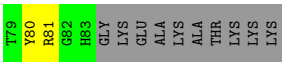


- Molecule 19: 30S ribosomal protein S19

Chain AI:

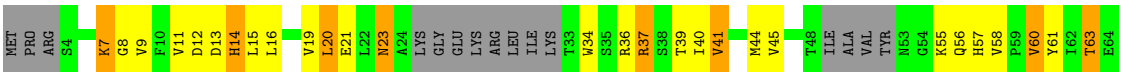






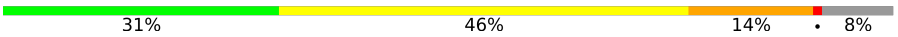
- Molecule 19: 30S ribosomal protein S19

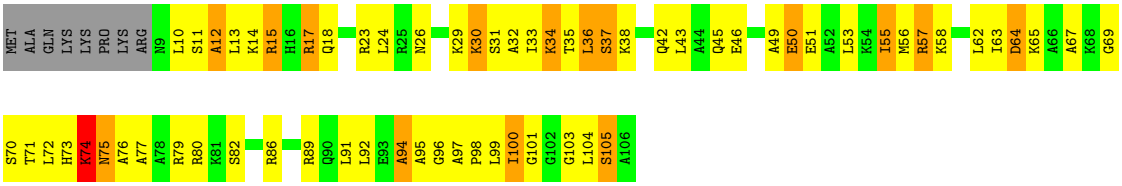
Chain AA:



• Molecule 20: 30S ribosomal protein S20

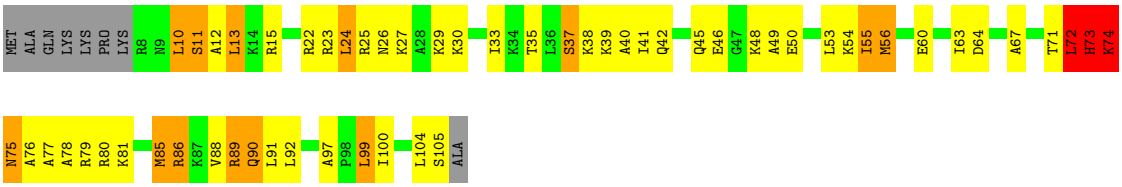
Chain BI:





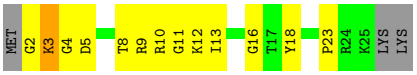
• Molecule 20: 30S ribosomal protein S20

Chain BA:



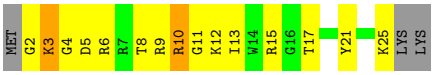
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



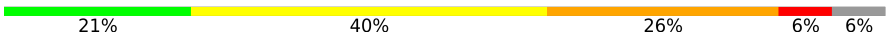
• Molecule 21: 30S ribosomal protein Thx

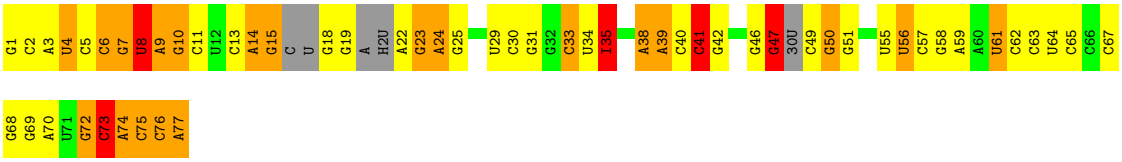
Chain 1B:



• Molecule 22: tRNAArg

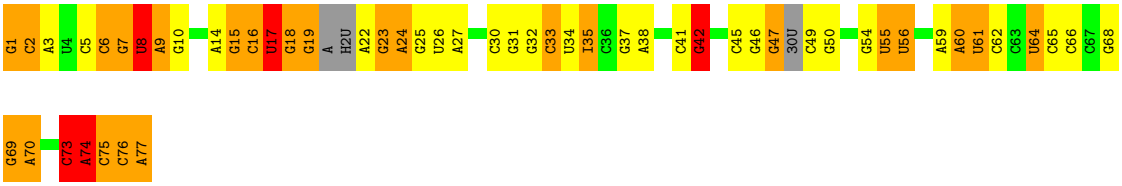
Chain 1K:





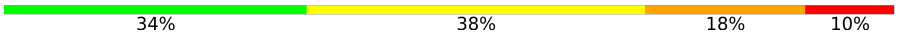
• Molecule 22: tRNAArg

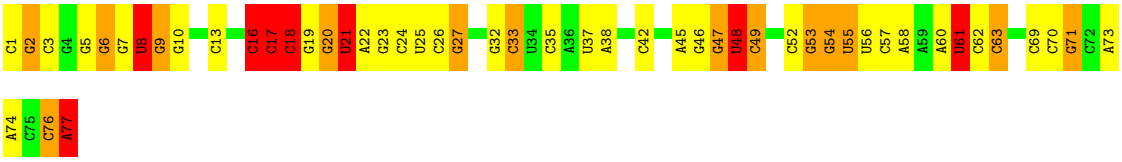
Chain 1L:



• Molecule 23: tRNAfMet

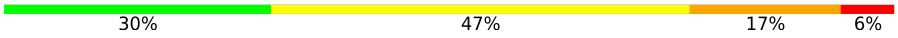
Chain 2K:

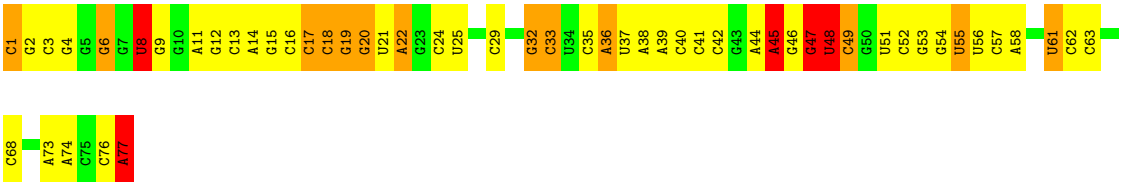




• Molecule 23: tRNAfMet

Chain 2L:





• Molecule 24: tRNAArg

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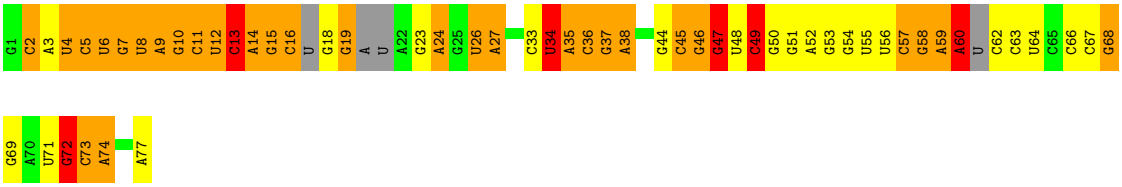
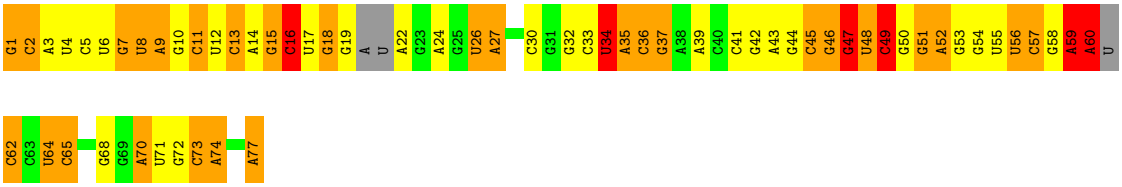


• Molecule 24: tRNAArg

Chain 3L:

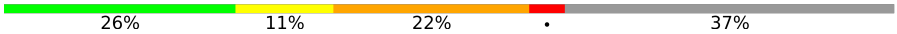


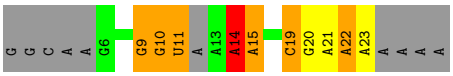
• Molecule 25: mRNA

Chain 4K:

• Molecule 25: mRNA

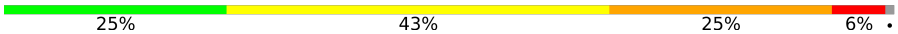
Chain 4L:

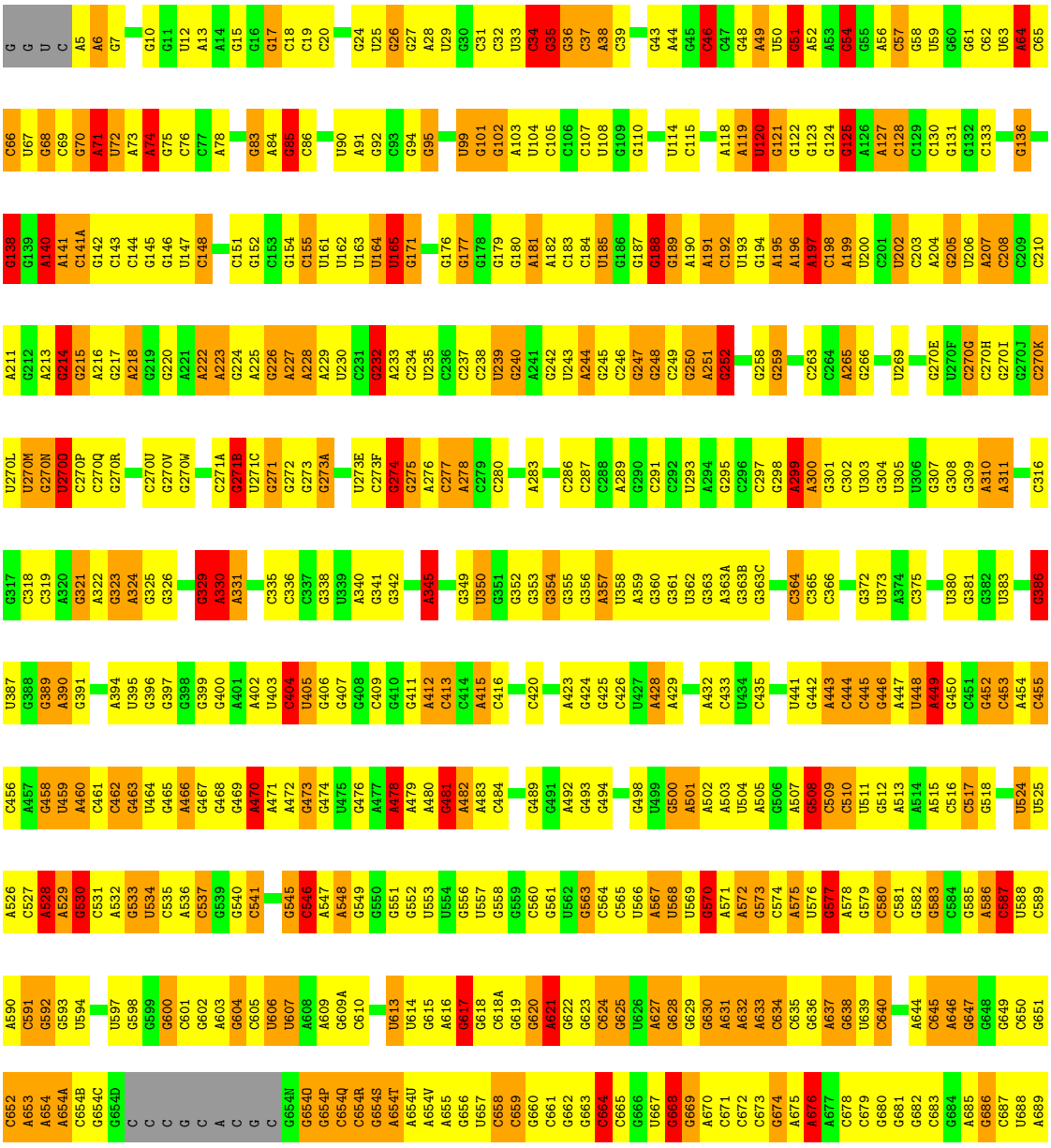


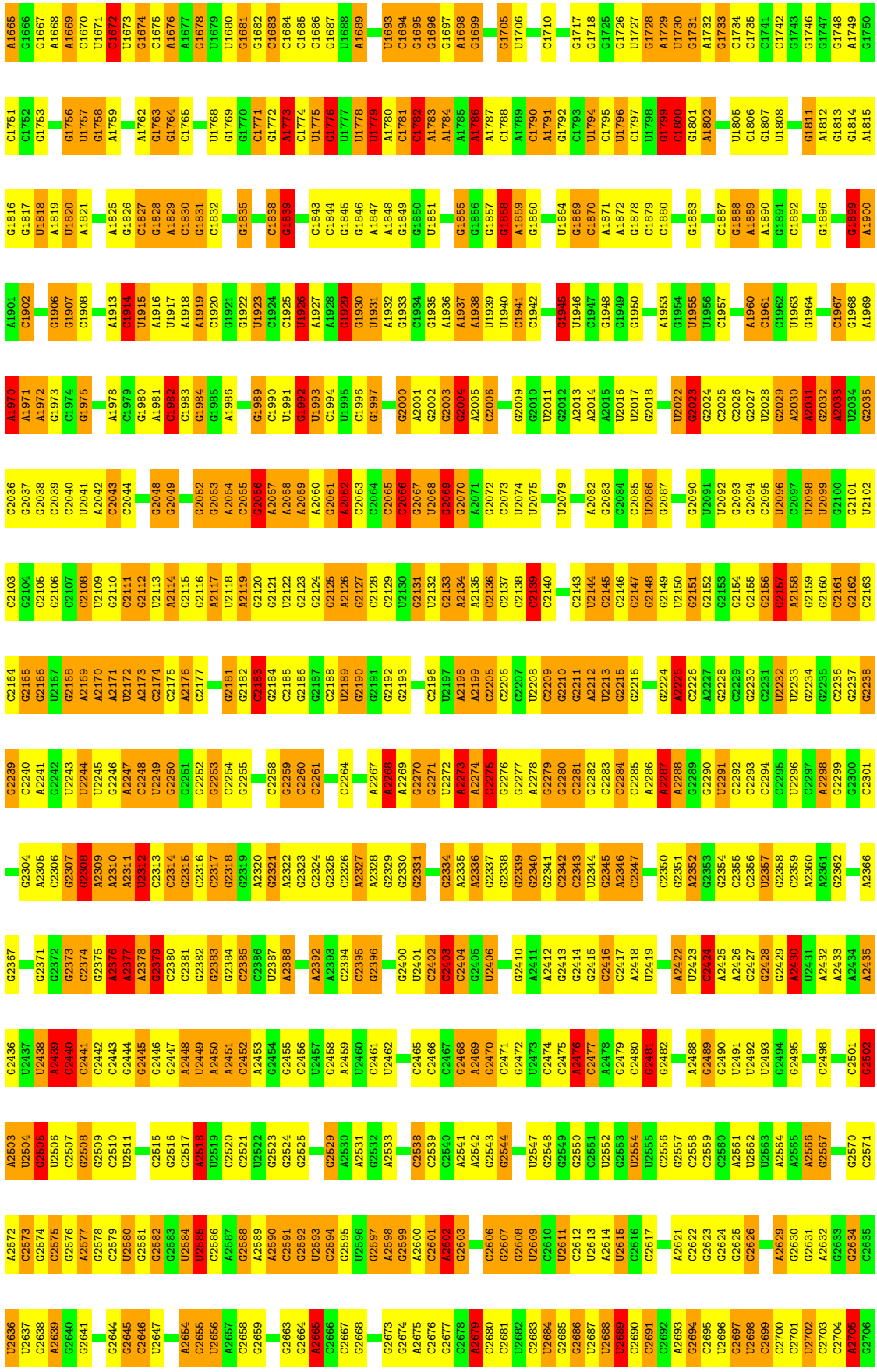


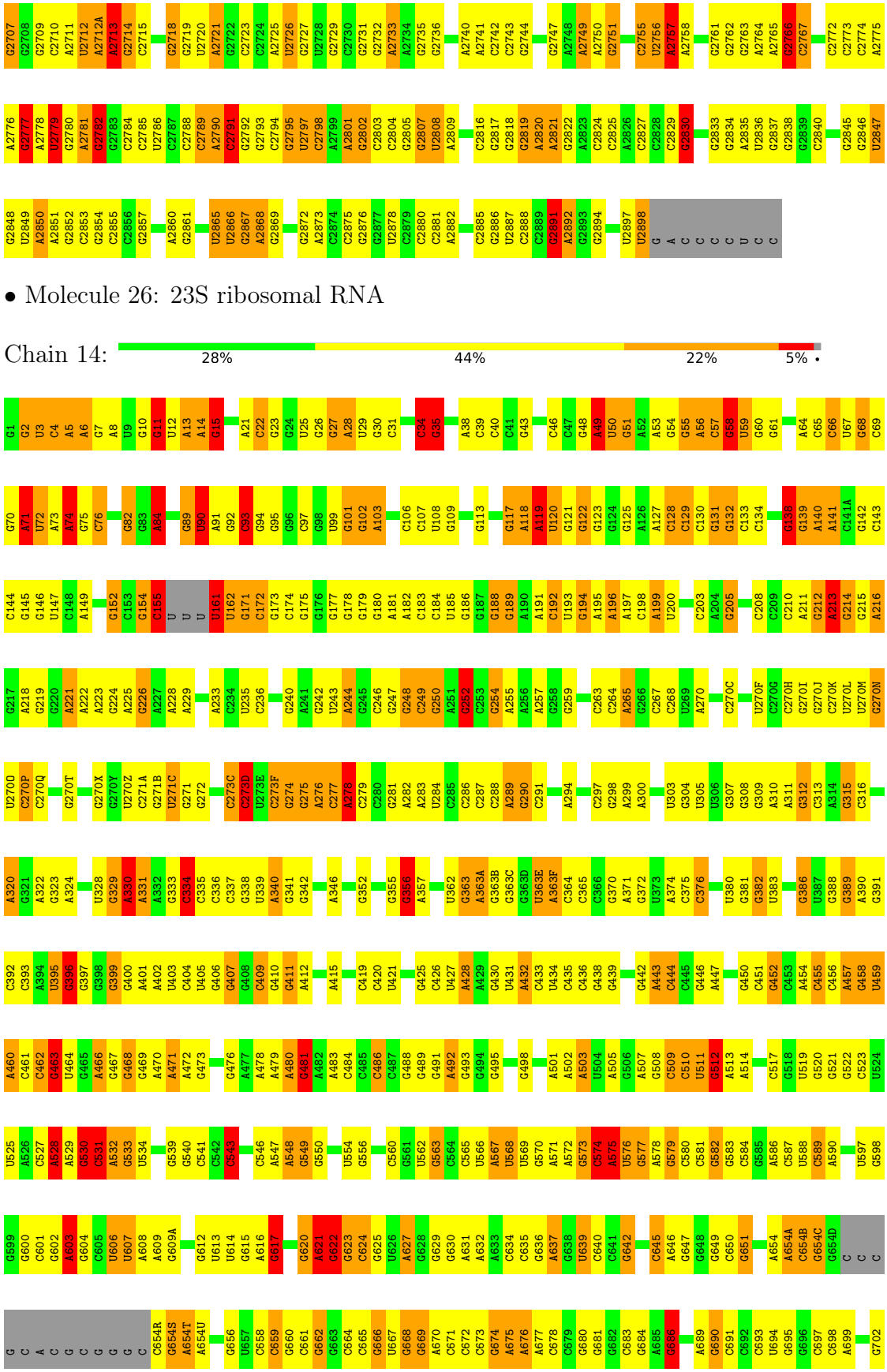
• Molecule 26: 23S ribosomal RNA

Chain 1H:









• Molecule 26: 23S ribosomal RNA

Chain 14: 28% 44% 22% 5% •

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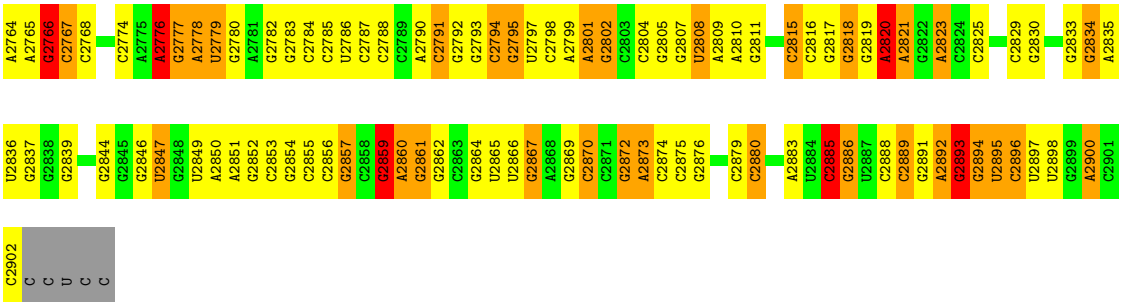
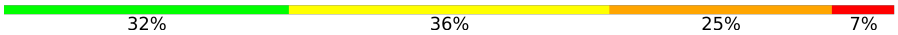
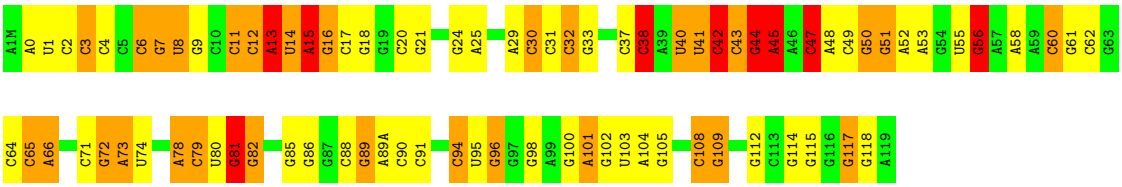


- Molecule 27: 5S ribosomal RNA

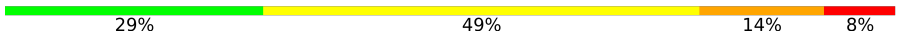
Chain 16:

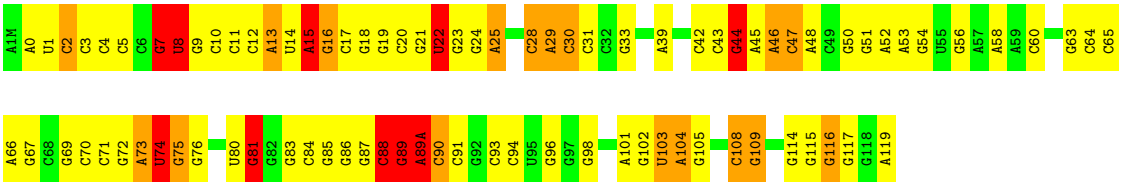




- Molecule 27: 5S ribosomal RNA

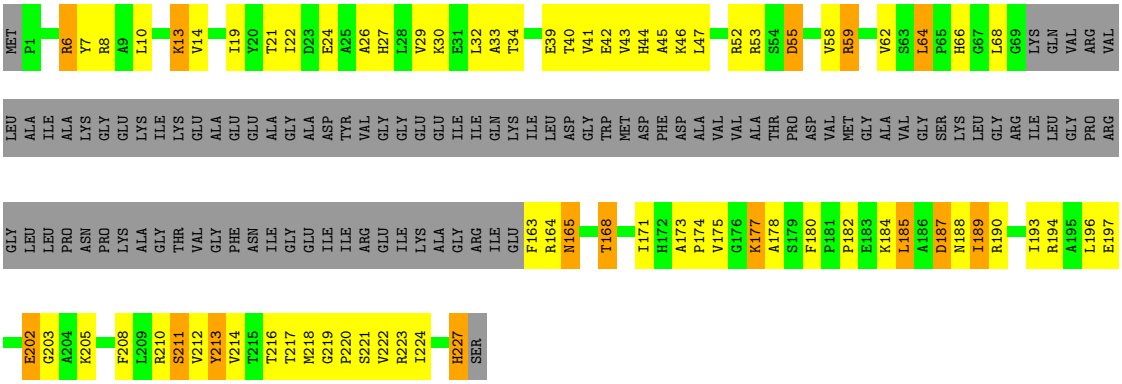
Chain 1J:





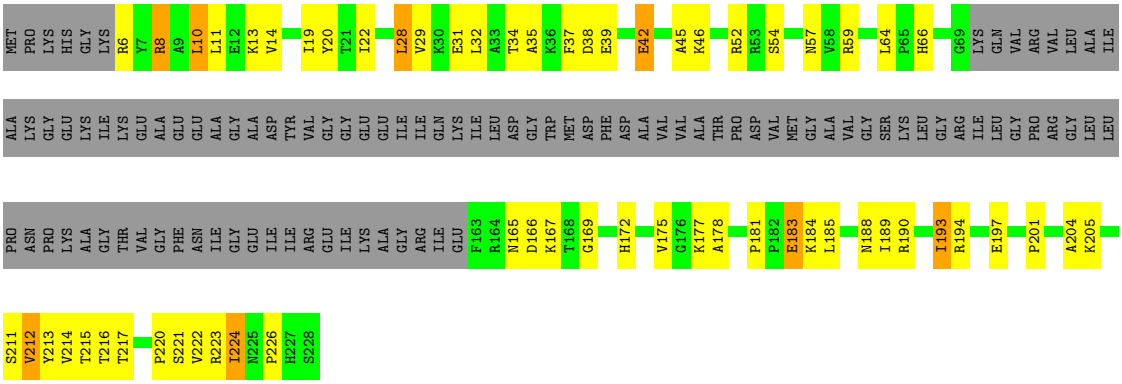
- Molecule 28: 50S ribosomal protein L1

Chain 71:



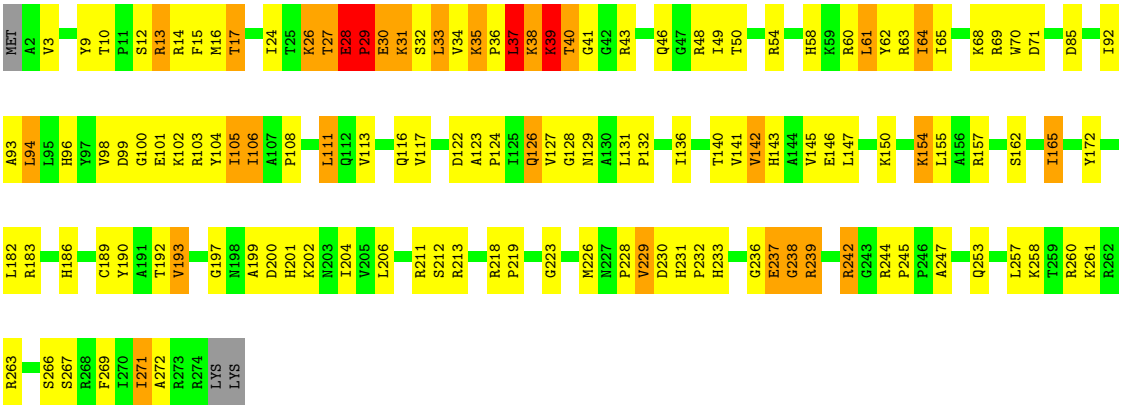
- Molecule 28: 50S ribosomal protein L1

Chain 79:



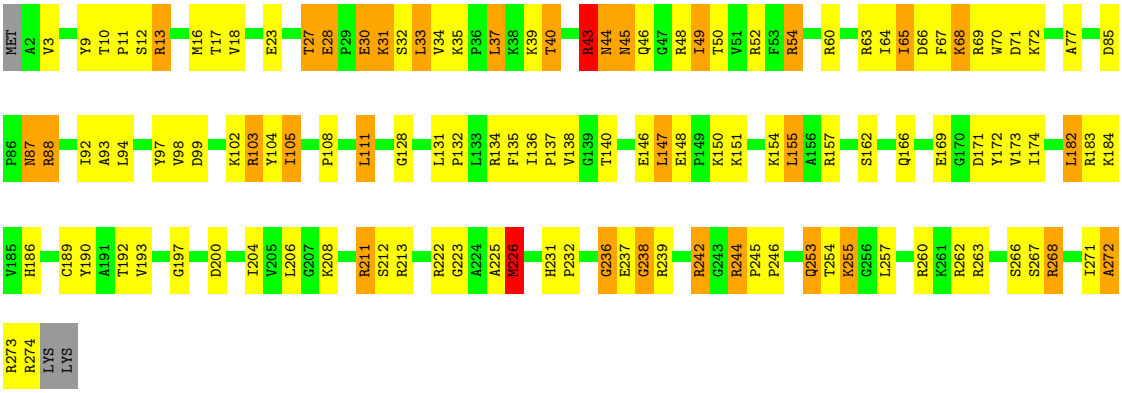
- Molecule 29: 50S ribosomal protein L2

Chain 11:



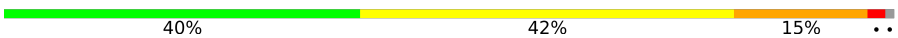
- Molecule 29: 50S ribosomal protein L2

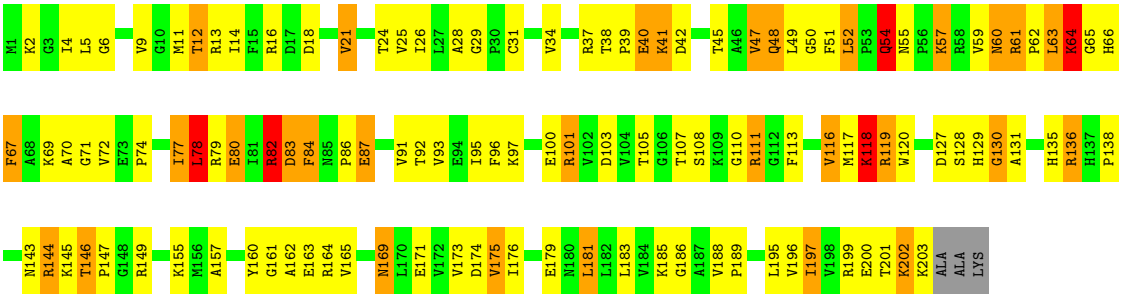
Chain 19:



- Molecule 30: 50S ribosomal protein L3

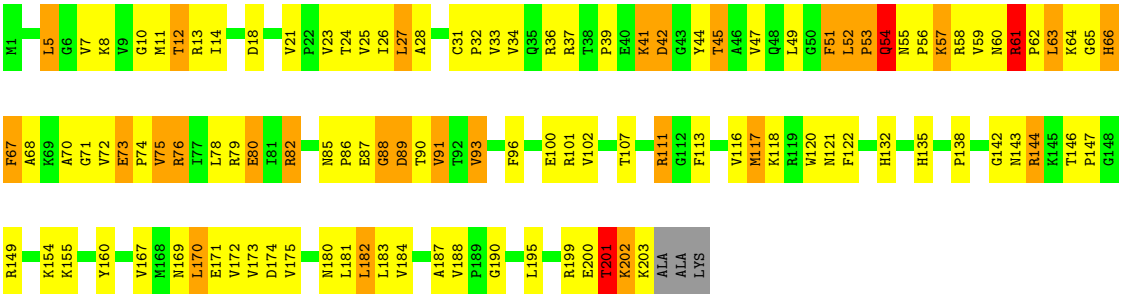
Chain 21:





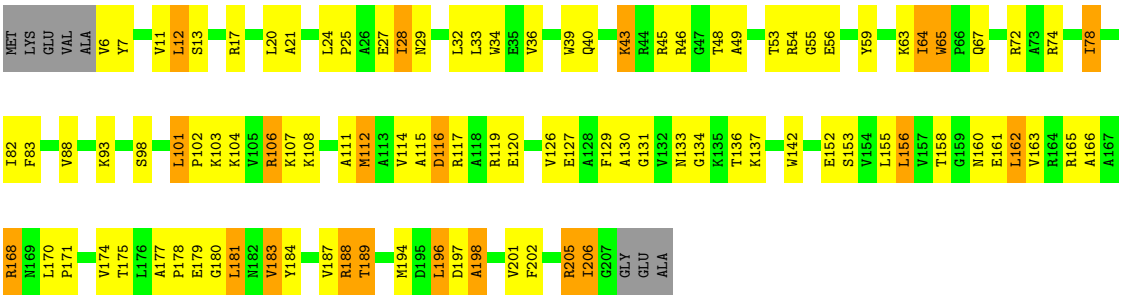
- Molecule 30: 50S ribosomal protein L3

Chain 29:



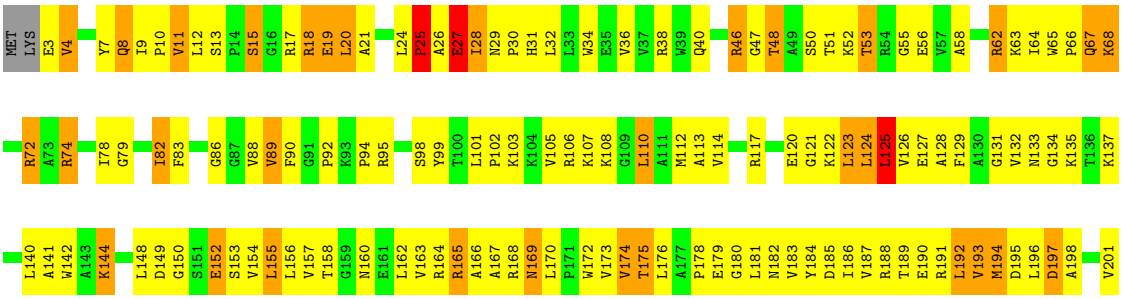
- Molecule 31: 50S ribosomal protein L4

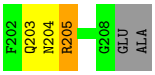
Chain 31:



- Molecule 31: 50S ribosomal protein L4

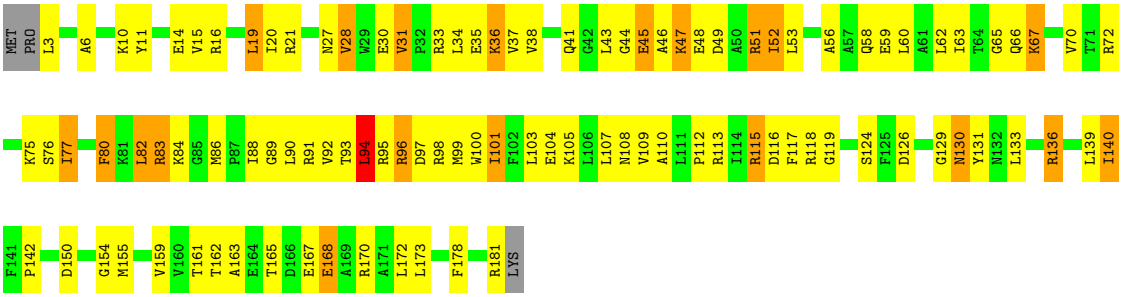
Chain 39:





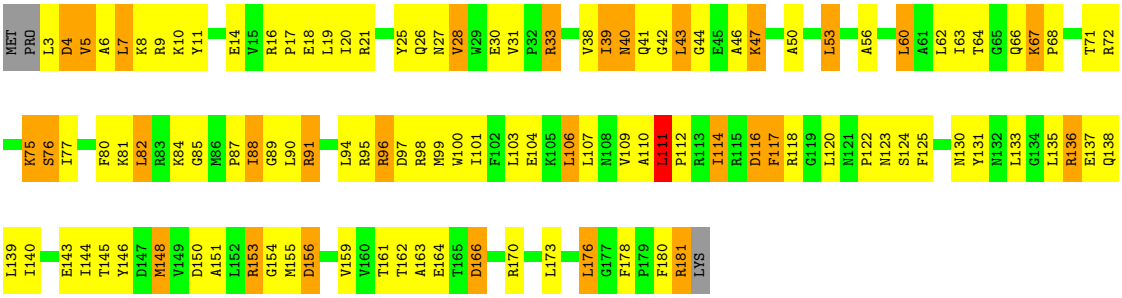
• Molecule 32: 50S ribosomal protein L5

Chain 41:



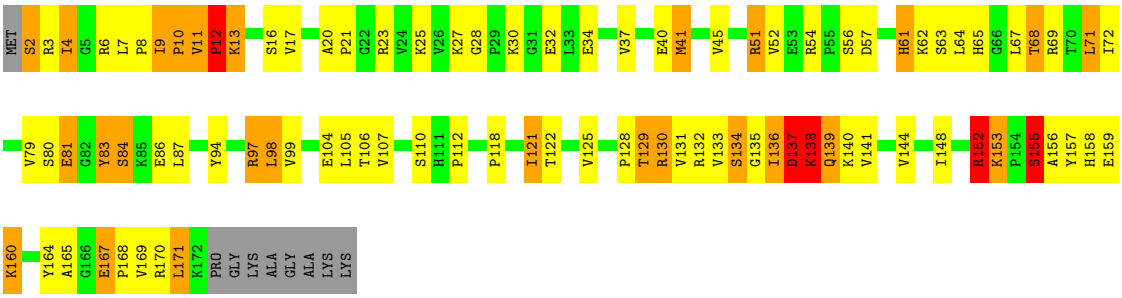
• Molecule 32: 50S ribosomal protein L5

Chain 49:



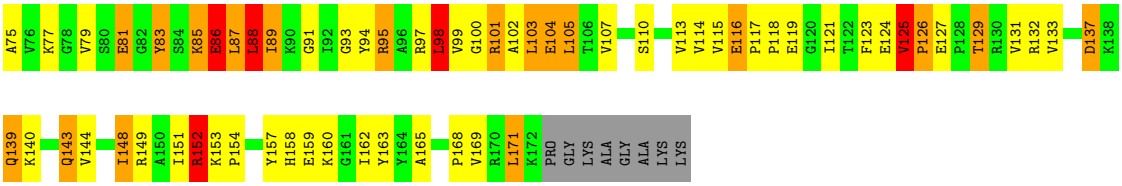
• Molecule 33: 50S ribosomal protein L6

Chain 51:



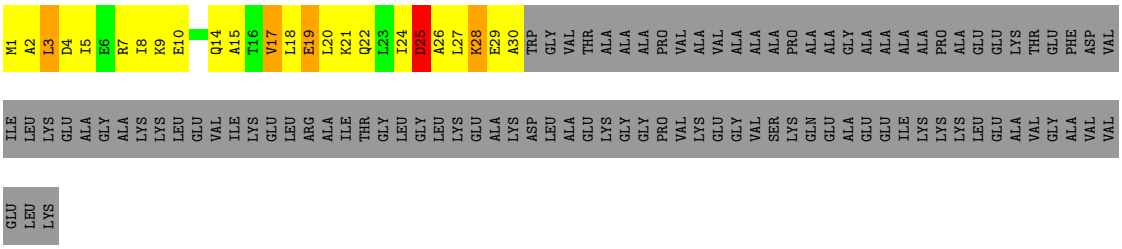
• Molecule 33: 50S ribosomal protein L6

Chain 59:



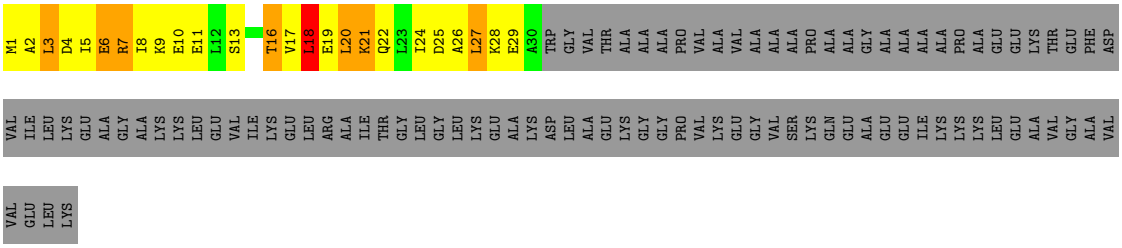
• Molecule 34: 50S ribosomal protein L7/L12

Chain 18:



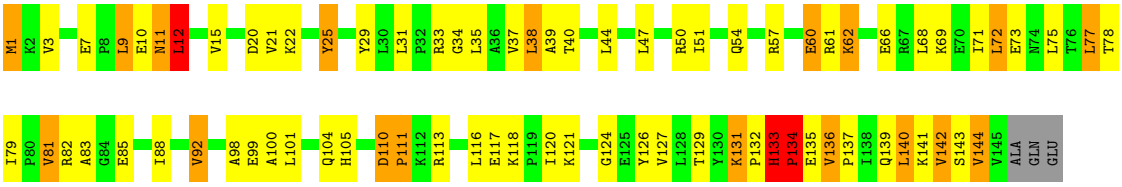
• Molecule 34: 50S ribosomal protein L7/L12

Chain 28:



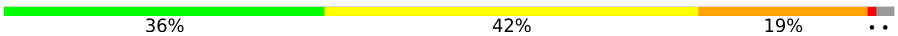
• Molecule 35: 50S ribosomal protein L9

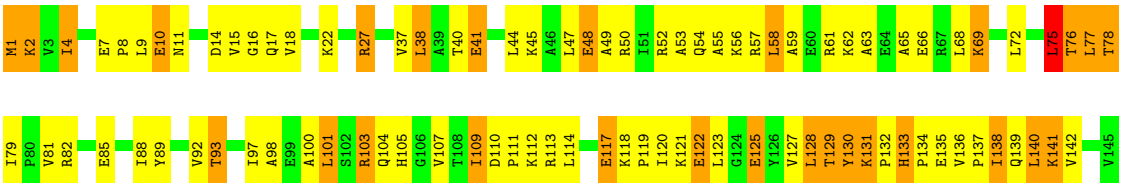
Chain 61:



• Molecule 35: 50S ribosomal protein L9

Chain 69:





ALA
GLN
GLU

- Molecule 36: 50S ribosomal protein L10

Chain 38: 18% 28% 21% 15% 17%

M1 P2 N3 K4 R5 N6 V7 E8 E9 L10 A11 T12 L13 K14 E15 N16 L17 E18 R19 A20 Q21 G22 S23 F24 F25 L26 V27 N28 Y29 Q30 G31 L32 P33 A34 K35 E36 T37 H38 A39 L40 R41 Q42 A43 L44 K45 Q46 N47 G48 A49 R50 L51 F52 V53 A54 K55 N56 T57 L58 I59 R60

L61 A62 L63 K64 E65 L66 G67 L68 P69 E70 L71 D72 G73 L74 V80 VAL PHE Y83 E84 D85 P86 V87 A88 A89 A90 K91 T92 L93 V94 Q95 F96 A97 K98 S99 N100 P101 K102 G103 I104 P105 Q106 V107 K108 S109 G110 L111 L112 L117 T118 A119 K120 D121 V122 L125 A126 E127 L128

P129 T130 M131 L134 E137 L138 V139 G140 V141 L142 Q143 A144 P145 MET ALA GLU LEU VAL GLY VAL LEU GLY GLY VAL ALA ARG GLU LEU VAL GLY ILE LEU GLU ALA TYR ALA GLU LYS LYS ALA ALA

- Molecule 37: 50S ribosomal protein L11

Chain 48: 29% 46% 20%

MET LYS LYS VAL VAL A6 K9 L10 Q11 L12 P13 A14 G15 K16 A17 A20 P21 P22 V23 G24 P25 A26 L27 G28 Q29 I34 F37 V38 N42 A46 N47 M48 G49 D50 A51 I52 V53 P54 V55 E56 I57 T58 I59 Y60 A61 D62 R63 S64 F65 T66 F67 V68 T69 K70

T71 P72 P73 A74 S75 Y76 L77 I78 R79 K80 A81 A82 G83 L84 E85 K86 H89 K90 P91 G92 K95 V96 G97 R98 I99 T100 W101 E102 L105 E106 I107 A108 K109 Q110 K111 M112 P113 D114 L115 N116 T117 T118 D119 L120 E121 A122 A123 A124 R125 M126 I127 A128 G129 S130 A131 R132 S133

V136 E137 V138 V139 E143 V144 K145 D146 A147

- Molecule 38: 50S ribosomal protein L13

Chain 58: 42% 42% 13%

M1 V5 P6 K7 Q8 V9 E10 P11 R12 W13 V14 L15 I16 T22 L23 G24 R25 L26 I30 A31 T32 L33 L34 R35 G36 K37 H38 R39 P40 D41 W42 T43 P44 N45 V46 A47 M48 G49 D50 V55 N56 A57 D58 K59 I60 R61 V62 T63 G64 K65 K66 L67 E68 Q69 K70 I71

Y72 Y78 P86 L87 E88 K89 M90 T93 H94 P95 E96 R97 V98 L99 E100 V103 M106 L107 P108 P111 L112 G113 R114 R115 K118 R119 L120 G125 P126 D127 H128 P129 H130 Q131 A132 Q133 R134 P135 E136 K137 LEU GLU VAL

- Molecule 38: 50S ribosomal protein L13

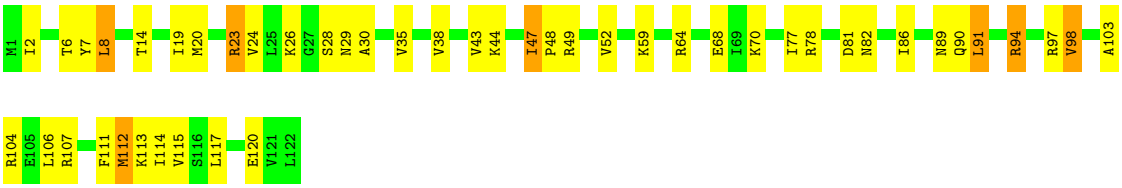
Chain 15: 51% 40% 6%

MET K2 T3 Y4 V5 P6 K7 Q8 V9 R12 W13 V14 L15 A18 E19 G20 K21 R25 T28 K29 I30 A31 T32 L33 L34 R35 G36 K37 H38 R39 P40 D41 W42 T43 A47 M48 G49 V52 V55 D58 K59 I60 R61 V62 K66 L67 E68 Q69 Y72

K84 I85 L91 A92 T93 H94 P95 E96 R97 V98 L99 E100 V103 M106 P111 L112 G113 R114 R115 L116 R119 A124 G125 P126 D127 H128 Q133 R134 P135 E136 K137 L138 GLU VAL

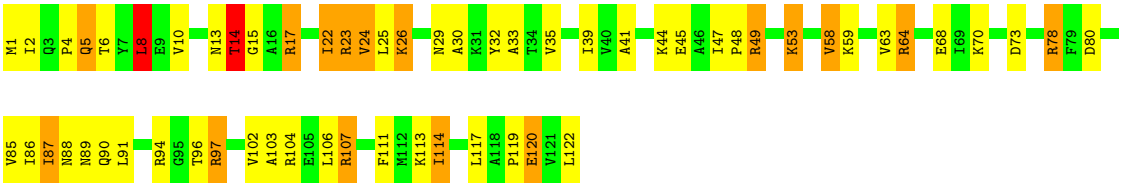
- Molecule 39: 50S ribosomal protein L14

Chain 68: 61% 33% 6%



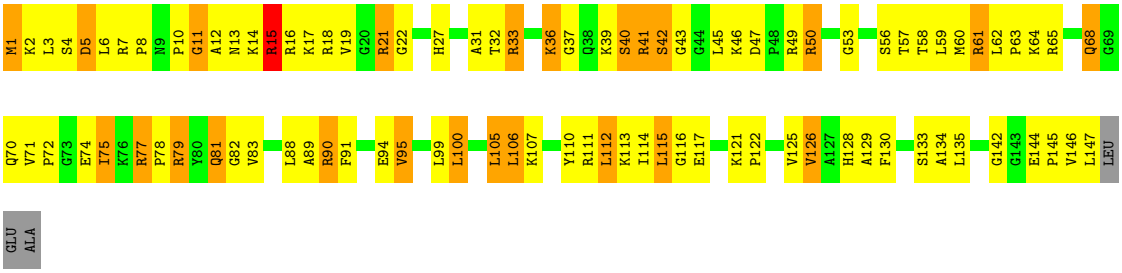
• Molecule 39: 50S ribosomal protein L14

Chain 25: 51% 34% 13%



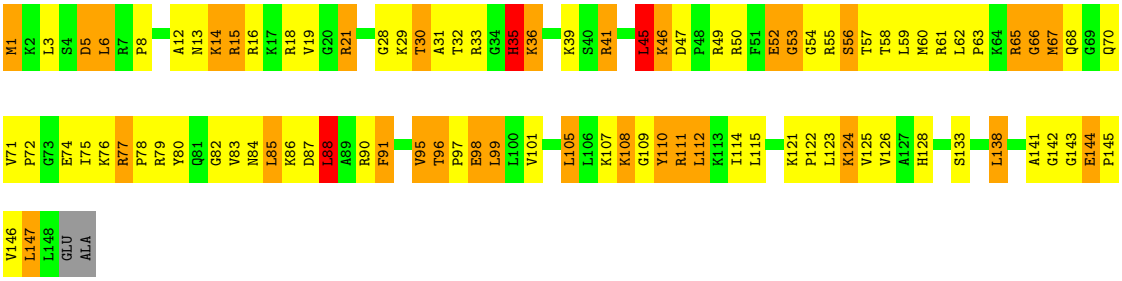
• Molecule 40: 50S ribosomal protein L15

Chain 78: 36% 45% 16%



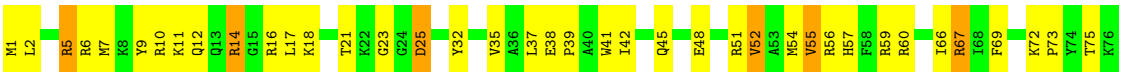
• Molecule 40: 50S ribosomal protein L15

Chain 35: 36% 39% 21%



• Molecule 41: 50S ribosomal protein L16

Chain 88: 50% 45% 6%



K77 P78 L79 E80 V81 R82 M83 G84 K85 G88 V94 A95 V96 V97 K98 P99 G100 R101 V102 M103 F104 E105 V106 V109 T110 Q113 A114 M115 E116 A117 L118 R119 K128 T129 K130 R134 D135 D138 E139 A140 Q141

- Molecule 41: 50S ribosomal protein L16

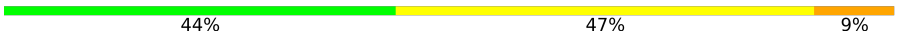
Chain 45:

MET L2 M3 P4 R5 R6 Y9 R10 K11 Q12 Q13 R14 G15 R16 L17 K18 G19 A20 T21 K22 G23 Y26 V27 A28 F29 G30 D31 Y32 G33 L34 V35 A36 L37 E38 W41 I42 T43 A44 Q45 Q46 R51 R56 H57 F58 R59 R60 K63 I64 F65 I66 R67 I68 F69 P70

T75 P78 L79 E80 V81 R82 M83 G84 K85 G86 K87 G88 N89 V90 E91 G92 Y93 V94 V97 K98 P99 G100 R101 V102 M103 F104 E105 V106 V109 T110 Q113 A117 L118 H123 K124 L125 K128 T129 K130 I131 V132 R133 R134 D135 A136 Y137 D138 E139 ALA GLN

- Molecule 42: 50S ribosomal protein L17

Chain 98:



M1 R2 H3 L4 K5 S6 K9 R12 H16 R17 L18 A19 L20 Y21 R22 N23 Q24 A25 K26 S27 L28 L29 G32 R33 I34 T35 T36 T37 V38 P39 K40 A41 K42 E43 L44 R45 V48 D49 H50 L51 I52 H53 L54 R57 G58 D59 L60 H61 A62 R63 R64 L65 V66 L67

R68 D69 L70 V76 R77 K78 L79 I83 Y87 R90 Q91 G92 G93 Y94 T95 R96 A101 R104 R105 G106 D107 L113 V114 E115 L116 V117 E118

- Molecule 42: 50S ribosomal protein L17

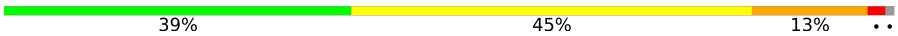
Chain 55:

M1 L4 K5 R8 L18 N23 Q24 S27 L28 L29 R33 I34 T35 T36 T37 V38 P39 K40 A41 K42 E43 L44 R45 G46 L51 I52 H53 R64 L65 V66 L67 R68 D69 L75 K78 L79 F80 D81 E82 I83 A84 P85 R86 Y87 R88 D89 R90 Q91 G92 G93

Y94 T95 R96 V97 L98 K99 E102 R103 R104 R105 P110 L111 A112 L113 V114 E115 L116 V117 E118

- Molecule 43: 50S ribosomal protein L18

Chain A8:

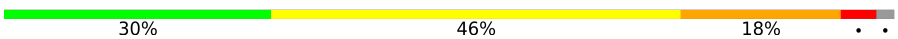


MET A2 R3 L4 T5 E8 R9 R10 K11 F12 R13 V14 R15 N16 R17 I18 T21 G22 R23 L24 R25 L26 S27 V28 F29 R30 S31 L32 I35 Y36 I39 I40 D41 D42 E43 L48 V49 S50 A51 L54 A55 L56 K57 L58 N61 K62 T63 E64 V65 A66 R67 Q68 V69

G70 R71 A72 L73 A74 L78 A79 L80 G81 I82 K83 Q84 V85 A86 F87 D88 R89 G90 P91 Y92 K93 Y94 H95 G96 R97 V98 L101 A102 R106 E107 G108 G109 I110 E111 F112

- Molecule 43: 50S ribosomal protein L18

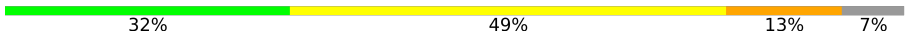
Chain 65:

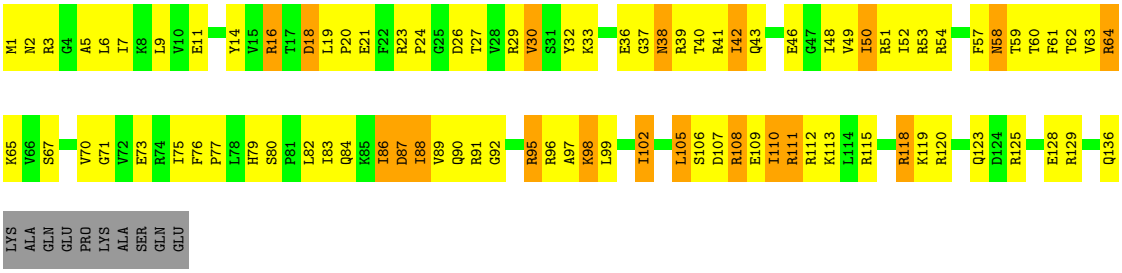


MET ALA R3 L4 T5 A6 Y7 E8 R9 R10 K11 F12 R13 V14 R15 N16 R17 T18 K19 R20 T21 G22 R23 L24 R25 L26 S27 V28 F29 R30 S31 L32 K33 H34 I35 Y36 A37 Q38 I39 I40 D41 D42 T47 L48 V49 S52 S53 L54 A55 L56 K59 G60 N61 K62 T63 E64 V65

- Molecule 44: 50S ribosomal protein L19

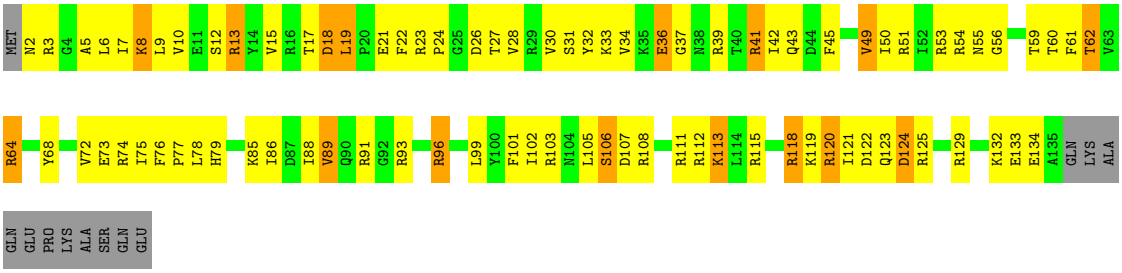
Chain B8:





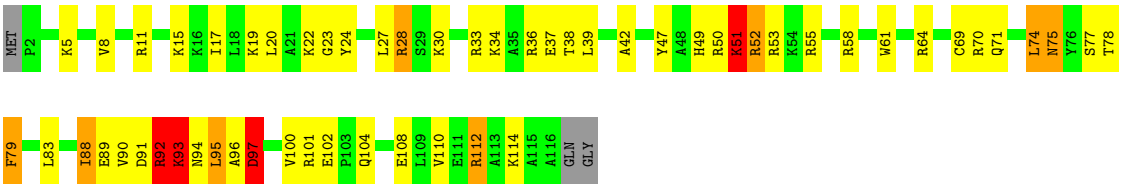
- Molecule 44: 50S ribosomal protein L19

Chain 75:



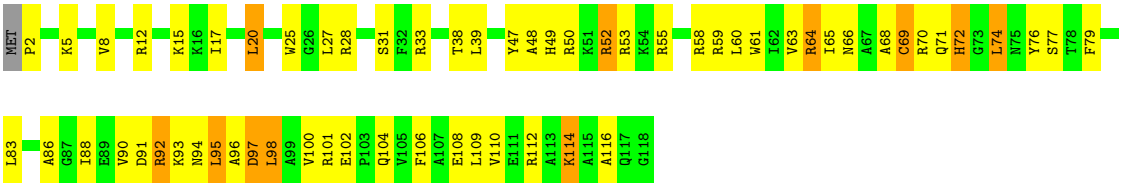
- Molecule 45: 50S ribosomal protein L20

Chain C8:



- Molecule 45: 50S ribosomal protein L20

Chain 85:



- Molecule 46: 50S ribosomal protein L21

Chain D8: 49% 34% 16%

M1 F2 K6 T7 G8 G9 K10 Q11 Y12 R13 V14 E15 P16 G17 L18 K19 L20 R21 K24 L25 G30 A31 T32 L35 P36 V37 L38 L39 L40 E43 K44 T45 V46 V47 G48 T49 P50 V51 V52 A55 S56 V57 V61 L62 G65 V72 K78 V79 R82

K85 Q89 P90 Y91 T92 E93 L94 L95 I96 I99 R100 G101

- Molecule 46: 50S ribosomal protein L21

Chain 95: 37% 49% 10%

M1 F2 A3 I4 V5 K6 T7 K10 Q11 Y12 R13 V14 L18 K19 L20 R21 V22 E23 A27 V33 E34 L35 P36 V37 L38 L39 L40 G41 G42 E43 K44 T45 V46 V47 G48 T49 P50 V51 V52 E53 G54 A55 S56 V57 V61 L62 G63 H64 G65 R66 G67 K68 K69 I70 L71

F75 K76 A77 K78 V79 Q80 Y81 R82 R83 K84 K85 R88 Q89 P90 Y91 T92 E93 L94 L95 I96 K97 E98 I99 R100 GLY

- Molecule 47: 50S ribosomal protein L22

Chain E8: 63% 29% 7%

M1 Y9 V10 R11 I12 S13 P14 R15 K16 V17 R18 L19 V20 L23 L29 I35 T39 R42 K49 V50 L51 V59 N60 M64 L65 E66 Y70 V71 K72 A73 V76 D77 E78 L82 L86 P87 R88 A89 R92 A93 D94 I95 I96 H102

V105 I106 L107 G108 E109 G112 LYS

- Molecule 47: 50S ribosomal protein L22

Chain A5: 49% 40% 10%

M1 K4 A5 I6 R11 I12 S13 P14 R15 K16 V17 R18 L23 S28 L29 E30 E31 A32 R33 T39 R42 G43 A44 Y45 F46 V47 A48 K49 V50 L51 E52 A58 V59 N60 N61 H62 D63 M64 L65 E66 D67 R68 L69 Y70 V71 K72 A73 V76 D77 E78 G79 P80

R84 V85 L86 P87 R88 A89 R90 D94 I95 I96 R99 T100 I103 I106 L107 G108 E109 K110 H111 GLY LYS

- Molecule 48: 50S ribosomal protein L23

Chain F8: 53% 34% 11%

M1 K2 T3 A4 Y5 I8 L9 A10 P11 V12 L13 S14 E15 K16 A17 Y18 A19 G20 E23 Y26 T27 F28 W29 V30 H31 A34 T35 K36 T37 E38 I39 K40 V43 E44 V49 K50 K53 V54 N55 T56 L57 R65 L66 G67 R68 Y69 L70 G71 K72 R76

I80 V81 Q82 V83 I89 L95 ILE

- Molecule 48: 50S ribosomal protein L23

Chain B5: 46% 45% 7% •

M1 Y5 I8 L9 V12 L13 S14 E15 K16 A17 Y18 A19 G20 F21 G24 K25 Y26 T27 F28 W29 V30 H31 P32 T35 K36 T37 E38 I39 K40 N41 A42 V43 E44 K48 V49 K50 V51 V52 K53 V54 N55 T56 L57 K63 R68 Y69 L70 G71 K72 D75 R76

K77 K78 A79 I80 V81 Q82 V83 Q87 K88 I89 G94 LEU ILE

• Molecule 49: 50S ribosomal protein L24

Chain G8: 43% 41% 10% • 5%

MET R2 V3 K4 M5 H6 V7 K8 K9 T12 V13 L14 K19 K28 E29 V30 L31 P32 K33 K34 V37 I38 V39 E40 G41 V42 N43 I44 V45 K46 V49 R50 V51 S52 P53 K54 Y55 P56 Q57 G58 G59 F60 I61 E62 K63 E64 L67 H68 K71 P74 I75 C76

P77 A78 P82 T83 R84 V85 R86 K87 K88 F89 L90 E91 I96 R97 V98 C99 A100 K101 L106 ASP THR GLU GLU

• Molecule 49: 50S ribosomal protein L24

Chain C5: 35% 40% 17% 5% •

MET R2 V3 K8 T12 V15 A16 S17 G18 K19 Y20 K21 G22 R23 V24 K28 E29 V30 L31 K34 Y35 A36 V37 I38 V39 E40 G41 V42 N43 K46 K47 A48 V49 R50 V51 S52 P53 K54 Y55 P56 Q57 G58 G59 F60 I61 E62 K63 E64 A65 P66 L67 H68 K71

V72 I75 C76 P77 A78 P82 T83 R84 V85 R86 F89 L90 E91 N92 I96 R97 V98 C99 A100 K101 C102 G103 G104 A105 L106 D107 THR GLU GLU

• Molecule 50: 50S ribosomal protein L25

Chain H8: 31% 35% 12% • 20%

MET E2 L5 K6 A7 Y8 Y9 R10 E11 G12 E13 K14 P15 S16 R19 M28 Y29 N34 R35 K36 V37 D40 L41 V42 E43 F44 D45 K46 V47 F48 R49 Q50 A51 S52 I53 H54 I57 V58 L59 E60 L61 P62 D63 G64 Q65 S66 L67 P68 T69 L70 V71 R72 L76

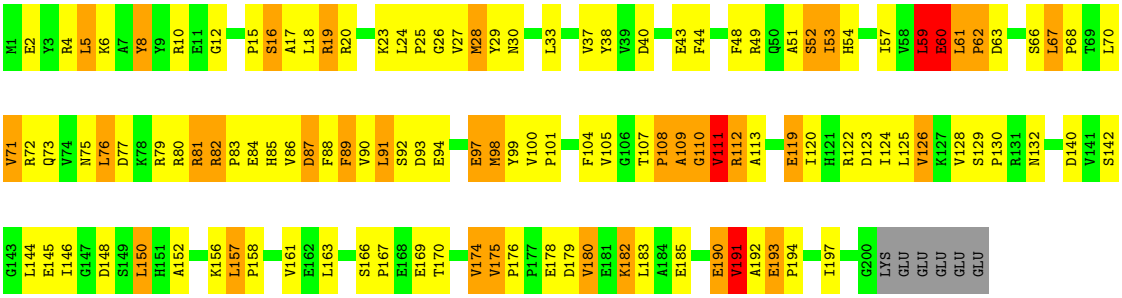
D77 K78 R79 R80 R81 R82 P83 E84 H85 V86 D87 V90 L91 S92 D93 E94 P95 V96 E97 M98 P101 L102 R103 F104 V105 P108 A109 G110 V111 R112 A113 G114 G115 V116 L117 Q118 E119 I120 H121 R122 D123 I124 L125 V126 K127 V128 S129 P130 R131 N132 V139 D140 V141 S142 G143 L144

GLU ILE GLY ASP SER L150 H151 A152 S153 D154 L155 K156 L157 P158 V161 E162 L163 A164 V165 S166 P167 E168 E169 T170 I171 ALA ALA VAL VAL PRO PRO GLU ASP VAL GLU LYS LEU ALA GLU GLU ALA ALA ALA GLU VAL ALA GLU PRO GLU VAL ILE LYS LYS GLY LYS GLU GLU GLU

GLU

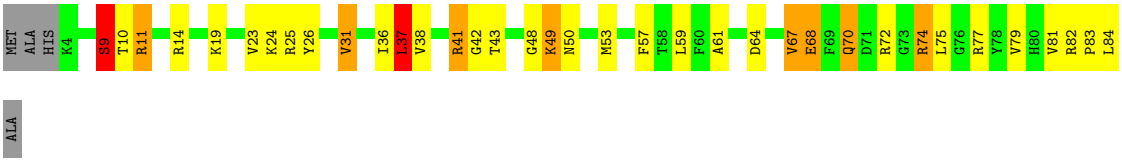
• Molecule 50: 50S ribosomal protein L25

Chain D5: 38% 41% 16% • •



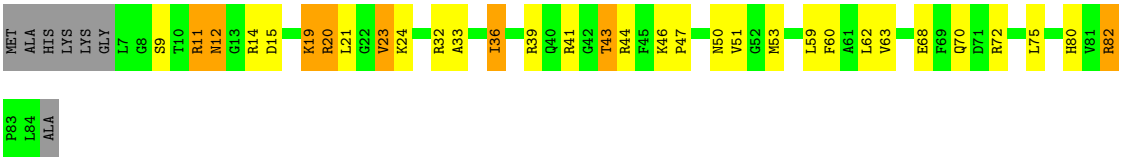
- Molecule 51: 50S ribosomal protein L27

Chain I8:



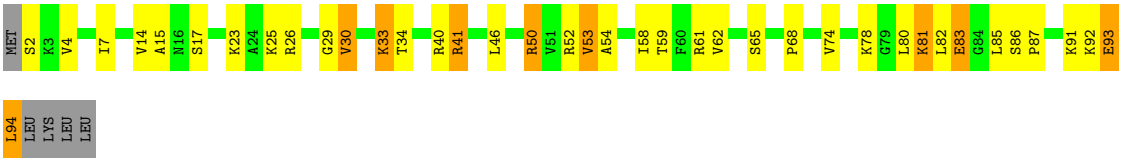
- Molecule 51: 50S ribosomal protein L27

Chain E5:



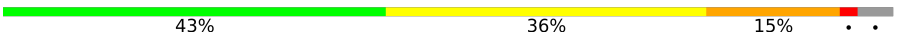
- Molecule 52: 50S ribosomal protein L28

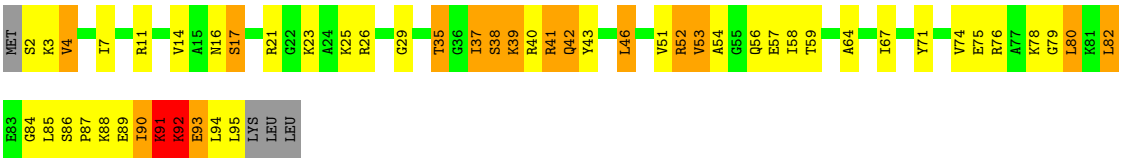
Chain J8:



- Molecule 52: 50S ribosomal protein L28

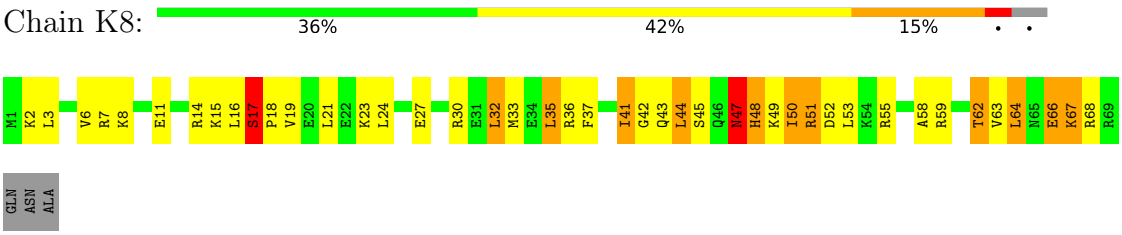
Chain F5:





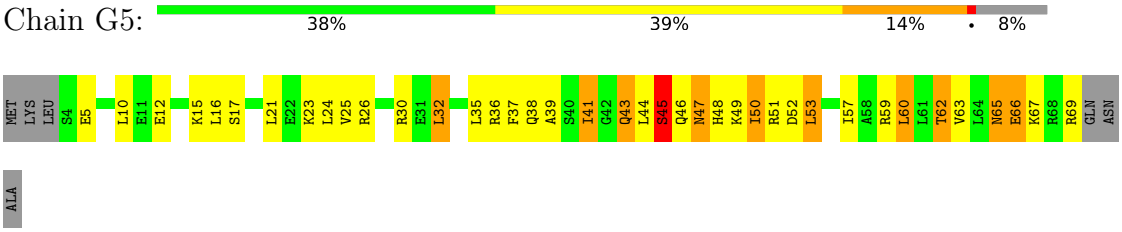
- Molecule 53: 50S ribosomal protein L29

Chain K8:



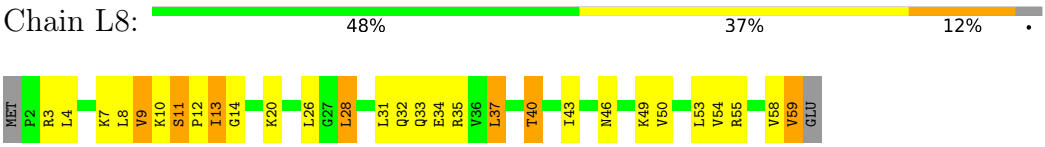
• Molecule 53: 50S ribosomal protein L29

Chain G5:



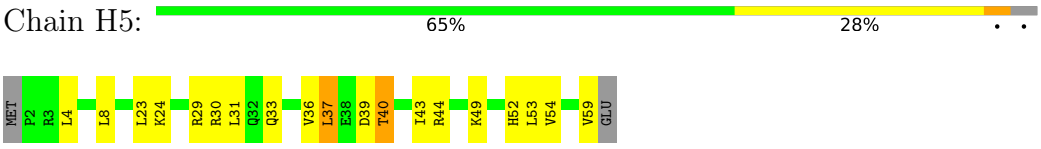
• Molecule 54: 50S ribosomal protein L30

Chain L8:



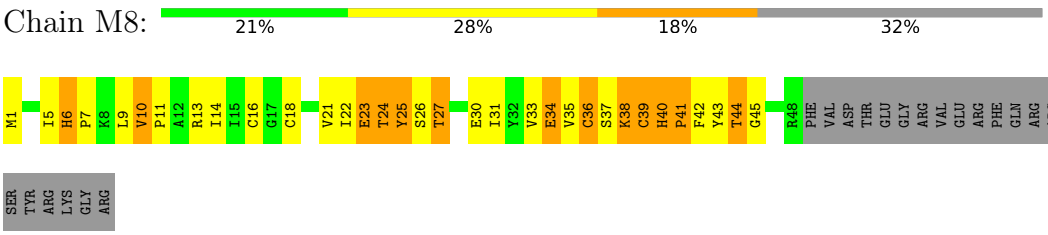
• Molecule 54: 50S ribosomal protein L30

Chain H5:



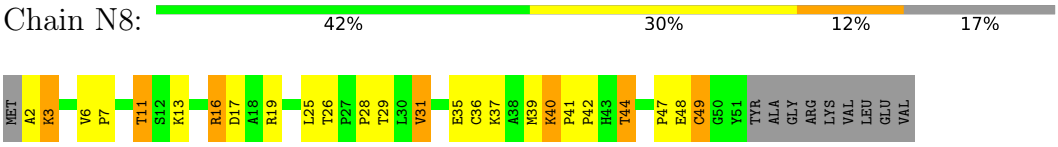
• Molecule 55: 50S ribosomal protein L31

Chain M8:



• Molecule 56: 50S ribosomal protein L32

Chain N8:



• Molecule 56: 50S ribosomal protein L32

Chain J5: 47% 37% 10% 7%

MET A2 K3 V6 P7 K8 K9 K10 K13 R16 D17 R20 H23 A24 L25 T26 T29 L30 V31 P32 C33 P34 E35 C36 K40 P41 P42 H43 T44 V45 C46 P47 E48 Y51 Y52 A53 G54 R55 K56 V57 LEU GLU VAL

- Molecule 57: 50S ribosomal protein L33

Chain O8: 13% 50% 19% • 17%

MET ALA SER GLU VAL ARG ILE LYS L9 L10 L11 E12 C13 T14 E15 C16 K17 R18 R19 N20 Y21 A22 T23 E24 K25 N26 K27 R28 N29 T30 P31 N32 K33 L34 E35 L36 R37 K38 Y39 C40 P41 W42 C43 R44 K45 H46 T47 V48 H49 R50 E51 V52 K53 ILE

- Molecule 58: 50S ribosomal protein L34

Chain P8: 49% 43% • •

M1 W5 Q6 P7 N8 R9 R10 K11 R12 T15 H16 G17 F18 M22 R23 T24 P25 G26 G27 V30 L31 K32 R33 R34 R39 W40 T43 P44 R47 LYS ARG

- Molecule 58: 50S ribosomal protein L34

Chain L5: 49% 43% • •

M1 K2 R3 T4 N8 R9 R10 K11 R12 A13 K14 T15 H16 R19 G26 K29 V30 L31 K32 R33 R34 R39 W40 R41 L42 T43 P44 R47 LYS ARG

- Molecule 59: 50S ribosomal protein L35

Chain Q8: 49% 35% 11% • •

MET P2 K3 M4 K5 T6 H7 K8 G9 A10 K11 K12 R13 V14 K15 I16 S19 V23 K29 R30 H31 L32 N33 W34 Q35 K36 S37 E40 I41 R46 K47 K52 P53 E54 I58 K59 L60 L61 L62 P63 Y64 E65

- Molecule 59: 50S ribosomal protein L35

Chain M5: 38% 43% 12% 5% •

MET P2 K3 M4 K5 T6 H7 K8 G9 A10 K11 K12 R13 V14 A18 V22 V23 A24 M25 K29 R30 H31 L32 N33 W34 Q35 K36 S37 G38 K39 E40 Q43 R46 K47 F48 V49 L50 A51 K52 P53 E54 A55 E56 R57 I58 K59 L60 L61 L62 E65

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.05Å 449.39Å 618.66Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.44 – 3.16 153.44 – 3.16	Depositor EDS
% Data completeness (in resolution range)	100.0 (153.44-3.16) 88.4 (153.44-3.16)	Depositor EDS
R_{merge}	0.38	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.57 (at 3.13Å)	Xtriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	(Not available) , (Not available) 0.196 , 0.240	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å^2)	90.7	Xtriage
Anisotropy	0.246	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.22 , 55.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	306138	wwPDB-VP
Average B, all atoms (Å^2)	112.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.45% 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: SF4, RSP, PSU, 5MU, OMC, 4SU, ZN, 7MG, 2MA, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| >5$	RMSZ	$\#\|Z\| >5$
1	13	0.81	8/36375 (0.0%)	1.50	549/56770 (1.0%)
1	1G	0.71	1/36309 (0.0%)	1.36	301/56668 (0.5%)
2	12	0.49	0/1959	0.70	4/2642 (0.2%)
2	1E	0.46	0/1908	0.65	1/2573 (0.0%)
3	22	0.43	0/1556	0.63	1/2098 (0.0%)
3	2E	0.50	0/1629	0.66	0/2195
4	32	0.48	0/1732	0.67	1/2318 (0.0%)
4	3E	0.50	0/1720	0.68	0/2305
5	42	0.49	0/1171	0.66	1/1576 (0.1%)
5	4E	0.50	0/1158	0.67	0/1559
6	52	0.52	0/855	0.65	1/1154 (0.1%)
6	5E	0.55	0/855	0.67	0/1154
7	62	0.48	0/1122	0.65	2/1500 (0.1%)
7	6E	0.44	0/1259	0.59	0/1686
8	72	0.40	0/1135	0.61	0/1527
8	7E	0.47	0/1135	0.66	0/1527
9	82	0.39	0/1002	0.58	0/1346
9	8E	0.44	0/1019	0.65	0/1367
10	1A	0.44	0/814	0.71	1/1095 (0.1%)
10	1I	0.52	0/814	0.71	0/1095
11	2A	0.45	0/850	0.60	0/1150
11	2I	0.52	0/838	0.67	0/1133
12	3A	0.50	0/963	0.73	0/1290
12	3I	0.59	0/972	0.80	0/1301
13	4A	0.42	0/897	0.69	1/1204 (0.1%)
13	4I	0.48	0/946	0.66	0/1270
14	5A	0.47	0/475	0.75	0/632
14	5I	0.56	0/508	0.74	0/674
15	6A	0.44	0/740	0.61	0/987
15	6I	0.49	0/740	0.62	0/987
16	7A	0.45	0/721	0.64	0/970
16	7I	0.46	0/716	0.67	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.51	0/836	0.64	0/1117
17	8I	0.58	1/847 (0.1%)	0.67	0/1131
18	9A	0.53	0/549	0.77	0/732
18	9I	0.51	0/549	0.75	0/732
19	AA	0.44	0/490	0.70	0/662
19	AI	0.54	0/657	0.82	0/885
20	BA	0.46	0/759	0.67	0/1000
20	BI	0.44	0/753	0.67	0/993
21	1B	0.38	0/212	0.66	0/277
21	1F	0.48	0/212	0.71	0/277
22	1K	0.78	3/1578 (0.2%)	1.35	12/2445 (0.5%)
22	1L	0.81	3/1623 (0.2%)	1.27	16/2517 (0.6%)
23	2K	0.90	1/1721 (0.1%)	1.64	42/2682 (1.6%)
23	2L	0.75	1/1721 (0.1%)	1.38	22/2682 (0.8%)
24	3K	0.82	0/1741	1.38	22/2703 (0.8%)
24	3L	0.84	0/1764	1.44	26/2741 (0.9%)
25	4K	0.92	0/521	1.37	1/812 (0.1%)
25	4L	0.79	1/420 (0.2%)	1.34	2/652 (0.3%)
26	14	0.94	72/69830 (0.1%)	1.65	1642/109010 (1.5%)
26	1H	1.08	153/69835 (0.2%)	1.82	2345/109020 (2.2%)
27	16	0.82	0/2928	1.65	67/4568 (1.5%)
27	1J	0.78	2/2928 (0.1%)	1.52	50/4568 (1.1%)
28	71	0.38	0/1066	0.59	0/1439
28	79	0.34	0/1031	0.58	1/1394 (0.1%)
29	11	0.76	3/2170 (0.1%)	0.94	6/2926 (0.2%)
29	19	0.65	1/2170 (0.0%)	0.87	4/2926 (0.1%)
30	21	0.62	0/1591	0.82	1/2146 (0.0%)
30	29	0.57	0/1591	0.79	0/2146
31	31	0.67	1/1620 (0.1%)	0.80	1/2194 (0.0%)
31	39	0.56	0/1645	0.78	1/2228 (0.0%)
32	41	0.53	1/1481 (0.1%)	0.74	2/1994 (0.1%)
32	49	0.44	0/1481	0.66	1/1994 (0.1%)
33	51	0.57	0/1337	0.87	2/1809 (0.1%)
33	59	0.45	0/1337	0.79	5/1809 (0.3%)
34	18	0.53	0/236	0.81	0/315
34	28	0.51	0/236	0.86	1/315 (0.3%)
35	61	0.48	0/1146	0.74	1/1551 (0.1%)
35	69	0.49	0/1146	0.73	1/1551 (0.1%)
36	38	0.62	1/1104 (0.1%)
37	48	0.42	0/1067	0.82	1/1448 (0.1%)
38	15	0.43	0/1123	0.64	0/1515
38	58	0.54	0/1123	0.74	1/1514 (0.1%)
39	25	0.58	0/942	0.78	2/1269 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	68	0.60	0/942	0.76	0/1269
40	35	0.60	0/1147	0.96	3/1525 (0.2%)
40	78	0.61	0/1139	0.95	2/1514 (0.1%)
41	45	0.59	0/1120	0.85	2/1498 (0.1%)
41	88	0.67	0/1134	0.83	0/1519
42	55	0.55	0/981	0.80	0/1312
42	98	0.54	0/981	0.78	0/1312
43	65	0.51	0/886	0.77	1/1180 (0.1%)
43	A8	0.57	0/891	0.90	3/1187 (0.3%)
44	75	0.68	1/1129 (0.1%)	0.71	0/1509
44	B8	0.58	0/1146	0.76	1/1531 (0.1%)
45	85	0.54	0/981	0.75	1/1306 (0.1%)
45	C8	0.64	0/968	0.87	4/1289 (0.3%)
46	95	0.55	0/785	0.78	0/1052
46	D8	0.66	0/789	0.86	5/1057 (0.5%)
47	A5	0.57	0/897	0.75	0/1204
47	E8	0.63	0/901	0.78	1/1209 (0.1%)
48	B5	0.63	0/752	0.74	0/1010
48	F8	0.67	0/757	0.79	0/1017
49	C5	0.53	0/798	0.83	2/1071 (0.2%)
49	G8	0.68	1/797 (0.1%)	0.79	1/1068 (0.1%)
50	D5	0.47	0/1615	0.77	2/2191 (0.1%)
50	H8	0.47	0/1359	0.78	2/1841 (0.1%)
51	E5	0.52	0/624	0.71	0/832
51	I8	0.74	2/638 (0.3%)	0.89	1/851 (0.1%)
52	F5	0.59	0/744	0.79	1/989 (0.1%)
52	J8	0.62	0/736	0.82	0/978
53	G5	0.61	0/560	0.71	0/741
53	K8	0.63	0/578	0.85	1/766 (0.1%)
54	H5	0.52	0/464	0.66	0/623
54	L8	0.58	0/464	0.72	0/623
55	M8	0.53	0/380	0.81	0/514
56	J5	0.61	0/448	0.74	0/606
56	N8	0.68	0/399	0.78	0/541
57	O8	0.69	0/396	1.08	3/529 (0.6%)
58	L5	0.65	0/417	0.84	1/550 (0.2%)
58	P8	0.73	0/409	0.95	2/540 (0.4%)
59	M5	0.83	3/524 (0.6%)	0.93	1/691 (0.1%)
59	Q8	0.67	0/524	0.91	2/691 (0.3%)
All	All	0.83	260/325210 (0.1%)	1.45	5199/486635 (1.1%)

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	3
2	1E	0	5
3	22	0	1
3	2E	0	1
4	32	0	4
4	3E	0	1
5	4E	0	1
9	8E	0	1
10	1I	0	1
12	3A	0	2
12	3I	0	3
13	4A	0	4
14	5I	0	1
18	9I	0	2
19	AA	0	2
19	AI	0	4
20	BA	0	4
20	BI	0	2
29	11	0	7
29	19	0	6
30	21	0	6
30	29	0	7
31	31	0	2
31	39	0	5
32	41	0	2
32	49	0	3
33	51	0	5
33	59	0	5
34	18	0	2
34	28	0	2
35	61	0	3
35	69	0	1
36	38	0	21
37	48	0	11
38	15	0	2
38	58	0	1
40	35	0	7
40	78	0	4
41	45	0	9
43	A8	0	1
44	75	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
45	85	0	2
45	C8	0	4
46	95	0	4
46	D8	0	2
48	F8	0	1
49	C5	0	8
49	G8	0	3
50	D5	0	10
50	H8	0	2
52	F5	0	2
52	J8	0	1
53	G5	0	3
53	K8	0	1
55	M8	0	3
57	O8	0	2
59	M5	0	4
59	Q8	0	1
All	All	0	208

All (260) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	783	A	N9-C4	-12.97	1.30	1.37
26	1H	774	A	N9-C4	-12.58	1.30	1.37
44	75	106	SER	CA-CB	11.37	1.70	1.52
29	11	239	ARG	C-N	-10.85	1.09	1.34
26	1H	2476	A	N9-C4	9.90	1.43	1.37
26	1H	783	A	N3-C4	-9.78	1.28	1.34
26	1H	1786	A	N9-C4	-9.55	1.32	1.37
26	1H	2346	A	N3-C4	-9.50	1.29	1.34
26	1H	1332	G	N9-C4	-9.31	1.30	1.38
26	14	783	A	N7-C5	-9.20	1.33	1.39
26	14	783	A	C5-C6	-9.15	1.32	1.41
26	14	945	A	C5-C6	-9.05	1.32	1.41
26	14	2169	A	N9-C4	9.04	1.43	1.37
26	1H	676	A	N9-C4	-8.92	1.32	1.37
26	1H	676	A	N9-C8	8.89	1.44	1.37
26	14	774	A	N9-C4	-8.80	1.32	1.37
26	14	783	A	N3-C4	-8.76	1.29	1.34
26	14	74	A	N9-C4	-8.71	1.32	1.37
1	13	792	A	C5-C6	-8.60	1.33	1.41
26	1H	1142(A)	A	N9-C4	-8.56	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	783	A	N9-C4	-8.55	1.32	1.37
26	1H	2430	A	N9-C4	-8.51	1.32	1.37
26	1H	2032	G	N7-C5	-8.41	1.34	1.39
26	14	2346	A	N3-C4	-8.35	1.29	1.34
26	1H	2287	A	N9-C4	-8.29	1.32	1.37
26	1H	472	A	N3-C4	-8.15	1.29	1.34
26	1H	2448	A	N9-C4	-8.09	1.32	1.37
59	M5	34	TRP	CB-CG	7.85	1.64	1.50
26	1H	71	A	C5-C6	-7.72	1.34	1.41
27	1J	89(A)	A	N9-C4	7.63	1.42	1.37
22	1K	35	I	C5-C6	7.63	1.54	1.39
26	1H	783	A	N7-C5	-7.63	1.34	1.39
26	1H	71	A	N9-C4	-7.63	1.33	1.37
26	14	1950	G	C2-N3	7.60	1.38	1.32
26	1H	138	G	N9-C8	7.60	1.43	1.37
26	1H	2624	G	C8-N7	7.42	1.35	1.30
26	1H	676	A	C5-C4	7.36	1.44	1.38
26	14	2062	A	N7-C5	7.36	1.43	1.39
26	1H	2346	A	N9-C4	-7.34	1.33	1.37
26	1H	821	A	N7-C5	-7.31	1.34	1.39
1	13	1227	A	N9-C4	-7.31	1.33	1.37
26	14	1612	C	N1-C6	-7.28	1.32	1.37
26	14	2346	A	N9-C4	-7.26	1.33	1.37
26	1H	1786	A	N3-C4	-7.24	1.30	1.34
26	1H	783	A	C5-C6	-7.23	1.34	1.41
26	1H	1899	G	N9-C4	-7.17	1.32	1.38
26	14	74	A	N3-C4	-7.17	1.30	1.34
26	1H	140	A	C5-C6	-7.16	1.34	1.41
22	1L	35	I	N3-C4	7.08	1.50	1.35
26	14	1785	A	N7-C5	-7.00	1.35	1.39
26	1H	567	A	C5-C6	-6.97	1.34	1.41
26	1H	1614	A	N9-C4	-6.92	1.33	1.37
26	1H	1698	A	N3-C4	-6.89	1.30	1.34
26	1H	2448	A	N3-C4	-6.86	1.30	1.34
26	1H	2392	A	C5-C4	6.86	1.43	1.38
26	14	2287	A	N9-C4	-6.84	1.33	1.37
26	1H	828	U	N3-C4	-6.78	1.32	1.38
22	1L	35	I	C5-C6	6.77	1.52	1.39
26	1H	1698	A	N9-C4	-6.76	1.33	1.37
26	1H	829	A	N9-C4	-6.72	1.33	1.37
26	14	676	A	N9-C8	6.70	1.43	1.37
26	1H	621	A	N9-C4	-6.66	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2713	A	C5-C4	6.65	1.43	1.38
26	1H	1616	A	C5-C6	-6.61	1.35	1.41
29	11	30	GLU	CG-CD	6.56	1.61	1.51
26	1H	1678	G	N9-C4	-6.54	1.32	1.38
26	1H	2062	A	N7-C5	6.54	1.43	1.39
26	14	2433	A	N7-C5	-6.51	1.35	1.39
26	1H	945	A	N7-C5	-6.49	1.35	1.39
26	1H	71	A	C6-N6	-6.48	1.28	1.33
22	1K	35	I	N3-C4	6.47	1.48	1.35
26	14	90	U	N1-C2	6.47	1.44	1.38
26	1H	472	A	N9-C4	-6.43	1.33	1.37
26	14	945	A	N9-C4	-6.38	1.34	1.37
26	1H	1683	C	N3-C4	-6.38	1.29	1.33
26	1H	766	C	N1-C6	-6.37	1.33	1.37
31	31	65	TRP	CB-CG	-6.37	1.38	1.50
32	41	140	ILE	C-N	-6.36	1.19	1.34
26	14	1142(A)	A	N9-C4	-6.35	1.34	1.37
26	1H	1378	A	N9-C4	-6.34	1.34	1.37
26	1H	587	C	N1-C6	-6.34	1.33	1.37
26	1H	2392	A	N9-C8	6.34	1.42	1.37
26	1H	330	A	N9-C4	-6.33	1.34	1.37
26	14	1786	A	N9-C4	-6.30	1.34	1.37
26	1H	122	G	N9-C4	-6.29	1.32	1.38
26	1H	1365	A	N3-C4	-6.27	1.31	1.34
26	1H	1786	A	N7-C5	-6.25	1.35	1.39
1	13	1502	A	C5-C6	-6.19	1.35	1.41
26	1H	197	A	N3-C4	-6.18	1.31	1.34
26	14	1308	A	C6-N1	-6.17	1.31	1.35
26	1H	2377	A	N9-C4	-6.15	1.34	1.37
26	14	1698	A	N9-C4	-6.14	1.34	1.37
26	1H	2624	G	N7-C5	6.11	1.43	1.39
23	2L	77	A	N9-C4	-6.09	1.34	1.37
1	13	792	A	N9-C4	-6.08	1.34	1.37
26	1H	1202	C	N1-C6	-6.08	1.33	1.37
26	1H	2082	A	N3-C4	-6.08	1.31	1.34
26	14	945	A	N7-C5	-6.06	1.35	1.39
26	1H	1616	A	N7-C5	-6.05	1.35	1.39
26	1H	449	A	C5-C6	-6.04	1.35	1.41
26	1H	528	A	N9-C4	-6.04	1.34	1.37
26	1H	1899	G	N3-C4	-6.04	1.31	1.35
26	14	2518	A	N9-C4	-6.04	1.34	1.37
26	1H	774	A	C5-C6	-6.03	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	805	G	N7-C5	-6.02	1.35	1.39
26	1H	1786	A	C5-C6	-6.02	1.35	1.41
26	1H	2254	C	N1-C2	-6.02	1.34	1.40
26	1H	2058	A	N3-C4	-6.00	1.31	1.34
26	1H	2608	G	C2-N3	-5.98	1.27	1.32
26	14	1142(A)	A	N3-C4	-5.96	1.31	1.34
23	2K	77	A	N9-C4	-5.95	1.34	1.37
26	1H	793	A	N7-C5	-5.93	1.35	1.39
26	1H	775	G	N9-C8	-5.92	1.33	1.37
26	1H	1698	A	C5-C6	-5.92	1.35	1.41
26	1H	2430	A	N7-C5	-5.91	1.35	1.39
26	1H	74	A	N9-C4	-5.91	1.34	1.37
26	14	1678	G	N9-C4	-5.91	1.33	1.38
26	1H	265	A	N9-C4	-5.90	1.34	1.37
26	1H	1950	G	C2-N3	5.87	1.37	1.32
26	14	675	A	N9-C4	-5.87	1.34	1.37
29	11	258	LYS	CD-CE	5.86	1.65	1.51
26	1H	777	A	N3-C4	-5.82	1.31	1.34
26	14	396	G	N7-C5	-5.81	1.35	1.39
26	1H	330	A	C5-C6	-5.77	1.35	1.41
26	1H	2070	G	N9-C8	-5.76	1.33	1.37
26	14	1678	G	N3-C4	-5.75	1.31	1.35
26	14	1780	A	N3-C4	-5.74	1.31	1.34
26	1H	1931	U	N3-C4	-5.74	1.33	1.38
1	13	810	C	N1-C6	-5.73	1.33	1.37
26	1H	787	U	C2-O2	-5.73	1.17	1.22
26	14	2441	C	N3-C4	-5.72	1.29	1.33
26	1H	204	A	N3-C4	-5.71	1.31	1.34
26	1H	1689	A	N9-C4	-5.71	1.34	1.37
51	I8	68	GLU	CG-CD	5.67	1.60	1.51
26	1H	57	C	N3-C4	-5.66	1.29	1.33
26	1H	2490	G	N9-C8	5.66	1.41	1.37
26	14	1616	A	C5-C6	-5.65	1.35	1.41
26	14	2430	A	N9-C4	-5.63	1.34	1.37
26	1H	795	C	N1-C6	-5.62	1.33	1.37
26	14	1021	A	N9-C4	-5.60	1.34	1.37
26	14	2440	C	N1-C6	-5.60	1.33	1.37
26	1H	181	A	C6-N1	-5.58	1.31	1.35
26	1H	2593	U	C2-N3	-5.57	1.33	1.37
26	14	821	A	N7-C5	-5.57	1.35	1.39
25	4L	15	A	N9-C4	5.56	1.41	1.37
26	14	784	A	N7-C5	-5.56	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2503	A	C5-C6	-5.55	1.36	1.41
26	14	2518	A	C5-C6	-5.55	1.36	1.41
26	14	2510	C	N1-C6	-5.54	1.33	1.37
26	14	2589	A	N9-C4	-5.54	1.34	1.37
26	1H	122	G	N7-C5	-5.53	1.35	1.39
26	14	774	A	C5-C6	-5.53	1.36	1.41
26	1H	472	A	C5-C4	-5.52	1.34	1.38
26	1H	1313	U	C4-C5	-5.51	1.38	1.43
26	1H	2490	G	N9-C4	-5.50	1.33	1.38
17	8I	24	GLU	CG-CD	5.49	1.60	1.51
26	1H	939	G	N3-C4	-5.48	1.31	1.35
26	1H	945	A	C5-C6	-5.47	1.36	1.41
26	1H	777	A	N9-C4	-5.47	1.34	1.37
26	1H	1142(A)	A	N3-C4	-5.46	1.31	1.34
26	1H	2067	G	N3-C4	-5.44	1.31	1.35
1	13	84	U	N1-C2	5.44	1.43	1.38
26	1H	415	A	N7-C5	-5.44	1.35	1.39
26	1H	2561	A	N9-C4	-5.44	1.34	1.37
26	1H	1365	A	N9-C4	-5.43	1.34	1.37
26	14	1633	G	N7-C5	-5.42	1.35	1.39
26	1H	2288	A	N3-C4	5.42	1.38	1.34
26	1H	774	A	N3-C4	-5.42	1.31	1.34
26	1H	225	A	N9-C4	-5.42	1.34	1.37
26	14	1786	A	C5-C6	-5.42	1.36	1.41
26	1H	2032	G	C5-C6	-5.41	1.36	1.42
26	1H	1496	A	N7-C5	-5.41	1.36	1.39
26	1H	2032	G	C6-N1	-5.41	1.35	1.39
29	19	30	GLU	CG-CD	5.40	1.60	1.51
26	1H	698	C	N1-C6	-5.39	1.33	1.37
26	1H	1332	G	N3-C4	-5.39	1.31	1.35
26	1H	1308	A	N3-C4	-5.39	1.31	1.34
1	13	356	A	N7-C5	5.38	1.42	1.39
26	1H	2241	A	N9-C4	-5.38	1.34	1.37
22	1L	35	I	C2-N3	5.38	1.46	1.35
26	1H	140	A	N9-C4	-5.38	1.34	1.37
1	13	792	A	N7-C5	-5.38	1.36	1.39
26	1H	689	A	N9-C4	-5.37	1.34	1.37
26	1H	2868	A	N9-C4	5.36	1.41	1.37
26	1H	2688	U	N3-C4	-5.36	1.33	1.38
26	1H	2505	G	C2-N3	-5.36	1.28	1.32
59	M5	40	GLU	CB-CG	5.36	1.62	1.52
26	14	1302	A	C6-N1	-5.35	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1792	G	C6-N1	-5.34	1.35	1.39
26	14	530	G	C2-N3	5.33	1.37	1.32
26	1H	1916	A	N3-C4	-5.31	1.31	1.34
26	1H	2581	G	N7-C5	-5.31	1.36	1.39
26	1H	1262	A	N9-C4	-5.30	1.34	1.37
26	1H	2830	G	N7-C5	-5.29	1.36	1.39
26	14	1627	G	C6-N1	-5.28	1.35	1.39
26	1H	693	C	N3-C4	-5.28	1.30	1.33
26	1H	1367	A	C5-C6	-5.26	1.36	1.41
26	1H	1659	U	N1-C2	-5.26	1.33	1.38
26	14	1785	A	N9-C8	-5.25	1.33	1.37
26	1H	784	A	N9-C4	-5.25	1.34	1.37
26	1H	1899	G	N9-C8	5.24	1.41	1.37
26	1H	722	A	N9-C4	-5.23	1.34	1.37
26	14	788	A	N9-C4	5.23	1.41	1.37
1	1G	1127	G	N9-C4	5.23	1.42	1.38
26	1H	5	A	N9-C4	5.22	1.41	1.37
26	1H	2346	A	N7-C5	-5.22	1.36	1.39
26	14	2062	A	N3-C4	5.21	1.38	1.34
26	1H	390	A	N3-C4	-5.21	1.31	1.34
26	14	2430	A	N3-C4	-5.21	1.31	1.34
26	14	2488	A	N9-C4	-5.20	1.34	1.37
26	1H	774	A	C2-N3	-5.19	1.28	1.33
26	14	1363	C	N3-C4	-5.19	1.30	1.33
26	14	1657	C	N3-C4	-5.18	1.30	1.33
26	1H	2430	A	C5-C6	-5.18	1.36	1.41
26	14	792	G	C6-N1	-5.18	1.35	1.39
26	14	1426	G	N1-C2	5.17	1.41	1.37
26	14	1616	A	N9-C4	-5.17	1.34	1.37
26	14	1899	G	C2-N3	5.16	1.36	1.32
26	1H	2252	G	N9-C8	-5.16	1.34	1.37
26	14	1899	G	C5-C4	5.16	1.42	1.38
26	14	2612	C	N3-C4	5.16	1.37	1.33
26	14	216	A	N9-C4	-5.16	1.34	1.37
26	1H	1021	A	N9-C4	-5.16	1.34	1.37
26	1H	1184	G	N3-C4	5.15	1.39	1.35
26	1H	1888	G	N9-C4	5.15	1.42	1.38
26	1H	830	G	N7-C5	-5.14	1.36	1.39
22	1K	35	I	C2-N3	5.14	1.46	1.35
26	1H	2502	G	C6-N1	-5.14	1.35	1.39
26	1H	1931	U	C2-N3	-5.14	1.34	1.37
26	1H	1978	A	N7-C5	-5.13	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2248	C	N3-C4	-5.13	1.30	1.33
26	1H	2611	U	N3-C4	-5.13	1.33	1.38
26	1H	1639	U	C2-N3	-5.12	1.34	1.37
36	38	85	ASP	C-N	5.12	1.44	1.34
26	14	2675	A	N9-C4	-5.11	1.34	1.37
26	1H	787	U	C2-N3	-5.10	1.34	1.37
26	14	1890	A	N9-C4	-5.09	1.34	1.37
26	14	1963	U	N1-C2	5.09	1.43	1.38
26	1H	1772	G	N9-C8	-5.09	1.34	1.37
26	14	2062	A	C6-N1	5.08	1.39	1.35
26	1H	678	C	N1-C6	-5.08	1.34	1.37
26	1H	2044	C	N1-C6	-5.07	1.34	1.37
26	1H	2713	A	N9-C4	-5.07	1.34	1.37
26	14	463	G	N9-C8	-5.07	1.34	1.37
26	1H	1676	A	N9-C4	-5.07	1.34	1.37
26	1H	1689	A	N3-C4	-5.07	1.31	1.34
26	14	531	C	N1-C6	-5.06	1.34	1.37
27	1J	89(A)	A	N3-C4	5.06	1.37	1.34
26	14	1379	A	C5-C6	-5.05	1.36	1.41
26	14	1187	G	N3-C4	-5.04	1.31	1.35
51	I8	68	GLU	CB-CG	5.04	1.61	1.52
26	1H	587	C	N3-C4	-5.04	1.30	1.33
26	1H	829	A	N7-C5	-5.04	1.36	1.39
49	G8	84	ARG	CB-CG	5.04	1.66	1.52
26	14	2873	A	N7-C5	-5.03	1.36	1.39
26	1H	1264	G	C6-N1	-5.02	1.36	1.39
59	M5	56	GLU	CG-CD	5.02	1.59	1.51
26	1H	1564	C	N3-C4	-5.01	1.30	1.33
26	1H	1263	U	C4-O4	-5.01	1.19	1.23
26	14	668	G	N9-C4	-5.01	1.33	1.38

All (5199) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	945	A	N1-C6-N6	19.92	130.55	118.60
26	1H	676	A	C2-N3-C4	-19.33	100.94	110.60
26	1H	945	A	N1-C6-N6	17.89	129.34	118.60
26	14	783	A	C5-N7-C8	-17.43	95.19	103.90
26	14	783	A	C2-N3-C4	-17.33	101.93	110.60
26	1H	2430	A	C2-N3-C4	-17.23	101.98	110.60
26	1H	1899	G	N3-C4-N9	-17.19	115.69	126.00
1	13	792	A	N1-C6-N6	17.18	128.91	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	783	A	N1-C6-N6	17.14	128.89	118.60
26	1H	945	A	C6-C5-N7	-17.12	120.31	132.30
26	14	774	A	C2-N3-C4	-16.84	102.18	110.60
26	1H	1332	G	C2-N3-C4	-16.65	103.58	111.90
26	1H	1786	A	C5-N7-C8	-15.98	95.91	103.90
26	1H	774	A	C2-N3-C4	-15.73	102.73	110.60
26	14	945	A	C2-N3-C4	-15.62	102.79	110.60
26	1H	1786	A	N7-C8-N9	15.57	121.58	113.80
26	1H	1786	A	C2-N3-C4	-15.55	102.83	110.60
26	14	945	A	C6-C5-N7	-15.49	121.45	132.30
26	14	74	A	C2-N3-C4	-15.47	102.86	110.60
26	1H	828	U	C5-C4-O4	15.39	135.13	125.90
26	1H	1332	G	N3-C4-C5	15.35	136.28	128.60
26	14	783	A	C4-C5-N7	15.18	118.29	110.70
26	1H	140	A	C5-N7-C8	-15.13	96.34	103.90
26	1H	2287	A	C2-N3-C4	-14.99	103.11	110.60
26	1H	1899	G	C2-N3-C4	-14.65	104.57	111.90
26	1H	917	A	C2-N3-C4	-14.61	103.30	110.60
26	1H	783	A	C5-N7-C8	-14.49	96.65	103.90
26	1H	2346	A	N1-C2-N3	14.44	136.52	129.30
26	14	783	A	C6-C5-N7	-14.40	122.22	132.30
26	14	2490	G	C6-C5-N7	-14.40	121.76	130.40
26	1H	774	A	N3-C4-C5	14.22	136.76	126.80
1	13	690	G	C6-C5-N7	-14.15	121.91	130.40
26	1H	330	A	C2-N3-C4	-14.08	103.56	110.60
26	1H	1496	A	N7-C8-N9	13.86	120.73	113.80
26	1H	682	G	O5'-P-OP2	-13.79	93.29	105.70
26	1H	1496	A	C8-N9-C4	-13.75	100.30	105.80
26	1H	140	A	N1-C6-N6	13.69	126.81	118.60
26	14	2275	C	C6-N1-C2	-13.56	114.88	120.30
26	1H	1950	G	N7-C8-N9	13.48	119.84	113.10
26	1H	621	A	C2-N3-C4	-13.43	103.88	110.60
26	1H	71	A	C2-N3-C4	-13.40	103.90	110.60
26	1H	1698	A	C2-N3-C4	-13.32	103.94	110.60
26	1H	1899	G	N3-C4-C5	13.32	135.26	128.60
26	1H	1950	G	C5-N7-C8	-13.29	97.66	104.30
1	13	84	U	N3-C2-O2	-13.28	112.90	122.20
26	14	1786	A	C2-N3-C4	-13.28	103.96	110.60
26	14	945	A	C4-C5-N7	13.23	117.32	110.70
26	1H	1332	G	C5-N7-C8	-13.21	97.69	104.30
26	1H	1931	U	N3-C2-O2	-13.06	113.06	122.20
26	1H	783	A	N1-C6-N6	13.05	126.43	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1786	A	C5-N7-C8	-13.04	97.38	103.90
1	13	792	A	C4-C5-N7	13.01	117.20	110.70
1	13	690	G	C4-N9-C1'	12.96	143.35	126.50
26	14	1496	A	N7-C8-N9	12.94	120.27	113.80
26	1H	676	A	N3-C4-C5	12.92	135.84	126.80
26	1H	624	C	O5'-P-OP1	-12.91	94.08	105.70
27	16	13	A	O5'-P-OP2	-12.88	94.10	105.70
26	1H	783	A	C6-C5-N7	-12.88	123.29	132.30
26	1H	774	A	N3-C4-N9	-12.85	117.12	127.40
26	1H	140	A	C4-C5-N7	12.83	117.11	110.70
26	1H	2346	A	C2-N3-C4	-12.80	104.20	110.60
26	14	1332	G	N7-C8-N9	12.80	119.50	113.10
26	1H	2430	A	N1-C6-N6	12.80	126.28	118.60
26	1H	839	U	O5'-P-OP2	-12.79	94.19	105.70
1	13	422	C	C6-N1-C2	-12.77	115.19	120.30
26	1H	1332	G	N3-C4-N9	-12.77	118.34	126.00
26	1H	71	A	C5-N7-C8	-12.77	97.52	103.90
26	1H	917	A	N1-C2-N3	12.76	135.68	129.30
26	1H	74	A	C2-N3-C4	-12.75	104.22	110.60
26	1H	783	A	C2-N3-C4	-12.71	104.24	110.60
26	1H	2598	A	O5'-P-OP1	-12.66	94.30	105.70
26	1H	621	A	N1-C6-N6	12.64	126.19	118.60
26	1H	783	A	N7-C8-N9	12.64	120.12	113.80
26	14	2490	G	C4-C5-N7	12.59	115.83	110.80
26	1H	945	A	C5-N7-C8	-12.57	97.61	103.90
26	1H	2830	G	C8-N9-C4	-12.46	101.42	106.40
26	14	1332	G	C6-C5-N7	-12.42	122.95	130.40
26	1H	1950	G	C4-C5-N7	12.39	115.76	110.80
26	14	71	A	C5-N7-C8	-12.37	97.71	103.90
26	14	1496	A	C8-N9-C4	-12.29	100.88	105.80
26	1H	945	A	C4-C5-C6	12.29	123.14	117.00
26	14	74	A	C5-C6-N1	-12.27	111.56	117.70
26	1H	621	A	C5-N7-C8	-12.20	97.80	103.90
26	1H	140	A	N7-C8-N9	12.18	119.89	113.80
26	14	2062	A	C8-N9-C4	12.06	110.62	105.80
26	1H	2830	G	N7-C8-N9	12.04	119.12	113.10
26	1H	774	A	C5-C6-N1	-11.92	111.74	117.70
26	14	1698	A	N1-C6-N6	11.90	125.74	118.60
26	14	1616	A	C5-N7-C8	-11.89	97.96	103.90
26	1H	2490	G	C5-N7-C8	-11.88	98.36	104.30
27	1J	88	C	C5-C6-N1	11.88	126.94	121.00
1	13	690	G	C8-N9-C1'	-11.88	111.56	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1698	A	N1-C6-N6	11.88	125.73	118.60
26	14	774	A	N3-C4-C5	11.87	135.11	126.80
26	14	2346	A	C2-N3-C4	-11.82	104.69	110.60
26	14	1899	G	N1-C2-N2	-11.78	105.60	116.20
26	1H	62	C	C6-N1-C2	11.73	124.99	120.30
26	1H	945	A	C4-C5-N7	11.69	116.54	110.70
26	14	1786	A	N7-C8-N9	11.68	119.64	113.80
26	1H	1698	A	C6-C5-N7	-11.68	124.12	132.30
26	1H	567	A	N1-C6-N6	11.68	125.61	118.60
26	1H	664	C	C5-C6-N1	-11.67	115.17	121.00
26	14	2360	A	O5'-P-OP1	-11.65	95.21	105.70
23	2L	77	A	C8-N9-C4	11.65	110.46	105.80
26	1H	2392	A	N7-C8-N9	11.64	119.62	113.80
26	1H	788	A	N1-C6-N6	11.64	125.58	118.60
36	38	134	LEU	CA-CB-CG	11.63	142.05	115.30
26	1H	676	A	C5-N7-C8	-11.62	98.09	103.90
26	1H	783	A	C8-N9-C4	-11.58	101.17	105.80
26	1H	809	G	C5-C6-O6	-11.56	121.66	128.60
26	14	741	G	O5'-P-OP1	-11.53	95.32	105.70
26	14	783	A	N7-C8-N9	11.52	119.56	113.80
26	14	945	A	C5-N7-C8	-11.50	98.15	103.90
26	14	1332	G	C5-N7-C8	-11.47	98.56	104.30
26	1H	945	A	N7-C8-N9	11.44	119.52	113.80
26	1H	577	G	O5'-P-OP1	11.42	124.40	110.70
26	1H	2146	C	N1-C2-O2	11.41	125.75	118.90
1	13	792	A	C6-C5-N7	-11.39	124.32	132.30
1	13	893	C	C6-N1-C2	11.38	124.85	120.30
26	1H	2253	G	N1-C6-O6	11.38	126.72	119.90
26	1H	1786	A	C6-C5-N7	-11.37	124.34	132.30
26	1H	140	A	C6-C5-N7	-11.35	124.35	132.30
26	1H	1899	G	N3-C2-N2	-11.32	111.98	119.90
26	1H	2346	A	O4'-C1'-N9	11.31	117.25	108.20
26	1H	676	A	N3-C4-N9	-11.29	118.37	127.40
26	1H	1950	G	C6-C5-N7	-11.29	123.63	130.40
26	1H	2392	A	C5-N7-C8	-11.28	98.26	103.90
26	1H	71	A	N1-C6-N6	11.27	125.36	118.60
26	1H	593	G	O5'-P-OP2	-11.23	95.59	105.70
26	14	678	C	C6-N1-C2	11.21	124.79	120.30
26	1H	2490	G	C4-C5-N7	11.20	115.28	110.80
23	2K	77	A	C8-N9-C4	11.17	110.27	105.80
26	1H	1931	U	C5-C4-O4	11.13	132.58	125.90
26	14	2287	A	C2-N3-C4	-11.12	105.04	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1950	G	N7-C8-N9	11.12	118.66	113.10
26	1H	71	A	C6-C5-N7	-11.09	124.53	132.30
26	14	676	A	C5-N7-C8	-11.09	98.36	103.90
26	14	330	A	C2-N3-C4	-11.08	105.06	110.60
26	1H	2490	G	N3-C4-C5	11.05	134.13	128.60
26	14	2518	A	N1-C6-N6	11.05	125.23	118.60
26	1H	2713	A	C2-N3-C4	-11.04	105.08	110.60
26	14	1616	A	C4-C5-N7	11.03	116.21	110.70
26	1H	729	G	C8-N9-C4	-10.90	102.04	106.40
26	1H	1616	A	C4-C5-N7	10.88	116.14	110.70
1	13	792	A	O4'-C1'-N9	10.86	116.89	108.20
26	1H	1193	G	C8-N9-C4	10.86	110.74	106.40
26	1H	1790	C	N1-C2-O2	-10.84	112.39	118.90
26	14	2873	A	N1-C6-N6	10.83	125.10	118.60
1	13	690	G	O4'-C1'-N9	10.78	116.82	108.20
26	1H	1678	G	C5-N7-C8	-10.78	98.91	104.30
26	1H	678	C	C6-N1-C2	10.77	124.61	120.30
26	1H	783	A	C4-C5-N7	10.74	116.07	110.70
26	14	774	A	N1-C6-N6	10.73	125.04	118.60
26	1H	265	A	C2-N3-C4	-10.71	105.25	110.60
26	1H	789	A	O5'-P-OP1	-10.66	96.11	105.70
26	1H	74	A	N7-C8-N9	10.65	119.12	113.80
26	1H	580	C	C6-N1-C2	-10.64	116.04	120.30
26	1H	2598	A	O5'-P-OP2	10.61	123.43	110.70
26	14	1284	A	O5'-P-OP2	-10.60	96.16	105.70
26	14	2430	A	N1-C6-N6	10.58	124.95	118.60
1	13	792	A	C5-N7-C8	-10.57	98.61	103.90
26	1H	2465	C	C6-N1-C2	10.57	124.53	120.30
26	1H	202	U	C5-C4-O4	-10.56	119.56	125.90
26	14	1950	G	C8-N9-C4	-10.56	102.18	106.40
26	1H	621	A	C4-C5-N7	10.55	115.98	110.70
26	14	945	A	N9-C4-C5	-10.55	101.58	105.80
26	1H	2713	A	N7-C8-N9	10.54	119.07	113.80
26	1H	1786	A	C8-N9-C4	-10.53	101.59	105.80
26	1H	1616	A	C5-N7-C8	-10.52	98.64	103.90
26	1H	2392	A	C8-N9-C4	-10.50	101.60	105.80
26	1H	71	A	C4-C5-N7	10.49	115.95	110.70
27	1J	30	C	C6-N1-C2	-10.49	116.11	120.30
26	1H	1528	A	C8-N9-C4	-10.48	101.61	105.80
26	1H	74	A	N1-C2-N3	10.47	134.53	129.30
26	14	1678	G	N3-C4-N9	-10.46	119.72	126.00
26	14	2357	U	O5'-P-OP2	-10.45	96.30	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1332	G	C4-C5-N7	10.44	114.98	110.80
1	13	789	U	C5-C4-O4	10.44	132.16	125.90
26	1H	889	C	N1-C2-O2	10.43	125.16	118.90
26	14	2490	G	C5-C6-O6	-10.40	122.36	128.60
1	13	792	A	C5-C6-N6	-10.37	115.41	123.70
26	1H	2311	A	C2-N3-C4	-10.36	105.42	110.60
26	1H	2699	C	C6-N1-C2	10.34	124.44	120.30
26	1H	2036	C	O5'-P-OP1	-10.34	96.40	105.70
26	1H	2567	G	O5'-P-OP1	-10.32	96.41	105.70
26	1H	2430	A	C6-C5-N7	-10.30	125.09	132.30
26	1H	1698	A	C5-N7-C8	-10.29	98.75	103.90
26	1H	74	A	C5-N7-C8	-10.28	98.76	103.90
26	1H	567	A	C5-C6-N6	-10.28	115.48	123.70
26	14	1379	A	N1-C6-N6	10.24	124.74	118.60
1	13	792	A	C2-N3-C4	-10.22	105.49	110.60
26	1H	2430	A	N1-C2-N3	10.22	134.41	129.30
27	1J	88	C	C6-N1-C2	-10.21	116.22	120.30
26	1H	1950	G	C8-N9-C4	-10.20	102.32	106.40
26	14	1914	C	C6-N1-C2	-10.20	116.22	120.30
26	14	2873	A	C6-C5-N7	-10.20	125.16	132.30
26	1H	809	G	N1-C6-O6	10.19	126.01	119.90
26	14	71	A	N7-C8-N9	10.19	118.89	113.80
26	14	1950	G	C4-N9-C1'	10.19	139.75	126.50
26	1H	1678	G	C2-N3-C4	-10.19	106.81	111.90
1	13	690	G	N3-C4-N9	10.17	132.10	126.00
26	1H	2688	U	C5-C4-O4	10.14	131.99	125.90
26	14	1359	A	C8-N9-C4	10.12	109.85	105.80
26	14	918	A	C8-N9-C4	-10.12	101.75	105.80
26	1H	2713	A	C5-N7-C8	-10.11	98.85	103.90
26	1H	1614	A	C2-N3-C4	-10.10	105.55	110.60
1	13	84	U	N1-C2-O2	10.09	129.87	122.80
26	14	2873	A	C2-N3-C4	-10.08	105.56	110.60
26	1H	1616	A	N1-C6-N6	10.07	124.64	118.60
26	1H	2430	A	C5-N7-C8	-10.07	98.86	103.90
26	1H	2503	A	N1-C6-N6	10.06	124.64	118.60
26	1H	2253	G	C5-C6-O6	-10.06	122.56	128.60
26	14	2699	C	C6-N1-C2	10.06	124.32	120.30
26	1H	122	G	N1-C6-O6	10.05	125.93	119.90
26	1H	329	G	O5'-P-OP2	-10.05	96.66	105.70
26	1H	127	A	N1-C6-N6	10.03	124.62	118.60
26	1H	2585	U	N1-C2-O2	10.02	129.81	122.80
26	1H	1528	A	N7-C8-N9	10.02	118.81	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2503	A	C5-C6-N6	-9.98	115.72	123.70
24	3L	62	C	C5-C6-N1	9.97	125.99	121.00
26	14	1302	A	N1-C6-N6	-9.97	112.62	118.60
26	14	2346	A	N1-C2-N3	9.97	134.29	129.30
26	1H	796	C	C6-N1-C2	9.95	124.28	120.30
26	1H	863	A	O5'-P-OP2	-9.95	96.74	105.70
26	14	2873	A	C5-N7-C8	-9.95	98.92	103.90
26	1H	1899	G	C8-N9-C1'	9.95	139.93	127.00
26	1H	2689	U	N3-C4-O4	-9.94	112.44	119.40
26	14	1332	G	C4-C5-N7	9.93	114.77	110.80
26	1H	816	C	C6-N1-C2	9.91	124.27	120.30
26	1H	1379	A	C5-N7-C8	-9.90	98.95	103.90
26	14	1984	G	O5'-P-OP2	-9.89	96.80	105.70
26	1H	627	A	C8-N9-C4	9.89	109.75	105.80
26	14	2430	A	C2-N3-C4	-9.88	105.66	110.60
26	1H	2430	A	C5-C6-N1	-9.88	112.76	117.70
26	1H	1021	A	C2-N3-C4	-9.87	105.67	110.60
26	14	2490	G	C4-N9-C1'	9.85	139.31	126.50
1	13	1517	G	O5'-P-OP2	-9.85	96.84	105.70
26	14	2713	A	C5-N7-C8	-9.84	98.98	103.90
26	1H	194	G	C8-N9-C4	9.83	110.33	106.40
1	13	690	G	C4-C5-N7	9.83	114.73	110.80
26	1H	2374	C	C6-N1-C2	9.79	124.22	120.30
26	14	2518	A	C2-N3-C4	-9.79	105.70	110.60
26	1H	1931	U	N1-C2-N3	9.79	120.77	114.90
26	1H	1984	G	O5'-P-OP2	-9.77	96.91	105.70
26	1H	889	C	C2-N1-C1'	9.76	129.53	118.80
26	14	2591	C	N1-C2-O2	-9.75	113.05	118.90
1	13	1359	C	O5'-P-OP1	-9.74	96.93	105.70
26	1H	2311	A	N1-C2-N3	9.74	134.17	129.30
26	14	122	G	C8-N9-C4	9.74	110.30	106.40
26	14	1786	A	C4-C5-N7	9.74	115.57	110.70
26	1H	1786	A	N1-C2-N3	9.72	134.16	129.30
26	1H	1142(A)	A	C2-N3-C4	-9.72	105.74	110.60
26	1H	1794	U	O5'-P-OP2	-9.70	96.97	105.70
1	1G	1322	C	N1-C2-O2	9.70	124.72	118.90
26	1H	2406	U	O5'-P-OP1	-9.68	96.99	105.70
26	1H	2518	A	N1-C6-N6	9.67	124.40	118.60
26	1H	1496	A	C5-N7-C8	-9.66	99.07	103.90
26	1H	246	C	C5-C6-N1	-9.64	116.18	121.00
26	1H	1204	A	C2-N3-C4	-9.64	105.78	110.60
26	14	2441	C	O5'-P-OP1	-9.63	97.03	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	71	A	C4-C5-N7	9.63	115.52	110.70
26	1H	928	G	N1-C6-O6	9.62	125.67	119.90
26	14	2163	C	C6-N1-C2	-9.60	116.46	120.30
40	78	42	SER	C-N-CA	-9.60	102.14	122.30
1	13	792	A	N9-C4-C5	-9.60	101.96	105.80
26	1H	2712	U	N3-C4-O4	-9.58	112.69	119.40
26	1H	1603	A	C8-N9-C4	-9.58	101.97	105.80
26	14	2329	G	N9-C4-C5	-9.58	101.57	105.40
26	14	1496	A	C5-N7-C8	-9.57	99.11	103.90
26	14	1396	U	N3-C2-O2	-9.57	115.50	122.20
26	1H	202	U	N3-C4-C5	9.56	120.34	114.60
26	1H	1602	U	O5'-P-OP1	-9.55	97.11	105.70
26	14	1379	A	C5-N7-C8	-9.54	99.13	103.90
26	1H	2040	C	C6-N1-C2	9.51	124.11	120.30
26	1H	774	A	C6-N1-C2	9.50	124.30	118.60
26	1H	889	C	N3-C2-O2	-9.49	115.26	121.90
26	1H	110	G	O5'-P-OP2	-9.49	97.16	105.70
26	14	2490	G	C5-N7-C8	-9.47	99.56	104.30
26	1H	1204	A	O4'-C1'-N9	9.46	115.77	108.20
26	1H	1602	U	O5'-P-OP2	9.46	122.05	110.70
26	1H	788	A	N9-C4-C5	-9.45	102.02	105.80
26	14	945	A	C5-C6-N1	-9.45	112.97	117.70
26	1H	1201	C	C5-C4-N4	-9.43	113.60	120.20
26	14	806	C	O5'-P-OP1	-9.43	97.21	105.70
26	1H	1640	C	C6-N1-C2	9.42	124.07	120.30
26	14	2023	G	O5'-P-OP2	-9.42	97.22	105.70
1	13	816	A	C8-N9-C4	-9.40	102.04	105.80
26	1H	1496	A	C6-C5-N7	-9.40	125.72	132.30
26	1H	1616	A	C6-C5-N7	-9.39	125.72	132.30
1	13	690	G	N1-C6-O6	9.39	125.53	119.90
26	1H	1786	A	C4-C5-N7	9.39	115.40	110.70
26	14	1621	U	O5'-P-OP1	-9.39	97.25	105.70
26	1H	1022	G	C8-N9-C4	-9.38	102.65	106.40
25	4K	23	A	O5'-P-OP2	-9.38	97.26	105.70
26	1H	202	U	N1-C2-N3	-9.38	109.27	114.90
26	1H	2392	A	C2-N3-C4	-9.38	105.91	110.60
26	1H	945	A	C4-N9-C1'	9.37	143.16	126.30
26	14	783	A	N3-C4-C5	9.36	133.35	126.80
26	1H	189	G	C8-N9-C4	9.35	110.14	106.40
26	1H	148	C	C6-N1-C2	9.35	124.04	120.30
26	1H	246	C	C6-N1-C2	9.34	124.04	120.30
26	1H	1622	G	N3-C2-N2	-9.34	113.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2031	A	C2-N3-C4	9.33	115.27	110.60
1	13	320	C	C6-N1-C2	9.33	124.03	120.30
26	14	2338	G	O5'-P-OP1	-9.33	97.30	105.70
26	14	2713	A	N1-C6-N6	9.31	124.19	118.60
26	14	2873	A	N7-C8-N9	9.31	118.45	113.80
26	1H	1698	A	C4-C5-N7	9.30	115.35	110.70
26	1H	567	A	C4-C5-N7	9.29	115.35	110.70
26	1H	1955	U	N3-C2-O2	-9.29	115.70	122.20
26	1H	2822	G	C5-C6-O6	-9.29	123.03	128.60
26	1H	57	C	O5'-P-OP2	-9.27	97.36	105.70
26	14	74	A	N1-C2-N3	9.26	133.93	129.30
26	14	676	A	C2-N3-C4	-9.25	105.97	110.60
26	14	1616	A	C2-N3-C4	-9.24	105.98	110.60
1	13	542	G	O5'-P-OP1	-9.23	97.39	105.70
26	14	1678	G	C8-N9-C4	-9.23	102.71	106.40
26	1H	860	U	C4-C5-C6	9.22	125.23	119.70
26	14	674	G	C5-C6-O6	-9.22	123.07	128.60
26	14	2329	G	C8-N9-C4	9.21	110.09	106.40
26	1H	2018	G	C8-N9-C4	-9.21	102.72	106.40
26	1H	930	U	N3-C4-O4	-9.20	112.96	119.40
26	1H	202	U	C6-N1-C2	9.20	126.52	121.00
26	14	2609	U	O5'-P-OP2	-9.19	97.43	105.70
26	1H	2689	U	C5-C4-O4	9.19	131.41	125.90
26	14	1678	G	C2-N3-C4	-9.18	107.31	111.90
26	1H	1021	A	N1-C6-N6	9.18	124.11	118.60
26	14	2689	U	C5-C4-O4	9.18	131.41	125.90
26	1H	110	G	C8-N9-C4	9.17	110.07	106.40
26	14	117	G	C5-C6-O6	-9.17	123.10	128.60
26	14	252	G	N1-C6-O6	-9.16	114.40	119.90
26	1H	828	U	N3-C4-O4	-9.16	112.99	119.40
26	14	2490	G	N3-C4-N9	9.15	131.49	126.00
1	13	1354	C	C6-N1-C2	-9.15	116.64	120.30
1	13	623	C	C6-N1-C2	-9.14	116.64	120.30
26	14	155	C	N1-C2-O2	9.14	124.38	118.90
26	1H	2490	G	N3-C4-N9	-9.14	120.52	126.00
26	1H	141	A	C5-N7-C8	-9.13	99.33	103.90
26	1H	1989	G	C5-C6-O6	-9.12	123.13	128.60
26	1H	508	G	C6-C5-N7	-9.12	124.93	130.40
26	1H	2430	A	C4-C5-N7	9.12	115.26	110.70
26	1H	1899	G	N9-C4-C5	9.11	109.04	105.40
26	14	2700	C	C6-N1-C2	9.11	123.94	120.30
26	1H	74	A	C6-C5-N7	-9.11	125.93	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2169	A	C8-N9-C4	-9.10	102.16	105.80
26	14	2490	G	N7-C8-N9	9.10	117.65	113.10
26	14	2542	A	C8-N9-C4	9.09	109.44	105.80
26	1H	2712	U	C5-C4-O4	9.09	131.35	125.90
26	14	2490	G	N1-C6-O6	9.08	125.35	119.90
26	1H	765	G	N1-C6-O6	9.07	125.34	119.90
26	1H	1678	G	C4-C5-N7	9.06	114.42	110.80
26	1H	2607	G	N1-C6-O6	9.05	125.33	119.90
26	1H	889	C	C6-N1-C2	-9.05	116.68	120.30
26	14	827	U	N1-C2-O2	-9.04	116.47	122.80
26	14	945	A	C5-C6-N6	-9.04	116.47	123.70
26	1H	138	G	C8-N9-C4	-9.04	102.78	106.40
26	1H	815	C	C6-N1-C2	9.04	123.92	120.30
23	2K	77	A	N1-C6-N6	9.03	124.02	118.60
26	14	1616	A	N1-C6-N6	9.02	124.01	118.60
26	14	1332	G	C4-N9-C1'	9.02	138.23	126.50
26	1H	621	A	C6-C5-N7	-9.01	125.99	132.30
26	1H	2607	G	C6-C5-N7	-9.01	124.99	130.40
26	14	2585	U	N1-C2-O2	9.01	129.11	122.80
26	1H	1372	U	C5-C4-O4	-9.00	120.50	125.90
26	1H	1009	A	O5'-P-OP2	-8.99	97.60	105.70
26	1H	512	G	O4'-C1'-N9	8.99	115.39	108.20
26	14	528	A	C2-N3-C4	-8.99	106.10	110.60
26	1H	1364	G	N9-C4-C5	-8.99	101.81	105.40
26	1H	664	C	C2-N3-C4	-8.98	115.41	119.90
29	11	37	LEU	CA-CB-CG	-8.98	94.64	115.30
26	14	1678	G	C5-N7-C8	-8.97	99.81	104.30
26	1H	2246	G	N3-C4-N9	8.97	131.38	126.00
26	1H	1249	U	O5'-P-OP1	-8.96	97.63	105.70
26	14	1786	A	C6-C5-N7	-8.96	126.03	132.30
1	13	703	G	C6-C5-N7	-8.96	125.03	130.40
26	1H	945	A	N9-C4-C5	-8.96	102.22	105.80
26	14	510	C	O5'-P-OP2	-8.95	97.64	105.70
26	1H	1786	A	C5-C6-N1	-8.95	113.23	117.70
1	13	523	A	N1-C6-N6	8.94	123.97	118.60
26	14	676	A	C4-C5-N7	8.94	115.17	110.70
26	14	2477	C	C2-N1-C1'	8.94	128.63	118.80
26	1H	2146	C	N3-C2-O2	-8.93	115.65	121.90
1	13	898	G	O5'-P-OP1	-8.92	97.67	105.70
26	14	1950	G	N3-C4-C5	-8.92	124.14	128.60
26	1H	1270	C	C6-N1-C2	8.91	123.87	120.30
27	16	47	C	C6-N1-C2	8.91	123.87	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1379	A	N7-C8-N9	8.91	118.25	113.80
26	1H	71	A	N7-C8-N9	8.90	118.25	113.80
26	14	801	G	N1-C6-O6	-8.90	114.56	119.90
26	14	1380	G	C8-N9-C4	8.90	109.96	106.40
26	1H	2751	G	C8-N9-C4	-8.90	102.84	106.40
26	1H	220	G	C4-C5-N7	8.88	114.35	110.80
26	1H	2751	G	N7-C8-N9	8.88	117.54	113.10
26	1H	692	C	C6-N1-C2	8.88	123.85	120.30
26	14	2473	U	C2-N1-C1'	8.86	128.34	117.70
1	1G	1127	G	N3-C4-C5	-8.86	124.17	128.60
26	14	213	A	C8-N9-C4	8.86	109.34	105.80
26	1H	1021	A	C5-N7-C8	-8.86	99.47	103.90
26	14	785	G	O5'-P-OP2	-8.86	97.73	105.70
26	1H	945	A	C2-N3-C4	-8.85	106.17	110.60
1	1G	51	A	O5'-P-OP1	-8.85	97.73	105.70
26	1H	1606	G	C5-C6-O6	-8.85	123.29	128.60
1	13	1502	A	C4-C5-N7	8.85	115.12	110.70
26	14	2600	A	N9-C4-C5	8.84	109.33	105.80
26	1H	1559	G	N1-C6-O6	8.84	125.20	119.90
26	1H	1698	A	N1-C2-N3	8.84	133.72	129.30
26	14	2374	C	N3-C4-C5	8.83	125.43	121.90
26	1H	1210	A	N1-C6-N6	8.82	123.89	118.60
26	1H	735	A	C8-N9-C4	8.81	109.33	105.80
26	1H	138	G	N7-C8-N9	8.80	117.50	113.10
26	14	71	A	N1-C6-N6	8.80	123.88	118.60
26	1H	210	C	C6-N1-C2	8.80	123.82	120.30
26	14	1899	G	N3-C2-N2	8.80	126.06	119.90
26	1H	1271	G	C8-N9-C4	8.80	109.92	106.40
26	1H	1972	A	N1-C6-N6	8.79	123.88	118.60
26	1H	1616	A	O4'-C1'-N9	8.79	115.23	108.20
26	14	670	A	C8-N9-C4	8.79	109.31	105.80
26	1H	2032	G	C6-C5-N7	-8.78	125.13	130.40
26	14	2163	C	C2-N1-C1'	8.78	128.46	118.80
26	1H	2700	C	C6-N1-C2	8.77	123.81	120.30
24	3L	62	C	C6-N1-C2	-8.77	116.79	120.30
1	13	1489	G	C8-N9-C4	8.76	109.91	106.40
26	1H	1899	G	N1-C2-N3	8.75	129.15	123.90
26	14	2477	C	N1-C2-O2	8.75	124.15	118.90
26	1H	930	U	C5-C4-O4	8.75	131.15	125.90
26	1H	1332	G	N1-C6-O6	8.74	125.14	119.90
1	1G	117	G	N1-C6-O6	8.74	125.14	119.90
1	1G	909	A	N1-C6-N6	8.73	123.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1773	A	O5'-P-OP2	-8.72	97.85	105.70
26	1H	2374	C	C5-C6-N1	-8.72	116.64	121.00
26	1H	1566	A	O5'-P-OP2	-8.72	97.85	105.70
26	1H	2595	G	C4-C5-N7	8.72	114.29	110.80
26	1H	181	A	N1-C6-N6	-8.72	113.37	118.60
26	1H	2392	A	C4-C5-N7	8.70	115.05	110.70
26	1H	220	G	N1-C6-O6	8.70	125.12	119.90
26	1H	1624	G	C8-N9-C4	8.70	109.88	106.40
26	1H	2146	C	C2-N1-C1'	8.70	128.37	118.80
1	13	422	C	P-O3'-C3'	8.69	130.13	119.70
26	1H	2036	C	C6-N1-C2	-8.69	116.82	120.30
26	14	1268	A	O5'-P-OP1	-8.69	97.88	105.70
26	1H	1678	G	N3-C4-C5	8.69	132.94	128.60
26	14	121	G	C5-C6-O6	-8.66	123.40	128.60
26	1H	815	C	N3-C4-C5	8.66	125.36	121.90
26	1H	138	G	C5-N7-C8	-8.66	99.97	104.30
26	14	1021	A	C2-N3-C4	-8.66	106.27	110.60
26	14	1379	A	C4-C5-N7	8.66	115.03	110.70
26	14	2518	A	C6-C5-N7	-8.66	126.24	132.30
26	1H	2476	A	C8-N9-C4	-8.65	102.34	105.80
26	14	828	U	C5-C4-O4	8.64	131.08	125.90
1	13	36	C	C6-N1-C2	-8.64	116.84	120.30
26	1H	1210	A	C5-N7-C8	-8.64	99.58	103.90
26	14	1786	A	C5-C6-N1	-8.63	113.39	117.70
26	1H	1332	G	N7-C8-N9	8.62	117.41	113.10
26	1H	64	A	N1-C6-N6	-8.62	113.43	118.60
26	1H	141	A	C4-C5-N7	8.61	115.01	110.70
26	1H	1829	A	O5'-P-OP1	-8.62	97.95	105.70
1	1G	1301	U	N1-C2-O2	8.61	128.83	122.80
26	14	621	A	C2-N3-C4	-8.61	106.30	110.60
26	14	684	G	C8-N9-C4	-8.61	102.96	106.40
26	14	2598	A	O5'-P-OP1	-8.60	97.96	105.70
26	14	774	A	C4-C5-N7	8.59	115.00	110.70
26	14	2329	G	C5-C6-O6	-8.59	123.44	128.60
26	1H	664	C	C6-N1-C2	8.59	123.74	120.30
26	1H	676	A	O4'-C1'-N9	8.59	115.07	108.20
26	14	1380	G	N9-C4-C5	-8.59	101.97	105.40
43	A8	110	LEU	CA-CB-CG	8.59	135.05	115.30
26	1H	860	U	N3-C2-O2	-8.58	116.19	122.20
26	14	1899	G	C6-C5-N7	-8.58	125.25	130.40
26	1H	945	A	C5-C6-N6	-8.58	116.84	123.70
26	14	2275	C	P-O3'-C3'	8.57	129.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1227	A	C5-N7-C8	-8.56	99.62	103.90
26	1H	1201	C	N3-C2-O2	8.56	127.89	121.90
26	1H	2581	G	C6-C5-N7	-8.56	125.26	130.40
26	14	1786	A	N1-C6-N6	8.56	123.73	118.60
1	13	968	A	N1-C6-N6	8.55	123.73	118.60
26	1H	71	A	N1-C2-N3	8.55	133.58	129.30
26	14	1820	U	C5-C6-N1	-8.55	118.42	122.70
26	14	2500	U	O5'-P-OP2	-8.55	98.00	105.70
26	1H	2346	A	N7-C8-N9	8.55	118.08	113.80
1	1G	483	C	C6-N1-C2	8.55	123.72	120.30
26	1H	859	G	N3-C4-C5	8.54	132.87	128.60
26	14	2374	C	C6-N1-C2	8.54	123.72	120.30
26	14	2518	A	C4-C5-N7	8.54	114.97	110.70
26	1H	1333	C	C5-C4-N4	-8.53	114.23	120.20
26	1H	324	A	O5'-P-OP1	-8.52	98.03	105.70
26	1H	2606	C	N1-C2-O2	-8.52	113.79	118.90
26	14	2286	A	O5'-P-OP2	-8.52	98.03	105.70
1	13	974	A	O4'-C1'-N9	8.51	115.01	108.20
26	14	1602	U	O5'-P-OP2	8.51	120.91	110.70
26	14	1698	A	C4-C5-N7	8.51	114.95	110.70
26	1H	2450	A	O5'-P-OP2	-8.51	98.05	105.70
26	1H	2023	G	N3-C2-N2	-8.49	113.95	119.90
26	1H	2506	U	N1-C2-O2	8.49	128.74	122.80
26	1H	791	C	C6-N1-C2	8.48	123.69	120.30
26	1H	141	A	N1-C6-N6	8.48	123.69	118.60
26	1H	528	A	O4'-C1'-N9	-8.47	101.43	108.20
26	1H	689	A	O5'-P-OP2	-8.46	98.08	105.70
1	13	1301	U	C2-N1-C1'	8.46	127.86	117.70
26	1H	1268	A	C2-N3-C4	-8.46	106.37	110.60
26	1H	1364	G	C4-C5-N7	8.46	114.18	110.80
26	1H	2330	G	C8-N9-C4	8.46	109.78	106.40
26	1H	1606	G	N9-C4-C5	-8.45	102.02	105.40
26	14	945	A	C4-C5-C6	8.45	121.23	117.00
26	1H	71	A	O4'-C1'-N9	-8.45	101.44	108.20
26	14	121	G	C6-C5-N7	-8.45	125.33	130.40
26	1H	1829	A	N1-C6-N6	-8.45	113.53	118.60
26	1H	945	A	C8-N9-C1'	-8.44	112.51	127.70
26	1H	1403	C	O5'-P-OP2	-8.44	98.11	105.70
26	14	2346	A	N1-C6-N6	8.44	123.66	118.60
23	2K	77	A	C5-C6-N6	-8.44	116.95	123.70
26	14	2688	U	C5-C4-O4	8.43	130.96	125.90
1	13	1502	A	C2-N3-C4	-8.43	106.39	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	74	A	C5-N7-C8	-8.43	99.69	103.90
26	14	939	G	N1-C6-O6	8.43	124.96	119.90
26	14	1899	G	N7-C8-N9	8.43	117.31	113.10
26	14	2779	U	N3-C2-O2	-8.43	116.30	122.20
26	1H	2779	U	C5-C4-O4	8.43	130.96	125.90
26	14	1678	G	N7-C8-N9	8.43	117.31	113.10
26	1H	698	C	C6-N1-C2	8.42	123.67	120.30
26	1H	1022	G	N9-C4-C5	8.42	108.77	105.40
26	14	827	U	N3-C2-O2	8.42	128.09	122.20
26	1H	1272	A	O5'-P-OP2	-8.41	98.13	105.70
26	1H	2250	G	C8-N9-C4	-8.40	103.04	106.40
23	2K	21	U	C2-N1-C1'	8.39	127.77	117.70
23	2K	77	A	N9-C4-C5	-8.39	102.44	105.80
26	14	2713	A	C6-C5-N7	-8.39	126.43	132.30
26	14	71	A	C2-N3-C4	-8.38	106.41	110.60
26	1H	2688	U	N3-C2-O2	-8.38	116.33	122.20
1	1G	1354	C	C5-C6-N1	8.38	125.19	121.00
26	1H	1606	G	N1-C6-O6	8.38	124.93	119.90
26	1H	2710	C	C6-N1-C2	8.37	123.65	120.30
26	14	2443	C	C6-N1-C2	-8.36	116.96	120.30
26	1H	2330	G	N9-C4-C5	-8.35	102.06	105.40
26	14	1322	A	N1-C6-N6	8.35	123.61	118.60
26	14	2169	A	C4-C5-C6	8.35	121.17	117.00
1	13	524	G	N1-C6-O6	8.34	124.91	119.90
26	1H	1393	A	O5'-P-OP2	-8.34	98.19	105.70
1	13	1200	C	N1-C2-O2	8.33	123.90	118.90
24	3K	13	C	C6-N1-C2	-8.33	116.97	120.30
26	1H	1786	A	N1-C6-N6	8.33	123.60	118.60
26	14	1771	C	N1-C2-O2	-8.32	113.91	118.90
26	14	774	A	C5-C6-N1	-8.32	113.54	117.70
26	14	2062	A	C4-C5-C6	-8.32	112.84	117.00
26	14	1698	A	C2-N3-C4	-8.31	106.44	110.60
26	1H	470	A	O5'-P-OP1	-8.30	98.23	105.70
23	2K	21	U	N1-C2-O2	8.29	128.61	122.80
26	1H	2688	U	N3-C4-O4	-8.29	113.59	119.40
26	14	2518	A	C5-N7-C8	-8.29	99.75	103.90
1	13	1260	C	C6-N1-C2	-8.29	116.98	120.30
1	13	690	G	C5-C6-O6	-8.27	123.64	128.60
1	13	84	U	C6-N1-C2	-8.27	116.04	121.00
26	14	917	A	O5'-P-OP1	-8.27	98.26	105.70
26	14	2688	U	N3-C2-O2	-8.27	116.41	122.20
1	1G	1519	A	C8-N9-C4	-8.26	102.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2433	A	N1-C6-N6	8.26	123.55	118.60
26	1H	2830	G	C6-C5-N7	-8.25	125.45	130.40
26	14	205	G	C8-N9-C4	8.24	109.70	106.40
26	1H	962	G	O5'-P-OP1	-8.24	98.28	105.70
1	1G	576	G	C6-C5-N7	-8.23	125.46	130.40
26	1H	85	G	O5'-P-OP1	8.22	120.57	110.70
26	1H	676	A	C5-C6-N1	-8.22	113.59	117.70
43	65	110	LEU	CA-CB-CG	8.22	134.20	115.30
26	14	1790	C	N3-C2-O2	8.21	127.65	121.90
26	1H	2417	C	O5'-P-OP2	-8.21	98.31	105.70
36	38	44	LEU	CA-CB-CG	8.21	134.18	115.30
26	1H	2375	G	C8-N9-C4	8.21	109.68	106.40
26	1H	2392	A	C6-C5-N7	-8.20	126.56	132.30
26	1H	1271	G	N9-C4-C5	-8.20	102.12	105.40
1	13	775	G	N1-C6-O6	8.20	124.82	119.90
26	1H	621	A	N7-C8-N9	8.19	117.89	113.80
26	1H	2713	A	C8-N9-C4	-8.19	102.53	105.80
26	14	922	U	O5'-P-OP1	-8.18	98.34	105.70
26	14	2688	U	C5-C6-N1	-8.18	118.61	122.70
26	14	2610	C	N1-C2-O2	8.18	123.81	118.90
26	14	2490	G	C8-N9-C1'	-8.18	116.37	127.00
1	13	85	U	C5-C6-N1	8.18	126.79	122.70
26	1H	463	G	N1-C2-N2	-8.18	108.84	116.20
26	14	462	C	O5'-P-OP1	-8.17	98.34	105.70
26	1H	1520	U	C6-N1-C2	-8.17	116.10	121.00
26	14	2088	G	C4-C5-N7	8.17	114.07	110.80
27	16	115	G	C6-C5-N7	-8.16	125.50	130.40
50	H8	59	LEU	CA-CB-CG	8.16	134.08	115.30
26	14	2163	C	N1-C2-O2	8.16	123.80	118.90
26	1H	609	A	N1-C6-N6	8.16	123.50	118.60
26	1H	459	U	O5'-P-OP2	-8.16	98.36	105.70
26	1H	2331	G	C8-N9-C4	8.15	109.66	106.40
26	14	244	A	N1-C6-N6	8.15	123.49	118.60
26	1H	812	C	N1-C2-O2	-8.15	114.01	118.90
26	1H	728	G	C8-N9-C4	8.15	109.66	106.40
26	14	569	U	C5-C6-N1	-8.15	118.62	122.70
26	1H	2465	C	C5-C6-N1	-8.15	116.93	121.00
33	51	153	LYS	C-N-CD	-8.15	102.68	120.60
27	16	100	G	C8-N9-C4	8.14	109.66	106.40
26	14	2433	A	C6-C5-N7	-8.14	126.60	132.30
26	1H	1324	G	N1-C6-O6	8.13	124.78	119.90
26	1H	330	A	N1-C2-N3	8.13	133.37	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	115	C	C5-C4-N4	-8.13	114.51	120.20
26	1H	1617	C	O5'-P-OP1	-8.13	98.38	105.70
26	1H	2477	C	C6-N1-C2	-8.13	117.05	120.30
26	14	783	A	C5-C6-N1	-8.13	113.64	117.70
1	13	1502	A	C6-C5-N7	-8.13	126.61	132.30
26	1H	2426	A	C8-N9-C4	-8.12	102.55	105.80
1	1G	890	G	O4'-C1'-N9	8.12	114.70	108.20
26	14	2169	A	N3-C4-C5	-8.12	121.12	126.80
26	14	2355	C	C2-N1-C1'	8.12	127.73	118.80
1	13	1404	C	N3-C4-C5	8.11	125.14	121.90
26	1H	2385	C	O5'-P-OP2	-8.11	98.40	105.70
26	14	2713	A	N7-C8-N9	8.11	117.85	113.80
1	13	968	A	N9-C4-C5	-8.10	102.56	105.80
1	13	1482	G	O5'-P-OP2	-8.10	98.41	105.70
26	14	694	U	O5'-P-OP2	-8.10	98.41	105.70
26	1H	1899	G	C8-N9-C4	-8.10	103.16	106.40
26	1H	122	G	C2-N3-C4	-8.08	107.86	111.90
2	1E	187	LEU	CA-CB-CG	8.07	133.87	115.30
26	1H	192	C	C6-N1-C2	8.07	123.53	120.30
26	14	1899	G	C2-N3-C4	-8.07	107.86	111.90
26	14	2392	A	C5-C6-N1	-8.07	113.66	117.70
26	1H	2710	C	C5-C6-N1	-8.07	116.97	121.00
26	14	1698	A	C6-C5-N7	-8.06	126.66	132.30
26	1H	688	U	C5-C6-N1	-8.06	118.67	122.70
26	1H	2490	G	N7-C8-N9	8.06	117.13	113.10
26	14	1308	A	N1-C6-N6	-8.06	113.77	118.60
26	1H	1839	G	N9-C4-C5	-8.05	102.18	105.40
26	1H	2287	A	C5-C6-N1	-8.05	113.67	117.70
26	14	1698	A	C5-N7-C8	-8.05	99.88	103.90
26	14	2313	C	C6-N1-C2	-8.05	117.08	120.30
26	1H	783	A	N1-C2-N3	8.04	133.32	129.30
26	1H	1914	C	C6-N1-C2	-8.04	117.08	120.30
26	1H	1210	A	C6-C5-N7	-8.04	126.67	132.30
1	1G	631	G	O4'-C1'-N9	8.04	114.63	108.20
26	14	2301	C	C6-N1-C2	-8.04	117.08	120.30
26	1H	1204	A	N1-C6-N6	8.04	123.42	118.60
26	14	2726	U	N3-C4-O4	-8.04	113.77	119.40
26	1H	989	G	C5-C6-O6	-8.03	123.78	128.60
26	1H	917	A	N1-C6-N6	8.03	123.42	118.60
26	14	1142	U	C2-N1-C1'	8.03	127.33	117.70
26	1H	194	G	N7-C8-N9	-8.02	109.09	113.10
26	1H	1307	A	N1-C6-N6	8.02	123.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1602	U	C5-C6-N1	-8.01	118.69	122.70
1	1G	108	G	C5-C6-O6	-8.01	123.79	128.60
26	1H	140	A	C5-C6-N6	-8.01	117.29	123.70
26	14	132	G	C5-C6-N1	-8.01	107.49	111.50
26	1H	841	A	N1-C6-N6	8.01	123.41	118.60
26	14	1992	G	N3-C4-C5	-8.01	124.60	128.60
26	1H	110	G	N9-C4-C5	-8.01	102.20	105.40
26	14	1790	C	N1-C2-O2	-8.00	114.10	118.90
26	1H	1665	A	O5'-P-OP1	-8.00	98.50	105.70
26	14	1597	A	O5'-P-OP2	-7.99	98.51	105.70
1	13	1053	G	C8-N9-C4	7.99	109.60	106.40
26	1H	2346	A	C5-N7-C8	-7.99	99.91	103.90
26	1H	755	C	C4-C5-C6	7.98	121.39	117.40
26	1H	2518	A	C6-C5-N7	-7.98	126.71	132.30
1	13	1227	A	C2-N3-C4	-7.98	106.61	110.60
26	14	2518	A	N9-C4-C5	-7.98	102.61	105.80
26	1H	1807	G	C8-N9-C4	7.98	109.59	106.40
26	1H	2063	C	C6-N1-C2	7.97	123.49	120.30
26	1H	2518	A	C5-N7-C8	-7.97	99.91	103.90
26	1H	1528	A	C5-N7-C8	-7.96	99.92	103.90
26	1H	1950	G	O4'-C1'-N9	7.96	114.57	108.20
26	1H	1310	G	C5-C6-O6	-7.96	123.83	128.60
26	1H	1611	C	C6-N1-C2	7.96	123.48	120.30
26	14	312	G	O5'-P-OP1	-7.96	98.54	105.70
26	1H	2252	G	C8-N9-C4	7.95	109.58	106.40
1	13	767	A	O5'-P-OP1	-7.95	98.55	105.70
26	1H	2275	C	OP1-P-O3'	7.95	122.69	105.20
26	1H	1990	C	C6-N1-C2	-7.94	117.12	120.30
1	13	1502	A	C5-N7-C8	-7.93	99.93	103.90
26	14	2572	A	O5'-P-OP1	-7.93	98.56	105.70
1	1G	108	G	N1-C6-O6	7.93	124.66	119.90
26	14	1328	G	N1-C6-O6	7.93	124.66	119.90
26	14	454	A	O5'-P-OP2	-7.92	98.57	105.70
26	14	2873	A	C5-C6-N1	-7.92	113.74	117.70
26	14	1963	U	N1-C2-O2	7.92	128.34	122.80
26	1H	2544	G	N1-C6-O6	7.92	124.65	119.90
26	1H	2331	G	N1-C6-O6	7.91	124.65	119.90
27	16	8	U	O5'-P-OP1	7.91	120.19	110.70
26	14	2403	C	C6-N1-C2	-7.91	117.14	120.30
26	1H	2439	A	P-O3'-C3'	7.91	129.19	119.70
26	1H	2346	A	O5'-P-OP1	-7.91	98.58	105.70
1	1G	519	C	C6-N1-C2	7.91	123.46	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1332	G	C8-N9-C4	-7.91	103.24	106.40
26	1H	2554	U	O5'-P-OP1	-7.90	98.59	105.70
26	1H	2358	G	N3-C2-N2	-7.90	114.37	119.90
26	1H	1394	U	O5'-P-OP2	7.89	120.17	110.70
26	1H	956	G	N1-C6-O6	7.89	124.63	119.90
26	1H	2830	G	C5-N7-C8	-7.89	100.36	104.30
26	14	676	A	O4'-C1'-N9	7.88	114.51	108.20
45	C8	97	ASP	CB-CG-OD1	7.88	125.39	118.30
26	1H	918	A	O5'-P-OP1	-7.88	98.61	105.70
26	1H	180	G	C8-N9-C4	7.87	109.55	106.40
26	14	1763	G	O5'-P-OP2	-7.87	98.62	105.70
26	1H	1210	A	C2-N3-C4	-7.87	106.67	110.60
26	14	918	A	N7-C8-N9	7.87	117.73	113.80
26	1H	915	C	N1-C2-O2	7.86	123.62	118.90
26	1H	2503	A	N9-C4-C5	-7.86	102.66	105.80
1	13	2	U	C2-N1-C1'	7.85	127.12	117.70
26	1H	181	A	C5-C6-N6	7.85	129.98	123.70
26	1H	966	G	C5-C6-O6	7.84	133.31	128.60
26	14	121	G	C4-C5-N7	7.84	113.94	110.80
26	14	974(A)	C	N1-C2-O2	7.84	123.60	118.90
26	1H	1983	C	C6-N1-C2	7.84	123.44	120.30
26	14	59	U	C5-C4-O4	7.84	130.60	125.90
26	1H	258	G	N3-C2-N2	7.83	125.38	119.90
1	13	476	G	C8-N9-C4	-7.83	103.27	106.40
26	1H	1070	A	O4'-C1'-N9	7.83	114.47	108.20
26	1H	2448	A	N9-C4-C5	7.83	108.93	105.80
36	38	117	LEU	CA-CB-CG	7.83	133.30	115.30
26	14	1616	A	N7-C8-N9	7.83	117.71	113.80
26	1H	1989	G	N3-C2-N2	-7.82	114.43	119.90
26	14	74	A	N7-C8-N9	7.82	117.71	113.80
26	14	1961	C	C6-N1-C2	7.82	123.43	120.30
26	1H	2346	A	C6-C5-N7	-7.82	126.83	132.30
26	1H	1223	C	N1-C2-O2	-7.82	114.21	118.90
26	1H	148	C	C5-C6-N1	-7.81	117.09	121.00
26	1H	658	C	O5'-P-OP2	-7.81	98.67	105.70
26	1H	1254	A	N1-C6-N6	7.81	123.28	118.60
1	13	762	C	C6-N1-C2	7.80	123.42	120.30
26	1H	1379	A	C4-C5-N7	7.80	114.60	110.70
26	1H	330	A	C5-N7-C8	-7.80	100.00	103.90
26	14	1612	C	C6-N1-C2	7.80	123.42	120.30
59	Q8	47	LYS	N-CA-C	-7.80	89.94	111.00
26	14	211	A	N1-C6-N6	7.80	123.28	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	71	A	C5-C6-N6	-7.79	117.46	123.70
26	14	188	G	C8-N9-C4	7.79	109.52	106.40
26	1H	1559	G	N3-C4-C5	7.79	132.50	128.60
26	1H	829	A	C2-N3-C4	-7.79	106.70	110.60
26	1H	1210	A	N7-C8-N9	7.79	117.69	113.80
26	1H	2607	G	C5-C6-O6	-7.79	123.93	128.60
26	1H	676	A	N7-C8-N9	7.78	117.69	113.80
26	1H	318	C	O5'-P-OP1	-7.78	98.70	105.70
26	14	783	A	C5-C6-N6	-7.78	117.47	123.70
26	14	971	C	C6-N1-C2	-7.78	117.19	120.30
1	1G	1301	U	C2-N1-C1'	7.78	127.03	117.70
1	13	266	G	C4-C5-N7	7.78	113.91	110.80
26	1H	2436	G	N3-C2-N2	-7.78	114.46	119.90
26	1H	138	G	O4'-C1'-N9	7.77	114.42	108.20
27	16	115	G	N9-C4-C5	-7.77	102.29	105.40
1	13	402	G	O5'-P-OP2	-7.76	98.71	105.70
26	1H	1308	A	N1-C6-N6	-7.76	113.94	118.60
26	1H	945	A	C5-C6-N1	-7.76	113.82	117.70
26	1H	2287	A	N1-C2-N3	7.76	133.18	129.30
26	14	774	A	C5-N7-C8	-7.75	100.02	103.90
26	14	2062	A	C4-N9-C1'	-7.75	112.34	126.30
1	13	880	C	C6-N1-C2	7.75	123.40	120.30
26	1H	755	C	N3-C4-C5	-7.75	118.80	121.90
26	1H	1247	A	C8-N9-C4	7.75	108.90	105.80
26	1H	1394	U	C5-C6-N1	7.75	126.58	122.70
26	1H	528	A	N3-C4-C5	7.75	132.22	126.80
26	14	1395	A	O4'-C1'-N9	7.75	114.40	108.20
26	14	1678	G	N3-C4-C5	7.75	132.47	128.60
26	14	1899	G	C8-N9-C4	-7.75	103.30	106.40
26	1H	1818	U	O5'-P-OP2	-7.74	98.73	105.70
26	1H	28	A	N1-C6-N6	7.74	123.24	118.60
26	1H	898	C	C2-N1-C1'	7.73	127.31	118.80
26	1H	1616	A	N7-C8-N9	7.73	117.67	113.80
26	1H	140	A	C8-N9-C4	-7.73	102.71	105.80
26	14	1695	G	N3-C4-N9	7.73	130.64	126.00
26	14	188	G	N9-C4-C5	-7.72	102.31	105.40
26	14	945	A	N1-C2-N3	7.72	133.16	129.30
26	1H	508	G	C4-C5-N7	7.72	113.89	110.80
26	1H	2288	A	N1-C6-N6	7.72	123.23	118.60
26	1H	822	U	O5'-P-OP2	-7.71	98.76	105.70
26	1H	1193	G	N7-C8-N9	-7.71	109.24	113.10
26	14	689	A	O5'-P-OP2	-7.71	98.76	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	220	G	C6-C5-N7	-7.71	125.77	130.40
26	14	2001	A	N1-C6-N6	7.71	123.23	118.60
26	14	1696	G	O5'-P-OP2	-7.71	98.76	105.70
26	1H	668	G	C8-N9-C4	7.71	109.48	106.40
26	1H	225	A	C8-N9-C4	7.70	108.88	105.80
26	1H	1026	U	C2-N1-C1'	-7.70	108.46	117.70
26	14	1135	C	N1-C2-O2	7.70	123.52	118.90
53	K8	32	LEU	CA-CB-CG	7.70	133.00	115.30
26	1H	2287	A	N1-C6-N6	7.69	123.22	118.60
26	1H	271(B)	G	N3-C4-C5	-7.69	124.75	128.60
26	1H	1204	A	C6-C5-N7	-7.69	126.92	132.30
26	14	2688	U	N3-C4-O4	-7.69	114.02	119.40
26	1H	74	A	C8-N9-C4	-7.69	102.72	105.80
26	14	1787	A	O5'-P-OP1	-7.68	98.78	105.70
26	1H	472	A	O5'-P-OP2	-7.68	98.79	105.70
26	1H	528	A	C2-N3-C4	-7.68	106.76	110.60
26	1H	752	A	P-O3'-C3'	7.68	128.91	119.70
26	1H	2241	A	N1-C6-N6	-7.67	114.00	118.60
26	1H	1764	G	C5-C6-O6	7.67	133.20	128.60
26	1H	2822	G	C4-C5-N7	7.67	113.87	110.80
1	13	1519	A	C5-C6-N6	7.67	129.84	123.70
27	1J	114	G	C8-N9-C4	7.67	109.47	106.40
1	13	888	G	N1-C6-O6	7.67	124.50	119.90
26	1H	2157	G	P-O3'-C3'	7.67	128.90	119.70
26	1H	2377	A	C2-N3-C4	-7.67	106.77	110.60
26	1H	115	C	N3-C4-N4	7.66	123.36	118.00
1	1G	1502	A	N1-C2-N3	7.66	133.13	129.30
26	14	1661	G	C2-N3-C4	-7.65	108.07	111.90
26	14	2210	G	C4-N9-C1'	7.65	136.44	126.50
26	1H	463	G	N3-C2-N2	7.65	125.25	119.90
26	1H	1971	A	O5'-P-OP2	-7.64	98.82	105.70
26	14	307	G	O5'-P-OP2	-7.64	98.82	105.70
26	1H	1136	G	O5'-P-OP2	-7.64	98.83	105.70
26	14	1616	A	C6-C5-N7	-7.64	126.95	132.30
26	14	1142	U	N1-C2-O2	7.63	128.15	122.80
26	14	1613	G	N3-C2-N2	7.63	125.24	119.90
26	14	27	G	N3-C4-N9	-7.63	121.42	126.00
26	1H	2323	G	C8-N9-C4	7.63	109.45	106.40
26	14	2690	C	N1-C2-O2	7.63	123.48	118.90
26	1H	528	A	C5-N7-C8	-7.63	100.09	103.90
26	1H	1492	G	N1-C6-O6	7.63	124.48	119.90
26	14	2258	C	N3-C4-N4	7.63	123.34	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	970	C	N1-C2-O2	7.63	123.48	118.90
1	13	524	G	C4-C5-N7	7.62	113.85	110.80
26	14	1914	C	N3-C2-O2	-7.62	116.56	121.90
26	14	2713	A	C2-N3-C4	-7.62	106.79	110.60
26	1H	528	A	N1-C6-N6	7.62	123.17	118.60
26	14	970	C	N1-C2-O2	-7.62	114.33	118.90
26	1H	2502	G	N3-C4-C5	-7.61	124.80	128.60
57	O8	34	LEU	CA-CB-CG	7.61	132.81	115.30
1	13	888	G	C2-N3-C4	-7.61	108.10	111.90
1	13	1504	G	O5'-P-OP1	-7.61	98.85	105.70
26	1H	245	G	O5'-P-OP1	-7.61	98.85	105.70
26	1H	966	G	N1-C6-O6	-7.61	115.33	119.90
26	1H	2779	U	N3-C2-O2	-7.61	116.88	122.20
26	14	1345	C	C6-N1-C2	-7.61	117.26	120.30
1	13	795	C	C5-C6-N1	-7.60	117.20	121.00
26	14	791	C	C6-N1-C2	7.60	123.34	120.30
26	14	2392	A	C2-N3-C4	-7.60	106.80	110.60
24	3L	49	C	C6-N1-C2	-7.60	117.26	120.30
1	13	690	G	C4-C5-C6	7.60	123.36	118.80
26	14	2542	A	N7-C8-N9	-7.60	110.00	113.80
26	14	1885	A	C8-N9-C4	7.59	108.84	105.80
1	13	1469	G	N7-C8-N9	7.59	116.89	113.10
26	1H	508	G	N3-C4-N9	7.59	130.55	126.00
27	1J	84	C	C6-N1-C2	7.59	123.33	120.30
40	35	45	LEU	CA-CB-CG	7.58	132.74	115.30
26	1H	1614	A	C5-N7-C8	-7.58	100.11	103.90
26	14	783	A	N1-C2-N3	7.58	133.09	129.30
23	2K	21	U	N3-C2-O2	-7.57	116.90	122.20
24	3K	5	C	C6-N1-C2	-7.57	117.27	120.30
26	1H	600	G	C8-N9-C4	7.57	109.43	106.40
26	1H	202	U	C4-C5-C6	-7.57	115.16	119.70
1	13	703	G	C4-N9-C1'	7.57	136.34	126.50
26	1H	2506	U	N3-C2-O2	-7.57	116.90	122.20
22	1L	17	U	O4'-C1'-N1	7.57	114.25	108.20
26	14	2111	C	C2-N1-C1'	7.57	127.12	118.80
26	14	2386	C	C6-N1-C2	7.57	123.33	120.30
26	1H	330	A	N1-C6-N6	7.56	123.14	118.60
26	1H	1899	G	C4-N9-C1'	-7.56	116.67	126.50
26	1H	2476	A	C2-N3-C4	7.56	114.38	110.60
26	1H	1989	G	N1-C6-O6	7.56	124.44	119.90
26	14	929	G	C6-C5-N7	-7.56	125.87	130.40
26	1H	220	G	C5-C6-O6	-7.55	124.07	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	634	C	O5'-P-OP2	-7.55	98.90	105.70
26	1H	482	A	C8-N9-C4	-7.55	102.78	105.80
26	1H	2275	C	C6-N1-C2	-7.55	117.28	120.30
26	1H	198	C	N3-C4-C5	7.54	124.92	121.90
26	14	49	A	P-O3'-C3'	7.54	128.75	119.70
1	13	687	A	P-O3'-C3'	7.54	128.75	119.70
26	14	744	G	O5'-P-OP2	-7.54	98.91	105.70
26	1H	845	G	C8-N9-C1'	7.54	136.80	127.00
26	14	1858	G	N1-C6-O6	7.53	124.42	119.90
26	1H	2822	G	N1-C6-O6	7.53	124.42	119.90
26	14	2088	G	N9-C4-C5	-7.53	102.39	105.40
26	14	1984	G	C8-N9-C4	7.53	109.41	106.40
26	1H	1751	C	C6-N1-C2	7.52	123.31	120.30
26	1H	530	G	N3-C2-N2	7.51	125.16	119.90
26	1H	973	A	C2-N3-C4	-7.51	106.84	110.60
26	1H	1957	C	C5-C6-N1	-7.51	117.25	121.00
26	1H	2287	A	N3-C4-C5	7.51	132.06	126.80
1	13	112	G	C4-C5-N7	7.50	113.80	110.80
26	1H	2277	G	N1-C6-O6	-7.50	115.40	119.90
26	14	2873	A	C4-C5-N7	7.50	114.45	110.70
26	1H	2036	C	N3-C4-C5	-7.50	118.90	121.90
26	1H	1616	A	C5-C6-N6	-7.49	117.71	123.70
26	14	774	A	N9-C4-C5	-7.49	102.80	105.80
26	14	2593	U	N3-C4-C5	7.49	119.09	114.60
26	1H	265	A	C5-N7-C8	-7.49	100.16	103.90
26	1H	691	C	N1-C2-O2	-7.49	114.41	118.90
1	1G	117	G	C6-C5-N7	-7.49	125.91	130.40
26	1H	593	G	N1-C2-N3	7.48	128.39	123.90
26	14	130	C	N3-C4-C5	7.48	124.89	121.90
27	16	115	G	C4-C5-N7	7.48	113.79	110.80
57	O8	36	LEU	CA-CB-CG	7.48	132.51	115.30
26	1H	148	C	N3-C4-C5	7.48	124.89	121.90
26	14	2613	U	O5'-P-OP2	-7.48	98.97	105.70
26	1H	2438	U	O5'-P-OP2	-7.48	98.97	105.70
26	1H	1564	C	C6-N1-C2	-7.48	117.31	120.30
26	1H	729	G	N9-C4-C5	7.47	108.39	105.40
1	1G	1415	G	N9-C4-C5	-7.47	102.41	105.40
26	14	2163	C	N3-C2-O2	-7.47	116.67	121.90
26	14	2713	A	C4-C5-N7	7.47	114.44	110.70
26	1H	1340	U	C5-C4-O4	-7.47	121.42	125.90
1	1G	899	C	N1-C2-O2	7.46	123.38	118.90
26	14	2689	U	N3-C4-O4	-7.46	114.17	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1764	G	N1-C6-O6	-7.46	115.42	119.90
26	14	1950	G	N3-C4-N9	7.46	130.47	126.00
26	1H	330	A	C4-C5-N7	7.46	114.43	110.70
26	1H	2584	U	N3-C2-O2	-7.45	116.98	122.20
26	1H	85	G	O5'-P-OP2	-7.45	99.00	105.70
26	1H	74	A	C5-C6-N1	-7.45	113.98	117.70
1	1G	320	C	C6-N1-C2	7.44	123.28	120.30
26	1H	1240	U	O5'-P-OP2	-7.44	99.00	105.70
26	1H	2246	G	N9-C4-C5	-7.44	102.42	105.40
26	1H	445	C	C6-N1-C2	-7.44	117.33	120.30
26	14	1928	A	C8-N9-C4	7.44	108.78	105.80
26	1H	2518	A	C4-C5-N7	7.43	114.42	110.70
26	1H	1611	C	C5-C6-N1	-7.43	117.28	121.00
26	1H	1496	A	N1-C6-N6	7.43	123.06	118.60
26	14	2429	G	O5'-P-OP2	-7.42	99.02	105.70
26	1H	202	U	C6-N1-C1'	-7.42	110.81	121.20
26	1H	2444	G	O5'-P-OP2	-7.42	99.02	105.70
45	C8	74	LEU	CA-CB-CG	7.42	132.37	115.30
1	1G	108	G	C4-C5-N7	7.42	113.77	110.80
26	1H	1201	C	N1-C2-O2	-7.41	114.45	118.90
26	14	1614	A	C2-N3-C4	-7.41	106.89	110.60
26	1H	792	G	OP2-P-O3'	7.41	121.50	105.20
26	14	1779	U	C5-C4-O4	-7.41	121.45	125.90
26	14	1322	A	C5-C6-N6	-7.41	117.78	123.70
26	1H	737	C	N1-C2-O2	-7.40	114.46	118.90
26	14	1682	G	O5'-P-OP2	-7.40	99.04	105.70
26	1H	845	G	N3-C4-C5	7.40	132.30	128.60
26	1H	1364	G	N1-C6-O6	7.40	124.34	119.90
26	1H	932	G	N3-C2-N2	7.40	125.08	119.90
26	14	1899	G	N1-C2-N3	7.40	128.34	123.90
26	1H	1122	G	N9-C4-C5	-7.40	102.44	105.40
2	12	187	LEU	CA-CB-CG	7.40	132.31	115.30
26	1H	728	G	N9-C4-C5	-7.39	102.44	105.40
26	1H	2346	A	C8-N9-C4	-7.39	102.84	105.80
26	1H	1839	G	C8-N9-C1'	-7.39	117.40	127.00
1	13	1502	A	N1-C6-N6	7.39	123.03	118.60
1	13	328	C	O5'-P-OP1	-7.38	99.05	105.70
26	1H	122	G	C6-C5-N7	-7.38	125.97	130.40
26	1H	1236	G	C8-N9-C4	7.38	109.35	106.40
26	1H	1021	A	C4-C5-N7	7.38	114.39	110.70
1	13	266	G	C5-N7-C8	-7.38	100.61	104.30
26	1H	705	A	N1-C6-N6	7.38	123.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	567	A	N9-C4-C5	-7.38	102.85	105.80
26	1H	835	A	O5'-P-OP2	-7.38	99.06	105.70
26	14	669	G	O5'-P-OP2	7.38	119.55	110.70
24	3L	34	U	P-O3'-C3'	7.38	128.55	119.70
1	13	1469	G	C5-N7-C8	-7.38	100.61	104.30
26	1H	1528	A	O4'-C1'-N9	7.37	114.10	108.20
26	1H	2329	G	N3-C4-C5	7.37	132.29	128.60
27	1J	98	G	N1-C6-O6	7.37	124.32	119.90
1	13	563	A	O4'-C1'-N9	7.37	114.09	108.20
26	1H	2324	C	C6-N1-C2	7.36	123.25	120.30
26	14	828	U	N3-C2-O2	-7.36	117.05	122.20
26	1H	2424	C	OP1-P-OP2	7.36	130.63	119.60
26	14	402	A	N1-C6-N6	-7.36	114.19	118.60
26	14	1858	G	C5-C6-O6	-7.36	124.19	128.60
1	13	688	G	N1-C6-O6	-7.36	115.49	119.90
26	14	2430	A	C5-N7-C8	-7.36	100.22	103.90
26	1H	1614	A	N1-C6-N6	7.35	123.01	118.60
26	1H	432	A	N1-C6-N6	7.35	123.01	118.60
26	14	1989	G	N3-C2-N2	-7.35	114.75	119.90
26	14	2237	G	C2-N3-C4	-7.35	108.23	111.90
26	14	74	A	N1-C6-N6	7.34	123.01	118.60
26	1H	204	A	N7-C8-N9	-7.34	110.13	113.80
26	1H	1779	U	O5'-P-OP1	-7.34	99.09	105.70
26	1H	1573	G	N9-C4-C5	-7.34	102.47	105.40
26	1H	2430	A	N3-C4-C5	7.34	131.94	126.80
26	1H	2377	A	N1-C6-N6	7.34	123.00	118.60
26	14	676	A	N7-C8-N9	7.33	117.47	113.80
26	1H	1698	A	C5-C6-N1	-7.33	114.03	117.70
26	1H	672	C	O5'-P-OP2	-7.33	99.11	105.70
26	1H	1144	G	O5'-P-OP2	-7.32	99.11	105.70
26	14	121	G	N1-C6-O6	7.32	124.29	119.90
26	1H	2507	C	C6-N1-C2	-7.32	117.37	120.30
26	1H	758	C	O5'-P-OP2	-7.32	99.11	105.70
26	1H	1210	A	C5-C6-N1	-7.32	114.04	117.70
26	1H	1201	C	N3-C4-N4	7.32	123.12	118.00
1	1G	1127	G	C2-N3-C4	7.32	115.56	111.90
1	13	872	A	O4'-C1'-N9	7.32	114.05	108.20
26	14	630	G	C8-N9-C4	7.32	109.33	106.40
26	1H	676	A	C4-C5-N7	7.32	114.36	110.70
27	1J	84	C	C5-C6-N1	-7.32	117.34	121.00
26	14	808	G	O5'-P-OP2	-7.31	99.12	105.70
26	14	1379	A	C6-C5-N7	-7.31	127.18	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	208	C	C6-N1-C2	7.30	123.22	120.30
1	1G	449	C	C6-N1-C2	-7.30	117.38	120.30
26	1H	913	U	O5'-P-OP2	-7.30	99.13	105.70
1	13	1486	G	O5'-P-OP2	-7.30	99.13	105.70
26	1H	141	A	C6-C5-N7	-7.30	127.19	132.30
26	1H	146	G	C8-N9-C4	7.30	109.32	106.40
26	1H	1950	G	C4-N9-C1'	7.30	135.99	126.50
1	13	892	A	N1-C6-N6	7.29	122.98	118.60
1	13	551	U	C6-N1-C2	7.29	125.38	121.00
26	1H	827	U	N1-C2-O2	-7.29	117.69	122.80
26	1H	1142(A)	A	N1-C6-N6	7.29	122.97	118.60
1	1G	1260	C	C5-C6-N1	7.29	124.64	121.00
26	14	2113	U	C2-N1-C1'	7.29	126.44	117.70
26	1H	783	A	C4-C5-C6	7.28	120.64	117.00
26	1H	805	G	C6-C5-N7	-7.28	126.03	130.40
26	1H	1061	U	C2-N1-C1'	7.28	126.44	117.70
27	16	32	C	N1-C2-O2	7.28	123.27	118.90
26	1H	2490	G	C2-N3-C4	-7.28	108.26	111.90
26	14	71	A	C6-C5-N7	-7.28	127.20	132.30
26	1H	2403	C	C6-N1-C2	-7.28	117.39	120.30
26	14	459	U	O5'-P-OP2	-7.28	99.15	105.70
26	14	2374	C	C5-C6-N1	-7.28	117.36	121.00
1	13	1493	A	O5'-P-OP1	-7.27	99.15	105.70
26	14	2307	G	O4'-C1'-N9	7.27	114.02	108.20
1	13	1028	C	N1-C2-O2	7.27	123.26	118.90
1	13	1128	C	C6-N1-C2	-7.27	117.39	120.30
26	14	2076	U	C5-C6-N1	7.27	126.33	122.70
26	14	334	C	C6-N1-C2	7.26	123.20	120.30
26	14	1379	A	N7-C8-N9	7.26	117.43	113.80
26	14	2518	A	O4'-C1'-N9	-7.26	102.39	108.20
26	1H	2237	G	N9-C4-C5	-7.26	102.50	105.40
26	1H	2439	A	O5'-P-OP2	-7.26	99.17	105.70
26	1H	1929	G	O5'-P-OP2	-7.26	99.17	105.70
26	1H	663	G	N3-C4-C5	-7.26	124.97	128.60
26	14	189	G	C8-N9-C4	7.26	109.30	106.40
26	14	2612	C	N3-C4-N4	7.25	123.08	118.00
26	1H	845	G	C4-N9-C1'	-7.25	117.07	126.50
26	14	676	A	N3-C4-C5	7.25	131.88	126.80
26	1H	627	A	N7-C8-N9	-7.25	110.17	113.80
26	1H	2392	A	N1-C6-N6	7.25	122.95	118.60
26	14	829	A	O5'-P-OP1	-7.24	99.18	105.70
26	1H	818	G	N3-C4-N9	-7.24	121.66	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1301	U	N3-C2-O2	-7.24	117.13	122.20
26	14	2329	G	N3-C4-N9	7.24	130.34	126.00
23	2K	27	G	C5-C6-O6	-7.24	124.26	128.60
26	14	2873	A	N1-C2-N3	7.24	132.92	129.30
26	1H	997	G	C8-N9-C4	7.24	109.29	106.40
26	1H	1263	U	N3-C4-C5	7.24	118.94	114.60
26	1H	1639	U	N3-C2-O2	-7.24	117.14	122.20
22	1L	16	C	C6-N1-C2	-7.24	117.41	120.30
1	13	585	G	O5'-P-OP2	-7.23	99.19	105.70
26	14	2726	U	C5-C4-O4	7.23	130.24	125.90
26	1H	189	G	N9-C4-C5	-7.23	102.51	105.40
23	2L	40	C	C6-N1-C2	-7.23	117.41	120.30
26	14	2430	A	C6-C5-N7	-7.23	127.24	132.30
1	1G	197	A	P-O3'-C3'	7.22	128.37	119.70
1	13	1487	G	O5'-P-OP2	-7.22	99.20	105.70
26	1H	2252	G	N7-C8-N9	-7.22	109.49	113.10
1	13	623	C	C5-C6-N1	7.22	124.61	121.00
26	1H	244	A	N1-C6-N6	7.22	122.93	118.60
26	14	1820	U	C6-N1-C2	7.22	125.33	121.00
26	14	461	C	N1-C2-O2	-7.22	114.57	118.90
26	1H	222	A	P-O3'-C3'	7.21	128.36	119.70
26	14	1388	G	O5'-P-OP2	-7.21	99.21	105.70
26	1H	1558	A	P-O3'-C3'	7.21	128.35	119.70
26	1H	259	G	N9-C4-C5	-7.21	102.52	105.40
26	14	2051	A	C2-N3-C4	-7.21	107.00	110.60
26	14	2616	C	N1-C2-O2	7.21	123.22	118.90
26	1H	735	A	O5'-P-OP2	-7.21	99.21	105.70
26	1H	2254	C	N1-C2-O2	-7.21	114.58	118.90
1	1G	1487	G	N1-C6-O6	7.21	124.22	119.90
26	1H	2509	G	C5-C6-O6	-7.20	124.28	128.60
26	1H	2698	U	O5'-P-OP2	-7.20	99.22	105.70
26	14	659	C	O5'-P-OP2	-7.20	99.22	105.70
1	1G	1354	C	C6-N1-C2	-7.20	117.42	120.30
1	13	1512	U	O5'-P-OP2	-7.20	99.22	105.70
26	14	740	U	O5'-P-OP2	-7.20	99.22	105.70
26	14	1774	C	C5-C4-N4	-7.19	115.17	120.20
1	13	795	C	C6-N1-C2	7.18	123.17	120.30
26	1H	592	G	N1-C6-O6	-7.18	115.59	119.90
26	1H	1364	G	C6-C5-N7	-7.18	126.09	130.40
26	1H	74	A	N1-C6-N6	7.18	122.91	118.60
26	1H	130	C	C5-C4-N4	-7.17	115.18	120.20
26	1H	1191	G	C8-N9-C4	7.17	109.27	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1412	C	C6-N1-C2	7.17	123.17	120.30
1	13	690	G	N9-C4-C5	-7.17	102.53	105.40
26	1H	689	A	N1-C6-N6	7.17	122.90	118.60
26	1H	1931	U	N3-C4-O4	-7.17	114.38	119.40
23	2L	77	A	N9-C4-C5	-7.17	102.93	105.80
26	1H	2318	G	O4'-C1'-N9	7.16	113.93	108.20
26	14	1761	C	N1-C2-O2	-7.16	114.60	118.90
26	14	2258	C	C5-C4-N4	-7.16	115.19	120.20
26	1H	765	G	N3-C2-N2	-7.16	114.89	119.90
1	13	827	U	C2-N1-C1'	7.16	126.29	117.70
26	1H	1698	A	N7-C8-N9	7.16	117.38	113.80
26	14	2438	U	O5'-P-OP2	-7.16	99.26	105.70
26	1H	811	U	C5-C6-N1	-7.15	119.12	122.70
1	13	963	G	N1-C2-N2	-7.15	109.76	116.20
26	1H	2340	G	C8-N9-C4	7.15	109.26	106.40
1	13	1203	C	C6-N1-C2	-7.15	117.44	120.30
26	1H	2688	U	C5-C6-N1	-7.15	119.12	122.70
26	1H	1363	C	N3-C4-C5	7.14	124.76	121.90
26	14	4	C	N1-C2-O2	7.14	123.19	118.90
23	2K	1	C	C6-N1-C2	-7.14	117.44	120.30
26	1H	133	C	C6-N1-C2	7.14	123.16	120.30
26	1H	790	C	N3-C2-O2	7.14	126.90	121.90
26	1H	2346	A	C4-C5-C6	7.14	120.57	117.00
26	14	213	A	N1-C6-N6	7.14	122.88	118.60
26	14	2241	A	C2-N3-C4	-7.14	107.03	110.60
26	14	1828	G	C8-N9-C4	-7.13	103.55	106.40
26	14	2612	C	C5-C4-N4	-7.13	115.21	120.20
26	14	1281	G	C4-C5-N7	7.13	113.65	110.80
26	14	1309	G	C6-C5-N7	-7.13	126.12	130.40
26	1H	259	G	C4-C5-N7	7.13	113.65	110.80
26	1H	691	C	N3-C2-O2	7.13	126.89	121.90
26	1H	2253	G	N9-C4-C5	-7.13	102.55	105.40
26	14	2600	A	C4-C5-N7	-7.13	107.14	110.70
24	3L	47	G	N3-C2-N2	-7.12	114.92	119.90
26	1H	2869	G	C8-N9-C4	-7.12	103.55	106.40
26	1H	1122	G	C8-N9-C4	7.12	109.25	106.40
26	1H	2465	C	N3-C4-C5	7.12	124.75	121.90
26	1H	2689	U	C5-C6-N1	-7.12	119.14	122.70
26	14	2060	A	N1-C6-N6	-7.12	114.33	118.60
26	1H	2625	G	C5-C6-O6	-7.12	124.33	128.60
26	1H	1363	C	C5-C6-N1	-7.11	117.44	121.00
26	1H	1543	A	C2-N3-C4	-7.11	107.04	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1790	C	C2-N1-C1'	-7.11	110.97	118.80
26	1H	1790	C	C2-N3-C4	-7.11	116.34	119.90
26	1H	2331	G	C2-N3-C4	-7.11	108.34	111.90
26	14	793	A	C2-N3-C4	-7.11	107.04	110.60
26	14	1558	A	C2-N3-C4	-7.11	107.04	110.60
26	14	1342	A	N1-C2-N3	7.11	132.86	129.30
26	1H	2509	G	C4-C5-N7	7.11	113.64	110.80
26	14	2012	G	N3-C4-N9	7.11	130.27	126.00
26	14	2443	C	O5'-P-OP1	-7.11	99.30	105.70
26	1H	1417	C	C6-N1-C2	-7.11	117.46	120.30
26	1H	664	C	C4-C5-C6	7.10	120.95	117.40
1	13	703	G	C4-C5-N7	7.10	113.64	110.80
26	1H	1972	A	C5-C6-N6	-7.10	118.02	123.70
26	14	2255	G	O5'-P-OP2	-7.10	99.31	105.70
26	1H	932	G	N1-C2-N2	-7.10	109.81	116.20
26	14	1762	A	OP2-P-O3'	7.10	120.81	105.20
26	1H	188	G	C6-C5-N7	-7.09	126.14	130.40
26	1H	458	G	N9-C4-C5	7.09	108.24	105.40
26	1H	2726	U	C5-C4-O4	7.09	130.15	125.90
26	1H	862	G	N3-C4-C5	-7.09	125.06	128.60
26	1H	74	A	C4-C5-C6	7.08	120.54	117.00
26	14	1313	U	C6-N1-C2	-7.08	116.75	121.00
26	1H	734	A	O5'-P-OP2	-7.08	99.33	105.70
26	14	2426	A	N7-C8-N9	7.08	117.34	113.80
26	1H	1614	A	C5-C6-N1	-7.08	114.16	117.70
26	1H	795	C	C5-C6-N1	-7.08	117.46	121.00
1	1G	360	A	C8-N9-C4	7.08	108.63	105.80
26	14	2544	G	C5-C6-O6	-7.08	124.35	128.60
26	1H	140	A	C2-N3-C4	-7.08	107.06	110.60
26	1H	1678	G	N7-C8-N9	7.08	116.64	113.10
26	1H	979	G	N3-C2-N2	-7.07	114.95	119.90
26	1H	681	G	C8-N9-C4	7.07	109.23	106.40
26	1H	793	A	O5'-P-OP2	-7.07	99.33	105.70
1	13	601	C	C6-N1-C2	-7.07	117.47	120.30
26	14	872	A	N1-C6-N6	7.07	122.84	118.60
26	14	2079	U	O5'-P-OP1	-7.07	99.34	105.70
26	14	2346	A	C5-C6-N1	-7.07	114.17	117.70
26	14	2441	C	N3-C2-O2	-7.07	116.95	121.90
26	1H	127	A	C5-C6-N6	-7.07	118.05	123.70
26	1H	623	G	O5'-P-OP2	-7.07	99.34	105.70
1	1G	1158	C	C6-N1-C2	-7.07	117.47	120.30
26	14	2607	G	N9-C4-C5	-7.07	102.57	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	860	U	C5-C6-N1	-7.06	119.17	122.70
26	1H	1241	A	N1-C6-N6	7.06	122.84	118.60
1	13	1301	U	C6-N1-C1'	-7.06	111.31	121.20
26	1H	271(B)	G	P-O3'-C3'	7.06	128.18	119.70
27	1J	103	U	C5-C6-N1	-7.06	119.17	122.70
26	14	830	G	C5-C6-O6	-7.06	124.36	128.60
26	14	2433	A	C4-C5-C6	7.06	120.53	117.00
26	1H	1573	G	C8-N9-C4	7.06	109.22	106.40
1	1G	493	G	N3-C4-C5	-7.06	125.07	128.60
26	14	117	G	N1-C6-O6	7.06	124.14	119.90
26	1H	1603	A	N7-C8-N9	7.06	117.33	113.80
26	14	1656	C	C6-N1-C2	-7.06	117.48	120.30
31	39	125	LEU	CA-CB-CG	7.06	131.53	115.30
26	1H	1698	A	C4-C5-C6	7.05	120.53	117.00
26	1H	2477	C	N1-C2-O2	7.05	123.13	118.90
26	14	2444	G	N3-C2-N2	-7.05	114.96	119.90
26	1H	835	A	C2-N3-C4	7.05	114.13	110.60
26	1H	1844	C	N3-C4-N4	7.05	122.94	118.00
26	1H	2358	G	N9-C4-C5	7.05	108.22	105.40
26	1H	798	G	C8-N9-C4	7.05	109.22	106.40
26	14	2224	G	C6-C5-N7	-7.05	126.17	130.40
1	13	1374	A	C2-N3-C4	-7.04	107.08	110.60
26	1H	940	G	C5-C6-O6	-7.04	124.37	128.60
26	1H	802	A	OP1-P-O3'	-7.04	89.71	105.20
26	1H	1606	G	C6-C5-N7	-7.04	126.18	130.40
26	1H	1646	C	C6-N1-C2	7.04	123.12	120.30
26	14	772	C	N3-C2-O2	7.04	126.83	121.90
40	35	46	LYS	C-N-CA	-7.04	104.10	121.70
26	1H	1790	C	N3-C2-O2	7.03	126.82	121.90
26	1H	2043	C	C6-N1-C2	-7.03	117.49	120.30
1	13	760	G	N1-C6-O6	7.03	124.11	119.90
26	1H	2236	C	O5'-P-OP1	-7.03	99.38	105.70
26	1H	62	C	C5-C6-N1	-7.02	117.49	121.00
26	1H	1356	G	N1-C6-O6	7.02	124.11	119.90
26	1H	1888	G	N3-C4-N9	7.02	130.21	126.00
26	1H	2466	C	N3-C4-C5	7.02	124.71	121.90
26	1H	1032	A	N1-C6-N6	7.02	122.81	118.60
26	1H	205	G	N3-C2-N2	7.01	124.81	119.90
26	1H	1021	A	C6-C5-N7	-7.01	127.39	132.30
1	13	123	C	O5'-P-OP2	-7.01	99.39	105.70
26	1H	688	U	C4-C5-C6	7.01	123.91	119.70
26	1H	783	A	C5-C6-N1	-7.01	114.19	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2277	G	N3-C4-C5	-7.01	125.09	128.60
26	14	750	A	N7-C8-N9	7.01	117.31	113.80
26	14	1661	G	C8-N9-C4	7.01	109.20	106.40
26	14	2275	C	C5-C6-N1	7.00	124.50	121.00
26	14	2755	C	C2-N1-C1'	7.00	126.50	118.80
26	1H	530	G	N1-C2-N2	-7.00	109.90	116.20
1	13	529	G	N1-C6-O6	7.00	124.10	119.90
26	1H	389	G	N9-C4-C5	-7.00	102.60	105.40
1	13	578	C	N1-C2-O2	-7.00	114.70	118.90
1	1G	1374	A	C2-N3-C4	-7.00	107.10	110.60
1	1G	121	C	C2-N1-C1'	7.00	126.50	118.80
26	1H	162	U	C2-N1-C1'	6.99	126.09	117.70
26	14	820	A	N1-C6-N6	-6.99	114.40	118.60
26	1H	765	G	C5-C6-O6	-6.99	124.41	128.60
26	14	68	G	N1-C6-O6	6.99	124.09	119.90
26	1H	2357	U	O5'-P-OP2	-6.99	99.41	105.70
26	14	1725	G	C4-N9-C1'	6.99	135.59	126.50
1	1G	4	U	N3-C2-O2	-6.99	117.31	122.20
24	3L	62	C	C2-N1-C1'	6.98	126.48	118.80
1	13	843	U	C2-N1-C1'	6.98	126.08	117.70
26	1H	19	C	C6-N1-C2	6.98	123.09	120.30
26	1H	844	C	N1-C2-O2	-6.98	114.71	118.90
26	1H	1844	C	C5-C4-N4	-6.98	115.31	120.20
26	1H	1377	G	O5'-P-OP2	-6.98	99.42	105.70
26	1H	1520	U	N3-C2-O2	-6.98	117.32	122.20
26	1H	2782	G	N1-C6-O6	6.97	124.08	119.90
26	1H	1888	G	N3-C4-C5	-6.97	125.11	128.60
26	14	2619	C	C6-N1-C2	6.97	123.09	120.30
26	14	2275	C	N3-C2-O2	-6.97	117.02	121.90
26	14	1695	G	N3-C4-C5	-6.97	125.12	128.60
26	1H	350	U	C5-C4-O4	6.97	130.08	125.90
26	14	1776	G	C6-C5-N7	-6.97	126.22	130.40
1	13	36	C	N3-C4-C5	-6.97	119.11	121.90
26	1H	2688	U	N1-C2-N3	6.97	119.08	114.90
24	3L	47	G	N3-C4-N9	-6.97	121.82	126.00
26	1H	2521	C	O5'-P-OP1	-6.96	99.43	105.70
24	3K	66	C	N1-C2-O2	6.96	123.08	118.90
26	14	1342	A	N9-C1'-C2'	6.96	123.05	114.00
1	1G	1374	A	N1-C2-N3	6.96	132.78	129.30
26	14	929	G	C4-C5-N7	6.96	113.58	110.80
26	1H	432	A	C5-C6-N6	-6.96	118.13	123.70
1	13	1322	C	C6-N1-C2	6.95	123.08	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2304	G	N3-C4-C5	6.95	132.08	128.60
26	14	668	G	C8-N9-C4	6.95	109.18	106.40
26	1H	668	G	OP1-P-O3'	6.95	120.49	105.20
26	1H	1182	A	N1-C6-N6	6.95	122.77	118.60
26	14	2329	G	C5-C6-N1	6.95	114.97	111.50
26	14	1950	G	N3-C2-N2	6.95	124.76	119.90
26	14	1695	G	O5'-P-OP2	-6.94	99.45	105.70
26	14	2452	C	C5-C4-N4	-6.94	115.34	120.20
26	14	2776	A	P-O3'-C3'	6.94	128.03	119.70
26	14	2821	A	C2-N3-C4	-6.94	107.13	110.60
26	1H	729	G	N3-C2-N2	-6.94	115.05	119.90
26	1H	917	A	C6-C5-N7	-6.94	127.44	132.30
26	1H	1021	A	N7-C8-N9	6.93	117.27	113.80
26	1H	660	G	C4-C5-N7	6.93	113.57	110.80
26	1H	223	A	O5'-P-OP2	-6.93	99.46	105.70
26	14	200	U	O5'-P-OP1	-6.93	99.46	105.70
1	13	974	A	N1-C6-N6	6.93	122.76	118.60
26	14	2594	C	C6-N1-C2	6.93	123.07	120.30
26	1H	621	A	N1-C2-N3	6.92	132.76	129.30
26	14	2087	G	N9-C4-C5	-6.92	102.63	105.40
26	14	2575	C	C2-N1-C1'	-6.92	111.18	118.80
26	1H	1427	A	C6-N1-C2	-6.92	114.45	118.60
26	14	1332	G	N1-C6-O6	6.92	124.05	119.90
26	14	2417	C	O5'-P-OP2	-6.92	99.47	105.70
26	1H	202	U	N3-C2-O2	6.92	127.05	122.20
26	1H	777	A	N1-C6-N6	-6.92	114.45	118.60
26	1H	1993	U	N1-C2-O2	-6.92	117.95	122.80
26	14	1358	G	C6-C5-N7	-6.92	126.25	130.40
26	14	1624	G	N1-C6-O6	6.92	124.05	119.90
26	1H	1021	A	C5-C6-N1	-6.92	114.24	117.70
26	1H	1786	A	N9-C1'-C2'	6.92	122.99	114.00
26	1H	1825	A	O5'-P-OP2	-6.92	99.47	105.70
26	14	773	U	N1-C2-N3	6.92	119.05	114.90
26	14	2490	G	N9-C4-C5	-6.92	102.63	105.40
26	1H	2822	G	C6-C5-N7	-6.91	126.25	130.40
26	1H	692	C	N3-C4-C5	6.91	124.67	121.90
26	14	677	A	O5'-P-OP2	-6.91	99.48	105.70
26	1H	665	C	C6-N1-C2	6.91	123.06	120.30
26	14	2523	G	N1-C6-O6	6.91	124.05	119.90
1	13	22	G	O5'-P-OP2	-6.91	99.48	105.70
26	1H	1839	G	N3-C4-N9	6.91	130.15	126.00
26	14	665	C	C6-N1-C2	6.91	123.06	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	929	G	N1-C6-O6	6.91	124.04	119.90
26	1H	2330	G	N3-C4-N9	6.90	130.14	126.00
26	1H	2329	G	C8-N9-C4	6.90	109.16	106.40
1	13	1524	C	C6-N1-C2	6.90	123.06	120.30
26	1H	594	U	C5-C6-N1	-6.90	119.25	122.70
47	E8	23	LEU	CA-CB-CG	6.90	131.16	115.30
26	14	74	A	N3-C4-C5	6.90	131.63	126.80
26	1H	1611	C	C2-N3-C4	-6.90	116.45	119.90
26	1H	663	G	C4-N9-C1'	6.89	135.46	126.50
26	1H	1187	G	OP2-P-O3'	6.89	120.37	105.20
1	1G	121	C	C6-N1-C1'	-6.89	112.53	120.80
1	13	962	C	C6-N1-C2	6.89	123.06	120.30
26	1H	822	U	N3-C2-O2	-6.89	117.38	122.20
26	1H	1496	A	C4-C5-C6	6.89	120.45	117.00
26	14	1427	A	N1-C2-N3	6.89	132.75	129.30
26	14	1950	G	C8-N9-C1'	-6.89	118.04	127.00
26	14	2544	G	N1-C6-O6	6.89	124.03	119.90
26	1H	772	C	N3-C4-N4	6.89	122.82	118.00
24	3L	64	U	C5-C6-N1	6.89	126.14	122.70
26	14	681	G	C8-N9-C4	6.89	109.16	106.40
26	1H	473	G	N1-C2-N2	-6.88	110.00	116.20
26	14	1958	C	C6-N1-C2	6.88	123.05	120.30
26	14	784	A	P-O3'-C3'	6.88	127.96	119.70
1	13	49	U	P-O3'-C3'	6.88	127.95	119.70
26	1H	140	A	O4'-C1'-N9	6.88	113.70	108.20
1	1G	197	A	N7-C8-N9	6.87	117.24	113.80
26	1H	51	G	O5'-P-OP1	-6.87	99.52	105.70
26	1H	330	A	C6-C5-N7	-6.87	127.49	132.30
26	1H	2247	A	C2-N3-C4	-6.87	107.17	110.60
26	14	2477	C	C5-C6-N1	6.87	124.43	121.00
26	1H	793	A	N1-C6-N6	6.87	122.72	118.60
26	14	74	A	C6-C5-N7	-6.87	127.49	132.30
26	1H	2358	G	C4-C5-N7	-6.87	108.05	110.80
26	14	1780	A	N1-C6-N6	-6.87	114.48	118.60
26	14	2111	C	N1-C2-O2	6.87	123.02	118.90
27	1J	81	G	C4-C5-N7	6.87	113.55	110.80
26	14	71	A	C8-N9-C4	-6.86	103.06	105.80
26	14	1396	U	C2-N1-C1'	6.86	125.94	117.70
26	14	2374	C	C2-N3-C4	-6.86	116.47	119.90
26	1H	1254	A	N9-C4-C5	-6.86	103.06	105.80
1	13	1126	U	N3-C2-O2	-6.86	117.40	122.20
26	14	1142(A)	A	C2-N3-C4	-6.86	107.17	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	85	U	C6-N1-C2	-6.86	116.89	121.00
1	13	1519	A	N9-C4-C5	6.86	108.54	105.80
26	14	2069	G	C5-C6-O6	-6.86	124.49	128.60
1	13	970	C	N3-C2-O2	-6.85	117.10	121.90
26	1H	2476	A	N3-C4-C5	-6.85	122.00	126.80
1	1G	121	C	N1-C2-O2	6.85	123.01	118.90
26	14	89	G	C8-N9-C4	6.85	109.14	106.40
1	13	1158	C	N1-C2-O2	6.85	123.01	118.90
23	2K	1	C	N3-C2-O2	-6.84	117.11	121.90
1	1G	784	C	C6-N1-C2	6.84	123.04	120.30
26	14	528	A	N1-C2-N3	6.84	132.72	129.30
1	13	760	G	C5-C6-O6	-6.84	124.49	128.60
26	1H	1606	G	C4-C5-N7	6.84	113.54	110.80
1	13	84	U	C5-C4-O4	6.84	130.00	125.90
26	1H	189	G	C5-C6-O6	-6.84	124.50	128.60
26	1H	2598	A	N9-C4-C5	-6.84	103.07	105.80
26	1H	2277	G	C4-C5-N7	-6.83	108.07	110.80
26	1H	2330	G	N3-C2-N2	6.83	124.68	119.90
1	1G	1220	G	N1-C6-O6	6.83	124.00	119.90
26	14	569	U	C6-N1-C2	6.83	125.10	121.00
1	1G	232	G	C6-C5-N7	-6.82	126.31	130.40
1	13	545	C	N1-C2-O2	6.82	122.99	118.90
1	1G	1305	G	N3-C2-N2	-6.82	115.12	119.90
26	14	155	C	N3-C2-O2	-6.82	117.13	121.90
26	14	1610	A	N9-C4-C5	-6.82	103.07	105.80
26	14	1950	G	C6-C5-N7	-6.82	126.31	130.40
1	13	1335	C	C5-C6-N1	-6.82	117.59	121.00
26	14	131	G	C6-C5-N7	-6.82	126.31	130.40
1	13	975	A	C5-N7-C8	-6.81	100.49	103.90
26	1H	120	U	C5-C6-N1	-6.81	119.29	122.70
26	1H	458	G	N1-C6-O6	-6.81	115.81	119.90
26	1H	2465	C	C2-N3-C4	-6.81	116.49	119.90
1	13	819	A	C8-N9-C4	-6.81	103.08	105.80
26	1H	1800	C	O5'-P-OP1	-6.81	99.57	105.70
26	14	579	G	C4-N9-C1'	6.81	135.35	126.50
26	14	2607	G	C6-C5-N7	-6.81	126.31	130.40
26	1H	658	C	O5'-P-OP1	6.81	118.87	110.70
26	1H	2608	G	C5-C6-N1	-6.81	108.10	111.50
26	14	686	G	C4-C5-N7	6.81	113.52	110.80
26	14	824	A	C8-N9-C4	6.81	108.52	105.80
26	1H	945	A	N9-C1'-C2'	6.80	122.84	114.00
26	1H	1625	C	N1-C2-O2	6.80	122.98	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	101	A	C8-N9-C4	6.80	108.52	105.80
26	1H	2072	G	O5'-P-OP2	-6.80	99.58	105.70
1	13	1227	A	N3-C4-C5	6.80	131.56	126.80
26	1H	2311	A	C5-N7-C8	-6.80	100.50	103.90
26	14	2597	G	C6-C5-N7	-6.80	126.32	130.40
1	1G	1270	C	C5-C6-N1	6.79	124.40	121.00
26	1H	466	A	N1-C6-N6	6.79	122.67	118.60
26	1H	593	G	N1-C2-N2	-6.79	110.09	116.20
26	14	2355	C	C6-N1-C1'	-6.79	112.65	120.80
26	1H	232	G	C8-N9-C1'	-6.79	118.18	127.00
26	1H	788	A	OP2-P-O3'	6.79	120.13	105.20
1	1G	150	C	C6-N1-C2	-6.79	117.58	120.30
26	1H	141	A	N7-C8-N9	6.79	117.19	113.80
1	1G	579	G	C6-C5-N7	-6.79	126.33	130.40
26	14	750	A	C8-N9-C4	-6.79	103.09	105.80
26	1H	1413	G	C8-N9-C4	-6.78	103.69	106.40
26	14	1779	U	C2-N1-C1'	6.78	125.84	117.70
26	1H	606	U	O5'-P-OP2	-6.78	99.60	105.70
26	1H	870	A	O5'-P-OP1	-6.78	99.60	105.70
26	1H	1978	A	C8-N9-C4	-6.78	103.09	105.80
26	14	801	G	C5-C6-O6	6.78	132.67	128.60
26	14	1914	C	C2-N1-C1'	6.78	126.26	118.80
26	1H	676	A	N1-C2-N3	6.78	132.69	129.30
26	1H	2688	U	C4-C5-C6	6.77	123.76	119.70
29	11	39	LYS	N-CA-C	6.77	129.29	111.00
1	1G	449	C	N3-C2-O2	-6.77	117.16	121.90
26	14	2873	A	C4-C5-C6	6.77	120.39	117.00
1	13	789	U	N3-C2-O2	-6.77	117.46	122.20
26	1H	2766	G	N1-C6-O6	6.77	123.96	119.90
26	1H	1955	U	N1-C2-N3	6.77	118.96	114.90
26	1H	2033	A	N1-C6-N6	-6.77	114.54	118.60
26	14	388	G	N3-C4-N9	-6.77	121.94	126.00
27	16	100	G	N7-C8-N9	-6.76	109.72	113.10
26	14	2287	A	N1-C2-N3	6.76	132.68	129.30
26	1H	963	U	O5'-P-OP2	6.76	118.81	110.70
26	1H	1184	G	C2-N3-C4	-6.76	108.52	111.90
1	1G	413	G	O4'-C1'-N9	6.76	113.61	108.20
26	1H	1614	A	C6-C5-N7	-6.76	127.57	132.30
26	1H	2018	G	N7-C8-N9	6.76	116.48	113.10
1	13	1266	G	N3-C4-C5	6.76	131.98	128.60
26	1H	859	G	N3-C4-N9	-6.76	121.95	126.00
1	1G	413	G	C4-N9-C1'	-6.76	117.72	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	27	G	N1-C6-O6	6.75	123.95	119.90
1	13	858	G	C8-N9-C4	-6.75	103.70	106.40
26	1H	1260	G	N1-C6-O6	6.75	123.95	119.90
26	1H	1820	U	O5'-P-OP2	-6.75	99.62	105.70
26	1H	788	A	C8-N9-C4	6.75	108.50	105.80
26	14	1496	A	C6-C5-N7	-6.75	127.57	132.30
26	1H	1520	U	N3-C4-C5	-6.75	110.55	114.60
26	14	803	U	N3-C2-O2	-6.75	117.47	122.20
26	1H	1888	G	C4-N9-C1'	6.75	135.27	126.50
1	1G	1502	A	C2-N3-C4	-6.75	107.23	110.60
26	1H	1308	A	N9-C4-C5	6.74	108.50	105.80
26	14	2224	G	N1-C6-O6	6.74	123.95	119.90
26	1H	1128	A	O5'-P-OP2	-6.74	99.63	105.70
26	1H	2847	U	O5'-P-OP1	-6.74	99.63	105.70
26	1H	1513	C	C6-N1-C2	-6.74	117.60	120.30
23	2L	19	G	N3-C4-C5	6.74	131.97	128.60
23	2L	77	A	N7-C8-N9	-6.74	110.43	113.80
26	14	929	G	C5-N7-C8	-6.74	100.93	104.30
26	1H	1178	C	N3-C4-C5	6.74	124.59	121.90
1	1G	1465	C	N1-C2-O2	6.74	122.94	118.90
23	2L	77	A	N3-C4-C5	6.74	131.52	126.80
26	14	1611	C	C6-N1-C2	6.74	123.00	120.30
26	14	2017	U	N3-C4-O4	6.74	124.12	119.40
26	1H	1970	A	O4'-C1'-N9	-6.74	102.81	108.20
26	1H	2281	C	C5-C4-N4	-6.73	115.49	120.20
26	1H	1427	A	N9-C4-C5	6.73	108.49	105.80
26	1H	2446	G	C4-C5-N7	6.73	113.49	110.80
26	14	1378	A	N1-C2-N3	-6.73	125.94	129.30
1	13	1259	C	C5-C6-N1	6.72	124.36	121.00
26	14	179	G	C8-N9-C4	6.72	109.09	106.40
26	1H	1364	G	C5-C6-O6	-6.72	124.57	128.60
26	1H	2288	A	N9-C4-C5	-6.72	103.11	105.80
1	13	1227	A	C4-C5-N7	6.72	114.06	110.70
26	1H	2031	A	C5-C6-N1	6.72	121.06	117.70
1	1G	1514	C	N3-C4-N4	6.72	122.70	118.00
26	14	2055	C	C6-N1-C2	6.72	122.99	120.30
26	1H	2083	G	N3-C2-N2	-6.72	115.20	119.90
26	1H	2253	G	C6-C5-N7	-6.72	126.37	130.40
26	14	2346	A	C6-C5-N7	-6.72	127.60	132.30
26	1H	693	C	C5-C6-N1	-6.72	117.64	121.00
26	1H	70	G	P-O3'-C3'	6.71	127.76	119.70
26	14	1342	A	O4'-C1'-N9	6.71	113.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	703	G	N7-C8-N9	6.71	116.45	113.10
26	1H	1559	G	C4-C5-N7	6.71	113.48	110.80
26	1H	2352	A	O5'-P-OP1	-6.71	99.66	105.70
26	14	117	G	N3-C4-N9	6.71	130.03	126.00
26	1H	2689	U	N1-C2-N3	6.71	118.92	114.90
1	13	1446	A	O4'-C1'-N9	6.71	113.56	108.20
26	1H	226	G	O4'-C1'-N9	6.71	113.56	108.20
26	1H	2385	C	C2-N3-C4	-6.71	116.55	119.90
26	1H	2597	G	C6-C5-N7	-6.70	126.38	130.40
26	14	738	G	N1-C6-O6	-6.70	115.88	119.90
1	13	703	G	N1-C6-O6	6.70	123.92	119.90
26	1H	1564	C	N3-C2-O2	-6.70	117.21	121.90
26	14	1772	G	C2-N3-C4	-6.70	108.55	111.90
26	14	2396	G	C5-C6-O6	-6.70	124.58	128.60
26	14	2516	G	OP2-P-O3'	6.70	119.93	105.20
26	1H	415	A	N1-C6-N6	6.70	122.62	118.60
26	1H	628	G	N1-C6-O6	-6.70	115.88	119.90
26	1H	917	A	C5-C6-N1	-6.70	114.35	117.70
39	25	8	LEU	CA-CB-CG	6.70	130.70	115.30
1	13	1195	C	C6-N1-C2	-6.69	117.62	120.30
26	14	574	C	N3-C4-N4	-6.69	113.31	118.00
29	19	43	ARG	NE-CZ-NH2	6.69	123.65	120.30
26	1H	1497	U	C5-C4-O4	-6.69	121.88	125.90
2	12	196	LEU	CA-CB-CG	6.69	130.69	115.30
1	13	553	A	C8-N9-C4	-6.69	103.12	105.80
26	1H	788	A	C6-C5-N7	-6.69	127.62	132.30
26	14	856	C	C2-N1-C1'	6.69	126.16	118.80
26	1H	191	A	N9-C4-C5	6.68	108.47	105.80
26	14	786	C	N3-C4-C5	6.68	124.57	121.90
26	1H	825	C	N1-C2-O2	-6.68	114.89	118.90
26	14	213	A	N9-C4-C5	-6.68	103.13	105.80
26	14	1359	A	N7-C8-N9	-6.68	110.46	113.80
26	14	1902	C	N3-C4-C5	6.68	124.57	121.90
26	1H	1241	A	C5-N7-C8	-6.68	100.56	103.90
26	14	330	A	N1-C6-N6	6.68	122.61	118.60
26	14	752	A	N1-C2-N3	6.68	132.64	129.30
1	13	808	C	N1-C2-O2	-6.68	114.89	118.90
26	1H	464	U	C5-C6-N1	-6.68	119.36	122.70
26	1H	2296	U	N3-C4-O4	6.68	124.07	119.40
26	1H	2575	C	C5-C6-N1	-6.68	117.66	121.00
26	1H	2731	G	N1-C6-O6	6.68	123.91	119.90
26	14	1187	G	N1-C6-O6	6.68	123.91	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	232	G	N9-C4-C5	-6.67	102.73	105.40
26	1H	852	G	O5'-P-OP2	-6.67	99.69	105.70
26	14	1783	A	C8-N9-C4	-6.67	103.13	105.80
26	14	2087	G	C8-N9-C4	6.67	109.07	106.40
26	14	2287	A	N3-C4-C5	6.67	131.47	126.80
1	13	942	G	OP1-P-O3'	6.67	119.88	105.20
1	1G	1514	C	C5-C4-N4	-6.67	115.53	120.20
1	13	57	G	N3-C4-C5	-6.67	125.27	128.60
26	1H	34	C	O5'-P-OP2	6.67	118.70	110.70
26	1H	122	G	C5-C6-O6	-6.67	124.60	128.60
26	1H	945	A	O4'-C1'-N9	6.67	113.53	108.20
26	1H	1513	C	C5-C6-N1	6.67	124.33	121.00
26	1H	2380	C	C2-N3-C4	-6.67	116.57	119.90
26	1H	689	A	C8-N9-C4	6.66	108.47	105.80
26	14	1600	C	O5'-P-OP2	-6.66	99.70	105.70
26	1H	837	C	C5-C4-N4	-6.66	115.54	120.20
23	2K	13	C	C5-C6-N1	6.66	124.33	121.00
1	1G	1322	C	N3-C2-O2	-6.66	117.24	121.90
1	13	738	C	C6-N1-C2	-6.66	117.64	120.30
26	1H	1379	A	N1-C6-N6	6.66	122.60	118.60
26	1H	1828	G	C5-C6-O6	6.66	132.59	128.60
26	14	2595	G	O5'-P-OP1	-6.66	99.71	105.70
26	1H	858	U	O5'-P-OP2	-6.66	99.71	105.70
26	1H	2697	G	OP1-P-OP2	6.66	129.58	119.60
26	14	530	G	N3-C2-N2	6.66	124.56	119.90
26	14	2329	G	C4-C5-N7	6.66	113.46	110.80
26	1H	1926	U	O5'-P-OP2	-6.65	99.71	105.70
26	14	582	G	C5-C6-O6	-6.65	124.61	128.60
26	14	2880	C	C6-N1-C2	-6.65	117.64	120.30
26	1H	20	C	N1-C2-O2	-6.65	114.91	118.90
26	14	1237	A	N1-C6-N6	-6.65	114.61	118.60
26	1H	1931	U	C4-C5-C6	6.65	123.69	119.70
26	1H	2439	A	N1-C6-N6	6.65	122.59	118.60
26	1H	570	G	C5-C6-O6	-6.65	124.61	128.60
1	13	975	A	N1-C6-N6	6.65	122.59	118.60
26	14	1616	A	O4'-C1'-N9	6.65	113.52	108.20
26	1H	2277	G	C5-C6-O6	6.65	132.59	128.60
26	1H	127	A	N9-C4-C5	-6.64	103.14	105.80
26	14	1772	G	N1-C6-O6	6.64	123.89	119.90
26	14	2767	C	N3-C4-C5	-6.64	119.24	121.90
26	1H	2474	C	N1-C2-O2	6.64	122.88	118.90
26	14	205	G	N9-C4-C5	-6.64	102.74	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1762	A	C2-N3-C4	-6.64	107.28	110.60
26	1H	2083	G	N1-C6-O6	6.64	123.88	119.90
26	1H	2270	G	C8-N9-C4	6.64	109.05	106.40
26	14	774	A	N3-C4-N9	-6.64	122.09	127.40
26	1H	508	G	C4-N9-C1'	6.63	135.12	126.50
26	14	530	G	N7-C8-N9	6.63	116.42	113.10
26	14	1348	G	O5'-P-OP1	-6.63	99.73	105.70
26	14	1379	A	C5-C6-N6	-6.63	118.39	123.70
26	14	2163	C	C5-C6-N1	6.63	124.32	121.00
1	13	1074	G	N1-C6-O6	6.63	123.88	119.90
26	1H	1799	G	N3-C4-C5	-6.63	125.29	128.60
26	14	2575	C	C5-C4-N4	6.63	124.84	120.20
23	2K	77	A	C4-C5-N7	6.62	114.01	110.70
26	1H	99	U	C2-N1-C1'	6.62	125.65	117.70
26	1H	1241	A	C4-C5-N7	6.62	114.01	110.70
1	1G	901	A	C2-N3-C4	-6.62	107.29	110.60
26	14	1348	G	C5-C6-O6	-6.62	124.63	128.60
26	1H	1820	U	C5-C6-N1	-6.62	119.39	122.70
1	13	968	A	C8-N9-C4	6.62	108.45	105.80
26	14	566	U	C5-C6-N1	-6.62	119.39	122.70
26	14	1022	G	N9-C4-C5	6.62	108.05	105.40
26	1H	2049	G	C2-N3-C4	-6.61	108.59	111.90
26	1H	2595	G	N9-C4-C5	-6.61	102.75	105.40
26	14	396	G	N1-C6-O6	6.61	123.87	119.90
26	14	1909	C	O5'-P-OP2	-6.61	99.75	105.70
26	1H	2336	A	C2-N3-C4	6.61	113.91	110.60
26	1H	2346	A	C4-N9-C1'	6.61	138.20	126.30
26	1H	2375	G	N9-C4-C5	-6.61	102.76	105.40
26	1H	2626	C	N3-C4-C5	6.61	124.54	121.90
26	14	2307	G	C4-N9-C1'	6.61	135.09	126.50
26	14	2485	G	C8-N9-C4	6.61	109.05	106.40
24	3K	16	C	N1-C2-O2	6.61	122.86	118.90
26	1H	2374	C	N3-C4-C5	6.61	124.54	121.90
1	1G	266	G	P-O3'-C3'	6.61	127.63	119.70
26	14	2062	A	N7-C8-N9	-6.61	110.50	113.80
26	14	1781	C	C6-N1-C2	6.61	122.94	120.30
1	13	336	C	N3-C2-O2	6.61	126.53	121.90
27	16	115	G	N1-C6-O6	6.61	123.86	119.90
26	14	1645	G	N1-C6-O6	-6.61	115.94	119.90
26	14	194	G	N1-C6-O6	6.60	123.86	119.90
1	13	690	G	N7-C8-N9	6.60	116.40	113.10
26	1H	692	C	C5-C6-N1	-6.60	117.70	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2550	G	C5-C6-O6	-6.60	124.64	128.60
26	14	788	A	N1-C6-N6	6.60	122.56	118.60
24	3K	2	C	C6-N1-C2	-6.60	117.66	120.30
26	1H	2477	C	N3-C2-O2	-6.60	117.28	121.90
26	14	783	A	C8-N9-C4	-6.60	103.16	105.80
26	1H	839	U	C5-C6-N1	-6.59	119.40	122.70
26	14	117	G	N9-C4-C5	-6.59	102.76	105.40
26	1H	68	G	O5'-P-OP1	-6.59	99.77	105.70
26	1H	2581	G	C4-C5-N7	6.59	113.44	110.80
26	1H	138	G	C4-C5-N7	6.59	113.44	110.80
26	1H	1596	A	N1-C6-N6	6.59	122.56	118.60
1	13	775	G	C5-C6-O6	-6.59	124.65	128.60
1	13	862	C	C6-N1-C2	6.59	122.94	120.30
1	13	1301	U	N1-C2-O2	6.59	127.41	122.80
26	1H	1363	C	C2-N3-C4	-6.59	116.61	119.90
26	1H	2380	C	C5-C6-N1	-6.59	117.70	121.00
1	1G	645	C	C6-N1-C2	-6.59	117.67	120.30
1	13	703	G	C5-C6-O6	-6.59	124.65	128.60
26	14	1627	G	C5-C6-O6	6.59	132.55	128.60
26	14	2494	G	C5-C6-O6	6.59	132.55	128.60
26	1H	195	A	N1-C6-N6	6.58	122.55	118.60
26	1H	967	C	O5'-P-OP2	-6.58	99.78	105.70
26	1H	2385	C	N1-C2-O2	-6.58	114.95	118.90
26	14	1821	A	N1-C6-N6	6.58	122.55	118.60
26	1H	1678	G	C6-C5-N7	-6.58	126.45	130.40
1	13	763	G	N3-C4-C5	6.58	131.89	128.60
27	16	14	U	O5'-P-OP2	-6.58	99.78	105.70
1	1G	413	G	C4-C5-N7	-6.58	108.17	110.80
1	13	802	A	N1-C6-N6	6.57	122.54	118.60
1	13	1434	A	C8-N9-C4	6.57	108.43	105.80
26	1H	898	C	C6-N1-C1'	-6.57	112.91	120.80
1	13	792	A	C3'-C2'-C1'	-6.57	96.24	101.50
26	1H	1066	U	C2-N1-C1'	6.57	125.59	117.70
26	14	244	A	C5-C6-N6	-6.57	118.44	123.70
26	14	1308	A	C5-C6-N6	6.57	128.96	123.70
26	1H	130	C	C6-N1-C2	6.57	122.93	120.30
26	1H	2819	G	C8-N9-C4	6.57	109.03	106.40
26	1H	630	G	C8-N9-C4	6.57	109.03	106.40
30	21	186	GLY	N-CA-C	6.57	129.52	113.10
26	14	681	G	N9-C4-C5	-6.57	102.77	105.40
26	14	1902	C	C5-C4-N4	-6.57	115.60	120.20
1	1G	791	G	N1-C6-O6	6.56	123.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	855	G	C8-N9-C4	-6.56	103.77	106.40
26	1H	785	G	N9-C4-C5	6.56	108.03	105.40
1	13	1519	A	C5-C6-N1	-6.56	114.42	117.70
26	1H	1026	U	C6-N1-C1'	6.56	130.39	121.20
1	13	1513	A	C8-N9-C4	6.56	108.42	105.80
26	1H	389	G	C8-N9-C4	6.56	109.02	106.40
26	1H	791	C	C5-C6-N1	-6.56	117.72	121.00
26	1H	1268	A	C8-N9-C4	6.56	108.42	105.80
26	14	2767	C	C5-C6-N1	6.56	124.28	121.00
26	1H	682	G	C6-C5-N7	-6.56	126.47	130.40
26	14	582	G	N1-C6-O6	6.56	123.83	119.90
26	14	2616	C	N3-C2-O2	-6.56	117.31	121.90
26	1H	1961	C	C6-N1-C2	6.56	122.92	120.30
26	14	668	G	N3-C4-C5	6.56	131.88	128.60
1	13	611	A	N1-C6-N6	6.55	122.53	118.60
26	14	1585	C	N1-C2-O2	6.55	122.83	118.90
26	1H	500	G	O5'-P-OP1	-6.55	99.80	105.70
26	1H	1617	C	N3-C4-C5	6.55	124.52	121.90
26	1H	1940	U	C5-C6-N1	-6.55	119.42	122.70
26	14	489	G	C6-C5-N7	-6.55	126.47	130.40
26	14	1820	U	O5'-P-OP1	-6.55	99.80	105.70
26	1H	2585	U	N3-C2-O2	-6.55	117.61	122.20
1	13	1054	C	C5-C4-N4	-6.55	115.62	120.20
26	1H	1634	A	C4-C5-C6	6.55	120.27	117.00
26	1H	1902	C	N3-C4-N4	-6.55	113.42	118.00
26	14	2226	C	N3-C4-C5	6.55	124.52	121.90
52	F5	21	ARG	NE-CZ-NH1	-6.55	117.03	120.30
1	13	974	A	C6-C5-N7	-6.54	127.72	132.30
26	1H	1332	G	C5-C6-N1	-6.54	108.23	111.50
26	1H	2288	A	C5-C6-N6	-6.54	118.46	123.70
26	14	252	G	C5-C6-O6	6.54	132.53	128.60
26	14	2709	G	C2-N3-C4	-6.54	108.63	111.90
26	14	2600	A	C5-C6-N6	6.54	128.93	123.70
26	14	2767	C	C6-N1-C2	-6.54	117.68	120.30
26	14	683	C	C5-C6-N1	-6.54	117.73	121.00
26	1H	632	A	O5'-P-OP2	6.53	118.54	110.70
26	14	566	U	C2-N3-C4	-6.53	123.08	127.00
26	14	2430	A	N1-C2-N3	6.53	132.56	129.30
26	14	690	G	N1-C6-O6	6.53	123.82	119.90
26	1H	802	A	N9-C4-C5	-6.53	103.19	105.80
26	14	1602	U	N3-C4-C5	-6.53	110.68	114.60
1	13	330	C	C6-N1-C2	-6.53	117.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	811	C	C6-N1-C2	6.53	122.91	120.30
1	13	1498	U	P-O3'-C3'	6.53	127.53	119.70
26	1H	577	G	O5'-P-OP2	-6.52	99.83	105.70
26	14	1925	C	N1-C2-O2	-6.52	114.98	118.90
1	13	539	A	C2-N3-C4	-6.52	107.34	110.60
26	14	843	G	N9-C4-C5	-6.52	102.79	105.40
26	14	1429	G	C8-N9-C4	-6.52	103.79	106.40
1	13	703	G	N3-C4-N9	6.52	129.91	126.00
26	14	2755	C	C5-C6-N1	6.52	124.26	121.00
26	14	1332	G	C8-N9-C1'	-6.52	118.53	127.00
1	13	1065	U	P-O3'-C3'	6.51	127.52	119.70
26	1H	528	A	C4-C5-N7	6.51	113.96	110.70
26	1H	862	G	N1-C6-O6	-6.51	115.99	119.90
26	1H	955	C	O5'-P-OP2	-6.51	99.84	105.70
46	D8	82	ARG	NE-CZ-NH1	-6.51	117.04	120.30
1	1G	25	C	O5'-P-OP2	-6.51	99.84	105.70
26	1H	734	A	N1-C6-N6	6.51	122.51	118.60
26	1H	1035	U	C5-C4-O4	6.51	129.81	125.90
26	14	57	C	N3-C2-O2	6.51	126.46	121.90
26	14	462	C	C5-C4-N4	-6.51	115.64	120.20
26	14	786	C	C6-N1-C2	6.51	122.91	120.30
1	13	1516	G	N3-C4-N9	-6.51	122.09	126.00
29	11	258	LYS	CD-CE-NZ	6.51	126.67	111.70
26	14	623	G	N1-C6-O6	6.51	123.81	119.90
26	14	2415	G	C6-C5-N7	-6.51	126.49	130.40
26	1H	828	U	N3-C2-O2	-6.51	117.64	122.20
26	14	265	A	C2-N3-C4	-6.51	107.35	110.60
26	1H	1347	G	N1-C6-O6	6.51	123.80	119.90
26	1H	1229	G	C8-N9-C4	6.50	109.00	106.40
26	1H	1354	A	C4-C5-N7	6.50	113.95	110.70
26	1H	310	A	C8-N9-C4	6.50	108.40	105.80
1	1G	224	C	C6-N1-C2	6.50	122.90	120.30
26	1H	2085	C	C6-N1-C2	6.50	122.90	120.30
26	1H	2713	A	N1-C2-N3	6.50	132.55	129.30
27	16	44	G	O5'-P-OP2	-6.50	99.85	105.70
26	14	463	G	C8-N9-C4	6.50	109.00	106.40
26	14	1496	A	O4'-C1'-N9	6.50	113.40	108.20
26	14	1934	C	C6-N1-C2	6.50	122.90	120.30
26	14	1204	A	O4'-C1'-N9	6.49	113.39	108.20
1	13	690	G	N3-C4-C5	-6.49	125.35	128.60
26	1H	210	C	N3-C4-C5	6.49	124.50	121.90
26	1H	972	G	O5'-P-OP1	6.49	118.49	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	49	A	O5'-P-OP2	-6.49	99.86	105.70
26	1H	575	A	C8-N9-C4	6.49	108.39	105.80
26	1H	1786	A	C4-C5-C6	6.49	120.25	117.00
26	1H	1800	C	O5'-P-OP2	6.49	118.48	110.70
26	1H	2544	G	C5-C6-O6	-6.49	124.71	128.60
22	1L	17	U	P-O3'-C3'	6.49	127.48	119.70
26	14	2019	A	C8-N9-C4	6.49	108.39	105.80
26	14	2273	A	O5'-P-OP2	-6.49	99.86	105.70
26	14	2441	C	N3-C4-N4	-6.49	113.46	118.00
27	16	41	U	C5-C6-N1	-6.48	119.46	122.70
26	14	193	U	C6-N1-C2	6.48	124.89	121.00
26	14	2371	G	C8-N9-C4	6.48	108.99	106.40
26	1H	1806	C	O5'-P-OP2	-6.48	99.87	105.70
26	1H	2199	A	O5'-P-OP1	-6.48	99.87	105.70
26	1H	2566	A	P-O3'-C3'	6.48	127.47	119.70
24	3L	60	A	C2-N3-C4	6.48	113.84	110.60
26	14	58	G	C4-C5-N7	6.48	113.39	110.80
26	14	1323	U	N3-C2-O2	6.48	126.73	122.20
26	14	1950	G	C2-N3-C4	6.48	115.14	111.90
26	1H	1192	G	O5'-P-OP2	-6.47	99.87	105.70
1	13	1467	G	O5'-P-OP2	-6.47	99.88	105.70
26	14	2038	G	N9-C4-C5	-6.47	102.81	105.40
27	1J	39	A	C8-N9-C4	-6.47	103.21	105.80
26	14	1619	G	OP1-P-O3'	6.47	119.44	105.20
26	14	1992	G	P-O3'-C3'	6.47	127.46	119.70
1	13	310	G	N3-C4-C5	6.46	131.83	128.60
1	1G	266	G	C4-N9-C1'	6.46	134.90	126.50
26	1H	741	G	C5-C6-O6	-6.46	124.72	128.60
26	14	2582	G	C4-C5-N7	6.46	113.38	110.80
26	1H	2031	A	C5-C6-N6	-6.46	118.53	123.70
1	1G	1281	U	C2-N1-C1'	6.46	125.45	117.70
26	1H	1972	A	C6-C5-N7	-6.46	127.78	132.30
1	1G	1486	G	C8-N9-C4	6.46	108.98	106.40
26	14	1396	U	N1-C2-O2	6.46	127.32	122.80
26	14	2088	G	N1-C6-O6	6.46	123.77	119.90
26	14	382	G	N3-C2-N2	-6.45	115.38	119.90
26	1H	2779	U	C5-C6-N1	-6.45	119.47	122.70
24	3K	34	U	P-O3'-C3'	6.45	127.44	119.70
26	1H	699	A	C5-C6-N6	-6.45	118.54	123.70
26	1H	1663	C	N3-C4-C5	6.45	124.48	121.90
1	1G	45	U	C5-C6-N1	-6.45	119.48	122.70
26	1H	1372	U	N3-C4-O4	6.45	123.91	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2250	G	N9-C4-C5	6.44	107.98	105.40
1	1G	789	U	C6-N1-C2	-6.44	117.14	121.00
1	1G	1227	A	N1-C6-N6	6.44	122.46	118.60
1	13	1519	A	C4-C5-N7	-6.44	107.48	110.70
26	1H	2308	G	C6-N1-C2	6.43	128.96	125.10
26	1H	1768	U	C2-N1-C1'	-6.43	109.98	117.70
22	1L	16	C	N3-C2-O2	-6.43	117.40	121.90
1	13	1469	G	C8-N9-C4	-6.43	103.83	106.40
26	1H	735	A	C2-N3-C4	-6.43	107.39	110.60
26	1H	765	G	N1-C2-N2	6.43	121.99	116.20
26	1H	865	C	O5'-P-OP2	6.43	118.42	110.70
26	1H	1626	G	N3-C2-N2	-6.43	115.40	119.90
26	1H	2253	G	C8-N9-C4	6.43	108.97	106.40
26	1H	2713	A	C6-C5-N7	-6.43	127.80	132.30
26	1H	1396	U	C5-C4-O4	6.42	129.75	125.90
1	1G	1157	A	P-O3'-C3'	6.42	127.41	119.70
1	13	1329	A	N1-C6-N6	6.42	122.45	118.60
26	1H	2584	U	N1-C2-N3	6.42	118.75	114.90
26	1H	766	C	N3-C4-C5	-6.42	119.33	121.90
26	1H	1534	G	N3-C4-C5	-6.42	125.39	128.60
26	14	671	C	N1-C2-N3	6.42	123.69	119.20
26	1H	2236	C	N3-C4-N4	6.41	122.49	118.00
26	14	674	G	N1-C6-O6	6.41	123.75	119.90
26	1H	2684	U	C5-C6-N1	-6.41	119.49	122.70
22	1K	10	G	O5'-P-OP1	-6.41	99.93	105.70
36	38	93	LEU	CA-CB-CG	-6.41	100.56	115.30
1	1G	704	A	N9-C4-C5	-6.41	103.24	105.80
26	14	796	C	N3-C4-C5	6.41	124.46	121.90
26	14	836	G	C4-C5-N7	6.41	113.36	110.80
26	14	1899	G	C5-C6-O6	6.41	132.44	128.60
1	13	892	A	C2-N3-C4	-6.41	107.40	110.60
26	14	940	G	O5'-P-OP2	-6.41	99.94	105.70
26	1H	2766	G	C5-C6-O6	-6.40	124.76	128.60
1	13	1354	C	C5-C6-N1	6.40	124.20	121.00
26	1H	1606	G	N3-C4-N9	6.40	129.84	126.00
26	14	1314	C	N1-C2-O2	6.40	122.74	118.90
26	14	2430	A	C5-C6-N1	-6.40	114.50	117.70
1	13	1498	U	O4'-C1'-N1	-6.40	103.08	108.20
26	1H	944	G	C5-C6-O6	6.40	132.44	128.60
26	1H	2712	U	C5-C6-N1	-6.40	119.50	122.70
26	14	90	U	N1-C2-O2	6.40	127.28	122.80
26	14	2363	C	C6-N1-C2	6.40	122.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1354	A	C5-N7-C8	-6.40	100.70	103.90
26	14	89	G	N9-C4-C5	-6.40	102.84	105.40
1	13	503	C	C6-N1-C2	-6.40	117.74	120.30
1	13	1028	C	N3-C2-O2	-6.40	117.42	121.90
23	2K	27	G	N3-C4-C5	6.40	131.80	128.60
27	16	9	G	N9-C4-C5	-6.40	102.84	105.40
26	14	101	G	N3-C4-C5	-6.39	125.40	128.60
26	14	1302	A	N9-C4-C5	6.39	108.36	105.80
26	14	1302	A	OP1-P-OP2	6.39	129.19	119.60
26	14	250	G	C6-C5-N7	-6.39	126.56	130.40
26	1H	274	G	N7-C8-N9	6.39	116.30	113.10
26	1H	816	C	N3-C2-O2	6.39	126.37	121.90
26	1H	1204	A	N1-C2-N3	6.39	132.50	129.30
26	14	666	G	C2-N3-C4	-6.39	108.71	111.90
26	1H	1781	C	C6-N1-C2	6.39	122.86	120.30
1	13	750	G	O5'-P-OP1	-6.39	99.95	105.70
26	1H	1415	U	C5-C4-O4	6.38	129.73	125.90
26	1H	1917	U	OP1-P-O3'	6.38	119.25	105.20
26	14	101	G	C8-N9-C4	-6.38	103.85	106.40
26	14	1030	G	C4-C5-N7	6.38	113.35	110.80
26	14	2263	C	C6-N1-C2	-6.38	117.75	120.30
1	13	522	C	O5'-P-OP2	-6.38	99.96	105.70
1	13	974	A	C2-N3-C4	-6.38	107.41	110.60
1	13	757	U	N1-C2-O2	6.38	127.27	122.80
26	1H	508	G	C5-C6-O6	-6.38	124.77	128.60
26	1H	802	A	OP2-P-O3'	6.38	119.23	105.20
26	14	2512	C	N3-C2-O2	6.38	126.36	121.90
23	2K	77	A	N7-C8-N9	-6.38	110.61	113.80
26	1H	1802	A	C6-N1-C2	-6.38	114.77	118.60
26	14	161	U	C5-C6-N1	6.38	125.89	122.70
33	59	152	ARG	C-N-CA	6.38	137.64	121.70
26	14	330	A	N1-C2-N3	6.38	132.49	129.30
26	14	2385	C	N3-C4-C5	6.38	124.45	121.90
1	13	720	C	C6-N1-C2	-6.37	117.75	120.30
1	13	552	U	O5'-P-OP1	6.37	118.34	110.70
23	2K	18	C	C5-C6-N1	6.37	124.19	121.00
49	C5	31	LEU	CA-CB-CG	6.37	129.96	115.30
26	1H	2847	U	O5'-P-OP2	6.37	118.34	110.70
26	14	2577	A	O5'-P-OP2	-6.37	99.97	105.70
1	13	524	G	C6-C5-N7	-6.37	126.58	130.40
1	1G	758	G	N1-C6-O6	6.37	123.72	119.90
26	14	308	G	N1-C6-O6	6.37	123.72	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1270	C	C5-C6-N1	-6.37	117.82	121.00
26	1H	1807	G	N9-C4-C5	-6.37	102.85	105.40
26	1H	2032	G	C4-C5-C6	6.37	122.62	118.80
26	14	2430	A	C4-C5-N7	6.37	113.88	110.70
26	14	2457	U	N3-C2-O2	-6.37	117.74	122.20
26	14	252	G	O5'-P-OP2	-6.36	99.97	105.70
26	14	270(C)	C	C6-N1-C2	-6.36	117.75	120.30
26	14	510	C	N3-C2-O2	-6.36	117.45	121.90
26	14	2210	G	C8-N9-C1'	-6.36	118.73	127.00
1	13	545	C	N3-C4-C5	6.36	124.44	121.90
26	1H	1409	C	C6-N1-C2	6.36	122.84	120.30
26	1H	1413	G	N7-C8-N9	6.36	116.28	113.10
1	1G	332	G	C8-N9-C4	6.36	108.94	106.40
26	14	1359	A	N1-C2-N3	-6.36	126.12	129.30
1	13	1054	C	O5'-P-OP2	-6.36	99.98	105.70
50	D5	59	LEU	CA-CB-CG	6.36	129.93	115.30
26	1H	790	C	N1-C2-O2	-6.36	115.09	118.90
26	1H	1310	G	N1-C6-O6	6.36	123.72	119.90
1	1G	117	G	C5-C6-O6	-6.36	124.79	128.60
1	13	789	U	N3-C4-O4	-6.36	114.95	119.40
26	14	694	U	O5'-P-OP1	6.36	118.33	110.70
26	14	2042	A	O5'-P-OP2	-6.36	99.98	105.70
26	1H	2059	A	N1-C6-N6	6.35	122.41	118.60
26	1H	1858	G	N3-C4-N9	6.35	129.81	126.00
26	1H	2586	C	N3-C4-C5	6.35	124.44	121.90
26	1H	2691	C	C6-N1-C2	6.35	122.84	120.30
26	14	570	G	N1-C2-N2	-6.35	110.48	116.20
26	14	2299	G	N1-C6-O6	6.35	123.71	119.90
26	14	2873	A	O4'-C1'-N9	6.35	113.28	108.20
1	13	1434	A	N7-C8-N9	-6.35	110.62	113.80
1	1G	576	G	C4-N9-C1'	6.35	134.76	126.50
1	1G	1158	C	N3-C4-C5	-6.35	119.36	121.90
26	1H	1566	A	O5'-P-OP1	6.35	118.32	110.70
26	1H	2595	G	C5-N7-C8	-6.35	101.13	104.30
26	14	270	A	C2-N3-C4	-6.35	107.42	110.60
33	59	88	LEU	CA-CB-CG	6.35	129.91	115.30
26	1H	115	C	N1-C2-O2	-6.35	115.09	118.90
26	1H	207	A	N1-C6-N6	6.35	122.41	118.60
26	1H	690	G	C8-N9-C4	6.35	108.94	106.40
26	1H	802	A	N1-C6-N6	6.35	122.41	118.60
26	1H	1955	U	C5-C4-O4	6.35	129.71	125.90
27	16	43	C	OP2-P-O3'	6.35	119.17	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2423	U	C6-N1-C2	6.35	124.81	121.00
1	13	360	A	N1-C6-N6	6.34	122.41	118.60
26	1H	271(B)	G	C4-N9-C1'	6.34	134.75	126.50
33	51	153	LYS	C-N-CA	6.34	148.64	122.00
26	14	613	U	N3-C2-O2	-6.34	117.76	122.20
26	1H	621	A	C5-C6-N6	-6.34	118.63	123.70
26	14	582	G	N9-C4-C5	-6.34	102.86	105.40
26	14	1633	G	N1-C6-O6	6.34	123.70	119.90
26	14	2092	U	N1-C2-N3	6.34	118.70	114.90
26	1H	78	A	N1-C6-N6	6.34	122.40	118.60
26	1H	781	A	O5'-P-OP1	-6.34	100.00	105.70
26	1H	961	C	O4'-C1'-N1	6.34	113.27	108.20
26	1H	2062	A	C8-N9-C4	6.34	108.33	105.80
1	1G	1378	C	C6-N1-C2	-6.34	117.77	120.30
1	1G	1081	G	C8-N9-C4	6.34	108.94	106.40
26	14	2433	A	N1-C2-N3	6.33	132.47	129.30
26	14	252	G	C4-C5-N7	-6.33	108.27	110.80
26	14	1308	A	N9-C4-C5	6.33	108.33	105.80
26	1H	1678	G	N3-C4-N9	-6.33	122.20	126.00
26	1H	1821	A	N1-C2-N3	6.33	132.47	129.30
24	3L	49	C	N3-C2-O2	-6.33	117.47	121.90
26	14	2766	G	N7-C8-N9	6.33	116.26	113.10
26	1H	1597	A	O4'-C1'-N9	6.33	113.26	108.20
26	1H	1610	A	N9-C4-C5	-6.33	103.27	105.80
26	1H	1940	U	C4-C5-C6	6.33	123.50	119.70
26	14	1616	A	N3-C4-C5	6.33	131.23	126.80
26	14	2600	A	N1-C6-N6	-6.33	114.81	118.60
26	14	205	G	N3-C2-N2	6.32	124.33	119.90
26	14	1602	U	N1-C2-O2	-6.32	118.37	122.80
26	1H	70	G	OP1-P-O3'	6.32	119.11	105.20
26	14	2038	G	C8-N9-C4	6.32	108.93	106.40
26	1H	197	A	N1-C2-N3	6.32	132.46	129.30
26	1H	1586	A	N1-C6-N6	6.32	122.39	118.60
26	14	246	C	C6-N1-C2	6.32	122.83	120.30
26	14	1313	U	C2-N1-C1'	6.32	125.28	117.70
26	1H	572	A	C4-C5-C6	6.32	120.16	117.00
26	1H	2503	A	N1-C2-N3	-6.32	126.14	129.30
26	14	1380	G	N1-C6-O6	6.32	123.69	119.90
1	13	354	G	C6-C5-N7	-6.32	126.61	130.40
26	1H	1996	C	N3-C4-N4	-6.32	113.58	118.00
26	14	415	A	O5'-P-OP2	-6.32	100.01	105.70
26	14	1314	C	C6-N1-C1'	-6.32	113.22	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	D5	191	VAL	C-N-CA	6.32	137.49	121.70
26	14	582	G	C4-C5-N7	6.32	113.33	110.80
26	14	2084	C	C5-C6-N1	-6.31	117.84	121.00
26	1H	687	C	C5-C6-N1	6.31	124.16	121.00
1	13	1513	A	N1-C6-N6	6.31	122.39	118.60
26	1H	1828	G	C5-C6-N1	-6.31	108.34	111.50
26	1H	2448	A	N3-C4-N9	-6.31	122.35	127.40
26	1H	2598	A	C8-N9-C4	6.31	108.32	105.80
1	1G	458	C	C6-N1-C2	-6.31	117.78	120.30
26	14	428	A	C8-N9-C4	-6.31	103.28	105.80
26	14	693	C	C5-C6-N1	-6.31	117.85	121.00
26	1H	735	A	N1-C6-N6	6.31	122.38	118.60
26	1H	1972	A	N3-C4-N9	6.31	132.45	127.40
26	14	1797	C	C6-N1-C2	6.31	122.82	120.30
26	1H	465	G	C5-N7-C8	6.31	107.45	104.30
26	1H	2490	G	C8-N9-C4	-6.31	103.88	106.40
27	16	94	C	N3-C4-C5	-6.31	119.38	121.90
27	1J	81	G	C5-N7-C8	-6.31	101.15	104.30
43	A8	101	LEU	CA-CB-CG	6.30	129.80	115.30
26	14	58	G	N1-C6-O6	6.30	123.68	119.90
26	1H	1607	C	N1-C2-O2	6.30	122.68	118.90
26	1H	2301	C	C6-N1-C2	-6.30	117.78	120.30
26	1H	2331	G	N9-C4-C5	-6.30	102.88	105.40
26	14	1776	G	N3-C4-N9	6.30	129.78	126.00
1	13	117	G	N1-C6-O6	6.30	123.68	119.90
26	14	2428	G	N9-C4-C5	6.30	107.92	105.40
26	14	2621	A	N1-C6-N6	-6.30	114.82	118.60
1	13	583	A	O5'-P-OP2	6.30	118.25	110.70
24	3K	13	C	C5-C6-N1	6.30	124.15	121.00
26	1H	1653	G	N3-C4-C5	-6.30	125.45	128.60
1	1G	108	G	C6-C5-N7	-6.30	126.62	130.40
26	14	2870	C	C6-N1-C2	-6.30	117.78	120.30
26	14	2376	A	N9-C4-C5	-6.29	103.28	105.80
26	1H	1204	A	C5-N7-C8	-6.29	100.75	103.90
26	1H	2271	G	N9-C4-C5	-6.29	102.88	105.40
26	1H	2346	A	C5-C6-N1	-6.29	114.55	117.70
26	1H	308	G	C4-N9-C1'	6.29	134.68	126.50
26	14	2428	G	C4-C5-N7	-6.29	108.28	110.80
26	1H	1559	G	C2-N3-C4	-6.29	108.75	111.90
1	1G	576	G	C8-N9-C1'	-6.29	118.82	127.00
1	13	963	G	N1-C6-O6	-6.29	116.13	119.90
23	2K	17	C	C5-C6-N1	6.29	124.14	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1950	G	O4'-C1'-N9	6.29	113.23	108.20
26	14	2413	G	N9-C4-C5	-6.29	102.89	105.40
26	14	2712	U	C5-C6-N1	-6.29	119.56	122.70
26	1H	193	U	C2-N3-C4	-6.29	123.23	127.00
26	1H	1308	A	N1-C2-N3	6.29	132.44	129.30
26	1H	1316	U	N3-C4-O4	-6.29	115.00	119.40
26	1H	2085	C	O5'-P-OP2	-6.29	100.04	105.70
26	1H	2830	G	C4-N9-C1'	6.29	134.67	126.50
26	1H	2275	C	N3-C4-C5	-6.29	119.39	121.90
26	1H	2597	G	O5'-P-OP2	-6.29	100.04	105.70
7	62	142	GLU	C-N-CA	6.29	137.41	121.70
1	13	413	G	C8-N9-C4	-6.28	103.89	106.40
26	14	2640	G	C8-N9-C4	-6.28	103.89	106.40
26	1H	621	A	N3-C4-C5	6.28	131.20	126.80
25	4L	14	A	N1-C6-N6	-6.28	114.83	118.60
1	13	1419	G	N1-C6-O6	6.28	123.67	119.90
23	2K	1	C	N1-C2-O2	6.28	122.67	118.90
26	14	288	C	N1-C2-O2	6.28	122.67	118.90
26	14	1142	U	C6-N1-C1'	-6.28	112.41	121.20
26	14	1975	G	N9-C4-C5	-6.28	102.89	105.40
26	14	2111	C	C6-N1-C2	-6.28	117.79	120.30
1	13	893	C	N1-C2-O2	6.27	122.66	118.90
24	3L	65	C	N1-C2-O2	6.27	122.66	118.90
26	14	1899	G	C4-C5-C6	6.27	122.56	118.80
26	1H	203	C	C5-C4-N4	-6.27	115.81	120.20
26	1H	796	C	N3-C4-C5	6.27	124.41	121.90
26	1H	2504	U	OP1-P-OP2	6.27	129.00	119.60
27	16	60	C	C5-C4-N4	-6.27	115.81	120.20
1	13	904	C	N3-C4-C5	6.27	124.41	121.90
26	1H	848	G	O5'-P-OP2	-6.27	100.06	105.70
1	1G	1286	A	N7-C8-N9	6.27	116.93	113.80
26	14	1601	G	OP1-P-O3'	6.27	118.99	105.20
1	13	1486	G	N3-C4-C5	6.27	131.73	128.60
26	1H	951	C	N3-C4-C5	6.27	124.41	121.90
26	1H	1496	A	C4-C5-N7	6.27	113.83	110.70
26	14	1937	A	N1-C6-N6	6.26	122.36	118.60
26	14	1614	A	C6-C5-N7	-6.26	127.92	132.30
26	1H	1799	G	P-O3'-C3'	6.26	127.21	119.70
26	1H	1858	G	C5-C6-O6	-6.26	124.84	128.60
26	14	2576	G	C2-N3-C4	6.26	115.03	111.90
26	1H	271(B)	G	N3-C4-N9	6.26	129.76	126.00
27	16	44	G	OP2-P-O3'	6.26	118.97	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	703	U	N3-C4-O4	-6.26	115.02	119.40
26	1H	601	C	N3-C4-C5	6.26	124.40	121.90
1	1G	687	A	P-O3'-C3'	6.26	127.21	119.70
26	14	735	A	C8-N9-C4	6.26	108.30	105.80
26	1H	1624	G	N7-C8-N9	-6.26	109.97	113.10
26	1H	2030	A	C5-C6-N6	-6.26	118.69	123.70
23	2L	48	U	P-O3'-C3'	6.26	127.21	119.70
26	14	489	G	C4-C5-N7	6.26	113.30	110.80
26	14	1555	G	C4-N9-C1'	6.26	134.63	126.50
1	1G	380	G	N3-C4-N9	-6.25	122.25	126.00
26	1H	274	G	C8-N9-C4	-6.25	103.90	106.40
26	1H	630	G	C5-C6-O6	-6.25	124.85	128.60
26	14	824	A	N9-C4-C5	-6.25	103.30	105.80
26	14	929	G	N7-C8-N9	6.25	116.23	113.10
26	14	1273	U	C6-N1-C2	6.25	124.75	121.00
26	14	1786	A	N3-C4-C5	6.25	131.18	126.80
26	14	177	G	C4-C5-N7	-6.25	108.30	110.80
26	1H	657	U	C5-C6-N1	-6.25	119.58	122.70
26	1H	2253	G	C4-C5-N7	6.25	113.30	110.80
26	14	242	G	C8-N9-C4	6.25	108.90	106.40
26	14	769	G	OP1-P-O3'	6.25	118.94	105.20
26	14	1819	A	P-O3'-C3'	6.25	127.20	119.70
26	1H	1340	U	C6-N1-C2	6.25	124.75	121.00
26	14	2324	C	N3-C4-C5	6.24	124.40	121.90
26	14	2443	C	N3-C4-N4	6.24	122.37	118.00
26	14	1808	U	N1-C2-O2	6.24	127.17	122.80
1	13	422	C	N3-C2-O2	-6.24	117.53	121.90
26	1H	197	A	C2-N3-C4	-6.24	107.48	110.60
26	14	767	U	C5-C6-N1	-6.24	119.58	122.70
26	14	1359	A	C4-C5-C6	-6.24	113.88	117.00
1	13	386	C	C2-N1-C1'	-6.24	111.94	118.80
1	1G	449	C	C5-C4-N4	6.24	124.57	120.20
26	14	836	G	C5-N7-C8	-6.24	101.18	104.30
26	14	1272	A	N1-C6-N6	6.24	122.34	118.60
26	1H	481	G	C8-N9-C4	6.23	108.89	106.40
26	14	2423	U	C6-N1-C2	6.23	124.74	121.00
26	14	2600	A	C8-N9-C4	-6.23	103.31	105.80
26	1H	456	C	O5'-P-OP2	-6.23	100.09	105.70
26	1H	1332	G	C6-C5-N7	-6.23	126.66	130.40
26	1H	1441	G	C8-N9-C4	6.23	108.89	106.40
26	14	2044	C	O5'-P-OP1	-6.23	100.09	105.70
1	13	721	G	N3-C4-N9	6.23	129.74	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	660	G	C6-C5-N7	-6.23	126.66	130.40
26	1H	1982	C	O5'-P-OP2	-6.23	100.09	105.70
1	1G	1519	A	N7-C8-N9	6.23	116.92	113.80
1	13	1298	C	C6-N1-C2	6.23	122.79	120.30
1	13	1404	C	C4-C5-C6	-6.23	114.29	117.40
26	14	1313	U	N3-C4-O4	6.23	123.76	119.40
26	14	2518	A	C5-C6-N1	-6.23	114.59	117.70
26	1H	725	G	C8-N9-C4	-6.23	103.91	106.40
26	1H	2268	A	N9-C4-C5	-6.22	103.31	105.80
26	1H	2845	G	C6-C5-N7	-6.22	126.67	130.40
26	14	1780	A	C5-C6-N6	6.22	128.68	123.70
26	1H	2330	G	N1-C2-N2	-6.22	110.60	116.20
26	14	1605	C	N1-C2-O2	-6.22	115.17	118.90
26	14	2436	G	O5'-P-OP1	-6.22	100.10	105.70
26	14	2596	U	C5-C4-O4	6.22	129.63	125.90
1	13	1279	A	N7-C8-N9	6.22	116.91	113.80
26	14	566	U	C6-N1-C2	6.22	124.73	121.00
26	1H	845	G	N3-C4-N9	-6.22	122.27	126.00
26	14	244	A	C4-C5-N7	6.22	113.81	110.70
26	1H	1325	G	N3-C4-C5	-6.22	125.49	128.60
26	1H	1757	U	OP1-P-O3'	6.22	118.88	105.20
1	13	1204	A	N1-C6-N6	6.21	122.33	118.60
26	1H	1939	U	N3-C4-C5	6.21	118.33	114.60
26	14	1341	U	O5'-P-OP1	-6.21	100.11	105.70
26	1H	2715	C	N3-C4-C5	6.21	124.39	121.90
26	1H	577	G	N3-C4-N9	6.21	129.73	126.00
26	1H	1786	A	C4-N9-C1'	6.21	137.48	126.30
26	14	117	G	C4-C5-N7	6.21	113.28	110.80
26	14	1332	G	N1-C2-N3	6.21	127.63	123.90
26	14	1786	A	N9-C1'-C2'	6.21	122.08	114.00
26	14	2261	C	O5'-P-OP1	6.21	118.15	110.70
1	13	1305	G	C2-N3-C4	-6.21	108.80	111.90
26	14	203	C	N1-C2-O2	-6.21	115.17	118.90
26	1H	1333	C	N3-C2-O2	6.21	126.25	121.90
26	1H	1902	C	C5-C4-N4	6.21	124.55	120.20
26	1H	914	C	C6-N1-C1'	6.21	128.25	120.80
26	1H	945	A	N1-C2-N3	6.21	132.40	129.30
26	14	888	C	OP2-P-O3'	6.21	118.85	105.20
26	14	1425	G	C5-C6-O6	-6.21	124.88	128.60
26	1H	541	C	N1-C2-O2	6.21	122.62	118.90
26	14	1328	G	C5-C6-O6	-6.21	124.88	128.60
26	14	1931	U	N3-C2-O2	6.21	126.54	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1370	C	O5'-P-OP2	6.20	118.14	110.70
26	1H	2481	G	N9-C4-C5	-6.20	102.92	105.40
1	13	922	G	C8-N9-C4	-6.20	103.92	106.40
1	13	1536	C	C6-N1-C2	-6.20	117.82	120.30
26	1H	2424	C	C4-C5-C6	-6.20	114.30	117.40
26	1H	2698	U	C5-C6-N1	-6.20	119.60	122.70
26	14	90	U	N3-C2-O2	-6.20	117.86	122.20
26	14	1162	G	O5'-P-OP1	-6.20	100.12	105.70
26	14	2491	U	N3-C2-O2	6.20	126.54	122.20
23	2K	6	G	C8-N9-C4	6.20	108.88	106.40
26	1H	145	G	C8-N9-C4	6.20	108.88	106.40
26	1H	1299	G	O5'-P-OP2	6.20	118.14	110.70
1	1G	87	A	N1-C6-N6	6.20	122.32	118.60
26	14	15	G	C2-N3-C4	-6.20	108.80	111.90
26	14	856	C	O5'-P-OP1	-6.20	100.12	105.70
26	14	1287	A	C8-N9-C4	-6.20	103.32	105.80
26	1H	681	G	N9-C4-C5	-6.20	102.92	105.40
26	14	1342	A	C2-N3-C4	-6.20	107.50	110.60
26	14	1786	A	C8-N9-C4	-6.20	103.32	105.80
26	14	2498	C	C6-N1-C2	6.20	122.78	120.30
26	14	1314	C	C2-N1-C1'	6.19	125.61	118.80
26	1H	1333	C	N1-C2-O2	-6.19	115.19	118.90
26	14	34	C	O4'-C1'-N1	6.19	113.15	108.20
26	14	462	C	C6-N1-C2	6.19	122.78	120.30
27	16	44	G	P-O3'-C3'	6.19	127.13	119.70
1	13	656	C	C5-C6-N1	6.19	124.09	121.00
26	1H	2259	G	N1-C6-O6	6.19	123.61	119.90
3	22	91	LEU	CA-CB-CG	6.19	129.53	115.30
26	14	2617	C	C6-N1-C2	6.19	122.78	120.30
1	1G	785	G	N1-C6-O6	6.18	123.61	119.90
26	14	600	G	N1-C6-O6	6.18	123.61	119.90
26	14	1790	C	C6-N1-C2	6.18	122.77	120.30
38	58	15	LEU	CA-CB-CG	6.18	129.52	115.30
26	1H	462	C	O5'-P-OP2	-6.18	100.14	105.70
32	41	94	LEU	CA-CB-CG	6.18	129.52	115.30
26	14	1725	G	C8-N9-C1'	-6.18	118.96	127.00
1	13	971	G	N1-C6-O6	6.18	123.61	119.90
26	1H	29	U	OP1-P-OP2	-6.18	110.33	119.60
1	13	984	C	C6-N1-C2	6.18	122.77	120.30
26	1H	619	G	C8-N9-C4	6.18	108.87	106.40
26	1H	1544	C	O4'-C1'-N1	6.18	113.14	108.20
26	1H	1931	U	C5-C6-N1	-6.18	119.61	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	474	G	N3-C4-N9	-6.18	122.30	126.00
26	1H	968	G	O5'-P-OP2	-6.18	100.14	105.70
26	14	1342	A	N7-C8-N9	6.18	116.89	113.80
26	1H	232	G	N3-C4-N9	6.17	129.70	126.00
26	1H	1316	U	C5-C4-O4	6.17	129.60	125.90
26	14	254	G	OP1-P-OP2	6.17	128.86	119.60
26	14	2236	C	C6-N1-C2	6.17	122.77	120.30
26	1H	693	C	C4-C5-C6	6.17	120.49	117.40
1	13	422	C	O5'-P-OP2	-6.17	100.15	105.70
1	13	524	G	C5-N7-C8	-6.17	101.22	104.30
26	1H	582	G	C4-C5-N7	6.17	113.27	110.80
26	1H	1192	G	C8-N9-C4	6.17	108.87	106.40
26	14	621	A	C5-C6-N1	-6.17	114.61	117.70
26	14	1241	A	C2-N3-C4	-6.17	107.51	110.60
26	14	2585	U	N3-C2-O2	-6.17	117.88	122.20
26	1H	2726	U	N3-C2-O2	-6.17	117.88	122.20
26	1H	2848	G	C5-C6-O6	6.17	132.30	128.60
35	61	131	LYS	C-N-CD	-6.17	107.03	120.60
1	13	1412	C	C5-C6-N1	-6.17	117.92	121.00
26	1H	1355	G	C8-N9-C4	-6.17	103.93	106.40
26	14	2443	C	N3-C4-C5	-6.17	119.43	121.90
26	14	2597	G	C8-N9-C1'	-6.17	118.98	127.00
22	1K	14	A	O4'-C1'-N9	6.17	113.13	108.20
26	1H	860	U	O5'-P-OP1	6.17	118.10	110.70
26	1H	2590	A	C2-N3-C4	-6.17	107.52	110.60
1	13	816	A	N7-C8-N9	6.16	116.88	113.80
26	1H	2552	U	C4-C5-C6	6.16	123.40	119.70
26	1H	131	G	C5-C6-O6	-6.16	124.90	128.60
26	14	912	C	C2-N1-C1'	6.16	125.58	118.80
26	1H	2428	G	N3-C4-C5	-6.16	125.52	128.60
24	3L	16	C	N1-C2-O2	6.16	122.60	118.90
26	1H	689	A	C2-N3-C4	-6.16	107.52	110.60
26	1H	2518	A	C5-C6-N6	-6.16	118.77	123.70
26	14	1992	G	C8-N9-C4	-6.16	103.94	106.40
26	14	2191	G	C4-C5-N7	6.16	113.26	110.80
26	1H	624	C	O5'-P-OP2	6.16	118.09	110.70
26	1H	2246	G	OP1-P-O3'	6.16	118.74	105.20
26	14	802	A	N1-C6-N6	-6.15	114.91	118.60
26	14	863	A	O5'-P-OP2	-6.15	100.16	105.70
23	2K	27	G	N3-C2-N2	-6.15	115.59	119.90
26	1H	660	G	C5-N7-C8	-6.15	101.22	104.30
26	1H	736	C	O5'-P-OP2	6.15	118.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	77	A	N1-C6-N6	6.15	122.29	118.60
26	1H	1204	A	C5-C6-N1	-6.15	114.62	117.70
26	14	1327	C	N3-C4-C5	-6.15	119.44	121.90
26	14	211	A	N9-C4-C5	-6.15	103.34	105.80
1	13	765	G	C6-C5-N7	-6.15	126.71	130.40
26	1H	246	C	C2-N3-C4	-6.15	116.83	119.90
26	1H	2280	G	N3-C4-C5	-6.15	125.53	128.60
1	1G	805	C	C5-C4-N4	-6.15	115.90	120.20
23	2L	6	G	C8-N9-C4	6.15	108.86	106.40
26	14	1655	A	C8-N9-C4	6.15	108.26	105.80
26	14	1742	C	C6-N1-C2	-6.15	117.84	120.30
26	1H	2581	G	N1-C2-N2	-6.14	110.67	116.20
1	1G	236	G	C5-C6-N1	-6.14	108.43	111.50
23	2L	35	C	C2-N1-C1'	6.14	125.56	118.80
26	14	773	U	N3-C2-O2	-6.14	117.90	122.20
26	14	871	U	O5'-P-OP1	-6.14	100.17	105.70
26	14	1819	A	N9-C4-C5	6.14	108.26	105.80
26	1H	2430	A	N7-C8-N9	6.14	116.87	113.80
26	14	1348	G	N9-C4-C5	-6.14	102.94	105.40
26	1H	2241	A	C5-C6-N6	6.14	128.61	123.70
26	14	1795	C	C5-C6-N1	6.14	124.07	121.00
1	13	780	A	OP1-P-OP2	-6.14	110.39	119.60
1	13	853	G	C8-N9-C4	6.14	108.86	106.40
26	1H	1343	G	C8-N9-C4	-6.14	103.94	106.40
26	14	101	G	N3-C4-N9	6.14	129.68	126.00
26	1H	1352	U	N1-C2-O2	-6.14	118.50	122.80
27	1J	102	G	C5-C6-O6	6.14	132.28	128.60
49	C5	90	LEU	CA-CB-CG	6.14	129.42	115.30
1	13	1054	C	C6-N1-C2	6.14	122.75	120.30
26	1H	774	A	C5-N7-C8	-6.14	100.83	103.90
26	1H	1614	A	N7-C8-N9	6.14	116.87	113.80
26	14	1261	C	N1-C2-O2	-6.14	115.22	118.90
1	13	457	C	O4'-C1'-N1	6.13	113.11	108.20
1	13	1028	C	C2-N1-C1'	6.13	125.55	118.80
26	1H	1558	A	C2-N3-C4	-6.13	107.53	110.60
26	14	670	A	N7-C8-N9	-6.13	110.73	113.80
26	14	912	C	C6-N1-C2	-6.13	117.85	120.30
26	1H	125	G	O4'-C1'-N9	-6.13	103.30	108.20
26	1H	1126	A	C2-N3-C4	-6.13	107.53	110.60
26	1H	1396	U	N3-C4-O4	-6.13	115.11	119.40
26	14	1602	U	O5'-P-OP1	-6.13	100.18	105.70
26	14	1762	A	C5-C6-N1	-6.13	114.63	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1771	C	C2-N3-C4	-6.13	116.83	119.90
1	13	108	G	C4-C5-N7	6.13	113.25	110.80
26	14	2708	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	567	A	C5-N7-C8	-6.13	100.84	103.90
26	1H	953	A	C8-N9-C4	6.13	108.25	105.80
26	14	212	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	570	G	N1-C6-O6	6.13	123.58	119.90
26	1H	2581	G	N3-C4-N9	6.13	129.68	126.00
26	1H	2075	U	C5-C6-N1	-6.12	119.64	122.70
26	1H	2244	U	N3-C2-O2	-6.12	117.91	122.20
1	1G	449	C	N3-C4-N4	-6.12	113.71	118.00
26	14	1604	C	N1-C2-O2	-6.12	115.23	118.90
26	1H	938	G	O5'-P-OP2	-6.12	100.19	105.70
26	1H	1300	U	N1-C2-N3	6.12	118.57	114.90
26	14	1204	A	C2-N3-C4	-6.12	107.54	110.60
26	14	2062	A	N1-C2-N3	-6.12	126.24	129.30
26	14	2255	G	N1-C6-O6	-6.12	116.23	119.90
26	1H	1024	G	OP1-P-OP2	6.12	128.78	119.60
26	14	2477	C	C6-N1-C1'	-6.12	113.46	120.80
22	1K	72	G	O4'-C1'-N9	6.12	113.09	108.20
26	1H	324	A	O5'-P-OP2	6.12	118.04	110.70
26	1H	738	G	N7-C8-N9	6.12	116.16	113.10
26	1H	932	G	N1-C6-O6	-6.12	116.23	119.90
26	1H	2392	A	C5-C6-N1	-6.12	114.64	117.70
26	1H	2762	G	C6-C5-N7	-6.12	126.73	130.40
26	14	391	G	C4-C5-N7	6.12	113.25	110.80
26	14	1627	G	N3-C2-N2	6.12	124.18	119.90
26	1H	663	G	C4-C5-C6	6.11	122.47	118.80
26	1H	773	U	C5-C6-N1	-6.11	119.64	122.70
26	1H	1984	G	C5'-C4'-O4'	6.11	116.43	109.10
1	1G	413	G	C8-N9-C1'	6.11	134.94	127.00
26	1H	601	C	C6-N1-C2	6.11	122.74	120.30
26	1H	739	G	O5'-P-OP1	-6.11	100.20	105.70
26	1H	1784	A	C5-N7-C8	-6.11	100.85	103.90
26	14	2433	A	O5'-P-OP2	6.11	118.03	110.70
26	14	2456	C	N3-C4-N4	6.11	122.28	118.00
1	13	880	C	N1-C2-N3	-6.11	114.93	119.20
26	1H	2690	C	C5-C6-N1	-6.11	117.95	121.00
26	14	1984	G	OP1-P-OP2	6.11	128.76	119.60
26	1H	801	G	O5'-P-OP2	-6.10	100.21	105.70
26	1H	2376	A	C8-N9-C4	6.10	108.24	105.80
26	1H	225	A	C2-N3-C4	-6.10	107.55	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	577	G	OP1-P-OP2	-6.10	110.45	119.60
26	1H	698	C	C5-C6-N1	-6.10	117.95	121.00
26	14	90	U	O4'-C1'-N1	6.10	113.08	108.20
26	14	2256	G	O5'-P-OP2	-6.10	100.21	105.70
26	1H	1569	A	OP1-P-O3'	6.10	118.62	105.20
26	14	432	A	N1-C6-N6	6.10	122.26	118.60
26	14	1506	C	C6-N1-C2	-6.10	117.86	120.30
26	14	1966	A	C5-C6-N6	-6.10	118.82	123.70
1	13	84	U	O4'-C1'-N1	6.10	113.08	108.20
26	1H	650	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	1970	A	O5'-P-OP1	-6.09	100.22	105.70
26	1H	2607	G	C4-C5-C6	6.09	122.46	118.80
26	14	578	A	O5'-P-OP2	-6.09	100.22	105.70
26	14	1661	G	N9-C4-C5	-6.09	102.96	105.40
26	14	1647	G	O5'-P-OP1	-6.09	100.22	105.70
26	1H	138	G	C5-C6-N1	6.09	114.55	111.50
26	1H	587	C	O5'-P-OP1	-6.09	100.22	105.70
26	1H	1669	A	O4'-C1'-N9	6.09	113.07	108.20
26	14	281	G	N1-C6-O6	6.09	123.56	119.90
26	14	671	C	C2-N3-C4	-6.09	116.86	119.90
1	13	1395	C	C6-N1-C2	6.09	122.74	120.30
26	1H	928	G	N3-C2-N2	-6.09	115.64	119.90
26	1H	1567	A	C8-N9-C4	-6.09	103.36	105.80
26	1H	2246	G	C5-C6-O6	-6.09	124.95	128.60
23	2L	17	C	N1-C2-O2	6.09	122.55	118.90
27	16	98	G	C4-C5-N7	6.09	113.23	110.80
1	13	266	G	N1-C6-O6	6.09	123.55	119.90
22	1L	16	C	C2-N1-C1'	6.09	125.50	118.80
26	14	579	G	C8-N9-C1'	-6.09	119.09	127.00
26	14	642	G	N7-C8-N9	6.09	116.14	113.10
26	14	396	G	C6-C5-N7	-6.08	126.75	130.40
1	13	2	U	N1-C2-O2	6.08	127.06	122.80
23	2K	5	G	C8-N9-C4	6.08	108.83	106.40
26	1H	34	C	O5'-P-OP1	-6.08	100.22	105.70
26	1H	2004	G	OP2-P-O3'	6.08	118.58	105.20
26	1H	2712	U	O4'-C1'-N1	6.08	113.07	108.20
50	H8	61	LEU	CA-CB-CG	6.08	129.29	115.30
26	14	389	G	C6-C5-N7	-6.08	126.75	130.40
26	1H	1158	C	C5-C6-N1	-6.08	117.96	121.00
26	1H	2503	A	C4-C5-N7	6.08	113.74	110.70
24	3L	16	C	C2-N1-C1'	6.08	125.49	118.80
24	3L	64	U	N1-C2-O2	6.08	127.06	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	741	G	O5'-P-OP2	6.08	118.00	110.70
26	14	2589	A	C2-N3-C4	-6.08	107.56	110.60
26	1H	940	G	N9-C4-C5	-6.08	102.97	105.40
26	14	2859	G	N3-C4-C5	-6.08	125.56	128.60
26	1H	844	C	N3-C4-N4	6.08	122.25	118.00
26	14	1978	A	OP2-P-O3'	6.08	118.57	105.20
27	1J	54	G	C8-N9-C4	-6.08	103.97	106.40
1	1G	354	G	C6-C5-N7	-6.08	126.75	130.40
26	1H	481	G	O5'-P-OP2	-6.08	100.23	105.70
26	1H	818	G	C5-C6-O6	6.08	132.25	128.60
1	1G	904	C	C6-N1-C2	6.08	122.73	120.30
26	14	617	G	C8-N9-C4	6.08	108.83	106.40
24	3K	71	U	N3-C2-O2	-6.07	117.95	122.20
26	1H	751	A	OP1-P-OP2	-6.07	110.49	119.60
26	1H	979	G	N3-C4-N9	-6.07	122.36	126.00
26	1H	1674	G	O4'-C1'-N9	-6.07	103.34	108.20
26	1H	1799	G	N3-C4-N9	6.07	129.64	126.00
45	C8	28	ARG	NE-CZ-NH2	-6.07	117.26	120.30
26	14	2513	G	C2-N3-C4	-6.07	108.86	111.90
26	1H	2271	G	C6-C5-N7	-6.07	126.76	130.40
1	1G	484	G	C8-N9-C1'	6.07	134.89	127.00
1	13	1084	G	N3-C4-C5	-6.07	125.56	128.60
1	13	1420	C	N3-C4-C5	6.07	124.33	121.90
26	1H	258	G	N1-C6-O6	-6.07	116.26	119.90
26	1H	1380	G	C8-N9-C1'	-6.07	119.11	127.00
26	1H	1997	G	C6-C5-N7	-6.07	126.76	130.40
26	14	1627	G	N1-C2-N2	-6.07	110.74	116.20
26	14	2640	G	N7-C8-N9	6.07	116.14	113.10
1	13	792	A	N9-C1'-C2'	6.07	121.89	114.00
26	1H	17	G	OP1-P-O3'	6.07	118.55	105.20
26	1H	2146	C	C6-N1-C1'	-6.07	113.52	120.80
26	1H	2639	A	C2-N3-C4	-6.07	107.57	110.60
26	14	2307	G	N7-C8-N9	6.07	116.14	113.10
1	13	703	G	C8-N9-C1'	-6.07	119.11	127.00
26	1H	508	G	C8-N9-C1'	-6.07	119.11	127.00
26	1H	1379	A	C8-N9-C4	-6.07	103.37	105.80
1	1G	518	C	N3-C2-O2	-6.07	117.65	121.90
1	1G	1204	A	C8-N9-C4	-6.07	103.37	105.80
26	14	664	C	C5-C6-N1	-6.07	117.97	121.00
26	1H	1070	A	N1-C6-N6	-6.07	114.96	118.60
26	14	613	U	N1-C2-O2	6.06	127.05	122.80
26	14	806	C	O5'-P-OP2	6.06	117.98	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	356	A	C4-C5-C6	-6.06	113.97	117.00
26	14	1022	G	P-O3'-C3'	6.06	126.98	119.70
26	1H	37	C	O5'-P-OP2	-6.06	100.25	105.70
26	1H	1559	G	C5-C6-O6	-6.06	124.96	128.60
1	13	1502	A	N9-C4-C5	-6.06	103.38	105.80
26	1H	1942	C	C5-C6-N1	6.06	124.03	121.00
26	1H	1142(A)	A	C5-C6-N1	-6.06	114.67	117.70
26	1H	728	G	N1-C6-O6	6.05	123.53	119.90
26	1H	1184	G	N9-C4-C5	-6.05	102.98	105.40
26	1H	2638	G	N9-C4-C5	-6.05	102.98	105.40
26	14	801	G	C6-C5-N7	6.05	134.03	130.40
26	14	1350	C	N3-C2-O2	6.05	126.14	121.90
26	1H	835	A	O5'-P-OP1	6.05	117.96	110.70
26	1H	1185	C	N1-C2-O2	6.05	122.53	118.90
1	1G	897	C	N1-C2-O2	-6.05	115.27	118.90
26	1H	2508	G	C8-N9-C4	-6.05	103.98	106.40
1	1G	1395	C	O5'-P-OP1	-6.05	100.25	105.70
26	1H	141	A	C5-C6-N6	-6.05	118.86	123.70
26	1H	1265	A	O5'-P-OP1	-6.05	100.26	105.70
26	1H	2413	G	N1-C6-O6	6.05	123.53	119.90
26	1H	2777	G	O4'-C1'-N9	-6.05	103.36	108.20
1	1G	690	G	C2-N3-C4	-6.05	108.88	111.90
26	14	101	G	P-O3'-C3'	6.05	126.96	119.70
26	1H	148	C	C2-N3-C4	-6.05	116.88	119.90
1	1G	1281	U	C5-C6-N1	6.05	125.72	122.70
1	13	866	C	O5'-P-OP1	-6.04	100.26	105.70
1	13	1489	G	N7-C8-N9	-6.04	110.08	113.10
1	1G	1128	C	C6-N1-C2	-6.04	117.88	120.30
26	14	1930	G	C8-N9-C1'	6.04	134.86	127.00
1	13	913	A	P-O3'-C3'	6.04	126.95	119.70
1	13	1352	C	N1-C2-O2	6.04	122.53	118.90
26	1H	1378	A	N1-C6-N6	6.04	122.23	118.60
26	1H	2031	A	N3-C4-N9	6.04	132.24	127.40
26	14	642	G	C5-C6-N1	-6.04	108.48	111.50
26	14	2385	C	C6-N1-C2	6.04	122.72	120.30
26	14	956	G	C5-C6-N1	-6.04	108.48	111.50
1	13	733	A	C8-N9-C4	6.04	108.22	105.80
26	1H	1500	G	C4-C5-N7	6.04	113.22	110.80
26	1H	1696	G	N3-C4-C5	6.04	131.62	128.60
26	14	1336	A	C6-N1-C2	-6.04	114.98	118.60
26	1H	2280	G	C2-N3-C4	6.04	114.92	111.90
26	14	1275	A	O5'-P-OP2	6.04	117.94	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2340	G	C8-N9-C4	6.04	108.81	106.40
26	14	2433	A	N7-C8-N9	6.04	116.82	113.80
26	1H	420	C	C5-C6-N1	-6.03	117.98	121.00
26	1H	2048	G	C4-C5-N7	-6.03	108.39	110.80
26	14	2473	U	C6-N1-C1'	-6.03	112.75	121.20
1	1G	909	A	C5-C6-N6	-6.03	118.87	123.70
26	14	1205	U	N1-C2-N3	6.03	118.52	114.90
26	14	1809	A	C2-N3-C4	-6.03	107.58	110.60
27	1J	98	G	N9-C4-C5	-6.03	102.99	105.40
1	13	888	G	N3-C4-C5	6.03	131.61	128.60
2	12	123	ALA	C-N-CA	6.03	136.77	121.70
26	14	792	G	C5-C6-O6	6.03	132.22	128.60
1	13	1305	G	C5-C6-N1	-6.03	108.49	111.50
26	1H	723	G	N9-C4-C5	-6.03	102.99	105.40
26	1H	2374	C	O5'-P-OP2	-6.03	100.28	105.70
26	14	1425	G	C4-C5-N7	6.02	113.21	110.80
26	1H	1410	G	C8-N9-C4	6.02	108.81	106.40
26	1H	2766	G	C6-C5-N7	-6.02	126.79	130.40
26	14	1698	A	N9-C4-C5	-6.02	103.39	105.80
26	1H	122	G	N3-C4-C5	6.02	131.61	128.60
26	1H	1848	A	C5-C6-N6	-6.02	118.88	123.70
1	1G	1127	G	N3-C4-N9	6.02	129.61	126.00
26	14	278	A	OP1-P-O3'	6.02	118.44	105.20
26	1H	74	A	O4'-C1'-N9	-6.02	103.39	108.20
1	1G	266	G	O4'-C1'-N9	-6.02	103.39	108.20
26	14	101	G	C4-N9-C1'	6.02	134.32	126.50
26	14	2320	A	P-O3'-C3'	6.02	126.92	119.70
1	13	149	A	C8-N9-C4	-6.01	103.39	105.80
1	13	793	U	N3-C4-C5	-6.01	110.99	114.60
26	1H	597	U	N3-C4-C5	-6.01	110.99	114.60
26	1H	672	C	O5'-P-OP1	6.01	117.92	110.70
26	14	772	C	N1-C2-O2	-6.01	115.29	118.90
26	14	1935	G	N3-C4-C5	6.01	131.61	128.60
26	14	1950	G	C5-N7-C8	-6.01	101.29	104.30
26	1H	1899	G	C5-N7-C8	-6.01	101.29	104.30
26	1H	2311	A	N1-C6-N6	6.01	122.21	118.60
26	1H	245	G	C6-C5-N7	-6.01	126.79	130.40
26	1H	2690	C	C4-C5-C6	6.01	120.41	117.40
26	14	196	A	N1-C6-N6	-6.01	114.99	118.60
26	14	2463	C	C6-N1-C2	6.01	122.70	120.30
26	1H	1659	U	N1-C2-O2	-6.01	118.59	122.80
1	1G	784	C	C5-C4-N4	-6.01	115.99	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1326	U	C5-C4-O4	6.01	129.51	125.90
26	14	1414	G	C4-N9-C1'	6.01	134.31	126.50
26	14	2426	A	C5-N7-C8	-6.01	100.89	103.90
26	1H	2023	G	N9-C4-C5	6.01	107.80	105.40
1	13	723	U	C5-C6-N1	6.01	125.70	122.70
26	1H	2183	C	C5-C6-N1	6.01	124.00	121.00
26	1H	2377	A	C4-C5-N7	6.01	113.70	110.70
26	14	705	A	C8-N9-C4	6.01	108.20	105.80
26	14	827	U	N3-C4-O4	6.01	123.60	119.40
26	14	1342	A	C4-N9-C1'	6.01	137.11	126.30
1	1G	748	C	P-O3'-C3'	6.00	126.90	119.70
26	14	510	C	C2-N1-C1'	6.00	125.40	118.80
26	14	1825	A	O5'-P-OP2	-6.00	100.30	105.70
1	13	115	G	P-O3'-C3'	6.00	126.90	119.70
27	1J	8	U	O5'-P-OP1	6.00	117.90	110.70
26	1H	237	C	N1-C2-O2	-6.00	115.30	118.90
26	1H	1696	G	N3-C4-N9	-6.00	122.40	126.00
26	14	340	A	N1-C6-N6	-6.00	115.00	118.60
26	14	1678	G	N9-C4-C5	6.00	107.80	105.40
26	1H	825	C	N3-C4-N4	6.00	122.20	118.00
26	1H	1332	G	N1-C2-N3	6.00	127.50	123.90
1	1G	328	C	N1-C2-O2	6.00	122.50	118.90
26	1H	674	G	C8-N9-C4	6.00	108.80	106.40
26	1H	678	C	C5-C6-N1	-6.00	118.00	121.00
26	1H	973	A	N1-C2-N3	6.00	132.30	129.30
1	1G	518	C	N1-C2-O2	6.00	122.50	118.90
22	1L	37	G	N1-C6-O6	-6.00	116.30	119.90
26	14	1787	A	N1-C6-N6	6.00	122.20	118.60
26	1H	955	C	OP1-P-O3'	6.00	118.39	105.20
26	14	961	C	O4'-C1'-N1	6.00	113.00	108.20
26	14	2477	C	C6-N1-C2	-6.00	117.90	120.30
1	13	53	A	N1-C6-N6	5.99	122.20	118.60
1	13	1355	G	C8-N9-C4	-5.99	104.00	106.40
26	1H	188	G	N3-C4-N9	5.99	129.60	126.00
26	1H	580	C	C5-C6-N1	5.99	124.00	121.00
27	16	8	U	O5'-P-OP2	-5.99	100.31	105.70
27	16	16	G	N1-C6-O6	5.99	123.50	119.90
26	14	101	G	N7-C8-N9	5.99	116.10	113.10
26	14	2323	G	C8-N9-C4	5.99	108.80	106.40
26	14	2490	G	C4-C5-C6	5.99	122.40	118.80
1	13	579	G	N1-C6-O6	5.99	123.50	119.90
26	14	843	G	C8-N9-C4	5.99	108.80	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	735	A	N7-C8-N9	-5.99	110.80	113.80
26	1H	2541	A	O5'-P-OP1	-5.99	100.31	105.70
26	1H	2584	U	C4-C5-C6	5.99	123.29	119.70
1	13	533	A	C2-N3-C4	-5.99	107.61	110.60
1	13	690	G	C5-N7-C8	-5.99	101.31	104.30
26	1H	2054	A	C6-C5-N7	-5.99	128.11	132.30
26	1H	2449	U	N3-C4-O4	5.99	123.59	119.40
24	3L	49	C	N1-C2-O2	5.99	122.49	118.90
24	3L	59	A	O4'-C1'-N9	-5.99	103.41	108.20
26	1H	1653	G	P-O3'-C3'	5.98	126.88	119.70
26	1H	1669	A	C6-N1-C2	-5.98	115.01	118.60
26	14	2508	G	C8-N9-C4	-5.98	104.01	106.40
26	1H	107	C	C6-N1-C2	5.98	122.69	120.30
26	1H	387	U	OP1-P-O3'	5.98	118.35	105.20
26	1H	940	G	N1-C6-O6	5.98	123.49	119.90
26	1H	2378	A	N1-C6-N6	5.98	122.19	118.60
1	13	806	C	N3-C4-C5	5.98	124.29	121.90
26	1H	179	G	N1-C6-O6	5.98	123.49	119.90
1	1G	1322	C	C2-N1-C1'	5.98	125.37	118.80
26	1H	1203	G	N1-C6-O6	-5.97	116.31	119.90
26	1H	1776	G	C8-N9-C4	5.97	108.79	106.40
27	16	60	C	N3-C4-N4	5.97	122.18	118.00
1	1G	1415	G	C8-N9-C4	5.97	108.79	106.40
26	14	425	G	C4-N9-C1'	-5.97	118.73	126.50
26	14	2275	C	OP2-P-O3'	5.97	118.34	105.20
26	1H	1848	A	N1-C6-N6	5.97	122.18	118.60
26	14	622	G	C8-N9-C4	5.97	108.79	106.40
26	1H	481	G	N3-C4-C5	5.97	131.58	128.60
26	1H	1204	A	C4-C5-N7	5.97	113.68	110.70
26	14	1029	A	O5'-P-OP2	-5.97	100.33	105.70
26	14	2324	C	C6-N1-C2	5.97	122.69	120.30
23	2K	21	U	C6-N1-C1'	-5.96	112.85	121.20
26	1H	1939	U	C4-C5-C6	-5.96	116.12	119.70
26	14	2847	U	N3-C2-O2	5.96	126.37	122.20
26	1H	1026	U	O4'-C1'-N1	5.96	112.97	108.20
36	38	58	LEU	CA-CB-CG	5.96	129.01	115.30
1	1G	257	G	N1-C6-O6	5.96	123.48	119.90
26	14	1358	G	N1-C6-O6	5.96	123.48	119.90
26	14	1769	G	N1-C6-O6	5.96	123.48	119.90
26	14	2346	A	C5-N7-C8	-5.96	100.92	103.90
1	13	1322	C	N3-C2-O2	5.96	126.07	121.90
26	1H	220	G	C5-N7-C8	-5.96	101.32	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	474	G	N9-C4-C5	5.96	107.78	105.40
26	1H	1598	C	OP1-P-O3'	5.96	118.31	105.20
1	1G	817	C	C6-N1-C2	5.96	122.68	120.30
26	14	2085	C	O5'-P-OP2	-5.96	100.34	105.70
26	14	2502	G	N3-C4-C5	-5.96	125.62	128.60
26	1H	265	A	C4-C5-N7	5.96	113.68	110.70
26	14	1772	G	C6-C5-N7	-5.96	126.83	130.40
1	13	109	A	O5'-P-OP2	-5.96	100.34	105.70
1	13	112	G	C5-N7-C8	-5.96	101.32	104.30
26	1H	940	G	C8-N9-C4	5.96	108.78	106.40
26	14	2509	G	N1-C6-O6	5.96	123.47	119.90
1	1G	413	G	C6-C5-N7	5.95	133.97	130.40
23	2L	77	A	C4-N9-C1'	-5.95	115.58	126.30
26	14	776	G	N3-C2-N2	-5.95	115.73	119.90
1	13	320	C	C2-N1-C1'	-5.95	112.25	118.80
26	1H	298	G	N1-C6-O6	5.95	123.47	119.90
26	14	647	G	C4-N9-C1'	5.95	134.24	126.50
1	13	254	G	O5'-P-OP1	-5.95	100.34	105.70
26	1H	105	C	C6-N1-C2	-5.95	117.92	120.30
26	1H	798	G	N3-C4-C5	5.95	131.58	128.60
26	1H	2269	A	C2-N3-C4	-5.95	107.62	110.60
26	14	703	U	C5-C4-O4	5.95	129.47	125.90
1	13	644	G	C8-N9-C4	5.95	108.78	106.40
26	1H	449	A	C5-C6-N6	-5.95	118.94	123.70
26	1H	954	G	N3-C4-C5	-5.95	125.62	128.60
26	1H	2455	G	C8-N9-C4	5.95	108.78	106.40
26	1H	2586	C	C2-N3-C4	-5.95	116.93	119.90
26	14	838	C	C6-N1-C2	5.95	122.68	120.30
26	14	1336	A	C5-C6-N1	5.95	120.67	117.70
26	1H	252	G	C6-C5-N7	-5.95	126.83	130.40
1	13	888	G	C5-C6-N1	-5.95	108.53	111.50
1	13	1053	G	N3-C4-C5	5.95	131.57	128.60
26	1H	449	A	C4-C5-N7	5.95	113.67	110.70
26	1H	567	A	O5'-P-OP1	-5.95	100.35	105.70
26	14	1774	C	N3-C4-N4	5.95	122.16	118.00
27	1J	88	C	C2-N1-C1'	5.95	125.34	118.80
1	13	858	G	N3-C4-C5	-5.94	125.63	128.60
1	13	1279	A	C5-N7-C8	-5.94	100.93	103.90
26	1H	205	G	N3-C4-N9	5.94	129.57	126.00
1	13	511	C	C5-C6-N1	-5.94	118.03	121.00
24	3K	72	G	O4'-C1'-N9	5.94	112.95	108.20
26	1H	784	A	O5'-P-OP1	-5.94	100.35	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1693	U	O5'-P-OP1	-5.94	100.35	105.70
26	1H	2827	C	C6-N1-C2	5.94	122.68	120.30
1	13	853	G	N9-C4-C5	-5.94	103.02	105.40
26	1H	204	A	C8-N9-C4	5.94	108.18	105.80
26	1H	465	G	C4-C5-N7	-5.94	108.42	110.80
26	1H	2591	C	N1-C2-O2	-5.94	115.34	118.90
26	14	461	C	N3-C2-O2	5.94	126.06	121.90
26	14	2021	C	N1-C2-O2	5.94	122.46	118.90
26	14	2352	A	N1-C2-N3	5.94	132.27	129.30
26	1H	1036	G	C8-N9-C4	5.94	108.78	106.40
26	14	1698	A	C5-C6-N6	-5.94	118.95	123.70
26	14	2585	U	C6-N1-C1'	-5.94	112.89	121.20
26	1H	1992	G	P-O3'-C3'	5.94	126.82	119.70
26	14	58	G	C5-C6-O6	-5.94	125.04	128.60
26	14	74	A	N3-C4-N9	-5.94	122.65	127.40
1	13	1323	G	N1-C6-O6	5.93	123.46	119.90
26	1H	1565	C	OP2-P-O3'	5.93	118.26	105.20
1	13	1404	C	N3-C4-N4	-5.93	113.85	118.00
26	1H	1307	A	C5-C6-N6	-5.93	118.95	123.70
1	13	963	G	C5-C6-O6	5.93	132.16	128.60
26	1H	1245	G	O5'-P-OP1	-5.93	100.36	105.70
26	1H	2237	G	N3-C4-N9	5.93	129.56	126.00
26	14	1283	G	OP1-P-OP2	5.93	128.50	119.60
1	13	1266	G	N3-C4-N9	-5.93	122.44	126.00
26	1H	2037	G	N1-C6-O6	-5.93	116.34	119.90
58	P8	12	ARG	NE-CZ-NH1	-5.93	117.34	120.30
26	14	146	G	N9-C4-C5	-5.93	103.03	105.40
26	14	946	G	C8-N9-C4	5.93	108.77	106.40
26	14	1617	C	C4-C5-C6	5.93	120.36	117.40
1	13	757	U	N3-C2-O2	-5.93	118.05	122.20
26	1H	972	G	N1-C6-O6	-5.93	116.34	119.90
26	1H	989	G	C4-C5-N7	5.93	113.17	110.80
1	13	962	C	N3-C4-C5	5.93	124.27	121.90
1	13	1259	C	C6-N1-C2	-5.93	117.93	120.30
26	1H	1439	A	N1-C6-N6	5.93	122.16	118.60
1	1G	1378	C	C2-N1-C1'	5.93	125.32	118.80
26	14	2339	G	O5'-P-OP2	-5.93	100.37	105.70
26	1H	203	C	O5'-P-OP2	5.92	117.81	110.70
26	1H	2477	C	C5-C6-N1	5.92	123.96	121.00
26	1H	2713	A	C5-C6-N1	-5.92	114.74	117.70
26	14	970	C	N3-C2-O2	5.92	126.05	121.90
26	14	1414	G	C6-C5-N7	-5.92	126.84	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1379	A	C6-C5-N7	-5.92	128.16	132.30
1	1G	1126	U	P-O3'-C3'	5.92	126.81	119.70
26	14	956	G	N1-C6-O6	5.92	123.45	119.90
26	14	1225	C	C6-N1-C2	5.92	122.67	120.30
1	1G	576	G	C4-C5-C6	5.92	122.35	118.80
26	1H	2580	U	N3-C4-C5	-5.92	111.05	114.60
1	1G	123	C	C6-N1-C2	5.92	122.67	120.30
26	14	1590	U	O5'-P-OP1	-5.92	100.37	105.70
26	1H	1158	C	N3-C4-N4	-5.92	113.86	118.00
26	1H	2070	G	C8-N9-C4	5.92	108.77	106.40
5	42	31	LEU	CA-CB-CG	5.92	128.91	115.30
26	1H	1030	G	N1-C2-N3	5.92	127.45	123.90
26	1H	2346	A	N1-C6-N6	5.92	122.15	118.60
26	14	34	C	C2-N1-C1'	5.92	125.31	118.80
1	13	545	C	N3-C2-O2	-5.91	117.76	121.90
26	1H	1817	G	N1-C6-O6	-5.91	116.35	119.90
1	13	508	C	O5'-P-OP1	-5.91	100.38	105.70
26	1H	2022	U	O5'-P-OP1	5.91	117.80	110.70
26	1H	613	U	O4'-C1'-N1	5.91	112.93	108.20
26	1H	1858	G	C4-N9-C1'	5.91	134.18	126.50
26	1H	194	G	N9-C4-C5	-5.91	103.04	105.40
27	16	45	A	O5'-P-OP1	-5.91	100.38	105.70
1	1G	765	G	N1-C6-O6	5.91	123.44	119.90
26	14	1542	G	N3-C4-C5	-5.91	125.65	128.60
26	14	1543	A	O5'-P-OP1	5.91	117.79	110.70
27	1J	60	C	C6-N1-C2	-5.91	117.94	120.30
1	13	611	A	C4-C5-N7	5.91	113.65	110.70
26	1H	1125	G	C5-C6-O6	5.91	132.14	128.60
26	14	699	A	C2-N3-C4	5.91	113.55	110.60
26	1H	145	G	O5'-P-OP2	-5.91	100.39	105.70
26	1H	1365	A	N9-C4-C5	5.91	108.16	105.80
26	1H	1948	G	N1-C6-O6	-5.91	116.36	119.90
1	1G	394	G	C6-C5-N7	-5.91	126.86	130.40
26	14	684	G	N7-C8-N9	5.91	116.05	113.10
1	13	789	U	N1-C2-N3	5.90	118.44	114.90
26	1H	130	C	N3-C4-N4	5.90	122.13	118.00
26	1H	1614	A	O4'-C1'-N9	5.90	112.92	108.20
23	2K	48	U	OP2-P-O3'	5.90	118.18	105.20
26	1H	689	A	N9-C4-C5	-5.90	103.44	105.80
26	1H	1241	A	C5-C6-N1	-5.90	114.75	117.70
26	1H	1279	G	O5'-P-OP2	-5.90	100.39	105.70
26	1H	1779	U	O5'-P-OP2	-5.90	100.39	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2249	U	N3-C4-C5	5.90	118.14	114.60
26	14	1323	U	N1-C2-O2	-5.90	118.67	122.80
26	14	2689	U	C5-C6-N1	-5.90	119.75	122.70
26	1H	188	G	N1-C2-N2	-5.90	110.89	116.20
1	13	1527	C	N1-C2-O2	-5.90	115.36	118.90
26	1H	310	A	N9-C4-C5	-5.90	103.44	105.80
26	1H	2523	G	N7-C8-N9	5.90	116.05	113.10
1	13	749	C	C2-N1-C1'	5.90	125.28	118.80
26	1H	621	A	N9-C4-C5	-5.89	103.44	105.80
26	1H	1313	U	C2-N1-C1'	5.89	124.77	117.70
26	1H	2602	A	OP1-P-OP2	-5.89	110.76	119.60
26	1H	458	G	C8-N9-C1'	5.89	134.66	127.00
26	14	936	C	C6-N1-C2	5.89	122.66	120.30
1	1G	1235	U	C5-C6-N1	5.89	125.65	122.70
26	1H	1799	G	O5'-P-OP1	-5.89	100.40	105.70
1	1G	1499	A	C8-N9-C4	5.89	108.16	105.80
27	1J	54	G	N7-C8-N9	5.89	116.05	113.10
23	2K	17	C	C6-N1-C2	-5.89	117.94	120.30
1	13	260	G	N3-C4-C5	-5.89	125.66	128.60
26	1H	1254	A	C8-N9-C4	5.89	108.15	105.80
1	1G	1127	G	N1-C6-O6	-5.89	116.37	119.90
26	14	1253	A	N9-C4-C5	-5.89	103.44	105.80
24	3K	12	U	C5-C6-N1	5.88	125.64	122.70
26	1H	1699	G	C8-N9-C4	-5.88	104.05	106.40
26	14	1520	U	C5-C4-O4	5.88	129.43	125.90
26	14	2359	C	C5-C4-N4	5.88	124.32	120.20
26	14	2584	U	N3-C2-O2	-5.88	118.08	122.20
26	14	2885	C	N1-C2-O2	5.88	122.43	118.90
26	1H	2279	G	O5'-P-OP1	-5.88	100.41	105.70
26	14	457	A	N7-C8-N9	5.88	116.74	113.80
26	14	2378	A	C8-N9-C4	5.88	108.15	105.80
26	1H	200	U	C5-C6-N1	-5.88	119.76	122.70
26	14	330	A	C6-C5-N7	-5.88	128.18	132.30
26	1H	1796	U	C5-C6-N1	-5.88	119.76	122.70
1	1G	484	G	C4-N9-C1'	-5.88	118.86	126.50
1	13	1252	A	O5'-P-OP2	-5.88	100.41	105.70
26	1H	2069	G	C5-C6-O6	-5.88	125.07	128.60
26	14	1681	G	C5-N7-C8	-5.88	101.36	104.30
1	13	978	A	N1-C6-N6	5.88	122.12	118.60
26	1H	2611	U	OP2-P-O3'	5.88	118.13	105.20
26	1H	1398	C	OP2-P-O3'	5.87	118.12	105.20
27	16	115	G	C5-C6-O6	-5.87	125.08	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1297	C	N1-C2-O2	5.87	122.42	118.90
26	1H	1945	G	N3-C4-N9	5.87	129.52	126.00
1	1G	748	C	C5-C6-N1	5.87	123.94	121.00
26	14	1187	G	C5-C6-N1	-5.87	108.56	111.50
26	14	1608	A	N1-C6-N6	-5.87	115.08	118.60
1	13	962	C	C2-N3-C4	-5.87	116.97	119.90
26	1H	1070	A	C2-N3-C4	5.87	113.53	110.60
46	D8	18	LEU	CA-CB-CG	5.87	128.80	115.30
26	14	171	G	N3-C4-N9	5.87	129.52	126.00
26	14	1786	A	N1-C2-N3	5.87	132.23	129.30
26	1H	2043	C	C2-N1-C1'	5.87	125.25	118.80
26	14	810	U	C2-N3-C4	-5.87	123.48	127.00
22	1L	73	C	P-O3'-C3'	5.86	126.73	119.70
26	14	678	C	C5-C6-N1	-5.86	118.07	121.00
26	14	1627	G	N1-C6-O6	-5.86	116.38	119.90
1	13	1335	C	C6-N1-C2	5.86	122.64	120.30
26	1H	472	A	N7-C8-N9	-5.86	110.87	113.80
22	1L	30	C	C5-C6-N1	5.86	123.93	121.00
1	13	966	G	C5-C6-O6	-5.86	125.08	128.60
26	1H	2331	G	N3-C4-C5	5.86	131.53	128.60
26	1H	2503	A	N3-C4-N9	5.86	132.09	127.40
1	1G	690	G	O4'-C1'-N9	5.86	112.89	108.20
26	14	1900	A	C4-C5-C6	5.86	119.93	117.00
26	14	2393	A	O5'-P-OP1	-5.86	100.42	105.70
26	1H	404	C	P-O3'-C3'	5.86	126.73	119.70
26	1H	2665	A	N1-C2-N3	5.86	132.23	129.30
26	14	2392	A	N7-C8-N9	5.86	116.73	113.80
26	1H	889	C	C6-N1-C1'	-5.86	113.77	120.80
26	1H	2502	G	C8-N9-C4	-5.86	104.06	106.40
1	1G	1513	A	N1-C6-N6	5.86	122.11	118.60
26	14	121	G	C5-N7-C8	-5.86	101.37	104.30
26	14	2038	G	N3-C2-N2	5.86	124.00	119.90
26	1H	386	G	C4-C5-N7	5.86	113.14	110.80
26	1H	1470	G	N1-C6-O6	5.86	123.41	119.90
26	1H	2655	G	O4'-C1'-N9	5.86	112.88	108.20
27	1J	98	G	C5-C6-O6	-5.86	125.09	128.60
1	13	583	A	O5'-P-OP1	-5.85	100.43	105.70
24	3K	66	C	C5-C6-N1	5.85	123.93	121.00
26	1H	530	G	C5-N7-C8	-5.85	101.37	104.30
26	1H	2575	C	C2-N1-C1'	-5.85	112.36	118.80
26	14	1528	A	N7-C8-N9	5.85	116.73	113.80
1	13	85	U	C2-N1-C1'	5.85	124.72	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1180	C	C6-N1-C2	5.85	122.64	120.30
26	1H	1783	A	C5-C6-N6	-5.85	119.02	123.70
27	16	114	G	C2-N3-C4	-5.85	108.97	111.90
26	14	1386	C	N3-C2-O2	5.85	126.00	121.90
26	14	2415	G	N1-C6-O6	5.85	123.41	119.90
26	14	2582	G	C5-C6-O6	-5.85	125.09	128.60
26	1H	1517	G	C4-C5-N7	5.85	113.14	110.80
26	1H	1907	G	N3-C4-N9	-5.85	122.49	126.00
26	1H	2598	A	OP2-P-O3'	5.85	118.06	105.20
26	14	2433	A	C8-N9-C4	-5.85	103.46	105.80
26	1H	1192	G	OP2-P-O3'	5.85	118.06	105.20
26	1H	1417	C	N3-C4-C5	-5.85	119.56	121.90
26	1H	2232	U	C5-C4-O4	5.85	129.41	125.90
26	14	71	A	P-O3'-C3'	5.85	126.72	119.70
1	13	336	C	N1-C2-O2	-5.84	115.39	118.90
26	1H	1669	A	C8-N9-C4	-5.84	103.46	105.80
6	52	14	LEU	CA-CB-CG	5.84	128.74	115.30
1	13	810	C	C6-N1-C1'	-5.84	113.79	120.80
26	1H	1380	G	C4-N9-C1'	5.84	134.09	126.50
26	14	826	U	N1-C2-N3	5.84	118.41	114.90
26	14	1784	A	O4'-C1'-N9	-5.84	103.53	108.20
26	14	1858	G	C6-C5-N7	-5.84	126.89	130.40
23	2K	27	G	N1-C2-N2	5.84	121.45	116.20
26	1H	670	A	N1-C2-N3	-5.84	126.38	129.30
26	1H	1454	U	N3-C2-O2	-5.84	118.11	122.20
26	1H	1927	A	O5'-P-OP2	-5.84	100.44	105.70
26	1H	2665	A	C6-C5-N7	-5.84	128.21	132.30
26	14	71	A	C5-C6-N6	-5.84	119.03	123.70
26	14	84	A	C8-N9-C4	5.84	108.14	105.80
26	14	451	C	C6-N1-C2	5.84	122.64	120.30
26	14	1776	G	O5'-P-OP1	5.84	117.71	110.70
26	14	2232	U	C5-C4-O4	5.84	129.40	125.90
26	14	1332	G	C2-N3-C4	-5.84	108.98	111.90
26	1H	1942	C	C5-C4-N4	-5.83	116.11	120.20
26	14	2086	U	C5-C4-O4	5.83	129.40	125.90
26	14	2447	G	O4'-C1'-N9	5.83	112.87	108.20
1	13	516	U	C6-N1-C2	-5.83	117.50	121.00
26	1H	1839	G	C4-N9-C1'	5.83	134.08	126.50
1	1G	704	A	N1-C6-N6	5.83	122.10	118.60
26	14	90	U	C2-N1-C1'	5.83	124.70	117.70
26	14	462	C	C2-N3-C4	-5.83	116.98	119.90
26	14	1473	G	N1-C6-O6	5.83	123.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1624	G	C8-N9-C4	5.83	108.73	106.40
26	1H	239	U	C5-C6-N1	-5.83	119.78	122.70
26	1H	453	C	C2-N1-C1'	-5.83	112.39	118.80
26	1H	2559	C	O5'-P-OP2	-5.83	100.45	105.70
1	1G	197	A	C8-N9-C4	-5.83	103.47	105.80
26	14	2088	G	C8-N9-C4	5.83	108.73	106.40
1	13	84	U	C2-N1-C1'	5.83	124.70	117.70
26	1H	2346	A	N9-C1'-C2'	5.83	121.58	114.00
26	14	466	A	C5-C6-N6	-5.83	119.04	123.70
26	14	1528	A	C5-N7-C8	-5.83	100.98	103.90
1	13	580	U	C5-C6-N1	-5.83	119.78	122.70
26	1H	429	A	C8-N9-C4	-5.83	103.47	105.80
26	1H	831	G	C8-N9-C4	5.83	108.73	106.40
26	1H	2056	G	C5-C6-O6	-5.83	125.10	128.60
26	1H	2822	G	N9-C4-C5	-5.83	103.07	105.40
1	1G	991	U	C2-N1-C1'	5.83	124.69	117.70
1	1G	1502	A	C6-C5-N7	-5.83	128.22	132.30
26	14	2741	A	C8-N9-C4	5.83	108.13	105.80
1	13	360	A	C5-C6-N6	-5.83	119.04	123.70
26	1H	1817	G	C5-C6-O6	5.83	132.09	128.60
26	1H	2577	A	C5-C6-N6	5.83	128.36	123.70
26	14	627	A	N1-C6-N6	5.83	122.10	118.60
1	13	335	C	N1-C2-O2	-5.82	115.41	118.90
26	1H	1325	G	C6-C5-N7	-5.82	126.91	130.40
26	1H	1394	U	C2-N3-C4	5.82	130.49	127.00
26	14	188	G	C5-C6-O6	-5.82	125.11	128.60
26	14	2857	G	C8-N9-C1'	5.82	134.57	127.00
1	13	1290	G	C8-N9-C4	-5.82	104.07	106.40
1	1G	394	G	N3-C4-N9	5.82	129.49	126.00
1	1G	1195	C	C6-N1-C2	-5.82	117.97	120.30
22	1L	16	C	N1-C2-O2	5.82	122.39	118.90
24	3K	5	C	C5-C6-N1	5.82	123.91	121.00
26	1H	188	G	N9-C4-C5	-5.82	103.07	105.40
26	1H	460	A	N9-C4-C5	-5.82	103.47	105.80
26	1H	685	A	N1-C6-N6	5.82	122.09	118.60
26	1H	1119	C	C6-N1-C2	5.82	122.63	120.30
26	1H	1469	A	N1-C6-N6	5.82	122.09	118.60
33	59	7	LEU	CA-CB-CG	5.82	128.69	115.30
27	16	98	G	C6-C5-N7	-5.82	126.91	130.40
1	13	900	A	C5-C6-N6	-5.82	119.05	123.70
1	13	1530	G	N3-C4-C5	5.82	131.51	128.60
26	1H	145	G	N9-C4-C5	-5.82	103.07	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	638	G	O5'-P-OP1	-5.82	100.47	105.70
26	1H	1210	A	C4-C5-N7	5.82	113.61	110.70
26	1H	1347	G	C5-C6-O6	-5.82	125.11	128.60
26	1H	1742	C	C5-C6-N1	5.82	123.91	121.00
26	1H	1759	A	O5'-P-OP1	-5.82	100.47	105.70
26	1H	1626	G	O5'-P-OP2	5.82	117.68	110.70
26	1H	1644	C	C2-N1-C1'	5.82	125.20	118.80
26	14	1398	C	N3-C4-C5	5.82	124.23	121.90
26	14	2584	U	C2-N1-C1'	5.82	124.68	117.70
26	1H	122	G	OP1-P-OP2	5.81	128.32	119.60
26	1H	1271	G	C6-C5-N7	-5.81	126.91	130.40
1	1G	577	G	C8-N9-C4	5.81	108.72	106.40
26	14	2301	C	C5-C6-N1	5.81	123.91	121.00
26	1H	822	U	C2-N1-C1'	5.81	124.68	117.70
26	1H	1374	G	O5'-P-OP2	5.81	117.67	110.70
26	14	34	C	N1-C2-O2	5.81	122.39	118.90
26	14	574	C	C2-N1-C1'	-5.81	112.41	118.80
23	2K	63	C	N1-C2-O2	5.81	122.39	118.90
26	1H	821	A	C4-C5-C6	5.81	119.91	117.00
26	1H	1309	G	C6-C5-N7	-5.81	126.92	130.40
4	32	35	ARG	NE-CZ-NH2	-5.81	117.39	120.30
26	14	961	C	C6-N1-C2	5.81	122.62	120.30
26	1H	793	A	C4-C5-C6	5.81	119.90	117.00
26	1H	944	G	N7-C8-N9	5.81	116.00	113.10
26	1H	2426	A	N1-C6-N6	-5.81	115.12	118.60
1	1G	1270	C	C6-N1-C2	-5.81	117.98	120.30
26	14	752	A	C8-N9-C4	-5.81	103.48	105.80
26	1H	776	G	N3-C2-N2	-5.80	115.84	119.90
26	14	2505	G	C5-C6-N1	-5.80	108.60	111.50
27	1J	75	G	N3-C4-N9	5.80	129.48	126.00
26	14	2042	A	C8-N9-C4	5.80	108.12	105.80
26	14	205	G	N7-C8-N9	-5.80	110.20	113.10
27	16	98	G	N9-C4-C5	-5.80	103.08	105.40
26	14	1332	G	C4-C5-C6	5.80	122.28	118.80
26	1H	2406	U	O4'-C1'-N1	-5.80	103.56	108.20
27	16	60	C	C5-C6-N1	5.80	123.90	121.00
1	13	1200	C	C4-C5-C6	-5.80	114.50	117.40
26	1H	128	C	N3-C4-C5	5.80	124.22	121.90
26	1H	449	A	OP1-P-O3'	5.80	117.95	105.20
26	1H	839	U	C4-C5-C6	5.80	123.18	119.70
27	1J	98	G	C6-C5-N7	-5.80	126.92	130.40
26	1H	5	A	C8-N9-C4	-5.79	103.48	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2873	A	N1-C6-N6	-5.79	115.12	118.60
26	14	382	G	C4-C5-N7	-5.79	108.48	110.80
26	14	621	A	C5-N7-C8	-5.79	101.00	103.90
26	14	694	U	N3-C2-O2	-5.79	118.14	122.20
26	14	1422	G	N3-C4-C5	5.79	131.50	128.60
26	14	2708	G	C8-N9-C4	5.79	108.72	106.40
1	13	250	A	O4'-C1'-N9	-5.79	103.57	108.20
24	3K	12	U	C2-N1-C1'	5.79	124.65	117.70
26	1H	818	G	N9-C4-C5	5.79	107.72	105.40
26	1H	1142(A)	A	C5-N7-C8	-5.79	101.00	103.90
26	1H	2040	C	N3-C2-O2	5.79	125.95	121.90
26	14	750	A	C5-N7-C8	-5.79	101.00	103.90
26	14	1566	A	N9-C4-C5	-5.79	103.48	105.80
26	1H	1415	U	N3-C2-O2	-5.79	118.15	122.20
26	1H	1937	A	C8-N9-C4	5.79	108.12	105.80
26	1H	2452	C	C5-C4-N4	-5.79	116.15	120.20
26	14	511	U	C6-N1-C2	-5.79	117.53	121.00
26	14	1633	G	C5-C6-O6	-5.79	125.13	128.60
26	14	2416	C	N1-C2-O2	-5.79	115.43	118.90
27	1J	75	G	C8-N9-C1'	-5.79	119.48	127.00
26	1H	2379	G	C8-N9-C4	5.79	108.72	106.40
26	14	362	U	N3-C2-O2	-5.79	118.15	122.20
26	14	2428	G	P-O3'-C3'	5.79	126.64	119.70
1	13	1338	G	C5-C6-O6	5.78	132.07	128.60
26	1H	189	G	N1-C6-O6	5.78	123.37	119.90
26	1H	738	G	C5-N7-C8	-5.78	101.41	104.30
26	14	502	A	N1-C2-N3	5.78	132.19	129.30
26	14	2451	A	C2-N3-C4	-5.78	107.71	110.60
26	1H	1672	C	N3-C2-O2	5.78	125.95	121.90
26	1H	2054	A	N1-C6-N6	5.78	122.07	118.60
26	1H	2767	C	N1-C2-O2	5.78	122.37	118.90
26	14	2448	A	C6-N1-C2	-5.78	115.13	118.60
1	13	1520	G	C6-C5-N7	-5.78	126.93	130.40
26	1H	446	G	N9-C4-C5	-5.78	103.09	105.40
26	1H	866	A	C4-N9-C1'	5.78	136.70	126.30
26	1H	1950	G	N3-C2-N2	5.78	123.94	119.90
27	16	9	G	C5-C6-O6	-5.78	125.13	128.60
1	1G	579	G	C4-N9-C1'	5.78	134.01	126.50
26	14	1339	G	C8-N9-C4	-5.78	104.09	106.40
24	3K	64	U	C5-C6-N1	5.78	125.59	122.70
23	2L	36	A	C2-N3-C4	-5.78	107.71	110.60
26	14	509	C	N1-C2-N3	5.78	123.24	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2464	C	C6-N1-C2	5.78	122.61	120.30
1	13	811	C	N3-C4-C5	5.77	124.21	121.90
1	1G	186(D)	C	C6-N1-C2	5.77	122.61	120.30
1	1G	197	A	C6-C5-N7	-5.77	128.26	132.30
27	16	16	G	C5-N7-C8	-5.77	101.41	104.30
1	1G	324	G	N1-C6-O6	-5.77	116.44	119.90
26	14	737	C	N1-C2-O2	-5.77	115.44	118.90
26	14	808	G	OP1-P-OP2	5.77	128.26	119.60
27	1J	102	G	N1-C6-O6	-5.77	116.44	119.90
26	1H	930	U	C5-C6-N1	-5.77	119.81	122.70
26	1H	2577	A	N1-C6-N6	-5.77	115.14	118.60
26	1H	310	A	C5-C6-N6	-5.77	119.09	123.70
26	1H	458	G	N3-C4-N9	-5.77	122.54	126.00
26	1H	592	G	C5-C6-O6	5.77	132.06	128.60
26	1H	736	C	N3-C2-O2	5.77	125.94	121.90
26	1H	1210	A	C8-N9-C4	-5.77	103.49	105.80
26	1H	1241	A	C6-N1-C2	5.77	122.06	118.60
26	1H	1758	G	O5'-P-OP1	-5.77	100.51	105.70
26	1H	2416	C	C6-N1-C1'	5.77	127.72	120.80
26	14	1298	C	N1-C2-O2	5.77	122.36	118.90
1	13	1142	G	O4'-C1'-N9	5.77	112.81	108.20
26	1H	52	A	C2-N3-C4	5.77	113.48	110.60
26	1H	252	G	N3-C4-N9	5.77	129.46	126.00
26	14	133	C	N3-C4-C5	5.77	124.21	121.90
26	1H	795	C	C2-N3-C4	-5.76	117.02	119.90
26	1H	1940	U	N3-C4-O4	5.76	123.44	119.40
26	1H	2779	U	N3-C4-O4	-5.76	115.36	119.40
27	16	50	G	OP2-P-O3'	5.76	117.88	105.20
1	1G	117	G	N9-C4-C5	-5.76	103.09	105.40
26	14	2392	A	C8-N9-C4	-5.76	103.49	105.80
26	1H	730	C	O5'-P-OP2	-5.76	100.51	105.70
1	1G	580	U	C5-C4-O4	5.76	129.36	125.90
26	1H	1694	C	P-O3'-C3'	5.76	126.61	119.70
26	1H	2602	A	N1-C6-N6	-5.76	115.14	118.60
1	1G	428	G	N3-C4-N9	-5.76	122.54	126.00
1	1G	1482	G	C4-N9-C1'	5.76	133.99	126.50
26	14	1930	G	C4-N9-C1'	-5.76	119.01	126.50
26	14	1979	C	O5'-P-OP2	-5.76	100.52	105.70
26	14	2597	G	C4-N9-C1'	5.76	133.99	126.50
26	14	2618	G	C4-C5-N7	-5.76	108.50	110.80
26	1H	124	G	C8-N9-C4	5.76	108.70	106.40
26	1H	1821	A	C2-N3-C4	-5.76	107.72	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2355	C	C2-N1-C1'	5.76	125.14	118.80
26	14	2365	G	O5'-P-OP1	5.76	117.61	110.70
26	14	1342	A	C6-C5-N7	-5.76	128.27	132.30
26	14	2436	G	N3-C2-N2	-5.76	115.87	119.90
1	13	1381	U	C6-N1-C2	-5.76	117.55	121.00
26	1H	270(O)	U	C2-N1-C1'	5.76	124.61	117.70
26	1H	293	U	N3-C4-O4	5.76	123.43	119.40
26	1H	330	A	N3-C4-C5	5.76	130.83	126.80
26	1H	2043	C	N3-C4-N4	5.76	122.03	118.00
26	14	1271	G	N3-C4-N9	5.76	129.45	126.00
1	13	442	C	C6-N1-C2	-5.75	118.00	120.30
1	13	630	G	N1-C6-O6	5.75	123.35	119.90
26	1H	2679	A	O5'-P-OP2	-5.75	100.52	105.70
26	14	122	G	N7-C8-N9	-5.75	110.22	113.10
46	D8	38	LEU	CA-CB-CG	5.75	128.53	115.30
1	1G	1519	A	N9-C4-C5	5.75	108.10	105.80
26	1H	192	C	N1-C2-N3	-5.75	115.17	119.20
26	1H	940	G	N3-C4-N9	5.75	129.45	126.00
36	38	28	ASN	C-N-CA	5.75	136.08	121.70
26	14	1243	G	C6-C5-N7	-5.75	126.95	130.40
26	14	1519	G	C5-C6-O6	5.75	132.05	128.60
26	14	2000	G	N9-C4-C5	-5.75	103.10	105.40
26	14	570	G	N3-C2-N2	5.75	123.92	119.90
26	14	1610	A	C8-N9-C4	5.75	108.10	105.80
26	14	1695	G	C4-N9-C1'	5.75	133.97	126.50
26	1H	120	U	C4-C5-C6	5.75	123.15	119.70
26	1H	2066	C	OP1-P-O3'	5.75	117.84	105.20
26	14	2114	A	O4'-C1'-N9	5.75	112.80	108.20
1	13	963	G	N3-C4-N9	5.75	129.45	126.00
1	13	1158	C	C2-N1-C1'	5.75	125.12	118.80
26	1H	1622	G	N1-C2-N3	5.75	127.35	123.90
1	1G	721	G	C5-C6-N1	-5.75	108.63	111.50
26	14	623	G	C8-N9-C4	5.75	108.70	106.40
1	13	810	C	C2-N1-C1'	5.74	125.12	118.80
26	1H	308	G	N3-C4-C5	-5.74	125.73	128.60
26	1H	604	G	O5'-P-OP1	-5.74	100.53	105.70
26	1H	848	G	N3-C4-N9	5.74	129.45	126.00
26	1H	2591	C	C6-N1-C2	-5.74	118.00	120.30
27	16	64	C	C6-N1-C2	5.74	122.60	120.30
1	13	966	G	N9-C4-C5	-5.74	103.10	105.40
26	1H	1787	A	C5-N7-C8	-5.74	101.03	103.90
26	1H	943	U	N1-C2-N3	5.74	118.34	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2401	U	N3-C2-O2	-5.74	118.18	122.20
26	1H	2830	G	C4-C5-N7	5.74	113.10	110.80
29	19	43	ARG	NE-CZ-NH1	-5.74	117.43	120.30
26	1H	1839	G	C4-C5-N7	5.74	113.09	110.80
26	14	2435	A	N7-C8-N9	5.74	116.67	113.80
26	14	2494	G	N1-C6-O6	-5.74	116.46	119.90
26	1H	699	A	N1-C6-N6	5.74	122.04	118.60
26	1H	2686	G	N3-C4-N9	5.74	129.44	126.00
24	3L	1	G	C8-N9-C4	5.74	108.69	106.40
26	1H	1198	U	C2-N3-C4	-5.74	123.56	127.00
1	1G	932	C	N1-C2-O2	5.74	122.34	118.90
26	14	1265	A	N1-C6-N6	5.74	122.04	118.60
26	1H	811	U	C2-N3-C4	-5.73	123.56	127.00
26	1H	1626	G	C8-N9-C4	-5.73	104.11	106.40
26	14	606	U	C5-C6-N1	-5.73	119.83	122.70
1	13	1024	G	O4'-C1'-N9	5.73	112.78	108.20
26	1H	220	G	N9-C4-C5	-5.73	103.11	105.40
1	1G	46	G	C8-N9-C4	5.73	108.69	106.40
1	1G	1422	G	C5-C6-O6	5.73	132.04	128.60
26	14	2290	G	N1-C6-O6	5.73	123.34	119.90
26	1H	1314	C	N1-C2-O2	5.73	122.34	118.90
26	1H	1323	U	N3-C4-C5	-5.73	111.16	114.60
1	13	266	G	C6-C5-N7	-5.73	126.96	130.40
1	13	1486	G	N3-C2-N2	-5.73	115.89	119.90
26	14	705	A	N9-C4-C5	-5.73	103.51	105.80
1	13	130	A	N1-C6-N6	5.72	122.03	118.60
26	1H	954	G	C2-N3-C4	5.72	114.76	111.90
26	1H	2318	G	N7-C8-N9	5.72	115.96	113.10
26	14	146	G	C8-N9-C4	5.72	108.69	106.40
26	14	2361	A	C2-N3-C4	-5.72	107.74	110.60
26	14	2437	U	C5-C6-N1	-5.72	119.84	122.70
26	1H	435	C	C2-N3-C4	5.72	122.76	119.90
26	1H	2609	U	C4-C5-C6	5.72	123.13	119.70
27	16	79	C	OP2-P-O3'	5.72	117.79	105.20
1	1G	354	G	N9-C4-C5	-5.72	103.11	105.40
26	14	138	G	O4'-C1'-N9	5.72	112.78	108.20
26	14	1835	G	O5'-P-OP2	5.72	117.57	110.70
26	1H	2848	G	N1-C6-O6	-5.72	116.47	119.90
26	1H	237	C	C6-N1-C2	5.72	122.59	120.30
26	1H	2757	A	C8-N9-C4	-5.72	103.51	105.80
1	13	360	A	N9-C4-C5	-5.72	103.51	105.80
26	1H	321	G	N1-C6-O6	5.72	123.33	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2584	U	C5-C6-N1	-5.72	119.84	122.70
26	14	941	A	C8-N9-C4	-5.72	103.51	105.80
26	14	2454	G	O5'-P-OP2	-5.71	100.56	105.70
26	1H	420	C	C2-N3-C4	-5.71	117.04	119.90
26	1H	1247	A	N7-C8-N9	-5.71	110.94	113.80
26	1H	2067	G	N9-C4-C5	5.71	107.69	105.40
26	14	1821	A	C4-C5-C6	5.71	119.86	117.00
26	1H	1698	A	N9-C1'-C2'	5.71	121.42	114.00
26	1H	345	A	C2-N3-C4	-5.71	107.75	110.60
26	1H	2623	G	N1-C6-O6	-5.71	116.47	119.90
1	1G	899	C	C6-N1-C1'	-5.71	113.95	120.80
26	14	459	U	N3-C2-O2	-5.71	118.20	122.20
26	14	1359	A	C4-N9-C1'	-5.71	116.03	126.30
26	14	2766	G	C8-N9-C4	-5.71	104.12	106.40
26	1H	528	A	N3-C4-N9	-5.71	122.83	127.40
26	1H	812	C	C2-N3-C4	-5.71	117.05	119.90
1	13	555	C	C6-N1-C2	-5.71	118.02	120.30
26	14	791	C	P-O3'-C3'	5.71	126.55	119.70
26	1H	466	A	C5-C6-N6	-5.70	119.14	123.70
26	1H	859	G	C2-N3-C4	-5.70	109.05	111.90
26	14	693	C	C2-N3-C4	-5.70	117.05	119.90
26	1H	2845	G	C4-C5-C6	5.70	122.22	118.80
26	14	1819	A	N1-C6-N6	-5.70	115.18	118.60
26	1H	1142	U	O5'-P-OP1	5.70	117.54	110.70
26	1H	2428	G	C4-C5-N7	-5.70	108.52	110.80
1	13	963	G	N3-C2-N2	5.70	123.89	119.90
1	13	1230	C	N3-C4-C5	5.70	124.18	121.90
26	1H	145	G	N1-C6-O6	5.70	123.32	119.90
26	1H	806	C	N3-C4-C5	5.70	124.18	121.90
26	1H	1366	A	C8-N9-C4	5.70	108.08	105.80
34	28	27	LEU	CA-CB-CG	5.70	128.41	115.30
26	14	1281	G	N9-C4-C5	-5.70	103.12	105.40
26	14	1332	G	N1-C2-N2	-5.70	111.07	116.20
26	1H	2445	G	C8-N9-C4	-5.70	104.12	106.40
26	1H	1776	G	N9-C4-C5	-5.70	103.12	105.40
26	1H	1914	C	N3-C2-O2	-5.70	117.91	121.90
26	1H	2375	G	C5-C6-O6	-5.70	125.18	128.60
26	14	1422	G	C5-C6-N1	-5.70	108.65	111.50
26	14	2012	G	C6-C5-N7	-5.70	126.98	130.40
26	14	2251	G	C5-C6-O6	5.70	132.02	128.60
26	1H	537	C	O5'-P-OP1	5.69	117.53	110.70
26	14	2477	C	C2-N3-C4	5.69	122.75	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2607	G	C4-C5-N7	5.69	113.08	110.80
26	1H	20	C	C2-N3-C4	-5.69	117.05	119.90
26	1H	1310	G	C4-C5-N7	5.69	113.08	110.80
26	1H	1596	A	C5-C6-N6	-5.69	119.15	123.70
26	1H	1695	G	O5'-P-OP1	-5.69	100.58	105.70
26	1H	2330	G	C4-C5-N7	5.69	113.08	110.80
26	1H	2380	C	C6-N1-C2	5.69	122.58	120.30
26	14	2448	A	N1-C2-N3	5.69	132.15	129.30
26	14	2575	C	C6-N1-C1'	5.69	127.63	120.80
26	1H	244	A	C5-C6-N6	-5.69	119.15	123.70
26	1H	1945	G	C6-C5-N7	-5.69	126.99	130.40
26	1H	2435	A	N1-C6-N6	-5.69	115.19	118.60
26	1H	2654	A	O5'-P-OP1	-5.69	100.58	105.70
26	1H	458	G	C6-C5-N7	5.69	133.81	130.40
26	1H	2401	U	N1-C2-O2	5.69	126.78	122.80
26	14	1963	U	N3-C2-O2	-5.69	118.22	122.20
26	14	2607	G	C2-N3-C4	-5.69	109.06	111.90
1	13	974	A	C5-C6-N1	-5.68	114.86	117.70
26	1H	259	G	C6-C5-N7	-5.68	126.99	130.40
26	1H	443	A	N1-C6-N6	5.68	122.01	118.60
26	14	825	C	N3-C2-O2	5.68	125.88	121.90
26	14	1776	G	C4-C5-C6	5.68	122.21	118.80
27	1J	44	G	C8-N9-C4	5.68	108.67	106.40
22	1K	72	G	C4-N9-C1'	-5.68	119.11	126.50
26	1H	217	G	C4-C5-N7	-5.68	108.53	110.80
26	1H	1373	A	C8-N9-C4	5.68	108.07	105.80
26	1H	1604	C	C6-N1-C2	-5.68	118.03	120.30
26	14	1272	A	N9-C4-C5	-5.68	103.53	105.80
26	1H	1266	G	N3-C4-N9	5.68	129.41	126.00
26	14	35	G	C8-N9-C4	-5.68	104.13	106.40
26	14	796	C	C6-N1-C2	5.68	122.57	120.30
26	14	804	A	C6-N1-C2	-5.68	115.19	118.60
26	1H	298	G	C4-C5-N7	5.68	113.07	110.80
26	1H	513	A	C6-N1-C2	-5.68	115.19	118.60
26	1H	757	U	C4-C5-C6	5.68	123.11	119.70
1	1G	337	C	C5-C6-N1	5.68	123.84	121.00
26	14	1779	U	C6-N1-C1'	-5.68	113.25	121.20
26	14	1812	A	OP1-P-OP2	5.68	128.11	119.60
58	L5	34	ARG	NE-CZ-NH1	-5.68	117.46	120.30
26	1H	808	G	N1-C6-O6	-5.67	116.50	119.90
26	1H	1860	G	N3-C4-C5	5.67	131.44	128.60
26	1H	2329	G	C2-N3-C4	-5.67	109.06	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	27	G	C8-N9-C4	-5.67	104.13	106.40
1	1G	1096	C	C6-N1-C2	-5.67	118.03	120.30
26	14	783	A	N3-C4-N9	-5.67	122.86	127.40
26	14	1022	G	C8-N9-C4	-5.67	104.13	106.40
26	14	1313	U	N3-C4-C5	-5.67	111.19	114.60
26	14	2502	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	840	C	C5-C6-N1	-5.67	118.16	121.00
1	13	1338	G	N9-C4-C5	5.67	107.67	105.40
26	1H	679	C	C6-N1-C2	5.67	122.57	120.30
26	1H	1333	C	N3-C4-C5	5.67	124.17	121.90
26	1H	2751	G	N3-C4-C5	-5.67	125.76	128.60
27	16	98	G	C2-N3-C4	-5.67	109.06	111.90
27	1J	44	G	N7-C8-N9	-5.67	110.27	113.10
26	14	949	C	C6-N1-C2	5.67	122.57	120.30
26	1H	2691	C	N3-C4-C5	5.67	124.17	121.90
26	1H	2767	C	C6-N1-C1'	-5.67	114.00	120.80
26	14	211	A	C8-N9-C4	5.67	108.07	105.80
26	14	1804	C	O5'-P-OP2	5.67	117.50	110.70
26	14	632	A	O5'-P-OP2	5.67	117.50	110.70
26	1H	1996	C	C6-N1-C2	5.67	122.57	120.30
26	1H	2508	G	N7-C8-N9	5.67	115.93	113.10
1	13	721	G	C6-C5-N7	-5.66	127.00	130.40
1	13	771	G	C5-C6-O6	5.66	132.00	128.60
26	1H	298	G	C5-N7-C8	-5.66	101.47	104.30
26	1H	2435	A	C5-C6-N1	5.66	120.53	117.70
27	16	81	G	C4-C5-N7	5.66	113.06	110.80
1	1G	562	C	N3-C4-C5	5.66	124.17	121.90
26	14	1885	A	N7-C8-N9	-5.66	110.97	113.80
1	13	853	G	C2-N3-C4	-5.66	109.07	111.90
26	1H	74	A	C4-C5-N7	5.66	113.53	110.70
26	1H	997	G	N9-C4-C5	-5.66	103.14	105.40
1	1G	704	A	C5-C6-N6	-5.66	119.17	123.70
26	1H	131	G	C4-C5-N7	5.66	113.06	110.80
26	1H	1698	A	O4'-C1'-N9	5.66	112.73	108.20
26	1H	2030	A	N1-C6-N6	5.66	122.00	118.60
26	1H	2131	G	C4-N9-C1'	5.66	133.86	126.50
1	1G	377	G	N3-C4-N9	5.66	129.40	126.00
26	14	1283	G	C4-C5-C6	5.66	122.20	118.80
1	13	476	G	N7-C8-N9	5.66	115.93	113.10
26	1H	240	G	O5'-P-OP1	5.66	117.49	110.70
26	1H	2427	C	C5-C6-N1	-5.66	118.17	121.00
1	13	968	A	C5-C6-N6	-5.66	119.17	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1309	G	N1-C2-N2	-5.66	111.11	116.20
1	13	524	G	N9-C4-C5	-5.66	103.14	105.40
26	1H	928	G	C2-N3-C4	-5.66	109.07	111.90
26	1H	1550	C	N1-C2-O2	-5.66	115.51	118.90
26	14	945	A	N7-C8-N9	5.66	116.63	113.80
26	14	1315	C	N3-C4-N4	-5.66	114.04	118.00
1	1G	11	G	O5'-P-OP2	5.65	117.48	110.70
26	1H	242	G	C4-C5-N7	5.65	113.06	110.80
26	1H	1259	G	OP2-P-O3'	5.65	117.64	105.20
26	1H	2031	A	N3-C4-C5	-5.65	122.84	126.80
26	1H	2057	A	N1-C6-N6	5.65	121.99	118.60
37	48	77	LEU	CA-C-N	-5.65	104.77	117.20
26	1H	146	G	N9-C4-C5	-5.65	103.14	105.40
26	1H	180	G	N9-C4-C5	-5.65	103.14	105.40
26	14	2275	C	C5'-C4'-O4'	-5.65	102.32	109.10
1	13	551	U	C5-C6-N1	-5.65	119.88	122.70
24	3K	49	C	C6-N1-C2	-5.65	118.04	120.30
26	14	2690	C	C6-N1-C1'	-5.65	114.02	120.80
36	38	9	LEU	CA-CB-CG	5.65	128.29	115.30
26	14	1615	C	N3-C2-O2	5.65	125.85	121.90
26	1H	2430	A	N9-C4-C5	-5.65	103.54	105.80
26	14	2375	G	C8-N9-C4	5.65	108.66	106.40
26	1H	51	G	N3-C4-C5	-5.64	125.78	128.60
26	1H	2090	G	C5-C6-O6	-5.64	125.21	128.60
26	14	1544	C	N1-C2-O2	5.64	122.29	118.90
26	14	2088	G	C6-C5-N7	-5.64	127.01	130.40
1	13	1357	A	O5'-P-OP2	5.64	117.47	110.70
1	13	960	U	C2-N1-C1'	5.64	124.47	117.70
26	1H	1830	C	N1-C2-O2	-5.64	115.52	118.90
26	14	2441	C	N3-C4-C5	5.64	124.16	121.90
26	1H	1835	G	O5'-P-OP1	-5.64	100.63	105.70
22	1K	73	C	OP1-P-O3'	5.64	117.60	105.20
26	1H	468	G	N9-C4-C5	-5.64	103.15	105.40
26	1H	1124	C	C4-C5-C6	5.64	120.22	117.40
26	1H	2053	G	C5-C6-O6	-5.64	125.22	128.60
26	1H	2594	C	C5-C4-N4	-5.64	116.25	120.20
26	1H	2603	G	C8-N9-C4	-5.64	104.14	106.40
26	14	396	G	N7-C8-N9	5.64	115.92	113.10
26	14	1521	G	C4-C5-N7	5.64	113.06	110.80
28	79	28	LEU	CA-CB-CG	5.64	128.26	115.30
26	1H	534	U	OP2-P-O3'	5.63	117.60	105.20
26	1H	583	G	C5-C6-O6	-5.63	125.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	330	A	C4-C5-N7	5.63	113.52	110.70
26	1H	741	G	C4-C5-N7	5.63	113.05	110.80
26	1H	2377	A	N9-C4-C5	-5.63	103.55	105.80
26	14	90	U	C5-C4-O4	-5.63	122.52	125.90
26	1H	136	G	C8-N9-C4	5.63	108.65	106.40
26	1H	1345	C	OP2-P-O3'	5.63	117.59	105.20
26	1H	2258	C	C4-C5-C6	5.63	120.22	117.40
26	14	11	G	N3-C4-C5	-5.63	125.78	128.60
26	1H	473	G	N3-C4-N9	5.63	129.38	126.00
1	13	1455	G	N3-C4-C5	5.63	131.41	128.60
23	2K	5	G	N3-C4-C5	5.63	131.41	128.60
26	1H	1620	G	N1-C6-O6	5.63	123.28	119.90
26	14	1024	G	N1-C6-O6	5.63	123.28	119.90
26	14	2250	G	O5'-P-OP1	-5.63	100.64	105.70
26	14	2873	A	C8-N9-C4	-5.63	103.55	105.80
1	13	129	U	C6-N1-C1'	5.63	129.08	121.20
23	2L	29	C	C5-C6-N1	5.63	123.81	121.00
1	13	1506	U	N3-C4-O4	5.62	123.34	119.40
26	1H	386	G	C5-C6-O6	-5.62	125.22	128.60
26	14	949	C	N1-C2-O2	-5.62	115.53	118.90
59	M5	50	LEU	CA-CB-CG	5.62	128.24	115.30
26	1H	141	A	C2-N3-C4	-5.62	107.79	110.60
26	1H	668	G	N9-C4-C5	-5.62	103.15	105.40
26	1H	1379	A	N9-C1'-C2'	5.62	121.31	114.00
26	1H	1790	C	C5-C6-N1	-5.62	118.19	121.00
26	1H	2373	G	C2-N3-C4	-5.62	109.09	111.90
26	14	1821	A	C6-C5-N7	-5.62	128.36	132.30
26	1H	1313	U	C5-C6-N1	5.62	125.51	122.70
45	C8	91	ASP	CB-CG-OD1	5.62	123.36	118.30
26	14	226	G	O4'-C1'-N9	5.62	112.70	108.20
26	14	330	A	C5-N7-C8	-5.62	101.09	103.90
1	13	721	G	C4-N9-C1'	5.62	133.81	126.50
26	1H	1993	U	C5-C4-O4	-5.62	122.53	125.90
26	1H	2054	A	C5-N7-C8	-5.62	101.09	103.90
26	14	2473	U	N1-C2-O2	5.62	126.73	122.80
26	14	2893	G	P-O3'-C3'	5.62	126.44	119.70
1	13	251	G	O4'-C1'-N9	-5.62	103.70	108.20
1	13	522	C	C6-N1-C2	5.62	122.55	120.30
1	13	1485	U	C5-C6-N1	-5.62	119.89	122.70
26	1H	265	A	N3-C4-C5	5.62	130.73	126.80
26	1H	928	G	C5-C6-O6	-5.62	125.23	128.60
26	1H	1382	G	C5-C6-O6	-5.62	125.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	380	G	N9-C4-C5	5.62	107.65	105.40
1	1G	1128	C	N1-C2-O2	5.62	122.27	118.90
26	14	748	G	C5-C6-N1	5.62	114.31	111.50
26	14	1308	A	C4-C5-N7	-5.62	107.89	110.70
26	14	2502	G	N3-C4-N9	5.62	129.37	126.00
1	13	150	C	C6-N1-C2	-5.62	118.05	120.30
26	1H	1314	C	C2-N1-C1'	5.62	124.98	118.80
26	1H	1790	C	N3-C4-C5	5.62	124.15	121.90
26	1H	1942	C	N3-C4-C5	5.62	124.15	121.90
26	14	396	G	C4-N9-C1'	5.62	133.80	126.50
26	14	510	C	N1-C2-O2	5.62	122.27	118.90
26	14	2261	C	O5'-P-OP2	-5.62	100.64	105.70
1	13	1504	G	C2-N3-C4	-5.61	109.09	111.90
26	1H	906	G	C5-C6-O6	-5.61	125.23	128.60
1	1G	529	G	C5-C6-O6	-5.61	125.23	128.60
26	14	2435	A	C5-N7-C8	-5.61	101.09	103.90
1	13	1158	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	265	A	N7-C8-N9	5.61	116.61	113.80
26	1H	530	G	C4-C5-N7	5.61	113.04	110.80
26	1H	1409	C	C5-C6-N1	-5.61	118.19	121.00
26	1H	2258	C	N3-C4-N4	5.61	121.93	118.00
26	14	624	C	N1-C2-O2	-5.61	115.53	118.90
26	14	1602	U	N3-C2-O2	5.61	126.13	122.20
26	14	2335	A	O4'-C1'-N9	5.61	112.69	108.20
1	13	1326	C	O5'-P-OP2	-5.61	100.65	105.70
26	1H	190	A	N1-C6-N6	5.61	121.97	118.60
1	13	372	C	C6-N1-C2	5.61	122.54	120.30
26	1H	227	A	O5'-P-OP2	5.61	117.43	110.70
26	1H	593	G	O5'-P-OP1	5.61	117.43	110.70
26	1H	1430	C	OP1-P-O3'	5.61	117.53	105.20
24	3L	16	C	P-O3'-C3'	5.61	126.43	119.70
26	14	2042	A	N1-C6-N6	5.61	121.96	118.60
26	14	2403	C	N3-C4-C5	-5.61	119.66	121.90
26	14	2857	G	C5-N7-C8	-5.61	101.50	104.30
1	13	395	C	C6-N1-C2	5.61	122.54	120.30
27	1J	46	A	N1-C6-N6	-5.61	115.24	118.60
26	1H	78	A	C5-C6-N6	-5.60	119.22	123.70
26	1H	1676	A	C2-N3-C4	-5.60	107.80	110.60
26	14	1398	C	C6-N1-C2	5.60	122.54	120.30
1	13	81	G	O5'-P-OP2	-5.60	100.66	105.70
26	1H	1373	A	N7-C8-N9	-5.60	111.00	113.80
26	1H	2681	C	N3-C4-C5	5.60	124.14	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	271(B)	G	C8-N9-C1'	-5.60	119.72	127.00
26	1H	576	U	N3-C2-O2	5.60	126.12	122.20
26	1H	1489	U	C5-C4-O4	5.60	129.26	125.90
26	1H	2817	G	N3-C4-C5	-5.60	125.80	128.60
26	14	735	A	N7-C8-N9	-5.60	111.00	113.80
26	14	774	A	C6-N1-C2	5.60	121.96	118.60
26	14	695	G	O5'-P-OP2	5.60	117.42	110.70
26	14	992	C	OP1-P-O3'	5.60	117.52	105.20
1	13	700	G	N3-C4-N9	5.60	129.36	126.00
1	13	1230	C	C5-C4-N4	-5.60	116.28	120.20
26	1H	357	A	C8-N9-C4	-5.60	103.56	105.80
26	1H	591	C	C6-N1-C2	5.60	122.54	120.30
26	1H	1124	C	N1-C2-O2	-5.60	115.54	118.90
26	14	1780	A	N1-C2-N3	5.60	132.10	129.30
26	1H	577	G	N9-C4-C5	-5.60	103.16	105.40
26	1H	1500	G	N9-C4-C5	-5.59	103.16	105.40
1	1G	1432	G	C5-C6-N1	-5.59	108.70	111.50
26	14	2056	G	C5-C6-O6	-5.59	125.24	128.60
26	14	769	G	C5-C6-O6	-5.59	125.24	128.60
1	13	221	C	C6-N1-C2	-5.59	118.06	120.30
26	1H	463	G	C8-N9-C4	5.59	108.64	106.40
26	1H	508	G	N1-C6-O6	5.59	123.25	119.90
26	14	744	G	C5-C6-O6	-5.59	125.25	128.60
26	14	837	C	N3-C4-N4	5.59	121.91	118.00
26	14	2767	C	C2-N3-C4	5.59	122.69	119.90
1	13	906	G	N1-C2-N3	5.59	127.25	123.90
36	38	67	GLY	N-CA-C	5.59	127.07	113.10
26	14	2700	C	O5'-P-OP1	5.59	117.41	110.70
1	13	1411	C	C6-N1-C2	5.59	122.53	120.30
26	1H	774	A	C4-N9-C1'	-5.59	116.25	126.30
26	1H	2244	U	OP2-P-O3'	5.59	117.49	105.20
1	1G	690	G	N3-C4-N9	-5.59	122.65	126.00
26	14	574	C	C5-C4-N4	5.59	124.11	120.20
26	1H	673	C	N3-C4-N4	5.58	121.91	118.00
26	1H	2359	C	N3-C4-N4	-5.58	114.09	118.00
26	14	2092	U	N3-C2-O2	-5.58	118.29	122.20
26	1H	467	G	OP2-P-O3'	5.58	117.48	105.20
26	1H	789	A	C8-N9-C4	5.58	108.03	105.80
26	1H	1534	G	O5'-P-OP1	5.58	117.40	110.70
26	1H	1858	G	C8-N9-C1'	-5.58	119.74	127.00
26	1H	2323	G	N9-C4-C5	-5.58	103.17	105.40
1	1G	87	A	P-O3'-C3'	5.58	126.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	407	G	C4-N9-C1'	5.58	133.76	126.50
26	14	1968	G	C5-C6-O6	-5.58	125.25	128.60
26	14	2516	G	N1-C6-O6	-5.58	116.55	119.90
26	14	2437	U	OP1-P-OP2	5.58	127.97	119.60
1	1G	721	G	C6-C5-N7	-5.58	127.05	130.40
26	14	1820	U	N3-C4-C5	5.58	117.95	114.60
26	14	2238	G	OP1-P-OP2	5.58	127.97	119.60
26	1H	181	A	C4-C5-N7	-5.58	107.91	110.70
27	16	7	G	C4-C5-N7	5.58	113.03	110.80
26	14	639	U	C5-C4-O4	5.58	129.25	125.90
26	1H	1699	G	N9-C4-C5	5.58	107.63	105.40
26	1H	2426	A	N7-C8-N9	5.58	116.59	113.80
26	1H	2645	G	C8-N9-C4	-5.58	104.17	106.40
1	1G	1128	C	C2-N1-C1'	5.58	124.93	118.80
26	14	177	G	N1-C6-O6	-5.58	116.56	119.90
26	14	2459	A	C2-N3-C4	5.58	113.39	110.60
26	1H	391	G	C6-C5-N7	-5.57	127.06	130.40
26	1H	528	A	C5-C6-N1	-5.57	114.91	117.70
26	1H	735	A	C5-C6-N1	-5.57	114.91	117.70
1	1G	117	G	C4-C5-N7	5.57	113.03	110.80
26	14	2040	C	N3-C4-N4	5.57	121.90	118.00
26	1H	265	A	C6-C5-N7	-5.57	128.40	132.30
26	1H	1639	U	N1-C2-O2	5.57	126.70	122.80
27	16	86	G	N1-C6-O6	-5.57	116.56	119.90
1	13	534	U	N3-C4-O4	-5.57	115.50	119.40
1	13	575	G	O4'-C1'-N9	-5.57	103.74	108.20
26	1H	127	A	C6-C5-N7	-5.57	128.40	132.30
26	14	1772	G	C5-C6-N1	-5.57	108.71	111.50
23	2K	76	C	N3-C2-O2	5.57	125.80	121.90
26	1H	774	A	N1-C6-N6	5.57	121.94	118.60
26	1H	2869	G	N7-C8-N9	5.57	115.89	113.10
26	14	1174	A	C2-N3-C4	5.57	113.39	110.60
1	13	997	U	C6-N1-C2	-5.57	117.66	121.00
26	1H	446	G	C6-C5-N7	-5.57	127.06	130.40
26	1H	1174	A	N9-C1'-C2'	-5.57	105.88	112.00
26	1H	1465	G	N1-C6-O6	5.57	123.24	119.90
26	1H	1613	G	C5-C6-O6	5.57	131.94	128.60
1	1G	509	A	C8-N9-C4	-5.57	103.57	105.80
26	14	2608	G	N3-C2-N2	-5.57	116.00	119.90
1	13	483	C	C6-N1-C2	5.57	122.53	120.30
26	1H	840	C	C6-N1-C2	5.57	122.53	120.30
26	1H	1606	G	C8-N9-C4	5.57	108.63	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	570	G	N3-C4-C5	-5.57	125.82	128.60
1	13	501	C	OP2-P-O3'	5.56	117.44	105.20
1	13	962	C	C5-C6-N1	-5.56	118.22	121.00
26	1H	535	C	O5'-P-OP2	-5.56	100.69	105.70
26	1H	2011	U	N3-C2-O2	5.56	126.09	122.20
26	1H	2751	G	C4-N9-C1'	5.56	133.73	126.50
26	14	315	G	C8-N9-C4	5.56	108.62	106.40
41	45	81	VAL	N-CA-C	5.56	126.02	111.00
26	1H	196	A	O4'-C1'-N9	5.56	112.65	108.20
26	14	1827	C	O5'-P-OP2	-5.56	100.69	105.70
26	14	2597	G	N3-C2-N2	5.56	123.79	119.90
1	13	575	G	C6-C5-N7	5.56	133.74	130.40
26	1H	273(A)	G	N1-C6-O6	5.56	123.24	119.90
26	1H	2590	A	C8-N9-C4	5.56	108.03	105.80
1	1G	1286	A	C8-N9-C4	-5.56	103.58	105.80
26	14	2433	A	C5-N7-C8	-5.56	101.12	103.90
26	1H	568	U	C5-C6-N1	-5.56	119.92	122.70
26	14	1446	C	C6-N1-C2	-5.56	118.08	120.30
1	13	1290	G	N7-C8-N9	5.56	115.88	113.10
26	1H	663	G	C8-N9-C1'	-5.56	119.78	127.00
26	1H	1379	A	C5-C6-N6	-5.56	119.25	123.70
26	1H	2260	C	N3-C4-C5	5.56	124.12	121.90
1	1G	1446	A	O4'-C1'-N9	5.56	112.65	108.20
26	14	1616	A	N9-C4-C5	-5.56	103.58	105.80
26	14	2708	G	C2-N3-C4	-5.56	109.12	111.90
26	14	117	G	C6-C5-N7	-5.56	127.07	130.40
26	14	661	C	N1-C2-O2	-5.56	115.57	118.90
27	1J	102	G	C6-C5-N7	5.56	133.73	130.40
26	1H	834	C	OP2-P-O3'	5.55	117.42	105.20
26	1H	1160	G	N3-C2-N2	-5.55	116.01	119.90
26	1H	2401	U	C2-N1-C1'	5.55	124.36	117.70
26	1H	2609	U	O5'-P-OP2	-5.55	100.70	105.70
27	16	6	C	C6-N1-C2	5.55	122.52	120.30
26	14	194	G	C5-C6-O6	-5.55	125.27	128.60
26	1H	736	C	C6-N1-C2	5.55	122.52	120.30
1	1G	1100	C	C2-N1-C1'	-5.55	112.69	118.80
26	14	57	C	OP2-P-O3'	5.55	117.42	105.20
26	14	1704	G	N1-C6-O6	5.55	123.23	119.90
26	1H	825	C	N3-C2-O2	5.55	125.79	121.90
26	1H	1550	C	N3-C2-O2	5.55	125.79	121.90
26	1H	1618	A	O5'-P-OP2	5.55	117.36	110.70
1	1G	690	G	N7-C8-N9	5.55	115.88	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	690	G	C5-C6-O6	-5.55	125.27	128.60
26	14	1992	G	O4'-C1'-N9	-5.55	103.76	108.20
26	14	2088	G	C5-C6-O6	-5.55	125.27	128.60
26	14	2374	C	N3-C4-N4	-5.55	114.11	118.00
1	13	523	A	N9-C4-C5	-5.55	103.58	105.80
26	14	393	C	N3-C2-O2	-5.55	118.02	121.90
26	14	1644	C	C2-N1-C1'	5.55	124.91	118.80
1	13	523	A	C2-N3-C4	-5.55	107.83	110.60
26	1H	472	A	C8-N9-C4	5.55	108.02	105.80
26	1H	676	A	C6-N1-C2	5.55	121.93	118.60
1	1G	362	G	C4-C5-N7	-5.55	108.58	110.80
26	14	396	G	C8-N9-C4	-5.55	104.18	106.40
26	14	1441	G	N1-C6-O6	5.54	123.23	119.90
26	1H	1496	A	C4-N9-C1'	5.54	136.28	126.30
26	1H	2067	G	N3-C4-N9	-5.54	122.67	126.00
26	1H	2704	C	C6-N1-C2	5.54	122.52	120.30
26	14	356	G	C4-N9-C1'	5.54	133.71	126.50
26	14	389	G	C4-C5-N7	5.54	113.02	110.80
26	14	2893	G	N3-C4-C5	-5.54	125.83	128.60
1	13	1128	C	C4-C5-C6	5.54	120.17	117.40
26	1H	781	A	OP1-P-OP2	5.54	127.91	119.60
26	1H	843	G	OP1-P-OP2	-5.54	111.29	119.60
26	1H	970	C	N3-C4-N4	5.54	121.88	118.00
1	1G	481	G	C6-C5-N7	-5.54	127.08	130.40
26	1H	1241	A	C2-N3-C4	-5.54	107.83	110.60
26	1H	1782	C	C5-C4-N4	-5.54	116.32	120.20
27	16	78	A	OP2-P-O3'	5.54	117.39	105.20
1	13	815	A	N9-C4-C5	5.54	108.02	105.80
1	1G	1260	C	C6-N1-C2	-5.54	118.08	120.30
1	13	988	G	N3-C4-C5	-5.54	125.83	128.60
1	13	1306	A	N1-C6-N6	5.54	121.92	118.60
26	1H	812	C	C4-C5-C6	5.54	120.17	117.40
26	1H	1768	U	C5-C4-O4	5.54	129.22	125.90
26	1H	1899	G	P-O3'-C3'	5.54	126.34	119.70
26	1H	2037	G	C5-N7-C8	5.54	107.07	104.30
1	1G	1487	G	N3-C2-N2	-5.54	116.02	119.90
26	14	320	A	O5'-P-OP2	-5.54	100.72	105.70
26	1H	283	A	N1-C6-N6	-5.54	115.28	118.60
26	1H	667	U	N1-C2-O2	-5.54	118.92	122.80
26	1H	914	C	C2-N1-C1'	-5.54	112.71	118.80
26	1H	1061	U	C6-N1-C1'	-5.54	113.45	121.20
26	1H	1182	A	C6-C5-N7	-5.54	128.43	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2609	U	C6-N1-C2	5.54	124.32	121.00
26	14	2681	C	N3-C4-N4	-5.54	114.12	118.00
1	13	38	G	O5'-P-OP2	-5.53	100.72	105.70
22	1L	74	A	P-O3'-C3'	-5.53	113.06	119.70
26	14	647	G	C8-N9-C4	-5.53	104.19	106.40
26	1H	647	G	O5'-P-OP1	-5.53	100.72	105.70
26	14	127	A	C5-C6-N6	-5.53	119.28	123.70
26	1H	2293	C	N1-C2-O2	5.53	122.22	118.90
27	16	9	G	C4-C5-N7	5.53	113.01	110.80
26	14	521	G	N3-C4-N9	5.53	129.32	126.00
26	14	2062	A	N9-C4-C5	-5.53	103.59	105.80
1	13	1299	A	C8-N9-C4	-5.53	103.59	105.80
26	14	481	G	N1-C6-O6	-5.53	116.58	119.90
26	14	508	G	O5'-P-OP1	-5.53	100.72	105.70
26	1H	461	C	OP1-P-OP2	5.53	127.89	119.60
26	1H	1223	C	N3-C2-O2	5.53	125.77	121.90
57	O8	10	LEU	CA-CB-CG	5.53	128.01	115.30
23	2L	17	C	C2-N1-C1'	5.53	124.88	118.80
26	14	376	C	N3-C4-C5	-5.53	119.69	121.90
26	14	791	C	N3-C4-C5	5.53	124.11	121.90
26	14	1614	A	N1-C6-N6	5.53	121.92	118.60
26	14	1762	A	N7-C8-N9	5.53	116.56	113.80
35	69	131	LYS	C-N-CD	-5.53	108.44	120.60
40	35	88	LEU	CA-CB-CG	5.53	128.01	115.30
26	1H	1284	A	OP1-P-OP2	5.53	127.89	119.60
26	1H	2611	U	P-O3'-C3'	5.53	126.33	119.70
1	1G	774	G	C8-N9-C4	5.53	108.61	106.40
1	13	792	A	N3-C4-C5	5.52	130.67	126.80
26	1H	508	G	N3-C4-C5	-5.52	125.84	128.60
26	1H	1123	C	C6-N1-C2	5.52	122.51	120.30
26	1H	1957	C	C2-N3-C4	-5.52	117.14	119.90
46	D8	43	GLU	C-N-CA	5.52	135.51	121.70
26	14	1207	C	N3-C4-N4	5.52	121.87	118.00
26	14	2305	A	C8-N9-C4	5.52	108.01	105.80
26	1H	121	G	C5-C6-N1	5.52	114.26	111.50
26	1H	2311	A	N7-C8-N9	5.52	116.56	113.80
26	14	837	C	C5-C4-N4	-5.52	116.33	120.20
26	14	914	C	OP1-P-O3'	5.52	117.35	105.20
26	14	856	C	C6-N1-C2	-5.52	118.09	120.30
1	13	900	A	N1-C6-N6	5.52	121.91	118.60
26	14	951	C	OP1-P-O3'	5.52	117.34	105.20
26	1H	252	G	C5-C6-O6	-5.52	125.29	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	199	A	O5'-P-OP2	-5.52	100.73	105.70
26	14	1339	G	N7-C8-N9	5.52	115.86	113.10
26	14	2709	G	N3-C4-C5	5.52	131.36	128.60
26	1H	676	A	OP1-P-OP2	5.52	127.87	119.60
26	1H	1616	A	N9-C4-C5	-5.52	103.59	105.80
1	1G	345	C	P-O3'-C3'	5.52	126.32	119.70
26	14	2625	G	C5-C6-N1	5.52	114.26	111.50
26	1H	124	G	N3-C4-C5	5.51	131.36	128.60
26	1H	512	G	C4-C5-N7	-5.51	108.59	110.80
26	1H	1997	G	N1-C2-N3	5.51	127.21	123.90
26	14	1632	A	N1-C6-N6	5.51	121.91	118.60
26	1H	232	G	O4'-C1'-N9	-5.51	103.79	108.20
26	1H	575	A	N7-C8-N9	-5.51	111.04	113.80
26	1H	1857	G	N3-C4-N9	5.51	129.31	126.00
1	1G	324	G	C5-C6-O6	5.51	131.91	128.60
26	1H	600	G	N1-C6-O6	5.51	123.21	119.90
26	1H	660	G	N7-C8-N9	5.51	115.86	113.10
26	1H	835	A	OP2-P-O3'	5.51	117.33	105.20
26	1H	1251	C	OP1-P-OP2	5.51	127.87	119.60
26	14	1666	G	O4'-C1'-N9	5.51	112.61	108.20
26	14	1678	G	N3-C2-N2	-5.51	116.04	119.90
1	13	1491	G	OP2-P-O3'	5.51	117.32	105.20
26	1H	185	U	OP1-P-OP2	5.51	127.86	119.60
26	14	56	A	N1-C6-N6	-5.51	115.30	118.60
26	14	93	C	C5-C6-N1	5.51	123.75	121.00
1	13	731	G	C8-N9-C4	-5.51	104.20	106.40
26	1H	298	G	C5-C6-O6	-5.51	125.30	128.60
26	1H	2230	G	N3-C2-N2	-5.51	116.04	119.90
1	13	266	G	N7-C8-N9	5.51	115.85	113.10
26	1H	1327	C	N1-C2-O2	-5.51	115.60	118.90
26	1H	1997	G	N1-C2-N2	-5.51	111.24	116.20
26	14	130	C	C6-N1-C2	5.51	122.50	120.30
26	14	2332	U	C5-C6-N1	-5.51	119.95	122.70
26	1H	2755	C	C6-N1-C2	-5.50	118.10	120.30
26	14	1555	G	C8-N9-C4	-5.50	104.20	106.40
1	13	866	C	N3-C4-C5	-5.50	119.70	121.90
26	1H	633	A	N1-C6-N6	5.50	121.90	118.60
26	1H	755	C	C6-N1-C2	-5.50	118.10	120.30
26	1H	2146	C	C6-N1-C2	-5.50	118.10	120.30
26	1H	2225	A	N1-C6-N6	-5.50	115.30	118.60
27	16	38	C	C2-N1-C1'	-5.50	112.75	118.80
1	1G	487	A	C8-N9-C4	5.50	108.00	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1827	C	C2-N3-C4	-5.50	117.15	119.90
1	13	684	A	C8-N9-C4	-5.50	103.60	105.80
1	13	874	G	N3-C4-C5	-5.50	125.85	128.60
26	1H	1367	A	C6-C5-N7	-5.50	128.45	132.30
26	1H	2689	U	C2-N3-C4	-5.50	123.70	127.00
10	1A	90	LEU	CA-CB-CG	5.50	127.95	115.30
26	14	34	C	P-O3'-C3'	5.50	126.30	119.70
26	14	1776	G	C4-N9-C1'	5.50	133.65	126.50
26	1H	788	A	C4-C5-C6	5.50	119.75	117.00
26	14	1858	G	N9-C4-C5	-5.50	103.20	105.40
26	1H	468	G	C5-C6-O6	-5.50	125.30	128.60
26	1H	1066	U	C5-C6-N1	5.50	125.45	122.70
26	1H	1668	A	C8-N9-C4	5.50	108.00	105.80
26	1H	2509	G	N9-C4-C5	-5.50	103.20	105.40
1	1G	266	G	C8-N9-C1'	-5.50	119.85	127.00
26	14	1783	A	N7-C8-N9	5.50	116.55	113.80
26	1H	1779	U	N3-C4-O4	5.50	123.25	119.40
1	1G	812	C	N1-C2-O2	-5.50	115.60	118.90
26	14	2365	G	O5'-P-OP2	-5.50	100.75	105.70
27	1J	88	C	C2-N3-C4	5.50	122.65	119.90
23	2K	27	G	C4-C5-N7	5.50	113.00	110.80
26	1H	1696	G	OP1-P-OP2	5.50	127.84	119.60
26	1H	2277	G	N9-C4-C5	5.50	107.60	105.40
26	14	1695	G	C6-C5-N7	-5.50	127.10	130.40
26	1H	576	U	C6-N1-C2	5.49	124.30	121.00
26	1H	1603	A	N9-C4-C5	5.49	108.00	105.80
26	1H	2271	G	N3-C4-N9	5.49	129.30	126.00
26	14	789	A	C8-N9-C4	5.49	108.00	105.80
26	14	1694	C	C2-N1-C1'	-5.49	112.76	118.80
26	14	2582	G	N1-C6-O6	5.49	123.20	119.90
1	1G	254	G	O5'-P-OP1	-5.49	100.76	105.70
1	1G	576	G	N3-C4-N9	5.49	129.29	126.00
26	1H	1081	U	C2-N1-C1'	5.49	124.29	117.70
26	1H	1662	C	C5-C6-N1	-5.49	118.25	121.00
26	1H	1705	G	OP1-P-OP2	-5.49	111.36	119.60
26	1H	2594	C	C2-N3-C4	-5.49	117.15	119.90
26	1H	2779	U	C4-C5-C6	5.49	123.00	119.70
1	1G	105	G	C8-N9-C1'	-5.49	119.86	127.00
26	14	2005	A	C8-N9-C4	5.49	108.00	105.80
26	14	2253	G	C5-C6-O6	-5.49	125.31	128.60
27	1J	74	U	C5-C6-N1	-5.49	119.95	122.70
1	13	827	U	N3-C2-O2	-5.49	118.36	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	963	G	C8-N9-C1'	-5.49	119.86	127.00
26	1H	473	G	O5'-P-OP2	-5.49	100.76	105.70
26	14	197	A	C6-N1-C2	-5.49	115.31	118.60
26	14	965	C	C6-N1-C2	-5.49	118.10	120.30
26	14	1337	G	OP1-P-O3'	5.49	117.27	105.20
26	14	2606	C	C2-N3-C4	-5.49	117.16	119.90
24	3K	60	A	OP1-P-OP2	-5.49	111.37	119.60
26	1H	1379	A	O4'-C1'-N9	5.49	112.59	108.20
26	1H	2378	A	C8-N9-C4	5.49	107.99	105.80
26	14	1869	G	N3-C4-N9	-5.49	122.71	126.00
26	1H	2674	G	N1-C2-N3	5.48	127.19	123.90
26	1H	2763	G	N1-C6-O6	5.48	123.19	119.90
1	13	326	G	C4-C5-N7	-5.48	108.61	110.80
1	1G	904	C	O5'-P-OP1	-5.48	100.77	105.70
26	14	208	C	C5-C4-N4	-5.48	116.36	120.20
26	14	1426	G	C6-C5-N7	-5.48	127.11	130.40
26	14	2251	G	N1-C6-O6	-5.48	116.61	119.90
26	1H	1019	U	C5-C4-O4	5.48	129.19	125.90
26	1H	1273	U	P-O3'-C3'	5.48	126.28	119.70
26	14	888	C	P-O3'-C3'	5.48	126.28	119.70
26	14	1642	G	OP2-P-O3'	5.48	117.26	105.20
26	14	2423	U	C5-C6-N1	-5.48	119.96	122.70
26	1H	383	U	C5-C6-N1	-5.48	119.96	122.70
26	14	1380	G	C2-N3-C4	-5.48	109.16	111.90
27	1J	98	G	C4-C5-N7	5.48	112.99	110.80
1	13	319	G	C8-N9-C4	5.48	108.59	106.40
1	13	518	C	C6-N1-C1'	-5.48	114.23	120.80
26	1H	1009	A	O5'-P-OP1	5.48	117.27	110.70
26	14	265	A	C6-C5-N7	-5.48	128.47	132.30
26	14	835	A	O5'-P-OP1	5.48	117.27	110.70
26	14	2088	G	C2-N3-C4	-5.48	109.16	111.90
27	16	30	C	C6-N1-C2	-5.48	118.11	120.30
1	13	219	C	C6-N1-C2	-5.47	118.11	120.30
26	14	194	G	C8-N9-C4	5.47	108.59	106.40
26	14	1302	A	C5-C6-N6	5.47	128.08	123.70
26	1H	193	U	N1-C2-O2	-5.47	118.97	122.80
26	1H	889	C	C5-C6-N1	5.47	123.74	121.00
26	1H	1309	G	C2-N3-C4	-5.47	109.16	111.90
26	1H	1639	U	N3-C4-O4	-5.47	115.57	119.40
26	14	1345	C	N1-C2-N3	5.47	123.03	119.20
26	14	1654	A	N1-C6-N6	-5.47	115.32	118.60
26	14	1836	C	O5'-P-OP2	-5.47	100.78	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2119	A	C2-N3-C4	5.47	113.34	110.60
26	1H	460	A	N1-C6-N6	5.47	121.88	118.60
26	1H	2571	C	N3-C2-O2	-5.47	118.07	121.90
26	1H	2700	C	N3-C4-C5	5.47	124.09	121.90
26	14	131	G	N1-C6-O6	5.47	123.18	119.90
41	45	82	ARG	N-CA-C	5.47	125.77	111.00
26	1H	862	G	C5-C6-O6	5.47	131.88	128.60
26	1H	2042	A	C2-N3-C4	-5.47	107.86	110.60
26	1H	2288	A	C4-C5-N7	5.47	113.44	110.70
1	1G	724	G	C4-C5-N7	5.47	112.99	110.80
26	14	250	G	N1-C6-O6	5.47	123.18	119.90
1	13	2	U	N3-C2-O2	-5.47	118.37	122.20
26	1H	62	C	N3-C4-C5	5.47	124.09	121.90
26	1H	2466	C	C6-N1-C2	5.47	122.49	120.30
26	14	1762	A	N1-C2-N3	5.47	132.03	129.30
26	1H	774	A	C8-N9-C1'	5.47	137.54	127.70
26	1H	1639	U	C5-C6-N1	-5.47	119.97	122.70
27	1J	81	G	C2-N3-C4	-5.47	109.17	111.90
1	13	511	C	C2-N3-C4	-5.46	117.17	119.90
26	1H	1839	G	O4'-C1'-N9	-5.46	103.83	108.20
26	1H	2329	G	OP1-P-OP2	5.46	127.80	119.60
26	14	254	G	C4-C5-N7	-5.46	108.61	110.80
26	14	391	G	C6-C5-N7	-5.46	127.12	130.40
26	1H	2311	A	C6-C5-N7	-5.46	128.48	132.30
26	1H	2358	G	C6-C5-N7	5.46	133.68	130.40
36	38	40	LEU	CA-CB-CG	5.46	127.86	115.30
26	14	676	A	OP1-P-OP2	5.46	127.80	119.60
26	1H	131	G	N1-C6-O6	5.46	123.18	119.90
26	1H	1640	C	N3-C4-C5	5.46	124.08	121.90
26	14	691	C	N3-C4-N4	5.46	121.82	118.00
26	14	1780	A	N9-C4-C5	5.46	107.98	105.80
26	14	2435	A	C8-N9-C4	-5.46	103.61	105.80
26	1H	1314	C	N3-C4-C5	5.46	124.08	121.90
26	1H	1857	G	C6-C5-N7	-5.46	127.12	130.40
26	14	1021	A	C5-N7-C8	-5.46	101.17	103.90
26	14	1614	A	N1-C2-N3	5.46	132.03	129.30
22	1K	40	C	N1-C2-O2	-5.46	115.62	118.90
26	1H	989	G	N9-C4-C5	-5.46	103.22	105.40
26	1H	1914	C	C5-C4-N4	5.46	124.02	120.20
26	1H	2068	U	OP1-P-O3'	5.46	117.21	105.20
27	16	115	G	C8-N9-C1'	-5.46	119.91	127.00
26	14	57	C	C6-N1-C2	5.46	122.48	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	149	A	C4-C5-C6	5.46	119.73	117.00
26	14	1663	C	N3-C4-C5	5.46	124.08	121.90
26	14	2490	G	N3-C4-C5	-5.46	125.87	128.60
26	14	774	A	O5'-P-OP2	-5.46	100.79	105.70
26	14	1621	U	N1-C2-O2	-5.46	118.98	122.80
26	14	1820	U	OP1-P-O3'	5.46	117.20	105.20
27	1J	75	G	C4-N9-C1'	5.46	133.59	126.50
26	1H	2416	C	C2-N1-C1'	-5.46	112.80	118.80
27	16	16	G	C4-C5-N7	5.46	112.98	110.80
26	14	612	G	C6-C5-N7	-5.46	127.13	130.40
1	13	297	G	N1-C6-O6	5.45	123.17	119.90
26	1H	1198	U	N1-C2-N3	5.45	118.17	114.90
26	1H	2694	G	N3-C4-N9	5.45	129.27	126.00
26	14	2171	A	O4'-C1'-N9	5.45	112.56	108.20
26	14	2751	G	N3-C2-N2	-5.45	116.08	119.90
26	1H	1768	U	C6-N1-C1'	5.45	128.83	121.20
26	14	93	C	C2-N1-C1'	5.45	124.80	118.80
26	14	426	C	N3-C2-O2	-5.45	118.08	121.90
26	14	2377	A	C8-N9-C4	5.45	107.98	105.80
27	1J	102	G	C4-C5-N7	-5.45	108.62	110.80
1	13	413	G	N9-C4-C5	5.45	107.58	105.40
26	1H	383	U	O5'-P-OP2	5.45	117.24	110.70
26	1H	837	C	N3-C4-N4	5.45	121.81	118.00
1	1G	1482	G	C8-N9-C1'	-5.45	119.92	127.00
26	14	27	G	N3-C4-C5	5.45	131.32	128.60
26	1H	2422	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	232	G	C4-N9-C1'	5.45	133.58	126.50
26	1H	528	A	C6-N1-C2	5.45	121.87	118.60
1	1G	44	G	N3-C4-C5	-5.45	125.88	128.60
27	1J	39	A	N7-C8-N9	5.45	116.52	113.80
1	13	1305	G	N1-C2-N3	5.44	127.17	123.90
26	1H	551	G	N1-C6-O6	5.44	123.17	119.90
26	1H	840	C	C2-N3-C4	-5.44	117.18	119.90
26	14	912	C	N1-C2-O2	5.44	122.17	118.90
26	1H	103	A	C8-N9-C4	5.44	107.98	105.80
26	1H	1250	G	C8-N9-C4	5.44	108.58	106.40
26	1H	1669	A	N3-C4-C5	-5.44	122.99	126.80
26	1H	2426	A	N9-C4-C5	5.44	107.98	105.80
26	14	656	G	N1-C6-O6	5.44	123.17	119.90
26	14	1978	A	C2-N3-C4	-5.44	107.88	110.60
26	14	2829	C	C5-C4-N4	-5.44	116.39	120.20
1	13	611	A	C5-C6-N6	-5.44	119.35	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	975	A	C4-C5-N7	5.44	113.42	110.70
26	1H	689	A	C5-C6-N6	-5.44	119.35	123.70
26	1H	703	U	C6-N1-C2	5.44	124.27	121.00
26	1H	1427	A	N1-C2-N3	5.44	132.02	129.30
26	1H	1936	A	O4'-C1'-N9	5.44	112.55	108.20
26	14	22	C	N3-C4-N4	-5.44	114.19	118.00
26	14	2444	G	C5-C6-O6	-5.44	125.34	128.60
26	1H	238	C	OP1-P-OP2	5.44	127.76	119.60
26	1H	1210	A	C4-C5-C6	5.44	119.72	117.00
26	1H	2284	C	N1-C2-O2	-5.44	115.64	118.90
1	13	1516	G	C5-C6-O6	5.44	131.86	128.60
26	1H	299	A	OP2-P-O3'	5.44	117.16	105.20
26	1H	1442	G	N1-C6-O6	5.44	123.16	119.90
26	1H	1622	G	C6-N1-C2	-5.44	121.84	125.10
26	1H	1649	G	C8-N9-C4	-5.44	104.22	106.40
26	14	1798	U	O5'-P-OP2	-5.44	100.81	105.70
26	1H	1528	A	C6-C5-N7	-5.44	128.50	132.30
26	1H	2271	G	C8-N9-C1'	-5.44	119.93	127.00
26	14	457	A	C8-N9-C4	-5.44	103.63	105.80
1	13	973	G	N1-C2-N3	5.43	127.16	123.90
26	1H	125	G	C4-C5-N7	5.43	112.97	110.80
26	1H	1203	G	O5'-P-OP2	-5.43	100.81	105.70
26	1H	1268	A	N7-C8-N9	-5.43	111.08	113.80
26	1H	2446	G	C5-C6-O6	-5.43	125.34	128.60
26	1H	2544	G	C6-C5-N7	-5.43	127.14	130.40
26	1H	441	U	O5'-P-OP2	5.43	117.22	110.70
26	1H	1141	U	O4'-C1'-N1	5.43	112.55	108.20
26	1H	2707	G	O5'-P-OP2	-5.43	100.81	105.70
26	14	130	C	C5-C4-N4	-5.43	116.40	120.20
26	14	1469	A	C8-N9-C4	-5.43	103.63	105.80
1	13	394	G	N3-C4-N9	-5.43	122.74	126.00
1	13	534	U	C5-C4-O4	5.43	129.16	125.90
1	13	1486	G	N3-C4-N9	-5.43	122.74	126.00
26	1H	101	G	N9-C4-C5	-5.43	103.23	105.40
26	1H	90	U	N1-C2-N3	-5.43	111.64	114.90
26	1H	2378	A	N9-C4-C5	-5.43	103.63	105.80
29	11	40	THR	N-CA-C	5.43	125.66	111.00
1	1G	1242	C	OP1-P-O3'	5.43	117.14	105.20
26	1H	193	U	N1-C2-N3	5.43	118.16	114.90
26	1H	250	G	O5'-P-OP1	-5.43	100.81	105.70
26	1H	1123	C	C5-C6-N1	-5.43	118.29	121.00
26	1H	2054	A	N7-C8-N9	5.43	116.51	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2427	C	O5'-P-OP1	-5.43	100.82	105.70
26	14	774	A	C8-N9-C4	5.43	107.97	105.80
1	13	524	G	C5-C6-O6	-5.42	125.34	128.60
26	1H	1049	C	O5'-P-OP2	-5.42	100.82	105.70
26	1H	2461	C	N3-C4-C5	5.42	124.07	121.90
26	1H	2817	G	N1-C6-O6	-5.42	116.65	119.90
26	14	576	U	OP2-P-O3'	5.42	117.14	105.20
26	14	1426	G	C4-N9-C1'	5.42	133.55	126.50
26	1H	1253	A	N1-C2-N3	5.42	132.01	129.30
26	1H	1391	U	O5'-P-OP1	-5.42	100.82	105.70
1	13	760	G	C6-C5-N7	-5.42	127.15	130.40
26	1H	1314	C	C6-N1-C1'	-5.42	114.29	120.80
1	1G	1113	C	C5-C6-N1	5.42	123.71	121.00
26	14	2051	A	N1-C2-N3	5.42	132.01	129.30
1	13	268	C	O5'-P-OP2	5.42	117.20	110.70
26	1H	381	G	C8-N9-C4	5.42	108.57	106.40
26	1H	683	C	N1-C2-O2	5.42	122.15	118.90
26	1H	1794	U	N3-C2-O2	-5.42	118.41	122.20
26	14	1425	G	C5-C6-N1	5.42	114.21	111.50
26	1H	788	A	C5-C6-N6	-5.42	119.36	123.70
26	1H	2791	C	C5-C6-N1	5.42	123.71	121.00
26	14	34	C	C6-N1-C1'	-5.42	114.30	120.80
26	14	133	C	C5-C6-N1	-5.42	118.29	121.00
26	14	521	G	N3-C4-C5	-5.42	125.89	128.60
26	14	1613	G	N1-C2-N2	-5.42	111.32	116.20
26	14	1935	G	N3-C4-N9	-5.42	122.75	126.00
26	14	2491	U	C6-N1-C2	5.42	124.25	121.00
26	14	2597	G	N1-C2-N2	-5.42	111.32	116.20
26	1H	26	G	C5-C6-N1	-5.42	108.79	111.50
26	1H	741	G	C5-N7-C8	-5.42	101.59	104.30
26	1H	1324	G	N3-C2-N2	-5.42	116.11	119.90
26	1H	2270	G	C2-N3-C4	-5.42	109.19	111.90
26	14	216	A	C8-N9-C4	5.42	107.97	105.80
1	13	47	C	O5'-P-OP1	-5.42	100.83	105.70
1	1G	112	G	N3-C2-N2	-5.42	116.11	119.90
26	14	1302	A	C4-C5-N7	-5.42	107.99	110.70
26	1H	2075	U	C4-C5-C6	5.41	122.95	119.70
1	1G	575	G	C8-N9-C4	5.41	108.57	106.40
26	14	1903	G	O5'-P-OP1	-5.41	100.83	105.70
26	14	2013	A	C2-N3-C4	-5.41	107.89	110.60
26	14	2191	G	C5-C6-O6	-5.41	125.35	128.60
26	14	2459	A	N1-C2-N3	-5.41	126.59	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2755	C	C6-N1-C2	-5.41	118.14	120.30
26	1H	2665	A	O4'-C1'-N9	5.41	112.53	108.20
22	1L	30	C	C5-C4-N4	-5.41	116.41	120.20
26	14	2084	C	C4-C5-C6	5.41	120.11	117.40
1	13	765	G	N1-C6-O6	5.41	123.15	119.90
26	1H	177	G	N3-C4-N9	5.41	129.25	126.00
26	1H	443	A	N9-C4-C5	-5.41	103.64	105.80
26	1H	805	G	C4-C5-N7	5.41	112.96	110.80
26	1H	816	C	N3-C4-C5	5.41	124.06	121.90
26	1H	1367	A	C2-N3-C4	-5.41	107.89	110.60
36	38	111	LEU	CA-CB-CG	5.41	127.74	115.30
1	1G	290	C	O5'-P-OP1	-5.41	100.83	105.70
26	14	2581	G	N3-C4-N9	5.41	129.25	126.00
23	2K	71	G	N3-C4-C5	5.41	131.30	128.60
26	1H	195	A	P-O3'-C3'	5.41	126.19	119.70
49	G8	54	LYS	C-N-CA	5.41	135.22	121.70
1	1G	232	G	N3-C4-N9	5.41	129.25	126.00
26	14	252	G	O5'-P-OP1	5.41	117.19	110.70
26	14	566	U	N3-C4-C5	5.41	117.84	114.60
26	14	1019	U	N3-C2-O2	-5.41	118.41	122.20
26	1H	704	G	C8-N9-C4	-5.41	104.24	106.40
26	1H	783	A	C5-C6-N6	-5.41	119.37	123.70
26	1H	1313	U	N3-C4-O4	5.41	123.19	119.40
26	1H	1348	G	OP1-P-O3'	5.41	117.10	105.20
1	13	112	G	C5-C6-O6	-5.41	125.36	128.60
23	2K	60	A	N1-C6-N6	5.41	121.84	118.60
26	1H	632	A	C2-N3-C4	-5.41	107.90	110.60
26	1H	1786	A	N3-C4-C5	5.41	130.58	126.80
26	1H	2387	U	N3-C2-O2	5.41	125.98	122.20
26	14	2452	C	N3-C4-N4	5.41	121.78	118.00
26	14	2490	G	N1-C2-N2	-5.41	111.33	116.20
26	14	2230	G	C8-N9-C4	-5.40	104.24	106.40
26	1H	1268	A	N3-C4-C5	5.40	130.58	126.80
26	1H	2057	A	OP1-P-O3'	5.40	117.09	105.20
31	31	156	LEU	CA-CB-CG	5.40	127.73	115.30
1	1G	1314	C	C6-N1-C2	-5.40	118.14	120.30
26	14	1308	A	N1-C2-N3	5.40	132.00	129.30
1	13	149	A	N7-C8-N9	5.40	116.50	113.80
1	13	1517	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	791	C	P-O3'-C3'	5.40	126.18	119.70
26	1H	1010	A	C8-N9-C4	5.40	107.96	105.80
26	1H	1543	A	C5-C6-N1	-5.40	115.00	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2280	G	OP1-P-OP2	-5.40	111.50	119.60
23	2L	45	A	O5'-P-OP1	-5.40	100.84	105.70
26	1H	1971	A	O5'-P-OP1	5.40	117.18	110.70
26	14	2043	C	C2-N1-C1'	5.40	124.74	118.80
26	1H	798	G	N9-C4-C5	-5.40	103.24	105.40
26	1H	1663	C	C2-N3-C4	-5.40	117.20	119.90
26	14	2111	C	N3-C2-O2	-5.40	118.12	121.90
26	1H	944	G	C8-N9-C4	-5.40	104.24	106.40
26	1H	2791	C	C6-N1-C2	-5.40	118.14	120.30
1	13	1467	G	N1-C6-O6	-5.39	116.66	119.90
1	1G	45	U	C6-N1-C2	5.39	124.24	121.00
26	14	2323	G	N9-C4-C5	-5.39	103.24	105.40
26	14	2640	G	N1-C2-N3	5.39	127.14	123.90
1	13	526	C	C6-N1-C2	5.39	122.46	120.30
26	1H	121	G	C4-C5-N7	5.39	112.96	110.80
26	1H	123	G	N1-C6-O6	-5.39	116.67	119.90
26	1H	973	A	C8-N9-C4	5.39	107.96	105.80
26	1H	1787	A	C2-N3-C4	-5.39	107.90	110.60
2	12	145	LEU	CA-CB-CG	5.39	127.70	115.30
27	1J	89	G	C4-N9-C1'	5.39	133.51	126.50
26	1H	1534	G	N3-C4-N9	5.39	129.24	126.00
26	1H	1857	G	N3-C2-N2	5.39	123.67	119.90
26	1H	2705	A	N1-C6-N6	5.39	121.83	118.60
1	13	714	G	O5'-P-OP1	-5.39	100.85	105.70
26	1H	613	U	N1-C2-N3	5.39	118.13	114.90
26	1H	717	G	C5-C6-O6	-5.39	125.37	128.60
26	1H	1000	A	C8-N9-C4	-5.39	103.64	105.80
26	1H	1844	C	N3-C2-O2	5.39	125.67	121.90
26	1H	2009	G	C8-N9-C4	5.39	108.56	106.40
26	1H	2504	U	N3-C4-C5	5.39	117.83	114.60
27	16	49	C	C5-C4-N4	-5.39	116.43	120.20
26	14	2413	G	C8-N9-C4	5.39	108.56	106.40
26	14	2508	G	N7-C8-N9	5.39	115.80	113.10
26	1H	2767	C	C2-N1-C1'	5.39	124.73	118.80
26	14	675	A	O5'-P-OP2	-5.39	100.85	105.70
26	1H	1600	C	O5'-P-OP2	-5.39	100.85	105.70
26	1H	1778	U	OP2-P-O3'	5.39	117.05	105.20
26	14	76	C	C6-N1-C2	-5.39	118.15	120.30
26	14	2400	G	C8-N9-C4	-5.39	104.25	106.40
26	14	2413	G	N1-C6-O6	5.39	123.13	119.90
22	1K	39	A	C8-N9-C4	5.38	107.95	105.80
26	1H	2455	G	N9-C4-C5	-5.38	103.25	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	737	C	N3-C4-N4	5.38	121.77	118.00
26	14	2607	G	N1-C2-N2	-5.38	111.36	116.20
26	1H	1675	C	OP1-P-O3'	5.38	117.04	105.20
26	1H	1820	U	C6-N1-C2	5.38	124.23	121.00
26	1H	191	A	C4-C5-N7	-5.38	108.01	110.70
26	1H	594	U	C6-N1-C2	5.38	124.23	121.00
26	1H	705	A	C5-C6-N6	-5.38	119.39	123.70
26	1H	1858	G	C6-C5-N7	-5.38	127.17	130.40
26	1H	2646	C	N3-C4-C5	5.38	124.05	121.90
27	16	56	G	C8-N9-C4	-5.38	104.25	106.40
27	16	56	G	N3-C4-C5	-5.38	125.91	128.60
26	1H	127	A	C8-N9-C4	5.38	107.95	105.80
26	1H	546	C	C2-N1-C1'	5.38	124.72	118.80
1	1G	581	G	N1-C6-O6	5.38	123.13	119.90
27	1J	103	U	C6-N1-C2	5.38	124.23	121.00
1	13	1260	C	C5-C6-N1	5.38	123.69	121.00
26	1H	942	G	OP1-P-O3'	5.38	117.03	105.20
26	14	1653	G	O5'-P-OP2	-5.38	100.86	105.70
26	14	1779	U	N3-C4-O4	5.38	123.16	119.40
26	14	1819	A	C8-N9-C4	-5.38	103.65	105.80
27	1J	114	G	N3-C4-C5	5.38	131.29	128.60
1	13	326	G	C5-C6-O6	5.38	131.83	128.60
26	1H	546	C	C6-N1-C2	-5.38	118.15	120.30
26	1H	1364	G	C8-N9-C4	5.38	108.55	106.40
26	1H	1828	G	C2-N3-C4	-5.38	109.21	111.90
26	1H	2589	A	C8-N9-C4	5.38	107.95	105.80
1	1G	362	G	N9-C4-C5	5.38	107.55	105.40
26	14	1808	U	C6-N1-C2	5.38	124.23	121.00
1	13	1158	C	N3-C2-O2	-5.38	118.14	121.90
26	1H	1334	G	C4-C5-N7	5.37	112.95	110.80
26	1H	1773	A	C8-N9-C4	5.37	107.95	105.80
26	1H	1941	C	N3-C4-C5	-5.37	119.75	121.90
1	1G	1532	U	C5-C6-N1	5.37	125.39	122.70
26	14	1348	G	O5'-P-OP2	5.37	117.15	110.70
26	14	1931	U	C5-C4-O4	-5.37	122.68	125.90
24	3K	47	G	N3-C4-N9	-5.37	122.78	126.00
26	1H	1478	G	O5'-P-OP2	-5.37	100.86	105.70
26	1H	1657	C	OP1-P-O3'	5.37	117.02	105.20
26	1H	1950	G	OP1-P-OP2	5.37	127.66	119.60
26	1H	2721	A	N1-C6-N6	5.37	121.82	118.60
26	14	1914	C	N3-C4-C5	-5.37	119.75	121.90
26	14	2708	G	N1-C6-O6	5.37	123.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	536	C	N3-C4-C5	-5.37	119.75	121.90
26	1H	844	C	N3-C4-C5	-5.37	119.75	121.90
26	1H	1926	U	N1-C2-N3	5.37	118.12	114.90
26	14	1942	C	C6-N1-C2	-5.37	118.15	120.30
1	13	795	C	C2-N3-C4	-5.37	117.22	119.90
26	1H	138	G	C4-C5-C6	-5.37	115.58	118.80
26	1H	2782	G	C5-C6-O6	-5.37	125.38	128.60
26	1H	2857	G	O5'-P-OP1	-5.37	100.87	105.70
1	1G	509	A	P-O3'-C3'	5.37	126.14	119.70
26	14	2731	G	C6-C5-N7	-5.37	127.18	130.40
26	1H	2867	G	O5'-P-OP1	-5.37	100.87	105.70
26	14	785	G	O5'-P-OP1	5.37	117.14	110.70
1	13	758	G	N3-C4-C5	5.37	131.28	128.60
1	13	1265	G	N1-C6-O6	5.37	123.12	119.90
23	2K	42	C	O5'-P-OP2	-5.37	100.87	105.70
26	1H	848	G	N3-C4-C5	-5.37	125.92	128.60
26	1H	871	U	N3-C2-O2	5.37	125.96	122.20
26	1H	2382	G	C5-C6-O6	5.37	131.82	128.60
26	14	512	G	C5'-C4'-C3'	-5.37	107.42	116.00
26	14	1695	G	C8-N9-C1'	-5.37	120.03	127.00
26	1H	1258	C	C6-N1-C2	5.36	122.44	120.30
26	1H	1387	C	C6-N1-C2	-5.36	118.15	120.30
26	1H	2772	C	O5'-P-OP2	-5.36	100.87	105.70
26	14	119	A	N1-C2-N3	5.36	131.98	129.30
26	14	974(A)	C	C5-C6-N1	5.36	123.68	121.00
26	1H	516	C	C6-N1-C2	-5.36	118.16	120.30
26	1H	1142(A)	A	N3-C4-C5	5.36	130.55	126.80
26	1H	696	G	OP1-P-OP2	-5.36	111.56	119.60
26	1H	755	C	N3-C4-N4	5.36	121.75	118.00
26	1H	1174	A	N1-C6-N6	5.36	121.82	118.60
26	1H	2026	C	N3-C4-C5	-5.36	119.76	121.90
26	14	567	A	C8-N9-C4	5.36	107.94	105.80
26	14	707	G	N1-C6-O6	5.36	123.12	119.90
1	13	1227	A	N1-C6-N6	5.36	121.82	118.60
26	1H	1255	U	N3-C2-O2	5.36	125.95	122.20
26	1H	1771	C	N1-C2-O2	-5.36	115.68	118.90
23	2K	23	G	C4-N9-C1'	-5.36	119.53	126.50
1	1G	690	G	C5-N7-C8	-5.36	101.62	104.30
1	1G	1158	C	C2-N3-C4	5.36	122.58	119.90
26	14	530	G	C5-N7-C8	-5.36	101.62	104.30
26	14	1241	A	C5-C6-N1	-5.36	115.02	117.70
26	1H	1957	C	N3-C4-N4	-5.36	114.25	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2614	A	OP2-P-O3'	5.36	116.98	105.20
1	1G	402	G	C8-N9-C4	5.36	108.54	106.40
26	14	1915	U	N3-C2-O2	-5.36	118.45	122.20
26	14	1992	G	C6-N1-C2	-5.36	121.89	125.10
26	14	2297	C	O5'-P-OP2	-5.36	100.88	105.70
26	14	2415	G	C5-C6-O6	-5.36	125.39	128.60
32	49	111	LEU	CA-CB-CG	5.36	127.62	115.30
26	1H	2891	G	C5-C6-O6	-5.35	125.39	128.60
26	14	2386	C	C2-N3-C4	-5.35	117.22	119.90
26	14	2820	A	C5-C6-N1	-5.35	115.02	117.70
26	1H	1787	A	O4'-C1'-N9	-5.35	103.92	108.20
26	1H	2599	G	N3-C2-N2	-5.35	116.15	119.90
1	1G	266	G	C6-C5-N7	-5.35	127.19	130.40
26	14	2388	A	O4'-C1'-N9	5.35	112.48	108.20
1	13	1431	C	N3-C4-N4	5.35	121.75	118.00
26	14	208	C	N1-C2-O2	-5.35	115.69	118.90
26	14	1306	C	N3-C4-N4	5.35	121.75	118.00
26	14	1967	C	O5'-P-OP2	-5.35	100.89	105.70
26	14	2336	A	C2-N3-C4	5.35	113.28	110.60
1	13	476	G	N3-C4-C5	-5.35	125.93	128.60
26	1H	1790	C	C6-N1-C2	5.35	122.44	120.30
26	1H	2069	G	N1-C6-O6	5.35	123.11	119.90
26	1H	2638	G	N1-C6-O6	5.35	123.11	119.90
1	1G	1519	A	C5-C6-N1	-5.35	115.03	117.70
26	14	2169	A	N3-C4-N9	5.35	131.68	127.40
1	13	575	G	O5'-P-OP2	-5.35	100.89	105.70
26	14	1761	C	N3-C2-O2	5.35	125.64	121.90
27	1J	7	G	N9-C4-C5	-5.35	103.26	105.40
1	13	5	U	C5-C6-N1	5.34	125.37	122.70
26	1H	569	U	C6-N1-C2	5.34	124.21	121.00
26	1H	582	G	N9-C4-C5	-5.34	103.26	105.40
26	1H	839	U	C5-C4-O4	5.34	129.11	125.90
26	14	1633	G	C8-N9-C4	-5.34	104.26	106.40
26	14	2164	C	O4'-C1'-N1	5.34	112.48	108.20
27	1J	84	C	C2-N1-C1'	-5.34	112.92	118.80
26	1H	746	A	O4'-C1'-N9	5.34	112.47	108.20
26	1H	446	G	N1-C6-O6	5.34	123.11	119.90
26	1H	1271	G	C2-N3-C4	-5.34	109.23	111.90
26	1H	1319	G	C5-C6-N1	5.34	114.17	111.50
26	14	1315	C	N3-C2-O2	-5.34	118.16	121.90
1	13	776	G	O5'-P-OP1	-5.34	100.89	105.70
26	1H	251	A	C4-C5-C6	5.34	119.67	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	659	C	C6-N1-C2	5.34	122.44	120.30
26	1H	1070	A	N9-C4-C5	5.34	107.94	105.80
26	14	2611	U	P-O3'-C3'	5.34	126.11	119.70
26	14	868	U	N3-C4-C5	-5.34	111.40	114.60
26	1H	476	G	C5-C6-N1	-5.34	108.83	111.50
26	1H	1325	G	N3-C4-N9	5.34	129.20	126.00
1	1G	557	G	N9-C4-C5	-5.34	103.27	105.40
1	1G	579	G	N7-C8-N9	5.34	115.77	113.10
1	1G	950	U	O5'-P-OP2	5.34	117.11	110.70
26	14	1380	G	N3-C4-C5	5.34	131.27	128.60
1	1G	690	G	C8-N9-C4	-5.33	104.27	106.40
26	14	1961	C	N1-C2-O2	-5.33	115.70	118.90
26	1H	943	U	C6-N1-C1'	5.33	128.67	121.20
26	1H	1324	G	C5-C6-O6	-5.33	125.40	128.60
26	1H	2396	G	C4-N9-C1'	-5.33	119.57	126.50
26	1H	2609	U	N1-C2-O2	-5.33	119.07	122.80
46	D8	40	LEU	CA-CB-CG	5.33	127.57	115.30
58	P8	39	ARG	NE-CZ-NH2	-5.33	117.63	120.30
1	1G	1215	G	C4-N9-C1'	5.33	133.44	126.50
26	14	70	G	N3-C4-N9	5.33	129.20	126.00
26	14	1011	G	O4'-C1'-N9	5.33	112.47	108.20
26	14	1381	G	C8-N9-C4	5.33	108.53	106.40
26	14	1771	C	C5-C4-N4	-5.33	116.47	120.20
26	14	1960	A	N1-C2-N3	5.33	131.97	129.30
1	13	1506	U	C2-N1-C1'	5.33	124.10	117.70
26	14	785	G	N1-C2-N2	5.33	121.00	116.20
26	14	856	C	C5-C6-N1	5.33	123.67	121.00
26	14	1614	A	O4'-C1'-N9	5.33	112.47	108.20
26	14	2084	C	C6-N1-C2	5.33	122.43	120.30
26	14	2585	U	C2-N1-C1'	5.33	124.10	117.70
1	13	1353	G	C4-N9-C1'	5.33	133.43	126.50
26	1H	1049	C	N3-C4-C5	-5.33	119.77	121.90
1	1G	354	G	C4-C5-N7	5.33	112.93	110.80
26	1H	454	A	C8-N9-C4	5.33	107.93	105.80
26	1H	467	G	N9-C1'-C2'	-5.33	106.14	112.00
26	1H	912	C	C2-N1-C1'	5.33	124.66	118.80
26	1H	1030	G	C2-N3-C4	-5.33	109.24	111.90
26	1H	2208	U	C2-N1-C1'	-5.33	111.31	117.70
26	14	1312	U	O5'-P-OP1	-5.33	100.91	105.70
33	59	98	LEU	CA-CB-CG	5.33	127.56	115.30
1	13	889	A	C2-N3-C4	-5.33	107.94	110.60
26	14	570	G	N3-C4-N9	5.33	129.20	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1595	G	C8-N9-C1'	-5.33	120.07	127.00
26	14	1972	A	C2-N3-C4	5.33	113.26	110.60
26	1H	478	A	N1-C2-N3	5.33	131.96	129.30
26	1H	2070	G	C5-N7-C8	5.33	106.96	104.30
26	1H	2311	A	O4'-C1'-N9	5.33	112.46	108.20
1	1G	26	A	O5'-P-OP2	-5.33	100.91	105.70
26	14	131	G	C4-C5-N7	5.33	112.93	110.80
26	14	1917	U	C5-C6-N1	5.33	125.36	122.70
22	1K	39	A	N9-C4-C5	-5.32	103.67	105.80
26	1H	528	A	C8-N9-C1'	5.32	137.28	127.70
26	1H	1308	A	C5-C6-N6	5.32	127.96	123.70
26	1H	2274	A	C2-N3-C4	-5.32	107.94	110.60
26	1H	2287	A	C5-N7-C8	-5.32	101.24	103.90
1	1G	246	A	C8-N9-C4	5.32	107.93	105.80
26	14	2400	G	N3-C4-C5	-5.32	125.94	128.60
26	14	2512	C	C6-N1-C2	5.32	122.43	120.30
1	13	503	C	N3-C4-C5	-5.32	119.77	121.90
26	1H	680	G	N1-C6-O6	-5.32	116.71	119.90
26	14	1661	G	C4-C5-N7	5.32	112.93	110.80
26	1H	1940	U	N1-C2-O2	-5.32	119.08	122.80
26	14	664	C	N3-C2-O2	-5.32	118.17	121.90
26	14	1021	A	N1-C2-N3	5.32	131.96	129.30
26	14	1347	G	N1-C6-O6	5.32	123.09	119.90
26	14	1407	C	OP1-P-OP2	-5.32	111.62	119.60
1	13	115	G	C8-N9-C4	-5.32	104.27	106.40
26	1H	788	A	C5-C6-N1	-5.32	115.04	117.70
26	1H	1783	A	OP1-P-OP2	-5.32	111.62	119.60
26	1H	2059	A	O4'-C1'-N9	5.32	112.45	108.20
26	1H	2550	G	C8-N9-C4	-5.32	104.27	106.40
26	1H	2598	A	N1-C6-N6	5.32	121.79	118.60
1	1G	250	A	N1-C6-N6	-5.32	115.41	118.60
26	14	790	C	C6-N1-C2	5.32	122.43	120.30
26	14	2032	G	C5-N7-C8	5.32	106.96	104.30
27	1J	85	G	C8-N9-C4	5.32	108.53	106.40
1	13	806	C	N3-C4-N4	-5.32	114.28	118.00
26	1H	467	G	C5-N7-C8	5.32	106.96	104.30
26	1H	1254	A	C6-C5-N7	-5.32	128.58	132.30
26	1H	1786	A	OP1-P-O3'	5.32	116.89	105.20
27	16	38	C	C6-N1-C1'	5.32	127.18	120.80
26	14	1516	U	N1-C2-O2	5.32	126.52	122.80
26	14	2205	C	N1-C2-O2	5.32	122.09	118.90
29	19	226	MET	CG-SD-CE	5.32	108.70	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	762	C	C5-C6-N1	-5.31	118.34	121.00
26	1H	473	G	C8-N9-C1'	-5.31	120.09	127.00
26	1H	1035	U	C5-C6-N1	-5.31	120.04	122.70
26	1H	1334	G	C6-C5-N7	-5.31	127.21	130.40
26	1H	2443	C	C5-C4-N4	-5.31	116.48	120.20
1	1G	250	A	P-O3'-C3'	5.31	126.08	119.70
1	1G	1313	U	C5-C6-N1	5.31	125.36	122.70
26	1H	1332	G	N3-C2-N2	-5.31	116.18	119.90
26	1H	2048	G	N3-C2-N2	-5.31	116.18	119.90
26	14	22	C	N3-C4-C5	5.31	124.03	121.90
26	14	811	U	N3-C2-O2	-5.31	118.48	122.20
26	14	2477	C	N3-C2-O2	-5.31	118.18	121.90
26	1H	2000	G	OP1-P-OP2	-5.31	111.63	119.60
26	1H	2275	C	C5-C6-N1	5.31	123.66	121.00
1	1G	323	U	N1-C2-O2	-5.31	119.08	122.80
1	13	268	C	O5'-P-OP1	-5.31	100.92	105.70
26	1H	2198	A	C8-N9-C4	5.31	107.92	105.80
26	1H	2278	A	C6-N1-C2	-5.31	115.41	118.60
26	1H	2324	C	O5'-P-OP2	-5.31	100.92	105.70
1	1G	1207	G	O5'-P-OP2	-5.31	100.92	105.70
1	1G	1285	A	P-O3'-C3'	5.31	126.07	119.70
26	14	672	C	O5'-P-OP2	-5.31	100.92	105.70
26	14	1332	G	C5-C6-O6	-5.31	125.41	128.60
26	14	2027	G	O5'-P-OP2	-5.31	100.92	105.70
26	14	2595	G	N3-C4-C5	5.31	131.25	128.60
1	13	57	G	N1-C6-O6	-5.31	116.72	119.90
1	13	975	A	O4'-C1'-N9	-5.31	103.95	108.20
26	1H	678	C	N3-C4-C5	5.31	124.02	121.90
26	1H	1026	U	C5-C4-O4	5.31	129.08	125.90
26	1H	1625	C	N3-C4-C5	5.31	124.02	121.90
26	1H	1926	U	N1-C2-O2	-5.31	119.08	122.80
26	1H	2003	G	C8-N9-C4	5.31	108.52	106.40
1	1G	923	A	C2-N3-C4	-5.31	107.95	110.60
1	1G	990	C	C6-N1-C2	-5.31	118.18	120.30
26	14	122	G	N9-C4-C5	-5.31	103.28	105.40
26	14	642	G	C8-N9-C4	-5.31	104.28	106.40
27	16	96	G	C2-N3-C4	5.31	114.55	111.90
26	14	945	A	N3-C4-C5	5.31	130.51	126.80
26	14	2247	A	C8-N9-C4	-5.31	103.68	105.80
1	13	1200	C	C5-C6-N1	5.30	123.65	121.00
26	1H	613	U	N3-C2-O2	-5.30	118.49	122.20
26	1H	1573	G	OP2-P-O3'	5.30	116.87	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2312	U	O5'-P-OP1	-5.30	100.93	105.70
26	1H	2316	C	C6-N1-C2	-5.30	118.18	120.30
26	14	1887	C	C6-N1-C2	-5.30	118.18	120.30
1	13	129	U	O4'-C1'-N1	5.30	112.44	108.20
36	38	32	LEU	CA-CB-CG	5.30	127.50	115.30
1	13	1511	G	C8-N9-C1'	-5.30	120.11	127.00
26	1H	141(A)	C	OP1-P-O3'	-5.30	93.54	105.20
26	1H	199	A	C4-C5-C6	-5.30	114.35	117.00
26	1H	2086	U	O5'-P-OP2	-5.30	100.93	105.70
24	3L	52	A	C5-C6-N6	-5.30	119.46	123.70
26	14	1398	C	C4-C5-C6	-5.30	114.75	117.40
26	14	2509	G	C6-C5-N7	-5.30	127.22	130.40
1	13	973	G	C6-N1-C2	-5.30	121.92	125.10
26	1H	1215	G	N1-C6-O6	5.30	123.08	119.90
26	1H	1799	G	N1-C6-O6	-5.30	116.72	119.90
26	14	134	C	C6-N1-C2	5.30	122.42	120.30
26	14	848	G	N3-C4-N9	5.30	129.18	126.00
26	14	2779	U	N3-C4-O4	-5.30	115.69	119.40
26	14	2900	A	O4'-C1'-N9	5.30	112.44	108.20
29	11	60	ARG	NE-CZ-NH2	-5.30	117.65	120.30
26	14	1426	G	C6-N1-C2	-5.30	121.92	125.10
26	14	1555	G	N3-C4-C5	-5.30	125.95	128.60
26	14	1656	C	OP2-P-O3'	5.30	116.86	105.20
27	1J	7	G	C8-N9-C4	5.30	108.52	106.40
1	13	586	C	C6-N1-C2	5.30	122.42	120.30
1	13	1151	A	O4'-C1'-N9	5.30	112.44	108.20
1	13	1353	G	C8-N9-C1'	-5.30	120.11	127.00
26	1H	729	G	N1-C2-N2	5.30	120.97	116.20
26	1H	1168	G	C8-N9-C4	5.30	108.52	106.40
26	1H	1972	A	N9-C4-C5	-5.30	103.68	105.80
1	13	186	C	C6-N1-C2	-5.29	118.18	120.30
26	1H	1528	A	C4-C5-N7	5.29	113.35	110.70
26	1H	2294	C	N3-C4-C5	5.29	124.02	121.90
26	1H	2445	G	N3-C4-C5	-5.29	125.95	128.60
26	1H	2480	C	C6-N1-C2	-5.29	118.18	120.30
26	14	543	C	N1-C2-O2	5.29	122.08	118.90
1	13	117	G	C6-C5-N7	-5.29	127.22	130.40
1	13	783	C	O5'-P-OP2	-5.29	100.94	105.70
1	13	1520	G	C5-N7-C8	-5.29	101.65	104.30
26	1H	2264	C	OP1-P-O3'	5.29	116.85	105.20
26	14	1128	A	C5-C6-N1	5.29	120.35	117.70
26	1H	1534	G	C2-N3-C4	5.29	114.55	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	784	A	O4'-C1'-N9	5.29	112.43	108.20
26	14	835	A	C2-N3-C4	5.29	113.25	110.60
26	14	2715	C	N3-C4-C5	5.29	124.02	121.90
26	1H	2625	G	N1-C6-O6	5.29	123.07	119.90
1	1G	963	G	N3-C4-C5	-5.29	125.95	128.60
26	14	786	C	C5-C6-N1	-5.29	118.36	121.00
26	1H	2018	G	C6-C5-N7	-5.29	127.23	130.40
26	1H	2056	G	N3-C2-N2	-5.29	116.20	119.90
26	14	683	C	C2-N3-C4	-5.29	117.26	119.90
26	14	2448	A	O5'-P-OP2	5.29	117.05	110.70
26	1H	2588	G	N1-C2-N3	5.29	127.07	123.90
26	14	11	G	C8-N9-C4	-5.29	104.28	106.40
1	13	834	C	O5'-P-OP2	-5.29	100.94	105.70
26	1H	205	G	N1-C2-N2	-5.29	111.44	116.20
26	1H	232	G	C6-C5-N7	-5.29	127.23	130.40
26	1H	1404	C	O5'-P-OP2	-5.29	100.94	105.70
26	14	446	G	O5'-P-OP2	-5.29	100.94	105.70
26	14	1029	A	O5'-P-OP1	5.29	117.04	110.70
26	14	2362	G	N1-C6-O6	5.29	123.07	119.90
26	1H	144	C	C6-N1-C2	5.28	122.41	120.30
26	1H	1340	U	N3-C2-O2	5.28	125.90	122.20
26	1H	1349	A	C5-N7-C8	-5.28	101.26	103.90
26	14	492	A	N1-C2-N3	5.28	131.94	129.30
26	14	1276	A	N1-C6-N6	5.28	121.77	118.60
26	14	1613	G	N3-C4-N9	5.28	129.17	126.00
26	1H	560	C	O5'-P-OP1	-5.28	100.95	105.70
26	1H	1362	C	C6-N1-C2	5.28	122.41	120.30
26	1H	1365	A	C5-C6-N1	-5.28	115.06	117.70
26	1H	2575	C	C5-C4-N4	5.28	123.90	120.20
1	1G	953	G	N1-C6-O6	-5.28	116.73	119.90
26	14	68	G	C6-C5-N7	-5.28	127.23	130.40
26	14	1633	G	C6-C5-N7	-5.28	127.23	130.40
1	13	129(A)	G	O5'-P-OP1	-5.28	100.95	105.70
26	1H	956	G	C6-C5-N7	-5.28	127.23	130.40
26	1H	1402	C	OP2-P-O3'	5.28	116.81	105.20
26	1H	2638	G	C8-N9-C4	5.28	108.51	106.40
1	1G	114	U	C5-C6-N1	-5.28	120.06	122.70
26	14	769	G	N9-C4-C5	-5.28	103.29	105.40
1	13	455	C	C2-N1-C1'	5.28	124.61	118.80
1	13	1285	A	P-O3'-C3'	5.28	126.03	119.70
26	1H	847	U	C5-C6-N1	-5.28	120.06	122.70
26	1H	1839	G	C6-C5-N7	-5.28	127.23	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	575	A	N7-C8-N9	-5.28	111.16	113.80
26	14	2090	G	C8-N9-C4	5.28	108.51	106.40
26	14	2374	C	C2-N1-C1'	-5.28	113.00	118.80
26	1H	108	U	C5-C4-O4	-5.28	122.73	125.90
26	1H	1660	C	C5-C6-N1	-5.28	118.36	121.00
26	1H	2562	U	C5-C6-N1	-5.28	120.06	122.70
27	16	117	G	N3-C4-C5	5.28	131.24	128.60
26	14	1850	G	C8-N9-C4	5.28	108.51	106.40
1	13	703	G	C5-N7-C8	-5.27	101.66	104.30
26	14	2778	A	C8-N9-C4	5.27	107.91	105.80
26	1H	524	U	N3-C2-O2	-5.27	118.51	122.20
26	1H	802	A	C8-N9-C4	5.27	107.91	105.80
26	1H	1916	A	N1-C2-N3	5.27	131.94	129.30
26	14	189	G	N7-C8-N9	-5.27	110.46	113.10
26	14	697	C	O5'-P-OP1	-5.27	100.95	105.70
26	14	2609	U	O4'-C1'-N1	5.27	112.42	108.20
26	1H	214	G	C5-C6-O6	-5.27	125.44	128.60
26	1H	575	A	O5'-P-OP1	-5.27	100.96	105.70
26	1H	2345	G	OP1-P-O3'	5.27	116.80	105.20
26	14	1342	A	C4-C5-C6	5.27	119.64	117.00
26	14	1350	C	O5'-P-OP1	-5.27	100.96	105.70
26	1H	621	A	O5'-P-OP1	-5.27	100.96	105.70
26	1H	1327	C	N3-C4-C5	-5.27	119.79	121.90
40	78	50	ARG	NE-CZ-NH2	5.27	122.94	120.30
26	14	186	G	C6-C5-N7	5.27	133.56	130.40
26	14	2211	G	C4-N9-C1'	5.27	133.35	126.50
1	13	108	G	C5-N7-C8	-5.27	101.67	104.30
1	13	535	A	N1-C6-N6	-5.27	115.44	118.60
26	1H	636	G	C5-C6-O6	-5.27	125.44	128.60
26	1H	736	C	N3-C4-C5	5.27	124.01	121.90
26	1H	783	A	OP2-P-O3'	5.27	116.79	105.20
26	1H	1990	C	N3-C4-C5	-5.27	119.79	121.90
26	1H	2139	C	C2-N1-C1'	5.27	124.59	118.80
26	14	1394	U	O5'-P-OP2	5.27	117.02	110.70
26	14	1782	C	C6-N1-C2	5.27	122.41	120.30
1	13	506	G	N3-C4-C5	5.27	131.23	128.60
1	13	1124	G	P-O3'-C3'	5.27	126.02	119.70
1	13	1370	G	N3-C2-N2	5.27	123.59	119.90
24	3K	6	U	C5-C6-N1	5.27	125.33	122.70
26	1H	1354	A	C5-C6-N6	-5.27	119.49	123.70
26	1H	1640	C	C5-C6-N1	-5.27	118.37	121.00
26	14	810	U	C5-C4-O4	-5.27	122.74	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3K	60	A	C2-N3-C4	5.26	113.23	110.60
26	1H	673	C	O5'-P-OP1	5.26	117.02	110.70
26	1H	881	G	C8-N9-C1'	-5.26	120.16	127.00
26	1H	964	C	C6-N1-C2	-5.26	118.19	120.30
26	1H	965	C	C5-C4-N4	-5.26	116.52	120.20
27	16	98	G	N1-C6-O6	5.26	123.06	119.90
26	14	2592	G	N3-C4-N9	5.26	129.16	126.00
26	1H	617	G	C8-N9-C4	5.26	108.50	106.40
26	1H	1297	C	OP1-P-O3'	5.26	116.78	105.20
26	1H	1696	G	C2-N3-C4	-5.26	109.27	111.90
1	1G	963	G	N3-C4-N9	5.26	129.16	126.00
26	1H	242	G	C5-C6-O6	-5.26	125.44	128.60
26	1H	1190	G	C2-N3-C4	-5.26	109.27	111.90
26	1H	1345	C	OP1-P-O3'	-5.26	93.63	105.20
26	1H	1769	G	N1-C6-O6	5.26	123.06	119.90
36	38	134	LEU	CB-CG-CD2	5.26	119.94	111.00
1	1G	40	C	C6-N1-C2	5.26	122.41	120.30
26	14	133	C	C6-N1-C2	5.26	122.41	120.30
26	14	854	G	OP1-P-O3'	5.26	116.77	105.20
26	14	2436	G	C5-C6-O6	-5.26	125.44	128.60
1	13	1028	C	C6-N1-C2	-5.26	118.20	120.30
26	1H	424	G	N1-C6-O6	-5.26	116.74	119.90
26	1H	957	A	OP2-P-O3'	5.26	116.77	105.20
26	1H	1695	G	N3-C4-N9	5.26	129.16	126.00
1	1G	1301	U	C6-N1-C1'	-5.26	113.84	121.20
26	14	1673	U	C2-N1-C1'	-5.26	111.39	117.70
26	14	1806	C	OP1-P-OP2	5.26	127.49	119.60
26	14	2595	G	C8-N9-C4	5.26	108.50	106.40
26	1H	1332	G	O4'-C1'-N9	-5.26	103.99	108.20
26	1H	1378	A	C2-N3-C4	-5.26	107.97	110.60
26	1H	2539	C	C6-N1-C2	5.26	122.40	120.30
1	1G	1195	C	N3-C2-O2	-5.26	118.22	121.90
26	14	315	G	O5'-P-OP2	-5.26	100.97	105.70
26	14	829	A	OP1-P-OP2	5.26	127.48	119.60
26	14	1807	G	N9-C1'-C2'	-5.26	106.22	112.00
26	14	2065	C	N3-C2-O2	-5.26	118.22	121.90
26	14	2326	C	C6-N1-C2	-5.26	118.20	120.30
1	13	1533	C	C2-N1-C1'	5.25	124.58	118.80
26	1H	397	G	C4-C5-N7	5.25	112.90	110.80
1	1G	1126	U	OP2-P-O3'	5.25	116.76	105.20
26	14	66	C	O5'-P-OP2	-5.25	100.97	105.70
1	13	1202	G	C5-C6-O6	5.25	131.75	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	52	A	N1-C2-N3	-5.25	126.67	129.30
26	1H	1356	G	C5-C6-O6	-5.25	125.45	128.60
26	1H	2338	G	O5'-P-OP1	-5.25	100.97	105.70
26	14	155	C	C2-N1-C1'	5.25	124.58	118.80
26	14	1899	G	C5-C6-N1	-5.25	108.87	111.50
26	14	2597	G	C5-C6-N1	-5.25	108.87	111.50
26	1H	1888	G	C8-N9-C1'	-5.25	120.17	127.00
1	1G	324	G	C6-C5-N7	5.25	133.55	130.40
1	1G	1198	G	O5'-P-OP1	-5.25	100.97	105.70
26	14	684	G	N3-C4-C5	-5.25	125.97	128.60
1	13	513	C	C5-C4-N4	-5.25	116.53	120.20
1	13	765	G	C4-N9-C1'	5.25	133.32	126.50
26	1H	979	G	N1-C2-N2	5.25	120.92	116.20
1	1G	252	U	N3-C2-O2	-5.25	118.53	122.20
1	13	509	A	C2'-C3'-O3'	5.25	122.10	113.70
26	1H	452	G	N9-C4-C5	5.25	107.50	105.40
26	1H	937	U	C6-N1-C2	5.25	124.15	121.00
26	1H	1236	G	N9-C4-C5	-5.25	103.30	105.40
1	1G	1465	C	C2-N1-C1'	5.25	124.57	118.80
26	14	1976	U	N3-C4-C5	-5.25	111.45	114.60
26	14	35	G	N7-C8-N9	5.25	115.72	113.10
26	14	501	A	C5-C6-N6	5.25	127.90	123.70
27	1J	103	U	C2-N1-C1'	-5.25	111.40	117.70
26	1H	2625	G	C4-C5-N7	5.25	112.90	110.80
26	14	74	A	C4-C5-C6	5.25	119.62	117.00
26	1H	263	C	C5-C6-N1	-5.24	118.38	121.00
26	1H	263	C	N3-C2-O2	-5.24	118.23	121.90
26	1H	1271	G	N1-C6-O6	5.24	123.05	119.90
26	1H	2360	A	C2-N3-C4	-5.24	107.98	110.60
27	16	15	A	O5'-P-OP1	5.24	116.99	110.70
26	14	676	A	N3-C4-N9	-5.24	123.20	127.40
26	14	1363	C	O5'-P-OP2	-5.24	100.98	105.70
26	14	1894	C	O5'-P-OP2	-5.24	100.98	105.70
1	1G	855	G	C4-C5-N7	5.24	112.90	110.80
1	1G	909	A	C6-C5-N7	-5.24	128.63	132.30
26	14	2001	A	C5-C6-N6	-5.24	119.51	123.70
1	13	1353	G	N3-C4-N9	5.24	129.14	126.00
26	1H	38	A	C6-C5-N7	-5.24	128.63	132.30
26	1H	652	C	C6-N1-C2	-5.24	118.20	120.30
26	14	28	A	N1-C6-N6	5.24	121.74	118.60
26	14	330	A	N9-C4-C5	-5.24	103.70	105.80
26	14	1189	A	OP1-P-OP2	-5.24	111.74	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	282	A	OP1-P-O3'	5.24	116.72	105.20
26	1H	316	C	C2-N1-C1'	-5.24	113.04	118.80
26	1H	498	G	C5-C6-N1	-5.24	108.88	111.50
26	1H	2258	C	C5-C4-N4	-5.24	116.53	120.20
1	1G	1498	U	O4'-C1'-N1	-5.24	104.01	108.20
24	3L	52	A	N9-C4-C5	-5.24	103.70	105.80
26	14	1914	C	N1-C2-O2	5.24	122.04	118.90
26	14	1931	U	N1-C2-O2	-5.24	119.13	122.80
26	14	2596	U	N1-C2-N3	5.24	118.04	114.90
26	1H	2622	C	C5-C6-N1	-5.24	118.38	121.00
24	3K	47	G	N3-C2-N2	-5.24	116.23	119.90
26	1H	145	G	C5-C6-O6	-5.24	125.46	128.60
26	1H	667	U	N3-C4-O4	5.24	123.06	119.40
26	1H	689	A	C4-C5-N7	5.24	113.32	110.70
26	1H	1475	G	N1-C2-N2	5.24	120.91	116.20
26	1H	2766	G	C4-C5-N7	5.24	112.89	110.80
1	1G	1119	C	C6-N1-C2	-5.24	118.21	120.30
26	14	193	U	N3-C2-O2	5.24	125.86	122.20
26	14	471	A	O5'-P-OP2	5.24	116.98	110.70
26	14	1903	G	OP1-P-OP2	5.24	127.45	119.60
26	14	2392	A	C5-N7-C8	-5.24	101.28	103.90
27	1J	104	A	OP2-P-O3'	5.24	116.72	105.20
26	1H	1989	G	C6-N1-C2	-5.23	121.96	125.10
26	14	123	G	C8-N9-C4	5.23	108.49	106.40
26	14	363(E)	U	C2-N1-C1'	5.23	123.98	117.70
26	1H	2430	A	C4-C5-C6	5.23	119.62	117.00
59	Q8	46	ARG	C-N-CA	5.23	134.78	121.70
1	1G	1234	C	N1-C2-O2	5.23	122.04	118.90
26	14	777	A	C6-N1-C2	-5.23	115.46	118.60
26	14	815	C	O5'-P-OP1	5.23	116.98	110.70
26	14	1827	C	C5-C6-N1	-5.23	118.38	121.00
26	14	1977	A	C5-C6-N6	5.23	127.89	123.70
26	14	2712	U	C5-C4-O4	5.23	129.04	125.90
1	13	1225	A	N9-C4-C5	-5.23	103.71	105.80
26	1H	593	G	C6-N1-C2	-5.23	121.96	125.10
26	1H	673	C	C5-C4-N4	-5.23	116.54	120.20
26	1H	1454	U	O4'-C1'-N1	5.23	112.38	108.20
27	16	42	C	C6-N1-C2	5.23	122.39	120.30
26	14	27	G	N3-C2-N2	-5.23	116.24	119.90
26	14	1273	U	N3-C4-C5	5.23	117.74	114.60
26	14	1704	G	C2-N3-C4	-5.23	109.28	111.90
26	14	2867	G	O4'-C1'-N9	5.23	112.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2346	A	C1'-O4'-C4'	-5.23	105.72	109.90
26	14	1241	A	O4'-C1'-N9	5.23	112.38	108.20
26	14	2637	U	N3-C4-O4	5.23	123.06	119.40
26	1H	205	G	C8-N9-C4	5.23	108.49	106.40
26	1H	1197	G	OP1-P-OP2	5.23	127.44	119.60
26	1H	1255	U	N3-C4-O4	5.23	123.06	119.40
26	1H	1613	G	C5-C6-N1	-5.23	108.89	111.50
26	1H	1758	G	N1-C6-O6	5.23	123.04	119.90
26	1H	1939	U	O5'-P-OP1	-5.23	101.00	105.70
26	1H	2270	G	N1-C6-O6	5.23	123.04	119.90
27	16	38	C	N1-C2-O2	-5.23	115.76	118.90
1	1G	769	G	C5-C6-O6	-5.23	125.46	128.60
26	14	1900	A	C6-C5-N7	-5.23	128.64	132.30
26	14	2062	A	C6-C5-N7	5.23	135.96	132.30
26	1H	2073	C	OP2-P-O3'	5.23	116.70	105.20
1	1G	380	G	C8-N9-C4	-5.23	104.31	106.40
26	14	194	G	O5'-P-OP2	5.23	116.97	110.70
26	14	1271	G	C6-C5-N7	-5.23	127.26	130.40
1	13	275	G	C8-N9-C4	-5.22	104.31	106.40
26	1H	790	C	OP1-P-OP2	5.22	127.44	119.60
26	1H	1409	C	C2-N1-C1'	-5.22	113.05	118.80
26	14	669	G	C2-N3-C4	5.22	114.51	111.90
26	14	956	G	O5'-P-OP2	-5.22	101.00	105.70
26	14	2552	U	C2-N3-C4	-5.22	123.87	127.00
1	13	721	G	C8-N9-C1'	-5.22	120.21	127.00
1	13	1096	C	C6-N1-C2	-5.22	118.21	120.30
26	1H	121	G	C5-C6-O6	-5.22	125.47	128.60
26	1H	165	U	C2-N1-C1'	5.22	123.97	117.70
1	1G	956	U	C6-N1-C2	-5.22	117.87	121.00
1	1G	1519	A	C5-C6-N6	5.22	127.88	123.70
26	14	577	G	OP1-P-OP2	-5.22	111.77	119.60
26	14	623	G	N9-C4-C5	-5.22	103.31	105.40
26	14	777	A	C5-C6-N1	5.22	120.31	117.70
26	1H	46	C	OP2-P-O3'	5.22	116.69	105.20
26	1H	1306	C	N1-C2-O2	-5.22	115.77	118.90
23	2L	35	C	C6-N1-C1'	-5.22	114.54	120.80
26	14	1958	C	N3-C2-O2	5.22	125.55	121.90
26	14	2607	G	N3-C4-N9	5.22	129.13	126.00
1	13	550	G	C8-N9-C4	5.22	108.49	106.40
23	2K	48	U	P-O3'-C3'	5.22	125.96	119.70
26	1H	242	G	N1-C6-O6	5.22	123.03	119.90
26	1H	463	G	N9-C4-C5	-5.22	103.31	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1896	G	C8-N9-C4	-5.22	104.31	106.40
26	1H	2689	U	C2-N1-C1'	-5.22	111.44	117.70
24	3L	47	G	C6-C5-N7	5.22	133.53	130.40
26	14	396	G	C4-C5-C6	5.22	121.93	118.80
26	1H	821	A	C6-C5-N7	-5.21	128.65	132.30
26	1H	2448	A	N1-C6-N6	-5.21	115.47	118.60
26	1H	2451	A	C8-N9-C4	-5.21	103.72	105.80
24	3L	47	G	C4-N9-C1'	-5.21	119.72	126.50
26	14	1975	G	C6-C5-N7	-5.21	127.27	130.40
26	14	2713	A	C8-N9-C4	-5.21	103.71	105.80
1	13	892	A	C6-C5-N7	-5.21	128.65	132.30
26	1H	345	A	N1-C2-N3	5.21	131.91	129.30
24	3L	12	U	C5-C6-N1	5.21	125.31	122.70
26	14	146	G	C4-C5-N7	5.21	112.89	110.80
26	14	2583	G	OP1-P-OP2	-5.21	111.78	119.60
1	13	954	G	C8-N9-C4	5.21	108.48	106.40
26	1H	665	C	C5-C6-N1	-5.21	118.39	121.00
26	1H	1973	G	N3-C2-N2	5.21	123.55	119.90
26	1H	2729	G	N1-C6-O6	5.21	123.03	119.90
26	14	1854	A	N1-C6-N6	-5.21	115.47	118.60
26	14	2513	G	C4-C5-N7	5.21	112.88	110.80
26	1H	180	G	C2-N3-C4	-5.21	109.30	111.90
26	1H	2000	G	C5-C6-O6	-5.21	125.47	128.60
26	14	647	G	N7-C8-N9	5.21	115.70	113.10
26	14	1379	A	C8-N9-C4	-5.21	103.72	105.80
26	14	1941	C	O5'-P-OP1	-5.21	101.01	105.70
26	14	2330	G	N9-C4-C5	-5.21	103.32	105.40
1	13	356	A	N1-C6-N6	-5.21	115.47	118.60
26	1H	734	A	N9-C4-C5	-5.21	103.72	105.80
26	1H	1210	A	OP2-P-O3'	5.21	116.66	105.20
27	16	7	G	N9-C4-C5	-5.21	103.32	105.40
26	14	729	G	C8-N9-C4	-5.21	104.32	106.40
26	14	2254	C	OP2-P-O3'	5.21	116.66	105.20
27	1J	22	U	N3-C2-O2	-5.21	118.55	122.20
1	13	1446	A	O5'-P-OP1	5.21	116.95	110.70
26	1H	808	G	N1-C2-N2	-5.21	111.52	116.20
26	1H	1323	U	N3-C4-O4	5.21	123.04	119.40
26	1H	2340	G	N3-C4-C5	5.21	131.20	128.60
26	1H	2351	G	C6-C5-N7	-5.21	127.28	130.40
27	16	117	G	C2-N3-C4	-5.21	109.30	111.90
26	1H	308	G	N3-C4-N9	5.21	129.12	126.00
26	1H	772	C	N3-C2-O2	5.21	125.54	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2609	U	N3-C4-C5	-5.21	111.48	114.60
26	14	1374	G	N3-C4-C5	-5.21	126.00	128.60
26	14	2012	G	N3-C4-C5	-5.21	126.00	128.60
26	1H	2323	G	C2-N3-C4	-5.20	109.30	111.90
26	1H	2352	A	C8-N9-C4	5.20	107.88	105.80
1	1G	493	G	C8-N9-C4	-5.20	104.32	106.40
23	2L	19	G	N3-C4-N9	-5.20	122.88	126.00
26	14	270(X)	G	C2-N3-C4	-5.20	109.30	111.90
26	14	407	G	C8-N9-C1'	-5.20	120.24	127.00
26	14	1870	C	O5'-P-OP2	-5.20	101.02	105.70
26	14	2873	A	C4-N9-C1'	5.20	135.67	126.30
26	1H	458	G	O4'-C1'-N9	5.20	112.36	108.20
26	1H	517	C	OP2-P-O3'	5.20	116.64	105.20
26	14	123	G	C2-N3-C4	-5.20	109.30	111.90
26	14	2490	G	C8-N9-C4	-5.20	104.32	106.40
26	14	2598	A	N9-C4-C5	-5.20	103.72	105.80
26	1H	308	G	C8-N9-C1'	-5.20	120.24	127.00
26	1H	881	G	O4'-C1'-N9	-5.20	104.04	108.20
26	1H	1396	U	N3-C2-O2	-5.20	118.56	122.20
1	1G	669	U	N1-C2-O2	-5.20	119.16	122.80
1	1G	1264	C	C6-N1-C2	5.20	122.38	120.30
26	14	383	U	O5'-P-OP2	5.20	116.94	110.70
26	14	912	C	C5-C6-N1	5.20	123.60	121.00
1	13	354	G	C8-N9-C1'	-5.20	120.24	127.00
1	13	703	G	C8-N9-C4	-5.20	104.32	106.40
1	13	1203	C	N3-C2-O2	-5.20	118.26	121.90
26	1H	38	A	C5-C6-N6	-5.20	119.54	123.70
26	1H	83	G	N3-C4-C5	5.20	131.20	128.60
26	1H	1291	C	OP1-P-O3'	5.20	116.64	105.20
26	1H	2065	C	OP2-P-O3'	5.20	116.64	105.20
26	1H	2502	G	C6-N1-C2	-5.20	121.98	125.10
26	14	671	C	N1-C2-O2	-5.20	115.78	118.90
26	14	838	C	N3-C4-C5	5.20	123.98	121.90
1	13	1513	A	N9-C4-C5	-5.20	103.72	105.80
26	1H	1942	C	C4-C5-C6	-5.20	114.80	117.40
26	1H	2481	G	C8-N9-C4	5.20	108.48	106.40
26	1H	2845	G	N1-C6-O6	5.20	123.02	119.90
1	1G	898	G	N3-C4-C5	5.20	131.20	128.60
1	1G	932	C	C2-N1-C1'	5.20	124.52	118.80
26	14	1815	A	N1-C6-N6	-5.20	115.48	118.60
26	14	2007	C	N3-C4-C5	-5.20	119.82	121.90
26	1H	566	U	C6-N1-C2	5.20	124.12	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2426	A	C8-N9-C4	-5.20	103.72	105.80
1	13	1227	A	N7-C8-N9	5.19	116.40	113.80
1	13	1290	G	C4-N9-C1'	5.19	133.25	126.50
26	1H	1684	C	O5'-P-OP2	-5.19	101.03	105.70
26	1H	185	U	O5'-P-OP2	-5.19	101.03	105.70
26	1H	853	G	O5'-P-OP1	5.19	116.93	110.70
26	1H	990	A	C8-N9-C4	-5.19	103.72	105.80
1	1G	812	C	N3-C2-O2	5.19	125.53	121.90
26	14	1965	C	N3-C4-C5	5.19	123.98	121.90
26	14	2598	A	O5'-P-OP2	5.19	116.93	110.70
26	1H	35	G	C8-N9-C4	-5.19	104.32	106.40
26	1H	141(A)	C	OP2-P-O3'	5.19	116.62	105.20
26	1H	541	C	N3-C2-O2	-5.19	118.27	121.90
26	1H	703	U	C5-C6-N1	-5.19	120.10	122.70
26	1H	864	G	C5-C6-N1	5.19	114.10	111.50
26	1H	2241	A	C2-N3-C4	-5.19	108.00	110.60
27	16	61	G	C8-N9-C4	-5.19	104.32	106.40
36	38	141	VAL	C-N-CA	5.19	134.68	121.70
23	2L	35	C	N1-C2-O2	5.19	122.01	118.90
26	14	1802	A	C6-N1-C2	-5.19	115.49	118.60
26	14	2596	U	O5'-P-OP2	-5.19	101.03	105.70
1	13	330	C	N3-C2-O2	-5.19	118.27	121.90
26	1H	821	A	OP2-P-O3'	5.19	116.62	105.20
26	1H	1556	C	O5'-P-OP2	-5.19	101.03	105.70
26	1H	623	G	C4-C5-N7	5.19	112.88	110.80
26	1H	888	C	C2-N1-C1'	5.19	124.51	118.80
26	1H	1417	C	C5-C6-N1	5.19	123.59	121.00
26	1H	1855	G	OP1-P-O3'	5.19	116.61	105.20
26	1H	2503	A	O5'-P-OP1	5.19	116.92	110.70
26	14	2598	A	C8-N9-C4	5.19	107.88	105.80
26	1H	1558	A	OP2-P-O3'	5.19	116.61	105.20
26	1H	1931	U	C6-N1-C2	-5.19	117.89	121.00
1	1G	232	G	C8-N9-C1'	-5.19	120.26	127.00
1	1G	785	G	C2-N3-C4	-5.19	109.31	111.90
1	13	900	A	N9-C4-C5	-5.18	103.73	105.80
26	1H	2354	G	C8-N9-C1'	-5.18	120.26	127.00
26	1H	2538	C	C6-N1-C2	5.18	122.37	120.30
26	14	664	C	N3-C4-N4	-5.18	114.37	118.00
26	14	783	A	O5'-P-OP1	5.18	116.92	110.70
27	1J	22	U	C2-N1-C1'	5.18	123.92	117.70
26	1H	805	G	N3-C4-N9	5.18	129.11	126.00
26	1H	1960	A	O5'-P-OP2	-5.18	101.04	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	64	G	C4-N9-C1'	5.18	133.24	126.50
1	1G	1496	C	O5'-P-OP2	-5.18	101.03	105.70
26	14	1288	U	OP1-P-OP2	5.18	127.37	119.60
1	13	862	C	C5-C6-N1	-5.18	118.41	121.00
26	1H	1975	G	N9-C4-C5	-5.18	103.33	105.40
26	14	2779	U	C2-N3-C4	-5.18	123.89	127.00
26	1H	725	G	N7-C8-N9	5.18	115.69	113.10
26	1H	775	G	N3-C4-N9	5.18	129.11	126.00
1	1G	288	A	N1-C6-N6	5.18	121.71	118.60
26	14	1383	C	N3-C2-O2	5.18	125.53	121.90
26	14	2213	U	C2-N1-C1'	5.18	123.91	117.70
26	14	2442	C	N3-C2-O2	-5.18	118.28	121.90
26	14	2519	U	C5-C4-O4	-5.18	122.79	125.90
26	14	2593	U	C6-N1-C2	5.18	124.11	121.00
26	1H	1967	C	OP1-P-OP2	5.18	127.37	119.60
26	1H	2317	C	N1-C2-O2	-5.18	115.79	118.90
26	1H	2571	C	C6-N1-C2	-5.18	118.23	120.30
1	1G	195	A	C8-N9-C4	-5.18	103.73	105.80
1	1G	784	C	N3-C2-O2	5.18	125.53	121.90
26	1H	180	G	N1-C6-O6	5.18	123.01	119.90
26	1H	518	G	N1-C6-O6	-5.18	116.79	119.90
26	1H	1215	G	C4-C5-C6	5.18	121.91	118.80
23	2L	13	C	C6-N1-C2	-5.18	118.23	120.30
26	14	803	U	N1-C2-N3	5.18	118.01	114.90
26	14	1489	U	O4'-C1'-N1	5.18	112.34	108.20
26	14	1661	G	N3-C4-C5	5.18	131.19	128.60
1	13	784	C	C6-N1-C2	5.17	122.37	120.30
24	3K	16	C	C2-N1-C1'	5.17	124.49	118.80
26	1H	200	U	C4-C5-C6	5.17	122.81	119.70
26	1H	2380	C	N1-C2-O2	-5.17	115.80	118.90
26	1H	2580	U	C6-N1-C2	-5.17	117.89	121.00
24	3L	12	U	N1-C2-O2	5.17	126.42	122.80
26	14	1928	A	N7-C8-N9	-5.17	111.21	113.80
27	1J	30	C	N3-C4-C5	-5.17	119.83	121.90
22	1L	35	I	C1'-N9-C4	-5.17	110.48	126.00
22	1L	42	G	C4-C5-N7	5.17	112.87	110.80
26	14	575	A	O5'-P-OP1	-5.17	101.05	105.70
26	14	2529	G	C8-N9-C4	-5.17	104.33	106.40
24	3K	2	C	C5-C6-N1	5.17	123.59	121.00
26	1H	783	A	N9-C1'-C2'	-5.17	106.31	112.00
26	1H	1022	G	N7-C8-N9	5.17	115.69	113.10
26	1H	1782	C	N3-C4-N4	5.17	121.62	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2396	G	N3-C4-N9	-5.17	122.90	126.00
26	14	1805	U	C5-C4-O4	-5.17	122.80	125.90
26	1H	1825	A	N1-C6-N6	-5.17	115.50	118.60
26	1H	2067	G	C8-N9-C4	-5.17	104.33	106.40
1	1G	1498	U	C2-N1-C1'	5.17	123.90	117.70
26	14	1191	G	O5'-P-OP2	-5.17	101.05	105.70
26	1H	483	A	O5'-P-OP1	-5.17	101.05	105.70
26	1H	989	G	N1-C6-O6	5.17	123.00	119.90
26	1H	1021	A	N3-C4-C5	5.17	130.42	126.80
26	1H	2559	C	C4-C5-C6	5.17	119.98	117.40
1	1G	991	U	C5-C6-N1	5.17	125.28	122.70
26	14	676	A	N1-C6-N6	5.17	121.70	118.60
1	13	108	G	O4'-C1'-N9	5.17	112.33	108.20
1	13	733	A	O4'-C1'-N9	5.17	112.33	108.20
26	1H	750	A	OP1-P-O3'	5.17	116.57	105.20
26	14	826	U	C5-C6-N1	-5.17	120.12	122.70
26	1H	567	A	C6-C5-N7	-5.17	128.68	132.30
26	1H	2689	U	N3-C2-O2	-5.17	118.58	122.20
1	1G	1322	C	C6-N1-C1'	-5.17	114.60	120.80
26	14	1561	G	N3-C2-N2	-5.17	116.28	119.90
26	1H	194	G	C5-C6-O6	-5.16	125.50	128.60
26	1H	435	C	N3-C4-C5	-5.16	119.83	121.90
26	1H	668	G	N1-C6-O6	5.16	123.00	119.90
26	1H	1784	A	O4'-C1'-N9	-5.16	104.07	108.20
26	1H	1799	G	N3-C2-N2	5.16	123.52	119.90
1	1G	135	C	N3-C2-O2	5.16	125.52	121.90
26	14	97	C	N1-C2-O2	5.16	122.00	118.90
26	14	2086	U	O5'-P-OP2	-5.16	101.05	105.70
26	1H	146	G	O5'-P-OP2	-5.16	101.05	105.70
26	1H	218	A	C2-N3-C4	-5.16	108.02	110.60
26	1H	1516	U	O5'-P-OP2	-5.16	101.05	105.70
26	1H	1827	C	OP1-P-O3'	5.16	116.56	105.20
26	14	2376	A	C8-N9-C4	5.16	107.86	105.80
26	1H	691	C	C6-N1-C2	5.16	122.36	120.30
26	1H	2351	G	C8-N9-C1'	-5.16	120.29	127.00
26	14	457	A	C5-N7-C8	-5.16	101.32	103.90
26	14	603	A	N9-C1'-C2'	5.16	120.71	114.00
26	14	2237	G	N1-C2-N3	5.16	127.00	123.90
1	13	1374	A	N1-C6-N6	5.16	121.70	118.60
26	1H	54	G	N3-C2-N2	5.16	123.51	119.90
26	1H	330	A	N9-C4-C5	-5.16	103.74	105.80
26	1H	1831	G	C8-N9-C4	-5.16	104.34	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1178	G	C8-N9-C4	-5.16	104.34	106.40
23	2K	61	U	C5-C6-N1	-5.16	120.12	122.70
26	1H	415	A	C6-C5-N7	-5.16	128.69	132.30
26	1H	458	G	C5-C6-O6	5.16	131.69	128.60
26	1H	697	C	C5-C4-N4	-5.16	116.59	120.20
26	1H	881	G	C4-N9-C1'	5.16	133.20	126.50
26	1H	1239	G	OP2-P-O3'	5.16	116.54	105.20
26	14	432	A	N9-C4-C5	-5.16	103.74	105.80
26	1H	2827	C	N3-C2-O2	5.15	125.51	121.90
26	14	792	G	N1-C6-O6	-5.15	116.81	119.90
26	14	2318	G	N7-C8-N9	5.15	115.68	113.10
27	1J	114	G	N7-C8-N9	-5.15	110.52	113.10
1	13	738	C	C5-C6-N1	5.15	123.58	121.00
1	13	1379	G	C8-N9-C1'	-5.15	120.30	127.00
26	1H	146	G	N1-C2-N2	-5.15	111.56	116.20
26	1H	577	G	C6-C5-N7	-5.15	127.31	130.40
26	1H	693	C	OP1-P-OP2	5.15	127.33	119.60
26	1H	1229	G	N1-C2-N3	5.15	126.99	123.90
26	1H	1656	C	N3-C4-C5	-5.15	119.84	121.90
26	1H	1955	U	C2-N1-C1'	5.15	123.88	117.70
1	13	317	G	C8-N9-C1'	-5.15	120.30	127.00
26	1H	66	C	C5-C6-N1	5.15	123.58	121.00
26	1H	101	G	N3-C4-N9	5.15	129.09	126.00
26	1H	949	C	N1-C2-O2	-5.15	115.81	118.90
27	16	49	C	N3-C4-N4	5.15	121.61	118.00
1	1G	191	G	C8-N9-C4	-5.15	104.34	106.40
1	1G	1139	G	N3-C4-C5	5.15	131.18	128.60
1	1G	1465	C	C5-C6-N1	5.15	123.58	121.00
1	13	335	C	C2-N1-C1'	-5.15	113.14	118.80
26	1H	211	A	C8-N9-C4	5.15	107.86	105.80
26	1H	1735	C	N3-C4-C5	5.15	123.96	121.90
1	1G	1353	G	C4-N9-C1'	5.15	133.19	126.50
1	13	792	A	C1'-O4'-C4'	-5.15	105.78	109.90
26	1H	624	C	C6-N1-C2	5.15	122.36	120.30
26	1H	860	U	N1-C2-O2	5.15	126.40	122.80
26	1H	1448	G	O5'-P-OP1	-5.15	101.07	105.70
26	1H	1499	C	C6-N1-C1'	5.15	126.98	120.80
26	1H	1517	G	OP1-P-O3'	5.15	116.53	105.20
26	14	171	G	N3-C4-C5	-5.15	126.03	128.60
26	14	1281	G	C5-C6-O6	-5.15	125.51	128.60
26	14	1795	C	C6-N1-C2	-5.15	118.24	120.30
1	13	523	A	C4-C5-N7	5.14	113.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1362(A)	C	C6-N1-C2	5.14	122.36	120.30
26	1H	28	A	C6-C5-N7	-5.14	128.70	132.30
26	1H	300	A	O5'-P-OP2	-5.14	101.07	105.70
26	1H	866	A	N7-C8-N9	5.14	116.37	113.80
26	1H	1333	C	N3-C4-N4	5.14	121.60	118.00
26	1H	1838	C	C6-N1-C2	5.14	122.36	120.30
26	14	759	G	C8-N9-C4	5.14	108.46	106.40
1	13	795	C	C4-C5-C6	5.14	119.97	117.40
1	13	1501	C	N1-C2-O2	-5.14	115.81	118.90
26	1H	245	G	C4-N9-C1'	5.14	133.18	126.50
26	1H	1421	G	C6-C5-N7	-5.14	127.31	130.40
26	1H	1839	G	C8-N9-C4	5.14	108.46	106.40
26	1H	2092	U	N3-C2-O2	-5.14	118.60	122.20
51	I8	37	LEU	CA-CB-CG	5.14	127.13	115.30
26	14	911	A	C8-N9-C4	-5.14	103.74	105.80
26	14	1256	G	C4-N9-C1'	5.14	133.18	126.50
26	1H	786	C	OP2-P-O3'	5.14	116.51	105.20
26	1H	1109	C	P-O3'-C3'	5.14	125.87	119.70
26	1H	1758	G	C5-C6-O6	-5.14	125.52	128.60
26	14	1550	C	N1-C2-O2	-5.14	115.81	118.90
26	14	1808	U	N1-C2-N3	-5.14	111.81	114.90
1	13	535	A	N9-C4-C5	5.14	107.86	105.80
1	13	1517	G	C4-C5-N7	5.14	112.86	110.80
26	14	468	G	C8-N9-C4	5.14	108.46	106.40
26	14	486	C	N3-C4-N4	5.14	121.60	118.00
26	14	2019	A	N1-C6-N6	5.14	121.68	118.60
26	14	2700	C	N3-C4-C5	5.14	123.96	121.90
26	1H	723	G	C8-N9-C1'	-5.14	120.32	127.00
26	1H	797	C	C5-C6-N1	-5.14	118.43	121.00
26	1H	1202	C	N1-C2-O2	-5.14	115.82	118.90
1	1G	183	G	N1-C6-O6	5.14	122.98	119.90
1	1G	1528	U	O5'-P-OP2	-5.14	101.08	105.70
26	14	1380	G	C4-C5-N7	5.14	112.86	110.80
26	14	2704	C	C6-N1-C2	5.14	122.36	120.30
26	1H	750	A	P-O3'-C3'	-5.13	113.54	119.70
26	1H	2029	G	C4-C5-N7	5.13	112.85	110.80
26	1H	2048	G	N9-C4-C5	5.13	107.45	105.40
26	1H	2376	A	N7-C8-N9	-5.13	111.23	113.80
27	16	100	G	N9-C4-C5	-5.13	103.35	105.40
36	38	68	LEU	CA-CB-CG	5.13	127.11	115.30
1	1G	581	G	C5-C6-O6	-5.13	125.52	128.60
26	14	467	G	O5'-P-OP2	-5.13	101.08	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2021	C	N3-C2-O2	-5.13	118.31	121.90
26	1H	2743	C	C2-N3-C4	-5.13	117.33	119.90
1	13	791	G	N3-C4-N9	5.13	129.08	126.00
26	1H	884	C	P-O3'-C3'	5.13	125.86	119.70
26	1H	1857	G	C8-N9-C1'	-5.13	120.33	127.00
26	14	575	A	O5'-P-OP2	5.13	116.86	110.70
26	14	785	G	N3-C2-N2	-5.13	116.31	119.90
26	14	866	A	C8-N9-C1'	-5.13	118.46	127.70
26	14	1440	G	N1-C6-O6	5.13	122.98	119.90
26	14	2113	U	C5-C6-N1	5.13	125.27	122.70
26	14	2591	C	N3-C2-O2	5.13	125.49	121.90
26	1H	843	G	OP2-P-O3'	5.13	116.49	105.20
26	1H	1571	A	N7-C8-N9	-5.13	111.23	113.80
26	1H	2412	A	C6-N1-C2	-5.13	115.52	118.60
1	13	529	G	C4-C5-N7	5.13	112.85	110.80
1	13	575	G	C4-N9-C1'	-5.13	119.83	126.50
26	1H	917	A	C4-C5-N7	5.13	113.26	110.70
26	1H	2244	U	N1-C2-N3	5.13	117.98	114.90
1	1G	769	G	N1-C6-O6	5.13	122.98	119.90
1	1G	855	G	C5-C6-O6	-5.13	125.52	128.60
22	1L	35	I	C1'-N9-C8	5.13	141.39	126.00
26	14	1281	G	C5-N7-C8	-5.13	101.74	104.30
26	14	1852	C	C6-N1-C2	-5.13	118.25	120.30
1	13	936	C	N1-C2-O2	5.13	121.97	118.90
26	1H	404	C	OP2-P-O3'	5.13	116.48	105.20
26	1H	528	A	C4-N9-C1'	-5.13	117.07	126.30
26	1H	2773	C	N1-C2-O2	-5.13	115.82	118.90
27	16	112	G	C8-N9-C4	5.13	108.45	106.40
26	14	1377	G	C8-N9-C4	-5.13	104.35	106.40
26	14	2062	A	C8-N9-C1'	5.13	136.93	127.70
1	13	882	C	N3-C4-C5	-5.12	119.85	121.90
1	13	965	A	N1-C6-N6	5.12	121.67	118.60
26	1H	210	C	C5-C4-N4	-5.12	116.61	120.20
26	1H	1314	C	N3-C2-O2	-5.12	118.31	121.90
26	1H	1994	C	O5'-P-OP2	-5.12	101.09	105.70
26	14	769	G	C8-N9-C4	5.12	108.45	106.40
26	14	922	U	OP1-P-O3'	5.12	116.48	105.20
26	14	1129	A	O4'-C1'-N9	5.12	112.30	108.20
26	1H	1265	A	C8-N9-C4	-5.12	103.75	105.80
1	1G	422	C	O4'-C1'-N1	5.12	112.30	108.20
1	1G	613	C	C6-N1-C2	-5.12	118.25	120.30
26	14	1145	C	C5-C6-N1	5.12	123.56	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2376	A	C2-N3-C4	-5.12	108.04	110.60
26	1H	1415	U	N3-C4-O4	-5.12	115.81	119.40
26	1H	2362	G	C8-N9-C1'	-5.12	120.34	127.00
26	1H	2603	G	OP1-P-O3'	5.12	116.47	105.20
23	2L	77	A	C4-C5-N7	5.12	113.26	110.70
26	14	829	A	N1-C6-N6	5.12	121.67	118.60
26	14	1253	A	N1-C6-N6	5.12	121.67	118.60
26	14	2277	G	N1-C6-O6	-5.12	116.83	119.90
27	1J	30	C	C5-C6-N1	5.12	123.56	121.00
1	13	481	G	C6-C5-N7	-5.12	127.33	130.40
26	1H	37	C	N1-C2-O2	5.12	121.97	118.90
1	13	457	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	761	A	C8-N9-C4	5.12	107.85	105.80
26	1H	2507	C	N3-C4-C5	-5.12	119.85	121.90
26	1H	2585	U	N3-C4-O4	-5.12	115.82	119.40
26	1H	1492	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	1650	G	N9-C4-C5	-5.12	103.35	105.40
26	14	1142	U	N3-C2-O2	-5.12	118.62	122.20
1	13	509	A	P-O3'-C3'	5.12	125.84	119.70
1	13	1506	U	C5-C4-O4	-5.12	122.83	125.90
23	2K	77	A	N1-C2-N3	-5.12	126.74	129.30
26	1H	682	G	C4-N9-C1'	5.12	133.15	126.50
26	1H	2025	C	N3-C4-N4	5.12	121.58	118.00
26	1H	2645	G	N7-C8-N9	5.12	115.66	113.10
44	B8	18	ASP	C-N-CA	-5.12	108.91	121.70
26	14	1628	G	N7-C8-N9	-5.12	110.54	113.10
26	14	1966	A	N1-C6-N6	5.12	121.67	118.60
1	13	903	G	N1-C2-N2	-5.11	111.60	116.20
23	2K	27	G	C5-N7-C8	-5.11	101.74	104.30
26	1H	943	U	N1-C2-O2	-5.11	119.22	122.80
26	1H	1612	C	N3-C2-O2	5.11	125.48	121.90
26	1H	1751	C	N3-C2-O2	5.11	125.48	121.90
26	1H	1907	G	N3-C2-N2	-5.11	116.32	119.90
26	1H	2377	A	N3-C4-C5	5.11	130.38	126.80
1	1G	180	U	C6-N1-C2	-5.11	117.93	121.00
1	1G	819	A	OP2-P-O3'	5.11	116.45	105.20
26	14	621	A	N1-C2-N3	5.11	131.86	129.30
26	14	825	C	N1-C2-O2	-5.11	115.83	118.90
26	14	1528	A	C4-C5-N7	5.11	113.26	110.70
26	1H	600	G	N7-C8-N9	-5.11	110.54	113.10
26	1H	2258	C	C2-N3-C4	-5.11	117.34	119.90
26	1H	2440	C	C5-C4-N4	5.11	123.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1594	G	N1-C6-O6	5.11	122.97	119.90
45	85	83	LEU	CA-CB-CG	-5.11	103.54	115.30
1	13	966	G	N3-C4-N9	5.11	129.07	126.00
26	1H	210	C	OP2-P-O3'	5.11	116.44	105.20
26	1H	649	G	C8-N9-C4	-5.11	104.36	106.40
26	1H	1349	A	C2-N3-C4	-5.11	108.04	110.60
26	1H	1606	G	C8-N9-C1'	-5.11	120.36	127.00
26	1H	2606	C	N3-C2-O2	5.11	125.48	121.90
26	14	476	G	OP1-P-OP2	5.11	127.27	119.60
26	14	579	G	N3-C4-C5	-5.11	126.05	128.60
26	14	1348	G	N1-C6-O6	5.11	122.97	119.90
26	14	2485	G	N3-C4-C5	5.11	131.16	128.60
1	13	1200	C	N1-C2-N3	-5.11	115.62	119.20
26	1H	1364	G	O5'-P-OP1	5.11	116.83	110.70
26	1H	1497	U	N3-C4-O4	5.11	122.98	119.40
26	1H	2259	G	OP1-P-OP2	-5.11	111.94	119.60
26	14	74	A	O4'-C1'-N9	-5.11	104.11	108.20
26	14	1275	A	N1-C6-N6	5.11	121.67	118.60
26	14	1992	G	C4-C5-N7	-5.11	108.76	110.80
1	13	966	G	C8-N9-C4	5.11	108.44	106.40
26	1H	300	A	O4'-C1'-N9	5.11	112.29	108.20
26	1H	2726	U	C5-C6-N1	-5.11	120.15	122.70
26	14	192	C	N1-C2-O2	-5.11	115.84	118.90
26	14	2307	G	C8-N9-C1'	-5.11	120.36	127.00
26	14	2710	C	OP2-P-O3'	5.11	116.44	105.20
1	13	726	C	OP1-P-O3'	5.11	116.43	105.20
1	13	1517	G	OP1-P-O3'	5.11	116.43	105.20
26	1H	2755	C	N3-C4-C5	-5.11	119.86	121.90
26	14	589	C	N3-C2-O2	5.11	125.47	121.90
26	14	1624	G	N9-C4-C5	-5.11	103.36	105.40
26	1H	2123	G	O4'-C1'-N9	5.10	112.28	108.20
26	14	1827	C	N3-C4-N4	-5.10	114.43	118.00
26	14	2609	U	C5-C4-O4	-5.10	122.84	125.90
26	1H	70	G	C8-N9-C4	-5.10	104.36	106.40
26	1H	180	G	N3-C4-C5	5.10	131.15	128.60
26	1H	942	G	N3-C2-N2	-5.10	116.33	119.90
26	1H	2489	G	OP2-P-O3'	5.10	116.43	105.20
1	1G	968	A	N1-C6-N6	5.10	121.66	118.60
26	14	82	G	C8-N9-C4	5.10	108.44	106.40
26	14	270(Z)	U	C5-C6-N1	-5.10	120.15	122.70
26	14	1782	C	N3-C4-C5	5.10	123.94	121.90
27	16	11	C	C6-N1-C2	-5.10	118.26	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	62	141	VAL	C-N-CA	5.10	134.45	121.70
26	14	2284	C	N1-C2-O2	-5.10	115.84	118.90
1	13	1488	G	N9-C4-C5	-5.10	103.36	105.40
1	13	1511	G	C4-N9-C1'	5.10	133.13	126.50
26	1H	630	G	N1-C6-O6	5.10	122.96	119.90
26	1H	2291	U	C6-N1-C2	-5.10	117.94	121.00
1	1G	360	A	N9-C4-C5	-5.10	103.76	105.80
13	4A	66	LEU	CA-CB-CG	5.10	127.03	115.30
26	14	1774	C	O5'-P-OP1	-5.10	101.11	105.70
26	14	2217	G	N1-C6-O6	5.10	122.96	119.90
26	14	2281	C	C5-C4-N4	-5.10	116.63	120.20
26	14	2512	C	N3-C4-C5	5.10	123.94	121.90
26	1H	188	G	C4-C5-N7	5.10	112.84	110.80
26	1H	617	G	OP1-P-OP2	-5.10	111.95	119.60
27	16	103	U	C2-N1-C1'	-5.10	111.58	117.70
1	1G	1288	A	N1-C6-N6	-5.10	115.54	118.60
1	1G	1400	C	N1-C2-O2	5.10	121.96	118.90
24	3L	47	G	C8-N9-C1'	5.10	133.63	127.00
26	14	2371	G	N9-C4-C5	-5.10	103.36	105.40
26	14	2415	G	C4-N9-C1'	5.10	133.13	126.50
26	14	2823	A	O5'-P-OP2	-5.10	101.11	105.70
27	1J	89(A)	A	O4'-C1'-N9	5.10	112.28	108.20
26	1H	2043	C	C5-C4-N4	-5.10	116.63	120.20
1	13	117	G	C4-C5-N7	5.09	112.84	110.80
1	13	549	C	C6-N1-C2	5.09	122.34	120.30
26	1H	1742	C	C6-N1-C2	-5.09	118.26	120.30
26	1H	2544	G	C4-C5-N7	5.09	112.84	110.80
26	14	1613	G	N1-C6-O6	-5.09	116.84	119.90
26	14	2281	C	N1-C2-O2	-5.09	115.84	118.90
26	14	2815	C	O5'-P-OP1	-5.09	101.11	105.70
1	1G	87	A	C6-C5-N7	-5.09	128.74	132.30
23	2K	23	G	C8-N9-C1'	5.09	133.62	127.00
26	1H	778	G	C5-C6-O6	5.09	131.66	128.60
26	1H	863	A	O5'-P-OP1	5.09	116.81	110.70
26	1H	1122	G	C4-C5-N7	5.09	112.84	110.80
26	1H	1250	G	N9-C4-C5	-5.09	103.36	105.40
26	1H	1608	A	C8-N9-C4	5.09	107.84	105.80
26	1H	2339	G	C8-N9-C4	5.09	108.44	106.40
26	1H	2761	G	N1-C2-N3	5.09	126.95	123.90
26	14	1326	U	N1-C2-N3	5.09	117.95	114.90
26	14	2075	U	C5-C6-N1	-5.09	120.15	122.70
1	13	1502	A	N9-C1'-C2'	5.09	120.62	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	338	G	N3-C4-N9	5.09	129.05	126.00
26	1H	735	A	N9-C4-C5	-5.09	103.76	105.80
26	1H	1270	C	C2-N3-C4	-5.09	117.36	119.90
26	1H	2428	G	C5-C6-O6	5.09	131.65	128.60
26	14	1785	A	C4-C5-C6	5.09	119.55	117.00
26	14	2415	G	N3-C4-N9	5.09	129.05	126.00
26	14	2600	A	OP2-P-O3'	5.09	116.40	105.20
1	13	2	U	P-O3'-C3'	5.09	125.81	119.70
1	13	1299	A	N7-C8-N9	5.09	116.34	113.80
26	1H	1557	C	C6-N1-C2	5.09	122.33	120.30
26	14	843	G	C4-C5-N7	5.09	112.83	110.80
26	14	2038	G	N1-C2-N2	-5.09	111.62	116.20
1	13	479	C	C6-N1-C2	-5.09	118.27	120.30
1	13	793	U	C6-N1-C2	-5.09	117.95	121.00
1	13	963	G	N3-C4-C5	-5.09	126.06	128.60
1	13	1381	U	N3-C2-O2	-5.09	118.64	122.20
26	1H	1612	C	N1-C2-O2	-5.09	115.85	118.90
26	1H	1915	U	N3-C2-O2	-5.09	118.64	122.20
26	14	2072	G	N9-C4-C5	-5.09	103.36	105.40
26	14	2217	G	C6-C5-N7	-5.09	127.35	130.40
26	14	2359	C	N3-C4-N4	-5.09	114.44	118.00
26	1H	36	G	C4-C5-N7	-5.08	108.77	110.80
26	14	189	G	N9-C4-C5	-5.08	103.37	105.40
26	14	1936	A	O4'-C1'-N9	5.08	112.27	108.20
1	13	756	C	OP2-P-O3'	5.08	116.39	105.20
26	1H	909	A	C8-N9-C4	-5.08	103.77	105.80
26	1H	972	G	C5-C6-O6	5.08	131.65	128.60
26	1H	2444	G	C8-N9-C4	-5.08	104.37	106.40
1	1G	1487	G	N3-C4-C5	5.08	131.14	128.60
26	14	1138	G	C8-N9-C4	-5.08	104.37	106.40
26	14	2126	A	O4'-C1'-N9	5.08	112.27	108.20
1	13	764	C	N3-C4-C5	-5.08	119.87	121.90
22	1K	35	I	C1'-N9-C4	-5.08	110.75	126.00
26	1H	613	U	C6-N1-C2	-5.08	117.95	121.00
26	1H	625	G	C5-C6-O6	-5.08	125.55	128.60
26	1H	1800	C	O4'-C1'-N1	5.08	112.27	108.20
26	1H	1953	A	C5-C6-N1	5.08	120.24	117.70
1	1G	579	G	N1-C6-O6	5.08	122.95	119.90
26	14	1313	U	O4'-C1'-N1	5.08	112.26	108.20
26	1H	1278	A	C8-N9-C4	5.08	107.83	105.80
26	1H	1857	G	N9-C4-C5	-5.08	103.37	105.40
26	1H	2644	G	C5-C6-N1	-5.08	108.96	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	317	G	N3-C4-N9	5.08	129.05	126.00
1	13	377	G	N3-C4-C5	-5.08	126.06	128.60
26	1H	101	G	C8-N9-C4	5.08	108.43	106.40
26	1H	362	U	O4'-C1'-N1	5.08	112.26	108.20
26	1H	673	C	OP1-P-OP2	-5.08	111.98	119.60
26	1H	2518	A	N7-C8-N9	5.08	116.34	113.80
26	1H	2523	G	C8-N9-C4	-5.08	104.37	106.40
26	14	1776	G	C8-N9-C1'	-5.08	120.40	127.00
1	13	172	A	C8-N9-C4	-5.08	103.77	105.80
1	13	970	C	OP2-P-O3'	5.08	116.37	105.20
26	1H	120	U	N3-C2-O2	-5.08	118.65	122.20
26	1H	1367	A	N1-C6-N6	5.08	121.65	118.60
26	1H	2367	G	N1-C6-O6	5.08	122.95	119.90
26	14	460	A	N1-C6-N6	5.08	121.65	118.60
26	14	1276	A	C4-C5-N7	5.08	113.24	110.70
26	14	2086	U	N3-C2-O2	-5.08	118.65	122.20
1	13	874	G	N3-C4-N9	5.08	129.05	126.00
26	1H	910	A	C4-C5-C6	5.08	119.54	117.00
26	1H	1568	G	C4-N9-C1'	-5.08	119.90	126.50
26	1H	1844	C	N1-C2-O2	-5.08	115.86	118.90
26	1H	2271	G	C4-C5-N7	5.08	112.83	110.80
26	14	273(D)	C	O5'-P-OP2	-5.08	101.13	105.70
26	14	1930	G	N3-C4-N9	-5.08	122.95	126.00
1	13	760	G	C4-C5-N7	5.07	112.83	110.80
26	1H	245	G	C5-N7-C8	-5.07	101.76	104.30
26	1H	481	G	C2-N3-C4	-5.07	109.36	111.90
1	1G	944	G	C4-N9-C1'	5.07	133.10	126.50
26	14	949	C	C2-N1-C1'	-5.07	113.22	118.80
26	14	1376	C	O5'-P-OP1	-5.07	101.13	105.70
26	14	2169	A	N7-C8-N9	5.07	116.34	113.80
26	14	2240	C	C6-N1-C2	5.07	122.33	120.30
26	14	2308	G	N1-C6-O6	-5.07	116.86	119.90
26	14	2433	A	C5-C6-N6	-5.07	119.64	123.70
27	1J	15	A	OP1-P-O3'	5.07	116.36	105.20
1	1G	1473	A	C8-N9-C4	5.07	107.83	105.80
26	14	2366	A	C8-N9-C4	-5.07	103.77	105.80
1	13	585	G	C8-N9-C1'	-5.07	120.41	127.00
26	1H	561	G	C2-N3-C4	-5.07	109.36	111.90
26	1H	2308	G	C5-C6-N1	-5.07	108.97	111.50
26	14	1831	G	C2-N3-C4	-5.07	109.36	111.90
26	14	2252	G	C8-N9-C4	5.07	108.43	106.40
1	13	784	C	N1-C2-O2	-5.07	115.86	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2041	U	C6-N1-C2	5.07	124.04	121.00
26	1H	2626	C	C6-N1-C2	5.07	122.33	120.30
22	1L	19	G	N3-C4-C5	-5.07	126.06	128.60
26	14	1598	C	C5-C6-N1	5.07	123.53	121.00
1	13	529	G	C5-C6-O6	-5.07	125.56	128.60
1	13	1414	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	467	G	C4-C5-N7	-5.07	108.77	110.80
26	1H	2403	C	C5-C6-N1	5.07	123.53	121.00
26	14	1762	A	C8-N9-C4	-5.07	103.77	105.80
26	14	2456	C	N3-C4-C5	-5.07	119.87	121.90
26	1H	473	G	N1-C2-N3	5.07	126.94	123.90
26	1H	816	C	C5-C4-N4	-5.07	116.65	120.20
26	1H	1500	G	C5-C6-O6	-5.07	125.56	128.60
26	14	101	G	C6-C5-N7	-5.07	127.36	130.40
26	14	530	G	N1-C2-N2	-5.07	111.64	116.20
26	14	2000	G	C4-C5-N7	5.07	112.83	110.80
1	13	1513	A	C5-C6-N6	-5.06	119.65	123.70
26	1H	1421	G	N1-C6-O6	5.06	122.94	119.90
26	1H	2293	C	N3-C2-O2	-5.06	118.36	121.90
1	13	900	A	C8-N9-C4	5.06	107.83	105.80
26	1H	1343	G	C4-N9-C1'	5.06	133.08	126.50
26	1H	1385	G	N3-C4-C5	5.06	131.13	128.60
26	1H	2259	G	C6-C5-N7	-5.06	127.36	130.40
26	14	1249	U	O5'-P-OP2	-5.06	101.14	105.70
26	14	2522	U	C5-C6-N1	-5.06	120.17	122.70
1	13	1336	C	P-O3'-C3'	5.06	125.77	119.70
26	1H	1202	C	C4-C5-C6	5.06	119.93	117.40
26	1H	1983	C	C5-C6-N1	-5.06	118.47	121.00
26	14	2346	A	C4-C5-C6	5.06	119.53	117.00
26	1H	1517	G	N9-C4-C5	-5.06	103.38	105.40
26	1H	2055	C	OP2-P-O3'	5.06	116.33	105.20
26	1H	2254	C	N3-C2-O2	5.06	125.44	121.90
26	1H	2277	G	C8-N9-C4	-5.06	104.38	106.40
1	1G	105	G	C4-N9-C1'	5.06	133.08	126.50
26	14	121	G	C4-N9-C1'	5.06	133.08	126.50
26	14	621	A	N7-C8-N9	5.06	116.33	113.80
26	14	623	G	N3-C4-C5	5.06	131.13	128.60
26	14	1616	A	OP1-P-OP2	5.06	127.19	119.60
26	1H	920	G	N9-C4-C5	-5.06	103.38	105.40
26	1H	1082	U	C2-N1-C1'	5.06	123.77	117.70
26	1H	2418	A	O5'-P-OP1	5.06	116.77	110.70
1	1G	191	G	N3-C4-C5	-5.06	126.07	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3L	64	U	N1-C2-N3	-5.06	111.87	114.90
26	1H	937	U	N3-C2-O2	5.06	125.74	122.20
26	14	1249	U	OP1-P-OP2	5.06	127.18	119.60
26	14	1776	G	N3-C4-C5	-5.06	126.07	128.60
26	14	2224	G	C4-N9-C1'	5.06	133.07	126.50
23	2K	7	G	C2-N3-C4	-5.05	109.37	111.90
26	1H	803	U	OP2-P-O3'	5.05	116.32	105.20
26	1H	1602	U	C2-N3-C4	-5.05	123.97	127.00
26	1H	1623	G	N1-C6-O6	-5.05	116.87	119.90
26	1H	2749	A	OP1-P-O3'	5.05	116.32	105.20
26	1H	2782	G	C6-C5-N7	-5.05	127.37	130.40
26	14	390	A	C5-C6-N1	-5.05	115.17	117.70
26	14	2001	A	C6-C5-N7	-5.05	128.76	132.30
26	14	2688	U	N1-C2-O2	5.05	126.34	122.80
26	1H	188	G	C8-N9-C4	5.05	108.42	106.40
26	1H	2247	A	C5-C6-N1	-5.05	115.17	117.70
26	14	2595	G	OP1-P-OP2	5.05	127.18	119.60
1	13	805	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	2819	G	C5-C6-O6	-5.05	125.57	128.60
26	14	4	C	C2-N1-C1'	5.05	124.36	118.80
26	14	1342	A	C8-N9-C4	-5.05	103.78	105.80
26	14	1348	G	C4-C5-N7	5.05	112.82	110.80
1	13	2	U	C6-N1-C1'	-5.05	114.13	121.20
23	2K	9	G	C8-N9-C4	-5.05	104.38	106.40
26	1H	583	G	N1-C6-O6	5.05	122.93	119.90
26	1H	1367	A	C4-C5-N7	5.05	113.22	110.70
26	1H	1517	G	C6-C5-N7	-5.05	127.37	130.40
26	1H	1614	A	C4-C5-N7	5.05	113.22	110.70
26	1H	1614	A	N1-C2-N3	5.05	131.82	129.30
26	1H	2054	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	2330	G	C5-C6-N1	5.05	114.02	111.50
26	1H	2338	G	C5-C6-O6	-5.05	125.57	128.60
1	1G	136	C	N1-C2-O2	5.05	121.93	118.90
1	1G	1388	C	N1-C2-O2	5.05	121.93	118.90
26	14	802	A	C5-C6-N1	5.05	120.22	117.70
26	14	864	G	N3-C4-N9	5.05	129.03	126.00
26	14	1277	G	OP1-P-OP2	5.05	127.17	119.60
26	14	1639	U	O5'-P-OP2	-5.05	101.16	105.70
26	14	2470	G	C4-N9-C1'	5.05	133.06	126.50
1	13	523	A	C5-C6-N6	-5.05	119.66	123.70
26	1H	271(B)	G	C6-N1-C2	-5.05	122.07	125.10
26	1H	2598	A	C5-C6-N6	-5.05	119.66	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	44	G	C4-N9-C1'	-5.05	119.94	126.50
26	14	460	A	C5-C6-N6	-5.05	119.66	123.70
26	14	1992	G	C2'-C3'-O3'	5.05	121.78	113.70
1	13	1467	G	C5-C6-O6	5.05	131.63	128.60
1	13	1519	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	208	C	OP2-P-O3'	5.05	116.30	105.20
26	1H	1220	A	N1-C6-N6	-5.05	115.57	118.60
26	1H	1272	A	N1-C6-N6	-5.05	115.57	118.60
26	1H	1569	A	OP1-P-OP2	5.05	127.17	119.60
26	1H	1616	A	OP1-P-O3'	5.05	116.30	105.20
36	38	26	LEU	C-N-CA	5.05	134.32	121.70
25	4L	14	A	C3'-C2'-C1'	-5.05	97.46	101.50
26	14	146	G	N1-C6-O6	5.05	122.93	119.90
26	14	265	A	C5-N7-C8	-5.05	101.38	103.90
26	14	1975	G	N3-C4-N9	5.05	129.03	126.00
26	14	2232	U	C6-N1-C1'	5.05	128.26	121.20
26	14	2544	G	C6-C5-N7	-5.05	127.37	130.40
26	1H	1683	C	C2-N3-C4	-5.04	117.38	119.90
1	1G	353	A	OP2-P-O3'	5.04	116.30	105.20
26	14	2451	A	C5-N7-C8	-5.04	101.38	103.90
1	13	354	G	C4-C5-N7	5.04	112.82	110.80
23	2K	71	G	C2-N3-C4	-5.04	109.38	111.90
26	1H	190	A	C5-C6-N6	-5.04	119.67	123.70
26	1H	199	A	N1-C2-N3	-5.04	126.78	129.30
26	1H	2524	G	OP2-P-O3'	5.04	116.30	105.20
26	1H	2559	C	N1-C2-N3	5.04	122.73	119.20
26	14	488	G	C8-N9-C1'	-5.04	120.44	127.00
26	14	1414	G	C8-N9-C1'	-5.04	120.44	127.00
29	19	238	GLY	N-CA-C	-5.04	100.49	113.10
1	13	1478	C	C5-C6-N1	-5.04	118.48	121.00
26	1H	640	C	C4-C5-C6	5.04	119.92	117.40
26	1H	759	G	OP1-P-O3'	5.04	116.29	105.20
26	14	1832	C	N3-C2-O2	5.04	125.43	121.90
26	14	2134	A	C2-N3-C4	5.04	113.12	110.60
26	1H	1626	G	N1-C2-N3	5.04	126.92	123.90
26	1H	2699	C	C5-C6-N1	-5.04	118.48	121.00
1	1G	493	G	N3-C4-N9	5.04	129.02	126.00
26	1H	71	A	C4-C5-C6	5.04	119.52	117.00
26	1H	391	G	C4-C5-N7	5.04	112.81	110.80
26	1H	456	C	N1-C2-O2	-5.04	115.88	118.90
26	1H	1520	U	C4-C5-C6	5.04	122.72	119.70
26	1H	2713	A	C4-C5-N7	5.04	113.22	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	135	C	N1-C2-O2	-5.04	115.88	118.90
1	1G	970	C	N1-C2-O2	5.04	121.92	118.90
39	25	64	ARG	NE-CZ-NH1	-5.04	117.78	120.30
27	16	101	A	N9-C4-C5	-5.04	103.78	105.80
26	14	503	A	N9-C4-C5	5.04	107.81	105.80
1	13	763	G	N3-C4-N9	-5.04	122.98	126.00
26	14	1936	A	C8-N9-C4	5.04	107.81	105.80
26	14	2629	A	P-O3'-C3'	5.04	125.74	119.70
26	14	2709	G	C8-N9-C4	5.04	108.41	106.40
1	13	260	G	C4-C5-N7	-5.03	108.79	110.80
26	1H	1361	G	N1-C6-O6	-5.03	116.88	119.90
26	1H	2059	A	C5-C6-N6	-5.03	119.67	123.70
26	1H	2273	A	C5-C6-N1	5.03	120.22	117.70
1	1G	1475	G	C5-C6-N1	-5.03	108.98	111.50
26	14	1351	C	C6-N1-C2	5.03	122.31	120.30
26	14	1980	G	C5-C6-O6	-5.03	125.58	128.60
26	1H	1525	G	O5'-P-OP2	-5.03	101.17	105.70
26	14	106	C	C6-N1-C2	-5.03	118.29	120.30
26	14	127	A	N1-C6-N6	5.03	121.62	118.60
26	14	1379	A	P-O3'-C3'	5.03	125.74	119.70
26	1H	206	U	C5-C6-N1	-5.03	120.19	122.70
26	1H	1193	G	N3-C4-C5	5.03	131.12	128.60
26	1H	2035	G	N3-C4-N9	-5.03	122.98	126.00
26	1H	2271	G	C8-N9-C4	5.03	108.41	106.40
26	1H	2359	C	C6-N1-C2	5.03	122.31	120.30
26	1H	2606	C	N3-C4-N4	5.03	121.52	118.00
1	1G	484	G	N3-C4-C5	5.03	131.12	128.60
26	14	649	G	C8-N9-C4	-5.03	104.39	106.40
26	14	2287	A	N3-C4-N9	-5.03	123.38	127.40
26	14	2593	U	C5-C4-O4	-5.03	122.88	125.90
26	1H	386	G	C5-N7-C8	-5.03	101.79	104.30
26	1H	2318	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	2373	G	N1-C2-N3	5.03	126.92	123.90
26	1H	2503	A	C2-N3-C4	5.03	113.11	110.60
26	14	268	C	C6-N1-C2	-5.03	118.29	120.30
26	14	393	C	C5-C4-N4	5.03	123.72	120.20
26	14	489	G	N1-C6-O6	5.03	122.92	119.90
1	13	749	C	C6-N1-C1'	-5.03	114.77	120.80
26	1H	621	A	C5-C6-N1	-5.03	115.19	117.70
26	1H	1685	C	C5-C4-N4	-5.03	116.68	120.20
26	1H	2439	A	C6-C5-N7	-5.03	128.78	132.30
36	38	72	ASP	N-CA-C	5.03	124.57	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1518	A	O5'-P-OP1	-5.03	101.18	105.70
26	14	1229	G	N9-C4-C5	5.03	107.41	105.40
26	14	1407	C	C5-C6-N1	5.03	123.51	121.00
26	14	1933	G	C6-C5-N7	-5.03	127.38	130.40
26	14	2314	C	N3-C2-O2	-5.03	118.38	121.90
1	13	822	C	C6-N1-C2	5.03	122.31	120.30
1	13	1263	C	C6-N1-C2	5.03	122.31	120.30
26	1H	247	G	N3-C4-C5	5.03	131.11	128.60
26	1H	2342	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	2677	G	C8-N9-C4	5.03	108.41	106.40
1	1G	995	C	C6-N1-C2	-5.03	118.29	120.30
23	2L	1	C	N1-C2-O2	5.03	121.92	118.90
26	14	683	C	C6-N1-C2	5.03	122.31	120.30
26	14	939	G	C6-C5-N7	-5.03	127.38	130.40
26	14	2308	G	N3-C4-N9	-5.03	122.98	126.00
26	14	2834	G	C5-C6-N1	-5.03	108.99	111.50
1	1G	1348	U	C5-C4-O4	5.02	128.91	125.90
26	14	330	A	C5-C6-N1	-5.02	115.19	117.70
26	14	783	A	N9-C4-C5	-5.02	103.79	105.80
26	14	1283	G	N3-C4-C5	-5.02	126.09	128.60
26	14	2210	G	N3-C4-C5	-5.02	126.09	128.60
26	14	2635	C	C6-N1-C2	5.02	122.31	120.30
1	13	551	U	N3-C2-O2	5.02	125.72	122.20
1	13	1177	G	N3-C4-C5	5.02	131.11	128.60
22	1K	35	I	C1'-N9-C8	5.02	141.07	126.00
26	1H	28	A	C5-C6-N6	-5.02	119.68	123.70
26	1H	2346	A	O5'-P-OP2	5.02	116.73	110.70
32	41	34	LEU	CA-CB-CG	5.02	126.85	115.30
26	14	152	G	N3-C4-N9	-5.02	122.99	126.00
26	14	2291	U	C5-C4-O4	5.02	128.91	125.90
1	13	742	G	C8-N9-C4	5.02	108.41	106.40
26	1H	310	A	N1-C2-N3	-5.02	126.79	129.30
26	1H	729	G	OP2-P-O3'	5.02	116.25	105.20
26	1H	1955	U	C4-C5-C6	5.02	122.71	119.70
1	1G	227	G	C8-N9-C4	5.02	108.41	106.40
26	14	1296	G	O5'-P-OP1	5.02	116.72	110.70
1	13	719	C	N1-C2-O2	5.02	121.91	118.90
1	13	964	A	C2-N3-C4	-5.02	108.09	110.60
26	1H	26	G	O5'-P-OP2	-5.02	101.18	105.70
26	1H	2379	G	C8-N9-C1'	-5.02	120.47	127.00
1	1G	1227	A	C5-C6-N6	-5.02	119.68	123.70
26	14	1187	G	C6-C5-N7	-5.02	127.39	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1783	A	N1-C2-N3	5.02	131.81	129.30
26	14	2040	C	C5-C4-N4	-5.02	116.69	120.20
33	59	105	LEU	CA-CB-CG	5.02	126.84	115.30
1	13	449	C	N3-C2-O2	-5.02	118.39	121.90
26	1H	782	A	N1-C2-N3	5.02	131.81	129.30
26	1H	1914	C	C5-C6-N1	5.02	123.51	121.00
26	1H	2592	G	C6-C5-N7	-5.02	127.39	130.40
26	14	784	A	OP1-P-O3'	5.02	116.24	105.20
26	14	1820	U	C2-N3-C4	-5.02	123.99	127.00
26	14	2377	A	C2-N3-C4	-5.02	108.09	110.60
26	1H	389	G	C4-C5-N7	5.02	112.81	110.80
26	14	1605	C	OP1-P-OP2	5.02	127.12	119.60
1	13	36	C	C4-C5-C6	5.01	119.91	117.40
1	13	888	G	C8-N9-C4	5.01	108.41	106.40
1	13	956	U	C6-N1-C2	-5.01	117.99	121.00
26	1H	70	G	N7-C8-N9	5.01	115.61	113.10
26	1H	1027	A	OP1-P-OP2	-5.01	112.08	119.60
26	1H	2324	C	N3-C4-C5	5.01	123.91	121.90
26	1H	2597	G	C4-C5-N7	5.01	112.81	110.80
43	A8	24	LEU	CA-CB-CG	5.01	126.83	115.30
1	1G	1301	U	C5-C6-N1	5.01	125.21	122.70
1	1G	1533	C	C2-N1-C1'	5.01	124.32	118.80
26	14	395	U	C5-C6-N1	-5.01	120.19	122.70
26	14	990	A	C8-N9-C4	-5.01	103.79	105.80
26	14	1480	G	C2-N3-C4	-5.01	109.39	111.90
26	14	1780	A	C4-C5-N7	-5.01	108.19	110.70
26	14	1812	A	O5'-P-OP2	-5.01	101.19	105.70
22	1K	73	C	P-O3'-C3'	5.01	125.72	119.70
26	1H	468	G	C8-N9-C4	5.01	108.41	106.40
22	1L	42	G	N9-C4-C5	-5.01	103.39	105.40
26	14	674	G	N3-C2-N2	-5.01	116.39	119.90
26	14	1828	G	N7-C8-N9	5.01	115.61	113.10
22	1K	41	C	C2-N1-C1'	5.01	124.31	118.80
26	1H	1184	G	C8-N9-C4	5.01	108.40	106.40
26	1H	1254	A	C2-N3-C4	-5.01	108.09	110.60
26	14	1256	G	C8-N9-C1'	-5.01	120.49	127.00
1	13	689	C	OP1-P-O3'	5.01	116.22	105.20
26	1H	1799	G	C2-N3-C4	5.01	114.41	111.90
26	1H	1938	A	OP1-P-OP2	5.01	127.11	119.60
26	1H	2246	G	C8-N9-C4	5.01	108.40	106.40
27	16	9	G	N1-C6-O6	5.01	122.91	119.90
1	1G	748	C	C6-N1-C2	-5.01	118.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	141	A	C5-N7-C8	-5.01	101.40	103.90
26	14	912	C	C2-N3-C4	5.01	122.41	119.90
26	1H	802	A	C4-C5-N7	5.01	113.20	110.70
26	1H	1326	U	N3-C2-O2	-5.01	118.69	122.20
26	14	458	G	O4'-C1'-N9	5.01	112.21	108.20
1	13	827	U	C6-N1-C1'	-5.01	114.19	121.20
26	1H	795	C	C4-C5-C6	5.01	119.90	117.40
26	1H	1334	G	N1-C6-O6	5.01	122.90	119.90
26	1H	1817	G	C4-C5-N7	-5.01	108.80	110.80
1	1G	758	G	C5-C6-O6	-5.01	125.60	128.60
1	1G	1400	C	N3-C2-O2	-5.01	118.39	121.90
26	14	1978	A	N1-C2-N3	5.01	131.80	129.30
1	13	1430	C	C5-C6-N1	-5.00	118.50	121.00
26	1H	2404	C	C6-N1-C2	5.00	122.30	120.30
1	1G	528	C	O4'-C1'-N1	5.00	112.20	108.20
23	2K	16	C	C6-N1-C2	-5.00	118.30	120.30
26	1H	1279	G	O5'-P-OP1	5.00	116.70	110.70
1	1G	232	G	C4-N9-C1'	5.00	133.00	126.50
26	14	973	A	O5'-P-OP1	-5.00	101.20	105.70
1	13	57	G	N3-C4-N9	5.00	129.00	126.00
1	13	802	A	C6-C5-N7	-5.00	128.80	132.30
26	1H	1788	C	C6-N1-C2	-5.00	118.30	120.30
26	1H	2396	G	C8-N9-C1'	5.00	133.50	127.00
29	11	111	LEU	CA-CB-CG	5.00	126.80	115.30
26	14	2243	U	C5-C4-O4	5.00	128.90	125.90

There are no chirality outliers.

All (208) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	122	ASP	Peptide
29	11	197	GLY	Peptide
29	11	236	GLY	Peptide
29	11	237	GLU	Peptide
29	11	272	ALA	Peptide
29	11	28	GLU	Peptide
29	11	29	PRO	Peptide
2	12	19	HIS	Peptide
2	12	231	GLU	Peptide
2	12	7	VAL	Peptide
38	15	124	ALA	Peptide
38	15	41	ASP	Peptide

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Mol	Chain	Res	Type	Group
34	18	25	ASP	Peptide
34	18	8	ILE	Peptide
29	19	197	GLY	Peptide
29	19	236	GLY	Peptide
29	19	237	GLU	Peptide
29	19	27	THR	Peptide
29	19	272	ALA	Peptide
29	19	28	GLU	Peptide
2	1E	11	LEU	Peptide
2	1E	19	HIS	Peptide
2	1E	230	VAL	Peptide
2	1E	234	PRO	Peptide
2	1E	236	TYR	Peptide
10	1I	56	HIS	Peptide
30	21	130	GLY	Peptide
30	21	64	LYS	Peptide
30	21	67	PHE	Peptide
30	21	71	GLY	Peptide
30	21	77	ILE	Peptide
30	21	78	LEU	Peptide
3	22	143	GLU	Peptide
34	28	11	GLU	Peptide
34	28	25	ASP	Peptide
30	29	117	MET	Peptide
30	29	132	HIS	Peptide
30	29	201	THR	Peptide
30	29	53	PRO	Peptide
30	29	54	GLN	Peptide
30	29	61	ARG	Peptide
30	29	89	ASP	Peptide
3	2E	166	GLU	Peptide
31	31	12	LEU	Peptide
31	31	198	ALA	Peptide
4	32	152	SER	Peptide
4	32	208	SER	Peptide
4	32	27	TYR	Peptide
4	32	32	ALA	Peptide
40	35	110	TYR	Peptide
40	35	14	LYS	Peptide
40	35	18	ARG	Peptide
40	35	35	HIS	Peptide
40	35	6	LEU	Peptide

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Mol	Chain	Res	Type	Group
40	35	65	ARG	Peptide
40	35	66	GLY	Peptide
36	38	104	ILE	Peptide
36	38	107	VAL	Peptide
36	38	119	ALA	Peptide
36	38	20	ALA	Peptide
36	38	25	PHE	Peptide
36	38	32	LEU	Peptide
36	38	35	LYS	Peptide
36	38	36	GLU	Peptide
36	38	37	THR	Peptide
36	38	38	HIS	Peptide
36	38	39	ALA	Peptide
36	38	44	LEU	Peptide
36	38	46	GLN	Peptide
36	38	53	VAL	Peptide
36	38	62	ALA	Peptide
36	38	67	GLY	Peptide
36	38	69	PRO	Peptide
36	38	71	LEU	Peptide
36	38	80	VAL	Peptide
36	38	88	ALA	Peptide
36	38	99	SER	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	26	ALA	Peptide
31	39	27	GLU	Peptide
31	39	89	VAL	Peptide
12	3A	104	VAL	Peptide
12	3A	46	LYS	Peptide
4	3E	82	ALA	Peptide
12	3I	104	VAL	Peptide
12	3I	118	SER	Peptide
12	3I	87	GLY	Peptide
32	41	36	LYS	Peptide
32	41	95	ARG	Peptide
41	45	134	ARG	Peptide
41	45	135	ASP	Peptide
41	45	137	TYR	Peptide
41	45	22	LYS	Peptide
41	45	26	TYR	Peptide
41	45	27	VAL	Peptide

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Mol	Chain	Res	Type	Group
41	45	30	GLY	Peptide
41	45	80	GLU	Peptide
41	45	82	ARG	Peptide
37	48	108	ALA	Peptide
37	48	114	ASP	Peptide
37	48	119	ASP	Peptide
37	48	120	LEU	Peptide
37	48	137	GLU	Peptide
37	48	143	GLU	Peptide
37	48	37	PHE	Peptide
37	48	50	ASP	Peptide
37	48	62	ASP	Peptide
37	48	85	GLU	Peptide
37	48	90	LYS	Peptide
32	49	106	LEU	Peptide
32	49	116	ASP	Peptide
32	49	4	ASP	Peptide
13	4A	105	THR	Peptide
13	4A	115	LYS	Peptide
13	4A	79	LYS	Peptide
13	4A	83	ASP	Peptide
5	4E	114	GLY	Peptide
33	51	12	PRO	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	155	SER	Peptide
33	51	168	PRO	Peptide
38	58	56	ASN	Peptide
33	59	100	GLY	Peptide
33	59	125	VAL	Peptide
33	59	151	ILE	Peptide
33	59	168	PRO	Peptide
33	59	83	TYR	Peptide
14	5I	3	ARG	Peptide
35	61	11	ASN	Peptide
35	61	133	HIS	Peptide
35	61	134	PRO	Peptide
35	69	132	PRO	Peptide
44	75	12	SER	Peptide
40	78	11	GLY	Peptide
40	78	115	LEU	Peptide
40	78	14	LYS	Peptide

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Mol	Chain	Res	Type	Group
40	78	70	GLN	Peptide
45	85	95	LEU	Peptide
45	85	98	LEU	Peptide
9	8E	59	PHE	Peptide
46	95	49	THR	Peptide
46	95	77	ALA	Peptide
46	95	97	LYS	Peptide
46	95	98	GLU	Peptide
18	9I	21	LYS	Peptide
18	9I	33	ASP	Peptide
43	A8	109	GLY	Peptide
19	AA	65	ASN	Peptide
19	AA	9	VAL	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
19	AI	78	ARG	Peptide
19	AI	8	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
20	BA	73	HIS	Peptide
20	BA	74	LYS	Peptide
20	BI	12	ALA	Peptide
20	BI	94	ALA	Peptide
49	C5	101	LYS	Peptide
49	C5	28	LYS	Peptide
49	C5	42	VAL	Peptide
49	C5	53	PRO	Peptide
49	C5	57	GLN	Peptide
49	C5	58	GLY	Peptide
49	C5	82	PRO	Peptide
49	C5	91	GLU	Peptide
45	C8	75	ASN	Peptide
45	C8	92	ARG	Peptide
45	C8	95	LEU	Peptide
45	C8	96	ALA	Peptide
50	D5	110	GLY	Peptide
50	D5	111	VAL	Peptide
50	D5	12	GLY	Peptide
50	D5	140	ASP	Peptide
50	D5	179	ASP	Peptide
50	D5	190	GLU	Peptide
50	D5	192	ALA	Peptide

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Mol	Chain	Res	Type	Group
50	D5	52	SER	Peptide
50	D5	60	GLU	Peptide
50	D5	62	PRO	Peptide
46	D8	43	GLU	Peptide
46	D8	49	THR	Peptide
52	F5	53	VAL	Peptide
52	F5	91	LYS	Peptide
48	F8	3	THR	Peptide
53	G5	17	SER	Peptide
53	G5	43	GLN	Peptide
53	G5	45	SER	Peptide
49	G8	101	LYS	Peptide
49	G8	84	ARG	Peptide
49	G8	89	PHE	Peptide
50	H8	158	PRO	Peptide
50	H8	60	GLU	Peptide
52	J8	53	VAL	Peptide
53	K8	17	SER	Peptide
59	M5	35	GLN	Peptide
59	M5	40	GLU	Peptide
59	M5	49	VAL	Peptide
59	M5	51	ALA	Peptide
55	M8	40	HIS	Peptide
55	M8	41	PRO	Peptide
55	M8	44	THR	Peptide
57	O8	31	PRO	Peptide
57	O8	44	ARG	Peptide
59	Q8	35	GLN	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	32497	0	16403	888	0
1	1G	32437	0	16372	860	0
2	12	1924	0	1975	127	0
2	1E	1874	0	1926	113	0
3	22	1533	0	1595	77	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	2E	1605	0	1668	55	0
4	32	1702	0	1765	94	0
4	3E	1690	0	1737	83	0
5	42	1155	0	1213	57	0
5	4E	1142	0	1204	50	0
6	52	842	0	857	33	0
6	5E	842	0	857	30	0
7	62	1110	0	1163	67	0
7	6E	1242	0	1286	50	0
8	72	1115	0	1177	54	0
8	7E	1115	0	1177	66	0
9	82	983	0	1006	68	0
9	8E	1000	0	1031	65	0
10	1A	801	0	849	85	0
10	1I	801	0	848	56	0
11	2A	835	0	847	36	0
11	2I	823	0	833	41	0
12	3A	947	0	1033	63	0
12	3I	956	0	1046	58	0
13	4A	887	0	935	66	0
13	4I	936	0	986	52	0
14	5A	466	0	499	29	0
14	5I	499	0	542	36	0
15	6A	729	0	768	31	0
15	6I	729	0	768	26	0
16	7A	705	0	725	26	0
16	7I	700	0	720	54	0
17	8A	823	0	891	34	0
17	8I	834	0	904	61	0
18	9A	544	0	605	21	0
18	9I	544	0	605	36	0
19	AA	481	0	468	28	0
19	AI	643	0	662	33	0
20	BA	757	0	856	47	0
20	BI	751	0	848	56	0
21	1B	208	0	221	21	0
21	1F	208	0	221	9	0
22	1K	1544	0	791	49	0
22	1L	1584	0	811	51	0
23	2K	1646	0	845	40	0
23	2L	1646	0	845	39	0
24	3K	1561	0	796	51	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	3L	1581	0	805	63	0
25	4K	462	0	229	11	0
25	4L	374	0	187	10	0
26	14	62347	0	31431	1547	0
26	1H	62351	0	31424	1621	0
27	16	2617	0	1328	74	0
27	1J	2617	0	1328	89	0
28	71	1043	0	1066	44	0
28	79	1010	0	1025	51	0
29	11	2120	0	2196	112	0
29	19	2120	0	2197	103	0
30	21	1558	0	1624	92	0
30	29	1558	0	1624	93	0
31	31	1585	0	1632	85	0
31	39	1610	0	1655	122	0
32	41	1457	0	1514	87	0
32	49	1457	0	1514	83	0
33	51	1312	0	1384	77	0
33	59	1312	0	1384	102	0
34	18	237	0	257	22	0
34	28	237	0	257	21	0
35	61	1131	0	1218	45	0
35	69	1131	0	1218	69	0
36	38	1089	0	1149	108	0
37	48	1047	0	1082	87	0
38	15	1096	0	1168	39	0
38	58	1096	0	1169	59	0
39	25	932	0	996	53	0
39	68	932	0	996	31	0
40	35	1130	0	1217	111	0
40	78	1122	0	1206	95	0
41	45	1099	0	1152	88	0
41	88	1113	0	1157	55	0
42	55	967	0	1033	37	0
42	98	967	0	1033	48	0
43	65	876	0	938	88	0
43	A8	881	0	943	45	0
44	75	1115	0	1169	66	0
44	B8	1132	0	1189	70	0
45	85	963	0	1022	68	0
45	C8	950	0	1011	49	0
46	95	774	0	849	63	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	D8	778	0	852	40	1
47	A5	886	0	948	34	0
47	E8	890	0	951	24	0
48	B5	738	0	792	44	0
48	F8	743	0	794	39	0
49	C5	785	0	844	62	0
49	G8	784	0	853	44	0
50	D5	1582	0	1613	79	0
50	H8	1330	0	1360	75	0
51	E5	616	0	633	38	0
51	I8	630	0	640	28	0
52	F5	737	0	813	48	0
52	J8	729	0	802	30	0
53	G5	558	0	610	27	0
53	K8	576	0	628	45	0
54	H5	459	0	512	12	0
54	L8	459	0	512	20	0
55	M8	371	0	372	35	0
56	J5	434	0	454	19	0
56	N8	386	0	402	31	0
57	O8	389	0	404	33	0
58	L5	409	0	454	17	0
58	P8	401	0	436	19	0
59	M5	516	0	582	30	0
59	Q8	516	0	582	36	0
60	11	6	0	0	0	0
60	13	227	0	0	0	0
60	14	607	0	0	0	0
60	16	20	0	0	0	0
60	1G	167	0	0	0	0
60	1H	669	0	0	0	0
60	1J	8	0	0	0	0
60	1K	2	0	0	0	0
60	1L	1	0	0	0	0
60	21	2	0	0	0	0
60	25	2	0	0	0	0
60	29	5	0	0	0	0
60	2A	1	0	0	0	0
60	2K	7	0	0	0	0
60	2L	2	0	0	0	0
60	31	2	0	0	0	0
60	32	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	35	1	0	0	0	0
60	39	2	0	0	0	0
60	3E	2	0	0	0	0
60	41	1	0	0	0	0
60	45	2	0	0	0	0
60	4K	1	0	0	0	0
60	4L	2	0	0	0	0
60	52	1	0	0	0	0
60	55	2	0	0	0	0
60	5E	2	0	0	0	0
60	6I	1	0	0	0	0
60	75	1	0	0	0	0
60	78	1	0	0	0	0
60	88	4	0	0	0	0
60	98	2	0	0	0	0
60	C5	1	0	0	0	0
60	E5	1	0	0	0	0
60	F5	1	0	0	0	0
60	I8	2	0	0	0	0
60	M5	1	0	0	0	0
60	N8	1	0	0	0	0
60	P8	1	0	0	0	0
60	Q8	1	0	0	0	0
61	32	8	0	0	2	0
61	3E	8	0	0	2	0
62	5A	1	0	0	0	0
62	5I	1	0	0	0	0
63	11	12	0	0	2	0
63	13	544	0	0	91	0
63	14	1520	0	0	275	0
63	15	1	0	0	0	0
63	16	42	0	0	7	0
63	19	12	0	0	4	0
63	1E	1	0	0	0	0
63	1F	1	0	0	0	0
63	1G	397	0	0	60	0
63	1H	1966	0	0	358	2
63	1I	1	0	0	0	0
63	1J	23	0	0	3	0
63	1K	1	0	0	0	0
63	21	9	0	0	2	0
63	25	13	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	29	9	0	0	1	0
63	2K	16	0	0	5	0
63	2L	7	0	0	0	0
63	31	8	0	0	0	0
63	32	5	0	0	0	0
63	35	5	0	0	1	0
63	39	8	0	0	1	0
63	3A	2	0	0	0	0
63	3E	1	0	0	0	0
63	3I	5	0	0	0	0
63	42	1	0	0	0	0
63	45	4	0	0	0	0
63	4E	2	0	0	0	0
63	4K	13	0	0	0	0
63	4L	8	0	0	1	0
63	52	4	0	0	1	0
63	58	3	0	0	0	0
63	5A	1	0	0	0	0
63	5I	3	0	0	2	0
63	6A	1	0	0	0	0
63	6I	4	0	0	0	0
63	78	10	0	0	4	0
63	7A	2	0	0	0	0
63	85	4	0	0	0	0
63	88	7	0	0	0	0
63	8E	1	0	0	0	0
63	98	1	0	0	0	0
63	9A	2	0	0	0	0
63	A5	1	0	0	0	0
63	A8	2	0	0	0	0
63	B5	1	0	0	0	0
63	B8	3	0	0	0	0
63	BA	2	0	0	0	0
63	BI	1	0	0	0	0
63	C5	1	0	0	0	0
63	C8	7	0	0	0	1
63	D8	1	0	0	0	0
63	E5	3	0	0	0	0
63	F5	6	0	0	1	0
63	F8	1	0	0	0	0
63	G8	3	0	0	0	0
63	I8	5	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	J8	10	0	0	2	0
63	L5	2	0	0	0	0
63	L8	4	0	0	2	0
63	M5	9	0	0	0	0
63	P8	1	0	0	0	0
63	Q8	7	0	0	0	0
All	All	306138	0	202999	9699	2

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 20.

All (9699) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1268:A:OP1	63:1H:3723:HOH:O	1.66	1.12
26:14:1604:C:OP2	63:14:3715:HOH:O	1.65	1.11
26:1H:2032:G:H21	30:21:146:THR:HG23	1.17	1.07
26:1H:2711:A:OP2	63:1H:3724:HOH:O	1.71	1.06
26:14:1603:A:OP1	63:14:3715:HOH:O	1.74	1.05
26:1H:2575:C:OP2	63:1H:3725:HOH:O	1.76	1.04
34:18:17:VAL:HG12	34:18:21:LYS:HE3	1.34	1.04
26:14:2499:C:OP2	63:14:3716:HOH:O	1.76	1.03
26:1H:2714:G:OP2	63:1H:3724:HOH:O	1.76	1.02
34:18:17:VAL:CG1	34:18:21:LYS:HE3	1.89	1.02
26:1H:804:A:OP1	63:1H:3727:HOH:O	1.77	1.02
26:14:576:U:OP1	63:14:3717:HOH:O	1.78	1.01
50:H8:5:LEU:H	50:H8:59:LEU:HA	1.23	1.01
40:35:79:ARG:HG3	40:35:110:TYR:HB2	1.42	1.01
26:1H:751:A:OP1	63:1H:3726:HOH:O	1.76	1.01
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.39	1.01
26:1H:1056:G:N2	26:1H:1103:A:N7	2.08	1.01
26:1H:2733:A:OP1	63:1H:3729:HOH:O	1.77	1.01
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.25	1.00
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.42	1.00
26:1H:452:G:OP2	63:1H:3733:HOH:O	1.80	1.00
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.01	1.00
26:1H:1780:A:OP1	63:1H:3730:HOH:O	1.78	1.00
43:65:20:ARG:NH2	43:65:21:THR:OG1	1.93	1.00
26:1H:2593:U:O4	63:1H:3728:HOH:O	1.77	1.00
1:1G:448:A:OP2	1:1G:485:G:N2	1.94	0.99
26:14:741:G:OP1	63:14:3718:HOH:O	1.79	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2518:A:OP2	63:1H:3732:HOH:O	1.80	0.99
26:1H:1332:G:OP1	63:1H:3731:HOH:O	1.79	0.99
26:14:276:A:HO2'	26:14:277:C:H5	1.09	0.98
26:1H:1614:A:OP1	63:1H:3737:HOH:O	1.82	0.97
45:C8:69:CYS:HG	45:C8:79:PHE:HD2	1.05	0.97
26:14:1359:A:H62	26:14:1372:U:H3	1.03	0.97
26:1H:1265:A:OP2	63:1H:3735:HOH:O	1.81	0.97
26:1H:730:C:OP2	63:1H:3734:HOH:O	1.81	0.97
52:F5:23:LYS:HB3	52:F5:29:GLY:HA3	1.46	0.97
26:14:1394:U:OP1	63:14:3719:HOH:O	1.80	0.97
36:38:104:ILE:HG13	36:38:105:PRO:HD3	1.46	0.97
26:1H:945:A:OP2	63:1H:3736:HOH:O	1.82	0.97
1:1G:1348:U:H3	1:1G:1374:A:H2	1.12	0.97
1:13:1054:C:OP2	63:13:1911:HOH:O	1.81	0.96
26:1H:2573:C:OP1	63:1H:3725:HOH:O	1.81	0.96
26:1H:2615:U:OP1	63:1H:3735:HOH:O	1.84	0.96
15:6A:75:PRO:HB2	15:6A:79:ARG:HH21	1.28	0.96
26:1H:2646:C:OP1	63:1H:3741:HOH:O	1.84	0.95
1:13:963:G:N3	10:1I:55:LYS:NZ	2.13	0.95
26:1H:862:G:OP2	63:1H:3738:HOH:O	1.83	0.95
26:1H:2751:G:N3	33:51:3:ARG:NE	2.15	0.95
26:14:1647:G:OP2	63:14:3720:HOH:O	1.83	0.95
26:1H:929:G:O6	63:1H:3739:HOH:O	1.83	0.95
26:1H:1049:C:H2'	26:1H:1050:A:H5"	1.48	0.95
1:1G:957:U:H1'	1:1G:960:U:H5	1.29	0.95
26:1H:2248:C:OP2	63:1H:3743:HOH:O	1.85	0.94
1:1G:998:G:N2	1:1G:1043:C:N3	2.15	0.94
26:1H:1678:G:N2	26:1H:1989:G:H22	1.66	0.94
26:14:1496:A:H8	26:14:1577:C:HO2'	1.03	0.94
26:1H:1647:G:OP2	63:1H:3742:HOH:O	1.85	0.94
26:14:1614:A:OP1	63:14:3721:HOH:O	1.83	0.94
26:1H:2576:G:OP1	63:1H:3740:HOH:O	1.84	0.94
50:H8:52:SER:O	50:H8:54:HIS:N	2.01	0.94
1:1G:664:G:H22	1:1G:741:G:H1	1.14	0.94
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.32	0.93
26:1H:607:U:H3	26:1H:621:A:H2	1.14	0.93
26:1H:1899:G:H22	26:1H:1902:C:N4	1.66	0.93
26:1H:2068:U:H3	26:1H:2430:A:H2	1.14	0.93
37:48:132:ARG:HG2	37:48:138:VAL:H	1.33	0.93
26:14:67:U:H3	26:14:74:A:H2	1.15	0.93
26:14:1327:C:OP2	63:14:3724:HOH:O	1.86	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1729:A:O2'	26:14:1731:G:N2	2.01	0.93
26:14:739:G:OP1	63:14:3726:HOH:O	1.87	0.92
26:14:787:U:OP1	63:14:3722:HOH:O	1.86	0.92
1:13:963:G:H1	1:13:972:C:H42	1.15	0.92
26:14:2701:C:H3'	26:14:2702:U:H5"	1.49	0.92
26:1H:2592:G:OP1	63:1H:3744:HOH:O	1.87	0.92
26:14:1968:G:OP1	63:14:3725:HOH:O	1.86	0.92
26:14:392:C:OP1	63:14:3723:HOH:O	1.86	0.92
26:1H:1782:C:OP1	63:1H:3730:HOH:O	1.85	0.92
32:41:161:THR:HG22	32:41:163:ALA:H	1.33	0.92
26:14:780:G:H21	26:14:783:A:H62	1.16	0.92
26:14:761:A:N7	63:14:3701:HOH:O	2.04	0.91
1:13:963:G:H21	10:1I:55:LYS:HE2	1.35	0.91
48:F8:3:THR:O	48:F8:5:TYR:N	2.03	0.91
19:AI:40:ILE:HG12	19:AI:41:VAL:HG13	1.53	0.91
51:E5:12:ASN:HA	51:E5:14:ARG:HH21	1.35	0.91
1:1G:516:U:O4	63:1G:1807:HOH:O	1.89	0.91
26:14:847:U:OP2	63:14:3730:HOH:O	1.89	0.91
40:78:63:PRO:HB2	59:Q8:30:ARG:HH21	1.35	0.91
26:14:2685:G:O6	63:14:3728:HOH:O	1.88	0.91
24:3K:23:G:N7	24:3K:47:G:N2	2.16	0.90
1:1G:1128:C:H4'	9:82:16:ARG:HH12	1.35	0.90
26:1H:1059:G:H21	37:48:127:ILE:HD13	1.35	0.90
44:B8:51:ARG:HB2	44:B8:98:LYS:HD3	1.52	0.90
45:85:112:ARG:HH12	46:95:45:THR:HG23	1.37	0.90
36:38:93:LEU:HD13	36:38:126:ALA:HB1	1.52	0.90
26:14:784:A:OP2	63:14:3732:HOH:O	1.90	0.90
21:1B:8:THR:HG21	21:1B:10:ARG:HH21	1.35	0.90
26:14:469:G:OP2	63:14:3729:HOH:O	1.89	0.90
26:14:2448:A:OP2	63:14:3731:HOH:O	1.89	0.90
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.04	0.90
26:1H:1783:A:OP2	63:1H:3745:HOH:O	1.88	0.90
26:14:2583:G:OP2	63:14:3727:HOH:O	1.87	0.90
26:1H:1376:C:OP2	63:1H:3747:HOH:O	1.90	0.90
32:41:112:PRO:HB3	55:M8:37:SER:H	1.35	0.90
26:1H:2791:C:H42	26:1H:2805:G:H1	1.18	0.89
1:1G:533:A:OP1	63:1G:1807:HOH:O	1.90	0.89
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.54	0.89
26:14:397:G:N7	63:14:3800:HOH:O	2.05	0.89
26:1H:574:C:OP1	63:1H:3746:HOH:O	1.89	0.89
26:1H:847:U:OP2	63:1H:3739:HOH:O	1.89	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:31:C:OP1	63:1H:3752:HOH:O	1.90	0.89
26:14:1992:G:N7	63:14:3803:HOH:O	2.05	0.89
1:13:837:G:OP2	1:13:842:C:N4	2.06	0.89
26:1H:1495:A:OP2	63:1H:3748:HOH:O	1.90	0.89
26:1H:1774:C:OP1	63:1H:3753:HOH:O	1.91	0.89
26:14:2415:G:H4'	40:35:67:MET:H	1.37	0.89
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.54	0.89
1:1G:827:U:H3	1:1G:872:A:H62	1.21	0.89
26:1H:1899:G:H22	26:1H:1902:C:H41	0.91	0.89
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.55	0.89
26:14:1678:G:H22	26:14:1989:G:H22	1.20	0.89
26:1H:860:U:H5	26:1H:917:A:C2	1.90	0.88
34:18:2:ALA:HB2	34:28:21:LYS:HG3	1.55	0.88
26:1H:763:G:OP1	63:1H:3751:HOH:O	1.90	0.88
26:1H:2308:G:H1	26:1H:2311:A:H2	0.92	0.88
26:1H:1616:A:O2'	63:1H:3749:HOH:O	1.90	0.88
26:14:2113:U:H3'	26:14:2114:A:H4'	1.55	0.88
1:13:989:C:H42	1:13:1216:G:H1	1.18	0.88
26:1H:701:G:N7	63:1H:3846:HOH:O	2.07	0.88
26:1H:734:A:OP2	63:1H:3759:HOH:O	1.92	0.88
29:11:26:LYS:HD2	29:11:29:PRO:HG3	1.56	0.88
1:1G:800:G:O6	63:1G:1808:HOH:O	1.90	0.88
4:32:168:ARG:HH11	4:32:169:LYS:H	1.16	0.88
1:13:611:A:H61	1:13:629:G:H1	1.21	0.88
26:14:1352:U:OP1	63:14:3734:HOH:O	1.91	0.88
26:14:1952:A:C6	39:25:22:ILE:HD11	2.09	0.88
26:1H:2701:C:H3'	26:1H:2702:U:H5'	1.56	0.88
26:14:1899:G:H21	26:14:1902:C:H42	1.20	0.88
2:12:166:ASP:HB3	2:12:169:LYS:HB2	1.55	0.87
26:14:386:G:OP1	63:14:3733:HOH:O	1.90	0.87
50:D5:8:TYR:HD1	50:D5:62:PRO:HG3	1.36	0.87
1:13:588:G:OP2	63:13:1912:HOH:O	1.91	0.87
1:13:1182:G:H4'	1:13:1183:A:H5"	1.56	0.87
26:14:2448:A:OP1	63:14:3738:HOH:O	1.93	0.87
26:1H:2502:G:OP2	63:1H:3758:HOH:O	1.92	0.87
26:14:1899:G:H21	26:14:1902:C:N4	1.71	0.87
26:1H:1315:C:OP2	63:1H:3760:HOH:O	1.92	0.87
26:14:517:C:OP1	56:J5:16:ARG:NH2	2.08	0.87
26:1H:674:G:H1'	31:31:74:ARG:HD3	1.57	0.87
26:1H:1520:U:OP2	63:1H:3750:HOH:O	1.90	0.87
26:14:365:C:OP2	63:14:3735:HOH:O	1.92	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2006:C:OP1	63:1H:3723:HOH:O	1.90	0.87
26:14:2589:A:OP1	63:14:3732:HOH:O	1.91	0.87
26:1H:1263:U:O4	63:1H:3757:HOH:O	1.92	0.87
26:1H:1670:C:OP1	63:1H:3755:HOH:O	1.91	0.87
26:1H:1664:A:OP2	63:1H:3756:HOH:O	1.91	0.87
25:4K:23:A:H4'	25:4K:24:A:H5'	1.55	0.86
1:1G:1123:A:H4'	10:1A:36:GLY:HA3	1.56	0.86
26:14:409:C:OP1	63:14:3723:HOH:O	1.93	0.86
26:14:943:U:OP2	63:14:3739:HOH:O	1.93	0.86
26:14:2371:G:O6	63:14:3740:HOH:O	1.93	0.86
49:C5:28:LYS:HG3	49:C5:38:ILE:HG22	1.57	0.86
26:1H:138:G:N2	48:F8:44:GLU:OE2	2.07	0.86
26:14:1658:C:OP1	63:14:3737:HOH:O	1.93	0.86
26:14:2287:A:N6	26:14:2344:U:H3	1.72	0.86
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.08	0.86
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.57	0.86
36:38:54:ALA:HB1	36:38:57:THR:HB	1.55	0.86
26:1H:586:A:OP2	63:1H:3754:HOH:O	1.91	0.86
26:1H:1968:G:OP1	63:1H:3762:HOH:O	1.92	0.86
33:51:4:ILE:HG23	33:51:6:ARG:H	1.38	0.86
26:14:1372:U:OP2	63:14:3744:HOH:O	1.94	0.86
50:D5:52:SER:O	50:D5:54:HIS:N	2.09	0.86
26:1H:2126:A:N6	26:1H:2163:C:O2'	2.08	0.86
50:D5:91:LEU:HD12	50:D5:130:PRO:HG3	1.57	0.86
26:1H:793:A:OP1	63:1H:3761:HOH:O	1.92	0.86
26:14:675:A:OP2	63:14:3736:HOH:O	1.92	0.86
26:1H:1187:G:OP2	63:1H:3764:HOH:O	1.93	0.85
26:14:793:A:OP1	63:14:3745:HOH:O	1.94	0.85
26:14:928:G:N7	63:14:3821:HOH:O	2.08	0.85
26:1H:1665:A:OP2	63:1H:3771:HOH:O	1.94	0.85
26:1H:2005:A:OP1	63:1H:3766:HOH:O	1.93	0.85
26:1H:761:A:OP1	63:1H:3734:HOH:O	1.93	0.85
26:1H:2270:G:OP2	63:1H:3768:HOH:O	1.94	0.85
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.24	0.85
26:14:1019:U:H3	26:14:1142(A):A:H62	1.24	0.85
26:1H:1496:A:H8	26:1H:1577:C:HO2'	0.88	0.85
26:1H:2867:G:OP2	44:B8:119:LYS:NZ	2.09	0.85
20:BA:74:LYS:O	20:BA:76:ALA:N	2.10	0.85
33:59:101:ARG:HG3	33:59:117:PRO:HG3	1.59	0.85
1:13:572:A:OP1	63:13:1914:HOH:O	1.94	0.85
26:1H:732:C:OP2	63:1H:3769:HOH:O	1.94	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2111:C:N4	26:1H:2147:G:O6	2.08	0.85
26:14:2407:G:OP1	63:14:3742:HOH:O	1.93	0.85
26:1H:2061:G:OP1	63:1H:3763:HOH:O	1.92	0.85
49:C5:102:CYS:SG	49:C5:103:GLY:N	2.48	0.85
1:13:970:C:OP2	63:13:1913:HOH:O	1.93	0.85
23:2K:76:C:OP1	63:2K:201:HOH:O	1.95	0.84
36:38:27:VAL:HA	36:38:110:GLY:HA3	1.57	0.84
55:M8:40:HIS:NE2	55:M8:45:GLY:O	2.09	0.84
26:14:1359:A:N6	26:14:1372:U:H3	1.75	0.84
26:1H:2656:U:H3	26:1H:2665:A:H2	1.24	0.84
26:14:974(A):C:OP1	63:14:3747:HOH:O	1.94	0.84
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.60	0.84
26:14:2503:A:OP1	63:14:3717:HOH:O	1.93	0.84
27:1J:18:G:H1	27:1J:65:C:H42	1.24	0.84
46:95:37:VAL:HG21	46:95:57:VAL:HG12	1.58	0.84
18:9I:22:VAL:HG13	18:9I:42:ARG:HH12	1.42	0.84
1:1G:330:C:O2	63:1G:1809:HOH:O	1.93	0.84
26:14:2837:G:N7	63:14:3835:HOH:O	2.10	0.84
1:13:145:G:H1	1:13:177:C:H42	1.25	0.84
1:1G:572:A:OP2	63:1G:1810:HOH:O	1.94	0.84
1:13:1348:U:H3	1:13:1374:A:H2	1.26	0.84
26:1H:1086:A:H4'	26:1H:1103:A:H61	1.43	0.84
26:1H:1899:G:N2	26:1H:1902:C:H41	1.75	0.84
26:1H:2503:A:OP1	63:1H:3770:HOH:O	1.94	0.84
26:14:1425:G:O6	63:14:3743:HOH:O	1.94	0.84
45:85:92:ARG:HD3	45:85:94:ASN:HB3	1.58	0.84
1:1G:353:A:N7	63:1G:1836:HOH:O	2.11	0.84
26:14:574:C:OP1	63:14:3741:HOH:O	1.93	0.84
26:1H:592:G:H21	59:Q8:4:MET:HE1	1.41	0.84
1:1G:547:A:OP1	63:1G:1811:HOH:O	1.96	0.84
24:3L:18:G:H22	24:3L:56:U:H3	1.26	0.84
26:14:1268:A:OP1	63:14:3748:HOH:O	1.94	0.84
26:14:2088:G:O6	63:14:3751:HOH:O	1.96	0.84
1:13:5:U:OP1	1:13:5:U:H4'	1.78	0.84
26:1H:1639:U:OP1	63:1H:3777:HOH:O	1.96	0.84
26:1H:2819:G:OP1	63:1H:3767:HOH:O	1.94	0.84
28:79:20:TYR:O	28:79:224:ILE:HA	1.77	0.84
26:14:2582:G:OP2	63:14:3753:HOH:O	1.96	0.83
26:1H:733:G:N7	63:1H:3880:HOH:O	2.11	0.83
26:14:2268:A:OP1	63:14:3746:HOH:O	1.94	0.83
35:61:71:ILE:HG23	35:61:72:LEU:HD13	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.43	0.83
26:1H:1327:C:OP2	63:1H:3765:HOH:O	1.93	0.83
26:1H:2639:A:OP2	63:1H:3772:HOH:O	1.95	0.83
26:1H:620:G:H4'	26:1H:621:A:H5"	1.60	0.83
26:1H:1658:C:OP1	63:1H:3775:HOH:O	1.96	0.83
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.13	0.83
26:14:733:G:OP2	63:14:3750:HOH:O	1.95	0.83
26:1H:120:U:OP2	63:1H:3783:HOH:O	1.97	0.83
26:1H:187:G:N7	63:1H:3869:HOH:O	2.09	0.83
26:1H:574:C:OP2	63:1H:3782:HOH:O	1.97	0.83
26:1H:1632:A:OP2	63:1H:3787:HOH:O	1.97	0.83
26:14:1265:A:OP2	63:14:3749:HOH:O	1.95	0.83
26:14:2126:A:H1'	26:14:2127:G:H5"	1.60	0.83
2:1E:69:LEU:HD23	2:1E:159:PRO:HG3	1.59	0.83
26:1H:1696:G:OP2	63:1H:3774:HOH:O	1.96	0.83
26:1H:2016:U:OP1	63:1H:3786:HOH:O	1.97	0.83
37:48:111:LYS:HE2	37:48:127:ILE:HG13	1.58	0.83
1:1G:973:G:N3	10:1A:55:LYS:HE2	1.93	0.83
7:6E:122:HIS:HA	7:6E:125:MET:HE2	1.61	0.83
26:1H:2287:A:N6	26:1H:2344:U:H3	1.77	0.83
39:68:35:VAL:HG11	39:68:103:ALA:HB3	1.59	0.83
26:14:141:A:H8	26:14:1595:G:H21	1.26	0.83
1:13:601:C:H2'	1:13:602:A:H8	1.42	0.83
1:13:1329:A:H5'	13:4I:29:ARG:HD2	1.59	0.83
26:1H:662:G:H5'	40:78:15:ARG:HA	1.58	0.83
26:1H:2588:G:OP1	63:1H:3781:HOH:O	1.96	0.83
1:1G:588:G:H1	1:1G:651:C:H42	1.22	0.83
26:14:90:U:O4'	63:14:3755:HOH:O	1.97	0.83
26:14:364:C:OP2	63:14:3754:HOH:O	1.96	0.83
27:16:58:A:OP2	63:16:302:HOH:O	1.95	0.83
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.44	0.83
26:14:1022:G:O2'	26:14:1023:U:OP2	1.97	0.83
29:19:255:LYS:HZ2	29:19:255:LYS:H	1.24	0.83
1:13:975:A:H4'	1:13:976:G:H5"	1.61	0.82
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.61	0.82
26:1H:1249:U:N3	63:1H:3849:HOH:O	2.07	0.82
26:1H:2079:U:O4	63:1H:3785:HOH:O	1.97	0.82
26:14:784:A:OP1	63:14:3756:HOH:O	1.97	0.82
35:69:117:GLU:HG2	35:69:118:LYS:HE2	1.60	0.82
26:1H:1828:G:OP1	63:1H:3778:HOH:O	1.96	0.82
41:45:10:ARG:HA	41:45:10:ARG:HH11	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:41:VAL:HG12	19:AI:44:MET:HB3	1.61	0.82
26:1H:1345:C:OP2	63:1H:3780:HOH:O	1.97	0.82
26:1H:2837:G:N7	63:1H:3876:HOH:O	2.10	0.82
27:16:81:G:OP2	63:16:303:HOH:O	1.96	0.82
29:11:29:PRO:O	29:11:30:GLU:HG2	1.79	0.82
35:61:9:LEU:HD21	35:61:35:LEU:HD12	1.61	0.82
26:1H:1664:A:OP1	63:1H:3771:HOH:O	1.97	0.82
26:1H:2196:C:OP2	63:1H:3776:HOH:O	1.96	0.82
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.61	0.82
26:14:2592:G:OP1	63:14:3725:HOH:O	1.96	0.82
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.12	0.82
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.61	0.82
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.62	0.82
31:39:181:LEU:HD21	31:39:186:ILE:HD11	1.61	0.82
42:55:33:ARG:HG3	42:55:115:GLU:HB3	1.61	0.82
26:1H:563:G:OP2	63:1H:3773:HOH:O	1.95	0.82
40:35:39:LYS:HD2	40:35:45:LEU:HD21	1.62	0.82
31:31:101:LEU:HD23	31:31:102:PRO:HD2	1.61	0.82
26:14:1332:G:C8	26:14:1332:G:H5'	2.14	0.82
1:13:200:G:H1	1:13:217:C:H42	1.27	0.82
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.62	0.82
26:14:1970:A:OP1	63:14:3757:HOH:O	1.97	0.82
26:14:2016:U:OP1	63:14:3752:HOH:O	1.96	0.82
63:2K:201:HOH:O	26:1H:2602:A:OP1	1.98	0.82
26:1H:326:G:N7	63:1H:3901:HOH:O	2.13	0.82
26:14:660:G:H21	40:35:12:ALA:HA	1.44	0.82
31:39:188:ARG:HA	40:35:3:LEU:HD11	1.61	0.82
1:1G:1221:G:OP1	1:1G:1321:C:N4	2.13	0.81
26:14:2807:G:N2	26:14:2893:G:N7	2.27	0.81
14:5I:18:VAL:O	63:5I:201:HOH:O	1.96	0.81
26:1H:2469:A:H2	26:1H:2481:G:H21	1.26	0.81
1:1G:975:A:H4'	1:1G:976:G:H5"	1.61	0.81
26:14:1945:G:OP1	63:14:3758:HOH:O	1.98	0.81
1:13:766:A:OP2	63:13:1916:HOH:O	1.96	0.81
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.62	0.81
26:1H:1383:C:O2	63:1H:3789:HOH:O	1.98	0.81
26:1H:2548:G:N7	63:1H:3903:HOH:O	2.13	0.81
1:1G:125:U:O4	63:1G:1813:HOH:O	1.98	0.81
20:BA:67:ALA:HA	20:BA:73:HIS:H	1.44	0.81
52:F5:91:LYS:O	52:F5:93:GLU:N	2.13	0.81
26:1H:1346:G:OP2	63:1H:3780:HOH:O	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2249:U:O4	63:1H:3743:HOH:O	1.97	0.81
1:1G:1028:C:H42	1:1G:1033:G:H1	1.28	0.81
26:14:601:C:OP1	31:39:108:LYS:NZ	2.13	0.81
2:1E:121:LEU:O	2:1E:139:LYS:NZ	2.13	0.81
26:1H:676:A:H8	26:1H:2069:G:H21	1.29	0.81
41:45:86:GLY:O	41:45:88:GLY:N	2.12	0.81
26:1H:249:C:OP1	63:1H:3795:HOH:O	1.99	0.81
26:1H:802:A:OP1	63:1H:3791:HOH:O	1.98	0.81
26:1H:1076:C:H2'	26:1H:1077:A:H5"	1.63	0.81
50:H8:6:LYS:N	50:H8:59:LEU:O	2.14	0.81
9:8E:45:ALA:O	9:8E:78:LYS:NZ	2.14	0.81
26:1H:1342:A:OP2	63:1H:3796:HOH:O	1.99	0.81
26:1H:2582:G:OP2	63:1H:3793:HOH:O	1.98	0.81
26:14:1357:U:O4	63:14:3767:HOH:O	1.99	0.81
26:14:2239:G:OP2	63:14:3759:HOH:O	1.98	0.81
24:3K:8:U:N3	24:3K:14:A:N7	2.29	0.81
26:1H:192:C:N3	63:1H:3890:HOH:O	2.12	0.81
26:1H:784:A:OP1	63:1H:3799:HOH:O	1.99	0.81
1:1G:1021:G:H2'	1:1G:1022:G:H8	1.45	0.81
32:49:5:VAL:HG12	32:49:7:LEU:H	1.45	0.81
26:1H:1633:G:O6	63:1H:3779:HOH:O	1.96	0.81
10:1A:33:GLN:HG3	10:1A:75:ILE:HG12	1.63	0.81
29:19:255:LYS:H	29:19:255:LYS:NZ	1.79	0.81
2:1E:80:ILE:HG12	2:1E:212:GLN:HB2	1.61	0.80
26:1H:147:U:O4	63:1H:3794:HOH:O	1.98	0.80
26:1H:801:G:OP2	63:1H:3784:HOH:O	1.97	0.80
26:1H:1349:A:OP1	63:1H:3788:HOH:O	1.98	0.80
52:J8:93:GLU:H	52:J8:94:LEU:HA	1.43	0.80
26:14:275:G:N2	26:14:276:A:N7	2.28	0.80
26:1H:1077:A:H3'	26:1H:1078:U:C5'	2.11	0.80
26:14:543:C:H42	26:14:550:G:H1	1.29	0.80
26:1H:1778:U:H2'	26:1H:1784:A:N6	1.95	0.80
26:1H:2577:A:OP1	63:1H:3792:HOH:O	1.98	0.80
24:3L:8:U:O2	24:3L:13:C:N4	2.12	0.80
29:19:69:ARG:NH2	29:19:128:GLY:O	2.14	0.80
20:BI:89:ARG:HD2	20:BI:104:LEU:HD21	1.62	0.80
26:1H:963:U:OP1	63:1H:3790:HOH:O	1.98	0.80
26:1H:1187:G:N7	63:1H:3905:HOH:O	2.13	0.80
26:14:399:G:OP2	63:14:3763:HOH:O	1.99	0.80
26:14:2681:C:H5	26:14:2725:A:H62	1.26	0.80
1:13:1305:G:H21	1:13:1331:G:H2'	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:75:55:ASN:H	44:75:59:THR:HG22	1.47	0.80
1:13:270:A:OP2	63:13:1917:HOH:O	2.00	0.80
24:3K:60:A:OP2	24:3K:60:A:H4'	1.82	0.80
26:14:249:C:OP1	63:14:3762:HOH:O	1.98	0.80
26:1H:948:G:O6	63:1H:3797:HOH:O	1.99	0.80
26:1H:1314:C:OP1	63:1H:3760:HOH:O	1.98	0.80
26:1H:2134:A:O2'	26:1H:2159:G:N2	2.15	0.80
1:13:448:A:OP2	1:13:485:G:N2	2.15	0.80
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.14	0.80
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.63	0.80
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.63	0.80
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.14	0.80
1:13:838:G:H1	1:13:848:C:N4	1.80	0.80
1:13:1256:A:N6	1:13:1278:U:OP2	2.14	0.80
26:1H:780:G:H21	26:1H:783:A:H62	1.28	0.80
1:1G:766:A:OP2	63:1G:1812:HOH:O	1.98	0.80
2:12:20:GLU:HG3	2:12:191:ASP:HB2	1.63	0.80
26:14:1209:G:OP2	63:14:3761:HOH:O	1.98	0.80
26:14:1828:G:OP2	63:14:3764:HOH:O	1.99	0.80
26:14:2593:U:O4	63:14:3712:HOH:O	2.00	0.80
18:9I:22:VAL:O	18:9I:42:ARG:NH2	2.16	0.79
26:1H:2533:A:OP2	63:1H:3804:HOH:O	2.00	0.79
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.10	0.79
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.15	0.79
26:14:2518:A:OP2	63:14:3769:HOH:O	2.00	0.79
30:21:181:LEU:HD21	44:B8:6:LEU:HD12	1.63	0.79
1:1G:780:A:OP2	63:1G:1815:HOH:O	1.99	0.79
51:E5:53:MET:HG3	51:E5:59:LEU:HD23	1.64	0.79
4:3E:64:LEU:HD22	4:3E:198:VAL:HG11	1.65	0.79
26:1H:1021:A:H62	26:1H:1141:U:H3	1.27	0.79
26:1H:1083:U:OP1	36:38:47:ASN:ND2	2.16	0.79
36:38:138:LEU:HD21	34:28:26:ALA:HB2	1.63	0.79
1:1G:1402:C:OP2	63:1G:1816:HOH:O	1.99	0.79
26:14:879:G:O6	26:14:898:C:N4	2.16	0.79
26:14:1247:A:OP1	31:39:95:ARG:NH2	2.16	0.79
26:14:2447:G:H3'	63:14:3820:HOH:O	1.82	0.79
26:14:800:A:OP1	63:14:3760:HOH:O	1.98	0.79
26:1H:839:U:OP2	63:1H:3807:HOH:O	2.01	0.79
26:1H:910:A:H62	41:88:12:GLN:HA	1.48	0.79
1:1G:9:G:OP2	5:42:121:LYS:NZ	2.14	0.79
1:13:730:G:OP1	63:13:1918:HOH:O	2.01	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:24:A:H2'	22:1K:25:G:H8	1.46	0.79
26:1H:453:C:OP1	63:1H:3800:HOH:O	1.99	0.79
26:1H:760:G:OP1	63:1H:3798:HOH:O	1.99	0.79
26:1H:2140:C:H42	26:1H:2151:G:H1	1.27	0.79
29:11:242:ARG:O	63:11:402:HOH:O	2.00	0.79
1:1G:411:A:H62	1:1G:413:G:H21	1.30	0.79
1:1G:1125:U:O4	10:1A:5:ARG:NH1	2.16	0.79
40:78:15:ARG:HB3	40:78:15:ARG:HH11	1.48	0.79
26:1H:2250:G:O5'	63:1H:3802:HOH:O	2.00	0.79
19:AA:45:VAL:HG12	19:AA:67:VAL:HG21	1.63	0.79
26:14:929:G:O6	63:14:3730:HOH:O	2.00	0.79
1:1G:576:G:OP1	63:1G:1818:HOH:O	2.00	0.79
10:1A:78:ASN:HB2	10:1A:81:THR:H	1.48	0.79
26:14:240:G:O6	63:14:3765:HOH:O	1.99	0.79
26:14:1278:A:N7	63:14:3864:HOH:O	2.16	0.79
40:35:97:PRO:HG3	40:35:112:LEU:HD12	1.64	0.79
1:13:1502:A:H2	1:13:1505:G:H1	1.31	0.78
26:1H:1858:G:O6	63:1H:3805:HOH:O	2.00	0.78
51:I8:11:ARG:O	51:I8:14:ARG:NH2	2.16	0.78
26:14:49:A:H4'	26:14:50:U:H5"	1.63	0.78
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.16	0.78
1:1G:353:A:OP1	63:1G:1817:HOH:O	2.00	0.78
26:14:2830:G:O6	63:14:3773:HOH:O	2.01	0.78
26:1H:1156:A:OP2	63:1H:3801:HOH:O	2.00	0.78
48:F8:8:ILE:HD11	48:F8:43:VAL:HG22	1.65	0.78
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.66	0.78
26:1H:1113:U:OP1	33:51:2:SER:N	2.16	0.78
26:14:802:A:OP1	63:14:3768:HOH:O	2.00	0.78
44:75:56:GLY:O	44:75:59:THR:HG23	1.83	0.78
50:D5:146:ILE:HA	50:D5:174:VAL:HB	1.64	0.78
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.45	0.78
30:21:82:ARG:O	30:21:84:PHE:N	2.15	0.78
1:1G:768:A:OP2	63:1G:1820:HOH:O	2.01	0.78
59:M5:33:ASN:O	59:M5:35:GLN:N	2.15	0.78
1:13:859:A:H2'	1:13:860:A:H8	1.46	0.78
26:1H:770:G:N7	63:1H:3939:HOH:O	2.17	0.78
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.65	0.78
44:B8:62:THR:HG22	44:B8:75:ILE:HG13	1.64	0.78
44:B8:77:PRO:HG2	44:B8:80:SER:HB2	1.65	0.78
1:1G:992:U:H3	1:1G:1044:A:H62	1.32	0.78
1:13:153:C:H42	1:13:168:G:H1	1.32	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.64	0.78
26:1H:1199:U:OP1	63:1H:3809:HOH:O	2.01	0.78
26:1H:1650:G:O6	63:1H:3811:HOH:O	2.01	0.78
1:1G:673:G:H2'	1:1G:674:G:C8	2.19	0.78
26:14:1056:G:H4'	26:14:1086:A:H1'	1.66	0.78
26:14:248:G:OP1	63:14:3771:HOH:O	2.01	0.78
26:14:1300:U:O4	63:14:3766:HOH:O	1.99	0.78
26:14:2098:U:N3	26:14:2191:G:O6	2.16	0.78
26:14:2736:G:O6	63:14:3776:HOH:O	2.01	0.78
26:1H:2885:C:OP2	63:1H:3803:HOH:O	2.00	0.78
26:14:528:A:OP2	38:15:114:ARG:NH1	2.16	0.78
26:1H:1689:A:H62	26:1H:1698:A:H2	1.31	0.78
33:51:137:ASP:OD1	33:51:138:LYS:N	2.15	0.78
53:K8:15:LYS:H	53:K8:67:LYS:HE2	1.48	0.78
1:1G:943:U:H1'	9:82:124:GLN:HE22	1.49	0.78
26:14:819:A:OP2	26:14:1187:G:N2	2.16	0.78
33:59:41:MET:HB3	33:59:54:ARG:HA	1.66	0.78
1:13:838:G:H1	1:13:848:C:H42	1.32	0.77
11:2I:32:ILE:HD11	11:2I:68:ALA:HB1	1.64	0.77
12:3I:62:SER:HB2	12:3I:64:TYR:HD1	1.49	0.77
26:1H:142:G:H1'	48:F8:37:THR:HG21	1.64	0.77
26:1H:818:G:OP2	63:1H:3812:HOH:O	2.02	0.77
50:H8:80:ARG:HG3	50:H8:82:ARG:HG2	1.64	0.77
1:1G:315:A:OP1	63:1G:1822:HOH:O	2.02	0.77
1:1G:1026:G:O6	1:1G:1036:G:N2	2.17	0.77
49:C5:8:LYS:HD3	49:C5:97:ARG:HH12	1.48	0.77
26:1H:1728:G:H8	26:1H:1732:A:H62	1.31	0.77
38:58:70:LYS:HE3	38:58:72:TYR:HE1	1.49	0.77
26:14:1900:A:OP2	63:14:3770:HOH:O	2.01	0.77
27:1J:80:U:H2'	27:1J:81:G:H21	1.49	0.77
44:75:108:ARG:HA	44:75:111:ARG:HG3	1.65	0.77
7:62:71:PRO:HD3	7:62:103:TRP:HZ3	1.48	0.77
26:14:252:G:OP2	40:35:50:ARG:NH2	2.17	0.77
26:14:958:U:OP2	41:45:14:ARG:NH1	2.17	0.77
26:14:1776:G:OP2	63:14:3785:HOH:O	2.03	0.77
39:25:13:ASN:HD21	39:25:97:ARG:H	1.32	0.77
1:13:1007:C:O2	1:13:1022:G:N2	2.17	0.77
1:13:1165:C:O2	1:13:1171:G:N2	2.16	0.77
2:1E:68:ILE:HG13	2:1E:161:ALA:HB3	1.65	0.77
26:1H:1416:G:HO2'	26:1H:1417:C:H6	1.33	0.77
26:1H:2287:A:H62	26:1H:2344:U:H3	1.30	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.18	0.77
1:13:1127:G:H2'	1:13:1128:C:C2	2.20	0.77
26:1H:450:G:OP2	63:1H:3808:HOH:O	2.01	0.77
1:1G:573:A:OP2	63:1G:1819:HOH:O	2.01	0.77
2:12:63:MET:HG3	2:12:225:ALA:HB1	1.66	0.77
24:3L:18:G:H21	24:3L:59:A:H5'	1.49	0.77
26:14:1263:U:OP2	63:14:3772:HOH:O	2.01	0.77
26:14:2302:G:N2	26:14:2314:C:O2	2.18	0.77
1:13:768:A:OP2	63:13:1919:HOH:O	2.02	0.77
26:1H:578:A:OP2	63:1H:3810:HOH:O	2.01	0.77
26:1H:947:G:O6	63:1H:3813:HOH:O	2.02	0.77
26:1H:2396:G:H5"	52:J8:25:LYS:HE2	1.67	0.77
26:14:751:A:OP1	63:14:3784:HOH:O	2.03	0.77
38:15:42:TRP:O	45:85:64:ARG:NH2	2.17	0.77
26:1H:1779:U:H2'	63:1H:4061:HOH:O	1.83	0.77
31:31:6:VAL:N	31:31:24:LEU:O	2.18	0.77
1:1G:1264:C:N4	1:1G:1271:G:O6	2.17	0.77
1:13:564:C:H5"	63:13:2006:HOH:O	1.84	0.77
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.66	0.77
26:1H:2419:U:O4	63:1H:3815:HOH:O	2.03	0.77
45:C8:92:ARG:CZ	46:D8:11:GLN:H	1.97	0.77
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.20	0.77
1:1G:1316:G:N2	1:1G:1319:A:H5"	2.00	0.77
1:1G:1505:G:OP1	63:1G:1821:HOH:O	2.01	0.77
26:14:404:C:OP1	63:14:3783:HOH:O	2.02	0.77
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.50	0.77
26:1H:567:A:OP1	63:1H:3817:HOH:O	2.03	0.77
2:12:47:THR:HA	2:12:202:PRO:HG2	1.66	0.77
26:14:411:G:OP1	63:14:3742:HOH:O	2.03	0.77
26:14:790:C:O5'	63:14:3778:HOH:O	2.02	0.77
26:14:1021:A:H62	26:14:1141:U:H3	1.30	0.77
26:14:1898:U:O4	63:14:3786:HOH:O	2.03	0.77
26:14:2357:U:OP1	51:E5:20:ARG:NH1	2.17	0.77
59:M5:33:ASN:OD1	59:M5:36:LYS:NZ	2.18	0.77
26:1H:810:U:OP1	63:1H:3709:HOH:O	2.01	0.77
1:1G:1162:C:H42	1:1G:1174:G:H1	1.33	0.77
26:14:1614:A:OP1	63:14:3789:HOH:O	2.03	0.77
1:13:1526:G:O3'	63:13:1921:HOH:O	2.02	0.76
23:2K:55:5MU:O4	63:2K:202:HOH:O	2.02	0.76
26:1H:1287:A:N7	42:98:107:ASP:HB2	2.00	0.76
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.47	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:77:ILE:O	30:21:79:ARG:N	2.18	0.76
35:61:68:LEU:HA	35:61:71:ILE:HG22	1.66	0.76
38:58:9:VAL:HG21	38:58:39:ARG:HH12	1.49	0.76
1:13:352:C:OP2	63:13:1924:HOH:O	2.04	0.76
1:13:503:C:OP2	12:3I:116:SER:OG	2.02	0.76
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.67	0.76
26:1H:2588:G:OP1	63:1H:3806:HOH:O	2.01	0.76
45:C8:92:ARG:NH1	46:D8:11:GLN:O	2.18	0.76
1:1G:536:C:OP2	63:1G:1823:HOH:O	2.03	0.76
6:52:5:GLU:OE2	63:52:301:HOH:O	2.03	0.76
26:14:409:C:O2	63:14:3781:HOH:O	2.02	0.76
26:14:2588:G:OP1	63:14:3777:HOH:O	2.02	0.76
1:13:446:G:H1	1:13:488:C:H42	1.31	0.76
22:1K:7:G:H3'	22:1K:8:4SU:H5'	1.67	0.76
26:1H:192:C:OP2	63:1H:3814:HOH:O	2.02	0.76
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.49	0.76
1:1G:1007:C:O2	1:1G:1023:G:N2	2.18	0.76
26:14:574:C:OP2	63:14:3792:HOH:O	2.03	0.76
26:14:1314:C:OP1	63:14:3779:HOH:O	2.02	0.76
26:14:1332:G:H5'	26:14:1332:G:H8	1.49	0.76
26:14:1774:C:OP1	63:14:3774:HOH:O	2.01	0.76
31:39:28:ILE:HA	31:39:112:MET:HG2	1.68	0.76
26:1H:2447:G:O5'	63:1H:3822:HOH:O	2.04	0.76
35:61:78:THR:HA	35:61:141:LYS:HB2	1.68	0.76
5:42:75:THR:OG1	5:42:117:ASP:O	2.02	0.76
1:13:504:C:OP1	63:13:1922:HOH:O	2.03	0.76
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.33	0.76
42:98:67:LEU:HD22	42:98:76:VAL:HG21	1.68	0.76
26:14:725:G:OP2	63:14:3782:HOH:O	2.02	0.76
41:45:88:GLY:O	41:45:89:ASN:ND2	2.18	0.76
26:1H:2574:G:OP1	63:1H:3725:HOH:O	2.03	0.76
24:3L:46:G:O2'	24:3L:47:G:H5'	1.85	0.76
30:29:70:ALA:O	30:29:72:VAL:N	2.17	0.76
1:13:803:G:OP1	63:13:1925:HOH:O	2.04	0.76
1:13:1178:G:H5"	9:8E:93:ARG:HH22	1.50	0.76
26:1H:585:G:OP2	63:1H:3823:HOH:O	2.04	0.76
26:1H:1658:C:OP1	63:1H:3819:HOH:O	2.03	0.76
26:14:1209:G:O6	63:14:3790:HOH:O	2.03	0.76
35:69:41:GLU:HA	35:69:44:LEU:HB2	1.67	0.76
49:C5:51:VAL:HG12	49:C5:57:GLN:HG3	1.66	0.76
26:1H:270(K):C:O2	26:1H:270(N):G:N1	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:31:C:O2	27:16:53:A:N6	2.19	0.76
31:31:198:ALA:HA	31:31:201:VAL:HG12	1.68	0.76
11:2A:98:LEU:O	11:2A:101:SER:OG	2.04	0.76
26:14:2615:U:OP2	63:14:3791:HOH:O	2.03	0.76
26:14:2652:C:H42	26:14:2668:G:H1	1.34	0.76
17:8I:48:GLU:O	17:8I:50:LYS:N	2.18	0.76
47:E8:18:ARG:HD3	47:E8:76:VAL:HG13	1.68	0.76
51:I8:14:ARG:NH1	63:I8:201:HOH:O	2.18	0.76
54:L8:12:PRO:O	54:L8:20:LYS:NZ	2.19	0.76
23:2L:24:C:H2'	23:2L:25:U:C6	2.21	0.76
26:14:676:A:H8	26:14:2069:G:H21	1.34	0.76
26:14:2520:C:H41	26:14:2542:A:H62	1.34	0.76
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.68	0.76
26:1H:2312:U:H5'	32:41:88:ILE:HD12	1.68	0.76
20:BA:56:MET:HG3	20:BA:88:VAL:HG21	1.67	0.76
26:14:1329:U:H5"	26:14:1330:C:H5	1.49	0.76
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.68	0.75
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.67	0.75
26:14:2270:G:OP2	63:14:3794:HOH:O	2.04	0.75
2:1E:32:ILE:HD13	2:1E:40:HIS:HB3	1.67	0.75
26:1H:926:A:N7	63:1H:3947:HOH:O	2.17	0.75
32:41:173:LEU:HB3	32:41:178:PHE:CD2	2.21	0.75
10:1A:3:LYS:N	10:1A:74:ILE:O	2.19	0.75
26:14:2268:A:OP1	63:14:3788:HOH:O	2.03	0.75
31:39:123:LEU:O	31:39:125:LEU:N	2.15	0.75
1:13:1385:G:N7	63:13:1961:HOH:O	2.20	0.75
26:1H:1269:A:N7	63:1H:3955:HOH:O	2.19	0.75
26:1H:1479:G:N7	26:1H:1510:A:N6	2.35	0.75
1:1G:438:G:OP1	63:1G:1826:HOH:O	2.04	0.75
1:1G:1262:C:H42	1:1G:1273:G:H1	1.34	0.75
26:1H:2139:C:N4	26:1H:2152:G:O6	2.18	0.75
27:16:15:A:H5'	27:16:16:G:C8	2.22	0.75
28:71:29:VAL:HG21	28:71:185:LEU:HG	1.69	0.75
1:1G:957:U:H1'	1:1G:960:U:C5	2.19	0.75
19:AA:41:VAL:HG23	19:AA:44:MET:HB2	1.69	0.75
26:14:5:A:N6	26:14:2629:A:O2'	2.20	0.75
26:14:2785:C:O2'	30:29:64:LYS:NZ	2.20	0.75
1:13:130:A:OP2	17:8I:63:ARG:NH2	2.19	0.75
26:1H:373:U:OP2	63:1H:3827:HOH:O	2.05	0.75
26:1H:511:U:OP2	63:1H:3821:HOH:O	2.04	0.75
7:62:68:ASN:ND2	7:62:127:ALA:O	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2782:G:OP2	63:14:3795:HOH:O	2.04	0.75
52:F5:91:LYS:HE2	52:F5:91:LYS:HA	1.69	0.75
26:1H:2308:G:N1	26:1H:2311:A:H2	1.78	0.75
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	1.67	0.75
26:14:1298:C:OP2	63:14:3780:HOH:O	2.02	0.75
26:14:1417:C:OP2	63:14:3799:HOH:O	2.05	0.75
26:14:2006:C:OP1	63:14:3748:HOH:O	2.04	0.75
26:1H:275:G:N2	26:1H:276:A:N7	2.33	0.75
36:38:70:GLU:HB3	36:38:71:LEU:HG	1.67	0.75
26:14:563:G:OP2	63:14:3797:HOH:O	2.04	0.75
30:29:36:ARG:HH22	30:29:88:GLY:HA2	1.51	0.75
33:59:87:LEU:HD22	33:59:162:ILE:HG22	1.68	0.75
50:D5:51:ALA:HB1	50:D5:57:ILE:HD11	1.68	0.75
1:13:564:C:OP2	63:13:1923:HOH:O	2.04	0.75
5:4E:65:ASN:OD1	5:4E:140:ARG:NH2	2.20	0.75
26:1H:2850:A:OP2	63:1H:3830:HOH:O	2.05	0.75
1:1G:560:U:OP2	63:1G:1825:HOH:O	2.03	0.75
26:14:1959:G:N7	63:14:3883:HOH:O	2.19	0.75
26:14:2028:U:O4	63:14:3775:HOH:O	2.01	0.75
1:13:1213:A:O2'	1:13:1215:G:N7	2.19	0.74
36:38:102:LYS:HE2	36:38:103:GLY:H	1.52	0.74
22:1L:64:U:O2'	26:14:2482:G:O2'	2.03	0.74
26:14:2705:A:OP2	63:14:3787:HOH:O	2.03	0.74
52:F5:92:LYS:O	52:F5:94:LEU:N	2.20	0.74
26:1H:1190:G:N7	63:1H:3965:HOH:O	2.20	0.74
44:B8:29:ARG:HB2	44:B8:46:GLU:HG3	1.69	0.74
1:1G:550:G:OP1	63:1G:1824:HOH:O	2.03	0.74
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.51	0.74
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.51	0.74
26:14:1855:G:N7	63:14:3879:HOH:O	2.19	0.74
39:25:24:VAL:HG12	39:25:33:ALA:HB2	1.68	0.74
1:13:1391:U:H2'	1:13:1392:G:C8	2.22	0.74
26:1H:252:G:OP2	40:78:50:ARG:NH1	2.19	0.74
26:1H:842:G:N7	63:1H:3969:HOH:O	2.21	0.74
26:1H:943:U:O4	63:1H:3816:HOH:O	2.03	0.74
2:12:102:LEU:HD23	2:12:182:ILE:HD12	1.69	0.74
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.68	0.74
46:95:69:LYS:HG2	46:95:88:ARG:HD3	1.69	0.74
48:B5:43:VAL:HG23	48:B5:51:VAL:HG21	1.69	0.74
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.23	0.74
47:E8:73:ALA:HB3	47:E8:106:ILE:HB	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1089:G:H1	1:1G:1096:C:H42	1.35	0.74
10:1A:34:VAL:HG22	10:1A:74:ILE:HG22	1.67	0.74
26:14:411:G:H5"	63:14:3932:HOH:O	1.86	0.74
26:14:625:G:N7	40:35:107:LYS:NZ	2.34	0.74
26:14:848:G:H2'	26:14:849:A:C8	2.22	0.74
26:14:1970:A:OP2	63:14:3793:HOH:O	2.04	0.74
31:39:128:ALA:O	31:39:142:TRP:NE1	2.17	0.74
42:55:38:VAL:HG12	42:55:42:LYS:HD2	1.67	0.74
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.21	0.74
1:13:1228:C:H2'	1:13:1229:A:H8	1.52	0.74
3:2E:72:LYS:HD3	3:2E:75:VAL:HG21	1.69	0.74
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.20	0.74
26:1H:877:U:O4	26:1H:899:A:N6	2.20	0.74
26:1H:1521:G:N7	63:1H:3966:HOH:O	2.20	0.74
43:A8:24:LEU:HB2	43:A8:85:VAL:HG12	1.70	0.74
1:1G:79:G:H1	1:1G:90:C:H42	1.32	0.74
1:1G:1534:A:N6	25:4L:10:G:O6	2.19	0.74
1:13:1132:C:H2'	1:13:1133:G:H8	1.52	0.74
26:1H:148:C:OP2	63:1H:3832:HOH:O	2.05	0.74
26:1H:860:U:H5	26:1H:917:A:H2	1.34	0.74
26:1H:2447:G:OP1	63:1H:3824:HOH:O	2.04	0.74
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.52	0.74
1:1G:1502:A:H2	1:1G:1505:G:H1	1.34	0.74
26:14:1111:A:H5'	33:59:3:ARG:HD3	1.69	0.74
26:14:1187:G:OP2	63:14:3798:HOH:O	2.05	0.74
26:14:1778:U:H2'	26:14:1784:A:N6	2.01	0.74
33:59:18:GLU:HG3	33:59:25:LYS:HB2	1.69	0.74
1:13:110:C:O2'	16:7I:25:ARG:O	2.05	0.74
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.20	0.74
26:1H:1209:G:OP2	63:1H:3818:HOH:O	2.03	0.74
26:1H:2685:G:O6	63:1H:3828:HOH:O	2.05	0.74
55:M8:37:SER:HA	55:M8:41:PRO:HD2	1.69	0.74
1:1G:957:U:O2'	1:1G:959:A:N7	2.21	0.74
4:32:152:SER:O	4:32:154:ASN:N	2.17	0.74
26:14:49:A:H5"	26:14:51:G:O4'	1.87	0.74
26:14:450:G:OP2	63:14:3802:HOH:O	2.05	0.74
1:13:1348:U:H2'	1:13:1349:A:H8	1.53	0.74
12:3I:32:PHE:HB3	12:3I:84:LEU:HD11	1.69	0.74
24:3K:18:G:N2	24:3K:59:A:H5'	2.03	0.74
26:1H:664:C:OP1	40:78:18:ARG:NH2	2.18	0.74
26:1H:2502:G:OP2	63:1H:3829:HOH:O	2.05	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:127:ASP:OD2	63:21:402:HOH:O	2.06	0.74
34:18:24:ILE:O	34:18:26:ALA:N	2.20	0.74
50:D5:175:VAL:HG22	50:D5:176:PRO:HA	1.68	0.74
4:3E:165:MET:HA	4:3E:168:ARG:HD3	1.68	0.74
9:8E:78:LYS:HE3	9:8E:101:PHE:HE1	1.53	0.74
26:1H:881:G:O6	26:1H:895:U:N3	2.20	0.74
24:3L:6:U:H3	24:3L:68:G:H22	1.35	0.74
35:69:140:LEU:HD12	35:69:141:LYS:H	1.53	0.74
1:13:1482:G:O6	63:13:1926:HOH:O	2.04	0.74
26:1H:1441:G:N7	63:1H:3974:HOH:O	2.21	0.74
26:1H:2849:U:O2'	63:1H:3825:HOH:O	2.04	0.74
39:25:85:VAL:HG11	39:25:114:ILE:HD13	1.70	0.74
56:J5:41:PRO:O	56:J5:44:THR:OG1	2.05	0.74
19:AI:15:LEU:HA	19:AI:18:LYS:HG2	1.70	0.73
26:1H:232:G:H5"	26:1H:232:G:H8	1.51	0.73
36:38:45:LYS:HD3	37:48:119:ASP:HB3	1.69	0.73
26:1H:860:U:H5"	63:1H:4041:HOH:O	1.87	0.73
42:98:78:LYS:HE2	42:98:83:ILE:HD11	1.69	0.73
2:12:76:GLN:NE2	2:12:206:ASP:OD2	2.21	0.73
26:14:890:A:H2'	26:14:892:G:C8	2.23	0.73
26:14:1341:U:OP2	26:14:1394:U:O2'	2.06	0.73
26:14:1382:G:N7	63:14:3892:HOH:O	2.20	0.73
1:13:1335:C:O2	63:13:1928:HOH:O	2.06	0.73
26:1H:971:C:OP2	63:1H:3826:HOH:O	2.05	0.73
26:1H:2347:C:OP1	57:O8:39:TYR:OH	2.05	0.73
34:18:30:ALA:HA	34:28:3:LEU:HG	1.68	0.73
49:G8:38:ILE:HD11	49:G8:64:GLU:HG3	1.71	0.73
1:1G:572:A:OP2	63:1G:1828:HOH:O	2.05	0.73
46:95:3:ALA:HB2	46:95:99:ILE:HG21	1.69	0.73
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.22	0.73
26:1H:800:A:OP1	63:1H:3839:HOH:O	2.06	0.73
26:1H:1046:A:N7	36:38:3:ASN:ND2	2.34	0.73
22:1L:10:G:H22	22:1L:27:A:H1'	1.52	0.73
26:14:801:G:OP2	63:14:3805:HOH:O	2.07	0.73
26:14:2499:C:OP1	63:14:3738:HOH:O	2.04	0.73
1:13:664:G:H22	1:13:741:G:H1	1.34	0.73
24:3K:5:C:O2	24:3K:69:G:N2	2.17	0.73
26:1H:586:A:OP2	63:1H:3834:HOH:O	2.06	0.73
26:1H:780:G:H21	26:1H:783:A:N6	1.85	0.73
2:1E:87:ARG:NH2	2:1E:220:ASP:OD1	2.20	0.73
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:240:C:O2	1:1G:286:G:N2	2.19	0.73
26:14:1616:A:O2'	63:14:3796:HOH:O	2.04	0.73
49:C5:48:ALA:HB3	49:C5:59:GLY:HA3	1.69	0.73
1:13:963:G:N2	1:13:972:C:N3	2.29	0.73
26:1H:1676:A:OP2	63:1H:3841:HOH:O	2.06	0.73
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.53	0.73
26:1H:2504:U:OP1	63:1H:3845:HOH:O	2.07	0.73
26:1H:2878:U:O4	63:1H:3820:HOH:O	2.04	0.73
32:41:113:ARG:NE	55:M8:34:GLU:OE1	2.17	0.73
37:48:90:LYS:O	37:48:92:GLY:N	2.22	0.73
50:H8:61:LEU:HD22	50:H8:67:LEU:HD11	1.69	0.73
26:14:1358:G:N1	63:14:3744:HOH:O	2.22	0.73
26:14:2074:U:OP1	63:14:3804:HOH:O	2.06	0.73
1:13:35:G:O2'	12:3I:118:SER:O	2.05	0.73
26:1H:48:G:O6	63:1H:3847:HOH:O	2.07	0.73
26:1H:70:G:H21	26:1H:71:A:N6	1.86	0.73
26:1H:509:C:OP1	63:1H:3840:HOH:O	2.06	0.73
26:1H:723:G:O6	63:1H:3836:HOH:O	2.06	0.73
26:1H:1828:G:OP1	63:1H:3835:HOH:O	2.06	0.73
30:21:38:THR:HG23	30:21:41:LYS:H	1.53	0.73
54:L8:26:LEU:HB2	54:L8:28:LEU:HD12	1.71	0.73
1:1G:5:U:H4'	1:1G:5:U:OP1	1.89	0.73
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.70	0.73
24:3L:57:C:H2'	24:3L:58:G:C8	2.24	0.73
26:1H:761:A:N7	63:1H:3936:HOH:O	2.21	0.73
26:1H:2751:G:H1'	33:51:3:ARG:CZ	2.18	0.73
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.22	0.73
26:14:1676:A:OP2	63:14:3806:HOH:O	2.07	0.73
26:14:1997:G:OP2	63:14:3801:HOH:O	2.05	0.73
12:3I:33:ARG:HG2	12:3I:60:LEU:HD11	1.71	0.73
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.03	0.73
22:1L:15:G:N2	22:1L:22:A:H1'	2.02	0.73
35:69:110:ASP:N	35:69:130:TYR:OH	2.20	0.73
1:13:1417:G:O6	63:13:1920:HOH:O	2.02	0.72
40:78:79:ARG:HB2	40:78:110:TYR:HD1	1.54	0.72
2:12:74:LYS:NZ	2:12:205:ASP:O	2.20	0.72
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.25	0.72
26:1H:409:C:OP1	63:1H:3851:HOH:O	2.07	0.72
26:1H:1602:U:O4	63:1H:3796:HOH:O	2.06	0.72
36:38:93:LEU:HD21	36:38:98:LYS:O	1.88	0.72
22:1L:56:PSU:HN1	41:45:60:ARG:HH22	1.35	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:654(C):G:H22	26:14:654(R):C:H1'	1.53	0.72
26:14:2415:G:H4'	40:35:67:MET:N	2.03	0.72
27:1J:25:A:OP1	63:1J:301:HOH:O	2.05	0.72
1:13:1110:A:OP2	63:13:1931:HOH:O	2.08	0.72
26:1H:121:G:OP1	63:1H:3855:HOH:O	2.08	0.72
26:1H:2068:U:N3	26:1H:2430:A:H2	1.86	0.72
29:11:69:ARG:NH2	29:11:128:GLY:O	2.19	0.72
37:48:51:ALA:HB3	37:48:76:TYR:HA	1.70	0.72
24:3L:36:C:HO2'	24:3L:37:G:H8	1.35	0.72
26:14:517:C:OP2	56:J5:13:LYS:NZ	2.21	0.72
26:14:1053:C:N4	26:14:1106:G:O6	2.18	0.72
26:14:1332:G:H5"	63:14:3875:HOH:O	1.89	0.72
26:14:1417:C:OP2	63:14:3812:HOH:O	2.08	0.72
28:79:38:ASP:OD2	28:79:177:LYS:NZ	2.18	0.72
26:1H:2053:G:OP2	63:1H:3838:HOH:O	2.06	0.72
43:65:106:ARG:NH2	43:65:107:GLU:OE1	2.22	0.72
1:13:346:G:O2'	44:B8:41:ARG:NH1	2.23	0.72
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.70	0.72
26:14:575:A:O3'	63:14:3810:HOH:O	2.07	0.72
26:14:780:G:H21	26:14:783:A:N6	1.85	0.72
26:14:1378:A:O2'	26:14:1380:G:N7	2.18	0.72
26:14:1604:C:OP1	63:14:3719:HOH:O	2.06	0.72
26:14:2636:U:OP1	30:29:80:GLU:HB2	1.89	0.72
40:35:96:THR:HG23	40:35:99:LEU:HB3	1.71	0.72
52:F5:92:LYS:O	52:F5:95:LEU:N	2.23	0.72
26:1H:54:G:O6	63:1H:3844:HOH:O	2.07	0.72
26:1H:2838:G:N7	63:1H:3987:HOH:O	2.22	0.72
1:1G:502:G:O2'	63:1G:1829:HOH:O	2.07	0.72
26:14:751:A:OP1	63:14:3809:HOH:O	2.07	0.72
33:59:86:GLU:HG3	33:59:165:ALA:HB2	1.71	0.72
1:13:1422:G:H5'	39:68:48:PRO:HB3	1.71	0.72
1:1G:167:G:O6	63:1G:1827:HOH:O	2.04	0.72
26:14:1169:G:H1	26:14:1180:C:H42	1.36	0.72
26:14:1210:A:H5'	26:14:1212:G:H5'	1.71	0.72
1:13:501:C:H2'	1:13:502:G:H8	1.55	0.72
26:1H:192:C:OP1	63:1H:3833:HOH:O	2.06	0.72
26:1H:2255:G:OP2	63:1H:3843:HOH:O	2.06	0.72
36:38:39:ALA:HA	36:38:42:GLN:HB3	1.72	0.72
46:D8:14:VAL:HB	46:D8:96:ILE:HG13	1.72	0.72
1:1G:1095:U:P	1:1G:1108:G:H1	2.12	0.72
26:14:831:G:OP1	63:14:3808:HOH:O	2.07	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1828:G:OP1	63:14:3807:HOH:O	2.07	0.72
33:59:117:PRO:HB3	33:59:123:PHE:HE2	1.53	0.72
43:65:3:ARG:HH21	43:65:4:LEU:HB2	1.55	0.72
1:13:737:A:H2'	1:13:738:C:H6	1.52	0.72
1:13:1197:G:OP2	63:13:1911:HOH:O	2.06	0.72
1:13:1305:G:N2	1:13:1331:G:H2'	2.03	0.72
26:1H:773:U:OP1	63:1H:3852:HOH:O	2.07	0.72
26:1H:1244:G:N7	63:1H:3998:HOH:O	2.23	0.72
26:14:386:G:O3'	63:14:3814:HOH:O	2.08	0.72
26:14:1534:G:H3'	26:14:1535:U:C5'	2.20	0.72
50:D5:59:LEU:O	50:D5:61:LEU:N	2.22	0.72
1:13:1423:G:OP1	39:68:49:ARG:NH2	2.23	0.72
26:1H:2846:G:N7	63:1H:3996:HOH:O	2.23	0.72
42:98:57:ARG:HB3	42:98:59:ASP:OD1	1.90	0.72
1:1G:628:G:H2'	1:1G:629:G:C8	2.25	0.72
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.25	0.72
26:14:1166:C:O2'	63:14:3818:HOH:O	2.08	0.72
29:19:71:ASP:OD1	29:19:103:ARG:NH2	2.23	0.72
31:39:58:ALA:O	63:39:401:HOH:O	2.07	0.72
1:13:601:C:H2'	1:13:602:A:C8	2.25	0.71
1:13:937:A:OP2	63:13:1934:HOH:O	2.08	0.71
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.72	0.71
26:1H:1869:G:N7	63:1H:3981:HOH:O	2.22	0.71
30:21:127:ASP:OD2	63:21:403:HOH:O	2.08	0.71
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.72	0.71
50:D5:33:LEU:HD23	50:D5:90:VAL:HG21	1.72	0.71
50:D5:79:ARG:HB3	50:D5:80:ARG:HG3	1.72	0.71
1:13:963:G:H21	10:1I:55:LYS:CE	2.03	0.71
26:1H:805:G:OP1	63:1H:3857:HOH:O	2.08	0.71
26:1H:851:U:OP1	54:L8:49:LYS:NZ	2.17	0.71
26:1H:1781:C:H3'	63:1H:3730:HOH:O	1.88	0.71
38:58:39:ARG:NH2	38:58:41:ASP:OD2	2.23	0.71
38:58:56:ASN:N	38:58:125:GLY:O	2.16	0.71
45:85:100:VAL:O	45:85:101:ARG:HG2	1.90	0.71
26:1H:1670:C:OP1	63:1H:3856:HOH:O	2.08	0.71
26:1H:2433:A:OP2	63:1H:3842:HOH:O	2.06	0.71
26:1H:2598:A:OP1	63:1H:3837:HOH:O	2.06	0.71
1:1G:973:G:O2'	10:1A:54:PHE:O	2.09	0.71
7:62:16:LEU:HD21	9:82:45:ALA:HB2	1.73	0.71
8:72:12:ARG:HD3	8:72:26:VAL:HG12	1.71	0.71
32:49:161:THR:HG22	32:49:163:ALA:H	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:35:8:PRO:HG2	40:35:13:ASN:HD22	1.53	0.71
26:1H:2891:G:OP2	63:1H:3850:HOH:O	2.07	0.71
36:38:23:SER:CB	36:38:68:LEU:HB2	2.20	0.71
26:14:2448:A:OP1	63:14:3820:HOH:O	2.08	0.71
28:79:165:ASN:ND2	28:79:166:ASP:O	2.20	0.71
30:29:55:ASN:HB3	30:29:58:ARG:HD2	1.71	0.71
48:B5:63:LYS:H	48:B5:63:LYS:HE3	1.54	0.71
1:13:1286:A:H2'	1:13:1287:A:H4'	1.70	0.71
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.70	0.71
26:1H:748:G:OP2	63:1H:3848:HOH:O	2.07	0.71
26:1H:1059:G:O6	26:1H:1079:C:N4	2.23	0.71
26:1H:1377:G:O6	63:1H:3861:HOH:O	2.09	0.71
26:1H:1782:C:OP1	63:1H:3745:HOH:O	2.08	0.71
26:1H:2713:A:OP2	63:1H:3854:HOH:O	2.07	0.71
3:22:88:ARG:HG3	3:22:101:LEU:HD12	1.70	0.71
4:32:94:LEU:HA	4:32:97:LEU:HD12	1.73	0.71
26:14:2327:A:H2'	26:14:2328:A:C8	2.25	0.71
52:F5:87:PRO:HA	52:F5:90:ILE:HG23	1.73	0.71
1:13:509:A:OP2	63:13:1933:HOH:O	2.08	0.71
26:1H:2052:G:H4'	30:21:143:ASN:O	1.90	0.71
26:14:1156:A:OP2	63:14:3811:HOH:O	2.07	0.71
45:85:66:ASN:HB2	45:85:76:TYR:HB2	1.71	0.71
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.23	0.71
20:BI:64:ASP:OD1	20:BI:64:ASP:N	2.21	0.71
22:1K:6:C:N3	22:1K:68:G:N2	2.38	0.71
1:1G:683:G:H2'	1:1G:684:A:C8	2.26	0.71
26:14:1635:G:OP1	63:14:3822:HOH:O	2.08	0.71
30:29:181:LEU:HD11	44:75:7:ILE:HD11	1.71	0.71
1:13:567:G:OP2	63:13:1938:HOH:O	2.09	0.71
32:41:37:VAL:HG22	32:41:159:VAL:HG12	1.72	0.71
32:41:165:THR:HB	32:41:168:GLU:HG3	1.71	0.71
2:12:54:THR:HG23	2:12:199:TYR:HB3	1.72	0.71
26:14:2031:A:N3	26:14:2455:G:O2'	2.22	0.71
41:45:66:ILE:HG22	41:45:104:PHE:HE1	1.56	0.71
26:1H:574:C:OP2	63:1H:3859:HOH:O	2.08	0.71
33:51:54:ARG:HD3	33:51:65:HIS:ND1	2.06	0.71
1:1G:1401:G:N7	63:1G:1850:HOH:O	2.23	0.71
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.23	0.71
4:32:60:GLU:OE2	4:32:199:ASN:N	2.24	0.71
24:3L:30:C:O2	24:3L:42:G:N2	2.19	0.71
26:14:323:G:O2'	26:14:1205:U:N3	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:376:G:H1	1:13:387:U:H3	1.39	0.71
1:13:886:G:OP2	63:13:1935:HOH:O	2.09	0.71
10:1I:49:VAL:HG22	14:5I:41:ARG:HB2	1.72	0.71
26:1H:1619:G:N7	63:1H:3991:HOH:O	2.22	0.71
26:1H:2475:C:H1'	26:1H:2476:A:C8	2.25	0.71
52:J8:83:GLU:HG2	52:J8:85:LEU:H	1.56	0.71
1:1G:54:C:N4	1:1G:353:A:OP2	2.24	0.71
2:12:22:LYS:HZ2	2:12:22:LYS:H	1.39	0.71
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.72	0.71
13:4A:67:GLU:O	13:4A:70:LEU:N	2.24	0.71
26:14:2719:G:OP2	63:14:3813:HOH:O	2.08	0.71
32:49:41:GLN:NE2	32:49:154:GLY:O	2.20	0.71
39:25:68:GLU:HB3	39:25:78:ARG:HB3	1.71	0.71
46:95:35:LEU:O	46:95:37:VAL:HG22	1.91	0.71
48:B5:41:ASN:HA	48:B5:44:GLU:HB2	1.73	0.71
1:13:565:U:OP2	63:13:1936:HOH:O	2.09	0.70
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.55	0.70
26:1H:399:G:OP2	63:1H:3853:HOH:O	2.07	0.70
26:1H:577:G:O6	63:1H:3858:HOH:O	2.08	0.70
26:1H:600:G:N2	26:1H:605:C:O3'	2.24	0.70
26:1H:1839:G:OP2	63:1H:3865:HOH:O	2.09	0.70
26:1H:2157:G:O2'	26:1H:2158:A:OP2	2.09	0.70
41:45:75:THR:HA	41:45:89:ASN:HA	1.72	0.70
44:75:50:ILE:HD11	44:75:102:ILE:HD11	1.72	0.70
1:13:21:G:OP1	63:13:1930:HOH:O	2.07	0.70
1:13:737:A:H2'	1:13:738:C:C6	2.26	0.70
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.55	0.70
24:3K:12:U:O4	24:3K:24:A:N6	2.20	0.70
26:1H:389:G:N1	40:78:71:VAL:HG12	2.05	0.70
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.26	0.70
1:1G:963:G:H21	10:1A:55:LYS:HD3	1.55	0.70
19:AA:36:ARG:HA	19:AA:71:LEU:HD12	1.73	0.70
26:14:58:G:O6	63:14:3832:HOH:O	2.10	0.70
26:14:2035:G:OP1	63:14:3819:HOH:O	2.08	0.70
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.24	0.70
43:65:21:THR:HB	43:65:23:ARG:HG2	1.73	0.70
26:1H:330:A:HO2'	26:1H:331:A:H8	1.39	0.70
26:1H:1269:A:OP2	63:1H:3766:HOH:O	2.07	0.70
54:L8:13:ILE:O	63:L8:101:HOH:O	2.09	0.70
1:1G:1224:G:N2	1:1G:1322:C:H4'	2.06	0.70
17:8A:45:HIS:HB2	17:8A:65:ILE:HD13	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:659:U:H2'	1:13:660:G:C8	2.27	0.70
1:13:1205:U:O4	63:13:1927:HOH:O	2.06	0.70
2:1E:100:GLY:O	2:1E:104:ASN:N	2.20	0.70
26:1H:1838:C:O3'	63:1H:3863:HOH:O	2.09	0.70
36:38:41:ARG:HA	36:38:47:ASN:HD21	1.57	0.70
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.27	0.70
26:14:1022:G:H22	26:14:1142(A):A:H2	1.39	0.70
26:14:1971:A:OP1	63:14:3827:HOH:O	2.09	0.70
29:19:223:GLY:HA2	29:19:226:MET:HG3	1.70	0.70
1:13:816:A:OP2	63:13:1932:HOH:O	2.08	0.70
20:BI:30:LYS:HE2	20:BI:80:ARG:HH12	1.53	0.70
26:1H:330:A:O2'	26:1H:331:A:H8	1.73	0.70
26:1H:342:G:O6	63:1H:3831:HOH:O	2.05	0.70
26:1H:945:A:OP1	63:1H:3860:HOH:O	2.08	0.70
26:1H:2495:G:H5"	41:88:82:ARG:HB3	1.74	0.70
33:51:4:ILE:HG21	33:51:6:ARG:NE	2.07	0.70
33:51:157:TYR:O	33:51:158:HIS:ND1	2.25	0.70
53:K8:41:ILE:HD13	53:K8:44:LEU:HG	1.71	0.70
1:1G:353:A:H5'	1:1G:353:A:H8	1.55	0.70
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.73	0.70
26:14:1153:C:OP1	45:85:93:LYS:NZ	2.25	0.70
40:35:66:GLY:HA2	40:35:68:GLN:HG2	1.74	0.70
50:D5:193:GLU:H	50:D5:194:PRO:HD3	1.55	0.70
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.24	0.70
26:1H:761:A:H5"	63:1H:3941:HOH:O	1.91	0.70
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.56	0.70
42:98:27:SER:HB3	42:98:34:ILE:HD11	1.74	0.70
1:1G:573:A:OP2	63:1G:1828:HOH:O	2.10	0.70
1:1G:774:G:N7	63:1G:1854:HOH:O	2.24	0.70
26:14:2547:U:O2	39:25:23:ARG:NH2	2.24	0.70
26:14:2701:C:H3'	26:14:2702:U:C5'	2.20	0.70
40:35:14:LYS:O	40:35:16:ARG:N	2.24	0.70
45:85:98:LEU:HB2	45:85:102:GLU:HB2	1.73	0.70
26:1H:971:C:OP2	63:1H:3874:HOH:O	2.10	0.70
26:1H:973:A:OP2	63:1H:3864:HOH:O	2.09	0.70
30:21:97:LYS:N	30:21:100:GLU:OE1	2.18	0.70
31:31:63:LYS:HE3	31:31:67:GLN:HB2	1.73	0.70
18:9A:32:ARG:HD3	18:9A:65:ILE:HD13	1.72	0.70
26:14:800:A:OP1	63:14:3824:HOH:O	2.09	0.70
26:1H:1665:A:N6	63:1H:3892:HOH:O	2.12	0.70
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:61:98:ALA:HB2	35:61:111:PRO:HB3	1.71	0.70
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.73	0.70
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.73	0.70
12:3A:78:GLN:HG2	12:3A:81:SER:HB3	1.72	0.70
48:B5:9:LEU:HA	53:G5:36:ARG:HH21	1.57	0.70
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.73	0.70
26:1H:770:G:OP2	63:1H:3873:HOH:O	2.10	0.70
4:32:19:LEU:HB2	4:32:21:LEU:HD11	1.74	0.70
26:14:31:C:OP1	63:14:3816:HOH:O	2.08	0.70
26:14:192:C:OP2	63:14:3817:HOH:O	2.08	0.70
26:14:1239:G:O6	63:14:3826:HOH:O	2.09	0.70
26:14:1324:G:N7	63:14:3926:HOH:O	2.24	0.70
26:14:2115:G:H21	26:14:2172:U:H3	1.40	0.70
32:49:6:ALA:O	32:49:10:LYS:N	2.20	0.70
32:49:111:LEU:HD11	32:49:120:LEU:HD21	1.72	0.70
1:13:1149:C:H2'	1:13:1150:U:H6	1.57	0.70
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.74	0.70
26:1H:527:C:OP1	63:1H:3871:HOH:O	2.10	0.70
32:41:27:ASN:HB3	32:41:30:GLU:HG3	1.72	0.70
45:C8:92:ARG:O	45:C8:94:ASN:N	2.25	0.70
55:M8:39:CYS:SG	55:M8:41:PRO:HD3	2.32	0.70
1:1G:612:C:O2	1:1G:629:G:N2	2.23	0.70
1:1G:983:A:N1	1:1G:1222:G:N2	2.40	0.70
4:32:57:ARG:HH22	5:42:107:ARG:HD2	1.55	0.70
26:14:1386:C:H2'	26:14:1387:C:H6	1.56	0.70
63:14:3737:HOH:O	30:29:135:HIS:NE2	2.25	0.70
1:13:1263:C:N4	1:13:1272:G:O6	2.16	0.69
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.07	0.69
2:1E:97:TRP:HZ3	2:1E:172:ILE:HB	1.57	0.69
26:1H:202:U:O4	63:1H:3877:HOH:O	2.10	0.69
26:1H:423:A:OP2	63:1H:3872:HOH:O	2.10	0.69
32:41:67:LYS:H	32:41:67:LYS:HE2	1.56	0.69
39:68:47:ILE:HG13	39:68:48:PRO:HD2	1.73	0.69
41:88:37:LEU:HD21	41:88:130:LYS:HE3	1.72	0.69
26:14:770:G:OP2	63:14:3829:HOH:O	2.09	0.69
26:14:1639:U:OP1	63:14:3830:HOH:O	2.09	0.69
1:13:418:C:H2'	1:13:419:C:H6	1.56	0.69
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.72	0.69
26:1H:886:C:O2'	26:1H:890:A:N6	2.24	0.69
26:1H:2074:U:OP1	63:1H:3878:HOH:O	2.10	0.69
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1248:A:N6	1:1G:1288:A:OP2	2.25	0.69
26:14:1364:G:OP2	52:F5:2:SER:N	2.25	0.69
1:13:944:G:OP1	63:13:1937:HOH:O	2.09	0.69
1:13:1167:A:H2'	1:13:1169:A:C8	2.26	0.69
36:38:131:MET:HA	36:38:134:LEU:HD22	1.74	0.69
45:C8:92:ARG:NH2	46:D8:11:GLN:H	1.90	0.69
1:1G:41:G:H2'	1:1G:42:G:C8	2.28	0.69
1:1G:987:G:H1	1:1G:1218:C:H42	1.38	0.69
12:3A:114:LYS:HE3	12:3A:125:PRO:HG3	1.74	0.69
26:14:857:C:H4'	51:E5:23:VAL:HG21	1.72	0.69
26:14:1534:G:H3'	26:14:1535:U:H5"	1.73	0.69
26:14:1680:U:N3	26:14:1764:G:OP2	2.24	0.69
26:14:2304:G:N7	63:14:3928:HOH:O	2.25	0.69
32:49:18:GLU:HG3	32:49:21:ARG:HH21	1.57	0.69
59:M5:33:ASN:C	59:M5:35:GLN:H	1.95	0.69
1:13:550:G:OP1	63:13:1942:HOH:O	2.10	0.69
1:13:1034:G:N2	1:13:1035:A:N7	2.32	0.69
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.56	0.69
26:1H:1009:A:OP2	63:1H:3883:HOH:O	2.11	0.69
1:1G:557:G:OP1	63:1G:1834:HOH:O	2.11	0.69
26:14:568:U:O2'	63:14:3831:HOH:O	2.09	0.69
1:13:524:G:H2'	1:13:525:C:C6	2.28	0.69
26:1H:311:A:OP2	63:1H:3868:HOH:O	2.09	0.69
26:1H:739:G:OP1	63:1H:3870:HOH:O	2.09	0.69
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.27	0.69
10:1A:79:ARG:H	10:1A:79:ARG:HD3	1.58	0.69
26:14:498:G:H21	49:C5:47:LYS:NZ	1.89	0.69
26:14:739:G:OP2	26:14:739:G:H8	1.75	0.69
26:1H:1265:A:O5'	63:1H:3881:HOH:O	2.11	0.69
36:38:4:LYS:HG2	36:38:6:ASN:HB2	1.74	0.69
50:H8:5:LEU:N	50:H8:59:LEU:HA	2.05	0.69
26:14:400:G:O6	63:14:3833:HOH:O	2.10	0.69
29:19:255:LYS:HZ2	29:19:255:LYS:N	1.90	0.69
54:H5:39:ASP:OD2	54:H5:44:ARG:NH1	2.26	0.69
8:7E:112:LEU:HA	8:7E:134:ILE:HG12	1.73	0.69
26:1H:2056:G:OP2	63:1H:3867:HOH:O	2.09	0.69
1:1G:766:A:OP2	63:1G:1830:HOH:O	2.09	0.69
49:C5:2:ARG:HG3	49:C5:3:VAL:HG23	1.73	0.69
1:13:247:G:OP2	17:8I:100:LYS:N	2.23	0.69
1:13:306:G:O3'	63:13:1941:HOH:O	2.09	0.69
1:13:510:A:OP2	63:13:1933:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:136:G:N7	63:1H:4022:HOH:O	2.26	0.69
26:1H:2547:U:O2	39:68:23:ARG:NH2	2.26	0.69
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.10	0.69
30:21:101:ARG:HG2	30:21:169:ASN:ND2	2.08	0.69
33:51:107:VAL:HB	33:51:152:ARG:HG2	1.73	0.69
37:48:77:LEU:HD13	37:48:111:LYS:HE3	1.73	0.69
38:58:9:VAL:HG11	38:58:39:ARG:HH22	1.58	0.69
43:A8:11:LYS:HD3	43:A8:91:PRO:HD3	1.74	0.69
1:1G:578:C:OP1	63:1G:1832:HOH:O	2.10	0.69
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.26	0.69
3:22:156:ARG:NH2	3:22:159:GLY:O	2.21	0.69
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.26	0.69
22:1L:9:A:H2	22:1L:24:A:H62	1.41	0.69
26:14:1154:G:OP2	45:85:58:ARG:NH1	2.26	0.69
26:14:1395:A:OP1	63:14:3823:HOH:O	2.09	0.69
26:14:1418:G:H8	26:14:1418:G:O5'	1.75	0.69
41:45:75:THR:HG21	41:45:85:LYS:HE2	1.73	0.69
1:13:735:C:H2'	1:13:736:C:H6	1.58	0.69
26:1H:991:C:H2'	26:1H:992:C:H6	1.56	0.69
26:1H:2061:G:P	63:1H:3763:HOH:O	2.51	0.69
33:51:9:ILE:HD13	33:51:51:ARG:HH21	1.56	0.69
38:58:47:ALA:HB2	38:58:112:LEU:HD11	1.73	0.69
1:1G:1250:A:H4'	9:82:68:GLY:H	1.57	0.69
3:22:37:GLN:O	3:22:41:GLY:N	2.25	0.69
10:1A:99:LYS:HD3	10:1A:100:THR:H	1.58	0.69
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.57	0.69
26:14:774:A:H2	26:14:787:U:HO2'	1.40	0.69
26:14:900:A:H3'	26:14:901:A:H8	1.57	0.69
1:13:1199:U:O4	63:13:1929:HOH:O	2.06	0.69
26:14:2148:G:H2'	26:14:2149:G:H8	1.56	0.69
35:69:111:PRO:O	35:69:112:LYS:HG2	1.92	0.69
41:45:31:ASP:O	41:45:134:ARG:HB3	1.93	0.69
45:85:90:VAL:HG22	46:95:39:LEU:HD23	1.75	0.69
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.24	0.68
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.26	0.68
26:1H:1357:U:OP2	63:1H:3866:HOH:O	2.09	0.68
26:1H:1975:G:OP2	63:1H:3886:HOH:O	2.11	0.68
54:L8:7:LYS:HB2	54:L8:34:GLU:HG3	1.75	0.68
1:1G:934:C:OP1	63:1G:1833:HOH:O	2.10	0.68
1:1G:1148:U:H2'	1:1G:1149:C:O4'	1.93	0.68
1:13:1108:G:O6	63:13:1939:HOH:O	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:510:C:H5"	63:1H:3821:HOH:O	1.93	0.68
40:78:50:ARG:HD3	59:Q8:7:HIS:CD2	2.27	0.68
40:78:114:ILE:HD13	40:78:125:VAL:HG11	1.75	0.68
1:1G:1206:G:OP1	3:22:190:ARG:NH2	2.26	0.68
1:1G:1423:G:OP1	39:25:49:ARG:NH2	2.27	0.68
5:42:16:THR:OG1	5:42:17:ALA:N	2.24	0.68
26:14:945:A:OP1	63:14:3841:HOH:O	2.12	0.68
26:14:2816:C:O3'	42:55:99:LYS:NZ	2.26	0.68
33:59:102:ALA:HB2	33:59:117:PRO:HD3	1.75	0.68
1:13:81:G:H2'	1:13:82:U:O4'	1.93	0.68
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.27	0.68
26:1H:1968:G:OP1	63:1H:3879:HOH:O	2.11	0.68
26:1H:2014:A:OP1	63:1H:3888:HOH:O	2.12	0.68
1:1G:589:C:H42	1:1G:650:G:H1	1.41	0.68
2:12:19:HIS:NE2	2:12:206:ASP:HB2	2.09	0.68
2:12:236:TYR:CB	2:12:239:VAL:HB	2.23	0.68
4:32:191:ARG:NH2	4:32:200:GLU:OE1	2.26	0.68
26:14:2005:A:OP1	63:14:3837:HOH:O	2.10	0.68
1:13:491:G:OP1	4:3E:151:LYS:NZ	2.25	0.68
26:14:2844:G:N7	63:14:3933:HOH:O	2.25	0.68
48:B5:12:VAL:HG12	48:B5:29:TRP:CE2	2.29	0.68
1:13:1127:G:N7	1:13:1128:C:N4	2.41	0.68
26:1H:1187:G:OP2	63:1H:3891:HOH:O	2.12	0.68
26:1H:2712(A):A:OP2	63:1H:3875:HOH:O	2.10	0.68
2:12:82:ARG:NE	2:12:92:TYR:OH	2.26	0.68
26:14:1226:G:H4'	46:95:84:LYS:HG3	1.74	0.68
52:F5:7:ILE:HG12	52:F5:91:LYS:HE3	1.75	0.68
26:1H:805:G:OP1	63:1H:3884:HOH:O	2.11	0.68
26:1H:890:A:H8	26:1H:892:G:C8	2.11	0.68
26:14:1300:U:OP1	63:14:3843:HOH:O	2.12	0.68
1:13:1446:A:OP1	1:13:1446:A:H4'	1.92	0.68
26:1H:65:C:H2'	26:1H:66:C:H6	1.57	0.68
26:1H:2057:A:OP2	63:1H:3894:HOH:O	2.12	0.68
31:31:179:GLU:CD	31:31:179:GLU:H	1.97	0.68
1:1G:503:C:OP2	12:3A:116:SER:HB3	1.94	0.68
1:1G:538:G:O6	63:1G:1837:HOH:O	2.11	0.68
1:1G:736:C:H2'	1:1G:737:A:C8	2.29	0.68
2:12:166:ASP:CB	2:12:169:LYS:HB2	2.24	0.68
26:14:1069:A:O2'	26:14:1072:C:OP1	2.12	0.68
38:15:55:VAL:HB	38:15:126:PRO:HA	1.75	0.68
1:13:869:G:OP2	63:13:1943:HOH:O	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:67:U:H3	26:1H:74:A:H2	1.41	0.68
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.41	0.68
26:14:1187:G:H5"	46:95:81:TYR:CE1	2.28	0.68
40:35:146:VAL:HG22	40:35:147:LEU:H	1.59	0.68
41:45:135:ASP:OD2	50:D5:81:ARG:NH1	2.24	0.68
1:13:129(A):G:H4'	1:13:130:A:H5"	1.75	0.68
1:13:1366:C:O2'	10:1I:60:ARG:NH1	2.22	0.68
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.75	0.68
18:9I:25:THR:HB	18:9I:42:ARG:HH21	1.59	0.68
26:1H:1651:G:N7	63:1H:4028:HOH:O	2.27	0.68
30:21:47:VAL:HG11	30:21:86:PRO:HD2	1.76	0.68
1:1G:53:A:OP2	63:1G:1838:HOH:O	2.12	0.68
1:1G:1184:G:H2'	1:1G:1185:G:H8	1.59	0.68
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.57	0.68
26:14:71:A:H5'	26:14:71:A:C8	2.29	0.68
26:14:71:A:OP2	26:14:71:A:H3'	1.94	0.68
26:14:2751:G:H22	33:59:2:SER:HB3	1.58	0.68
39:25:58:VAL:HG21	39:25:86:ILE:HD13	1.75	0.68
1:13:863:U:OP1	63:13:1945:HOH:O	2.12	0.68
1:13:1147:C:O2	9:8E:16:ARG:NH1	2.27	0.68
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.76	0.68
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.94	0.68
35:61:81:VAL:HG11	35:61:88:ILE:HD12	1.76	0.68
1:1G:405:U:O4	4:32:2:GLY:N	2.27	0.68
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.75	0.68
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.76	0.68
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.76	0.68
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.42	0.68
10:1A:10:GLY:HA3	10:1A:16:LEU:HD21	1.74	0.68
26:14:1352:U:OP1	63:14:3836:HOH:O	2.10	0.68
26:14:1428:C:N4	26:14:1570:A:OP2	2.23	0.68
26:14:1495:A:OP2	63:14:3838:HOH:O	2.11	0.68
27:1J:13:A:N1	27:1J:69:G:O2'	2.27	0.68
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.75	0.68
31:31:178:PRO:HB2	31:31:201:VAL:HG11	1.76	0.67
1:1G:53:A:OP2	63:1G:1831:HOH:O	2.10	0.67
1:1G:1219:U:OP1	14:5A:19:ARG:NH1	2.22	0.67
26:14:1651:G:OP1	42:55:40:LYS:NZ	2.27	0.67
26:14:2068:U:OP2	63:14:3842:HOH:O	2.12	0.67
26:1H:1776:G:OP2	63:1H:3882:HOH:O	2.11	0.67
26:1H:1849:G:OP2	63:1H:3902:HOH:O	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:55:U:O4	63:16:304:HOH:O	2.12	0.67
32:41:119:GLY:HA3	32:41:181:ARG:HG3	1.77	0.67
1:1G:371:G:H1	1:1G:390:C:H42	1.41	0.67
1:1G:1128:C:H5"	9:82:16:ARG:HH22	1.57	0.67
2:12:8:LYS:HE2	2:12:217:ARG:HD2	1.76	0.67
10:1A:8:LEU:HG	10:1A:96:ILE:HG22	1.76	0.67
26:14:1689:A:H62	26:14:1698:A:H2	1.42	0.67
28:79:201:PRO:HG2	28:79:204:ALA:HB2	1.76	0.67
29:19:255:LYS:H	29:19:255:LYS:CE	2.07	0.67
1:13:532:A:H2	1:13:1206:G:H21	1.43	0.67
30:21:28:ALA:HB3	30:21:93:VAL:HG12	1.75	0.67
32:41:165:THR:HG22	32:41:167:GLU:H	1.58	0.67
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.06	0.67
26:14:69:C:N4	63:14:3832:HOH:O	2.27	0.67
26:14:971:C:H2'	26:14:972:G:O4'	1.95	0.67
26:14:1560:G:OP1	63:14:3839:HOH:O	2.12	0.67
26:14:1579:A:H2'	26:14:1580:A:C8	2.30	0.67
26:14:2287:A:H62	26:14:2344:U:H3	1.39	0.67
30:29:5:LEU:HD22	30:29:5:LEU:H	1.59	0.67
32:49:136:ARG:NH1	32:49:137:GLU:OE1	2.28	0.67
53:G5:50:ILE:HD12	53:G5:51:ARG:H	1.59	0.67
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.77	0.67
26:1H:1332:G:OP1	63:1H:3895:HOH:O	2.12	0.67
26:1H:2213:U:O2	52:J8:52:ARG:NH2	2.26	0.67
36:38:12:THR:HG21	36:38:17:LEU:HD22	1.75	0.67
47:E8:88:ARG:HB3	47:E8:92:ARG:HB2	1.75	0.67
1:1G:1060:C:H5"	10:1A:51:ARG:HG2	1.76	0.67
2:12:104:ASN:OD1	2:12:107:THR:OG1	2.12	0.67
26:14:2024:G:O6	63:14:3825:HOH:O	2.09	0.67
1:13:1461:G:N7	63:13:1977:HOH:O	2.27	0.67
2:1E:45:GLN:NE2	2:1E:49:GLU:OE2	2.27	0.67
9:8E:91:ASP:OD1	9:8E:91:ASP:N	2.24	0.67
26:1H:654(C):G:H1'	26:1H:654(S):G:H22	1.58	0.67
26:1H:731:C:OP2	63:1H:3889:HOH:O	2.12	0.67
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.29	0.67
26:14:72:U:OP1	48:B5:1:MET:N	2.27	0.67
27:1J:2:C:H2'	27:1J:3:C:C6	2.29	0.67
27:1J:44:G:O2'	27:1J:47:C:N4	2.28	0.67
1:13:584:G:H5'	17:8I:91:ARG:HH21	1.59	0.67
1:13:859:A:H2'	1:13:860:A:C8	2.29	0.67
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:631:A:OP2	59:Q8:47:LYS:NZ	2.28	0.67
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.29	0.67
26:1H:1594:G:OP1	63:1H:3908:HOH:O	2.13	0.67
26:1H:2334:G:O6	51:I8:74:ARG:NH2	2.28	0.67
1:1G:1348:U:N3	1:1G:1374:A:H2	1.90	0.67
26:14:654(B):C:O2'	26:14:654(S):G:N2	2.27	0.67
26:14:2079:U:O3'	52:F5:35:THR:OG1	2.13	0.67
27:1J:52:A:H62	43:65:33:LYS:HG3	1.60	0.67
31:39:157:VAL:HB	31:39:194:MET:HG3	1.76	0.67
38:15:62:VAL:HG22	38:15:66:LYS:HD2	1.77	0.67
1:13:80:G:H5'	1:13:81:G:OP2	1.94	0.67
1:13:373:A:H2'	1:13:374:A:H8	1.60	0.67
27:16:12:C:N3	51:I8:74:ARG:NH1	2.43	0.67
50:H8:19:ARG:NH1	50:H8:84:GLU:O	2.28	0.67
26:14:491:G:H2'	26:14:492:A:C8	2.29	0.67
1:13:353:A:H8	1:13:353:A:H5'	1.60	0.67
1:13:1015:A:H2'	1:13:1016:A:C8	2.29	0.67
9:8E:5:TYR:HE1	9:8E:16:ARG:HG2	1.60	0.67
22:1K:6:C:H42	22:1K:68:G:H1	1.41	0.67
26:1H:409:C:OP1	63:1H:3893:HOH:O	2.12	0.67
26:1H:1997:G:OP2	63:1H:3904:HOH:O	2.13	0.67
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.30	0.67
1:1G:222:U:H2'	1:1G:223:U:H6	1.60	0.67
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.27	0.67
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.77	0.67
24:3L:34:U:O2'	24:3L:35:A:O5'	2.12	0.67
26:14:1357:U:OP2	63:14:3840:HOH:O	2.12	0.67
27:1J:15:A:H5'	27:1J:16:G:C8	2.29	0.67
1:13:811:C:N3	63:13:1980:HOH:O	2.28	0.67
26:1H:428:A:OP1	63:1H:3896:HOH:O	2.12	0.67
26:1H:1006:C:H1'	38:58:106:MET:HE3	1.76	0.67
26:1H:1189:A:OP2	63:1H:3906:HOH:O	2.13	0.67
26:1H:1265:A:OP2	63:1H:3899:HOH:O	2.12	0.67
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.95	0.67
26:1H:1815:A:O3'	63:1H:3897:HOH:O	2.12	0.67
29:11:31:LYS:O	29:11:35:LYS:NZ	2.27	0.67
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.77	0.67
26:14:527:C:O2	63:14:3828:HOH:O	2.09	0.67
26:14:863:A:H2'	26:14:864:G:H8	1.59	0.67
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.76	0.67
1:13:843:U:OP1	1:13:848:C:N4	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:997:U:H3	1:13:1044:A:H61	1.43	0.67
4:3E:192:GLU:N	4:3E:192:GLU:OE1	2.28	0.67
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.30	0.67
26:1H:143:C:H5'	48:F8:35:THR:HG21	1.77	0.67
26:1H:1986:A:OP1	63:1H:3907:HOH:O	2.13	0.67
1:1G:382:A:H2'	1:1G:383:A:C8	2.29	0.67
1:1G:976:G:H5'	1:1G:1358:U:O2'	1.94	0.67
1:1G:1305:G:O2'	1:1G:1306:A:O5'	2.11	0.67
1:1G:1411:C:H2'	1:1G:1412:C:H6	1.60	0.67
4:32:57:ARG:HE	4:32:205:GLU:HB3	1.60	0.67
26:14:662:G:H5'	40:35:15:ARG:HA	1.77	0.67
26:14:824:A:H1'	26:14:2358:G:N7	2.10	0.67
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.77	0.67
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.30	0.66
26:1H:76:C:O2'	53:K8:62:THR:HG21	1.95	0.66
26:1H:674:G:C1'	31:31:74:ARG:HD3	2.23	0.66
26:1H:725:G:N2	63:1H:3885:HOH:O	2.27	0.66
26:1H:2602:A:OP1	63:1H:3900:HOH:O	2.13	0.66
27:16:21:G:H1	27:16:62:C:H42	1.43	0.66
28:71:189:ILE:HG23	28:71:190:ARG:HD2	1.78	0.66
35:61:21:VAL:HG21	35:61:25:TYR:HD2	1.60	0.66
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.28	0.66
10:1A:49:VAL:HG22	14:5A:41:ARG:HB2	1.76	0.66
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.60	0.66
26:14:1098:A:H3'	26:14:1099:G:H5"	1.77	0.66
27:1J:5:C:H42	27:1J:115:G:H1	1.43	0.66
35:69:50:ARG:HA	35:69:53:ALA:HB3	1.76	0.66
35:69:76:THR:O	35:69:76:THR:OG1	2.11	0.66
50:D5:80:ARG:HB3	50:D5:82:ARG:NH2	2.10	0.66
26:1H:1784:A:OP1	63:1H:3909:HOH:O	2.13	0.66
34:18:24:ILE:HG23	34:18:25:ASP:H	1.59	0.66
38:58:97:ARG:H	38:58:100:GLU:HG3	1.60	0.66
42:98:96:ARG:NH2	42:98:117:VAL:HG23	2.11	0.66
1:1G:359:U:H2'	1:1G:360:A:C8	2.31	0.66
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.28	0.66
26:14:5:A:H5'	26:14:2783:G:OP1	1.95	0.66
26:1H:360:G:N7	63:1H:4043:HOH:O	2.29	0.66
26:1H:731:C:OP2	63:1H:3734:HOH:O	2.13	0.66
26:1H:1062:G:H2'	26:1H:1063:G:C8	2.30	0.66
26:1H:1434:A:H61	26:1H:1558:A:N6	1.93	0.66
29:11:142:VAL:HG23	29:11:193:VAL:HA	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:38:52:PHE:HB2	36:38:53:VAL:HG22	1.76	0.66
37:48:123:ALA:HA	37:48:126:MET:HB2	1.78	0.66
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.78	0.66
26:14:1891:G:O6	63:14:3834:HOH:O	2.10	0.66
29:19:43:ARG:HH21	29:19:43:ARG:CG	2.08	0.66
46:95:67:GLY:O	46:95:88:ARG:HD2	1.95	0.66
1:13:280:C:N3	17:8I:39:SER:N	2.40	0.66
1:13:659:U:H2'	1:13:660:G:H8	1.60	0.66
1:13:661:G:H1	1:13:744:C:H42	1.43	0.66
63:2K:201:HOH:O	26:1H:2601:C:H5"	1.95	0.66
25:4K:8:A:H2'	25:4K:9:G:O4'	1.96	0.66
26:1H:1069:A:O2'	26:1H:1072:C:OP1	2.12	0.66
31:31:67:GLN:HG3	31:31:67:GLN:O	1.94	0.66
32:41:49:ASP:OD1	32:41:51:ARG:NE	2.29	0.66
1:1G:1453:G:O6	20:BA:54:LYS:NZ	2.28	0.66
10:1A:27:ALA:HB2	10:1A:85:LEU:HD11	1.77	0.66
26:14:34:C:H1'	26:14:35:G:OP1	1.95	0.66
26:14:607:U:H3	26:14:621:A:H2	1.43	0.66
26:14:910:A:H62	41:45:12:GLN:HA	1.61	0.66
1:1G:504:C:OP1	63:1G:1839:HOH:O	2.12	0.66
26:14:2037:G:H2'	26:14:2038:G:C8	2.30	0.66
26:14:2294:C:P	43:65:89:ARG:HH22	2.18	0.66
26:14:2331:G:H4'	51:E5:43:THR:H	1.60	0.66
41:45:34:LEU:HB2	41:45:118:LEU:HD13	1.77	0.66
1:13:1366:C:H2'	1:13:1367:C:H6	1.60	0.66
17:8I:77:VAL:HG12	17:8I:78:GLU:HB2	1.77	0.66
26:1H:243:U:OP1	59:Q8:6:THR:OG1	2.14	0.66
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.30	0.66
29:11:12:SER:O	29:11:16:MET:HG3	1.95	0.66
38:58:13:TRP:N	38:58:133:GLN:OE1	2.28	0.66
57:O8:22:ALA:HB2	57:O8:42:TRP:CZ2	2.30	0.66
24:3L:54:G:H1	24:3L:62:C:N4	1.93	0.66
26:14:34:C:O2'	26:14:35:G:O5'	2.13	0.66
26:14:1581:G:H2'	26:14:1582:C:O4'	1.96	0.66
26:14:2592:G:N7	63:14:3955:HOH:O	2.28	0.66
32:49:11:TYR:OH	32:49:16:ARG:NH2	2.28	0.66
44:75:19:LEU:HD13	44:75:78:LEU:HD21	1.76	0.66
49:C5:89:PHE:CZ	49:C5:91:GLU:HB3	2.30	0.66
1:13:504:C:OP1	63:13:1946:HOH:O	2.13	0.66
1:13:1240:U:OP1	7:6E:119:ARG:NH2	2.28	0.66
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:64:ARG:N	5:4E:64:ARG:HH11	1.94	0.66
26:1H:1049:C:C2'	26:1H:1050:A:H5"	2.23	0.66
26:1H:1813:G:OP2	63:1H:3915:HOH:O	2.14	0.66
40:78:43:GLY:HA3	63:78:306:HOH:O	1.95	0.66
40:78:81:GLN:HG2	40:78:106:LEU:HD23	1.78	0.66
1:1G:1286:A:H2'	1:1G:1287:A:H4'	1.77	0.66
1:1G:1316:G:H22	1:1G:1319:A:H5"	1.57	0.66
26:14:784:A:OP2	63:14:3848:HOH:O	2.13	0.66
27:1J:18:G:H2'	27:1J:19:G:C8	2.30	0.66
28:79:13:LYS:NZ	28:79:31:GLU:O	2.28	0.66
31:39:25:PRO:HB3	31:39:28:ILE:HG23	1.76	0.66
33:59:102:ALA:HB1	33:59:115:VAL:O	1.95	0.66
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.76	0.66
26:1H:1083:U:H4'	36:38:41:ARG:HD3	1.78	0.66
26:1H:1467:C:H42	26:1H:1525:G:H1	1.44	0.66
37:48:60:TYR:HE1	37:48:66:THR:HB	1.59	0.66
1:1G:297:G:N2	1:1G:300:A:OP2	2.28	0.66
1:1G:352:C:OP2	63:1G:1841:HOH:O	2.13	0.66
1:1G:955:U:H1'	1:1G:1227:A:H61	1.61	0.66
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.77	0.66
21:1B:2:GLY:O	21:1B:4:GLY:N	2.29	0.66
26:14:642:G:N2	26:14:645:C:OP2	2.29	0.66
26:14:2591:C:O3'	63:14:3850:HOH:O	2.13	0.66
26:14:2794:C:H42	26:14:2804:C:H1'	1.60	0.66
50:D5:67:LEU:HD23	50:D5:68:PRO:HD2	1.78	0.66
1:13:142:G:H2'	1:13:143:A:H8	1.61	0.66
1:13:330:C:O2	63:13:1940:HOH:O	2.09	0.66
1:13:407:G:OP1	4:3E:115:ARG:NH2	2.28	0.66
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.76	0.66
9:8E:59:PHE:HZ	9:8E:88:TYR:HE2	1.44	0.66
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.78	0.66
26:1H:2137:C:O2	26:1H:2155:G:N1	2.29	0.66
27:16:40:U:H1'	27:16:45:A:H61	1.60	0.66
1:1G:145:G:H1	1:1G:177:C:H42	1.44	0.66
1:1G:974:A:OP2	14:5A:41:ARG:NH1	2.25	0.66
1:1G:1409:C:N4	63:1G:1853:HOH:O	2.24	0.66
2:12:84:GLU:HB3	2:12:219:VAL:HG11	1.77	0.66
22:1L:6:C:H42	22:1L:68:G:H1	1.44	0.66
24:3L:62:C:O5'	24:3L:62:C:H6	1.79	0.66
26:14:870:A:H5"	41:45:6:ARG:HB3	1.78	0.66
26:14:929:G:N1	63:14:3910:HOH:O	2.23	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1828:G:OP1	63:14:3846:HOH:O	2.13	0.66
30:29:36:ARG:HG2	30:29:47:VAL:HG22	1.77	0.66
39:25:63:VAL:HB	39:25:102:VAL:HG12	1.76	0.66
43:65:107:GLU:H	43:65:110:LEU:HD11	1.59	0.66
1:13:509:A:N1	63:13:1986:HOH:O	2.29	0.66
1:13:1218:C:H2'	1:13:1219:U:C6	2.31	0.66
26:1H:1887:C:H2'	26:1H:1888:G:H5'	1.77	0.66
26:1H:2781:A:H5'	26:1H:2782:G:H5'	1.77	0.66
34:18:24:ILE:O	34:18:27:LEU:N	2.25	0.66
36:38:120:LYS:HG3	36:38:122:VAL:HG23	1.78	0.66
49:G8:76:CYS:O	49:G8:78:ALA:N	2.24	0.66
26:14:458:G:O6	63:14:3845:HOH:O	2.13	0.66
29:19:43:ARG:HA	29:19:49:ILE:HA	1.77	0.66
1:13:316:G:OP2	1:13:351:G:O2'	2.14	0.65
1:13:1133:G:N7	63:13:1989:HOH:O	2.29	0.65
2:1E:27:LYS:HE2	2:1E:193:ASP:HB2	1.78	0.65
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.77	0.65
26:1H:748:G:OP2	47:E8:88:ARG:HG3	1.96	0.65
26:1H:2109:U:H1'	26:1H:2181:G:N2	2.11	0.65
31:31:65:TRP:CZ3	31:31:72:ARG:HB3	2.31	0.65
50:H8:48:PHE:HA	50:H8:51:ALA:HB3	1.78	0.65
57:O8:47:THR:HG22	57:O8:48:VAL:HG23	1.76	0.65
3:22:111:LEU:HD11	3:22:144:SER:HB3	1.78	0.65
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.26	0.65
26:14:761:A:OP2	63:14:3849:HOH:O	2.13	0.65
1:13:1436:U:OP1	20:BI:23:ARG:NH2	2.27	0.65
26:1H:2701:C:H3'	26:1H:2702:U:C5'	2.25	0.65
28:71:46:LYS:HD2	28:71:211:SER:HB3	1.78	0.65
1:1G:158:G:H1	1:1G:163:C:H42	1.41	0.65
1:1G:1443:G:N2	44:75:119:LYS:HB2	2.12	0.65
26:14:320:A:OP1	31:39:135:LYS:NZ	2.28	0.65
26:14:2016:U:O2	56:J5:7:PRO:HG2	1.95	0.65
50:D5:76:LEU:HA	50:D5:83:PRO:HA	1.78	0.65
26:1H:730:C:H3'	63:1H:3889:HOH:O	1.96	0.65
26:1H:880:G:H1	26:1H:897:C:H42	1.45	0.65
26:1H:1042:G:N2	26:1H:1113:U:O2	2.18	0.65
26:1H:1375:C:H3'	63:1H:3747:HOH:O	1.96	0.65
26:1H:1434:A:H61	26:1H:1558:A:H62	1.42	0.65
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.61	0.65
26:1H:1846:G:O6	63:1H:3862:HOH:O	2.09	0.65
37:48:80:LYS:HE2	37:48:107:ILE:HG12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N8:41:PRO:O	56:N8:44:THR:OG1	2.14	0.65
1:1G:539:A:H2'	1:1G:540:G:C8	2.32	0.65
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.61	0.65
26:14:2425:A:H4'	26:14:2426:A:H5"	1.78	0.65
3:2E:6:HIS:CE1	3:2E:8:ILE:HB	2.31	0.65
4:3E:107:ARG:HH22	4:3E:194:LEU:HD13	1.62	0.65
26:1H:974(A):C:OP1	63:1H:3918:HOH:O	2.15	0.65
27:16:82:G:N7	63:16:310:HOH:O	2.30	0.65
33:51:30:LYS:HE3	33:51:81:GLU:H	1.61	0.65
35:61:79:ILE:HB	35:61:141:LYS:O	1.97	0.65
37:48:12:LEU:HB3	37:48:13:PRO:HA	1.79	0.65
38:58:38:HIS:NE2	38:58:50:ASP:OD2	2.27	0.65
48:F8:5:TYR:O	53:K8:36:ARG:NH2	2.30	0.65
55:M8:18:CYS:SG	55:M8:39:CYS:HB2	2.37	0.65
26:14:162:U:H4'	26:14:171:G:O4'	1.96	0.65
26:14:265:A:N6	26:14:427:U:O2'	2.28	0.65
26:14:386:G:H5'	63:14:3733:HOH:O	1.95	0.65
26:14:1890:A:OP2	63:14:3854:HOH:O	2.14	0.65
26:14:2267:A:OP2	63:14:3851:HOH:O	2.13	0.65
26:14:2512:C:H5"	26:14:2513:G:OP2	1.97	0.65
26:1H:732:C:H3'	63:1H:3937:HOH:O	1.96	0.65
26:1H:1783:A:OP2	63:1H:3898:HOH:O	2.12	0.65
1:1G:677:U:H3	1:1G:713:G:H22	1.43	0.65
1:1G:827:U:H3	1:1G:872:A:N6	1.92	0.65
13:4A:12:ASN:O	13:4A:12:ASN:ND2	2.29	0.65
26:14:887:A:N6	26:14:889:C:O4'	2.30	0.65
26:14:1774:C:OP1	63:14:3847:HOH:O	2.13	0.65
1:13:578:C:OP1	63:13:1948:HOH:O	2.13	0.65
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.12	0.65
19:AI:40:ILE:HG12	19:AI:41:VAL:H	1.61	0.65
26:1H:1010:A:OP2	63:1H:3912:HOH:O	2.14	0.65
26:1H:1890:A:OP2	63:1H:3910:HOH:O	2.13	0.65
26:1H:2129:C:H1'	26:1H:2160:G:H22	1.60	0.65
26:1H:2470:G:H5'	41:88:56:ARG:NH2	2.12	0.65
9:82:14:VAL:HB	9:82:66:ARG:H	1.61	0.65
26:14:219:G:OP2	63:14:3844:HOH:O	2.12	0.65
26:14:833:U:O2	40:35:55:ARG:NH1	2.28	0.65
26:14:1496:A:H8	26:14:1577:C:O2'	1.78	0.65
26:14:1537:C:O2'	26:14:1538:G:O4'	2.11	0.65
26:14:2499:C:OP1	63:14:3855:HOH:O	2.14	0.65
1:13:627:G:H2'	1:13:628:G:H8	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:85:ARG:NE	8:7E:87:SER:O	2.29	0.65
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.61	0.65
26:1H:2124:G:H1	26:1H:2174:C:H42	1.43	0.65
35:61:37:VAL:HG22	35:61:38:LEU:HD12	1.77	0.65
37:48:34:ILE:HD11	37:48:38:VAL:HG13	1.78	0.65
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.78	0.65
10:1A:22:LYS:HE2	10:1A:90:LEU:HD13	1.79	0.65
16:7A:22:THR:HA	16:7A:33:ILE:HD12	1.79	0.65
26:14:1129:A:N6	26:14:2491:U:OP1	2.30	0.65
26:14:2121:G:N2	28:79:166:ASP:OD2	2.29	0.65
49:C5:52:SER:N	49:C5:56:PRO:HA	2.11	0.65
1:13:486:U:H2'	1:13:487:A:C8	2.32	0.65
1:13:584:G:OP1	17:8I:91:ARG:NH2	2.29	0.65
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.78	0.65
23:2K:62:C:H2'	23:2K:63:C:H6	1.61	0.65
26:1H:36:G:N7	63:1H:4053:HOH:O	2.30	0.65
26:1H:71:A:H2	48:F8:31:HIS:HE2	1.44	0.65
26:1H:567:A:OP1	63:1H:3911:HOH:O	2.14	0.65
26:1H:946:G:OP2	63:1H:3917:HOH:O	2.14	0.65
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.15	0.65
29:11:260:ARG:HH22	29:11:266:SER:HB3	1.61	0.65
35:61:39:ALA:HB1	35:61:44:LEU:HD13	1.78	0.65
48:F8:15:GLU:H	48:F8:15:GLU:CD	1.99	0.65
1:1G:1500:A:OP1	63:1G:1814:HOH:O	2.15	0.65
26:14:1754:C:OP1	44:75:96:ARG:NH1	2.30	0.65
26:14:2624:G:N7	63:14:3982:HOH:O	2.29	0.65
1:13:939:G:H2'	1:13:940:C:C6	2.32	0.65
1:13:1095:U:OP2	63:13:1939:HOH:O	2.13	0.65
24:3K:26:U:H3'	24:3K:27:A:H5"	1.79	0.65
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.60	0.65
26:1H:1992:G:N7	63:1H:4046:HOH:O	2.29	0.65
4:32:150:GLU:O	4:32:152:SER:N	2.30	0.65
24:3L:8:U:N3	24:3L:14:A:N7	2.41	0.65
48:B5:51:VAL:HG13	48:B5:81:VAL:HG23	1.79	0.65
1:13:54:C:N4	1:13:353:A:OP2	2.29	0.65
1:13:1372:U:H5"	9:8E:71:SER:HB3	1.78	0.65
24:3K:37:G:H2'	24:3K:38:A:C8	2.32	0.65
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.61	0.65
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.30	0.65
26:1H:1932:A:H2'	26:1H:1933:G:O4'	1.97	0.65
50:H8:7:ALA:HB3	50:H8:61:LEU:HB2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1053:G:H4'	1:1G:1054:C:O5'	1.96	0.65
1:1G:1320:C:O2	19:AA:36:ARG:NH2	2.29	0.65
23:2L:9:G:N3	23:2L:46:G:H2'	2.12	0.65
26:14:547:A:H2'	26:14:548:A:C8	2.32	0.65
26:14:2429:G:O6	40:35:61:ARG:NH2	2.30	0.65
26:14:2448:A:OP2	63:14:3716:HOH:O	2.15	0.65
27:1J:52:A:N6	43:65:33:LYS:HG3	2.12	0.65
27:1J:103:U:O2'	50:D5:72:ARG:HG2	1.97	0.65
41:45:36:ALA:HB2	41:45:103:MET:SD	2.37	0.65
44:75:55:ASN:N	44:75:59:THR:HG22	2.11	0.65
2:1E:84:GLU:HB3	2:1E:219:VAL:HG11	1.78	0.64
10:1I:56:HIS:O	10:1I:58:ASP:N	2.29	0.64
15:6I:15:PHE:CE1	15:6I:84:LYS:HD2	2.32	0.64
26:1H:1084:A:H5'	36:38:52:PHE:HB3	1.79	0.64
26:1H:1189:A:OP2	63:1H:3913:HOH:O	2.14	0.64
26:1H:1533:C:O2	26:1H:1539:G:N2	2.30	0.64
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.61	0.64
26:1H:2096:U:H3	26:1H:2193:G:H1	1.44	0.64
26:1H:2705:A:OP2	63:1H:3922:HOH:O	2.15	0.64
27:16:15:A:H4'	27:16:15:A:OP1	1.97	0.64
50:H8:139:VAL:HG13	50:H8:155:LEU:HD21	1.77	0.64
1:1G:222:U:H2'	1:1G:223:U:C6	2.32	0.64
1:1G:1179:A:H4'	9:82:103:THR:HA	1.78	0.64
26:14:1210:A:H5'	26:14:1212:G:C5'	2.27	0.64
28:79:181:PRO:HG2	28:79:184:LYS:HE2	1.80	0.64
43:65:3:ARG:HE	43:65:4:LEU:N	1.96	0.64
45:85:91:ASP:O	45:85:92:ARG:HG3	1.96	0.64
1:13:971:G:N2	1:13:1363:A:OP2	2.26	0.64
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.78	0.64
11:2I:17:GLY:O	11:2I:80:VAL:HA	1.96	0.64
22:1K:76:C:H2'	22:1K:77:A:C8	2.32	0.64
26:1H:583:G:N7	63:1H:4052:HOH:O	2.30	0.64
26:1H:945:A:N3	63:1H:4054:HOH:O	2.30	0.64
26:1H:1900:A:OP2	63:1H:3919:HOH:O	2.15	0.64
37:48:77:LEU:HD22	37:48:108:ALA:HB2	1.77	0.64
38:58:34:LEU:HD21	38:58:120:LEU:HB2	1.79	0.64
56:N8:39:MET:O	56:N8:40:LYS:HD2	1.97	0.64
26:14:323:G:HO2'	26:14:1205:U:H3	1.40	0.64
26:14:1604:C:OP1	63:14:3861:HOH:O	2.15	0.64
26:14:2168:G:HO2'	26:14:2169:A:C5'	2.09	0.64
1:13:501:C:H2'	1:13:502:G:C8	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1239:A:H62	1:13:1299:A:H62	1.44	0.64
26:1H:49:A:N7	26:1H:120:U:H5	1.96	0.64
32:41:35:GLU:OE1	32:41:36:LYS:N	2.30	0.64
1:1G:395:C:N4	63:1G:1865:HOH:O	2.30	0.64
3:22:62:ASP:O	3:22:98:ASN:ND2	2.30	0.64
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.32	0.64
26:14:2052:G:H4'	30:29:143:ASN:O	1.96	0.64
26:14:2173:A:O2'	26:14:2174:C:OP1	2.14	0.64
33:59:6:ARG:HB2	33:59:66:GLY:HA2	1.80	0.64
54:H5:4:LEU:O	54:H5:36:VAL:HA	1.97	0.64
17:8I:76:LEU:HD21	17:8I:79:SER:HB3	1.77	0.64
26:1H:1127:A:H2'	26:1H:1128:A:H5"	1.79	0.64
26:1H:1267:U:O3'	63:1H:3925:HOH:O	2.15	0.64
26:1H:1351:C:OP2	63:1H:3914:HOH:O	2.14	0.64
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.62	0.64
33:51:167:GLU:N	33:51:167:GLU:OE2	2.31	0.64
40:78:47:ASP:OD2	40:78:50:ARG:NH2	2.30	0.64
1:1G:890:G:O2'	1:1G:906:G:O6	2.13	0.64
1:1G:1041:A:OP2	63:1G:1842:HOH:O	2.14	0.64
26:14:5:A:H62	26:14:2629:A:HO2'	1.46	0.64
26:14:2128:C:H42	26:14:2160:G:H1	1.43	0.64
26:14:2250:G:C6	41:45:82:ARG:HD2	2.32	0.64
40:35:125:VAL:HG13	40:35:144:GLU:HB3	1.79	0.64
42:55:24:GLN:OE1	42:55:36:THR:HG21	1.97	0.64
46:95:53:GLU:OE1	46:95:53:GLU:N	2.22	0.64
47:A5:88:ARG:NH1	47:A5:94:ASP:OD2	2.29	0.64
1:13:67:C:H2'	1:13:68:G:C8	2.33	0.64
1:13:355:C:OP2	63:13:1949:HOH:O	2.14	0.64
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.63	0.64
1:1G:272:C:H2'	1:1G:273:A:H8	1.61	0.64
1:1G:408:A:N6	63:1G:1868:HOH:O	2.30	0.64
1:1G:977:A:O2'	1:1G:981:U:N3	2.28	0.64
3:22:11:ARG:NH2	3:22:177:THR:O	2.30	0.64
26:14:120:U:OP2	63:14:3853:HOH:O	2.14	0.64
26:14:273(C):C:H42	26:14:363(C):G:H1	1.45	0.64
26:14:690:G:O2'	29:19:43:ARG:NH1	2.30	0.64
26:14:1577:C:OP2	63:14:3858:HOH:O	2.15	0.64
26:14:1599:C:H2'	26:14:1600:C:H6	1.62	0.64
26:14:2588:G:OP2	63:14:3862:HOH:O	2.15	0.64
3:2E:123:GLN:O	3:2E:128:PHE:HB2	1.97	0.64
8:7E:34:GLU:HB3	8:7E:118:VAL:HG21	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:507:A:H5"	26:1H:508:G:H3'	1.80	0.64
59:Q8:33:ASN:HA	59:Q8:36:LYS:HD2	1.79	0.64
1:1G:147:G:H1	1:1G:175:C:H42	1.44	0.64
3:22:109:PRO:HB2	3:22:115:LEU:HD12	1.79	0.64
26:14:577:G:O2'	26:14:1254:A:OP1	2.13	0.64
26:14:698:C:O2'	26:14:734:A:N6	2.31	0.64
26:14:1170:G:H2'	26:14:1171:G:H5'	1.80	0.64
26:14:1678:G:N2	26:14:1989:G:H22	1.93	0.64
26:14:1794:U:H2'	26:14:1795:C:H6	1.62	0.64
26:14:2693:A:H2'	26:14:2694:G:H8	1.63	0.64
45:85:110:VAL:HG12	45:85:114:LYS:HD3	1.80	0.64
1:13:1459:C:OP1	20:BI:31:SER:OG	2.16	0.64
10:1I:75:ILE:HG13	10:1I:76:ASN:N	2.13	0.64
11:2I:79:SER:OG	11:2I:106:LYS:NZ	2.28	0.64
28:71:59:ARG:HA	28:71:164:ARG:HA	1.80	0.64
30:21:12:THR:OG1	30:21:13:ARG:N	2.30	0.64
31:31:119:ARG:HB3	31:31:119:ARG:CZ	2.28	0.64
39:68:2:ILE:HD12	39:68:6:THR:HG21	1.80	0.64
39:68:19:ILE:HG22	39:68:43:VAL:HA	1.79	0.64
42:98:20:LEU:HD21	42:98:40:LYS:HD3	1.78	0.64
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.31	0.64
2:12:16:HIS:CD2	2:12:209:ARG:HD2	2.33	0.64
28:79:14:VAL:HG22	28:79:222:VAL:HG22	1.79	0.64
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.80	0.64
23:2K:48:U:O2'	23:2K:49:C:OP2	2.14	0.64
26:1H:882:G:H1	26:1H:894:C:H42	1.44	0.64
26:1H:1022:G:OP1	38:58:69:GLN:NE2	2.31	0.64
33:51:106:THR:HG22	33:51:112:PRO:HB3	1.80	0.64
34:28:5:ILE:HG23	34:28:9:LYS:HD2	1.78	0.64
53:K8:17:SER:HB3	53:K8:67:LYS:HE3	1.80	0.64
11:2A:48:ILE:HG13	11:2A:63:LEU:HB3	1.80	0.64
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.33	0.64
26:14:1170:G:O6	26:14:1178:C:N4	2.31	0.64
1:13:454:C:H3'	1:13:455:C:C5	2.32	0.64
1:13:1177:G:OP1	1:13:1177:G:H4'	1.97	0.64
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.31	0.64
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	1.78	0.64
26:1H:274:G:N2	26:1H:276:A:H61	1.96	0.64
26:1H:1417:C:OP2	63:1H:3923:HOH:O	2.15	0.64
26:1H:2292:C:P	43:A8:17:ARG:HH22	2.19	0.64
33:51:144:VAL:O	33:51:148:ILE:HG12	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:38:87:VAL:HG22	36:38:91:LYS:HB3	1.78	0.64
40:78:91:PHE:O	40:78:121:LYS:NZ	2.30	0.64
40:78:94:GLU:O	40:78:94:GLU:HG3	1.98	0.64
49:G8:28:LYS:NZ	49:G8:64:GLU:OE2	2.28	0.64
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.31	0.64
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.30	0.64
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.80	0.64
24:3L:54:G:O2'	28:79:54:SER:OG	2.16	0.64
26:14:1315:C:OP2	63:14:3779:HOH:O	2.14	0.64
26:14:2749:A:N1	26:14:2750:A:N6	2.46	0.64
31:39:150:GLY:HA2	31:39:172:TRP:CD2	2.33	0.64
1:13:611:A:N6	1:13:629:G:H1	1.92	0.64
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.79	0.64
26:1H:503:A:H4'	26:1H:504:U:H5"	1.80	0.64
26:1H:1520:U:H2'	26:1H:1521:G:O4'	1.98	0.64
29:11:17:THR:HG22	29:11:204:ILE:HA	1.79	0.64
50:H8:169:GLU:OE1	50:H8:170:THR:N	2.20	0.64
2:12:172:ILE:H	2:12:172:ILE:HD12	1.63	0.64
8:72:120:THR:HG23	8:72:122:ARG:H	1.63	0.64
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.80	0.64
26:14:1931:U:O4'	63:14:3863:HOH:O	2.15	0.64
35:69:75:LEU:HD23	35:69:76:THR:H	1.63	0.64
45:85:66:ASN:HD21	45:85:70:ARG:HE	1.46	0.64
26:1H:240:G:O6	63:1H:3887:HOH:O	2.11	0.63
26:1H:249:C:OP1	63:1H:3920:HOH:O	2.15	0.63
26:1H:1672:C:H5"	26:1H:1673:U:OP2	1.98	0.63
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.63	0.63
1:1G:699:C:H2'	1:1G:700:G:H5"	1.81	0.63
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.78	0.63
26:14:26:G:OP1	47:A5:80:PRO:HB3	1.98	0.63
26:14:1163:G:H2'	26:14:1164:G:H8	1.62	0.63
1:13:505:G:N7	63:13:1994:HOH:O	2.30	0.63
8:7E:46:LYS:HE3	8:7E:62:TYR:HB3	1.79	0.63
20:BI:82:SER:O	20:BI:86:ARG:HG3	1.98	0.63
26:1H:1892:C:N4	63:1H:4073:HOH:O	2.32	0.63
33:51:94:TYR:CE2	33:51:160:LYS:HB2	2.33	0.63
40:78:79:ARG:HB2	40:78:110:TYR:CD1	2.34	0.63
5:42:57:LYS:HE3	5:42:61:TYR:OH	1.99	0.63
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.78	0.63
26:14:1771:C:O2'	26:14:1786:A:H8	1.82	0.63
26:14:2431:U:OP1	63:14:3859:HOH:O	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:95:98:GLU:OE2	46:95:100:ARG:HG2	1.99	0.63
52:F5:80:LEU:HA	52:F5:82:LEU:HD12	1.81	0.63
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.81	0.63
20:BI:73:HIS:HB3	20:BI:74:LYS:HD2	1.81	0.63
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.33	0.63
35:61:83:ALA:HB2	35:61:144:VAL:HG23	1.79	0.63
39:68:120:GLU:OE1	44:B8:67:SER:OG	2.16	0.63
2:12:48:MET:HA	2:12:51:LEU:HB2	1.80	0.63
2:12:163:PHE:CD1	2:12:185:ILE:HG13	2.33	0.63
4:32:150:GLU:HG2	4:32:151:LYS:HB2	1.80	0.63
26:14:797:C:OP2	31:39:62:ARG:HG3	1.98	0.63
26:14:2210:G:H3'	26:14:2211:G:C5	2.34	0.63
31:39:3:GLU:OE1	31:39:3:GLU:N	2.31	0.63
1:13:1133:G:H2'	1:13:1134:G:C8	2.34	0.63
1:13:1226:C:H4'	19:AI:80:TYR:OH	1.98	0.63
26:1H:598:G:H5'	40:78:11:GLY:HA3	1.79	0.63
26:1H:1077:A:H3'	26:1H:1078:U:H5"	1.80	0.63
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.33	0.63
27:16:42:C:H4'	32:41:67:LYS:HE3	1.81	0.63
28:71:33:ALA:HB1	28:71:39:GLU:HB3	1.80	0.63
40:78:60:MET:HA	59:Q8:13:ARG:NH1	2.12	0.63
57:O8:22:ALA:HB2	57:O8:42:TRP:HZ2	1.62	0.63
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.33	0.63
1:1G:1255:G:P	10:1A:45:ARG:HH22	2.21	0.63
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.80	0.63
23:2L:41:C:H2'	23:2L:42:C:H6	1.64	0.63
26:14:330:A:H2	26:14:1210:A:HO2'	1.44	0.63
26:14:832:G:H5'	40:35:45:LEU:HD12	1.80	0.63
26:14:2801:A:H2'	26:14:2802:G:H4'	1.81	0.63
38:15:38:HIS:CE1	38:15:39:ARG:HG3	2.33	0.63
40:35:3:LEU:HA	40:35:6:LEU:HD23	1.80	0.63
44:75:6:LEU:HD12	44:75:9:LEU:HD13	1.81	0.63
49:C5:97:ARG:HG3	49:C5:106:LEU:HD12	1.81	0.63
59:M5:51:ALA:HB1	59:M5:53:PRO:HD2	1.78	0.63
2:1E:212:GLN:NE2	2:1E:233:SER:O	2.31	0.63
10:1I:46:ARG:HG3	10:1I:64:GLU:HB3	1.78	0.63
26:1H:205:G:O5'	63:1H:3930:HOH:O	2.16	0.63
26:1H:707:G:O6	63:1H:3885:HOH:O	2.11	0.63
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.64	0.63
32:41:97:ASP:O	32:41:101:ILE:HG23	1.99	0.63
40:78:15:ARG:HH12	40:78:17:LYS:HD2	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.30	0.63
26:14:1786:A:OP1	63:14:3860:HOH:O	2.15	0.63
63:14:3805:HOH:O	31:39:55:GLY:HA2	1.97	0.63
29:19:32:SER:HA	29:19:35:LYS:HE2	1.79	0.63
41:45:134:ARG:N	41:45:135:ASP:OD1	2.30	0.63
44:75:26:ASP:O	44:75:49:VAL:HG22	1.98	0.63
48:B5:27:THR:HG23	48:B5:80:ILE:HB	1.80	0.63
1:13:895:G:N7	63:13:1991:HOH:O	2.30	0.63
4:3E:88:VAL:HB	4:3E:91:SER:HB3	1.81	0.63
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.64	0.63
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.31	0.63
19:AI:41:VAL:HG11	19:AI:45:VAL:HG13	1.80	0.63
26:1H:928:G:N7	63:1H:4051:HOH:O	2.30	0.63
33:51:155:SER:HA	33:51:156:ALA:HB3	1.81	0.63
1:1G:584:G:O6	63:1G:1840:HOH:O	2.13	0.63
8:72:116:LYS:HD2	8:72:129:VAL:HG11	1.80	0.63
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.31	0.63
26:14:863:A:H2'	26:14:864:G:C8	2.34	0.63
29:19:69:ARG:HD3	29:19:105:ILE:HD11	1.79	0.63
1:13:575:G:O6	63:13:1944:HOH:O	2.12	0.63
26:1H:943:U:OP2	40:78:36:LYS:NZ	2.19	0.63
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.34	0.63
26:1H:1864:U:H2'	26:1H:1869:G:H5"	1.81	0.63
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.34	0.63
26:1H:2452:C:OP1	63:1H:3929:HOH:O	2.16	0.63
31:31:28:ILE:HD13	31:31:116:ASP:HB2	1.80	0.63
31:31:178:PRO:HB3	31:31:198:ALA:HB1	1.79	0.63
44:B8:105:LEU:HB3	44:B8:110:ILE:HG22	1.81	0.63
51:I8:37:LEU:HD21	51:I8:61:ALA:H	1.63	0.63
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.15	0.63
26:14:990:A:H5'	26:14:990:A:H8	1.63	0.63
26:14:2352:A:C2	51:E5:33:ALA:HB1	2.34	0.63
31:39:149:ASP:N	31:39:149:ASP:OD1	2.29	0.63
1:13:677:U:H3	1:13:713:G:H22	1.46	0.63
1:13:1149:C:H2'	1:13:1150:U:C6	2.34	0.63
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	1.79	0.63
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.22	0.63
10:1I:50:ILE:HA	10:1I:60:ARG:HG2	1.79	0.63
26:1H:1287:A:C8	42:98:107:ASP:HB2	2.34	0.63
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.33	0.63
40:78:89:ALA:HA	40:78:121:LYS:HD3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:88:54:MET:O	41:88:57:HIS:N	2.31	0.63
50:H8:108:PRO:HB2	50:H8:112:ARG:HG3	1.80	0.63
1:1G:539:A:H2'	1:1G:540:G:H8	1.63	0.63
2:12:33:TYR:HB2	2:12:43:ASP:HA	1.80	0.63
10:1A:32:ALA:HA	10:1A:75:ILE:HD11	1.80	0.63
11:2A:81:ASP:N	11:2A:81:ASP:OD1	2.30	0.63
24:3L:37:G:H21	25:4L:14:A:H62	1.47	0.63
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.34	0.63
50:D5:76:LEU:H	50:D5:76:LEU:HD23	1.62	0.63
6:5E:97:PHE:O	18:9I:31:LEU:HD23	1.99	0.63
8:7E:104:ARG:HG3	8:7E:138:TRP:CG	2.34	0.63
26:1H:2751:G:C4	33:51:3:ARG:HB3	2.33	0.63
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.62	0.63
26:14:2125:G:N2	26:14:2172:U:OP1	2.32	0.63
26:14:2674:G:H4'	39:25:30:ALA:HB2	1.81	0.63
30:29:37:ARG:HD2	30:29:44:TYR:OH	1.99	0.63
33:59:88:LEU:H	33:59:88:LEU:CD1	2.12	0.63
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.15	0.62
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.35	0.62
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.64	0.62
29:11:31:LYS:HG3	29:11:33:LEU:HD21	1.81	0.62
1:1G:402:G:O6	63:1G:1835:HOH:O	2.11	0.62
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.34	0.62
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.34	0.62
26:14:1047:G:H2'	26:14:1110:G:H1	1.64	0.62
28:79:212:VAL:HG21	28:79:226:PRO:HD3	1.80	0.62
42:55:51:LEU:HD22	42:55:66:VAL:HG22	1.81	0.62
1:13:4:U:C4	8:7E:102:ARG:HD2	2.34	0.62
1:13:1014:A:H4'	19:AI:14:HIS:CE1	2.33	0.62
8:7E:23:SER:HA	8:7E:61:VAL:O	1.99	0.62
26:1H:50:U:H3'	26:1H:51:G:H5'	1.79	0.62
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.33	0.62
36:38:4:LYS:NZ	36:38:7:VAL:HG12	2.13	0.62
50:H8:11:GLU:O	50:H8:36:LYS:NZ	2.23	0.62
50:H8:76:LEU:HD23	50:H8:76:LEU:H	1.64	0.62
26:14:1019:U:OP1	26:14:1035:U:O2'	2.10	0.62
27:1J:46:A:H2'	27:1J:47:C:C6	2.34	0.62
32:49:97:ASP:HA	32:49:100:TRP:HB2	1.80	0.62
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.00	0.62
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.00	0.62
26:1H:989:G:N7	54:L8:13:ILE:HD11	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.33	0.62
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.33	0.62
1:1G:1028:C:N4	1:1G:1034:G:H21	1.97	0.62
10:1A:99:LYS:CD	10:1A:100:THR:H	2.12	0.62
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.63	0.62
26:14:674:G:O2'	31:39:74:ARG:HG3	1.98	0.62
26:14:2645:G:H3'	26:14:2646:C:H5'	1.79	0.62
1:13:926:G:N2	25:4K:15:A:OP2	2.33	0.62
26:1H:668:G:O2'	26:1H:669:G:OP1	2.15	0.62
26:1H:975:G:H1'	26:1H:990:A:C2	2.34	0.62
37:48:14:ALA:HB2	37:48:50:ASP:HB2	1.80	0.62
48:F8:36:LYS:HG2	48:F8:54:VAL:HB	1.80	0.62
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.64	0.62
26:14:1292:U:H2'	26:14:1293:C:C6	2.34	0.62
26:14:2674:G:H5'	39:25:26:LYS:HD2	1.81	0.62
38:15:13:TRP:O	38:15:135:PRO:HD2	1.99	0.62
39:25:14:THR:HG21	39:25:86:ILE:HG13	1.81	0.62
48:B5:36:LYS:HG2	48:B5:54:VAL:HB	1.81	0.62
50:D5:144:LEU:O	50:D5:174:VAL:HG21	1.98	0.62
56:J5:16:ARG:NH1	56:J5:17:ASP:OD1	2.30	0.62
11:2I:97:ALA:O	11:2I:101:SER:OG	2.18	0.62
26:1H:860:U:C5	26:1H:917:A:H2	2.16	0.62
1:1G:236:G:O2'	17:8A:4:LYS:NZ	2.32	0.62
3:22:121:ALA:HB2	3:22:198:VAL:HG21	1.81	0.62
26:14:273(F):C:H3'	26:14:274:G:H5"	1.80	0.62
26:14:2356:C:OP1	51:E5:24:LYS:NZ	2.30	0.62
28:79:214:VAL:HB	28:79:224:ILE:HG21	1.80	0.62
30:29:170:LEU:HD12	30:29:184:VAL:HB	1.82	0.62
42:55:29:LEU:HB3	42:55:75:LEU:HD21	1.81	0.62
1:13:600:C:H4'	8:7E:128:GLY:O	2.00	0.62
26:1H:32:C:O2'	26:1H:33:U:H5'	1.99	0.62
26:1H:722:A:H2'	26:1H:723:G:C8	2.35	0.62
26:1H:1047:G:H2'	26:1H:1110:G:N1	2.14	0.62
26:1H:1633:G:OP2	63:1H:3921:HOH:O	2.15	0.62
26:1H:2133:G:H2'	26:1H:2157:G:H22	1.65	0.62
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.82	0.62
63:1H:4728:HOH:O	29:11:232:PRO:HA	1.99	0.62
33:51:137:ASP:OD1	33:51:139:GLN:N	2.31	0.62
47:E8:9:TYR:H	47:E8:102:HIS:CD2	2.17	0.62
53:K8:48:HIS:H	53:K8:50:ILE:HD11	1.63	0.62
1:1G:1192:C:OP2	3:22:4:LYS:NZ	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:73:C:HO2'	22:1L:74:A:H8	1.47	0.62
26:14:617:G:OP1	31:39:40:GLN:NE2	2.33	0.62
40:35:79:ARG:O	40:35:110:TYR:HB3	1.99	0.62
1:13:604:G:H2'	1:13:605:U:O4'	1.99	0.62
13:4I:3:ARG:HD3	13:4I:7:VAL:HG13	1.82	0.62
30:21:51:PHE:CE2	30:21:52:LEU:HD22	2.34	0.62
30:21:57:LYS:HA	30:21:59:VAL:HG12	1.82	0.62
35:61:78:THR:HG22	35:61:141:LYS:HE2	1.82	0.62
1:1G:973:G:H1'	10:1A:55:LYS:HG2	1.79	0.62
4:32:112:VAL:HG12	4:32:116:GLN:OE1	1.99	0.62
20:BA:72:LEU:HD23	20:BA:77:ALA:HA	1.81	0.62
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.65	0.62
27:1J:28:C:H2'	27:1J:29:A:C8	2.35	0.62
27:1J:70:C:H2'	27:1J:71:C:H6	1.64	0.62
52:F5:91:LYS:HG3	52:F5:92:LYS:H	1.65	0.62
26:1H:654(O):G:N7	26:1H:654(P):G:N2	2.47	0.62
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.00	0.62
44:B8:26:ASP:O	44:B8:49:VAL:HG12	2.00	0.62
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.34	0.62
2:12:158:LEU:H	2:12:158:LEU:HD12	1.64	0.62
3:22:73:PRO:HA	3:22:76:VAL:HG13	1.82	0.62
9:82:21:PRO:HA	9:82:59:PHE:HA	1.81	0.62
10:1A:63:PHE:HA	14:5A:59:ALA:H	1.65	0.62
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.30	0.62
26:14:598:G:H1'	40:35:12:ALA:HB2	1.81	0.62
26:14:918:A:O2'	27:1J:96:G:N2	2.32	0.62
26:14:1945:G:H2'	26:14:1946:U:H6	1.64	0.62
33:59:67:LEU:HG	33:59:71:LEU:HD13	1.81	0.62
45:85:112:ARG:NH1	46:95:45:THR:HG23	2.14	0.62
1:13:652:U:O2'	1:13:653:A:O5'	2.18	0.62
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.32	0.62
2:1E:179:LYS:HA	8:7E:72:PRO:HD3	1.82	0.62
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.35	0.62
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.65	0.62
32:41:131:TYR:O	32:41:159:VAL:HG22	1.99	0.62
1:1G:620:C:H2'	1:1G:621:A:O4'	1.98	0.62
1:1G:1278:U:O2	3:22:27:LYS:NZ	2.22	0.62
13:4A:81:LEU:HG	13:4A:86:CYS:SG	2.39	0.62
26:14:389:G:N2	40:35:71:VAL:HG12	2.15	0.62
26:14:1204:A:O2'	26:14:1205:U:OP2	2.14	0.62
33:59:94:TYR:CE2	33:59:160:LYS:HB3	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:590:C:H42	1:13:649:G:H1	1.47	0.62
1:13:963:G:H1	1:13:972:C:N4	1.94	0.62
1:13:1369:C:H2'	1:13:1370:G:C8	2.35	0.62
5:4E:12:LEU:HB3	5:4E:31:LEU:HB2	1.82	0.62
22:1K:72:G:O2'	22:1K:73:C:OP2	2.12	0.62
24:3K:51:G:H2'	24:3K:52:A:H8	1.64	0.62
24:3K:67:C:H2'	24:3K:68:G:C8	2.33	0.62
26:1H:446:G:OP2	63:1H:3928:HOH:O	2.16	0.62
26:1H:637:A:H2'	40:78:117:GLU:OE1	2.00	0.62
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.65	0.62
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.34	0.62
35:61:88:ILE:O	35:61:121:LYS:NZ	2.29	0.62
36:38:25:PHE:O	36:38:112:LEU:HA	1.99	0.62
50:H8:54:HIS:HB3	50:H8:101:PRO:HD3	1.81	0.62
22:1L:24:A:H2'	22:1L:25:G:H8	1.64	0.62
26:14:363(F):A:OP2	26:14:363(F):A:H8	1.82	0.62
26:14:2880:C:H1'	42:55:92:GLY:HA3	1.81	0.62
27:1J:83:G:H4'	54:H5:52:HIS:CG	2.35	0.62
43:65:49:VAL:HG12	43:65:73:LEU:HD23	1.82	0.62
44:75:45:PHE:CE2	44:75:74:ARG:HG3	2.35	0.62
1:13:1370:G:O6	63:13:1947:HOH:O	2.13	0.61
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.33	0.61
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.35	0.61
57:O8:41:PRO:HD2	57:O8:46:HIS:N	2.15	0.61
1:1G:979:C:H3'	1:1G:980:C:H5"	1.81	0.61
1:1G:1321:C:N4	1:1G:1322:C:H41	1.97	0.61
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.82	0.61
19:AA:40:ILE:HG22	19:AA:67:VAL:HG13	1.82	0.61
26:14:198:C:H5'	26:14:2244:U:OP1	2.00	0.61
26:14:1070:A:H5'	26:14:1071:G:H5"	1.80	0.61
26:14:1486:A:H2'	26:14:1487:G:C8	2.35	0.61
28:79:22:ILE:HD11	28:79:193:ILE:HD13	1.82	0.61
32:49:47:LYS:HD2	32:49:81:LYS:HB2	1.81	0.61
1:13:1432:G:O6	63:13:1950:HOH:O	2.15	0.61
9:8E:78:LYS:HE3	9:8E:101:PHE:CE1	2.34	0.61
16:7I:4:ILE:HB	16:7I:66:PRO:HB3	1.82	0.61
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.15	0.61
36:38:73:GLY:HA3	36:38:112:LEU:HD21	1.81	0.61
40:78:75:ILE:HD12	40:78:75:ILE:H	1.64	0.61
43:A8:85:VAL:HG23	43:A8:112:PHE:HZ	1.65	0.61
52:J8:50:ARG:HG3	52:J8:59:THR:HG23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1028:C:N4	1:1G:1033:G:H1	1.98	0.61
2:12:9:GLU:HB2	2:12:217:ARG:NH2	2.15	0.61
6:52:15:ASP:OD1	6:52:17:SER:N	2.32	0.61
26:14:54:G:O6	63:14:3856:HOH:O	2.15	0.61
26:14:2839:G:H5'	42:55:46:GLY:HA2	1.83	0.61
33:59:117:PRO:HB3	33:59:123:PHE:CE2	2.35	0.61
38:15:20:GLY:O	38:15:61:ARG:HG3	2.00	0.61
44:75:125:ARG:HB2	44:75:129:ARG:HH21	1.65	0.61
26:1H:389:G:H1	40:78:71:VAL:H	1.48	0.61
40:78:50:ARG:HD3	59:Q8:7:HIS:NE2	2.14	0.61
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.00	0.61
22:1L:15:G:H22	22:1L:22:A:H1'	1.64	0.61
24:3L:4:U:H3	24:3L:70:A:H61	1.48	0.61
26:14:993:G:OP1	45:85:50:ARG:NH2	2.33	0.61
26:14:2801:A:H2'	26:14:2802:G:C4'	2.30	0.61
4:3E:55:ALA:O	4:3E:59:ARG:HG2	2.00	0.61
26:1H:2749:A:OP1	33:51:4:ILE:HG13	2.00	0.61
27:16:90:C:OP2	41:88:16:ARG:NH2	2.33	0.61
31:31:101:LEU:HD23	31:31:102:PRO:CD	2.29	0.61
51:I8:9:SER:O	51:I8:10:THR:HG22	1.99	0.61
54:L8:35:ARG:HB3	54:L8:37:LEU:HD21	1.81	0.61
1:1G:114:U:H2'	1:1G:115:G:C8	2.35	0.61
1:1G:1157:A:H61	1:1G:1177:G:H1	1.48	0.61
30:29:7:VAL:HG12	30:29:8:LYS:H	1.65	0.61
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.30	0.61
35:69:76:THR:HG23	35:69:140:LEU:HD13	1.81	0.61
50:D5:60:GLU:HA	50:D5:66:SER:HA	1.82	0.61
1:13:1306:A:H61	1:13:1331:G:H1'	1.63	0.61
19:AI:30:LEU:HD23	19:AI:30:LEU:H	1.65	0.61
26:1H:458:G:O2'	26:1H:469:G:O6	2.16	0.61
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.35	0.61
27:16:90:C:P	41:88:16:ARG:HH21	2.23	0.61
46:D8:35:LEU:HB2	46:D8:57:VAL:HG12	1.83	0.61
51:I8:11:ARG:NH1	51:I8:11:ARG:HB2	2.15	0.61
1:1G:377:G:H1	1:1G:386:C:H42	1.45	0.61
1:1G:501:C:H2'	1:1G:502:G:H8	1.65	0.61
7:62:73:MET:HA	7:62:91:VAL:HG23	1.83	0.61
9:82:112:LYS:HA	9:82:119:ALA:CB	2.30	0.61
26:14:34:C:HO2'	26:14:35:G:H8	1.48	0.61
1:13:157:G:H1	1:13:164:U:H3	1.48	0.61
1:13:1280:A:H3'	1:13:1281:U:H5'	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:100:LYS:HB3	17:8I:101:ARG:HE	1.66	0.61
26:1H:1022:G:H22	26:1H:1142(A):A:H2	1.45	0.61
26:1H:2419:U:H4'	57:O8:23:THR:HG21	1.82	0.61
44:B8:50:ILE:HD11	44:B8:102:ILE:HD11	1.82	0.61
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.34	0.61
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.15	0.61
6:52:83:ASP:OD1	6:52:83:ASP:N	2.34	0.61
26:14:259:G:H21	26:14:621:A:H8	1.46	0.61
26:14:2032:G:H21	30:29:146:THR:HG23	1.66	0.61
35:69:63:ALA:HA	35:69:66:GLU:HG2	1.83	0.61
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.83	0.61
26:1H:993:G:OP1	45:C8:50:ARG:NH2	2.34	0.61
26:1H:2702:U:H6	26:1H:2702:U:H5"	1.65	0.61
46:D8:15:GLU:HG3	46:D8:16:PRO:HD2	1.81	0.61
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.34	0.61
2:12:22:LYS:HZ2	2:12:22:LYS:N	1.99	0.61
2:12:22:LYS:HE3	2:12:24:TRP:HE1	1.66	0.61
3:22:91:LEU:HD22	3:22:99:VAL:HG12	1.81	0.61
24:3L:34:U:O2'	24:3L:35:A:H3'	2.01	0.61
26:14:2794:C:N4	26:14:2804:C:H1'	2.16	0.61
31:39:3:GLU:O	31:39:19:GLU:HB3	2.00	0.61
33:59:33:LEU:HD13	33:59:75:ALA:HA	1.82	0.61
48:B5:36:LYS:HG3	48:B5:56:THR:HG23	1.82	0.61
1:13:1178:G:N2	1:13:1181:G:H8	1.99	0.61
2:1E:69:LEU:HD21	2:1E:155:LEU:HD22	1.82	0.61
26:1H:442:G:H4'	31:31:46:ARG:HG3	1.83	0.61
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.23	0.61
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.01	0.61
26:1H:2795:G:H3'	26:1H:2797:U:C5'	2.30	0.61
37:48:101:TRP:HD1	37:48:101:TRP:H	1.48	0.61
9:82:4:TYR:O	9:82:18:PHE:HA	2.01	0.61
26:14:651:G:H5'	59:M5:18:ALA:HB3	1.82	0.61
31:39:170:LEU:HD22	31:39:172:TRP:HE1	1.65	0.61
44:75:6:LEU:HA	44:75:9:LEU:HD12	1.82	0.61
1:13:343:U:C2	1:13:345:C:H1'	2.36	0.61
1:13:347:G:H5"	63:13:2293:HOH:O	2.01	0.61
1:13:1348:U:N3	1:13:1374:A:H2	1.98	0.61
9:8E:17:VAL:HA	9:8E:63:ILE:HG12	1.82	0.61
26:1H:1174:A:H1'	26:1H:1178:C:H41	1.65	0.61
26:1H:2151:G:H2'	26:1H:2152:G:C8	2.36	0.61
26:1H:2709:G:O2'	63:1H:3932:HOH:O	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:78:65:ARG:HB3	63:78:303:HOH:O	2.00	0.61
43:A8:78:LEU:HD12	43:A8:108:GLY:HA2	1.83	0.61
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.34	0.61
26:14:2528:U:O2'	26:14:2530:A:OP1	2.11	0.61
26:14:2762:G:H5'	26:14:2763:G:OP2	2.01	0.61
29:19:17:THR:O	29:19:211:ARG:NH2	2.33	0.61
29:19:242:ARG:O	63:19:301:HOH:O	2.16	0.61
31:39:63:LYS:CE	31:39:67:GLN:HB3	2.30	0.61
35:69:79:ILE:HG22	35:69:81:VAL:HG23	1.83	0.61
47:A5:72:LYS:HB3	47:A5:106:ILE:HG13	1.83	0.61
1:13:145:G:H1	1:13:177:C:N4	1.96	0.61
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.81	0.61
1:13:1504:G:OP1	1:13:1507:A:H4'	2.01	0.61
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.64	0.61
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.82	0.61
26:1H:1351:C:H3'	63:1H:4004:HOH:O	2.00	0.61
27:16:44:G:H1'	27:16:47:C:N4	2.16	0.61
10:1A:28:ARG:NH2	10:1A:34:VAL:HB	2.16	0.61
26:14:2392:A:H2	26:14:2424:C:H42	1.49	0.61
26:14:2537:U:H2'	26:14:2538:C:C6	2.36	0.61
43:65:3:ARG:NH2	43:65:4:LEU:HB2	2.16	0.61
43:65:16:ASN:HD22	43:65:17:ARG:H	1.49	0.61
1:13:683:G:N7	63:13:1992:HOH:O	2.30	0.60
1:13:984:C:H42	1:13:1221:G:H1	1.49	0.60
1:13:1062:U:H2'	1:13:1063:C:C6	2.36	0.60
1:13:1359:C:OP1	14:5I:22:THR:OG1	2.18	0.60
26:1H:389:G:H1	40:78:71:VAL:HG12	1.65	0.60
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.01	0.60
26:1H:2156:G:H2'	26:1H:2157:G:N2	2.16	0.60
26:1H:2404:C:O3'	40:78:77:ARG:NH2	2.34	0.60
26:1H:2470:G:H5'	41:88:56:ARG:HH22	1.65	0.60
26:1H:2818:G:OP2	42:98:42:LYS:NZ	2.33	0.60
32:41:131:TYR:HE2	32:41:133:LEU:HD23	1.65	0.60
41:88:14:ARG:HG2	41:88:41:TRP:HH2	1.65	0.60
44:B8:60:THR:HG22	44:B8:77:PRO:HA	1.82	0.60
10:1A:44:VAL:HG22	10:1A:66:ARG:HG2	1.82	0.60
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.01	0.60
26:14:443:A:H5"	26:14:444:C:OP1	2.01	0.60
26:14:1226:G:OP1	46:95:69:LYS:NZ	2.30	0.60
26:14:2068:U:H3	26:14:2430:A:H2	1.43	0.60
27:1J:42:C:O2'	32:49:67:LYS:O	2.12	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:25:78:ARG:HH21	44:75:103:ARG:HH21	1.48	0.60
1:13:642:A:N3	8:7E:113:SER:OG	2.32	0.60
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.16	0.60
17:8I:100:LYS:HB3	17:8I:101:ARG:HH11	1.65	0.60
31:31:28:ILE:HD11	31:31:119:ARG:HH21	1.66	0.60
1:1G:1129:C:H1'	1:1G:1132:C:H41	1.65	0.60
3:22:44:GLU:HG3	3:22:52:LEU:HD21	1.83	0.60
26:14:6:A:H2'	26:14:6:A:N3	2.15	0.60
26:14:90:U:H1'	26:14:91:A:N7	2.16	0.60
26:14:2441:C:O2	63:14:3852:HOH:O	2.14	0.60
26:14:2708:G:H5'	42:55:68:ARG:HG2	1.83	0.60
31:39:11:VAL:HG23	31:39:12:LEU:H	1.66	0.60
1:13:170:U:H2'	1:13:171:A:H8	1.65	0.60
2:1E:223:ILE:O	2:1E:227:GLY:N	2.30	0.60
13:4I:11:ARG:O	13:4I:13:LYS:N	2.34	0.60
26:1H:675:A:OP1	31:31:63:LYS:HE2	2.01	0.60
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.36	0.60
26:1H:2175:C:O2'	28:71:219:GLY:O	2.16	0.60
43:A8:87:PHE:CE2	43:A8:102:ALA:HB2	2.37	0.60
1:1G:1325:C:P	21:1B:15:ARG:HH21	2.25	0.60
20:BA:26:ASN:OD1	20:BA:71:THR:OG1	2.15	0.60
26:14:1582:C:HO2'	26:14:1586:A:H8	1.48	0.60
26:14:1593:G:H2'	26:14:1594:G:C8	2.36	0.60
30:29:13:ARG:NH2	44:75:77:PRO:HB3	2.16	0.60
52:F5:23:LYS:HB3	52:F5:29:GLY:CA	2.27	0.60
1:13:107:G:O6	20:BI:15:ARG:HG3	2.01	0.60
2:1E:47:THR:O	2:1E:51:LEU:N	2.32	0.60
2:1E:53:ARG:NH2	2:1E:198:ASP:O	2.34	0.60
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.37	0.60
26:1H:888:C:H5"	26:1H:889:C:C5	2.37	0.60
26:1H:890:A:H3'	26:1H:892:G:H8	1.65	0.60
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.35	0.60
29:11:70:TRP:CD1	29:11:70:TRP:C	2.74	0.60
50:H8:45:ASP:OD2	50:H8:49:ARG:NH1	2.34	0.60
57:O8:13:CYS:O	57:O8:21:TYR:HA	2.01	0.60
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.01	0.60
26:14:2080:G:H5'	52:F5:35:THR:O	2.02	0.60
27:1J:80:U:H2'	27:1J:81:G:N2	2.16	0.60
49:C5:42:VAL:HG13	49:C5:65:ALA:HB3	1.83	0.60
50:D5:75:ASN:O	50:D5:84:GLU:HG2	2.01	0.60
1:13:474:G:H5'	16:7I:81:ARG:HE	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:168:THR:HA	2:1E:171:ALA:HB2	1.82	0.60
26:1H:880:G:H1	26:1H:897:C:N4	1.99	0.60
26:1H:1061:U:O3'	26:1H:1070:A:H4'	2.01	0.60
26:1H:1671:U:OP2	63:1H:3927:HOH:O	2.15	0.60
30:21:82:ARG:HG3	30:21:83:ASP:H	1.66	0.60
1:1G:751:U:H4'	15:6A:24:SER:HA	1.84	0.60
1:1G:1003:G:N1	1:1G:1036:G:O6	2.34	0.60
26:14:589:C:H2'	26:14:590:A:C8	2.36	0.60
26:14:2791:C:H2'	26:14:2792:G:H8	1.67	0.60
33:59:118:PRO:HG2	33:59:121:ILE:HG13	1.82	0.60
51:E5:68:GLU:HG3	51:E5:82:ARG:HG2	1.83	0.60
52:F5:86:SER:N	52:F5:87:PRO:HD2	2.15	0.60
1:13:1310:G:H1	1:13:1327:C:H42	1.49	0.60
26:1H:1188:U:H4'	46:D8:79:VAL:HG22	1.82	0.60
26:1H:1352:U:OP2	63:1H:3935:HOH:O	2.16	0.60
26:1H:1376:C:OP2	63:1H:3931:HOH:O	2.16	0.60
36:38:24:PHE:O	36:38:26:LEU:HG	2.02	0.60
48:F8:12:VAL:HG13	48:F8:27:THR:O	2.02	0.60
2:12:21:ARG:O	2:12:23:ARG:N	2.34	0.60
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.67	0.60
26:14:847:U:OP2	63:14:3867:HOH:O	2.17	0.60
27:1J:46:A:H2'	27:1J:47:C:H6	1.67	0.60
30:29:12:THR:O	30:29:23:VAL:HG22	2.00	0.60
9:8E:55:ALA:HB1	9:8E:58:HIS:HB2	1.83	0.60
22:1K:18:G:H4'	22:1K:61:U:N3	2.16	0.60
26:1H:2392:A:OP2	59:Q8:31:HIS:HD2	1.83	0.60
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.37	0.60
34:28:28:LYS:NZ	34:28:29:GLU:HG3	2.17	0.60
26:14:270(L):U:O2'	26:14:270(N):G:N2	2.34	0.60
32:49:107:LEU:HD11	32:49:178:PHE:HE1	1.66	0.60
50:D5:157:LEU:HD12	50:D5:161:VAL:HG11	1.84	0.60
1:13:362:G:OP2	63:13:1952:HOH:O	2.16	0.60
22:1K:61:U:H5'	22:1K:62:C:H5	1.67	0.60
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.48	0.60
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.83	0.60
28:71:211:SER:HB2	28:71:223:ARG:HH21	1.65	0.60
37:48:34:ILE:HG13	37:48:38:VAL:HG22	1.82	0.60
4:32:119:GLN:O	4:32:123:HIS:HD2	1.84	0.60
15:6A:75:PRO:HB2	15:6A:79:ARG:NH2	2.09	0.60
26:14:363:G:H2'	26:14:363(A):A:H8	1.65	0.60
26:14:871:U:OP1	41:45:5:ARG:NH1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:49:LEU:H	30:29:49:LEU:HD12	1.67	0.60
31:39:165:ARG:HA	31:39:168:ARG:HD3	1.84	0.60
32:49:50:ALA:HA	32:49:53:LEU:HD23	1.84	0.60
49:C5:36:ALA:HA	49:C5:67:LEU:O	2.01	0.60
1:13:793:U:H5'	1:13:794:A:H5"	1.84	0.60
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.66	0.60
26:1H:592:G:N2	59:Q8:4:MET:HE1	2.15	0.60
26:1H:728:G:H4'	29:11:13:ARG:HD3	1.83	0.60
26:1H:848:G:H2'	26:1H:849:A:C8	2.37	0.60
26:1H:2849:U:O4	44:B8:23:ARG:NH2	2.35	0.60
30:21:51:PHE:O	30:21:74:PRO:HB2	2.00	0.60
38:58:99:LEU:O	38:58:103:VAL:HG23	2.02	0.60
1:1G:345:C:OP2	44:75:39:ARG:NH2	2.32	0.60
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.35	0.60
26:14:67:U:H2'	26:14:68:G:H8	1.65	0.60
26:14:1403:C:OP1	26:14:1522:G:N2	2.29	0.60
26:14:1800:C:OP2	29:19:183:ARG:NH2	2.34	0.60
29:19:11:PRO:O	29:19:12:SER:OG	2.17	0.60
39:25:68:GLU:OE2	39:25:78:ARG:NH1	2.35	0.60
41:45:20:ALA:HA	41:45:99:PRO:HG2	1.83	0.60
1:13:1435:G:H2'	1:13:1436:U:C6	2.36	0.60
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.66	0.60
24:3K:46:G:O2'	24:3K:47:G:H5'	2.02	0.60
26:1H:1077:A:H3'	26:1H:1078:U:H5'	1.84	0.60
26:1H:2629:A:O2'	26:1H:2630:G:H5"	2.01	0.60
27:16:7:G:H4'	43:A8:29:PHE:CD2	2.37	0.60
31:31:29:ASN:H	31:31:112:MET:CE	2.15	0.60
33:51:4:ILE:HG23	33:51:6:ARG:N	2.13	0.60
35:61:69:LYS:HA	35:61:136:VAL:HB	1.84	0.60
37:48:125:ARG:HE	37:48:132:ARG:NH2	2.00	0.60
46:D8:65:GLY:HA3	46:D8:91:TYR:CE1	2.36	0.60
49:G8:55:TYR:HB3	49:G8:58:GLY:HA3	1.83	0.60
1:1G:1321:C:H41	1:1G:1322:C:H41	1.50	0.60
5:42:123:LEU:HD23	5:42:126:ARG:HH12	1.66	0.60
26:14:2273:A:H2'	26:14:2274:A:C8	2.37	0.60
26:14:2377:A:O3'	43:65:111:GLU:HG2	2.02	0.60
31:39:25:PRO:HB2	31:39:27:GLU:H	1.67	0.60
31:39:89:VAL:HG12	31:39:90:PHE:H	1.67	0.60
2:1E:206:ASP:O	2:1E:210:SER:OG	2.13	0.59
13:4I:8:GLU:O	13:4I:10:PRO:HD3	2.02	0.59
48:F8:49:VAL:HG12	48:F8:50:LYS:N	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:963:G:H21	10:1A:55:LYS:CD	2.14	0.59
2:12:236:TYR:HB3	2:12:239:VAL:HB	1.82	0.59
19:AA:56:GLN:HG2	19:AA:57:HIS:H	1.67	0.59
26:14:21:A:H61	26:14:519:U:H3	1.50	0.59
26:14:71:A:H4'	26:14:72:U:H5"	1.84	0.59
26:14:113:G:OP1	63:14:3869:HOH:O	2.17	0.59
30:29:87:GLU:O	30:29:89:ASP:N	2.34	0.59
49:C5:49:VAL:O	49:C5:51:VAL:N	2.35	0.59
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.83	0.59
10:1I:37:PRO:HA	10:1I:72:VAL:HG22	1.83	0.59
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.02	0.59
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.37	0.59
37:48:108:ALA:HB3	37:48:111:LYS:HZ2	1.66	0.59
38:58:93:THR:HG22	38:58:94:HIS:ND1	2.17	0.59
44:B8:24:PRO:HA	44:B8:49:VAL:HG13	1.84	0.59
45:C8:28:ARG:HD3	45:C8:38:THR:OG1	2.02	0.59
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.02	0.59
8:72:11:THR:HG23	8:72:14:ARG:NH1	2.17	0.59
26:14:2807:G:N2	26:14:2892:A:H62	2.00	0.59
39:25:63:VAL:HG12	39:25:106:LEU:HD11	1.82	0.59
45:85:106:PHE:HA	45:85:109:LEU:HD12	1.84	0.59
50:D5:10:ARG:NH2	50:D5:26:GLY:O	2.36	0.59
1:13:87:A:H2'	1:13:88:C:C6	2.37	0.59
1:13:110:C:H2'	1:13:111:G:O4'	2.03	0.59
26:1H:299:A:OP2	63:1H:3942:HOH:O	2.17	0.59
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.01	0.59
31:31:29:ASN:H	31:31:112:MET:HE1	1.67	0.59
33:51:20:ALA:HB3	33:51:23:ARG:HG2	1.84	0.59
44:B8:105:LEU:HG	44:B8:109:GLU:HB3	1.83	0.59
49:G8:85:VAL:HB	49:G8:98:VAL:HG23	1.85	0.59
1:1G:555:C:H2'	1:1G:556:C:C6	2.37	0.59
12:3A:34:ARG:HB2	12:3A:34:ARG:HH11	1.67	0.59
24:3L:52:A:H61	24:3L:64:U:H3	1.50	0.59
26:14:271(B):G:H4'	26:14:271(C):U:H5'	1.84	0.59
26:14:784:A:H5'	26:14:785:G:OP1	2.02	0.59
26:14:997:G:O2'	26:14:998:C:H5'	2.02	0.59
35:69:54:GLN:HA	35:69:57:ARG:HB3	1.83	0.59
45:85:92:ARG:NH2	46:95:10:LYS:HA	2.17	0.59
52:F5:41:ARG:HB2	52:F5:43:TYR:HE1	1.66	0.59
1:13:688:G:H2'	1:13:689:C:H6	1.67	0.59
6:5E:101:ALA:HB2	18:9I:28:GLU:HB2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:82:VAL:HG12	11:2I:108:ILE:HG13	1.84	0.59
22:1K:9:A:H4'	22:1K:10:G:OP2	2.01	0.59
24:3K:51:G:H2'	24:3K:52:A:C8	2.36	0.59
26:1H:357:A:H2'	26:1H:358:U:H6	1.65	0.59
26:1H:587:C:OP2	40:78:21:ARG:NH2	2.36	0.59
26:1H:620:G:H4'	26:1H:621:A:C5'	2.32	0.59
26:1H:2126:A:H62	26:1H:2163:C:HO2'	1.49	0.59
27:16:15:A:H5'	27:16:16:G:H8	1.67	0.59
32:41:109:VAL:O	32:41:113:ARG:HG3	2.03	0.59
34:18:20:LEU:O	34:18:24:ILE:N	2.35	0.59
41:88:139:GLU:HG3	50:H8:122:ARG:HH12	1.68	0.59
1:1G:323:U:O3'	20:BA:22:ARG:HD3	2.02	0.59
1:1G:920:U:H2'	1:1G:921:U:C6	2.37	0.59
1:1G:1368:G:O2'	1:1G:1369:C:H5'	2.03	0.59
2:12:72:GLY:HA3	2:12:81:VAL:HG21	1.83	0.59
26:14:67:U:H2'	26:14:68:G:C8	2.38	0.59
26:14:2164:C:N3	26:14:2165:G:N2	2.50	0.59
27:1J:15:A:H1'	27:1J:109:G:C8	2.37	0.59
46:95:5:VAL:HG12	46:95:37:VAL:HB	1.85	0.59
1:13:21:G:OP1	63:13:1953:HOH:O	2.17	0.59
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.38	0.59
1:13:1117:G:H5"	9:8E:104:ARG:CZ	2.32	0.59
1:13:1145:C:H5"	1:13:1146:A:OP1	2.03	0.59
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.16	0.59
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.83	0.59
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.42	0.59
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.02	0.59
26:1H:1094:U:O2'	26:1H:1096:A:OP1	2.20	0.59
26:1H:2702:U:H5"	26:1H:2702:U:C6	2.37	0.59
26:1H:2705:A:OP2	63:1H:3934:HOH:O	2.16	0.59
1:1G:411:A:H62	1:1G:413:G:N2	1.99	0.59
2:12:236:TYR:HB2	2:12:239:VAL:HB	1.83	0.59
8:72:69:ARG:HD2	8:72:76:PRO:HA	1.84	0.59
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.36	0.59
12:3A:84:LEU:HD12	12:3A:105:TYR:CE2	2.37	0.59
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.43	0.59
26:14:180:G:N2	26:14:214:G:N7	2.48	0.59
26:14:780:G:N2	26:14:783:A:H62	1.96	0.59
26:14:2129:C:H5"	26:14:2130:U:C5	2.38	0.59
28:79:14:VAL:HA	28:79:20:TYR:HE2	1.67	0.59
30:29:13:ARG:HH21	44:75:77:PRO:HB3	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:74:ASN:HA	33:59:77:LYS:HB3	1.83	0.59
1:13:578:C:OP1	63:13:1955:HOH:O	2.17	0.59
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.03	0.59
7:6E:150:ALA:HB2	11:2I:50:TYR:HE2	1.67	0.59
10:1I:77:PRO:O	10:1I:79:ARG:NH1	2.35	0.59
17:8I:29:HIS:N	17:8I:34:LYS:O	2.34	0.59
26:1H:761:A:OP1	63:1H:3941:HOH:O	2.17	0.59
26:1H:969:U:O3'	54:L8:14:GLY:HA2	2.02	0.59
26:1H:1141:U:H6	38:58:63:THR:HG1	1.51	0.59
26:1H:1676:A:OP2	63:1H:3924:HOH:O	2.15	0.59
26:1H:2172:U:H5'	26:1H:2173:A:OP2	2.02	0.59
34:18:28:LYS:HB3	34:28:2:ALA:HB3	1.85	0.59
37:48:52:ILE:HD11	37:48:76:TYR:HB2	1.85	0.59
42:98:26:LYS:HE2	42:98:70:LEU:O	2.02	0.59
43:A8:24:LEU:HD12	43:A8:41:ASP:HB2	1.83	0.59
43:A8:32:LEU:O	43:A8:62:LYS:NZ	2.35	0.59
45:C8:88:ILE:HG22	45:C8:90:VAL:HB	1.85	0.59
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.36	0.59
1:1G:1325:C:OP2	21:1B:15:ARG:NH2	2.28	0.59
2:12:12:GLU:HB2	2:12:16:HIS:ND1	2.18	0.59
4:32:4:TYR:HE2	4:32:11:LEU:HD11	1.67	0.59
9:82:111:ARG:HB3	9:82:113:LYS:HE2	1.85	0.59
26:14:1516:U:H2'	26:14:1517:G:H8	1.67	0.59
1:13:1110:A:OP2	63:13:1956:HOH:O	2.17	0.59
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.83	0.59
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.67	0.59
41:88:23:GLY:O	41:88:25:ASP:HB3	2.02	0.59
1:1G:1027:C:O2'	1:1G:1035:A:N6	2.36	0.59
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.18	0.59
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.37	0.59
3:22:129:ALA:H	3:22:132:ARG:HH21	1.49	0.59
14:5A:29:ARG:HD3	14:5A:40:CYS:CB	2.32	0.59
15:6A:5:LYS:O	15:6A:9:GLN:HG2	2.03	0.59
26:14:184:C:H2'	26:14:185:U:C6	2.38	0.59
26:14:673:C:H4'	31:39:82:ILE:HG12	1.85	0.59
26:14:1667:G:H2'	63:14:4374:HOH:O	2.02	0.59
44:75:64:ARG:HB2	44:75:73:GLU:HG2	1.85	0.59
7:6E:45:ASP:O	7:6E:49:ILE:HG12	2.03	0.59
13:4I:65:LYS:HD2	13:4I:69:GLU:HB3	1.84	0.59
17:8I:88:TYR:HD1	17:8I:89:LEU:HD22	1.67	0.59
23:2K:17:C:HO2'	23:2K:18:C:H5	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:249:C:P	63:1H:3920:HOH:O	2.61	0.59
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.38	0.59
26:1H:664:C:P	40:78:18:ARG:HH21	2.26	0.59
26:1H:1534:G:H2'	26:1H:1535:U:O4'	2.03	0.59
26:1H:2272:U:O4	63:1H:3926:HOH:O	2.15	0.59
31:31:39:TRP:CZ3	31:31:106:ARG:HD2	2.37	0.59
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.85	0.59
2:12:22:LYS:HA	2:12:24:TRP:CD1	2.38	0.59
6:52:77:ARG:HH21	6:52:78:GLU:HG2	1.67	0.59
26:14:823:G:H2'	26:14:824:A:C8	2.37	0.59
26:14:1486:A:H2'	26:14:1487:G:H8	1.66	0.59
26:14:1784:A:H4'	26:14:1785:A:O5'	2.01	0.59
26:14:2298:A:H62	26:14:2318:G:H8	1.50	0.59
26:14:2567:G:O6	63:14:3868:HOH:O	2.17	0.59
33:59:33:LEU:HG	33:59:79:VAL:HG13	1.83	0.59
43:65:95:HIS:HA	43:65:99:LYS:HD2	1.83	0.59
50:D5:82:ARG:HG2	50:D5:82:ARG:HH11	1.67	0.59
59:M5:14:VAL:HG11	59:M5:58:ILE:HD11	1.83	0.59
1:13:148:G:H2'	1:13:149:A:C8	2.38	0.59
13:4I:79:LYS:O	13:4I:83:ASP:HB2	2.03	0.59
17:8I:11:VAL:HG12	17:8I:85:VAL:HG13	1.85	0.59
26:1H:784:A:C5	29:11:229:VAL:HG21	2.38	0.59
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.38	0.59
26:1H:2163:C:H2'	26:1H:2164:C:O4'	2.01	0.59
40:78:71:VAL:HG13	40:78:72:PRO:HD3	1.83	0.59
45:C8:50:ARG:HH22	46:D8:72:VAL:HG23	1.68	0.59
1:1G:683:G:H2'	1:1G:684:A:H8	1.66	0.59
1:1G:1505:G:H4'	1:1G:1506:U:H5"	1.84	0.59
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.84	0.59
15:6A:5:LYS:HE3	15:6A:5:LYS:H	1.68	0.59
26:14:2168:G:O2'	26:14:2169:A:O5'	2.13	0.59
26:14:2295:C:H41	43:65:13:ARG:NH2	2.00	0.59
29:19:65:ILE:HD11	29:19:67:PHE:CZ	2.37	0.59
45:85:69:CYS:O	45:85:74:LEU:HD12	2.03	0.59
48:B5:18:TYR:O	48:B5:21:PHE:N	2.24	0.59
51:E5:70:GLN:NE2	51:E5:72:ARG:HD2	2.16	0.59
1:13:280:C:C2	17:8I:38:ARG:HG3	2.37	0.59
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.43	0.59
13:4I:74:VAL:O	13:4I:78:ILE:HG12	2.02	0.59
15:6I:79:ARG:NH1	15:6I:83:GLU:OE2	2.36	0.59
17:8I:82:MET:O	17:8I:86:GLU:HG2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:646:A:H2'	26:1H:647:G:O4'	2.02	0.59
26:1H:988:A:P	54:L8:11:SER:HB2	2.43	0.59
26:1H:1250:G:H5'	63:1H:4998:HOH:O	2.03	0.59
26:1H:1264:G:OP1	56:N8:19:ARG:NH2	2.25	0.59
26:1H:2331:G:H4'	51:I8:43:THR:H	1.67	0.59
26:1H:2600:A:N6	63:1H:3728:HOH:O	2.11	0.59
34:18:4:ASP:HA	34:18:7:ARG:HB2	1.84	0.59
45:C8:19:LYS:O	45:C8:22:LYS:HG3	2.02	0.59
1:1G:690:G:H2'	1:1G:691:G:O4'	2.02	0.59
1:1G:973:G:H3'	1:1G:974:A:H5"	1.84	0.59
1:1G:1007:C:N3	1:1G:1023:G:N1	2.51	0.59
1:1G:1387:G:H2'	1:1G:1388:C:H6	1.68	0.59
26:14:71:A:H5'	26:14:71:A:H8	1.66	0.59
26:14:389:G:H22	40:35:71:VAL:HG12	1.67	0.59
26:14:1568:G:OP2	29:19:63:ARG:NH2	2.30	0.59
39:25:88:ASN:O	39:25:91:LEU:N	2.36	0.59
44:75:31:SER:HB3	44:75:42:ILE:HD13	1.85	0.59
45:85:92:ARG:HH22	46:95:10:LYS:HA	1.67	0.59
1:13:1106:G:H5"	3:2E:172:ARG:HG2	1.83	0.58
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.38	0.58
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.85	0.58
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	1.83	0.58
26:1H:733:G:OP2	63:1H:3937:HOH:O	2.16	0.58
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.38	0.58
26:1H:2735:G:H2'	26:1H:2736:G:H8	1.68	0.58
30:21:6:GLY:HA2	30:21:51:PHE:CZ	2.37	0.58
40:78:116:GLY:H	40:78:134:ALA:HB2	1.68	0.58
47:E8:9:TYR:H	47:E8:102:HIS:HD2	1.51	0.58
48:F8:49:VAL:HG12	48:F8:50:LYS:H	1.68	0.58
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.68	0.58
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.85	0.58
3:22:20:SER:OG	3:22:36:ASP:OD2	2.22	0.58
13:4A:114:ARG:O	13:4A:116:THR:OG1	2.21	0.58
26:14:588:U:H2'	26:14:589:C:C6	2.37	0.58
26:14:2468:G:H3'	26:14:2476:A:C2	2.38	0.58
33:59:125:VAL:HG13	33:59:126:PRO:HD3	1.85	0.58
43:65:49:VAL:HG21	43:65:77:ALA:HB2	1.84	0.58
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.85	0.58
37:48:108:ALA:HB3	37:48:111:LYS:NZ	2.18	0.58
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.38	0.58
26:14:1062:G:N2	26:14:1077:A:N3	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2351:G:OP2	59:M5:46:ARG:NH1	2.36	0.58
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.84	0.58
1:13:767:A:H3'	63:13:1919:HOH:O	2.04	0.58
1:13:1262:C:H2'	1:13:1263:C:C6	2.38	0.58
26:1H:341:G:OP2	63:1H:3946:HOH:O	2.17	0.58
26:1H:958:U:H5'	41:88:14:ARG:HD3	1.86	0.58
26:1H:1109:C:O2'	26:1H:1110:G:OP1	2.15	0.58
27:16:94:C:H2'	27:16:95:U:C6	2.37	0.58
32:41:97:ASP:HA	32:41:100:TRP:HD1	1.68	0.58
34:18:24:ILE:HG23	34:18:25:ASP:N	2.18	0.58
55:M8:9:LEU:HD12	55:M8:27:THR:H	1.67	0.58
1:1G:108:G:H5'	1:1G:109:A:H5"	1.84	0.58
1:1G:537:G:H5"	12:3A:113:ARG:HH12	1.68	0.58
7:62:141:VAL:HA	7:62:142:GLU:CB	2.32	0.58
12:3A:83:VAL:HG21	12:3A:100:ILE:HD12	1.84	0.58
22:1L:5:C:H42	22:1L:69:G:H1	1.51	0.58
26:14:138:G:N2	48:B5:44:GLU:OE2	2.29	0.58
26:14:872:A:H4'	41:45:66:ILE:HD11	1.83	0.58
26:14:1050:A:H2	26:14:2751:G:H2'	1.67	0.58
26:14:1188:U:O2'	26:14:1189:A:H5'	2.02	0.58
26:14:1456:G:OP2	63:14:3865:HOH:O	2.16	0.58
28:79:10:LEU:HB3	28:79:220:PRO:HD3	1.86	0.58
46:95:77:ALA:O	46:95:79:VAL:N	2.35	0.58
49:C5:17:SER:HB2	49:C5:71:LYS:HD2	1.85	0.58
49:C5:82:PRO:HB2	49:C5:100:ALA:H	1.68	0.58
1:13:476:G:H2'	1:13:477:G:C8	2.39	0.58
1:13:992:U:H4'	1:13:993:G:O5'	2.02	0.58
1:13:1292:U:H2'	1:13:1293:G:C8	2.39	0.58
3:2E:30:ARG:NH2	14:5I:35:ARG:O	2.36	0.58
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.38	0.58
23:2K:24:C:H2'	23:2K:25:U:C6	2.39	0.58
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.03	0.58
26:1H:1140:C:OP1	38:58:23:LEU:HB3	2.03	0.58
26:1H:1814:G:P	29:11:40:THR:HG21	2.43	0.58
26:1H:2712(A):A:OP2	63:1H:3854:HOH:O	2.17	0.58
31:31:160:ASN:OD1	31:31:163:VAL:HG23	2.04	0.58
36:38:71:LEU:HD13	36:38:72:ASP:HB2	1.85	0.58
49:G8:55:TYR:CZ	49:G8:61:ILE:HD11	2.38	0.58
58:P8:26:GLY:O	58:P8:30:VAL:HG23	2.03	0.58
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.19	0.58
1:1G:857:C:H3'	1:1G:858:G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:100:GLY:N	2:12:176:GLU:OE2	2.27	0.58
2:12:111:ARG:HA	2:12:111:ARG:HH11	1.68	0.58
3:22:33:LEU:HD12	3:22:36:ASP:HB3	1.85	0.58
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.38	0.58
4:32:189:PRO:HB2	4:32:194:LEU:HD21	1.84	0.58
22:1L:31:G:H1	22:1L:41:C:H42	1.50	0.58
26:14:2355:C:H1'	51:E5:39:ARG:HH21	1.69	0.58
33:59:30:LYS:HB2	33:59:79:VAL:HA	1.84	0.58
48:B5:18:TYR:O	48:B5:20:GLY:N	2.37	0.58
1:13:1239:A:H62	1:13:1299:A:N6	2.01	0.58
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.37	0.58
26:1H:860:U:C5	26:1H:917:A:C2	2.82	0.58
26:1H:1843:C:H5'	29:11:253:GLN:OE1	2.03	0.58
26:1H:2592:G:P	63:1H:3744:HOH:O	2.59	0.58
30:21:78:LEU:HD23	30:21:78:LEU:O	2.03	0.58
32:41:6:ALA:H	55:M8:23:GLU:HG3	1.69	0.58
36:38:12:THR:HG22	36:38:15:GLU:H	1.68	0.58
37:48:133:SER:HA	37:48:137:GLU:HG2	1.85	0.58
1:1G:1028:C:N3	1:1G:1033:G:N2	2.51	0.58
11:2A:57:THR:HG22	11:2A:59:TYR:H	1.68	0.58
22:1L:54:G:H4'	41:45:56:ARG:CZ	2.34	0.58
26:14:1138:G:H21	38:15:106:MET:HE3	1.68	0.58
26:14:1664:A:OP2	63:14:3870:HOH:O	2.17	0.58
48:B5:9:LEU:HA	53:G5:36:ARG:NH2	2.18	0.58
1:13:984:C:N4	1:13:1221:G:H1	2.00	0.58
26:1H:143:C:H5'	48:F8:35:THR:CG2	2.32	0.58
26:1H:2711:A:OP2	63:1H:3875:HOH:O	2.16	0.58
35:61:92:VAL:HG13	35:61:120:ILE:HG23	1.84	0.58
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.30	0.58
1:1G:501:C:H2'	1:1G:502:G:C8	2.39	0.58
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.86	0.58
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.34	0.58
26:14:2719:G:OP2	63:14:3866:HOH:O	2.17	0.58
26:14:2784:C:O2	30:29:37:ARG:NH2	2.36	0.58
30:29:102:VAL:HB	30:29:199:ARG:O	2.03	0.58
40:35:28:GLY:O	40:35:31:ALA:N	2.36	0.58
40:35:56:SER:HB3	40:35:61:ARG:HD3	1.86	0.58
45:85:66:ASN:ND2	45:85:70:ARG:HE	2.01	0.58
50:D5:54:HIS:HB3	50:D5:101:PRO:HD3	1.84	0.58
1:13:57:G:H2'	1:13:58:C:C6	2.38	0.58
1:13:259:G:O6	63:13:1951:HOH:O	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:64:GLN:HB3	7:6E:128:ALA:HB1	1.86	0.58
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.85	0.58
26:1H:607:U:OP1	31:31:102:PRO:HA	2.02	0.58
26:1H:1170:G:N2	26:1H:1180:C:N3	2.51	0.58
26:1H:2284:C:H41	57:O8:25:LYS:HZ1	1.51	0.58
31:31:116:ASP:OD2	40:78:1:MET:HB2	2.04	0.58
36:38:138:LEU:HD13	36:38:141:VAL:HG12	1.85	0.58
48:F8:55:ASN:HB2	48:F8:80:ILE:HG13	1.84	0.58
26:14:483:A:C4	49:C5:60:PHE:HE2	2.22	0.58
26:14:960:A:H61	41:45:82:ARG:NH2	2.02	0.58
26:14:1035:U:H2'	26:14:1036:G:C8	2.38	0.58
26:14:2275:C:C6	26:14:2275:C:H5'	2.38	0.58
27:1J:87:G:H3'	27:1J:88:C:O4'	2.03	0.58
30:29:76:ARG:HG2	30:29:195:LEU:HD13	1.84	0.58
41:45:27:VAL:HG11	41:45:134:ARG:HA	1.85	0.58
43:65:20:ARG:HH21	43:65:21:THR:HG1	1.46	0.58
48:B5:63:LYS:HE3	48:B5:63:LYS:N	2.18	0.58
1:13:1534:A:N6	25:4K:11:U:O2'	2.36	0.58
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.68	0.58
13:4I:54:VAL:HG22	13:4I:57:ARG:HH22	1.68	0.58
26:1H:1156:A:C8	45:C8:51:LYS:HG2	2.38	0.58
26:1H:1728:G:N2	26:1H:1730:U:OP2	2.37	0.58
26:1H:2057:A:OP2	63:1H:3944:HOH:O	2.17	0.58
26:1H:2238:G:O3'	63:1H:3940:HOH:O	2.17	0.58
49:G8:39:VAL:O	49:G8:42:VAL:HG13	2.03	0.58
57:O8:25:LYS:HE2	57:O8:27:LYS:HD3	1.84	0.58
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.38	0.58
7:62:12:LEU:HD21	7:62:28:ASN:HD21	1.67	0.58
20:BA:42:GLN:O	20:BA:45:GLN:HB3	2.04	0.58
26:14:1796:U:H2'	26:14:1797:C:C6	2.39	0.58
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.84	0.58
33:59:77:LYS:HE2	33:59:81:GLU:HB3	1.86	0.58
40:35:13:ASN:C	40:35:15:ARG:H	2.05	0.58
41:45:21:THR:HG22	41:45:23:GLY:HA3	1.86	0.58
1:13:766:A:OP2	63:13:1954:HOH:O	2.17	0.58
24:3K:49:C:O2	24:3K:60:A:H1'	2.03	0.58
25:4K:22:A:H5'	25:4K:23:A:OP2	2.04	0.58
26:1H:184:C:H2'	26:1H:185:U:H6	1.68	0.58
44:B8:26:ASP:HB3	44:B8:92:GLY:H	1.68	0.58
57:O8:25:LYS:HG2	57:O8:27:LYS:HE3	1.84	0.58
1:1G:540:G:H2'	1:1G:541:G:O4'	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.38	0.58
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.37	0.58
2:12:168:THR:HG23	2:12:192:SER:HB3	1.86	0.58
3:22:32:LEU:HD22	3:22:59:ARG:HH12	1.69	0.58
5:42:81:GLU:HB3	5:42:90:VAL:HG13	1.85	0.58
13:4A:49:THR:N	13:4A:52:GLU:OE1	2.28	0.58
22:1L:17:U:H1'	22:1L:18:G:OP2	2.04	0.58
26:14:1794:U:H2'	26:14:1795:C:C6	2.39	0.58
26:14:2113:U:O4	26:14:2168:G:H4'	2.04	0.58
26:14:2250:G:N1	41:45:82:ARG:HD2	2.19	0.58
30:29:89:ASP:HB2	30:29:91:VAL:HG13	1.85	0.58
41:45:37:LEU:HD21	41:45:130:LYS:HG2	1.85	0.58
1:13:567:G:OP2	63:13:1936:HOH:O	2.16	0.58
1:13:955:U:H1'	1:13:1227:A:H61	1.69	0.58
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.84	0.58
24:3K:54:G:O6	24:3K:62:C:N4	2.36	0.58
27:16:80:U:H2'	27:16:81:G:H21	1.67	0.58
1:1G:243:A:H4'	1:1G:244:U:H5"	1.85	0.58
2:12:58:ILE:O	2:12:62:ALA:N	2.36	0.58
3:22:95:THR:O	3:22:97:LYS:N	2.37	0.58
26:14:399:G:OP2	63:14:3871:HOH:O	2.17	0.58
26:14:739:G:OP1	63:14:3872:HOH:O	2.17	0.58
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.04	0.58
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.34	0.58
50:D5:27:VAL:HG12	50:D5:87:ASP:HB3	1.84	0.58
50:D5:93:ASP:HA	50:D5:130:PRO:HD2	1.85	0.58
1:13:196:A:O2'	1:13:197:A:H2'	2.04	0.57
1:13:284:G:H2'	1:13:285:G:C8	2.39	0.57
1:13:321:A:N7	1:13:328:C:C6	2.72	0.57
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.39	0.57
19:AI:25:LYS:HG3	19:AI:25:LYS:O	2.04	0.57
20:BI:45:GLN:HB2	20:BI:91:LEU:HD13	1.86	0.57
26:1H:500:G:N2	26:1H:502:A:H3'	2.19	0.57
26:1H:630:G:OP2	59:Q8:15:LYS:NZ	2.35	0.57
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.39	0.57
26:1H:2287:A:C2	26:1H:2346:A:H2	2.22	0.57
32:41:35:GLU:HG3	32:41:36:LYS:HB2	1.86	0.57
35:61:31:LEU:HD21	35:61:38:LEU:HG	1.86	0.57
1:1G:464:G:N2	1:1G:467:G:N7	2.52	0.57
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.69	0.57
2:12:84:GLU:OE2	2:12:212:GLN:NE2	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:459:U:H4'	58:L5:40:TRP:CZ3	2.38	0.57
26:14:654(C):G:N2	26:14:654(R):C:O2'	2.37	0.57
26:14:1757:U:H3	26:14:1762:A:H2	1.50	0.57
26:14:2788:C:O2'	26:14:2809:A:N3	2.36	0.57
44:75:107:ASP:N	44:75:107:ASP:OD1	2.37	0.57
1:13:191(F):U:H2'	1:13:191:G:C8	2.39	0.57
1:13:626:U:C2	1:13:627:G:C8	2.92	0.57
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.40	0.57
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.39	0.57
26:1H:85:G:OP2	49:G8:9:LYS:HB2	2.04	0.57
26:1H:125:G:H5'	26:1H:125:G:C8	2.39	0.57
26:1H:638:G:H2'	26:1H:639:U:H6	1.69	0.57
26:1H:818:G:H5'	26:1H:839:U:OP1	2.04	0.57
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.85	0.57
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.04	0.57
40:78:88:LEU:HD12	40:78:95:VAL:HG11	1.84	0.57
57:O8:25:LYS:HB2	59:Q8:34:TRP:CD1	2.39	0.57
1:1G:600:C:H2'	1:1G:601:C:C6	2.39	0.57
1:1G:1368:G:OP1	9:82:111:ARG:NH2	2.36	0.57
13:4A:82:MET:HG3	13:4A:83:ASP:H	1.69	0.57
26:14:2646:C:H2'	26:14:2647:U:O4'	2.04	0.57
27:1J:2:C:H2'	27:1J:3:C:H6	1.69	0.57
27:1J:101:A:N7	63:1J:303:HOH:O	2.31	0.57
28:79:175:VAL:O	28:79:188:ASN:ND2	2.37	0.57
33:59:26:VAL:HG11	33:59:33:LEU:HB2	1.84	0.57
40:35:96:THR:OG1	40:35:97:PRO:O	2.21	0.57
41:45:138:ASP:OD1	41:45:138:ASP:N	2.36	0.57
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.04	0.57
2:1E:209:ARG:HD3	2:1E:239:VAL:HA	1.86	0.57
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.24	0.57
26:1H:528:A:OP1	63:1H:3938:HOH:O	2.16	0.57
2:12:178:ARG:NH1	2:12:196:LEU:O	2.37	0.57
7:62:145:ALA:O	7:62:147:ALA:N	2.36	0.57
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.36	0.57
24:3L:18:G:N2	24:3L:56:U:H3	1.99	0.57
24:3L:60:A:H3'	24:3L:60:A:N3	2.19	0.57
26:14:71:A:H2	48:B5:31:HIS:CE1	2.21	0.57
26:14:527:C:OP1	63:14:3874:HOH:O	2.18	0.57
26:14:1165:U:H2'	26:14:1166:C:C6	2.40	0.57
30:29:121:ASN:HB3	63:29:408:HOH:O	2.04	0.57
32:49:173:LEU:HD13	32:49:178:PHE:HD2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:95:62:LEU:HD21	46:95:95:LEU:HB2	1.86	0.57
47:A5:71:VAL:HA	47:A5:107:LEU:HD12	1.87	0.57
1:13:284:G:H2'	1:13:285:G:H8	1.70	0.57
1:13:344:A:H5"	1:13:345:C:O2	2.04	0.57
1:13:625:G:H4'	16:7I:16:HIS:CD2	2.40	0.57
1:13:631:G:O2'	1:13:632:A:O5'	2.21	0.57
4:3E:155:LEU:O	4:3E:157:LEU:N	2.37	0.57
26:1H:991:C:H2'	26:1H:992:C:C6	2.38	0.57
26:1H:2597:G:O3'	63:1H:3837:HOH:O	2.17	0.57
28:71:168:THR:O	28:71:168:THR:OG1	2.23	0.57
37:48:51:ALA:HB3	37:48:76:TYR:HD1	1.69	0.57
37:48:58:THR:HG22	37:48:59:ILE:H	1.69	0.57
56:N8:40:LYS:HG2	56:N8:47:PRO:HD2	1.84	0.57
1:1G:933:G:O6	7:62:3:ARG:NH2	2.38	0.57
1:1G:1502:A:H2	1:1G:1505:G:N1	1.99	0.57
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.19	0.57
26:14:748:G:OP2	47:A5:88:ARG:HG3	2.03	0.57
26:14:996:A:N6	26:14:1160:G:C6	2.72	0.57
26:14:1278:A:H2'	26:14:1279:G:C8	2.39	0.57
26:14:1386:C:H2'	26:14:1387:C:C6	2.39	0.57
26:14:2119:A:H62	26:14:2168:G:N2	2.02	0.57
26:14:2414:G:O2'	40:35:70:GLN:OE1	2.18	0.57
26:14:2745:C:H2'	26:14:2746:U:O4'	2.04	0.57
27:1J:104:A:H2'	27:1J:105:G:O4'	2.04	0.57
30:29:96:PHE:HD2	30:29:182:LEU:HD21	1.68	0.57
43:65:107:GLU:N	43:65:110:LEU:HD11	2.18	0.57
49:C5:82:PRO:HG3	49:C5:99:CYS:HB3	1.86	0.57
1:13:17:U:H2'	1:13:18:C:C6	2.39	0.57
1:13:266:G:H5"	1:13:267:C:H5	1.70	0.57
1:13:484:G:O2'	1:13:485:G:OP2	2.18	0.57
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.36	0.57
8:7E:10:LEU:HB3	8:7E:83:ILE:HD11	1.86	0.57
26:1H:259:G:H21	26:1H:621:A:H8	1.51	0.57
26:1H:918:A:N3	27:16:80:U:O2'	2.35	0.57
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.40	0.57
27:16:101:A:OP2	63:16:306:HOH:O	2.17	0.57
32:41:173:LEU:HB3	32:41:178:PHE:HD2	1.69	0.57
42:98:9:LYS:HA	42:98:17:ARG:HE	1.69	0.57
1:1G:588:G:H1	1:1G:651:C:N4	1.97	0.57
1:1G:1251:A:HO2'	1:1G:1369:C:HO2'	1.43	0.57
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:33:RSP:H5'A	22:1L:34:U:OP2	2.03	0.57
24:3L:3:A:H2'	24:3L:4:U:O4'	2.05	0.57
26:14:2:G:N3	26:14:2:G:H2'	2.19	0.57
26:14:491:G:H2'	26:14:492:A:H8	1.69	0.57
26:14:1530:G:O6	26:14:1542:G:N2	2.37	0.57
29:19:49:ILE:CD1	29:19:52:ARG:HA	2.35	0.57
1:13:138:G:H1	1:13:225:C:H42	1.52	0.57
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.87	0.57
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.87	0.57
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.40	0.57
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.40	0.57
46:D8:38:LEU:HD21	46:D8:55:ALA:HB1	1.86	0.57
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.69	0.57
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.08	0.57
1:1G:1370:G:N7	63:1G:1871:HOH:O	2.32	0.57
3:22:55:VAL:HG13	3:22:68:VAL:HG13	1.86	0.57
4:32:22:LYS:HG3	61:32:303:SF4:S3	2.45	0.57
24:3L:6:U:H3	24:3L:68:G:N2	2.02	0.57
40:35:52:GLU:OE2	40:35:55:ARG:NH2	2.37	0.57
44:75:22:PHE:CE2	44:75:49:VAL:HG11	2.40	0.57
1:13:664:G:N2	1:13:741:G:H1	2.01	0.57
26:1H:589:C:H2'	26:1H:590:A:C8	2.39	0.57
26:1H:1255:U:O2'	63:1H:3943:HOH:O	2.17	0.57
26:1H:1729:A:O2'	26:1H:1730:U:H5"	2.04	0.57
27:16:102:G:O6	63:16:305:HOH:O	2.16	0.57
30:21:116:VAL:O	30:21:117:MET:HB3	2.02	0.57
35:61:113:ARG:HD2	35:61:131:LYS:HB2	1.87	0.57
36:38:32:LEU:HD21	36:38:107:VAL:HG13	1.85	0.57
36:38:52:PHE:HB2	36:38:53:VAL:CG2	2.34	0.57
39:68:104:ARG:NH1	44:B8:36:GLU:OE1	2.36	0.57
50:H8:108:PRO:HB2	50:H8:112:ARG:HA	1.87	0.57
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.40	0.57
7:62:50:ILE:HD12	7:62:61:VAL:HG11	1.87	0.57
7:62:69:VAL:HG22	7:62:135:VAL:HG22	1.85	0.57
11:2A:100:ALA:O	11:2A:102:GLY:N	2.37	0.57
13:4A:34:LEU:HD13	13:4A:41:PRO:HA	1.86	0.57
26:14:61:G:H1	26:14:93:C:H42	1.52	0.57
26:14:1224:G:N2	26:14:1227:A:OP2	2.32	0.57
26:14:1509:C:H5'	26:14:1510:A:C8	2.40	0.57
28:79:66:HIS:HB2	28:79:188:ASN:ND2	2.19	0.57
29:19:43:ARG:HH21	29:19:43:ARG:HG3	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:35:107:LYS:O	40:35:109:GLY:N	2.37	0.57
50:D5:67:LEU:HD21	50:D5:90:VAL:HG13	1.86	0.57
54:H5:40:THR:HG23	54:H5:43:ILE:HG13	1.86	0.57
1:13:97:U:H2'	1:13:99:C:C6	2.39	0.57
3:2E:74:GLY:HA2	3:2E:77:ILE:HB	1.85	0.57
6:5E:97:PHE:HD2	18:9I:31:LEU:HD21	1.69	0.57
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.05	0.57
22:1K:23:G:O2'	22:1K:24:A:OP1	2.21	0.57
24:3K:2:C:H2'	24:3K:3:A:C8	2.40	0.57
26:1H:661:C:O3'	40:78:15:ARG:HG2	2.04	0.57
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.39	0.57
26:1H:2378:A:O2'	43:A8:21:THR:HG21	2.05	0.57
32:41:16:ARG:O	32:41:20:ILE:HG13	2.05	0.57
32:41:37:VAL:O	32:41:94:LEU:HD23	2.05	0.57
1:1G:1162:C:N4	1:1G:1174:G:H1	2.03	0.57
10:1A:5:ARG:HG3	10:1A:73:ASP:OD1	2.05	0.57
18:9A:38:GLU:HG2	18:9A:39:VAL:N	2.19	0.57
26:14:330:A:HO2'	26:14:331:A:H8	1.52	0.57
26:14:1894:C:H2'	26:14:1895:C:H6	1.68	0.57
26:14:2575:C:OP1	30:29:144:ARG:HG3	2.04	0.57
40:35:122:PRO:HA	40:35:141:ALA:HB1	1.86	0.57
41:45:109:VAL:HA	41:45:113:GLN:HE21	1.69	0.57
49:C5:89:PHE:CE2	49:C5:91:GLU:HB3	2.39	0.57
50:D5:158:PRO:HD2	50:D5:161:VAL:HG21	1.87	0.57
1:13:49:U:C2	1:13:361:G:N2	2.73	0.57
1:13:105:G:H2'	1:13:106:C:C6	2.39	0.57
1:13:1314:C:N4	19:AI:4:SER:O	2.35	0.57
1:13:1412:C:H2'	1:13:1413:A:C8	2.40	0.57
19:AI:33:THR:OG1	19:AI:34:TRP:N	2.38	0.57
24:3K:15:G:H22	24:3K:60:A:H5"	1.69	0.57
24:3K:57:C:H2'	24:3K:58:G:C8	2.40	0.57
26:1H:404:C:O2'	26:1H:405:U:OP2	2.20	0.57
26:1H:1997:G:N7	63:1H:4082:HOH:O	2.32	0.57
26:1H:2472:G:H22	26:1H:2476:A:H62	1.53	0.57
37:48:122:ALA:O	37:48:124:ALA:N	2.38	0.57
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.04	0.57
4:32:190:ASP:HB3	4:32:192:GLU:HG3	1.86	0.57
9:82:70:LYS:O	9:82:74:ILE:HG13	2.04	0.57
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.86	0.57
20:BA:86:ARG:NH1	20:BA:86:ARG:HB2	2.20	0.57
26:14:1366:A:H2'	26:14:1367:A:O4'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2168:G:N2	26:14:2171:A:N1	2.52	0.57
32:49:6:ALA:HA	32:49:9:ARG:HB3	1.87	0.57
33:59:16:SER:O	33:59:18:GLU:HG2	2.05	0.57
35:69:101:LEU:HD23	35:69:101:LEU:H	1.70	0.57
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.32	0.57
4:3E:36:ARG:HB3	4:3E:38:TYR:CZ	2.39	0.57
19:AI:32:LYS:HA	19:AI:50:ALA:HB3	1.87	0.57
26:1H:270(M):U:O2'	26:1H:270(N):G:O5'	2.21	0.57
26:1H:1067:A:H5"	26:1H:1068:G:N7	2.20	0.57
26:1H:2598:A:P	63:1H:3837:HOH:O	2.62	0.57
36:38:142:LEU:HD13	34:28:29:GLU:HB3	1.86	0.57
56:N8:40:LYS:CG	56:N8:47:PRO:HD2	2.35	0.57
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.36	0.57
2:12:72:GLY:O	2:12:74:LYS:N	2.37	0.57
5:42:70:PRO:HB2	5:42:77:PRO:HG3	1.85	0.57
10:1A:47:PHE:HE1	10:1A:63:PHE:HB2	1.70	0.57
12:3A:105:TYR:O	12:3A:107:ALA:N	2.38	0.57
13:4A:69:GLU:HA	32:49:118:ARG:HH22	1.69	0.57
26:14:1019:U:H2'	26:14:1020:A:C8	2.39	0.57
26:14:1050:A:C2	26:14:2751:G:H2'	2.40	0.57
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.40	0.57
26:14:2147:G:H2'	26:14:2148:G:H4'	1.86	0.57
26:14:2296:U:OP2	43:65:9:ARG:NH1	2.31	0.57
27:1J:11:C:H3'	27:1J:12:C:C6	2.40	0.57
39:25:70:LYS:HZ2	39:25:70:LYS:HB3	1.70	0.57
59:M5:33:ASN:C	59:M5:35:GLN:N	2.58	0.57
59:M5:37:SER:OG	59:M5:39:LYS:O	2.22	0.57
1:13:221:C:H2'	1:13:222:U:H6	1.69	0.56
2:1E:185:ILE:HG23	2:1E:199:TYR:HB2	1.86	0.56
6:5E:52:ILE:HG22	6:5E:86:ARG:HG2	1.87	0.56
22:1K:8:4SU:H6	22:1K:8:4SU:C5'	2.35	0.56
26:1H:1107:G:H2'	26:1H:1108:U:H6	1.70	0.56
30:21:18:ASP:HB3	44:B8:82:LEU:HD21	1.87	0.56
36:38:63:LEU:HB3	36:38:65:GLU:OE2	2.04	0.56
55:M8:23:GLU:CD	55:M8:24:THR:H	2.08	0.56
1:1G:298:A:O5'	1:1G:298:A:H8	1.87	0.56
1:1G:363:A:P	12:3A:33:ARG:HD2	2.45	0.56
5:42:12:LEU:HD22	5:42:13:ILE:H	1.69	0.56
12:3A:78:GLN:HG3	12:3A:80:HIS:H	1.69	0.56
26:14:456:C:C4	48:B5:69:TYR:HD2	2.23	0.56
26:14:486:C:O2'	47:A5:60:ASN:ND2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:893:C:O2'	26:14:894:C:OP1	2.20	0.56
26:14:2689:U:OP2	26:14:2719:G:N2	2.37	0.56
32:49:76:SER:OG	32:49:84:LYS:N	2.37	0.56
41:45:16:ARG:O	41:45:17:LEU:HD23	2.04	0.56
49:C5:76:CYS:O	49:C5:78:ALA:N	2.37	0.56
2:1E:95:GLN:OE1	2:1E:147:LYS:NZ	2.38	0.56
22:1K:6:C:N4	22:1K:68:G:H1	2.03	0.56
26:1H:228:A:C8	26:1H:230:U:H1'	2.40	0.56
26:1H:836:G:H5"	26:1H:837:C:OP2	2.04	0.56
44:B8:7:ILE:O	44:B8:11:GLU:HG3	2.05	0.56
44:B8:125:ARG:O	44:B8:129:ARG:N	2.32	0.56
1:1G:4:U:C4	8:72:105:ARG:HD3	2.39	0.56
1:1G:1306:A:N6	1:1G:1331:G:O2'	2.39	0.56
4:32:196:LEU:H	4:32:196:LEU:HD12	1.70	0.56
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.69	0.56
26:14:528:A:C2	26:14:2042:A:H2'	2.41	0.56
26:14:639:U:H2'	26:14:640:C:C6	2.39	0.56
26:14:1678:G:H22	26:14:1989:G:N2	1.97	0.56
26:14:1899:G:N2	26:14:1902:C:H42	1.97	0.56
26:14:2115:G:N1	26:14:2117:A:N7	2.53	0.56
26:14:2689:U:P	26:14:2719:G:H22	2.27	0.56
40:35:52:GLU:O	40:35:54:GLY:N	2.38	0.56
41:45:31:ASP:N	41:45:106:VAL:O	2.38	0.56
1:13:154:C:N3	1:13:168:G:N2	2.53	0.56
1:13:323:U:H2'	1:13:324:G:O4'	2.04	0.56
1:13:1286:A:C8	1:13:1287:A:H4'	2.40	0.56
2:1E:16:HIS:ND1	2:1E:44:LEU:HD23	2.21	0.56
2:1E:237:ALA:O	2:1E:239:VAL:N	2.38	0.56
11:2I:32:ILE:HD12	11:2I:72:ALA:HB2	1.86	0.56
14:5I:4:LYS:O	14:5I:7:ILE:HG13	2.04	0.56
23:2K:24:C:H2'	23:2K:25:U:H6	1.69	0.56
24:3K:37:G:H2'	24:3K:38:A:H8	1.70	0.56
26:1H:270(H):C:H2'	26:1H:270(I):G:O4'	2.05	0.56
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.87	0.56
26:1H:1315:C:OP2	63:1H:3945:HOH:O	2.17	0.56
26:1H:2134:A:H2	26:1H:2159:G:H1'	1.70	0.56
27:16:37:C:H2'	27:16:38:C:H5'	1.87	0.56
28:71:62:VAL:HB	28:71:163:PHE:HE1	1.71	0.56
33:51:25:LYS:HE2	33:51:34:GLU:HG2	1.87	0.56
34:18:15:ALA:HA	34:18:19:GLU:HG2	1.85	0.56
36:38:130:THR:O	36:38:134:LEU:HD13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:58:9:VAL:HG21	38:58:39:ARG:NH1	2.19	0.56
40:78:31:ALA:O	40:78:32:THR:HG22	2.05	0.56
53:K8:2:LYS:O	53:K8:6:VAL:HG23	2.05	0.56
1:1G:660:G:H1	1:1G:745:C:H42	1.54	0.56
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.40	0.56
1:1G:1446:A:C2	44:75:118:ARG:HD2	2.41	0.56
12:3A:33:ARG:H	12:3A:85:ILE:HG22	1.71	0.56
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.88	0.56
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.05	0.56
22:1L:10:G:N2	22:1L:27:A:H1'	2.20	0.56
26:14:527:C:N3	63:14:4013:HOH:O	2.33	0.56
26:14:729:G:OP2	29:19:13:ARG:NH1	2.34	0.56
26:14:1316:U:H2'	26:14:1317:A:C8	2.41	0.56
26:14:2611:U:H6	26:14:2611:U:H5'	1.70	0.56
27:1J:90:C:P	41:45:16:ARG:HH21	2.28	0.56
29:19:134:ARG:HG3	29:19:135:PHE:CD2	2.40	0.56
33:59:6:ARG:HH21	33:59:54:ARG:NH1	2.03	0.56
35:69:7:GLU:HG3	35:69:8:PRO:HD2	1.87	0.56
39:25:122:LEU:HD13	44:75:72:VAL:HG11	1.87	0.56
40:35:85:LEU:HA	40:35:88:LEU:HD23	1.87	0.56
44:75:118:ARG:NH2	44:75:121:ILE:HG21	2.19	0.56
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.30	0.56
1:13:645:C:H2'	1:13:646:U:O4'	2.06	0.56
1:13:730:G:C5	1:13:731:G:H1'	2.40	0.56
2:1E:86:GLU:O	2:1E:89:GLY:N	2.38	0.56
26:1H:142:G:H2'	26:1H:143:C:C6	2.40	0.56
26:1H:634:C:H2'	26:1H:635:C:C6	2.40	0.56
26:1H:1377:G:OP2	63:1H:3951:HOH:O	2.18	0.56
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.40	0.56
31:31:181:LEU:O	31:31:205:ARG:NH2	2.37	0.56
42:98:51:LEU:HD22	42:98:66:VAL:HG13	1.87	0.56
1:1G:382:A:H2'	1:1G:383:A:H8	1.69	0.56
1:1G:485:G:O2'	1:1G:486:U:O5'	2.22	0.56
1:1G:1251:A:O2'	1:1G:1369:C:O2'	2.13	0.56
26:14:247:G:H4'	26:14:386:G:C5	2.41	0.56
26:14:1115:G:H2'	26:14:1116:C:C6	2.39	0.56
26:14:1379:A:H1'	26:14:1380:G:OP1	2.05	0.56
31:39:53:THR:HG23	31:39:55:GLY:H	1.69	0.56
43:65:54:LEU:C	43:65:56:LEU:H	2.07	0.56
1:13:373:A:H2'	1:13:374:A:C8	2.40	0.56
1:13:1118:C:OP1	9:8E:9:ARG:HD3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1442:G:H2'	1:13:1443:G:H5'	1.88	0.56
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.40	0.56
22:1K:7:G:H3'	22:1K:8:4SU:C5'	2.35	0.56
26:1H:527:C:OP1	63:1H:3949:HOH:O	2.18	0.56
26:1H:770:G:OP1	58:P8:8:ASN:ND2	2.37	0.56
36:38:27:VAL:HG13	36:38:110:GLY:N	2.20	0.56
38:58:131:GLN:H	38:58:134:ARG:HH12	1.53	0.56
43:A8:25:ARG:HD2	43:A8:88:ASP:HB2	1.87	0.56
51:I8:11:ARG:HB2	51:I8:11:ARG:HH11	1.70	0.56
1:1G:604:G:H2'	1:1G:605:U:O4'	2.05	0.56
3:22:42:LEU:O	3:22:46:GLU:HG2	2.06	0.56
5:42:34:VAL:HG12	5:42:42:GLY:HA3	1.87	0.56
10:1A:45:ARG:O	10:1A:65:LEU:N	2.38	0.56
24:3L:48:U:OP1	24:3L:48:U:H2'	2.05	0.56
26:14:484:C:P	49:C5:49:VAL:HG23	2.46	0.56
26:14:1394:U:O2	48:B5:16:LYS:NZ	2.39	0.56
26:14:1945:G:H2'	26:14:1946:U:C6	2.39	0.56
26:14:2176:A:O2'	28:79:215:THR:HG21	2.05	0.56
26:14:2275:C:H5'	26:14:2275:C:H6	1.70	0.56
1:13:1175:G:H2'	1:13:1176:A:C8	2.40	0.56
20:BI:97:ALA:O	20:BI:99:LEU:N	2.39	0.56
26:1H:274:G:H1'	26:1H:276:A:C2	2.40	0.56
26:1H:2177:C:H5"	28:71:213:TYR:CD1	2.40	0.56
26:1H:2689:U:OP2	26:1H:2719:G:N2	2.35	0.56
40:78:50:ARG:HH21	40:78:50:ARG:HG3	1.70	0.56
44:B8:57:PHE:O	44:B8:58:ASN:ND2	2.39	0.56
48:F8:49:VAL:HG11	48:F8:83:VAL:HG12	1.88	0.56
1:1G:1392:G:H21	1:1G:1502:A:H8	1.53	0.56
2:12:87:ARG:HH21	2:12:233:SER:HB3	1.69	0.56
2:12:119:GLU:OE2	2:12:153:ARG:NH2	2.38	0.56
5:42:51:VAL:O	5:42:55:VAL:HG23	2.05	0.56
6:52:15:ASP:O	6:52:19:LEU:HB2	2.06	0.56
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.05	0.56
26:14:459:U:H5"	58:L5:40:TRP:CD2	2.41	0.56
26:14:2607:G:H2'	26:14:2608:G:O4'	2.05	0.56
29:19:206:LEU:HD22	29:19:211:ARG:HG2	1.88	0.56
30:29:93:VAL:HG21	30:29:180:ASN:HA	1.88	0.56
31:39:121:GLY:O	31:39:122:LYS:HD3	2.06	0.56
31:39:122:LYS:HD2	31:39:191:ARG:HB3	1.87	0.56
41:45:66:ILE:HG22	41:45:104:PHE:CE1	2.38	0.56
52:F5:41:ARG:HB2	52:F5:43:TYR:CE1	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:278:G:C2	17:8I:95:TYR:HD2	2.23	0.56
1:13:1145:C:H4'	1:13:1146:A:H5'	1.87	0.56
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.71	0.56
20:BI:35:THR:HG22	20:BI:38:LYS:NZ	2.21	0.56
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.88	0.56
29:11:26:LYS:O	29:11:29:PRO:HD3	2.06	0.56
34:18:28:LYS:HB3	34:28:2:ALA:CB	2.35	0.56
1:1G:502:G:H2'	1:1G:503:C:O4'	2.06	0.56
23:2L:11:A:O5'	23:2L:11:A:H8	1.89	0.56
26:14:871:U:OP1	41:45:5:ARG:HG2	2.05	0.56
45:85:92:ARG:HG2	46:95:11:GLN:OE1	2.06	0.56
49:C5:52:SER:H	49:C5:56:PRO:HA	1.71	0.56
53:G5:65:ASN:HB3	53:G5:69:ARG:HH21	1.69	0.56
3:2E:47:LEU:HB2	3:2E:52:LEU:HD13	1.88	0.56
13:4I:93:ARG:NH1	26:1H:888:C:OP1	2.38	0.56
18:9I:22:VAL:HB	18:9I:56:THR:HA	1.87	0.56
26:1H:1671:U:OP2	63:1H:3856:HOH:O	2.17	0.56
30:21:51:PHE:HE2	30:21:52:LEU:HD22	1.69	0.56
32:41:75:LYS:HD2	32:41:77:ILE:HD13	1.87	0.56
1:1G:17:U:H2'	1:1G:18:C:C6	2.40	0.56
1:1G:197:A:H8	1:1G:198:G:C8	2.24	0.56
1:1G:429:U:H3'	4:32:9:CYS:SG	2.46	0.56
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.88	0.56
5:42:143:ARG:HG3	5:42:147:ASP:HB3	1.87	0.56
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.88	0.56
26:14:548:A:C6	26:14:549:G:H1'	2.40	0.56
26:14:2238:G:H2'	26:14:2238:G:N3	2.21	0.56
32:49:106:LEU:HA	32:49:110:ALA:HB3	1.87	0.56
48:B5:15:GLU:OE1	48:B5:15:GLU:N	2.32	0.56
1:13:1064:G:H4'	1:13:1065:U:OP1	2.06	0.56
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.71	0.56
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.88	0.56
22:1K:61:U:H5'	22:1K:62:C:C5	2.40	0.56
23:2K:73:A:C6	23:2K:74:A:C6	2.94	0.56
24:3K:15:G:O2'	24:3K:16:C:H5'	2.05	0.56
26:1H:1026:U:H1'	26:1H:1027:A:O5'	2.06	0.56
35:61:38:LEU:HD12	35:61:38:LEU:H	1.70	0.56
36:38:16:ASN:H	36:38:19:ARG:HB3	1.71	0.56
37:48:74:ALA:HA	37:48:127:ILE:HG23	1.87	0.56
39:68:64:ARG:NH1	39:68:81:ASP:OD1	2.38	0.56
43:A8:11:LYS:HD2	43:A8:15:ARG:NH2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A8:106:ARG:CZ	43:A8:107:GLU:HB2	2.36	0.56
45:C8:34:LYS:NZ	45:C8:37:GLU:OE1	2.30	0.56
51:I8:72:ARG:HB2	51:I8:75:LEU:HB2	1.88	0.56
1:1G:19:C:OP1	5:42:125:SER:OG	2.21	0.56
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.89	0.56
10:1A:53:PRO:HA	14:5A:42:ILE:HG21	1.86	0.56
24:3L:6:U:H3	24:3L:68:G:H1	1.52	0.56
26:14:960:A:H61	41:45:82:ARG:HH21	1.52	0.56
26:14:1430:C:H2'	26:14:1431:U:C6	2.41	0.56
26:14:1963:U:O2	26:14:1963:U:H2'	2.06	0.56
26:14:2469:A:H3'	26:14:2470:G:H8	1.71	0.56
38:15:37:LYS:HE2	45:85:63:VAL:HG21	1.88	0.56
39:25:88:ASN:HB3	39:25:94:ARG:HD2	1.88	0.56
1:13:262:A:H2'	1:13:263:A:C8	2.40	0.56
4:3E:103:ASN:O	4:3E:107:ARG:HG2	2.06	0.56
26:1H:2038:G:H2'	26:1H:2039:C:H6	1.71	0.56
29:11:145:VAL:HG12	29:11:146:GLU:O	2.06	0.56
45:C8:19:LYS:HG3	45:C8:22:LYS:HE2	1.88	0.56
52:J8:41:ARG:HH11	52:J8:41:ARG:HG3	1.70	0.56
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.29	0.56
26:14:270(H):C:H2'	26:14:270(I):G:H8	1.69	0.56
26:14:819:A:C4	26:14:1189:A:C2	2.94	0.56
26:14:1819:A:H4'	26:14:1820:U:O5'	2.06	0.56
26:14:2099:U:H3	26:14:2190:G:H1	1.52	0.56
26:14:2675:A:H4'	39:25:29:ASN:HD21	1.69	0.56
33:59:137:ASP:HB2	33:59:140:LYS:HE2	1.88	0.56
35:69:59:ALA:HA	35:69:62:LYS:HB3	1.87	0.56
38:15:95:PRO:O	38:15:98:VAL:HG12	2.06	0.56
50:D5:176:PRO:HG2	50:D5:178:GLU:HG2	1.88	0.56
51:E5:36:ILE:O	51:E5:36:ILE:HD13	2.06	0.56
1:13:625:G:H4'	16:7I:16:HIS:CG	2.40	0.55
1:13:872:A:C2	1:13:874:G:C6	2.94	0.55
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.87	0.55
7:6E:149:ARG:HG2	11:2I:59:TYR:CZ	2.40	0.55
25:4K:9:G:H2'	25:4K:10:G:C8	2.41	0.55
26:1H:176:G:O2'	26:1H:177:G:H5'	2.06	0.55
26:1H:1968:G:H5'	63:1H:3879:HOH:O	2.05	0.55
34:18:17:VAL:HG11	34:18:21:LYS:HE3	1.82	0.55
41:88:79:LEU:O	41:88:80:GLU:HB2	2.06	0.55
1:1G:547:A:H5'	63:1G:1811:HOH:O	2.06	0.55
1:1G:1095:U:H2'	1:1G:1096:C:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1158:C:N3	1:1G:1160:G:C8	2.75	0.55
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.40	0.55
7:62:73:MET:HB2	7:62:90:GLU:HA	1.88	0.55
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.70	0.55
23:2L:24:C:H2'	23:2L:25:U:H6	1.70	0.55
24:3L:1:G:O2'	24:3L:2:C:O5'	2.18	0.55
26:14:99:U:H4'	26:14:102:G:H1'	1.87	0.55
26:14:226:G:H21	26:14:228:A:H62	1.53	0.55
26:14:852:G:H2'	26:14:853:G:C8	2.40	0.55
26:14:1262:A:N3	56:J5:10:LYS:HE3	2.20	0.55
26:14:2269:A:OP2	63:14:3788:HOH:O	2.18	0.55
26:14:2666:C:O2	33:59:152:ARG:NH1	2.38	0.55
27:1J:14:U:H5'	27:1J:71:C:H1'	1.87	0.55
44:75:18:ASP:OD1	44:75:18:ASP:N	2.38	0.55
44:75:22:PHE:HE2	44:75:49:VAL:HG11	1.69	0.55
50:D5:25:PRO:O	50:D5:85:HIS:HA	2.06	0.55
1:13:576:G:OP1	63:13:1958:HOH:O	2.18	0.55
1:13:692:U:O2'	1:13:694:A:N7	2.30	0.55
2:1E:154:LEU:H	2:1E:154:LEU:HD12	1.72	0.55
26:1H:265:A:C8	26:1H:266:G:H1'	2.41	0.55
26:1H:1063:G:H22	26:1H:1076:C:H1'	1.71	0.55
26:1H:1081:U:C2	26:1H:1082:U:H1'	2.42	0.55
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.42	0.55
30:21:174:ASP:OD1	30:21:175:VAL:N	2.39	0.55
1:1G:713:G:H2'	1:1G:714:G:C8	2.42	0.55
1:1G:1199:U:H4'	10:1A:54:PHE:CE1	2.41	0.55
13:4A:86:CYS:SG	13:4A:88:ARG:HG3	2.46	0.55
26:14:2280:G:O2'	26:14:2388:A:N1	2.35	0.55
56:J5:20:ARG:HG2	56:J5:23:HIS:CD2	2.41	0.55
1:13:244:U:H4'	1:13:245:C:O5'	2.05	0.55
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.39	0.55
1:13:1263:C:H2'	1:13:1264:C:H6	1.71	0.55
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.88	0.55
9:8E:33:PHE:CE2	9:8E:47:LEU:HD21	2.40	0.55
26:1H:527:C:H4'	26:1H:528:A:H5'	1.88	0.55
26:1H:1543:A:H3'	26:1H:1543:A:OP2	2.07	0.55
26:1H:1632:A:N7	63:1H:3779:HOH:O	2.33	0.55
26:1H:1826:G:H4'	29:11:242:ARG:HE	1.71	0.55
26:1H:2062:A:H5'	63:1H:4295:HOH:O	2.05	0.55
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.05	0.55
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:178:PRO:HB3	31:31:198:ALA:CB	2.35	0.55
42:98:2:ARG:O	42:98:5:LYS:HG2	2.07	0.55
43:A8:26:LEU:HD12	43:A8:39:ILE:HD11	1.88	0.55
47:E8:35:ILE:HG23	56:N8:28:PRO:HD2	1.87	0.55
1:1G:474:G:OP2	16:7A:75:ARG:HD3	2.06	0.55
1:1G:985:C:H42	1:1G:1220:G:H1	1.55	0.55
6:52:11:ASN:HB3	6:52:14:LEU:HD13	1.88	0.55
12:3A:47:LYS:HB3	12:3A:48:PRO:HD3	1.87	0.55
26:14:1337:G:H2'	26:14:1338:G:H8	1.70	0.55
30:29:36:ARG:NH2	30:29:88:GLY:HA2	2.21	0.55
40:35:15:ARG:HB2	40:35:15:ARG:CZ	2.35	0.55
41:45:26:TYR:HD1	41:45:28:ALA:HB2	1.72	0.55
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.21	0.55
1:13:1533:C:O2'	1:13:1534:A:OP1	2.23	0.55
2:1E:22:LYS:HA	2:1E:24:TRP:CD1	2.40	0.55
5:4E:136:MET:HA	5:4E:139:LEU:HD12	1.88	0.55
12:3I:33:ARG:HG2	12:3I:60:LEU:CD1	2.36	0.55
22:1K:24:A:H2'	22:1K:25:G:C8	2.34	0.55
26:1H:248:G:H5'	26:1H:250:G:N7	2.21	0.55
26:1H:534:U:H5'	45:C8:42:ALA:HB1	1.89	0.55
28:71:22:ILE:O	28:71:26:ALA:HB2	2.06	0.55
28:71:44:HIS:CE1	28:71:214:VAL:HA	2.42	0.55
29:11:30:GLU:OE2	29:11:63:ARG:NE	2.31	0.55
32:41:38:VAL:HG22	32:41:93:THR:HA	1.87	0.55
37:48:11:GLN:H	37:48:55:VAL:HG21	1.71	0.55
42:98:9:LYS:HA	42:98:17:ARG:NE	2.20	0.55
45:C8:95:LEU:HD11	46:D8:11:GLN:O	2.05	0.55
50:H8:76:LEU:HA	50:H8:83:PRO:HA	1.87	0.55
1:1G:617:G:OP2	63:1G:1843:HOH:O	2.18	0.55
1:1G:974:A:P	14:5A:41:ARG:HH12	2.29	0.55
1:1G:1134:G:H2'	1:1G:1135:U:O4'	2.07	0.55
2:12:154:LEU:O	2:12:155:LEU:HD22	2.06	0.55
10:1A:6:ILE:HG13	10:1A:72:VAL:O	2.06	0.55
10:1A:51:ARG:H	10:1A:60:ARG:HA	1.72	0.55
23:2L:1:C:H4'	41:45:87:LYS:HZ3	1.72	0.55
26:14:139:G:H1'	26:14:140:A:C2	2.41	0.55
26:14:1022:G:C6	26:14:1140:C:C4	2.95	0.55
26:14:1071:G:C4	26:14:1089:G:H2'	2.41	0.55
26:14:1754:C:H2'	26:14:1755:A:C8	2.41	0.55
27:1J:88:C:H5'	27:1J:89:G:C6	2.41	0.55
27:1J:93:C:H2'	27:1J:94:C:H6	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:36:ARG:HH12	30:29:88:GLY:HA2	1.71	0.55
41:45:26:TYR:CD1	41:45:28:ALA:HB2	2.41	0.55
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.40	0.55
5:4E:148:VAL:HA	5:4E:151:LEU:HD12	1.88	0.55
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.71	0.55
18:9I:50:ILE:HD11	18:9I:70:ILE:HG21	1.88	0.55
26:1H:277:C:H3'	26:1H:278:A:O4'	2.07	0.55
26:1H:821:A:H5"	26:1H:822:U:H6	1.72	0.55
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.41	0.55
26:1H:2028:U:O4	63:1H:3933:HOH:O	2.16	0.55
26:1H:2735:G:H2'	26:1H:2736:G:C8	2.42	0.55
33:51:98:LEU:HD12	33:51:125:VAL:HG23	1.88	0.55
35:61:81:VAL:HG23	35:61:143:SER:H	1.72	0.55
40:78:126:VAL:HG13	40:78:145:PRO:HG2	1.87	0.55
59:Q8:6:THR:HG23	59:Q8:64:TYR:HD2	1.70	0.55
1:1G:859:A:H2'	1:1G:860:A:H8	1.71	0.55
1:1G:1372:U:OP1	9:82:72:GLY:N	2.39	0.55
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.72	0.55
2:12:231:GLU:HB3	2:12:232:PRO:HD3	1.89	0.55
4:32:150:GLU:C	4:32:152:SER:H	2.09	0.55
22:1L:18:G:H4'	22:1L:61:U:N3	2.22	0.55
26:14:587:C:O2	40:35:33:ARG:NH1	2.40	0.55
27:1J:21:G:H2'	27:1J:22:U:O4'	2.06	0.55
32:49:75:LYS:NZ	32:49:77:ILE:HD11	2.22	0.55
38:15:18:ALA:HA	38:15:21:LYS:HG3	1.88	0.55
40:35:101:VAL:HA	40:35:105:LEU:O	2.06	0.55
40:35:114:ILE:O	40:35:115:LEU:HD23	2.06	0.55
46:95:49:THR:HB	46:95:50:PRO:HD2	1.88	0.55
52:F5:85:LEU:HA	52:F5:87:PRO:HD2	1.87	0.55
1:13:89:U:H2'	1:13:90:C:O4'	2.07	0.55
4:3E:12:CYS:SG	4:3E:19:LEU:HB2	2.46	0.55
26:1H:2175:C:H1'	28:71:218:MET:HA	1.89	0.55
26:1H:2615:U:OP1	63:1H:3952:HOH:O	2.18	0.55
37:48:51:ALA:CB	37:48:76:TYR:HA	2.35	0.55
37:48:54:PRO:HD2	37:48:72:PRO:HA	1.88	0.55
34:28:17:VAL:HG13	34:28:19:GLU:H	1.72	0.55
1:1G:1378:C:H3'	1:1G:1379:G:H5"	1.89	0.55
2:12:204:ASN:HB2	2:12:210:SER:HB3	1.88	0.55
7:62:62:PHE:HA	7:62:124:LEU:CD2	2.35	0.55
24:3L:37:G:H21	25:4L:14:A:N6	2.05	0.55
26:14:800:A:H8	63:14:3760:HOH:O	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1757:U:N3	26:14:1762:A:H2	2.04	0.55
26:14:2318:G:H5'	26:14:2319:G:OP2	2.06	0.55
26:14:2356:C:O3'	51:E5:20:ARG:HD2	2.07	0.55
29:19:30:GLU:HB2	29:19:35:LYS:HD3	1.88	0.55
35:69:14:ASP:OD1	35:69:15:VAL:N	2.38	0.55
42:55:69:ASP:N	42:55:69:ASP:OD1	2.40	0.55
1:13:826:C:H2'	1:13:827:U:O2	2.06	0.55
1:13:955:U:H1'	1:13:1227:A:N6	2.22	0.55
1:13:1374:A:O3'	7:6E:28:ASN:ND2	2.40	0.55
2:1E:22:LYS:H	2:1E:40:HIS:CD2	2.24	0.55
8:7E:19:VAL:HG13	8:7E:21:LYS:HG2	1.88	0.55
23:2K:47:7MG:O2'	23:2K:48:U:OP2	2.22	0.55
26:1H:141:A:C8	26:1H:1408:C:H1'	2.41	0.55
26:1H:197:A:N6	26:1H:2430:A:H2'	2.21	0.55
26:1H:617:G:OP2	31:31:43:LYS:NZ	2.32	0.55
26:1H:881:G:C5	26:1H:882:G:H1'	2.41	0.55
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.21	0.55
26:1H:1210:A:H5"	26:1H:1212:G:O4'	2.06	0.55
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.41	0.55
26:1H:1945:G:H2'	26:1H:1946:U:H6	1.71	0.55
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.17	0.55
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.06	0.55
42:98:48:VAL:HA	42:98:51:LEU:HB2	1.89	0.55
47:E8:29:LEU:HD12	47:E8:29:LEU:O	2.06	0.55
53:K8:59:ARG:O	53:K8:62:THR:HG23	2.06	0.55
1:1G:57:G:H2'	1:1G:58:C:C6	2.42	0.55
1:1G:176:C:H2'	1:1G:177:C:H6	1.72	0.55
6:52:82:ARG:HB2	6:52:85:VAL:HG23	1.87	0.55
10:1A:54:PHE:CD2	10:1A:55:LYS:HG3	2.42	0.55
13:4A:14:ARG:NH2	13:4A:16:ASP:OD2	2.24	0.55
26:14:1252:G:O4'	45:85:33:ARG:HD3	2.06	0.55
26:14:1810:A:H2'	26:14:1811:G:O4'	2.06	0.55
26:14:2138:C:H42	26:14:2153:G:H1	1.54	0.55
27:1J:28:C:H2'	27:1J:29:A:H8	1.71	0.55
35:69:98:ALA:HA	35:69:109:ILE:HD11	1.89	0.55
1:13:67:C:H2'	1:13:68:G:H8	1.70	0.55
1:13:136:C:H2'	1:13:137:C:H5"	1.88	0.55
1:13:1174:G:H2'	1:13:1175:G:H8	1.71	0.55
1:13:1366:C:HO2'	10:1I:60:ARG:HH12	1.52	0.55
26:1H:548:A:N3	46:D8:21:ARG:NH2	2.55	0.55
26:1H:719:C:H2'	26:1H:720:C:H6	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:724:U:H2'	26:1H:725:G:O4'	2.07	0.55
45:C8:11:ARG:O	45:C8:15:LYS:HG3	2.07	0.55
49:G8:76:CYS:HB2	49:G8:82:PRO:HG3	1.88	0.55
53:K8:58:ALA:O	53:K8:62:THR:HG22	2.07	0.55
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.41	0.55
1:1G:411:A:C5	1:1G:413:G:H1'	2.41	0.55
1:1G:511:C:H4'	4:32:43:HIS:CD2	2.42	0.55
21:1B:8:THR:HG21	21:1B:10:ARG:NH2	2.12	0.55
26:14:93:C:H5'	26:14:94:G:OP2	2.06	0.55
26:14:1952:A:C5	39:25:22:ILE:HD11	2.42	0.55
26:14:2588:G:OP2	63:14:3877:HOH:O	2.18	0.55
31:39:192:LEU:HD13	31:39:194:MET:HE1	1.87	0.55
40:35:97:PRO:O	40:35:98:GLU:HG3	2.07	0.55
1:13:222:U:H2'	1:13:223:U:C6	2.42	0.55
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.37	0.55
2:1E:67:THR:HG21	2:1E:155:LEU:HD13	1.87	0.55
3:2E:130:VAL:O	3:2E:134:ILE:HG12	2.06	0.55
26:1H:1568:G:H5"	29:11:61:LEU:HD22	1.88	0.55
26:1H:2164:C:H5	26:1H:2165:G:C6	2.25	0.55
26:1H:2170:A:OP2	26:1H:2170:A:H3'	2.07	0.55
26:1H:2683:C:OP1	44:B8:53:ARG:NH2	2.35	0.55
29:11:24:ILE:HG22	29:11:27:THR:HG22	1.89	0.55
30:21:119:ARG:HB3	30:21:120:TRP:CD1	2.41	0.55
33:51:86:GLU:OE2	33:51:165:ALA:HB2	2.07	0.55
35:61:110:ASP:OD1	35:61:110:ASP:N	2.30	0.55
39:68:112:MET:HA	39:68:115:VAL:HG22	1.89	0.55
41:88:2:LEU:H	41:88:2:LEU:HD12	1.71	0.55
51:I8:70:GLN:NE2	51:I8:72:ARG:HG2	2.22	0.55
1:1G:664:G:N2	1:1G:741:G:H1	1.96	0.55
2:12:51:LEU:HD23	2:12:201:ILE:HD12	1.87	0.55
3:22:18:TRP:H	3:22:18:TRP:HE3	1.55	0.55
8:72:119:LEU:HD12	8:72:124:ALA:HA	1.87	0.55
16:7A:9:PHE:HD2	16:7A:18:ARG:HG3	1.72	0.55
20:BA:74:LYS:HE2	20:BA:75:ASN:OD1	2.07	0.55
22:1L:54:G:H1	22:1L:62:C:H42	1.54	0.55
26:14:250:G:OP2	59:M5:13:ARG:NH2	2.40	0.55
26:14:796:C:H2'	26:14:797:C:C6	2.42	0.55
26:14:1857:G:O6	63:14:3876:HOH:O	2.18	0.55
31:39:101:LEU:O	31:39:106:ARG:NH1	2.39	0.55
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.88	0.55
46:95:21:ARG:HH21	46:95:91:TYR:CB	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:M5:23:VAL:HA	59:M5:48:PHE:O	2.07	0.55
1:13:864:A:H2'	1:13:865:A:C8	2.42	0.55
1:13:1226:C:H4'	1:13:1227:A:OP1	2.06	0.55
21:1F:2:GLY:O	21:1F:4:GLY:N	2.40	0.55
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.41	0.55
26:1H:325:G:O2'	26:1H:326:G:H5'	2.07	0.55
26:1H:759:G:OP1	63:1H:3948:HOH:O	2.18	0.55
31:31:179:GLU:OE1	31:31:179:GLU:N	2.35	0.55
32:41:66:GLN:HA	55:M8:6:HIS:CE1	2.42	0.55
33:51:10:PRO:O	33:51:11:VAL:HG13	2.07	0.55
37:48:42:ASN:O	37:48:46:ALA:HB2	2.07	0.55
38:58:130:HIS:C	38:58:134:ARG:HH22	2.11	0.55
48:F8:49:VAL:HG11	48:F8:83:VAL:CG1	2.37	0.55
57:O8:15:GLU:HG2	57:O8:16:CYS:H	1.71	0.55
59:Q8:33:ASN:OD1	59:Q8:36:LYS:HD2	2.07	0.55
1:1G:825:G:H1	1:1G:875:C:H42	1.54	0.55
1:1G:1224:G:C2	1:1G:1322:C:H4'	2.42	0.55
3:22:141:VAL:HG11	3:22:202:ILE:HD13	1.88	0.55
7:62:116:ALA:HA	7:62:119:ARG:HE	1.72	0.55
9:82:114:TYR:H	9:82:114:TYR:HD1	1.54	0.55
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.40	0.55
26:14:616:A:C5	31:39:180:GLY:HA3	2.41	0.55
26:14:852:G:H2'	26:14:853:G:H8	1.70	0.55
26:14:879:G:N1	26:14:898:C:N3	2.55	0.55
26:14:1040:C:H2'	26:14:1041:C:C6	2.41	0.55
26:14:1314:C:OP1	63:14:3875:HOH:O	2.18	0.55
26:14:1324:G:C8	63:14:3926:HOH:O	2.60	0.55
26:14:2557:G:H2'	26:14:2558:C:C6	2.42	0.55
26:14:2820:A:C5	42:55:4:LEU:HD11	2.42	0.55
27:1J:16:G:H2'	27:1J:17:C:H6	1.72	0.55
35:69:123:LEU:HA	35:69:142:VAL:HG23	1.88	0.55
45:85:112:ARG:NE	46:95:47:VAL:HG21	2.22	0.55
51:E5:21:LEU:HD21	51:E5:41:ARG:NH1	2.22	0.55
2:1E:105:PHE:O	2:1E:109:SER:HB2	2.07	0.54
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.07	0.54
12:3I:62:SER:HB2	12:3I:64:TYR:CD1	2.35	0.54
18:9I:54:ARG:HG3	18:9I:55:ARG:HG2	1.88	0.54
24:3K:15:G:H22	24:3K:60:A:C5'	2.20	0.54
24:3K:53:G:H2'	24:3K:54:G:C8	2.41	0.54
26:1H:65:C:H2'	26:1H:66:C:C6	2.40	0.54
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.42	0.54
28:71:64:LEU:HD13	28:71:175:VAL:HA	1.89	0.54
31:31:7:TYR:O	31:31:21:ALA:HA	2.07	0.54
36:38:17:LEU:HA	36:38:22:GLY:HA3	1.90	0.54
41:88:106:VAL:HG21	41:88:114:ALA:HB1	1.87	0.54
50:H8:19:ARG:HH11	50:H8:84:GLU:HB2	1.73	0.54
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.37	0.54
1:1G:707:C:H2'	1:1G:708:C:H6	1.72	0.54
1:1G:864:A:OP2	63:1G:1844:HOH:O	2.18	0.54
1:1G:1321:C:H41	1:1G:1322:C:N4	2.04	0.54
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.06	0.54
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.42	0.54
26:14:273(C):C:N4	26:14:363(C):G:H1	2.04	0.54
26:14:2298:A:H1'	26:14:2321:G:N2	2.22	0.54
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.89	0.54
43:65:26:LEU:O	43:65:88:ASP:HB2	2.07	0.54
43:65:86:ALA:O	43:65:87:PHE:HB2	2.07	0.54
48:B5:35:THR:HG23	48:B5:38:GLU:OE2	2.06	0.54
3:2E:11:ARG:O	3:2E:13:GLY:N	2.39	0.54
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.07	0.54
9:8E:9:ARG:HB3	9:8E:14:VAL:HG13	1.89	0.54
20:BI:49:ALA:HB2	20:BI:92:LEU:HD22	1.89	0.54
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.72	0.54
26:1H:2188:C:N4	26:1H:2189:U:O2	2.40	0.54
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.91	0.54
40:78:82:GLY:HA2	40:78:113:LYS:O	2.08	0.54
41:88:78:PRO:O	41:88:79:LEU:HB3	2.06	0.54
1:1G:625:G:H4'	16:7A:16:HIS:CD2	2.42	0.54
2:12:10:LEU:HD13	2:12:13:ALA:HB2	1.89	0.54
7:62:45:ASP:OD2	7:62:115:ARG:NH2	2.40	0.54
26:14:392:C:H5"	26:14:409:C:H5"	1.89	0.54
32:49:63:ILE:HG22	32:49:143:GLU:HB2	1.89	0.54
42:55:8:ARG:NH1	42:55:39:PRO:HB3	2.21	0.54
50:D5:16:SER:O	50:D5:20:ARG:HG3	2.07	0.54
50:D5:97:GLU:HB3	50:D5:125:LEU:HD11	1.89	0.54
1:13:343:U:N3	1:13:347:G:C6	2.75	0.54
1:13:814:A:N7	1:13:816:A:C4	2.76	0.54
1:13:1007:C:N3	1:13:1022:G:N1	2.52	0.54
1:13:1305:G:H8	1:13:1305:G:OP2	1.89	0.54
4:3E:88:VAL:O	4:3E:90:GLY:N	2.40	0.54
5:4E:71:LEU:HD22	5:4E:114:GLY:HA3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:73:MET:SD	11:2I:103:LEU:HB3	2.47	0.54
22:1K:14:A:N7	22:1K:23:G:N1	2.56	0.54
22:1K:31:G:H1	22:1K:41:C:H42	1.56	0.54
30:21:87:GLU:OE1	30:21:87:GLU:N	2.33	0.54
36:38:23:SER:HB3	36:38:68:LEU:HB2	1.88	0.54
37:48:83:GLY:HA2	37:48:99:ILE:HG12	1.89	0.54
43:A8:10:ARG:O	43:A8:14:VAL:HG13	2.07	0.54
1:1G:757:U:H2'	1:1G:758:G:O4'	2.07	0.54
8:72:25:ASP:HB3	8:72:58:TYR:HD2	1.72	0.54
26:14:30:G:H2'	26:14:31:C:C6	2.42	0.54
26:14:154:G:O6	26:14:172:C:N4	2.41	0.54
26:14:606:U:H4'	26:14:658:C:H4'	1.89	0.54
26:14:1094:U:H4'	26:14:1097:U:H5	1.72	0.54
26:14:1104:C:H2'	26:14:1105:U:C6	2.42	0.54
26:14:1181:C:H2'	26:14:1182:A:C8	2.42	0.54
28:79:29:VAL:HG13	28:79:185:LEU:HD13	1.88	0.54
38:15:111:PRO:HA	38:15:114:ARG:NH1	2.22	0.54
1:13:4:U:O4	8:7E:105:ARG:HG3	2.08	0.54
1:13:1194:U:H2'	1:13:1195:C:C6	2.43	0.54
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.07	0.54
2:1E:17:PHE:HB3	2:1E:44:LEU:HG	1.88	0.54
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.48	0.54
10:1I:34:VAL:HG13	10:1I:74:ILE:HG23	1.87	0.54
13:4I:82:MET:C	13:4I:84:ILE:H	2.11	0.54
26:1H:192:C:P	63:1H:4025:HOH:O	2.64	0.54
26:1H:638:G:H2'	26:1H:639:U:C6	2.42	0.54
26:1H:1568:G:OP1	29:11:63:ARG:NH1	2.38	0.54
29:11:30:GLU:HG3	29:11:63:ARG:CZ	2.37	0.54
30:21:9:VAL:HB	30:21:25:VAL:HG13	1.89	0.54
30:21:120:TRP:CD2	30:21:155:LYS:HG2	2.42	0.54
31:31:136:THR:HG22	31:31:166:ALA:O	2.08	0.54
33:51:83:TYR:HB3	33:51:135:GLY:H	1.72	0.54
1:1G:750:G:N2	15:6A:23:GLY:O	2.35	0.54
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.41	0.54
2:12:22:LYS:HE3	2:12:24:TRP:NE1	2.22	0.54
3:22:125:GLU:HG3	3:22:190:ARG:O	2.08	0.54
5:42:6:PHE:HB2	5:42:34:VAL:HG22	1.90	0.54
26:14:1075:C:H2'	26:14:1076:C:C6	2.43	0.54
26:14:2689:U:H5"	26:14:2713:A:H2	1.73	0.54
49:C5:48:ALA:HB3	49:C5:59:GLY:CA	2.35	0.54
49:C5:90:LEU:O	49:C5:92:ASN:N	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D5:53:ILE:HG22	50:D5:71:VAL:O	2.07	0.54
1:13:1356:G:H2'	1:13:1357:A:C8	2.42	0.54
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.90	0.54
12:3I:93:LEU:O	12:3I:96:VAL:HG12	2.08	0.54
15:6I:65:ARG:O	15:6I:68:ARG:HB3	2.07	0.54
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.88	0.54
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.71	0.54
26:1H:942:G:OP2	40:78:39:LYS:HE2	2.06	0.54
26:1H:1342:A:OP2	63:1H:3953:HOH:O	2.19	0.54
26:1H:2321:G:H5"	26:1H:2322:A:OP2	2.08	0.54
36:38:39:ALA:HB3	36:38:96:PHE:CZ	2.42	0.54
36:38:141:VAL:O	36:38:142:LEU:HG	2.07	0.54
38:58:96:GLU:O	38:58:98:VAL:N	2.40	0.54
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.40	0.54
1:1G:910:C:OP2	12:3A:21:LYS:NZ	2.19	0.54
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.17	0.54
2:12:19:HIS:HE1	2:12:207:ALA:HB2	1.73	0.54
3:22:47:LEU:HD11	3:22:50:ALA:HB3	1.89	0.54
4:32:11:LEU:O	4:32:15:GLU:HB2	2.08	0.54
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.73	0.54
26:14:380:U:H2'	26:14:381:G:C8	2.43	0.54
26:14:746:A:N7	63:14:4014:HOH:O	2.33	0.54
26:14:2264:C:N4	51:E5:15:ASP:OD2	2.30	0.54
26:14:2689:U:H5"	26:14:2713:A:C2	2.43	0.54
27:1J:13:A:H2'	27:1J:70:C:O2'	2.07	0.54
29:19:182:LEU:H	29:19:272:ALA:HB3	1.72	0.54
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.89	0.54
32:49:71:THR:N	32:49:89:GLY:O	2.37	0.54
32:49:97:ASP:O	32:49:101:ILE:HG23	2.08	0.54
32:49:103:LEU:HD22	32:49:178:PHE:HZ	1.72	0.54
35:69:38:LEU:HD12	35:69:38:LEU:H	1.73	0.54
44:75:30:VAL:HG21	44:75:76:PHE:CZ	2.43	0.54
1:13:437:U:H5'	4:3E:155:LEU:HD21	1.90	0.54
1:13:1228:C:H2'	1:13:1229:A:C8	2.37	0.54
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.07	0.54
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.07	0.54
8:7E:4:ASP:OD2	8:7E:85:ARG:NH1	2.41	0.54
11:2I:84:VAL:HG21	11:2I:91:ARG:HD3	1.90	0.54
13:4I:17:VAL:O	13:4I:20:THR:HG22	2.07	0.54
18:9I:25:THR:HB	18:9I:42:ARG:NH2	2.23	0.54
26:1H:1026:U:O2'	26:1H:1027:A:H5"	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1252:G:N7	45:C8:36:ARG:NH1	2.54	0.54
26:1H:1359:A:C2	26:1H:1372:U:O4	2.60	0.54
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.90	0.54
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.42	0.54
30:21:201:THR:HG22	30:21:202:LYS:N	2.22	0.54
36:38:20:ALA:HB1	36:38:86:PRO:HA	1.90	0.54
37:48:84:LEU:HB2	37:48:97:GLY:HA3	1.90	0.54
54:L8:40:THR:HG23	54:L8:43:ILE:HG13	1.90	0.54
57:O8:11:LEU:HG	57:O8:51:GLU:HG3	1.89	0.54
1:1G:629:G:H2'	1:1G:630:G:H5'	1.89	0.54
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.72	0.54
15:6A:81:LEU:O	15:6A:85:LEU:HB2	2.06	0.54
26:14:118:A:N3	26:14:178:G:H1'	2.23	0.54
26:14:244:A:C2	26:14:255:A:C4	2.96	0.54
26:14:1058:U:H2'	26:14:1059:G:C8	2.42	0.54
26:14:1217:C:OP1	45:85:15:LYS:NZ	2.30	0.54
26:14:2378:A:H4'	43:65:23:ARG:NH1	2.23	0.54
26:14:2859:G:O2'	26:14:2860:A:H5'	2.07	0.54
26:14:2869:G:H2'	26:14:2870:C:O4'	2.08	0.54
32:49:27:ASN:HB3	32:49:30:GLU:HG3	1.89	0.54
32:49:173:LEU:HD13	32:49:178:PHE:CD2	2.43	0.54
40:35:63:PRO:O	59:M5:13:ARG:HG2	2.07	0.54
43:65:18:ILE:C	43:65:20:ARG:HD3	2.28	0.54
49:C5:18:GLY:O	49:C5:20:TYR:N	2.38	0.54
1:13:247:G:C2	1:13:248:C:C5	2.95	0.54
1:13:601:C:O2	1:13:637:G:N2	2.35	0.54
1:13:1198:G:N7	63:13:1929:HOH:O	2.33	0.54
1:13:1454:G:H2'	1:13:1455:G:C8	2.43	0.54
3:2E:15:THR:HG23	3:2E:181:ASN:HA	1.89	0.54
3:2E:175:LEU:HD21	3:2E:201:TYR:CE1	2.42	0.54
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.90	0.54
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.42	0.54
26:1H:2472:G:N2	26:1H:2476:A:H62	2.06	0.54
29:11:85:ASP:HB2	29:11:92:ILE:HG12	1.89	0.54
38:58:33:LEU:HD23	38:58:38:HIS:CD2	2.43	0.54
43:A8:84:GLN:OE1	43:A8:110:LEU:HD11	2.08	0.54
55:M8:37:SER:C	55:M8:39:CYS:H	2.10	0.54
1:1G:437:U:OP1	4:32:155:LEU:HD11	2.08	0.54
1:1G:860:A:C2	1:1G:861:G:H1'	2.42	0.54
10:1A:83:GLU:O	10:1A:86:MET:HB2	2.08	0.54
22:1L:33:RSP:H6	22:1L:33:RSP:H5'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:76:C:H2'	23:2L:77:A:C8	2.43	0.54
24:3L:37:G:N2	25:4L:14:A:H62	2.04	0.54
24:3L:48:U:O2'	24:3L:49:C:O4'	2.21	0.54
26:14:1178:C:H2'	26:14:1179:C:C6	2.43	0.54
26:14:1516:U:H2'	26:14:1517:G:C8	2.42	0.54
27:1J:83:G:H5'	54:H5:52:HIS:CE1	2.42	0.54
1:13:346:G:H3'	1:13:346:G:N3	2.23	0.54
1:13:609:A:H2'	1:13:610:G:H5'	1.90	0.54
1:13:1006:C:O2	1:13:1023:G:N1	2.38	0.54
4:3E:98:GLU:HG3	4:3E:103:ASN:HD21	1.73	0.54
9:8E:33:PHE:HE2	9:8E:47:LEU:HD11	1.71	0.54
12:3I:6:THR:HG23	12:3I:9:GLN:OE1	2.08	0.54
17:8I:13:ASP:OD1	17:8I:14:LYS:NZ	2.27	0.54
18:9I:34:TYR:HB3	18:9I:69:THR:HG23	1.89	0.54
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.08	0.54
26:1H:127:A:H5"	26:1H:128:C:C6	2.43	0.54
26:1H:631:A:H5"	26:1H:632:A:OP2	2.08	0.54
26:1H:919:G:H5'	27:16:81:G:H1'	1.90	0.54
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.43	0.54
26:1H:2017:U:P	63:1H:3957:HOH:O	2.65	0.54
27:16:73:A:C4	27:16:104:A:C2	2.96	0.54
41:88:66:ILE:HA	41:88:104:PHE:HA	1.89	0.54
50:H8:9:TYR:CZ	50:H8:61:LEU:HD11	2.42	0.54
1:1G:8:A:C6	4:32:209:ARG:HB2	2.43	0.54
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.87	0.54
1:1G:707:C:H2'	1:1G:708:C:C6	2.43	0.54
1:1G:1297:C:H4'	1:1G:1298:C:H5'	1.89	0.54
4:32:7:PRO:HB2	4:32:10:ARG:HD2	1.89	0.54
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.90	0.54
10:1A:32:ALA:HB1	10:1A:75:ILE:HG13	1.90	0.54
11:2A:84:VAL:HG23	11:2A:110:ASP:HA	1.90	0.54
13:4A:52:GLU:HA	13:4A:55:ARG:HB2	1.89	0.54
26:14:330:A:H2	26:14:1210:A:O2'	1.90	0.54
26:14:562:U:HO2'	26:14:572:A:H8	1.54	0.54
26:14:2115:G:N2	26:14:2172:U:H3	2.04	0.54
26:14:2749:A:H5"	33:59:6:ARG:NH1	2.23	0.54
30:29:24:THR:HG23	30:29:184:VAL:HG23	1.90	0.54
31:39:185:ASP:OD1	31:39:188:ARG:NH2	2.34	0.54
33:59:85:LYS:O	33:59:132:ARG:HB2	2.08	0.54
1:13:464:G:N2	1:13:474:G:O6	2.41	0.54
1:13:1139:G:H4'	1:13:1140:C:H5'	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1183:A:O2'	1:13:1184:G:OP1	2.24	0.54
20:BI:33:ILE:O	20:BI:37:SER:OG	2.26	0.54
23:2K:20:G:C2	23:2K:58:A:N3	2.76	0.54
26:1H:389:G:H22	40:78:72:PRO:HD3	1.72	0.54
26:1H:400:G:N7	63:1H:4092:HOH:O	2.34	0.54
26:1H:1085:A:O2'	26:1H:1086:A:O5'	2.21	0.54
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.72	0.54
50:H8:28:MET:O	50:H8:34:ASN:HA	2.08	0.54
1:1G:115:G:H1'	1:1G:116:A:N7	2.23	0.54
1:1G:1178:G:P	9:82:93:ARG:HH21	2.31	0.54
24:3L:49:C:H2'	24:3L:60:A:O2'	2.07	0.54
26:14:244:A:H4'	40:35:74:GLU:HG3	1.90	0.54
33:59:144:VAL:O	33:59:148:ILE:HG12	2.08	0.54
47:A5:110:LYS:HG3	47:A5:111:HIS:CE1	2.43	0.54
1:13:322:C:O2'	20:BI:23:ARG:HD2	2.08	0.54
2:1E:59:GLU:HB2	2:1E:221:LEU:HD13	1.88	0.54
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.90	0.54
22:1K:18:G:H4'	22:1K:61:U:C2	2.43	0.54
24:3K:11:C:H2'	24:3K:12:U:H6	1.72	0.54
26:1H:301:G:C4	26:1H:302:C:C5	2.96	0.54
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.21	0.54
26:1H:2476:A:H3'	26:1H:2476:A:N3	2.22	0.54
29:11:31:LYS:HD3	29:11:94:LEU:HD11	1.90	0.54
30:21:111:ARG:HG3	30:21:160:TYR:CD2	2.42	0.54
42:98:38:VAL:HB	42:98:39:PRO:HD3	1.89	0.54
42:98:50:HIS:CE1	42:98:54:LEU:HD21	2.43	0.54
56:N8:16:ARG:HD2	56:N8:17:ASP:OD1	2.08	0.54
1:1G:827:U:H5"	1:1G:828:A:OP2	2.08	0.54
1:1G:1321:C:H4'	13:4A:87:TYR:CZ	2.43	0.54
2:12:10:LEU:HA	2:12:13:ALA:HB2	1.89	0.54
2:12:35:GLU:HG3	2:12:38:GLY:O	2.08	0.54
26:14:787:U:P	63:14:3996:HOH:O	2.65	0.54
26:14:2313:C:H4'	32:49:91:ARG:HG3	1.89	0.54
26:14:2751:G:H1	33:59:2:SER:HB3	1.73	0.54
26:14:2889:C:H2'	26:14:2891:G:O4'	2.07	0.54
30:29:26:ILE:HB	30:29:182:LEU:HB3	1.90	0.54
30:29:143:ASN:HD22	30:29:147:PRO:HD2	1.73	0.54
31:39:40:GLN:HE22	31:39:182:ASN:HB2	1.73	0.54
40:35:19:VAL:HG13	40:35:21:ARG:H	1.72	0.54
42:55:53:HIS:ND1	42:55:94:TYR:OH	2.36	0.54
45:85:92:ARG:CZ	46:95:11:GLN:H	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1277:C:O2'	1:13:1279:A:H1'	2.08	0.53
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.08	0.53
20:BI:94:ALA:O	20:BI:96:GLY:N	2.41	0.53
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.90	0.53
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.44	0.53
26:1H:1416:G:H1	26:1H:1582:C:H42	1.56	0.53
26:1H:1568:G:P	29:11:63:ARG:HH12	2.30	0.53
26:1H:2133:G:H2'	26:1H:2157:G:N2	2.23	0.53
30:21:9:VAL:HG13	44:B8:3:ARG:HG2	1.90	0.53
30:21:144:ARG:HH11	30:21:144:ARG:HG3	1.73	0.53
32:41:19:LEU:HD11	32:41:172:LEU:HA	1.89	0.53
37:48:101:TRP:O	37:48:105:LEU:HB3	2.08	0.53
38:58:131:GLN:N	38:58:134:ARG:HH12	2.06	0.53
44:B8:41:ARG:NH1	44:B8:43:GLN:HG3	2.23	0.53
53:K8:15:LYS:N	53:K8:67:LYS:HE2	2.22	0.53
1:1G:526:C:OP2	12:3A:91:LYS:HE2	2.09	0.53
1:1G:992:U:H3	1:1G:1044:A:N6	2.00	0.53
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.23	0.53
7:62:101:LEU:O	7:62:105:VAL:HG23	2.07	0.53
11:2A:18:ARG:HD2	11:2A:83:ILE:HD11	1.89	0.53
20:BA:49:ALA:O	20:BA:100:ILE:HG21	2.08	0.53
26:14:2306:C:H3'	26:14:2307:G:H5"	1.90	0.53
26:14:2853:C:O2'	26:14:2854:G:H5'	2.08	0.53
26:14:2875:C:H4'	44:75:5:ALA:HB2	1.90	0.53
28:79:66:HIS:HB2	28:79:188:ASN:HD21	1.74	0.53
31:39:152:GLU:OE2	31:39:191:ARG:NH1	2.41	0.53
35:69:103:ARG:H	35:69:103:ARG:HD2	1.72	0.53
44:75:34:VAL:HG21	44:75:43:GLN:HB3	1.91	0.53
52:F5:41:ARG:HD3	52:F5:43:TYR:HE1	1.73	0.53
1:13:536:C:H2'	1:13:537:G:C8	2.43	0.53
1:13:653:A:O4'	8:7E:56:LYS:HD3	2.09	0.53
1:13:749:C:H2'	1:13:750:G:H8	1.72	0.53
1:13:1511:G:H2'	1:13:1512:U:O4'	2.08	0.53
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.08	0.53
3:2E:131:ARG:NH1	5:4E:50:GLU:HG3	2.23	0.53
12:3I:71:PRO:O	12:3I:102:ARG:HD3	2.07	0.53
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.08	0.53
26:1H:86:C:H4'	26:1H:104:U:H1'	1.90	0.53
26:1H:323:G:C8	31:31:171:PRO:HG3	2.43	0.53
26:1H:1210:A:H4'	26:1H:1211:U:H5"	1.90	0.53
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.70	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.40	0.53
35:61:75:LEU:HD21	35:61:105:HIS:HB3	1.90	0.53
41:88:39:PRO:HA	41:88:97:VAL:O	2.09	0.53
43:A8:88:ASP:OD1	43:A8:90:GLY:N	2.40	0.53
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.72	0.53
4:32:39:PRO:O	4:32:44:GLY:HA3	2.08	0.53
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.90	0.53
26:14:1260:G:H2'	26:14:1261:C:C6	2.43	0.53
26:14:2257:U:H2'	26:14:2258:C:C6	2.44	0.53
26:14:2399:G:H2'	26:14:2400:G:O4'	2.08	0.53
26:14:2534:A:O5'	26:14:2534:A:H8	1.91	0.53
26:14:2839:G:H21	42:55:92:GLY:HA2	1.72	0.53
31:39:67:GLN:HG3	31:39:67:GLN:O	2.07	0.53
44:75:30:VAL:HG22	44:75:45:PHE:HB3	1.90	0.53
52:F5:35:THR:OG1	52:F5:35:THR:O	2.25	0.53
1:13:199:G:H2'	1:13:200:G:C8	2.43	0.53
1:13:422:C:O2'	1:13:423:G:OP2	2.26	0.53
26:1H:1069:A:H4'	26:1H:1070:A:H5"	1.90	0.53
26:1H:1605:C:O3'	63:1H:3956:HOH:O	2.19	0.53
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.43	0.53
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.19	0.53
33:51:56:SER:OG	33:51:57:ASP:N	2.40	0.53
1:1G:828:A:H2'	1:1G:829:G:O4'	2.08	0.53
1:1G:872:A:O2'	1:1G:873:A:H5"	2.08	0.53
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.42	0.53
1:1G:1245:A:OP1	21:1B:9:ARG:NH2	2.41	0.53
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.44	0.53
1:1G:1508:G:H2'	1:1G:1509:C:O4'	2.07	0.53
2:12:15:VAL:HB	2:12:16:HIS:CE1	2.42	0.53
3:22:98:ASN:HD22	3:22:98:ASN:N	2.06	0.53
4:32:61:LYS:HE2	4:32:206:PHE:CE2	2.42	0.53
24:3L:7:G:O2'	24:3L:50:G:OP2	2.26	0.53
26:14:184:C:H2'	26:14:185:U:H6	1.73	0.53
26:14:751:A:P	63:14:3809:HOH:O	2.66	0.53
26:14:1285:G:N2	26:14:1329:U:OP1	2.39	0.53
26:14:2228:G:OP2	29:19:263:ARG:NH2	2.41	0.53
26:14:2360:A:H2'	26:14:2361:A:O4'	2.08	0.53
26:14:2875:C:O2'	44:75:3:ARG:HG3	2.08	0.53
27:1J:3:C:H2'	27:1J:4:C:C6	2.43	0.53
30:29:55:ASN:O	30:29:57:LYS:N	2.40	0.53
32:49:27:ASN:OD1	32:49:28:VAL:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:15:133:GLN:O	38:15:134:ARG:HG3	2.08	0.53
39:25:13:ASN:ND2	39:25:97:ARG:H	2.02	0.53
43:65:36:TYR:CD1	43:65:36:TYR:N	2.76	0.53
46:95:51:VAL:HG12	46:95:52:VAL:H	1.73	0.53
1:13:524:G:H8	1:13:524:G:O5'	1.92	0.53
6:5E:23:LYS:HB2	6:5E:23:LYS:NZ	2.24	0.53
26:1H:184:C:H2'	26:1H:185:U:C6	2.42	0.53
26:1H:249:C:O5'	63:1H:3920:HOH:O	2.18	0.53
26:1H:1048:A:H5'	26:1H:1049:C:OP2	2.08	0.53
26:1H:2789:C:H2'	26:1H:2790:A:H5"	1.91	0.53
27:16:31:C:O2'	27:16:53:A:N1	2.38	0.53
38:58:32:THR:HG23	38:58:37:LYS:HB2	1.90	0.53
1:1G:416:G:H1	1:1G:427:U:H3	1.56	0.53
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.08	0.53
2:12:28:PHE:O	2:12:32:ILE:HG22	2.09	0.53
19:AA:12:ASP:OD1	19:AA:13:ASP:N	2.42	0.53
24:3L:1:G:H1	24:3L:73:C:H42	1.56	0.53
26:14:192:C:P	63:14:3817:HOH:O	2.66	0.53
26:14:397:G:H1'	26:14:2231:C:O2'	2.08	0.53
26:14:433:C:C4	26:14:434:U:O4	2.62	0.53
26:14:439:G:N7	63:14:4020:HOH:O	2.33	0.53
26:14:548:A:C5	26:14:549:G:H1'	2.44	0.53
26:14:586:A:N1	26:14:809:G:O2'	2.32	0.53
26:14:1053:C:N3	26:14:1106:G:N1	2.50	0.53
26:14:2745:C:H1'	33:59:143:GLN:HG2	1.91	0.53
45:85:65:ILE:HD11	45:85:96:ALA:HB3	1.90	0.53
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.91	0.53
1:13:486:U:H2'	1:13:487:A:H8	1.73	0.53
1:13:1025:U:H4'	1:13:1026:G:O5'	2.09	0.53
1:13:1322:C:H5"	13:4I:100:GLY:HA2	1.89	0.53
9:8E:33:PHE:CE2	9:8E:47:LEU:HD11	2.43	0.53
9:8E:99:LEU:HD12	9:8E:101:PHE:CE2	2.43	0.53
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.09	0.53
26:1H:270(N):G:H5'	26:1H:270(O):U:O4	2.09	0.53
26:1H:345:A:H5'	26:1H:345:A:H8	1.73	0.53
26:1H:997:G:OP1	45:C8:93:LYS:HD2	2.09	0.53
26:1H:1332:G:N2	26:1H:1610:A:C8	2.77	0.53
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.09	0.53
27:16:43:C:H5"	55:M8:1:MET:HG2	1.91	0.53
28:71:27:HIS:ND1	28:71:182:PRO:HB2	2.24	0.53
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:67:LEU:HG	33:51:71:LEU:HD22	1.91	0.53
35:61:77:LEU:H	35:61:77:LEU:HD12	1.73	0.53
36:38:19:ARG:HH12	36:38:86:PRO:HD3	1.73	0.53
38:58:26:LEU:O	38:58:30:ILE:HG13	2.09	0.53
1:1G:748:C:H6	1:1G:748:C:O5'	1.92	0.53
1:1G:1126:U:H1'	1:1G:1127:G:OP2	2.09	0.53
3:22:11:ARG:O	3:22:14:ILE:N	2.31	0.53
4:32:15:GLU:OE1	4:32:59:ARG:NH2	2.33	0.53
20:BA:74:LYS:HD3	20:BA:74:LYS:N	2.22	0.53
23:2L:36:A:H2'	23:2L:37:U:C6	2.43	0.53
26:14:2472:G:H1	26:14:2477:C:P	2.32	0.53
29:19:70:TRP:CD1	29:19:70:TRP:C	2.82	0.53
41:45:4:PRO:HD3	41:45:70:PRO:O	2.08	0.53
41:45:43:THR:O	41:45:46:GLN:N	2.42	0.53
43:65:74:ALA:O	43:65:78:LEU:HB2	2.08	0.53
53:G5:38:GLN:O	53:G5:43:GLN:HA	2.08	0.53
1:13:1060:C:HO2'	10:1I:56:HIS:HD1	1.44	0.53
1:13:1073:U:OP2	5:4E:57:LYS:NZ	2.38	0.53
5:4E:105:VAL:HG21	5:4E:128:PRO:HB3	1.91	0.53
13:4I:82:MET:O	13:4I:84:ILE:N	2.41	0.53
20:BI:73:HIS:H	20:BI:76:ALA:HB3	1.74	0.53
20:BI:74:LYS:H	20:BI:74:LYS:CD	2.22	0.53
23:2K:17:C:H3'	23:2K:18:C:H6	1.73	0.53
26:1H:1517:G:H2'	26:1H:1518:C:H6	1.73	0.53
34:18:2:ALA:HB2	34:28:21:LYS:CG	2.34	0.53
34:28:17:VAL:HG22	34:28:18:LEU:H	1.73	0.53
44:B8:37:GLY:O	44:B8:38:ASN:ND2	2.41	0.53
52:J8:86:SER:N	52:J8:87:PRO:HD2	2.23	0.53
1:1G:516:U:O2'	1:1G:519:C:N3	2.38	0.53
1:1G:1140:C:H2'	1:1G:1141:C:H6	1.74	0.53
1:1G:1171:G:H2'	1:1G:1172:C:H6	1.74	0.53
2:12:187:LEU:HA	2:12:201:ILE:O	2.08	0.53
7:62:132:GLY:HA3	7:62:135:VAL:HG23	1.91	0.53
9:82:2:GLU:HG2	9:82:3:GLN:HG3	1.91	0.53
26:14:221:A:N6	26:14:265:A:H8	2.06	0.53
26:14:355:G:H3'	26:14:356:G:H5"	1.91	0.53
26:14:800:A:P	63:14:3760:HOH:O	2.62	0.53
26:14:877:U:O2'	26:14:878:A:OP1	2.24	0.53
26:14:984:A:H5'	63:14:3911:HOH:O	2.09	0.53
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.89	0.53
31:39:40:GLN:HG2	31:39:184:TYR:HB2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:15:36:GLY:HA2	38:15:49:GLY:HA2	1.90	0.53
43:65:23:ARG:HD2	43:65:86:ALA:HB2	1.91	0.53
50:D5:53:ILE:HG22	50:D5:71:VAL:HG13	1.90	0.53
1:13:22:G:H2'	1:13:23:C:C6	2.44	0.53
1:13:857:C:OP2	63:13:1957:HOH:O	2.17	0.53
1:13:895:G:H2'	1:13:896:C:C6	2.44	0.53
2:1E:115:LEU:HD11	2:1E:146:GLN:HG3	1.91	0.53
5:4E:67:VAL:O	5:4E:69:VAL:HG23	2.09	0.53
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.41	0.53
9:8E:8:GLY:O	9:8E:15:ALA:N	2.38	0.53
10:1I:54:PHE:CE2	10:1I:55:LYS:HD2	2.43	0.53
19:AI:20:LEU:O	19:AI:24:ALA:HB3	2.09	0.53
20:BI:29:LYS:O	20:BI:33:ILE:HG12	2.09	0.53
26:1H:1728:G:H3'	26:1H:1729:A:H5"	1.89	0.53
29:11:38:LYS:H	29:11:38:LYS:NZ	2.06	0.53
38:58:96:GLU:CD	38:58:96:GLU:H	2.11	0.53
40:78:5:ASP:HB3	40:78:7:ARG:HH22	1.73	0.53
1:1G:376:G:H5"	16:7A:5:ARG:HB2	1.90	0.53
1:1G:1259:C:N4	1:1G:1260:C:O2	2.41	0.53
8:72:29:SER:H	8:72:32:LYS:HB2	1.72	0.53
20:BA:33:ILE:O	20:BA:37:SER:OG	2.26	0.53
24:3L:54:G:H1	24:3L:62:C:H42	1.55	0.53
26:14:443:A:H1'	26:14:1201:C:O4'	2.08	0.53
26:14:631:A:O2'	40:35:67:MET:HB3	2.08	0.53
26:14:1084:A:H2'	26:14:1085:A:H8	1.72	0.53
26:14:1678:G:N2	26:14:1989:G:N2	2.56	0.53
26:14:2680:C:H1'	30:29:187:ALA:HB1	1.91	0.53
29:19:68:LYS:HB3	29:19:70:TRP:CH2	2.43	0.53
31:39:63:LYS:HE3	31:39:67:GLN:HB3	1.91	0.53
33:59:4:ILE:HB	33:59:6:ARG:NH1	2.24	0.53
33:59:46:GLU:OE1	33:59:51:ARG:NH1	2.41	0.53
39:25:22:ILE:HB	39:25:41:ALA:HA	1.91	0.53
39:25:78:ARG:HH21	44:75:103:ARG:NH2	2.07	0.53
50:D5:8:TYR:CD1	50:D5:62:PRO:HG3	2.29	0.53
1:13:458:C:H2'	1:13:464:G:C8	2.43	0.53
1:13:1427:U:H2'	1:13:1428:A:C8	2.43	0.53
4:3E:76:ARG:HH12	4:3E:209:ARG:NH1	2.07	0.53
10:1I:5:ARG:NH2	10:1I:99:LYS:HD2	2.24	0.53
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	1.91	0.53
18:9I:22:VAL:HG13	18:9I:42:ARG:NH1	2.20	0.53
26:1H:796:C:H2'	26:1H:797:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:844:C:H3'	26:1H:845:G:H8	1.74	0.53
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.44	0.53
28:71:197:GLU:HG2	28:71:208:PHE:HZ	1.73	0.53
31:31:165:ARG:HA	31:31:168:ARG:HD3	1.90	0.53
58:P8:18:PHE:CE1	58:P8:22:MET:HG3	2.44	0.53
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.44	0.53
2:12:162:ILE:O	2:12:185:ILE:HG12	2.09	0.53
18:9A:36:ASN:HB2	18:9A:38:GLU:OE2	2.09	0.53
20:BA:40:ALA:HB2	20:BA:55:ILE:HG22	1.89	0.53
26:14:57:C:H2'	26:14:58:G:O4'	2.09	0.53
26:14:380:U:H2'	26:14:381:G:H8	1.74	0.53
26:14:395:U:O2'	26:14:396:G:C8	2.58	0.53
26:14:1416:G:HO2'	26:14:1417:C:P	2.31	0.53
26:14:2252:G:H2'	26:14:2253:G:O4'	2.08	0.53
26:14:2851:A:H2'	26:14:2852:G:C8	2.44	0.53
27:1J:88:C:H5'	27:1J:89:G:C5	2.43	0.53
29:19:72:LYS:HG3	29:19:103:ARG:NH2	2.24	0.53
33:59:99:VAL:HG22	33:59:104:GLU:HB3	1.91	0.53
35:69:54:GLN:HA	35:69:57:ARG:HE	1.74	0.53
43:65:67:ARG:NH1	43:65:67:ARG:HB2	2.24	0.53
52:F5:79:GLY:O	52:F5:80:LEU:HD13	2.09	0.53
1:13:346:G:H1'	44:B8:41:ARG:HD3	1.91	0.53
8:7E:51:VAL:HG11	8:7E:60:ARG:HB2	1.91	0.53
22:1K:58:G:OP2	41:88:60:ARG:NH2	2.41	0.53
26:1H:946:G:P	63:1H:3917:HOH:O	2.67	0.53
26:1H:1264:G:H5'	56:N8:11:THR:CG2	2.38	0.53
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.09	0.53
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.24	0.53
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.38	0.53
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.44	0.53
27:16:37:C:C2'	27:16:38:C:H5'	2.39	0.53
30:21:111:ARG:HA	42:98:1:MET:HE3	1.91	0.53
35:61:1:MET:O	35:61:20:ASP:HA	2.09	0.53
48:F8:36:LYS:HA	48:F8:39:ILE:HD12	1.91	0.53
1:1G:1432:G:OP1	44:75:107:ASP:HB2	2.09	0.53
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.74	0.53
26:14:848:G:H2'	26:14:849:A:H8	1.71	0.53
27:1J:2:C:H2'	27:1J:3:C:C5	2.43	0.53
29:19:253:GLN:HG2	29:19:255:LYS:HZ1	1.72	0.53
31:39:178:PRO:HG2	31:39:179:GLU:OE1	2.09	0.53
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:35:124:LYS:HE2	40:35:145:PRO:HD3	1.90	0.53
53:G5:32:LEU:HA	53:G5:53:LEU:HD13	1.91	0.53
1:13:223:U:H2'	1:13:224:C:C6	2.44	0.53
1:13:684:A:O2'	11:2I:38:ASN:HB3	2.08	0.53
1:13:984:C:H2'	1:13:985:C:H6	1.74	0.53
26:1H:698:C:O2'	26:1H:734:A:N6	2.42	0.53
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.08	0.53
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.09	0.53
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.74	0.53
36:38:16:ASN:HA	36:38:19:ARG:O	2.09	0.53
36:38:51:LEU:HD12	36:38:52:PHE:H	1.73	0.53
37:48:9:LYS:HD2	37:48:10:LEU:HD22	1.91	0.53
37:48:52:ILE:CD1	37:48:76:TYR:HB2	2.38	0.53
43:A8:85:VAL:HG23	43:A8:112:PHE:CZ	2.44	0.53
49:G8:96:ILE:HD12	49:G8:97:ARG:H	1.74	0.53
1:1G:1181:G:N7	1:1G:1182:G:N2	2.44	0.53
1:1G:1422:G:H2'	1:1G:1423:G:H8	1.74	0.53
9:82:87:GLN:OE1	9:82:88:TYR:N	2.41	0.53
23:2L:48:U:O2'	23:2L:49:C:OP2	2.27	0.53
26:14:1047:G:O2'	26:14:1110:G:N2	2.40	0.53
26:14:1084:A:H2'	26:14:1085:A:C8	2.44	0.53
26:14:2379:G:O2'	43:65:17:ARG:NH1	2.42	0.53
29:19:131:LEU:HD13	29:19:136:ILE:HG12	1.91	0.53
31:39:156:LEU:HA	31:39:193:VAL:HG12	1.90	0.53
43:65:52:SER:HB2	43:65:54:LEU:H	1.74	0.53
1:13:192:U:H4'	20:BI:103:GLY:HA2	1.89	0.52
1:13:1145:C:H4'	1:13:1146:A:H8	1.74	0.52
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	1.91	0.52
3:2E:11:ARG:HB3	3:2E:15:THR:HB	1.90	0.52
16:7I:19:ILE:HB	16:7I:36:ILE:HG13	1.90	0.52
26:1H:1359:A:N1	26:1H:1372:U:C4	2.77	0.52
26:1H:1366:A:C2'	26:1H:1367:A:H5'	2.39	0.52
26:1H:2017:U:OP1	63:1H:3957:HOH:O	2.19	0.52
26:1H:2182:G:H2'	26:1H:2183:C:O4'	2.10	0.52
26:1H:2232:U:P	52:J8:40:ARG:HH12	2.32	0.52
26:1H:2284:C:H41	57:O8:25:LYS:NZ	2.06	0.52
30:21:101:ARG:CZ	30:21:171:GLU:HB2	2.39	0.52
43:A8:18:ILE:O	43:A8:21:THR:HG22	2.09	0.52
44:B8:20:PRO:HD2	44:B8:86:ILE:HG23	1.91	0.52
45:C8:75:ASN:HB3	45:C8:77:SER:H	1.74	0.52
1:1G:192:U:H2'	1:1G:193:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:819:A:H5'	1:1G:820:U:H5	1.73	0.52
1:1G:1206:G:C6	1:1G:1207:G:C6	2.97	0.52
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.91	0.52
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.44	0.52
4:32:31:CYS:HA	61:32:303:SF4:S2	2.49	0.52
26:14:774:A:H2	26:14:787:U:O2'	1.91	0.52
26:14:1285:G:N1	26:14:1329:U:OP1	2.43	0.52
26:14:1702:G:O6	63:14:3873:HOH:O	2.18	0.52
26:14:2001:A:H2'	26:14:2002:G:C8	2.44	0.52
41:45:11:LYS:NZ	41:45:86:GLY:O	2.40	0.52
46:95:21:ARG:HH21	46:95:91:TYR:HB3	1.74	0.52
1:13:64:G:H4'	1:13:65:U:H5'	1.91	0.52
1:13:128:G:H5'	17:8I:2:PRO:O	2.09	0.52
1:13:178:C:H2'	1:13:179:A:O4'	2.08	0.52
1:13:1216:G:OP2	14:5I:1:MET:HG3	2.10	0.52
1:13:1347:G:N2	1:13:1373:G:H2'	2.25	0.52
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.43	0.52
14:5I:53:LEU:HB3	14:5I:56:VAL:HG21	1.90	0.52
26:1H:355:G:H2'	26:1H:356:G:H8	1.74	0.52
26:1H:589:C:H2'	26:1H:590:A:H8	1.73	0.52
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.08	0.52
28:71:184:LYS:HA	28:71:187:ASP:HB3	1.91	0.52
31:31:7:TYR:HD2	31:31:21:ALA:HB1	1.73	0.52
32:41:115:ARG:HB3	32:41:115:ARG:HH11	1.74	0.52
50:H8:77:ASP:OD1	50:H8:80:ARG:NH1	2.42	0.52
53:K8:50:ILE:HD12	53:K8:51:ARG:H	1.72	0.52
1:1G:1034:G:H2'	1:1G:1035:A:C8	2.44	0.52
1:1G:1422:G:H5"	39:25:48:PRO:HB3	1.90	0.52
4:32:168:ARG:NH1	4:32:169:LYS:H	1.97	0.52
8:72:113:SER:HB2	8:72:134:ILE:HD11	1.90	0.52
12:3A:55:VAL:HG23	12:3A:69:TYR:HA	1.91	0.52
26:14:382:G:OP2	63:14:3881:HOH:O	2.19	0.52
26:14:1111:A:O3'	26:14:1112:G:H4'	2.09	0.52
26:14:1893:C:C2'	26:14:1894:C:H5'	2.39	0.52
26:14:2354:G:O2'	51:E5:36:ILE:HD12	2.08	0.52
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.91	0.52
33:59:30:LYS:HD3	33:59:79:VAL:O	2.09	0.52
33:59:157:TYR:O	33:59:171:LEU:HB3	2.10	0.52
38:15:72:TYR:O	38:15:84:LYS:HA	2.09	0.52
1:13:652:U:HO2'	1:13:653:A:P	2.33	0.52
1:13:1006:C:H2'	1:13:1007:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:35:GLU:HG2	3:2E:39:ILE:HD11	1.91	0.52
5:4E:41:VAL:O	5:4E:66:MET:HA	2.09	0.52
10:1I:84:GLN:NE2	10:1I:88:LEU:HD23	2.24	0.52
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.10	0.52
26:1H:2615:U:C2	56:N8:7:PRO:HA	2.44	0.52
26:1H:2751:G:H8	26:1H:2751:G:O5'	1.93	0.52
38:58:40:PRO:O	45:C8:64:ARG:HG2	2.09	0.52
1:1G:108:G:OP1	1:1G:326:G:N2	2.42	0.52
1:1G:560:U:O2'	1:1G:561:U:OP2	2.25	0.52
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.45	0.52
7:62:93:PRO:HB2	7:62:94:ARG:HE	1.73	0.52
9:82:14:VAL:O	9:82:65:VAL:HA	2.10	0.52
26:14:463:G:N2	26:14:466:A:OP2	2.37	0.52
26:14:527:C:H4'	26:14:528:A:O5'	2.10	0.52
26:14:660:G:H21	40:35:12:ALA:CA	2.19	0.52
26:14:1856:G:H2'	26:14:1857:G:H5'	1.90	0.52
26:14:1926:U:H2'	26:14:1928:A:OP2	2.08	0.52
26:14:2185:C:H2'	26:14:2186:G:C8	2.44	0.52
26:14:2776:A:OP1	26:14:2776:A:H3'	2.09	0.52
32:49:33:ARG:CZ	32:49:162:THR:HG21	2.40	0.52
40:35:110:TYR:HD1	40:35:111:ARG:HD2	1.74	0.52
52:F5:91:LYS:HG3	52:F5:92:LYS:N	2.24	0.52
1:13:271:C:H2'	1:13:272:C:H6	1.74	0.52
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.10	0.52
1:13:963:G:H5'	63:13:2031:HOH:O	2.10	0.52
1:13:1250:A:H4'	9:8E:68:GLY:N	2.24	0.52
2:1E:204:ASN:OD1	2:1E:205:ASP:N	2.42	0.52
4:3E:74:GLN:O	4:3E:78:LEU:HD13	2.10	0.52
14:5I:29:ARG:HH12	14:5I:31:ARG:HB2	1.74	0.52
17:8I:31:LEU:HG	17:8I:32:TYR:CE1	2.44	0.52
26:1H:234:C:H2'	26:1H:235:U:H6	1.73	0.52
26:1H:654:A:H2'	26:1H:654(A):A:H8	1.75	0.52
26:1H:2111:C:N3	26:1H:2118:U:O2'	2.42	0.52
29:11:40:THR:OG1	29:11:41:GLY:N	2.40	0.52
39:68:107:ARG:HG3	39:68:112:MET:HE1	1.91	0.52
47:E8:14:PRO:HG2	47:E8:78:GLU:HG3	1.89	0.52
1:1G:929:G:H1	1:1G:1388:C:H42	1.57	0.52
1:1G:1016:A:HO2'	1:1G:1217:C:HO2'	1.55	0.52
1:1G:1386:G:C2	1:1G:1387:G:C8	2.96	0.52
1:1G:1414:U:H2'	1:1G:1415:G:C8	2.45	0.52
2:12:83:MET:SD	2:12:234:PRO:HB2	2.48	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:51:ARG:HG3	9:82:56:LEU:HB2	1.92	0.52
20:BA:67:ALA:O	20:BA:73:HIS:ND1	2.43	0.52
26:14:304:G:H2'	26:14:305:U:C6	2.44	0.52
26:14:336:C:OP1	49:C5:83:THR:HG23	2.08	0.52
26:14:576:U:H5	63:14:4438:HOH:O	1.91	0.52
26:14:833:U:O3'	59:M5:57:ARG:NH2	2.40	0.52
26:14:1069:A:H2'	26:14:1073:A:H62	1.75	0.52
26:14:1188:U:C2'	26:14:1189:A:H5'	2.39	0.52
26:14:1542:G:O6	26:14:1543:A:N6	2.43	0.52
26:14:2190:G:H2'	26:14:2191:G:H1'	1.90	0.52
26:14:2667:C:N3	33:59:110:SER:HB3	2.24	0.52
63:14:3737:HOH:O	30:29:135:HIS:CE1	2.60	0.52
27:1J:50:G:OP1	43:65:63:THR:OG1	2.21	0.52
31:39:110:LEU:HD21	31:39:181:LEU:HD22	1.90	0.52
43:65:106:ARG:H	43:65:106:ARG:HE	1.58	0.52
48:B5:49:VAL:HG21	48:B5:89:ILE:HD11	1.90	0.52
50:D5:92:SER:O	50:D5:94:GLU:HG2	2.09	0.52
1:13:418:C:H2'	1:13:419:C:C6	2.43	0.52
1:13:612:C:O2	1:13:629:G:N2	2.42	0.52
21:1F:12:LYS:O	21:1F:16:GLY:N	2.40	0.52
26:1H:1790:C:H5"	26:1H:1791:A:OP1	2.09	0.52
26:1H:2880:C:H1'	42:98:92:GLY:O	2.09	0.52
28:71:40:THR:HA	28:71:178:ALA:HB3	1.92	0.52
36:38:4:LYS:O	36:38:7:VAL:HG13	2.09	0.52
36:38:17:LEU:HB3	36:38:66:LEU:HD13	1.90	0.52
36:38:46:GLN:O	36:38:47:ASN:ND2	2.39	0.52
37:48:71:THR:HG21	37:48:111:LYS:HA	1.90	0.52
38:58:97:ARG:HA	38:58:100:GLU:HB2	1.91	0.52
49:G8:29:GLU:H	49:G8:38:ILE:HG23	1.74	0.52
50:H8:128:VAL:HB	50:H8:161:VAL:HG12	1.91	0.52
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.10	0.52
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.90	0.52
19:AA:58:VAL:O	19:AA:60:VAL:N	2.42	0.52
23:2L:62:C:H2'	23:2L:63:C:H6	1.74	0.52
26:14:25:U:H5"	47:A5:80:PRO:HD3	1.90	0.52
26:14:1000:A:C6	26:14:1001:A:N1	2.78	0.52
26:14:1043:C:H42	26:14:1112:G:H1	1.57	0.52
26:14:1288:U:C2	26:14:1327:C:O2	2.63	0.52
26:14:2675:A:H4'	39:25:29:ASN:ND2	2.25	0.52
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.92	0.52
49:C5:19:LYS:HG3	49:C5:19:LYS:O	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:E5:53:MET:HG3	51:E5:59:LEU:CD2	2.36	0.52
59:M5:40:GLU:HA	59:M5:43:GLN:HB3	1.92	0.52
1:13:1366:C:H2'	1:13:1367:C:C6	2.43	0.52
11:2I:124:LYS:HE3	11:2I:125:PHE:CZ	2.45	0.52
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.09	0.52
26:1H:33:U:O2'	26:1H:34:C:O2	2.21	0.52
26:1H:885:C:C4	26:1H:886:C:H1'	2.44	0.52
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.25	0.52
26:1H:1678:G:N2	26:1H:1989:G:N2	2.48	0.52
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.24	0.52
33:51:16:SER:O	33:51:17:VAL:HG23	2.09	0.52
36:38:19:ARG:NH1	36:38:86:PRO:HD3	2.24	0.52
37:48:78:ILE:HG12	37:48:131:ALA:HB2	1.91	0.52
40:78:2:LYS:HG3	40:78:4:SER:H	1.75	0.52
48:F8:5:TYR:CE1	53:K8:30:ARG:HG3	2.45	0.52
51:I8:24:LYS:O	51:I8:25:ARG:NH1	2.40	0.52
1:1G:186(A):C:H4'	20:BA:85:MET:HB2	1.91	0.52
1:1G:574:A:OP2	63:1G:1819:HOH:O	2.19	0.52
1:1G:942:G:C2	1:1G:1342:C:C2	2.97	0.52
10:1A:79:ARG:O	10:1A:83:GLU:HB2	2.09	0.52
22:1L:73:C:O2'	22:1L:74:A:H8	1.92	0.52
24:3L:59:A:OP1	24:3L:59:A:H3'	2.10	0.52
26:14:161:U:H5'	26:14:171:G:H21	1.74	0.52
26:14:1568:G:H5'	29:19:60:ARG:HA	1.91	0.52
26:14:1820:U:H4'	26:14:1821:A:OP2	2.10	0.52
26:14:1997:G:H5"	63:14:3964:HOH:O	2.10	0.52
35:69:128:LEU:O	35:69:137:PRO:HA	2.10	0.52
40:35:39:LYS:HB2	40:35:45:LEU:HD11	1.90	0.52
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.25	0.52
1:13:688:G:H2'	1:13:689:C:C6	2.45	0.52
1:13:1217:C:OP1	14:5I:9:LYS:NZ	2.40	0.52
1:13:1342:C:O2'	9:8E:124:GLN:HG3	2.10	0.52
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.09	0.52
11:2I:72:ALA:HB1	11:2I:77:MET:HE3	1.92	0.52
16:7I:22:THR:OG1	16:7I:32:TYR:HA	2.09	0.52
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.07	0.52
26:1H:1710:C:H42	26:1H:1748:G:H1	1.57	0.52
26:1H:2160:G:C5	26:1H:2161:C:H1'	2.45	0.52
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.45	0.52
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.09	0.52
32:41:110:ALA:HA	32:41:140:ILE:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:58:70:LYS:HE3	38:58:72:TYR:CE1	2.38	0.52
45:C8:75:ASN:HB3	45:C8:77:SER:N	2.25	0.52
1:1G:363:A:OP1	12:3A:33:ARG:HD2	2.10	0.52
1:1G:436:C:O3'	4:32:155:LEU:HD21	2.10	0.52
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.44	0.52
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.45	0.52
9:82:24:GLY:HA2	9:82:59:PHE:O	2.09	0.52
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.92	0.52
26:14:850:C:O3'	54:H5:49:LYS:HE2	2.10	0.52
26:14:1062:G:H1'	26:14:1088:A:C8	2.45	0.52
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.45	0.52
33:59:124:GLU:OE1	33:59:133:VAL:HA	2.09	0.52
1:13:445:G:H1	1:13:489:C:H42	1.58	0.52
1:13:738:C:H2'	1:13:739:C:H6	1.74	0.52
1:13:1034:G:O2'	1:13:1035:A:H5'	2.10	0.52
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.43	0.52
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.09	0.52
10:1I:34:VAL:HG13	10:1I:74:ILE:CG2	2.39	0.52
10:1I:39:PRO:HB3	10:1I:70:ARG:NH1	2.25	0.52
26:1H:552:G:H2'	26:1H:553:U:O4'	2.08	0.52
26:1H:625:G:O6	40:78:107:LYS:NZ	2.33	0.52
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.74	0.52
28:71:202:GLU:OE1	28:71:203:GLY:N	2.41	0.52
31:31:64:ILE:HG23	31:31:65:TRP:CD1	2.44	0.52
37:48:128:ALA:O	37:48:132:ARG:HB3	2.10	0.52
39:68:26:LYS:HB2	39:68:30:ALA:HB2	1.91	0.52
50:H8:109:ALA:HB1	50:H8:142:SER:HB3	1.91	0.52
1:1G:1184:G:H2'	1:1G:1185:G:C8	2.41	0.52
1:1G:1297:C:OP1	13:4A:13:LYS:NZ	2.30	0.52
2:12:8:LYS:O	2:12:10:LEU:N	2.41	0.52
10:1A:7:LYS:HE3	10:1A:71:LEU:HD13	1.91	0.52
14:5A:7:ILE:HB	14:5A:23:ARG:HD3	1.92	0.52
26:14:616:A:C4	31:39:180:GLY:HA3	2.45	0.52
26:14:1441:G:H2'	26:14:1442:G:H8	1.73	0.52
26:14:1665:A:N6	63:14:4107:HOH:O	2.43	0.52
30:29:47:VAL:HG21	30:29:86:PRO:CD	2.40	0.52
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.92	0.52
33:59:91:GLY:HA3	33:59:94:TYR:HB2	1.91	0.52
46:95:62:LEU:CD2	46:95:95:LEU:HB2	2.39	0.52
1:13:129(A):G:C2	1:13:188:U:O2'	2.63	0.52
4:3E:103:ASN:OD1	4:3E:114:ARG:NH2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:3:ARG:HG3	13:4I:7:VAL:O	2.10	0.52
13:4I:25:ILE:HD11	13:4I:66:LEU:HD11	1.92	0.52
19:AI:52:TYR:HA	19:AI:56:GLN:O	2.10	0.52
24:3K:52:A:H2'	24:3K:53:G:C8	2.45	0.52
26:1H:631:A:H5'	63:1H:5135:HOH:O	2.10	0.52
26:1H:889:C:H2'	26:1H:890:A:O4'	2.08	0.52
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.45	0.52
28:71:45:ALA:HB1	28:71:47:LEU:HD21	1.90	0.52
29:11:140:THR:HB	29:11:165:ILE:HD11	1.90	0.52
29:11:206:LEU:HA	29:11:211:ARG:HD3	1.91	0.52
32:41:10:LYS:O	32:41:15:VAL:HG23	2.10	0.52
32:41:80:PHE:N	32:41:80:PHE:CD1	2.78	0.52
34:18:20:LEU:HD13	34:18:24:ILE:HG21	1.92	0.52
37:48:11:GLN:OE1	37:48:17:ALA:HB1	2.09	0.52
40:78:15:ARG:HB3	40:78:15:ARG:NH1	2.21	0.52
52:J8:80:LEU:O	52:J8:81:LYS:NZ	2.33	0.52
57:O8:40:CYS:HB2	57:O8:46:HIS:CE1	2.44	0.52
1:1G:107:G:C2	1:1G:108:G:H1'	2.45	0.52
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.45	0.52
3:22:70:VAL:HG12	3:22:72:LYS:H	1.74	0.52
3:22:90:GLU:H	3:22:90:GLU:CD	2.12	0.52
7:62:145:ALA:C	7:62:147:ALA:H	2.13	0.52
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.32	0.52
19:AA:23:ASN:N	19:AA:23:ASN:OD1	2.43	0.52
24:3L:42:G:H2'	24:3L:43:A:O4'	2.10	0.52
26:14:833:U:H2'	26:14:834:C:C6	2.45	0.52
26:14:2287:A:H2	26:14:2346:A:H2	1.58	0.52
26:14:2360:A:H8	26:14:2360:A:O5'	1.92	0.52
49:C5:20:TYR:CZ	49:C5:42:VAL:HA	2.44	0.52
1:13:209:U:H5'	1:13:210:U:OP2	2.09	0.52
1:13:595:G:H1'	1:13:596:C:H5	1.75	0.52
1:13:1238:A:H62	1:13:1301:U:H3	1.57	0.52
7:6E:152:ALA:O	7:6E:155:ARG:NH1	2.42	0.52
9:8E:5:TYR:HE2	9:8E:7:THR:HG1	1.56	0.52
63:1H:4984:HOH:O	35:61:22:LYS:HG2	2.09	0.52
29:11:96:HIS:CD2	29:11:102:LYS:HE2	2.45	0.52
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.25	0.52
31:31:24:LEU:HD23	31:31:115:ALA:HA	1.90	0.52
36:38:83:TYR:CG	36:38:84:GLU:N	2.77	0.52
41:88:135:ASP:H	41:88:138:ASP:HB2	1.74	0.52
49:G8:30:VAL:HG13	49:G8:37:VAL:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:120:THR:CG2	8:72:123:GLU:H	2.23	0.52
10:1A:47:PHE:CE1	10:1A:63:PHE:HB2	2.45	0.52
13:4A:78:ILE:O	13:4A:81:LEU:HB2	2.10	0.52
17:8A:97:SER:O	17:8A:98:LEU:HD23	2.09	0.52
19:AA:69:HIS:HB3	19:AA:73:GLU:OE1	2.09	0.52
26:14:481:G:OP2	49:C5:47:LYS:HB2	2.09	0.52
26:14:832:G:H21	40:35:53:GLY:HA3	1.75	0.52
26:14:1665:A:H1'	39:25:1:MET:HG3	1.90	0.52
26:14:2119:A:H3'	26:14:2119:A:N3	2.25	0.52
32:49:8:LYS:O	32:49:11:TYR:HB3	2.10	0.52
1:13:1238:A:N3	1:13:1241:G:O2'	2.33	0.51
10:1I:6:ILE:HA	10:1I:97:GLU:O	2.10	0.51
10:1I:7:LYS:O	10:1I:8:LEU:HD23	2.10	0.51
22:1K:14:A:O2'	22:1K:15:G:N7	2.42	0.51
22:1K:38:2MA:H2'	22:1K:39:A:O4'	2.11	0.51
23:2K:21:U:H3'	23:2K:22:A:H5'	1.91	0.51
26:1H:568:U:O4	63:1H:3864:HOH:O	2.19	0.51
26:1H:754:C:H2'	26:1H:755:C:C6	2.45	0.51
26:1H:2250:G:C5	41:88:83:MET:HB3	2.44	0.51
26:1H:2756:U:H1'	26:1H:2757:A:H5"	1.91	0.51
28:71:22:ILE:HD12	28:71:224:ILE:HD12	1.90	0.51
30:21:176:ILE:HB	30:21:181:LEU:HB2	1.91	0.51
36:38:30:GLN:HE22	36:38:55:LYS:HB2	1.75	0.51
41:88:12:GLN:HG2	41:88:73:PRO:HD2	1.92	0.51
45:C8:97:ASP:OD2	45:C8:101:ARG:NH2	2.33	0.51
46:D8:36:PRO:HB2	46:D8:37:VAL:HG22	1.92	0.51
1:1G:666:G:H5'	1:1G:726:C:H1'	1.92	0.51
1:1G:862:C:N4	63:1G:1881:HOH:O	2.38	0.51
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.10	0.51
4:32:90:GLY:HA3	4:32:204:ILE:HD11	1.93	0.51
4:32:101:LEU:HD23	4:32:121:VAL:HG11	1.92	0.51
26:14:71:A:C2	48:B5:31:HIS:CE1	2.98	0.51
26:14:141:A:C8	26:14:1408:C:H1'	2.44	0.51
26:14:581:C:H2'	26:14:582:G:H8	1.75	0.51
26:14:589:C:H2'	26:14:590:A:H8	1.75	0.51
26:14:654(A):A:H2	26:14:654(T):A:N7	2.07	0.51
26:14:821:A:O2'	26:14:946:G:OP2	2.25	0.51
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.26	0.51
26:14:2469:A:OP1	26:14:2469:A:H4'	2.09	0.51
30:29:116:VAL:HG23	30:29:120:TRP:HB2	1.92	0.51
32:49:91:ARG:C	32:49:91:ARG:HE	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:2:SER:OG	33:59:3:ARG:N	2.43	0.51
38:15:35:ARG:HB3	38:15:42:TRP:HZ3	1.74	0.51
44:75:26:ASP:OD1	44:75:120:ARG:NH2	2.38	0.51
45:85:50:ARG:HG2	45:85:53:ARG:HH21	1.75	0.51
49:C5:18:GLY:C	49:C5:20:TYR:H	2.12	0.51
53:G5:23:LYS:HA	53:G5:26:ARG:NH1	2.24	0.51
1:13:474:G:H8	1:13:474:G:O5'	1.93	0.51
1:13:807:A:H2'	1:13:808:C:C6	2.45	0.51
2:1E:92:TYR:CZ	2:1E:151:GLY:HA3	2.44	0.51
2:1E:121:LEU:HA	2:1E:124:SER:HB2	1.91	0.51
20:BI:49:ALA:HB3	20:BI:99:LEU:HG	1.92	0.51
26:1H:232:G:H5"	26:1H:232:G:C8	2.39	0.51
26:1H:787:U:H5"	26:1H:788:A:H5'	1.91	0.51
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.46	0.51
26:1H:2432:A:C4	52:J8:33:LYS:HG2	2.45	0.51
27:16:44:G:H1'	27:16:47:C:H41	1.75	0.51
36:38:36:GLU:HB2	36:38:104:ILE:HB	1.92	0.51
40:78:33:ARG:HG2	40:78:40:SER:HA	1.92	0.51
44:B8:54:ARG:HA	44:B8:59:THR:HG23	1.91	0.51
50:H8:97:GLU:HB3	50:H8:125:LEU:HD11	1.93	0.51
1:1G:41:G:H2'	1:1G:42:G:H8	1.70	0.51
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.10	0.51
1:1G:1220:G:O3'	19:AA:36:ARG:HD3	2.10	0.51
2:12:137:ARG:NH1	2:12:137:ARG:O	2.43	0.51
4:32:19:LEU:HB2	4:32:21:LEU:CD1	2.40	0.51
4:32:79:PHE:O	4:32:82:ALA:N	2.43	0.51
11:2A:54:ARG:NH2	24:3L:41:C:OP1	2.43	0.51
26:14:608:A:H2'	26:14:609:A:C8	2.45	0.51
26:14:1359:A:N7	26:14:1372:U:O4	2.43	0.51
26:14:1515:C:H2'	26:14:1516:U:C6	2.45	0.51
26:14:2734:A:H2'	26:14:2735:G:O4'	2.10	0.51
49:C5:46:LYS:HB3	49:C5:61:ILE:H	1.76	0.51
1:13:313:A:H2'	1:13:314:C:H6	1.74	0.51
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.10	0.51
6:5E:16:GLN:HA	6:5E:19:LEU:HB2	1.92	0.51
7:6E:113:GLU:HB2	7:6E:118:VAL:HG13	1.92	0.51
7:6E:117:ALA:O	7:6E:121:ALA:N	2.41	0.51
9:8E:59:PHE:CZ	9:8E:88:TYR:HE2	2.25	0.51
18:9I:70:ILE:O	18:9I:74:ARG:HG3	2.11	0.51
24:3K:2:C:O5'	24:3K:2:C:H6	1.92	0.51
26:1H:234:C:H2'	26:1H:235:U:C6	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:844:C:H3'	26:1H:845:G:C8	2.45	0.51
26:1H:2101:G:H1	26:1H:2188:C:H42	1.57	0.51
26:1H:2124:G:H1	26:1H:2174:C:N4	2.08	0.51
26:1H:2518:A:H5'	26:1H:2518:A:H8	1.73	0.51
26:1H:2630:G:H2'	26:1H:2631:G:H8	1.75	0.51
43:A8:68:GLN:HG3	43:A8:71:ARG:NH1	2.25	0.51
44:B8:50:ILE:HD11	44:B8:102:ILE:CD1	2.39	0.51
1:1G:1320:C:H2'	1:1G:1321:C:H6	1.75	0.51
8:72:28:ALA:HB3	8:72:57:PRO:HB2	1.92	0.51
12:3A:41:ARG:HB3	12:3A:41:ARG:NH1	2.24	0.51
17:8A:18:THR:OG1	17:8A:69:LYS:NZ	2.19	0.51
23:2L:48:U:H1'	23:2L:49:C:P	2.50	0.51
26:14:1963:U:O2	26:14:1963:U:H5"	2.10	0.51
26:14:2086:U:H2'	26:14:2087:G:C8	2.46	0.51
26:14:2114:A:C5'	26:14:2117:A:H5'	2.40	0.51
26:14:2125:G:H21	26:14:2173:A:N6	2.08	0.51
26:14:2520:C:H41	26:14:2542:A:N6	2.04	0.51
29:19:137:PRO:HG2	29:19:140:THR:OG1	2.10	0.51
31:39:103:LYS:HA	31:39:106:ARG:HG3	1.93	0.51
41:45:65:PHE:O	41:45:104:PHE:HA	2.10	0.51
41:45:78:PRO:HD3	41:45:87:LYS:HB2	1.92	0.51
42:55:78:LYS:O	42:55:83:ILE:HG13	2.10	0.51
46:95:38:LEU:HD22	46:95:55:ALA:C	2.30	0.51
47:A5:29:LEU:HD21	47:A5:33:ARG:CZ	2.41	0.51
1:13:454:C:H3'	1:13:455:C:C6	2.46	0.51
1:13:1191:A:H5"	3:2E:4:LYS:NZ	2.26	0.51
1:13:1397:C:H4'	1:13:1398:A:OP2	2.10	0.51
8:7E:39:LEU:HD11	8:7E:111:ILE:HD11	1.92	0.51
13:4I:27:LYS:HA	13:4I:31:LYS:HZ3	1.76	0.51
20:BI:10:LEU:HG	20:BI:12:ALA:HB3	1.92	0.51
26:1H:83:G:O6	63:1H:3950:HOH:O	2.18	0.51
26:1H:84:A:H5"	49:G8:8:LYS:HB3	1.92	0.51
26:1H:188:G:H5"	52:J8:14:VAL:HG21	1.92	0.51
26:1H:265:A:H1'	26:1H:266:G:O4'	2.10	0.51
26:1H:831:G:N2	40:78:53:GLY:O	2.43	0.51
26:1H:960:A:H2'	26:1H:962:G:H5'	1.93	0.51
26:1H:987:G:O2'	26:1H:1000:A:N3	2.35	0.51
26:1H:1805:U:O2	29:11:50:THR:HB	2.11	0.51
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.25	0.51
26:1H:2439:A:P	26:1H:2439:A:H3'	2.51	0.51
26:1H:2659:G:O6	63:1H:3958:HOH:O	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.24	0.51
30:21:201:THR:HG22	30:21:202:LYS:H	1.75	0.51
31:31:111:ALA:HB2	31:31:206:ILE:HD12	1.92	0.51
36:38:4:LYS:CG	36:38:6:ASN:HB2	2.40	0.51
36:38:15:GLU:O	36:38:16:ASN:ND2	2.42	0.51
37:48:20:ALA:O	37:48:25:PRO:HD2	2.11	0.51
40:78:64:LYS:O	59:Q8:30:ARG:NH2	2.44	0.51
53:K8:23:LYS:NZ	53:K8:27:GLU:OE2	2.37	0.51
57:O8:41:PRO:HD2	57:O8:46:HIS:H	1.75	0.51
58:P8:12:ARG:NH2	58:P8:44:PRO:HB3	2.26	0.51
1:1G:191(F):U:H2'	1:1G:191:G:C8	2.45	0.51
1:1G:570:G:H2'	1:1G:571:U:C6	2.45	0.51
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.29	0.51
1:1G:1286:A:H5'	21:1B:25:LYS:HE3	1.92	0.51
3:22:129:ALA:HB3	3:22:132:ARG:HB3	1.92	0.51
7:62:73:MET:CB	7:62:90:GLU:HA	2.40	0.51
23:2L:8:4SU:C2	23:2L:14:A:H62	2.22	0.51
26:14:274:G:H2'	26:14:275:G:O4'	2.10	0.51
26:14:1657:C:H2'	26:14:1658:C:C6	2.45	0.51
31:39:7:TYR:O	31:39:15:SER:HA	2.10	0.51
33:59:7:LEU:N	33:59:8:PRO:HD2	2.25	0.51
35:69:72:LEU:HD21	35:69:107:VAL:HG21	1.92	0.51
38:15:47:ALA:HB2	38:15:112:LEU:HD21	1.92	0.51
39:25:2:ILE:HD12	39:25:6:THR:HG21	1.92	0.51
43:65:106:ARG:HE	43:65:106:ARG:N	2.09	0.51
47:A5:65:LEU:CD1	47:A5:68:ARG:HD3	2.41	0.51
2:1E:15:VAL:HG23	2:1E:213:LEU:HD21	1.92	0.51
4:3E:22:LYS:HB2	61:3E:303:SF4:S4	2.50	0.51
11:2I:78:GLN:O	11:2I:103:LEU:HB2	2.11	0.51
26:1H:748:G:C8	47:E8:89:ALA:HB1	2.45	0.51
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.92	0.51
29:11:27:THR:O	29:11:27:THR:OG1	2.14	0.51
32:41:107:LEU:HD21	32:41:178:PHE:CD1	2.46	0.51
35:61:40:THR:O	35:61:44:LEU:HB2	2.10	0.51
40:78:59:LEU:HD11	59:Q8:10:ALA:HA	1.93	0.51
49:G8:45:VAL:HG22	49:G8:46:LYS:H	1.75	0.51
50:H8:28:MET:HB2	50:H8:37:VAL:HG11	1.92	0.51
50:H8:60:GLU:O	50:H8:61:LEU:HB3	2.10	0.51
1:1G:685:G:C2	1:1G:686:U:C4	2.98	0.51
26:14:1108:U:H2'	26:14:1109:C:O4'	2.11	0.51
26:14:2342:C:O2	26:14:2374:C:H4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:25:63:VAL:O	39:25:64:ARG:HG3	2.11	0.51
41:45:21:THR:CG2	41:45:23:GLY:HA3	2.41	0.51
42:55:78:LYS:O	42:55:82:GLU:HG2	2.11	0.51
44:75:15:VAL:HG23	44:75:79:HIS:CE1	2.46	0.51
1:13:90:C:H5'	1:13:91:C:OP2	2.10	0.51
1:13:371:G:O2'	1:13:373:A:N7	2.42	0.51
1:13:674:G:N2	1:13:717:C:O2	2.43	0.51
1:13:1165:C:H2'	1:13:1166:G:O4'	2.11	0.51
1:13:1176:A:H3'	1:13:1177:G:H5"	1.93	0.51
2:1E:31:TYR:O	2:1E:42:ILE:HA	2.11	0.51
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.26	0.51
12:3I:39:VAL:HG11	12:3I:41:ARG:HD2	1.91	0.51
14:5I:3:ARG:HG3	63:5I:202:HOH:O	2.10	0.51
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.46	0.51
18:9I:32:ARG:NH1	18:9I:65:ILE:HD13	2.26	0.51
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.45	0.51
26:1H:2840:C:O3'	42:98:53:HIS:NE2	2.44	0.51
29:11:147:LEU:HD22	29:11:155:LEU:HD11	1.91	0.51
36:38:6:ASN:O	36:38:10:LEU:HB2	2.11	0.51
36:38:12:THR:HG22	36:38:15:GLU:N	2.26	0.51
40:78:19:VAL:HG12	63:78:305:HOH:O	2.10	0.51
41:88:11:LYS:HE2	41:88:88:GLY:O	2.11	0.51
1:1G:281:G:H8	1:1G:281:G:OP2	1.92	0.51
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.26	0.51
4:32:119:GLN:O	4:32:123:HIS:CD2	2.64	0.51
9:82:26:VAL:HG22	9:82:61:ALA:N	2.26	0.51
10:1A:4:ILE:HB	10:1A:74:ILE:HD11	1.92	0.51
21:1B:2:GLY:C	21:1B:4:GLY:H	2.13	0.51
26:14:957:A:N6	26:14:2459:A:C8	2.78	0.51
26:14:1405:U:H2'	26:14:1406:U:C6	2.46	0.51
26:14:2033:A:OP1	63:14:3886:HOH:O	2.19	0.51
26:14:2336:A:H61	51:E5:43:THR:HG21	1.76	0.51
30:29:53:PRO:O	30:29:54:GLN:HB2	2.10	0.51
30:29:66:HIS:CG	30:29:67:PHE:N	2.79	0.51
32:49:20:ILE:HG23	32:49:25:TYR:HB2	1.93	0.51
32:49:66:GLN:NE2	32:49:94:LEU:HD23	2.25	0.51
35:69:120:ILE:HG22	35:69:122:GLU:H	1.75	0.51
35:69:125:GLU:OE1	35:69:141:LYS:HB2	2.11	0.51
39:25:73:ASP:OD2	44:75:32:TYR:OH	2.15	0.51
41:45:81:VAL:O	41:45:82:ARG:HG2	2.11	0.51
43:65:36:TYR:H	43:65:36:TYR:HD1	1.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C5:76:CYS:HB2	49:C5:82:PRO:HG3	1.91	0.51
50:D5:26:GLY:HA3	50:D5:86:VAL:O	2.10	0.51
1:13:517:G:N1	1:13:533:A:OP2	2.36	0.51
1:13:738:C:H2'	1:13:739:C:C6	2.45	0.51
2:1E:144:ARG:HB2	2:1E:144:ARG:HH11	1.76	0.51
2:1E:155:LEU:HD11	2:1E:159:PRO:HD3	1.93	0.51
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.10	0.51
26:1H:34:C:O2'	26:1H:35:G:OP2	2.26	0.51
26:1H:818:G:H4'	26:1H:838:C:O3'	2.10	0.51
26:1H:2751:G:H1'	33:51:3:ARG:NH2	2.25	0.51
28:71:214:VAL:HG23	28:71:224:ILE:HD13	1.92	0.51
29:11:33:LEU:HD23	29:11:33:LEU:H	1.76	0.51
35:61:77:LEU:HD13	35:61:140:LEU:HB3	1.91	0.51
39:68:86:ILE:HG22	39:68:94:ARG:HB2	1.93	0.51
41:88:66:ILE:HD12	41:88:67:ARG:N	2.26	0.51
44:B8:20:PRO:HG2	44:B8:86:ILE:O	2.10	0.51
54:L8:3:ARG:HB2	54:L8:59:VAL:HG13	1.92	0.51
1:1G:198:G:OP2	1:1G:198:G:H8	1.93	0.51
1:1G:216:G:O2'	1:1G:217:C:O5'	2.29	0.51
1:1G:250:A:H4'	1:1G:251:G:O5'	2.11	0.51
1:1G:1053:G:H5'	1:1G:1054:C:H3'	1.92	0.51
2:12:5:ILE:HD12	2:12:59:GLU:HB2	1.93	0.51
4:32:71:SER:HB3	4:32:74:GLN:HB2	1.92	0.51
10:1A:49:VAL:HG11	14:5A:45:ARG:HG3	1.93	0.51
12:3A:27:LEU:O	12:3A:29:GLY:N	2.44	0.51
13:4A:79:LYS:HD2	13:4A:82:MET:N	2.25	0.51
15:6A:87:ILE:O	15:6A:88:ARG:HB2	2.11	0.51
26:14:39:C:H2'	26:14:40:C:C6	2.46	0.51
26:14:65:C:H2'	26:14:66:C:C6	2.46	0.51
26:14:839:U:H2'	26:14:840:C:C6	2.45	0.51
26:14:1171:G:O2'	26:14:1173:G:O4'	2.24	0.51
28:79:35:ALA:HB1	28:79:37:PHE:CE1	2.46	0.51
30:29:68:ALA:C	30:29:70:ALA:H	2.14	0.51
30:29:107:THR:O	30:29:190:GLY:HA2	2.11	0.51
33:59:139:GLN:HG3	33:59:140:LYS:N	2.25	0.51
38:15:91:LEU:HA	38:15:95:PRO:HB3	1.92	0.51
1:13:266:G:H5"	1:13:267:C:C5	2.45	0.51
1:13:836:G:H1	1:13:850:U:H3	1.59	0.51
1:13:1051:C:H2'	1:13:1052:U:C6	2.45	0.51
1:13:1347:G:H22	1:13:1374:A:P	2.33	0.51
1:13:1442:G:C6	1:13:1446:A:C6	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:47:LYS:HB2	12:3I:48:PRO:HA	1.92	0.51
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.76	0.51
26:1H:182:A:H2	26:1H:433:C:O2	1.93	0.51
26:1H:1899:G:N2	26:1H:1902:C:C5	2.79	0.51
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.64	0.51
31:31:116:ASP:O	31:31:120:GLU:HG3	2.11	0.51
44:B8:26:ASP:HB3	44:B8:92:GLY:N	2.26	0.51
50:H8:103:ARG:O	50:H8:139:VAL:N	2.40	0.51
1:1G:408:A:H2'	1:1G:409:G:O4'	2.11	0.51
1:1G:1352:C:OP1	21:1B:3:LYS:NZ	2.37	0.51
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.74	0.51
6:52:11:ASN:O	6:52:14:LEU:HD22	2.11	0.51
7:62:87:VAL:N	7:62:88:PRO:HD3	2.25	0.51
10:1A:33:GLN:H	10:1A:75:ILE:HG12	1.75	0.51
10:1A:54:PHE:CG	10:1A:55:LYS:HG3	2.45	0.51
11:2A:21:ILE:HG12	11:2A:30:VAL:HG12	1.92	0.51
23:2L:15:G:N2	23:2L:22:A:N3	2.58	0.51
26:14:1412:A:H2'	26:14:1413:G:C8	2.45	0.51
26:14:1519:G:H2'	26:14:1520:U:O4'	2.11	0.51
26:14:1786:A:H2	26:14:2606:C:H1'	1.75	0.51
26:14:1812:A:O2'	29:19:45:ASN:HB3	2.11	0.51
26:14:2142:C:H2'	26:14:2143:C:C6	2.46	0.51
33:59:10:PRO:HG2	33:59:50:VAL:HG13	1.91	0.51
33:59:99:VAL:HG11	33:59:103:LEU:CA	2.40	0.51
33:59:99:VAL:HG11	33:59:103:LEU:HA	1.93	0.51
47:A5:86:LEU:HD12	47:A5:87:PRO:HD2	1.93	0.51
54:H5:30:ARG:HG3	54:H5:31:LEU:O	2.11	0.51
1:13:1:U:C2	1:13:630:G:H1'	2.45	0.51
1:13:765:G:H5"	1:13:766:A:OP1	2.11	0.51
1:13:1036:G:H3'	1:13:1037:C:C6	2.46	0.51
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.46	0.51
26:1H:2572:A:N7	30:21:144:ARG:HD2	2.26	0.51
26:1H:2645:G:N2	26:1H:2767:C:OP2	2.44	0.51
36:38:62:ALA:O	36:38:63:LEU:HB2	2.10	0.51
41:88:21:THR:HG22	41:88:99:PRO:O	2.11	0.51
43:A8:88:ASP:OD1	43:A8:89:ARG:N	2.44	0.51
49:G8:34:LYS:O	49:G8:34:LYS:HD3	2.11	0.51
50:H8:9:TYR:CE1	50:H8:35:ARG:HG2	2.45	0.51
50:H8:105:VAL:N	50:H8:139:VAL:O	2.41	0.51
51:I8:53:MET:HG3	51:I8:59:LEU:HD23	1.93	0.51
1:1G:607:A:H2'	1:1G:608:A:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1243:C:OP1	21:1B:10:ARG:CZ	2.59	0.51
1:1G:1262:C:N4	1:1G:1273:G:H1	2.05	0.51
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.92	0.51
7:62:23:VAL:O	7:62:27:ILE:HG12	2.10	0.51
8:72:44:PHE:HA	8:72:79:VAL:HG11	1.93	0.51
16:7A:43:LYS:HG2	16:7A:48:TRP:CG	2.45	0.51
16:7A:75:ARG:HG3	16:7A:80:PHE:CD2	2.46	0.51
17:8A:67:LYS:O	17:8A:69:LYS:N	2.44	0.51
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.51
26:14:522:G:H2'	26:14:523:C:C6	2.46	0.51
26:14:768:G:O2'	26:14:1379:A:N6	2.44	0.51
26:14:1899:G:N2	26:14:1902:C:N4	2.51	0.51
26:14:2701:C:C3'	26:14:2702:U:H5"	2.32	0.51
31:39:127:GLU:HB2	31:39:196:LEU:HD23	1.92	0.51
33:59:26:VAL:CG1	33:59:33:LEU:HB2	2.41	0.51
40:35:90:ARG:HG3	40:35:91:PHE:H	1.75	0.51
43:65:36:TYR:HA	43:65:52:SER:HB3	1.92	0.51
46:95:12:TYR:OH	46:95:22:VAL:HG23	2.11	0.51
48:B5:63:LYS:O	48:B5:63:LYS:HD2	2.11	0.51
52:F5:41:ARG:HD3	52:F5:43:TYR:CE1	2.46	0.51
1:13:199:G:H2'	1:13:200:G:H8	1.76	0.51
1:13:827:U:C5	1:13:870:U:C4	2.99	0.51
1:13:1255:G:H2'	1:13:1258:G:H21	1.76	0.51
1:13:1391:U:H2'	1:13:1392:G:H8	1.71	0.51
1:13:1525:G:OP2	11:2I:120:ARG:NH2	2.44	0.51
7:6E:102:ARG:O	7:6E:106:GLN:HG3	2.11	0.51
24:3K:9:A:O2'	24:3K:10:G:N7	2.41	0.51
26:1H:898:C:H5'	26:1H:899:A:OP2	2.10	0.51
26:1H:943:U:OP1	40:78:36:LYS:HG2	2.11	0.51
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.46	0.51
26:1H:2112:G:N2	26:1H:2170:A:H61	2.09	0.51
27:16:40:U:H1'	27:16:45:A:N6	2.25	0.51
32:41:47:LYS:HG3	32:41:86:MET:HE3	1.92	0.51
32:41:56:ALA:O	32:41:60:LEU:N	2.44	0.51
39:68:113:LYS:O	39:68:117:LEU:HG	2.11	0.51
43:A8:51:ALA:HB3	43:A8:73:LEU:HG	1.92	0.51
45:C8:75:ASN:HB2	45:C8:78:THR:OG1	2.10	0.51
1:1G:247:G:OP2	17:8A:100:LYS:N	2.44	0.51
1:1G:345:C:O3'	44:75:41:ARG:NH2	2.44	0.51
1:1G:631:G:H1'	1:1G:632:A:H5'	1.92	0.51
2:12:12:GLU:OE1	2:12:16:HIS:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:21:ARG:HB3	2:12:39:ILE:HG12	1.93	0.51
22:1L:59:A:H4'	22:1L:60:A:OP1	2.11	0.51
26:14:320:A:H4'	26:14:322:A:C8	2.45	0.51
26:14:945:A:C4	26:14:2448:A:C2	2.99	0.51
26:14:1991:U:H2'	26:14:1992:G:H5"	1.92	0.51
26:14:2124:G:N1	28:79:217:THR:O	2.42	0.51
26:14:2485:G:H5"	41:45:46:GLN:HE21	1.76	0.51
32:49:42:GLY:O	32:49:43:LEU:HD13	2.11	0.51
38:15:99:LEU:O	38:15:103:VAL:HG23	2.11	0.51
41:45:78:PRO:HB2	41:45:79:LEU:HG	1.93	0.51
46:95:41:GLY:H	46:95:46:VAL:HG13	1.76	0.51
1:13:37:U:O2'	1:13:500:G:H4'	2.11	0.50
7:6E:150:ALA:HB2	11:2I:50:TYR:CE2	2.45	0.50
10:1I:63:PHE:HA	14:5I:59:ALA:H	1.75	0.50
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.93	0.50
14:5I:13:THR:N	14:5I:14:PRO:HD2	2.25	0.50
16:7I:71:ARG:O	16:7I:75:ARG:N	2.36	0.50
20:BI:63:ILE:HG22	20:BI:77:ALA:HB1	1.94	0.50
22:1K:6:C:O2'	22:1K:7:G:OP2	2.28	0.50
22:1K:24:A:C5	22:1K:25:G:N7	2.79	0.50
26:1H:960:A:C8	26:1H:962:G:C8	2.98	0.50
26:1H:2339:G:H2'	26:1H:2340:G:C8	2.46	0.50
26:1H:2510:C:H2'	26:1H:2511:U:C6	2.46	0.50
26:1H:2723:C:H5"	42:98:1:MET:HE2	1.92	0.50
26:1H:2785:C:O2'	30:21:64:LYS:HG2	2.11	0.50
43:A8:27:SER:HA	43:A8:88:ASP:HB3	1.92	0.50
47:E8:51:LEU:HD23	47:E8:105:VAL:HG11	1.93	0.50
48:F8:12:VAL:HG22	48:F8:17:ALA:HB2	1.92	0.50
49:G8:55:TYR:N	49:G8:56:PRO:HD3	2.26	0.50
50:H8:69:THR:HA	50:H8:90:VAL:HA	1.92	0.50
55:M8:13:ARG:NH1	55:M8:22:ILE:HG23	2.27	0.50
59:Q8:16:ILE:CD1	59:Q8:59:LYS:HG3	2.41	0.50
1:1G:8:A:C5	4:32:209:ARG:HB2	2.46	0.50
1:1G:328:C:H4'	1:1G:329:A:H5"	1.94	0.50
1:1G:960:U:H4'	1:1G:961:U:C5'	2.41	0.50
2:12:74:LYS:HD2	2:12:166:ASP:HB2	1.93	0.50
10:1A:82:ILE:HG22	10:1A:86:MET:SD	2.52	0.50
12:3A:27:LEU:HD22	12:3A:28:LYS:HB3	1.91	0.50
20:BA:46:GLU:HB2	20:BA:48:LYS:HG3	1.91	0.50
24:3L:35:A:O2'	24:3L:36:C:O5'	2.25	0.50
24:3L:77:A:O2'	26:14:2394:C:N3	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:132:G:H1	26:14:147:U:H3	1.59	0.50
26:14:304:G:H2'	26:14:305:U:H6	1.76	0.50
26:14:1154:G:O5'	26:14:1154:G:H8	1.94	0.50
26:14:2178:C:H4'	28:79:46:LYS:HD3	1.93	0.50
1:13:1468:A:OP1	63:13:1960:HOH:O	2.20	0.50
3:2E:188:LEU:HD13	3:2E:189:ALA:N	2.26	0.50
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.93	0.50
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.92	0.50
11:2I:86:GLY:N	11:2I:112:THR:OG1	2.30	0.50
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.26	0.50
26:1H:530:G:C5	26:1H:2022:U:H5"	2.47	0.50
26:1H:721:C:H2'	26:1H:722:A:H8	1.76	0.50
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.47	0.50
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.26	0.50
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.58	0.50
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.11	0.50
26:1H:1607:C:H1'	63:1H:4260:HOH:O	2.10	0.50
26:1H:2093:G:C6	26:1H:2225:A:C8	2.99	0.50
26:1H:2177:C:H5"	28:71:213:TYR:CG	2.45	0.50
29:11:17:THR:CG2	29:11:204:ILE:HA	2.41	0.50
30:21:38:THR:OG1	30:21:40:GLU:HG2	2.11	0.50
30:21:50:GLY:HA2	30:21:77:ILE:HG12	1.92	0.50
30:21:63:LEU:HD23	30:21:63:LEU:O	2.10	0.50
52:J8:17:SER:OG	63:J8:101:HOH:O	2.19	0.50
1:1G:986:A:O2'	19:AA:55:LYS:HG3	2.12	0.50
2:12:144:ARG:HE	2:12:148:TYR:HE2	1.58	0.50
5:42:31:LEU:HD23	5:42:45:PHE:HB2	1.92	0.50
5:42:127:ASN:OD1	5:42:130:ASN:ND2	2.42	0.50
12:3A:28:LYS:HE3	12:3A:33:ARG:HH22	1.76	0.50
24:3L:55:U:H5"	24:3L:56:U:OP2	2.11	0.50
26:14:34:C:O2'	26:14:35:G:H8	1.93	0.50
26:14:972:G:OP2	26:14:974:G:H5"	2.10	0.50
26:14:987:G:O2'	26:14:1000:A:N3	2.36	0.50
26:14:1688:U:O2	26:14:1700:A:H5'	2.11	0.50
26:14:2305:A:H8	32:49:156:ASP:OD1	1.94	0.50
26:14:2542:A:OP1	26:14:2542:A:H4'	2.11	0.50
27:1J:89(A):A:C8	27:1J:90:C:H1'	2.46	0.50
31:39:34:TRP:NE1	40:35:8:PRO:HD3	2.25	0.50
50:D5:59:LEU:HB2	50:D5:61:LEU:HD23	1.93	0.50
52:F5:37:ILE:HD13	52:F5:38:SER:N	2.25	0.50
1:13:157:G:H2'	1:13:158:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:509:A:H5'	4:3E:54:TYR:HD2	1.75	0.50
1:13:686:U:O4	1:13:703:G:H1'	2.12	0.50
2:1E:59:GLU:HB2	2:1E:221:LEU:CD1	2.42	0.50
9:8E:79:LEU:O	9:8E:83:ARG:HG3	2.11	0.50
17:8I:92:ARG:HG2	17:8I:92:ARG:HH11	1.77	0.50
20:BI:74:LYS:HG2	20:BI:75:ASN:H	1.76	0.50
26:1H:51:G:N3	26:1H:119:A:C2	2.79	0.50
26:1H:806:C:OP2	40:78:41:ARG:HD3	2.11	0.50
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.35	0.50
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.45	0.50
26:1H:2378:A:H4'	43:A8:23:ARG:NH1	2.26	0.50
37:48:128:ALA:HB1	37:48:132:ARG:HB2	1.92	0.50
42:98:18:LEU:HD11	42:98:22:ARG:CZ	2.41	0.50
44:B8:29:ARG:NH1	44:B8:46:GLU:OE2	2.43	0.50
58:P8:5:TRP:NE1	58:P8:7:PRO:HG3	2.27	0.50
1:1G:45:U:H2'	1:1G:46:G:C8	2.45	0.50
1:1G:474:G:H2'	1:1G:475:G:C8	2.46	0.50
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.12	0.50
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.11	0.50
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.92	0.50
5:42:123:LEU:HA	5:42:126:ARG:NH1	2.26	0.50
7:62:18:TYR:HD2	7:62:59:LEU:HD22	1.77	0.50
22:1L:14:A:N6	22:1L:23:G:C5	2.79	0.50
26:14:161:U:C5'	26:14:171:G:H21	2.24	0.50
26:14:194:G:H2'	26:14:195:A:O4'	2.12	0.50
26:14:432:A:H2'	26:14:433:C:O4'	2.12	0.50
26:14:458:G:O2'	58:L5:39:ARG:HD3	2.11	0.50
26:14:674:G:OP2	63:14:3885:HOH:O	2.19	0.50
26:14:751:A:H5'	47:A5:90:ARG:HA	1.93	0.50
26:14:1094:U:H4'	26:14:1097:U:C5	2.45	0.50
26:14:2025:C:OP1	30:29:149:ARG:HD3	2.12	0.50
27:1J:16:G:H2'	27:1J:17:C:C6	2.46	0.50
28:79:28:LEU:HD12	28:79:31:GLU:OE2	2.11	0.50
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.94	0.50
31:39:192:LEU:HD22	31:39:194:MET:HE2	1.93	0.50
32:49:114:ILE:HG22	32:49:117:PHE:HB2	1.92	0.50
33:59:41:MET:HB3	33:59:54:ARG:CA	2.40	0.50
35:69:93:THR:HG23	35:69:119:PRO:HG3	1.92	0.50
43:65:92:TYR:HB2	43:65:98:VAL:HG21	1.94	0.50
44:75:53:ARG:NH1	44:75:60:THR:HG23	2.26	0.50
50:D5:27:VAL:O	50:D5:87:ASP:HA	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:142:G:H2'	1:13:143:A:C8	2.43	0.50
1:13:1160:G:N1	1:13:1177:G:N2	2.60	0.50
2:1E:69:LEU:HD22	2:1E:91:PRO:HG2	1.93	0.50
2:1E:91:PRO:HG3	2:1E:155:LEU:HB2	1.93	0.50
2:1E:215:LEU:O	2:1E:218:ALA:HB3	2.11	0.50
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.93	0.50
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.46	0.50
20:BI:50:GLU:H	20:BI:99:LEU:HD12	1.76	0.50
26:1H:783:A:C8	26:1H:783:A:H3'	2.46	0.50
26:1H:1138:G:H21	38:58:106:MET:HE3	1.76	0.50
26:1H:2577:A:H4'	56:N8:2:ALA:O	2.11	0.50
26:1H:2792:G:C6	26:1H:2805:G:C2	2.99	0.50
26:1H:2897:U:H2'	26:1H:2898:U:H5'	1.93	0.50
32:41:11:TYR:HA	32:41:15:VAL:HB	1.94	0.50
34:18:3:LEU:H	34:18:3:LEU:HD22	1.76	0.50
36:38:50:ARG:HB2	36:38:50:ARG:HH11	1.75	0.50
39:68:90:GLN:O	39:68:91:LEU:HB2	2.12	0.50
40:78:64:LYS:HD2	59:Q8:12:LYS:HB3	1.93	0.50
41:88:139:GLU:O	41:88:140:ALA:HB3	2.11	0.50
43:A8:14:VAL:O	43:A8:18:ILE:HD13	2.10	0.50
43:A8:74:ALA:HB1	43:A8:108:GLY:HA3	1.93	0.50
44:B8:30:VAL:HG23	44:B8:83:ILE:HG23	1.92	0.50
1:1G:20:U:H2'	1:1G:21:G:O4'	2.10	0.50
1:1G:980:C:H3'	1:1G:981:U:C6	2.46	0.50
1:1G:1008:C:H42	1:1G:1021:G:H22	1.59	0.50
1:1G:1208:C:H2'	1:1G:1209:C:H6	1.75	0.50
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.26	0.50
1:1G:1242:C:O3'	21:1B:10:ARG:NH1	2.45	0.50
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.92	0.50
23:2L:37:U:H2'	23:2L:38:A:O4'	2.12	0.50
23:2L:48:U:H1'	23:2L:49:C:O5'	2.12	0.50
26:14:760:G:O6	63:14:3878:HOH:O	2.18	0.50
26:14:1515:C:H2'	26:14:1516:U:H6	1.76	0.50
26:14:1962:C:O2'	26:14:1964:G:OP2	2.30	0.50
26:14:2320:A:C6	26:14:2333:A:C8	2.99	0.50
32:49:60:LEU:HD12	32:49:90:LEU:HD13	1.93	0.50
35:69:62:LYS:HB2	35:69:133:HIS:NE2	2.25	0.50
40:35:8:PRO:HG2	40:35:13:ASN:ND2	2.24	0.50
1:13:636:U:H2'	1:13:637:G:C8	2.46	0.50
1:13:1079:G:C6	1:13:1080:A:N6	2.79	0.50
1:13:1113:C:H2'	1:13:1114:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:180:LEU:O	2:1E:182:ILE:HG13	2.12	0.50
3:2E:131:ARG:CZ	5:4E:50:GLU:HG3	2.42	0.50
7:6E:46:ALA:HB2	7:6E:117:ALA:HB1	1.92	0.50
20:BI:74:LYS:HD2	20:BI:74:LYS:H	1.75	0.50
26:1H:654:A:H2'	26:1H:654(A):A:C8	2.47	0.50
26:1H:722:A:H2'	26:1H:723:G:H8	1.75	0.50
26:1H:994:C:OP1	45:C8:53:ARG:NH2	2.44	0.50
26:1H:1042:G:H1	26:1H:1113:U:H3	1.59	0.50
29:11:14:ARG:HG2	29:11:15:PHE:CE2	2.47	0.50
37:48:132:ARG:HA	37:48:138:VAL:HG23	1.92	0.50
39:68:106:LEU:HD22	39:68:111:PHE:HB2	1.93	0.50
40:78:21:ARG:HD2	63:78:310:HOH:O	2.11	0.50
42:98:101:ALA:HB2	56:N8:44:THR:HB	1.92	0.50
50:H8:10:ARG:HG3	50:H8:36:LYS:HB3	1.94	0.50
50:H8:59:LEU:HD12	50:H8:60:GLU:H	1.77	0.50
57:O8:14:THR:O	57:O8:49:HIS:HA	2.12	0.50
1:1G:536:C:H2'	1:1G:537:G:C8	2.46	0.50
1:1G:677:U:H3	1:1G:713:G:N2	2.08	0.50
1:1G:855:G:OP2	1:1G:871:U:N3	2.37	0.50
1:1G:1087:G:H1	1:1G:1098:C:H42	1.59	0.50
3:22:190:ARG:NH1	3:22:191:THR:O	2.45	0.50
26:14:543:C:N4	26:14:550:G:H1	2.03	0.50
26:14:560:C:C5'	45:85:52:ARG:HH21	2.25	0.50
26:14:900:A:H3'	26:14:901:A:C8	2.43	0.50
26:14:2328:A:H2'	26:14:2329:G:C8	2.47	0.50
32:49:117:PHE:HE1	32:49:120:LEU:HD23	1.77	0.50
40:35:49:ARG:O	59:M5:57:ARG:HG3	2.12	0.50
41:45:136:ALA:HB1	41:45:138:ASP:OD1	2.12	0.50
52:F5:87:PRO:O	52:F5:91:LYS:N	2.42	0.50
56:J5:16:ARG:HG3	56:J5:17:ASP:N	2.25	0.50
1:13:278:G:OP2	17:8I:92:ARG:NH2	2.34	0.50
1:13:640:A:O2'	8:7E:115:SER:HB3	2.12	0.50
1:13:718:G:C4	11:2I:116:HIS:CD2	3.00	0.50
1:13:1177:G:H2'	1:13:1178:G:C4	2.46	0.50
2:1E:214:ILE:HG13	2:1E:215:LEU:N	2.25	0.50
3:2E:134:ILE:HD11	3:2E:153:VAL:HG21	1.93	0.50
9:8E:112:LYS:HD2	9:8E:113:LYS:N	2.26	0.50
14:5I:24:CYS:HB2	14:5I:40:CYS:HB3	1.93	0.50
26:1H:1268:A:OP2	63:1H:3962:HOH:O	2.20	0.50
26:1H:1327:C:OP2	63:1H:3960:HOH:O	2.19	0.50
26:1H:1523:U:H2'	26:1H:1524:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:37:ARG:O	30:21:45:THR:HA	2.10	0.50
30:21:54:GLN:O	30:21:55:ASN:HB2	2.12	0.50
32:41:65:GLY:HA2	55:M8:7:PRO:HB2	1.93	0.50
32:41:77:ILE:HG21	32:41:80:PHE:CD2	2.46	0.50
33:51:97:ARG:HB3	33:51:97:ARG:CZ	2.41	0.50
36:38:102:LYS:CE	36:38:103:GLY:H	2.23	0.50
37:48:60:TYR:CE1	37:48:66:THR:HB	2.42	0.50
37:48:82:ALA:HB1	37:48:99:ILE:HD13	1.92	0.50
41:88:110:THR:HG23	41:88:113:GLN:OE1	2.12	0.50
49:G8:85:VAL:O	49:G8:86:ARG:HD3	2.12	0.50
50:H8:109:ALA:N	50:H8:112:ARG:HB2	2.26	0.50
1:1G:428:G:C5	1:1G:430:A:C6	2.99	0.50
1:1G:1125:U:H2'	1:1G:1126:U:C6	2.46	0.50
1:1G:1127:G:HO2'	1:1G:1128:C:H6	1.59	0.50
9:82:71:SER:HA	9:82:74:ILE:HD12	1.93	0.50
26:14:322:A:OP2	31:39:169:ASN:HB2	2.10	0.50
26:14:908:C:OP1	41:45:22:LYS:HD2	2.12	0.50
26:14:2030:A:H2	63:14:3855:HOH:O	1.94	0.50
26:14:2697:G:H2'	26:14:2698:U:O4'	2.12	0.50
30:29:116:VAL:HG11	30:29:138:PRO:HB3	1.93	0.50
31:39:36:VAL:HG11	31:39:183:VAL:HG21	1.93	0.50
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.93	0.50
38:15:59:LYS:HE2	38:15:61:ARG:NH2	2.26	0.50
41:45:91:GLU:HG3	41:45:92:GLY:N	2.25	0.50
43:65:16:ASN:H	43:65:16:ASN:ND2	2.09	0.50
43:65:28:VAL:HG11	43:65:98:VAL:HG13	1.92	0.50
45:85:66:ASN:CB	45:85:76:TYR:HB2	2.41	0.50
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.27	0.50
8:7E:22:GLU:O	8:7E:62:TYR:HA	2.12	0.50
10:1I:35:SER:OG	10:1I:73:ASP:HB2	2.12	0.50
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.93	0.50
22:1K:14:A:N7	22:1K:23:G:C2	2.79	0.50
22:1K:15:G:H22	22:1K:49:C:H42	1.58	0.50
26:1H:536:A:H2'	26:1H:537:C:C6	2.47	0.50
26:1H:664:C:H4'	26:1H:941:A:OP1	2.11	0.50
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.11	0.50
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.12	0.50
26:1H:1206:G:C6	26:1H:1207:C:C4	2.99	0.50
26:1H:2024:G:O6	63:1H:3916:HOH:O	2.14	0.50
26:1H:2299:G:O6	63:1H:3959:HOH:O	2.19	0.50
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2689:U:P	26:1H:2719:G:H22	2.34	0.50
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.46	0.50
36:38:4:LYS:H	36:38:4:LYS:HD3	1.77	0.50
37:48:128:ALA:HA	37:48:131:ALA:HB3	1.94	0.50
42:98:12:ARG:HD3	42:98:16:HIS:CD2	2.47	0.50
42:98:32:GLY:HA2	42:98:116:LEU:CD1	2.42	0.50
1:1G:142:G:H2'	1:1G:143:A:C8	2.47	0.50
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.47	0.50
3:22:117:ALA:HB2	3:22:200:ALA:HB2	1.93	0.50
4:32:191:ARG:O	4:32:191:ARG:HD3	2.12	0.50
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.92	0.50
10:1A:28:ARG:CZ	10:1A:34:VAL:HB	2.42	0.50
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.94	0.50
23:2L:2:G:H2'	23:2L:3:C:C6	2.47	0.50
26:14:278:A:H8	26:14:278:A:O5'	1.95	0.50
26:14:1432:C:H2'	26:14:1433:U:O4'	2.09	0.50
26:14:1701:A:H5"	26:14:1702:G:OP2	2.12	0.50
26:14:2062:A:OP1	63:14:3880:HOH:O	2.19	0.50
26:14:2074:U:P	63:14:3804:HOH:O	2.69	0.50
26:14:2611:U:OP1	63:14:3884:HOH:O	2.19	0.50
26:14:2689:U:H4'	26:14:2690:C:H5'	1.94	0.50
29:19:43:ARG:HD2	29:19:43:ARG:N	2.27	0.50
32:49:44:GLY:HA2	32:49:88:ILE:HD11	1.94	0.50
44:75:3:ARG:HG2	44:75:6:LEU:HB2	1.94	0.50
50:D5:40:ASP:HB3	50:D5:43:GLU:HG3	1.93	0.50
50:D5:152:ALA:HB3	50:D5:167:PRO:HA	1.94	0.50
1:13:280:C:H4'	1:13:281:G:OP2	2.11	0.50
1:13:413:G:N2	1:13:428:G:H1'	2.26	0.50
1:13:952:U:O4	13:4I:104:ARG:HD3	2.12	0.50
4:3E:155:LEU:O	4:3E:158:ILE:N	2.34	0.50
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.60	0.50
11:2I:24:SER:C	11:2I:26:ASN:H	2.14	0.50
17:8I:14:LYS:N	17:8I:14:LYS:HD2	2.27	0.50
22:1K:67:C:H2'	22:1K:68:G:O4'	2.12	0.50
24:3K:8:U:O2	24:3K:13:C:N4	2.45	0.50
26:1H:322:A:P	31:31:168:ARG:HH21	2.34	0.50
26:1H:390:A:OP2	52:J8:26:ARG:NH2	2.45	0.50
26:1H:1169:G:H1	26:1H:1180:C:H42	1.59	0.50
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.27	0.50
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.47	0.50
36:38:39:ALA:HB3	36:38:96:PHE:CE2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:278:G:N7	17:8A:92:ARG:NH2	2.60	0.50
3:22:47:LEU:HD21	3:22:70:VAL:HG22	1.93	0.50
5:42:41:VAL:O	5:42:67:VAL:HG12	2.12	0.50
9:82:29:ASN:HB2	9:82:65:VAL:HG12	1.94	0.50
10:1A:38:ILE:HB	10:1A:71:LEU:HB3	1.94	0.50
17:8A:45:HIS:O	17:8A:73:VAL:HG12	2.11	0.50
26:14:2068:U:N3	26:14:2430:A:H2	2.08	0.50
26:14:2343:C:O2'	26:14:2373:G:O2'	2.06	0.50
26:14:2693:A:H2'	26:14:2694:G:C8	2.45	0.50
27:1J:70:C:H2'	27:1J:71:C:C6	2.43	0.50
29:19:77:ALA:HB2	29:19:97:TYR:CG	2.47	0.50
32:49:53:LEU:HD22	32:49:87:PRO:HB2	1.94	0.50
51:E5:80:HIS:HB3	51:E5:82:ARG:HH21	1.76	0.50
1:13:200:G:H1	1:13:217:C:N4	2.03	0.50
1:13:645:C:H5"	63:13:2218:HOH:O	2.12	0.50
4:3E:108:LEU:HD23	4:3E:110:PHE:CE1	2.46	0.50
19:AI:40:ILE:HG21	19:AI:66:MET:O	2.11	0.50
20:BI:14:LYS:HA	20:BI:17:ARG:HE	1.76	0.50
26:1H:529:A:H4'	26:1H:530:G:H5'	1.94	0.50
26:1H:1101:U:H2'	26:1H:1102:C:H6	1.75	0.50
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.47	0.50
27:16:71:C:C2	27:16:72:G:C8	3.00	0.50
27:16:94:C:H2'	27:16:95:U:H6	1.77	0.50
36:38:16:ASN:O	36:38:22:GLY:HA2	2.12	0.50
1:1G:373:A:N3	1:1G:374:A:C8	2.80	0.50
1:1G:592:G:H1	1:1G:647:C:H42	1.58	0.50
1:1G:717:C:H6	1:1G:717:C:H5"	1.77	0.50
1:1G:992:U:H4'	63:1G:1955:HOH:O	2.11	0.50
12:3A:70:ILE:HG21	12:3A:75:HIS:HD2	1.77	0.50
13:4A:86:CYS:O	13:4A:89:GLY:N	2.32	0.50
22:1L:14:A:O2'	22:1L:15:G:C8	2.64	0.50
26:14:55:G:H2'	26:14:56:A:H8	1.77	0.50
26:14:666:G:H5"	40:35:47:ASP:O	2.12	0.50
26:14:958:U:O2	27:1J:89(A):A:O2'	2.21	0.50
26:14:993:G:N3	46:95:89:GLN:NE2	2.41	0.50
26:14:2702:U:H6	26:14:2702:U:OP1	1.95	0.50
30:29:147:PRO:HB2	30:29:149:ARG:HG3	1.94	0.50
31:39:65:TRP:CZ3	31:39:72:ARG:HB3	2.46	0.50
40:35:95:VAL:HG13	40:35:96:THR:N	2.27	0.50
51:E5:50:ASN:O	51:E5:62:LEU:HB2	2.11	0.50
52:F5:92:LYS:HA	52:F5:95:LEU:HD22	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:82:ARG:HG3	2:1E:92:TYR:CZ	2.47	0.49
9:8E:10:ARG:HG3	9:8E:75:ASP:HB3	1.94	0.49
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.47	0.49
24:3K:8:U:O5'	24:3K:50:G:H5'	2.12	0.49
26:1H:46:C:OP2	26:1H:215:G:H2'	2.11	0.49
26:1H:297:C:H5"	49:G8:86:ARG:CG	2.41	0.49
26:1H:713:G:H2'	26:1H:714:U:C6	2.47	0.49
26:1H:1045:A:C2	26:1H:1111:A:C5	3.00	0.49
26:1H:1366:A:H2'	26:1H:1367:A:H5'	1.94	0.49
26:1H:1639:U:O2'	26:1H:1640:C:H5'	2.11	0.49
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.47	0.49
26:1H:2038:G:H2'	26:1H:2039:C:C6	2.47	0.49
30:21:65:GLY:HA2	30:21:70:ALA:CB	2.41	0.49
36:38:29:TYR:HB3	36:38:31:GLY:H	1.76	0.49
38:58:45:ASN:OD1	38:58:46:VAL:HG23	2.12	0.49
40:78:64:LYS:HA	59:Q8:13:ARG:HB3	1.94	0.49
41:88:109:VAL:HG12	41:88:110:THR:O	2.11	0.49
48:F8:65:ARG:O	48:F8:66:LEU:HD12	2.12	0.49
1:1G:861:G:N2	1:1G:872:A:H2	2.10	0.49
1:1G:1338:G:C6	1:1G:1339:A:C6	3.00	0.49
2:12:114:ARG:O	2:12:118:LEU:HG	2.12	0.49
4:32:32:ALA:HA	4:32:35:ARG:HB3	1.93	0.49
13:4A:8:GLU:CG	13:4A:9:ILE:H	2.25	0.49
17:8A:88:TYR:CE1	17:8A:92:ARG:HD2	2.47	0.49
22:1L:65:C:H2'	22:1L:66:C:C6	2.47	0.49
26:14:11:G:H2'	26:14:12:U:C6	2.47	0.49
26:14:580:C:H2'	26:14:581:C:C6	2.47	0.49
26:14:748:G:O6	47:A5:90:ARG:NH1	2.45	0.49
26:14:2582:G:OP2	63:14:3727:HOH:O	2.19	0.49
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.47	0.49
26:14:2807:G:H22	26:14:2892:A:H62	1.58	0.49
30:29:14:ILE:HD11	30:29:173:VAL:HG11	1.93	0.49
31:39:167:ALA:HB1	31:39:173:VAL:HG11	1.94	0.49
33:59:24:VAL:HG11	33:59:72:ILE:HD13	1.94	0.49
33:59:26:VAL:HG13	33:59:27:LYS:H	1.76	0.49
33:59:75:ALA:O	33:59:79:VAL:HG22	2.12	0.49
35:69:110:ASP:H	35:69:130:TYR:HH	1.57	0.49
40:35:3:LEU:H	40:35:3:LEU:HD12	1.76	0.49
46:95:18:LEU:O	46:95:96:ILE:HG12	2.12	0.49
1:13:160:A:C5	1:13:344:A:N7	2.79	0.49
1:13:431:A:H2'	1:13:432:A:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:584:G:C5'	17:8I:91:ARG:HH21	2.25	0.49
1:13:945:G:C2	1:13:946:A:C8	3.00	0.49
1:13:1028(A):C:H42	1:13:1032(A):G:H1	1.60	0.49
1:13:1118:C:P	9:8E:104:ARG:HH11	2.35	0.49
1:13:1174:G:H2'	1:13:1175:G:C8	2.46	0.49
7:6E:18:TYR:CG	7:6E:59:LEU:HD12	2.47	0.49
8:7E:106:GLY:O	8:7E:122:ARG:NH2	2.31	0.49
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.93	0.49
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.77	0.49
17:8I:88:TYR:CD1	17:8I:89:LEU:HD22	2.45	0.49
23:2K:16:C:H2'	23:2K:17:C:C5	2.47	0.49
26:1H:2751:G:O5'	26:1H:2751:G:C8	2.65	0.49
29:11:68:LYS:HB3	29:11:70:TRP:CE3	2.47	0.49
33:51:86:GLU:HG3	33:51:87:LEU:H	1.78	0.49
37:48:101:TRP:CD1	37:48:101:TRP:N	2.79	0.49
40:78:68:GLN:HG2	59:Q8:12:LYS:HD3	1.93	0.49
46:D8:21:ARG:HG2	46:D8:91:TYR:CE2	2.47	0.49
50:H8:7:ALA:HB2	50:H8:59:LEU:HD13	1.92	0.49
50:H8:126:VAL:HG12	50:H8:163:LEU:HA	1.94	0.49
53:K8:15:LYS:HD3	53:K8:67:LYS:NZ	2.27	0.49
1:1G:410:G:N1	1:1G:429:U:O2	2.44	0.49
3:22:149:ALA:HA	3:22:201:TYR:O	2.12	0.49
4:32:13:ARG:C	4:32:15:GLU:H	2.16	0.49
26:14:221:A:N6	26:14:265:A:C8	2.80	0.49
26:14:483:A:O3'	49:C5:49:VAL:HG23	2.12	0.49
26:14:567:A:OP2	40:35:29:LYS:NZ	2.42	0.49
26:14:994:C:OP1	45:85:53:ARG:NH2	2.45	0.49
27:1J:116:G:H5"	43:65:55:ALA:HB2	1.93	0.49
33:59:88:LEU:H	33:59:88:LEU:HD12	1.75	0.49
43:65:53:SER:O	43:65:54:LEU:HD23	2.12	0.49
48:B5:26:TYR:HE2	48:B5:83:VAL:HG11	1.76	0.49
1:13:247:G:C2	1:13:248:C:C6	3.00	0.49
1:13:757:U:OP1	1:13:822:C:O2'	2.27	0.49
1:13:1133:G:H2'	1:13:1134:G:H8	1.74	0.49
4:3E:108:LEU:HB3	4:3E:110:PHE:CD1	2.47	0.49
10:1I:48:THR:CA	10:1I:62:HIS:HB3	2.39	0.49
26:1H:1050:A:N7	33:51:3:ARG:NH1	2.60	0.49
26:1H:1051:G:OP2	26:1H:1051:G:H8	1.95	0.49
26:1H:1466:G:H2'	26:1H:1547:C:N4	2.27	0.49
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.12	0.49
26:1H:2209:C:O2	26:1H:2216:G:C2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:43:C:P	32:41:67:LYS:HZ1	2.35	0.49
27:16:78:A:H2'	27:16:79:C:O4'	2.12	0.49
28:71:14:VAL:HG23	28:71:221:SER:HB3	1.93	0.49
28:71:27:HIS:CG	28:71:182:PRO:HB2	2.47	0.49
32:41:67:LYS:HE2	55:M8:6:HIS:CE1	2.48	0.49
40:78:113:LYS:HA	40:78:129:ALA:O	2.12	0.49
53:K8:42:GLY:O	53:K8:44:LEU:N	2.45	0.49
1:1G:108:G:P	1:1G:326:G:H22	2.35	0.49
1:1G:115:G:H4'	1:1G:116:A:O5'	2.12	0.49
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.12	0.49
1:1G:646:U:H2'	1:1G:647:C:C6	2.47	0.49
1:1G:714:G:H2'	1:1G:715:A:C8	2.47	0.49
1:1G:980:C:H5'	1:1G:981:U:C5	2.48	0.49
1:1G:1227:A:P	13:4A:111:LYS:HZ3	2.35	0.49
2:12:42:ILE:HG13	2:12:43:ASP:N	2.27	0.49
5:42:60:TYR:O	5:42:64:ARG:HG2	2.12	0.49
6:52:17:SER:O	6:52:21:LEU:HB2	2.13	0.49
26:14:329:G:O6	49:C5:19:LYS:HB3	2.12	0.49
26:14:579:G:H2'	26:14:580:C:H6	1.76	0.49
26:14:579:G:H2'	26:14:580:C:C6	2.46	0.49
26:14:603:A:H8	26:14:604:G:H1'	1.77	0.49
26:14:1268:A:H2'	26:14:1269:A:O4'	2.11	0.49
26:14:1384:A:N3	26:14:1405:U:H1'	2.27	0.49
26:14:1717:G:H1	26:14:1742:C:H42	1.61	0.49
26:14:1858:G:O6	63:14:3857:HOH:O	2.15	0.49
26:14:2151:G:H2'	26:14:2152:G:O4'	2.13	0.49
31:39:185:ASP:CG	31:39:188:ARG:HH21	2.14	0.49
39:25:113:LYS:NZ	63:25:301:HOH:O	2.44	0.49
40:35:126:VAL:HA	40:35:145:PRO:HG2	1.95	0.49
44:75:61:PHE:CE1	44:75:76:PHE:HB2	2.47	0.49
50:D5:44:PHE:O	50:D5:48:PHE:N	2.42	0.49
1:13:73:G:H2'	1:13:74:C:C6	2.47	0.49
1:13:429:U:O3'	4:3E:22:LYS:HE3	2.12	0.49
1:13:626:U:H2'	1:13:627:G:H8	1.76	0.49
1:13:626:U:H2'	1:13:627:G:C8	2.48	0.49
1:13:767:A:H2'	1:13:768:A:O4'	2.13	0.49
1:13:1335:C:H1'	63:13:1928:HOH:O	2.10	0.49
2:1E:97:TRP:HH2	2:1E:176:GLU:HG3	1.77	0.49
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.94	0.49
23:2K:20:G:H4'	23:2K:21:U:OP1	2.13	0.49
26:1H:226:G:H21	26:1H:228:A:H2	1.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1442:G:C2	26:1H:1550:C:O2	2.66	0.49
35:61:3:VAL:HG12	35:61:38:LEU:HA	1.94	0.49
35:61:47:LEU:O	35:61:51:ILE:HG13	2.12	0.49
36:38:16:ASN:N	36:38:19:ARG:HB3	2.28	0.49
36:38:45:LYS:O	36:38:46:GLN:HG2	2.11	0.49
41:88:51:ARG:O	41:88:55:VAL:HG13	2.13	0.49
50:H8:120:ILE:HB	50:H8:171:ILE:HA	1.94	0.49
55:M8:23:GLU:O	55:M8:25:TYR:N	2.38	0.49
58:P8:24:THR:HG23	58:P8:27:GLY:H	1.77	0.49
1:1G:87:A:H4'	1:1G:88:C:OP1	2.10	0.49
12:3A:104:VAL:O	12:3A:105:TYR:O	2.29	0.49
15:6A:33:THR:HG21	15:6A:85:LEU:HD22	1.95	0.49
26:14:1069:A:C8	26:14:1073:A:C5	3.01	0.49
26:14:2027:G:H2'	26:14:2028:U:O4'	2.13	0.49
26:14:2148:G:H2'	26:14:2149:G:C8	2.43	0.49
26:14:2377:A:H2'	26:14:2378:A:C8	2.47	0.49
26:14:2489:G:C6	26:14:2490:G:C6	3.01	0.49
26:14:2748:A:H2'	26:14:2749:A:H8	1.78	0.49
27:1J:11:C:H3'	27:1J:12:C:H6	1.77	0.49
30:29:61:ARG:HA	30:29:63:LEU:HD22	1.95	0.49
31:39:165:ARG:HB3	31:39:165:ARG:HH11	1.77	0.49
46:95:21:ARG:NH2	46:95:65:GLY:O	2.45	0.49
51:E5:72:ARG:HH21	51:E5:75:LEU:CD1	2.26	0.49
58:L5:26:GLY:O	58:L5:30:VAL:HG23	2.12	0.49
1:13:223:U:H2'	1:13:224:C:H6	1.77	0.49
1:13:674:G:H2'	1:13:675:A:C8	2.47	0.49
1:13:881:G:P	12:3I:12:ARG:HH22	2.36	0.49
1:13:976:G:OP1	14:5I:32:SER:N	2.38	0.49
17:8I:100:LYS:CB	17:8I:101:ARG:HE	2.26	0.49
20:BI:82:SER:OG	20:BI:86:ARG:HD2	2.12	0.49
26:1H:412:A:H3'	26:1H:413:C:H6	1.76	0.49
26:1H:547:A:H2'	26:1H:548:A:N7	2.27	0.49
26:1H:654(Q):C:O2'	26:1H:654(R):C:OP1	2.27	0.49
26:1H:973:A:O4'	26:1H:1188:U:C6	2.65	0.49
26:1H:1580:A:H5'	26:1H:1581:G:OP2	2.11	0.49
26:1H:1630(A):C:H2'	63:1H:3787:HOH:O	2.12	0.49
26:1H:1845:G:N7	63:1H:4105:HOH:O	2.35	0.49
26:1H:1932:A:OP2	63:1H:3964:HOH:O	2.20	0.49
26:1H:2298:A:H62	26:1H:2318:G:H8	1.59	0.49
26:1H:2438:U:O3'	26:1H:2439:A:H3'	2.13	0.49
29:11:35:LYS:NZ	29:11:35:LYS:HB3	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:233:HIS:HA	63:11:405:HOH:O	2.12	0.49
37:48:54:PRO:HD2	37:48:72:PRO:HB3	1.93	0.49
38:58:55:VAL:HB	38:58:126:PRO:HA	1.93	0.49
39:68:68:GLU:CD	39:68:68:GLU:H	2.16	0.49
45:C8:108:GLU:OE1	45:C8:112:ARG:NH1	2.46	0.49
50:H8:53:ILE:HG22	50:H8:71:VAL:HG13	1.94	0.49
1:1G:191(F):U:H2'	1:1G:191:G:H8	1.78	0.49
1:1G:345:C:H5'	1:1G:346:G:C5	2.47	0.49
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.47	0.49
5:42:68:GLU:HG3	5:42:68:GLU:O	2.12	0.49
13:4A:40:ASN:HD22	13:4A:43:THR:HB	1.77	0.49
17:8A:66:SER:OG	17:8A:67:LYS:O	2.30	0.49
24:3L:52:A:N6	24:3L:64:U:H3	2.11	0.49
24:3L:57:C:C6	26:14:2169:A:H1'	2.47	0.49
26:14:68:G:H2'	26:14:69:C:C6	2.46	0.49
26:14:831:G:N2	40:35:53:GLY:O	2.45	0.49
26:14:1027:A:C2	26:14:2488:A:H5'	2.47	0.49
26:14:1794:U:O2'	26:14:1795:C:H5'	2.13	0.49
26:14:1938:A:OP2	63:14:3888:HOH:O	2.20	0.49
26:14:2698:U:H2'	26:14:2699:C:C6	2.48	0.49
29:19:268:ARG:HG2	29:19:268:ARG:O	2.12	0.49
32:49:66:GLN:HE21	32:49:94:LEU:HD23	1.76	0.49
48:B5:12:VAL:HG22	48:B5:27:THR:HB	1.94	0.49
53:G5:25:VAL:HG12	53:G5:60:LEU:HD23	1.93	0.49
58:L5:31:LEU:HD22	58:L5:42:LEU:HD13	1.94	0.49
1:13:46:G:H2'	1:13:366:C:H5	1.77	0.49
1:13:186:C:H2'	1:13:186(A):C:C6	2.48	0.49
1:13:503:C:O2	1:13:542:G:N2	2.38	0.49
1:13:1201:A:H5'	63:13:2010:HOH:O	2.12	0.49
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.94	0.49
26:1H:729:G:C4	26:1H:1775:U:O2	2.66	0.49
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.77	0.49
26:1H:1907:G:H2'	26:1H:1908:C:C6	2.47	0.49
26:1H:2510:C:H2'	26:1H:2511:U:H6	1.77	0.49
27:16:95:U:H2'	27:16:96:G:H8	1.76	0.49
31:31:20:LEU:HD12	31:31:21:ALA:H	1.78	0.49
32:41:41:GLN:NE2	32:41:154:GLY:O	2.41	0.49
56:N8:2:ALA:O	56:N8:3:LYS:HD2	2.12	0.49
1:1G:193:C:H2'	1:1G:194:C:H6	1.78	0.49
1:1G:804:U:H5"	1:1G:805:C:OP2	2.12	0.49
1:1G:1095:U:H5"	1:1G:1109:C:O2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:335:C:H2'	26:14:336:C:H6	1.76	0.49
26:14:817:C:H5	63:14:4755:HOH:O	1.95	0.49
26:14:1198:U:H2'	26:14:1199:U:C6	2.47	0.49
26:14:1310:G:OP2	58:L5:9:ARG:NE	2.35	0.49
26:14:1914:C:H2'	26:14:1915:U:O4'	2.12	0.49
26:14:2114:A:H5"	26:14:2117:A:H5'	1.94	0.49
26:14:2785:C:H2'	26:14:2786:U:O4'	2.12	0.49
47:A5:65:LEU:HD13	47:A5:68:ARG:HD3	1.93	0.49
48:B5:83:VAL:HG22	48:B5:87:GLN:HB2	1.95	0.49
51:E5:21:LEU:HD21	51:E5:41:ARG:HH12	1.76	0.49
1:13:11:G:C5	1:13:12:U:C5	3.00	0.49
1:13:618:C:H5"	1:13:619:U:H5"	1.95	0.49
1:13:1112:C:O2	3:2E:179:ARG:HG3	2.13	0.49
1:13:1234:C:H2'	1:13:1235:U:C6	2.47	0.49
1:13:1466:C:OP2	63:13:1962:HOH:O	2.20	0.49
4:3E:173:TRP:HB3	4:3E:187:ARG:NH1	2.28	0.49
5:4E:42:GLY:HA2	5:4E:65:ASN:O	2.12	0.49
22:1K:22:A:C6	22:1K:47:7MG:C6	3.01	0.49
26:1H:723:G:H2'	26:1H:724:U:O4'	2.13	0.49
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.95	0.49
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.23	0.49
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.43	0.49
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.13	0.49
28:71:190:ARG:HG2	28:71:194:ARG:NH2	2.28	0.49
30:21:49:LEU:HD21	30:21:91:VAL:HG21	1.94	0.49
36:38:87:VAL:O	36:38:87:VAL:HG13	2.13	0.49
46:D8:44:LYS:C	46:D8:46:VAL:H	2.16	0.49
51:I8:10:THR:HG23	51:I8:10:THR:O	2.11	0.49
53:K8:16:LEU:O	53:K8:16:LEU:HD23	2.13	0.49
1:1G:1247:U:H2'	1:1G:1248:A:O4'	2.13	0.49
2:12:69:LEU:HB3	2:12:162:ILE:HG22	1.95	0.49
9:82:5:TYR:HA	9:82:17:VAL:O	2.11	0.49
10:1A:50:ILE:HA	10:1A:60:ARG:HB3	1.94	0.49
17:8A:83:ASP:OD1	17:8A:84:LEU:N	2.46	0.49
19:AA:58:VAL:HG22	19:AA:60:VAL:HG13	1.95	0.49
22:1L:33:RSP:S2	22:1L:33:RSP:H2'	2.52	0.49
26:14:510:C:H2'	26:14:511:U:O4'	2.13	0.49
26:14:1251:C:H5	63:14:4270:HOH:O	1.95	0.49
26:14:1414:G:H1	26:14:1588:C:H42	1.60	0.49
26:14:2130:U:HO2'	26:14:2158:A:N6	2.11	0.49
28:79:29:VAL:CG1	28:79:185:LEU:HD13	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:18:ARG:NH2	31:39:20:LEU:HB2	2.28	0.49
46:95:22:VAL:HG22	46:95:23:GLU:H	1.76	0.49
46:95:37:VAL:HG23	46:95:38:LEU:HD13	1.93	0.49
1:13:113:G:H2'	1:13:114:U:C6	2.48	0.49
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.12	0.49
1:13:1053:G:N7	1:13:1199:U:H3'	2.28	0.49
8:7E:58:TYR:O	8:7E:59:LEU:HD23	2.13	0.49
8:7E:86:ILE:HG21	8:7E:133:LEU:HD22	1.93	0.49
9:8E:10:ARG:NH2	9:8E:105:ASP:OD2	2.45	0.49
10:1I:6:ILE:HG22	10:1I:98:ILE:HG23	1.95	0.49
11:2I:21:ILE:HD13	11:2I:94:ALA:HB1	1.94	0.49
26:1H:479:A:H4'	26:1H:480:A:OP1	2.13	0.49
26:1H:805:G:OP2	40:78:41:ARG:HG2	2.12	0.49
26:1H:1855:G:H1	26:1H:1887:C:H42	1.59	0.49
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.48	0.49
29:11:48:ARG:O	29:11:50:THR:HG23	2.13	0.49
31:31:34:TRP:HD1	40:78:6:LEU:HB3	1.78	0.49
36:38:26:LEU:HB3	36:38:112:LEU:HB3	1.93	0.49
37:48:83:GLY:H	37:48:99:ILE:CG2	2.25	0.49
39:68:59:LYS:NZ	39:68:89:ASN:OD1	2.33	0.49
41:88:67:ARG:NH1	41:88:105:GLU:OE1	2.39	0.49
50:H8:10:ARG:NE	50:H8:37:VAL:O	2.43	0.49
1:1G:32:A:C2	1:1G:33:A:C4	3.01	0.49
1:1G:420:U:O2'	1:1G:423:G:O6	2.18	0.49
1:1G:1295:G:HO2'	13:4A:14:ARG:NH1	2.09	0.49
22:1L:26:U:H2'	22:1L:27:A:H8	1.78	0.49
24:3L:9:A:H5'	24:3L:11:C:OP2	2.13	0.49
26:14:270(L):U:O2	35:69:50:ARG:HD3	2.13	0.49
26:14:435:C:N3	63:14:4030:HOH:O	2.35	0.49
26:14:2262:U:OP2	51:E5:19:LYS:HD3	2.12	0.49
27:1J:48:A:O2'	43:65:95:HIS:HE1	1.95	0.49
32:49:75:LYS:HZ1	32:49:77:ILE:HD11	1.77	0.49
46:95:51:VAL:HG12	46:95:52:VAL:N	2.27	0.49
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.78	0.49
1:13:390:C:O2'	16:7I:28:ARG:NH2	2.44	0.49
1:13:724:G:C2	1:13:725:G:C8	3.00	0.49
2:1E:209:ARG:NH1	2:1E:239:VAL:HG22	2.27	0.49
7:6E:61:VAL:HG12	7:6E:124:LEU:HD22	1.93	0.49
7:6E:62:PHE:HD1	7:6E:124:LEU:HD11	1.77	0.49
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.95	0.49
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2016:U:O2	56:N8:7:PRO:HG2	2.11	0.49
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.45	0.49
26:1H:2691:C:H42	26:1H:2718:G:H1	1.60	0.49
63:1H:4103:HOH:O	41:88:23:GLY:HA2	2.12	0.49
30:21:103:ASP:OD1	30:21:201:THR:HG23	2.12	0.49
32:41:84:LYS:O	32:41:84:LYS:HD3	2.13	0.49
40:78:122:PRO:HA	40:78:142:GLY:HA3	1.94	0.49
53:K8:14:ARG:HG2	53:K8:63:VAL:HG13	1.94	0.49
1:1G:34:C:H2'	1:1G:35:G:C8	2.48	0.49
1:1G:91:C:H3'	1:1G:92:G:H8	1.76	0.49
1:1G:141:A:H1'	1:1G:182:U:O2	2.13	0.49
1:1G:792:A:H4'	1:1G:793:U:O5'	2.11	0.49
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.46	0.49
7:62:129:GLU:OE2	7:62:131:LYS:NZ	2.46	0.49
9:82:24:GLY:O	9:82:26:VAL:HG23	2.13	0.49
10:1A:21:GLN:O	10:1A:21:GLN:HG2	2.12	0.49
13:4A:32:GLU:O	13:4A:36:LYS:N	2.40	0.49
20:BA:97:ALA:HB3	20:BA:99:LEU:HD11	1.95	0.49
24:3L:2:C:H2'	24:3L:3:A:C8	2.48	0.49
26:14:468:G:N7	58:L5:39:ARG:NH2	2.61	0.49
26:14:911:A:C5	41:45:9:TYR:CD2	3.01	0.49
30:29:32:PRO:O	30:29:34:VAL:HG23	2.13	0.49
35:69:45:LYS:HA	35:69:48:GLU:HB3	1.93	0.49
35:69:127:VAL:HA	35:69:138:ILE:O	2.12	0.49
40:35:122:PRO:CA	40:35:141:ALA:HB1	2.43	0.49
40:35:128:HIS:HA	40:35:147:LEU:HB3	1.95	0.49
41:45:3:MET:HB2	41:45:93:TYR:CD2	2.47	0.49
43:65:67:ARG:HB2	43:65:67:ARG:HH11	1.78	0.49
44:75:3:ARG:HG2	44:75:6:LEU:H	1.78	0.49
45:85:95:LEU:HD13	46:95:4:ILE:HG23	1.95	0.49
1:13:339:C:OP2	39:68:97:ARG:NH1	2.38	0.49
5:4E:151:LEU:HD21	8:7E:77:GLU:OE2	2.13	0.49
15:6I:14:GLU:HG3	15:6I:15:PHE:CD2	2.48	0.49
24:3K:18:G:H21	24:3K:59:A:H5'	1.78	0.49
26:1H:276:A:C8	26:1H:278:A:N1	2.81	0.49
26:1H:654(B):C:H2'	26:1H:654(C):G:O4'	2.13	0.49
32:41:83:ARG:H	32:41:86:MET:HE2	1.78	0.49
36:38:11:ALA:HA	36:38:58:LEU:HD22	1.94	0.49
49:G8:89:PHE:CE1	49:G8:91:GLU:HB3	2.48	0.49
50:H8:117:LEU:HD12	50:H8:118:GLN:N	2.28	0.49
1:1G:49:U:C2	1:1G:361:G:N2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:574:A:P	63:1G:1861:HOH:O	2.70	0.49
1:1G:986:A:H1'	19:AA:55:LYS:HA	1.94	0.49
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.78	0.49
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.13	0.49
10:1A:54:PHE:CE1	10:1A:55:LYS:HE3	2.48	0.49
26:14:289:A:H3'	26:14:290:G:H8	1.77	0.49
26:14:952:G:C6	26:14:966:G:C6	3.01	0.49
26:14:2143:C:H42	26:14:2148:G:H1	1.60	0.49
26:14:2649:U:H3	26:14:2671:A:H61	1.59	0.49
26:14:2788:C:P	30:29:61:ARG:HH12	2.36	0.49
28:79:181:PRO:HD2	28:79:184:LYS:HD2	1.95	0.49
28:79:183:GLU:H	28:79:183:GLU:HG2	1.39	0.49
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.47	0.49
30:29:13:ARG:HA	30:29:21:VAL:O	2.13	0.49
44:75:54:ARG:HA	44:75:59:THR:HB	1.95	0.49
46:95:61:VAL:HG12	46:95:63:GLY:H	1.78	0.49
51:E5:11:ARG:O	51:E5:14:ARG:NH2	2.45	0.49
1:13:1132:C:H2'	1:13:1133:G:C8	2.42	0.48
1:13:1317:C:H5"	1:13:1318:A:OP2	2.13	0.48
1:13:1455:G:H5"	20:BI:31:SER:HB2	1.95	0.48
4:3E:36:ARG:O	4:3E:38:TYR:N	2.45	0.48
6:5E:3:ARG:HD3	6:5E:38:GLU:OE1	2.13	0.48
12:3I:10:LEU:HB3	17:8I:32:TYR:CD2	2.48	0.48
24:3K:3:A:H2'	24:3K:4:U:O4'	2.12	0.48
26:1H:739:G:P	63:1H:3870:HOH:O	2.68	0.48
26:1H:863:A:H2'	26:1H:864:G:H8	1.78	0.48
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.45	0.48
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.10	0.48
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.76	0.48
26:1H:2287:A:C2	26:1H:2346:A:C2	3.01	0.48
26:1H:2780:G:P	38:58:118:LYS:HE2	2.53	0.48
42:98:50:HIS:O	42:98:54:LEU:HD22	2.13	0.48
55:M8:10:VAL:HG22	55:M8:11:PRO:HD2	1.95	0.48
1:1G:186(F):C:H5"	1:1G:187:C:OP2	2.12	0.48
1:1G:1170:A:C2	1:1G:1171:G:H1'	2.48	0.48
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.13	0.48
4:32:138:TYR:HE1	4:32:140:VAL:HA	1.78	0.48
7:62:102:ARG:O	7:62:106:GLN:HG2	2.14	0.48
8:72:33:GLU:HG3	8:72:48:TYR:CE2	2.47	0.48
11:2A:79:SER:OG	11:2A:106:LYS:HD2	2.13	0.48
12:3A:70:ILE:CD1	12:3A:77:LEU:HD12	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:14:A:H5"	26:14:15:G:OP2	2.13	0.48
26:14:68:G:H2'	26:14:69:C:O4'	2.12	0.48
26:14:270(L):U:O2	35:69:50:ARG:NH1	2.42	0.48
26:14:1418:G:H2'	26:14:1579:A:H62	1.78	0.48
26:14:2277:G:OP2	51:E5:12:ASN:ND2	2.46	0.48
26:14:2291:U:H2'	26:14:2292:C:C6	2.48	0.48
26:14:2611:U:H3'	26:14:2611:U:OP2	2.13	0.48
29:19:225:ALA:O	63:19:302:HOH:O	2.20	0.48
32:49:77:ILE:H	32:49:82:LEU:HD12	1.78	0.48
35:69:81:VAL:HG11	35:69:88:ILE:HG12	1.95	0.48
50:D5:110:GLY:O	50:D5:111:VAL:C	2.52	0.48
50:D5:156:LYS:N	50:D5:156:LYS:HD2	2.28	0.48
50:D5:176:PRO:CG	50:D5:178:GLU:HG2	2.42	0.48
51:E5:51:VAL:N	51:E5:62:LEU:HD12	2.28	0.48
1:13:600:C:H2'	1:13:601:C:C6	2.48	0.48
1:13:1095:U:H2'	1:13:1096:C:C6	2.47	0.48
1:13:1286:A:C2	21:1F:18:TYR:OH	2.66	0.48
1:13:1497:G:H2'	1:13:1498:U:H5'	1.94	0.48
1:13:1499:A:H1'	1:13:1520:G:O5'	2.13	0.48
2:1E:162:ILE:HD11	2:1E:182:ILE:HG21	1.95	0.48
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.12	0.48
14:5I:8:GLU:O	14:5I:11:LYS:N	2.44	0.48
18:9I:74:ARG:HG2	18:9I:79:LEU:HB2	1.94	0.48
24:3K:72:G:C2	24:3K:73:C:H1'	2.48	0.48
26:1H:18:C:O3'	45:C8:23:GLY:HA2	2.13	0.48
26:1H:479:A:N3	26:1H:481:G:H5"	2.27	0.48
26:1H:1022:G:O6	38:58:66:LYS:NZ	2.45	0.48
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.94	0.48
26:1H:1534:G:C2	26:1H:1535:U:C6	3.02	0.48
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.48	0.48
26:1H:2428:G:N7	63:1H:4112:HOH:O	2.35	0.48
27:16:1:U:H2'	27:16:2:C:C6	2.48	0.48
27:16:42:C:O2	32:41:92:VAL:HA	2.12	0.48
29:11:218:ARG:HB3	29:11:219:PRO:HD2	1.95	0.48
31:31:28:ILE:HG22	31:31:112:MET:HE3	1.95	0.48
32:41:124:SER:HB2	32:41:131:TYR:CE1	2.48	0.48
36:38:50:ARG:O	36:38:51:LEU:HB2	2.13	0.48
38:58:108:PRO:O	38:58:113:GLY:HA3	2.12	0.48
1:1G:373:A:H2'	1:1G:374:A:H8	1.78	0.48
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.96	0.48
5:42:33:VAL:HA	5:42:42:GLY:O	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:120:THR:HG22	8:72:123:GLU:H	1.78	0.48
9:82:63:ILE:HD11	9:82:81:ILE:HD11	1.95	0.48
10:1A:78:ASN:O	10:1A:82:ILE:N	2.39	0.48
12:3A:83:VAL:HG13	12:3A:84:LEU:N	2.27	0.48
26:14:589:C:H5"	31:39:95:ARG:NH1	2.27	0.48
26:14:1268:A:P	63:14:3748:HOH:O	2.66	0.48
26:14:1461:G:H2'	26:14:1462:C:H6	1.77	0.48
26:14:1747:G:H2'	26:14:1748:G:H8	1.78	0.48
27:1J:15:A:H3'	27:1J:16:G:H5'	1.95	0.48
33:59:104:GLU:HG3	33:59:114:VAL:HG22	1.95	0.48
35:69:27:ARG:HB2	52:F5:71:TYR:CZ	2.47	0.48
43:65:18:ILE:HA	43:65:20:ARG:HH11	1.78	0.48
48:B5:8:ILE:O	53:G5:36:ARG:NH2	2.46	0.48
51:E5:19:LYS:C	51:E5:20:ARG:HG2	2.34	0.48
1:13:241:C:C2	1:13:286:G:C2	3.01	0.48
1:13:455:C:H42	1:13:477:G:H22	1.61	0.48
1:13:590:C:OP1	8:7E:30:ARG:N	2.37	0.48
1:13:954:G:H2'	1:13:955:U:C6	2.48	0.48
1:13:1143:G:N2	1:13:1144:G:N3	2.61	0.48
16:7I:5:ARG:HE	16:7I:22:THR:HG22	1.78	0.48
17:8I:56:VAL:O	17:8I:77:VAL:HB	2.13	0.48
24:3K:34:U:O2'	24:3K:35:A:H3'	2.13	0.48
26:1H:484:C:OP2	49:G8:50:ARG:NH2	2.46	0.48
26:1H:1435:G:OP2	63:1H:3963:HOH:O	2.20	0.48
27:16:11:C:H3'	27:16:12:C:H6	1.78	0.48
28:71:43:VAL:HB	28:71:173:ALA:H	1.78	0.48
31:31:183:VAL:O	31:31:187:VAL:HG23	2.14	0.48
32:41:105:LYS:HD3	55:M8:26:SER:HB2	1.93	0.48
33:51:4:ILE:HG12	33:51:6:ARG:CZ	2.42	0.48
37:48:12:LEU:HD21	37:48:53:VAL:O	2.13	0.48
40:78:95:VAL:O	40:78:126:VAL:HG23	2.12	0.48
41:88:35:VAL:CG1	41:88:130:LYS:HB3	2.43	0.48
46:D8:47:VAL:HG22	46:D8:48:GLY:N	2.28	0.48
1:1G:113:G:O4'	1:1G:354:G:H4'	2.13	0.48
1:1G:164:U:H2'	1:1G:165:C:C6	2.49	0.48
1:1G:371:G:O2'	1:1G:373:A:N7	2.45	0.48
1:1G:1090:U:H4'	1:1G:1170:A:H2	1.78	0.48
1:1G:1128:C:H4'	9:82:16:ARG:NH1	2.18	0.48
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.28	0.48
2:12:109:SER:HA	2:12:112:VAL:HG23	1.94	0.48
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.78	0.48
26:14:277:C:H5"	26:14:278:A:OP2	2.13	0.48
26:14:1062:G:H2'	26:14:1063:G:H8	1.77	0.48
26:14:1204:A:N1	26:14:1241:A:H2	2.10	0.48
28:79:212:VAL:HB	28:79:224:ILE:HG13	1.95	0.48
30:29:5:LEU:HD22	30:29:5:LEU:N	2.28	0.48
30:29:169:ASN:H	30:29:201:THR:HG23	1.79	0.48
31:39:197:ASP:OD1	31:39:197:ASP:N	2.41	0.48
33:59:139:GLN:O	33:59:143:GLN:HB2	2.13	0.48
40:35:57:THR:O	40:35:60:MET:N	2.46	0.48
49:C5:39:VAL:HG23	49:C5:41:GLY:H	1.78	0.48
50:D5:99:TYR:HA	50:D5:124:ILE:O	2.13	0.48
1:13:982:U:H5"	14:5I:6:LEU:HD11	1.96	0.48
2:1E:67:THR:HB	2:1E:157:ARG:HE	1.78	0.48
3:2E:162:GLN:HG2	25:4K:25:A:H61	1.78	0.48
11:2I:33:THR:HA	11:2I:39:PRO:HA	1.93	0.48
14:5I:53:LEU:HB3	14:5I:56:VAL:CG2	2.43	0.48
18:9I:22:VAL:HG22	18:9I:42:ARG:NH2	2.29	0.48
18:9I:36:ASN:HD22	18:9I:39:VAL:HB	1.78	0.48
23:2K:45:A:H2'	23:2K:46:G:O4'	2.12	0.48
24:3K:16:C:C2	24:3K:62:C:H5"	2.48	0.48
26:1H:64:A:C4	48:F8:66:LEU:HD22	2.49	0.48
26:1H:67:U:H2'	26:1H:68:G:C8	2.48	0.48
26:1H:151:C:H2'	26:1H:152:G:H8	1.78	0.48
26:1H:617:G:OP1	31:31:40:GLN:NE2	2.47	0.48
26:1H:893:C:H5'	26:1H:894:C:OP2	2.14	0.48
26:1H:2881:C:H2'	26:1H:2882:A:H8	1.78	0.48
28:71:163:PHE:CD2	28:71:196:LEU:HD13	2.48	0.48
35:61:29:TYR:CD1	35:61:33:ARG:HD2	2.48	0.48
45:C8:49:HIS:HA	45:C8:52:ARG:HG2	1.95	0.48
51:I8:23:VAL:HG13	51:I8:38:VAL:HG22	1.94	0.48
1:1G:181:G:O2'	1:1G:183:G:O6	2.24	0.48
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.29	0.48
1:1G:983:A:H2	1:1G:984:C:C6	2.30	0.48
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.46	0.48
1:1G:1260:C:OP1	1:1G:1284:C:H4'	2.13	0.48
6:52:7:ASN:N	6:52:7:ASN:OD1	2.47	0.48
7:62:106:GLN:O	7:62:110:GLN:HG2	2.12	0.48
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.14	0.48
26:14:68:G:H2'	26:14:69:C:H6	1.77	0.48
26:14:125:G:H1'	58:L5:13:ALA:HB1	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:873:G:H1'	41:45:29:PHE:HE2	1.79	0.48
26:14:2177:C:H2'	26:14:2178:C:O4'	2.12	0.48
26:14:2461:C:H42	26:14:2489:G:H1	1.61	0.48
27:1J:7:G:H3'	27:1J:8:U:H5"	1.94	0.48
27:1J:88:C:O5'	27:1J:88:C:H6	1.96	0.48
29:19:172:TYR:CD1	29:19:186:HIS:HA	2.49	0.48
31:39:117:ARG:NH2	31:39:189:THR:O	2.43	0.48
32:49:64:THR:HB	32:49:94:LEU:HD11	1.95	0.48
40:35:59:LEU:HD21	59:M5:10:ALA:HA	1.95	0.48
50:D5:19:ARG:NH1	50:D5:84:GLU:O	2.46	0.48
59:M5:23:VAL:HG22	59:M5:47:LYS:HB3	1.95	0.48
1:13:1014:A:H4'	19:AI:14:HIS:ND1	2.28	0.48
1:13:1331:G:OP1	1:13:1331:G:H4'	2.12	0.48
4:3E:88:VAL:C	4:3E:90:GLY:H	2.15	0.48
9:8E:114:TYR:CE1	10:1I:59:SER:HA	2.48	0.48
21:1F:9:ARG:NH2	21:1F:23:PRO:HD2	2.28	0.48
23:2K:2:G:H2'	23:2K:2:G:N3	2.28	0.48
26:1H:412:A:H5"	26:1H:413:C:OP2	2.13	0.48
26:1H:534:U:H5'	45:C8:42:ALA:CB	2.43	0.48
26:1H:863:A:H2'	26:1H:864:G:C8	2.48	0.48
26:1H:881:G:H3'	26:1H:882:G:C4'	2.42	0.48
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.13	0.48
26:1H:1348:G:H5"	26:1H:1349:A:OP2	2.14	0.48
26:1H:2199:A:H5'	26:1H:2205:C:OP2	2.13	0.48
26:1H:2658:C:H5"	33:51:158:HIS:CD2	2.48	0.48
27:16:50:G:OP1	43:A8:63:THR:HG23	2.13	0.48
28:71:53:ARG:HB3	28:71:55:ASP:OD1	2.13	0.48
29:11:35:LYS:NZ	29:11:35:LYS:N	2.61	0.48
40:78:50:ARG:HD3	59:Q8:7:HIS:HE2	1.76	0.48
43:A8:36:TYR:N	43:A8:36:TYR:CD1	2.81	0.48
52:J8:30:VAL:HG23	52:J8:30:VAL:O	2.13	0.48
56:N8:36:CYS:HB2	56:N8:49:CYS:SG	2.54	0.48
1:1G:328:C:O2	1:1G:328:C:H2'	2.13	0.48
1:1G:1142:G:H2'	1:1G:1143:G:O4'	2.13	0.48
1:1G:1349:A:P	9:82:118:LYS:HZ1	2.35	0.48
2:12:231:GLU:HB3	2:12:232:PRO:CD	2.44	0.48
12:3A:83:VAL:HG22	12:3A:100:ILE:HG23	1.96	0.48
24:3L:58:G:H2'	24:3L:59:A:H5"	1.95	0.48
26:14:889:C:H2'	26:14:890:A:O4'	2.13	0.48
41:45:34:LEU:HD11	41:45:129:THR:HB	1.96	0.48
1:13:757:U:H2'	1:13:758:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1342:C:H2'	1:13:1343:G:C8	2.47	0.48
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.79	0.48
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.13	0.48
9:8E:112:LYS:HD2	9:8E:113:LYS:H	1.77	0.48
16:7I:72:ARG:HD3	16:7I:73:LEU:HD23	1.96	0.48
20:BI:100:ILE:HD13	20:BI:101:GLY:H	1.79	0.48
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.94	0.48
26:1H:731:C:H5"	63:1H:4115:HOH:O	2.13	0.48
26:1H:946:G:P	63:1H:3736:HOH:O	2.71	0.48
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.49	0.48
26:1H:1067:A:N3	26:1H:1067:A:H2'	2.29	0.48
26:1H:1582:C:H2'	26:1H:1583:A:O4'	2.13	0.48
26:1H:1717:G:H2'	26:1H:1718:G:H8	1.79	0.48
26:1H:2061:G:H3'	63:1H:3763:HOH:O	2.12	0.48
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.49	0.48
26:1H:2791:C:N4	26:1H:2805:G:H1	2.00	0.48
31:31:184:TYR:O	31:31:188:ARG:HG3	2.12	0.48
33:51:28:GLY:H	33:51:79:VAL:HG11	1.77	0.48
36:38:134:LEU:O	36:38:137:GLU:HG2	2.14	0.48
50:H8:117:LEU:HD12	50:H8:118:GLN:H	1.79	0.48
1:1G:59:A:N1	63:1G:1876:HOH:O	2.35	0.48
1:1G:352:C:O2'	1:1G:354:G:OP1	2.28	0.48
1:1G:728:A:H2'	1:1G:729:A:C8	2.48	0.48
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.48	0.48
1:1G:1152:A:H2'	1:1G:1153:C:O4'	2.14	0.48
2:12:149:LEU:HD22	2:12:152:PHE:HB3	1.95	0.48
8:72:23:SER:OG	8:72:24:THR:N	2.46	0.48
8:72:119:LEU:HD13	8:72:123:GLU:HB3	1.96	0.48
10:1A:45:ARG:HB3	10:1A:65:LEU:HB3	1.96	0.48
14:5A:21:TYR:HE1	14:5A:23:ARG:NE	2.11	0.48
18:9A:32:ARG:HD3	18:9A:65:ILE:CD1	2.42	0.48
26:14:1093:G:H22	26:14:1097:U:H5"	1.79	0.48
26:14:2706:G:C2	26:14:2707:G:H1'	2.49	0.48
26:14:2787:C:O3'	30:29:61:ARG:NH1	2.46	0.48
31:39:182:ASN:HD21	31:39:185:ASP:CG	2.17	0.48
32:49:39:ILE:O	32:49:91:ARG:HG2	2.13	0.48
32:49:72:ARG:HD2	32:49:85:GLY:O	2.13	0.48
33:59:33:LEU:CD1	33:59:75:ALA:HA	2.44	0.48
35:69:93:THR:O	35:69:97:ILE:HG13	2.14	0.48
43:65:28:VAL:HG22	43:65:101:LEU:HD23	1.96	0.48
43:65:34:HIS:CG	43:65:54:LEU:HD21	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:6:G:OP2	4:3E:85:LYS:NZ	2.34	0.48
1:13:537:G:OP1	12:3I:113:ARG:NH1	2.45	0.48
1:13:555:C:P	12:3I:20:LYS:HZ1	2.37	0.48
1:13:607:A:C2	16:7I:31:LYS:HG3	2.49	0.48
2:1E:48:MET:HA	2:1E:51:LEU:HB2	1.96	0.48
2:1E:209:ARG:HD2	2:1E:235:SER:HB2	1.96	0.48
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.48	0.48
16:7I:28:ARG:HD2	16:7I:29:ASP:OD1	2.14	0.48
22:1K:58:G:P	41:88:60:ARG:HH22	2.35	0.48
26:1H:442:G:H1'	31:31:48:THR:HG21	1.96	0.48
26:1H:1083:U:H2'	26:1H:1084:A:H5"	1.95	0.48
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.14	0.48
26:1H:1473:G:H2'	26:1H:1474:C:O4'	2.14	0.48
26:1H:1678:G:H22	26:1H:1989:G:H22	1.57	0.48
63:1H:3848:HOH:O	47:E8:88:ARG:HA	2.13	0.48
28:71:26:ALA:HB1	28:71:185:LEU:O	2.13	0.48
29:11:26:LYS:CD	29:11:29:PRO:HG3	2.34	0.48
30:21:37:ARG:HA	30:21:42:ASP:OD2	2.13	0.48
32:41:98:ARG:NH2	55:M8:1:MET:HG3	2.28	0.48
32:41:131:TYR:CE2	32:41:133:LEU:HD23	2.48	0.48
33:51:94:TYR:OH	33:51:160:LYS:HE3	2.13	0.48
36:38:72:ASP:O	36:38:73:GLY:C	2.51	0.48
40:78:90:ARG:HG2	40:78:91:PHE:CD1	2.48	0.48
43:A8:89:ARG:HG3	43:A8:92:TYR:O	2.13	0.48
44:B8:108:ARG:HA	44:B8:111:ARG:NE	2.28	0.48
1:1G:197:A:C6	1:1G:221:C:H4'	2.49	0.48
2:12:9:GLU:HB2	2:12:217:ARG:HH22	1.76	0.48
6:52:35:ALA:HB2	6:52:67:MET:HE3	1.96	0.48
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.34	0.48
7:62:94:ARG:O	7:62:98:SER:OG	2.30	0.48
11:2A:96:ARG:O	11:2A:99:GLN:HB2	2.14	0.48
13:4A:40:ASN:HB3	13:4A:43:THR:HB	1.95	0.48
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.95	0.48
23:2L:61:U:H5"	23:2L:62:C:H5	1.78	0.48
26:14:375:C:H2'	26:14:376:C:C6	2.48	0.48
26:14:1842:G:O2'	29:19:253:GLN:OE1	2.18	0.48
26:14:2346:A:H5"	26:14:2383:G:H1'	1.96	0.48
26:14:2611:U:C4	56:J5:3:LYS:HG2	2.48	0.48
26:14:2762:G:C8	26:14:2762:G:H5"	2.49	0.48
31:39:4:VAL:HG11	31:39:17:ARG:CZ	2.43	0.48
33:59:104:GLU:HA	33:59:113:VAL:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:25:10:VAL:HG13	39:25:17:ARG:C	2.34	0.48
39:25:59:LYS:HB2	39:25:87:ILE:HG22	1.96	0.48
52:F5:52:ARG:CZ	52:F5:56:GLN:HA	2.43	0.48
53:G5:43:GLN:HG3	53:G5:46:GLN:HE22	1.77	0.48
1:13:984:C:H2'	1:13:985:C:C6	2.48	0.48
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.13	0.48
19:AI:51:VAL:O	19:AI:58:VAL:HG12	2.14	0.48
23:2K:48:U:H1'	23:2K:49:C:P	2.53	0.48
26:1H:34:C:O2'	26:1H:35:G:P	2.71	0.48
26:1H:71:A:H4'	26:1H:72:U:H5"	1.95	0.48
26:1H:151:C:H2'	26:1H:152:G:C8	2.49	0.48
26:1H:270(H):C:H42	26:1H:270(R):G:H1	1.61	0.48
26:1H:355:G:H2'	26:1H:356:G:C8	2.48	0.48
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.81	0.48
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.13	0.48
29:11:183:ARG:NH1	29:11:269:PHE:HB2	2.28	0.48
36:38:46:GLN:HB3	36:38:48:GLY:H	1.79	0.48
36:38:58:LEU:O	36:38:62:ALA:N	2.40	0.48
37:48:138:VAL:O	37:48:139:VAL:HB	2.13	0.48
46:D8:9:GLY:O	46:D8:10:LYS:HG3	2.14	0.48
48:F8:3:THR:C	48:F8:5:TYR:H	2.07	0.48
54:L8:13:ILE:HD13	54:L8:13:ILE:HA	1.61	0.48
2:12:193:ASP:OD1	2:12:196:LEU:HG	2.14	0.48
15:6A:82:ILE:HG22	15:6A:87:ILE:HB	1.95	0.48
24:3L:51:G:H1	24:3L:65:C:H42	1.61	0.48
26:14:223:A:O2'	26:14:420:C:O2	2.30	0.48
26:14:580:C:H2'	26:14:581:C:H6	1.78	0.48
26:14:1328:G:H2'	26:14:1330:C:C5	2.48	0.48
26:14:2110:G:O2'	26:14:2120:G:H5'	2.13	0.48
26:14:2132:U:O4	28:79:6:ARG:NE	2.46	0.48
26:14:2283:C:C2	26:14:2389:G:C2	3.01	0.48
26:14:2287:A:C2	26:14:2346:A:H2	2.32	0.48
41:45:42:ILE:HD13	41:45:97:VAL:HG21	1.96	0.48
41:45:43:THR:HB	41:45:45:GLN:HG2	1.96	0.48
43:65:35:ILE:HB	43:65:97:ARG:NH2	2.28	0.48
45:85:61:TRP:CZ3	45:85:94:ASN:HB2	2.49	0.48
1:13:1151:A:H2'	1:13:1152:A:H8	1.78	0.48
1:13:1285:A:H4'	1:13:1286:A:O5'	2.13	0.48
1:13:1349:A:H2'	1:13:1350:A:H8	1.77	0.48
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.96	0.48
4:3E:209:ARG:HE	4:3E:209:ARG:N	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.94	0.48
6:5E:15:ASP:OD1	6:5E:18:GLN:N	2.39	0.48
6:5E:62:TRP:C	6:5E:63:TYR:HD1	2.16	0.48
22:1K:73:C:H4'	22:1K:74:A:OP1	2.14	0.48
26:1H:705:A:C8	26:1H:727:A:C2	3.02	0.48
26:1H:934:G:H2'	26:1H:935:C:C6	2.48	0.48
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.49	0.48
26:1H:1689:A:N6	26:1H:1698:A:H2	2.07	0.48
26:1H:1693:U:H1'	29:11:14:ARG:NH2	2.29	0.48
26:1H:1717:G:H2'	26:1H:1718:G:C8	2.49	0.48
26:1H:2111:C:C4	26:1H:2145:C:C2	3.01	0.48
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.13	0.48
26:1H:2392:A:H1'	40:78:61:ARG:HD2	1.95	0.48
29:11:30:GLU:CD	29:11:63:ARG:HE	2.14	0.48
32:41:11:TYR:O	32:41:15:VAL:HB	2.14	0.48
34:18:29:GLU:HG3	34:28:6:GLU:CD	2.34	0.48
36:38:45:LYS:NZ	36:38:45:LYS:HB3	2.27	0.48
42:98:33:ARG:HG3	42:98:115:GLU:HB3	1.95	0.48
44:B8:109:GLU:O	44:B8:113:LYS:HG2	2.14	0.48
55:M8:38:LYS:HD2	55:M8:38:LYS:N	2.28	0.48
57:O8:28:ARG:HB2	57:O8:31:PRO:HD2	1.95	0.48
1:1G:295:C:H2'	1:1G:296:U:O4'	2.14	0.48
1:1G:764:C:H2'	1:1G:765:G:O4'	2.13	0.48
1:1G:778:G:H2'	1:1G:779:C:O4'	2.14	0.48
1:1G:842:C:H5'	1:1G:843:U:OP1	2.13	0.48
1:1G:1480:G:C6	1:1G:1481:U:N3	2.82	0.48
3:22:47:LEU:HD23	3:22:52:LEU:HB3	1.96	0.48
5:42:43:LEU:HB2	5:42:136:MET:SD	2.54	0.48
12:3A:59:ARG:HA	12:3A:65:GLU:H	1.79	0.48
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.96	0.48
25:4L:10:G:N2	25:4L:11:U:H3	2.12	0.48
26:14:71:A:H5"	26:14:73:A:C8	2.49	0.48
26:14:210:C:OP2	58:L5:29:LYS:NZ	2.43	0.48
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.79	0.48
26:14:816:C:P	63:14:4017:HOH:O	2.71	0.48
26:14:1003:G:N2	26:14:1153:C:C2	2.82	0.48
26:14:1187:G:OP1	46:95:81:TYR:OH	2.31	0.48
26:14:1298:C:H5"	26:14:1299:G:OP2	2.14	0.48
26:14:1568:G:P	29:19:63:ARG:HH22	2.37	0.48
26:14:1638:C:H3'	63:14:4215:HOH:O	2.14	0.48
26:14:2583:G:OP2	63:14:3889:HOH:O	2.20	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2767:C:H2'	26:14:2768:C:C6	2.49	0.48
27:1J:18:G:N2	27:1J:108:C:N3	2.62	0.48
28:79:189:ILE:O	28:79:193:ILE:HB	2.14	0.48
40:35:101:VAL:HG23	40:35:108:LYS:H	1.79	0.48
40:35:122:PRO:HB3	40:35:141:ALA:HB1	1.96	0.48
45:85:95:LEU:HD11	46:95:11:GLN:C	2.33	0.48
1:13:105:G:H2'	1:13:106:C:H6	1.78	0.48
1:13:1468:A:P	63:13:1960:HOH:O	2.71	0.48
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.35	0.48
10:1I:30:SER:C	10:1I:81:THR:HG23	2.34	0.48
11:2I:50:TYR:HD2	11:2I:54:ARG:HB2	1.78	0.48
23:2K:77:A:P	63:2K:203:HOH:O	2.71	0.48
24:3K:73:C:N4	24:3K:74:A:N7	2.62	0.48
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.96	0.48
26:1H:1263:U:O2'	56:N8:11:THR:HG23	2.14	0.48
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.48	0.48
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.14	0.48
27:16:24:G:N7	27:16:56:G:H2'	2.29	0.48
29:11:105:ILE:HD13	29:11:106:ILE:H	1.79	0.48
30:21:5:LEU:HD12	30:21:51:PHE:HB2	1.96	0.48
41:88:72:LYS:HB3	41:88:94:VAL:HG23	1.96	0.48
46:D8:43:GLU:O	46:D8:44:LYS:HD3	2.14	0.48
51:I8:19:LYS:HD3	51:I8:19:LYS:HA	1.61	0.48
52:J8:93:GLU:N	52:J8:94:LEU:HA	2.16	0.48
1:1G:162:A:O5'	1:1G:162:A:H8	1.96	0.48
1:1G:1385:G:C2	1:1G:1386:G:C8	3.01	0.48
2:12:101:MET:HE1	2:12:108:ILE:HG21	1.94	0.48
3:22:14:ILE:O	3:22:16:ARG:N	2.46	0.48
5:42:12:LEU:HD22	5:42:13:ILE:N	2.29	0.48
5:42:78:HIS:HB3	8:72:107:LEU:HD12	1.94	0.48
24:3L:4:U:H2'	24:3L:5:C:O4'	2.14	0.48
26:14:249:C:H4'	26:14:250:G:O5'	2.14	0.48
26:14:1309:G:OP1	58:L5:9:ARG:HG3	2.13	0.48
26:14:1323:U:OP1	47:A5:84:ARG:HD2	2.13	0.48
26:14:1467:C:H2'	26:14:1468:C:H6	1.79	0.48
26:14:2152:G:N3	26:14:2152:G:H2'	2.29	0.48
26:14:2849:U:H1'	26:14:2866:U:O2	2.13	0.48
27:1J:65:C:H41	27:1J:108:C:C2'	2.27	0.48
27:1J:116:G:C5'	43:65:55:ALA:HB2	2.43	0.48
44:75:91:ARG:HD3	44:75:120:ARG:HB3	1.96	0.48
46:95:76:LYS:H	46:95:81:TYR:HB3	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:F5:56:GLN:HE21	52:F5:84:GLY:HA2	1.79	0.48
53:G5:50:ILE:HD12	53:G5:51:ARG:HG3	1.94	0.48
1:13:377:G:H1	1:13:386:C:H42	1.62	0.47
1:13:1122:U:O4	1:13:1123:A:N6	2.46	0.47
11:2I:19:ALA:HB2	11:2I:32:ILE:HG23	1.96	0.47
26:1H:76:C:HO2'	53:K8:62:THR:HG21	1.78	0.47
26:1H:484:C:OP1	49:G8:51:VAL:HG22	2.14	0.47
26:1H:489:G:N7	47:E8:49:LYS:NZ	2.56	0.47
26:1H:633:A:H2'	26:1H:634:C:H5'	1.96	0.47
26:1H:1127:A:C2'	26:1H:1128:A:H5"	2.44	0.47
26:1H:1184:G:C5	26:1H:1185:C:C5	3.01	0.47
26:1H:1773:A:OP2	63:1H:3967:HOH:O	2.20	0.47
26:1H:2129:C:O2	26:1H:2160:G:N1	2.47	0.47
36:38:4:LYS:HZ3	36:38:7:VAL:HG12	1.77	0.47
53:K8:21:LEU:HD13	53:K8:64:LEU:HA	1.95	0.47
1:1G:113:G:H2'	1:1G:114:U:H6	1.79	0.47
1:1G:791:G:C6	1:1G:792:A:N7	2.82	0.47
1:1G:1051:C:H2'	1:1G:1052:U:H6	1.78	0.47
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.29	0.47
2:12:52:GLU:O	2:12:56:ARG:HG2	2.13	0.47
3:22:42:LEU:O	3:22:45:LYS:HG2	2.13	0.47
8:72:31:PHE:HZ	8:72:134:ILE:HD13	1.78	0.47
9:82:102:LEU:O	9:82:103:THR:OG1	2.29	0.47
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.95	0.47
13:4A:84:ILE:HG21	19:AA:74:PHE:CE1	2.48	0.47
18:9A:22:VAL:HG12	18:9A:55:ARG:O	2.14	0.47
22:1L:1:G:P	22:1L:1:G:H8	2.37	0.47
23:2L:22:A:N6	23:2L:47:7MG:H2'	2.29	0.47
24:3L:45:C:O2'	24:3L:46:G:H5'	2.14	0.47
26:14:65:C:H2'	26:14:66:C:H6	1.79	0.47
26:14:802:A:H4'	63:14:4894:HOH:O	2.13	0.47
26:14:1036:G:OP1	33:59:59:ARG:HB2	2.14	0.47
26:14:2107:C:N3	26:14:2182:G:N2	2.45	0.47
26:14:2695:C:H2'	26:14:2696:U:C6	2.49	0.47
29:19:12:SER:CB	29:19:208:LYS:HB3	2.42	0.47
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.29	0.47
50:D5:30:ASN:HA	50:D5:89:PHE:HE1	1.79	0.47
1:13:629:G:O5'	1:13:629:G:H8	1.97	0.47
1:13:1345:U:OP1	63:13:1964:HOH:O	2.20	0.47
1:13:1409:C:H2'	1:13:1410:G:H8	1.78	0.47
9:8E:9:ARG:O	9:8E:104:ARG:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:15:VAL:O	13:4I:19:LEU:HG	2.14	0.47
20:BI:58:LYS:HE3	20:BI:62:LEU:HD21	1.96	0.47
22:1K:33:RSP:H5'A	22:1K:34:U:OP2	2.13	0.47
26:1H:49:A:N6	26:1H:177:G:C4	2.82	0.47
26:1H:675:A:C8	26:1H:804:A:C6	3.02	0.47
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.29	0.47
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.49	0.47
27:16:44:G:C2	27:16:48:A:C2	3.01	0.47
27:16:90:C:OP1	41:88:16:ARG:HB3	2.14	0.47
33:51:52:VAL:HG12	33:51:65:HIS:CD2	2.50	0.47
37:48:73:PRO:HB2	37:48:127:ILE:CD1	2.45	0.47
44:B8:107:ASP:O	44:B8:110:ILE:HG23	2.13	0.47
1:1G:131:C:H2'	1:1G:132:C:C6	2.50	0.47
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.49	0.47
1:1G:1328:C:O2'	13:4A:29:ARG:NH2	2.46	0.47
26:14:155:C:H2'	26:14:155:C:O2	2.12	0.47
26:14:182:A:N6	26:14:214:G:O6	2.47	0.47
26:14:248:G:P	63:14:3771:HOH:O	2.71	0.47
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.49	0.47
26:14:479:A:N3	26:14:481:G:H5"	2.29	0.47
26:14:573:G:O2'	26:14:574:C:H3'	2.14	0.47
26:14:1019:U:H3	26:14:1142(A):A:N6	2.03	0.47
26:14:1022:G:HO2'	26:14:1023:U:P	2.31	0.47
26:14:1167:U:C2	26:14:1183:G:N2	2.81	0.47
26:14:2131:G:H5'	26:14:2133:G:H4'	1.96	0.47
26:14:2134:A:H2'	26:14:2134:A:N3	2.28	0.47
27:1J:88:C:O5'	27:1J:88:C:C6	2.67	0.47
27:1J:117:G:O5'	27:1J:117:G:H8	1.97	0.47
29:19:33:LEU:HD23	29:19:34:VAL:HG13	1.95	0.47
32:49:75:LYS:HA	32:49:84:LYS:HG3	1.96	0.47
35:69:111:PRO:C	35:69:113:ARG:H	2.16	0.47
47:A5:17:VAL:HG21	47:A5:103:ILE:HD13	1.95	0.47
49:C5:102:CYS:HG	49:C5:103:GLY:H	1.59	0.47
50:D5:48:PHE:HA	50:D5:51:ALA:HB3	1.95	0.47
1:13:1246:C:H42	1:13:1291:G:H1	1.63	0.47
1:13:1353:G:C2	1:13:1370:G:C2	3.03	0.47
1:13:1376:U:H2'	1:13:1377:A:C8	2.48	0.47
1:13:1503:A:C4	63:13:2052:HOH:O	2.56	0.47
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.74	0.47
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.45	0.47
26:1H:18:C:H4'	45:C8:23:GLY:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:94:G:H21	53:K8:47:ASN:HD21	1.61	0.47
26:1H:449:A:C6	26:1H:450:G:C5	3.02	0.47
26:1H:1077:A:H2'	26:1H:1077:A:N3	2.29	0.47
26:1H:1168:G:C2	26:1H:1182:A:C2	3.02	0.47
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.44	0.47
27:16:51:G:H2'	27:16:52:A:C8	2.50	0.47
31:31:108:LYS:O	31:31:112:MET:HG3	2.14	0.47
31:31:129:PHE:O	31:31:131:GLY:N	2.44	0.47
41:88:35:VAL:HG12	41:88:130:LYS:O	2.14	0.47
44:B8:36:GLU:HG3	44:B8:41:ARG:HE	1.78	0.47
49:G8:85:VAL:O	49:G8:97:ARG:HA	2.15	0.47
50:H8:105:VAL:HG22	50:H8:140:ASP:HA	1.96	0.47
51:I8:83:PRO:O	51:I8:84:LEU:HB2	2.13	0.47
57:O8:28:ARG:HB3	57:O8:30:THR:H	1.78	0.47
1:1G:373:A:C2	1:1G:374:A:C8	3.03	0.47
1:1G:591:U:H2'	1:1G:592:G:C8	2.49	0.47
2:12:68:ILE:HG12	2:12:161:ALA:HB3	1.96	0.47
2:12:87:ARG:NH2	2:12:233:SER:HB3	2.29	0.47
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.95	0.47
8:72:120:THR:HG23	8:72:122:ARG:N	2.29	0.47
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	1.97	0.47
15:6A:76:GLU:HA	15:6A:79:ARG:CZ	2.44	0.47
26:14:21:A:C2	26:14:520:G:C2	3.02	0.47
26:14:139:G:H1'	26:14:140:A:H2	1.78	0.47
26:14:2652:C:H42	26:14:2668:G:H22	1.62	0.47
27:1J:73:A:C4	27:1J:104:A:C2	3.03	0.47
28:79:178:ALA:HA	28:79:185:LEU:HD11	1.96	0.47
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.50	0.47
30:29:39:PRO:HD3	30:29:45:THR:HG23	1.96	0.47
33:59:26:VAL:HG11	33:59:75:ALA:HB1	1.96	0.47
38:15:116:LEU:O	38:15:119:ARG:N	2.45	0.47
39:25:24:VAL:HA	39:25:39:ILE:HG22	1.95	0.47
40:35:47:ASP:HB3	40:35:50:ARG:H	1.78	0.47
43:65:93:LYS:HE2	43:65:95:HIS:HB3	1.95	0.47
46:95:46:VAL:HG23	46:95:52:VAL:HG21	1.96	0.47
46:95:99:ILE:H	46:95:99:ILE:HG13	1.50	0.47
53:G5:49:LYS:HA	53:G5:52:ASP:HB2	1.97	0.47
54:H5:8:LEU:HD23	54:H5:30:ARG:O	2.14	0.47
1:13:964:A:N3	1:13:969:A:O2'	2.35	0.47
1:13:976:G:H5'	1:13:1358:U:O2'	2.14	0.47
1:13:994:A:H2'	1:13:994:A:N3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1070:U:H2'	1:13:1071:C:H6	1.79	0.47
1:13:1352:C:N4	63:13:2043:HOH:O	2.48	0.47
1:13:1412:C:OP1	12:3I:57:LYS:NZ	2.44	0.47
3:2E:22:TRP:CH2	3:2E:32:LEU:HB3	2.49	0.47
3:2E:35:GLU:O	3:2E:39:ILE:N	2.40	0.47
5:4E:100:VAL:HG22	5:4E:115:VAL:HG12	1.96	0.47
15:6I:82:ILE:O	15:6I:86:GLY:N	2.46	0.47
26:1H:359:A:H2'	26:1H:360:G:O4'	2.15	0.47
26:1H:644:A:O2'	26:1H:645:C:H3'	2.14	0.47
26:1H:813:U:H2'	26:1H:814:C:C6	2.49	0.47
26:1H:1062:G:H8	26:1H:1062:G:O5'	1.96	0.47
26:1H:1314:C:OP1	63:1H:3731:HOH:O	2.19	0.47
26:1H:2140:C:O2	26:1H:2152:G:N2	2.47	0.47
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.78	0.47
26:1H:2780:G:OP2	38:58:118:LYS:HE2	2.14	0.47
46:D8:36:PRO:CB	46:D8:37:VAL:HG22	2.45	0.47
46:D8:62:LEU:HD12	46:D8:62:LEU:HA	1.55	0.47
53:K8:18:PRO:O	53:K8:21:LEU:HB2	2.15	0.47
1:1G:280:C:N3	17:8A:39:SER:N	2.62	0.47
1:1G:969:A:H2'	1:1G:970:C:O4'	2.14	0.47
2:12:15:VAL:HB	2:12:16:HIS:ND1	2.29	0.47
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.96	0.47
3:22:121:ALA:HB1	3:22:189:ALA:HB2	1.97	0.47
12:3A:27:LEU:HG	12:3A:33:ARG:HB2	1.96	0.47
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.29	0.47
26:14:10:G:N1	26:14:2629:A:N7	2.62	0.47
26:14:55:G:H2'	26:14:56:A:C8	2.50	0.47
26:14:271(B):G:N7	26:14:421:U:H2'	2.29	0.47
26:14:680:G:N7	63:14:4042:HOH:O	2.36	0.47
26:14:1116:C:H2'	26:14:1117:G:C8	2.49	0.47
26:14:1441:G:H2'	26:14:1442:G:C8	2.48	0.47
26:14:2880:C:O2'	42:55:90:ARG:HD3	2.14	0.47
28:79:52:ARG:NE	28:79:167:LYS:HB3	2.28	0.47
39:25:102:VAL:HB	39:25:106:LEU:HD12	1.97	0.47
46:95:46:VAL:CG2	46:95:52:VAL:HG21	2.44	0.47
53:G5:37:PHE:C	53:G5:39:ALA:H	2.17	0.47
1:13:108:G:C6	20:BI:15:ARG:HD2	2.49	0.47
1:13:963:G:N2	10:1I:55:LYS:HE2	2.15	0.47
1:13:1014:A:C2	1:13:1219:U:H1'	2.49	0.47
1:13:1080:A:H5"	1:13:1081:G:OP2	2.14	0.47
1:13:1252:A:H2'	1:13:1253:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.45	0.47
5:4E:76:ILE:HD13	5:4E:91:LEU:HB3	1.95	0.47
8:7E:12:ARG:HD3	8:7E:26:VAL:HB	1.96	0.47
26:1H:558:G:P	38:58:111:PRO:HD2	2.54	0.47
26:1H:662:G:H5'	40:78:15:ARG:CA	2.37	0.47
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.45	0.47
26:1H:2125:G:H1	26:1H:2171:A:H5"	1.80	0.47
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.50	0.47
26:1H:2680:C:OP2	30:21:111:ARG:NH2	2.48	0.47
31:31:24:LEU:HD21	31:31:114:VAL:HG12	1.95	0.47
31:31:64:ILE:HG23	31:31:65:TRP:NE1	2.29	0.47
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.50	0.47
46:D8:1:MET:SD	46:D8:43:GLU:HG2	2.55	0.47
54:L8:50:VAL:O	54:L8:54:VAL:HG12	2.14	0.47
1:1G:130:A:OP2	17:8A:63:ARG:NH2	2.34	0.47
1:1G:574:A:O2'	1:1G:882:C:O2'	2.26	0.47
1:1G:673:G:O3'	6:52:87:ARG:NH2	2.47	0.47
1:1G:746:A:H2'	1:1G:747:C:C6	2.49	0.47
1:1G:848:C:O5'	1:1G:848:C:H6	1.98	0.47
1:1G:1443:G:O2'	44:75:122:ASP:OD2	2.32	0.47
12:3A:27:LEU:O	12:3A:27:LEU:HD13	2.15	0.47
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.30	0.47
26:14:38:A:H2'	26:14:39:C:C6	2.50	0.47
26:14:315:G:H2'	26:14:316:C:C6	2.49	0.47
26:14:1137:G:O2'	26:14:2039:C:H5'	2.13	0.47
26:14:1450:C:H2'	26:14:1451:C:C6	2.50	0.47
26:14:1893:C:H2'	26:14:1894:C:H5'	1.95	0.47
26:14:2031:A:C6	26:14:2498:C:H1'	2.49	0.47
26:14:2054:A:H5"	26:14:2055:C:O5'	2.14	0.47
26:14:2151:G:C2	26:14:2152:G:H1'	2.50	0.47
26:14:2338:G:N2	26:14:2339:G:C4	2.83	0.47
26:14:2856:C:H2'	26:14:2857:G:O4'	2.14	0.47
27:1J:44:G:C2	27:1J:48:A:C2	3.02	0.47
32:49:16:ARG:O	32:49:20:ILE:HG13	2.14	0.47
43:65:89:ARG:O	43:65:90:GLY:C	2.53	0.47
49:C5:38:ILE:HD11	49:C5:66:PRO:HG3	1.96	0.47
59:M5:50:LEU:O	59:M5:51:ALA:HB2	2.15	0.47
1:13:114:U:H2'	1:13:115:G:C8	2.50	0.47
1:13:219:C:H2'	1:13:220:G:O4'	2.14	0.47
1:13:224:C:H2'	1:13:225:C:C6	2.50	0.47
1:13:427:U:H5'	4:3E:41:GLY:HA2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:452:A:O2'	1:13:453:A:O4'	2.32	0.47
1:13:468:A:H2'	1:13:474:G:C8	2.49	0.47
1:13:1008:C:H42	1:13:1021:G:H1	1.62	0.47
1:13:1087:G:H2'	1:13:1088:G:C8	2.50	0.47
11:2I:43:SER:OG	11:2I:44:SER:N	2.48	0.47
11:2I:124:LYS:HB3	11:2I:125:PHE:CE1	2.49	0.47
22:1K:23:G:H2'	22:1K:24:A:C8	2.50	0.47
26:1H:879:G:O5'	26:1H:879:G:H8	1.98	0.47
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.36	0.47
27:16:12:C:H6	27:16:12:C:OP2	1.98	0.47
32:41:130:ASN:HB3	32:41:159:VAL:O	2.15	0.47
53:K8:64:LEU:HD21	53:K8:68:ARG:NH1	2.30	0.47
1:1G:144:G:H1	1:1G:178:C:H42	1.61	0.47
1:1G:977:A:H2'	1:1G:978:A:H5'	1.96	0.47
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.49	0.47
2:12:134:GLU:O	2:12:138:LEU:HG	2.14	0.47
7:62:95:ARG:O	7:62:99:LEU:HB2	2.14	0.47
13:4A:25:ILE:HD13	13:4A:25:ILE:HA	1.74	0.47
26:14:498:G:H21	49:C5:47:LYS:HZ2	1.58	0.47
26:14:956:G:OP1	41:45:85:LYS:HA	2.15	0.47
26:14:979:G:H3'	26:14:980:A:C5'	2.43	0.47
26:14:1069:A:H4'	26:14:1070:A:H5"	1.97	0.47
26:14:1114:G:H2'	26:14:1115:G:C8	2.50	0.47
26:14:1174:A:H3'	26:14:1174:A:N3	2.30	0.47
26:14:1774:C:O5'	26:14:1774:C:H6	1.97	0.47
26:14:1857:G:C6	26:14:1858:G:N1	2.83	0.47
26:14:2292:C:OP1	43:65:17:ARG:NH2	2.48	0.47
26:14:2859:G:H4'	26:14:2860:A:OP1	2.14	0.47
35:69:62:LYS:HG3	35:69:63:ALA:N	2.29	0.47
44:75:27:THR:OG1	44:75:89:VAL:HG22	2.15	0.47
53:G5:43:GLN:HB2	53:G5:45:SER:N	2.29	0.47
1:13:145:G:N2	1:13:177:C:N3	2.49	0.47
1:13:169:C:H2'	1:13:170:U:H6	1.80	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.50	0.47
1:13:359:U:H2'	1:13:360:A:C8	2.50	0.47
1:13:474:G:H5'	16:7I:81:ARG:NE	2.30	0.47
1:13:624:C:H2'	1:13:625:G:H8	1.79	0.47
1:13:791:G:C6	1:13:792:A:C2	3.03	0.47
1:13:902:G:O2'	1:13:903:G:H5'	2.14	0.47
1:13:944:G:P	63:13:1999:HOH:O	2.73	0.47
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1118:C:H1'	1:13:1179:A:C4	2.50	0.47
1:13:1305:G:OP2	1:13:1305:G:C8	2.66	0.47
4:3E:76:ARG:HG3	4:3E:207:TYR:CE1	2.50	0.47
4:3E:110:PHE:CE2	4:3E:148:VAL:HG23	2.48	0.47
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.28	0.47
7:6E:74:GLU:HG2	7:6E:91:VAL:HG22	1.95	0.47
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.96	0.47
18:9I:22:VAL:HG22	18:9I:42:ARG:HH22	1.77	0.47
18:9I:31:LEU:HD23	18:9I:31:LEU:H	1.79	0.47
23:2K:48:U:H1'	23:2K:49:C:O5'	2.14	0.47
26:1H:775:G:C5	26:1H:794:G:C8	3.02	0.47
26:1H:805:G:P	40:78:41:ARG:HG2	2.55	0.47
26:1H:822:U:OP2	63:1H:3917:HOH:O	2.19	0.47
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.80	0.47
26:1H:2119:A:N1	26:1H:2170:A:H2'	2.30	0.47
26:1H:2124:G:H5"	28:71:174:PRO:HG3	1.97	0.47
26:1H:2260:C:C2'	26:1H:2261:C:H5'	2.44	0.47
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.18	0.47
29:11:38:LYS:H	29:11:38:LYS:HZ3	1.63	0.47
29:11:147:LEU:HD13	29:11:155:LEU:HD21	1.96	0.47
30:21:116:VAL:H	30:21:157:ALA:HB2	1.80	0.47
31:31:134:GLY:HA3	31:31:166:ALA:HB2	1.97	0.47
32:41:82:LEU:HD22	32:41:82:LEU:HA	1.68	0.47
33:51:68:THR:O	33:51:72:ILE:HG13	2.15	0.47
37:48:74:ALA:H	37:48:127:ILE:HG23	1.80	0.47
37:48:132:ARG:O	37:48:137:GLU:HA	2.14	0.47
50:H8:152:ALA:HB3	50:H8:167:PRO:O	2.15	0.47
50:H8:155:LEU:HA	50:H8:155:LEU:HD23	1.55	0.47
57:O8:40:CYS:SG	57:O8:45:LYS:HE2	2.55	0.47
59:Q8:61:LEU:O	59:Q8:63:PRO:HD3	2.15	0.47
1:1G:142:G:H2'	1:1G:143:A:H8	1.78	0.47
1:1G:450:G:N7	1:1G:481:G:C6	2.83	0.47
1:1G:865:A:O5'	1:1G:865:A:H8	1.97	0.47
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.13	0.47
1:1G:1321:C:N4	1:1G:1322:C:N4	2.63	0.47
1:1G:1326:C:OP1	21:1B:12:LYS:HE3	2.14	0.47
4:32:28:SER:HA	4:32:29:PRO:HA	1.61	0.47
4:32:31:CYS:HB2	4:32:33:MET:H	1.80	0.47
4:32:178:VAL:C	4:32:180:GLY:H	2.18	0.47
6:52:1:MET:HG2	6:52:68:PRO:HA	1.97	0.47
8:72:97:VAL:O	8:72:100:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.61	0.47
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.95	0.47
17:8A:56:VAL:HG21	17:8A:81:ARG:HG3	1.97	0.47
22:1L:27:A:H61	22:1L:45:C:H42	1.63	0.47
24:3L:49:C:H5"	24:3L:49:C:O2	2.15	0.47
26:14:26:G:C6	26:14:27:G:N1	2.83	0.47
26:14:131:G:OP2	63:14:3896:HOH:O	2.21	0.47
26:14:498:G:H21	49:C5:47:LYS:HZ1	1.59	0.47
26:14:662:G:H5'	40:35:15:ARG:CA	2.45	0.47
26:14:673:C:H4'	31:39:82:ILE:CG1	2.44	0.47
26:14:1812:A:H2'	26:14:1813:G:H8	1.80	0.47
26:14:2295:C:H41	43:65:13:ARG:HH22	1.62	0.47
26:14:2357:U:P	51:E5:20:ARG:HH11	2.36	0.47
26:14:2441:C:OP2	26:14:2586:C:O2'	2.27	0.47
26:14:2614:A:H3'	63:14:3791:HOH:O	2.15	0.47
26:14:2776:A:H4'	26:14:2777:G:O5'	2.15	0.47
26:14:2836:U:H2'	26:14:2837:G:C8	2.50	0.47
27:1J:116:G:H2'	27:1J:117:G:O4'	2.14	0.47
29:19:85:ASP:OD1	29:19:87:ASN:ND2	2.48	0.47
31:39:8:GLN:HB3	31:39:124:LEU:HD11	1.96	0.47
33:59:54:ARG:HB3	33:59:65:HIS:HB2	1.95	0.47
33:59:102:ALA:HB2	33:59:116:GLU:HA	1.97	0.47
35:69:4:ILE:HG23	35:69:18:VAL:HG22	1.97	0.47
43:65:77:ALA:O	43:65:80:LEU:N	2.47	0.47
44:75:5:ALA:O	44:75:8:LYS:N	2.48	0.47
1:13:243:A:H4'	1:13:244:U:H3'	1.97	0.47
1:13:1178:G:N2	1:13:1181:G:C8	2.80	0.47
2:1E:17:PHE:CD2	2:1E:44:LEU:HD21	2.50	0.47
17:8I:55:ASP:HA	17:8I:79:SER:HA	1.96	0.47
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.15	0.47
26:1H:349:G:H2'	26:1H:350:U:O4'	2.15	0.47
26:1H:616:A:C4	31:31:180:GLY:HA2	2.50	0.47
26:1H:1045:A:O5'	26:1H:1046:A:H5'	2.15	0.47
26:1H:1678:G:H21	26:1H:1989:G:H22	1.57	0.47
33:51:9:ILE:HG23	33:51:51:ARG:HB3	1.96	0.47
37:48:82:ALA:O	37:48:84:LEU:N	2.48	0.47
40:78:71:VAL:CG1	40:78:72:PRO:HD3	2.45	0.47
50:H8:165:VAL:HA	50:H8:167:PRO:HD3	1.97	0.47
1:1G:673:G:H5"	6:52:87:ARG:CZ	2.44	0.47
1:1G:1099:G:C6	1:1G:1100:C:N3	2.83	0.47
1:1G:1238:A:H2	1:1G:1241:G:N3	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1306:A:H1'	1:1G:1332:A:C6	2.49	0.47
1:1G:1443:G:H22	44:75:119:LYS:HB2	1.80	0.47
1:1G:1523:G:OP1	11:2A:123:LYS:HD2	2.15	0.47
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.44	0.47
6:52:21:LEU:HD22	6:52:21:LEU:HA	1.71	0.47
17:8A:59:ILE:CG2	17:8A:71:PHE:HB3	2.45	0.47
26:14:459:U:H2'	26:14:460:A:H8	1.80	0.47
26:14:910:A:C5	41:45:13:GLN:HG3	2.50	0.47
26:14:1019:U:H2'	26:14:1020:A:H8	1.79	0.47
26:14:1215:G:C4	26:14:1216:G:C8	3.03	0.47
26:14:1252:G:N3	45:85:33:ARG:HD2	2.30	0.47
26:14:1316:U:H2'	26:14:1317:A:H8	1.79	0.47
26:14:1751:C:H2'	26:14:1752:C:C6	2.50	0.47
26:14:2401:U:H2'	26:14:2402:C:H5"	1.96	0.47
26:14:2629:A:H1'	26:14:2895:U:O4	2.15	0.47
32:49:122:PRO:HG3	32:49:181:ARG:CZ	2.45	0.47
40:35:95:VAL:HG12	40:35:125:VAL:HA	1.95	0.47
43:65:7:TYR:CZ	43:65:91:PRO:HG3	2.50	0.47
43:65:102:ALA:O	43:65:105:ALA:N	2.48	0.47
49:C5:37:VAL:HG23	49:C5:67:LEU:HB3	1.96	0.47
53:G5:45:SER:O	53:G5:45:SER:OG	2.32	0.47
1:13:9:G:C2	1:13:26:A:C6	3.02	0.47
1:13:114:U:O2'	1:13:115:G:H5'	2.15	0.47
1:13:660:G:OP1	15:6I:5:LYS:HD3	2.15	0.47
1:13:1316:G:N2	1:13:1319:A:OP2	2.38	0.47
10:1I:3:LYS:O	10:1I:100:THR:HA	2.14	0.47
20:BI:43:LEU:HD12	20:BI:51:GLU:HB3	1.96	0.47
22:1K:14:A:O2'	22:1K:15:G:C8	2.66	0.47
23:2K:17:C:OP1	23:2K:61:U:O2'	2.26	0.47
26:1H:36:G:C5	26:1H:37:C:C5	3.03	0.47
26:1H:49:A:H4'	26:1H:50:U:H5"	1.97	0.47
26:1H:197:A:H62	26:1H:2430:A:H2'	1.79	0.47
26:1H:354:G:H2'	26:1H:355:G:H8	1.80	0.47
26:1H:547:A:H2'	26:1H:548:A:C8	2.50	0.47
26:1H:861:A:N3	27:16:79:C:O2'	2.47	0.47
26:1H:934:G:H2'	26:1H:935:C:H6	1.80	0.47
26:1H:957:A:N1	26:1H:2458:G:H4'	2.30	0.47
26:1H:1050:A:C8	26:1H:2751:G:C4	3.03	0.47
26:1H:1667:G:O2'	26:1H:1991:U:O4	2.28	0.47
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.50	0.47
26:1H:2213:U:H1'	52:J8:52:ARG:CZ	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.43	0.47
27:16:72:G:C4	63:16:330:HOH:O	2.66	0.47
29:11:154:LYS:HB2	29:11:155:LEU:HD12	1.97	0.47
31:31:59:TYR:CD1	31:31:78:ILE:HD11	2.50	0.47
39:68:8:LEU:N	39:68:8:LEU:HD23	2.30	0.47
43:A8:67:ARG:O	43:A8:71:ARG:HG3	2.15	0.47
48:F8:23:GLU:H	48:F8:23:GLU:HG2	1.35	0.47
52:J8:85:LEU:HD13	52:J8:85:LEU:HA	1.50	0.47
55:M8:23:GLU:HG2	55:M8:25:TYR:HD2	1.80	0.47
1:1G:1023:G:C4	1:1G:1024:G:H1'	2.50	0.47
1:1G:1328:C:OP1	21:1B:21:TYR:OH	2.31	0.47
2:12:32:ILE:HD11	2:12:34:ALA:O	2.15	0.47
2:12:137:ARG:HH12	2:12:141:GLU:HB2	1.80	0.47
5:42:103:GLY:O	5:42:106:PRO:HD2	2.14	0.47
8:72:7:ALA:O	8:72:11:THR:OG1	2.33	0.47
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.15	0.47
26:14:574:C:P	63:14:3741:HOH:O	2.70	0.47
26:14:827:U:OP2	26:14:828:U:C5	2.68	0.47
26:14:1639:U:OP1	63:14:3887:HOH:O	2.20	0.47
26:14:1753:G:N1	26:14:1756:G:C2	2.83	0.47
26:14:1959:G:H2'	26:14:1960:A:H5"	1.97	0.47
26:14:2209:C:O2	26:14:2216:G:C2	2.68	0.47
27:1J:42:C:N3	32:49:91:ARG:NH2	2.62	0.47
29:19:253:GLN:CG	29:19:255:LYS:HZ1	2.27	0.47
30:29:36:ARG:HD3	30:29:85:ASN:OD1	2.14	0.47
33:59:87:LEU:HA	33:59:163:TYR:O	2.15	0.47
33:59:153:LYS:N	33:59:154:PRO:HD3	2.30	0.47
40:35:80:TYR:CD1	40:35:111:ARG:HB2	2.50	0.47
41:45:32:TYR:HE2	41:45:109:VAL:HG23	1.79	0.47
48:B5:12:VAL:HG23	48:B5:17:ALA:HB2	1.97	0.47
52:F5:16:ASN:HB3	52:F5:37:ILE:HD11	1.96	0.47
1:13:272:C:H2'	1:13:273:A:C8	2.50	0.47
1:13:277:C:OP1	17:8I:41:LYS:HE2	2.15	0.47
1:13:947:G:OP1	13:4I:108:ARG:HB3	2.14	0.47
1:13:1003:G:H1	1:13:1037:C:H42	1.62	0.47
1:13:1012:U:H2'	1:13:1013:G:C8	2.50	0.47
1:13:1028(B):C:H41	1:13:1032(A):G:H21	1.63	0.47
1:13:1345:U:H4'	1:13:1346:A:H5'	1.96	0.47
1:13:1399:C:C2	1:13:1502:A:N6	2.82	0.47
2:1E:19:HIS:CD2	2:1E:206:ASP:HB2	2.50	0.47
10:1I:54:PHE:CE1	10:1I:55:LYS:HE3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.45	0.47
26:1H:273:G:H1	26:1H:364:C:N4	2.13	0.47
26:1H:831:G:OP1	63:1H:3971:HOH:O	2.21	0.47
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.49	0.47
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.79	0.47
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.14	0.47
26:1H:1879:C:H2'	26:1H:1880:C:O4'	2.15	0.47
26:1H:2250:G:C6	41:88:83:MET:HB3	2.50	0.47
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.80	0.47
26:1H:2808:U:H2'	26:1H:2809:A:H8	1.80	0.47
26:1H:2820:A:OP2	42:98:2:ARG:NH1	2.47	0.47
26:1H:2860:A:C8	26:1H:2861:G:H1'	2.49	0.47
27:16:12:C:O2'	51:I8:74:ARG:HG2	2.15	0.47
30:21:92:THR:HG22	30:21:93:VAL:H	1.80	0.47
31:31:34:TRP:NE1	40:78:8:PRO:HD3	2.30	0.47
37:48:73:PRO:HB2	37:48:127:ILE:HD12	1.97	0.47
44:B8:26:ASP:HB2	44:B8:90:GLN:O	2.15	0.47
46:D8:21:ARG:HG2	46:D8:91:TYR:HE2	1.79	0.47
46:D8:93:GLU:O	46:D8:94:LEU:HD23	2.14	0.47
53:K8:64:LEU:HD22	53:K8:68:ARG:HD2	1.96	0.47
54:L8:9:VAL:HG21	54:L8:55:ARG:HG3	1.97	0.47
55:M8:13:ARG:CZ	55:M8:22:ILE:HG23	2.45	0.47
1:1G:359:U:H2'	1:1G:360:A:H8	1.76	0.47
1:1G:1321:C:C4	1:1G:1322:C:C5	3.03	0.47
1:1G:1353:G:N2	1:1G:1354:C:O2	2.48	0.47
3:22:37:GLN:HG2	3:22:40:ARG:NH1	2.29	0.47
9:82:84:ALA:O	9:82:87:GLN:HB3	2.15	0.47
10:1A:63:PHE:HB3	14:5A:57:ARG:O	2.14	0.47
23:2L:12:G:H1'	26:14:1923:U:O2'	2.15	0.47
26:14:91:A:H2'	26:14:92:G:H8	1.80	0.47
26:14:1025:G:C4	26:14:1135:C:H1'	2.50	0.47
26:14:1075:C:H2'	26:14:1076:C:H6	1.80	0.47
26:14:1111:A:C5'	33:59:3:ARG:HD3	2.43	0.47
26:14:1138:G:C4	26:14:1139:G:H1'	2.50	0.47
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.48	0.47
26:14:1790:C:H2'	26:14:1791:A:C5	2.50	0.47
29:19:3:VAL:HG23	29:19:200:ASP:OD2	2.14	0.47
35:69:10:GLU:O	35:69:11:ASN:HB2	2.14	0.47
49:C5:39:VAL:O	49:C5:40:GLU:HB2	2.15	0.47
1:13:983:A:H5'	1:13:984:C:OP2	2.15	0.46
2:1E:166:ASP:OD2	2:1E:169:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:120:THR:N	8:7E:123:GLU:HG3	2.26	0.46
9:8E:19:LEU:HD12	9:8E:84:ALA:HB3	1.97	0.46
9:8E:42:ARG:NH1	9:8E:71:SER:OG	2.47	0.46
16:7I:42:ARG:O	16:7I:44:THR:HG23	2.15	0.46
24:3K:7:G:C4	24:3K:50:G:N7	2.83	0.46
26:1H:239:U:H2'	26:1H:240:G:C8	2.50	0.46
26:1H:946:G:OP1	63:1H:3736:HOH:O	2.20	0.46
26:1H:1189:A:P	63:1H:3913:HOH:O	2.73	0.46
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.80	0.46
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.80	0.46
29:11:126:GLN:HG2	29:11:127:VAL:N	2.30	0.46
29:11:260:ARG:NH1	29:11:267:SER:OG	2.47	0.46
30:21:101:ARG:HB3	30:21:201:THR:OG1	2.15	0.46
34:18:5:ILE:H	34:18:5:ILE:HD12	1.79	0.46
1:1G:815:A:N7	1:1G:1509:C:O2'	2.37	0.46
1:1G:1124:G:HO2'	1:1G:1145:C:N4	2.12	0.46
1:1G:1261:A:H5'	1:1G:1283:G:O3'	2.15	0.46
2:12:5:ILE:HD13	2:12:55:PHE:HB3	1.97	0.46
2:12:78:GLN:O	2:12:94:ASN:ND2	2.48	0.46
9:82:28:VAL:CG2	9:82:63:ILE:HB	2.43	0.46
10:1A:6:ILE:HG23	10:1A:98:ILE:HG23	1.97	0.46
10:1A:38:ILE:HB	10:1A:71:LEU:O	2.15	0.46
11:2A:33:THR:HA	11:2A:39:PRO:HA	1.96	0.46
20:BA:25:ARG:HG3	20:BA:29:LYS:NZ	2.29	0.46
20:BA:64:ASP:OD2	20:BA:81:LYS:HD2	2.13	0.46
22:1L:5:C:C2'	22:1L:6:C:H5'	2.45	0.46
22:1L:69:G:H2'	22:1L:70:A:C8	2.50	0.46
26:14:29:U:H2'	26:14:30:G:C8	2.50	0.46
26:14:1170:G:C2'	26:14:1171:G:H5'	2.44	0.46
26:14:1448:G:H1'	26:14:1528:A:H62	1.80	0.46
26:14:1537:C:H2'	26:14:1538:G:C8	2.50	0.46
26:14:1970:A:P	63:14:3793:HOH:O	2.70	0.46
26:14:2287:A:N6	26:14:2344:U:N3	2.54	0.46
26:14:2419:U:H5"	59:M5:34:TRP:H	1.80	0.46
26:14:2458:G:O2'	26:14:2490:G:O6	2.23	0.46
33:59:89:ILE:HG23	33:59:129:THR:O	2.15	0.46
39:25:104:ARG:CZ	39:25:104:ARG:HB2	2.43	0.46
47:A5:47:VAL:HA	47:A5:50:VAL:HG12	1.97	0.46
50:D5:107:THR:N	50:D5:108:PRO:HD3	2.31	0.46
51:E5:12:ASN:HA	51:E5:14:ARG:NH2	2.17	0.46
1:13:250:A:H5'	1:13:250:A:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:295:C:H2'	1:13:296:U:O4'	2.14	0.46
1:13:498:A:H4'	1:13:500:G:OP1	2.14	0.46
1:13:558:G:H2'	1:13:559:A:H2	1.80	0.46
1:13:673:G:H2'	1:13:674:G:C8	2.50	0.46
1:13:1003:G:N1	1:13:1036:G:O6	2.48	0.46
3:2E:95:THR:HB	3:2E:97:LYS:HG3	1.97	0.46
4:3E:65:ARG:HG3	4:3E:70:ILE:HG22	1.98	0.46
4:3E:96:LEU:HG	4:3E:139:ARG:HH12	1.80	0.46
4:3E:209:ARG:HE	4:3E:209:ARG:CA	2.28	0.46
7:6E:5:ARG:HH21	7:6E:8:GLU:HG2	1.81	0.46
10:1I:63:PHE:HB3	14:5I:57:ARG:O	2.15	0.46
12:3I:10:LEU:HD23	17:8I:32:TYR:CZ	2.50	0.46
23:2K:17:C:OP2	23:2K:18:C:O2'	2.20	0.46
26:1H:67:U:H2'	26:1H:68:G:H8	1.80	0.46
26:1H:330:A:O2'	26:1H:331:A:C8	2.57	0.46
26:1H:890:A:C8	26:1H:892:G:C8	3.00	0.46
26:1H:2069:G:H4'	63:1H:4282:HOH:O	2.13	0.46
26:1H:2126:A:H1'	26:1H:2162:G:H21	1.80	0.46
26:1H:2469:A:O2'	41:88:56:ARG:HG2	2.16	0.46
26:1H:2784:C:H5"	30:21:41:LYS:NZ	2.30	0.46
26:1H:2846:G:H2'	26:1H:2847:U:O4'	2.16	0.46
29:11:35:LYS:HB2	29:11:62:TYR:O	2.15	0.46
29:11:35:LYS:HA	29:11:64:ILE:HG22	1.97	0.46
31:31:177:ALA:HB1	31:31:178:PRO:HD2	1.97	0.46
37:48:117:THR:HG23	37:48:122:ALA:HB1	1.97	0.46
41:88:5:ARG:O	41:88:7:MET:N	2.48	0.46
42:98:50:HIS:NE2	42:98:54:LEU:HD21	2.30	0.46
50:H8:11:GLU:HG2	50:H8:36:LYS:HZ1	1.80	0.46
51:I8:48:GLY:N	51:I8:79:VAL:O	2.45	0.46
1:1G:144:G:H1	1:1G:178:C:N4	2.14	0.46
1:1G:719:C:C5	1:1G:720:C:C4	3.03	0.46
1:1G:837:G:H2'	1:1G:838:G:O4'	2.15	0.46
1:1G:1095:U:H2'	1:1G:1096:C:H6	1.79	0.46
1:1G:1227:A:O2'	13:4A:115:LYS:HB2	2.15	0.46
2:12:85:ALA:HB1	2:12:92:TYR:HB3	1.96	0.46
26:14:188:G:H5'	52:F5:14:VAL:HG21	1.97	0.46
26:14:511:U:H3'	26:14:512:G:H5"	1.97	0.46
26:14:859:G:O2'	26:14:916:G:O6	2.28	0.46
26:14:1830:C:O5'	26:14:1830:C:H6	1.98	0.46
26:14:2165:G:H8	26:14:2166:G:H5'	1.80	0.46
26:14:2352:A:N3	51:E5:33:ALA:HB1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:95:ARG:HE	33:59:95:ARG:HB3	1.42	0.46
39:25:22:ILE:HD12	39:25:22:ILE:HA	1.49	0.46
45:85:88:ILE:HG23	45:85:90:VAL:HB	1.97	0.46
49:C5:8:LYS:HE2	49:C5:8:LYS:HB3	1.78	0.46
54:H5:37:LEU:HD13	54:H5:43:ILE:HG21	1.97	0.46
1:13:115:G:C2	1:13:289:G:N7	2.84	0.46
1:13:626:U:N3	1:13:627:G:N7	2.63	0.46
1:13:872:A:C4	1:13:874:G:N7	2.83	0.46
1:13:1244:C:H2'	1:13:1245:A:C8	2.51	0.46
1:13:1375:A:P	7:6E:28:ASN:HD22	2.38	0.46
4:3E:26:CYS:HA	61:3E:303:SF4:S3	2.55	0.46
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.98	0.46
9:8E:33:PHE:HE2	9:8E:47:LEU:HD21	1.80	0.46
15:6I:6:GLU:O	15:6I:10:LYS:HG2	2.15	0.46
16:7I:57:ARG:HH21	16:7I:79:VAL:C	2.18	0.46
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.16	0.46
26:1H:606:U:H4'	26:1H:658:C:H4'	1.98	0.46
26:1H:842:G:H2'	26:1H:843:G:O4'	2.16	0.46
26:1H:844:C:H2'	26:1H:845:G:O4'	2.15	0.46
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.96	0.46
26:1H:1514:U:H2'	26:1H:1515:C:H6	1.80	0.46
26:1H:1899:G:N2	26:1H:1902:C:H5	2.13	0.46
26:1H:2402:C:O2'	26:1H:2403:C:OP1	2.33	0.46
29:11:244:ARG:HB2	29:11:245:PRO:HD2	1.97	0.46
30:21:108:SER:O	30:21:162:ALA:HA	2.15	0.46
38:58:67:LEU:HA	38:58:87:LEU:HD12	1.98	0.46
38:58:95:PRO:O	38:58:98:VAL:HG12	2.16	0.46
39:68:112:MET:H	39:68:112:MET:HG2	1.38	0.46
44:B8:70:VAL:HG12	44:B8:71:GLY:O	2.15	0.46
53:K8:15:LYS:HD3	53:K8:67:LYS:HZ1	1.80	0.46
1:1G:160:A:H2'	1:1G:161:A:O4'	2.15	0.46
1:1G:619:U:O2	4:32:135:LEU:HD22	2.15	0.46
1:1G:630:G:H2'	1:1G:631:G:H2'	1.96	0.46
1:1G:843:U:H3'	1:1G:848:C:O4'	2.15	0.46
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.15	0.46
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.16	0.46
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.16	0.46
4:32:148:VAL:HG12	4:32:152:SER:OG	2.16	0.46
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.50	0.46
13:4A:13:LYS:O	13:4A:45:VAL:HG23	2.15	0.46
22:1L:31:G:N2	22:1L:41:C:N3	2.57	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:49:C:H2'	22:1L:60:A:H4'	1.96	0.46
23:2L:1:C:H4'	41:45:87:LYS:NZ	2.30	0.46
26:14:363:G:H2'	26:14:363(A):A:C8	2.47	0.46
26:14:597:U:H2'	26:14:598:G:C8	2.50	0.46
26:14:941:A:H2'	26:14:942:G:C8	2.51	0.46
26:14:957:A:C6	26:14:2459:A:C8	3.04	0.46
26:14:1055:G:N2	26:14:1085:A:O2'	2.48	0.46
26:14:1314:C:H5"	63:14:4010:HOH:O	2.15	0.46
26:14:1564:C:O2'	26:14:1565:C:H5'	2.16	0.46
26:14:1859:A:N6	26:14:1883:G:O2'	2.48	0.46
26:14:2058:A:OP1	63:14:3890:HOH:O	2.20	0.46
26:14:2107:C:H42	26:14:2182:G:H1	1.63	0.46
26:14:2269:A:P	63:14:3788:HOH:O	2.73	0.46
41:45:135:ASP:HB2	50:D5:49:ARG:HH12	1.80	0.46
42:55:38:VAL:HG22	42:55:112:ALA:HB2	1.97	0.46
42:55:103:ARG:CZ	42:55:110:PRO:HD3	2.45	0.46
43:65:5:THR:O	43:65:8:GLU:N	2.48	0.46
43:65:11:LYS:HG3	43:65:91:PRO:HD3	1.96	0.46
44:75:99:LEU:HD22	44:75:101:PHE:HE1	1.80	0.46
45:85:92:ARG:C	45:85:94:ASN:H	2.19	0.46
56:J5:31:VAL:HG13	56:J5:42:PRO:HG3	1.96	0.46
58:L5:8:ASN:C	58:L5:8:ASN:OD1	2.53	0.46
1:13:109:A:N7	1:13:326:G:H2'	2.30	0.46
1:13:636:U:H2'	1:13:637:G:H8	1.80	0.46
1:13:983:A:H1'	1:13:1049:U:O2	2.15	0.46
1:13:1409:C:H2'	1:13:1410:G:C8	2.50	0.46
3:2E:35:GLU:O	3:2E:38:ARG:N	2.48	0.46
11:2I:21:ILE:HG12	11:2I:30:VAL:CG1	2.43	0.46
23:2K:17:C:H4'	23:2K:18:C:OP2	2.16	0.46
26:1H:609(A):G:H2'	26:1H:610:C:C6	2.50	0.46
26:1H:1058:U:H2'	26:1H:1059:G:C8	2.50	0.46
26:1H:1354:A:O3'	29:11:39:LYS:HE3	2.16	0.46
26:1H:1439:A:C2	26:1H:1553:A:C5	3.04	0.46
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.45	0.46
26:1H:2876:G:O5'	44:B8:2:ASN:HA	2.15	0.46
31:31:39:TRP:O	31:31:43:LYS:HG2	2.16	0.46
31:31:129:PHE:O	31:31:142:TRP:CD1	2.68	0.46
33:51:4:ILE:HG21	33:51:6:ARG:CZ	2.45	0.46
35:61:33:ARG:O	35:61:35:LEU:N	2.49	0.46
36:38:108:LYS:HG2	36:38:109:SER:HB3	1.96	0.46
43:A8:65:VAL:O	43:A8:69:VAL:HG12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:C8:58:ARG:HA	45:C8:61:TRP:CE3	2.50	0.46
49:G8:54:LYS:O	49:G8:55:TYR:CD2	2.69	0.46
59:Q8:16:ILE:HD13	59:Q8:59:LYS:HG3	1.96	0.46
1:1G:192:U:H2'	1:1G:193:C:H6	1.80	0.46
1:1G:197:A:H8	1:1G:198:G:N9	2.13	0.46
1:1G:695:A:H2'	1:1G:696:A:C8	2.50	0.46
1:1G:868:C:H2'	1:1G:869:G:O4'	2.15	0.46
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.51	0.46
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.15	0.46
2:12:82:ARG:HA	2:12:92:TYR:CE2	2.51	0.46
3:22:121:ALA:HB2	3:22:198:VAL:CG2	2.46	0.46
4:32:30:LYS:HB3	4:32:35:ARG:NH1	2.30	0.46
4:32:160:GLN:HA	4:32:163:GLU:HB2	1.96	0.46
5:42:122:GLU:O	5:42:126:ARG:NH1	2.49	0.46
8:72:8:ASP:O	8:72:12:ARG:HG3	2.15	0.46
8:72:73:ASP:OD1	8:72:75:ARG:HB2	2.15	0.46
9:82:5:TYR:HE1	9:82:16:ARG:HG2	1.80	0.46
9:82:55:ALA:C	9:82:57:GLY:H	2.17	0.46
9:82:55:ALA:O	9:82:57:GLY:N	2.48	0.46
10:1A:9:ARG:O	10:1A:95:GLU:HB3	2.15	0.46
22:1L:6:C:O2'	22:1L:7:G:H8	1.98	0.46
23:2L:54:G:H2'	23:2L:55:5MU:C6	2.49	0.46
24:3L:42:G:C6	24:3L:43:A:C5	3.03	0.46
26:14:108:U:H2'	26:14:109:G:C8	2.50	0.46
26:14:333:G:H5"	26:14:334:C:OP2	2.15	0.46
26:14:623:G:H2'	26:14:624:C:C6	2.50	0.46
26:14:637:A:OP1	40:35:133:SER:OG	2.23	0.46
26:14:1007:C:OP1	38:15:35:ARG:NH1	2.48	0.46
26:14:1048:A:H61	33:59:2:SER:HB2	1.80	0.46
26:14:1328:G:H2'	26:14:1330:C:C4	2.50	0.46
26:14:1742:C:H5'	26:14:1743:G:OP2	2.15	0.46
26:14:2233:U:H2'	26:14:2234:G:C8	2.50	0.46
26:14:2683:C:OP1	44:75:53:ARG:NH2	2.48	0.46
26:14:2861:G:C2	26:14:2862:G:C4	3.03	0.46
30:29:53:PRO:HA	30:29:74:PRO:HB3	1.97	0.46
41:45:110:THR:H	41:45:113:GLN:HE21	1.62	0.46
43:65:27:SER:HA	43:65:88:ASP:HB2	1.97	0.46
51:E5:72:ARG:HH21	51:E5:75:LEU:HD12	1.81	0.46
52:F5:67:ILE:HA	52:F5:67:ILE:HD13	1.76	0.46
59:M5:22:VAL:HB	59:M5:55:ALA:HB1	1.97	0.46
1:13:154:C:N4	1:13:167:G:H1	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:609:A:C2'	1:13:610:G:H5'	2.45	0.46
1:13:727:G:N2	1:13:730:G:OP2	2.41	0.46
1:13:952:U:C5	13:4I:104:ARG:NH1	2.83	0.46
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.50	0.46
2:1E:189:ASP:OD1	2:1E:205:ASP:HB3	2.14	0.46
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.48	0.46
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.16	0.46
6:5E:30:LEU:HB3	6:5E:35:ALA:HB3	1.96	0.46
10:1I:89:ASP:C	10:1I:91:PRO:HD3	2.36	0.46
12:3I:111:LYS:HD2	12:3I:111:LYS:HA	1.78	0.46
26:1H:996:A:H4'	45:C8:92:ARG:NE	2.30	0.46
26:1H:1177:A:H5'	26:1H:1178:C:OP1	2.16	0.46
26:1H:1202:C:N4	26:1H:1203:G:C6	2.84	0.46
26:1H:1410:G:H2'	26:1H:1411:C:C6	2.51	0.46
26:1H:2117:A:H2'	26:1H:2147:G:H21	1.80	0.46
26:1H:2134:A:N9	26:1H:2158:A:H2	2.14	0.46
26:1H:2211:G:O2'	26:1H:2212:A:OP1	2.31	0.46
27:16:13:A:O2'	27:16:15:A:H5"	2.16	0.46
30:21:96:PHE:O	30:21:175:VAL:HG11	2.16	0.46
32:41:66:GLN:HA	55:M8:6:HIS:HE1	1.79	0.46
43:A8:8:GLU:O	43:A8:11:LYS:HB3	2.15	0.46
50:H8:113:ALA:N	50:H8:114:GLY:HA2	2.30	0.46
52:J8:87:PRO:HB2	52:J8:91:LYS:NZ	2.31	0.46
56:N8:40:LYS:NZ	56:N8:48:GLU:H	2.14	0.46
4:32:21:LEU:HD12	4:32:21:LEU:H	1.79	0.46
11:2A:17:GLY:N	11:2A:79:SER:O	2.48	0.46
14:5A:42:ILE:H	14:5A:42:ILE:HG12	1.45	0.46
15:6A:82:ILE:O	15:6A:86:GLY:N	2.48	0.46
19:AA:58:VAL:O	19:AA:60:VAL:HG22	2.16	0.46
26:14:303:U:H2'	26:14:304:G:C8	2.51	0.46
26:14:589:C:H5"	31:39:95:ARG:HH12	1.80	0.46
26:14:676:A:H2	26:14:802:A:H61	1.62	0.46
26:14:997:G:OP1	45:85:93:LYS:HB2	2.14	0.46
26:14:1519:G:C6	26:14:1520:U:C4	3.03	0.46
26:14:2819:G:N7	63:14:4038:HOH:O	2.35	0.46
30:29:111:ARG:HB2	30:29:160:TYR:O	2.15	0.46
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.97	0.46
41:45:21:THR:HA	41:45:98:LYS:HB2	1.98	0.46
43:65:61:ASN:OD1	43:65:64:GLU:HG2	2.15	0.46
49:C5:59:GLY:O	49:C5:60:PHE:HB2	2.14	0.46
1:13:303:A:H2'	1:13:304:U:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:429:U:H3'	4:3E:9:CYS:SG	2.56	0.46
1:13:580:U:H2'	1:13:581:G:O4'	2.15	0.46
1:13:954:G:H21	1:13:1227:A:H62	1.62	0.46
1:13:1027:C:H1'	1:13:1028:C:C5	2.50	0.46
1:13:1207:G:H2'	1:13:1208:C:C6	2.50	0.46
2:1E:185:ILE:HA	2:1E:199:TYR:O	2.14	0.46
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.56	0.46
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.49	0.46
18:9I:26:LEU:HD13	18:9I:42:ARG:HD2	1.98	0.46
26:1H:1889:A:H2'	26:1H:1890:A:C8	2.50	0.46
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.15	0.46
26:1H:2287:A:H2	26:1H:2346:A:H2	1.62	0.46
27:16:95:U:H2'	27:16:96:G:C8	2.50	0.46
28:71:177:LYS:HB3	28:71:180:PHE:CZ	2.51	0.46
40:78:78:PRO:HB3	40:78:111:ARG:NH2	2.30	0.46
44:B8:41:ARG:HH12	44:B8:43:GLN:HG3	1.78	0.46
50:H8:51:ALA:HB1	50:H8:57:ILE:HD11	1.98	0.46
50:H8:63:ASP:O	50:H8:65:GLN:N	2.48	0.46
1:1G:735:C:H2'	1:1G:736:C:H6	1.81	0.46
1:1G:859:A:C4	1:1G:860:A:C8	3.03	0.46
1:1G:1305:G:HO2'	1:1G:1306:A:P	2.39	0.46
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.50	0.46
4:32:158:ILE:HA	4:32:161:ASN:HB2	1.97	0.46
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.97	0.46
16:7A:74:LEU:HD22	16:7A:79:VAL:HG21	1.97	0.46
19:AA:20:LEU:HD22	19:AA:20:LEU:H	1.78	0.46
26:14:191:A:H2'	26:14:192:C:C6	2.51	0.46
26:14:397:G:O2'	26:14:2231:C:H1'	2.16	0.46
26:14:480:A:H5'	49:C5:46:LYS:NZ	2.31	0.46
26:14:996:A:H2'	26:14:997:G:H8	1.80	0.46
26:14:1180:C:H2'	26:14:1181:C:C6	2.51	0.46
26:14:1664:A:OP2	63:14:3893:HOH:O	2.20	0.46
26:14:2101:G:H2'	26:14:2102:U:O4'	2.16	0.46
26:14:2296:U:H4'	26:14:2297:C:OP1	2.15	0.46
26:14:2314:C:O2'	26:14:2315:G:H5'	2.16	0.46
31:39:132:VAL:HG13	31:39:133:ASN:OD1	2.15	0.46
31:39:157:VAL:HG12	31:39:198:ALA:HB1	1.97	0.46
41:45:42:ILE:HD13	41:45:97:VAL:CG2	2.46	0.46
46:95:40:LEU:HD23	46:95:41:GLY:H	1.81	0.46
1:13:598:U:H4'	8:7E:94:TYR:CG	2.51	0.46
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1189:C:H5"	1:13:1190:G:OP2	2.15	0.46
1:13:1301:U:O2	1:13:1301:U:H2'	2.16	0.46
3:2E:76:VAL:HA	3:2E:83:ARG:HD3	1.96	0.46
6:5E:69:GLU:H	6:5E:69:GLU:CD	2.18	0.46
6:5E:89:MET:HG3	18:9I:76:LEU:HD21	1.96	0.46
10:1I:95:GLU:HG3	10:1I:96:ILE:N	2.31	0.46
12:3I:7:ILE:HD11	17:8I:32:TYR:HB3	1.97	0.46
24:3K:62:C:O5'	24:3K:62:C:H6	1.97	0.46
26:1H:94:G:H21	53:K8:47:ASN:ND2	2.14	0.46
26:1H:250:G:H2'	26:1H:251:A:C8	2.51	0.46
26:1H:304:G:H2'	26:1H:305:U:C6	2.51	0.46
26:1H:671:C:OP1	40:78:42:SER:O	2.34	0.46
26:1H:1082:U:H3	26:1H:1086:A:H2	1.64	0.46
26:1H:1341:U:O4	48:F8:16:LYS:NZ	2.39	0.46
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.50	0.46
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.51	0.46
27:16:71:C:C4	27:16:72:G:N7	2.84	0.46
29:11:199:ALA:C	29:11:201:HIS:H	2.19	0.46
36:38:36:GLU:OE2	36:38:103:GLY:HA3	2.16	0.46
38:58:99:LEU:HD23	38:58:99:LEU:HA	1.72	0.46
45:C8:17:ILE:HG23	45:C8:39:LEU:HD12	1.97	0.46
59:Q8:46:ARG:HB2	59:Q8:47:LYS:HB2	1.97	0.46
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.51	0.46
1:1G:926:G:C6	1:1G:1505:G:C6	3.03	0.46
1:1G:1207:G:C6	1:1G:1208:C:C4	3.04	0.46
7:62:146:GLU:CD	11:2A:54:ARG:HG2	2.36	0.46
10:1A:21:GLN:HA	10:1A:24:VAL:HB	1.98	0.46
13:4A:29:ARG:HD3	13:4A:64:TRP:CE2	2.51	0.46
26:14:11:G:H1'	26:14:2801:A:O3'	2.16	0.46
26:14:755:C:H2'	26:14:756:C:C6	2.50	0.46
26:14:1075:C:H5'	50:D5:190:GLU:OE1	2.14	0.46
26:14:1480:G:C6	26:14:1482:U:C4	3.03	0.46
26:14:2286:A:H4'	26:14:2287:A:O4'	2.16	0.46
26:14:2687:U:C4	26:14:2688:U:C5	3.03	0.46
30:29:54:GLN:NE2	30:29:72:VAL:O	2.46	0.46
32:49:138:GLN:HB3	32:49:155:MET:HE1	1.97	0.46
39:25:97:ARG:HA	39:25:117:LEU:HD22	1.97	0.46
47:A5:58:ALA:O	47:A5:64:MET:HB2	2.15	0.46
50:D5:23:LYS:HB3	50:D5:38:TYR:CD2	2.51	0.46
52:F5:2:SER:O	52:F5:4:VAL:HG12	2.15	0.46
1:13:192:U:C4'	20:BI:103:GLY:HA2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:657:G:N2	1:13:749:C:O2	2.38	0.46
1:13:843:U:H3'	1:13:848:C:C6	2.51	0.46
3:2E:162:GLN:HG2	25:4K:25:A:N6	2.31	0.46
4:3E:31:CYS:C	4:3E:33:MET:H	2.19	0.46
5:4E:145:LYS:HB3	5:4E:145:LYS:HE2	1.81	0.46
10:1I:46:ARG:HA	10:1I:64:GLU:HA	1.98	0.46
13:4I:11:ARG:HG2	13:4I:12:ASN:H	1.80	0.46
26:1H:821:A:O2'	26:1H:946:G:OP2	2.28	0.46
26:1H:897:C:H2'	26:1H:898:C:O4'	2.16	0.46
26:1H:1352:U:P	63:1H:4004:HOH:O	2.74	0.46
26:1H:2352:A:C4	26:1H:2366:A:C2	3.03	0.46
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.15	0.46
26:1H:2718:G:O2'	26:1H:2847:U:OP1	2.24	0.46
26:1H:2830:G:C5'	26:1H:2830:G:H8	2.28	0.46
29:11:31:LYS:C	29:11:35:LYS:HZ1	2.17	0.46
32:41:113:ARG:HH12	32:41:142:PRO:HA	1.81	0.46
38:58:78:TYR:CD1	38:58:78:TYR:N	2.84	0.46
39:68:14:THR:O	39:68:52:VAL:HG22	2.16	0.46
42:98:62:ALA:O	42:98:66:VAL:HG23	2.16	0.46
49:G8:5:MET:HE1	49:G8:32:PRO:HA	1.98	0.46
1:1G:186:C:H1'	20:BA:81:LYS:HE2	1.97	0.46
1:1G:280:C:H3'	1:1G:281:G:H5'	1.98	0.46
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.98	0.46
1:1G:852:G:C6	1:1G:853:G:N7	2.84	0.46
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.79	0.46
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.51	0.46
2:12:67:THR:HG21	2:12:155:LEU:HD21	1.97	0.46
6:52:2:ARG:O	6:52:66:GLU:HA	2.15	0.46
13:4A:23:TYR:CD2	13:4A:70:LEU:HD23	2.50	0.46
13:4A:46:LYS:HE3	13:4A:46:LYS:HB2	1.77	0.46
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	1.98	0.46
16:7A:19:ILE:HG22	16:7A:36:ILE:HG13	1.97	0.46
18:9A:29:PHE:HD2	18:9A:39:VAL:HG11	1.81	0.46
23:2L:47:7MG:H3'	23:2L:48:U:C5	2.51	0.46
23:2L:47:7MG:H3'	23:2L:48:U:C6	2.51	0.46
26:14:1499:C:H2'	26:14:1500:G:C8	2.51	0.46
26:14:1789:A:H2'	26:14:1790:C:O4'	2.16	0.46
26:14:2130:U:H2'	26:14:2158:A:H61	1.81	0.46
26:14:2355:C:H5"	26:14:2356:C:OP2	2.16	0.46
26:14:2601:C:H2'	26:14:2603:G:C8	2.51	0.46
26:14:2893:G:O2'	26:14:2894:G:OP2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:79:190:ARG:HB3	28:79:194:ARG:HH12	1.80	0.46
33:59:6:ARG:HH21	33:59:54:ARG:HH12	1.62	0.46
44:75:62:THR:HG22	44:75:75:ILE:HG12	1.98	0.46
46:95:7:THR:HG23	46:95:22:VAL:HG21	1.98	0.46
49:C5:67:LEU:HD12	49:C5:67:LEU:HA	1.66	0.46
1:13:443:C:H42	1:13:491:G:H1	1.62	0.46
1:13:1128:C:O2'	1:13:1130:A:N7	2.42	0.46
5:4E:6:PHE:CD1	5:4E:36:ASP:HB3	2.51	0.46
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.16	0.46
7:6E:13:GLN:O	7:6E:24:THR:HG21	2.16	0.46
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.98	0.46
20:BI:30:LYS:HA	20:BI:33:ILE:HG12	1.98	0.46
26:1H:357:A:H2'	26:1H:358:U:C6	2.48	0.46
26:1H:533:G:H5'	45:C8:24:TYR:CE1	2.51	0.46
26:1H:644:A:C2	26:1H:646:A:C4	3.04	0.46
26:1H:822:U:P	63:1H:4009:HOH:O	2.74	0.46
26:1H:1080:A:H2	37:48:126:MET:HG3	1.81	0.46
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.81	0.46
27:16:104:A:OP1	50:H8:72:ARG:NH2	2.39	0.46
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.97	0.46
33:51:130:ARG:HE	33:51:130:ARG:HB3	1.45	0.46
36:38:50:ARG:HH22	36:38:96:PHE:HE1	1.64	0.46
54:L8:10:LYS:NZ	63:L8:102:HOH:O	2.49	0.46
1:1G:300:A:H1'	1:1G:565:U:O2	2.16	0.46
1:1G:756:C:H2'	1:1G:757:U:O4'	2.16	0.46
1:1G:975:A:C4'	1:1G:976:G:H5"	2.38	0.46
1:1G:1059:C:O2	10:1A:53:PRO:HG3	2.15	0.46
1:1G:1178:G:O2'	1:1G:1180:A:N7	2.37	0.46
1:1G:1240:U:OP2	7:62:116:ALA:N	2.40	0.46
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.80	0.46
1:1G:1357:A:N7	1:1G:1358:U:C5	2.84	0.46
2:12:18:GLY:H	2:12:42:ILE:HG22	1.81	0.46
2:12:120:ALA:O	2:12:124:SER:HB2	2.16	0.46
3:22:84:ILE:O	3:22:88:ARG:NH2	2.49	0.46
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.46	0.46
6:52:45:LEU:HD23	6:52:57:GLN:HB3	1.98	0.46
13:4A:33:ALA:HB1	13:4A:56:LEU:HD21	1.98	0.46
16:7A:21:VAL:HG11	16:7A:59:TRP:CD1	2.51	0.46
22:1L:75:C:H2'	22:1L:76:C:H5'	1.98	0.46
26:14:528:A:O2'	26:14:529:A:H5'	2.16	0.46
26:14:780:G:N2	26:14:783:A:N6	2.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1386:C:C2	26:14:1387:C:C5	3.04	0.46
26:14:1973:G:H2'	26:14:1974:C:C6	2.51	0.46
26:14:2309:A:C6	26:14:2310:A:C6	3.04	0.46
26:14:2320:A:N6	26:14:2333:A:H2'	2.31	0.46
26:14:2400:G:H3'	26:14:2401:U:H6	1.81	0.46
26:14:2403:C:N3	26:14:2415:G:C2	2.84	0.46
33:59:86:GLU:HB2	33:59:87:LEU:H	1.64	0.46
33:59:149:ARG:HG3	33:59:162:ILE:O	2.16	0.46
42:55:85:PRO:O	42:55:88:ARG:HB2	2.16	0.46
56:J5:33:CYS:SG	56:J5:40:LYS:HB3	2.56	0.46
1:13:272:C:H2'	1:13:273:A:H8	1.80	0.46
1:13:509:A:C8	1:13:509:A:H3'	2.51	0.46
1:13:967:C:H5"	63:13:2036:HOH:O	2.16	0.46
1:13:1137:C:O2	1:13:1138:G:N2	2.49	0.46
9:8E:5:TYR:CE1	9:8E:16:ARG:HG2	2.47	0.46
10:1I:30:SER:O	10:1I:81:THR:HG23	2.16	0.46
20:BI:32:ALA:O	20:BI:36:LEU:HB2	2.15	0.46
26:1H:757:U:H2'	26:1H:758:C:O4'	2.16	0.46
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.16	0.46
26:1H:1050:A:H2'	26:1H:1051:G:O4'	2.15	0.46
26:1H:1439:A:C2	26:1H:1553:A:C4	3.04	0.46
26:1H:1818:U:OP2	29:11:157:ARG:NH2	2.47	0.46
26:1H:1970:A:H4'	63:1H:4402:HOH:O	2.14	0.46
26:1H:2053:G:OP1	30:21:144:ARG:HD3	2.16	0.46
26:1H:2148:G:H2'	26:1H:2149:G:H8	1.81	0.46
26:1H:2189:U:H2'	26:1H:2190:G:C8	2.51	0.46
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.51	0.46
27:16:15:A:H1'	27:16:109:G:C4	2.51	0.46
29:11:26:LYS:HD2	29:11:29:PRO:CG	2.39	0.46
32:41:77:ILE:HD12	32:41:77:ILE:HA	1.72	0.46
32:41:101:ILE:HG12	32:41:105:LYS:HE2	1.98	0.46
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.97	0.46
36:38:4:LYS:HD3	36:38:4:LYS:N	2.30	0.46
36:38:60:ARG:HA	36:38:60:ARG:HE	1.79	0.46
40:78:121:LYS:HE2	40:78:121:LYS:HB3	1.77	0.46
47:E8:92:ARG:NH1	47:E8:94:ASP:OD1	2.49	0.46
52:J8:17:SER:HA	63:J8:107:HOH:O	2.16	0.46
56:N8:31:VAL:HB	56:N8:42:PRO:HG3	1.98	0.46
56:N8:39:MET:C	56:N8:40:LYS:HD2	2.35	0.46
1:1G:64:G:H4'	1:1G:65:U:O5'	2.16	0.46
1:1G:187:C:H2'	1:1G:188:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:353:A:H5'	1:1G:353:A:C8	2.44	0.46
1:1G:753:A:OP1	15:6A:69:TYR:OH	2.29	0.46
6:52:97:PHE:HB2	18:9A:32:ARG:HE	1.81	0.46
8:72:21:LYS:HG2	8:72:23:SER:O	2.16	0.46
9:82:46:ALA:HA	9:82:78:LYS:HB2	1.98	0.46
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.97	0.46
12:3A:59:ARG:CZ	12:3A:59:ARG:HB2	2.46	0.46
15:6A:69:TYR:CE1	15:6A:73:GLU:HG3	2.50	0.46
17:8A:88:TYR:CZ	17:8A:92:ARG:HD2	2.50	0.46
26:14:404:C:P	63:14:3920:HOH:O	2.74	0.46
26:14:587:C:OP2	40:35:21:ARG:NH2	2.49	0.46
26:14:1021:A:H8	26:14:1021:A:H3'	1.81	0.46
26:14:1028:A:N6	26:14:1125:G:H2'	2.30	0.46
26:14:1048:A:H5'	26:14:1049:C:OP2	2.16	0.46
26:14:1266:G:O4'	47:A5:15:ARG:NH2	2.48	0.46
26:14:1774:C:P	63:14:3774:HOH:O	2.71	0.46
26:14:1796:U:H2'	26:14:1797:C:H6	1.81	0.46
26:14:2105:C:H2'	26:14:2106:G:O4'	2.15	0.46
26:14:2335:A:C8	26:14:2337:G:C5	3.04	0.46
26:14:2504:U:P	63:14:3901:HOH:O	2.74	0.46
26:14:2645:G:C3'	26:14:2646:C:H5'	2.45	0.46
26:14:2851:A:H2'	26:14:2852:G:H8	1.81	0.46
28:79:194:ARG:HA	28:79:197:GLU:HG3	1.98	0.46
30:29:100:GLU:O	30:29:172:VAL:HG23	2.16	0.46
43:65:3:ARG:HE	43:65:3:ARG:C	2.19	0.46
59:M5:29:LYS:HG2	59:M5:29:LYS:O	2.16	0.46
1:13:157:G:H2'	1:13:158:G:H8	1.81	0.45
1:13:1135:U:H2'	1:13:1137:C:C4	2.51	0.45
1:13:1318:A:H2'	1:13:1319:A:H5"	1.97	0.45
2:1E:19:HIS:HB3	2:1E:20:GLU:HG2	1.97	0.45
3:2E:73:PRO:HG3	3:2E:105:GLU:HA	1.97	0.45
4:3E:57:ARG:HG3	4:3E:202:LEU:HD22	1.99	0.45
11:2I:82:VAL:HG21	11:2I:98:LEU:HD12	1.98	0.45
14:5I:29:ARG:NH1	14:5I:31:ARG:HB2	2.31	0.45
15:6I:71:GLN:O	15:6I:71:GLN:HG2	2.16	0.45
22:1K:4:U:H2'	22:1K:5:C:C6	2.50	0.45
26:1H:102:G:OP1	53:K8:7:ARG:NH2	2.49	0.45
26:1H:176:G:C2'	26:1H:177:G:H5'	2.46	0.45
26:1H:444:C:H2'	26:1H:445:C:H6	1.81	0.45
26:1H:638:G:C5	26:1H:651:G:C2	3.04	0.45
26:1H:821:A:H5"	26:1H:822:U:C6	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.81	0.45
26:1H:1567:A:H5'	29:11:58:HIS:ND1	2.31	0.45
26:1H:1633:G:O6	63:1H:3954:HOH:O	2.19	0.45
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.16	0.45
26:1H:2199:A:H3'	26:1H:2205:C:C6	2.51	0.45
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.32	0.45
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.31	0.45
26:1H:2477:C:H2'	26:1H:2529:G:O6	2.17	0.45
26:1H:2516:G:C6	26:1H:2517:C:N4	2.84	0.45
36:38:36:GLU:CB	36:38:104:ILE:HB	2.46	0.45
34:28:16:THR:HB	34:28:20:LEU:HB2	1.97	0.45
39:68:68:GLU:OE2	39:68:78:ARG:NH1	2.47	0.45
1:1G:115:G:C2	1:1G:289:G:N7	2.84	0.45
1:1G:1535:C:N4	25:4L:9:G:H1	2.14	0.45
2:12:170:GLU:HA	2:12:172:ILE:HD12	1.99	0.45
4:32:162:LEU:HA	4:32:165:MET:HB3	1.98	0.45
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.51	0.45
23:2L:46:G:H5"	23:2L:47:7MG:OP1	2.15	0.45
26:14:2:G:N2	26:14:2900:A:H2	2.14	0.45
26:14:893:C:HO2'	26:14:894:C:P	2.37	0.45
26:14:984:A:H5"	26:14:985:C:H5	1.80	0.45
26:14:1098:A:H3'	26:14:1099:G:C5'	2.46	0.45
26:14:1510:A:H2'	26:14:1511:A:C8	2.51	0.45
26:14:2588:G:OP1	63:14:3894:HOH:O	2.20	0.45
26:14:2684:U:O4	63:14:3728:HOH:O	2.20	0.45
26:14:2749:A:C6	26:14:2750:A:N6	2.85	0.45
48:B5:57:LEU:HD21	48:B5:78:LYS:HB3	1.97	0.45
59:M5:49:VAL:O	59:M5:50:LEU:HG	2.16	0.45
1:13:57:G:C5	1:13:58:C:C4	3.04	0.45
1:13:1177:G:C6	1:13:1181:G:N7	2.85	0.45
1:13:1191:A:H2'	1:13:1192:C:C6	2.51	0.45
5:4E:69:VAL:O	5:4E:71:LEU:HD23	2.16	0.45
11:2I:18:ARG:HG3	11:2I:33:THR:OG1	2.15	0.45
12:3I:85:ILE:HA	12:3I:85:ILE:HD13	1.55	0.45
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.31	0.45
17:8I:90:ILE:O	17:8I:93:GLN:HB3	2.17	0.45
26:1H:988:A:H8	26:1H:988:A:O5'	1.98	0.45
26:1H:1203:G:H3'	26:1H:1204:A:H5"	1.98	0.45
26:1H:1478:G:H1'	26:1H:1557:C:O2'	2.16	0.45
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.51	0.45
26:1H:2392:A:C8	40:78:61:ARG:HD3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:35:LYS:HB3	29:11:35:LYS:HZ2	1.82	0.45
33:51:118:PRO:HD2	33:51:121:ILE:HG21	1.98	0.45
36:38:131:MET:H	36:38:131:MET:HG3	1.45	0.45
40:78:13:ASN:OD1	40:78:15:ARG:HG3	2.15	0.45
43:A8:15:ARG:NE	43:A8:88:ASP:OD2	2.48	0.45
43:A8:56:LEU:O	43:A8:58:LEU:HD13	2.16	0.45
45:C8:52:ARG:HA	45:C8:55:ARG:HG3	1.97	0.45
47:E8:23:LEU:HD22	56:N8:25:LEU:HD13	1.98	0.45
47:E8:64:MET:O	47:E8:65:LEU:HB2	2.16	0.45
49:G8:68:HIS:HB3	49:G8:71:LYS:HG2	1.98	0.45
1:1G:216:G:O2'	1:1G:217:C:O4'	2.33	0.45
1:1G:340:U:H2'	1:1G:341:C:C6	2.50	0.45
1:1G:518:C:H4'	1:1G:519:C:H5"	1.98	0.45
1:1G:678:U:H2'	1:1G:679:C:C6	2.51	0.45
1:1G:788:U:H2'	1:1G:789:U:O4'	2.16	0.45
1:1G:1323:G:H2'	1:1G:1324:A:H8	1.82	0.45
1:1G:1498:U:O2'	1:1G:1499:A:OP2	2.32	0.45
3:22:191:THR:OG1	3:22:192:THR:N	2.48	0.45
7:62:60:LYS:HD2	7:62:60:LYS:HA	1.81	0.45
16:7A:47:ASP:HB2	16:7A:50:LYS:NZ	2.31	0.45
26:14:951:C:O2'	26:14:952:G:H5'	2.17	0.45
26:14:1001:A:H2'	26:14:1002:G:O4'	2.16	0.45
26:14:1812:A:H2'	26:14:1813:G:C8	2.51	0.45
26:14:2238:G:N7	63:14:4036:HOH:O	2.35	0.45
26:14:2718:G:C6	26:14:2719:G:C5	3.04	0.45
27:1J:52:A:O2'	27:1J:53:A:N7	2.44	0.45
29:19:66:ASP:HB3	29:19:105:ILE:HD12	1.98	0.45
33:59:60:ARG:O	33:59:63:SER:OG	2.33	0.45
33:59:121:ILE:HD11	33:59:140:LYS:HE3	1.97	0.45
43:65:62:LYS:HA	43:65:65:VAL:HB	1.98	0.45
45:85:65:ILE:HD11	45:85:96:ALA:CB	2.47	0.45
1:13:48:C:H6	1:13:365:U:O4	1.99	0.45
1:13:403:C:OP1	4:3E:137:SER:OG	2.28	0.45
1:13:652:U:H1'	1:13:653:A:C2	2.50	0.45
1:13:724:G:O2'	1:13:725:G:H5'	2.17	0.45
1:13:942:G:C2	1:13:1342:C:C2	3.05	0.45
1:13:1059:C:O2'	10:1I:53:PRO:HD3	2.16	0.45
1:13:1225:A:N6	63:13:2054:HOH:O	2.49	0.45
1:13:1497:G:C2'	1:13:1498:U:H5'	2.46	0.45
2:1E:141:GLU:O	2:1E:145:LEU:HG	2.17	0.45
4:3E:99:SER:O	4:3E:140:VAL:HG22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:82:ILE:HG23	15:6I:87:ILE:HB	1.98	0.45
20:BI:34:LYS:HB2	20:BI:34:LYS:HE3	1.56	0.45
24:3K:16:C:H1'	24:3K:62:C:H5'	1.97	0.45
26:1H:459:U:H5"	58:P8:40:TRP:CD2	2.51	0.45
26:1H:652:C:N4	26:1H:653:A:N6	2.65	0.45
26:1H:847:U:P	63:1H:3739:HOH:O	2.69	0.45
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.81	0.45
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.51	0.45
32:41:98:ARG:O	32:41:101:ILE:HD13	2.15	0.45
35:61:7:GLU:HA	35:61:15:VAL:HG22	1.99	0.45
38:58:22:THR:OG1	38:58:23:LEU:N	2.49	0.45
38:58:65:LYS:HB2	38:58:65:LYS:HE3	1.68	0.45
42:98:94:TYR:O	42:98:117:VAL:HG12	2.17	0.45
45:C8:50:ARG:HH12	46:D8:72:VAL:HG23	1.80	0.45
58:P8:12:ARG:HH21	58:P8:44:PRO:HB3	1.81	0.45
1:1G:25:C:H2'	1:1G:26:A:C8	2.51	0.45
1:1G:428:G:O4'	1:1G:430:A:C8	2.70	0.45
1:1G:967:C:H2'	1:1G:968:A:N7	2.30	0.45
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.16	0.45
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.16	0.45
2:12:44:LEU:H	2:12:44:LEU:HG	1.50	0.45
4:32:153:ARG:HD3	4:32:181:MET:SD	2.56	0.45
7:62:18:TYR:HE1	7:62:44:TYR:HE1	1.63	0.45
9:82:77:ILE:O	9:82:81:ILE:HG12	2.16	0.45
26:14:8:A:H2	26:14:2896:C:H42	1.65	0.45
26:14:117:G:C6	26:14:119:A:C6	3.05	0.45
26:14:273(F):C:H3'	26:14:274:G:C5'	2.45	0.45
26:14:832:G:N2	40:35:53:GLY:HA3	2.31	0.45
26:14:1188:U:H4'	46:95:79:VAL:HG22	1.99	0.45
26:14:1939:U:OP1	26:14:2604:U:O2'	2.31	0.45
30:29:31:CYS:HB2	30:29:49:LEU:HD23	1.97	0.45
31:39:53:THR:O	31:39:56:GLU:N	2.49	0.45
33:59:107:VAL:O	33:59:152:ARG:NH2	2.49	0.45
35:69:27:ARG:HD3	52:F5:71:TYR:CE2	2.52	0.45
38:15:7:LYS:O	38:15:9:VAL:HG22	2.16	0.45
40:35:65:ARG:HB3	63:35:305:HOH:O	2.16	0.45
41:45:21:THR:HG21	41:45:101:ARG:CD	2.47	0.45
43:65:16:ASN:C	43:65:18:ILE:H	2.19	0.45
53:G5:32:LEU:O	53:G5:36:ARG:N	2.49	0.45
58:L5:12:ARG:NH2	58:L5:44:PRO:HB3	2.31	0.45
1:13:21:G:H2'	1:13:22:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:545:C:O2'	1:13:549:C:OP1	2.33	0.45
1:13:803:G:H2'	1:13:804:U:O4'	2.17	0.45
1:13:953:G:H5'	1:13:965:A:H61	1.82	0.45
1:13:1503:A:N3	63:13:2052:HOH:O	2.49	0.45
2:1E:55:PHE:HD1	2:1E:58:ILE:HD12	1.81	0.45
4:3E:50:ARG:CZ	4:3E:50:ARG:HB2	2.44	0.45
4:3E:98:GLU:HG2	4:3E:189:PRO:HG2	1.98	0.45
4:3E:150:GLU:H	4:3E:150:GLU:CD	2.20	0.45
5:4E:80:ILE:HG12	5:4E:81:GLU:N	2.31	0.45
8:7E:95:VAL:CG1	8:7E:99:GLU:HB2	2.47	0.45
14:5I:8:GLU:HA	14:5I:11:LYS:HD2	1.98	0.45
15:6I:62:GLN:HG3	15:6I:65:ARG:NH2	2.32	0.45
22:1K:46:G:H5"	22:1K:47:7MG:OP2	2.16	0.45
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.17	0.45
26:1H:74:A:C5'	26:1H:74:A:H8	2.29	0.45
26:1H:658:C:H2'	26:1H:659:C:C6	2.52	0.45
26:1H:945:A:P	63:1H:3860:HOH:O	2.73	0.45
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.17	0.45
26:1H:1473:G:H8	26:1H:1473:G:O5'	1.98	0.45
26:1H:1800:C:OP1	29:11:266:SER:OG	2.22	0.45
26:1H:2098:U:C4	26:1H:2099:U:C5	3.03	0.45
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.47	0.45
30:21:143:ASN:HB2	30:21:147:PRO:HD2	1.99	0.45
32:41:167:GLU:O	32:41:170:ARG:HB3	2.16	0.45
33:51:122:THR:HB	33:51:134:SER:HB2	1.99	0.45
35:61:133:HIS:HB2	35:61:134:PRO:HD2	1.98	0.45
36:38:14:LYS:NZ	36:38:17:LEU:HD23	2.31	0.45
40:78:112:LEU:O	40:78:128:HIS:HB2	2.17	0.45
41:88:95:ALA:O	41:88:97:VAL:HG23	2.17	0.45
49:G8:52:SER:H	49:G8:56:PRO:HA	1.80	0.45
1:1G:222:U:C2	1:1G:223:U:C5	3.04	0.45
1:1G:578:C:OP1	63:1G:1845:HOH:O	2.21	0.45
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.51	0.45
1:1G:1333:A:H2'	1:1G:1334:G:O4'	2.17	0.45
3:22:6:HIS:CE1	3:22:8:ILE:HB	2.52	0.45
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.16	0.45
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.46	0.45
26:14:212:G:H2'	26:14:213:A:O4'	2.16	0.45
26:14:340:A:C8	26:14:341:G:C8	3.05	0.45
26:14:629:G:H5"	26:14:650:C:O2'	2.16	0.45
26:14:659:C:H2'	26:14:660:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:975:G:C5	26:14:976:C:C5	3.05	0.45
26:14:1520:U:H2'	26:14:1521:G:O4'	2.17	0.45
26:14:1966:A:H4'	26:14:1967:C:OP1	2.16	0.45
26:14:2462:U:H2'	26:14:2463:C:C6	2.51	0.45
31:39:47:GLY:O	31:39:94:PRO:HA	2.16	0.45
31:39:64:ILE:O	31:39:65:TRP:HD1	1.99	0.45
31:39:131:GLY:H	31:39:142:TRP:HD1	1.62	0.45
31:39:169:ASN:O	31:39:169:ASN:ND2	2.50	0.45
33:59:149:ARG:HE	33:59:154:PRO:CB	2.29	0.45
35:69:100:ALA:O	35:69:104:GLN:HB3	2.16	0.45
41:45:38:GLU:OE2	41:45:128:LYS:HD2	2.17	0.45
43:65:33:LYS:HB3	43:65:34:HIS:CD2	2.51	0.45
45:85:49:HIS:HA	45:85:52:ARG:CB	2.46	0.45
47:A5:29:LEU:O	47:A5:29:LEU:HG	2.16	0.45
52:F5:92:LYS:O	52:F5:93:GLU:C	2.55	0.45
53:G5:43:GLN:HG3	53:G5:46:GLN:OE1	2.16	0.45
1:13:224:C:H2'	1:13:225:C:H6	1.81	0.45
1:13:797:C:C2'	1:13:798:G:H5'	2.46	0.45
1:13:872:A:C5	1:13:874:G:C8	3.05	0.45
1:13:946:A:N7	63:13:2014:HOH:O	2.36	0.45
1:13:1037:C:H2'	1:13:1038:C:C6	2.51	0.45
1:13:1143:G:C2	1:13:1144:G:C4	3.05	0.45
2:1E:12:GLU:N	2:1E:12:GLU:OE1	2.49	0.45
10:1I:54:PHE:O	10:1I:55:LYS:HG3	2.17	0.45
10:1I:80:LYS:HE3	1:1G:1163:C:H5"	1.98	0.45
11:2I:112:THR:O	11:2I:114:VAL:HG23	2.17	0.45
23:2K:53:G:C6	23:2K:54:G:C5	3.05	0.45
24:3K:35:A:C2	24:3K:36:C:C2	3.04	0.45
26:1H:356:G:H2'	26:1H:357:A:H8	1.81	0.45
26:1H:527:C:OP2	26:1H:2779:U:C5	2.69	0.45
26:1H:527:C:OP2	26:1H:2779:U:H5	1.99	0.45
26:1H:686:G:H8	58:P8:6:GLN:O	2.00	0.45
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.99	0.45
26:1H:890:A:H2'	26:1H:892:G:O4'	2.17	0.45
26:1H:1061:U:H4'	26:1H:1070:A:C1'	2.29	0.45
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.17	0.45
26:1H:1454:U:H5'	42:98:63:ARG:CZ	2.47	0.45
26:1H:2849:U:OP2	44:B8:95:ARG:NH1	2.50	0.45
32:41:28:VAL:O	32:41:31:VAL:HG13	2.17	0.45
33:51:4:ILE:HG12	33:51:6:ARG:CD	2.46	0.45
36:38:16:ASN:HA	36:38:19:ARG:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:38:63:LEU:HD23	36:38:63:LEU:HA	1.86	0.45
39:68:77:ILE:HG12	39:68:78:ARG:N	2.31	0.45
40:78:37:GLY:O	40:78:40:SER:N	2.50	0.45
42:98:101:ALA:HA	56:N8:44:THR:HG21	1.98	0.45
42:98:105:ARG:C	42:98:107:ASP:H	2.19	0.45
44:B8:107:ASP:C	44:B8:111:ARG:CZ	2.85	0.45
48:F8:39:ILE:O	48:F8:43:VAL:HG23	2.15	0.45
1:1G:567:G:H1'	63:1G:1893:HOH:O	2.17	0.45
1:1G:1103:C:C4	1:1G:1104:G:N7	2.84	0.45
1:1G:1157:A:H2	1:1G:1180:A:C6	2.34	0.45
3:22:18:TRP:NE1	14:5A:55:GLY:N	2.64	0.45
3:22:29:TYR:OH	14:5A:54:PRO:HD2	2.16	0.45
7:62:16:LEU:CD2	9:82:42:ARG:HA	2.47	0.45
10:1A:56:HIS:O	10:1A:58:ASP:N	2.50	0.45
16:7A:43:LYS:HG2	16:7A:48:TRP:CD2	2.52	0.45
17:8A:81:ARG:HD3	17:8A:84:LEU:HD23	1.97	0.45
23:2L:32:G:C5	23:2L:33:OMC:C5	3.05	0.45
23:2L:41:C:C2	23:2L:42:C:C5	3.04	0.45
26:14:529:A:H4'	26:14:530:G:H5'	1.98	0.45
26:14:975:G:H1'	26:14:990:A:C2	2.52	0.45
26:14:1105:U:H2'	26:14:1106:G:H8	1.81	0.45
26:14:1485:G:H1	26:14:1504:C:N4	2.14	0.45
26:14:1759:A:H4'	26:14:2715:C:O4'	2.17	0.45
26:14:2113:U:H3'	26:14:2114:A:C4'	2.37	0.45
26:14:2129:C:H5'	26:14:2130:U:OP2	2.17	0.45
26:14:2231:C:OP1	52:F5:42:GLN:HA	2.16	0.45
26:14:2314:C:H5'	32:49:38:VAL:HG11	1.98	0.45
26:14:2507:C:H5"	26:14:2573:C:N4	2.31	0.45
29:19:39:LYS:O	29:19:40:THR:HG23	2.16	0.45
31:39:25:PRO:HB2	31:39:27:GLU:N	2.30	0.45
39:25:106:LEU:HD22	39:25:111:PHE:HB2	1.98	0.45
45:85:52:ARG:NH1	45:85:55:ARG:HD2	2.32	0.45
46:95:52:VAL:HG12	46:95:55:ALA:HB3	1.97	0.45
49:C5:98:VAL:HA	49:C5:104:GLY:HA2	1.98	0.45
52:F5:53:VAL:HG22	52:F5:54:ALA:H	1.81	0.45
1:13:401:C:O2'	1:13:621:A:N3	2.47	0.45
1:13:827:U:C5	1:13:870:U:C5	3.04	0.45
1:13:1087:G:H2'	1:13:1088:G:H8	1.82	0.45
1:13:1443:G:H22	44:B8:119:LYS:HG3	1.81	0.45
2:1E:165:VAL:O	2:1E:187:LEU:HD12	2.16	0.45
7:6E:38:LEU:O	7:6E:42:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:64:LYS:HB3	8:7E:79:VAL:HG21	1.99	0.45
11:2I:82:VAL:CG1	11:2I:108:ILE:HG13	2.46	0.45
12:3I:114:LYS:HB3	12:3I:114:LYS:HE2	1.87	0.45
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.82	0.45
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.17	0.45
18:9I:52:PRO:O	18:9I:56:THR:HG23	2.16	0.45
26:1H:207:A:H2'	26:1H:208:C:O4'	2.17	0.45
26:1H:247:G:O2'	26:1H:250:G:N7	2.44	0.45
26:1H:639:U:H2'	26:1H:640:C:C6	2.51	0.45
26:1H:654(T):A:H2'	26:1H:654(U):A:O4'	2.17	0.45
26:1H:1047:G:H2'	26:1H:1110:G:H1	1.78	0.45
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.81	0.45
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.99	0.45
26:1H:2210:G:H3'	26:1H:2211:G:C4	2.52	0.45
26:1H:2786:U:O2'	30:21:62:PRO:HA	2.17	0.45
27:16:15:A:H1'	27:16:109:G:N9	2.32	0.45
29:11:237:GLU:O	29:11:238:GLY:C	2.55	0.45
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.51	0.45
31:31:39:TRP:HB2	31:31:101:LEU:HD12	1.99	0.45
31:31:181:LEU:HA	31:31:181:LEU:HD23	1.79	0.45
33:51:12:PRO:HG2	33:51:13:LYS:HG2	1.97	0.45
33:51:125:VAL:HG13	33:51:131:VAL:HB	1.97	0.45
37:48:83:GLY:H	37:48:99:ILE:HG21	1.79	0.45
47:E8:12:ILE:HG12	47:E8:13:SER:H	1.82	0.45
52:J8:83:GLU:C	52:J8:85:LEU:H	2.20	0.45
1:1G:128:G:H5'	17:8A:2:PRO:HA	1.99	0.45
1:1G:940:C:H2'	1:1G:941:G:C8	2.52	0.45
1:1G:980:C:H3'	1:1G:981:U:H6	1.82	0.45
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.52	0.45
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.51	0.45
1:1G:1453:G:H21	1:1G:1453:G:P	2.39	0.45
2:12:73:THR:HG21	2:12:97:TRP:N	2.32	0.45
3:22:175:LEU:HD21	3:22:201:TYR:CE2	2.52	0.45
9:82:26:VAL:HG13	9:82:61:ALA:O	2.17	0.45
9:82:112:LYS:HG2	9:82:119:ALA:HB2	1.97	0.45
13:4A:15:VAL:O	13:4A:19:LEU:HG	2.17	0.45
20:BA:11:SER:HA	20:BA:13:LEU:CD2	2.46	0.45
21:1B:12:LYS:HB3	21:1B:17:THR:O	2.17	0.45
26:14:783:A:OP2	63:19:302:HOH:O	2.21	0.45
26:14:832:G:H5'	40:35:45:LEU:CD1	2.45	0.45
26:14:929:G:H8	26:14:929:G:O5'	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1028:A:H2'	26:14:1029:A:C8	2.52	0.45
26:14:1814:G:H5"	29:19:54:ARG:HH12	1.82	0.45
26:14:2418:A:H2'	26:14:2419:U:O4'	2.17	0.45
27:1J:75:G:H2'	27:1J:76:G:O4'	2.17	0.45
29:19:44:ASN:OD1	29:19:46:GLN:HG3	2.16	0.45
31:39:25:PRO:HA	31:39:27:GLU:HB2	1.98	0.45
31:39:68:LYS:HD3	31:39:68:LYS:HA	1.65	0.45
31:39:89:VAL:O	31:39:90:PHE:C	2.55	0.45
33:59:10:PRO:HD2	33:59:50:VAL:H	1.81	0.45
33:59:124:GLU:OE1	33:59:124:GLU:N	2.49	0.45
39:25:107:ARG:HB3	39:25:107:ARG:HH11	1.82	0.45
43:65:16:ASN:ND2	43:65:16:ASN:N	2.64	0.45
45:85:60:LEU:HA	45:85:63:VAL:HG12	1.99	0.45
46:95:19:LYS:HA	46:95:94:LEU:O	2.17	0.45
50:D5:112:ARG:O	50:D5:113:ALA:HB3	2.17	0.45
1:13:455:C:N4	1:13:477:G:H22	2.15	0.45
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.17	0.45
1:13:587:G:N2	1:13:755:G:C5	2.85	0.45
1:13:590:C:N4	1:13:649:G:H1	2.13	0.45
2:1E:11:LEU:HD23	2:1E:213:LEU:HG	1.98	0.45
2:1E:69:LEU:HB3	2:1E:162:ILE:HG23	1.97	0.45
3:2E:16:ARG:HD2	3:2E:16:ARG:HA	1.69	0.45
3:2E:125:GLU:HG2	3:2E:190:ARG:O	2.17	0.45
7:6E:50:ILE:O	7:6E:54:THR:HG23	2.16	0.45
18:9I:73:ALA:HB1	18:9I:79:LEU:HG	1.97	0.45
19:AI:41:VAL:HB	19:AI:42:PRO:O	2.17	0.45
26:1H:443:A:N7	31:31:45:ARG:HG2	2.32	0.45
26:1H:900:A:H3'	26:1H:901:A:H8	1.80	0.45
26:1H:1047:G:N2	26:1H:1110:G:H2'	2.32	0.45
26:1H:1344:G:H4'	26:1H:1384:A:C5	2.52	0.45
26:1H:2287:A:H2	26:1H:2346:A:C2	2.35	0.45
26:1H:2591:C:OP2	29:11:238:GLY:O	2.34	0.45
26:1H:2795:G:H3'	26:1H:2797:U:H5"	1.97	0.45
34:28:16:THR:OG1	34:28:21:LYS:HE2	2.17	0.45
50:H8:51:ALA:CB	50:H8:57:ILE:HD11	2.47	0.45
57:O8:40:CYS:SG	57:O8:45:LYS:HD3	2.57	0.45
1:1G:108:G:H5'	1:1G:109:A:C5'	2.45	0.45
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.32	0.45
1:1G:1084:G:C5	1:1G:1085:U:C4	3.04	0.45
1:1G:1533:C:O2'	1:1G:1534:A:OP1	2.30	0.45
14:5A:17:LYS:NZ	14:5A:18:VAL:HG13	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:33:RSP:H5'	22:1L:33:RSP:C6	2.46	0.45
24:3L:74:A:H5"	24:3L:74:A:H8	1.82	0.45
26:14:84:A:N6	26:14:102:G:O2'	2.39	0.45
26:14:365:C:OP2	63:14:3895:HOH:O	2.21	0.45
26:14:452:G:OP2	63:14:3897:HOH:O	2.21	0.45
26:14:531:C:H4'	26:14:532:A:H5"	1.98	0.45
26:14:747:U:O2	26:14:2014:A:H1'	2.16	0.45
26:14:900:A:H2'	26:14:900:A:N3	2.32	0.45
26:14:1408:C:C2	26:14:1595:G:N2	2.85	0.45
26:14:1467:C:H42	26:14:1525:G:H1	1.63	0.45
26:14:1542:G:N7	26:14:1543:A:C5	2.85	0.45
26:14:2119:A:N6	26:14:2168:G:N2	2.65	0.45
28:79:42:GLU:H	28:79:42:GLU:HG3	1.54	0.45
29:19:48:ARG:O	29:19:50:THR:HG23	2.17	0.45
30:29:120:TRP:CG	30:29:155:LYS:HB3	2.51	0.45
35:69:58:LEU:O	35:69:62:LYS:N	2.49	0.45
40:35:146:VAL:HG22	40:35:147:LEU:HD23	1.97	0.45
44:75:6:LEU:O	44:75:10:VAL:HG23	2.16	0.45
47:A5:73:ALA:O	47:A5:106:ILE:HG12	2.16	0.45
51:E5:43:THR:HG23	51:E5:43:THR:O	2.16	0.45
1:13:1298:C:P	7:6E:114:ARG:HH22	2.39	0.45
1:13:1349:A:H2'	1:13:1350:A:C8	2.51	0.45
2:1E:79:ASP:N	2:1E:81:VAL:HG22	2.32	0.45
17:8I:100:LYS:HG2	17:8I:101:ARG:HE	1.81	0.45
26:1H:710:G:N7	63:1H:4104:HOH:O	2.36	0.45
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.17	0.45
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.51	0.45
26:1H:2110:G:C6	26:1H:2120:G:C8	3.05	0.45
26:1H:2143:C:N4	26:1H:2144:U:O2	2.50	0.45
27:16:31:C:H2'	27:16:32:C:H6	1.82	0.45
29:11:3:VAL:HG13	29:11:17:THR:HG23	1.98	0.45
31:31:53:THR:O	31:31:55:GLY:N	2.49	0.45
31:31:134:GLY:CA	31:31:166:ALA:HB2	2.47	0.45
32:41:109:VAL:HG22	55:M8:33:VAL:HG21	1.99	0.45
37:48:78:ILE:CG1	37:48:131:ALA:HB2	2.47	0.45
48:F8:26:TYR:O	48:F8:81:VAL:HG13	2.17	0.45
50:H8:29:TYR:OH	50:H8:87:ASP:HB3	2.17	0.45
50:H8:154:ASP:OD1	50:H8:154:ASP:N	2.48	0.45
52:J8:7:ILE:HG12	52:J8:62:VAL:HG12	1.98	0.45
1:1G:186(C):G:C6	1:1G:191(E):G:N1	2.85	0.45
1:1G:232:G:H2'	1:1G:233:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:692:U:OP2	11:2A:26:ASN:ND2	2.49	0.45
1:1G:1206:G:H4'	3:22:192:THR:O	2.16	0.45
4:32:110:PHE:HD1	4:32:110:PHE:H	1.65	0.45
5:42:30:ALA:O	5:42:45:PHE:HA	2.17	0.45
8:72:44:PHE:HA	8:72:79:VAL:CG1	2.47	0.45
12:3A:70:ILE:HG21	12:3A:75:HIS:CD2	2.51	0.45
19:AA:11:VAL:HG22	19:AA:12:ASP:N	2.32	0.45
20:BA:85:MET:H	20:BA:85:MET:HG2	1.47	0.45
22:1L:23:G:HO2'	22:1L:24:A:P	2.40	0.45
26:14:286:C:H2'	26:14:287:C:C6	2.52	0.45
26:14:854:G:H2'	26:14:855:G:C8	2.51	0.45
26:14:1204:A:N1	26:14:1241:A:C2	2.84	0.45
26:14:1268:A:H5'	63:14:4136:HOH:O	2.17	0.45
26:14:2317:C:H2'	26:14:2318:G:O4'	2.17	0.45
26:14:2494:G:C4	26:14:2495:G:C8	3.05	0.45
26:14:2516:G:C5	26:14:2517:C:C4	3.04	0.45
26:14:2823:A:OP1	30:29:113:PHE:HB2	2.16	0.45
27:1J:9:G:H5'	43:65:25:ARG:HH12	1.82	0.45
29:19:246:PRO:O	29:19:254:THR:HG22	2.17	0.45
30:29:32:PRO:HA	30:29:90:THR:HA	1.98	0.45
30:29:41:LYS:NZ	30:29:42:ASP:OD2	2.41	0.45
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.52	0.45
32:49:145:THR:O	32:49:146:TYR:HB3	2.17	0.45
38:15:41:ASP:O	45:85:64:ARG:NH2	2.50	0.45
40:35:13:ASN:C	40:35:15:ARG:N	2.70	0.45
43:65:14:VAL:O	43:65:18:ILE:HG13	2.17	0.45
45:85:48:ALA:O	45:85:52:ARG:HB2	2.17	0.45
45:85:52:ARG:HH11	45:85:52:ARG:HG2	1.80	0.45
45:85:108:GLU:OE1	45:85:112:ARG:NH1	2.45	0.45
1:13:1002:G:C2	1:13:1003:G:H1'	2.51	0.45
1:13:1240:U:O2'	7:6E:38:LEU:HG	2.17	0.45
1:13:1313:U:OP1	19:AI:6:LYS:HB3	2.17	0.45
1:13:1315:U:H2'	1:13:1316:G:O4'	2.16	0.45
5:4E:78:HIS:CE1	5:4E:142:LEU:HD23	2.52	0.45
8:7E:14:ARG:HG3	8:7E:83:ILE:HG23	1.99	0.45
9:8E:99:LEU:HD12	9:8E:101:PHE:HE2	1.81	0.45
23:2K:26:C:H2'	23:2K:27:G:O4'	2.17	0.45
26:1H:247:G:H4'	26:1H:386:G:C5	2.52	0.45
26:1H:581:C:OP1	45:C8:33:ARG:HG3	2.17	0.45
26:1H:602:G:N2	26:1H:655:A:C8	2.83	0.45
26:1H:782:A:C2	29:11:226:MET:HG2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:895:U:H4'	26:1H:896:A:OP1	2.16	0.45
26:1H:1036:G:H1	26:1H:1119:C:H42	1.64	0.45
26:1H:1070:A:N6	26:1H:1096:A:N1	2.65	0.45
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.49	0.45
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.52	0.45
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.16	0.45
26:1H:2881:C:H2'	26:1H:2882:A:C8	2.52	0.45
27:16:15:A:OP1	27:16:15:A:C4'	2.64	0.45
31:31:155:LEU:HB2	31:31:189:THR:HG21	1.99	0.45
32:41:107:LEU:HA	32:41:107:LEU:HD23	1.65	0.45
33:51:94:TYR:CD1	33:51:107:VAL:HA	2.52	0.45
36:38:24:PHE:CE2	36:38:88:ALA:HB2	2.51	0.45
37:48:68:VAL:O	37:48:69:THR:OG1	2.33	0.45
43:A8:62:LYS:HB2	43:A8:97:ARG:HD2	1.99	0.45
43:A8:106:ARG:NH2	43:A8:107:GLU:HB2	2.32	0.45
44:B8:111:ARG:HD3	44:B8:111:ARG:H	1.81	0.45
46:D8:85:LYS:HB2	46:D8:85:LYS:NZ	2.31	0.45
50:H8:92:SER:O	50:H8:130:PRO:HG2	2.17	0.45
55:M8:23:GLU:C	55:M8:25:TYR:H	2.17	0.45
57:O8:44:ARG:HH11	57:O8:44:ARG:H	1.65	0.45
1:1G:1275:A:C6	1:1G:1276:G:C6	3.05	0.45
1:1G:1329:A:O2'	13:4A:24:GLY:HA2	2.16	0.45
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.52	0.45
7:62:70:LYS:HG2	7:62:96:GLN:OE1	2.17	0.45
8:72:68:ARG:HD3	8:72:69:ARG:H	1.81	0.45
8:72:123:GLU:O	8:72:127:LEU:HB2	2.17	0.45
12:3A:27:LEU:HD23	12:3A:33:ARG:CZ	2.47	0.45
13:4A:53:VAL:O	13:4A:57:ARG:N	2.28	0.45
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.32	0.45
24:3L:15:G:O2'	24:3L:16:C:H5'	2.17	0.45
26:14:686:G:H1	58:L5:16:HIS:CD2	2.35	0.45
26:14:1021:A:H3'	26:14:1021:A:C8	2.52	0.45
26:14:1336:A:H2'	26:14:1337:G:C8	2.52	0.45
26:14:1431:U:H2'	26:14:1432:C:C6	2.51	0.45
26:14:1600:C:O2'	26:14:1601:G:H5'	2.17	0.45
26:14:1623:G:N7	63:14:4045:HOH:O	2.36	0.45
26:14:1691:C:O2'	26:14:1692:U:H5'	2.17	0.45
26:14:2118:U:O2'	26:14:2145:C:N3	2.50	0.45
26:14:2346:A:H5"	26:14:2383:G:C1'	2.47	0.45
26:14:2472:G:N1	26:14:2477:C:OP1	2.48	0.45
31:39:38:ARG:HB3	31:39:99:TYR:OH	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:141:ALA:O	31:39:144:LYS:HB2	2.17	0.45
33:59:4:ILE:HD11	33:59:7:LEU:HD23	1.99	0.45
39:25:2:ILE:HG13	39:25:8:LEU:HD11	1.98	0.45
43:65:30:ARG:HD2	43:65:97:ARG:HD3	1.99	0.45
50:D5:110:GLY:HA3	50:D5:145:GLU:HA	1.99	0.45
1:13:265:G:N2	1:13:267:C:H5'	2.32	0.45
1:13:458:C:H2'	1:13:464:G:O4'	2.16	0.45
1:13:497:U:O2	1:13:497:U:H2'	2.15	0.45
1:13:571:U:O2	1:13:918:A:H5'	2.17	0.45
1:13:589:C:H42	1:13:650:G:H1	1.64	0.45
1:13:1015:A:H2'	1:13:1016:A:H8	1.79	0.45
1:13:1171:G:O2'	1:13:1172:C:H5'	2.16	0.45
1:13:1203:C:H2'	1:13:1204:A:O4'	2.17	0.45
1:13:1414:U:H2'	1:13:1415:G:H8	1.82	0.45
3:2E:58:GLU:O	3:2E:59:ARG:HG3	2.16	0.45
8:7E:6:ILE:HD13	8:7E:85:ARG:HH22	1.82	0.45
8:7E:104:ARG:HB3	8:7E:107:LEU:HB3	1.99	0.45
10:1I:53:PRO:O	14:5I:41:ARG:NH2	2.49	0.45
12:3I:86:ARG:HB2	12:3I:101:VAL:HG23	1.98	0.45
14:5I:27:CYS:SG	14:5I:28:GLY:N	2.90	0.45
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.77	0.45
22:1K:22:A:C5	22:1K:47:7MG:C6	3.05	0.45
26:1H:189:G:OP2	52:J8:14:VAL:HG11	2.17	0.45
26:1H:304:G:H2'	26:1H:305:U:H6	1.82	0.45
26:1H:462:C:C4	26:1H:463:G:N7	2.84	0.45
26:1H:579:G:H2'	26:1H:580:C:C6	2.52	0.45
26:1H:978:G:C2	26:1H:986:C:N3	2.85	0.45
26:1H:2183:C:O5'	26:1H:2183:C:H6	2.00	0.45
26:1H:2687:U:C4	26:1H:2688:U:C5	3.04	0.45
26:1H:2865:U:C4	26:1H:2866:U:C4	3.04	0.45
29:11:14:ARG:HG2	29:11:15:PHE:CD2	2.52	0.45
29:11:123:ALA:HB3	29:11:131:LEU:HG	1.98	0.45
30:21:29:GLY:N	30:21:51:PHE:HE1	2.15	0.45
34:18:1:MET:HB3	34:18:5:ILE:HG21	1.99	0.45
35:61:131:LYS:HB3	35:61:132:PRO:HA	1.99	0.45
37:48:9:LYS:HA	37:48:9:LYS:HD3	1.50	0.45
38:58:38:HIS:CE1	38:58:39:ARG:HG3	2.52	0.45
41:88:101:ARG:HG3	41:88:102:VAL:N	2.32	0.45
44:B8:64:ARG:HB2	44:B8:73:GLU:HG2	1.98	0.45
1:1G:6:G:C4	5:42:119:LEU:HD11	2.52	0.45
1:1G:8:A:N6	4:32:209:ARG:HB2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.52	0.45
2:12:32:ILE:HD13	2:12:40:HIS:HB3	1.99	0.45
4:32:30:LYS:HB3	4:32:35:ARG:HH11	1.81	0.45
5:42:71:LEU:HD21	5:42:115:VAL:HG22	1.98	0.45
7:62:16:LEU:HD22	9:82:42:ARG:HA	1.99	0.45
7:62:93:PRO:CB	7:62:94:ARG:HE	2.30	0.45
10:1A:6:ILE:CG2	10:1A:98:ILE:HG23	2.47	0.45
12:3A:60:LEU:HA	12:3A:60:LEU:HD13	1.60	0.45
24:3L:18:G:H5'	24:3L:59:A:H2	1.82	0.45
24:3L:22:A:C6	24:3L:49:C:N3	2.85	0.45
25:4L:21:A:N6	25:4L:22:A:C6	2.85	0.45
26:14:328:U:H4'	49:C5:68:HIS:CD2	2.52	0.45
26:14:589:C:O3'	31:39:95:ARG:NH1	2.50	0.45
26:14:702:G:C2	26:14:731:C:C2	3.05	0.45
26:14:712:G:H2'	26:14:713:G:O4'	2.17	0.45
26:14:732:C:N4	26:14:733:G:C6	2.85	0.45
26:14:1138:G:O2'	38:15:106:MET:HG3	2.17	0.45
26:14:1190:G:OP1	40:35:32:THR:HA	2.16	0.45
26:14:1728:G:C2	26:14:1730:U:OP2	2.69	0.45
26:14:1856:G:C2'	26:14:1857:G:H5'	2.47	0.45
26:14:2131:G:H21	26:14:2157:G:H1'	1.81	0.45
26:14:2686:G:C2	26:14:2724:C:O2	2.70	0.45
27:1J:31:C:N4	43:65:32:LEU:HD23	2.32	0.45
29:19:273:ARG:HG2	29:19:274:ARG:N	2.31	0.45
30:29:26:ILE:HG22	30:29:28:ALA:N	2.31	0.45
30:29:201:THR:O	30:29:202:LYS:HD3	2.17	0.45
40:35:46:LYS:HB3	40:35:46:LYS:HE3	1.71	0.45
40:35:88:LEU:C	40:35:90:ARG:H	2.20	0.45
50:D5:105:VAL:O	50:D5:108:PRO:HG3	2.17	0.45
1:13:428:G:C5	1:13:430:A:C6	3.05	0.44
1:13:542:G:O3'	4:3E:14:ARG:NH2	2.44	0.44
1:13:1023:G:H2'	1:13:1024:G:H4'	1.98	0.44
1:13:1128:C:H5"	1:13:1129:C:OP2	2.17	0.44
1:13:1248:A:N3	9:8E:70:LYS:HE2	2.31	0.44
1:13:1492:A:OP1	12:3I:47:LYS:N	2.45	0.44
2:1E:17:PHE:N	2:1E:17:PHE:CD1	2.85	0.44
2:1E:44:LEU:HD12	2:1E:44:LEU:H	1.82	0.44
3:2E:15:THR:HG23	3:2E:181:ASN:H	1.82	0.44
4:3E:93:PHE:HA	4:3E:96:LEU:HD22	1.98	0.44
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	2.00	0.44
12:3I:5:PRO:HG2	12:3I:10:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:606:U:OP1	31:31:104:LYS:HD2	2.16	0.44
26:1H:1077:A:N1	26:1H:1088:A:N6	2.57	0.44
26:1H:1443:G:N2	26:1H:1549:C:C2	2.85	0.44
26:1H:2056:G:O6	56:N8:2:ALA:HB3	2.17	0.44
28:71:193:ILE:HG21	28:71:227:HIS:HE1	1.81	0.44
29:11:226:MET:HB3	29:11:230:ASP:HB2	1.99	0.44
30:21:11:MET:HG2	30:21:24:THR:HA	2.00	0.44
30:21:131:ALA:CB	30:21:135:HIS:HE1	2.31	0.44
31:31:197:ASP:O	31:31:198:ALA:HB3	2.17	0.44
36:38:125:LEU:HD11	34:28:20:LEU:HD21	1.99	0.44
37:48:123:ALA:HA	37:48:126:MET:CB	2.45	0.44
34:28:28:LYS:HZ3	34:28:29:GLU:HG3	1.81	0.44
38:58:5:VAL:HA	38:58:6:PRO:HD3	1.83	0.44
48:F8:9:LEU:O	53:K8:36:ARG:HD2	2.18	0.44
55:M8:37:SER:OG	55:M8:42:PHE:HB3	2.17	0.44
1:1G:406:G:C4	1:1G:495:A:C6	3.05	0.44
1:1G:956:U:C2	1:1G:1225:A:H2	2.35	0.44
13:4A:79:LYS:O	13:4A:82:MET:HG2	2.16	0.44
22:1L:54:G:H4'	41:45:56:ARG:NH2	2.32	0.44
23:2L:44:A:H2'	23:2L:45:A:C8	2.52	0.44
23:2L:51:U:H2'	23:2L:52:C:C6	2.52	0.44
26:14:430:G:H5"	26:14:431:U:OP2	2.17	0.44
26:14:1015:G:C6	26:14:1148:A:C6	3.06	0.44
26:14:1582:C:O2'	26:14:1586:A:C8	2.69	0.44
26:14:1968:G:P	63:14:3725:HOH:O	2.67	0.44
26:14:2056:G:H2'	26:14:2056:G:N3	2.32	0.44
26:14:2744:G:N2	33:59:143:GLN:OE1	2.50	0.44
26:14:2748:A:H2'	26:14:2749:A:C8	2.51	0.44
31:39:9:ILE:O	31:39:128:ALA:HB2	2.16	0.44
31:39:30:PRO:O	31:39:32:LEU:N	2.50	0.44
40:35:114:ILE:N	40:35:114:ILE:HD12	2.32	0.44
48:B5:63:LYS:HA	48:B5:72:LYS:HA	1.99	0.44
58:L5:47:ARG:NH1	58:L5:47:ARG:HB2	2.32	0.44
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.50	0.44
1:13:297:G:H4'	1:13:557:G:H4'	2.00	0.44
1:13:411:A:O2'	1:13:413:G:H5'	2.17	0.44
1:13:1014:A:H2'	1:13:1015:A:C8	2.51	0.44
1:13:1043:C:H2'	1:13:1044:A:O4'	2.17	0.44
1:13:1178:G:OP2	9:8E:93:ARG:NH1	2.38	0.44
1:13:1304:G:C6	1:13:1305:G:N1	2.85	0.44
1:13:1363:A:H1'	1:13:1365:G:N7	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1424:C:H42	1:13:1476:G:H1	1.65	0.44
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.98	0.44
8:7E:29:SER:HB3	8:7E:32:LYS:HE3	2.00	0.44
18:9I:35:ARG:O	18:9I:37:VAL:HG23	2.17	0.44
18:9I:50:ILE:CD1	18:9I:70:ILE:HG21	2.48	0.44
19:AI:15:LEU:HD23	19:AI:15:LEU:H	1.83	0.44
23:2K:17:C:O2'	23:2K:18:C:H5	1.99	0.44
26:1H:1252:G:N3	45:C8:33:ARG:HD2	2.33	0.44
26:1H:1387:C:C2	26:1H:1388:G:C8	3.06	0.44
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.31	0.44
26:1H:2134:A:C2	26:1H:2159:G:H1'	2.51	0.44
26:1H:2334:G:C2	43:A8:12:PHE:CD1	3.05	0.44
28:71:42:GLU:OE2	28:71:217:THR:HA	2.18	0.44
31:31:36:VAL:HG11	31:31:183:VAL:HG11	2.00	0.44
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.57	0.44
33:51:23:ARG:HD3	33:51:34:GLU:OE1	2.18	0.44
33:51:157:TYR:H	33:51:170:ARG:HA	1.82	0.44
38:58:43:THR:HB	38:58:46:VAL:HB	1.99	0.44
40:78:62:LEU:O	59:Q8:13:ARG:HD3	2.17	0.44
44:B8:16:ARG:NH2	44:B8:19:LEU:HD21	2.32	0.44
45:C8:8:VAL:HG23	45:C8:11:ARG:HH21	1.82	0.44
45:C8:47:TYR:CD1	45:C8:47:TYR:C	2.91	0.44
52:J8:53:VAL:HG12	52:J8:54:ALA:H	1.82	0.44
52:J8:93:GLU:HB2	52:J8:94:LEU:O	2.17	0.44
1:1G:35:G:C2	1:1G:550:G:N3	2.85	0.44
1:1G:324:G:N1	1:1G:327:A:OP2	2.50	0.44
1:1G:1347:G:N7	9:82:107:ARG:NH1	2.64	0.44
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.36	0.44
5:42:70:PRO:HD2	5:42:142:LEU:HB2	1.99	0.44
7:62:93:PRO:HB2	7:62:94:ARG:NE	2.32	0.44
12:3A:70:ILE:HD13	12:3A:75:HIS:CD2	2.52	0.44
14:5A:9:LYS:H	14:5A:9:LYS:HG2	1.47	0.44
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.99	0.44
16:7A:15:PRO:O	16:7A:16:HIS:ND1	2.50	0.44
22:1L:5:C:O2'	22:1L:6:C:H5'	2.18	0.44
24:3L:26:U:H3'	24:3L:27:A:H5"	1.98	0.44
26:14:122:G:O6	63:14:3900:HOH:O	2.21	0.44
26:14:676:A:H1'	26:14:2443:C:H1'	1.98	0.44
26:14:1017:G:H5'	26:14:1018:C:OP2	2.18	0.44
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.17	0.44
26:14:2213:U:H5'	52:F5:52:ARG:NH2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:182:ASN:O	31:39:186:ILE:HG12	2.17	0.44
31:39:184:TYR:CE2	31:39:188:ARG:HD3	2.52	0.44
35:69:79:ILE:HG21	35:69:142:VAL:HG12	1.99	0.44
35:69:111:PRO:C	35:69:113:ARG:N	2.71	0.44
35:69:128:LEU:HD13	35:69:128:LEU:HA	1.68	0.44
40:35:41:ARG:N	40:35:41:ARG:HD2	2.31	0.44
42:55:33:ARG:HA	42:55:115:GLU:HA	1.99	0.44
46:95:19:LYS:HE3	46:95:19:LYS:HB3	1.65	0.44
1:13:101:A:N7	63:13:1905:HOH:O	2.50	0.44
1:13:554:C:H2'	1:13:555:C:H6	1.82	0.44
1:13:703:G:H8	1:13:703:G:O5'	2.01	0.44
1:13:742:G:H5'	15:6I:58:MET:HE3	1.98	0.44
1:13:1190:G:OP1	3:2E:5:ILE:N	2.43	0.44
1:13:1405:G:O4'	1:13:1519:A:H4'	2.17	0.44
1:13:1533:C:H1'	1:13:1534:A:P	2.57	0.44
4:3E:90:GLY:O	4:3E:93:PHE:HB3	2.18	0.44
8:7E:104:ARG:HG3	8:7E:138:TRP:CD1	2.52	0.44
11:2I:54:ARG:H	11:2I:54:ARG:HG2	1.56	0.44
26:1H:120:U:P	63:1H:3783:HOH:O	2.73	0.44
26:1H:271(A):C:O2'	26:1H:271(B):G:H5'	2.17	0.44
26:1H:297:C:H5"	49:G8:86:ARG:HG2	1.99	0.44
26:1H:336:C:OP1	49:G8:83:THR:HG23	2.18	0.44
26:1H:455:C:N3	26:1H:473:G:H5'	2.32	0.44
26:1H:2033:A:OP1	63:1H:3933:HOH:O	2.20	0.44
29:11:29:PRO:C	29:11:30:GLU:HG2	2.31	0.44
32:41:109:VAL:HG21	55:M8:14:ILE:HD13	1.98	0.44
33:51:4:ILE:HG21	33:51:6:ARG:HE	1.82	0.44
36:38:25:PHE:CZ	36:38:84:GLU:HA	2.52	0.44
36:38:27:VAL:HG12	36:38:28:ASN:N	2.32	0.44
36:38:138:LEU:HG	34:28:22:GLN:HG2	1.99	0.44
38:58:96:GLU:C	38:58:98:VAL:H	2.20	0.44
43:A8:68:GLN:HG3	43:A8:71:ARG:HH12	1.81	0.44
44:B8:107:ASP:H	44:B8:110:ILE:HG23	1.82	0.44
53:K8:15:LYS:HA	53:K8:67:LYS:HZ1	1.82	0.44
1:1G:1022:G:C5	1:1G:1023:G:C8	3.06	0.44
1:1G:1217:C:H2'	1:1G:1218:C:C6	2.52	0.44
1:1G:1237:C:H5"	1:1G:1238:A:O4'	2.17	0.44
1:1G:1453:G:O2'	1:1G:1454:G:P	2.75	0.44
2:12:47:THR:HG23	2:12:202:PRO:O	2.18	0.44
7:62:143:ARG:HD2	7:62:143:ARG:C	2.37	0.44
10:1A:28:ARG:HH12	10:1A:34:VAL:H	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:81:LEU:HD23	13:4A:89:GLY:HA2	1.99	0.44
26:14:300:A:H2'	26:14:334:C:H1'	1.99	0.44
26:14:459:U:H2'	26:14:460:A:C8	2.53	0.44
26:14:729:G:C8	29:19:208:LYS:HD2	2.52	0.44
26:14:1086:A:H4'	26:14:1103:A:H61	1.83	0.44
26:14:1331:A:HO2'	26:14:1332:G:H8	1.64	0.44
26:14:1418:G:H2'	26:14:1579:A:N6	2.32	0.44
26:14:1599:C:H2'	26:14:1600:C:C6	2.49	0.44
26:14:2012:G:OP1	47:A5:11:ARG:NH2	2.39	0.44
26:14:2308:G:H3'	26:14:2310:A:OP2	2.17	0.44
26:14:2313:C:H2'	26:14:2314:C:C6	2.52	0.44
26:14:2885:C:N3	26:14:2886:G:H1'	2.32	0.44
27:1J:90:C:H6	27:1J:90:C:H5"	1.83	0.44
32:49:135:LEU:HD13	32:49:155:MET:HG3	1.99	0.44
33:59:52:VAL:HG21	33:59:69:ARG:HA	1.99	0.44
35:69:4:ILE:HA	35:69:17:GLN:O	2.18	0.44
43:65:106:ARG:HA	43:65:110:LEU:HD11	1.98	0.44
43:65:109:GLY:O	43:65:110:LEU:HD12	2.17	0.44
44:75:36:GLU:HG2	44:75:37:GLY:N	2.31	0.44
49:C5:31:LEU:HD13	49:C5:36:ALA:HB3	1.98	0.44
50:D5:99:TYR:HB3	50:D5:123:ASP:HB3	1.98	0.44
52:F5:91:LYS:O	52:F5:92:LYS:C	2.54	0.44
1:13:637:G:H2'	1:13:638:G:H8	1.82	0.44
1:13:684:A:C6	1:13:685:G:C6	3.06	0.44
1:13:1236:A:OP1	21:1F:3:LYS:HE3	2.18	0.44
1:13:1365:G:C6	1:13:1366:C:C4	3.05	0.44
1:13:1510:U:H2'	1:13:1511:G:C8	2.52	0.44
2:1E:55:PHE:HD1	2:1E:55:PHE:HA	1.65	0.44
7:6E:85:TYR:CE2	7:6E:154:TYR:HE2	2.35	0.44
10:1I:30:SER:O	10:1I:80:LYS:HB3	2.17	0.44
12:3I:86:ARG:HB2	12:3I:101:VAL:CG2	2.47	0.44
17:8I:100:LYS:CG	17:8I:101:ARG:HE	2.31	0.44
22:1K:33:RSP:H2'	22:1K:33:RSP:S2	2.57	0.44
24:3K:73:C:H3'	24:3K:74:A:H5"	1.98	0.44
26:1H:154:G:H2'	26:1H:155:C:C6	2.52	0.44
26:1H:883:G:H2'	26:1H:884:C:H4'	1.98	0.44
26:1H:1782:C:H3'	63:1H:3745:HOH:O	2.16	0.44
26:1H:2447:G:N2	26:1H:2450:A:OP2	2.51	0.44
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.99	0.44
29:11:108:PRO:HD2	29:11:111:LEU:HG	2.00	0.44
35:61:120:ILE:HD11	35:61:126:TYR:CE2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:38:85:ASP:OD1	36:38:87:VAL:HG12	2.18	0.44
37:48:21:PRO:HB2	37:48:22:PRO:HD3	1.98	0.44
37:48:58:THR:H	37:48:66:THR:HG21	1.82	0.44
37:48:108:ALA:O	37:48:111:LYS:HG2	2.16	0.44
39:68:98:VAL:HG11	39:68:114:ILE:HG23	2.00	0.44
44:B8:120:ARG:HA	44:B8:123:GLN:HG2	1.99	0.44
48:F8:35:THR:HG23	48:F8:38:GLU:HB3	1.98	0.44
48:F8:36:LYS:HE2	48:F8:54:VAL:O	2.18	0.44
51:I8:75:LEU:HD23	51:I8:75:LEU:HA	1.75	0.44
57:O8:51:GLU:HG2	57:O8:52:VAL:N	2.32	0.44
59:Q8:54:GLU:O	59:Q8:58:ILE:HD13	2.17	0.44
1:1G:10:A:O2'	1:1G:507:C:O2'	2.30	0.44
1:1G:583:A:H2'	1:1G:584:G:O4'	2.18	0.44
1:1G:775:G:C2'	1:1G:776:G:H5'	2.47	0.44
1:1G:926:G:H3'	1:1G:1505:G:H21	1.81	0.44
1:1G:1206:G:P	3:22:190:ARG:NH2	2.90	0.44
1:1G:1260:C:P	1:1G:1284:C:H4'	2.58	0.44
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.17	0.44
5:42:7:GLU:HG2	5:42:8:GLU:N	2.32	0.44
8:72:54:ASP:N	8:72:54:ASP:OD1	2.50	0.44
9:82:16:ARG:O	9:82:63:ILE:HG23	2.16	0.44
9:82:95:LYS:O	9:82:95:LYS:HG2	2.17	0.44
10:1A:76:ASN:OD1	10:1A:76:ASN:N	2.45	0.44
12:3A:34:ARG:H	12:3A:34:ARG:HG3	1.64	0.44
23:2L:45:A:H5"	23:2L:46:G:OP2	2.17	0.44
24:3L:35:A:HO2'	24:3L:36:C:P	2.40	0.44
26:14:128:C:H2'	26:14:129:C:C6	2.53	0.44
26:14:144:C:H2'	26:14:145:G:H8	1.82	0.44
26:14:185:U:H4'	26:14:218:A:H4'	1.99	0.44
26:14:855:G:H5"	26:14:856:C:OP2	2.16	0.44
26:14:1149:G:H2'	26:14:1150:C:C6	2.52	0.44
26:14:1183:G:O3'	54:H5:29:ARG:NH2	2.50	0.44
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.39	0.44
26:14:2415:G:C2	26:14:2416:C:C2	3.05	0.44
26:14:2719:G:HO2'	26:14:2720:U:H6	1.65	0.44
29:19:166:GLN:HB3	29:19:174:ILE:HG22	2.00	0.44
31:39:107:LYS:HE2	31:39:205:ARG:HD2	1.98	0.44
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.33	0.44
32:49:60:LEU:O	32:49:64:THR:HG23	2.18	0.44
33:59:9:ILE:CG2	33:59:51:ARG:HG3	2.47	0.44
41:45:23:GLY:HA2	41:45:101:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A5:65:LEU:HD12	47:A5:68:ARG:NH1	2.33	0.44
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.51	0.44
2:1E:131:PRO:HD2	2:1E:134:GLU:HB3	1.99	0.44
3:2E:8:ILE:HD12	3:2E:8:ILE:HA	1.86	0.44
4:3E:126:ILE:HG22	4:3E:127:THR:N	2.33	0.44
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.18	0.44
26:1H:71:A:OP1	26:1H:72:U:H2'	2.18	0.44
26:1H:1012:U:O4	38:58:25:ARG:HA	2.17	0.44
26:1H:1105:U:H2'	26:1H:1106:G:H8	1.82	0.44
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.80	0.44
26:1H:1444:G:C2	26:1H:1548:C:N3	2.86	0.44
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.52	0.44
26:1H:1537:C:H2'	26:1H:1538:G:H4'	1.99	0.44
26:1H:1753:G:N1	26:1H:1756:G:C2	2.86	0.44
26:1H:2125:G:N1	26:1H:2171:A:H5"	2.32	0.44
26:1H:2712:U:OP1	26:1H:2714:G:H4'	2.18	0.44
26:1H:2714:G:P	63:1H:4232:HOH:O	2.75	0.44
32:41:129:GLY:O	32:41:161:THR:HB	2.17	0.44
32:41:165:THR:HG22	32:41:167:GLU:N	2.30	0.44
39:68:64:ARG:O	39:68:82:ASN:HA	2.17	0.44
45:C8:102:GLU:HG3	46:D8:2:PHE:CZ	2.53	0.44
1:1G:272:C:H2'	1:1G:273:A:C8	2.48	0.44
1:1G:626:U:C2	1:1G:627:G:C8	3.06	0.44
1:1G:1008:C:H42	1:1G:1021:G:H1	1.65	0.44
1:1G:1255:G:OP1	10:1A:45:ARG:NH2	2.47	0.44
1:1G:1399:C:H4'	1:1G:1400:C:H5"	1.99	0.44
7:62:26:PHE:O	7:62:30:ILE:HG13	2.17	0.44
7:62:38:LEU:O	7:62:42:ILE:HG13	2.17	0.44
7:62:70:LYS:CG	7:62:96:GLN:HB3	2.48	0.44
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.58	0.44
12:3A:85:ILE:HD12	12:3A:85:ILE:HA	1.61	0.44
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.99	0.44
20:BA:23:ARG:NH2	20:BA:27:LYS:HD2	2.33	0.44
20:BA:75:ASN:HA	20:BA:78:ALA:HB3	1.99	0.44
26:14:1056:G:H5"	26:14:1057:A:H5'	1.98	0.44
26:14:1204:A:HO2'	26:14:1205:U:P	2.38	0.44
26:14:1372:U:H2'	26:14:1373:A:O4'	2.18	0.44
26:14:2688:U:C5	26:14:2720:U:OP2	2.70	0.44
28:79:35:ALA:HB1	28:79:37:PHE:CD1	2.53	0.44
30:29:57:LYS:HD3	30:29:57:LYS:HA	1.53	0.44
31:39:170:LEU:HD13	31:39:172:TRP:CZ2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:135:LEU:HB2	32:49:155:MET:HG2	1.99	0.44
40:35:47:ASP:OD2	40:35:50:ARG:NH1	2.51	0.44
41:45:10:ARG:HA	41:45:10:ARG:NH1	2.21	0.44
41:45:33:GLY:N	41:45:132:VAL:O	2.40	0.44
42:55:33:ARG:HD3	42:55:113:LEU:HD11	1.98	0.44
50:D5:28:MET:HG2	50:D5:37:VAL:HG11	1.99	0.44
50:D5:98:MET:CE	50:D5:100:VAL:HG22	2.47	0.44
50:D5:119:GLU:H	50:D5:119:GLU:HG3	1.50	0.44
1:13:353:A:H5'	1:13:353:A:C8	2.45	0.44
1:13:616:G:C2	1:13:617:G:N7	2.86	0.44
1:13:820:U:H4'	1:13:821:G:OP2	2.16	0.44
1:13:1229:A:C2	1:13:1230:C:C4	3.06	0.44
8:7E:45:ILE:HG22	8:7E:63:LEU:HA	2.00	0.44
10:1I:48:THR:O	14:5I:34:TYR:OH	2.36	0.44
22:1K:56:PSU:H6	22:1K:56:PSU:O5'	2.01	0.44
24:3K:72:G:H1'	26:1H:1851:U:O2'	2.16	0.44
26:1H:155:C:H5'	26:1H:161:U:OP2	2.17	0.44
26:1H:533:G:H5'	45:C8:24:TYR:CD1	2.53	0.44
26:1H:1006:C:C2	26:1H:1138:G:N2	2.86	0.44
26:1H:1068:G:H4'	26:1H:1096:A:C2	2.53	0.44
26:1H:1657:C:OP2	30:21:136:ARG:HG3	2.18	0.44
26:1H:1728:G:H3'	26:1H:1729:A:C5'	2.46	0.44
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.53	0.44
26:1H:1814:G:OP1	29:11:40:THR:HG21	2.18	0.44
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.52	0.44
26:1H:2592:G:C6	26:1H:2593:U:N3	2.85	0.44
37:48:71:THR:C	37:48:73:PRO:HD3	2.37	0.44
41:88:66:ILE:HD12	41:88:67:ARG:H	1.83	0.44
44:B8:9:LEU:O	44:B8:11:GLU:N	2.51	0.44
1:1G:12:U:H4'	1:1G:526:C:O2'	2.18	0.44
1:1G:1515:C:H2'	1:1G:1516:G:C8	2.53	0.44
2:12:213:LEU:HD23	2:12:214:ILE:HD13	1.98	0.44
3:22:120:VAL:HG21	3:22:137:ALA:HB2	1.98	0.44
4:32:57:ARG:HH21	4:32:205:GLU:HG2	1.82	0.44
4:32:168:ARG:HH11	4:32:169:LYS:N	1.98	0.44
5:42:121:LYS:HA	5:42:121:LYS:HZ2	1.82	0.44
5:42:137:GLU:OE1	5:42:141:GLN:NE2	2.50	0.44
10:1A:78:ASN:C	10:1A:80:LYS:N	2.71	0.44
23:2L:20:G:C4	23:2L:58:A:C2	3.06	0.44
26:14:28:A:C2	26:14:513:A:C8	3.04	0.44
26:14:275:G:N2	26:14:276:A:C8	2.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:861:A:C2	26:14:917:A:C4	3.06	0.44
26:14:1312:U:H4'	26:14:1313:U:O5'	2.18	0.44
26:14:1568:G:P	29:19:63:ARG:HH12	2.39	0.44
26:14:2273:A:H2'	26:14:2274:A:H8	1.79	0.44
26:14:2331:G:O2'	51:E5:43:THR:HG22	2.18	0.44
26:14:2400:G:H3'	26:14:2401:U:C6	2.52	0.44
26:14:2469:A:H3'	26:14:2470:G:C8	2.50	0.44
26:14:2766:G:H5"	26:14:2767:C:OP2	2.17	0.44
27:1J:12:C:H6	27:1J:12:C:OP2	2.00	0.44
29:19:43:ARG:CG	29:19:43:ARG:NH2	2.75	0.44
30:29:51:PHE:CD2	30:29:52:LEU:HB2	2.53	0.44
31:39:38:ARG:HH21	31:39:99:TYR:HE2	1.65	0.44
33:59:119:GLU:O	33:59:121:ILE:HG12	2.17	0.44
38:15:4:TYR:CD2	45:85:100:VAL:HG11	2.53	0.44
41:45:21:THR:HG21	41:45:101:ARG:HD2	1.98	0.44
43:65:89:ARG:O	43:65:92:TYR:N	2.50	0.44
45:85:92:ARG:NH1	46:95:11:GLN:H	2.14	0.44
52:F5:88:LYS:HB3	52:F5:88:LYS:HE2	1.61	0.44
1:13:191(F):U:H2'	1:13:191:G:H8	1.82	0.44
1:13:232:G:H2'	1:13:233:C:H6	1.83	0.44
1:13:437:U:C5'	4:3E:155:LEU:HD21	2.48	0.44
1:13:1135:U:H2'	1:13:1137:C:N3	2.33	0.44
3:2E:133:ALA:O	3:2E:136:GLN:HG3	2.18	0.44
3:2E:188:LEU:HD22	3:2E:188:LEU:HA	1.82	0.44
4:3E:64:LEU:O	4:3E:67:ILE:HB	2.18	0.44
6:5E:26:ILE:O	6:5E:30:LEU:HD12	2.16	0.44
8:7E:95:VAL:HG12	8:7E:96:GLY:O	2.17	0.44
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.56	0.44
13:4I:39:ILE:HD12	13:4I:56:LEU:HG	2.00	0.44
24:3K:45:C:C2'	24:3K:46:G:H5'	2.48	0.44
26:1H:758:C:O2	26:1H:1981:A:H2	2.01	0.44
26:1H:1095:A:H2'	26:1H:1095:A:N3	2.33	0.44
26:1H:2016:U:H1'	56:N8:6:VAL:HG13	1.98	0.44
26:1H:2751:G:C8	26:1H:2751:G:P	3.11	0.44
31:31:136:THR:HA	31:31:166:ALA:O	2.18	0.44
32:41:51:ARG:CZ	32:41:51:ARG:HB2	2.48	0.44
33:51:157:TYR:O	33:51:158:HIS:CG	2.70	0.44
36:38:27:VAL:HG13	36:38:109:SER:C	2.38	0.44
36:38:65:GLU:HB3	36:38:66:LEU:HD12	1.99	0.44
37:48:52:ILE:HD12	37:48:53:VAL:H	1.82	0.44
37:48:122:ALA:O	37:48:125:ARG:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:58:35:ARG:O	38:58:42:TRP:HZ3	2.00	0.44
42:98:67:LEU:CD2	42:98:76:VAL:HG21	2.45	0.44
49:G8:87:LYS:NZ	49:G8:89:PHE:HA	2.33	0.44
53:K8:42:GLY:C	53:K8:44:LEU:H	2.21	0.44
53:K8:47:ASN:HB2	53:K8:48:HIS:H	1.55	0.44
57:O8:43:CYS:HB2	57:O8:44:ARG:NH1	2.33	0.44
1:1G:27:G:H8	1:1G:27:G:O5'	2.01	0.44
2:12:5:ILE:HG13	2:12:221:LEU:HD22	1.99	0.44
2:12:74:LYS:HE2	2:12:76:GLN:HG3	2.00	0.44
4:32:61:LYS:HE2	4:32:206:PHE:HE2	1.83	0.44
6:52:53:ALA:HB3	6:52:86:ARG:HD3	2.00	0.44
7:62:93:PRO:CD	7:62:94:ARG:HH21	2.17	0.44
20:BA:35:THR:O	20:BA:38:LYS:HB3	2.17	0.44
22:1L:1:G:HO2'	22:1L:2:C:P	2.40	0.44
26:14:254:G:N7	59:M5:5:LYS:HE2	2.32	0.44
26:14:270(F):U:H3	26:14:270(T):G:H1	1.66	0.44
26:14:581:C:H2'	26:14:582:G:C8	2.53	0.44
26:14:783:A:P	63:19:302:HOH:O	2.76	0.44
26:14:1535:U:C4	26:14:1536:A:C6	3.05	0.44
26:14:1757:U:C2	26:14:1762:A:H2	2.36	0.44
26:14:2109:U:H3	26:14:2180:U:H3	1.66	0.44
26:14:2552:U:C2	26:14:2554:U:H5'	2.53	0.44
26:14:2852:G:H2'	26:14:2853:C:C6	2.52	0.44
30:29:34:VAL:HG12	30:29:64:LYS:HE3	1.99	0.44
31:39:46:ARG:C	31:39:48:THR:H	2.20	0.44
39:25:68:GLU:H	39:25:68:GLU:CD	2.21	0.44
40:35:97:PRO:HD3	40:35:126:VAL:HB	1.99	0.44
41:45:19:GLY:O	41:45:99:PRO:HD2	2.17	0.44
45:85:28:ARG:NH1	45:85:38:THR:OG1	2.48	0.44
50:D5:104:PHE:HE2	50:D5:119:GLU:HA	1.83	0.44
51:E5:50:ASN:C	51:E5:62:LEU:HD12	2.38	0.44
1:13:93:U:H2'	1:13:95:G:H5"	2.00	0.44
1:13:292:G:N7	1:13:293:G:H1'	2.33	0.44
1:13:357:G:O2'	35:69:89:TYR:O	2.33	0.44
1:13:390:C:H2'	1:13:391:G:C8	2.52	0.44
1:13:401:C:H2'	1:13:402:G:C8	2.53	0.44
1:13:552:U:O4	1:13:553:A:N6	2.50	0.44
1:13:794:A:C6	1:13:795:C:C4	3.05	0.44
1:13:871:U:OP1	63:13:1963:HOH:O	2.20	0.44
1:13:980:C:H5"	1:13:981:U:OP2	2.17	0.44
1:13:1216:G:OP2	14:5I:1:MET:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.32	0.44
2:1E:28:PHE:HD2	2:1E:190:THR:HG23	1.82	0.44
2:1E:149:LEU:HD22	2:1E:152:PHE:HD2	1.83	0.44
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.51	0.44
11:2I:59:TYR:O	11:2I:63:LEU:HD12	2.18	0.44
14:5I:6:LEU:CD1	14:5I:23:ARG:HH22	2.31	0.44
26:1H:141:A:H8	26:1H:1408:C:H1'	1.82	0.44
26:1H:1070:A:N7	26:1H:1096:A:H2'	2.33	0.44
26:1H:1171:G:C5	26:1H:1174:A:N6	2.85	0.44
26:1H:1906:G:H8	26:1H:1929:G:H2'	1.83	0.44
26:1H:2168:G:O2'	26:1H:2169:A:N3	2.49	0.44
26:1H:2602:A:OP2	26:1H:2603:G:H5"	2.17	0.44
33:51:129:THR:O	33:51:129:THR:OG1	2.32	0.44
37:48:123:ALA:O	37:48:127:ILE:HG12	2.18	0.44
48:F8:11:PRO:HD3	53:K8:37:PHE:CD2	2.52	0.44
48:F8:18:TYR:O	48:F8:20:GLY:N	2.51	0.44
50:H8:48:PHE:HE1	50:H8:71:VAL:HG11	1.83	0.44
58:P8:5:TRP:HA	58:P8:5:TRP:CE3	2.51	0.44
1:1G:81:G:O2'	1:1G:82:U:O5'	2.32	0.44
1:1G:690:G:C6	1:1G:691:G:C6	3.05	0.44
1:1G:1243:C:OP1	21:1B:10:ARG:NE	2.50	0.44
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.52	0.44
2:12:7:VAL:HG13	2:12:8:LYS:HD3	2.00	0.44
2:12:17:PHE:HE2	2:12:44:LEU:HB3	1.80	0.44
2:12:91:PRO:HD3	2:12:155:LEU:HD23	1.98	0.44
3:22:11:ARG:HB2	3:22:11:ARG:HH11	1.83	0.44
5:42:39:GLY:H	5:42:71:LEU:HD12	1.83	0.44
20:BA:45:GLN:HA	20:BA:91:LEU:HD22	1.99	0.44
26:14:667:U:O2	59:M5:2:PRO:HD2	2.18	0.44
26:14:1042:G:H2'	26:14:1043:C:O4'	2.16	0.44
26:14:1392:A:N6	26:14:1393:A:N6	2.65	0.44
26:14:1754:C:P	44:75:96:ARG:HH12	2.41	0.44
26:14:2392:A:H2	26:14:2424:C:N4	2.15	0.44
26:14:2726:U:O2'	26:14:2727:G:H8	2.00	0.44
26:14:2865:U:C4	26:14:2866:U:C4	3.06	0.44
27:1J:9:G:P	43:65:25:ARG:HH22	2.40	0.44
27:1J:90:C:OP2	41:45:16:ARG:NH2	2.51	0.44
29:19:147:LEU:HD23	29:19:155:LEU:HD21	1.99	0.44
33:59:4:ILE:HB	33:59:6:ARG:CZ	2.48	0.44
35:69:140:LEU:HD12	35:69:141:LYS:N	2.28	0.44
43:65:61:ASN:O	43:65:65:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:91:C:N4	1:13:92:G:O6	2.51	0.44
1:13:735:C:H2'	1:13:736:C:C6	2.46	0.44
1:13:1051:C:H2'	1:13:1052:U:H6	1.83	0.44
1:13:1144:G:H21	1:13:1146:A:N6	2.15	0.44
1:13:1402:C:H2'	1:13:1403:C:O4'	2.18	0.44
2:1E:36:ARG:O	2:1E:41:ILE:HD11	2.18	0.44
2:1E:74:LYS:HD2	2:1E:74:LYS:HA	1.74	0.44
7:6E:79:ARG:CZ	7:6E:84:ASN:HD22	2.30	0.44
16:7I:80:PHE:N	16:7I:80:PHE:CD1	2.84	0.44
19:AI:15:LEU:HA	19:AI:18:LYS:CG	2.45	0.44
19:AI:18:LYS:HG3	19:AI:31:ILE:HD12	1.99	0.44
23:2K:70:C:H2'	23:2K:71:G:O4'	2.17	0.44
26:1H:164:U:H5'	26:1H:165:U:OP2	2.18	0.44
26:1H:309:G:N3	26:1H:329:G:O2'	2.49	0.44
26:1H:526:A:N6	26:1H:2626:C:H4'	2.32	0.44
26:1H:775:G:C4	26:1H:794:G:C8	3.06	0.44
26:1H:880:G:C6	26:1H:881:G:N7	2.86	0.44
26:1H:1359:A:N1	26:1H:1372:U:O4	2.51	0.44
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.18	0.44
26:1H:1589:C:H2'	26:1H:1590:U:C6	2.53	0.44
27:16:20:C:H2'	27:16:21:G:O4'	2.18	0.44
28:71:7:TYR:CE1	28:71:220:PRO:HB3	2.53	0.44
29:11:92:ILE:HD12	29:11:104:TYR:CE1	2.53	0.44
29:11:223:GLY:HA2	29:11:231:HIS:CD2	2.52	0.44
31:31:129:PHE:C	31:31:131:GLY:H	2.21	0.44
36:38:25:PHE:CE1	36:38:84:GLU:HA	2.53	0.44
49:G8:83:THR:HG22	49:G8:84:ARG:HG2	1.99	0.44
51:I8:23:VAL:HB	51:I8:26:TYR:HE1	1.83	0.44
51:I8:42:GLY:O	51:I8:57:PHE:CD2	2.71	0.44
1:1G:4:U:C5	8:72:102:ARG:HG3	2.52	0.44
1:1G:199:G:H2'	1:1G:200:G:H8	1.83	0.44
1:1G:298:A:H5"	1:1G:299:G:OP2	2.17	0.44
1:1G:430:A:H2'	1:1G:431:A:H8	1.83	0.44
1:1G:1105:A:H2'	1:1G:1106:G:C8	2.49	0.44
3:22:20:SER:HB2	3:22:40:ARG:NH2	2.28	0.44
3:22:59:ARG:HB3	3:22:64:VAL:HA	1.99	0.44
3:22:111:LEU:HG	3:22:141:VAL:HG13	1.99	0.44
7:62:42:ILE:HG23	7:62:117:ALA:HB2	2.00	0.44
8:72:136:GLU:HG3	8:72:136:GLU:O	2.18	0.44
17:8A:45:HIS:ND1	17:8A:65:ILE:HG21	2.33	0.44
19:AA:7:LYS:HA	19:AA:8:GLY:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:243:U:OP1	59:M5:6:THR:OG1	2.26	0.44
26:14:602:G:OP2	26:14:602:G:H8	2.01	0.44
26:14:1116:C:H2'	26:14:1117:G:H8	1.82	0.44
26:14:2303:G:C2'	26:14:2304:G:H5'	2.47	0.44
26:14:2342:C:O2'	26:14:2374:C:H5"	2.18	0.44
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.33	0.44
32:49:40:ASN:HB2	32:49:91:ARG:HG3	2.00	0.44
32:49:176:LEU:HA	32:49:176:LEU:HD23	1.76	0.44
35:69:93:THR:CG2	35:69:119:PRO:HG3	2.48	0.44
40:35:6:LEU:HD13	40:35:6:LEU:HA	1.86	0.44
42:55:1:MET:HE2	42:55:1:MET:HB3	1.91	0.44
45:85:47:TYR:HA	45:85:50:ARG:NH2	2.33	0.44
48:B5:14:SER:O	48:B5:17:ALA:N	2.51	0.44
48:B5:18:TYR:C	48:B5:20:GLY:N	2.70	0.44
48:B5:32:PRO:HA	48:B5:77:LYS:HB2	1.99	0.44
50:D5:15:PRO:HB2	50:D5:19:ARG:NH2	2.32	0.44
56:J5:45:VAL:HG22	56:J5:51:TYR:HD2	1.82	0.44
1:13:128:G:HO2'	17:8I:3:LYS:HZ3	1.59	0.43
1:13:269:C:H2'	1:13:270:A:H8	1.82	0.43
1:13:721:G:C6	1:13:733:A:C2	3.06	0.43
1:13:760:G:H2'	1:13:761:G:H5'	2.00	0.43
1:13:1153:C:H2'	1:13:1154:G:O4'	2.17	0.43
1:13:1347:G:N2	1:13:1374:A:OP2	2.46	0.43
2:1E:23:ARG:HB3	2:1E:23:ARG:NH1	2.33	0.43
7:6E:92:SER:HB2	7:6E:95:ARG:HB3	2.00	0.43
23:2K:33:OMC:HM23	23:2K:33:OMC:H1'	1.76	0.43
26:1H:31:C:P	63:1H:3973:HOH:O	2.76	0.43
26:1H:958:U:OP2	41:88:14:ARG:NH1	2.51	0.43
26:1H:1071:G:H22	26:1H:1091:G:H8	1.64	0.43
26:1H:1073:A:OP2	26:1H:1094:U:N3	2.43	0.43
26:1H:1145:C:H2'	26:1H:1146:C:H6	1.83	0.43
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.17	0.43
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.53	0.43
26:1H:2126:A:H4'	26:1H:2127:G:OP1	2.17	0.43
26:1H:2684:U:C4	26:1H:2685:G:N7	2.86	0.43
27:16:24:G:C2	27:16:56:G:C2	3.06	0.43
30:21:173:VAL:N	30:21:183:LEU:O	2.51	0.43
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.53	0.43
36:38:4:LYS:HZ2	36:38:7:VAL:HG12	1.81	0.43
36:38:142:LEU:HD12	36:38:143:GLN:HG3	1.99	0.43
37:48:54:PRO:HD2	37:48:72:PRO:CA	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:48:110:GLN:O	37:48:113:PRO:HD2	2.18	0.43
44:B8:42:ILE:HG21	44:B8:84:GLN:NE2	2.33	0.43
1:1G:630:G:C4	1:1G:631:G:N7	2.86	0.43
1:1G:1205:U:O3'	3:22:190:ARG:NH2	2.51	0.43
1:1G:1243:C:O5'	1:1G:1243:C:H6	2.00	0.43
3:22:89:GLU:C	3:22:91:LEU:H	2.21	0.43
4:32:31:CYS:HB2	4:32:33:MET:O	2.18	0.43
7:62:65:ALA:HB1	7:62:127:ALA:HB3	2.01	0.43
10:1A:4:ILE:HG23	10:1A:100:THR:HG23	1.99	0.43
12:3A:27:LEU:C	12:3A:29:GLY:N	2.72	0.43
15:6A:43:LEU:HA	15:6A:43:LEU:HD23	1.74	0.43
26:14:91:A:C4	26:14:92:G:C8	3.06	0.43
26:14:705:A:H1'	29:19:9:TYR:CE2	2.53	0.43
26:14:862:G:OP2	63:14:3882:HOH:O	2.19	0.43
26:14:1105:U:H2'	26:14:1106:G:C8	2.53	0.43
26:14:2130:U:O2'	26:14:2134:A:H1'	2.18	0.43
26:14:2162:G:H3'	26:14:2164:C:C5	2.53	0.43
26:14:2485:G:H5"	41:45:46:GLN:NE2	2.32	0.43
28:79:190:ARG:HB3	28:79:194:ARG:NH1	2.33	0.43
30:29:116:VAL:HG21	30:29:122:PHE:CE2	2.53	0.43
31:39:148:LEU:HA	31:39:148:LEU:HD23	1.65	0.43
35:69:52:ARG:HA	35:69:55:ALA:HB3	2.00	0.43
42:55:97:VAL:HB	42:55:114:VAL:HG22	2.00	0.43
49:C5:82:PRO:CB	49:C5:100:ALA:H	2.30	0.43
1:13:22:G:H2'	1:13:23:C:H6	1.80	0.43
1:13:348:G:C2	1:13:349:A:C8	3.05	0.43
1:13:444:C:H2'	1:13:445:G:H8	1.83	0.43
1:13:956:U:H2'	1:13:957:U:O4'	2.18	0.43
2:1E:164:VAL:HG23	2:1E:186:ALA:HB2	2.00	0.43
4:3E:19:LEU:HB3	4:3E:21:LEU:CD2	2.47	0.43
5:4E:34:VAL:O	5:4E:42:GLY:N	2.51	0.43
13:4I:27:LYS:O	13:4I:31:LYS:HD3	2.18	0.43
22:1K:75:C:H2'	22:1K:76:C:C5'	2.48	0.43
23:2K:2:G:H5"	23:2K:3:C:OP2	2.18	0.43
23:2K:21:U:O2	23:2K:21:U:H2'	2.17	0.43
24:3K:8:U:C4	24:3K:14:A:N7	2.86	0.43
26:1H:565:C:H4'	26:1H:1253:A:N6	2.32	0.43
26:1H:604:G:OP2	40:78:90:ARG:NH2	2.50	0.43
26:1H:669:G:C2	26:1H:801:G:C6	3.06	0.43
26:1H:764:A:O4'	29:11:213:ARG:HG3	2.18	0.43
26:1H:928:G:C8	63:1H:4051:HOH:O	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.51	0.43
26:1H:2239:G:P	63:1H:3940:HOH:O	2.76	0.43
26:1H:2400:G:H1	26:1H:2416:C:H42	1.66	0.43
27:16:3:C:H2'	27:16:4:C:H6	1.83	0.43
27:16:7:G:O5'	43:A8:29:PHE:CE2	2.70	0.43
28:71:6:ARG:O	28:71:10:LEU:HD13	2.19	0.43
36:38:56:ASN:HA	36:38:60:ARG:CG	2.48	0.43
37:48:112:MET:HE2	37:48:118:THR:HA	2.00	0.43
46:D8:36:PRO:HA	46:D8:37:VAL:HA	1.64	0.43
50:H8:81:ARG:HE	50:H8:81:ARG:HB2	1.34	0.43
55:M8:23:GLU:CD	55:M8:24:THR:N	2.71	0.43
1:1G:948:C:OP2	13:4A:106:ASN:HB2	2.18	0.43
1:1G:1123:A:H4'	10:1A:36:GLY:CA	2.38	0.43
2:12:107:THR:O	2:12:110:GLN:HB2	2.18	0.43
4:32:31:CYS:C	4:32:33:MET:H	2.22	0.43
7:62:70:LYS:O	7:62:138:LYS:HD3	2.17	0.43
9:82:95:LYS:HZ3	9:82:96:LEU:N	2.16	0.43
12:3A:60:LEU:HB2	12:3A:64:TYR:HB3	1.98	0.43
13:4A:78:ILE:O	13:4A:79:LYS:HD3	2.18	0.43
13:4A:84:ILE:HG21	19:AA:74:PHE:CD1	2.53	0.43
20:BA:10:LEU:O	20:BA:12:ALA:N	2.50	0.43
21:1B:10:ARG:HA	21:1B:13:ILE:HD12	1.98	0.43
26:14:403:U:H3'	63:14:3783:HOH:O	2.17	0.43
26:14:528:A:C2	26:14:2043:C:H4'	2.53	0.43
26:14:1110:G:O3'	33:59:3:ARG:NH1	2.50	0.43
26:14:1525:G:H2'	26:14:1526:G:C8	2.52	0.43
26:14:1729:A:H1'	26:14:1730:U:C6	2.53	0.43
26:14:2056:G:C2	26:14:2057:A:C8	3.06	0.43
26:14:2629:A:H4'	26:14:2630:G:H5'	2.00	0.43
26:14:2637:U:C4	26:14:2638:G:C6	3.06	0.43
26:14:2652:C:H2'	26:14:2653:U:O4'	2.18	0.43
26:14:2659:G:N2	26:14:2662:A:OP2	2.51	0.43
29:19:39:LYS:HG2	29:19:40:THR:H	1.83	0.43
30:29:5:LEU:HD21	30:29:49:LEU:HB2	1.99	0.43
31:39:120:GLU:HG3	31:39:122:LYS:HG2	2.00	0.43
31:39:122:LYS:HB3	31:39:191:ARG:HB2	2.00	0.43
31:39:126:VAL:HG11	31:39:142:TRP:HH2	1.83	0.43
33:59:74:ASN:HA	33:59:77:LYS:CB	2.48	0.43
41:45:29:PHE:HB3	41:45:30:GLY:H	1.63	0.43
47:A5:4:LYS:NZ	47:A5:6:ILE:HD11	2.33	0.43
52:F5:71:TYR:O	52:F5:74:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:M5:8:LYS:HB3	59:M5:12:LYS:HE3	1.99	0.43
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.18	0.43
1:13:329:A:C5	1:13:332:G:C6	3.07	0.43
1:13:948:C:N4	63:13:2064:HOH:O	2.51	0.43
1:13:958:A:C6	1:13:959:A:C6	3.07	0.43
1:13:1206:G:C6	1:13:1207:G:C5	3.07	0.43
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	2.00	0.43
13:4I:14:ARG:HG2	13:4I:15:VAL:H	1.83	0.43
18:9I:22:VAL:CG1	18:9I:42:ARG:HH12	2.23	0.43
26:1H:125:G:H5'	26:1H:125:G:H8	1.82	0.43
26:1H:540:G:H2'	26:1H:541:C:H6	1.82	0.43
26:1H:989:G:OP1	26:1H:1157:G:O2'	2.29	0.43
26:1H:1153:C:C4	26:1H:1154:G:C5	3.06	0.43
26:1H:1174:A:C1'	26:1H:1178:C:H41	2.29	0.43
26:1H:1364:G:C8	52:J8:2:SER:N	2.86	0.43
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.18	0.43
26:1H:1710:C:N4	26:1H:1748:G:H1	2.16	0.43
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.43
26:1H:1830:C:H42	26:1H:1975:G:H1	1.66	0.43
26:1H:1922:G:O2'	26:1H:1923:U:H5'	2.17	0.43
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.54	0.43
26:1H:2525:G:H1	26:1H:2538:C:H42	1.67	0.43
26:1H:2634:G:H8	26:1H:2634:G:H5"	1.83	0.43
28:71:7:TYR:HA	28:71:10:LEU:HB2	2.00	0.43
29:11:70:TRP:CH2	29:11:150:LYS:HA	2.54	0.43
29:11:146:GLU:HB2	29:11:189:CYS:HB3	2.00	0.43
30:21:51:PHE:CD2	30:21:52:LEU:HB2	2.53	0.43
32:41:6:ALA:HB3	32:41:104:GLU:OE2	2.18	0.43
35:61:75:LEU:HD21	35:61:105:HIS:CG	2.53	0.43
37:48:95:LYS:HD2	37:48:98:ARG:HG3	2.01	0.43
34:28:28:LYS:HZ2	34:28:29:GLU:HG3	1.83	0.43
40:78:61:ARG:CB	40:78:61:ARG:HH11	2.32	0.43
43:A8:101:LEU:HD12	43:A8:101:LEU:O	2.17	0.43
1:1G:619:U:N3	4:32:134:ASP:OD1	2.47	0.43
1:1G:718:G:O6	18:9A:74:ARG:NH1	2.51	0.43
1:1G:1027:C:H1'	1:1G:1035:A:H61	1.83	0.43
1:1G:1077:G:N1	1:1G:1081:G:C6	2.86	0.43
1:1G:1188:A:H2'	1:1G:1189:C:O4'	2.17	0.43
1:1G:1245:A:H2'	1:1G:1246:C:C6	2.52	0.43
1:1G:1368:G:H5"	9:82:112:LYS:HB3	1.99	0.43
7:62:113:GLU:OE1	7:62:122:HIS:ND1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:68:GLY:HA2	13:4A:71:ARG:NE	2.32	0.43
17:8A:45:HIS:CD2	17:8A:47:PRO:HD3	2.53	0.43
19:AA:61:TYR:HE2	19:AA:63:THR:HG23	1.81	0.43
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	2.00	0.43
23:2L:41:C:O2'	23:2L:42:C:H5'	2.17	0.43
26:14:297:C:N4	26:14:298:G:C6	2.86	0.43
26:14:968:G:H2'	26:14:969:U:C6	2.53	0.43
26:14:1021:A:C2	26:14:1023:U:C2	3.06	0.43
26:14:1187:G:H5"	46:95:81:TYR:HE1	1.79	0.43
26:14:1341:U:OP1	26:14:1397:U:N3	2.50	0.43
26:14:1388:G:H4'	26:14:1525:G:O2'	2.18	0.43
26:14:1582:C:O2'	26:14:1586:A:H8	2.00	0.43
26:14:2295:C:OP1	43:65:10:ARG:NH1	2.48	0.43
26:14:2295:C:N4	43:65:13:ARG:HH22	2.16	0.43
26:14:2815:C:H5'	56:J5:29:THR:HG21	2.00	0.43
32:49:28:VAL:O	32:49:31:VAL:HB	2.19	0.43
33:59:26:VAL:HG13	33:59:27:LYS:N	2.34	0.43
35:69:48:GLU:HG3	35:69:49:ALA:N	2.34	0.43
45:85:72:HIS:ND1	45:85:72:HIS:N	2.67	0.43
50:D5:191:VAL:O	50:D5:194:PRO:HD2	2.18	0.43
1:13:177:C:P	20:BI:65:LYS:HZ3	2.38	0.43
1:13:373:A:N3	1:13:374:A:C8	2.86	0.43
1:13:1053:G:O5'	1:13:1054:C:H3'	2.18	0.43
1:13:1176:A:N6	1:13:1177:G:C6	2.86	0.43
1:13:1434:A:H2'	1:13:1435:G:O4'	2.18	0.43
1:13:1469:G:H2'	1:13:1470:G:H8	1.82	0.43
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.17	0.43
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.44	0.43
5:4E:80:ILE:HG23	5:4E:91:LEU:HD23	2.00	0.43
6:5E:35:ALA:HA	6:5E:67:MET:HB3	2.00	0.43
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.84	0.43
13:4I:66:LEU:HD23	13:4I:66:LEU:HA	1.56	0.43
24:3K:18:G:H4'	24:3K:19:G:OP1	2.17	0.43
26:1H:302:C:H2'	26:1H:303:U:C6	2.54	0.43
26:1H:900:A:N3	26:1H:900:A:H2'	2.32	0.43
26:1H:984:A:OP1	63:1H:3976:HOH:O	2.21	0.43
26:1H:1093:G:H5"	26:1H:1094:U:OP2	2.19	0.43
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.83	0.43
26:1H:1253:A:N6	63:1H:4035:HOH:O	2.28	0.43
26:1H:1429:G:H2'	26:1H:1430:C:H6	1.80	0.43
26:1H:2006:C:O5'	26:1H:2006:C:H6	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.53	0.43
26:1H:2309:A:C6	26:1H:2310:A:N7	2.86	0.43
27:16:91:C:H5"	50:H8:79:ARG:NH2	2.33	0.43
35:61:81:VAL:HG23	35:61:143:SER:O	2.19	0.43
39:68:29:ASN:OD1	39:68:29:ASN:N	2.51	0.43
40:78:90:ARG:HG2	40:78:91:PHE:HD1	1.82	0.43
41:88:38:GLU:CD	41:88:128:LYS:HD2	2.38	0.43
48:F8:34:ALA:HA	48:F8:38:GLU:OE1	2.18	0.43
48:F8:70:LEU:HD13	48:F8:70:LEU:HA	1.87	0.43
56:N8:40:LYS:HZ3	56:N8:47:PRO:HB2	1.83	0.43
1:1G:12:U:O2'	1:1G:526:C:H4'	2.18	0.43
1:1G:198:G:H2'	1:1G:199:G:C8	2.53	0.43
1:1G:236:G:H2'	1:1G:237:C:O4'	2.18	0.43
1:1G:259:G:H2'	1:1G:260:G:O4'	2.19	0.43
2:12:36:ARG:H	2:12:41:ILE:HD13	1.84	0.43
5:42:47:LYS:HE2	5:42:47:LYS:HB2	1.65	0.43
8:72:21:LYS:O	8:72:63:LEU:HD23	2.18	0.43
8:72:44:PHE:CD1	8:72:80:ILE:HG13	2.52	0.43
8:72:72:PRO:O	8:72:73:ASP:HB3	2.18	0.43
12:3A:6:THR:H	12:3A:6:THR:HG23	1.53	0.43
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.53	0.43
13:4A:92:HIS:HE2	13:4A:98:VAL:HG21	1.84	0.43
20:BA:24:LEU:HD13	20:BA:24:LEU:HA	1.59	0.43
20:BA:39:LYS:HB3	20:BA:39:LYS:HE2	1.83	0.43
22:1L:61:U:H5'	22:1L:62:C:H5	1.81	0.43
24:3L:57:C:H1'	26:14:2169:A:C8	2.54	0.43
26:14:76:C:O3'	53:G5:59:ARG:HG3	2.18	0.43
26:14:921:G:C5	26:14:922:U:C4	3.07	0.43
26:14:959:A:C6	26:14:960:A:N1	2.87	0.43
26:14:1005:C:C2	26:14:1143:A:C5	3.06	0.43
26:14:1420:U:O2'	26:14:1421:G:OP1	2.36	0.43
26:14:2612:C:OP2	63:14:3903:HOH:O	2.21	0.43
26:14:2656:U:H3	26:14:2665:A:H2	1.67	0.43
26:14:2695:C:H2'	26:14:2696:U:H6	1.84	0.43
26:14:2864:G:OP1	44:75:119:LYS:HD3	2.18	0.43
28:79:57:ASN:ND2	28:79:59:ARG:HD2	2.33	0.43
29:19:206:LEU:HD23	29:19:206:LEU:HA	1.69	0.43
30:29:27:LEU:HA	30:29:180:ASN:O	2.18	0.43
30:29:49:LEU:O	30:29:78:LEU:HA	2.18	0.43
30:29:182:LEU:O	30:29:183:LEU:HD12	2.19	0.43
31:39:82:ILE:H	31:39:82:ILE:HG13	1.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:6:ALA:O	32:49:9:ARG:N	2.51	0.43
32:49:112:PRO:HA	32:49:117:PHE:CD2	2.54	0.43
33:59:11:VAL:HB	33:59:13:LYS:CG	2.48	0.43
40:35:29:LYS:CG	40:35:30:THR:N	2.81	0.43
40:35:57:THR:HB	40:35:60:MET:HB2	1.99	0.43
41:45:35:VAL:HA	41:45:101:ARG:O	2.18	0.43
43:65:10:ARG:O	43:65:14:VAL:HG23	2.18	0.43
48:B5:5:TYR:CE2	53:G5:30:ARG:HB2	2.53	0.43
49:C5:82:PRO:HB2	49:C5:83:THR:O	2.18	0.43
1:13:192:U:H1'	20:BI:103:GLY:O	2.19	0.43
1:13:232:G:C5	1:13:233:C:C5	3.06	0.43
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.19	0.43
1:13:868:C:H2'	1:13:869:G:O4'	2.18	0.43
1:13:1011:G:H2'	1:13:1012:U:O4'	2.18	0.43
7:6E:16:LEU:HD13	9:8E:44:VAL:HG22	2.00	0.43
12:3I:85:ILE:HG23	12:3I:98:TYR:HB3	1.99	0.43
18:9I:38:GLU:HA	18:9I:41:LYS:HE3	2.00	0.43
26:1H:402:A:N6	26:1H:403:U:O4	2.51	0.43
26:1H:556:G:H2'	26:1H:557:U:C6	2.53	0.43
26:1H:592:G:H21	59:Q8:4:MET:CE	2.20	0.43
26:1H:1142(A):A:O2'	26:1H:1143:A:H5"	2.18	0.43
26:1H:1203:G:OP2	26:1H:1204:A:H2'	2.18	0.43
26:1H:1304:C:O2'	26:1H:1305:C:H5'	2.19	0.43
26:1H:1359:A:N6	26:1H:1372:U:H3	2.16	0.43
26:1H:1373:A:H2'	26:1H:1374:G:O4'	2.19	0.43
26:1H:1387:C:O2	26:1H:1388:G:C8	2.71	0.43
26:1H:1435:G:O5'	26:1H:1435:G:H8	2.01	0.43
26:1H:1532:C:O2	26:1H:1540:G:N2	2.52	0.43
26:1H:1588:C:H2'	26:1H:1589:C:H6	1.84	0.43
26:1H:1639:U:H5"	63:1H:4014:HOH:O	2.18	0.43
26:1H:2001:A:H2'	26:1H:2002:G:O4'	2.18	0.43
26:1H:2450:A:C2	26:1H:2451:A:C4	3.06	0.43
26:1H:2462:U:H1'	26:1H:2491:U:O4	2.18	0.43
26:1H:2505:G:O6	26:1H:2576:G:H2'	2.19	0.43
29:11:232:PRO:HB2	29:11:247:ALA:HB3	1.99	0.43
30:21:78:LEU:O	30:21:79:ARG:HB2	2.19	0.43
32:41:45:GLU:H	32:41:45:GLU:HG2	1.48	0.43
36:38:32:LEU:HB2	36:38:33:PRO:HD3	1.99	0.43
37:48:27:LEU:HD12	37:48:34:ILE:HD13	1.99	0.43
49:G8:46:LYS:HG2	49:G8:60:PHE:CD2	2.53	0.43
50:H8:98:MET:HE3	50:H8:98:MET:HB2	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:H8:141:VAL:HG12	50:H8:143:GLY:H	1.83	0.43
51:I8:37:LEU:HD21	51:I8:61:ALA:N	2.32	0.43
54:L8:26:LEU:HD21	54:L8:46:ASN:HB3	1.99	0.43
1:1G:332:G:C2	1:1G:333:G:C8	3.06	0.43
1:1G:1130:A:H1'	1:1G:1146:A:C2	2.53	0.43
1:1G:1281:U:H3'	1:1G:1282:C:H5	1.79	0.43
2:12:16:HIS:HB3	2:12:210:SER:OG	2.18	0.43
2:12:32:ILE:HD12	2:12:41:ILE:O	2.18	0.43
2:12:118:LEU:O	2:12:122:PHE:N	2.51	0.43
3:22:85:ARG:HD2	3:22:85:ARG:H	1.83	0.43
4:32:101:LEU:HD23	4:32:121:VAL:CG1	2.48	0.43
6:52:21:LEU:O	6:52:24:GLU:HB2	2.18	0.43
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.81	0.43
8:72:64:LYS:HG2	8:72:79:VAL:HG21	2.00	0.43
10:1A:30:SER:OG	10:1A:81:THR:HA	2.18	0.43
12:3A:27:LEU:HD21	12:3A:30:ALA:HB3	2.01	0.43
15:6A:76:GLU:OE2	15:6A:79:ARG:NH1	2.51	0.43
24:3L:49:C:H6	24:3L:50:G:OP1	2.00	0.43
26:14:10:G:N3	26:14:2801:A:H5'	2.33	0.43
26:14:1335:U:C2	26:14:1336:A:C8	3.06	0.43
26:14:1474:C:H5'	26:14:1475:G:OP2	2.18	0.43
26:14:2064:C:H2'	26:14:2065:C:C6	2.53	0.43
26:14:2820:A:O5'	42:55:4:LEU:HD23	2.18	0.43
26:14:2880:C:O2	42:55:93:GLY:N	2.45	0.43
28:79:46:LYS:HG2	28:79:169:GLY:O	2.18	0.43
33:59:93:GLY:C	33:59:94:TYR:HD1	2.21	0.43
41:45:43:THR:CB	41:45:45:GLN:HG2	2.47	0.43
43:65:34:HIS:CD2	43:65:54:LEU:HD21	2.53	0.43
43:65:103:GLU:O	43:65:106:ARG:HD3	2.19	0.43
49:C5:17:SER:O	49:C5:21:LYS:HB2	2.18	0.43
1:13:32:A:C2	1:13:33:A:C4	3.07	0.43
1:13:429:U:H1'	1:13:430:A:H5"	1.99	0.43
1:13:658:G:C6	1:13:659:U:C4	3.06	0.43
1:13:926:G:C6	1:13:1505:G:C5	3.07	0.43
1:13:1104:G:H4'	2:1E:111:ARG:NH1	2.34	0.43
1:13:1128:C:C5	1:13:1139:G:C2	3.07	0.43
3:2E:131:ARG:HH22	3:2E:135:LYS:NZ	2.17	0.43
12:3I:84:LEU:HB2	12:3I:105:TYR:HE2	1.83	0.43
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.38	0.43
22:1K:15:G:N2	22:1K:49:C:H42	2.16	0.43
24:3K:68:G:C4	24:3K:69:G:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:141:A:H8	26:1H:1595:G:H21	1.62	0.43
26:1H:142:G:H2'	26:1H:143:C:H6	1.82	0.43
26:1H:155:C:H42	26:1H:171:G:H1	1.65	0.43
26:1H:817:C:H4'	26:1H:932:G:C5	2.54	0.43
26:1H:858:U:O2	26:1H:2268:A:H2'	2.19	0.43
26:1H:1070:A:C8	26:1H:1096:A:H2'	2.52	0.43
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.18	0.43
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.18	0.43
26:1H:1778:U:P	63:1H:4301:HOH:O	2.76	0.43
26:1H:2065:C:H2'	26:1H:2066:C:H6	1.84	0.43
26:1H:2136:C:P	26:1H:2160:G:H4'	2.59	0.43
26:1H:2441:C:H1'	63:1H:4259:HOH:O	2.18	0.43
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.18	0.43
26:1H:2852:G:H2'	26:1H:2853:C:O4'	2.19	0.43
27:16:18:G:H1	27:16:65:C:H42	1.65	0.43
28:71:211:SER:HB2	28:71:223:ARG:NH2	2.33	0.43
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.34	0.43
44:B8:57:PHE:CE1	44:B8:79:HIS:HB2	2.53	0.43
44:B8:107:ASP:OD1	44:B8:109:GLU:HB2	2.18	0.43
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.38	0.43
1:1G:500:G:H2'	1:1G:501:C:C6	2.53	0.43
1:1G:579:G:C6	1:1G:580:U:C4	3.07	0.43
1:1G:669:U:H2'	1:1G:670:G:C8	2.54	0.43
1:1G:676:A:H1'	11:2A:115:PRO:HB3	2.00	0.43
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.83	0.43
1:1G:828:A:C2	1:1G:859:A:O4'	2.72	0.43
1:1G:1057:G:C6	1:1G:1204:A:C2	3.07	0.43
1:1G:1103:C:N3	1:1G:1104:G:C8	2.85	0.43
1:1G:1129:C:H1'	1:1G:1132:C:N4	2.32	0.43
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.54	0.43
1:1G:1378:C:H3'	1:1G:1379:G:C5'	2.47	0.43
2:12:114:ARG:HA	2:12:117:GLU:HG3	2.00	0.43
2:12:217:ARG:HA	2:12:220:ASP:HB2	1.99	0.43
3:22:148:GLY:HA3	3:22:172:ARG:O	2.18	0.43
4:32:120:LEU:HD13	4:32:120:LEU:HA	1.47	0.43
7:62:15:ASP:HB3	7:62:20:ASP:H	1.82	0.43
13:4A:106:ASN:OD1	13:4A:106:ASN:N	2.50	0.43
14:5A:27:CYS:O	14:5A:29:ARG:HG2	2.17	0.43
17:8A:17:LYS:HG2	17:8A:47:PRO:HA	2.01	0.43
17:8A:63:ARG:HG2	17:8A:64:PRO:N	2.33	0.43
26:14:182:A:H2'	26:14:183:C:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:792:G:N3	26:14:2072:G:O2'	2.44	0.43
26:14:1036:G:H8	26:14:1036:G:O5'	2.02	0.43
26:14:1048:A:N6	33:59:2:SER:HB2	2.33	0.43
26:14:1160:G:H2'	26:14:1160:G:N3	2.34	0.43
26:14:1728:G:N1	26:14:1730:U:OP2	2.51	0.43
26:14:2321:G:N3	26:14:2321:G:H2'	2.33	0.43
26:14:2818:G:OP2	42:55:42:LYS:NZ	2.52	0.43
26:14:2846:G:H2'	26:14:2847:U:O4'	2.19	0.43
28:79:10:LEU:HD12	28:79:32:LEU:HD23	1.99	0.43
28:79:11:LEU:HD12	28:79:220:PRO:HB2	2.00	0.43
33:59:93:GLY:HA2	33:59:95:ARG:HH22	1.84	0.43
39:25:13:ASN:O	39:25:15:GLY:N	2.51	0.43
40:35:111:ARG:HB3	40:35:128:HIS:CG	2.53	0.43
47:A5:39:THR:HG22	47:A5:44:ALA:HB2	2.00	0.43
50:D5:62:PRO:O	50:D5:63:ASP:HB3	2.19	0.43
53:G5:23:LYS:HA	53:G5:26:ARG:HH12	1.83	0.43
54:H5:30:ARG:HG2	54:H5:33:GLN:HB3	2.01	0.43
1:13:181:G:N2	1:13:195:A:C4	2.87	0.43
1:13:198:G:C2	1:13:199:G:C8	3.06	0.43
4:3E:173:TRP:HB2	4:3E:187:ARG:HG3	2.00	0.43
4:3E:202:LEU:HD23	4:3E:202:LEU:HA	1.78	0.43
9:8E:127:LYS:O	9:8E:127:LYS:HG2	2.18	0.43
13:4I:14:ARG:HB3	13:4I:17:VAL:HG12	1.99	0.43
16:7I:20:VAL:CG1	16:7I:22:THR:HB	2.48	0.43
26:1H:205:G:P	63:1H:3986:HOH:O	2.77	0.43
26:1H:848:G:H2'	26:1H:849:A:H8	1.81	0.43
26:1H:1394:U:H4'	26:1H:1603:A:H4'	2.00	0.43
26:1H:1526:G:C6	26:1H:1527:G:C2	3.06	0.43
26:1H:2285:C:N4	57:O8:27:LYS:HE2	2.33	0.43
26:1H:2290:G:H2'	26:1H:2291:U:O4'	2.19	0.43
26:1H:2317:C:H2'	26:1H:2318:G:O4'	2.18	0.43
26:1H:2740:A:H2'	26:1H:2741:A:C8	2.53	0.43
27:16:3:C:H2'	27:16:4:C:C6	2.53	0.43
27:16:29:A:H2'	27:16:30:C:C6	2.53	0.43
29:11:132:PRO:HD3	29:11:190:TYR:CZ	2.54	0.43
30:21:2:LYS:HE3	30:21:200:GLU:OE1	2.19	0.43
30:21:197:ILE:HD11	30:21:199:ARG:NE	2.34	0.43
33:51:23:ARG:HD2	33:51:25:LYS:HZ1	1.83	0.43
33:51:54:ARG:HG3	33:51:56:SER:O	2.18	0.43
35:61:129:THR:HG22	35:61:137:PRO:HB3	1.99	0.43
36:38:102:LYS:HA	36:38:102:LYS:HD2	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:48:52:ILE:HG13	37:48:76:TYR:HB2	2.00	0.43
38:58:103:VAL:O	38:58:106:MET:N	2.40	0.43
44:B8:58:ASN:C	44:B8:58:ASN:HD22	2.22	0.43
50:H8:5:LEU:HD21	50:H8:43:GLU:HB3	1.99	0.43
51:I8:49:LYS:O	51:I8:50:ASN:HB2	2.19	0.43
52:J8:58:ILE:HG13	52:J8:87:PRO:HD3	2.01	0.43
54:L8:10:LYS:HB3	54:L8:53:LEU:HD23	2.01	0.43
1:1G:6:G:O2'	1:1G:7:G:O5'	2.31	0.43
1:1G:147:G:H21	1:1G:148:G:H1'	1.83	0.43
1:1G:254:G:OP1	17:8A:67:LYS:O	2.36	0.43
1:1G:862:C:O2'	1:1G:874:G:H5"	2.18	0.43
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.84	0.43
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.82	0.43
1:1G:1228:C:H4'	13:4A:116:THR:HA	2.00	0.43
5:42:102:ALA:HB2	5:42:120:THR:OG1	2.18	0.43
22:1L:6:C:N4	22:1L:68:G:H1	2.12	0.43
24:3L:9:A:C2	24:3L:47:G:C2	3.07	0.43
26:14:61:G:H5'	53:G5:50:ILE:HD13	2.01	0.43
26:14:724:U:H2'	26:14:725:G:O4'	2.18	0.43
26:14:780:G:C2	26:14:782:A:C2	3.06	0.43
26:14:1011:G:N3	26:14:1151:G:C2	2.86	0.43
26:14:1041:C:H2'	26:14:1042:G:C8	2.54	0.43
26:14:1131:G:C2	26:14:1132:A:C5	3.07	0.43
26:14:1152:C:H4'	45:85:77:SER:HA	2.00	0.43
26:14:1169:G:H8	26:14:1169:G:O5'	2.02	0.43
26:14:1239:G:H2'	26:14:1240:U:O4'	2.19	0.43
26:14:1636:C:H2'	26:14:1637:A:C8	2.53	0.43
26:14:2037:G:H2'	26:14:2038:G:H8	1.80	0.43
26:14:2365:G:H4'	51:E5:60:PHE:CZ	2.53	0.43
26:14:2655:G:N2	26:14:2665:A:OP2	2.50	0.43
33:59:6:ARG:HH21	33:59:54:ARG:CZ	2.31	0.43
35:69:8:PRO:HB3	35:69:15:VAL:HG22	1.99	0.43
35:69:123:LEU:HA	35:69:142:VAL:CG2	2.48	0.43
35:69:131:LYS:HA	35:69:135:GLU:HG2	1.99	0.43
41:45:57:HIS:ND1	41:45:117:ALA:HB2	2.33	0.43
46:95:40:LEU:HA	46:95:46:VAL:O	2.19	0.43
47:A5:79:GLY:HA3	47:A5:100:THR:HG22	2.00	0.43
48:B5:57:LEU:CD2	48:B5:78:LYS:HB3	2.48	0.43
50:D5:17:ALA:O	50:D5:20:ARG:HB2	2.18	0.43
50:D5:98:MET:HE3	50:D5:98:MET:HB2	1.82	0.43
50:D5:126:VAL:HG12	50:D5:163:LEU:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:57:G:H2'	1:13:58:C:H6	1.82	0.43
1:13:209:U:O2'	1:13:216:G:C2	2.72	0.43
1:13:758:G:O6	63:13:1959:HOH:O	2.18	0.43
1:13:1443:G:N7	44:B8:118:ARG:HG3	2.34	0.43
2:1E:70:PHE:HB2	2:1E:92:TYR:CB	2.49	0.43
2:1E:112:VAL:HG22	2:1E:153:ARG:HA	2.01	0.43
4:3E:65:ARG:HD2	4:3E:70:ILE:O	2.18	0.43
8:7E:87:SER:OG	8:7E:93:VAL:N	2.44	0.43
24:3K:73:C:C3'	24:3K:74:A:H5"	2.49	0.43
26:1H:286:C:H2'	26:1H:287:C:C6	2.54	0.43
26:1H:300:A:N3	26:1H:319:C:H1'	2.34	0.43
26:1H:492:A:H2'	26:1H:493:G:O4'	2.19	0.43
26:1H:725:G:C6	26:1H:726:G:N1	2.87	0.43
26:1H:868:U:C4	26:1H:869:G:N7	2.86	0.43
26:1H:932:G:H4'	26:1H:933:A:O5'	2.19	0.43
26:1H:1283:G:OP2	63:1H:3977:HOH:O	2.21	0.43
26:1H:1323:U:H2'	26:1H:1324:G:H5'	2.00	0.43
26:1H:1553:A:HO2'	26:1H:1554:A:H8	1.64	0.43
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.51	0.43
26:1H:2439:A:H4'	26:1H:2440:C:O5'	2.19	0.43
26:1H:2636:U:H2'	26:1H:2637:U:H6	1.83	0.43
28:71:32:LEU:HB3	28:71:220:PRO:HD2	2.01	0.43
29:11:154:LYS:C	29:11:155:LEU:HD12	2.38	0.43
32:41:44:GLY:C	32:41:46:ALA:H	2.22	0.43
32:41:52:ILE:HD13	32:41:52:ILE:HA	1.77	0.43
36:38:117:LEU:HD22	34:28:24:ILE:HD11	2.01	0.43
41:88:17:LEU:HB3	41:88:39:PRO:HB2	2.01	0.43
54:L8:7:LYS:HD2	54:L8:34:GLU:OE2	2.19	0.43
1:1G:434:U:H2'	1:1G:435:C:C6	2.54	0.43
1:1G:519:C:H2'	1:1G:520:A:O4'	2.18	0.43
1:1G:529:G:HO2'	1:1G:533:A:N6	2.17	0.43
1:1G:994:A:H2'	1:1G:994:A:N3	2.33	0.43
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.44	0.43
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.19	0.43
3:22:152:ILE:HG12	3:22:167:TRP:HB2	2.01	0.43
12:3A:82:VAL:N	12:3A:106:ASP:OD2	2.48	0.43
20:BA:26:ASN:O	20:BA:30:LYS:HB2	2.19	0.43
22:1L:65:C:H2'	22:1L:66:C:H6	1.84	0.43
26:14:92:G:H2'	26:14:93:C:C6	2.54	0.43
26:14:574:C:P	63:14:3792:HOH:O	2.72	0.43
26:14:842:G:N2	26:14:937:U:O2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1259:G:H2'	26:14:1260:G:C8	2.54	0.43
26:14:1913:A:H4'	26:14:1914:C:H5"	2.00	0.43
26:14:2115:G:H1'	26:14:2171:A:H61	1.84	0.43
26:14:2124:G:N2	26:14:2175:C:O2	2.52	0.43
26:14:2567:G:H2'	26:14:2568:C:C6	2.54	0.43
26:14:2582:G:H3'	63:14:3727:HOH:O	2.18	0.43
26:14:2632:A:O2'	26:14:2811:G:O2'	2.32	0.43
26:14:2709:G:H1'	63:14:4700:HOH:O	2.17	0.43
26:14:2791:C:OP1	26:14:2893:G:N2	2.49	0.43
1:13:255:G:C5	1:13:256:U:C5	3.07	0.43
1:13:328:C:H4'	1:13:329:A:C5'	2.49	0.43
1:13:737:A:O2'	1:13:738:C:H5'	2.18	0.43
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.33	0.43
19:AI:5:LEU:CB	19:AI:10:PHE:HE1	2.31	0.43
23:2K:10:G:N2	23:2K:27:G:H1'	2.33	0.43
26:1H:828:U:H4'	26:1H:831:G:N1	2.34	0.43
26:1H:880:G:C2	26:1H:881:G:C8	3.07	0.43
26:1H:1014:U:H2'	26:1H:1015:G:C8	2.54	0.43
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.83	0.43
26:1H:1257:C:O2'	31:31:83:PHE:HA	2.18	0.43
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.84	0.43
26:1H:1639:U:OP1	63:1H:3968:HOH:O	2.20	0.43
26:1H:2356:C:H2'	26:1H:2357:U:O4'	2.19	0.43
26:1H:2479:G:O5'	26:1H:2479:G:H8	2.02	0.43
26:1H:2577:A:OP2	56:N8:2:ALA:N	2.52	0.43
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.54	0.43
29:11:182:LEU:O	29:11:271:ILE:HG12	2.19	0.43
32:41:51:ARG:HB2	32:41:51:ARG:NH1	2.34	0.43
36:38:16:ASN:H	36:38:19:ARG:CB	2.31	0.43
37:48:51:ALA:HB3	37:48:76:TYR:CD1	2.50	0.43
41:88:118:LEU:HA	41:88:118:LEU:HD23	1.76	0.43
44:B8:16:ARG:HB2	44:B8:18:ASP:OD1	2.19	0.43
44:B8:87:ASP:OD1	44:B8:87:ASP:N	2.50	0.43
46:D8:37:VAL:HB	46:D8:51:VAL:HG23	2.01	0.43
52:J8:15:ALA:O	52:J8:40:ARG:HG3	2.19	0.43
1:1G:15:G:H8	1:1G:1396:A:HO2'	1.67	0.43
1:1G:109:A:N7	1:1G:326:G:H2'	2.33	0.43
1:1G:448:A:H2'	1:1G:449:C:O2	2.18	0.43
1:1G:574:A:H5"	1:1G:575:G:OP2	2.18	0.43
3:22:18:TRP:HE1	14:5A:56:VAL:H	1.65	0.43
4:32:25:ARG:NH2	4:32:30:LYS:HB2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:80:ILE:HG22	8:72:104:ARG:NH1	2.34	0.43
8:72:54:ASP:HB2	8:72:56:LYS:HD3	2.01	0.43
8:72:86:ILE:HD11	8:72:136:GLU:HG2	2.00	0.43
9:82:112:LYS:HD3	9:82:113:LYS:N	2.33	0.43
10:1A:40:LEU:HB3	10:1A:69:ASN:HB3	2.01	0.43
20:BA:89:ARG:HE	20:BA:104:LEU:HD23	1.83	0.43
22:1L:6:C:O2'	22:1L:7:G:OP2	2.28	0.43
26:14:53:A:OP2	63:14:3898:HOH:O	2.21	0.43
26:14:108:U:H2'	26:14:109:G:H8	1.83	0.43
26:14:1248:G:OP1	45:85:2:PRO:HD2	2.19	0.43
26:14:1818:U:O4	29:19:154:LYS:HD3	2.19	0.43
26:14:2146:C:H4'	26:14:2147:G:C8	2.54	0.43
27:1J:30:C:H2'	27:1J:31:C:H5'	2.01	0.43
32:49:99:MET:O	32:49:103:LEU:HG	2.17	0.43
33:59:94:TYR:CZ	33:59:160:LYS:HD2	2.54	0.43
38:15:62:VAL:CG2	38:15:66:LYS:HD2	2.47	0.43
38:15:111:PRO:HA	38:15:114:ARG:CZ	2.49	0.43
39:25:119:PRO:HB2	44:75:68:TYR:CZ	2.54	0.43
48:B5:9:LEU:CA	53:G5:36:ARG:HH21	2.28	0.43
1:13:245:C:C2	1:13:284:G:C2	3.07	0.43
1:13:302:G:C6	1:13:303:A:C5	3.07	0.43
1:13:413:G:H21	1:13:428:G:H1'	1.84	0.43
1:13:452:A:H1'	16:7I:72:ARG:NH1	2.33	0.43
1:13:745:C:H2'	1:13:746:A:C8	2.54	0.43
1:13:1028(A):C:N4	1:13:1032(A):G:H1	2.17	0.43
8:7E:8:ASP:OD1	8:7E:12:ARG:HD2	2.17	0.43
10:1I:5:ARG:HH21	10:1I:99:LYS:HD2	1.84	0.43
12:3I:123:LYS:H	12:3I:123:LYS:HG2	1.58	0.43
13:4I:60:VAL:HG13	13:4I:64:TRP:HE1	1.84	0.43
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	2.01	0.43
23:2K:62:C:H2'	23:2K:63:C:C6	2.49	0.43
26:1H:996:A:O3'	45:C8:92:ARG:HG2	2.18	0.43
26:1H:1026:U:O2	26:1H:1027:A:H3'	2.19	0.43
26:1H:2070:G:C2	26:1H:2442:C:C2	3.07	0.43
26:1H:2471:C:O2	26:1H:2479:G:N2	2.41	0.43
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.84	0.43
30:21:67:PHE:O	30:21:69:LYS:N	2.49	0.43
36:38:9:LEU:HD13	36:38:10:LEU:HD13	2.01	0.43
37:48:143:GLU:O	37:48:145:LYS:N	2.52	0.43
42:98:60:LEU:O	42:98:64:ARG:HG3	2.19	0.43
42:98:96:ARG:HH22	42:98:117:VAL:HG23	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:B8:90:GLN:HG3	44:B8:91:ARG:N	2.33	0.43
44:B8:97:ALA:HB1	44:B8:98:LYS:HZ1	1.84	0.43
50:H8:59:LEU:HD12	50:H8:60:GLU:N	2.34	0.43
51:I8:41:ARG:NE	51:I8:41:ARG:HA	2.33	0.43
53:K8:18:PRO:HA	53:K8:21:LEU:HD12	2.01	0.43
56:N8:49:CYS:SG	56:N8:49:CYS:O	2.76	0.43
1:1G:45:U:H2'	1:1G:46:G:H8	1.84	0.43
1:1G:238:G:C6	1:1G:239:U:C4	3.07	0.43
1:1G:630:G:O2'	1:1G:631:G:H5'	2.19	0.43
1:1G:758:G:H5'	1:1G:880:C:H1'	2.01	0.43
1:1G:958:A:H5"	1:1G:959:A:OP2	2.19	0.43
1:1G:991:U:O4	1:1G:1212:U:O2'	2.31	0.43
1:1G:1333:A:C8	1:1G:1334:G:C8	3.06	0.43
1:1G:1423:G:P	39:25:49:ARG:HH22	2.40	0.43
6:52:35:ALA:HB1	6:52:65:VAL:HG11	2.00	0.43
8:72:110:ALA:O	8:72:121:ASP:N	2.52	0.43
18:9A:37:VAL:HB	18:9A:79:LEU:HD21	2.01	0.43
22:1L:55:5MU:H71	22:1L:55:5MU:OP2	2.18	0.43
23:2L:17:C:H3'	23:2L:18:C:H2'	2.01	0.43
23:2L:24:C:C2	23:2L:25:U:C5	3.07	0.43
26:14:271(A):C:H1'	26:14:272:G:H1'	2.01	0.43
26:14:341:G:N1	26:14:342:G:C5	2.87	0.43
26:14:341:G:C6	26:14:342:G:C5	3.07	0.43
26:14:455:C:N3	26:14:472:A:H2'	2.34	0.43
26:14:1132:A:H2'	26:14:1133:U:C6	2.54	0.43
26:14:1182:A:H2'	26:14:1183:G:O4'	2.19	0.43
26:14:2267:A:H3'	63:14:3746:HOH:O	2.18	0.43
26:14:2335:A:C8	26:14:2337:G:N7	2.87	0.43
26:14:2853:C:H2'	26:14:2854:G:C8	2.54	0.43
27:1J:10:C:C4	27:1J:11:C:C5	3.07	0.43
27:1J:91:C:OP1	41:45:19:GLY:HA2	2.18	0.43
31:39:174:VAL:HG11	31:39:188:ARG:HH22	1.84	0.43
38:15:30:ILE:HG23	38:15:52:VAL:HG11	2.01	0.43
38:15:128:HIS:CD2	38:15:128:HIS:H	2.36	0.43
43:65:21:THR:HB	43:65:23:ARG:CG	2.46	0.43
46:95:33:VAL:HG13	46:95:35:LEU:HD22	2.01	0.43
49:C5:97:ARG:CZ	49:C5:106:LEU:HG	2.49	0.43
56:J5:46:CYS:SG	56:J5:48:GLU:HG2	2.58	0.43
1:13:25:C:H2'	1:13:26:A:C8	2.54	0.42
1:13:201:C:N4	1:13:209:U:H1'	2.33	0.42
1:13:540:G:H2'	1:13:541:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1032(B):G:N3	1:13:1033:G:H1'	2.34	0.42
1:13:1097:C:O2'	1:13:1169:A:N3	2.43	0.42
2:1E:11:LEU:HD12	2:1E:11:LEU:HA	1.72	0.42
3:2E:23:TYR:HA	10:1I:11:PHE:CE2	2.54	0.42
6:5E:27:GLN:HA	6:5E:30:LEU:HD13	2.00	0.42
12:3I:5:PRO:HG2	12:3I:10:LEU:CD1	2.48	0.42
13:4I:18:ALA:HA	13:4I:21:TYR:HD2	1.84	0.42
20:BI:64:ASP:HA	20:BI:67:ALA:HB3	2.00	0.42
26:1H:191:A:H2'	26:1H:192:C:C6	2.54	0.42
26:1H:607:U:N3	26:1H:621:A:C2	2.76	0.42
26:1H:950:G:C5	26:1H:951:C:C4	3.07	0.42
26:1H:986:C:C2'	26:1H:987:G:H5'	2.49	0.42
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.54	0.42
26:1H:2280:G:H2'	26:1H:2281:C:H5'	2.00	0.42
26:1H:2824:C:H2'	26:1H:2825:C:O4'	2.19	0.42
30:21:34:VAL:HG22	30:21:48:GLN:HB3	2.01	0.42
38:58:15:LEU:C	38:58:16:ILE:HG13	2.39	0.42
40:78:15:ARG:HH12	40:78:17:LYS:CD	2.30	0.42
48:F8:11:PRO:HG2	48:F8:13:LEU:HD21	2.01	0.42
50:H8:131:ARG:HE	50:H8:131:ARG:HB2	1.41	0.42
53:K8:8:LYS:HD2	53:K8:8:LYS:HA	1.86	0.42
1:1G:44:G:H2'	1:1G:45:U:O4'	2.18	0.42
1:1G:749:C:H2'	1:1G:750:G:H8	1.84	0.42
1:1G:1137:C:O2	1:1G:1138:G:N2	2.51	0.42
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.54	0.42
11:2A:31:THR:HB	11:2A:42:TRP:HB3	2.01	0.42
19:AA:11:VAL:HG11	19:AA:16:LEU:HD22	1.99	0.42
20:BA:72:LEU:HD21	20:BA:80:ARG:HG3	2.00	0.42
23:2L:41:C:H2'	23:2L:42:C:C6	2.47	0.42
26:14:7:G:H4'	38:15:13:TRP:HH2	1.84	0.42
26:14:240:G:H1'	26:14:257:A:H61	1.83	0.42
26:14:990:A:N6	26:14:1186:G:H1'	2.34	0.42
26:14:1142(A):A:H4'	38:15:25:ARG:HH22	1.84	0.42
26:14:1482:U:H3	26:14:1512:G:H1	1.67	0.42
26:14:1802:A:N1	26:14:1822:G:H1'	2.34	0.42
26:14:2156:G:N7	26:14:2157:G:N2	2.67	0.42
26:14:2163:C:O2	26:14:2163:C:H2'	2.17	0.42
26:14:2165:G:H3'	26:14:2166:G:H5'	2.01	0.42
26:14:2432:A:H2'	26:14:2433:A:C8	2.54	0.42
26:14:2895:U:C5	26:14:2896:C:H5	2.37	0.42
29:19:183:ARG:HG2	29:19:184:LYS:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:117:MET:HA	30:29:122:PHE:N	2.34	0.42
32:49:82:LEU:HD22	32:49:82:LEU:HA	1.86	0.42
32:49:170:ARG:HA	32:49:170:ARG:HD2	1.89	0.42
50:D5:29:TYR:CE2	50:D5:87:ASP:HB2	2.53	0.42
50:D5:166:SER:O	50:D5:169:GLU:HB2	2.18	0.42
1:13:108:G:P	1:13:326:G:H22	2.42	0.42
1:13:265:G:H5'	17:8I:64:PRO:O	2.18	0.42
1:13:877:C:H5"	8:7E:88:LYS:HD3	2.01	0.42
1:13:994:A:N7	1:13:1216:G:H4'	2.33	0.42
1:13:1002:G:H2'	1:13:1003:G:O4'	2.19	0.42
1:13:1469:G:H2'	1:13:1470:G:C8	2.54	0.42
3:2E:111:LEU:HG	3:2E:144:SER:HB3	2.01	0.42
10:1I:58:ASP:O	10:1I:59:SER:C	2.56	0.42
12:3I:10:LEU:HB3	17:8I:32:TYR:CE2	2.54	0.42
13:4I:54:VAL:HG13	13:4I:57:ARG:NH2	2.34	0.42
14:5I:9:LYS:HE2	14:5I:9:LYS:HB2	1.67	0.42
17:8I:68:ARG:HG3	17:8I:68:ARG:O	2.19	0.42
26:1H:271:G:H1	26:1H:366:C:H42	1.66	0.42
26:1H:394:A:O2'	26:1H:395:U:H5'	2.19	0.42
26:1H:524:U:H2'	26:1H:525:U:C6	2.54	0.42
26:1H:591:C:N4	63:1H:4298:HOH:O	2.51	0.42
26:1H:635:C:O2'	26:1H:639:U:OP1	2.26	0.42
26:1H:654(O):G:C8	26:1H:654(P):G:N2	2.87	0.42
26:1H:957:A:OP1	41:88:77:LYS:HB2	2.18	0.42
26:1H:1153:C:N4	26:1H:1154:G:C6	2.87	0.42
26:1H:1359:A:N3	26:1H:1359:A:O4'	2.52	0.42
26:1H:1378:A:OP1	58:P8:10:ARG:NH2	2.52	0.42
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.19	0.42
26:1H:1624:G:H2'	26:1H:1625:C:H6	1.84	0.42
26:1H:1753:G:C2	26:1H:1756:G:C2	3.07	0.42
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.19	0.42
26:1H:2886:G:O2'	56:N8:31:VAL:HG22	2.19	0.42
27:16:55:U:H2'	27:16:56:G:H8	1.84	0.42
31:31:108:LYS:HB3	31:31:108:LYS:HE2	1.67	0.42
31:31:126:VAL:O	31:31:196:LEU:HD22	2.19	0.42
32:41:96:ARG:O	32:41:97:ASP:HB2	2.19	0.42
38:58:115:ARG:O	38:58:118:LYS:HB2	2.18	0.42
40:78:15:ARG:HH11	40:78:15:ARG:CB	2.26	0.42
44:B8:52:ILE:HG12	44:B8:61:PHE:HB3	2.01	0.42
46:D8:82:ARG:N	46:D8:82:ARG:HD2	2.33	0.42
48:F8:57:LEU:N	48:F8:57:LEU:HD23	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:H8:132:ASN:OD1	50:H8:132:ASN:N	2.51	0.42
53:K8:16:LEU:O	53:K8:21:LEU:HG	2.19	0.42
55:M8:9:LEU:HD12	55:M8:27:THR:N	2.33	0.42
55:M8:16:CYS:C	55:M8:18:CYS:H	2.23	0.42
1:1G:447:G:O6	1:1G:485:G:C8	2.71	0.42
1:1G:458:C:H2'	1:1G:464:G:C8	2.55	0.42
1:1G:458:C:H2'	1:1G:464:G:H8	1.83	0.42
1:1G:521:G:O5'	12:3A:73:GLU:HG2	2.18	0.42
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.18	0.42
1:1G:855:G:H5"	1:1G:871:U:O4	2.19	0.42
1:1G:1080:A:OP1	5:42:14:ARG:NH2	2.52	0.42
1:1G:1126:U:H4'	1:1G:1127:G:C5	2.54	0.42
1:1G:1288:A:C4	1:1G:1289:A:C8	3.07	0.42
1:1G:1306:A:C6	1:1G:1307:U:C2	3.07	0.42
1:1G:1385:G:C6	1:1G:1386:G:N7	2.87	0.42
5:42:42:GLY:HA2	5:42:65:ASN:O	2.19	0.42
6:52:16:GLN:H	6:52:16:GLN:HG2	1.56	0.42
6:52:72:VAL:HG13	6:52:73:ASN:H	1.85	0.42
14:5A:37:PHE:CZ	14:5A:53:LEU:HD13	2.55	0.42
24:3L:4:U:O2	24:3L:70:A:N1	2.52	0.42
26:14:13:A:N1	26:14:525:U:H2'	2.34	0.42
26:14:313:C:H5'	63:14:4753:HOH:O	2.18	0.42
26:14:389:G:H22	40:35:72:PRO:HD3	1.83	0.42
26:14:901:A:H2'	26:14:901:A:N3	2.34	0.42
26:14:1187:G:H8	26:14:1187:G:O5'	2.02	0.42
26:14:1188:U:C4'	46:95:79:VAL:HG22	2.49	0.42
26:14:1260:G:H2'	26:14:1261:C:H6	1.82	0.42
26:14:1652:A:OP1	42:55:8:ARG:NH1	2.52	0.42
26:14:2094:G:OP1	35:69:22:LYS:HD2	2.20	0.42
26:14:2131:G:N2	26:14:2157:G:H1'	2.34	0.42
26:14:2482:G:C2'	26:14:2483:C:H5'	2.49	0.42
26:14:2500:U:H5"	26:14:2501:C:OP2	2.19	0.42
32:49:16:ARG:N	32:49:17:PRO:HD2	2.34	0.42
38:15:67:LEU:HD12	38:15:67:LEU:HA	1.82	0.42
42:55:103:ARG:NH2	42:55:110:PRO:HD3	2.34	0.42
43:65:17:ARG:HD2	43:65:17:ARG:O	2.20	0.42
44:75:54:ARG:HG2	44:75:59:THR:HG21	2.01	0.42
45:85:106:PHE:O	45:85:109:LEU:N	2.49	0.42
48:B5:12:VAL:HG12	48:B5:29:TRP:CD2	2.54	0.42
1:13:99:C:H2'	1:13:101:A:C8	2.54	0.42
1:13:247:G:C6	1:13:278:G:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:392:G:H5'	16:7I:12:LYS:HD2	2.01	0.42
1:13:475:G:H2'	1:13:476:G:O4'	2.20	0.42
5:4E:105:VAL:HB	5:4E:106:PRO:HD3	2.01	0.42
7:6E:71:PRO:HG3	7:6E:103:TRP:CZ3	2.55	0.42
8:7E:98:LYS:H	8:7E:98:LYS:HG3	1.54	0.42
8:7E:115:SER:C	8:7E:116:LYS:HE2	2.40	0.42
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.35	0.42
12:3I:9:GLN:O	12:3I:13:LYS:HG2	2.19	0.42
19:AI:5:LEU:HD13	19:AI:10:PHE:CE1	2.55	0.42
19:AI:10:PHE:CD1	19:AI:10:PHE:N	2.87	0.42
26:1H:26:G:C6	26:1H:27:G:N1	2.86	0.42
26:1H:289:A:C4	26:1H:353:G:N2	2.87	0.42
26:1H:971:C:H2'	26:1H:972:G:O4'	2.20	0.42
26:1H:1006:C:H1'	38:58:106:MET:CE	2.47	0.42
26:1H:1068:G:H4'	26:1H:1096:A:H2	1.83	0.42
26:1H:1221:C:C2	26:1H:1222:C:C5	3.07	0.42
26:1H:1280:G:N2	26:1H:1291:C:C2	2.87	0.42
26:1H:1638:C:O2	26:1H:2698:U:O2'	2.37	0.42
26:1H:1878:G:H2'	26:1H:1879:C:C6	2.54	0.42
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.19	0.42
26:1H:2048:G:C2	26:1H:2621:A:C2	3.08	0.42
26:1H:2094:G:H2'	26:1H:2095:C:O4'	2.18	0.42
26:1H:2335:A:C8	26:1H:2337:G:C5	3.08	0.42
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.20	0.42
27:16:66:A:C6	27:16:108:C:C6	3.08	0.42
27:16:71:C:N3	27:16:72:G:C8	2.87	0.42
30:21:80:GLU:H	30:21:80:GLU:HG3	1.65	0.42
30:21:128:SER:OG	30:21:129:HIS:N	2.52	0.42
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.55	0.42
36:38:42:GLN:HG3	36:38:42:GLN:O	2.19	0.42
36:38:91:LYS:NZ	36:38:94:VAL:HB	2.34	0.42
37:48:120:LEU:HD12	37:48:120:LEU:HA	1.77	0.42
42:98:116:LEU:H	42:98:116:LEU:HD12	1.84	0.42
44:B8:26:ASP:CB	44:B8:91:ARG:HA	2.49	0.42
49:G8:54:LYS:O	49:G8:55:TYR:CG	2.73	0.42
53:K8:52:ASP:N	53:K8:52:ASP:OD1	2.43	0.42
1:1G:1133:G:N2	1:1G:1141:C:C2	2.84	0.42
1:1G:1191:A:H8	1:1G:1191:A:O5'	2.01	0.42
3:22:29:TYR:HD2	14:5A:36:PHE:CZ	2.36	0.42
4:32:73:ARG:O	4:32:77:ASN:ND2	2.36	0.42
10:1A:78:ASN:HB2	10:1A:81:THR:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:41:C:H2'	22:1L:42:G:C8	2.54	0.42
24:3L:1:G:H22	24:3L:73:C:H42	1.68	0.42
26:14:107:C:H2'	26:14:108:U:H6	1.84	0.42
26:14:581:C:C2	26:14:582:G:C8	3.07	0.42
26:14:975:G:C4	26:14:976:C:C5	3.07	0.42
26:14:1399:C:O2'	26:14:1400:G:H5'	2.19	0.42
26:14:1850:G:H2'	26:14:1851:U:O4'	2.19	0.42
26:14:1957:C:H5"	63:14:3983:HOH:O	2.18	0.42
26:14:2287:A:H2	26:14:2346:A:C2	2.36	0.42
26:14:2549:G:O6	63:14:3891:HOH:O	2.20	0.42
26:14:2861:G:O2'	26:14:2862:G:H5'	2.19	0.42
27:1J:73:A:H3'	27:1J:74:U:H6	1.84	0.42
31:39:10:PRO:HD2	31:39:13:SER:OG	2.20	0.42
39:25:4:PRO:O	39:25:5:GLN:HB2	2.19	0.42
41:45:16:ARG:HE	41:45:16:ARG:HB3	1.43	0.42
43:65:87:PHE:CZ	43:65:102:ALA:HB2	2.54	0.42
45:85:65:ILE:HD13	45:85:65:ILE:HA	1.84	0.42
45:85:112:ARG:CZ	46:95:47:VAL:HG21	2.48	0.42
47:A5:13:SER:HA	47:A5:99:ARG:HB2	2.01	0.42
47:A5:110:LYS:HA	47:A5:110:LYS:HD2	1.54	0.42
48:B5:80:ILE:HD13	48:B5:80:ILE:O	2.19	0.42
52:F5:57:GLU:O	52:F5:58:ILE:HD13	2.19	0.42
52:F5:95:LEU:HD12	52:F5:95:LEU:HA	1.83	0.42
56:J5:35:GLU:OE1	56:J5:35:GLU:N	2.52	0.42
1:13:246:A:C4	1:13:282:A:N6	2.88	0.42
1:13:256:U:C2	1:13:257:G:C8	3.08	0.42
1:13:405:U:OP2	4:3E:3:ARG:NH2	2.52	0.42
1:13:723:U:H5"	1:13:724:G:OP2	2.19	0.42
1:13:939:G:C6	1:13:940:C:N4	2.87	0.42
1:13:1459:C:P	20:BI:31:SER:HG	2.42	0.42
2:1E:120:ALA:O	2:1E:124:SER:OG	2.27	0.42
4:3E:108:LEU:HB3	4:3E:110:PHE:CE1	2.54	0.42
5:4E:72:GLN:N	5:4E:72:GLN:OE1	2.52	0.42
9:8E:27:THR:HB	9:8E:62:TYR:HA	2.00	0.42
9:8E:33:PHE:HE1	9:8E:37:PHE:HD2	1.66	0.42
12:3I:59:ARG:HA	12:3I:65:GLU:HA	2.01	0.42
18:9I:76:LEU:N	18:9I:76:LEU:HD23	2.34	0.42
24:3K:7:G:N3	24:3K:50:G:C8	2.87	0.42
26:1H:202:U:C4	63:1H:3877:HOH:O	2.57	0.42
26:1H:272:G:H2'	26:1H:273:G:O4'	2.20	0.42
26:1H:478:A:C6	26:1H:480:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:624:C:O5'	26:1H:624:C:H6	2.03	0.42
26:1H:637:A:O5'	40:78:116:GLY:HA3	2.19	0.42
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.54	0.42
26:1H:2061:G:H2'	26:1H:2501:C:O2'	2.19	0.42
26:1H:2121:G:H2'	26:1H:2122:U:O4'	2.18	0.42
29:11:93:ALA:HB3	29:11:105:ILE:HG22	2.00	0.42
32:41:51:ARG:H	32:41:51:ARG:HG3	1.56	0.42
35:61:73:GLU:HG3	35:61:136:VAL:HG23	2.00	0.42
40:78:64:LYS:HD2	59:Q8:12:LYS:HD2	2.00	0.42
41:88:48:GLU:HG3	41:88:48:GLU:O	2.19	0.42
41:88:51:ARG:NH2	41:88:52:VAL:HG23	2.34	0.42
42:98:87:TYR:CD1	42:98:90:ARG:HD2	2.55	0.42
44:B8:105:LEU:HD12	44:B8:105:LEU:HA	1.76	0.42
50:H8:95:PRO:HB2	50:H8:127:LYS:HD3	2.02	0.42
56:N8:3:LYS:HZ3	56:N8:3:LYS:HG3	1.59	0.42
57:O8:11:LEU:HD23	57:O8:26:ASN:HB3	2.01	0.42
1:1G:622:A:C8	1:1G:623:C:C6	3.07	0.42
1:1G:854:G:C2	1:1G:855:G:C8	3.07	0.42
1:1G:891:U:OP2	63:1G:1848:HOH:O	2.22	0.42
1:1G:973:G:H1'	10:1A:55:LYS:CG	2.48	0.42
1:1G:1037:C:H2'	1:1G:1038:C:H6	1.81	0.42
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.54	0.42
10:1A:78:ASN:C	10:1A:80:LYS:H	2.23	0.42
12:3A:15:ARG:HD3	12:3A:15:ARG:HA	1.79	0.42
12:3A:89:ARG:HE	12:3A:89:ARG:HB3	1.65	0.42
14:5A:29:ARG:HG3	14:5A:29:ARG:O	2.20	0.42
19:AA:39:THR:HA	19:AA:70:LYS:HD3	2.00	0.42
26:14:39:C:H2'	26:14:40:C:H6	1.84	0.42
26:14:654(A):A:C2	26:14:654(T):A:N7	2.88	0.42
26:14:740:U:O4'	26:14:1981:A:C4	2.72	0.42
26:14:944:G:H5"	26:14:945:A:O5'	2.20	0.42
26:14:1465:G:C4	26:14:1466:G:C8	3.07	0.42
26:14:1632:A:N7	26:14:1633:G:C6	2.88	0.42
26:14:2068:U:N3	26:14:2430:A:C2	2.79	0.42
26:14:2600:A:H2'	26:14:2601:C:C6	2.55	0.42
26:14:2652:C:N4	26:14:2668:G:H1	2.08	0.42
26:14:2688:U:H5	26:14:2720:U:OP2	2.02	0.42
29:19:231:HIS:ND1	29:19:232:PRO:N	2.68	0.42
31:39:150:GLY:HA2	31:39:172:TRP:CG	2.54	0.42
32:49:5:VAL:HG12	32:49:7:LEU:N	2.23	0.42
32:49:44:GLY:C	32:49:46:ALA:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.48	0.42
35:69:92:VAL:HB	35:69:120:ILE:HB	2.01	0.42
40:35:90:ARG:HG3	40:35:91:PHE:N	2.34	0.42
41:45:68:ILE:HD13	41:45:103:MET:HG2	2.01	0.42
49:C5:98:VAL:HG13	49:C5:103:GLY:O	2.19	0.42
50:D5:144:LEU:HD21	50:D5:150:LEU:HB2	2.01	0.42
1:13:468:A:OP1	16:7I:75:ARG:NH2	2.48	0.42
1:13:624:C:H2'	1:13:625:G:C8	2.54	0.42
1:13:843:U:H5"	1:13:848:C:C5	2.54	0.42
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.53	0.42
1:13:914:A:C4	1:13:915:A:C8	3.07	0.42
4:3E:8:VAL:HG11	4:3E:21:LEU:HB2	2.01	0.42
5:4E:10:MET:HE2	5:4E:10:MET:HB2	1.80	0.42
6:5E:21:LEU:HD13	6:5E:21:LEU:HA	1.81	0.42
7:6E:15:ASP:OD1	7:6E:16:LEU:N	2.52	0.42
9:8E:92:TYR:HD1	9:8E:92:TYR:HA	1.73	0.42
12:3I:28:LYS:HB2	12:3I:33:ARG:NH1	2.34	0.42
12:3I:53:ARG:HH12	12:3I:92:ASP:CG	2.21	0.42
13:4I:3:ARG:HE	13:4I:3:ARG:HB2	1.57	0.42
15:6I:3:ILE:HG21	15:6I:34:LEU:HG	2.02	0.42
16:7I:5:ARG:HH21	16:7I:22:THR:CG2	2.32	0.42
26:1H:17:G:H2'	26:1H:18:C:C6	2.55	0.42
26:1H:91:A:H2'	26:1H:92:G:O4'	2.20	0.42
26:1H:469:G:H2'	26:1H:470:A:H5"	2.02	0.42
26:1H:481:G:C4	26:1H:507:A:C2	3.08	0.42
26:1H:851:U:O2	26:1H:928:G:C2	2.73	0.42
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.83	0.42
26:1H:1488:G:C5	26:1H:1489:U:C5	3.07	0.42
26:1H:1811:G:H2'	26:1H:1812:A:O4'	2.19	0.42
26:1H:1899:G:H21	26:1H:1902:C:H5	1.67	0.42
26:1H:2027:G:C5	26:1H:2028:U:C5	3.07	0.42
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.19	0.42
26:1H:2830:G:C5'	26:1H:2830:G:C8	3.02	0.42
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.55	0.42
29:11:28:GLU:N	29:11:29:PRO:CD	2.83	0.42
29:11:132:PRO:HD3	29:11:190:TYR:CE2	2.55	0.42
29:11:172:TYR:CD1	29:11:186:HIS:HA	2.54	0.42
40:78:60:MET:HA	59:Q8:13:ARG:HH11	1.83	0.42
49:G8:40:GLU:HA	49:G8:41:GLY:HA2	1.66	0.42
1:1G:113:G:H2'	1:1G:114:U:C6	2.54	0.42
1:1G:135:C:O2	16:7A:1:MET:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:613:C:O5'	1:1G:613:C:H6	2.02	0.42
1:1G:939:G:H5'	7:62:102:ARG:CZ	2.50	0.42
1:1G:991:U:O2	1:1G:993:G:C8	2.73	0.42
1:1G:1055:A:N7	1:1G:1206:G:N2	2.68	0.42
1:1G:1217:C:OP1	14:5A:9:LYS:HD2	2.19	0.42
2:12:87:ARG:HE	2:12:233:SER:CB	2.32	0.42
4:32:187:ARG:NH2	4:32:190:ASP:HB2	2.34	0.42
5:42:101:ILE:O	5:42:120:THR:OG1	2.35	0.42
8:72:12:ARG:NH1	8:72:27:PRO:HD2	2.35	0.42
9:82:86:VAL:HG23	9:82:96:LEU:HD22	2.01	0.42
13:4A:81:LEU:HB3	13:4A:89:GLY:CA	2.49	0.42
18:9A:53:ARG:HH21	18:9A:60:ALA:N	2.17	0.42
26:14:26:G:C6	26:14:27:G:C6	3.08	0.42
26:14:128:C:H2'	26:14:129:C:H6	1.85	0.42
26:14:853:G:H2'	26:14:854:G:H8	1.84	0.42
26:14:878:A:N1	26:14:900:A:N7	2.67	0.42
26:14:2504:U:OP2	63:14:3901:HOH:O	2.21	0.42
26:14:2888:C:H2'	26:14:2889:C:C6	2.55	0.42
30:29:12:THR:C	30:29:23:VAL:HG22	2.40	0.42
41:45:101:ARG:HG3	41:45:102:VAL:N	2.35	0.42
45:85:20:LEU:HD12	45:85:20:LEU:HA	1.89	0.42
46:95:1:MET:HB3	46:95:42:GLY:HA3	2.02	0.42
48:B5:12:VAL:CG2	48:B5:27:THR:HB	2.50	0.42
48:B5:24:GLY:O	48:B5:83:VAL:HG12	2.20	0.42
49:C5:62:GLU:CD	49:C5:63:LYS:H	2.23	0.42
50:D5:111:VAL:H	50:D5:145:GLU:HG2	1.84	0.42
1:13:176:C:H2'	1:13:177:C:H6	1.84	0.42
1:13:437:U:C4	1:13:438:G:C6	3.07	0.42
1:13:452:A:H2'	1:13:453:A:C8	2.55	0.42
1:13:685:G:O2'	1:13:686:U:H5'	2.20	0.42
1:13:866:C:O5'	1:13:866:C:H6	2.02	0.42
1:13:911:U:H2'	1:13:912:C:C6	2.54	0.42
1:13:953:G:H2'	1:13:954:G:O4'	2.19	0.42
1:13:970:C:H42	9:8E:128:ARG:C	2.22	0.42
1:13:1037:C:H2'	1:13:1038:C:H6	1.85	0.42
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.44	0.42
2:1E:153:ARG:HE	2:1E:153:ARG:HB3	1.62	0.42
4:3E:196:LEU:HD23	4:3E:196:LEU:HA	1.90	0.42
4:3E:196:LEU:C	4:3E:198:VAL:H	2.23	0.42
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.20	0.42
7:6E:51:GLN:HG2	7:6E:58:PRO:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:149:ARG:O	7:6E:149:ARG:HG3	2.20	0.42
10:1I:6:ILE:CG2	10:1I:98:ILE:HG23	2.49	0.42
13:4I:50:GLU:H	13:4I:50:GLU:HG2	1.46	0.42
20:BI:50:GLU:HA	20:BI:100:ILE:HB	2.01	0.42
23:2K:73:A:N6	23:2K:74:A:C6	2.88	0.42
26:1H:274:G:N3	26:1H:276:A:N1	2.67	0.42
26:1H:654(O):G:C8	26:1H:654(P):G:C2	3.08	0.42
26:1H:958:U:O2	27:16:89(A):A:H4'	2.20	0.42
26:1H:1034:G:H2'	26:1H:1035:U:O4'	2.18	0.42
26:1H:1278:A:OP1	42:98:36:THR:HG22	2.19	0.42
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.54	0.42
26:1H:1433:U:O2	26:1H:1561:G:C2	2.72	0.42
26:1H:1467:C:N4	26:1H:1525:G:H1	2.13	0.42
26:1H:1683:C:H42	26:1H:1705:G:H1	1.66	0.42
26:1H:1968:G:P	63:1H:3879:HOH:O	2.76	0.42
26:1H:2000:G:C2'	26:1H:2001:A:H5'	2.49	0.42
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.19	0.42
26:1H:2774:C:OP2	63:1H:3972:HOH:O	2.21	0.42
26:1H:2801:A:H2'	26:1H:2802:G:O4'	2.20	0.42
46:D8:24:LYS:HD3	46:D8:90:PRO:HB2	2.01	0.42
53:K8:7:ARG:O	53:K8:11:GLU:HB2	2.19	0.42
53:K8:14:ARG:HG2	53:K8:63:VAL:CG1	2.50	0.42
53:K8:35:LEU:HD13	53:K8:35:LEU:HA	1.88	0.42
58:P8:23:ARG:CZ	58:P8:23:ARG:HB2	2.49	0.42
1:1G:106:C:C2'	1:1G:107:G:H5'	2.50	0.42
1:1G:424:G:H2'	1:1G:425:G:H8	1.84	0.42
1:1G:536:C:H2'	1:1G:537:G:H8	1.85	0.42
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.20	0.42
1:1G:1345:U:O5'	63:1G:1847:HOH:O	2.21	0.42
2:12:98:LEU:HD23	2:12:98:LEU:HA	1.71	0.42
4:32:178:VAL:O	4:32:179:GLU:HB3	2.19	0.42
17:8A:81:ARG:CD	17:8A:84:LEU:HD23	2.49	0.42
20:BA:86:ARG:O	20:BA:90:GLN:HB2	2.19	0.42
26:14:218:A:H2	26:14:235:U:H4'	1.82	0.42
26:14:860:U:H1'	26:14:2268:A:H5'	2.02	0.42
26:14:868:U:C4	26:14:869:G:N7	2.87	0.42
26:14:957:A:N1	26:14:2459:A:H8	2.18	0.42
26:14:1133:U:O2	26:14:1137:G:H5"	2.19	0.42
26:14:1471:A:OP2	26:14:1521:G:N1	2.47	0.42
26:14:1504:C:H2'	26:14:1505:C:C6	2.53	0.42
26:14:1614:A:H2	63:14:3721:HOH:O	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2093:G:C6	26:14:2225:A:C8	3.08	0.42
26:14:2114:A:C6	26:14:2119:A:N1	2.88	0.42
26:14:2275:C:O2'	41:45:83:MET:HA	2.20	0.42
26:14:2536:G:C6	26:14:2537:U:C4	3.07	0.42
26:14:2577:A:O4'	56:J5:3:LYS:HB2	2.19	0.42
26:14:2872:G:C4	26:14:2873:A:C2	3.07	0.42
28:79:45:ALA:HA	28:79:211:SER:O	2.18	0.42
29:19:31:LYS:HZ3	29:19:33:LEU:HB3	1.83	0.42
30:29:10:GLY:HA3	44:75:8:LYS:HE2	2.00	0.42
30:29:174:ASP:HB3	30:29:183:LEU:HD22	2.02	0.42
31:39:64:ILE:C	31:39:65:TRP:CD1	2.93	0.42
31:39:107:LYS:HA	31:39:107:LYS:HD3	1.65	0.42
31:39:110:LEU:CD1	31:39:205:ARG:HE	2.33	0.42
31:39:178:PRO:HB2	31:39:201:VAL:HG11	2.01	0.42
40:35:71:VAL:CG1	40:35:72:PRO:HD3	2.50	0.42
40:35:124:LYS:HA	40:35:143:GLY:O	2.19	0.42
45:85:68:ALA:O	45:85:71:GLN:HB2	2.19	0.42
49:C5:31:LEU:HD22	49:C5:34:LYS:HD3	2.00	0.42
1:13:269:C:H2'	1:13:270:A:C8	2.55	0.42
1:13:313:A:C4	1:13:314:C:C5	3.08	0.42
1:13:457:C:O2'	1:13:458:C:H5'	2.19	0.42
1:13:589:C:N4	1:13:650:G:H1	2.18	0.42
2:1E:187:LEU:HD22	2:1E:203:GLY:H	1.84	0.42
4:3E:43:HIS:ND1	4:3E:46:LYS:HE3	2.34	0.42
5:4E:10:MET:HB3	5:4E:32:VAL:HG13	2.01	0.42
6:5E:23:LYS:HB2	6:5E:23:LYS:HZ3	1.84	0.42
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	2.01	0.42
8:7E:121:ASP:O	8:7E:125:ARG:HB2	2.20	0.42
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.45	0.42
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.35	0.42
12:3I:11:VAL:HG13	17:8I:29:HIS:CD2	2.55	0.42
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	2.02	0.42
22:1K:8:4SU:H6	22:1K:8:4SU:H5"	2.02	0.42
25:4K:7:G:H2'	25:4K:8:A:N9	2.35	0.42
25:4K:25:A:H4'	25:4K:26:A:OP1	2.20	0.42
26:1H:1332:G:N2	26:1H:1610:A:H8	2.17	0.42
26:1H:1443:G:C2	26:1H:1549:C:N3	2.88	0.42
32:41:41:GLN:O	32:41:89:GLY:HA3	2.19	0.42
32:41:118:ARG:HA	32:41:118:ARG:HD3	1.91	0.42
42:98:51:LEU:HD23	42:98:51:LEU:HA	1.77	0.42
44:B8:5:ALA:O	44:B8:6:LEU:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:E8:86:LEU:HD12	47:E8:87:PRO:HD2	2.01	0.42
50:H8:6:LYS:HE3	50:H8:8:TYR:CE2	2.54	0.42
58:P8:8:ASN:OD1	58:P8:8:ASN:C	2.57	0.42
1:1G:27:G:H2'	1:1G:28:G:O4'	2.19	0.42
1:1G:737:A:H2'	1:1G:738:C:C6	2.54	0.42
1:1G:833:U:H2'	1:1G:834:C:H6	1.85	0.42
1:1G:1170:A:N1	1:1G:1171:G:H1'	2.35	0.42
2:12:95:GLN:HG3	2:12:147:LYS:O	2.20	0.42
8:72:29:SER:O	8:72:32:LYS:HB2	2.19	0.42
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.49	0.42
22:1L:8:4SU:H2'	22:1L:8:4SU:O2	2.20	0.42
26:14:89:G:O5'	26:14:90:U:H5"	2.20	0.42
26:14:620:G:H8	26:14:622:G:O6	2.01	0.42
26:14:991:C:N3	26:14:1164:G:C6	2.87	0.42
26:14:1387:C:O2	26:14:1387:C:H2'	2.20	0.42
26:14:1815:A:C5	26:14:1817:G:C6	3.08	0.42
26:14:2018:G:H2'	26:14:2019:A:O4'	2.20	0.42
26:14:2287:A:C2	26:14:2346:A:C2	3.07	0.42
26:14:2331:G:H5'	51:E5:44:ARG:HG3	2.01	0.42
26:14:2506:U:C2	26:14:2585:U:O4	2.73	0.42
26:14:2589:A:OP1	63:14:3902:HOH:O	2.21	0.42
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.53	0.42
26:14:2808:U:H5"	26:14:2891:G:O6	2.19	0.42
27:1J:87:G:H3'	27:1J:88:C:C6	2.55	0.42
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.55	0.42
40:35:138:LEU:HB3	40:35:144:GLU:OE2	2.19	0.42
53:G5:16:LEU:O	53:G5:21:LEU:HG	2.19	0.42
1:13:52:G:O2'	1:13:53:A:H5'	2.20	0.42
1:13:116:A:H61	1:13:313:A:H1'	1.85	0.42
1:13:130:A:P	17:8I:63:ARG:HH21	2.42	0.42
1:13:133:U:H1'	1:13:230:G:N2	2.35	0.42
1:13:179:A:H2'	1:13:180:U:H6	1.85	0.42
1:13:191:G:H1'	20:BI:105:SER:HA	2.02	0.42
1:13:543:C:P	4:3E:14:ARG:HH21	2.43	0.42
1:13:660:G:C2	1:13:746:A:C2	3.08	0.42
1:13:674:G:H2'	1:13:675:A:H8	1.84	0.42
1:13:773:G:H1	1:13:806:C:H42	1.67	0.42
1:13:835:U:OP2	18:9I:60:ALA:HB3	2.20	0.42
1:13:1157:A:C8	1:13:1181:G:C6	3.07	0.42
1:13:1158:C:C2	1:13:1160:G:C8	3.08	0.42
1:13:1321:C:C5	1:13:1322:C:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1416:G:C6	1:13:1417:G:C5	3.08	0.42
5:4E:87:SER:HB3	5:4E:125:SER:O	2.19	0.42
9:8E:19:LEU:HD23	9:8E:19:LEU:HA	1.87	0.42
12:3I:85:ILE:HG23	12:3I:85:ILE:HD12	1.67	0.42
18:9I:36:ASN:HD22	18:9I:39:VAL:CB	2.33	0.42
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.31	0.42
26:1H:1142(A):A:C5	26:1H:1144:G:C5	3.08	0.42
26:1H:1682:G:H2'	26:1H:1683:C:C6	2.55	0.42
26:1H:1929:G:H4'	26:1H:1930:G:OP1	2.19	0.42
26:1H:2170:A:H5"	26:1H:2171:A:OP1	2.19	0.42
26:1H:2371:G:O2'	57:O8:45:LYS:HB3	2.19	0.42
26:1H:2402:C:H5	26:1H:2415:G:H22	1.68	0.42
26:1H:2789:C:H1'	26:1H:2892:A:C2	2.45	0.42
27:16:41:U:O4	32:41:72:ARG:HG3	2.19	0.42
32:41:33:ARG:NH1	32:41:162:THR:HG21	2.35	0.42
33:51:13:LYS:HD3	33:51:13:LYS:HA	1.86	0.42
33:51:94:TYR:HE2	33:51:160:LYS:HB2	1.81	0.42
34:28:17:VAL:C	34:28:19:GLU:N	2.72	0.42
38:58:39:ARG:O	38:58:41:ASP:N	2.53	0.42
45:C8:69:CYS:SG	45:C8:79:PHE:CD2	3.04	0.42
46:D8:49:THR:O	46:D8:50:PRO:C	2.58	0.42
48:F8:15:GLU:N	48:F8:15:GLU:OE2	2.50	0.42
49:G8:89:PHE:HD1	49:G8:90:LEU:H	1.66	0.42
51:I8:31:VAL:HG21	51:I8:61:ALA:HB2	2.02	0.42
53:K8:47:ASN:C	53:K8:49:LYS:H	2.22	0.42
57:O8:27:LYS:NZ	57:O8:27:LYS:HB2	2.34	0.42
1:1G:257:G:H2'	1:1G:258:G:C8	2.54	0.42
1:1G:275:G:H5'	17:8A:14:LYS:HB3	2.02	0.42
1:1G:408:A:O5'	1:1G:408:A:H8	2.03	0.42
1:1G:411:A:N6	1:1G:413:G:H21	2.08	0.42
1:1G:562:C:H4'	1:1G:563:A:O5'	2.20	0.42
1:1G:652:U:HO2'	1:1G:653:A:P	2.43	0.42
1:1G:718:G:H1'	11:2A:116:HIS:HA	2.02	0.42
1:1G:731:G:OP1	1:1G:766:A:H1'	2.19	0.42
1:1G:953:G:C6	1:1G:954:G:C5	3.08	0.42
1:1G:1079:G:H5"	5:42:45:PHE:HE2	1.85	0.42
1:1G:1178:G:N2	1:1G:1180:A:H3'	2.35	0.42
1:1G:1304:G:N2	1:1G:1332:A:OP2	2.46	0.42
1:1G:1343:G:H2'	1:1G:1344:C:H6	1.85	0.42
4:32:207:TYR:O	4:32:209:ARG:N	2.53	0.42
7:62:137:LYS:HE3	7:62:137:LYS:HB3	1.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:146:GLU:OE1	11:2A:54:ARG:HG2	2.20	0.42
9:82:48:GLU:O	9:82:51:ARG:N	2.50	0.42
12:3A:28:LYS:HE3	12:3A:33:ARG:NH2	2.35	0.42
17:8A:27:PHE:CZ	17:8A:36:ILE:HD11	2.55	0.42
26:14:43:G:H1'	26:14:438:G:N2	2.35	0.42
26:14:139:G:N2	26:14:1596:A:H4'	2.35	0.42
26:14:601:C:P	31:39:108:LYS:HZ1	2.40	0.42
26:14:881:G:OP2	26:14:881:G:H8	2.03	0.42
26:14:960:A:C8	26:14:962:G:C8	3.07	0.42
26:14:1061:U:H4'	26:14:1070:A:H1'	2.01	0.42
26:14:1113:U:H5'	33:59:2:SER:N	2.34	0.42
26:14:1138:G:H21	38:15:106:MET:CE	2.33	0.42
26:14:1833:U:O2'	26:14:1969:A:N1	2.38	0.42
26:14:2210:G:H5'	26:14:2211:G:C6	2.55	0.42
26:14:2688:U:H1'	26:14:2721:A:N6	2.34	0.42
26:14:2867:G:OP2	44:75:119:LYS:NZ	2.39	0.42
28:79:213:TYR:CE1	28:79:221:SER:HB2	2.55	0.42
29:19:222:ARG:HH11	29:19:222:ARG:HD2	1.72	0.42
35:69:14:ASP:O	35:69:17:GLN:HB2	2.20	0.42
39:25:49:ARG:HA	39:25:53:LYS:NZ	2.35	0.42
42:55:29:LEU:HD12	42:55:29:LEU:HA	1.77	0.42
43:65:21:THR:C	43:65:23:ARG:N	2.73	0.42
47:A5:28:SER:HA	47:A5:70:TYR:HA	2.02	0.42
50:D5:128:VAL:HG22	50:D5:129:SER:O	2.20	0.42
53:G5:62:THR:O	53:G5:65:ASN:HB2	2.19	0.42
54:H5:4:LEU:HD11	54:H5:39:ASP:OD1	2.20	0.42
1:13:352:C:P	63:13:1978:HOH:O	2.78	0.42
1:13:352:C:O2'	1:13:354:G:OP1	2.33	0.42
1:13:417:C:H42	1:13:426:G:H1	1.68	0.42
1:13:711:G:O2'	1:13:712:A:H5'	2.20	0.42
1:13:1269:A:H2	1:13:1312:G:N3	2.17	0.42
6:5E:24:GLU:HA	6:5E:27:GLN:HG2	2.02	0.42
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.19	0.42
9:8E:7:THR:O	9:8E:83:ARG:HD2	2.20	0.42
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.55	0.42
16:7I:57:ARG:O	16:7I:61:SER:N	2.46	0.42
22:1K:77:A:HO3'	26:1H:2585:U:H5	1.65	0.42
26:1H:43:G:H2'	26:1H:44:A:O4'	2.20	0.42
26:1H:493:G:H2'	26:1H:494:G:O4'	2.20	0.42
26:1H:628:G:H2'	26:1H:629:G:C8	2.54	0.42
26:1H:761:A:C5	63:1H:3936:HOH:O	2.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1080:A:C2	37:48:126:MET:HG3	2.53	0.42
26:1H:1309:G:OP1	58:P8:9:ARG:HG3	2.19	0.42
26:1H:1426:G:H2'	26:1H:1427:A:C8	2.54	0.42
26:1H:1726:G:C6	26:1H:1727:U:C4	3.08	0.42
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.55	0.42
26:1H:2160:G:N7	26:1H:2161:C:H1'	2.35	0.42
26:1H:2171:A:H2'	26:1H:2172:U:H6	1.84	0.42
26:1H:2392:A:H2	26:1H:2424:C:H42	1.68	0.42
26:1H:2776:A:H4'	26:1H:2777:G:H5"	2.01	0.42
28:71:10:LEU:HD21	28:71:34:THR:OG1	2.20	0.42
29:11:38:LYS:NZ	29:11:38:LYS:N	2.67	0.42
31:31:20:LEU:HD12	31:31:21:ALA:N	2.35	0.42
33:51:4:ILE:HG12	33:51:6:ARG:HD3	2.01	0.42
33:51:27:LYS:HA	33:51:32:GLU:HA	2.02	0.42
37:48:76:TYR:C	37:48:78:ILE:H	2.22	0.42
44:B8:105:LEU:O	44:B8:107:ASP:OD1	2.38	0.42
46:D8:6:LYS:O	46:D8:6:LYS:HG3	2.19	0.42
48:F8:37:THR:O	48:F8:40:LYS:HB3	2.20	0.42
49:G8:3:VAL:HG12	49:G8:4:LYS:H	1.85	0.42
57:O8:41:PRO:CD	57:O8:47:THR:H	2.33	0.42
58:P8:30:VAL:O	58:P8:34:ARG:HG3	2.20	0.42
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.55	0.42
1:1G:785:G:O6	63:1G:1846:HOH:O	2.21	0.42
1:1G:960:U:H4'	1:1G:961:U:H5'	2.02	0.42
1:1G:1011:G:C2	1:1G:1019:C:O2	2.73	0.42
1:1G:1206:G:H5"	3:22:190:ARG:HH22	1.83	0.42
1:1G:1250:A:C2	1:1G:1287:A:C6	3.07	0.42
4:32:108:LEU:HD21	4:32:183:GLY:HA3	2.02	0.42
9:82:26:VAL:HG22	9:82:61:ALA:H	1.84	0.42
12:3A:83:VAL:CG2	12:3A:100:ILE:HD12	2.49	0.42
13:4A:29:ARG:HD3	13:4A:64:TRP:CZ2	2.54	0.42
23:2L:73:A:C6	23:2L:74:A:C6	3.07	0.42
26:14:571:A:H5'	26:14:2030:A:N7	2.34	0.42
26:14:1444(A):A:HO2'	26:14:1445:C:P	2.43	0.42
26:14:1550:C:OP1	26:14:1727:U:O2'	2.21	0.42
26:14:2360:A:OP1	59:M5:50:LEU:HB2	2.20	0.42
26:14:2370:G:C6	26:14:2371:G:C6	3.07	0.42
26:14:2795:G:H21	26:14:2802:G:N2	2.18	0.42
26:14:2855:C:H2'	26:14:2856:C:H6	1.84	0.42
26:14:2885:C:H5"	26:14:2886:G:OP2	2.20	0.42
27:1J:88:C:H4'	27:1J:89:G:OP2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:79:64:LEU:HD12	28:79:175:VAL:HA	2.02	0.42
29:19:146:GLU:CB	29:19:189:CYS:HB3	2.49	0.42
29:19:254:THR:N	29:19:255:LYS:HZ2	2.18	0.42
30:29:52:LEU:O	30:29:75:VAL:HG23	2.20	0.42
31:39:34:TRP:CE3	40:35:8:PRO:HB3	2.54	0.42
45:85:92:ARG:NH1	46:95:11:GLN:O	2.53	0.42
49:C5:17:SER:HB2	49:C5:71:LYS:HE2	2.01	0.42
1:13:277:C:P	17:8I:68:ARG:HH12	2.43	0.42
1:13:440:A:H5"	1:13:442:C:OP2	2.20	0.42
1:13:710:G:H5"	6:5E:54:LYS:NZ	2.35	0.42
1:13:1176:A:N6	1:13:1177:G:C5	2.87	0.42
1:13:1179:A:H8	1:13:1179:A:O5'	2.02	0.42
1:13:1460:A:H2'	1:13:1461:G:O4'	2.19	0.42
1:13:1486:G:H2'	1:13:1487:G:C1'	2.49	0.42
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	2.02	0.42
7:6E:70:LYS:HE2	7:6E:97:GLN:HA	2.02	0.42
12:3I:77:LEU:HD21	12:3I:107:ALA:HA	2.01	0.42
12:3I:91:LYS:O	12:3I:91:LYS:HG3	2.19	0.42
17:8I:41:LYS:HD2	17:8I:88:TYR:HE2	1.85	0.42
23:2K:48:U:HO2'	23:2K:49:C:P	2.39	0.42
26:1H:57:C:H2'	26:1H:58:G:O4'	2.20	0.42
26:1H:185:U:H4'	26:1H:218:A:H4'	2.02	0.42
26:1H:545:G:H2'	26:1H:546:C:H5"	2.02	0.42
26:1H:823:G:H2'	26:1H:824:A:C8	2.54	0.42
26:1H:1332:G:H21	26:1H:1610:A:H8	1.66	0.42
26:1H:1581:G:C6	26:1H:1582:C:C4	3.07	0.42
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.35	0.42
26:1H:2030:A:H4'	26:1H:2031:A:C8	2.55	0.42
26:1H:2314:C:H5"	32:41:38:VAL:HG11	2.00	0.42
26:1H:2456:C:O5'	26:1H:2456:C:H6	2.03	0.42
26:1H:2751:G:C8	26:1H:2751:G:OP1	2.73	0.42
28:71:13:LYS:HD2	28:71:13:LYS:HA	1.78	0.42
28:71:58:VAL:N	28:71:165:ASN:OD1	2.51	0.42
31:31:65:TRP:CH2	31:31:72:ARG:HD2	2.55	0.42
31:31:93:LYS:HD2	31:31:93:LYS:HA	1.86	0.42
33:51:52:VAL:O	33:51:65:HIS:NE2	2.49	0.42
33:51:71:LEU:HD12	33:51:71:LEU:HA	1.87	0.42
41:88:21:THR:HG21	41:88:101:ARG:N	2.34	0.42
43:A8:5:THR:O	43:A8:8:GLU:HG3	2.19	0.42
53:K8:41:ILE:CG2	53:K8:44:LEU:HB2	2.49	0.42
59:Q8:31:HIS:O	59:Q8:36:LYS:NZ	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:442:C:H2'	1:1G:443:C:C6	2.55	0.42
1:1G:1090:U:H4'	1:1G:1170:A:C2	2.54	0.42
1:1G:1162:C:N3	1:1G:1175:G:C2	2.88	0.42
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.84	0.42
11:2A:69:ALA:O	11:2A:73:MET:HG3	2.19	0.42
22:1L:9:A:H2	22:1L:24:A:N6	2.13	0.42
24:3L:51:G:H1	24:3L:65:C:N4	2.17	0.42
26:14:28:A:C5	26:14:29:U:C5	3.08	0.42
26:14:252:G:P	40:35:50:ARG:HH21	2.43	0.42
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.54	0.42
26:14:442:G:C6	26:14:444:C:C4	3.07	0.42
26:14:1144:G:C6	26:14:1145:C:C4	3.08	0.42
26:14:1160:G:C6	26:14:1161:C:C4	3.08	0.42
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.54	0.42
26:14:1491:G:O2'	26:14:1492:G:H5'	2.20	0.42
26:14:2318:G:N2	43:65:3:ARG:HB2	2.35	0.42
26:14:2425:A:H4'	26:14:2426:A:C5'	2.49	0.42
26:14:2563:U:O2	26:14:2565:A:H8	2.02	0.42
26:14:2599:G:OP2	29:19:236:GLY:N	2.52	0.42
26:14:2640:G:H1	26:14:2774:C:H42	1.68	0.42
26:14:2751:G:N2	33:59:2:SER:HB3	2.30	0.42
27:1J:76:G:H5"	50:D5:15:PRO:HG2	2.01	0.42
29:19:44:ASN:C	29:19:44:ASN:HD22	2.21	0.42
31:39:36:VAL:O	31:39:40:GLN:HB2	2.20	0.42
31:39:51:THR:HG23	31:39:92:PRO:HG2	2.02	0.42
40:35:138:LEU:HD22	40:35:138:LEU:HA	1.85	0.42
43:65:16:ASN:C	43:65:18:ILE:N	2.73	0.42
44:75:53:ARG:HH12	44:75:60:THR:HG23	1.84	0.42
50:D5:109:ALA:O	50:D5:110:GLY:O	2.38	0.42
1:13:158:G:C5	1:13:159:G:N7	2.88	0.41
1:13:181:G:N2	1:13:183:G:H22	2.19	0.41
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.50	0.41
1:13:444:C:H2'	1:13:445:G:C8	2.54	0.41
1:13:948:C:OP1	13:4I:109:THR:OG1	2.38	0.41
1:13:1320:C:OP1	19:AI:70:LYS:HE3	2.20	0.41
1:13:1336:C:H1'	1:13:1337:G:C6	2.55	0.41
1:13:1346:A:C4	7:6E:10:ARG:NH2	2.88	0.41
5:4E:20:GLN:HG2	5:4E:21:ALA:H	1.85	0.41
7:6E:77:SER:OG	7:6E:84:ASN:OD1	2.30	0.41
7:6E:154:TYR:HD1	7:6E:154:TYR:HA	1.57	0.41
9:8E:25:LYS:HE2	9:8E:60:ASP:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:59:PHE:CZ	9:8E:88:TYR:CE2	3.08	0.41
12:3I:89:ARG:HD2	12:3I:91:LYS:HA	2.02	0.41
26:1H:24:G:C6	26:1H:25:U:C4	3.08	0.41
26:1H:49:A:H5"	26:1H:51:G:O4'	2.20	0.41
26:1H:218:A:H2	26:1H:235:U:H4'	1.85	0.41
26:1H:412:A:H3'	26:1H:413:C:C6	2.55	0.41
26:1H:618:G:H2'	26:1H:618(A):C:O4'	2.20	0.41
26:1H:996:A:OP2	45:C8:94:ASN:ND2	2.51	0.41
26:1H:1144:G:C6	26:1H:1145:C:N4	2.87	0.41
26:1H:1177:A:H4'	26:1H:1178:C:O5'	2.18	0.41
26:1H:1284:A:H2'	26:1H:1285:G:O4'	2.20	0.41
26:1H:1322:A:OP1	47:E8:11:ARG:HG3	2.20	0.41
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.20	0.41
26:1H:1501:C:O4'	29:11:100:GLY:HA2	2.20	0.41
26:1H:1535:U:C6	26:1H:1537:C:N3	2.88	0.41
26:1H:1680:U:C4	26:1H:1681:G:C6	3.08	0.41
26:1H:2169:A:C8	26:1H:2170:A:N7	2.88	0.41
26:1H:2630:G:H2'	26:1H:2631:G:C8	2.53	0.41
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.55	0.41
26:1H:2751:G:H8	26:1H:2751:G:P	2.43	0.41
29:11:31:LYS:HB3	29:11:34:VAL:HG22	2.02	0.41
30:21:117:MET:O	30:21:118:LYS:HB3	2.20	0.41
35:61:60:GLU:HB3	35:61:61:ARG:NH2	2.34	0.41
40:78:15:ARG:O	40:78:16:ARG:C	2.59	0.41
42:98:104:ARG:HD2	42:98:107:ASP:OD2	2.20	0.41
43:A8:48:LEU:HD23	43:A8:82:ILE:HD11	2.02	0.41
44:B8:88:ILE:HD13	44:B8:91:ARG:NE	2.35	0.41
45:C8:110:VAL:O	45:C8:114:LYS:HG3	2.20	0.41
52:J8:58:ILE:CG1	52:J8:87:PRO:HD3	2.50	0.41
55:M8:13:ARG:O	55:M8:30:GLU:HA	2.20	0.41
1:1G:160:A:H1'	1:1G:344:A:C5	2.55	0.41
1:1G:625:G:H4'	16:7A:16:HIS:CG	2.55	0.41
1:1G:1205:U:H4'	3:22:195:VAL:HG13	2.02	0.41
1:1G:1213:A:C6	1:1G:1215:G:C4	3.08	0.41
1:1G:1321:C:C3'	1:1G:1322:C:H5"	2.48	0.41
1:1G:1368:G:C5'	9:82:112:LYS:HB3	2.50	0.41
2:12:22:LYS:HA	2:12:24:TRP:HD1	1.82	0.41
3:22:134:ILE:HD12	3:22:151:VAL:HG11	2.02	0.41
4:32:31:CYS:O	4:32:32:ALA:HB3	2.20	0.41
5:42:13:ILE:HA	5:42:29:GLY:O	2.20	0.41
10:1A:89:ASP:C	10:1A:91:PRO:HD3	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:32:PHE:HB3	12:3A:84:LEU:HD21	2.02	0.41
14:5A:29:ARG:HD3	14:5A:40:CYS:SG	2.60	0.41
26:14:2:G:H21	26:14:3:U:H5	1.68	0.41
26:14:312:G:H2'	26:14:312:G:N3	2.35	0.41
26:14:922:U:H2'	26:14:923:C:C6	2.55	0.41
26:14:923:C:H2'	26:14:924:C:C6	2.55	0.41
26:14:1176:G:H2'	26:14:1177:A:N3	2.35	0.41
26:14:1239:G:N7	63:14:3826:HOH:O	2.52	0.41
26:14:1783:A:H5'	26:14:2608:G:H4'	2.02	0.41
26:14:2875:C:C4'	44:75:5:ALA:HB2	2.49	0.41
27:1J:73:A:OP2	63:1J:302:HOH:O	2.22	0.41
29:19:85:ASP:HB2	29:19:92:ILE:HG12	2.01	0.41
33:59:6:ARG:CB	33:59:66:GLY:HA2	2.47	0.41
38:15:135:PRO:O	38:15:137:LYS:HE2	2.19	0.41
39:25:88:ASN:O	39:25:90:GLN:N	2.52	0.41
40:35:80:TYR:CE1	40:35:111:ARG:HB2	2.54	0.41
41:45:41:TRP:HB3	41:45:94:VAL:HB	2.01	0.41
49:C5:15:VAL:HG12	49:C5:72:VAL:HG12	2.01	0.41
53:G5:63:VAL:HA	53:G5:66:GLU:OE1	2.20	0.41
59:M5:14:VAL:CG1	59:M5:22:VAL:HG13	2.50	0.41
1:13:158:G:C4	1:13:159:G:C8	3.08	0.41
1:13:522:C:H2'	1:13:523:A:O4'	2.21	0.41
1:13:920:U:H2'	1:13:921:U:C6	2.54	0.41
1:13:1028:C:O2	1:13:1028:C:H2'	2.19	0.41
1:13:1049:U:O2'	14:5I:2:ALA:HB3	2.20	0.41
1:13:1178:G:H21	1:13:1181:G:H8	1.63	0.41
1:13:1289:A:C8	1:13:1290:G:C8	3.08	0.41
1:13:1313:U:H5	19:AI:4:SER:HB3	1.85	0.41
2:1E:115:LEU:HD13	2:1E:145:LEU:HB2	2.01	0.41
4:3E:104:VAL:O	4:3E:107:ARG:N	2.53	0.41
5:4E:110:LEU:CD1	5:4E:118:ILE:HG21	2.51	0.41
6:5E:82:ARG:HE	6:5E:82:ARG:HB3	1.52	0.41
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.55	0.41
17:8I:9:VAL:O	17:8I:21:VAL:HA	2.20	0.41
24:3K:6:U:H3	24:3K:68:G:H22	1.66	0.41
24:3K:10:G:C6	24:3K:11:C:N4	2.88	0.41
26:1H:307:G:H21	26:1H:330:A:N6	2.18	0.41
26:1H:754:C:H2'	26:1H:755:C:H6	1.85	0.41
26:1H:758:C:O2'	26:1H:1981:A:N3	2.47	0.41
26:1H:884:C:O2'	26:1H:885:C:OP1	2.31	0.41
26:1H:1144:G:C6	26:1H:1145:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1164:G:C2	26:1H:1165:U:C2	3.08	0.41
26:1H:1268:A:C2	26:1H:2013:A:C4	3.08	0.41
26:1H:1449(A):G:H2'	26:1H:1450:C:C6	2.54	0.41
26:1H:2210:G:H3'	26:1H:2211:G:N7	2.34	0.41
26:1H:2515:C:O2	26:1H:2570:G:C2	2.74	0.41
29:11:61:LEU:HA	29:11:61:LEU:HD13	1.68	0.41
29:11:98:VAL:C	29:11:100:GLY:H	2.24	0.41
33:51:83:TYR:CB	33:51:135:GLY:H	2.32	0.41
43:A8:26:LEU:O	43:A8:26:LEU:HD23	2.19	0.41
50:H8:6:LYS:HE3	50:H8:8:TYR:HE2	1.84	0.41
51:I8:67:VAL:HG12	51:I8:81:VAL:HG22	2.02	0.41
1:1G:66:G:C2	1:1G:67:C:C6	3.08	0.41
1:1G:413:G:O2'	1:1G:428:G:N2	2.53	0.41
1:1G:572:A:H5'	63:1G:1810:HOH:O	2.20	0.41
1:1G:739:C:OP1	15:6A:2:PRO:HD3	2.20	0.41
1:1G:1126:U:C5	1:1G:1281:U:C6	3.08	0.41
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.20	0.41
3:22:9:GLY:HA3	14:5A:49:HIS:HA	2.03	0.41
13:4A:56:LEU:HD23	13:4A:56:LEU:HA	1.78	0.41
20:BA:75:ASN:O	20:BA:79:ARG:HB2	2.19	0.41
20:BA:92:LEU:HA	20:BA:92:LEU:HD23	1.79	0.41
26:14:142:G:H5"	26:14:1598:C:O2'	2.19	0.41
26:14:374:A:C2	26:14:401:A:C4	3.08	0.41
26:14:495:G:N3	47:A5:61:ASN:ND2	2.67	0.41
26:14:654(C):G:H22	26:14:654(R):C:C1'	2.27	0.41
26:14:853:G:H2'	26:14:854:G:C8	2.54	0.41
26:14:992:C:OP1	45:85:47:TYR:OH	2.35	0.41
26:14:1291:C:H2'	26:14:1292:U:C6	2.56	0.41
26:14:1337:G:H2'	26:14:1338:G:C8	2.52	0.41
26:14:2130:U:O2'	26:14:2158:A:N6	2.53	0.41
26:14:2459:A:C5	26:14:2460:U:C5	3.09	0.41
29:19:43:ARG:N	29:19:43:ARG:CD	2.83	0.41
29:19:246:PRO:HD2	29:19:255:LYS:HD3	2.02	0.41
35:69:82:ARG:O	35:69:89:TYR:HD2	2.03	0.41
40:35:1:MET:HB2	40:35:5:ASP:OD2	2.19	0.41
44:75:121:ILE:O	44:75:124:ASP:HB2	2.20	0.41
45:85:86:ALA:HB2	45:85:116:ALA:HB3	2.02	0.41
1:13:134:A:H61	16:7I:25:ARG:NH1	2.18	0.41
1:13:408:A:H2'	1:13:409:G:O4'	2.20	0.41
1:13:467:G:H3'	1:13:467:G:OP2	2.19	0.41
1:13:713:G:H2'	1:13:714:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:824:C:H4'	8:7E:1:MET:HB2	2.01	0.41
1:13:924:C:O2'	1:13:1502:A:N6	2.53	0.41
1:13:1100:C:H3'	63:13:2235:HOH:O	2.19	0.41
1:13:1157:A:O2'	1:13:1158:C:H5"	2.20	0.41
4:3E:162:LEU:HA	4:3E:165:MET:CB	2.50	0.41
7:6E:35:LYS:H	7:6E:35:LYS:HG3	1.68	0.41
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.54	0.41
10:1I:19:SER:O	10:1I:23:ILE:HG13	2.21	0.41
10:1I:47:PHE:CE1	14:5I:37:PHE:HE2	2.39	0.41
12:3I:8:ASN:HA	12:3I:11:VAL:HG23	2.02	0.41
15:6I:57:LEU:HA	15:6I:57:LEU:HD23	1.85	0.41
22:1K:35:I:H8	22:1K:35:I:OP1	2.03	0.41
26:1H:500:G:H22	26:1H:502:A:H3'	1.86	0.41
26:1H:918:A:O2'	27:16:96:G:N2	2.50	0.41
26:1H:1174:A:C8	26:1H:1175:U:H4'	2.55	0.41
26:1H:1182:A:H2'	26:1H:1183:G:O4'	2.20	0.41
26:1H:1263:U:C4	26:1H:1264:G:C6	3.07	0.41
26:1H:1437:C:C2	26:1H:1438:U:C5	3.08	0.41
26:1H:1696:G:C6	26:1H:1697:G:C4	3.08	0.41
26:1H:2114:A:N1	26:1H:2171:A:H2	2.17	0.41
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.20	0.41
26:1H:2725:A:C4	26:1H:2727:G:C8	3.08	0.41
28:71:41:VAL:HG22	28:71:216:THR:HG22	2.02	0.41
31:31:34:TRP:CA	40:78:6:LEU:HD12	2.50	0.41
33:51:54:ARG:HH21	33:51:62:LYS:HG2	1.85	0.41
33:51:141:VAL:H	33:51:141:VAL:HG23	1.59	0.41
33:51:167:GLU:N	33:51:167:GLU:CD	2.72	0.41
35:61:75:LEU:HD11	35:61:105:HIS:ND1	2.35	0.41
36:38:26:LEU:HA	36:38:112:LEU:HA	2.02	0.41
41:88:2:LEU:HB3	41:88:69:PHE:CE1	2.55	0.41
48:F8:68:ARG:O	48:F8:68:ARG:HG3	2.19	0.41
49:G8:19:LYS:HE2	49:G8:19:LYS:HB3	1.60	0.41
51:I8:23:VAL:HG13	51:I8:38:VAL:CG2	2.50	0.41
55:M8:14:ILE:HG22	55:M8:21:VAL:HB	2.01	0.41
1:1G:277:C:OP1	17:8A:41:LYS:HE3	2.21	0.41
1:1G:396:G:O2'	1:1G:398:C:OP1	2.17	0.41
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.49	0.41
1:1G:596:C:H2'	1:1G:597:G:H8	1.85	0.41
1:1G:984:C:H2'	1:1G:985:C:H6	1.84	0.41
1:1G:1004:A:C2	1:1G:1024:G:C8	3.08	0.41
1:1G:1055:A:H5"	1:1G:1056:U:OP2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1133:G:C2	1:1G:1134:G:C4	3.08	0.41
1:1G:1414:U:H2'	1:1G:1415:G:H8	1.83	0.41
1:1G:1453:G:H2'	20:BA:39:LYS:NZ	2.35	0.41
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.21	0.41
5:42:148:VAL:HG13	5:42:152:ARG:HE	1.84	0.41
7:62:62:PHE:HD1	7:62:124:LEU:HD21	1.85	0.41
7:62:142:GLU:OE1	7:62:142:GLU:N	2.53	0.41
9:82:22:GLY:HA3	9:82:60:ASP:OD2	2.20	0.41
11:2A:109:VAL:HG12	18:9A:86:VAL:HG22	2.03	0.41
19:AA:14:HIS:CE1	19:AA:15:LEU:HG	2.54	0.41
26:14:142:G:H2'	26:14:143:C:C6	2.55	0.41
26:14:282:A:C6	26:14:284:U:C2	3.08	0.41
26:14:533:G:H2'	26:14:534:U:O4'	2.20	0.41
26:14:860:U:C2	26:14:2268:A:C8	3.08	0.41
26:14:1252:G:C1'	45:85:33:ARG:HH11	2.33	0.41
26:14:1425:G:O2'	26:14:1426:G:H5'	2.19	0.41
26:14:1447:G:H1'	26:14:1545(A):A:H1'	2.03	0.41
26:14:1461:G:H2'	26:14:1462:C:C6	2.56	0.41
26:14:1636:C:P	63:14:4124:HOH:O	2.78	0.41
26:14:1814:G:C6	26:14:1815:A:C6	3.08	0.41
26:14:2028:U:H2'	26:14:2029:G:O4'	2.20	0.41
26:14:2057:A:H2'	26:14:2058:A:C8	2.56	0.41
26:14:2392:A:C8	40:35:61:ARG:HD2	2.55	0.41
26:14:2652:C:N4	26:14:2668:G:H22	2.18	0.41
27:1J:1:U:C4	27:1J:2:C:N4	2.87	0.41
27:1J:72:G:O2'	27:1J:104:A:N6	2.52	0.41
27:1J:115:G:H8	27:1J:115:G:OP2	2.03	0.41
28:79:213:TYR:OH	28:79:223:ARG:NH1	2.53	0.41
29:19:37:LEU:N	29:19:37:LEU:HD12	2.35	0.41
30:29:7:VAL:HG12	30:29:8:LYS:N	2.35	0.41
30:29:65:GLY:N	30:29:73:GLU:OE2	2.54	0.41
31:39:52:LYS:HA	31:39:56:GLU:OE2	2.21	0.41
31:39:164:ARG:HA	31:39:175:THR:OG1	2.21	0.41
32:49:117:PHE:CG	32:49:117:PHE:O	2.69	0.41
38:15:96:GLU:H	38:15:96:GLU:CD	2.21	0.41
59:M5:22:VAL:HG11	59:M5:58:ILE:HG12	2.02	0.41
1:13:672:U:H2'	1:13:673:G:C8	2.55	0.41
1:13:919:A:O2'	1:13:920:U:H5'	2.20	0.41
1:13:965:A:C2	1:13:969:A:C2	3.07	0.41
1:13:1148:U:H2'	1:13:1149:C:O4'	2.21	0.41
1:13:1286:A:H8	1:13:1287:A:H4'	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:50:TYR:CD2	11:2I:54:ARG:HB2	2.56	0.41
11:2I:77:MET:HE2	11:2I:77:MET:HB2	2.00	0.41
16:7I:36:ILE:O	16:7I:36:ILE:HG13	2.20	0.41
23:2K:52:C:H2'	23:2K:53:G:O4'	2.20	0.41
26:1H:182:A:H2'	26:1H:183:C:C6	2.56	0.41
26:1H:280:C:C2	26:1H:361:G:N2	2.88	0.41
26:1H:1063:G:H21	37:48:91:PRO:HG3	1.84	0.41
26:1H:1319:G:C6	26:1H:1320:C:N4	2.88	0.41
26:1H:1818:U:O4	29:11:154:LYS:HE3	2.21	0.41
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.55	0.41
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.54	0.41
34:18:20:LEU:C	34:18:24:ILE:HG22	2.40	0.41
38:58:128:HIS:HB2	38:58:129:PRO:HD2	2.02	0.41
42:98:87:TYR:HD1	42:98:90:ARG:HD2	1.86	0.41
44:B8:95:ARG:HA	44:B8:95:ARG:HD2	1.83	0.41
47:E8:16:LYS:O	47:E8:19:LEU:HB2	2.21	0.41
49:G8:88:LYS:HB2	49:G8:88:LYS:HZ2	1.85	0.41
50:H8:44:PHE:CE2	50:H8:86:VAL:HG11	2.56	0.41
1:1G:111:G:O6	1:1G:330:C:N4	2.53	0.41
1:1G:637:G:H2'	1:1G:638:G:C8	2.56	0.41
1:1G:669:U:H2'	1:1G:670:G:H8	1.85	0.41
1:1G:685:G:N2	1:1G:686:U:C4	2.89	0.41
1:1G:800:G:H8	1:1G:800:G:O5'	2.03	0.41
1:1G:838:G:H1	1:1G:842:C:H1'	1.85	0.41
1:1G:1342:C:H2'	1:1G:1343:G:C8	2.55	0.41
2:12:17:PHE:CZ	2:12:44:LEU:HA	2.56	0.41
2:12:97:TRP:CZ2	2:12:101:MET:HB2	2.53	0.41
3:22:47:LEU:HA	3:22:47:LEU:HD12	1.86	0.41
4:32:31:CYS:HB2	4:32:33:MET:N	2.35	0.41
4:32:177:ASP:HB3	4:32:182:LYS:HG3	2.03	0.41
12:3A:84:LEU:HB3	12:3A:104:VAL:HG21	2.02	0.41
22:1L:6:C:N3	22:1L:68:G:N2	2.51	0.41
26:14:370:G:H4'	26:14:371:A:OP2	2.19	0.41
26:14:565:C:H4'	26:14:1253:A:C6	2.55	0.41
26:14:813:U:H2'	26:14:814:C:C6	2.56	0.41
26:14:1000:A:C6	26:14:1001:A:C6	3.08	0.41
26:14:1709:U:H2'	26:14:1710:C:C6	2.56	0.41
26:14:1992:G:C8	26:14:1992:G:O5'	2.74	0.41
27:1J:87:G:H3'	27:1J:88:C:H6	1.84	0.41
29:19:132:PRO:HD3	29:19:190:TYR:CZ	2.54	0.41
31:39:34:TRP:CE2	40:35:8:PRO:HD3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:60:LEU:HD13	32:49:68:PRO:CB	2.50	0.41
35:69:27:ARG:HB2	52:F5:71:TYR:OH	2.20	0.41
39:25:120:GLU:OE2	39:25:122:LEU:HD21	2.19	0.41
40:35:57:THR:O	40:35:59:LEU:N	2.53	0.41
40:35:71:VAL:HG12	40:35:72:PRO:HD3	2.02	0.41
40:35:122:PRO:CB	40:35:141:ALA:HB1	2.51	0.41
42:55:79:LEU:O	42:55:79:LEU:HD22	2.20	0.41
44:75:23:ARG:HB2	44:75:24:PRO:HD2	2.02	0.41
45:85:91:ASP:OD1	45:85:96:ALA:HB2	2.21	0.41
46:95:27:ALA:HB1	46:95:61:VAL:HG21	2.02	0.41
46:95:35:LEU:C	46:95:37:VAL:HG13	2.41	0.41
47:A5:23:LEU:HD12	47:A5:23:LEU:HA	1.74	0.41
48:B5:27:THR:HA	48:B5:79:ALA:O	2.20	0.41
52:F5:64:ALA:HA	52:F5:67:ILE:HG12	2.03	0.41
59:M5:23:VAL:HG23	59:M5:48:PHE:O	2.19	0.41
1:13:452:A:H1'	16:7I:72:ARG:HH12	1.85	0.41
1:13:562:C:H1'	12:3I:15:ARG:HD2	2.03	0.41
1:13:1098:C:C2	1:13:1099:G:C8	3.09	0.41
1:13:1217:C:P	14:5I:9:LYS:HZ3	2.43	0.41
1:13:1313:U:P	19:AI:6:LYS:HB3	2.61	0.41
5:4E:10:MET:HE3	5:4E:32:VAL:HG22	2.01	0.41
22:1K:58:G:C2'	22:1K:59:A:H5'	2.50	0.41
26:1H:273(A):G:C2	26:1H:364:C:N3	2.89	0.41
26:1H:336:C:H5"	49:G8:6:HIS:CD2	2.55	0.41
26:1H:993:G:C4	26:1H:994:C:C5	3.08	0.41
26:1H:1075:C:H6	26:1H:1075:C:O5'	2.03	0.41
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.56	0.41
26:1H:1537:C:H42	26:1H:1538:G:H21	1.68	0.41
26:1H:1628:G:H2'	26:1H:1629:U:C6	2.55	0.41
26:1H:1906:G:C8	26:1H:1929:G:H2'	2.55	0.41
26:1H:2138:C:H3'	26:1H:2139:C:H5"	2.03	0.41
26:1H:2259:G:C2	26:1H:2282:G:C6	3.09	0.41
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.56	0.41
26:1H:2675:A:H4'	39:68:29:ASN:ND2	2.35	0.41
26:1H:2818:G:N2	26:1H:2829:C:C2	2.89	0.41
26:1H:2851:A:C6	26:1H:2852:G:C5	3.09	0.41
30:21:52:LEU:HD12	30:21:52:LEU:HA	1.76	0.41
30:21:61:ARG:HB3	30:21:61:ARG:HH11	1.86	0.41
31:31:103:LYS:HA	31:31:106:ARG:HG3	2.02	0.41
36:38:59:ILE:HG13	36:38:60:ARG:N	2.36	0.41
38:58:10:GLU:CD	38:58:10:GLU:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:88:116:GLU:CD	41:88:119:ARG:HH21	2.22	0.41
46:D8:35:LEU:HA	46:D8:35:LEU:HD23	1.63	0.41
54:L8:28:LEU:HA	54:L8:33:GLN:OE1	2.20	0.41
55:M8:36:CYS:SG	55:M8:38:LYS:N	2.93	0.41
57:O8:27:LYS:O	57:O8:28:ARG:HD2	2.20	0.41
1:1G:191:G:C6	1:1G:192:U:C4	3.09	0.41
1:1G:711:G:O2'	1:1G:712:A:H5'	2.20	0.41
1:1G:811:C:N4	63:1G:1908:HOH:O	2.52	0.41
1:1G:1153:C:P	10:1A:13:HIS:HE1	2.44	0.41
2:12:63:MET:CG	2:12:225:ALA:HB1	2.45	0.41
2:12:145:LEU:CD1	2:12:149:LEU:HD12	2.50	0.41
7:62:38:LEU:HD22	7:62:42:ILE:HD11	2.03	0.41
13:4A:83:ASP:CG	13:4A:84:ILE:N	2.73	0.41
23:2L:52:C:H2'	23:2L:53:G:O4'	2.21	0.41
24:3L:74:A:H5"	24:3L:74:A:C8	2.56	0.41
26:14:539:G:H1	26:14:554:U:H3	1.67	0.41
26:14:574:C:H1'	26:14:2055:C:C6	2.56	0.41
26:14:620:G:H4'	26:14:621:A:H5"	2.03	0.41
26:14:1684:C:C2	26:14:1705:G:N2	2.88	0.41
26:14:1786:A:H4'	26:14:1787:A:OP2	2.20	0.41
26:14:1788:C:C2	26:14:1789:A:C8	3.08	0.41
26:14:2027:G:O6	63:14:3775:HOH:O	2.22	0.41
26:14:2104:G:N2	26:14:2186:G:C2	2.89	0.41
26:14:2132:U:O2	28:79:8:ARG:NH1	2.54	0.41
27:1J:19:G:H2'	27:1J:20:C:O4'	2.20	0.41
32:49:64:THR:HB	32:49:94:LEU:HD21	2.03	0.41
32:49:96:ARG:C	32:49:98:ARG:H	2.23	0.41
35:69:2:LYS:HB3	35:69:2:LYS:HE3	1.86	0.41
35:69:140:LEU:HD13	35:69:140:LEU:HA	1.83	0.41
39:25:111:PHE:HB3	39:25:114:ILE:HG13	2.02	0.41
40:35:146:VAL:HG13	40:35:147:LEU:N	2.36	0.41
45:85:25:TRP:CD1	45:85:25:TRP:C	2.94	0.41
45:85:97:ASP:OD1	45:85:98:LEU:N	2.53	0.41
46:95:98:GLU:OE2	46:95:100:ARG:NH1	2.53	0.41
50:D5:29:TYR:HA	50:D5:33:LEU:O	2.20	0.41
1:13:474:G:H2'	1:13:475:G:C8	2.55	0.41
1:13:828:A:C5	1:13:859:A:C8	3.08	0.41
1:13:1002:G:C6	1:13:1003:G:C4	3.08	0.41
1:13:1207:G:H2'	1:13:1208:C:H6	1.86	0.41
1:13:1284:C:H3'	1:13:1285:A:C8	2.55	0.41
1:13:1329:A:OP1	13:4I:29:ARG:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:14:ILE:O	3:2E:16:ARG:N	2.54	0.41
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.56	0.41
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	2.02	0.41
8:7E:27:PRO:HG3	8:7E:58:TYR:CE1	2.56	0.41
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	2.03	0.41
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.20	0.41
20:BI:89:ARG:HH21	20:BI:104:LEU:HD11	1.86	0.41
22:1K:50:G:O2'	22:1K:51:G:H5'	2.20	0.41
26:1H:38:A:H2'	26:1H:39:C:C6	2.54	0.41
26:1H:198:C:H5'	26:1H:2244:U:OP1	2.20	0.41
26:1H:274:G:H8	26:1H:274:G:H3'	1.85	0.41
26:1H:340:A:H2'	26:1H:341:G:O4'	2.20	0.41
26:1H:459:U:H2'	26:1H:460:A:H8	1.85	0.41
26:1H:810:U:P	63:1H:4165:HOH:O	2.78	0.41
26:1H:881:G:H3'	26:1H:882:G:O4'	2.20	0.41
26:1H:1547:C:H2'	26:1H:1548:C:H6	1.86	0.41
26:1H:2147:G:N7	26:1H:2148:G:H1'	2.35	0.41
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.20	0.41
26:1H:2374:C:H42	26:1H:2379:G:H1	1.68	0.41
26:1H:2805:G:N2	26:1H:2807:G:C2	2.89	0.41
29:11:68:LYS:HD3	29:11:70:TRP:CH2	2.55	0.41
30:21:87:GLU:H	30:21:87:GLU:CD	2.21	0.41
30:21:111:ARG:H	30:21:111:ARG:HG2	1.34	0.41
30:21:120:TRP:CE3	30:21:155:LYS:HG2	2.55	0.41
31:31:133:ASN:HA	31:31:162:LEU:HD22	2.02	0.41
43:A8:111:GLU:O	43:A8:112:PHE:HD1	2.03	0.41
45:C8:90:VAL:HG22	46:D8:39:LEU:HB3	2.01	0.41
46:D8:52:VAL:O	46:D8:52:VAL:CG2	2.68	0.41
47:E8:71:VAL:HA	47:E8:107:LEU:HD12	2.03	0.41
48:F8:9:LEU:HB2	48:F8:29:TRP:O	2.20	0.41
49:G8:49:VAL:HG21	49:G8:55:TYR:CE2	2.55	0.41
50:H8:104:PHE:HA	50:H8:139:VAL:HB	2.01	0.41
53:K8:37:PHE:H	53:K8:37:PHE:HD1	1.68	0.41
1:1G:246:A:C4	1:1G:279:A:N6	2.89	0.41
1:1G:578:C:O4'	1:1G:729:A:H1'	2.20	0.41
1:1G:718:G:H5'	11:2A:117:ASN:ND2	2.36	0.41
1:1G:720:C:H5"	18:9A:52:PRO:HA	2.02	0.41
1:1G:779:C:H2'	1:1G:780:A:O4'	2.20	0.41
1:1G:1053:G:O6	1:1G:1199:U:H2'	2.19	0.41
1:1G:1157:A:O4'	1:1G:1158:C:C5	2.74	0.41
1:1G:1324:A:C4'	1:1G:1362:C:H4'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:61:LEU:HD23	2:12:68:ILE:HD11	2.01	0.41
2:12:144:ARG:HH21	2:12:148:TYR:HD2	1.67	0.41
6:52:10:LEU:HB2	6:52:59:TYR:HB3	2.02	0.41
7:62:62:PHE:HA	7:62:124:LEU:HD23	2.02	0.41
9:82:107:ARG:H	9:82:107:ARG:HG3	1.55	0.41
12:3A:76:ASN:C	12:3A:77:LEU:HD23	2.41	0.41
13:4A:36:LYS:HD2	13:4A:59:TYR:OH	2.21	0.41
16:7A:53:VAL:O	16:7A:57:ARG:HG3	2.19	0.41
20:BA:23:ARG:HH22	20:BA:27:LYS:HD2	1.86	0.41
22:1L:23:G:O2'	22:1L:24:A:OP1	2.28	0.41
24:3L:71:U:H2'	24:3L:72:G:O4'	2.20	0.41
26:14:59:U:O2'	26:14:73:A:H2'	2.20	0.41
26:14:142:G:H2'	26:14:143:C:H6	1.84	0.41
26:14:189:G:P	52:F5:39:LYS:HE2	2.61	0.41
26:14:309:G:O3'	49:C5:18:GLY:HA3	2.21	0.41
26:14:1085:A:O2'	26:14:1086:A:OP1	2.34	0.41
26:14:1378:A:O2'	26:14:1379:A:H3'	2.21	0.41
26:14:1525:G:C2	26:14:1526:G:C4	3.08	0.41
26:14:1894:C:O2'	26:14:1895:C:H5'	2.21	0.41
26:14:2005:A:H5"	63:14:4066:HOH:O	2.19	0.41
26:14:2426:A:H3'	26:14:2427:C:H5'	2.02	0.41
26:14:2584:U:C5	26:14:2585:U:C5	3.08	0.41
26:14:2761:G:H1'	33:59:143:GLN:OE1	2.21	0.41
26:14:2850:A:C2	26:14:2851:A:C4	3.08	0.41
27:1J:11:C:OP2	27:1J:12:C:N4	2.33	0.41
27:1J:13:A:O2'	27:1J:14:U:H3'	2.21	0.41
28:79:10:LEU:HD21	28:79:34:THR:OG1	2.20	0.41
29:19:65:ILE:HG21	29:19:65:ILE:HD13	1.77	0.41
32:49:53:LEU:HD12	32:49:53:LEU:O	2.21	0.41
33:59:30:LYS:HB2	33:59:79:VAL:CA	2.49	0.41
33:59:149:ARG:HE	33:59:154:PRO:HB2	1.85	0.41
35:69:107:VAL:HG12	35:69:109:ILE:HG23	2.03	0.41
40:35:19:VAL:HG13	40:35:21:ARG:N	2.36	0.41
42:55:80:PHE:O	42:55:84:ALA:HB3	2.20	0.41
47:A5:45:TYR:CZ	47:A5:49:LYS:HD2	2.55	0.41
52:F5:46:LEU:HD12	52:F5:46:LEU:HA	1.80	0.41
1:13:510:A:P	63:13:1933:HOH:O	2.74	0.41
1:13:645:C:P	63:13:1985:HOH:O	2.79	0.41
1:13:672:U:H2'	1:13:673:G:H8	1.86	0.41
1:13:703:G:O5'	1:13:703:G:C8	2.73	0.41
1:13:1001:G:C6	1:13:1002:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1038:C:C2'	1:13:1039:C:H5'	2.51	0.41
1:13:1139:G:H22	1:13:1143:G:H1	1.69	0.41
1:13:1452:C:O2'	1:13:1453:G:OP2	2.22	0.41
2:1E:156:LYS:HD3	2:1E:156:LYS:HA	1.73	0.41
13:4I:15:VAL:HB	13:4I:41:PRO:O	2.21	0.41
14:5I:19:ARG:O	14:5I:20:ALA:C	2.58	0.41
17:8I:48:GLU:O	17:8I:50:LYS:HG3	2.19	0.41
17:8I:100:LYS:HB3	17:8I:101:ARG:NH1	2.34	0.41
26:1H:244:A:H4'	40:78:74:GLU:HB2	2.03	0.41
26:1H:363:G:O2'	26:1H:363(A):A:H5'	2.19	0.41
26:1H:425:G:H2'	26:1H:426:C:H6	1.86	0.41
26:1H:517:C:OP1	56:N8:16:ARG:NH2	2.47	0.41
26:1H:573:G:O2'	26:1H:574:C:H3'	2.20	0.41
26:1H:686:G:N2	26:1H:788:A:H61	2.19	0.41
26:1H:888:C:H5"	26:1H:889:C:H5	1.80	0.41
26:1H:1120:G:H2'	26:1H:1121:C:O4'	2.21	0.41
26:1H:2003:G:H2'	26:1H:2004:G:O5'	2.21	0.41
26:1H:2176:A:O2'	26:1H:2177:C:H5'	2.20	0.41
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.35	0.41
26:1H:2795:G:H2'	26:1H:2798:C:H5"	2.02	0.41
26:1H:2830:G:H8	26:1H:2830:G:H5"	1.85	0.41
27:16:24:G:N1	27:16:56:G:N2	2.69	0.41
32:41:113:ARG:HD3	32:41:140:ILE:O	2.21	0.41
34:18:22:GLN:HG3	36:38:139:VAL:O	2.20	0.41
42:98:118:GLU:OE1	42:98:118:GLU:HA	2.20	0.41
49:G8:12:THR:O	49:G8:75:ILE:HB	2.20	0.41
49:G8:42:VAL:CG2	49:G8:43:ASN:N	2.84	0.41
50:H8:46:LYS:HE2	50:H8:47:VAL:HG23	2.02	0.41
55:M8:35:VAL:O	55:M8:35:VAL:HG12	2.21	0.41
1:1G:87:A:C6	1:1G:88:C:N3	2.89	0.41
1:1G:147:G:H1	1:1G:175:C:N4	2.14	0.41
1:1G:531:U:H4'	1:1G:532:A:OP1	2.21	0.41
1:1G:849:C:H2'	1:1G:850:U:O4'	2.21	0.41
1:1G:1086:U:O5'	1:1G:1086:U:H6	2.03	0.41
1:1G:1250:A:OP1	9:82:67:GLY:N	2.50	0.41
1:1G:1272:G:H8	1:1G:1272:G:O5'	2.04	0.41
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.36	0.41
3:22:134:ILE:HD13	3:22:134:ILE:HA	1.83	0.41
4:32:13:ARG:HD2	4:32:38:TYR:O	2.21	0.41
9:82:48:GLU:HG2	9:82:101:PHE:CE2	2.55	0.41
11:2A:21:ILE:HA	11:2A:30:VAL:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:57:THR:HG22	11:2A:59:TYR:N	2.34	0.41
11:2A:86:GLY:H	11:2A:112:THR:HG23	1.86	0.41
13:4A:54:VAL:O	13:4A:58:GLU:HB3	2.21	0.41
16:7A:74:LEU:HD23	16:7A:74:LEU:HA	1.68	0.41
25:4L:19:C:OP1	63:4L:201:HOH:O	2.22	0.41
26:14:140:A:H8	26:14:1408:C:HO2'	1.61	0.41
26:14:492:A:H2'	26:14:493:G:O4'	2.20	0.41
26:14:513:A:C2	26:14:514:A:C5	3.09	0.41
26:14:635:C:H2'	26:14:636:G:O4'	2.21	0.41
26:14:817:C:H2'	26:14:818:G:O4'	2.20	0.41
26:14:971:C:H3'	26:14:971:C:C6	2.56	0.41
26:14:1060:U:O2	26:14:1088:A:H8	2.04	0.41
26:14:1164:G:C2	26:14:1165:U:C2	3.09	0.41
26:14:1187:G:P	63:14:3798:HOH:O	2.75	0.41
26:14:2016:U:H1'	56:J5:6:VAL:HG13	2.03	0.41
26:14:2257:U:O2'	26:14:2258:C:H5'	2.21	0.41
26:14:2324:C:H5"	26:14:2325:G:H5'	2.02	0.41
26:14:2581:G:C6	26:14:2610:C:C2	3.09	0.41
27:1J:3:C:H42	27:1J:117:G:H22	1.69	0.41
27:1J:63:G:H2'	27:1J:64:C:C6	2.55	0.41
27:1J:66:A:C2	27:1J:108:C:C4	3.09	0.41
29:19:68:LYS:HB3	29:19:70:TRP:CZ3	2.56	0.41
29:19:263:ARG:HE	29:19:263:ARG:HB2	1.44	0.41
31:39:110:LEU:O	31:39:114:VAL:HG23	2.21	0.41
32:49:96:ARG:HE	32:49:96:ARG:HB3	1.35	0.41
32:49:180:PHE:HB3	32:49:181:ARG:HH21	1.85	0.41
35:69:121:LYS:HD2	35:69:121:LYS:HA	1.83	0.41
40:35:78:PRO:HA	40:35:110:TYR:CD2	2.56	0.41
43:65:39:ILE:HD13	43:65:39:ILE:HA	1.96	0.41
44:75:113:LYS:HA	44:75:113:LYS:HD2	1.86	0.41
45:85:74:LEU:HD13	45:85:79:PHE:HB2	2.03	0.41
49:C5:49:VAL:O	49:C5:49:VAL:HG22	2.19	0.41
51:E5:21:LEU:HD11	51:E5:41:ARG:HH11	1.85	0.41
1:13:200:G:H2'	1:13:201:C:O4'	2.20	0.41
1:13:221:C:H2'	1:13:222:U:C6	2.54	0.41
1:13:450:G:N7	1:13:481:G:C6	2.89	0.41
1:13:600:C:OP1	8:7E:97:VAL:HG12	2.20	0.41
1:13:1228:C:H5'	13:4I:115:LYS:H	1.86	0.41
1:13:1240:U:OP2	7:6E:116:ALA:N	2.54	0.41
1:13:1525:G:O6	63:13:1968:HOH:O	2.21	0.41
3:2E:17:ASP:O	3:2E:54:ARG:NH2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:77:GLU:HG2	8:7E:78:GLN:O	2.20	0.41
19:AI:42:PRO:O	19:AI:44:MET:N	2.54	0.41
22:1K:75:C:H42	26:1H:2508:G:H5'	1.85	0.41
23:2K:2:G:C2	23:2K:3:C:C5	3.09	0.41
24:3K:54:G:H2'	24:3K:55:U:H5'	2.02	0.41
26:1H:270(G):C:H2'	26:1H:270(H):C:H6	1.82	0.41
26:1H:515:A:H1'	26:1H:581:C:H1'	2.03	0.41
26:1H:625:G:N7	40:78:107:LYS:NZ	2.61	0.41
26:1H:795:C:H2'	26:1H:796:C:C6	2.55	0.41
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.85	0.41
26:1H:1497:U:H3'	26:1H:1498:C:H6	1.85	0.41
26:1H:1530:G:C5	26:1H:1531:C:C4	3.09	0.41
26:1H:1732:A:H2'	26:1H:1733:G:C8	2.56	0.41
26:1H:1826:G:H2'	26:1H:1827:C:O4'	2.21	0.41
26:1H:2747:G:O6	26:1H:2755:C:H5"	2.20	0.41
29:11:129:ASN:O	29:11:193:VAL:HG13	2.20	0.41
37:48:75:SER:O	37:48:79:ARG:HG2	2.21	0.41
38:58:86:PRO:HG2	38:58:89:LYS:HB2	2.03	0.41
44:B8:107:ASP:H	44:B8:110:ILE:CG2	2.34	0.41
45:C8:50:ARG:NH2	46:D8:72:VAL:HG23	2.34	0.41
54:L8:26:LEU:HD21	54:L8:46:ASN:CB	2.51	0.41
1:1G:110:C:H2'	1:1G:111:G:O4'	2.19	0.41
1:1G:243:A:C2	1:1G:245:C:C2	3.09	0.41
1:1G:272:C:C2	1:1G:273:A:C8	3.08	0.41
1:1G:1312:G:H2'	1:1G:1313:U:O4'	2.21	0.41
1:1G:1386:G:O2'	1:1G:1387:G:H5'	2.21	0.41
6:52:19:LEU:HD21	6:52:59:TYR:CE2	2.55	0.41
7:62:143:ARG:NH1	24:3L:42:G:OP1	2.54	0.41
12:3A:26:ALA:O	12:3A:27:LEU:HB3	2.19	0.41
13:4A:53:VAL:O	13:4A:56:LEU:N	2.54	0.41
13:4A:96:LEU:O	13:4A:110:ARG:NE	2.52	0.41
15:6A:32:LEU:HD13	15:6A:62:GLN:HB3	2.03	0.41
16:7A:56:ALA:O	16:7A:60:LEU:HG	2.20	0.41
16:7A:74:LEU:O	16:7A:79:VAL:HG23	2.21	0.41
25:4L:14:A:H2'	25:4L:14:A:N3	2.35	0.41
26:14:235:U:H2'	26:14:236:C:C6	2.56	0.41
26:14:263:C:H2'	26:14:264:C:O4'	2.20	0.41
26:14:341:G:C4	26:14:342:G:C8	3.09	0.41
26:14:410:G:H2'	63:14:3742:HOH:O	2.21	0.41
26:14:419:C:H2'	26:14:420:C:O4'	2.20	0.41
26:14:1044:G:H2'	26:14:1045:A:H5"	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1059:G:H3'	26:14:1060:U:H2'	2.01	0.41
26:14:1332:G:N2	26:14:1609:A:H2'	2.35	0.41
26:14:2018:G:P	56:J5:9:LYS:HZ3	2.44	0.41
26:14:2085:C:H2'	26:14:2086:U:O4'	2.21	0.41
26:14:2319:G:N1	26:14:2334:G:OP2	2.53	0.41
26:14:2557:G:H2'	26:14:2558:C:H6	1.85	0.41
29:19:92:ILE:HD12	29:19:104:TYR:CD1	2.55	0.41
30:29:56:PRO:HD2	30:29:58:ARG:CZ	2.51	0.41
31:39:31:HIS:O	31:39:31:HIS:CG	2.74	0.41
31:39:176:LEU:HD12	31:39:176:LEU:HA	1.78	0.41
33:59:149:ARG:HA	33:59:162:ILE:HG21	2.03	0.41
35:69:63:ALA:O	35:69:66:GLU:HB2	2.21	0.41
35:69:65:ALA:O	35:69:69:LYS:N	2.53	0.41
38:15:34:LEU:HD12	38:15:34:LEU:HA	1.81	0.41
39:25:44:LYS:O	39:25:45:GLU:HG3	2.21	0.41
40:35:88:LEU:HB2	40:35:91:PHE:HE1	1.85	0.41
45:85:17:ILE:HG23	45:85:39:LEU:HD12	2.03	0.41
49:C5:40:GLU:N	49:C5:40:GLU:OE2	2.54	0.41
49:C5:43:ASN:HB3	49:C5:64:GLU:HA	2.02	0.41
52:F5:17:SER:HB2	63:F5:203:HOH:O	2.20	0.41
53:G5:37:PHE:O	53:G5:41:ILE:HG12	2.21	0.41
1:13:27:G:C5	1:13:557:G:C2	3.09	0.41
1:13:34:C:H2'	1:13:35:G:C8	2.56	0.41
1:13:131:C:O2	1:13:131:C:H2'	2.21	0.41
1:13:134:A:H1'	1:13:325:A:C5	2.56	0.41
1:13:148:G:C2	1:13:149:A:C5	3.08	0.41
1:13:246:A:C6	1:13:279:A:C2	3.09	0.41
1:13:376:G:H5"	16:7I:5:ARG:HD2	2.02	0.41
1:13:454:C:H3'	1:13:455:C:H5	1.82	0.41
1:13:509:A:OP2	63:13:1965:HOH:O	2.21	0.41
1:13:606:G:O2'	1:13:632:A:N6	2.47	0.41
1:13:651:C:H2'	1:13:652:U:C6	2.56	0.41
1:13:1068:G:N7	1:13:1094:G:H2'	2.36	0.41
1:13:1084:G:C5	1:13:1085:U:C4	3.08	0.41
1:13:1099:G:H2'	1:13:1100:C:C6	2.56	0.41
1:13:1103:C:OP1	63:13:1969:HOH:O	2.22	0.41
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.56	0.41
1:13:1408:A:C5	1:13:1409:C:C5	3.09	0.41
2:1E:20:GLU:O	2:1E:40:HIS:HD2	2.04	0.41
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	2.01	0.41
3:2E:11:ARG:O	3:2E:14:ILE:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:82:ALA:O	4:3E:89:THR:HA	2.19	0.41
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	2.02	0.41
15:6I:26:GLU:H	15:6I:26:GLU:HG2	1.31	0.41
15:6I:82:ILE:O	15:6I:85:LEU:N	2.49	0.41
19:AI:6:LYS:HA	19:AI:6:LYS:HD2	1.73	0.41
19:AI:41:VAL:HG12	19:AI:44:MET:CB	2.43	0.41
20:BI:45:GLN:HG3	20:BI:91:LEU:HD22	2.02	0.41
22:1K:9:A:H61	22:1K:23:G:H3'	1.86	0.41
24:3K:57:C:H2'	24:3K:58:G:H8	1.84	0.41
26:1H:35:G:H2'	26:1H:36:G:O4'	2.20	0.41
26:1H:140:A:C8	26:1H:1408:C:O2'	2.70	0.41
26:1H:270(V):G:H2'	26:1H:270(W):G:O4'	2.21	0.41
26:1H:415:A:H2'	26:1H:416:C:O4'	2.19	0.41
26:1H:447:A:C8	26:1H:473:G:C6	3.09	0.41
26:1H:448:U:O4	26:1H:583:G:H1'	2.21	0.41
26:1H:501:A:O5'	26:1H:501:A:H8	2.04	0.41
26:1H:695:G:OP1	26:1H:1380:G:O2'	2.38	0.41
26:1H:729:G:C4	26:1H:1775:U:C2	3.08	0.41
26:1H:911:A:H2'	41:88:9:TYR:OH	2.20	0.41
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.56	0.41
26:1H:1045:A:H1'	26:1H:1047:G:C2	2.56	0.41
26:1H:1437:C:H2'	26:1H:1438:U:C6	2.55	0.41
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.56	0.41
26:1H:1625:C:H5"	26:1H:1626:G:OP2	2.21	0.41
26:1H:1644:C:H2'	26:1H:1645:G:H5'	2.03	0.41
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.20	0.41
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.20	0.41
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.20	0.41
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.51	0.41
26:1H:2138:C:O2	26:1H:2154:G:N2	2.54	0.41
26:1H:2275:C:O2'	41:88:85:LYS:HA	2.21	0.41
26:1H:2311:A:H1'	32:41:88:ILE:HD13	2.03	0.41
26:1H:2766:G:C2	26:1H:2767:C:C6	3.08	0.41
27:16:24:G:C2	27:16:56:G:N2	2.89	0.41
28:71:46:LYS:O	28:71:210:ARG:HB2	2.21	0.41
29:11:29:PRO:HG2	29:11:30:GLU:HA	2.03	0.41
29:11:71:ASP:OD1	29:11:71:ASP:N	2.49	0.41
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.67	0.41
32:41:91:ARG:HD2	32:41:91:ARG:C	2.42	0.41
33:51:107:VAL:HG21	33:51:152:ARG:HB2	2.03	0.41
35:61:33:ARG:HB2	35:61:35:LEU:CD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:61:124:GLY:H	35:61:142:VAL:CG2	2.32	0.41
34:28:3:LEU:O	34:28:7:ARG:HB2	2.21	0.41
39:68:7:TYR:CZ	39:68:44:LYS:HG3	2.56	0.41
40:78:100:LEU:HD12	40:78:105:LEU:HD13	2.03	0.41
45:C8:112:ARG:HG2	45:C8:112:ARG:HH11	1.86	0.41
46:D8:16:PRO:HA	46:D8:96:ILE:HG22	2.03	0.41
50:H8:108:PRO:CB	50:H8:113:ALA:H	2.34	0.41
50:H8:109:ALA:H	50:H8:112:ARG:CG	2.34	0.41
53:K8:33:MET:O	53:K8:37:PHE:HD1	2.03	0.41
56:N8:36:CYS:SG	56:N8:37:LYS:N	2.93	0.41
57:O8:35:GLU:HB2	57:O8:51:GLU:HB2	2.02	0.41
58:P8:15:THR:HG22	58:P8:16:HIS:CE1	2.56	0.41
1:1G:176:C:O2'	1:1G:177:C:H5'	2.20	0.41
1:1G:189:U:O2'	17:8A:63:ARG:NH2	2.54	0.41
1:1G:257:G:H2'	1:1G:258:G:H8	1.86	0.41
1:1G:706:A:H1'	11:2A:31:THR:HG21	2.02	0.41
1:1G:842:C:H4'	1:1G:848:C:C2	2.55	0.41
1:1G:918:A:H2'	1:1G:919:A:O4'	2.21	0.41
1:1G:991:U:C5	1:1G:1212:U:H1'	2.56	0.41
1:1G:998(A):C:H2'	1:1G:999:U:O4'	2.21	0.41
1:1G:1250:A:H4'	9:82:68:GLY:N	2.31	0.41
1:1G:1354:C:H3'	1:1G:1354:C:C6	2.55	0.41
1:1G:1382:C:O2'	24:3L:35:A:N7	2.51	0.41
2:12:74:LYS:O	2:12:78:GLN:HB2	2.20	0.41
2:12:140:HIS:O	2:12:143:GLU:HB3	2.21	0.41
2:12:174:VAL:HG13	2:12:184:VAL:HG11	2.03	0.41
2:12:189:ASP:HB3	2:12:203:GLY:O	2.21	0.41
4:32:13:ARG:HB3	4:32:38:TYR:O	2.21	0.41
4:32:15:GLU:OE2	4:32:63:LYS:HD3	2.20	0.41
4:32:88:VAL:HG22	5:42:96:PRO:HB2	2.03	0.41
5:42:10:MET:HE2	5:42:10:MET:HB3	1.85	0.41
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.36	0.41
8:72:97:VAL:HA	8:72:100:ILE:HD11	2.02	0.41
9:82:83:ARG:HA	9:82:86:VAL:HB	2.02	0.41
10:1A:54:PHE:CE2	10:1A:55:LYS:HG3	2.56	0.41
13:4A:81:LEU:HD21	13:4A:88:ARG:NH2	2.36	0.41
16:7A:43:LYS:HD3	16:7A:48:TRP:CE2	2.55	0.41
19:AA:74:PHE:CD1	19:AA:74:PHE:N	2.89	0.41
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	2.02	0.41
22:1L:76:C:H2'	22:1L:77:A:C8	2.56	0.41
26:14:28:A:O2'	26:14:583:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:51:G:N3	26:14:119:A:C2	2.89	0.41
26:14:64:A:O3'	48:B5:71:GLY:HA3	2.21	0.41
26:14:139:G:N2	26:14:141:A:N1	2.67	0.41
26:14:447:A:C8	26:14:473:G:C6	3.08	0.41
26:14:680:G:C8	63:14:4042:HOH:O	2.71	0.41
26:14:686:G:OP1	58:L5:11:LYS:HE2	2.21	0.41
26:14:789:A:H3'	63:14:3778:HOH:O	2.21	0.41
26:14:835:A:N6	26:14:836:G:C6	2.88	0.41
26:14:875:G:N2	26:14:903:C:C2	2.89	0.41
26:14:1000:A:N6	26:14:1155:A:C8	2.89	0.41
26:14:1011:G:O2'	26:14:1013:C:O4'	2.32	0.41
26:14:1022:G:N2	26:14:1142(A):A:H2	2.13	0.41
26:14:1063:G:C2	26:14:1076:C:C2	3.08	0.41
26:14:1154:G:OP1	45:85:58:ARG:HD3	2.20	0.41
26:14:1366:A:C2	26:14:1367:A:H1'	2.56	0.41
26:14:1420:U:HO2'	26:14:1421:G:P	2.44	0.41
26:14:1668:A:H4'	26:14:1669:A:O5'	2.21	0.41
26:14:1716:U:H1'	26:14:1746:G:N2	2.34	0.41
26:14:1973:G:H2'	26:14:1974:C:H6	1.86	0.41
26:14:2640:G:H8	26:14:2640:G:O5'	2.03	0.41
26:14:2720:U:N3	26:14:2873:A:C2	2.85	0.41
26:14:2853:C:H2'	26:14:2854:G:H8	1.86	0.41
27:1J:15:A:H1'	27:1J:109:G:C4	2.55	0.41
27:1J:29:A:OP2	43:65:31:SER:HB2	2.20	0.41
29:19:146:GLU:OE2	29:19:151:LYS:N	2.52	0.41
29:19:213:ARG:HA	29:19:213:ARG:HD2	1.85	0.41
30:29:10:GLY:O	30:29:24:THR:HA	2.20	0.41
30:29:111:ARG:HD2	30:29:160:TYR:CD2	2.56	0.41
31:39:134:GLY:HA2	31:39:166:ALA:HB2	2.03	0.41
31:39:152:GLU:HA	31:39:190:GLU:OE2	2.21	0.41
32:49:66:GLN:HE22	32:49:94:LEU:HA	1.86	0.41
32:49:95:ARG:HG2	32:49:96:ARG:H	1.85	0.41
33:59:11:VAL:HB	33:59:13:LYS:HG3	2.03	0.41
33:59:58:GLU:O	33:59:62:LYS:HG3	2.21	0.41
35:69:1:MET:HE2	35:69:1:MET:H3	1.86	0.41
39:25:35:VAL:HG11	39:25:103:ALA:HB3	2.03	0.41
41:45:75:THR:HG21	41:45:85:LYS:CE	2.48	0.41
42:55:75:LEU:O	42:55:75:LEU:HD22	2.20	0.41
42:55:87:TYR:HE1	42:55:117:VAL:HG13	1.86	0.41
43:65:69:VAL:O	43:65:72:ALA:HB3	2.21	0.41
47:A5:12:ILE:HG13	47:A5:42:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D5:19:ARG:HE	50:D5:19:ARG:HB2	1.48	0.41
1:13:104:G:C2	1:13:105:G:C8	3.09	0.41
1:13:161:A:H2'	1:13:162:A:C8	2.56	0.41
1:13:253:U:OP2	17:8I:67:LYS:NZ	2.44	0.41
1:13:438:G:H5'	4:3E:123:HIS:HB3	2.03	0.41
1:13:506:G:P	63:13:2002:HOH:O	2.79	0.41
1:13:575:G:H4'	1:13:576:G:O5'	2.21	0.41
1:13:591:U:H2'	1:13:592:G:C8	2.56	0.41
1:13:684:A:N6	1:13:685:G:C6	2.89	0.41
1:13:748:C:H4'	1:13:749:C:O5'	2.21	0.41
1:13:986:A:H2'	1:13:987:G:O4'	2.21	0.41
1:13:1131:G:H2'	1:13:1132:C:C6	2.56	0.41
1:13:1178:G:C8	1:13:1178:G:H3'	2.56	0.41
2:1E:71:VAL:HB	2:1E:164:VAL:HG13	2.03	0.41
4:3E:160:GLN:HA	4:3E:163:GLU:HB3	2.03	0.41
12:3I:97:ARG:HB2	12:3I:98:TYR:CE1	2.56	0.41
13:4I:12:ASN:HB2	13:4I:46:LYS:NZ	2.36	0.41
20:BI:14:LYS:HA	20:BI:17:ARG:HH21	1.86	0.41
22:1K:38:2MA:HM23	25:4K:19:C:C5	2.55	0.41
24:3K:7:G:H4'	24:3K:8:U:OP2	2.21	0.41
26:1H:99:U:C6	26:1H:102:G:C2	3.09	0.41
26:1H:449:A:N6	26:1H:450:G:C6	2.89	0.41
26:1H:453:C:H5"	63:1H:3800:HOH:O	2.21	0.41
26:1H:572:A:H5"	26:1H:573:G:OP2	2.21	0.41
26:1H:774:A:H2	26:1H:787:U:HO2'	1.68	0.41
26:1H:780:G:N2	26:1H:783:A:N6	2.62	0.41
26:1H:950:G:C6	26:1H:951:C:C4	3.09	0.41
26:1H:1079:C:O2	37:48:129:GLY:HA3	2.21	0.41
26:1H:1188:U:C4'	46:D8:79:VAL:HG22	2.50	0.41
26:1H:1466:G:H2'	26:1H:1547:C:C4	2.56	0.41
26:1H:1468:C:H2'	26:1H:1469:A:C8	2.56	0.41
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.21	0.41
26:1H:2630:G:H1	26:1H:2788:C:H42	1.69	0.41
30:21:144:ARG:HB3	30:21:145:LYS:H	1.62	0.41
37:48:111:LYS:HE2	37:48:127:ILE:CG1	2.41	0.41
39:68:7:TYR:CE1	39:68:20:MET:HE3	2.56	0.41
44:B8:32:TYR:CE1	44:B8:76:PHE:HD2	2.38	0.41
45:C8:79:PHE:O	45:C8:79:PHE:HD1	2.03	0.41
47:E8:82:LEU:HD23	47:E8:82:LEU:HA	1.66	0.41
52:J8:23:LYS:HB3	52:J8:29:GLY:HA3	2.02	0.41
1:1G:4:U:O2	1:1G:4:U:O4'	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:321:A:H62	1:1G:328:C:H1'	1.86	0.41
1:1G:451:A:OP1	1:1G:481:G:N2	2.44	0.41
1:1G:464:G:C6	1:1G:466:C:H5'	2.56	0.41
1:1G:656:C:O2	15:6A:28:GLN:NE2	2.51	0.41
1:1G:1095:U:OP2	1:1G:1108:G:N1	2.49	0.41
1:1G:1422:G:H2'	1:1G:1423:G:C8	2.54	0.41
1:1G:1481:U:H2'	1:1G:1482:G:C8	2.56	0.41
2:12:52:GLU:HG2	2:12:53:ARG:N	2.32	0.41
2:12:84:GLU:O	2:12:219:VAL:HG21	2.20	0.41
4:32:24:GLU:OE1	4:32:24:GLU:HA	2.20	0.41
4:32:116:GLN:NE2	4:32:157:LEU:HD11	2.36	0.41
6:52:5:GLU:HB3	6:52:62:TRP:NE1	2.36	0.41
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.21	0.41
26:14:290:G:H2'	26:14:291:C:O4'	2.21	0.41
26:14:339:U:H6	26:14:339:U:O5'	2.03	0.41
26:14:867:C:C5	26:14:868:U:C5	3.09	0.41
26:14:1592:C:O5'	26:14:1592:C:H6	2.04	0.41
26:14:1904:G:H2'	26:14:1905:C:O4'	2.21	0.41
26:14:2210:G:H3'	26:14:2211:G:C4	2.56	0.41
26:14:2256:G:H2'	26:14:2257:U:O4'	2.21	0.41
27:1J:14:U:H5'	27:1J:71:C:C1'	2.50	0.41
29:19:16:MET:HG3	29:19:206:LEU:O	2.21	0.41
29:19:238:GLY:O	29:19:239:ARG:C	2.59	0.41
30:29:39:PRO:CD	30:29:45:THR:HG23	2.50	0.41
31:39:9:ILE:O	31:39:9:ILE:HG22	2.21	0.41
31:39:170:LEU:HD13	31:39:172:TRP:CE2	2.56	0.41
39:25:25:LEU:HD23	39:25:25:LEU:HA	1.71	0.41
41:45:43:THR:OG1	41:45:45:GLN:HG2	2.21	0.41
41:45:103:MET:HE1	41:45:125:LEU:HD13	2.03	0.41
45:85:49:HIS:HA	45:85:52:ARG:HB3	2.02	0.41
47:A5:64:MET:HE2	47:A5:109:GLU:HG3	2.02	0.41
49:C5:48:ALA:CB	49:C5:59:GLY:HA3	2.45	0.41
1:13:144:G:N2	1:13:179:A:H1'	2.36	0.40
1:13:243:A:H5"	1:13:244:U:H3'	2.03	0.40
1:13:321:A:N7	1:13:328:C:H6	2.19	0.40
1:13:509:A:P	63:13:1993:HOH:O	2.78	0.40
1:13:590:C:C4	1:13:591:U:C5	3.09	0.40
1:13:647:C:O2'	1:13:648:A:H5'	2.21	0.40
1:13:750:G:N3	15:6I:23:GLY:HA3	2.36	0.40
4:3E:158:ILE:HG22	4:3E:181:MET:HE2	2.03	0.40
10:1I:8:LEU:O	10:1I:69:ASN:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:93:ARG:HD2	26:1H:887:A:H5'	2.03	0.40
15:6I:66:LEU:HD12	15:6I:66:LEU:HA	1.76	0.40
16:7I:71:ARG:HG3	16:7I:72:ARG:N	2.36	0.40
16:7I:74:LEU:HA	16:7I:77:ALA:HB3	2.03	0.40
22:1K:31:G:H1	22:1K:41:C:N4	2.17	0.40
22:1K:33:RSP:H6	22:1K:33:RSP:H5'	2.03	0.40
23:2K:25:U:O2	26:1H:1923:U:H5"	2.21	0.40
23:2K:37:U:H2'	23:2K:38:A:O4'	2.22	0.40
26:1H:228:A:N9	26:1H:230:U:H1'	2.37	0.40
26:1H:574:C:P	63:1H:3746:HOH:O	2.68	0.40
26:1H:978:G:C2	26:1H:986:C:C2	3.09	0.40
26:1H:1352:U:O2	26:1H:1570:A:H2	2.04	0.40
26:1H:1467:C:N3	26:1H:1525:G:N2	2.52	0.40
26:1H:1945:G:C4	26:1H:1946:U:C5	3.09	0.40
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.21	0.40
26:1H:2774:C:P	63:1H:3972:HOH:O	2.78	0.40
26:1H:2846:G:C5	26:1H:2847:U:C4	3.08	0.40
29:11:39:LYS:HB2	29:11:39:LYS:HE2	1.88	0.40
32:41:99:MET:HE2	32:41:99:MET:HB3	1.92	0.40
37:48:54:PRO:HD2	37:48:72:PRO:CB	2.51	0.40
40:78:63:PRO:HB2	59:Q8:30:ARG:NH2	2.17	0.40
44:B8:48:ILE:O	44:B8:63:VAL:HA	2.21	0.40
53:K8:17:SER:CB	53:K8:67:LYS:HE3	2.48	0.40
1:1G:328:C:H4'	1:1G:329:A:C5'	2.50	0.40
1:1G:602:A:H2'	1:1G:603:U:O4'	2.22	0.40
1:1G:693:G:H2'	1:1G:694:A:C8	2.56	0.40
1:1G:867:G:H2'	1:1G:868:C:H6	1.86	0.40
1:1G:994:A:N7	1:1G:1216:G:H4'	2.36	0.40
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.55	0.40
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.21	0.40
2:12:30:ARG:HB2	2:12:46:LYS:HE2	2.03	0.40
2:12:80:ILE:HD13	2:12:212:GLN:HA	2.02	0.40
3:22:44:GLU:HA	3:22:52:LEU:HD11	2.04	0.40
5:42:74:GLY:HA3	5:42:116:THR:OG1	2.21	0.40
6:52:9:VAL:HA	6:52:59:TYR:O	2.22	0.40
7:62:50:ILE:HB	7:62:58:PRO:HG3	2.03	0.40
17:8A:82:MET:HA	17:8A:85:VAL:HG23	2.02	0.40
23:2L:38:A:H2'	23:2L:39:A:C8	2.55	0.40
26:14:456:C:C2	48:B5:69:TYR:CE2	3.09	0.40
26:14:1204:A:H2	26:14:1241:A:N1	2.19	0.40
26:14:1246:A:OP2	40:35:15:ARG:HD3	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1936:A:C8	26:14:1940:U:O2	2.74	0.40
26:14:2076:U:O5'	26:14:2076:U:H6	2.04	0.40
28:79:13:LYS:HD2	28:79:32:LEU:CD2	2.51	0.40
28:79:213:TYR:CD1	28:79:221:SER:HB2	2.56	0.40
29:19:3:VAL:CG1	29:19:17:THR:HB	2.51	0.40
33:59:9:ILE:HB	33:59:49:VAL:HB	2.03	0.40
33:59:152:ARG:H	33:59:152:ARG:HG3	1.57	0.40
35:69:129:THR:HA	35:69:136:VAL:O	2.21	0.40
40:35:47:ASP:OD1	40:35:49:ARG:NE	2.39	0.40
40:35:84:ASN:N	40:35:84:ASN:OD1	2.54	0.40
41:45:29:PHE:HB3	41:45:65:PHE:CD2	2.56	0.40
44:75:13:ARG:H	44:75:13:ARG:HD2	1.85	0.40
50:D5:5:LEU:O	50:D5:59:LEU:HA	2.21	0.40
50:D5:108:PRO:HB3	50:D5:142:SER:HA	2.03	0.40
58:L5:19:ARG:HG2	58:L5:19:ARG:HH11	1.84	0.40
1:13:347:G:H2'	1:13:348:G:O4'	2.20	0.40
1:13:457:C:H6	1:13:458:C:C5	2.38	0.40
1:13:663:A:H2'	1:13:664:G:O4'	2.21	0.40
1:13:790:A:C6	1:13:791:G:C6	3.09	0.40
1:13:1024:G:H5'	1:13:1025:U:OP2	2.22	0.40
1:13:1399:C:C4	1:13:1401:G:C2	3.10	0.40
2:1E:86:GLU:C	2:1E:89:GLY:H	2.23	0.40
6:5E:23:LYS:O	6:5E:26:ILE:HB	2.20	0.40
7:6E:15:ASP:HB3	7:6E:19:GLY:H	1.85	0.40
13:4I:3:ARG:NE	13:4I:9:ILE:HD11	2.36	0.40
16:7I:5:ARG:HH21	16:7I:22:THR:HG23	1.85	0.40
16:7I:75:ARG:CZ	16:7I:75:ARG:HB2	2.51	0.40
20:BI:26:ASN:HB2	20:BI:71:THR:OG1	2.20	0.40
21:1F:2:GLY:C	21:1F:4:GLY:H	2.24	0.40
26:1H:59:U:O2'	26:1H:73:A:H2'	2.20	0.40
26:1H:598:G:H1'	40:78:12:ALA:HB2	2.03	0.40
26:1H:875:G:N2	26:1H:903:C:C2	2.90	0.40
26:1H:881:G:C4	26:1H:882:G:H1'	2.56	0.40
26:1H:1045:A:H4'	26:1H:1047:G:N9	2.35	0.40
26:1H:1355:G:O5'	26:1H:1355:G:H8	2.05	0.40
26:1H:1468:C:O2'	26:1H:1469:A:H5'	2.21	0.40
26:1H:2205:C:H2'	26:1H:2206:C:H6	1.86	0.40
26:1H:2274:A:C5	26:1H:2276:G:C8	3.10	0.40
26:1H:2313:C:C2'	26:1H:2314:C:H5'	2.51	0.40
26:1H:2667:C:H2'	26:1H:2668:G:O4'	2.21	0.40
26:1H:2735:G:O2'	26:1H:2736:G:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.21	0.40
27:16:117:G:C6	27:16:118:G:N7	2.90	0.40
29:11:34:VAL:C	29:11:35:LYS:HZ2	2.24	0.40
30:21:31:CYS:SG	30:21:51:PHE:HD1	2.44	0.40
31:31:34:TRP:CH2	40:78:8:PRO:HB3	2.56	0.40
32:41:37:VAL:HG21	32:41:103:LEU:HG	2.03	0.40
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.36	0.40
35:61:11:ASN:O	35:61:12:LEU:HB2	2.21	0.40
36:38:100:ASN:HA	36:38:101:PRO:HA	1.88	0.40
37:48:128:ALA:HB1	37:48:132:ARG:CB	2.51	0.40
38:58:13:TRP:O	38:58:135:PRO:HD2	2.20	0.40
42:98:22:ARG:HG2	42:98:69:ASP:HB3	2.02	0.40
43:A8:106:ARG:H	43:A8:106:ARG:HG3	1.68	0.40
47:E8:59:VAL:HG12	47:E8:60:ASN:N	2.36	0.40
50:H8:98:MET:O	50:H8:125:LEU:HA	2.21	0.40
56:N8:41:PRO:HA	56:N8:42:PRO:HD3	1.86	0.40
59:Q8:23:VAL:O	59:Q8:23:VAL:HG12	2.20	0.40
59:Q8:33:ASN:O	59:Q8:36:LYS:HB2	2.20	0.40
1:1G:821:G:H4'	63:1G:2039:HOH:O	2.20	0.40
1:1G:973:G:OP1	10:1A:57:LYS:NZ	2.32	0.40
1:1G:1008:C:N4	1:1G:1021:G:H22	2.19	0.40
1:1G:1017:G:H2'	1:1G:1018:C:C6	2.56	0.40
1:1G:1206:G:O2'	3:22:193:TYR:HA	2.20	0.40
1:1G:1340:A:C2	1:1G:1341:U:C2	3.09	0.40
4:32:89:THR:H	5:42:97:GLY:HA3	1.86	0.40
5:42:136:MET:HA	5:42:139:LEU:HD12	2.04	0.40
12:3A:33:ARG:N	12:3A:85:ILE:HG22	2.36	0.40
20:BA:63:ILE:HG21	20:BA:81:LYS:HG3	2.04	0.40
26:14:224:G:N7	26:14:420:C:H4'	2.37	0.40
26:14:654(A):A:H5"	26:14:654(B):C:OP2	2.21	0.40
26:14:817:C:O2'	26:14:839:U:OP1	2.32	0.40
26:14:948:G:C6	26:14:949:C:C4	3.09	0.40
26:14:1472:A:H2'	26:14:1473:G:O4'	2.21	0.40
26:14:1509:C:H5'	26:14:1510:A:N9	2.36	0.40
26:14:1607:C:H4'	26:14:1608:A:O5'	2.20	0.40
26:14:2177:C:H5"	28:79:213:TYR:HB2	2.02	0.40
26:14:2520:C:N4	26:14:2542:A:H62	2.09	0.40
26:14:2873:A:C8	42:55:5:LYS:HA	2.57	0.40
27:1J:63:G:C2	27:1J:64:C:C2	3.09	0.40
28:79:19:ILE:HG12	28:79:223:ARG:HG2	2.03	0.40
29:19:253:GLN:CB	29:19:255:LYS:HZ1	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:18:ASP:OD2	44:75:33:LYS:NZ	2.39	0.40
31:39:113:ALA:HB1	31:39:186:ILE:HG21	2.02	0.40
50:D5:193:GLU:H	50:D5:194:PRO:CD	2.28	0.40
53:G5:53:LEU:O	53:G5:57:ILE:HG13	2.21	0.40
1:13:7:G:H5'	1:13:298:A:O4'	2.21	0.40
1:13:115:G:H4'	1:13:116:A:O5'	2.20	0.40
1:13:124:G:H2'	1:13:125:U:O4'	2.21	0.40
1:13:247:G:O6	1:13:278:G:N1	2.53	0.40
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.21	0.40
1:13:1521:G:H2'	1:13:1522:U:C6	2.56	0.40
3:2E:188:LEU:HD11	3:2E:195:VAL:HG13	2.04	0.40
5:4E:80:ILE:HG13	8:7E:104:ARG:NH2	2.37	0.40
5:4E:142:LEU:HD23	5:4E:142:LEU:HA	1.87	0.40
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	2.04	0.40
13:4I:4:ILE:O	13:4I:5:ALA:C	2.60	0.40
24:3K:73:C:C4	24:3K:74:A:C8	3.10	0.40
26:1H:6:A:C2	26:1H:7:G:C4	3.09	0.40
26:1H:10:G:O2'	26:1H:2801:A:N3	2.43	0.40
26:1H:94:G:H2'	26:1H:95:G:O4'	2.21	0.40
26:1H:459:U:H4'	58:P8:40:TRP:CZ3	2.57	0.40
26:1H:706:A:OP2	63:1H:3982:HOH:O	2.22	0.40
26:1H:811:U:H3'	40:78:22:GLY:HA2	2.03	0.40
26:1H:944:G:H5"	26:1H:945:A:O5'	2.21	0.40
26:1H:1359:A:H2	26:1H:1372:U:O4	2.05	0.40
26:1H:1382:G:C2'	26:1H:1383:C:H5'	2.52	0.40
26:1H:1525:G:C2	26:1H:1526:G:C4	3.10	0.40
26:1H:1864:U:C2'	26:1H:1869:G:H5"	2.51	0.40
26:1H:2101:G:C6	26:1H:2102:U:N3	2.89	0.40
26:1H:2271:G:C6	26:1H:2272:U:C4	3.10	0.40
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.22	0.40
26:1H:2468:G:O4'	26:1H:2468:G:N3	2.53	0.40
27:16:6:C:H2'	27:16:7:G:O4'	2.21	0.40
30:21:21:VAL:HG12	30:21:185:LYS:HD3	2.03	0.40
30:21:92:THR:HG22	30:21:93:VAL:N	2.36	0.40
30:21:197:ILE:HD11	30:21:199:ARG:HE	1.85	0.40
32:41:59:GLU:O	32:41:63:ILE:HD13	2.21	0.40
33:51:62:LYS:HE3	33:51:62:LYS:HB2	1.77	0.40
33:51:87:LEU:HB2	33:51:131:VAL:HG13	2.03	0.40
33:51:125:VAL:HG12	33:51:128:PRO:HA	2.03	0.40
36:38:105:PRO:O	36:38:106:GLN:HB3	2.21	0.40
37:48:99:ILE:HG13	37:48:138:VAL:HG11	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:58:33:LEU:HD23	38:58:38:HIS:HD2	1.87	0.40
38:58:134:ARG:N	38:58:134:ARG:HD3	2.35	0.40
40:78:114:ILE:HD11	40:78:130:PHE:CD2	2.57	0.40
53:K8:66:GLU:HG2	53:K8:67:LYS:N	2.34	0.40
59:Q8:36:LYS:HB3	59:Q8:41:ILE:HG22	2.02	0.40
1:1G:28:G:C6	1:1G:29:G:C5	3.09	0.40
1:1G:439:A:H2'	1:1G:440:A:O4'	2.21	0.40
1:1G:488:C:H6	1:1G:488:C:O5'	2.05	0.40
1:1G:513:C:H2'	1:1G:514:C:H6	1.87	0.40
1:1G:940:C:H2'	1:1G:941:G:H8	1.85	0.40
1:1G:976:G:C8	1:1G:1358:U:C2	3.10	0.40
1:1G:1003:G:H21	1:1G:1005:A:P	2.45	0.40
1:1G:1014:A:H2'	1:1G:1015:A:C5	2.56	0.40
1:1G:1021:G:H8	1:1G:1021:G:OP2	2.04	0.40
1:1G:1157:A:O4'	1:1G:1158:C:C6	2.75	0.40
1:1G:1170:A:N6	1:1G:1171:G:N3	2.69	0.40
1:1G:1216:G:H2'	1:1G:1217:C:H6	1.85	0.40
1:1G:1265:G:H2'	1:1G:1266:G:O4'	2.21	0.40
1:1G:1325:C:H5"	21:1B:17:THR:HG21	2.03	0.40
2:12:178:ARG:NH2	8:72:74:PRO:HG3	2.36	0.40
4:32:49:ARG:O	4:32:50:ARG:C	2.60	0.40
13:4A:65:LYS:HG3	13:4A:69:GLU:CD	2.42	0.40
18:9A:41:LYS:HD3	18:9A:41:LYS:O	2.22	0.40
19:AA:16:LEU:HA	19:AA:19:VAL:HG23	2.02	0.40
25:4L:11:U:H6	25:4L:11:U:H2'	1.65	0.40
26:14:7:G:N2	26:14:8:A:C4	2.89	0.40
26:14:298:G:H5"	26:14:299:A:OP1	2.22	0.40
26:14:456:C:C2	48:B5:69:TYR:HE2	2.39	0.40
26:14:840:C:H42	26:14:938:G:H1	1.68	0.40
26:14:911:A:H2'	41:45:9:TYR:OH	2.21	0.40
26:14:996:A:N3	26:14:997:G:C8	2.89	0.40
26:14:1069:A:H2	26:14:1094:U:O2	2.04	0.40
26:14:1615:C:C5	26:14:1617:C:C4	3.10	0.40
26:14:1807:G:O6	63:14:3899:HOH:O	2.21	0.40
26:14:2355:C:C4'	51:E5:36:ILE:HD11	2.51	0.40
26:14:2475:C:H5"	26:14:2476:A:H5"	2.03	0.40
26:14:2817:G:C4	26:14:2830:G:N2	2.89	0.40
28:79:39:GLU:HB2	28:79:178:ALA:HB3	2.02	0.40
29:19:102:LYS:C	29:19:103:ARG:HG2	2.42	0.40
40:35:88:LEU:HD12	40:35:88:LEU:O	2.20	0.40
43:65:38:GLN:HB3	43:65:47:THR:CG2	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:65:110:LEU:HD13	43:65:112:PHE:CE1	2.57	0.40
46:95:22:VAL:HG22	46:95:23:GLU:N	2.37	0.40
46:95:82:ARG:O	46:95:83:ARG:HD2	2.21	0.40
1:13:143:A:H5'	1:13:144:G:H5'	2.04	0.40
1:13:163:C:H6	1:13:163:C:H5"	1.87	0.40
1:13:186(C):G:H2'	1:13:186(D):C:C6	2.56	0.40
1:13:691:G:H2'	1:13:692:U:C6	2.56	0.40
1:13:715:A:H2'	1:13:716:A:C8	2.57	0.40
1:13:827:U:C5	1:13:872:A:N1	2.89	0.40
1:13:942:G:C2	1:13:943:U:C6	3.10	0.40
2:1E:11:LEU:C	2:1E:14:GLY:H	2.24	0.40
3:2E:32:LEU:CD1	3:2E:59:ARG:HD3	2.51	0.40
7:6E:8:GLU:HG2	7:6E:8:GLU:H	1.70	0.40
19:AI:22:LEU:HA	19:AI:25:LYS:HB3	2.04	0.40
19:AI:43:GLU:H	19:AI:43:GLU:CD	2.24	0.40
26:1H:214:G:OP1	26:1H:214:G:H4'	2.21	0.40
26:1H:234:C:C2	26:1H:235:U:C5	3.10	0.40
26:1H:517:C:OP2	56:N8:13:LYS:HE2	2.21	0.40
26:1H:829:A:N7	26:1H:2247:A:O2'	2.47	0.40
26:1H:1174:A:N9	26:1H:1178:C:N4	2.70	0.40
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.83	0.40
26:1H:1496:A:H2	63:1H:3748:HOH:O	2.04	0.40
26:1H:1496:A:H5'	26:1H:1497:U:OP1	2.22	0.40
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.56	0.40
26:1H:2741:A:H2'	26:1H:2742:C:O4'	2.21	0.40
26:1H:2820:A:C4	42:98:4:LEU:HD11	2.57	0.40
31:31:64:ILE:HA	31:31:64:ILE:HD13	1.80	0.40
32:41:67:LYS:CE	55:M8:6:HIS:CE1	3.05	0.40
33:51:40:GLU:HB2	33:51:41:MET:HE3	2.04	0.40
35:61:100:ALA:O	35:61:104:GLN:N	2.53	0.40
37:48:136:VAL:O	37:48:137:GLU:C	2.59	0.40
40:78:75:ILE:H	40:78:75:ILE:CD1	2.29	0.40
42:98:40:LYS:HZ2	42:98:40:LYS:HG3	1.70	0.40
46:D8:30:GLY:N	46:D8:61:VAL:O	2.54	0.40
46:D8:35:LEU:N	46:D8:57:VAL:O	2.49	0.40
49:G8:74:PRO:O	49:G8:82:PRO:HD2	2.20	0.40
50:H8:124:ILE:HD12	50:H8:125:LEU:H	1.86	0.40
50:H8:153:SER:HB3	50:H8:167:PRO:HB3	2.02	0.40
52:J8:91:LYS:O	52:J8:92:LYS:C	2.60	0.40
57:O8:9:LEU:HD13	57:O8:11:LEU:HD22	2.03	0.40
57:O8:25:LYS:HB2	59:Q8:34:TRP:HD1	1.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:38:G:H4'	1:1G:547:A:N6	2.37	0.40
1:1G:224:C:H2'	1:1G:225:C:C6	2.57	0.40
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.40
1:1G:789:U:H2'	1:1G:791:G:N7	2.36	0.40
1:1G:947:G:H2'	1:1G:948:C:O4'	2.21	0.40
1:1G:981:U:H5"	1:1G:982:U:H5"	2.04	0.40
1:1G:1055:A:H62	1:1G:1200:C:H42	1.70	0.40
1:1G:1191:A:OP1	3:22:4:LYS:HE2	2.22	0.40
1:1G:1199:U:H4'	10:1A:54:PHE:CD1	2.56	0.40
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.52	0.40
6:52:25:ILE:HD12	6:52:82:ARG:HD2	2.03	0.40
17:8A:44:ALA:HA	17:8A:71:PHE:O	2.21	0.40
22:1L:1:G:O2'	22:1L:2:C:P	2.80	0.40
22:1L:10:G:H8	22:1L:10:G:O5'	2.04	0.40
26:14:22:C:H2'	26:14:23:G:O4'	2.21	0.40
26:14:82:G:N1	26:14:103:A:OP2	2.47	0.40
26:14:273(F):C:N3	26:14:363:G:C6	2.90	0.40
26:14:864:G:C6	26:14:865:C:N4	2.89	0.40
26:14:914:C:N3	26:14:915:C:H1'	2.36	0.40
26:14:993:G:C5	26:14:994:C:C5	3.10	0.40
26:14:1360:A:N6	26:14:1371:G:O2'	2.52	0.40
26:14:1498:C:O4'	26:14:1577:C:H4'	2.21	0.40
26:14:1784:A:H5"	63:14:4037:HOH:O	2.21	0.40
26:14:2228:G:C5	26:14:2229:C:C4	3.09	0.40
26:14:2467:C:H4'	41:45:123:HIS:CD2	2.55	0.40
26:14:2756:U:O4'	26:14:2757:A:H8	2.04	0.40
26:14:2820:A:C6	42:55:4:LEU:HD11	2.56	0.40
32:49:107:LEU:HD23	32:49:107:LEU:HA	1.81	0.40
32:49:151:ALA:HB3	32:49:153:ARG:NH1	2.37	0.40
35:69:133:HIS:HB2	35:69:134:PRO:HD3	2.03	0.40
49:C5:12:THR:HB	49:C5:75:ILE:HD12	2.03	0.40
52:F5:85:LEU:CA	52:F5:87:PRO:HD2	2.52	0.40
58:L5:10:ARG:O	58:L5:14:LYS:HG3	2.20	0.40
1:13:151:A:H2'	1:13:151:A:N3	2.35	0.40
1:13:160:A:C6	1:13:344:A:N7	2.89	0.40
1:13:195:A:N7	1:13:196:A:N1	2.69	0.40
1:13:881:G:P	12:3I:12:ARG:NH2	2.94	0.40
1:13:1074:G:O2'	1:13:1101:A:N1	2.45	0.40
2:1E:20:GLU:HG3	2:1E:191:ASP:H	1.87	0.40
6:5E:45:LEU:HD12	6:5E:59:TYR:HD2	1.86	0.40
7:6E:59:LEU:HD23	7:6E:59:LEU:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:95:VAL:HG13	8:7E:99:GLU:HB2	2.04	0.40
11:2I:124:LYS:HB2	11:2I:124:LYS:HE2	1.67	0.40
12:3I:37:CYS:O	12:3I:79:GLU:O	2.40	0.40
16:7I:50:LYS:HD3	16:7I:51:VAL:N	2.37	0.40
26:1H:61:G:H5'	53:K8:50:ILE:HD13	2.03	0.40
26:1H:68:G:H2'	26:1H:69:C:O4'	2.22	0.40
26:1H:365:C:H2'	26:1H:366:C:O4'	2.22	0.40
26:1H:443:A:H3'	31:31:45:ARG:NH2	2.37	0.40
26:1H:447:A:C4	26:1H:473:G:N7	2.90	0.40
26:1H:570:G:C6	26:1H:2030:A:C2	3.10	0.40
26:1H:654(C):G:N3	26:1H:654(S):G:N1	2.70	0.40
26:1H:674:G:O2'	31:31:74:ARG:HD3	2.22	0.40
26:1H:779:U:OP1	29:11:49:ILE:HG13	2.22	0.40
26:1H:998:C:H2'	26:1H:999:U:O4'	2.21	0.40
26:1H:1260:G:C6	26:1H:1261:C:C4	3.10	0.40
26:1H:2067:G:O2'	26:1H:2069:G:H5"	2.22	0.40
26:1H:2502:G:H5"	26:1H:2503:A:H5"	2.03	0.40
27:16:17:C:H2'	27:16:18:G:O4'	2.21	0.40
27:16:88:C:H2'	27:16:89:G:O4'	2.21	0.40
29:11:54:ARG:O	29:11:218:ARG:HD3	2.21	0.40
30:21:110:GLY:HA2	30:21:161:GLY:HA3	2.03	0.40
31:31:11:VAL:O	31:31:12:LEU:HD12	2.22	0.40
33:51:136:ILE:O	33:51:136:ILE:HG12	2.20	0.40
35:61:62:LYS:HD2	35:61:133:HIS:CD2	2.56	0.40
40:78:83:VAL:CG1	40:78:112:LEU:HD21	2.51	0.40
41:88:32:TYR:O	41:88:105:GLU:HA	2.22	0.40
42:98:44:LEU:HD23	42:98:44:LEU:HA	1.81	0.40
44:B8:39:ARG:HG2	44:B8:40:THR:H	1.86	0.40
47:E8:14:PRO:HG2	47:E8:78:GLU:CG	2.50	0.40
49:G8:54:LYS:HB3	49:G8:54:LYS:NZ	2.36	0.40
49:G8:87:LYS:HD3	49:G8:89:PHE:HB3	2.03	0.40
58:P8:18:PHE:CD1	58:P8:18:PHE:C	2.94	0.40
58:P8:22:MET:HE3	58:P8:22:MET:HB3	1.88	0.40
59:Q8:37:SER:O	59:Q8:40:GLU:N	2.54	0.40
1:1G:4:U:O4	8:72:105:ARG:HA	2.21	0.40
1:1G:617:G:H4'	16:7A:44:THR:HB	2.03	0.40
1:1G:683:G:C6	1:1G:684:A:C6	3.10	0.40
1:1G:983:A:H3'	1:1G:983:A:N3	2.37	0.40
1:1G:1318:A:C2	19:AA:37:ARG:HD2	2.57	0.40
5:42:69:VAL:O	5:42:71:LEU:N	2.48	0.40
5:42:91:LEU:HD23	5:42:120:THR:HG22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:67:MET:HB2	6:52:68:PRO:HD2	2.04	0.40
7:62:12:LEU:HD21	7:62:28:ASN:ND2	2.35	0.40
7:62:12:LEU:HD23	7:62:12:LEU:HA	1.89	0.40
10:1A:44:VAL:HG11	10:1A:46:ARG:HE	1.86	0.40
11:2A:21:ILE:HG12	11:2A:30:VAL:CG1	2.52	0.40
12:3A:66:VAL:HG11	12:3A:98:TYR:HE1	1.86	0.40
12:3A:117:ARG:HB2	12:3A:122:THR:O	2.22	0.40
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.21	0.40
21:1B:6:ARG:O	21:1B:12:LYS:HG2	2.21	0.40
23:2L:44:A:H2'	23:2L:45:A:H8	1.85	0.40
26:14:337:C:H2'	26:14:338:G:O4'	2.21	0.40
26:14:341:G:C6	26:14:342:G:N7	2.90	0.40
26:14:540:G:C5	26:14:541:C:C5	3.09	0.40
26:14:878:A:C5	26:14:879:G:H1'	2.56	0.40
26:14:887:A:H5"	26:14:888:C:O4'	2.21	0.40
26:14:912:C:O2	26:14:912:C:H2'	2.20	0.40
26:14:1389:G:H2'	26:14:1390:U:O4'	2.21	0.40
26:14:1628:G:H2'	26:14:1629:U:C6	2.57	0.40
26:14:1647:G:OP2	26:14:1647:G:H3'	2.21	0.40
26:14:2062:A:N6	26:14:2503:A:H62	2.19	0.40
26:14:2111:C:H2'	26:14:2169:A:N1	2.36	0.40
26:14:2136:C:H2'	26:14:2137:C:O4'	2.21	0.40
26:14:2404:C:O3'	40:35:77:ARG:NH2	2.53	0.40
26:14:2469:A:C2	26:14:2470:G:C5	3.10	0.40
27:1J:23:G:C2	27:1J:24:G:O6	2.75	0.40
29:19:13:ARG:HD2	29:19:16:MET:HE3	2.04	0.40
30:29:64:LYS:HE3	30:29:64:LYS:HB3	1.70	0.40
31:39:68:LYS:HD2	31:39:68:LYS:O	2.21	0.40
32:49:144:ILE:HA	32:49:148:MET:SD	2.61	0.40
35:69:138:ILE:HG12	35:69:139:GLN:N	2.36	0.40
38:15:35:ARG:HB3	38:15:42:TRP:CZ3	2.55	0.40
38:15:97:ARG:HA	38:15:100:GLU:HB2	2.04	0.40
40:35:82:GLY:HA3	40:35:115:LEU:HD11	2.03	0.40
46:95:14:VAL:HB	46:95:96:ILE:HG21	2.03	0.40
50:D5:97:GLU:HG2	50:D5:125:LEU:HD11	2.03	0.40
51:E5:46:LYS:HA	51:E5:47:PRO:HD3	1.86	0.40
56:J5:52:TYR:CD2	56:J5:53:ALA:N	2.90	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D8:45:THR:CG2	63:1H:4620:HOH:O[4_465]	1.38	0.82
63:1H:4955:HOH:O	63:C8:206:HOH:O[4_565]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	12	235/256 (92%)	183 (78%)	47 (20%)	5 (2%)	7	33
2	1E	227/256 (89%)	171 (75%)	54 (24%)	2 (1%)	17	53
3	22	191/239 (80%)	149 (78%)	41 (22%)	1 (0%)	29	65
3	2E	203/239 (85%)	169 (83%)	33 (16%)	1 (0%)	29	65
4	32	206/209 (99%)	168 (82%)	34 (16%)	4 (2%)	8	36
4	3E	205/209 (98%)	172 (84%)	31 (15%)	2 (1%)	15	51
5	42	149/162 (92%)	132 (89%)	17 (11%)	0	100	100
5	4E	147/162 (91%)	128 (87%)	18 (12%)	1 (1%)	22	59
6	52	99/101 (98%)	93 (94%)	6 (6%)	0	100	100
6	5E	99/101 (98%)	88 (89%)	11 (11%)	0	100	100
7	62	134/156 (86%)	108 (81%)	24 (18%)	2 (2%)	10	41
7	6E	152/156 (97%)	139 (91%)	13 (9%)	0	100	100
8	72	136/138 (99%)	120 (88%)	16 (12%)	0	100	100
8	7E	136/138 (99%)	116 (85%)	20 (15%)	0	100	100
9	82	122/128 (95%)	104 (85%)	17 (14%)	1 (1%)	19	55
9	8E	124/128 (97%)	100 (81%)	22 (18%)	2 (2%)	9	40
10	1A	97/105 (92%)	79 (81%)	18 (19%)	0	100	100
10	1I	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	15	51
11	2A	111/129 (86%)	94 (85%)	16 (14%)	1 (1%)	17	53
11	2I	109/129 (84%)	94 (86%)	15 (14%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	3A	119/132 (90%)	91 (76%)	23 (19%)	5 (4%)	3	17
12	3I	120/132 (91%)	101 (84%)	19 (16%)	0	100	100
13	4A	109/126 (86%)	84 (77%)	24 (22%)	1 (1%)	17	53
13	4I	117/126 (93%)	91 (78%)	25 (21%)	1 (1%)	17	53
14	5A	55/61 (90%)	38 (69%)	15 (27%)	2 (4%)	3	20
14	5I	59/61 (97%)	48 (81%)	9 (15%)	2 (3%)	3	21
15	6A	85/89 (96%)	77 (91%)	8 (9%)	0	100	100
15	6I	85/89 (96%)	72 (85%)	13 (15%)	0	100	100
16	7A	82/88 (93%)	71 (87%)	11 (13%)	0	100	100
16	7I	81/88 (92%)	73 (90%)	8 (10%)	0	100	100
17	8A	97/105 (92%)	87 (90%)	10 (10%)	0	100	100
17	8I	98/105 (93%)	88 (90%)	10 (10%)	0	100	100
18	9A	65/88 (74%)	56 (86%)	9 (14%)	0	100	100
18	9I	65/88 (74%)	57 (88%)	6 (9%)	2 (3%)	4	23
19	AA	56/93 (60%)	44 (79%)	12 (21%)	0	100	100
19	AI	78/93 (84%)	57 (73%)	15 (19%)	6 (8%)	1	5
20	BA	96/106 (91%)	79 (82%)	14 (15%)	3 (3%)	4	23
20	BI	96/106 (91%)	75 (78%)	17 (18%)	4 (4%)	3	17
21	1B	22/27 (82%)	16 (73%)	5 (23%)	1 (4%)	2	16
21	1F	22/27 (82%)	19 (86%)	2 (9%)	1 (4%)	2	16
28	71	130/229 (57%)	114 (88%)	16 (12%)	0	100	100
28	79	126/229 (55%)	107 (85%)	19 (15%)	0	100	100
29	11	271/276 (98%)	231 (85%)	37 (14%)	3 (1%)	14	48
29	19	271/276 (98%)	234 (86%)	37 (14%)	0	100	100
30	21	201/206 (98%)	149 (74%)	44 (22%)	8 (4%)	3	18
30	29	201/206 (98%)	145 (72%)	50 (25%)	6 (3%)	4	24
31	31	200/210 (95%)	169 (84%)	28 (14%)	3 (2%)	10	41
31	39	204/210 (97%)	152 (74%)	46 (22%)	6 (3%)	4	25
32	41	177/182 (97%)	150 (85%)	26 (15%)	1 (1%)	25	62
32	49	177/182 (97%)	142 (80%)	32 (18%)	3 (2%)	9	38
33	51	169/180 (94%)	125 (74%)	35 (21%)	9 (5%)	2	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	59	169/180 (94%)	108 (64%)	54 (32%)	7 (4%)	3	18
34	18	28/125 (22%)	20 (71%)	7 (25%)	1 (4%)	3	20
34	28	28/125 (22%)	23 (82%)	4 (14%)	1 (4%)	3	20
35	61	143/148 (97%)	104 (73%)	35 (24%)	4 (3%)	5	26
35	69	143/148 (97%)	109 (76%)	30 (21%)	4 (3%)	5	26
36	38	141/173 (82%)	65 (46%)	54 (38%)	22 (16%)	0	1
37	48	140/147 (95%)	75 (54%)	57 (41%)	8 (6%)	1	12
38	15	135/140 (96%)	115 (85%)	20 (15%)	0	100	100
38	58	135/140 (96%)	108 (80%)	25 (18%)	2 (2%)	10	41
39	25	120/122 (98%)	108 (90%)	11 (9%)	1 (1%)	19	55
39	68	120/122 (98%)	110 (92%)	10 (8%)	0	100	100
40	35	146/150 (97%)	95 (65%)	43 (30%)	8 (6%)	2	12
40	78	145/150 (97%)	112 (77%)	32 (22%)	1 (1%)	22	59
41	45	136/141 (96%)	98 (72%)	33 (24%)	5 (4%)	3	19
41	88	139/141 (99%)	116 (84%)	21 (15%)	2 (1%)	11	43
42	55	116/118 (98%)	103 (89%)	13 (11%)	0	100	100
42	98	116/118 (98%)	100 (86%)	16 (14%)	0	100	100
43	65	108/112 (96%)	82 (76%)	22 (20%)	4 (4%)	3	19
43	A8	109/112 (97%)	87 (80%)	22 (20%)	0	100	100
44	75	132/146 (90%)	110 (83%)	22 (17%)	0	100	100
44	B8	134/146 (92%)	105 (78%)	29 (22%)	0	100	100
45	85	115/118 (98%)	96 (84%)	19 (16%)	0	100	100
45	C8	113/118 (96%)	93 (82%)	18 (16%)	2 (2%)	8	37
46	95	98/101 (97%)	71 (72%)	21 (21%)	6 (6%)	1	10
46	D8	99/101 (98%)	84 (85%)	15 (15%)	0	100	100
47	A5	109/113 (96%)	97 (89%)	12 (11%)	0	100	100
47	E8	110/113 (97%)	95 (86%)	15 (14%)	0	100	100
48	B5	92/96 (96%)	79 (86%)	13 (14%)	0	100	100
48	F8	93/96 (97%)	81 (87%)	11 (12%)	1 (1%)	14	48
49	C5	104/110 (94%)	66 (64%)	31 (30%)	7 (7%)	1	8
49	G8	103/110 (94%)	73 (71%)	30 (29%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	D5	198/206 (96%)	136 (69%)	54 (27%)	8 (4%)	3	18
50	H8	161/206 (78%)	123 (76%)	32 (20%)	6 (4%)	3	19
51	E5	76/85 (89%)	65 (86%)	11 (14%)	0	100	100
51	I8	79/85 (93%)	63 (80%)	15 (19%)	1 (1%)	12	44
52	F5	92/98 (94%)	81 (88%)	9 (10%)	2 (2%)	6	32
52	J8	91/98 (93%)	79 (87%)	12 (13%)	0	100	100
53	G5	64/72 (89%)	58 (91%)	5 (8%)	1 (2%)	9	40
53	K8	67/72 (93%)	57 (85%)	8 (12%)	2 (3%)	4	24
54	H5	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
54	L8	56/60 (93%)	54 (96%)	2 (4%)	0	100	100
55	M8	46/71 (65%)	24 (52%)	20 (44%)	2 (4%)	2	17
56	J5	54/60 (90%)	47 (87%)	7 (13%)	0	100	100
56	N8	48/60 (80%)	42 (88%)	6 (12%)	0	100	100
57	O8	43/54 (80%)	26 (60%)	16 (37%)	1 (2%)	6	31
58	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100	100
58	P8	45/49 (92%)	43 (96%)	2 (4%)	0	100	100
59	M5	62/65 (95%)	49 (79%)	12 (19%)	1 (2%)	9	40
59	Q8	62/65 (95%)	47 (76%)	13 (21%)	2 (3%)	4	22
All	All	11677/12957 (90%)	9408 (81%)	2067 (18%)	202 (2%)	9	38

All (202) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
13	4I	12	ASN
30	21	78	LEU
30	21	83	ASP
33	51	10	PRO
34	18	25	ASP
36	38	29	TYR
36	38	37	THR
36	38	38	HIS
36	38	104	ILE
36	38	105	PRO
37	48	123	ALA
37	48	144	VAL
45	C8	93	LYS

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Mol	Chain	Res	Type
48	F8	4	ALA
50	H8	53	ILE
50	H8	60	GLU
4	32	153	ARG
12	3A	27	LEU
12	3A	105	TYR
12	3A	106	ASP
20	BA	74	LYS
20	BA	75	ASN
31	39	28	ILE
31	39	124	LEU
33	59	86	GLU
33	59	87	LEU
40	35	36	LYS
41	45	87	LYS
49	C5	56	PRO
50	D5	53	ILE
50	D5	182	LYS
50	D5	193	GLU
59	M5	34	TRP
4	3E	156	GLU
14	5I	17	LYS
18	9I	22	VAL
19	AI	41	VAL
20	BI	46	GLU
20	BI	74	LYS
30	21	60	ASN
36	38	63	LEU
36	38	67	GLY
36	38	88	ALA
34	28	18	LEU
38	58	22	THR
53	K8	47	ASN
55	M8	24	THR
2	12	9	GLU
2	12	22	LYS
4	32	34	GLU
11	2A	101	SER
13	4A	84	ILE
14	5A	17	LYS
21	1B	3	LYS
31	39	25	PRO

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Mol	Chain	Res	Type
31	39	27	GLU
33	59	159	GLU
40	35	15	ARG
40	35	53	GLY
40	35	58	THR
40	35	108	LYS
41	45	30	GLY
46	95	78	LYS
46	95	79	VAL
49	C5	29	GLU
49	C5	57	GLN
50	D5	180	VAL
52	F5	92	LYS
9	8E	111	ARG
10	1I	57	LYS
14	5I	14	PRO
20	BI	95	ALA
21	1F	3	LYS
29	11	99	ASP
30	21	82	ARG
31	31	130	ALA
33	51	13	LYS
35	61	134	PRO
36	38	21	GLN
36	38	45	LYS
36	38	46	GLN
36	38	51	LEU
36	38	89	ALA
36	38	99	SER
37	48	122	ALA
40	78	15	ARG
41	88	6	ARG
41	88	134	ARG
50	H8	6	LYS
50	H8	52	SER
55	M8	25	TYR
57	O8	32	ASN
59	Q8	35	GLN
59	Q8	36	LYS
2	12	8	LYS
7	62	145	ALA
7	62	146	GLU

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Mol	Chain	Res	Type
30	29	51	PHE
30	29	54	GLN
33	59	126	PRO
35	69	78	THR
40	35	142	GLY
43	65	89	ARG
46	95	99	ILE
2	1E	238	LEU
19	AI	81	ARG
29	11	238	GLY
30	21	54	GLN
35	61	12	LEU
36	38	98	LYS
36	38	102	LYS
36	38	119	ALA
37	48	91	PRO
2	12	73	THR
3	22	90	GLU
9	82	56	LEU
20	BA	73	HIS
30	29	71	GLY
31	39	48	THR
32	49	117	PHE
33	59	98	LEU
35	69	77	LEU
39	25	14	THR
43	65	87	PHE
46	95	44	LYS
46	95	77	ALA
49	C5	17	SER
50	D5	60	GLU
50	D5	108	PRO
50	D5	109	ALA
3	2E	12	LEU
19	AI	7	LYS
19	AI	43	GLU
30	21	118	LYS
30	21	130	GLY
32	41	117	PHE
33	51	12	PRO
33	51	84	SER
33	51	155	SER

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Mol	Chain	Res	Type
33	51	164	TYR
36	38	62	ALA
36	38	70	GLU
36	38	120	LYS
37	48	139	VAL
38	58	96	GLU
45	C8	51	LYS
51	I8	9	SER
53	K8	43	GLN
4	32	28	SER
12	3A	28	LYS
14	5A	30	ALA
31	39	21	ALA
32	49	4	ASP
40	35	35	HIS
40	35	56	SER
41	45	59	ARG
43	65	17	ARG
43	65	62	LYS
49	C5	19	LYS
49	C5	55	TYR
50	D5	191	VAL
52	F5	93	GLU
53	G5	47	ASN
4	3E	25	ARG
9	8E	112	LYS
18	9I	21	LYS
20	BI	98	PRO
31	31	25	PRO
31	31	54	ARG
33	51	137	ASP
33	51	138	LYS
33	51	153	LYS
37	48	72	PRO
50	H8	64	GLY
2	12	74	LYS
33	59	41	MET
35	69	75	LEU
41	45	23	GLY
19	AI	9	VAL
30	29	88	GLY
29	11	36	PRO

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Mol	Chain	Res	Type
30	21	72	VAL
30	29	61	ARG
35	69	16	GLY
46	95	50	PRO
2	1E	208	ILE
5	4E	115	VAL
36	38	73	GLY
37	48	138	VAL
50	H8	111	VAL
30	29	52	LEU
33	59	169	VAL
49	C5	58	GLY
36	38	69	PRO
12	3A	63	GLY
32	49	5	VAL
35	61	34	GLY
35	61	133	HIS
41	45	78	PRO
19	AI	42	PRO
4	32	29	PRO
37	48	13	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	205/220 (93%)	155 (76%)	50 (24%)	0 2
2	1E	200/220 (91%)	146 (73%)	54 (27%)	0 1
3	22	153/188 (81%)	114 (74%)	39 (26%)	0 2
3	2E	159/188 (85%)	126 (79%)	33 (21%)	1 5
4	32	180/181 (99%)	143 (79%)	37 (21%)	1 5
4	3E	178/181 (98%)	145 (82%)	33 (18%)	1 8
5	42	116/123 (94%)	84 (72%)	32 (28%)	0 1
5	4E	115/123 (94%)	92 (80%)	23 (20%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	52	90/90 (100%)	77 (86%)	13 (14%)	3	14
6	5E	90/90 (100%)	74 (82%)	16 (18%)	2	8
7	62	114/127 (90%)	89 (78%)	25 (22%)	1	4
7	6E	125/127 (98%)	102 (82%)	23 (18%)	1	8
8	72	119/119 (100%)	101 (85%)	18 (15%)	3	13
8	7E	119/119 (100%)	94 (79%)	25 (21%)	1	5
9	82	95/99 (96%)	69 (73%)	26 (27%)	0	1
9	8E	97/99 (98%)	69 (71%)	28 (29%)	0	1
10	1A	89/92 (97%)	67 (75%)	22 (25%)	0	2
10	1I	89/92 (97%)	68 (76%)	21 (24%)	1	3
11	2A	85/99 (86%)	66 (78%)	19 (22%)	1	4
11	2I	84/99 (85%)	61 (73%)	23 (27%)	0	1
12	3A	102/109 (94%)	81 (79%)	21 (21%)	1	5
12	3I	103/109 (94%)	80 (78%)	23 (22%)	1	4
13	4A	90/101 (89%)	63 (70%)	27 (30%)	0	1
13	4I	93/101 (92%)	72 (77%)	21 (23%)	1	4
14	5A	47/50 (94%)	32 (68%)	15 (32%)	0	0
14	5I	50/50 (100%)	41 (82%)	9 (18%)	1	8
15	6A	79/80 (99%)	67 (85%)	12 (15%)	3	12
15	6I	79/80 (99%)	66 (84%)	13 (16%)	2	10
16	7A	72/74 (97%)	59 (82%)	13 (18%)	1	8
16	7I	72/74 (97%)	55 (76%)	17 (24%)	1	3
17	8A	94/97 (97%)	80 (85%)	14 (15%)	3	13
17	8I	95/97 (98%)	77 (81%)	18 (19%)	1	7
18	9A	58/77 (75%)	47 (81%)	11 (19%)	1	7
18	9I	58/77 (75%)	48 (83%)	10 (17%)	2	9
19	AA	52/80 (65%)	41 (79%)	11 (21%)	1	5
19	AI	70/80 (88%)	52 (74%)	18 (26%)	0	2
20	BA	76/82 (93%)	58 (76%)	18 (24%)	1	3
20	BI	75/82 (92%)	54 (72%)	21 (28%)	0	1
21	1B	19/22 (86%)	18 (95%)	1 (5%)	22	55

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	1F	19/22 (86%)	17 (90%)	2 (10%)	7	26
28	71	110/181 (61%)	82 (74%)	28 (26%)	0	2
28	79	107/181 (59%)	97 (91%)	10 (9%)	9	31
29	11	214/218 (98%)	170 (79%)	44 (21%)	1	5
29	19	214/218 (98%)	163 (76%)	51 (24%)	0	3
30	21	165/166 (99%)	119 (72%)	46 (28%)	0	1
30	29	165/166 (99%)	129 (78%)	36 (22%)	1	5
31	31	161/166 (97%)	122 (76%)	39 (24%)	0	2
31	39	163/166 (98%)	119 (73%)	44 (27%)	0	1
32	41	153/156 (98%)	117 (76%)	36 (24%)	1	3
32	49	153/156 (98%)	111 (72%)	42 (28%)	0	1
33	51	142/148 (96%)	100 (70%)	42 (30%)	0	1
33	59	142/148 (96%)	105 (74%)	37 (26%)	0	2
34	18	26/90 (29%)	18 (69%)	8 (31%)	0	1
34	28	26/90 (29%)	13 (50%)	13 (50%)	0	0
35	61	122/124 (98%)	90 (74%)	32 (26%)	0	2
35	69	122/124 (98%)	84 (69%)	38 (31%)	0	1
36	38	115/135 (85%)	64 (56%)	51 (44%)	0	0
37	48	106/111 (96%)	67 (63%)	39 (37%)	0	0
38	15	116/119 (98%)	89 (77%)	27 (23%)	1	3
38	58	116/119 (98%)	88 (76%)	28 (24%)	0	2
39	25	100/100 (100%)	78 (78%)	22 (22%)	1	4
39	68	100/100 (100%)	89 (89%)	11 (11%)	6	24
40	35	115/116 (99%)	82 (71%)	33 (29%)	0	1
40	78	114/116 (98%)	77 (68%)	37 (32%)	0	0
41	45	109/111 (98%)	79 (72%)	30 (28%)	0	1
41	88	109/111 (98%)	93 (85%)	16 (15%)	3	13
42	55	101/101 (100%)	82 (81%)	19 (19%)	1	7
42	98	101/101 (100%)	77 (76%)	24 (24%)	0	3
43	65	87/88 (99%)	59 (68%)	28 (32%)	0	0
43	A8	87/88 (99%)	57 (66%)	30 (34%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
44	75	117/127 (92%)	85 (73%)	32 (27%)	0	1
44	B8	119/127 (94%)	87 (73%)	32 (27%)	0	1
45	85	93/94 (99%)	77 (83%)	16 (17%)	2	9
45	C8	92/94 (98%)	73 (79%)	19 (21%)	1	5
46	95	82/82 (100%)	66 (80%)	16 (20%)	1	7
46	D8	82/82 (100%)	58 (71%)	24 (29%)	0	1
47	A5	91/92 (99%)	68 (75%)	23 (25%)	0	2
47	E8	91/92 (99%)	75 (82%)	16 (18%)	2	9
48	B5	75/78 (96%)	59 (79%)	16 (21%)	1	5
48	F8	75/78 (96%)	60 (80%)	15 (20%)	1	6
49	C5	81/91 (89%)	58 (72%)	23 (28%)	0	1
49	G8	82/91 (90%)	66 (80%)	16 (20%)	1	7
50	D5	173/179 (97%)	129 (75%)	44 (25%)	0	2
50	H8	147/179 (82%)	112 (76%)	35 (24%)	0	3
51	E5	62/67 (92%)	51 (82%)	11 (18%)	2	8
51	I8	62/67 (92%)	48 (77%)	14 (23%)	1	4
52	F5	79/83 (95%)	53 (67%)	26 (33%)	0	0
52	J8	78/83 (94%)	61 (78%)	17 (22%)	1	5
53	G5	62/67 (92%)	43 (69%)	19 (31%)	0	1
53	K8	63/67 (94%)	44 (70%)	19 (30%)	0	1
54	H5	50/52 (96%)	43 (86%)	7 (14%)	3	15
54	L8	50/52 (96%)	38 (76%)	12 (24%)	0	3
55	M8	42/63 (67%)	30 (71%)	12 (29%)	0	1
56	J5	48/52 (92%)	38 (79%)	10 (21%)	1	5
56	N8	44/52 (85%)	34 (77%)	10 (23%)	1	4
57	O8	44/52 (85%)	29 (66%)	15 (34%)	0	0
58	L5	40/42 (95%)	34 (85%)	6 (15%)	3	13
58	P8	38/42 (90%)	34 (90%)	4 (10%)	7	26
59	M5	54/55 (98%)	40 (74%)	14 (26%)	0	2
59	Q8	54/55 (98%)	41 (76%)	13 (24%)	0	2
All	All	9836/10671 (92%)	7504 (76%)	2332 (24%)	1	3

All (2332) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	5	ILE
2	1E	7	VAL
2	1E	9	GLU
2	1E	10	LEU
2	1E	11	LEU
2	1E	17	PHE
2	1E	21	ARG
2	1E	23	ARG
2	1E	28	PHE
2	1E	31	TYR
2	1E	35	GLU
2	1E	36	ARG
2	1E	42	ILE
2	1E	44	LEU
2	1E	50	GLU
2	1E	51	LEU
2	1E	55	PHE
2	1E	69	LEU
2	1E	71	VAL
2	1E	73	THR
2	1E	74	LYS
2	1E	80	ILE
2	1E	93	VAL
2	1E	96	ARG
2	1E	108	ILE
2	1E	109	SER
2	1E	118	LEU
2	1E	122	PHE
2	1E	127	ILE
2	1E	136	VAL
2	1E	144	ARG
2	1E	156	LYS
2	1E	160	ASP
2	1E	162	ILE
2	1E	163	PHE
2	1E	170	GLU
2	1E	172	ILE
2	1E	178	ARG
2	1E	185	ILE
2	1E	187	LEU
2	1E	189	ASP
2	1E	190	THR

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Mol	Chain	Res	Type
2	1E	195	ASP
2	1E	197	VAL
2	1E	200	ILE
2	1E	205	ASP
2	1E	211	ILE
2	1E	214	ILE
2	1E	219	VAL
2	1E	221	LEU
2	1E	222	ILE
2	1E	223	ILE
2	1E	224	GLN
2	1E	230	VAL
3	2E	3	ASN
3	2E	5	ILE
3	2E	8	ILE
3	2E	16	ARG
3	2E	18	TRP
3	2E	21	ARG
3	2E	31	HIS
3	2E	32	LEU
3	2E	36	ASP
3	2E	49	SER
3	2E	52	LEU
3	2E	54	ARG
3	2E	63	ASN
3	2E	76	VAL
3	2E	79	ARG
3	2E	95	THR
3	2E	98	ASN
3	2E	104	GLN
3	2E	116	VAL
3	2E	127	ARG
3	2E	128	PHE
3	2E	131	ARG
3	2E	132	ARG
3	2E	136	GLN
3	2E	138	VAL
3	2E	140	ARG
3	2E	154	SER
3	2E	166	GLU
3	2E	170	GLN
3	2E	184	TYR

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Mol	Chain	Res	Type
3	2E	192	THR
3	2E	202	ILE
3	2E	206	GLU
4	3E	3	ARG
4	3E	10	ARG
4	3E	13	ARG
4	3E	15	GLU
4	3E	17	VAL
4	3E	46	LYS
4	3E	50	ARG
4	3E	58	LEU
4	3E	59	ARG
4	3E	60	GLU
4	3E	64	LEU
4	3E	66	ARG
4	3E	76	ARG
4	3E	96	LEU
4	3E	108	LEU
4	3E	114	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	132	ARG
4	3E	135	LEU
4	3E	141	ARG
4	3E	151	LYS
4	3E	154	ASN
4	3E	155	LEU
4	3E	160	GLN
4	3E	175	SER
4	3E	176	LEU
4	3E	184	LYS
4	3E	188	LEU
4	3E	190	ASP
4	3E	191	ARG
4	3E	200	GLU
4	3E	209	ARG
5	4E	10	MET
5	4E	11	ILE
5	4E	16	THR
5	4E	18	ARG
5	4E	19	MET
5	4E	31	LEU

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Mol	Chain	Res	Type
5	4E	41	VAL
5	4E	47	LYS
5	4E	63	ARG
5	4E	64	ARG
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	75	THR
5	4E	79	GLU
5	4E	87	SER
5	4E	92	LYS
5	4E	112	LEU
5	4E	116	THR
5	4E	147	ASP
5	4E	148	VAL
5	4E	152	ARG
5	4E	153	LYS
6	5E	21	LEU
6	5E	23	LYS
6	5E	32	ASN
6	5E	36	ARG
6	5E	37	VAL
6	5E	43	LEU
6	5E	57	GLN
6	5E	70	ASP
6	5E	71	ARG
6	5E	72	VAL
6	5E	86	ARG
6	5E	87	ARG
6	5E	89	MET
6	5E	91	VAL
6	5E	92	LYS
6	5E	96	PRO
7	6E	21	VAL
7	6E	22	LEU
7	6E	30	ILE
7	6E	37	ASN
7	6E	38	LEU
7	6E	52	GLU
7	6E	54	THR
7	6E	63	LYS
7	6E	73	MET

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Mol	Chain	Res	Type
7	6E	78	ARG
7	6E	80	VAL
7	6E	90	GLU
7	6E	96	GLN
7	6E	97	GLN
7	6E	104	LEU
7	6E	113	GLU
7	6E	115	ARG
7	6E	124	LEU
7	6E	126	ASP
7	6E	143	ARG
7	6E	149	ARG
7	6E	154	TYR
7	6E	155	ARG
8	7E	1	MET
8	7E	3	THR
8	7E	18	ARG
8	7E	23	SER
8	7E	26	VAL
8	7E	36	LEU
8	7E	45	ILE
8	7E	49	GLU
8	7E	52	ASP
8	7E	56	LYS
8	7E	63	LEU
8	7E	67	PRO
8	7E	68	ARG
8	7E	80	ILE
8	7E	83	ILE
8	7E	84	ARG
8	7E	85	ARG
8	7E	107	LEU
8	7E	109	ILE
8	7E	112	LEU
8	7E	118	VAL
8	7E	123	GLU
8	7E	127	LEU
8	7E	129	VAL
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	16	ARG

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Mol	Chain	Res	Type
9	8E	20	ARG
9	8E	33	PHE
9	8E	34	ASN
9	8E	35	GLU
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	51	ARG
9	8E	53	VAL
9	8E	54	ASP
9	8E	75	ASP
9	8E	79	LEU
9	8E	91	ASP
9	8E	92	TYR
9	8E	99	LEU
9	8E	105	ASP
9	8E	108	VAL
9	8E	112	LYS
9	8E	113	LYS
9	8E	114	TYR
9	8E	118	LYS
9	8E	121	ARG
9	8E	125	TYR
10	1I	14	LYS
10	1I	21	GLN
10	1I	22	LYS
10	1I	34	VAL
10	1I	40	LEU
10	1I	43	ARG
10	1I	44	VAL
10	1I	49	VAL
10	1I	57	LYS
10	1I	59	SER
10	1I	62	HIS
10	1I	63	PHE
10	1I	66	ARG
10	1I	74	ILE
10	1I	75	ILE
10	1I	80	LYS
10	1I	84	GLN

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Mol	Chain	Res	Type
10	1I	92	THR
10	1I	95	GLU
10	1I	96	ILE
10	1I	98	ILE
11	2I	16	SER
11	2I	18	ARG
11	2I	28	THR
11	2I	29	ILE
11	2I	30	VAL
11	2I	32	ILE
11	2I	51	LYS
11	2I	54	ARG
11	2I	62	GLN
11	2I	70	LYS
11	2I	71	LYS
11	2I	75	TYR
11	2I	81	ASP
11	2I	82	VAL
11	2I	84	VAL
11	2I	87	THR
11	2I	91	ARG
11	2I	96	ARG
11	2I	106	LYS
11	2I	109	VAL
11	2I	120	ARG
11	2I	123	LYS
11	2I	124	LYS
12	3I	7	ILE
12	3I	8	ASN
12	3I	11	VAL
12	3I	18	VAL
12	3I	19	ARG
12	3I	20	LYS
12	3I	22	SER
12	3I	33	ARG
12	3I	34	ARG
12	3I	44	THR
12	3I	46	LYS
12	3I	55	VAL
12	3I	60	LEU
12	3I	62	SER
12	3I	64	TYR

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Mol	Chain	Res	Type
12	3I	67	THR
12	3I	79	GLU
12	3I	102	ARG
12	3I	112	ASP
12	3I	115	LYS
12	3I	116	SER
12	3I	123	LYS
12	3I	126	LYS
13	4I	3	ARG
13	4I	17	VAL
13	4I	32	GLU
13	4I	34	LEU
13	4I	35	GLU
13	4I	44	ARG
13	4I	45	VAL
13	4I	46	LYS
13	4I	48	LEU
13	4I	50	GLU
13	4I	56	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	83	ASP
13	4I	96	LEU
13	4I	102	ARG
13	4I	104	ARG
13	4I	106	ASN
13	4I	108	ARG
13	4I	109	THR
14	5I	4	LYS
14	5I	6	LEU
14	5I	22	THR
14	5I	32	SER
14	5I	33	VAL
14	5I	35	ARG
14	5I	41	ARG
14	5I	44	LEU
14	5I	56	VAL
15	6I	6	GLU
15	6I	17	ARG
15	6I	24	SER
15	6I	26	GLU

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Mol	Chain	Res	Type
15	6I	31	LEU
15	6I	41	GLU
15	6I	47	LYS
15	6I	64	ARG
15	6I	66	LEU
15	6I	67	LEU
15	6I	68	ARG
15	6I	76	GLU
15	6I	88	ARG
16	7I	1	MET
16	7I	4	ILE
16	7I	6	LEU
16	7I	8	ARG
16	7I	11	SER
16	7I	18	ARG
16	7I	20	VAL
16	7I	21	VAL
16	7I	22	THR
16	7I	27	LYS
16	7I	28	ARG
16	7I	43	LYS
16	7I	45	THR
16	7I	47	ASP
16	7I	50	LYS
16	7I	72	ARG
16	7I	80	PHE
17	8I	4	LYS
17	8I	7	THR
17	8I	12	SER
17	8I	24	GLU
17	8I	38	ARG
17	8I	43	LEU
17	8I	48	GLU
17	8I	52	LYS
17	8I	60	ILE
17	8I	62	SER
17	8I	68	ARG
17	8I	74	LEU
17	8I	81	ARG
17	8I	89	LEU
17	8I	92	ARG
17	8I	96	GLU

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Mol	Chain	Res	Type
17	8I	98	LEU
17	8I	101	ARG
18	9I	22	VAL
18	9I	28	GLU
18	9I	32	ARG
18	9I	36	ASN
18	9I	42	ARG
18	9I	54	ARG
18	9I	68	LYS
18	9I	76	LEU
18	9I	84	LYS
18	9I	86	VAL
19	AI	5	LEU
19	AI	6	LYS
19	AI	10	PHE
19	AI	20	LEU
19	AI	22	LEU
19	AI	25	LYS
19	AI	27	GLU
19	AI	29	ARG
19	AI	31	ILE
19	AI	33	THR
19	AI	36	ARG
19	AI	37	ARG
19	AI	39	THR
19	AI	41	VAL
19	AI	45	VAL
19	AI	48	THR
19	AI	71	LEU
19	AI	77	THR
20	BI	11	SER
20	BI	13	LEU
20	BI	15	ARG
20	BI	17	ARG
20	BI	18	GLN
20	BI	24	LEU
20	BI	30	LYS
20	BI	34	LYS
20	BI	36	LEU
20	BI	37	SER
20	BI	42	GLN
20	BI	50	GLU

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Mol	Chain	Res	Type
20	BI	55	ILE
20	BI	56	MET
20	BI	57	ARG
20	BI	64	ASP
20	BI	70	SER
20	BI	74	LYS
20	BI	75	ASN
20	BI	100	ILE
20	BI	105	SER
21	1F	8	THR
21	1F	10	ARG
28	71	6	ARG
28	71	8	ARG
28	71	13	LYS
28	71	19	ILE
28	71	21	THR
28	71	24	GLU
28	71	30	LYS
28	71	52	ARG
28	71	55	ASP
28	71	59	ARG
28	71	64	LEU
28	71	66	HIS
28	71	68	LEU
28	71	165	ASN
28	71	168	THR
28	71	171	ILE
28	71	177	LYS
28	71	185	LEU
28	71	187	ASP
28	71	188	ASN
28	71	189	ILE
28	71	202	GLU
28	71	205	LYS
28	71	211	SER
28	71	212	VAL
28	71	213	TYR
28	71	222	VAL
28	71	227	HIS
29	11	13	ARG
29	11	17	THR
29	11	26	LYS

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Mol	Chain	Res	Type
29	11	27	THR
29	11	28	GLU
29	11	29	PRO
29	11	31	LYS
29	11	32	SER
29	11	33	LEU
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	39	LYS
29	11	43	ARG
29	11	46	GLN
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE
29	11	94	LEU
29	11	101	GLU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	113	VAL
29	11	116	GLN
29	11	117	VAL
29	11	126	GLN
29	11	136	ILE
29	11	141	VAL
29	11	142	VAL
29	11	154	LYS
29	11	162	SER
29	11	165	ILE
29	11	192	THR
29	11	193	VAL
29	11	200	ASP
29	11	212	SER
29	11	228	PRO
29	11	229	VAL
29	11	239	ARG
29	11	242	ARG
29	11	257	LEU
29	11	261	LYS
29	11	271	ILE
30	21	12	THR

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Mol	Chain	Res	Type
30	21	14	ILE
30	21	16	ARG
30	21	21	VAL
30	21	26	ILE
30	21	40	GLU
30	21	41	LYS
30	21	47	VAL
30	21	48	GLN
30	21	52	LEU
30	21	54	GLN
30	21	57	LYS
30	21	60	ASN
30	21	61	ARG
30	21	63	LEU
30	21	64	LYS
30	21	66	HIS
30	21	78	LEU
30	21	80	GLU
30	21	82	ARG
30	21	84	PHE
30	21	87	GLU
30	21	95	ILE
30	21	101	ARG
30	21	107	THR
30	21	111	ARG
30	21	113	PHE
30	21	116	VAL
30	21	118	LYS
30	21	119	ARG
30	21	136	ARG
30	21	138	PRO
30	21	144	ARG
30	21	146	THR
30	21	149	ARG
30	21	163	GLU
30	21	169	ASN
30	21	175	VAL
30	21	179	GLU
30	21	181	LEU
30	21	188	VAL
30	21	195	LEU
30	21	196	VAL

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Mol	Chain	Res	Type
30	21	197	ILE
30	21	202	LYS
30	21	203	LYS
31	31	13	SER
31	31	17	ARG
31	31	27	GLU
31	31	28	ILE
31	31	32	LEU
31	31	33	LEU
31	31	43	LYS
31	31	56	GLU
31	31	64	ILE
31	31	78	ILE
31	31	82	ILE
31	31	88	VAL
31	31	98	SER
31	31	101	LEU
31	31	106	ARG
31	31	107	LYS
31	31	112	MET
31	31	116	ASP
31	31	117	ARG
31	31	127	GLU
31	31	137	LYS
31	31	152	GLU
31	31	153	SER
31	31	156	LEU
31	31	158	THR
31	31	161	GLU
31	31	162	LEU
31	31	168	ARG
31	31	170	LEU
31	31	174	VAL
31	31	175	THR
31	31	181	LEU
31	31	183	VAL
31	31	188	ARG
31	31	189	THR
31	31	194	MET
31	31	196	LEU
31	31	205	ARG
31	31	206	ILE

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Mol	Chain	Res	Type
32	41	3	LEU
32	41	14	GLU
32	41	19	LEU
32	41	21	ARG
32	41	28	VAL
32	41	31	VAL
32	41	43	LEU
32	41	45	GLU
32	41	47	LYS
32	41	48	GLU
32	41	51	ARG
32	41	52	ILE
32	41	53	LEU
32	41	58	GLN
32	41	62	LEU
32	41	67	LYS
32	41	70	VAL
32	41	76	SER
32	41	77	ILE
32	41	80	PHE
32	41	82	LEU
32	41	83	ARG
32	41	90	LEU
32	41	94	LEU
32	41	96	ARG
32	41	101	ILE
32	41	108	ASN
32	41	115	ARG
32	41	116	ASP
32	41	126	ASP
32	41	130	ASN
32	41	136	ARG
32	41	139	LEU
32	41	150	ASP
32	41	155	MET
32	41	168	GLU
33	51	2	SER
33	51	4	ILE
33	51	7	LEU
33	51	9	ILE
33	51	11	VAL
33	51	37	VAL

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Mol	Chain	Res	Type
33	51	41	MET
33	51	45	VAL
33	51	51	ARG
33	51	61	HIS
33	51	63	SER
33	51	64	LEU
33	51	68	THR
33	51	71	LEU
33	51	80	SER
33	51	81	GLU
33	51	83	TYR
33	51	84	SER
33	51	97	ARG
33	51	98	LEU
33	51	99	VAL
33	51	104	GLU
33	51	105	LEU
33	51	110	SER
33	51	121	ILE
33	51	129	THR
33	51	130	ARG
33	51	132	ARG
33	51	133	VAL
33	51	134	SER
33	51	136	ILE
33	51	137	ASP
33	51	138	LYS
33	51	139	GLN
33	51	140	LYS
33	51	152	ARG
33	51	155	SER
33	51	159	GLU
33	51	160	LYS
33	51	167	GLU
33	51	169	VAL
33	51	171	LEU
34	18	3	LEU
34	18	9	LYS
34	18	10	GLU
34	18	14	GLN
34	18	17	VAL
34	18	18	LEU

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Mol	Chain	Res	Type
34	18	19	GLU
34	18	28	LYS
35	61	1	MET
35	61	9	LEU
35	61	10	GLU
35	61	12	LEU
35	61	25	TYR
35	61	38	LEU
35	61	50	ARG
35	61	54	GLN
35	61	57	ARG
35	61	60	GLU
35	61	62	LYS
35	61	66	GLU
35	61	72	LEU
35	61	77	LEU
35	61	81	VAL
35	61	82	ARG
35	61	85	GLU
35	61	92	VAL
35	61	99	GLU
35	61	101	LEU
35	61	110	ASP
35	61	111	PRO
35	61	116	LEU
35	61	117	GLU
35	61	118	LYS
35	61	127	VAL
35	61	135	GLU
35	61	136	VAL
35	61	139	GLN
35	61	140	LEU
35	61	142	VAL
35	61	144	VAL
36	38	4	LYS
36	38	7	VAL
36	38	9	LEU
36	38	10	LEU
36	38	13	LEU
36	38	14	LYS
36	38	16	ASN
36	38	18	GLU

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Mol	Chain	Res	Type
36	38	26	LEU
36	38	32	LEU
36	38	36	GLU
36	38	38	HIS
36	38	41	ARG
36	38	44	LEU
36	38	45	LYS
36	38	50	ARG
36	38	51	LEU
36	38	52	PHE
36	38	53	VAL
36	38	56	ASN
36	38	58	LEU
36	38	59	ILE
36	38	60	ARG
36	38	63	LEU
36	38	64	LYS
36	38	65	GLU
36	38	68	LEU
36	38	71	LEU
36	38	74	LEU
36	38	84	GLU
36	38	92	THR
36	38	93	LEU
36	38	96	PHE
36	38	98	LYS
36	38	99	SER
36	38	102	LYS
36	38	109	SER
36	38	111	LEU
36	38	112	LEU
36	38	117	LEU
36	38	120	LYS
36	38	122	VAL
36	38	127	GLU
36	38	128	LEU
36	38	130	THR
36	38	131	MET
36	38	134	LEU
36	38	137	GLU
36	38	138	LEU
36	38	139	VAL

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Mol	Chain	Res	Type
36	38	141	VAL
37	48	9	LYS
37	48	10	LEU
37	48	11	GLN
37	48	16	LYS
37	48	23	VAL
37	48	29	GLN
37	48	34	ILE
37	48	38	VAL
37	48	42	ASN
37	48	47	ASN
37	48	48	MET
37	48	52	ILE
37	48	57	ILE
37	48	58	THR
37	48	60	TYR
37	48	63	ARG
37	48	65	PHE
37	48	75	SER
37	48	77	LEU
37	48	79	ARG
37	48	80	LYS
37	48	85	GLU
37	48	86	LYS
37	48	89	HIS
37	48	96	VAL
37	48	98	ARG
37	48	100	THR
37	48	101	TRP
37	48	102	GLU
37	48	105	LEU
37	48	106	GLU
37	48	109	LYS
37	48	112	MET
37	48	115	LEU
37	48	120	LEU
37	48	121	GLU
37	48	130	SER
37	48	133	SER
37	48	139	VAL
34	28	1	MET
34	28	3	LEU

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Mol	Chain	Res	Type
34	28	4	ASP
34	28	6	GLU
34	28	7	ARG
34	28	8	ILE
34	28	10	GLU
34	28	13	SER
34	28	16	THR
34	28	18	LEU
34	28	20	LEU
34	28	21	LYS
34	28	27	LEU
38	58	1	MET
38	58	7	LYS
38	58	8	GLN
38	58	10	GLU
38	58	12	ARG
38	58	14	VAL
38	58	15	LEU
38	58	34	LEU
38	58	43	THR
38	58	48	MET
38	58	58	ASP
38	58	60	ILE
38	58	61	ARG
38	58	65	LYS
38	58	67	LEU
38	58	89	LYS
38	58	90	MET
38	58	97	ARG
38	58	99	LEU
38	58	112	LEU
38	58	115	ARG
38	58	119	ARG
38	58	128	HIS
38	58	130	HIS
38	58	131	GLN
38	58	133	GLN
38	58	134	ARG
38	58	137	LYS
39	68	8	LEU
39	68	23	ARG
39	68	24	VAL

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Mol	Chain	Res	Type
39	68	28	SER
39	68	38	VAL
39	68	47	ILE
39	68	70	LYS
39	68	91	LEU
39	68	94	ARG
39	68	98	VAL
39	68	112	MET
40	78	1	MET
40	78	3	LEU
40	78	5	ASP
40	78	10	PRO
40	78	15	ARG
40	78	21	ARG
40	78	27	HIS
40	78	33	ARG
40	78	36	LYS
40	78	40	SER
40	78	41	ARG
40	78	45	LEU
40	78	46	LYS
40	78	49	ARG
40	78	56	SER
40	78	57	THR
40	78	58	THR
40	78	61	ARG
40	78	68	GLN
40	78	75	ILE
40	78	77	ARG
40	78	79	ARG
40	78	81	GLN
40	78	90	ARG
40	78	95	VAL
40	78	99	LEU
40	78	100	LEU
40	78	105	LEU
40	78	106	LEU
40	78	112	LEU
40	78	115	LEU
40	78	126	VAL
40	78	133	SER
40	78	135	LEU

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Mol	Chain	Res	Type
40	78	144	GLU
40	78	146	VAL
40	78	147	LEU
41	88	1	MET
41	88	5	ARG
41	88	10	ARG
41	88	14	ARG
41	88	18	LYS
41	88	25	ASP
41	88	42	ILE
41	88	45	GLN
41	88	52	VAL
41	88	55	VAL
41	88	59	ARG
41	88	67	ARG
41	88	75	THR
41	88	81	VAL
41	88	83	MET
41	88	110	THR
42	98	1	MET
42	98	6	SER
42	98	24	GLN
42	98	27	SER
42	98	28	LEU
42	98	29	LEU
42	98	34	ILE
42	98	35	THR
42	98	36	THR
42	98	37	THR
42	98	40	LYS
42	98	44	LEU
42	98	45	ARG
42	98	53	HIS
42	98	54	LEU
42	98	59	ASP
42	98	65	LEU
42	98	79	LEU
42	98	91	GLN
42	98	95	THR
42	98	105	ARG
42	98	113	LEU
42	98	114	VAL

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Mol	Chain	Res	Type
42	98	118	GLU
43	A8	4	LEU
43	A8	8	GLU
43	A8	14	VAL
43	A8	27	SER
43	A8	30	ARG
43	A8	32	LEU
43	A8	35	ILE
43	A8	36	TYR
43	A8	43	GLU
43	A8	49	VAL
43	A8	50	SER
43	A8	54	LEU
43	A8	56	LEU
43	A8	58	LEU
43	A8	61	ASN
43	A8	64	GLU
43	A8	69	VAL
43	A8	73	LEU
43	A8	80	LEU
43	A8	83	LYS
43	A8	88	ASP
43	A8	89	ARG
43	A8	93	LYS
43	A8	95	HIS
43	A8	97	ARG
43	A8	98	VAL
43	A8	101	LEU
43	A8	106	ARG
43	A8	107	GLU
43	A8	110	LEU
44	B8	1	MET
44	B8	14	TYR
44	B8	16	ARG
44	B8	21	GLU
44	B8	27	THR
44	B8	30	VAL
44	B8	33	LYS
44	B8	38	ASN
44	B8	42	ILE
44	B8	50	ILE
44	B8	58	ASN

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Mol	Chain	Res	Type
44	B8	64	ARG
44	B8	65	LYS
44	B8	86	ILE
44	B8	87	ASP
44	B8	88	ILE
44	B8	89	VAL
44	B8	95	ARG
44	B8	96	ARG
44	B8	98	LYS
44	B8	99	LEU
44	B8	102	ILE
44	B8	105	LEU
44	B8	106	SER
44	B8	108	ARG
44	B8	110	ILE
44	B8	111	ARG
44	B8	112	ARG
44	B8	115	ARG
44	B8	118	ARG
44	B8	128	GLU
44	B8	136	GLN
45	C8	5	LYS
45	C8	20	LEU
45	C8	27	LEU
45	C8	30	LYS
45	C8	51	LYS
45	C8	52	ARG
45	C8	70	ARG
45	C8	71	GLN
45	C8	74	LEU
45	C8	79	PHE
45	C8	83	LEU
45	C8	88	ILE
45	C8	89	GLU
45	C8	92	ARG
45	C8	93	LYS
45	C8	97	ASP
45	C8	100	VAL
45	C8	104	GLN
45	C8	112	ARG
46	D8	6	LYS
46	D8	7	THR

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Mol	Chain	Res	Type
46	D8	13	ARG
46	D8	18	LEU
46	D8	19	LYS
46	D8	20	LEU
46	D8	21	ARG
46	D8	25	LEU
46	D8	32	THR
46	D8	35	LEU
46	D8	37	VAL
46	D8	38	LEU
46	D8	40	LEU
46	D8	44	LYS
46	D8	46	VAL
46	D8	47	VAL
46	D8	51	VAL
46	D8	52	VAL
46	D8	57	VAL
46	D8	62	LEU
46	D8	78	LYS
46	D8	79	VAL
46	D8	89	GLN
46	D8	99	ILE
47	E8	11	ARG
47	E8	12	ILE
47	E8	17	VAL
47	E8	20	VAL
47	E8	39	THR
47	E8	42	ARG
47	E8	51	LEU
47	E8	66	GLU
47	E8	70	TYR
47	E8	76	VAL
47	E8	77	ASP
47	E8	88	ARG
47	E8	92	ARG
47	E8	96	ILE
47	E8	107	LEU
47	E8	109	GLU
48	F8	12	VAL
48	F8	23	GLU
48	F8	27	THR
48	F8	30	VAL

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Mol	Chain	Res	Type
48	F8	35	THR
48	F8	38	GLU
48	F8	53	LYS
48	F8	54	VAL
48	F8	68	ARG
48	F8	72	LYS
48	F8	76	ARG
48	F8	80	ILE
48	F8	81	VAL
48	F8	83	VAL
48	F8	89	ILE
49	G8	6	HIS
49	G8	14	LEU
49	G8	31	LEU
49	G8	38	ILE
49	G8	42	VAL
49	G8	55	TYR
49	G8	63	LYS
49	G8	67	LEU
49	G8	75	ILE
49	G8	82	PRO
49	G8	86	ARG
49	G8	87	LYS
49	G8	88	LYS
49	G8	89	PHE
49	G8	90	LEU
49	G8	99	CYS
50	H8	2	GLU
50	H8	11	GLU
50	H8	13	GLU
50	H8	14	LYS
50	H8	16	SER
50	H8	35	ARG
50	H8	40	ASP
50	H8	42	VAL
50	H8	46	LYS
50	H8	59	LEU
50	H8	61	LEU
50	H8	67	LEU
50	H8	77	ASP
50	H8	80	ARG
50	H8	81	ARG

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Mol	Chain	Res	Type
50	H8	82	ARG
50	H8	86	VAL
50	H8	87	ASP
50	H8	94	GLU
50	H8	103	ARG
50	H8	105	VAL
50	H8	116	VAL
50	H8	119	GLU
50	H8	121	HIS
50	H8	126	VAL
50	H8	127	LYS
50	H8	128	VAL
50	H8	131	ARG
50	H8	132	ASN
50	H8	154	ASP
50	H8	157	LEU
50	H8	158	PRO
50	H8	169	GLU
50	H8	170	THR
50	H8	171	ILE
51	I8	9	SER
51	I8	11	ARG
51	I8	31	VAL
51	I8	36	ILE
51	I8	37	LEU
51	I8	41	ARG
51	I8	49	LYS
51	I8	64	ASP
51	I8	67	VAL
51	I8	68	GLU
51	I8	70	GLN
51	I8	74	ARG
51	I8	77	ARG
51	I8	82	ARG
52	J8	4	VAL
52	J8	30	VAL
52	J8	33	LYS
52	J8	34	THR
52	J8	41	ARG
52	J8	46	LEU
52	J8	50	ARG
52	J8	61	ARG

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Mol	Chain	Res	Type
52	J8	65	SER
52	J8	68	PRO
52	J8	74	VAL
52	J8	78	LYS
52	J8	81	LYS
52	J8	82	LEU
52	J8	83	GLU
52	J8	93	GLU
52	J8	94	LEU
53	K8	3	LEU
53	K8	17	SER
53	K8	19	VAL
53	K8	24	LEU
53	K8	32	LEU
53	K8	35	LEU
53	K8	41	ILE
53	K8	44	LEU
53	K8	45	SER
53	K8	47	ASN
53	K8	48	HIS
53	K8	50	ILE
53	K8	51	ARG
53	K8	53	LEU
53	K8	55	ARG
53	K8	62	THR
53	K8	64	LEU
53	K8	66	GLU
53	K8	67	LYS
54	L8	4	LEU
54	L8	8	LEU
54	L8	9	VAL
54	L8	11	SER
54	L8	13	ILE
54	L8	28	LEU
54	L8	31	LEU
54	L8	32	GLN
54	L8	37	LEU
54	L8	40	THR
54	L8	58	VAL
54	L8	59	VAL
55	M8	5	ILE
55	M8	6	HIS

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Mol	Chain	Res	Type
55	M8	10	VAL
55	M8	23	GLU
55	M8	27	THR
55	M8	31	ILE
55	M8	34	GLU
55	M8	36	CYS
55	M8	38	LYS
55	M8	39	CYS
55	M8	43	TYR
55	M8	44	THR
56	N8	3	LYS
56	N8	11	THR
56	N8	16	ARG
56	N8	26	THR
56	N8	29	THR
56	N8	31	VAL
56	N8	35	GLU
56	N8	40	LYS
56	N8	44	THR
56	N8	49	CYS
57	O8	9	LEU
57	O8	10	LEU
57	O8	11	LEU
57	O8	12	GLU
57	O8	17	LYS
57	O8	19	ARG
57	O8	24	GLU
57	O8	34	LEU
57	O8	36	LEU
57	O8	37	ARG
57	O8	39	TYR
57	O8	40	CYS
57	O8	42	TRP
57	O8	44	ARG
57	O8	52	VAL
58	P8	1	MET
58	P8	8	ASN
58	P8	32	LYS
58	P8	43	THR
59	Q8	6	THR
59	Q8	8	LYS
59	Q8	14	VAL

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Mol	Chain	Res	Type
59	Q8	15	LYS
59	Q8	19	SER
59	Q8	29	LYS
59	Q8	34	TRP
59	Q8	35	GLN
59	Q8	37	SER
59	Q8	41	ILE
59	Q8	46	ARG
59	Q8	52	LYS
59	Q8	62	LEU
2	12	4	GLU
2	12	19	HIS
2	12	20	GLU
2	12	22	LYS
2	12	23	ARG
2	12	24	TRP
2	12	27	LYS
2	12	30	ARG
2	12	32	ILE
2	12	33	TYR
2	12	37	ASN
2	12	42	ILE
2	12	44	LEU
2	12	45	GLN
2	12	48	MET
2	12	49	GLU
2	12	52	GLU
2	12	55	PHE
2	12	56	ARG
2	12	58	ILE
2	12	75	LYS
2	12	76	GLN
2	12	80	ILE
2	12	94	ASN
2	12	106	LYS
2	12	107	THR
2	12	116	GLU
2	12	121	LEU
2	12	129	GLU
2	12	130	ARG
2	12	137	ARG
2	12	142	LEU

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Mol	Chain	Res	Type
2	12	144	ARG
2	12	145	LEU
2	12	147	LYS
2	12	150	SER
2	12	153	ARG
2	12	155	LEU
2	12	163	PHE
2	12	165	VAL
2	12	169	LYS
2	12	172	ILE
2	12	179	LYS
2	12	187	LEU
2	12	192	SER
2	12	196	LEU
2	12	204	ASN
2	12	206	ASP
2	12	221	LEU
2	12	233	SER
3	22	3	ASN
3	22	5	ILE
3	22	11	ARG
3	22	14	ILE
3	22	22	TRP
3	22	28	GLN
3	22	29	TYR
3	22	34	LEU
3	22	40	ARG
3	22	48	TYR
3	22	54	ARG
3	22	55	VAL
3	22	59	ARG
3	22	75	VAL
3	22	84	ILE
3	22	85	ARG
3	22	86	VAL
3	22	88	ARG
3	22	94	LEU
3	22	98	ASN
3	22	103	VAL
3	22	108	ASN
3	22	115	LEU
3	22	119	ARG

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Mol	Chain	Res	Type
3	22	120	VAL
3	22	131	ARG
3	22	139	GLN
3	22	141	VAL
3	22	154	SER
3	22	167	TRP
3	22	172	ARG
3	22	179	ARG
3	22	181	ASN
3	22	191	THR
3	22	193	TYR
3	22	195	VAL
3	22	196	LEU
3	22	198	VAL
3	22	202	ILE
4	32	3	ARG
4	32	12	CYS
4	32	14	ARG
4	32	17	VAL
4	32	21	LEU
4	32	30	LYS
4	32	39	PRO
4	32	45	GLN
4	32	52	SER
4	32	53	ASP
4	32	59	ARG
4	32	61	LYS
4	32	64	LEU
4	32	73	ARG
4	32	76	ARG
4	32	83	SER
4	32	89	THR
4	32	94	LEU
4	32	96	LEU
4	32	118	ARG
4	32	120	LEU
4	32	122	ARG
4	32	127	THR
4	32	135	LEU
4	32	137	SER
4	32	148	VAL
4	32	150	GLU

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Mol	Chain	Res	Type
4	32	151	LYS
4	32	155	LEU
4	32	161	ASN
4	32	168	ARG
4	32	187	ARG
4	32	190	ASP
4	32	191	ARG
4	32	192	GLU
4	32	200	GLU
4	32	205	GLU
5	42	6	PHE
5	42	10	MET
5	42	12	LEU
5	42	13	ILE
5	42	14	ARG
5	42	16	THR
5	42	25	ARG
5	42	26	PHE
5	42	41	VAL
5	42	47	LYS
5	42	66	MET
5	42	68	GLU
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	81	GLU
5	42	83	GLU
5	42	87	SER
5	42	90	VAL
5	42	91	LEU
5	42	100	VAL
5	42	101	ILE
5	42	112	LEU
5	42	115	VAL
5	42	118	ILE
5	42	121	LYS
5	42	126	ARG
5	42	144	THR
5	42	145	LYS
5	42	150	ARG
5	42	151	LEU
5	42	152	ARG

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Mol	Chain	Res	Type
6	52	3	ARG
6	52	7	ASN
6	52	14	LEU
6	52	16	GLN
6	52	21	LEU
6	52	25	ILE
6	52	45	LEU
6	52	46	ARG
6	52	54	LYS
6	52	72	VAL
6	52	78	GLU
6	52	83	ASP
6	52	93	SER
7	62	5	ARG
7	62	8	GLU
7	62	9	VAL
7	62	38	LEU
7	62	45	ASP
7	62	52	GLU
7	62	54	THR
7	62	66	VAL
7	62	67	GLU
7	62	70	LYS
7	62	72	ARG
7	62	76	ARG
7	62	94	ARG
7	62	98	SER
7	62	114	ARG
7	62	118	VAL
7	62	120	ILE
7	62	124	LEU
7	62	131	LYS
7	62	137	LYS
7	62	138	LYS
7	62	142	GLU
7	62	144	MET
7	62	146	GLU
7	62	149	ARG
8	72	1	MET
8	72	2	LEU
8	72	11	THR
8	72	23	SER

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Mol	Chain	Res	Type
8	72	25	ASP
8	72	56	LYS
8	72	68	ARG
8	72	77	GLU
8	72	82	HIS
8	72	91	ARG
8	72	97	VAL
8	72	99	GLU
8	72	102	ARG
8	72	109	ILE
8	72	119	LEU
8	72	121	ASP
8	72	127	LEU
8	72	129	VAL
9	82	10	ARG
9	82	12	GLU
9	82	18	PHE
9	82	19	LEU
9	82	20	ARG
9	82	27	THR
9	82	28	VAL
9	82	34	ASN
9	82	35	GLU
9	82	42	ARG
9	82	47	LEU
9	82	54	ASP
9	82	56	LEU
9	82	62	TYR
9	82	78	LYS
9	82	79	LEU
9	82	85	LEU
9	82	87	GLN
9	82	89	ASN
9	82	95	LYS
9	82	99	LEU
9	82	104	ARG
9	82	110	GLU
9	82	113	LYS
9	82	114	TYR
9	82	117	HIS
10	1A	6	ILE
10	1A	13	HIS

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Mol	Chain	Res	Type
10	1A	16	LEU
10	1A	17	ASP
10	1A	22	LYS
10	1A	33	GLN
10	1A	45	ARG
10	1A	47	PHE
10	1A	49	VAL
10	1A	57	LYS
10	1A	62	HIS
10	1A	65	LEU
10	1A	70	ARG
10	1A	74	ILE
10	1A	76	ASN
10	1A	79	ARG
10	1A	80	LYS
10	1A	85	LEU
10	1A	86	MET
10	1A	87	THR
10	1A	92	THR
10	1A	96	ILE
11	2A	24	SER
11	2A	29	ILE
11	2A	31	THR
11	2A	41	THR
11	2A	48	ILE
11	2A	54	ARG
11	2A	63	LEU
11	2A	79	SER
11	2A	80	VAL
11	2A	81	ASP
11	2A	84	VAL
11	2A	93	GLN
11	2A	96	ARG
11	2A	99	GLN
11	2A	103	LEU
11	2A	104	GLN
11	2A	105	VAL
11	2A	109	VAL
11	2A	122	LYS
12	3A	7	ILE
12	3A	18	VAL
12	3A	20	LYS

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Mol	Chain	Res	Type
12	3A	23	LYS
12	3A	24	VAL
12	3A	27	LEU
12	3A	34	ARG
12	3A	41	ARG
12	3A	42	THR
12	3A	47	LYS
12	3A	50	SER
12	3A	54	LYS
12	3A	60	LEU
12	3A	64	TYR
12	3A	66	VAL
12	3A	75	HIS
12	3A	83	VAL
12	3A	102	ARG
12	3A	106	ASP
12	3A	118	SER
12	3A	122	THR
13	4A	8	GLU
13	4A	12	ASN
13	4A	13	LYS
13	4A	16	ASP
13	4A	17	VAL
13	4A	22	ILE
13	4A	34	LEU
13	4A	35	GLU
13	4A	37	THR
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	55	ARG
13	4A	56	LEU
13	4A	58	GLU
13	4A	64	TRP
13	4A	66	LEU
13	4A	80	ARG
13	4A	81	LEU
13	4A	82	MET
13	4A	83	ASP
13	4A	88	ARG
13	4A	91	ARG
13	4A	94	ARG

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Mol	Chain	Res	Type
13	4A	103	THR
13	4A	106	ASN
13	4A	108	ARG
14	5A	6	LEU
14	5A	9	LYS
14	5A	11	LYS
14	5A	12	ARG
14	5A	17	LYS
14	5A	18	VAL
14	5A	22	THR
14	5A	24	CYS
14	5A	26	ARG
14	5A	29	ARG
14	5A	33	VAL
14	5A	37	PHE
14	5A	42	ILE
14	5A	44	LEU
14	5A	50	LYS
15	6A	3	ILE
15	6A	4	THR
15	6A	5	LYS
15	6A	7	GLU
15	6A	17	ARG
15	6A	22	THR
15	6A	27	VAL
15	6A	41	GLU
15	6A	45	VAL
15	6A	66	LEU
15	6A	79	ARG
15	6A	84	LYS
16	7A	2	VAL
16	7A	6	LEU
16	7A	11	SER
16	7A	22	THR
16	7A	27	LYS
16	7A	45	THR
16	7A	47	ASP
16	7A	53	VAL
16	7A	55	ARG
16	7A	61	SER
16	7A	62	VAL
16	7A	65	GLN

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Mol	Chain	Res	Type
16	7A	67	THR
17	8A	12	SER
17	8A	14	LYS
17	8A	16	GLN
17	8A	26	GLN
17	8A	31	LEU
17	8A	49	GLU
17	8A	52	LYS
17	8A	60	ILE
17	8A	68	ARG
17	8A	81	ARG
17	8A	85	VAL
17	8A	87	LYS
17	8A	91	ARG
17	8A	99	SER
18	9A	23	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	32	ARG
18	9A	44	LEU
18	9A	47	THR
18	9A	53	ARG
18	9A	55	ARG
18	9A	58	LEU
18	9A	65	ILE
18	9A	84	LYS
19	AA	7	LYS
19	AA	14	HIS
19	AA	20	LEU
19	AA	21	GLU
19	AA	23	ASN
19	AA	34	TRP
19	AA	37	ARG
19	AA	41	VAL
19	AA	60	VAL
19	AA	63	THR
19	AA	65	ASN
20	BA	10	LEU
20	BA	13	LEU
20	BA	15	ARG
20	BA	24	LEU
20	BA	37	SER

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Mol	Chain	Res	Type
20	BA	41	ILE
20	BA	53	LEU
20	BA	55	ILE
20	BA	56	MET
20	BA	60	GLU
20	BA	72	LEU
20	BA	73	HIS
20	BA	74	LYS
20	BA	85	MET
20	BA	86	ARG
20	BA	89	ARG
20	BA	90	GLN
20	BA	99	LEU
21	1B	10	ARG
28	79	8	ARG
28	79	10	LEU
28	79	42	GLU
28	79	172	HIS
28	79	183	GLU
28	79	193	ILE
28	79	205	LYS
28	79	212	VAL
28	79	216	THR
28	79	224	ILE
29	19	13	ARG
29	19	18	VAL
29	19	23	GLU
29	19	27	THR
29	19	28	GLU
29	19	31	LYS
29	19	33	LEU
29	19	37	LEU
29	19	40	THR
29	19	43	ARG
29	19	44	ASN
29	19	45	ASN
29	19	49	ILE
29	19	54	ARG
29	19	64	ILE
29	19	65	ILE
29	19	68	LYS
29	19	87	ASN

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Mol	Chain	Res	Type
29	19	88	ARG
29	19	94	LEU
29	19	98	VAL
29	19	99	ASP
29	19	103	ARG
29	19	105	ILE
29	19	111	LEU
29	19	138	VAL
29	19	147	LEU
29	19	155	LEU
29	19	157	ARG
29	19	162	SER
29	19	169	GLU
29	19	171	ASP
29	19	173	VAL
29	19	182	LEU
29	19	192	THR
29	19	193	VAL
29	19	204	ILE
29	19	211	ARG
29	19	212	SER
29	19	226	MET
29	19	242	ARG
29	19	244	ARG
29	19	253	GLN
29	19	255	LYS
29	19	257	LEU
29	19	260	ARG
29	19	262	ARG
29	19	266	SER
29	19	267	SER
29	19	268	ARG
29	19	271	ILE
30	29	5	LEU
30	29	11	MET
30	29	12	THR
30	29	25	VAL
30	29	27	LEU
30	29	33	VAL
30	29	41	LYS
30	29	42	ASP
30	29	45	THR

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Mol	Chain	Res	Type
30	29	54	GLN
30	29	57	LYS
30	29	59	VAL
30	29	63	LEU
30	29	66	HIS
30	29	67	PHE
30	29	73	GLU
30	29	75	VAL
30	29	76	ARG
30	29	79	ARG
30	29	80	GLU
30	29	82	ARG
30	29	91	VAL
30	29	93	VAL
30	29	111	ARG
30	29	118	LYS
30	29	144	ARG
30	29	154	LYS
30	29	167	VAL
30	29	170	LEU
30	29	175	VAL
30	29	182	LEU
30	29	188	VAL
30	29	200	GLU
30	29	201	THR
30	29	202	LYS
30	29	203	LYS
31	39	4	VAL
31	39	8	GLN
31	39	11	VAL
31	39	15	SER
31	39	18	ARG
31	39	19	GLU
31	39	20	LEU
31	39	29	ASN
31	39	46	ARG
31	39	50	SER
31	39	53	THR
31	39	62	ARG
31	39	66	PRO
31	39	67	GLN
31	39	68	LYS

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Mol	Chain	Res	Type
31	39	72	ARG
31	39	74	ARG
31	39	82	ILE
31	39	88	VAL
31	39	98	SER
31	39	110	LEU
31	39	123	LEU
31	39	125	LEU
31	39	137	LYS
31	39	140	LEU
31	39	144	LYS
31	39	152	GLU
31	39	153	SER
31	39	154	VAL
31	39	155	LEU
31	39	158	THR
31	39	165	ARG
31	39	169	ASN
31	39	174	VAL
31	39	175	THR
31	39	187	VAL
31	39	192	LEU
31	39	193	VAL
31	39	194	MET
31	39	195	ASP
31	39	197	ASP
31	39	203	GLN
31	39	204	ASN
31	39	205	ARG
32	49	3	LEU
32	49	7	LEU
32	49	14	GLU
32	49	19	LEU
32	49	26	GLN
32	49	28	VAL
32	49	33	ARG
32	49	39	ILE
32	49	40	ASN
32	49	43	LEU
32	49	47	LYS
32	49	53	LEU
32	49	60	LEU

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Mol	Chain	Res	Type
32	49	62	LEU
32	49	67	LYS
32	49	75	LYS
32	49	76	SER
32	49	80	PHE
32	49	82	LEU
32	49	88	ILE
32	49	91	ARG
32	49	96	ARG
32	49	104	GLU
32	49	109	VAL
32	49	111	LEU
32	49	114	ILE
32	49	116	ASP
32	49	123	ASN
32	49	130	ASN
32	49	133	LEU
32	49	136	ARG
32	49	139	LEU
32	49	140	ILE
32	49	148	MET
32	49	150	ASP
32	49	153	ARG
32	49	156	ASP
32	49	159	VAL
32	49	164	GLU
32	49	166	ASP
32	49	176	LEU
32	49	181	ARG
33	59	6	ARG
33	59	9	ILE
33	59	13	LYS
33	59	23	ARG
33	59	32	GLU
33	59	41	MET
33	59	42	ARG
33	59	51	ARG
33	59	54	ARG
33	59	56	SER
33	59	59	ARG
33	59	70	THR
33	59	81	GLU

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Mol	Chain	Res	Type
33	59	83	TYR
33	59	85	LYS
33	59	86	GLU
33	59	88	LEU
33	59	89	ILE
33	59	95	ARG
33	59	97	ARG
33	59	98	LEU
33	59	101	ARG
33	59	103	LEU
33	59	104	GLU
33	59	105	LEU
33	59	116	GLU
33	59	125	VAL
33	59	127	GLU
33	59	129	THR
33	59	131	VAL
33	59	137	ASP
33	59	139	GLN
33	59	143	GLN
33	59	148	ILE
33	59	152	ARG
33	59	158	HIS
33	59	171	LEU
35	69	1	MET
35	69	2	LYS
35	69	4	ILE
35	69	9	LEU
35	69	10	GLU
35	69	27	ARG
35	69	37	VAL
35	69	38	LEU
35	69	40	THR
35	69	41	GLU
35	69	47	LEU
35	69	48	GLU
35	69	56	LYS
35	69	58	LEU
35	69	61	ARG
35	69	68	LEU
35	69	69	LYS
35	69	75	LEU

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Mol	Chain	Res	Type
35	69	76	THR
35	69	77	LEU
35	69	78	THR
35	69	85	GLU
35	69	93	THR
35	69	101	LEU
35	69	103	ARG
35	69	105	HIS
35	69	109	ILE
35	69	114	LEU
35	69	117	GLU
35	69	122	GLU
35	69	125	GLU
35	69	128	LEU
35	69	129	THR
35	69	130	TYR
35	69	133	HIS
35	69	138	ILE
35	69	140	LEU
35	69	141	LYS
38	15	5	VAL
38	15	9	VAL
38	15	12	ARG
38	15	15	LEU
38	15	28	THR
38	15	29	LYS
38	15	32	THR
38	15	33	LEU
38	15	34	LEU
38	15	38	HIS
38	15	41	ASP
38	15	42	TRP
38	15	43	THR
38	15	48	MET
38	15	58	ASP
38	15	59	LYS
38	15	61	ARG
38	15	67	LEU
38	15	68	GLU
38	15	69	GLN
38	15	85	ILE
38	15	93	THR

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Mol	Chain	Res	Type
38	15	94	HIS
38	15	127	ASP
38	15	133	GLN
38	15	134	ARG
38	15	136	GLU
39	25	5	GLN
39	25	8	LEU
39	25	14	THR
39	25	17	ARG
39	25	22	ILE
39	25	23	ARG
39	25	24	VAL
39	25	26	LYS
39	25	32	TYR
39	25	47	ILE
39	25	49	ARG
39	25	53	LYS
39	25	58	VAL
39	25	78	ARG
39	25	80	ASP
39	25	87	ILE
39	25	89	ASN
39	25	96	THR
39	25	97	ARG
39	25	107	ARG
39	25	114	ILE
39	25	120	GLU
40	35	1	MET
40	35	5	ASP
40	35	21	ARG
40	35	30	THR
40	35	35	HIS
40	35	36	LYS
40	35	41	ARG
40	35	45	LEU
40	35	52	GLU
40	35	62	LEU
40	35	67	MET
40	35	75	ILE
40	35	76	LYS
40	35	77	ARG
40	35	83	VAL

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Mol	Chain	Res	Type
40	35	85	LEU
40	35	86	LYS
40	35	87	ASP
40	35	88	LEU
40	35	91	PHE
40	35	95	VAL
40	35	96	THR
40	35	98	GLU
40	35	99	LEU
40	35	105	LEU
40	35	111	ARG
40	35	112	LEU
40	35	121	LYS
40	35	123	LEU
40	35	124	LYS
40	35	138	LEU
40	35	144	GLU
40	35	147	LEU
41	45	3	MET
41	45	10	ARG
41	45	14	ARG
41	45	16	ARG
41	45	18	LYS
41	45	21	THR
41	45	32	TYR
41	45	38	GLU
41	45	45	GLN
41	45	51	ARG
41	45	56	ARG
41	45	58	PHE
41	45	60	ARG
41	45	63	LYS
41	45	79	LEU
41	45	83	MET
41	45	85	LYS
41	45	89	ASN
41	45	90	VAL
41	45	91	GLU
41	45	103	MET
41	45	105	GLU
41	45	106	VAL
41	45	110	THR

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Mol	Chain	Res	Type
41	45	118	LEU
41	45	129	THR
41	45	132	VAL
41	45	134	ARG
41	45	135	ASP
41	45	138	ASP
42	55	1	MET
42	55	18	LEU
42	55	23	ASN
42	55	24	GLN
42	55	27	SER
42	55	28	LEU
42	55	29	LEU
42	55	35	THR
42	55	44	LEU
42	55	64	ARG
42	55	65	LEU
42	55	67	LEU
42	55	69	ASP
42	55	75	LEU
42	55	79	LEU
42	55	96	ARG
42	55	97	VAL
42	55	102	GLU
42	55	105	ARG
43	65	3	ARG
43	65	12	PHE
43	65	13	ARG
43	65	14	VAL
43	65	16	ASN
43	65	17	ARG
43	65	18	ILE
43	65	20	ARG
43	65	23	ARG
43	65	26	LEU
43	65	27	SER
43	65	30	ARG
43	65	36	TYR
43	65	40	ILE
43	65	42	ASP
43	65	52	SER
43	65	59	LYS

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Mol	Chain	Res	Type
43	65	62	LYS
43	65	69	VAL
43	65	78	LEU
43	65	85	VAL
43	65	89	ARG
43	65	95	HIS
43	65	106	ARG
43	65	107	GLU
43	65	110	LEU
43	65	111	GLU
43	65	112	PHE
44	75	2	ASN
44	75	8	LYS
44	75	13	ARG
44	75	17	THR
44	75	18	ASP
44	75	19	LEU
44	75	21	GLU
44	75	28	VAL
44	75	36	GLU
44	75	41	ARG
44	75	49	VAL
44	75	51	ARG
44	75	62	THR
44	75	64	ARG
44	75	85	LYS
44	75	86	ILE
44	75	88	ILE
44	75	89	VAL
44	75	93	ARG
44	75	96	ARG
44	75	105	LEU
44	75	106	SER
44	75	112	ARG
44	75	113	LYS
44	75	115	ARG
44	75	118	ARG
44	75	120	ARG
44	75	123	GLN
44	75	124	ASP
44	75	132	LYS
44	75	133	GLU

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Mol	Chain	Res	Type
44	75	134	GLU
45	85	5	LYS
45	85	8	VAL
45	85	12	ARG
45	85	20	LEU
45	85	27	LEU
45	85	31	SER
45	85	52	ARG
45	85	59	ARG
45	85	64	ARG
45	85	69	CYS
45	85	72	HIS
45	85	74	LEU
45	85	92	ARG
45	85	97	ASP
45	85	104	GLN
45	85	114	LYS
46	95	7	THR
46	95	18	LEU
46	95	19	LYS
46	95	35	LEU
46	95	40	LEU
46	95	44	LYS
46	95	66	ARG
46	95	71	LEU
46	95	75	PHE
46	95	79	VAL
46	95	85	LYS
46	95	89	GLN
46	95	93	GLU
46	95	95	LEU
46	95	98	GLU
46	95	99	ILE
47	A5	1	MET
47	A5	11	ARG
47	A5	18	ARG
47	A5	23	LEU
47	A5	31	GLU
47	A5	39	THR
47	A5	51	LEU
47	A5	52	GLU
47	A5	59	VAL

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Mol	Chain	Res	Type
47	A5	63	ASP
47	A5	65	LEU
47	A5	67	ASP
47	A5	70	TYR
47	A5	76	VAL
47	A5	78	GLU
47	A5	84	ARG
47	A5	88	ARG
47	A5	95	ILE
47	A5	96	ILE
47	A5	100	THR
47	A5	103	ILE
47	A5	107	LEU
47	A5	110	LYS
48	B5	27	THR
48	B5	30	VAL
48	B5	35	THR
48	B5	36	LYS
48	B5	40	LYS
48	B5	48	LYS
48	B5	52	VAL
48	B5	53	LYS
48	B5	63	LYS
48	B5	68	ARG
48	B5	69	TYR
48	B5	75	ASP
48	B5	76	ARG
48	B5	80	ILE
48	B5	81	VAL
48	B5	88	LYS
49	C5	2	ARG
49	C5	19	LYS
49	C5	23	ARG
49	C5	24	VAL
49	C5	29	GLU
49	C5	31	LEU
49	C5	37	VAL
49	C5	40	GLU
49	C5	43	ASN
49	C5	46	LYS
49	C5	52	SER
49	C5	55	TYR

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Mol	Chain	Res	Type
49	C5	57	GLN
49	C5	61	ILE
49	C5	63	LYS
49	C5	75	ILE
49	C5	85	VAL
49	C5	86	ARG
49	C5	89	PHE
49	C5	90	LEU
49	C5	91	GLU
49	C5	96	ILE
49	C5	99	CYS
50	D5	2	GLU
50	D5	4	ARG
50	D5	5	LEU
50	D5	6	LYS
50	D5	8	TYR
50	D5	16	SER
50	D5	18	LEU
50	D5	19	ARG
50	D5	24	LEU
50	D5	28	MET
50	D5	59	LEU
50	D5	61	LEU
50	D5	67	LEU
50	D5	70	LEU
50	D5	71	VAL
50	D5	73	GLN
50	D5	76	LEU
50	D5	77	ASP
50	D5	81	ARG
50	D5	82	ARG
50	D5	87	ASP
50	D5	88	PHE
50	D5	89	PHE
50	D5	91	LEU
50	D5	97	GLU
50	D5	98	MET
50	D5	111	VAL
50	D5	112	ARG
50	D5	119	GLU
50	D5	120	ILE
50	D5	122	ARG

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Mol	Chain	Res	Type
50	D5	126	VAL
50	D5	132	ASN
50	D5	148	ASP
50	D5	150	LEU
50	D5	157	LEU
50	D5	170	THR
50	D5	174	VAL
50	D5	175	VAL
50	D5	180	VAL
50	D5	182	LYS
50	D5	183	LEU
50	D5	185	GLU
50	D5	197	ILE
51	E5	9	SER
51	E5	11	ARG
51	E5	12	ASN
51	E5	19	LYS
51	E5	20	ARG
51	E5	23	VAL
51	E5	32	ARG
51	E5	36	ILE
51	E5	43	THR
51	E5	63	VAL
51	E5	82	ARG
52	F5	3	LYS
52	F5	4	VAL
52	F5	11	ARG
52	F5	17	SER
52	F5	25	LYS
52	F5	26	ARG
52	F5	35	THR
52	F5	37	ILE
52	F5	38	SER
52	F5	39	LYS
52	F5	40	ARG
52	F5	41	ARG
52	F5	42	GLN
52	F5	46	LEU
52	F5	51	VAL
52	F5	52	ARG
52	F5	59	THR
52	F5	75	GLU

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Mol	Chain	Res	Type
52	F5	76	ARG
52	F5	78	LYS
52	F5	80	LEU
52	F5	82	LEU
52	F5	89	GLU
52	F5	90	ILE
52	F5	91	LYS
52	F5	92	LYS
53	G5	5	GLU
53	G5	10	LEU
53	G5	12	GLU
53	G5	15	LYS
53	G5	24	LEU
53	G5	32	LEU
53	G5	35	LEU
53	G5	41	ILE
53	G5	44	LEU
53	G5	45	SER
53	G5	47	ASN
53	G5	48	HIS
53	G5	50	ILE
53	G5	53	LEU
53	G5	60	LEU
53	G5	62	THR
53	G5	65	ASN
53	G5	66	GLU
53	G5	67	LYS
54	H5	23	LEU
54	H5	24	LYS
54	H5	37	LEU
54	H5	40	THR
54	H5	53	LEU
54	H5	54	VAL
54	H5	59	VAL
56	J5	16	ARG
56	J5	23	HIS
56	J5	25	LEU
56	J5	26	THR
56	J5	29	THR
56	J5	35	GLU
56	J5	36	CYS
56	J5	48	GLU

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Mol	Chain	Res	Type
56	J5	51	TYR
56	J5	55	ARG
58	L5	3	ARG
58	L5	4	THR
58	L5	8	ASN
58	L5	29	LYS
58	L5	33	ARG
58	L5	43	THR
59	M5	4	MET
59	M5	6	THR
59	M5	8	LYS
59	M5	25	MET
59	M5	30	ARG
59	M5	31	HIS
59	M5	35	GLN
59	M5	52	LYS
59	M5	56	GLU
59	M5	57	ARG
59	M5	58	ILE
59	M5	59	LYS
59	M5	60	LEU
59	M5	62	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (23) such sidechains are listed below:

Mol	Chain	Res	Type
10	1I	84	GLN
13	4I	12	ASN
30	21	135	HIS
36	38	30	GLN
40	78	84	ASN
44	B8	55	ASN
44	B8	58	ASN
57	O8	46	HIS
3	22	98	ASN
12	3A	75	HIS
16	7A	16	HIS
28	79	44	HIS
29	19	44	ASN
30	29	35	GLN
30	29	135	HIS
31	39	40	GLN

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Mol	Chain	Res	Type
31	39	169	ASN
32	49	66	GLN
33	59	139	GLN
41	45	89	ASN
41	45	113	GLN
43	65	95	HIS
47	A5	111	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1511/1522 (99%)	381 (25%)	36 (2%)
1	1G	1508/1522 (99%)	380 (25%)	37 (2%)
22	1K	67/77 (87%)	31 (46%)	5 (7%)
22	1L	70/77 (90%)	28 (40%)	6 (8%)
23	2K	76/77 (98%)	19 (25%)	2 (2%)
23	2L	76/77 (98%)	18 (23%)	1 (1%)
24	3K	68/77 (88%)	36 (52%)	4 (5%)
24	3L	70/77 (90%)	37 (52%)	3 (4%)
25	4K	20/27 (74%)	14 (70%)	1 (5%)
25	4L	15/27 (55%)	9 (60%)	0
26	14	2892/2917 (99%)	722 (24%)	51 (1%)
26	1H	2893/2917 (99%)	705 (24%)	67 (2%)
27	16	121/122 (99%)	28 (23%)	2 (1%)
27	1J	121/122 (99%)	32 (26%)	1 (0%)
All	All	9508/9638 (98%)	2440 (25%)	216 (2%)

All (2440) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	3	G
1	13	4	U
1	13	5	U
1	13	6	G
1	13	8	A
1	13	9	G
1	13	26	A
1	13	31	G
1	13	32	A
1	13	33	A

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Mol	Chain	Res	Type
1	13	39	G
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	59	A
1	13	60	A
1	13	61	G
1	13	65	U
1	13	66	G
1	13	78	G
1	13	79	G
1	13	82	U
1	13	84	U
1	13	85	U
1	13	86	U
1	13	87	A
1	13	89	U
1	13	90	C
1	13	91	C
1	13	92	G
1	13	93	U
1	13	95	G
1	13	101	A
1	13	108	G
1	13	111	G
1	13	116	A
1	13	121	C
1	13	129(A)	G
1	13	130	A
1	13	131	C
1	13	137	C
1	13	143	A
1	13	144	G
1	13	147	G
1	13	151	A
1	13	153	C
1	13	158	G
1	13	161	A
1	13	163	C
1	13	164	U
1	13	172	A

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Mol	Chain	Res	Type
1	13	173	U
1	13	174	C
1	13	180	U
1	13	182	U
1	13	186(D)	C
1	13	186(F)	C
1	13	188	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	195	A
1	13	199	G
1	13	201	C
1	13	209	U
1	13	210	U
1	13	216	G
1	13	220	G
1	13	222	U
1	13	226	G
1	13	231	G
1	13	245	C
1	13	247	G
1	13	250	A
1	13	251	G
1	13	258	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	281	G
1	13	289	G
1	13	321	A
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	342	C
1	13	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	349	A

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Mol	Chain	Res	Type
1	13	352	C
1	13	353	A
1	13	354	G
1	13	357	G
1	13	367	U
1	13	372	C
1	13	373	A
1	13	382	A
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	413	G
1	13	414	A
1	13	415	A
1	13	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	438	G
1	13	440	A
1	13	448	A
1	13	452	A
1	13	455	C
1	13	458	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	474	G
1	13	485	G
1	13	491	G
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	518	C

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Mol	Chain	Res	Type
1	13	519	C
1	13	521	G
1	13	524	G
1	13	527	G
1	13	532	A
1	13	533	A
1	13	536	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	562	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	596	C
1	13	607	A
1	13	610	G
1	13	620	C
1	13	626	U
1	13	629	G
1	13	630	G
1	13	632	A
1	13	639	G
1	13	648	A
1	13	653	A
1	13	654	G
1	13	659	U
1	13	665	A
1	13	666	G
1	13	687	A
1	13	688	G
1	13	702	A
1	13	703	G
1	13	704	A
1	13	723	U
1	13	724	G
1	13	747	C
1	13	748	C
1	13	749	C
1	13	753	A
1	13	755	G

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Mol	Chain	Res	Type
1	13	760	G
1	13	764	C
1	13	774	G
1	13	777	A
1	13	787	A
1	13	788	U
1	13	792	A
1	13	793	U
1	13	794	A
1	13	798	G
1	13	802	A
1	13	813	U
1	13	815	A
1	13	817	C
1	13	819	A
1	13	828	A
1	13	836	G
1	13	842	C
1	13	843	U
1	13	848	C
1	13	855	G
1	13	858	G
1	13	859	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	885	G
1	13	889	A
1	13	890	G
1	13	902	G
1	13	914	A
1	13	922	G
1	13	926	G
1	13	927	G
1	13	931	C
1	13	933	G
1	13	934	C
1	13	936	C
1	13	955	U
1	13	958	A
1	13	960	U
1	13	968	A

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Mol	Chain	Res	Type
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	980	C
1	13	982	U
1	13	991	U
1	13	992	U
1	13	993	G
1	13	997	U
1	13	999	U
1	13	1002	G
1	13	1004	A
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1021	G
1	13	1023	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(A)	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	1035	A
1	13	1037	C
1	13	1039	C
1	13	1041	A
1	13	1042	G
1	13	1046	A
1	13	1054	C
1	13	1055	A
1	13	1064	G
1	13	1065	U
1	13	1066	C

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Mol	Chain	Res	Type
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1114	C
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1131	G
1	13	1132	C
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1144	G
1	13	1146	A
1	13	1151	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1184	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1212	U
1	13	1213	A
1	13	1214	C
1	13	1218	C
1	13	1219	U

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Mol	Chain	Res	Type
1	13	1223	C
1	13	1226	C
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	1262	C
1	13	1272	G
1	13	1273	G
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
1	13	1291	G
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1303	C
1	13	1305	G
1	13	1317	C
1	13	1320	C
1	13	1322	C
1	13	1323	G
1	13	1327	C
1	13	1331	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G

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Mol	Chain	Res	Type
1	13	1362(A)	C
1	13	1363	A
1	13	1364	U
1	13	1368	G
1	13	1373	G
1	13	1381	U
1	13	1382	C
1	13	1401	G
1	13	1406	U
1	13	1419	G
1	13	1422	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1447	G
1	13	1450	U
1	13	1452	C
1	13	1453	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1503	A
1	13	1504	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1520	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
1	13	1536	C
22	1K	2	C
22	1K	3	A
22	1K	4	U
22	1K	6	C
22	1K	7	G
22	1K	8	4SU
22	1K	9	A
22	1K	11	C

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Mol	Chain	Res	Type
22	1K	13	C
22	1K	15	G
22	1K	19	G
22	1K	23	G
22	1K	24	A
22	1K	30	C
22	1K	35	I
22	1K	41	C
22	1K	42	G
22	1K	47	7MG
22	1K	50	G
22	1K	57	C
22	1K	61	U
22	1K	63	C
22	1K	64	U
22	1K	65	C
22	1K	69	G
22	1K	70	A
22	1K	73	C
22	1K	74	A
22	1K	75	C
22	1K	76	C
22	1K	77	A
23	2K	2	G
23	2K	6	G
23	2K	8	4SU
23	2K	9	G
23	2K	16	C
23	2K	17	C
23	2K	18	C
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	32	G
23	2K	35	C
23	2K	48	U
23	2K	49	C
23	2K	53	G
23	2K	54	G
23	2K	57	C
23	2K	69	C
23	2K	77	A

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Mol	Chain	Res	Type
24	3K	4	U
24	3K	7	G
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	13	C
24	3K	14	A
24	3K	15	G
24	3K	19	G
24	3K	24	A
24	3K	26	U
24	3K	27	A
24	3K	33	C
24	3K	34	U
24	3K	35	A
24	3K	36	C
24	3K	37	G
24	3K	38	A
24	3K	44	G
24	3K	45	C
24	3K	46	G
24	3K	47	G
24	3K	48	U
24	3K	49	C
24	3K	56	U
24	3K	57	C
24	3K	58	G
24	3K	59	A
24	3K	60	A
24	3K	63	C
24	3K	68	G
24	3K	72	G
24	3K	73	C
24	3K	74	A
24	3K	77	A
25	4K	8	A
25	4K	11	U
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	15	A

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Mol	Chain	Res	Type
25	4K	18	G
25	4K	19	C
25	4K	20	G
25	4K	22	A
25	4K	23	A
25	4K	24	A
25	4K	25	A
25	4K	26	A
26	1H	6	A
26	1H	12	U
26	1H	13	A
26	1H	15	G
26	1H	34	C
26	1H	35	G
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	56	A
26	1H	63	U
26	1H	64	A
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	95	G
26	1H	101	G
26	1H	102	G
26	1H	114	U
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	138	G
26	1H	140	A
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	165	U
26	1H	171	G
26	1H	181	A
26	1H	188	G

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Mol	Chain	Res	Type
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	227	A
26	1H	228	A
26	1H	229	A
26	1H	232	G
26	1H	233	A
26	1H	248	G
26	1H	252	G
26	1H	269	U
26	1H	270(G)	C
26	1H	270(K)	C
26	1H	270(L)	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	291	C
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	321	G
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	335	C

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Mol	Chain	Res	Type
26	1H	345	A
26	1H	352	G
26	1H	354	G
26	1H	364	C
26	1H	372	G
26	1H	375	C
26	1H	380	U
26	1H	386	G
26	1H	396	G
26	1H	405	U
26	1H	406	G
26	1H	407	G
26	1H	411	G
26	1H	412	A
26	1H	413	C
26	1H	428	A
26	1H	444	C
26	1H	448	U
26	1H	449	A
26	1H	455	C
26	1H	466	A
26	1H	470	A
26	1H	471	A
26	1H	478	A
26	1H	481	G
26	1H	482	A
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	545	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	563	G
26	1H	564	C

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Mol	Chain	Res	Type
26	1H	570	G
26	1H	571	A
26	1H	573	G
26	1H	575	A
26	1H	577	G
26	1H	586	A
26	1H	587	C
26	1H	588	U
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	621	A
26	1H	622	G
26	1H	627	A
26	1H	631	A
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	653	A
26	1H	654	A
26	1H	654(A)	A
26	1H	654(O)	G
26	1H	654(P)	G
26	1H	654(R)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	654(V)	A
26	1H	656	G
26	1H	664	C
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	699	A
26	1H	702	G
26	1H	715	G
26	1H	717	G
26	1H	726	G
26	1H	730	C
26	1H	738	G

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Mol	Chain	Res	Type
26	1H	747	U
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	764	A
26	1H	765	G
26	1H	776	G
26	1H	777	A
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	801	G
26	1H	805	G
26	1H	810	U
26	1H	812	C
26	1H	813	U
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	836	G
26	1H	845	G
26	1H	847	U
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	878	A
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	884	C
26	1H	885	C
26	1H	886	C
26	1H	887	A
26	1H	888	C
26	1H	893	C
26	1H	895	U
26	1H	896	A
26	1H	897	C
26	1H	898	C

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Mol	Chain	Res	Type
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	904	C
26	1H	906	G
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	919	G
26	1H	925	C
26	1H	932	G
26	1H	940	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	962	G
26	1H	974	G
26	1H	974(A)	C
26	1H	975	G
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	1005	C
26	1H	1009	A
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1016	G
26	1H	1020	A
26	1H	1021	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1028	A

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Mol	Chain	Res	Type
26	1H	1033	U
26	1H	1040	C
26	1H	1044	G
26	1H	1045	A
26	1H	1047	G
26	1H	1049	C
26	1H	1050	A
26	1H	1053	C
26	1H	1057	A
26	1H	1058	U
26	1H	1059	G
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1066	U
26	1H	1067	A
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1074	G
26	1H	1076	C
26	1H	1077	A
26	1H	1078	U
26	1H	1079	C
26	1H	1082	U
26	1H	1083	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1090	U
26	1H	1093	G
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1104	C
26	1H	1109	C
26	1H	1110	G
26	1H	1112	G
26	1H	1121	C
26	1H	1126	A

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Mol	Chain	Res	Type
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1143	A
26	1H	1149	G
26	1H	1155	A
26	1H	1171	G
26	1H	1174	A
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1229(A)	G
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1267	U
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1275	A
26	1H	1278	A
26	1H	1287	A

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Mol	Chain	Res	Type
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A
26	1H	1303	G
26	1H	1319	G
26	1H	1329	U
26	1H	1332	G
26	1H	1344	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1352	U
26	1H	1358	G
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1368	G
26	1H	1370	C
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A
26	1H	1403	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1428	C
26	1H	1437	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	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1478	G

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Mol	Chain	Res	Type
26	1H	1483	G
26	1H	1493	C
26	1H	1494	A
26	1H	1496	A
26	1H	1497	U
26	1H	1507	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1522	G
26	1H	1524	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	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1548	C
26	1H	1554	A
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	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1616	A
26	1H	1617	C
26	1H	1618	A
26	1H	1625	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A

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Mol	Chain	Res	Type
26	1H	1658	C
26	1H	1669	A
26	1H	1672	C
26	1H	1674	G
26	1H	1681	G
26	1H	1694	C
26	1H	1695	G
26	1H	1699	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1733	G
26	1H	1734	C
26	1H	1746	G
26	1H	1756	G
26	1H	1758	G
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1765	C
26	1H	1773	A
26	1H	1775	U
26	1H	1776	G
26	1H	1779	U
26	1H	1782	C
26	1H	1786	A
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1808	U
26	1H	1811	G
26	1H	1816	G
26	1H	1829	A
26	1H	1835	G
26	1H	1839	G
26	1H	1847	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C

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Mol	Chain	Res	Type
26	1H	1889	A
26	1H	1900	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1919	A
26	1H	1923	U
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1937	A
26	1H	1938	A
26	1H	1941	C
26	1H	1945	G
26	1H	1955	U
26	1H	1960	A
26	1H	1961	C
26	1H	1963	U
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	1993	U
26	1H	2004	G
26	1H	2006	C
26	1H	2023	G
26	1H	2031	A
26	1H	2033	A
26	1H	2035	G
26	1H	2043	C
26	1H	2049	G
26	1H	2052	G
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2066	C

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Mol	Chain	Res	Type
26	1H	2069	G
26	1H	2096	U
26	1H	2098	U
26	1H	2099	U
26	1H	2108	C
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	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	2168	G
26	1H	2169	A
26	1H	2170	A
26	1H	2171	A
26	1H	2172	U
26	1H	2173	A

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Mol	Chain	Res	Type
26	1H	2174	C
26	1H	2176	A
26	1H	2181	G
26	1H	2183	C
26	1H	2185	C
26	1H	2186	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2198	A
26	1H	2205	C
26	1H	2209	C
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2253	G
26	1H	2261	C
26	1H	2267	A
26	1H	2268	A
26	1H	2273	A
26	1H	2275	C
26	1H	2279	G
26	1H	2283	C
26	1H	2286	A
26	1H	2287	A
26	1H	2288	A
26	1H	2298	A
26	1H	2307	G
26	1H	2308	G
26	1H	2309	A
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2315	G
26	1H	2320	A
26	1H	2321	G

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Mol	Chain	Res	Type
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2343	C
26	1H	2347	C
26	1H	2350	C
26	1H	2376	A
26	1H	2377	A
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2414	G
26	1H	2422	A
26	1H	2424	C
26	1H	2425	A
26	1H	2429	G
26	1H	2430	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2445	G
26	1H	2448	A
26	1H	2449	U
26	1H	2453	A
26	1H	2459	A
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2476	A
26	1H	2482	G
26	1H	2502	G
26	1H	2505	G
26	1H	2518	A

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Mol	Chain	Res	Type
26	1H	2520	C
26	1H	2529	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2582	G
26	1H	2585	U
26	1H	2599	G
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2613	U
26	1H	2615	U
26	1H	2629	A
26	1H	2632	A
26	1H	2634	G
26	1H	2636	U
26	1H	2641	G
26	1H	2654	A
26	1H	2656	U
26	1H	2663	G
26	1H	2665	A
26	1H	2673	G
26	1H	2676	C
26	1H	2679	A
26	1H	2686	G
26	1H	2689	U
26	1H	2697	G
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2726	U
26	1H	2733	A
26	1H	2744	G

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Mol	Chain	Res	Type
26	1H	2750	A
26	1H	2756	U
26	1H	2757	A
26	1H	2758	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2781	A
26	1H	2782	G
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2802	G
26	1H	2803	C
26	1H	2804	C
26	1H	2807	G
26	1H	2808	U
26	1H	2816	C
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2850	A
26	1H	2865	U
26	1H	2866	U
26	1H	2872	G
26	1H	2891	G
26	1H	2892	A
26	1H	2894	G
26	1H	2898	U
27	16	0	A

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Mol	Chain	Res	Type
27	16	3	C
27	16	8	U
27	16	12	C
27	16	13	A
27	16	14	U
27	16	15	A
27	16	25	A
27	16	33	G
27	16	38	C
27	16	40	U
27	16	42	C
27	16	45	A
27	16	47	C
27	16	51	G
27	16	56	G
27	16	60	C
27	16	65	C
27	16	66	A
27	16	72	G
27	16	73	A
27	16	74	U
27	16	81	G
27	16	82	G
27	16	85	G
27	16	89	G
27	16	105	G
27	16	109	G
1	1G	2	U
1	1G	3	G
1	1G	4	U
1	1G	5	U
1	1G	6	G
1	1G	9	G
1	1G	10	A
1	1G	22	G
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	51	A
1	1G	54	C
1	1G	65	U

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Mol	Chain	Res	Type
1	1G	76	G
1	1G	80	G
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	101	A
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	129	U
1	1G	131	C
1	1G	135	C
1	1G	144	G
1	1G	155	C
1	1G	162	A
1	1G	163	C
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	186	C
1	1G	186(F)	C
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	A
1	1G	196	A
1	1G	197	A
1	1G	198	G
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	266	G
1	1G	267	C

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Mol	Chain	Res	Type
1	1G	281	G
1	1G	289	G
1	1G	290	C
1	1G	298	A
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	363	A
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	409	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	419	C
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	439	A
1	1G	452	A
1	1G	453	A
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G

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Mol	Chain	Res	Type
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	504	C
1	1G	505	G
1	1G	510	A
1	1G	511	C
1	1G	517	G
1	1G	518	C
1	1G	527	G
1	1G	529	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	601	C
1	1G	607	A
1	1G	614	A
1	1G	615	C
1	1G	618	C
1	1G	619	U
1	1G	629	G
1	1G	631	G
1	1G	632	A
1	1G	651	C
1	1G	653	A
1	1G	663	A
1	1G	665	A
1	1G	687	A

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Mol	Chain	Res	Type
1	1G	688	G
1	1G	700	G
1	1G	702	A
1	1G	721	G
1	1G	723	U
1	1G	724	G
1	1G	725	G
1	1G	729	A
1	1G	731	G
1	1G	749	C
1	1G	750	G
1	1G	753	A
1	1G	755	G
1	1G	760	G
1	1G	766	A
1	1G	769	G
1	1G	776	G
1	1G	777	A
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	820	U
1	1G	821	G
1	1G	827	U
1	1G	828	A
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	853	G
1	1G	857	C
1	1G	858	G
1	1G	859	A
1	1G	862	C
1	1G	867	G
1	1G	873	A
1	1G	874	G
1	1G	885	G
1	1G	889	A
1	1G	914	A

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Mol	Chain	Res	Type
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	941	G
1	1G	942	G
1	1G	944	G
1	1G	953	G
1	1G	954	G
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	966	G
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	981	U
1	1G	982	U
1	1G	983	A
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	995	C
1	1G	996	A
1	1G	1001	G
1	1G	1002	G
1	1G	1003	G
1	1G	1004	A
1	1G	1005	A
1	1G	1006	C
1	1G	1008	C
1	1G	1021	G
1	1G	1022	G

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Mol	Chain	Res	Type
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1032(B)	G
1	1G	1033	G
1	1G	1035	A
1	1G	1036	G
1	1G	1037	C
1	1G	1039	C
1	1G	1040	U
1	1G	1042	G
1	1G	1046	A
1	1G	1050	G
1	1G	1051	C
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1071	C
1	1G	1085	U
1	1G	1086	U
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1098	C
1	1G	1099	G
1	1G	1101	A
1	1G	1106	G
1	1G	1107	C
1	1G	1113	C
1	1G	1117	G
1	1G	1124	G
1	1G	1125	U

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Mol	Chain	Res	Type
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1135	U
1	1G	1137	C
1	1G	1139	G
1	1G	1140	C
1	1G	1143	G
1	1G	1144	G
1	1G	1145	C
1	1G	1146	A
1	1G	1147	C
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1171	G
1	1G	1181	G
1	1G	1183	A
1	1G	1188	A
1	1G	1189	C
1	1G	1196	U
1	1G	1197	G
1	1G	1198	G
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
1	1G	1210	C
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1219	U
1	1G	1223	C
1	1G	1225	A
1	1G	1232	U
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U

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Mol	Chain	Res	Type
1	1G	1258	G
1	1G	1260	C
1	1G	1267	C
1	1G	1268	A
1	1G	1274	G
1	1G	1276	G
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1295	G
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1306	A
1	1G	1317	C
1	1G	1318	A
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1324	A
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1344	C
1	1G	1346	A
1	1G	1347	G
1	1G	1354	C
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1369	C
1	1G	1370	G
1	1G	1379	G
1	1G	1397	C
1	1G	1398	A
1	1G	1401	G

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Mol	Chain	Res	Type
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1449	C
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1469	G
1	1G	1482	G
1	1G	1492	A
1	1G	1494	G
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	1517	G
1	1G	1519	A
1	1G	1520	G
1	1G	1529	G
1	1G	1530	G
1	1G	1533	C
1	1G	1534	A
1	1G	1535	C
22	1L	2	C
22	1L	3	A
22	1L	6	C
22	1L	7	G
22	1L	8	4SU
22	1L	9	A
22	1L	15	G
22	1L	16	C
22	1L	17	U
22	1L	18	G
22	1L	19	G
22	1L	23	G
22	1L	24	A

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Mol	Chain	Res	Type
22	1L	32	G
22	1L	35	I
22	1L	42	G
22	1L	47	7MG
22	1L	50	G
22	1L	60	A
22	1L	61	U
22	1L	64	U
22	1L	69	G
22	1L	70	A
22	1L	73	C
22	1L	74	A
22	1L	75	C
22	1L	76	C
22	1L	77	A
23	2L	4	G
23	2L	6	G
23	2L	8	4SU
23	2L	16	C
23	2L	18	C
23	2L	19	G
23	2L	20	G
23	2L	21	U
23	2L	22	A
23	2L	32	G
23	2L	45	A
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	57	C
23	2L	61	U
23	2L	68	C
23	2L	77	A
24	3L	2	C
24	3L	8	U
24	3L	9	A
24	3L	10	G
24	3L	11	C
24	3L	13	C
24	3L	15	G
24	3L	16	C
24	3L	17	U

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Mol	Chain	Res	Type
24	3L	18	G
24	3L	19	G
24	3L	24	A
24	3L	26	U
24	3L	27	A
24	3L	32	G
24	3L	33	C
24	3L	34	U
24	3L	35	A
24	3L	36	C
24	3L	37	G
24	3L	39	A
24	3L	44	G
24	3L	45	C
24	3L	46	G
24	3L	47	G
24	3L	48	U
24	3L	49	C
24	3L	51	G
24	3L	53	G
24	3L	56	U
24	3L	57	C
24	3L	59	A
24	3L	60	A
24	3L	70	A
24	3L	73	C
24	3L	74	A
24	3L	77	A
25	4L	9	G
25	4L	10	G
25	4L	11	U
25	4L	14	A
25	4L	15	A
25	4L	19	C
25	4L	20	G
25	4L	22	A
25	4L	23	A
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	6	A

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Mol	Chain	Res	Type
26	14	11	G
26	14	13	A
26	14	14	A
26	14	15	G
26	14	35	G
26	14	46	C
26	14	48	G
26	14	49	A
26	14	50	U
26	14	51	G
26	14	55	G
26	14	58	G
26	14	60	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	84	A
26	14	90	U
26	14	93	C
26	14	95	G
26	14	101	G
26	14	102	G
26	14	103	A
26	14	118	A
26	14	119	A
26	14	120	U
26	14	129	C
26	14	138	G
26	14	139	G
26	14	140	A
26	14	152	G
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	172	C
26	14	173	G
26	14	174	C
26	14	175	G
26	14	181	A
26	14	196	A

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Mol	Chain	Res	Type
26	14	199	A
26	14	205	G
26	14	213	A
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	233	A
26	14	248	G
26	14	249	C
26	14	252	G
26	14	267	C
26	14	270(K)	C
26	14	270(M)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(P)	C
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	290	G
26	14	294	A
26	14	310	A
26	14	311	A
26	14	324	A
26	14	329	G
26	14	330	A
26	14	331	A
26	14	334	C

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Mol	Chain	Res	Type
26	14	346	A
26	14	352	G
26	14	356	G
26	14	357	A
26	14	363	G
26	14	363(A)	A
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	386	G
26	14	396	G
26	14	399	G
26	14	405	U
26	14	406	G
26	14	407	G
26	14	409	C
26	14	411	G
26	14	412	A
26	14	428	A
26	14	436	C
26	14	443	A
26	14	444	C
26	14	452	G
26	14	455	C
26	14	457	A
26	14	462	C
26	14	463	G
26	14	464	U
26	14	470	A
26	14	471	A
26	14	478	A
26	14	480	A
26	14	481	G
26	14	505	A
26	14	507	A
26	14	509	C
26	14	512	G
26	14	528	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G

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Mol	Chain	Res	Type
26	14	543	C
26	14	546	C
26	14	548	A
26	14	549	G
26	14	556	G
26	14	563	G
26	14	568	U
26	14	573	G
26	14	574	C
26	14	575	A
26	14	584	C
26	14	603	A
26	14	607	U
26	14	609(A)	G
26	14	614	U
26	14	615	G
26	14	617	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	634	C
26	14	637	A
26	14	645	C
26	14	646	A
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(S)	G
26	14	654(T)	A
26	14	654(U)	A
26	14	662	G
26	14	668	G
26	14	669	G
26	14	686	G
26	14	709	U
26	14	717	G
26	14	722	A
26	14	730	C
26	14	739	G

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Mol	Chain	Res	Type
26	14	740	U
26	14	749	C
26	14	751	A
26	14	752	A
26	14	753	C
26	14	765	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	782	A
26	14	784	A
26	14	785	G
26	14	790	C
26	14	792	G
26	14	800	A
26	14	805	G
26	14	812	C
26	14	819	A
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	844	C
26	14	846	C
26	14	855	G
26	14	856	C
26	14	859	G
26	14	866	A
26	14	877	U
26	14	878	A
26	14	880	G
26	14	881	G
26	14	882	G
26	14	883	G
26	14	885	C
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	892	G
26	14	894	C
26	14	896	A

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Mol	Chain	Res	Type
26	14	897	C
26	14	898	C
26	14	899	A
26	14	901	A
26	14	910	A
26	14	911	A
26	14	917	A
26	14	919	G
26	14	924	C
26	14	925	C
26	14	932	G
26	14	935	C
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	963	U
26	14	972	G
26	14	973	A
26	14	974	G
26	14	974(A)	C
26	14	980	A
26	14	983	A
26	14	986	C
26	14	990	A
26	14	996	A
26	14	999	U
26	14	1005	C
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1016	G
26	14	1017	G
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1033	U

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Mol	Chain	Res	Type
26	14	1037	G
26	14	1038	C
26	14	1044	G
26	14	1045	A
26	14	1046	A
26	14	1048	A
26	14	1051	G
26	14	1054	A
26	14	1056	G
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1063	G
26	14	1066	U
26	14	1067	A
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1075	C
26	14	1079	C
26	14	1080	A
26	14	1086	A
26	14	1087	G
26	14	1088	A
26	14	1090	U
26	14	1093	G
26	14	1095	A
26	14	1096	A
26	14	1099	G
26	14	1105	U
26	14	1111	A
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1122	G
26	14	1126	A
26	14	1130	U
26	14	1131	G
26	14	1135	C
26	14	1136	G
26	14	1138	G

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Mol	Chain	Res	Type
26	14	1139	G
26	14	1142(A)	A
26	14	1143	A
26	14	1151	G
26	14	1159	U
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1189	A
26	14	1204	A
26	14	1205	U
26	14	1206	G
26	14	1212	G
26	14	1220	A
26	14	1232	G
26	14	1236	G
26	14	1248	G
26	14	1252	G
26	14	1253	A
26	14	1256	G
26	14	1271	G
26	14	1272	A
26	14	1278	A
26	14	1284	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1313	U
26	14	1320	C
26	14	1321	A
26	14	1328	G
26	14	1329	U
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A

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Mol	Chain	Res	Type
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1380	G
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1403	C
26	14	1405	U
26	14	1406	U
26	14	1407	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1421	G
26	14	1427	A
26	14	1428	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1454	U
26	14	1455	G
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1474	C
26	14	1475	G
26	14	1478	G
26	14	1482	U
26	14	1483	G
26	14	1490	A
26	14	1492	G
26	14	1493	C
26	14	1494	A
26	14	1508	A
26	14	1509	C
26	14	1510	A

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Mol	Chain	Res	Type
26	14	1522	G
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1540	G
26	14	1543	A
26	14	1544	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	1583	A
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1589	C
26	14	1593	G
26	14	1599	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1616	A
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1674	G
26	14	1675	C
26	14	1678	G
26	14	1680	U
26	14	1696	G
26	14	1700	A
26	14	1701	A
26	14	1718	G
26	14	1725	G
26	14	1728	G
26	14	1729	A
26	14	1741	C
26	14	1743	G
26	14	1756	G

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Mol	Chain	Res	Type
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1781	C
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1816	G
26	14	1820	U
26	14	1829	A
26	14	1830	C
26	14	1835	G
26	14	1836	C
26	14	1847	A
26	14	1859	A
26	14	1878	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1896	G
26	14	1906	G
26	14	1913	A
26	14	1919	A
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1936	A
26	14	1938	A
26	14	1940	U
26	14	1944	U
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U

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Mol	Chain	Res	Type
26	14	2023	G
26	14	2027	G
26	14	2031	A
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2049	G
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2076	U
26	14	2080	G
26	14	2082	A
26	14	2085	C
26	14	2097	C
26	14	2100	G
26	14	2102	U
26	14	2108	C
26	14	2110	G
26	14	2111	C
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2118	U
26	14	2120	G
26	14	2122	U
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2131	G
26	14	2132	U
26	14	2133	G

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Mol	Chain	Res	Type
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2150	U
26	14	2151	G
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2166	G
26	14	2168	G
26	14	2169	A
26	14	2170	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2176	A
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2207	C
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2234	G
26	14	2235	G
26	14	2238	G
26	14	2239	G
26	14	2240	C

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Mol	Chain	Res	Type
26	14	2245	U
26	14	2246	G
26	14	2261	C
26	14	2267	A
26	14	2269	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2289	G
26	14	2293	C
26	14	2298	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2319	G
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2326	C
26	14	2327	A
26	14	2329	G
26	14	2334	G
26	14	2336	A
26	14	2342	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2357	U
26	14	2383	G
26	14	2385	C
26	14	2388	A

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Mol	Chain	Res	Type
26	14	2389	G
26	14	2392	A
26	14	2396	G
26	14	2401	U
26	14	2402	C
26	14	2406	U
26	14	2411	A
26	14	2413	G
26	14	2414	G
26	14	2418	A
26	14	2422	A
26	14	2426	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
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	2476	A
26	14	2477	C
26	14	2483	C
26	14	2492	U
26	14	2498	C
26	14	2501	C
26	14	2502	G
26	14	2505	G
26	14	2512	C
26	14	2513	G
26	14	2518	A
26	14	2525	G
26	14	2532	G
26	14	2542	A
26	14	2543	G
26	14	2544	G
26	14	2554	U
26	14	2555	U

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Mol	Chain	Res	Type
26	14	2563	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2573	C
26	14	2578	G
26	14	2582	G
26	14	2601	C
26	14	2602	A
26	14	2609	U
26	14	2610	C
26	14	2611	U
26	14	2612	C
26	14	2630	G
26	14	2636	U
26	14	2646	C
26	14	2654	A
26	14	2665	A
26	14	2667	C
26	14	2673	G
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	2733	A
26	14	2739	U
26	14	2742	C
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2757	A
26	14	2758	A
26	14	2761	G
26	14	2762	G
26	14	2764	A

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Mol	Chain	Res	Type
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2790	A
26	14	2791	C
26	14	2793	G
26	14	2794	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2805	G
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2825	C
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2859	G
26	14	2860	A
26	14	2861	G
26	14	2872	G
26	14	2874	C
26	14	2876	G
26	14	2879	C
26	14	2883	A
26	14	2885	C
26	14	2886	G
26	14	2889	C
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
26	14	2896	C

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Mol	Chain	Res	Type
26	14	2897	U
26	14	2898	U
26	14	2902	C
27	1J	0	A
27	1J	2	C
27	1J	7	G
27	1J	8	U
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	25	A
27	1J	28	C
27	1J	29	A
27	1J	33	G
27	1J	43	C
27	1J	44	G
27	1J	45	A
27	1J	47	C
27	1J	51	G
27	1J	56	G
27	1J	58	A
27	1J	67	G
27	1J	73	A
27	1J	74	U
27	1J	81	G
27	1J	86	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	108	C
27	1J	109	G
27	1J	116	G
27	1J	119	A

All (216) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	31	G
1	13	49	U

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Mol	Chain	Res	Type
1	13	84	U
1	13	85	U
1	13	89	U
1	13	115	G
1	13	173	U
1	13	181	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	535	A
1	13	560	U
1	13	628	G
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	992	U
1	13	1025	U
1	13	1064	G
1	13	1065	U
1	13	1183	A
1	13	1285	A
1	13	1336	C
1	13	1363	A
1	13	1452	C
1	13	1498	U
1	13	1533	C
22	1K	1	G
22	1K	23	G
22	1K	29	U
22	1K	73	C
22	1K	74	A
23	2K	48	U
23	2K	61	U
24	3K	7	G
24	3K	8	U

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Mol	Chain	Res	Type
24	3K	34	U
24	3K	59	A
25	4K	18	G
26	1H	125	G
26	1H	195	A
26	1H	196	A
26	1H	222	A
26	1H	232	G
26	1H	270(M)	U
26	1H	271(B)	G
26	1H	310	A
26	1H	345	A
26	1H	404	C
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	620	G
26	1H	645	C
26	1H	654(Q)	C
26	1H	668	G
26	1H	746	A
26	1H	752	A
26	1H	764	A
26	1H	776	G
26	1H	800	A
26	1H	827	U
26	1H	858	U
26	1H	881	G
26	1H	895	U
26	1H	960	A
26	1H	974	G
26	1H	974(A)	C
26	1H	1022	G
26	1H	1026	U
26	1H	1046	A
26	1H	1057	A
26	1H	1085	A
26	1H	1109	C
26	1H	1128	A
26	1H	1177	A
26	1H	1178	C
26	1H	1210	A

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Mol	Chain	Res	Type
26	1H	1396	U
26	1H	1416	G
26	1H	1420	U
26	1H	1493	C
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1653	G
26	1H	1694	C
26	1H	1757	U
26	1H	1799	G
26	1H	1858	G
26	1H	1899	G
26	1H	1984	G
26	1H	1992	G
26	1H	2060	A
26	1H	2157	G
26	1H	2171	A
26	1H	2172	U
26	1H	2210	G
26	1H	2422	A
26	1H	2439	A
26	1H	2448	A
26	1H	2481	G
26	1H	2566	A
26	1H	2702	U
26	1H	2756	U
27	16	44	G
27	16	108	C
1	1G	2	U
1	1G	64	G
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	197	A
1	1G	209	U
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	412	A

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Mol	Chain	Res	Type
1	1G	429	U
1	1G	485	G
1	1G	509	A
1	1G	535	A
1	1G	560	U
1	1G	628	G
1	1G	687	A
1	1G	748	C
1	1G	793	U
1	1G	913	A
1	1G	974	A
1	1G	991	U
1	1G	992	U
1	1G	1053	G
1	1G	1126	U
1	1G	1127	G
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1305	G
1	1G	1442	G
1	1G	1453	G
1	1G	1498	U
1	1G	1533	C
22	1L	1	G
22	1L	17	U
22	1L	23	G
22	1L	46	G
22	1L	73	C
22	1L	74	A
23	2L	48	U
24	3L	7	G
24	3L	8	U
24	3L	34	U
26	14	34	C
26	14	49	A
26	14	71	A
26	14	101	G
26	14	128	C
26	14	270(M)	U
26	14	278	A

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Mol	Chain	Res	Type
26	14	310	A
26	14	503	A
26	14	528	A
26	14	627	A
26	14	752	A
26	14	764	A
26	14	774	A
26	14	776	G
26	14	784	A
26	14	827	U
26	14	858	U
26	14	877	U
26	14	888	C
26	14	893	C
26	14	960	A
26	14	971	C
26	14	974	G
26	14	998	C
26	14	1022	G
26	14	1085	A
26	14	1379	A
26	14	1396	U
26	14	1420	U
26	14	1444(A)	A
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1762	A
26	14	1819	A
26	14	1963	U
26	14	1992	G
26	14	2107	C
26	14	2173	A
26	14	2238	G
26	14	2275	C
26	14	2335	A
26	14	2406	U
26	14	2439	A
26	14	2629	A
26	14	2689	U
26	14	2756	U
26	14	2776	A

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Mol	Chain	Res	Type
26	14	2859	G
26	14	2893	G
27	1J	88	C

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

22 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	OMC	2L	33	23	19,22,23	1.85	3 (15%)	26,31,34	1.06	2 (7%)
22	2MA	1L	38	22	17,25,26	2.30	6 (35%)	17,37,40	1.31	3 (17%)
22	5MU	1K	55	22	19,22,23	3.97	5 (26%)	28,32,35	3.10	8 (28%)
22	4SU	1K	8	22	18,21,22	1.79	5 (27%)	26,30,33	2.70	8 (30%)
23	7MG	2L	47	23	22,26,27	3.02	5 (22%)	29,39,42	2.84	10 (34%)
22	4SU	1L	8	22	18,21,22	1.86	3 (16%)	26,30,33	2.23	6 (23%)
22	PSU	1L	56	22,41	18,21,22	1.13	1 (5%)	22,30,33	1.83	3 (13%)
23	4SU	2K	8	23	18,21,22	1.91	5 (27%)	26,30,33	2.71	8 (30%)
22	2MA	1K	38	22	17,25,26	2.07	5 (29%)	17,37,40	1.23	2 (11%)
22	RSP	1K	33	22	17,21,22	3.97	7 (41%)	22,30,33	0.92	1 (4%)
22	7MG	1L	47	22	22,26,27	3.09	6 (27%)	29,39,42	2.81	10 (34%)
23	5MU	2L	55	23	19,22,23	3.79	5 (26%)	28,32,35	3.33	9 (32%)
22	7MG	1K	47	22	22,26,27	3.08	6 (27%)	29,39,42	2.81	10 (34%)
23	4SU	2L	8	23	18,21,22	1.72	3 (16%)	26,30,33	2.46	4 (15%)
23	7MG	2K	47	23	22,26,27	3.01	7 (31%)	29,39,42	2.75	10 (34%)
22	PSU	1K	56	22	18,21,22	1.26	1 (5%)	22,30,33	1.56	4 (18%)
23	5MU	2K	55	23	19,22,23	3.88	5 (26%)	28,32,35	3.68	8 (28%)
23	PSU	2K	56	23	18,21,22	1.23	2 (11%)	22,30,33	2.04	4 (18%)
22	5MU	1L	55	22	19,22,23	3.82	5 (26%)	28,32,35	3.13	9 (32%)
23	PSU	2L	56	23	18,21,22	1.35	2 (11%)	22,30,33	1.46	2 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
22	RSP	1L	33	22	17,21,22	4.02	7 (41%)	22,30,33	0.97	1 (4%)
23	OMC	2K	33	23	19,22,23	1.73	4 (21%)	26,31,34	0.92	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
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2
22	2MA	1L	38	22	-	0/3/25/26	0/3/3/3
22	5MU	1K	55	22	-	0/7/25/26	0/2/2/2
22	4SU	1K	8	22	-	2/7/25/26	0/2/2/2
23	7MG	2L	47	23	-	2/7/37/38	0/3/3/3
22	4SU	1L	8	22	-	3/7/25/26	0/2/2/2
22	PSU	1L	56	22,41	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
22	2MA	1K	38	22	-	0/3/25/26	0/3/3/3
22	RSP	1K	33	22	-	3/7/25/26	0/2/2/2
22	7MG	1L	47	22	-	2/7/37/38	0/3/3/3
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
22	7MG	1K	47	22	-	2/7/37/38	0/3/3/3
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
23	7MG	2K	47	23	-	2/7/37/38	0/3/3/3
22	PSU	1K	56	22	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	5MU	1L	55	22	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
22	RSP	1L	33	22	-	3/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	1/9/27/28	0/2/2/2

All (98) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	55	5MU	C2-N1	12.82	1.59	1.38
23	2K	55	5MU	C2-N1	12.76	1.58	1.38
22	1L	33	RSP	C2-N3	12.50	1.49	1.36
22	1L	55	5MU	C2-N1	12.12	1.57	1.38
23	2L	55	5MU	C2-N1	11.90	1.57	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	33	RSP	C2-N3	11.59	1.48	1.36
22	1K	47	7MG	C5-N7	9.23	1.46	1.35
23	2K	47	7MG	C5-N7	8.84	1.45	1.35
22	1L	47	7MG	C5-N7	8.83	1.45	1.35
23	2L	47	7MG	C5-N7	8.20	1.45	1.35
22	1L	47	7MG	C4-N9	-7.61	1.28	1.37
23	2L	47	7MG	C4-N9	-7.56	1.28	1.37
23	2K	47	7MG	C4-N9	-6.99	1.29	1.37
22	1K	47	7MG	C4-N9	-6.58	1.30	1.37
22	1K	33	RSP	C6-C5	6.35	1.49	1.35
22	1K	47	7MG	C4-N3	6.22	1.49	1.34
22	1L	38	2MA	C2-N3	6.18	1.44	1.31
22	1L	55	5MU	C4-N3	-6.14	1.27	1.38
22	1K	55	5MU	C2-N3	6.14	1.48	1.38
23	2L	55	5MU	C4-N3	-6.14	1.27	1.38
22	1L	33	RSP	C6-C5	6.02	1.49	1.35
23	2L	47	7MG	C4-N3	5.94	1.48	1.34
23	2K	47	7MG	C4-N3	5.80	1.48	1.34
22	1L	55	5MU	C2-N3	5.76	1.48	1.38
23	2K	55	5MU	C4-N3	-5.74	1.28	1.38
22	1L	47	7MG	C4-N3	5.72	1.47	1.34
23	2L	55	5MU	C2-N3	5.72	1.48	1.38
22	1K	33	RSP	C4-N4	5.66	1.47	1.33
23	2K	8	4SU	C5-C4	5.65	1.49	1.42
22	1K	55	5MU	C6-N1	5.63	1.47	1.38
23	2L	55	5MU	C6-N1	5.63	1.47	1.38
22	1K	38	2MA	C2-N3	5.58	1.43	1.31
22	1K	55	5MU	C4-N3	-5.53	1.28	1.38
22	1L	33	RSP	C4-N3	5.51	1.45	1.34
23	2L	8	4SU	C5-C4	5.50	1.49	1.42
22	1K	55	5MU	C4-C5	5.48	1.53	1.44
22	1L	55	5MU	C6-N1	5.45	1.47	1.38
23	2K	55	5MU	C4-C5	5.44	1.53	1.44
23	2K	55	5MU	C2-N3	5.40	1.47	1.38
23	2K	55	5MU	C6-N1	5.27	1.47	1.38
22	1L	8	4SU	C5-C4	5.23	1.49	1.42
22	1L	38	2MA	C4-N3	5.12	1.49	1.37
22	1K	33	RSP	C4-N3	5.09	1.44	1.34
22	1L	55	5MU	C4-C5	5.04	1.53	1.44
23	2L	55	5MU	C4-C5	4.88	1.52	1.44
22	1L	33	RSP	C4-N4	4.86	1.45	1.33
23	2L	33	OMC	C2-N3	4.86	1.46	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	33	OMC	C4-N4	4.53	1.44	1.33
22	1K	56	PSU	C6-C5	4.50	1.40	1.35
23	2L	56	PSU	C6-C5	4.46	1.40	1.35
23	2K	33	OMC	C2-N3	4.43	1.45	1.36
23	2L	47	7MG	C5-C4	-4.41	1.23	1.38
22	1L	8	4SU	C2-N1	4.28	1.45	1.38
22	1K	8	4SU	C5-C4	4.25	1.48	1.42
22	1L	47	7MG	C5-C4	-4.17	1.24	1.38
23	2K	33	OMC	C4-N4	4.15	1.43	1.33
22	1K	47	7MG	C5-C4	-4.08	1.24	1.38
23	2K	56	PSU	C6-C5	3.97	1.40	1.35
22	1K	38	2MA	C4-N3	3.97	1.47	1.37
23	2K	8	4SU	C2-N1	3.96	1.44	1.38
22	1L	56	PSU	C6-C5	3.94	1.39	1.35
23	2K	47	7MG	C5-C4	-3.89	1.25	1.38
22	1K	8	4SU	C2-N1	3.88	1.44	1.38
23	2L	33	OMC	C5-C4	3.48	1.50	1.42
23	2K	33	OMC	C5-C4	3.42	1.50	1.42
22	1L	33	RSP	C6-N1	3.40	1.46	1.38
22	1K	33	RSP	C6-N1	3.38	1.46	1.38
23	2L	47	7MG	C2-N2	3.24	1.41	1.34
22	1K	33	RSP	C2-S2	-3.18	1.59	1.67
23	2L	8	4SU	C2-N1	3.05	1.43	1.38
22	1L	8	4SU	C6-N1	3.04	1.45	1.38
22	1K	47	7MG	C2-N2	3.04	1.41	1.34
22	1K	33	RSP	C5-C4	2.99	1.49	1.42
22	1L	47	7MG	C2-N2	2.98	1.41	1.34
22	1L	33	RSP	C2-S2	-2.81	1.60	1.67
22	1K	38	2MA	C5-C4	-2.76	1.36	1.43
22	1L	38	2MA	C2-N1	2.74	1.45	1.36
23	2L	8	4SU	C6-N1	2.70	1.44	1.38
22	1K	8	4SU	C6-N1	2.69	1.44	1.38
23	2K	47	7MG	C2-N2	2.68	1.40	1.34
22	1K	8	4SU	C4-N3	2.65	1.40	1.37
22	1K	8	4SU	C2-N3	2.53	1.42	1.38
23	2K	8	4SU	C6-N1	2.52	1.44	1.38
22	1K	38	2MA	C2-N1	2.46	1.44	1.36
23	2K	8	4SU	C2-N3	2.42	1.42	1.38
22	1L	38	2MA	C6-N1	2.39	1.43	1.38
22	1L	47	7MG	C6-N1	-2.35	1.34	1.38
22	1L	38	2MA	C5-C4	-2.34	1.37	1.43
22	1K	47	7MG	C6-N1	-2.31	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1L	33	RSP	C5-C4	2.31	1.48	1.42
23	2K	47	7MG	C6-N1	-2.28	1.34	1.38
22	1L	38	2MA	CM2-C2	2.25	1.55	1.49
22	1K	38	2MA	CM2-C2	2.25	1.55	1.49
23	2K	47	7MG	C8-N9	2.23	1.47	1.46
23	2L	56	PSU	C2-N1	2.21	1.39	1.36
23	2K	8	4SU	C4-N3	2.07	1.39	1.37
23	2K	33	OMC	C6-N1	2.01	1.42	1.38
23	2K	56	PSU	C4-C5	-2.00	1.38	1.44

All (122) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C4-N3	12.77	126.21	115.31
23	2L	55	5MU	C5-C4-N3	10.91	124.63	115.31
22	1K	55	5MU	C5-C4-N3	9.76	123.64	115.31
22	1L	55	5MU	C5-C4-N3	9.67	123.57	115.31
23	2K	8	4SU	C4-N3-C2	-8.50	119.08	127.34
23	2L	8	4SU	C4-N3-C2	-8.33	119.24	127.34
23	2K	55	5MU	C5-C6-N1	-7.39	115.74	123.34
23	2K	55	5MU	C4-N3-C2	-7.33	117.86	127.35
22	1K	8	4SU	C4-N3-C2	-7.26	120.28	127.34
23	2L	47	7MG	C4-C5-N7	7.14	115.44	105.53
23	2L	8	4SU	C5-C4-N3	7.01	121.19	114.69
22	1L	47	7MG	C4-C5-N7	6.97	115.20	105.53
23	2K	47	7MG	C4-C5-N7	6.90	115.11	105.53
22	1K	47	7MG	C4-C5-N7	6.89	115.09	105.53
23	2L	55	5MU	C4-N3-C2	-6.77	118.59	127.35
22	1K	8	4SU	C5-C4-S4	-6.64	115.92	124.47
23	2K	47	7MG	CM7-N7-C5	6.56	143.33	126.40
22	1L	8	4SU	C4-N3-C2	-6.50	121.02	127.34
23	2L	55	5MU	C5-C6-N1	-6.36	116.80	123.34
22	1L	55	5MU	C6-C5-C4	6.18	123.20	118.03
22	1L	55	5MU	C5-C6-N1	-6.15	117.01	123.34
22	1L	55	5MU	C4-N3-C2	-6.15	119.39	127.35
22	1K	47	7MG	CM7-N7-C5	6.13	142.22	126.40
22	1K	8	4SU	C5-C4-N3	6.08	120.32	114.69
22	1K	55	5MU	C4-N3-C2	-5.98	119.61	127.35
23	2L	47	7MG	CM7-N7-C5	5.92	141.69	126.40
22	1L	8	4SU	C5-C4-N3	5.85	120.11	114.69
22	1L	47	7MG	CM7-N7-C5	5.85	141.49	126.40
23	2K	55	5MU	O4-C4-C5	-5.84	118.13	124.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	8	4SU	C5-C4-S4	-5.73	117.08	124.47
22	1K	55	5MU	C5-C6-N1	-5.70	117.48	123.34
22	1L	47	7MG	C5-C4-N9	5.65	113.68	106.35
22	1K	55	5MU	C6-C5-C4	5.63	122.74	118.03
23	2L	55	5MU	C6-C5-C4	5.59	122.70	118.03
23	2K	8	4SU	C5-C4-N3	5.45	119.75	114.69
23	2L	55	5MU	O4-C4-C5	-5.31	118.75	124.90
23	2L	47	7MG	C5-C4-N9	5.20	113.10	106.35
23	2K	47	7MG	C5-C4-N9	5.20	113.09	106.35
23	2K	56	PSU	N1-C2-N3	5.15	120.97	115.13
23	2K	47	7MG	C6-C5-N7	-5.07	123.94	131.91
23	2L	47	7MG	C6-C5-N7	-5.06	123.95	131.91
22	1K	47	7MG	C5-C6-N1	5.01	119.81	110.99
22	1K	55	5MU	O4-C4-C5	-5.00	119.11	124.90
23	2K	55	5MU	C5M-C5-C6	-4.99	116.18	122.85
22	1L	47	7MG	C5-C6-N1	4.92	119.67	110.99
23	2K	55	5MU	C6-C5-C4	4.92	122.15	118.03
22	1K	47	7MG	C5-C4-N9	4.85	112.65	106.35
22	1L	47	7MG	C6-C5-N7	-4.84	124.30	131.91
23	2L	47	7MG	C5-C6-N1	4.76	119.38	110.99
22	1K	47	7MG	C6-C5-N7	-4.70	124.52	131.91
22	1L	56	PSU	C4-N3-C2	-4.61	119.70	126.34
22	1L	56	PSU	N1-C2-N3	4.51	120.24	115.13
23	2K	56	PSU	C4-N3-C2	-4.49	119.88	126.34
22	1L	55	5MU	O4-C4-C5	-4.37	119.84	124.90
22	1K	47	7MG	C5-C4-N3	-4.35	119.83	128.13
23	2K	47	7MG	C5-C6-N1	4.26	118.49	110.99
22	1K	55	5MU	C5M-C5-C6	-4.21	117.22	122.85
23	2K	8	4SU	N3-C2-N1	4.17	120.42	114.89
23	2L	47	7MG	C2-N3-C4	4.16	119.72	112.30
22	1L	55	5MU	C5M-C5-C6	-4.16	117.29	122.85
22	1L	47	7MG	C5-C4-N3	-4.16	120.20	128.13
22	1K	47	7MG	C2-N3-C4	4.12	119.64	112.30
23	2K	47	7MG	C5-C4-N3	-4.09	120.33	128.13
23	2L	47	7MG	C5-C4-N3	-4.07	120.38	128.13
23	2L	56	PSU	C4-N3-C2	-4.06	120.49	126.34
22	1K	56	PSU	N1-C2-N3	3.91	119.56	115.13
22	1L	47	7MG	C2-N3-C4	3.88	119.22	112.30
23	2K	56	PSU	C6-N1-C2	-3.83	118.76	122.68
23	2L	55	5MU	C5M-C5-C6	-3.81	117.76	122.85
22	1L	8	4SU	C1'-N1-C2	3.76	124.38	117.57
23	2L	8	4SU	N3-C2-N1	3.68	119.78	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	38	2MA	C5-C6-N1	3.66	120.33	114.02
22	1K	8	4SU	S4-C4-N3	3.60	123.76	120.21
22	1K	8	4SU	N3-C2-N1	3.56	119.62	114.89
22	1L	8	4SU	N3-C2-N1	3.51	119.55	114.89
23	2K	47	7MG	C2-N3-C4	3.49	118.52	112.30
23	2L	8	4SU	C5-C4-S4	-3.38	120.11	124.47
22	1K	38	2MA	C5-C6-N1	3.32	119.75	114.02
22	1K	56	PSU	C4-N3-C2	-3.31	121.57	126.34
23	2L	56	PSU	N1-C2-N3	3.18	118.74	115.13
22	1K	47	7MG	N9-C8-N7	-3.16	98.86	103.38
22	1L	47	7MG	C2-N1-C6	-3.14	119.37	125.10
23	2L	47	7MG	O6-C6-C5	-3.13	119.86	127.54
23	2K	8	4SU	C1'-N1-C2	3.10	123.19	117.57
22	1K	56	PSU	C6-N1-C2	-3.10	119.52	122.68
22	1K	8	4SU	C1'-N1-C2	3.09	123.17	117.57
23	2L	47	7MG	N9-C8-N7	-3.04	99.03	103.38
23	2K	8	4SU	S4-C4-N3	3.00	123.17	120.21
23	2K	56	PSU	O2-C2-N1	-2.99	119.50	122.79
22	1L	55	5MU	C6-N1-C2	-2.97	118.29	121.30
22	1L	8	4SU	C5-C4-S4	-2.90	120.73	124.47
22	1L	47	7MG	O6-C6-C5	-2.89	120.44	127.54
23	2L	55	5MU	N3-C2-N1	2.85	118.67	114.89
22	1K	55	5MU	C6-N1-C2	-2.82	118.44	121.30
22	1L	56	PSU	O2-C2-N1	-2.79	119.72	122.79
22	1L	55	5MU	N3-C2-N1	2.74	118.53	114.89
22	1L	47	7MG	N9-C8-N7	-2.74	99.46	103.38
22	1K	47	7MG	O6-C6-C5	-2.74	120.83	127.54
22	1K	47	7MG	C2-N1-C6	-2.72	120.15	125.10
23	2L	55	5MU	O2-C2-N1	-2.70	119.20	122.79
23	2L	47	7MG	C2-N1-C6	-2.68	120.21	125.10
23	2K	8	4SU	O2-C2-N1	-2.67	119.23	122.79
22	1K	38	2MA	C8-N7-C5	2.67	108.08	102.99
23	2L	55	5MU	C6-N1-C2	-2.66	118.60	121.30
22	1L	33	RSP	C1'-N1-C2	2.64	124.29	118.44
23	2K	55	5MU	C5M-C5-C4	2.64	121.67	118.77
23	2K	47	7MG	C2-N1-C6	-2.64	120.29	125.10
22	1K	56	PSU	O2-C2-N1	-2.59	119.94	122.79
22	1K	8	4SU	C6-N1-C2	-2.53	117.76	120.99
23	2K	47	7MG	O6-C6-C5	-2.45	121.54	127.54
22	1K	55	5MU	N3-C2-N1	2.41	118.09	114.89
23	2K	47	7MG	N9-C8-N7	-2.40	99.94	103.38
22	1L	8	4SU	O2-C2-N3	-2.37	117.08	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	38	2MA	C8-N7-C5	2.34	107.44	102.99
23	2K	55	5MU	O4-C4-N3	-2.33	115.65	120.12
22	1L	55	5MU	O2-C2-N1	-2.32	119.70	122.79
23	2L	33	OMC	N4-C4-N3	2.30	122.01	117.97
23	2L	33	OMC	C1'-N1-C2	2.19	123.32	118.42
22	1L	38	2MA	N1-C2-N3	-2.16	119.47	123.06
22	1K	33	RSP	S2-C2-N3	-2.15	117.77	121.49
22	1K	8	4SU	C6-C5-C4	-2.04	118.19	119.95
23	2K	8	4SU	C1'-N1-C6	-2.00	116.48	120.84

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	33	RSP	C3'-C4'-C5'-O5'
23	2K	33	OMC	C1'-C2'-O2'-CM2
23	2K	47	7MG	C2'-C1'-N9-C8
22	1L	33	RSP	C3'-C4'-C5'-O5'
22	1K	8	4SU	O4'-C4'-C5'-O5'
22	1K	33	RSP	O4'-C4'-C5'-O5'
22	1K	8	4SU	C3'-C4'-C5'-O5'
22	1L	33	RSP	O4'-C4'-C5'-O5'
22	1L	8	4SU	C2'-C1'-N1-C6
22	1L	8	4SU	C2'-C1'-N1-C2
23	2L	47	7MG	C4'-C5'-O5'-P
22	1K	47	7MG	C2'-C1'-N9-C8
22	1L	47	7MG	C2'-C1'-N9-C8
23	2L	47	7MG	C3'-C4'-C5'-O5'
22	1L	8	4SU	O4'-C4'-C5'-O5'
22	1K	33	RSP	C2'-C1'-N1-C2
22	1K	47	7MG	O4'-C1'-N9-C8
22	1L	33	RSP	C2'-C1'-N1-C2
22	1L	47	7MG	O4'-C1'-N9-C8
23	2K	47	7MG	C2'-C1'-N9-C4

There are no ring outliers.

17 monomers are involved in 34 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	33	OMC	1	0
22	1K	8	4SU	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	47	7MG	4	0
22	1L	8	4SU	1	0
22	1L	56	PSU	1	0
23	2K	8	4SU	1	0
22	1K	38	2MA	2	0
22	1K	33	RSP	3	0
23	2L	55	5MU	2	0
22	1K	47	7MG	3	0
23	2L	8	4SU	1	0
23	2K	47	7MG	1	0
22	1K	56	PSU	1	0
23	2K	55	5MU	3	0
22	1L	55	5MU	1	0
22	1L	33	RSP	4	0
23	2K	33	OMC	1	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1768 ligands modelled in this entry, 1766 are monoatomic - leaving 2 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	$\#\|Z\| > 2$
61	SF4	3E	303	4	0,12,12	-	-	-		
61	SF4	32	303	4	0,12,12	-	-	-		

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
61	SF4	3E	303	4	-	-	0/6/5/5
61	SF4	32	303	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
61	3E	303	SF4	2	0
61	32	303	SF4	2	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
24	3L	1
24	3K	1
32	41	1
29	11	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	3L	49:C	O3'	50:G	P	6.50
1	3K	49:C	O3'	50:G	P	5.32
1	41	140:ILE	C	141:PHE	N	1.19
1	11	239:ARG	C	240:ALA	N	1.09

6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

Unable to reproduce the depositors R factor - this section is therefore empty.

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

Unable to reproduce the depositors R factor - this section is therefore empty.

6.3 Carbohydrates (i)

Unable to reproduce the depositors R factor - this section is therefore empty.

6.4 Ligands (i)

Unable to reproduce the depositors R factor - this section is therefore empty.

6.5 Other polymers (i)

Unable to reproduce the depositors R factor - this section is therefore empty.