Full wwPDB X-ray Structure Validation Report (i)

Jan 4, 2024 – 06:46 pm GMT

PDB ID	:	4WQR
Title	:	Complex of 70S ribosome with tRNA-Phe and mRNA with C-A mismatch in the first position in the A-site.
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2014-10-22
Resolution	:	3.15 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:

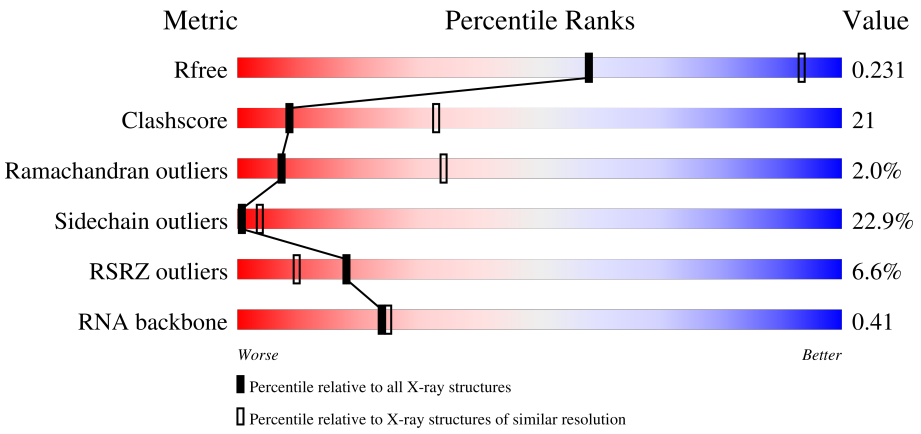
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.15 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)
RSRZ outliers	127900	1616 (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% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	13	1522	27% 44% 24% • •
1	1G	1522	31% 46% 19% • •
2	12	256	11% 48% 36% 8% • 7%
2	1E	256	10% 38% 41% 13% • 7%

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Mol	Chain	Length	Quality of chain
3	22	239	16% 39% 41% 5% 14%
3	2E	239	7% 45% 35% 6% 14%
4	32	209	8% 49% 38% 11% •
4	3E	209	9% 42% 46% 11%
5	42	162	9% 37% 44% 12% 7%
5	4E	162	9% 46% 36% 11% 7%
6	52	101	10% 44% 47% 10%
6	5E	101	3% 51% 44% 5%
7	62	156	12% 46% 44% 10% •
7	6E	156	9% 53% 38% 8% •
8	72	138	5% 46% 38% 14% •
8	7E	138	7% 40% 51% 9% •
9	82	128	5% 45% 42% 9% • •
9	8E	128	43% 45% 11% •
10	1A	105	10% 43% 41% 10% • 6%
10	1I	105	10% 36% 45% 13% 6%
11	2A	129	35% 45% 34% 13% 8%
11	2I	129	20% 43% 40% 10% 8%
12	3A	132	23% 50% 34% 10% • 5%
12	3I	132	5% 51% 36% 8% 5%
13	4A	126	10% 36% 46% 11% 7%
13	4I	126	2% 41% 44% 9% 6%
14	5A	61	20% 51% 38% 7% 5%
14	5I	61	3% 41% 44% 13% •
15	6A	89	% 58% 36% • •

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Mol	Chain	Length	Quality of chain
15	6I	89	6% 55% 38%
16	7A	88	2% 42% 40% 14% 5%
16	7I	88	30% 51% 15% 5%
17	8A	105	2% 50% 40% 5% 5%
17	8I	105	5% 40% 44% 11% 5%
18	9A	88	24% 38% 35% 9% 18%
18	9I	88	20% 43% 31% 8% 18%
19	AA	93	12% 26% 49% 8% 16%
19	AI	93	13% 30% 40% 15% 13%
20	BA	106	3% 46% 36% 9% 7%
20	BI	106	46% 38% 9% 7%
21	1B	27	44% 41% 7% 7%
21	1F	27	44% 44% 7%
22	1K	76	39% 36% 36% 25%
22	1L	76	50% 30% 42% 26%
23	2K	77	% 26% 42% 21% 12%
23	2L	77	% 29% 47% 18% 6%
24	3K	76	5% 25% 28% 39% 8%
24	3L	76	8% 17% 42% 37%
25	4K	30	27% 17% 53%
25	4L	30	7% 10% 80%
26	14	2917	% 24% 43% 27% 6%
26	1H	2917	% 18% 41% 32% 8%
27	16	122	% 29% 42% 25%
27	1J	122	% 24% 43% 27% 7%

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Mol	Chain	Length	Quality of chain
28	11	276	45% 41% 12%
28	19	276	46% 39% 11%
29	21	206	12% 42% 40% 15%
29	29	206	12% 38% 45% 15%
30	31	210	% 43% 41% 11%
30	39	210	12% 39% 43% 16%
31	41	182	11% 52% 36% 11%
31	49	182	42% 47% 43% 10%
32	51	180	7% 41% 40% 16%
32	59	180	26% 37% 44% 12% 6%
33	61	148	8% 36% 49% 11%
33	69	148	17% 42% 39% 16%
34	15	140	6% 50% 38% 11%
34	58	140	4% 44% 41% 13%
35	25	122	2% 46% 45% 9%
35	68	122	2% 64% 31%
36	35	150	19% 35% 43% 17% 5%
36	78	150	7% 36% 45% 18%
37	45	141	13% 33% 52% 14%
37	88	141	2% 38% 45% 13%
38	55	118	3% 33% 52% 14%
38	98	118	2% 34% 44% 19%
39	65	112	12% 41% 41% 13%
39	A8	112	4% 34% 48% 16%
40	75	146	3% 35% 44% 15% 6%

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Mol	Chain	Length	Quality of chain
40	B8	146	%, 35%, 45%, 14%, 6%
41	85	118	6%, 48%, 41%, 10%
41	C8	118	2%, 42%, 44%, 10%
42	95	101	18%, 44%, 44%, 12%
42	D8	101	13%, 42%, 45%, 13%
43	A5	113	%, 46%, 47%, 7%
43	E8	113	4%, 44%, 40%, 15%
44	B5	96	5%, 45%, 41%, 11%
44	F8	96	5%, 44%, 43%, 10%
45	C5	110	18%, 33%, 42%, 18%, 5%
45	G8	110	5%, 33%, 42%, 16%, 5%
46	D5	206	38%, 30%, 45%, 10%, 13%
46	H8	206	7%, 32%, 43%, 8%, 15%
47	E5	85	7%, 35%, 46%, 8%, 9%
47	I8	85	2%, 46%, 36%, 12%, 6%
48	F5	98	13%, 46%, 43%, 7%
48	J8	98	10%, 49%, 35%, 13%
49	G5	72	4%, 38%, 39%, 11%, 8%
49	K8	72	%, 29%, 46%, 14%, 7%
50	H5	60	8%, 52%, 32%, 15%
50	L8	60	5%, 45%, 28%, 18%, 5%
51	I5	71	63%, 31%, 46%, 11%, 11%
51	M8	71	31%, 27%, 44%, 20%, 7%
52	J5	60	5%, 43%, 42%, 13%
52	N8	60	12%, 43%, 37%, 13%

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Mol	Chain	Length	Quality of chain
53	K5	54	78%; 22%; 56%; 6%; 17%
53	O8	54	78%; 22%; 37%; 19%; 6%; 17%
54	L5	49	47%; 39%; 8%; 6%
54	P8	49	43%; 45%; 10%; •
55	M5	65	3%; 32%; 43%; 14%; •; 8%
55	Q8	65	2%; 9%; 32%; 32%; 18%; 8%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	11	304	-	-	-	X
56	MG	13	1610	-	-	-	X
56	MG	13	1623	-	-	-	X
56	MG	13	1648	-	-	-	X
56	MG	13	1674	-	-	-	X
56	MG	13	1680	-	-	-	X
56	MG	13	1681	-	-	-	X
56	MG	13	1694	-	-	-	X
56	MG	13	1701	-	-	-	X
56	MG	13	1704	-	-	-	X
56	MG	14	3036	-	-	-	X
56	MG	14	3067	-	-	-	X
56	MG	14	3096	-	-	-	X
56	MG	14	3109	-	-	-	X
56	MG	14	3110	-	-	-	X
56	MG	14	3113	-	-	-	X
56	MG	14	3114	-	-	-	X
56	MG	14	3117	-	-	-	X
56	MG	14	3119	-	-	-	X
56	MG	14	3128	-	-	-	X
56	MG	14	3148	-	-	-	X
56	MG	14	3167	-	-	-	X
56	MG	14	3171	-	-	-	X
56	MG	14	3181	-	-	-	X
56	MG	14	3189	-	-	-	X
56	MG	14	3192	-	-	-	X
56	MG	14	3193	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	14	3195	-	-	-	X
56	MG	14	3197	-	-	-	X
56	MG	14	3199	-	-	-	X
56	MG	14	3201	-	-	-	X
56	MG	14	3214	-	-	-	X
56	MG	14	3215	-	-	-	X
56	MG	14	3218	-	-	-	X
56	MG	14	3219	-	-	-	X
56	MG	14	3240	-	-	-	X
56	MG	14	3245	-	-	-	X
56	MG	14	3252	-	-	-	X
56	MG	14	3253	-	-	-	X
56	MG	14	3255	-	-	-	X
56	MG	14	3257	-	-	-	X
56	MG	16	205	-	-	-	X
56	MG	1G	1624	-	-	-	X
56	MG	1G	1628	-	-	-	X
56	MG	1G	1652	-	-	-	X
56	MG	1G	1654	-	-	-	X
56	MG	1G	1664	-	-	-	X
56	MG	1G	1669	-	-	-	X
56	MG	1G	1670	-	-	-	X
56	MG	1G	1677	-	-	-	X
56	MG	1G	1680	-	-	-	X
56	MG	1G	1682	-	-	-	X
56	MG	1H	3059	-	-	-	X
56	MG	1H	3067	-	-	-	X
56	MG	1H	3127	-	-	-	X
56	MG	1H	3176	-	-	-	X
56	MG	1H	3182	-	-	-	X
56	MG	1H	3184	-	-	-	X
56	MG	1H	3186	-	-	-	X
56	MG	1H	3199	-	-	-	X
56	MG	1H	3205	-	-	-	X
56	MG	1H	3216	-	-	-	X
56	MG	1H	3226	-	-	-	X
56	MG	1H	3227	-	-	-	X
56	MG	1H	3230	-	-	-	X
56	MG	1H	3236	-	-	-	X
56	MG	1H	3243	-	-	-	X
56	MG	1H	3259	-	-	-	X
56	MG	1H	3266	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1H	3268	-	-	-	X
56	MG	1H	3274	-	-	-	X
56	MG	1H	3279	-	-	-	X
56	MG	1H	3282	-	-	-	X
56	MG	1H	3285	-	-	-	X
56	MG	1H	3286	-	-	-	X
56	MG	1H	3290	-	-	-	X
56	MG	1H	3292	-	-	-	X
56	MG	1H	3293	-	-	-	X
56	MG	1H	3296	-	-	-	X
56	MG	1H	3301	-	-	-	X
56	MG	1H	3307	-	-	-	X
56	MG	1H	3327	-	-	-	X
56	MG	1H	3333	-	-	-	X
56	MG	1H	3335	-	-	-	X
56	MG	29	302	-	-	-	X
56	MG	2L	102	-	-	-	X
56	MG	4A	201	-	-	-	X
56	MG	P8	101	-	-	-	X
57	ZN	G8	201	-	-	-	X

2 Entry composition (i)

There are 58 unique types of molecules in this entry. The entry contains 300537 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	1498	32207	14334	5973	10402	1498	0	0	0
1	1G	1497	32182	14324	5968	10394	1496	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	237	1924	1228	344	347	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	206	1612	1016	314	281	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	208	1703	1066	339	291	7	0	0	0
4	32	208	1703	1066	339	291	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	151	1155	729	218	204	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	843	531	155	154	3	0	0	0
6	52	101	843	531	155	154	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	155	1257	781	252	218	6	0	0	0
7	62	155	1257	781	252	218	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	1116	705	215	193	3	0	0	0
8	72	138	1116	705	215	193	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	127	1010	639	197	174	0	0	0
9	82	127	1010	639	197	174	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	119	885	549	168	165	3	0	0	0
11	2A	119	885	549	168	165	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	125	975	614	196	164	1	0	0	0
12	3A	125	975	614	196	164	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	118	938	580	193	163	2	0	0	0
13	4A	117	933	577	192	162	2	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
4I	119	ALA	GLY	conflict	UNP P80377
4A	119	ALA	GLY	conflict	UNP P80377

- 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	60	492	312	104	72	4	0	0	0
14	5A	58	476	303	99	70	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	88	734	459	147	126	2	0	0	0
15	6A	88	734	459	147	126	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	84	705	446	140	118	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	100	834	534	155	143	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	72	591	376	117	98	0	0	0
18	9A	72	591	376	117	98	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	81	647	413	119	113	2	0	0	0
19	AA	78	624	398	115	109	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	99	763	470	162	129	2	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	BA	99	763	470	162	129	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	25	217	134	52	31	0	0	0
21	1B	25	217	134	52	31	0	0	0

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	P	S			
22	1K	76	1626	729	290	531	75	1	0	0	0
22	1L	76	1626	729	290	531	75	1	0	0	0

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

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

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
2K	18	C	U	conflict	GB 675817920
2L	18	C	U	conflict	GB 675817920

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
24	3K	76	1619	723	290	531	75	0	0	0
24	3L	76	1619	723	290	531	75	0	0	0

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
25	4K	14	301	136	60	91	14	0	0	0
25	4L	6	131	59	27	39	6	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	2912	62707	27911	11722	20163	2911	0	0	0
26	14	2909	62647	27884	11716	20139	2908	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			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 L2.

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	31	202	1585	1011	297	275	2	0	0	0
30	39	208	1627	1037	304	283	3	0	0	0

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
35	68	122	933	588	171	170	4	0	0	0
			Total	C	N	O	S			
35	25	122	933	588	171	170	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	78	150	1145	712	232	198	3	0	0	0
			Total	C	N	O	S			
36	35	150	1145	712	232	198	3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
37	88	138	1087	693	208	180	6	0	0	0
			Total	C	N	O	S			
37	45	141	1122	715	212	188	7	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	98	118	968	604	203	160	1	0	0	0
			Total	C	N	O				
38	55	117	960	599	202	159		0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
39	A8	111	882	556	176	150	0	0	0
			Total	C	N	O			
39	65	111	882	556	176	150	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
41	C8	117	964	610	202	151	1	0	0	0
41	85	117	964	610	202	151	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
42	D8	101	779	501	142	135	1	0	0	0
42	95	101	779	501	142	135	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	E8	113	900	566	177	155	2	0	0	0
43	A5	113	900	566	177	155	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	F8	94	742	482	134	125	1	0	0	0
44	B5	93	Total	C	N	O		0	0	0
			730	474	132	124				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	G8	104	791	510	149	127	5	0	0	0
45	C5	104	794	510	152	127	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	H8	175	1397	892	251	251	3	0	0	0
46	D5	179	1428	911	255	259	3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	I8	80	627	388	132	106	1	0	0	0
47	E5	77	613	379	129	104	1	0	0	0

There are 4 discrepancies between the modelled and reference sequences:

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
48	J8	97	763	481	150	131	1	0	0	0
48	F5	97	763	481	150	131	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
49	K8	67	563	349	114	99	1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
49	G5	66	558	346	113	98	1	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
50	L8	57	452	288	88	76	0	0	0
50	H5	59	469	298	90	81	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	N8	58	454	285	89	75	5	0	0	0
52	J5	59	459	288	90	76	5	0	0	0

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	O8	45	389	241	79	65	4	0	0	0
53	K5	45	389	241	79	65	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
54	P8	48	418	257	104	55	2	0	0	0
54	L5	46	398	245	98	53	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
55	Q8	60	480	306	98	74	2	0	0	0
			Total	C	N	O	S			
55	M5	60	477	303	98	74	2	0	0	0

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	13	151	151	151	0	0
			Total	Mg		
56	3E	2	2	2	0	0
			Total	Mg		
56	5E	1	1	1	0	0
			Total	Mg		
56	3I	1	1	1	0	0
			Total	Mg		
56	AI	1	1	1	0	0
			Total	Mg		
56	1K	2	2	2	0	0
			Total	Mg		
56	2K	3	3	3	0	0
			Total	Mg		
56	1H	529	529	529	0	0
			Total	Mg		
56	16	13	13	13	0	0
			Total	Mg		
56	11	4	4	4	0	0
			Total	Mg		
56	21	2	2	2	0	0
			Total	Mg		
56	31	1	1	1	0	0
			Total	Mg		
56	41	2	2	2	0	0
			Total	Mg		
56	78	2	2	2	0	0
			Total	Mg		
56	88	2	2	2	0	0
			Total	Mg		
56	98	1	1	1	0	0
			Total	Mg		
56	C8	1	1	1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	E8	1	1	1	0	0
56	I8	2	2	2	0	0
56	J8	2	2	2	0	0
56	L8	1	1	1	0	0
56	P8	1	1	1	0	0
56	Q8	1	1	1	0	0
56	1G	103	103	103	0	0
56	4A	1	1	1	0	0
56	6A	1	1	1	0	0
56	2L	2	2	2	0	0
56	14	389	389	389	0	0
56	1J	9	9	9	0	0
56	29	2	2	2	0	0
56	49	1	1	1	0	0
56	35	1	1	1	0	0
56	75	1	1	1	0	0
56	85	1	1	1	0	0
56	C5	1	1	1	0	0
56	F5	1	1	1	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	3E	1	Total Zn 1 1	0	0
57	5I	1	Total Zn 1 1	0	0
57	G8	1	Total Zn 1 1	0	0
57	32	1	Total Zn 1 1	0	0
57	5A	1	Total Zn 1 1	0	0
57	C5	1	Total Zn 1 1	0	0

- Molecule 58 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	13	212	Total O 212 212	0	0
58	3E	1	Total O 1 1	0	0
58	4E	2	Total O 2 2	0	0
58	8E	2	Total O 2 2	0	0
58	1I	2	Total O 2 2	0	0
58	3I	1	Total O 1 1	0	0
58	5I	2	Total O 2 2	0	0
58	1K	1	Total O 1 1	0	0
58	3K	1	Total O 1 1	0	0
58	4K	4	Total O 4 4	0	0
58	1H	1097	Total O 1097 1097	0	0
58	16	16	Total O 16 16	0	0
58	11	9	Total O 9 9	0	0
58	21	5	Total O 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	31	10	Total O 10 10	0	0
58	58	1	Total O 1 1	0	0
58	78	4	Total O 4 4	0	0
58	98	1	Total O 1 1	0	0
58	C8	2	Total O 2 2	0	0
58	D8	1	Total O 1 1	0	0
58	E8	2	Total O 2 2	0	0
58	G8	3	Total O 3 3	0	0
58	I8	6	Total O 6 6	0	0
58	L8	2	Total O 2 2	0	0
58	P8	2	Total O 2 2	0	0
58	Q8	2	Total O 2 2	0	0
58	1G	99	Total O 99 99	0	0
58	7A	2	Total O 2 2	0	0
58	BA	1	Total O 1 1	0	0
58	14	730	Total O 730 730	0	0
58	1J	12	Total O 12 12	0	0
58	19	11	Total O 11 11	0	0
58	29	6	Total O 6 6	0	0
58	39	7	Total O 7 7	0	0
58	55	1	Total O 1 1	0	0

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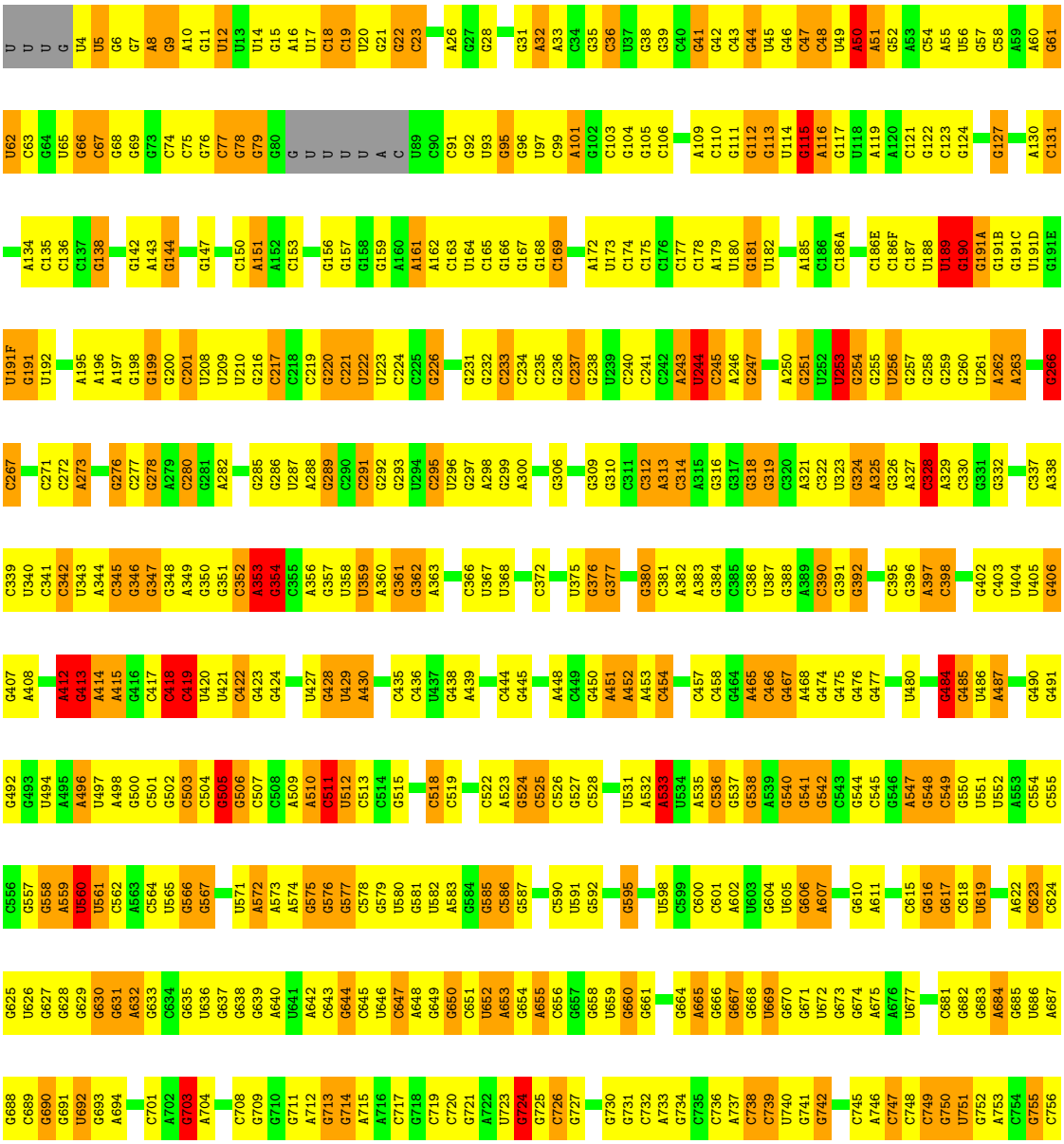
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	85	1	Total O 1 1	0	0
58	A5	1	Total O 1 1	0	0
58	H5	1	Total O 1 1	0	0
58	L5	1	Total O 1 1	0	0

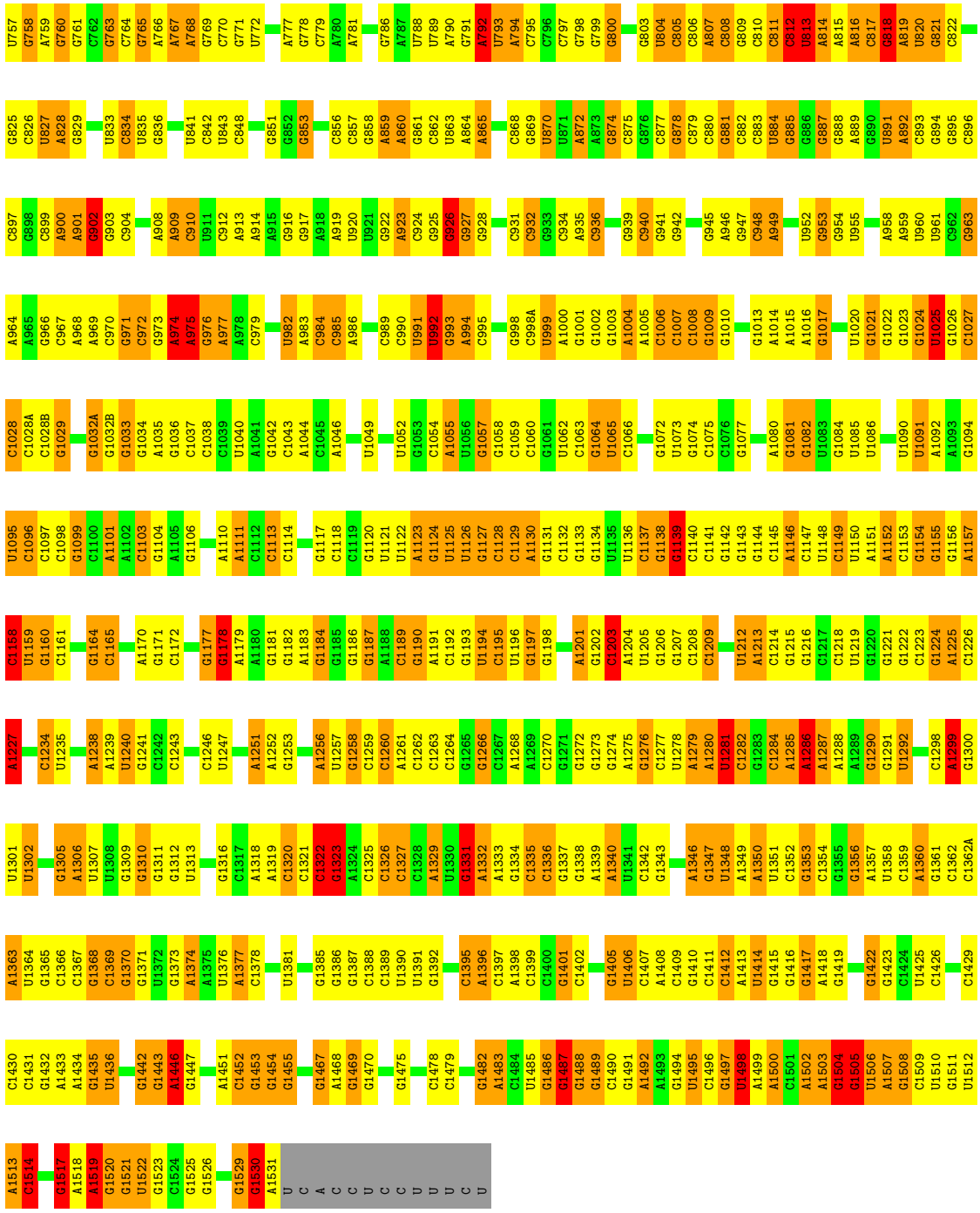
3 Residue-property plots (i)

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

- Molecule 1: 16S ribosomal RNA

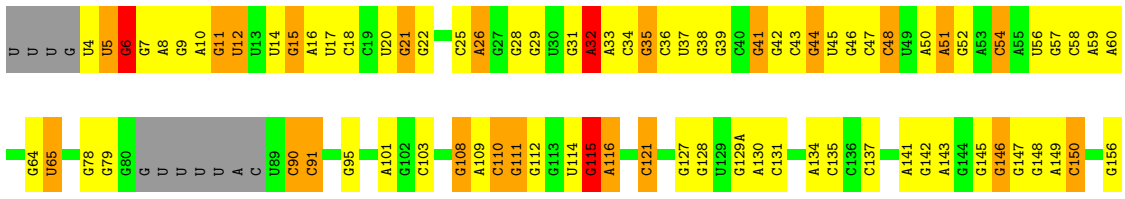
Chain 13: 27% 44% 24%



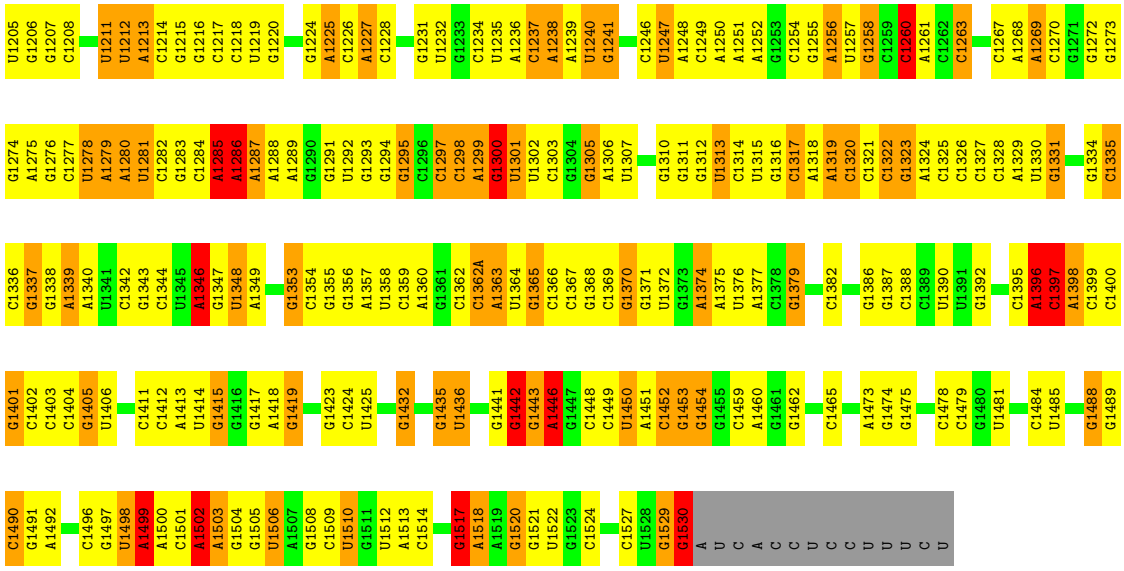


• Molecule 1: 16S ribosomal RNA

Chain 1G:

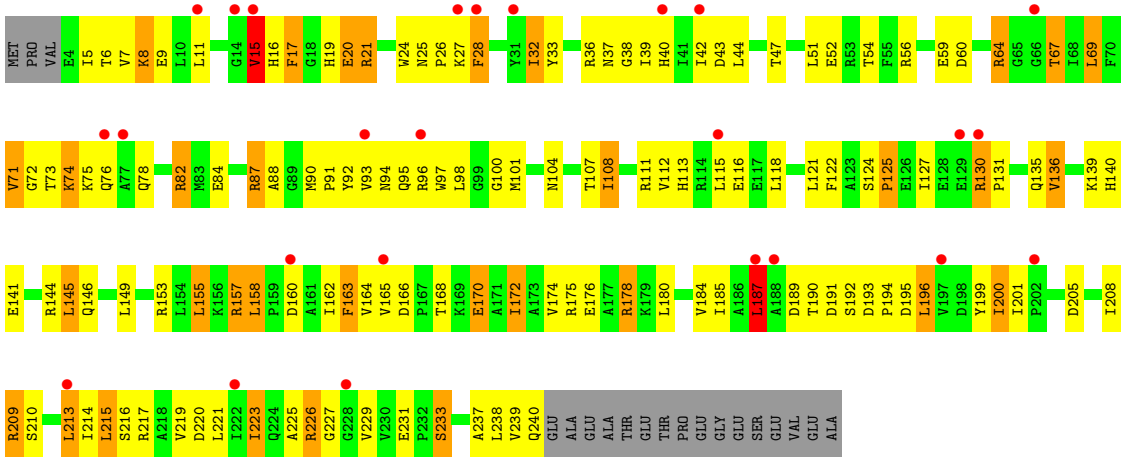


G157 A162 C163 U164 C165 G166 G167 G168 U173 C174 C175 C176 C177 C178 A179 U180 G181 U182 G183 C186A C186B C186C C186D C187 U188 U189 G190 G191A U191D G191E U191F G191 U192 C193 C194 A195 A196 A197 G198 G199 G200 C201 U208 U209 U210 G216 C217 C218 C219 G220 C221 U222 U223 G227
A228 U229 G230 G231 G232 C233 C234 C235 G236 C237 C240 A243 U244 C245 A246 G247 C248 U249 A250 G251 U252 U253 G254 G258 G259 G260 U261 A262 A263 U264 G265 G266 C267 C268 G275 C280 G281 A282 C283 G284 G285 G286 U287 A288 U289 U296 G297 A298 G299 A300 G301 G302 A303 U304
G305 G306 G309 G310 A313 C314 A315 G316 G317 G318 G319 C320 A321 C322 U323 G324 A325 G326 A327 C328 A329 C330 G331 G332 G333 C334 C337 A338 C339 U340 C341 G345 G346 G347 G348 A349 G350 U351 C352 A353 G354 C355 A356 G357 U358 U359 A360 G361 G362 A363 C366 U367 G371 C372
A373 A374 U375 G376 G377 A382 A383 G388 A389 G390 G391 G392 G396 A397 G398 G399 C400 C401 G402 C403 U404 U405 G406 G407 A408 G409 G410 A411 A412 G413 A414 A415 G416 C417 C418 G419 U420 U421 C422 G423 G424 G425 G426 U427 G428 U429 A430 A431 A432 C433 U434 C435 C436 U437 G438 A439 A440
C442 C443 C444 G445 G446 G447 A448 C449 G450 A451 A452 A453 C457 C458 G464 A465 C466 G467 A468 G474 G475 G476 G477 U480 G481 A482 C483 G484 G485 U486 A487 C488 C489 G490 A496 U497 A498 G500 C501 G502 C503 C504 G505 A509 A510 C511 U512 C513 C518 C519 A520 G521 C522 A523 G524
C525 C526 G527 C528 G529 G530 U531 A532 A533 U534 A535 C536 G537 G538 A539 G540 G541 G544 C545 G546 A547 U552 A553 C554 C555 C556 G557 G558 A559 U560 U561 C562 A563 C564 U565 G566 G567 G568 C569 G570 U571 A572 A573 A574 G575 G576 G577 C578 G579 U580 G581 U582 A583 G584 G585 C586 G587 G588
C589 C590 U591 G592 C596 G597 U598 C599 C600 C601 G604 U605 G606 A607 A608 A609 A614 C615 G616 G617 C618 U619 C620 A621 A622 C623 C624 G625 U626 G627 G628 G629 G630 G631 A632 G633 U636 G637 G638 G639 A640 U641 A642 U646 C647 A648 G649 G650 C651 U652 A653 U659 G660 G661
G662 A663 G664 A665 G666 G667 G668 U669 G670 G673 G674 A675 A676 U677 C680 G683 A684 G685 U686 A687 G688 C689 G690 G691 U692 G693 A694 U697 C701 A702 G703 A704 C707 C708 G709 G710 G713 G714 A715 A716 C720 G721 A722 U723 G724 A728 A729 G730 G731 C735
C736 A737 C738 G741 G742 U743 C744 C745 A746 C747 C748 C749 G750 C754 G755 C756 U757 G758 A759 G760 G763 C764 G765 A766 A767 A768 G769 U772 G775 G776 A777 G778 C779 A780 A781 A782 C783 C784 G785 A790 G791 A792 U793 A794 G798 U801 A802 G803 U804 C805 C806 A807
C808 C811 C812 U813 A814 A815 A816 C817 G818 A819 U820 G821 C822 G823 C826 U827 A828 G829 G830 U831 G836 G837 G838 U841 C842 U843 C848 C849 U850 G851 G852 G853 G854 G855 C856 C857 G858 A859 A860 G861 C862 A865 C868 G869 U870 U871 A872 A873 G874 C875 G878 C879 C880 G881
C882 C883 U884 G885 G886 G887 G888 A889 G890 U891 A892 C893 G894 G895 C896 C897 G898 C899 A900 A901 G902 G903 C904 U905 G906 A909 C910 U911 C912 A913 A914 A915 G916 G917 A918 A919 G922 A923 C924 G925 G926 G927 C932 G933 C934 A935 C936 A937 A938 G939 C940 G941 G942 U943 G944 G945 A946
G947 G948 A949 U950 G951 U952 G953 G954 U955 U956 U957 A958 A959 U960 U961 C962 G963 A964 A965 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 G987 U991 U992 G993 A994 C995 G998 C998A U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 C1007 C1008
G1009 G1010 G1013 A1014 A1015 A1016 G1017 U1020 G1023 G1024 U1025 G1026 C1027 C1028 C1028A C1028B U1029 C1030 G1031 A1032 G1032A G1032B G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1046 G1047 G1048 U1049 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068
G1072 U1073 G1074 C1075 U1078 G1079 A1080 G1081 G1082 U1083 G1084 U1085 U1086 A1092 A1093 G1094 U1096 C1096 C1097 C1098 G1099 C1100 A1101 A1102 C1103 G1104 A1105 G1106 C1107 G1108 A1111 C1112 C1113 C1114 C1115 C1116 G1117 C1118 C1119 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 U1136 C1137 G1138
G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 C1153 G1154 G1155 G1156 A1157 C1158 U1159 G1160 C1161 C1162 C1163 G1171 C1172 C1173 G1174 G1175 A1176 G1177 G1178 A1179 A1180 G1181 A1182 A1183 G1184 G1185 G1186 G1187 A1188 C1189 G1190 A1191 C1192 G1193 U1194 C1195 U1196 G1197 G1198 U1199 C1200 A1201 G1202 C1203 A1204



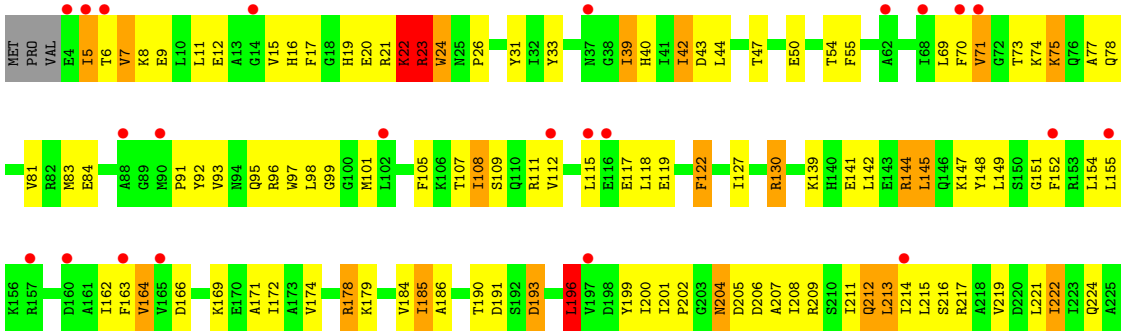
- Molecule 2: 30S ribosomal protein S2

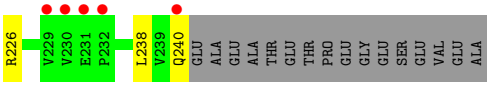
Chain 1E:



- Molecule 2: 30S ribosomal protein S2

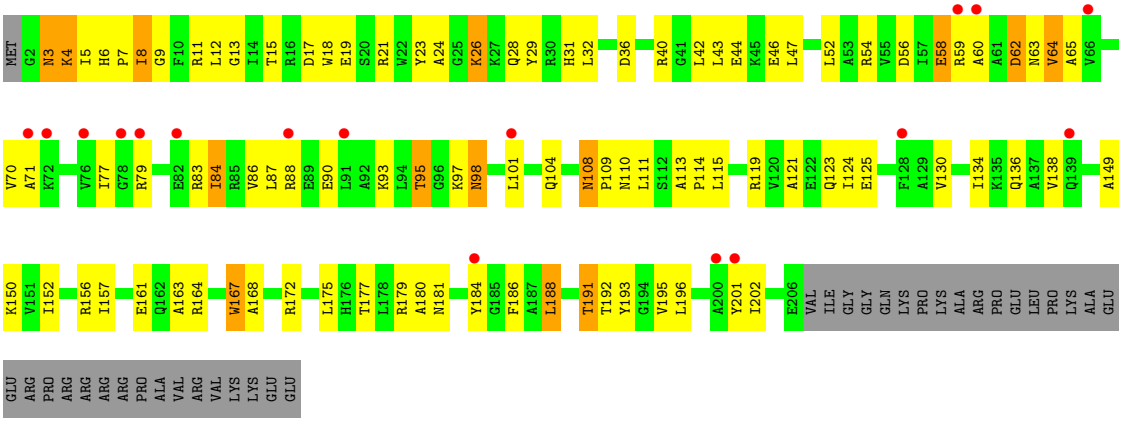
Chain 12:





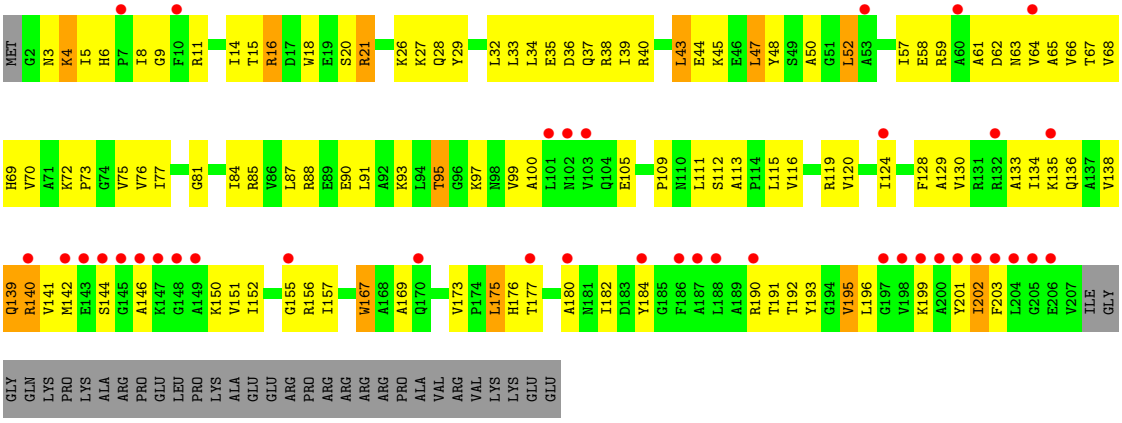
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



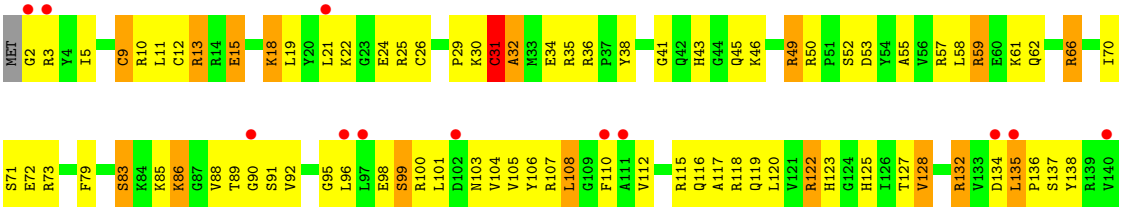
• Molecule 3: 30S ribosomal protein S3

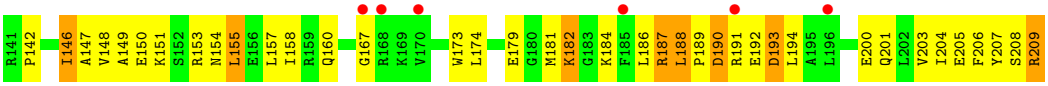
Chain 22:



• Molecule 4: 30S ribosomal protein S4

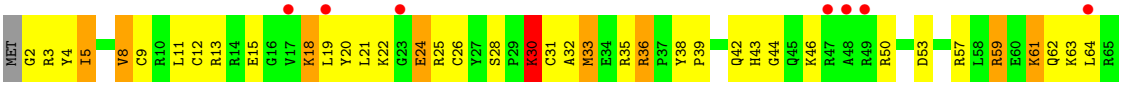
Chain 3E:

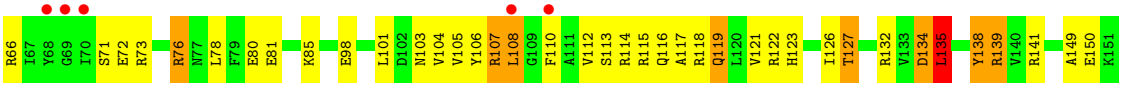


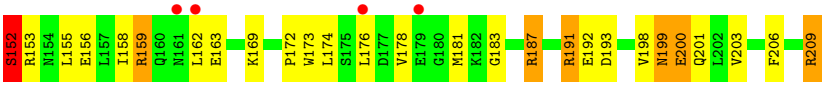


• Molecule 4: 30S ribosomal protein S4

Chain 32:

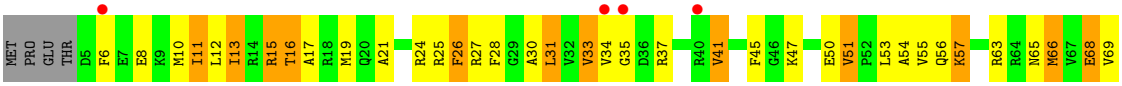


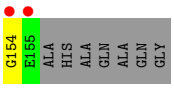




• Molecule 5: 30S ribosomal protein S5

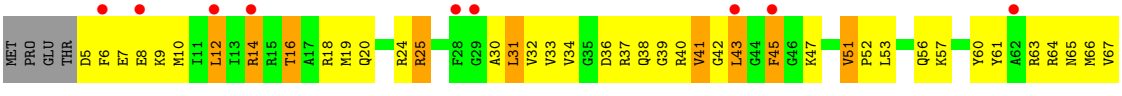
Chain 4E:

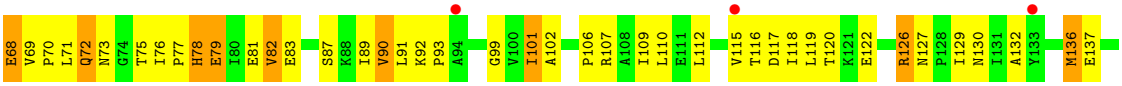


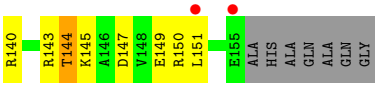


• Molecule 5: 30S ribosomal protein S5

Chain 42:

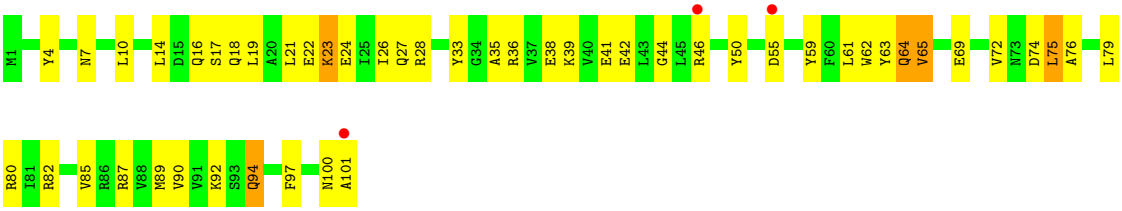






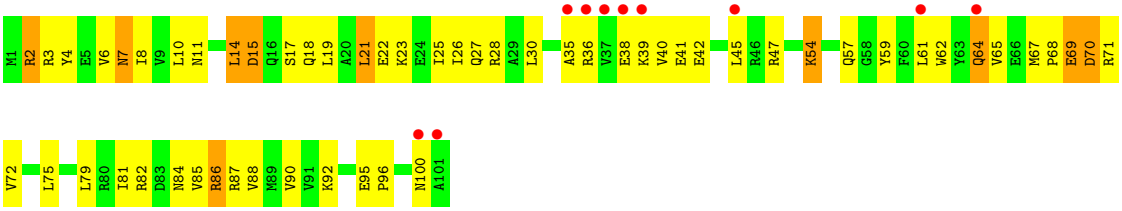
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



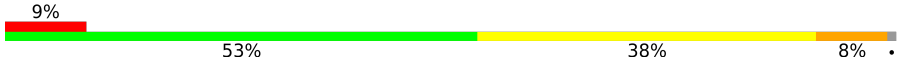
• Molecule 6: 30S ribosomal protein S6

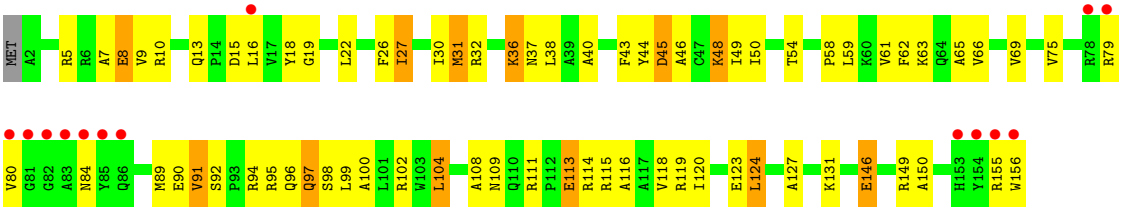
Chain 52:



• Molecule 7: 30S ribosomal protein S7

Chain 6E:



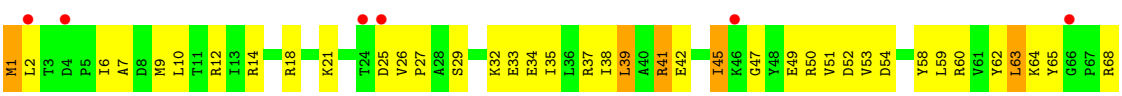


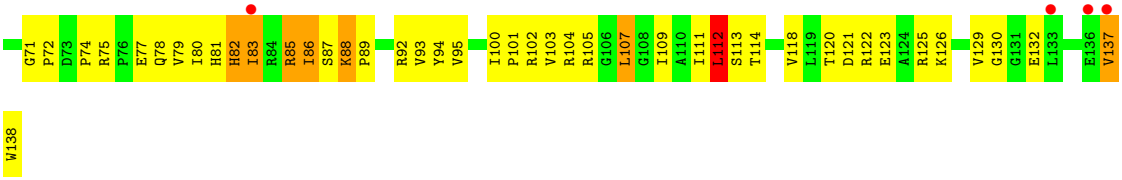
• Molecule 7: 30S ribosomal protein S7

Chain 62:

• Molecule 8: 30S ribosomal protein S8

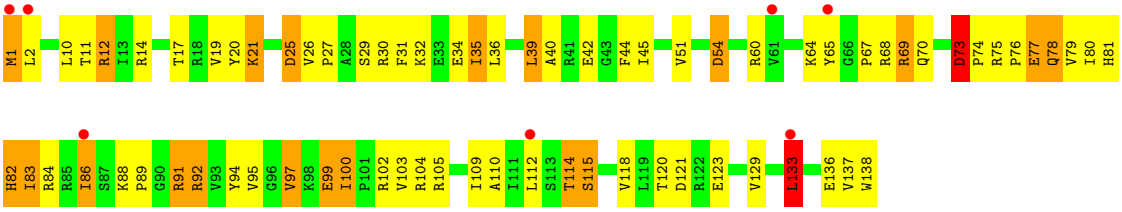
Chain 7E:





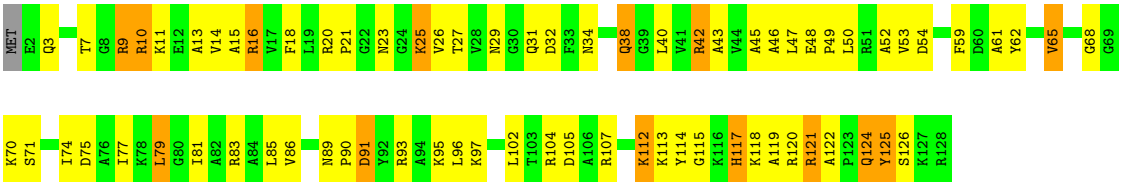
• Molecule 8: 30S ribosomal protein S8

Chain 72:



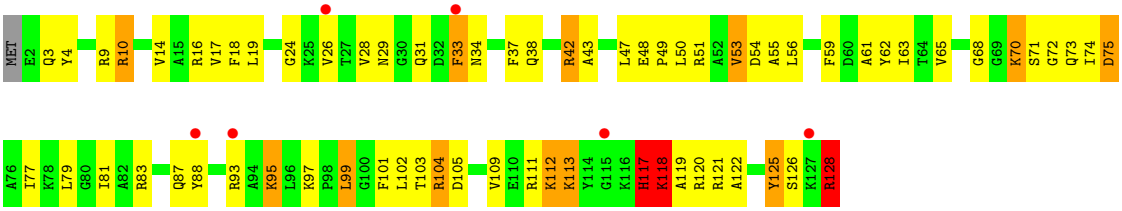
• Molecule 9: 30S ribosomal protein S9

Chain 8E:



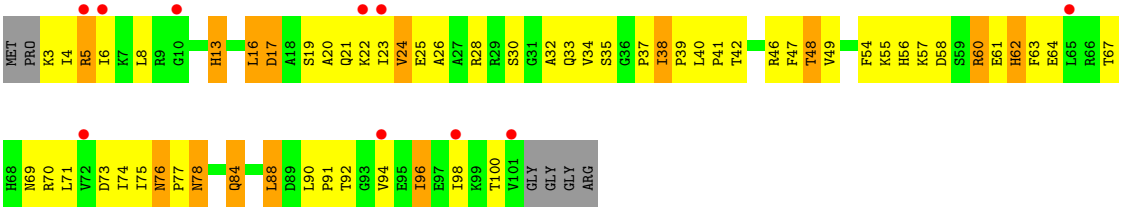
• Molecule 9: 30S ribosomal protein S9

Chain 82:



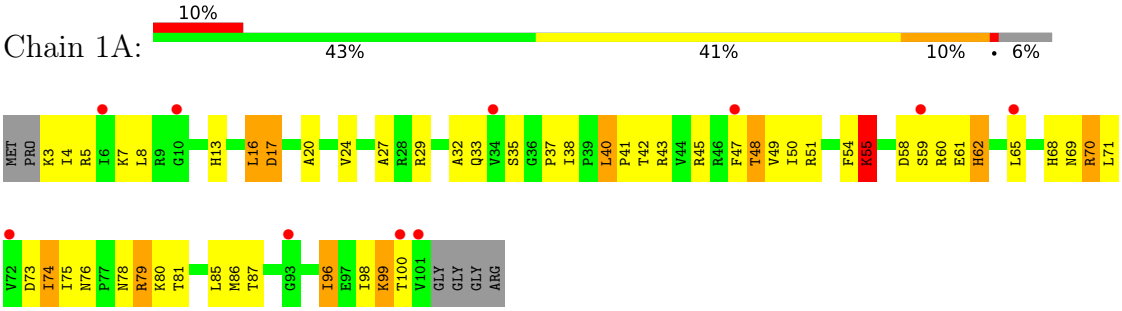
• Molecule 10: 30S ribosomal protein S10

Chain 1I:



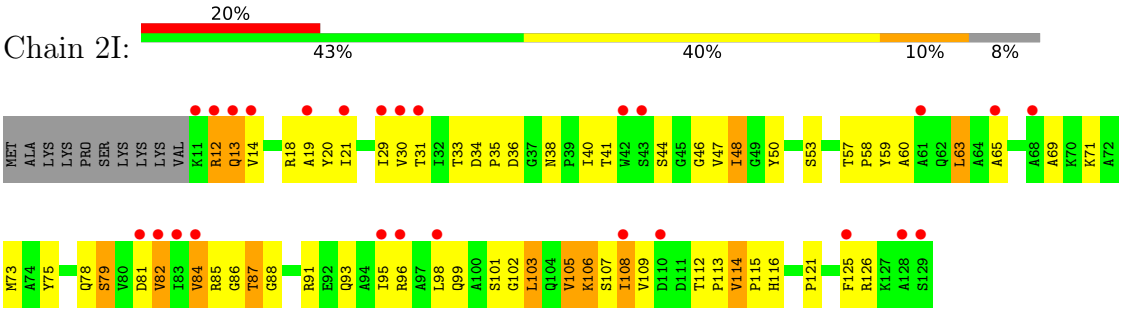
• Molecule 10: 30S ribosomal protein S10

Chain 1A:



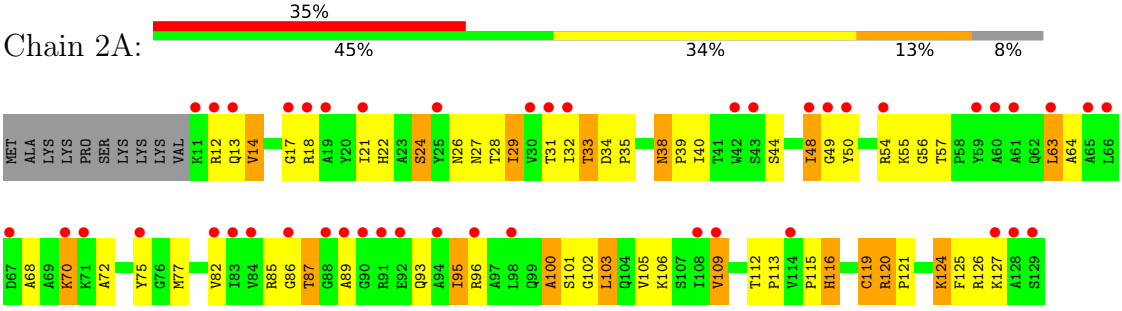
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



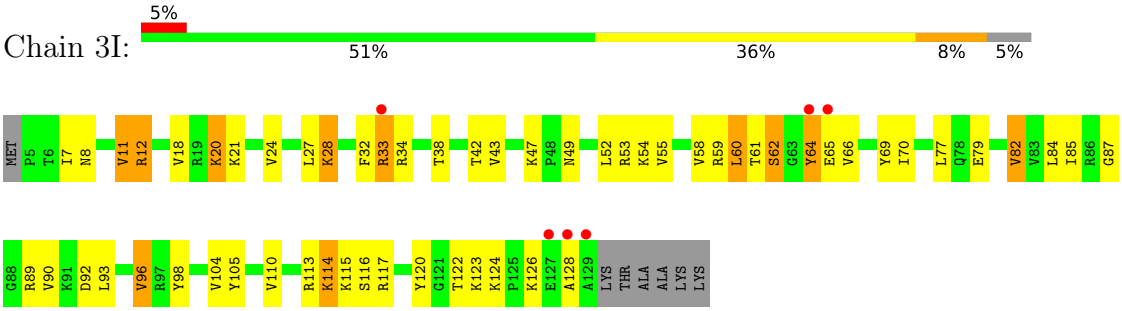
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



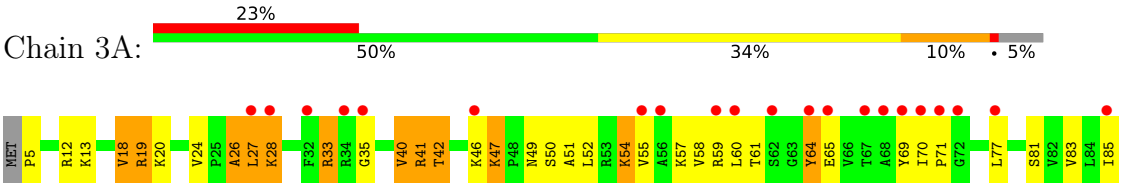
• Molecule 12: 30S ribosomal protein S12

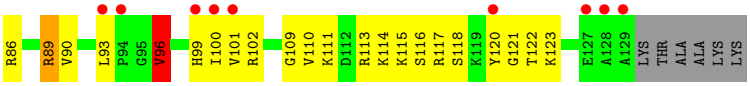
Chain 3I:



• Molecule 12: 30S ribosomal protein S12

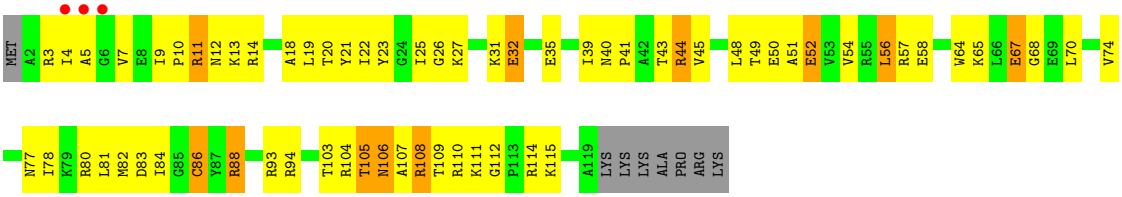
Chain 3A:





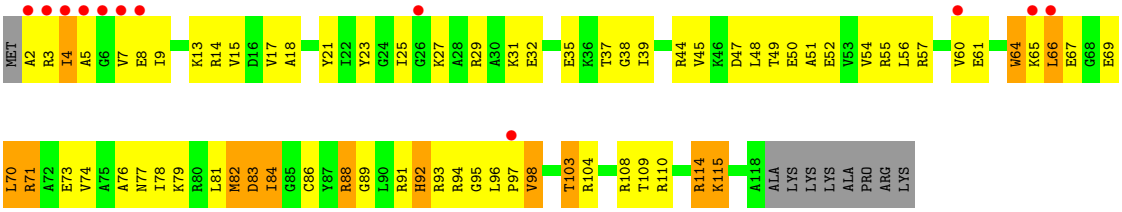
• Molecule 13: 30S ribosomal protein S13

Chain 4I:



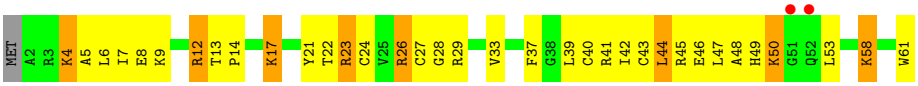
• Molecule 13: 30S ribosomal protein S13

Chain 4A:



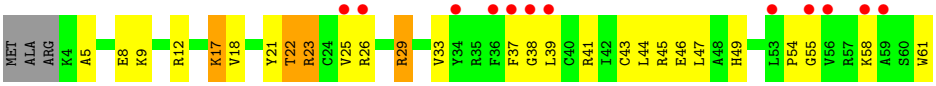
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



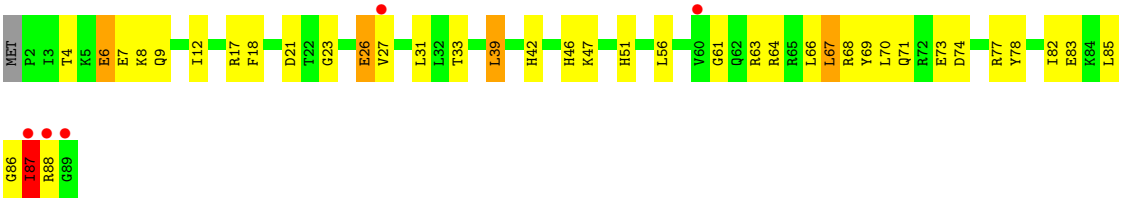
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



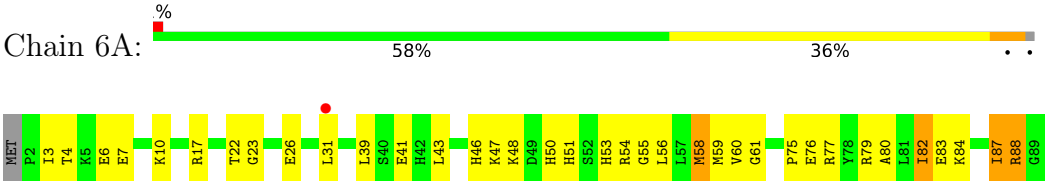
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



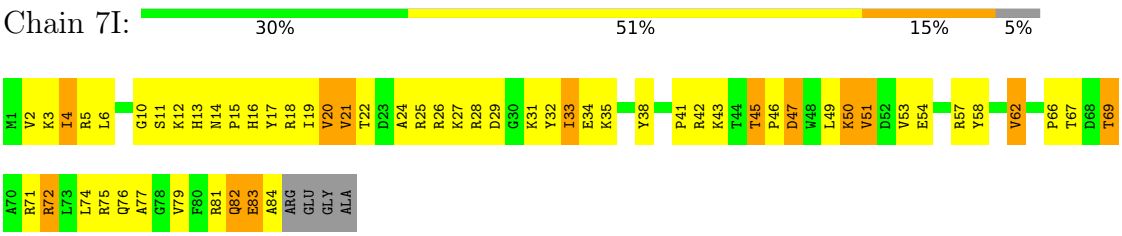
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



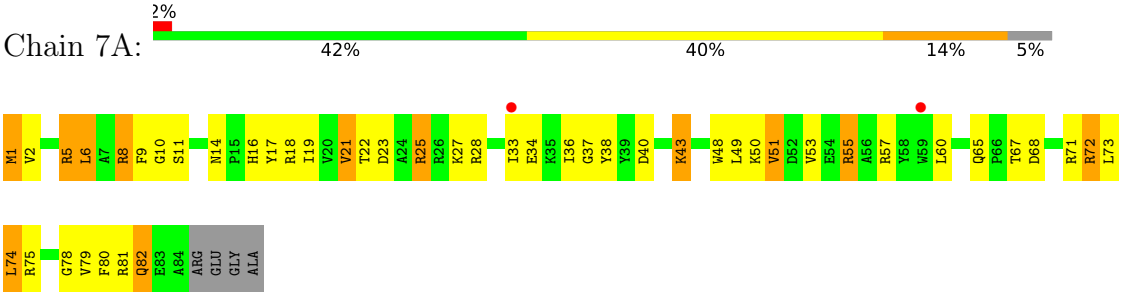
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



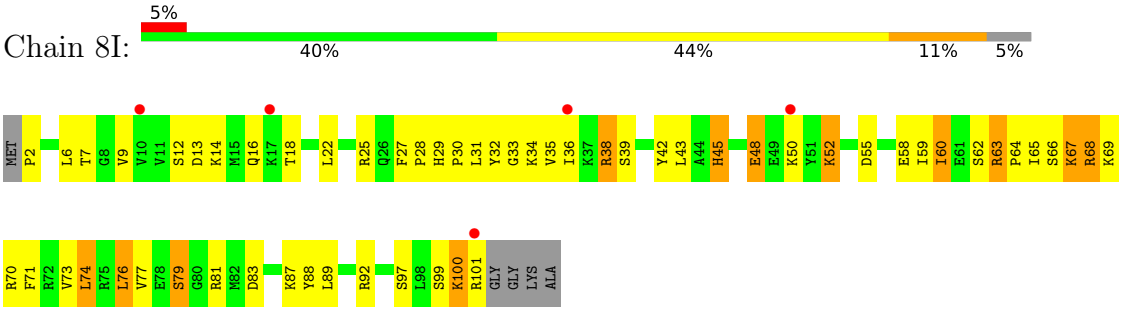
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



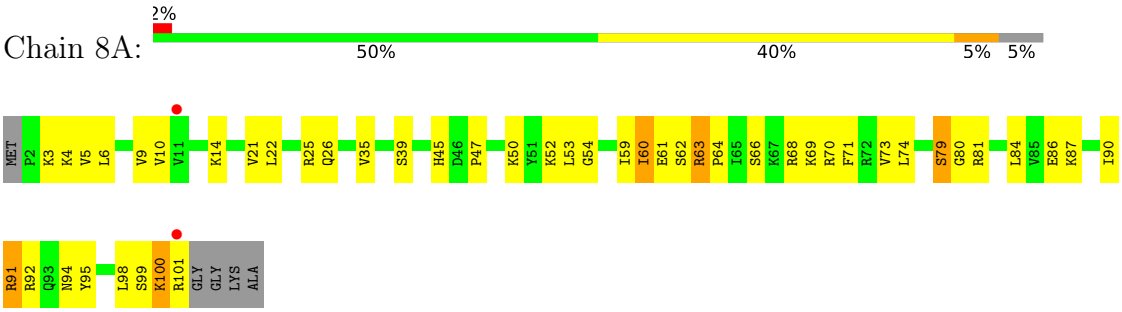
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



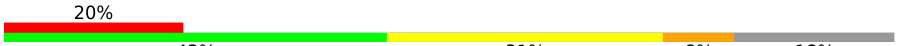
• Molecule 17: 30S ribosomal protein S17

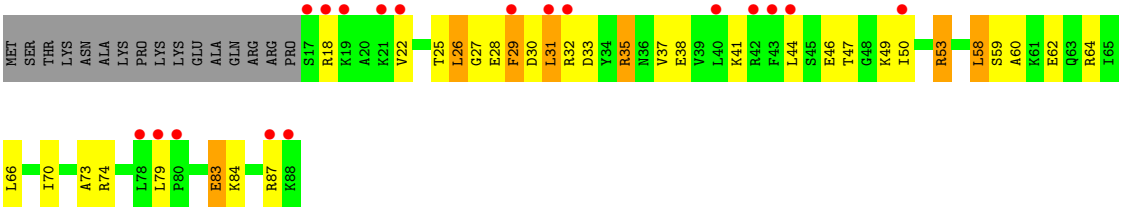
Chain 8A:



• Molecule 18: 30S ribosomal protein S18

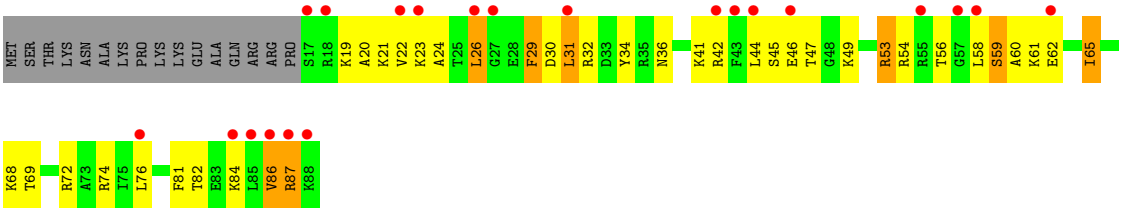
Chain 9I:





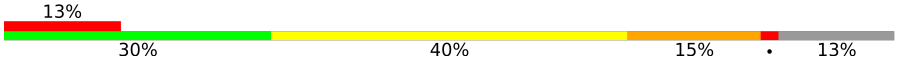
- Molecule 18: 30S ribosomal protein S18

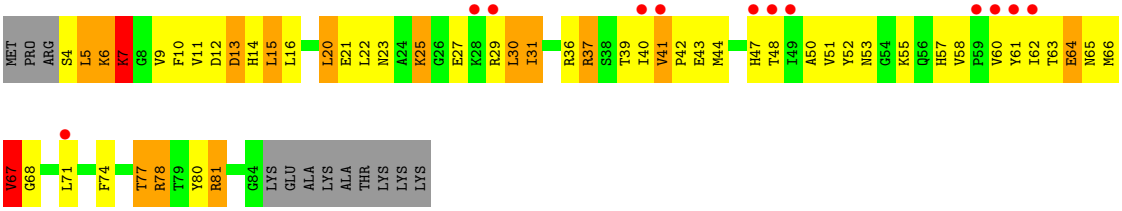
Chain 9A:



- Molecule 19: 30S ribosomal protein S19

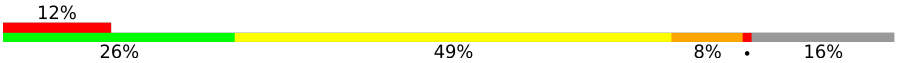
Chain AI:

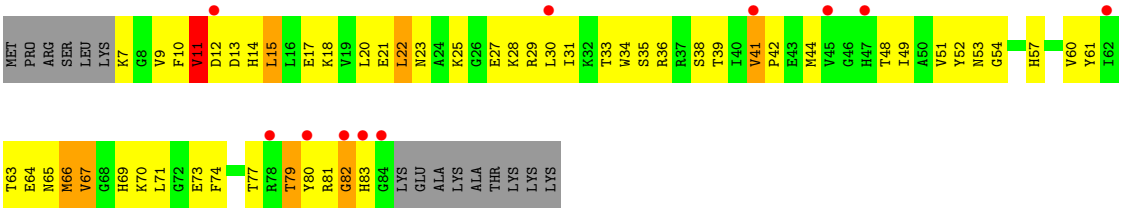




- Molecule 19: 30S ribosomal protein S19

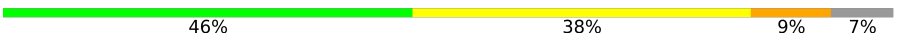
Chain AA:

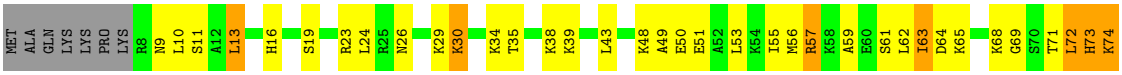


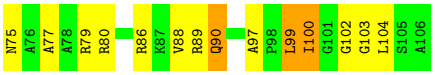


- Molecule 20: 30S ribosomal protein S20

Chain BI:

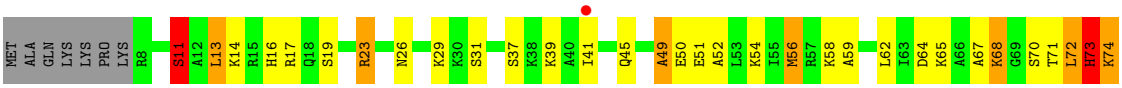


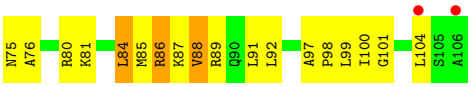




• Molecule 20: 30S ribosomal protein S20

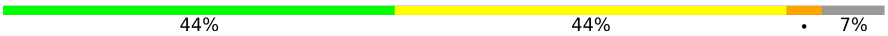
Chain BA:





• Molecule 21: 30S ribosomal protein Thx

Chain 1F:

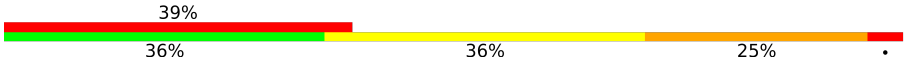


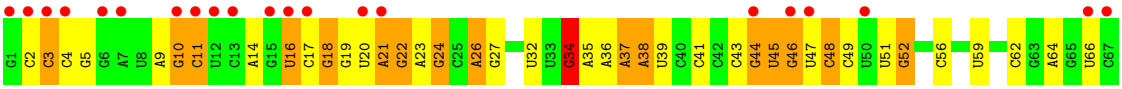
• Molecule 21: 30S ribosomal protein Thx

Chain 1B:

• Molecule 22: tRNA-Phe

Chain 1K:





• Molecule 22: tRNA-Phe

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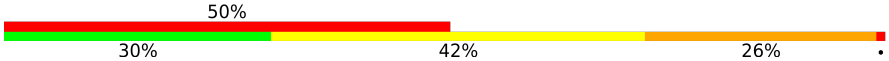

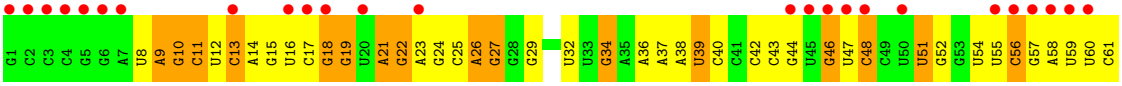

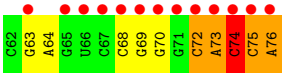

• Molecule 23: tRNA-fMet

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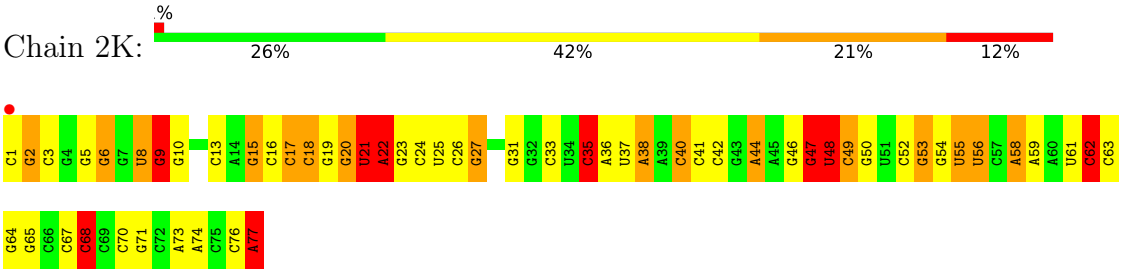

• Molecule 23: tRNA-fMet

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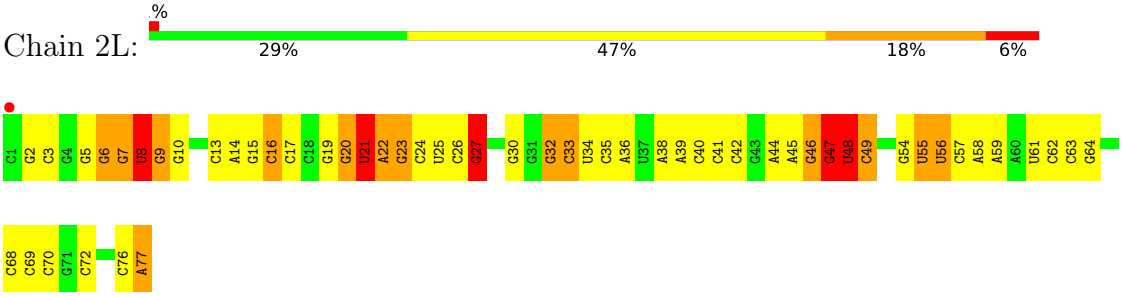

• Molecule 24: tRNA-Phe

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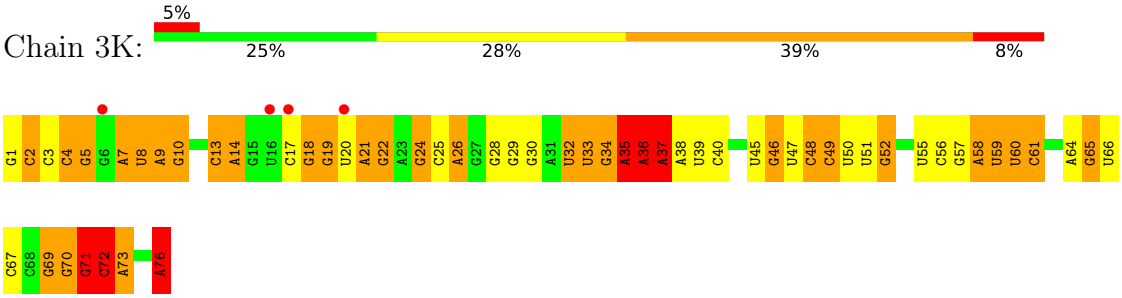

• Molecule 24: tRNA-Phe

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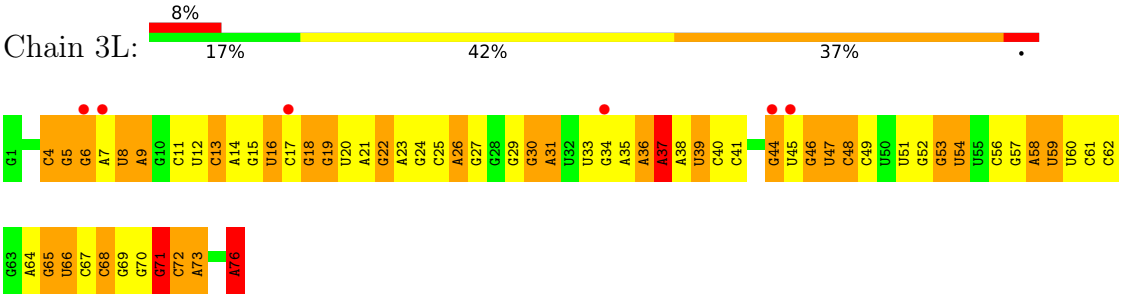

• Molecule 25: mRNA

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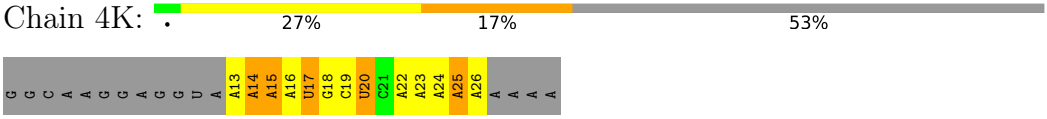
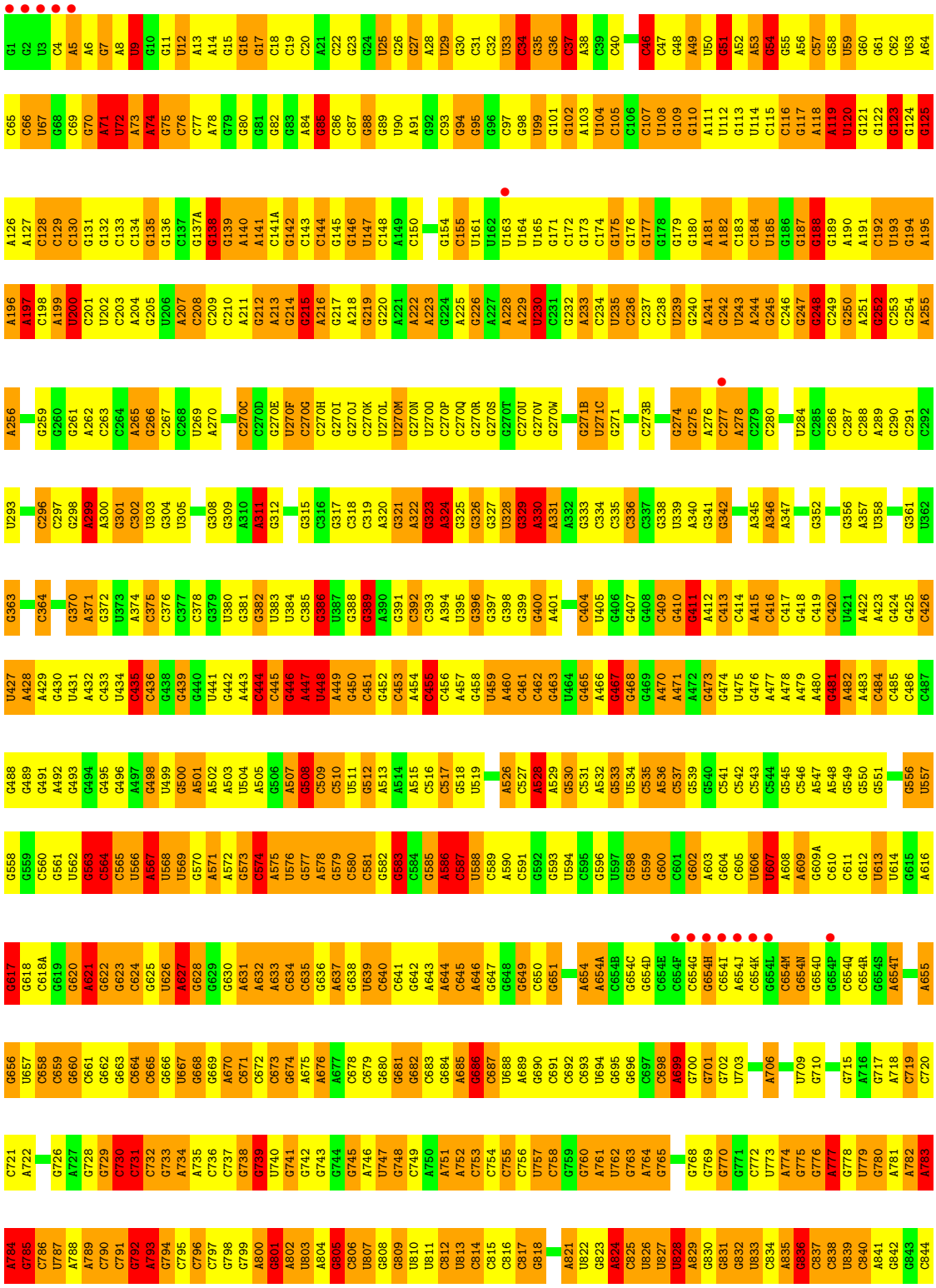


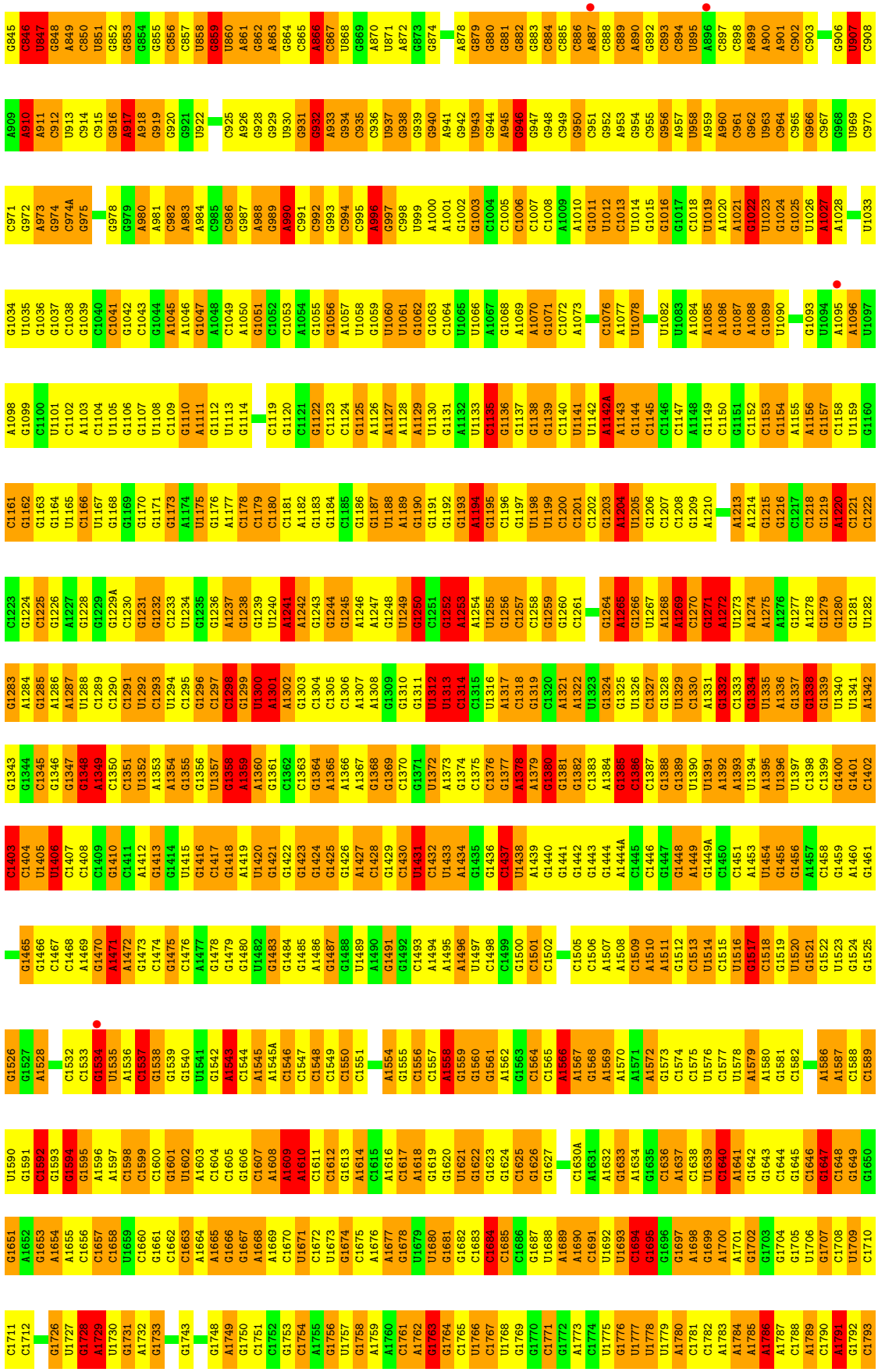
• Molecule 25: mRNA

Chain 4L:

• Molecule 26: 23S ribosomal RNA

Chain 1H:

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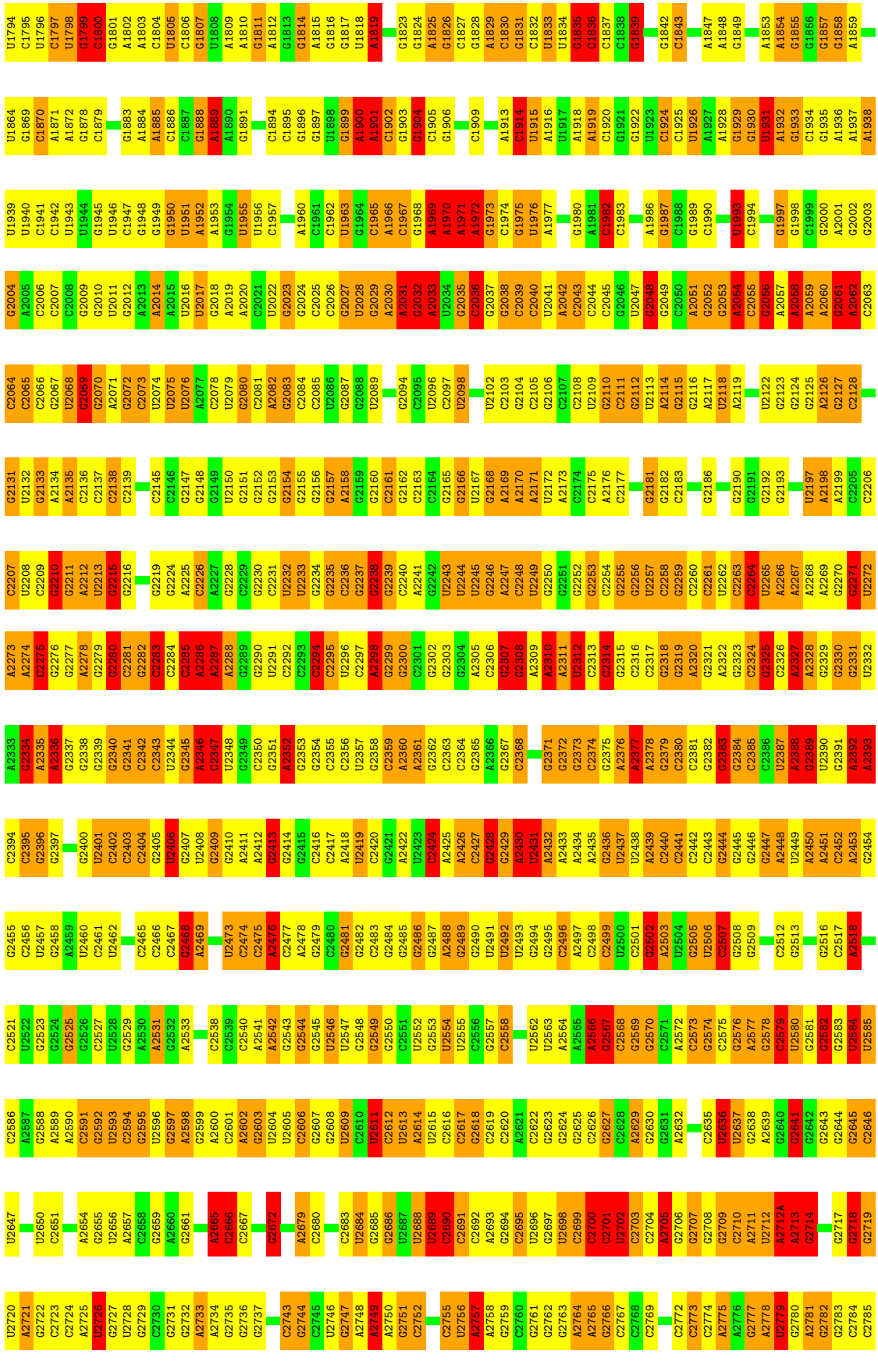

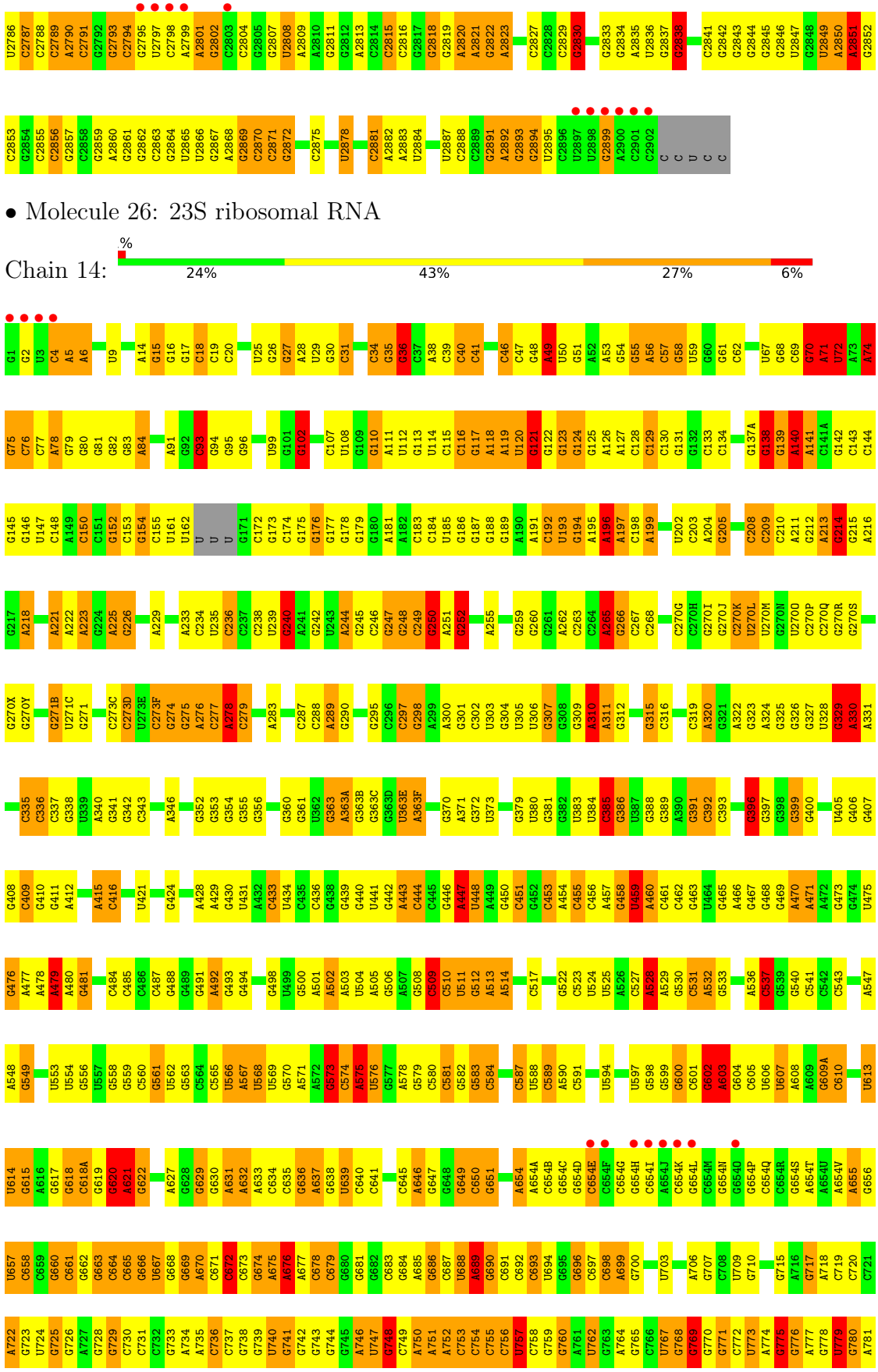

• Molecule 26: 23S ribosomal RNA

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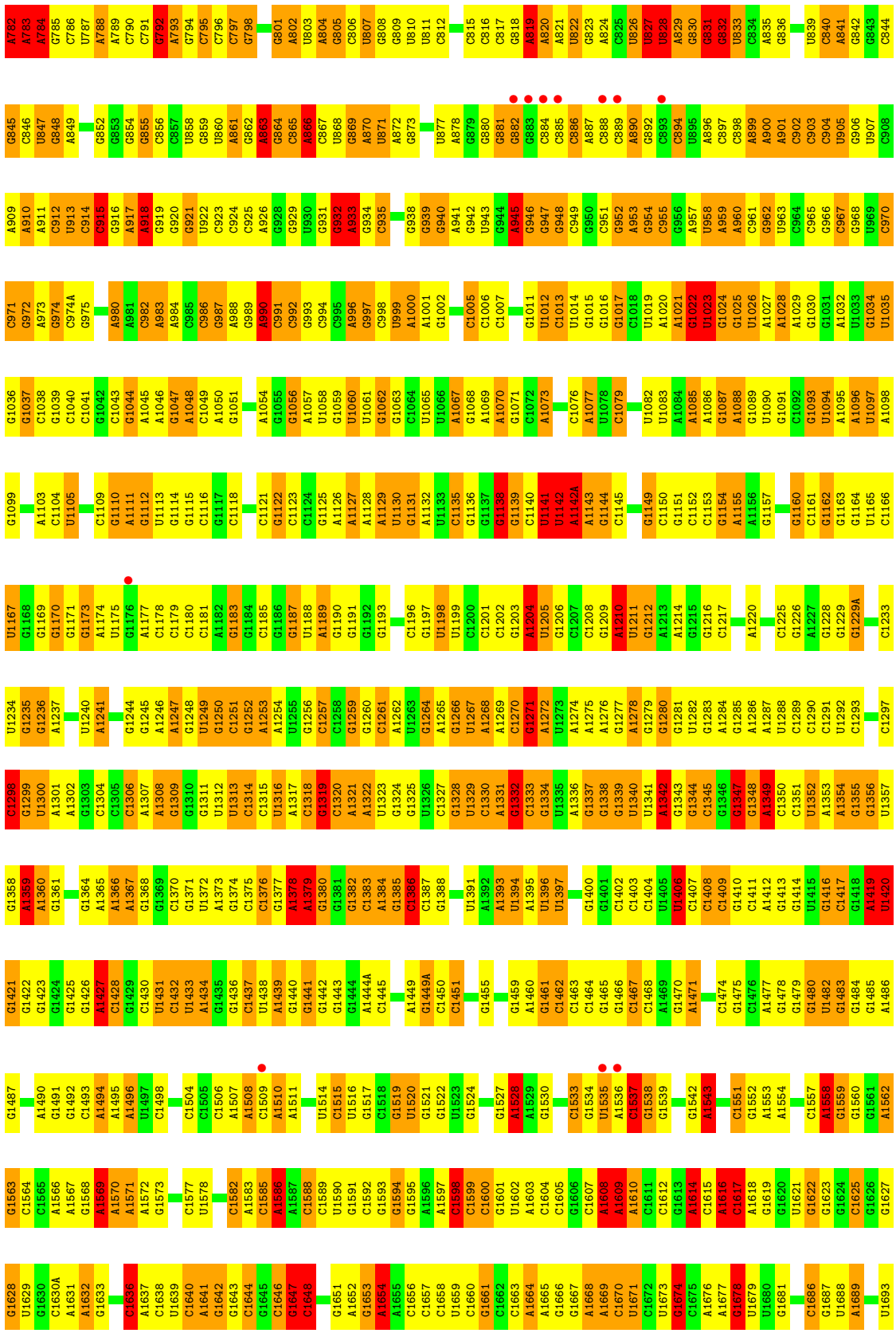
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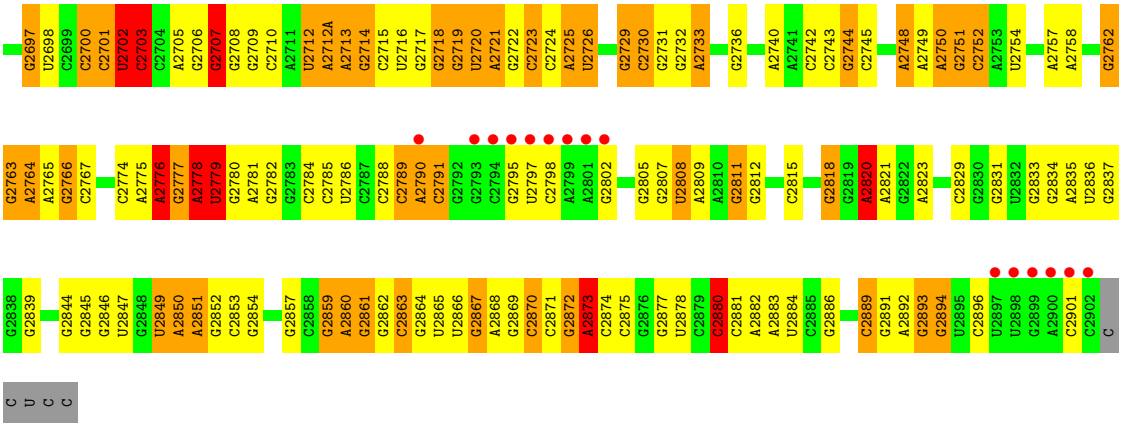
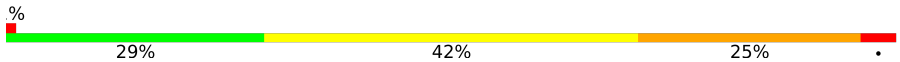
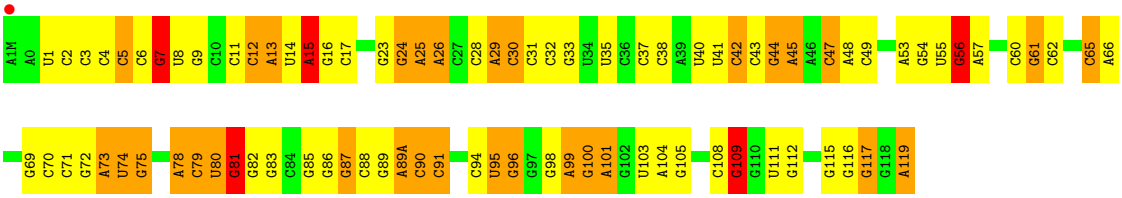


- Molecule 27: 5S ribosomal RNA

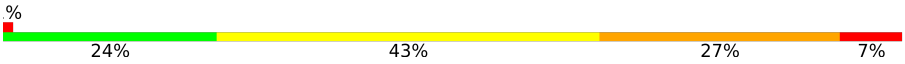
Chain 16:

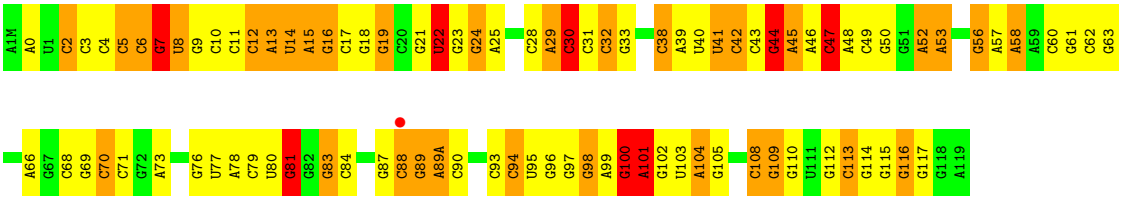




- Molecule 27: 5S ribosomal RNA

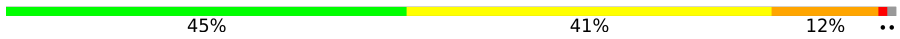
Chain 1J:

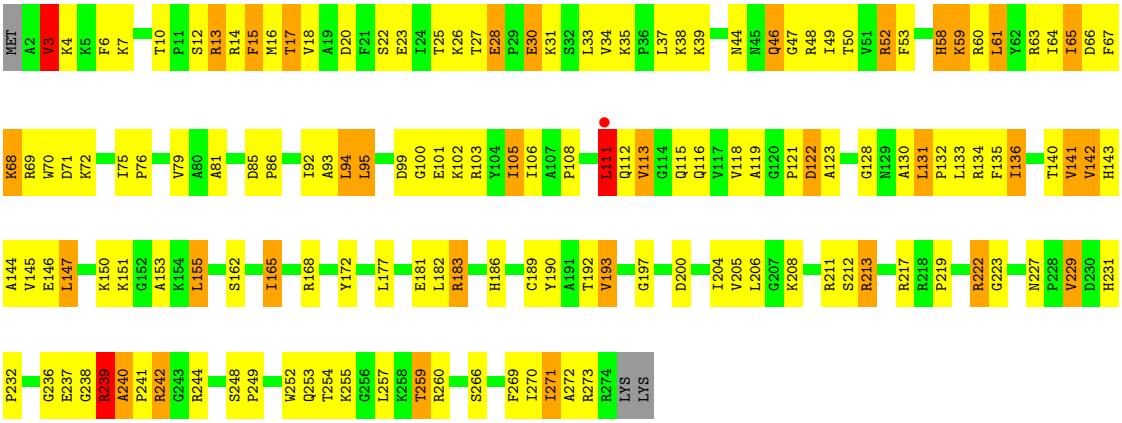




- Molecule 28: 50S ribosomal protein L2

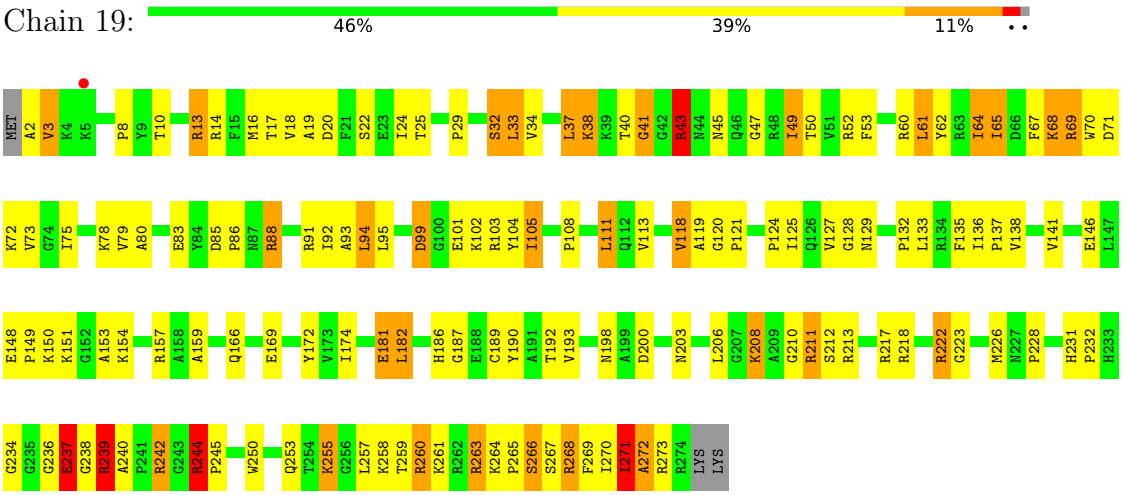
Chain 11:





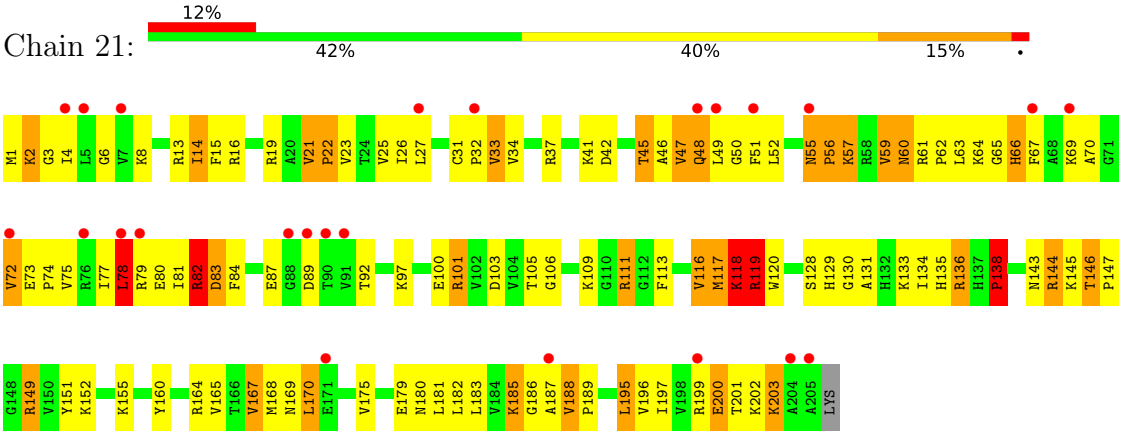
• Molecule 28: 50S ribosomal protein L2

Chain 19:



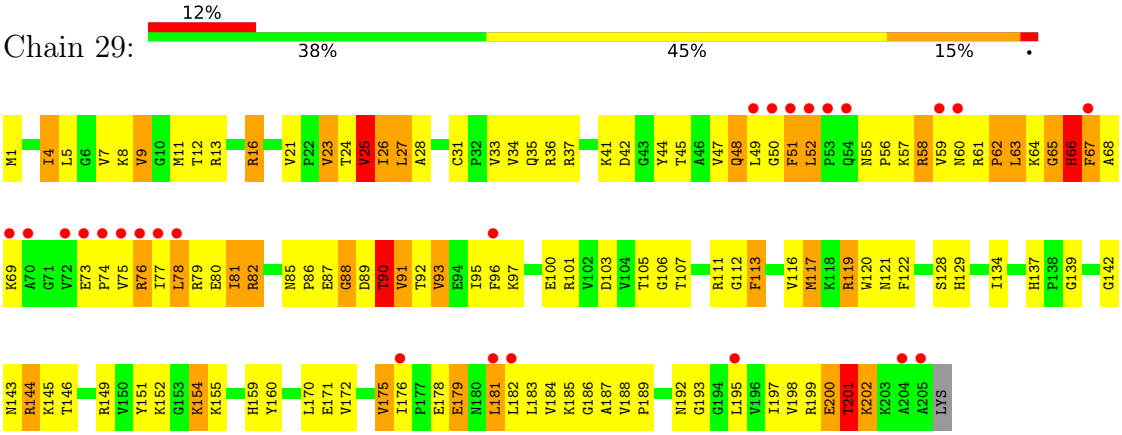
• Molecule 29: 50S ribosomal protein L3

Chain 21:



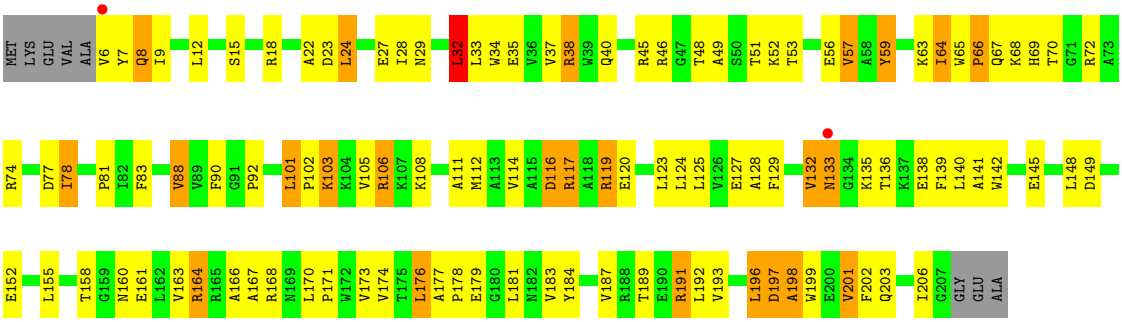
• Molecule 29: 50S ribosomal protein L3

Chain 29:



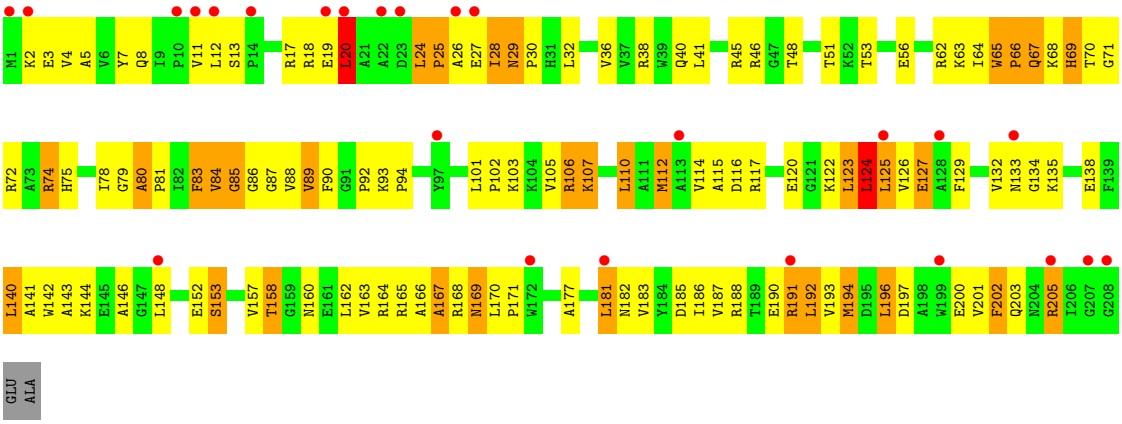
• Molecule 30: 50S ribosomal protein L4

Chain 31:



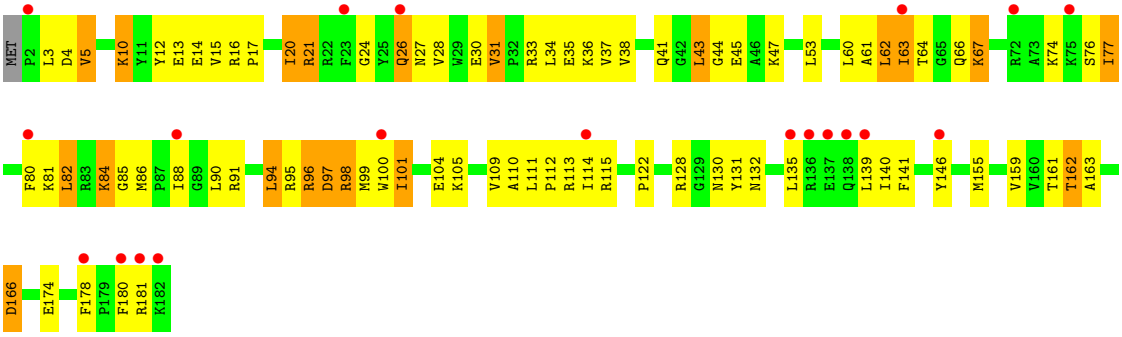
• Molecule 30: 50S ribosomal protein L4

Chain 39:



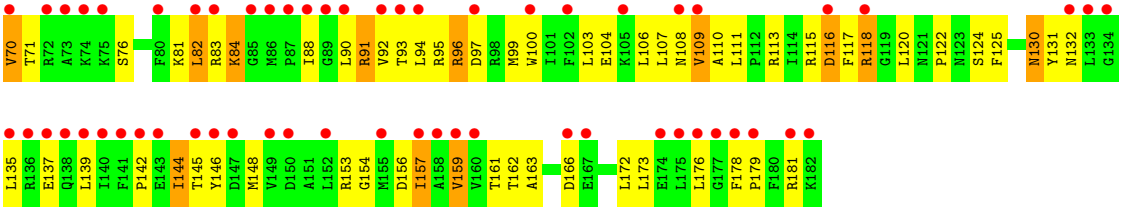
• Molecule 31: 50S ribosomal protein L5

Chain 41:



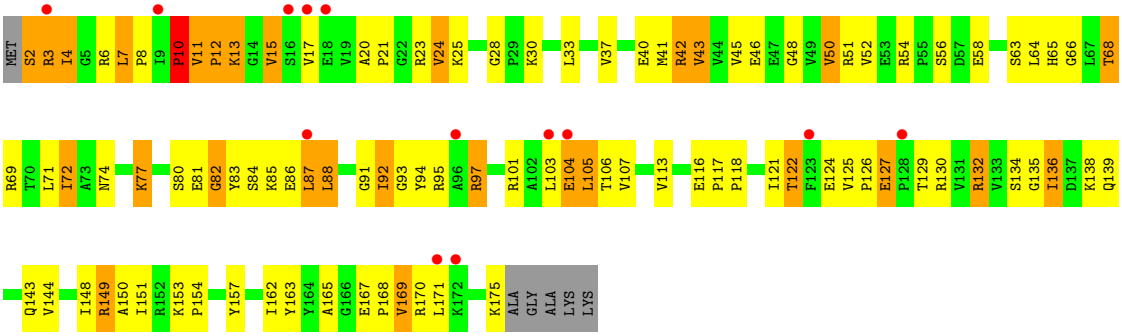
• Molecule 31: 50S ribosomal protein L5

Chain 49:



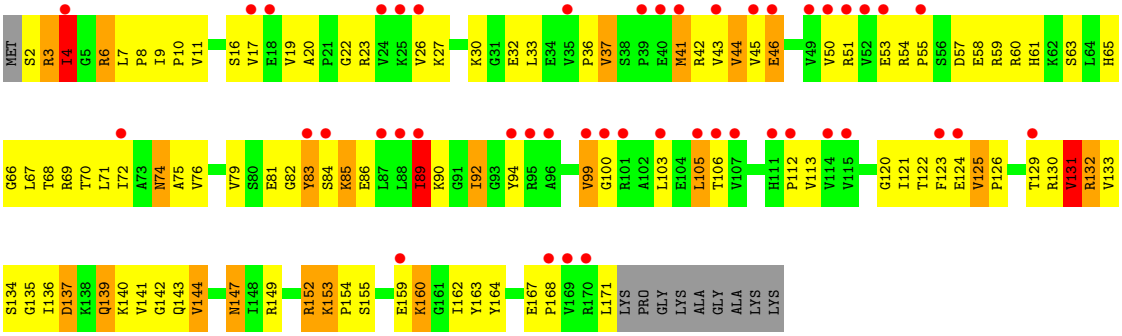
• Molecule 32: 50S ribosomal protein L6

Chain 51:



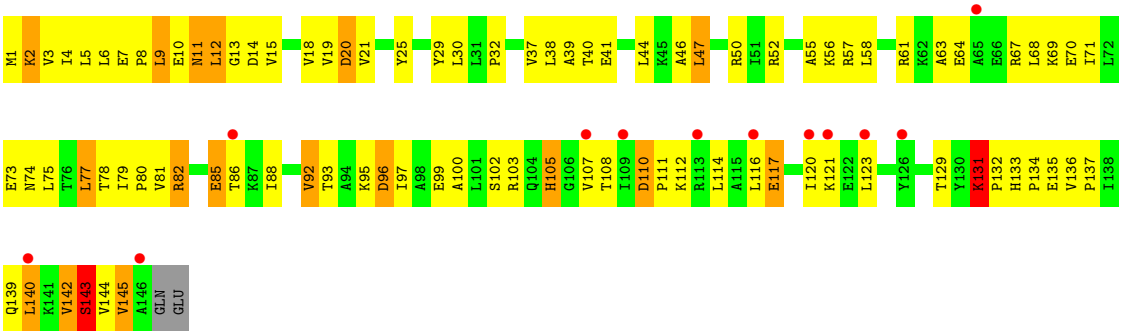
• Molecule 32: 50S ribosomal protein L6

Chain 59:



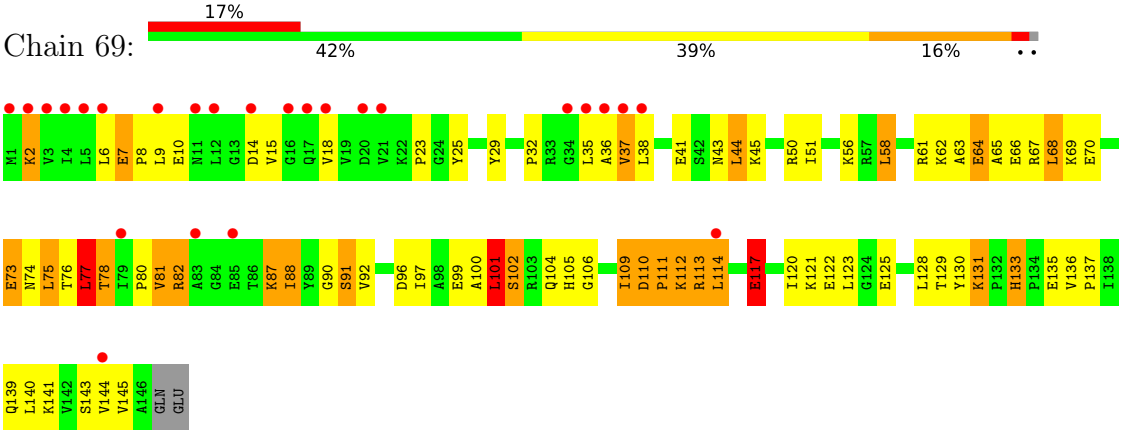
• Molecule 33: 50S ribosomal protein L9

Chain 61:



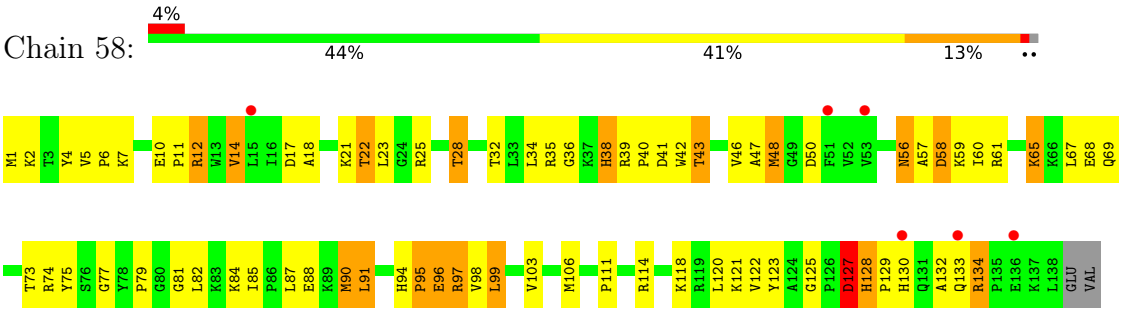
- Molecule 33: 50S ribosomal protein L9

Chain 69:



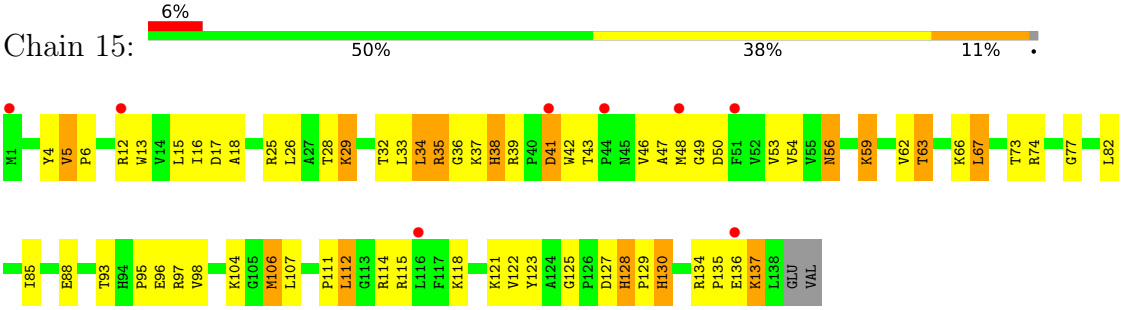
- Molecule 34: 50S ribosomal protein L13

Chain 58:



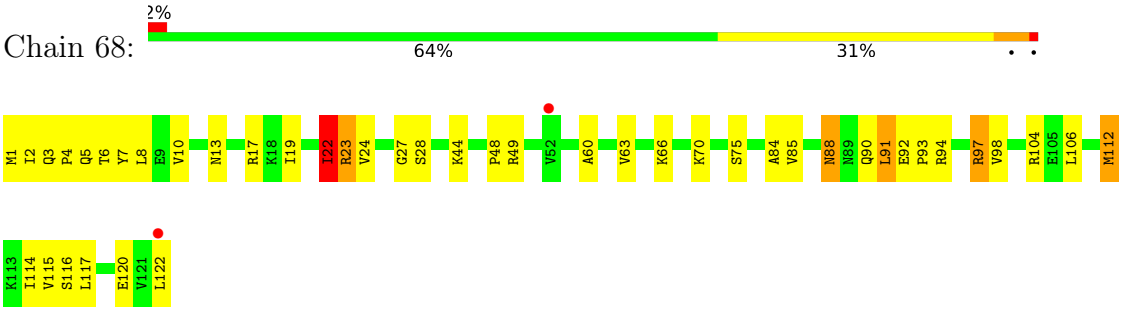
- Molecule 34: 50S ribosomal protein L13

Chain 15:



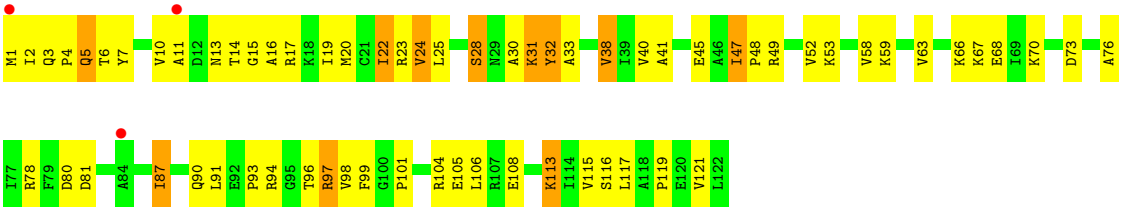
- Molecule 35: 50S ribosomal protein L14

Chain 68:



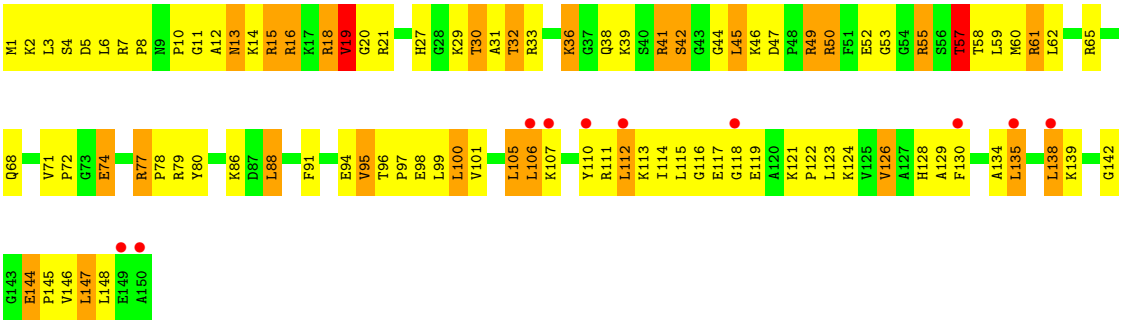
- Molecule 35: 50S ribosomal protein L14

Chain 25:



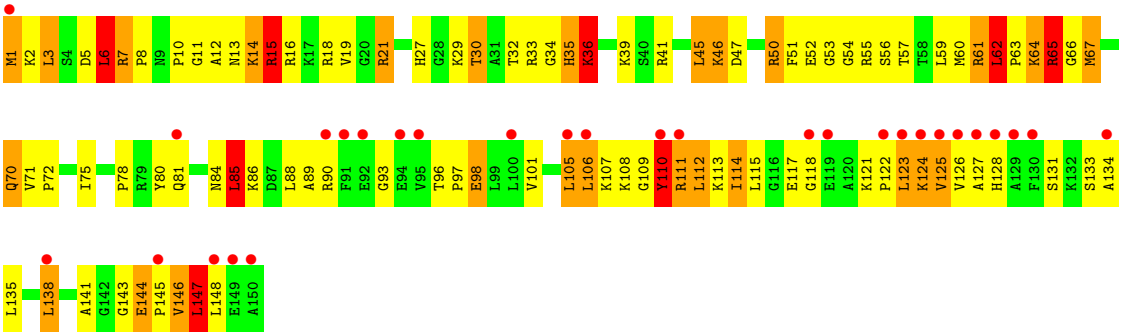
• Molecule 36: 50S ribosomal protein L15

Chain 78:



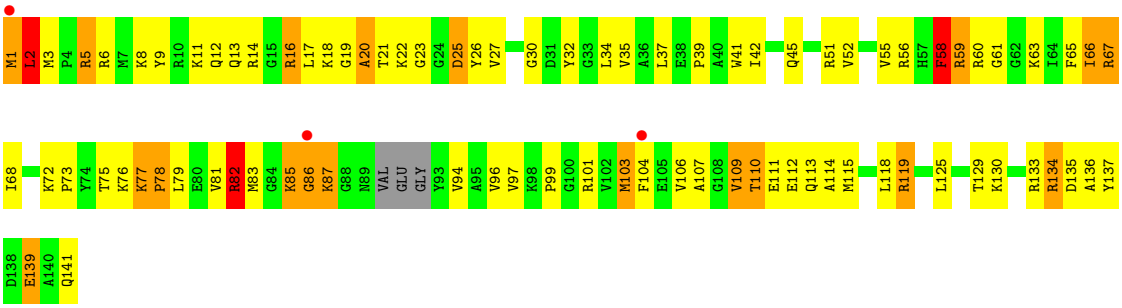
• Molecule 36: 50S ribosomal protein L15

Chain 35:



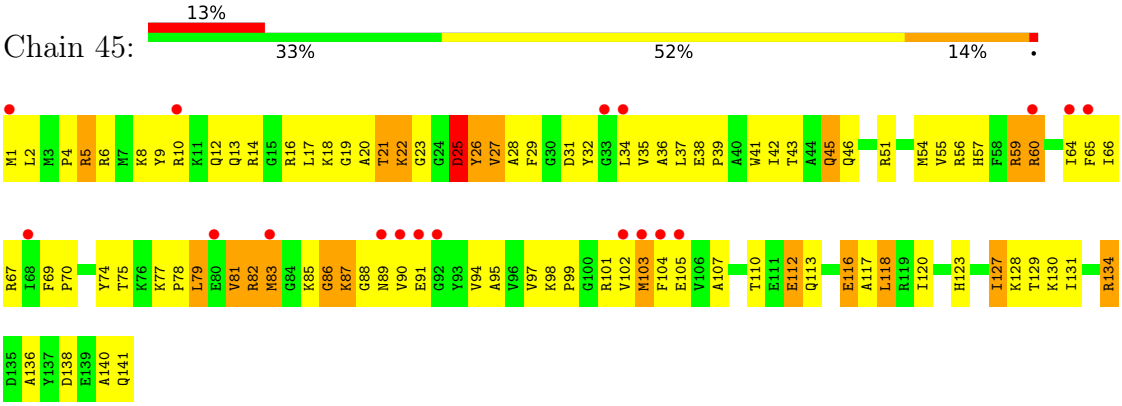
• Molecule 37: 50S ribosomal protein L16

Chain 88:



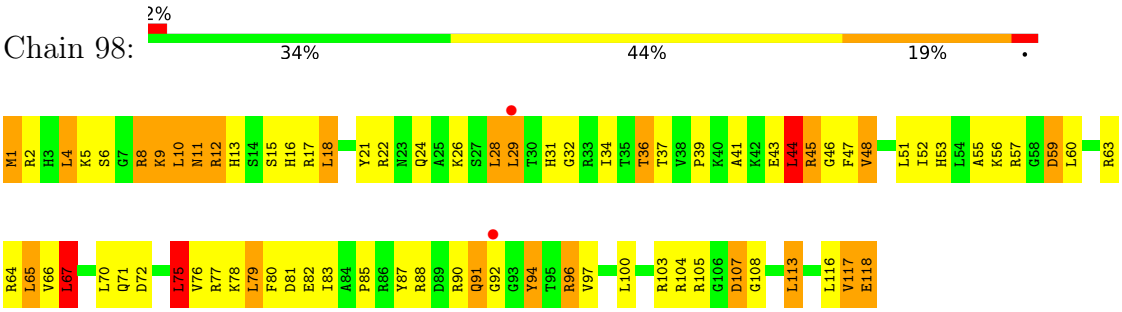
• Molecule 37: 50S ribosomal protein L16

Chain 45:



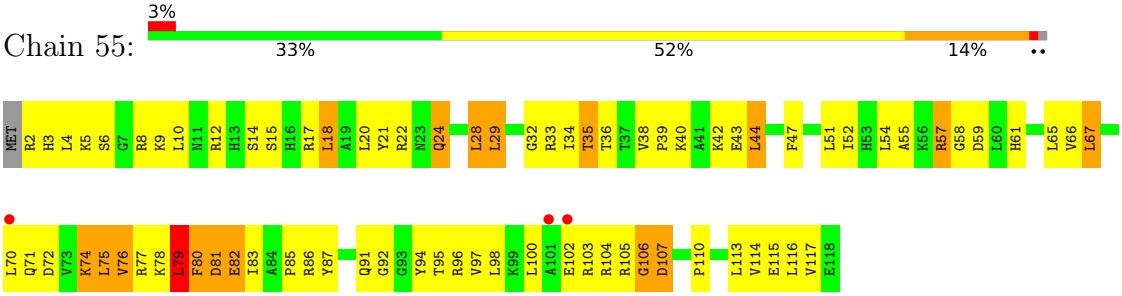
• Molecule 38: 50S ribosomal protein L17

Chain 98:



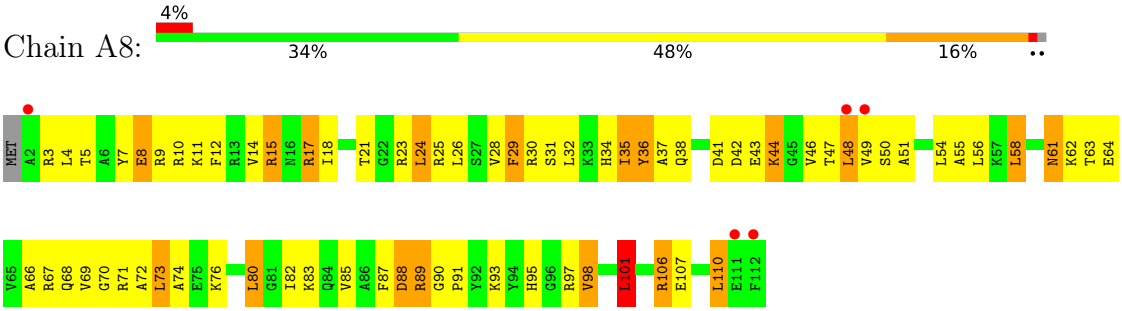
• Molecule 38: 50S ribosomal protein L17

Chain 55:



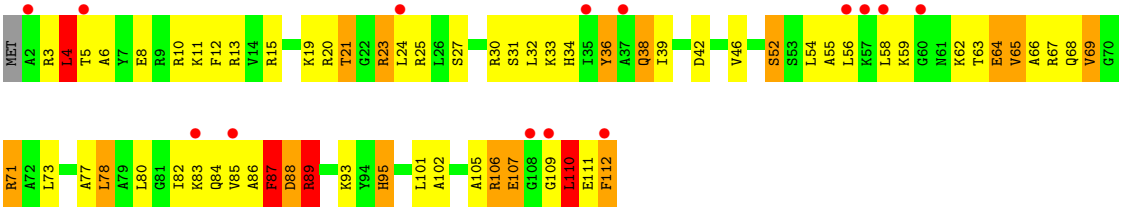
• Molecule 39: 50S ribosomal protein L18

Chain A8:



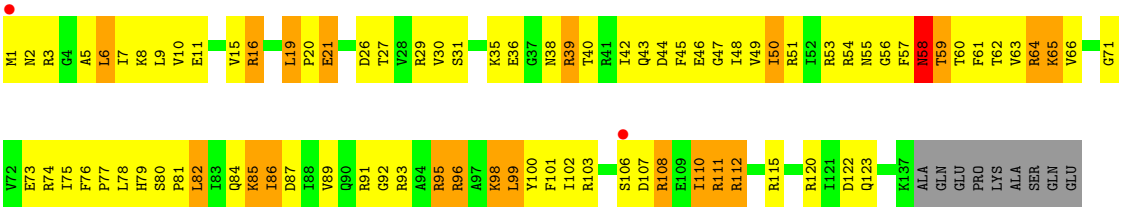
• Molecule 39: 50S ribosomal protein L18

Chain 65:



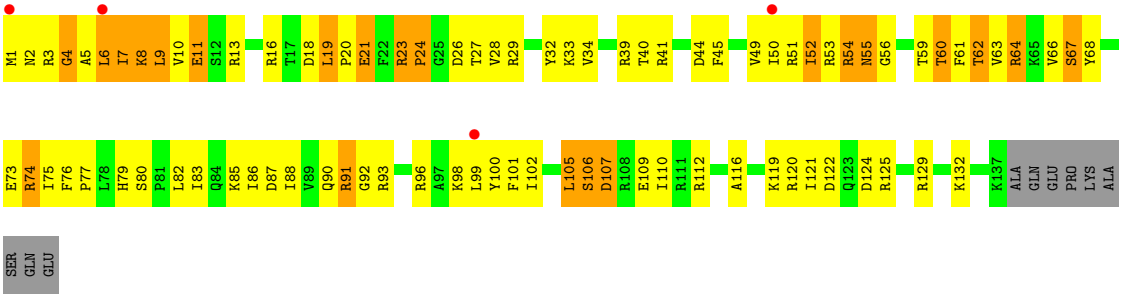
• Molecule 40: 50S ribosomal protein L19

Chain B8:



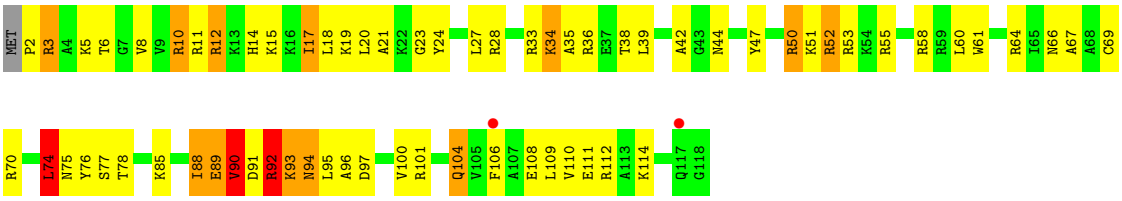
• Molecule 40: 50S ribosomal protein L19

Chain 75:



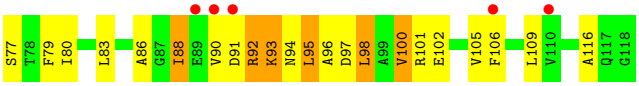
• Molecule 41: 50S ribosomal protein L20

Chain C8:



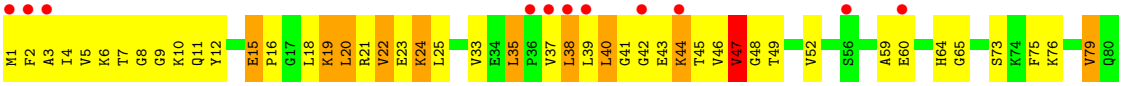
• Molecule 41: 50S ribosomal protein L20

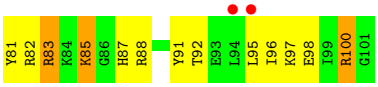
Chain 85:



• Molecule 42: 50S ribosomal protein L21

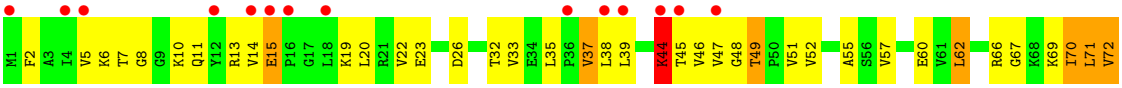
Chain D8:

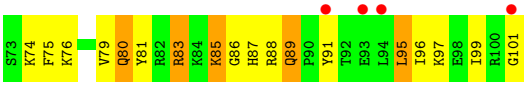




• Molecule 42: 50S ribosomal protein L21

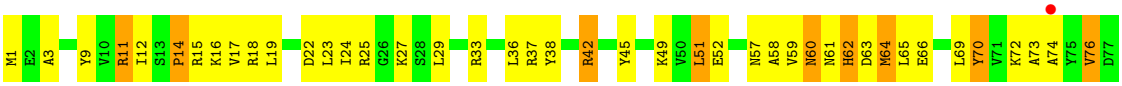
Chain 95:

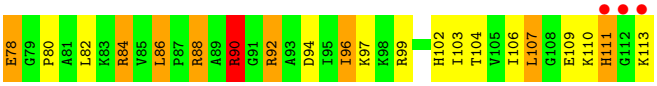




• Molecule 43: 50S ribosomal protein L22

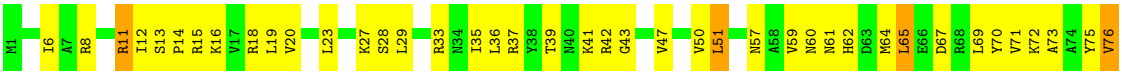
Chain E8:

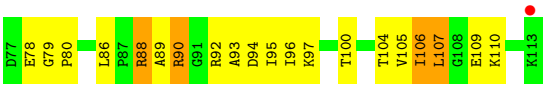




• Molecule 43: 50S ribosomal protein L22

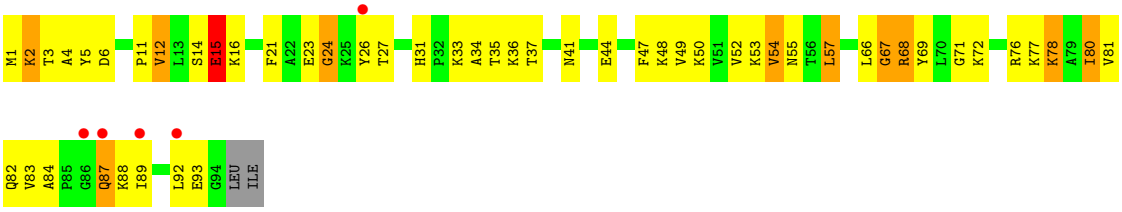
Chain A5:





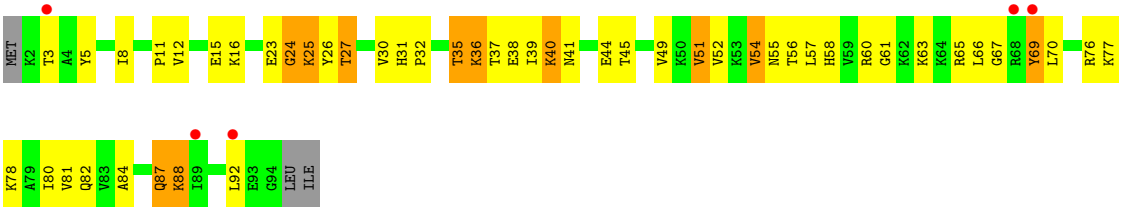
• Molecule 44: 50S ribosomal protein L23

Chain F8:



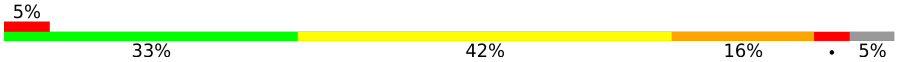
• Molecule 44: 50S ribosomal protein L23

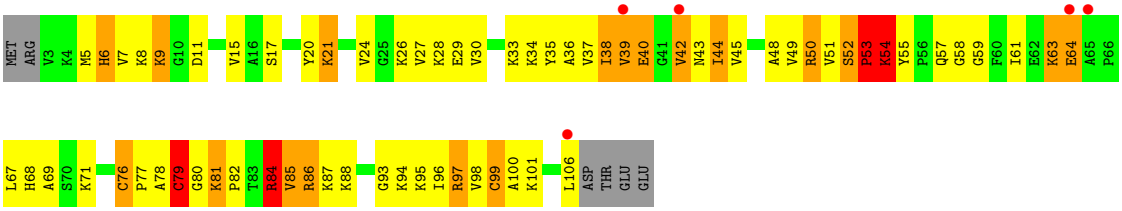
Chain B5:



• Molecule 45: 50S ribosomal protein L24

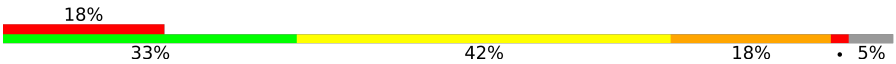
Chain G8:

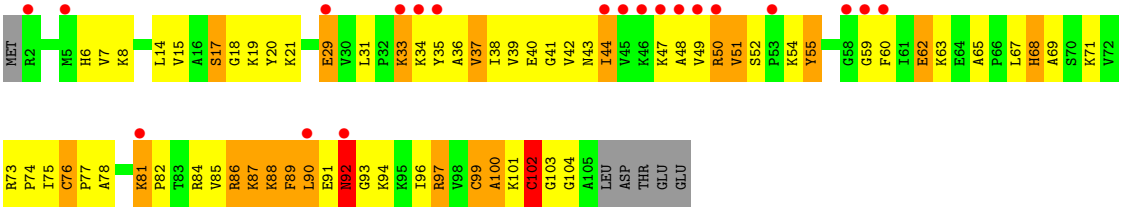




• Molecule 45: 50S ribosomal protein L24

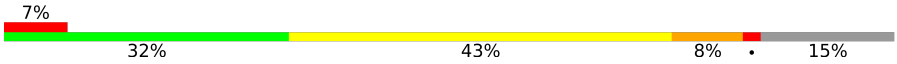
Chain C5:

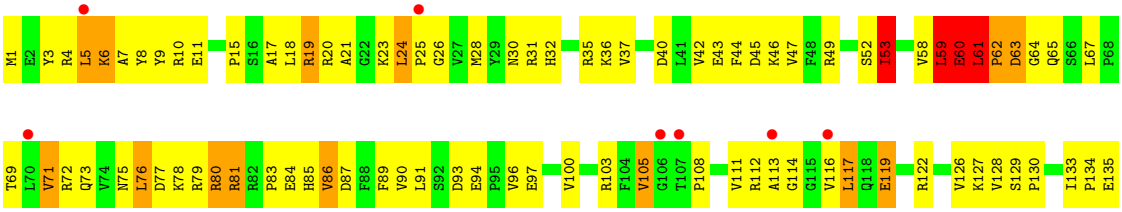


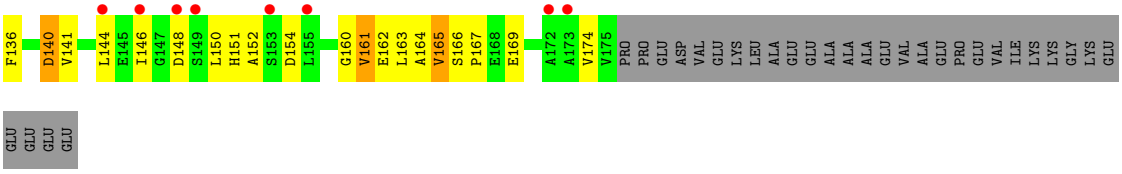


• Molecule 46: 50S ribosomal protein L25

Chain H8:

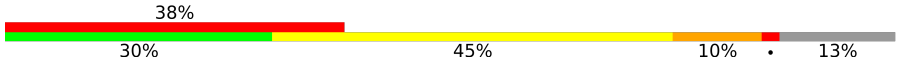


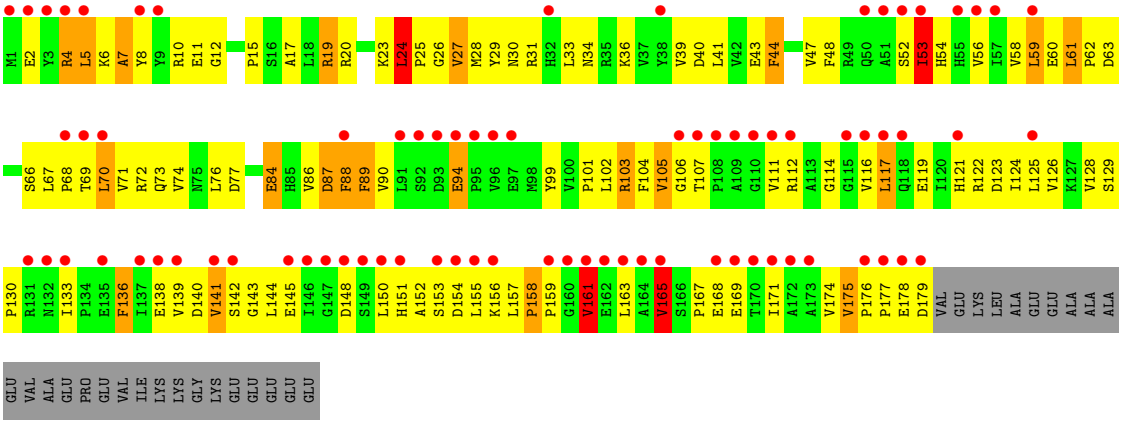




• Molecule 46: 50S ribosomal protein L25

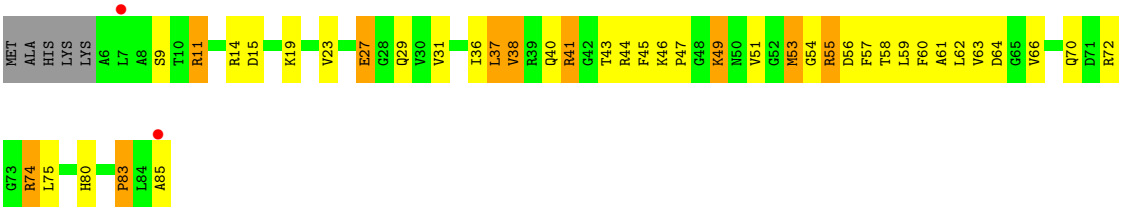
Chain D5:





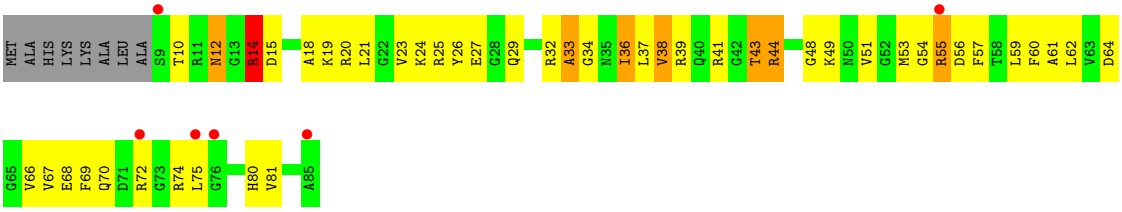
• Molecule 47: 50S ribosomal protein L27

Chain I8:



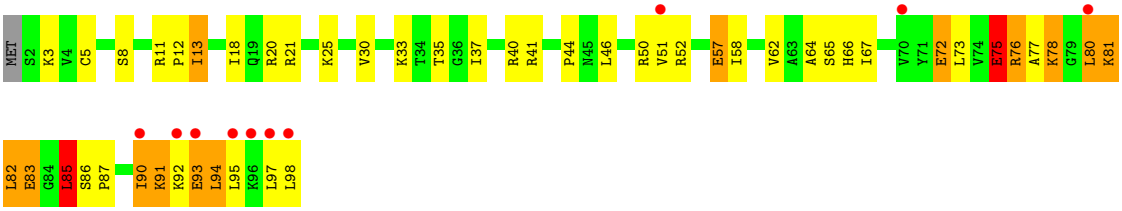
• Molecule 47: 50S ribosomal protein L27

Chain E5:



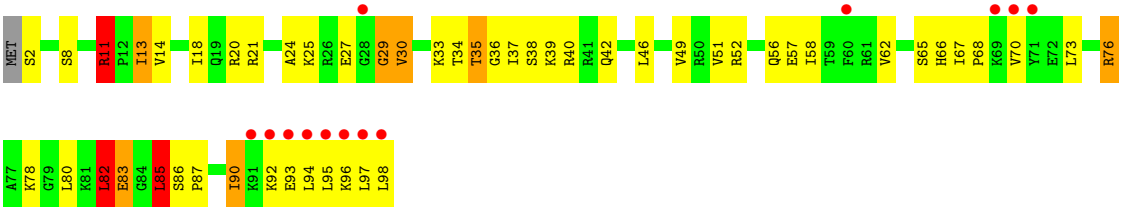
• Molecule 48: 50S ribosomal protein L28

Chain J8:



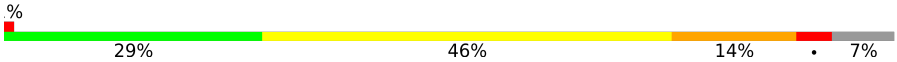
- Molecule 48: 50S ribosomal protein L28

Chain F5:



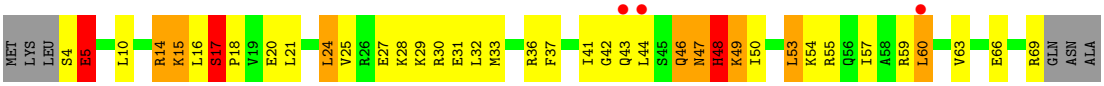
- Molecule 49: 50S ribosomal protein L29

Chain K8:



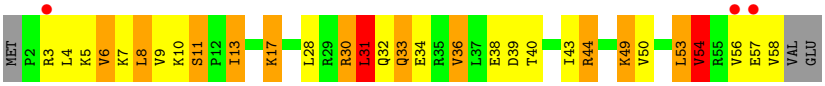
- Molecule 49: 50S ribosomal protein L29

Chain G5:



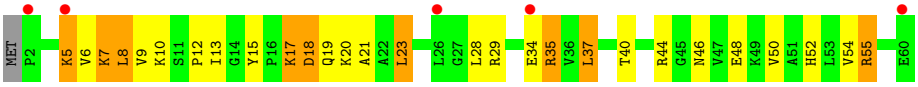
- Molecule 50: 50S ribosomal protein L30

Chain L8:



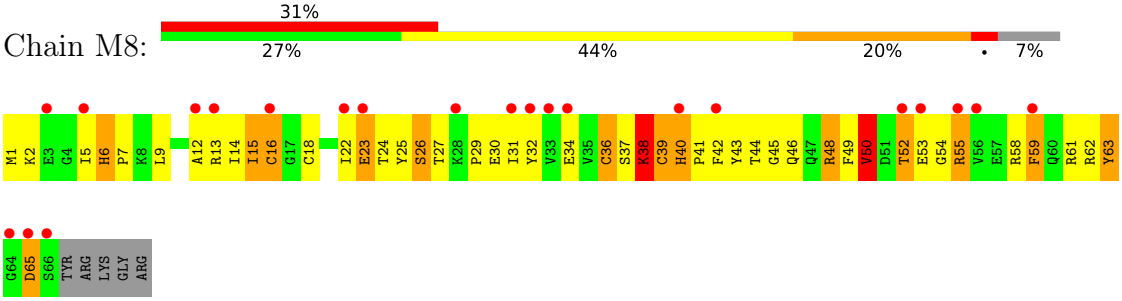
- Molecule 50: 50S ribosomal protein L30

Chain H5:



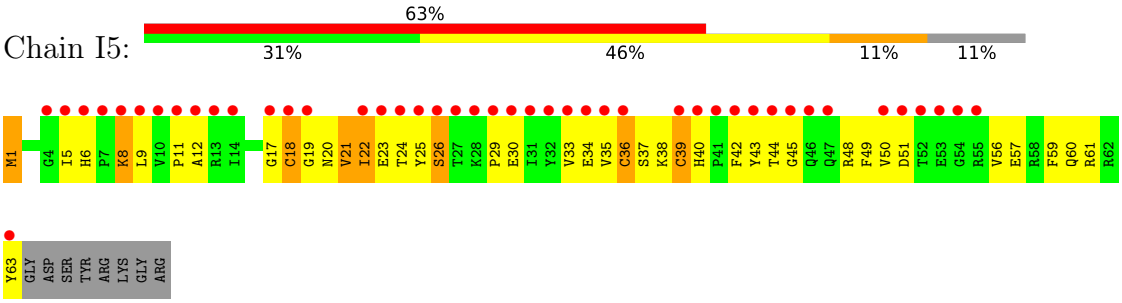
- Molecule 51: 50S ribosomal protein L31

Chain M8:



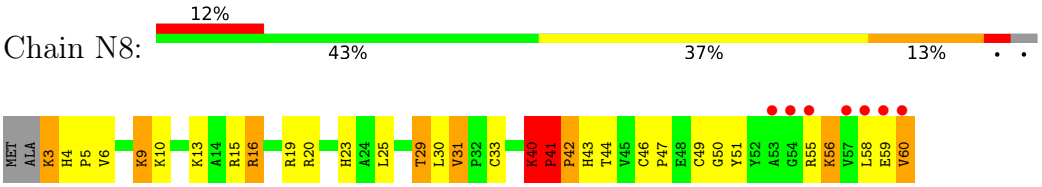
- Molecule 51: 50S ribosomal protein L31

Chain I5:



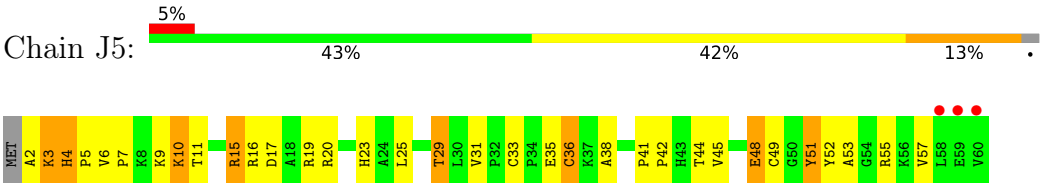
- Molecule 52: 50S ribosomal protein L32

Chain N8:



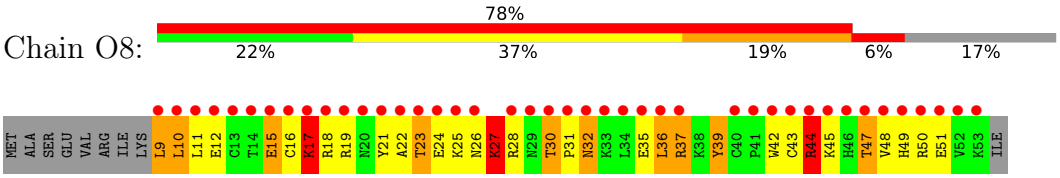
- Molecule 52: 50S ribosomal protein L32

Chain J5:



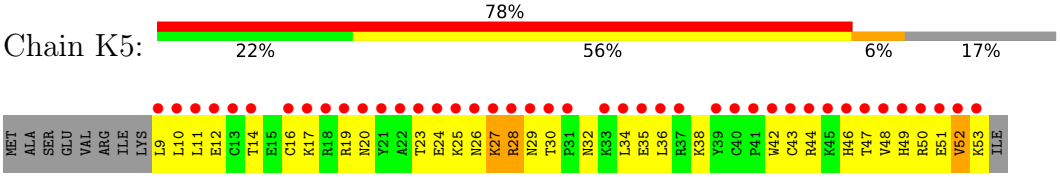
- Molecule 53: 50S ribosomal protein L33

Chain O8:



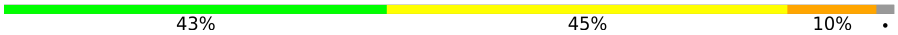
- Molecule 53: 50S ribosomal protein L33

Chain K5:



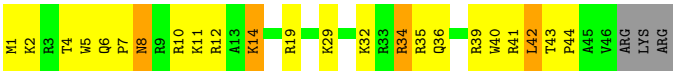
• Molecule 54: 50S ribosomal protein L34

Chain P8:



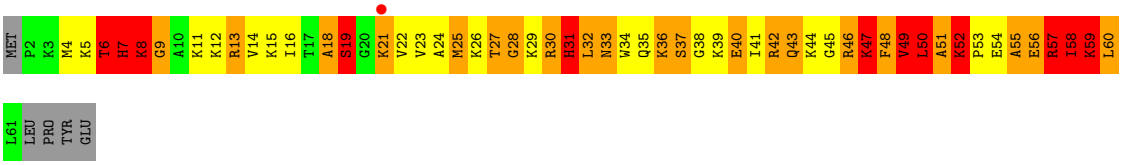
• Molecule 54: 50S ribosomal protein L34

Chain L5:



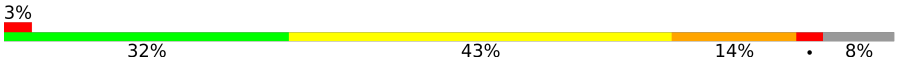
• Molecule 55: 50S ribosomal protein L35

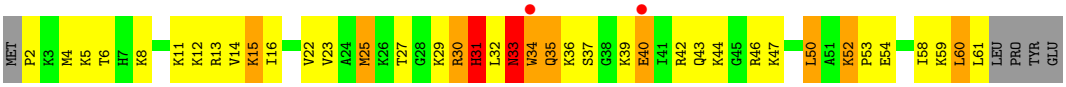
Chain Q8:



• Molecule 55: 50S ribosomal protein L35

Chain M5:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.10Å 448.80Å 621.30Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	152.19 – 3.15 152.19 – 3.15	Depositor EDS
% Data completeness (in resolution range)	99.9 (152.19-3.15) 93.3 (152.19-3.15)	Depositor EDS
R_{merge}	0.37	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.89 (at 3.13Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.189 , 0.231 0.189 , 0.231	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å^2)	87.9	Xtriage
Anisotropy	0.303	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 87.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	300537	wwPDB-VP
Average B, all atoms (Å^2)	115.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.47% 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: OMC, MIA, 7MG, ZN, 5MU, PSU, MG, 4SU

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	0.82	13/36052 (0.0%)	1.55	642/56266 (1.1%)
1	1G	0.71	2/36025 (0.0%)	1.38	354/56227 (0.6%)
2	12	0.37	0/1959	0.64	2/2642 (0.1%)
2	1E	0.45	0/1959	0.73	3/2642 (0.1%)
3	22	0.38	0/1636	0.62	0/2205
3	2E	0.51	0/1629	0.70	0/2195
4	32	0.50	0/1733	0.73	1/2318 (0.0%)
4	3E	0.65	2/1733 (0.1%)	0.78	2/2318 (0.1%)
5	42	0.48	0/1171	0.72	1/1576 (0.1%)
5	4E	0.55	0/1171	0.77	1/1576 (0.1%)
6	52	0.55	0/856	0.70	0/1154
6	5E	0.58	0/856	0.76	0/1154
7	62	0.44	0/1276	0.59	0/1709
7	6E	0.47	0/1276	0.61	0/1709
8	72	0.42	0/1136	0.67	1/1527 (0.1%)
8	7E	0.57	0/1136	0.78	2/1527 (0.1%)
9	82	0.40	0/1029	0.66	1/1379 (0.1%)
9	8E	0.47	0/1029	0.72	0/1379
10	1A	0.39	0/814	0.62	0/1095
10	1I	0.47	0/814	0.67	0/1095
11	2A	0.49	0/900	0.75	0/1213
11	2I	0.57	0/900	0.79	1/1213 (0.1%)
12	3A	0.61	0/991	0.81	1/1327 (0.1%)
12	3I	0.74	0/991	0.94	0/1327
13	4A	0.36	0/943	0.64	0/1265
13	4I	0.51	0/948	0.76	0/1272
14	5A	0.43	0/485	0.73	0/643
14	5I	0.66	1/501 (0.2%)	0.88	3/664 (0.5%)
15	6A	0.49	0/745	0.60	0/992
15	6I	0.60	0/745	0.82	0/992
16	7A	0.51	0/721	0.69	0/970
16	7I	0.52	0/721	0.73	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.54	0/847	0.65	0/1131
17	8I	0.62	0/847	0.78	0/1131
18	9A	0.53	0/596	0.72	1/790 (0.1%)
18	9I	0.60	1/596 (0.2%)	0.79	0/790
19	AA	0.40	0/638	0.66	1/860 (0.1%)
19	AI	0.58	0/661	0.84	1/890 (0.1%)
20	BA	0.50	0/765	0.77	0/1007
20	BI	0.42	0/765	0.70	1/1007 (0.1%)
21	1B	0.55	0/221	0.64	0/288
21	1F	0.50	0/221	0.73	0/288
22	1K	0.53	0/1739	1.15	15/2708 (0.6%)
22	1L	0.44	0/1739	0.96	4/2708 (0.1%)
23	2K	1.13	6/1721 (0.3%)	1.67	45/2682 (1.7%)
23	2L	0.99	7/1721 (0.4%)	1.43	18/2682 (0.7%)
24	3K	0.52	0/1809	1.29	25/2819 (0.9%)
24	3L	0.48	2/1809 (0.1%)	1.14	15/2819 (0.5%)
25	4K	1.00	0/338	1.43	5/524 (1.0%)
25	4L	0.79	0/147	1.61	5/227 (2.2%)
26	14	0.99	121/70167 (0.2%)	1.77	2211/109541 (2.0%)
26	1H	1.20	257/70233 (0.4%)	2.06	3865/109643 (3.5%)
27	16	1.01	3/2928 (0.1%)	1.83	103/4568 (2.3%)
27	1J	0.83	1/2928 (0.0%)	1.53	48/4568 (1.1%)
28	11	0.96	3/2170 (0.1%)	1.14	13/2926 (0.4%)
28	19	0.80	0/2170	1.01	6/2926 (0.2%)
29	21	0.75	0/1601	0.99	3/2160 (0.1%)
29	29	0.76	0/1601	0.99	2/2160 (0.1%)
30	31	0.84	0/1620	1.02	5/2194 (0.2%)
30	39	0.67	0/1662	0.95	1/2249 (0.0%)
31	41	0.60	0/1498	0.86	2/2016 (0.1%)
31	49	0.44	0/1498	0.66	0/2016
32	51	0.64	0/1362	0.93	2/1841 (0.1%)
32	59	0.38	0/1332	0.69	1/1802 (0.1%)
33	61	0.55	0/1151	0.83	1/1558 (0.1%)
33	69	0.49	0/1151	0.79	4/1558 (0.3%)
34	15	0.53	0/1131	0.77	0/1525
34	58	0.65	0/1131	0.88	0/1525
35	25	0.66	0/943	0.83	0/1269
35	68	0.75	0/943	0.87	1/1269 (0.1%)
36	35	0.73	0/1162	1.15	6/1544 (0.4%)
36	78	0.81	0/1162	1.12	3/1544 (0.2%)
37	45	0.72	0/1143	0.96	1/1527 (0.1%)
37	88	0.96	3/1107 (0.3%)	1.15	7/1478 (0.5%)
38	55	0.71	0/974	0.93	1/1302 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	98	0.67	0/982	1.00	4/1312 (0.3%)
39	65	0.57	0/892	0.96	3/1187 (0.3%)
39	A8	0.78	0/892	1.05	4/1187 (0.3%)
40	75	0.65	0/1155	0.79	0/1542
40	B8	0.70	0/1155	0.89	0/1542
41	85	0.64	0/982	0.81	0/1306
41	C8	0.80	0/982	0.97	5/1306 (0.4%)
42	95	0.67	0/790	0.91	2/1057 (0.2%)
42	D8	0.68	0/790	0.90	1/1057 (0.1%)
43	A5	0.74	0/911	0.88	1/1220 (0.1%)
43	E8	0.72	0/911	1.07	7/1220 (0.6%)
44	B5	0.83	0/744	0.89	0/1000
44	F8	0.96	2/756 (0.3%)	1.03	1/1014 (0.1%)
45	C5	0.78	0/807	0.97	1/1076 (0.1%)
45	G8	0.78	0/804	1.07	2/1073 (0.2%)
46	D5	0.45	0/1460	0.71	1/1982 (0.1%)
46	H8	0.56	0/1427	0.87	2/1935 (0.1%)
47	E5	0.65	0/621	0.94	1/827 (0.1%)
47	I8	0.87	0/635	1.03	0/847
48	F5	0.68	0/770	1.00	4/1022 (0.4%)
48	J8	0.81	0/770	1.00	2/1022 (0.2%)
49	G5	0.65	1/560 (0.2%)	0.84	1/741 (0.1%)
49	K8	0.88	0/565	1.08	1/748 (0.1%)
50	H5	0.54	0/474	0.78	0/635
50	L8	0.84	0/457	1.08	4/613 (0.7%)
51	I5	0.46	0/527	0.76	0/709
51	M8	0.64	0/545	0.84	0/733
52	J5	0.70	0/473	0.91	1/639 (0.2%)
52	N8	0.77	0/468	1.02	2/632 (0.3%)
53	K5	0.61	0/396	0.96	0/529
53	O8	0.83	1/396 (0.3%)	0.89	1/529 (0.2%)
54	L5	0.89	0/406	1.04	2/536 (0.4%)
54	P8	1.04	0/426	1.17	2/561 (0.4%)
55	M5	0.99	1/483 (0.2%)	1.14	1/634 (0.2%)
55	Q8	1.47	5/486 (1.0%)	1.86	11/638 (1.7%)
All	All	0.90	432/322727 (0.1%)	1.57	7504/483212 (1.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	1
2	1E	0	1
4	32	0	4
4	3E	0	1
9	82	0	2
10	1A	0	2
11	2A	0	2
12	3A	0	1
12	3I	0	1
15	6I	0	1
19	AI	0	2
20	BA	0	3
28	11	0	1
28	19	0	4
29	21	0	3
29	29	0	4
30	31	0	1
30	39	0	6
31	41	0	2
31	49	0	1
32	59	0	3
33	61	0	5
33	69	0	2
34	15	0	2
34	58	0	2
35	68	0	1
36	35	0	4
36	78	0	2
37	45	0	6
37	88	0	2
38	55	0	1
38	98	0	3
39	65	0	2
39	A8	0	2
40	75	0	1
40	B8	0	1
41	85	0	2
41	C8	0	2
42	95	0	1
43	A5	0	3
44	B5	0	2
44	F8	0	1
45	C5	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
45	G8	0	3
46	D5	0	2
46	H8	0	2
47	I8	0	2
48	F5	0	1
48	J8	0	2
49	G5	0	3
49	K8	0	3
51	I5	0	2
51	M8	0	2
52	N8	0	2
53	K5	0	3
53	O8	0	3
55	M5	0	3
55	Q8	0	13
All	All	0	142

All (432) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	21	U	C5-C6	18.43	1.50	1.34
23	2K	21	U	C5-C6	16.94	1.49	1.34
26	1H	774	A	N9-C4	-14.63	1.29	1.37
26	14	783	A	N9-C4	-13.79	1.29	1.37
26	1H	783	A	N9-C4	-12.87	1.30	1.37
26	1H	2430	A	N9-C4	-12.58	1.30	1.37
26	1H	1614	A	N9-C4	-12.54	1.30	1.37
26	14	774	A	N9-C4	-12.19	1.30	1.37
26	1H	783	A	N3-C4	-11.76	1.27	1.34
26	1H	1698	A	N9-C4	-11.70	1.30	1.37
23	2L	21	U	C2-N3	11.68	1.46	1.37
23	2K	21	U	C2-N3	11.65	1.46	1.37
26	1H	74	A	N9-C4	-10.88	1.31	1.37
26	14	783	A	N3-C4	-10.72	1.28	1.34
26	1H	676	A	N9-C4	-10.41	1.31	1.37
1	13	792	A	C5-C6	-10.34	1.31	1.41
26	1H	2287	A	N9-C4	-10.29	1.31	1.37
26	1H	676	A	N9-C8	10.21	1.46	1.37
26	14	1332	G	N9-C4	-10.07	1.29	1.38
26	1H	1899	G	N9-C4	-10.01	1.29	1.38
26	1H	71	A	N9-C4	-9.88	1.31	1.37
26	14	74	A	N9-C4	-9.82	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1786	A	N9-C4	-9.74	1.32	1.37
23	2K	21	U	N1-C2	9.56	1.47	1.38
1	13	792	A	N9-C4	-9.44	1.32	1.37
26	14	528	A	N9-C4	-9.43	1.32	1.37
26	1H	1698	A	N3-C4	-9.26	1.29	1.34
26	1H	2442	C	N1-C6	-9.18	1.31	1.37
23	2L	21	U	N1-C2	9.15	1.46	1.38
4	3E	12	CYS	CB-SG	9.12	1.97	1.82
26	1H	197	A	N3-C4	-9.12	1.29	1.34
26	1H	860	U	N1-C2	8.91	1.46	1.38
26	1H	805	G	N7-C5	-8.85	1.33	1.39
23	2L	21	U	C4-C5	8.84	1.51	1.43
23	2K	21	U	C4-C5	8.80	1.51	1.43
26	1H	1332	G	N9-C4	-8.78	1.30	1.38
26	1H	945	A	N7-C5	-8.75	1.34	1.39
26	1H	621	A	N9-C4	-8.40	1.32	1.37
26	1H	138	G	N9-C8	8.39	1.43	1.37
26	1H	676	A	C5-C4	8.35	1.44	1.38
26	1H	1899	G	C2-N3	-8.28	1.26	1.32
28	11	237	GLU	CG-CD	8.21	1.64	1.51
26	1H	2576	G	C8-N7	-8.20	1.26	1.30
26	1H	1786	A	N3-C4	-8.10	1.29	1.34
26	14	1698	A	N9-C4	-8.05	1.33	1.37
26	1H	2062	A	N3-C4	8.00	1.39	1.34
26	1H	1786	A	C5-C6	-7.96	1.33	1.41
26	1H	2392	A	N9-C4	-7.95	1.33	1.37
26	1H	1899	G	N9-C8	7.95	1.43	1.37
26	14	2287	A	N9-C4	-7.94	1.33	1.37
26	14	1698	A	N7-C5	-7.91	1.34	1.39
26	1H	1899	G	N3-C4	-7.91	1.29	1.35
26	1H	2346	A	N3-C4	-7.90	1.30	1.34
26	14	751	A	N9-C4	-7.86	1.33	1.37
28	11	122	ASP	CB-CG	7.85	1.68	1.51
26	1H	774	A	C5-C6	-7.74	1.34	1.41
26	14	2506	U	C2-N3	7.68	1.43	1.37
26	1H	1786	A	N9-C4	-7.64	1.33	1.37
26	1H	2062	A	N7-C5	7.59	1.43	1.39
26	1H	783	A	C5-C6	-7.49	1.34	1.41
1	13	1227	A	N9-C4	-7.49	1.33	1.37
26	1H	2490	G	N9-C8	7.49	1.43	1.37
26	1H	74	A	N3-C4	-7.48	1.30	1.34
1	13	810	C	N1-C6	-7.45	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1678	G	N9-C4	-7.44	1.31	1.38
26	1H	1969	A	C6-N1	-7.39	1.30	1.35
26	1H	829	A	N7-C5	-7.38	1.34	1.39
1	13	815	A	N9-C4	-7.37	1.33	1.37
4	3E	9	CYS	CB-SG	7.37	1.94	1.82
26	1H	783	A	N7-C5	-7.36	1.34	1.39
26	1H	2451	A	N9-C4	-7.34	1.33	1.37
26	14	1698	A	C5-C6	-7.31	1.34	1.41
26	1H	735	A	C5-C4	-7.29	1.33	1.38
26	1H	821	A	N7-C5	-7.27	1.34	1.39
26	1H	2713	A	C5-C4	7.25	1.43	1.38
23	2K	21	U	N3-C4	7.24	1.45	1.38
26	1H	2713	A	N9-C4	-7.22	1.33	1.37
26	1H	777	A	N9-C4	-7.16	1.33	1.37
26	14	1313	U	N1-C2	-7.16	1.32	1.38
26	1H	2346	A	N7-C5	-7.15	1.34	1.39
26	1H	71	A	C5-C6	-7.13	1.34	1.41
26	1H	676	A	N3-C4	-7.08	1.30	1.34
14	5I	27	CYS	CB-SG	-7.06	1.70	1.82
26	1H	1678	G	N9-C8	7.05	1.42	1.37
26	1H	1021	A	N9-C4	-7.04	1.33	1.37
26	1H	245	G	N7-C5	-6.97	1.35	1.39
26	1H	2490	G	N9-C4	-6.94	1.32	1.38
26	1H	735	A	N3-C4	-6.94	1.30	1.34
26	1H	71	A	C6-N6	-6.93	1.28	1.33
26	1H	945	A	C5-C6	-6.83	1.34	1.41
26	1H	698	C	N1-C6	-6.82	1.33	1.37
26	14	783	A	N7-C5	-6.82	1.35	1.39
26	1H	2451	A	C6-N1	-6.79	1.30	1.35
55	Q8	49	VAL	CA-CB	6.78	1.69	1.54
26	14	2506	U	N1-C2	6.71	1.44	1.38
26	1H	1355	G	C6-N1	-6.66	1.34	1.39
23	2K	21	U	N1-C6	6.66	1.44	1.38
26	1H	939	G	N3-C4	-6.65	1.30	1.35
55	Q8	6	THR	CA-CB	6.63	1.70	1.53
26	1H	1966	A	N9-C4	-6.63	1.33	1.37
26	1H	2247	A	N3-C4	-6.62	1.30	1.34
26	1H	845	G	C2-N3	6.61	1.38	1.32
26	14	1332	G	N9-C8	6.58	1.42	1.37
26	14	1289	C	N1-C6	-6.55	1.33	1.37
26	14	1612	C	N1-C6	-6.54	1.33	1.37
26	14	1332	G	N3-C4	-6.54	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1142(A)	A	N9-C4	-6.52	1.33	1.37
26	14	780	G	N7-C5	-6.50	1.35	1.39
26	14	1617	C	N1-C6	-6.50	1.33	1.37
26	1H	1564	C	N3-C4	-6.47	1.29	1.33
26	1H	528	A	N9-C4	-6.47	1.33	1.37
26	1H	777	A	N3-C4	-6.47	1.30	1.34
26	14	71	A	N9-C4	-6.46	1.33	1.37
26	1H	621	A	N9-C8	6.45	1.43	1.37
26	14	1142(A)	A	N3-C4	-6.39	1.31	1.34
26	1H	2589	A	C5-C4	-6.37	1.34	1.38
26	1H	945	A	N3-C4	-6.34	1.31	1.34
26	1H	70	G	C6-N1	-6.33	1.35	1.39
44	F8	15	GLU	CG-CD	6.33	1.61	1.51
26	1H	1950	G	N9-C8	6.32	1.42	1.37
26	1H	138	G	C5-C4	6.32	1.42	1.38
26	1H	197	A	N9-C4	-6.30	1.34	1.37
26	14	123	G	C6-N1	-6.29	1.35	1.39
26	1H	679	C	N1-C6	-6.28	1.33	1.37
26	1H	1616	A	C5-C6	-6.27	1.35	1.41
26	1H	2594	C	N1-C6	-6.27	1.33	1.37
26	1H	732	C	N1-C6	-6.26	1.33	1.37
26	1H	774	A	N7-C5	-6.26	1.35	1.39
26	14	2360	A	N9-C4	-6.26	1.34	1.37
26	14	674	G	N7-C5	6.25	1.43	1.39
26	1H	2053	G	C5-C4	-6.24	1.33	1.38
26	1H	140	A	C5-C6	-6.23	1.35	1.41
44	F8	15	GLU	CB-CG	6.22	1.64	1.52
26	1H	805	G	C6-N1	-6.20	1.35	1.39
26	14	1902	C	C4-N4	-6.19	1.28	1.33
26	14	2346	A	N3-C4	-6.16	1.31	1.34
26	1H	1332	G	N3-C4	-6.16	1.31	1.35
26	1H	746	A	N3-C4	-6.16	1.31	1.34
26	14	211	A	N9-C4	-6.15	1.34	1.37
26	1H	2373	G	C2-N3	6.15	1.37	1.32
1	13	1483	A	N9-C4	-6.14	1.34	1.37
26	14	2430	A	N9-C4	-6.14	1.34	1.37
26	1H	1815	A	C5-C4	-6.13	1.34	1.38
37	88	82	ARG	N-CA	6.13	1.58	1.46
26	14	1786	A	C5-C4	6.13	1.43	1.38
26	1H	2249	U	C2-N3	-6.12	1.33	1.37
23	2L	21	U	N3-C4	6.12	1.44	1.38
26	1H	663	G	N7-C5	-6.12	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2031	A	N9-C4	6.12	1.41	1.37
23	2L	21	U	N1-C6	6.11	1.43	1.38
26	1H	949	C	N1-C6	-6.11	1.33	1.37
26	1H	123	G	C6-O6	-6.10	1.18	1.24
26	1H	1825	A	C6-N1	-6.10	1.31	1.35
26	14	693	C	N3-C4	-6.10	1.29	1.33
26	1H	684	G	C6-N1	-6.09	1.35	1.39
26	1H	2256	G	N1-C2	-6.08	1.32	1.37
26	1H	2518	A	N9-C4	-6.08	1.34	1.37
26	1H	1786	A	N7-C5	-6.07	1.35	1.39
26	1H	2393	A	N7-C5	-6.07	1.35	1.39
26	1H	792	G	N7-C5	-6.07	1.35	1.39
26	1H	1275	A	N7-C5	-6.07	1.35	1.39
26	14	945	A	C5-C6	-6.07	1.35	1.41
26	14	774	A	N3-C4	-6.07	1.31	1.34
26	14	783	A	C5-C6	-6.06	1.35	1.41
55	Q8	49	VAL	CB-CG2	6.05	1.65	1.52
26	1H	1313	U	C4-C5	-6.05	1.38	1.43
26	14	1142(A)	A	N9-C4	-6.04	1.34	1.37
26	1H	960	A	N9-C4	-6.04	1.34	1.37
26	14	782	A	C6-N1	-6.04	1.31	1.35
55	Q8	40	GLU	CB-CG	6.03	1.63	1.52
26	14	1786	A	N3-C4	-6.02	1.31	1.34
26	1H	2310	A	N9-C4	6.01	1.41	1.37
26	1H	2430	A	N1-C2	6.00	1.39	1.34
26	1H	946	G	N9-C4	-6.00	1.33	1.38
26	14	1786	A	C5-C6	-6.00	1.35	1.41
26	14	1950	G	C2-N3	5.97	1.37	1.32
27	1J	89(A)	A	N9-C4	5.97	1.41	1.37
26	1H	49	A	N7-C5	-5.97	1.35	1.39
26	1H	1202	C	N1-C6	-5.97	1.33	1.37
26	1H	2600	A	N7-C5	-5.96	1.35	1.39
27	16	99	A	C5-C4	5.96	1.43	1.38
26	1H	1616	A	N9-C4	-5.94	1.34	1.37
26	1H	71	A	N9-C8	5.94	1.42	1.37
26	1H	2071	A	C6-N6	-5.93	1.29	1.33
26	1H	2062	A	C5-C4	5.92	1.42	1.38
26	14	1332	G	C8-N7	5.92	1.34	1.30
26	14	1904	G	N9-C8	-5.92	1.33	1.37
26	1H	1332	G	N9-C8	5.91	1.42	1.37
26	14	1616	A	C5-C6	-5.91	1.35	1.41
26	14	2015	A	N9-C4	-5.91	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	2247	A	C6-N1	-5.91	1.31	1.35
26	14	1612	C	C2-O2	5.90	1.29	1.24
26	14	1950	G	C5-C4	5.89	1.42	1.38
26	1H	2032	G	C6-N1	-5.88	1.35	1.39
26	14	204	A	N7-C5	-5.88	1.35	1.39
26	14	1616	A	N9-C4	-5.87	1.34	1.37
26	1H	2379	G	C2-N3	5.87	1.37	1.32
26	14	2330	G	C2-N3	5.86	1.37	1.32
26	1H	693	C	N3-C4	-5.84	1.29	1.33
26	1H	2062	A	C5-C6	5.83	1.46	1.41
26	1H	838	C	N1-C6	-5.81	1.33	1.37
26	14	792	G	C6-N1	-5.80	1.35	1.39
26	1H	330	A	N9-C4	-5.80	1.34	1.37
26	1H	682	G	C5-C4	-5.80	1.34	1.38
26	14	2703	C	N1-C6	-5.80	1.33	1.37
26	1H	2448	A	C5-C6	-5.80	1.35	1.41
53	O8	42	TRP	CB-CG	5.80	1.60	1.50
26	1H	805	G	N9-C8	-5.79	1.33	1.37
1	13	1502	A	N9-C4	-5.79	1.34	1.37
26	1H	2082	A	N9-C4	-5.79	1.34	1.37
26	1H	1434	A	N9-C4	-5.79	1.34	1.37
26	1H	774	A	N9-C8	5.77	1.42	1.37
26	14	1678	G	N3-C4	-5.77	1.31	1.35
26	1H	2708	G	C2-N3	5.77	1.37	1.32
26	14	784	A	C6-N1	-5.77	1.31	1.35
26	14	1307	A	C6-N1	-5.76	1.31	1.35
26	1H	265	A	C5-C6	-5.76	1.35	1.41
26	14	1354	A	N9-C4	-5.75	1.34	1.37
26	1H	1616	A	N7-C5	-5.74	1.35	1.39
26	14	567	A	N9-C4	-5.74	1.34	1.37
26	1H	1566	A	C8-N7	5.74	1.35	1.31
26	1H	71	A	C5-C4	5.73	1.42	1.38
26	1H	2451	A	N3-C4	-5.73	1.31	1.34
26	14	945	A	N7-C5	-5.72	1.35	1.39
26	1H	689	A	N9-C4	-5.71	1.34	1.37
26	14	2606	C	N1-C6	-5.71	1.33	1.37
26	14	211	A	N7-C5	-5.71	1.35	1.39
26	1H	138	G	N7-C5	5.70	1.42	1.39
26	1H	2509	G	C5-C4	-5.70	1.34	1.38
26	1H	1799	G	N3-C4	5.69	1.39	1.35
26	1H	2082	A	N3-C4	-5.69	1.31	1.34
26	1H	2072	G	C8-N7	-5.69	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	2612	C	N3-C4	5.68	1.38	1.33
26	1H	1668	A	N3-C4	-5.66	1.31	1.34
55	M5	54	GLU	CG-CD	5.66	1.60	1.51
26	1H	1823	G	C6-N1	-5.65	1.35	1.39
26	14	204	A	C5-C4	-5.65	1.34	1.38
26	14	2725	A	N9-C4	-5.64	1.34	1.37
26	1H	2246	G	N9-C8	-5.64	1.33	1.37
26	14	2359	C	N3-C4	-5.63	1.30	1.33
27	16	119	A	N9-C4	5.63	1.41	1.37
26	1H	201	C	N1-C6	-5.62	1.33	1.37
26	1H	990	A	N7-C5	-5.62	1.35	1.39
26	1H	1556	C	N1-C6	-5.62	1.33	1.37
26	1H	832	G	C2-N3	-5.61	1.28	1.32
26	14	74	A	C5-C6	-5.61	1.35	1.41
26	1H	2502	G	C6-N1	-5.61	1.35	1.39
26	14	2542	A	N7-C5	5.60	1.42	1.39
26	1H	598	G	N7-C5	-5.60	1.35	1.39
37	88	139	GLU	CG-CD	5.60	1.60	1.51
26	1H	2712	U	C2-O2	-5.59	1.17	1.22
26	1H	1815	A	N3-C4	-5.59	1.31	1.34
1	13	792	A	N7-C5	-5.58	1.35	1.39
26	14	2430	A	N7-C5	-5.58	1.35	1.39
26	14	204	A	N3-C4	-5.58	1.31	1.34
26	1H	239	U	C2-N3	-5.58	1.33	1.37
26	1H	1616	A	N9-C8	5.58	1.42	1.37
26	14	330	A	N9-C4	-5.58	1.34	1.37
26	14	204	A	C5-C6	-5.56	1.36	1.41
26	1H	1210	A	C5-C6	-5.56	1.36	1.41
26	14	1997	G	C2-N3	5.56	1.37	1.32
1	13	1408	A	N7-C5	-5.55	1.35	1.39
26	1H	1632	A	C5-C6	-5.54	1.36	1.41
26	14	2392	A	C5-C4	5.54	1.42	1.38
26	1H	1322	A	N9-C4	-5.53	1.34	1.37
26	14	676	A	C5-C4	5.52	1.42	1.38
1	13	808	C	N1-C6	-5.51	1.33	1.37
26	1H	1354	A	C5-C6	-5.51	1.36	1.41
26	1H	1678	G	N9-C4	-5.51	1.33	1.38
1	1G	1473	A	N9-C4	-5.50	1.34	1.37
26	14	211	A	C5-C6	-5.50	1.36	1.41
26	1H	1246	A	N7-C5	-5.50	1.35	1.39
26	1H	2346	A	N9-C4	-5.50	1.34	1.37
26	14	2332	U	N1-C2	5.49	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	739	G	C5-C6	-5.49	1.36	1.42
26	1H	685	A	N7-C5	-5.49	1.35	1.39
26	1H	973	A	N9-C4	-5.48	1.34	1.37
26	1H	2764	A	N9-C4	-5.48	1.34	1.37
26	14	828	U	N3-C4	-5.48	1.33	1.38
26	14	774	A	C5-C6	-5.48	1.36	1.41
26	14	1605	C	N1-C6	-5.48	1.33	1.37
26	14	945	A	N3-C4	-5.48	1.31	1.34
26	14	1308	A	N7-C5	-5.47	1.35	1.39
26	14	2082	A	N7-C5	-5.47	1.35	1.39
26	1H	675	A	C5-C6	-5.47	1.36	1.41
26	1H	1698	A	C5-C6	-5.46	1.36	1.41
26	1H	432	A	C5-C6	-5.45	1.36	1.41
26	14	1313	U	C2-O2	-5.45	1.17	1.22
26	14	1674	G	N7-C5	-5.45	1.35	1.39
26	1H	2577	A	C6-N1	-5.44	1.31	1.35
26	1H	2247	A	N9-C4	-5.44	1.34	1.37
26	1H	2254	C	N1-C2	-5.43	1.34	1.40
26	1H	952	G	C5-C4	-5.43	1.34	1.38
26	1H	188	G	C2-N3	5.42	1.37	1.32
26	1H	1977	A	N9-C8	-5.42	1.33	1.37
26	14	2433	A	N9-C4	-5.42	1.34	1.37
1	13	1498	U	N1-C2	5.41	1.43	1.38
26	14	1342	A	N3-C4	-5.41	1.31	1.34
26	1H	933	A	N3-C4	-5.41	1.31	1.34
26	1H	1599	C	N3-C4	-5.40	1.30	1.33
26	1H	1638	C	N3-C4	-5.40	1.30	1.33
26	1H	1950	G	C5-C4	5.40	1.42	1.38
26	14	784	A	N3-C4	-5.40	1.31	1.34
26	1H	2277	G	N9-C8	-5.40	1.34	1.37
26	14	2506	U	N3-C4	5.40	1.43	1.38
26	1H	2009	G	C5-C4	-5.39	1.34	1.38
26	1H	57	C	N3-C4	-5.39	1.30	1.33
26	14	777	A	N9-C4	-5.39	1.34	1.37
26	14	122	G	N9-C4	-5.38	1.33	1.38
1	1G	354	G	N7-C5	-5.38	1.36	1.39
26	14	664	C	N1-C6	-5.38	1.33	1.37
26	1H	774	A	C2-N3	-5.37	1.28	1.33
37	88	82	ARG	CA-C	5.37	1.67	1.52
26	14	1558	A	N3-C4	-5.37	1.31	1.34
26	14	2688	U	N3-C4	-5.37	1.33	1.38
26	1H	2609	U	N1-C6	-5.37	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2361	A	N9-C4	-5.35	1.34	1.37
26	1H	2230	G	C2-N3	-5.34	1.28	1.32
26	1H	2072	G	N3-C4	5.33	1.39	1.35
26	1H	1382	G	C5-C6	-5.32	1.37	1.42
26	1H	1336	A	N1-C2	-5.32	1.29	1.34
26	1H	1681	G	N9-C4	-5.32	1.33	1.38
26	1H	2579	C	N3-C4	-5.31	1.30	1.33
27	16	112	G	N3-C4	5.30	1.39	1.35
26	14	1972	A	N9-C8	-5.29	1.33	1.37
24	3L	37	A	N9-C4	5.29	1.41	1.37
26	14	788	A	N7-C5	-5.29	1.36	1.39
26	1H	608	A	N9-C4	-5.29	1.34	1.37
26	1H	685	A	C5-C6	-5.29	1.36	1.41
26	1H	946	G	C5-C4	-5.29	1.34	1.38
26	1H	1204	A	N7-C5	-5.29	1.36	1.39
26	1H	774	A	N3-C4	-5.28	1.31	1.34
28	11	144	ALA	CA-CB	-5.26	1.41	1.52
26	1H	933	A	C6-N1	-5.26	1.31	1.35
26	14	954	G	C5-C6	5.26	1.47	1.42
26	1H	1219	G	N3-C4	-5.25	1.31	1.35
26	14	1384	A	N3-C4	-5.25	1.31	1.34
55	Q8	40	GLU	CG-CD	5.25	1.59	1.51
26	1H	2318	G	N3-C4	-5.25	1.31	1.35
26	14	1785	A	N7-C5	-5.25	1.36	1.39
26	1H	2392	A	N7-C5	-5.25	1.36	1.39
26	1H	265	A	N9-C4	-5.24	1.34	1.37
24	3L	76	A	C5-C4	5.24	1.42	1.38
1	13	1502	A	P-O5'	-5.24	1.54	1.59
26	1H	123	G	C6-N1	-5.24	1.35	1.39
26	14	2025	C	N1-C6	-5.24	1.34	1.37
26	1H	262	A	N9-C4	-5.24	1.34	1.37
26	1H	581	C	N3-C4	-5.24	1.30	1.33
26	1H	1968	G	C8-N7	-5.24	1.27	1.30
26	1H	452	G	N7-C5	5.23	1.42	1.39
26	1H	1814	G	C6-N1	-5.23	1.35	1.39
26	14	2713	A	C5-C4	5.23	1.42	1.38
26	1H	448	U	N1-C6	-5.23	1.33	1.38
26	1H	1915	U	N1-C2	5.23	1.43	1.38
26	1H	205	G	C2-N3	5.22	1.36	1.32
26	1H	1258	C	N1-C6	-5.22	1.34	1.37
26	1H	1313	U	N1-C2	-5.22	1.33	1.38
26	14	773	U	C2-O2	-5.22	1.17	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2377	A	N9-C4	-5.22	1.34	1.37
26	1H	1189	A	C5-C6	-5.22	1.36	1.41
26	1H	2432	A	C5-C4	-5.22	1.35	1.38
26	14	1204	A	N9-C4	-5.22	1.34	1.37
26	14	744	G	N7-C5	-5.21	1.36	1.39
26	1H	792	G	C5-C6	-5.19	1.37	1.42
26	1H	1355	G	N1-C2	-5.19	1.33	1.37
26	1H	2048	G	N3-C4	-5.19	1.31	1.35
26	14	509	C	N1-C6	-5.18	1.34	1.37
26	1H	1637	A	C6-N1	-5.18	1.31	1.35
26	14	954	G	N7-C5	5.18	1.42	1.39
26	14	1786	A	N7-C5	-5.17	1.36	1.39
26	1H	140	A	N7-C5	-5.16	1.36	1.39
26	1H	1931	U	C2-N3	-5.16	1.34	1.37
26	1H	663	G	N9-C8	-5.16	1.34	1.37
26	1H	784	A	N3-C4	-5.15	1.31	1.34
26	1H	1367	A	N9-C4	-5.15	1.34	1.37
1	13	535	A	C6-N1	-5.15	1.31	1.35
26	1H	138	G	N3-C4	5.15	1.39	1.35
26	1H	2452	C	N1-C6	-5.14	1.34	1.37
26	1H	746	A	C5-C6	-5.14	1.36	1.41
26	1H	2053	G	C2-N3	-5.14	1.28	1.32
26	14	1950	G	N1-C2	5.14	1.41	1.37
26	1H	1825	A	C6-N6	-5.12	1.29	1.33
26	14	2584	U	N1-C2	5.12	1.43	1.38
26	1H	2230	G	N3-C4	-5.12	1.31	1.35
26	1H	132	G	C5-C4	5.12	1.42	1.38
26	1H	667	U	C2-N3	5.11	1.41	1.37
26	14	2441	C	N3-C4	-5.11	1.30	1.33
26	14	779	U	C2-N3	-5.10	1.34	1.37
26	1H	398	G	N7-C5	-5.10	1.36	1.39
26	1H	681	G	C6-N1	-5.10	1.35	1.39
26	1H	783	A	C6-N1	-5.10	1.31	1.35
26	1H	530	G	N9-C8	5.10	1.41	1.37
26	1H	2713	A	N1-C2	5.10	1.39	1.34
26	1H	805	G	C6-O6	-5.10	1.19	1.24
26	1H	138	G	C6-N1	5.09	1.43	1.39
26	1H	1135	C	N3-C4	-5.09	1.30	1.33
26	1H	613	U	C2-N3	-5.09	1.34	1.37
26	1H	1213	A	C5-C6	-5.08	1.36	1.41
23	2L	77	A	N9-C4	-5.08	1.34	1.37
26	1H	2247	A	C6-N1	-5.08	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	338	G	N7-C5	-5.08	1.36	1.39
26	14	1845	G	C5-C4	-5.08	1.34	1.38
26	1H	447	A	N3-C4	-5.07	1.31	1.34
26	1H	2233	U	N1-C2	-5.07	1.33	1.38
26	14	832	G	C5-C4	-5.06	1.34	1.38
18	9I	83	GLU	CG-CD	5.06	1.59	1.51
26	1H	682	G	N9-C8	-5.06	1.34	1.37
26	1H	2058	A	N3-C4	-5.06	1.31	1.34
26	14	567	A	N3-C4	-5.06	1.31	1.34
26	1H	1385	G	N9-C4	-5.05	1.33	1.38
26	1H	1349	A	C5-C4	5.05	1.42	1.38
26	1H	2070	G	N9-C8	-5.05	1.34	1.37
26	14	2385	C	N3-C4	5.05	1.37	1.33
26	1H	2271	G	C2-N3	5.05	1.36	1.32
49	G5	5	GLU	CG-CD	5.05	1.59	1.51
26	1H	2713	A	N9-C8	5.05	1.41	1.37
26	1H	793	A	C5-C6	-5.04	1.36	1.41
26	1H	807	U	N1-C6	-5.04	1.33	1.38
26	1H	2430	A	C5-C4	5.04	1.42	1.38
26	1H	1728	G	N3-C4	5.04	1.39	1.35
26	14	698	C	N1-C6	-5.04	1.34	1.37
26	1H	465	G	C6-O6	5.04	1.28	1.24
26	14	138	G	N9-C4	5.04	1.42	1.38
26	1H	695	G	C6-N1	-5.03	1.36	1.39
26	1H	1418	G	N7-C5	5.03	1.42	1.39
26	14	801	G	C6-N1	-5.03	1.36	1.39
26	14	1353	A	N3-C4	-5.03	1.31	1.34
26	1H	2297	C	N3-C4	-5.03	1.30	1.33
26	14	2518	A	N9-C4	-5.03	1.34	1.37
26	1H	2059	A	N9-C4	-5.02	1.34	1.37
26	14	1286	A	N7-C5	-5.02	1.36	1.39
26	1H	1613	G	C6-N1	-5.01	1.36	1.39

All (7504) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N3-C4-N9	-26.68	109.99	126.00
26	1H	676	A	C2-N3-C4	-22.63	99.29	110.60
26	1H	2430	A	C2-N3-C4	-22.43	99.39	110.60
26	1H	1899	G	N3-C4-C5	21.40	139.30	128.60
26	1H	783	A	C2-N3-C4	-21.20	100.00	110.60
26	1H	945	A	C6-C5-N7	-20.79	117.75	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1786	A	C2-N3-C4	-19.80	100.70	110.60
26	14	1332	G	N3-C4-N9	-19.74	114.15	126.00
26	14	1786	A	C5-N7-C8	-19.43	94.19	103.90
26	14	783	A	C2-N3-C4	-19.31	100.94	110.60
26	1H	74	A	C2-N3-C4	-19.29	100.96	110.60
26	1H	945	A	N1-C6-N6	19.08	130.05	118.60
26	1H	801	G	O5'-P-OP2	-18.79	88.15	110.70
26	14	74	A	C2-N3-C4	-18.33	101.44	110.60
26	14	1786	A	N7-C8-N9	17.88	122.74	113.80
26	1H	917	A	N1-C2-N3	17.78	138.19	129.30
26	14	1332	G	N3-C4-C5	17.72	137.46	128.60
26	1H	2490	G	C5-N7-C8	-17.69	95.45	104.30
26	1H	1332	G	N3-C4-N9	-17.61	115.44	126.00
26	1H	1899	G	C2-N3-C4	-17.39	103.21	111.90
26	14	741	G	O5'-P-OP1	-17.32	89.92	110.70
26	1H	917	A	C2-N3-C4	-17.19	102.00	110.60
26	1H	2598	A	O5'-P-OP1	-17.12	90.15	110.70
26	1H	2448	A	N1-C6-N6	16.89	128.73	118.60
26	1H	945	A	N7-C8-N9	16.80	122.20	113.80
26	1H	945	A	C5-N7-C8	-16.75	95.52	103.90
26	1H	774	A	N3-C4-C5	16.59	138.41	126.80
26	1H	1698	A	C2-N3-C4	-16.52	102.34	110.60
26	14	1332	G	C2-N3-C4	-16.28	103.76	111.90
26	1H	1899	G	N3-C2-N2	-16.28	108.51	119.90
26	1H	1639	U	O5'-P-OP2	-16.23	91.09	105.70
26	1H	1332	G	N3-C4-C5	16.20	136.70	128.60
26	1H	945	A	C4-C5-C6	15.96	124.98	117.00
26	1H	1786	A	N1-C2-N3	15.94	137.27	129.30
26	1H	774	A	C2-N3-C4	-15.94	102.63	110.60
26	1H	1931	U	N3-C2-O2	-15.80	111.14	122.20
26	14	1698	A	N1-C6-N6	15.68	128.00	118.60
26	14	1984	G	O5'-P-OP2	-15.67	91.60	105.70
26	1H	2490	G	C4-C5-N7	15.64	117.06	110.80
26	1H	51	G	O5'-P-OP1	-15.51	91.74	105.70
26	14	2275	C	C6-N1-C2	-15.50	114.10	120.30
26	1H	774	A	N3-C4-N9	-15.45	115.04	127.40
26	1H	71	A	C2-N3-C4	-15.41	102.90	110.60
26	1H	1678	G	C2-N3-C4	-15.40	104.20	111.90
26	14	2430	A	C2-N3-C4	-15.38	102.91	110.60
26	1H	1332	G	C2-N3-C4	-15.36	104.22	111.90
26	1H	1786	A	C5-N7-C8	-15.17	96.32	103.90
26	1H	676	A	C5-N7-C8	-15.06	96.37	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	945	A	N1-C6-N6	15.05	127.63	118.60
26	14	1253	A	N1-C6-N6	14.99	127.60	118.60
26	14	774	A	C2-N3-C4	-14.94	103.13	110.60
26	1H	2287	A	C2-N3-C4	-14.92	103.14	110.60
26	14	2436	G	O5'-P-OP1	-14.78	92.40	105.70
26	14	1899	G	C2-N3-C4	-14.73	104.53	111.90
26	14	783	A	C5-N7-C8	-14.66	96.57	103.90
1	13	792	A	C2-N3-C4	-14.66	103.27	110.60
26	1H	676	A	N3-C4-N9	-14.55	115.76	127.40
26	1H	140	A	C5-N7-C8	-14.48	96.66	103.90
26	1H	1829	A	O5'-P-OP1	-14.46	92.68	105.70
26	1H	1616	A	C5-N7-C8	-14.44	96.68	103.90
26	1H	621	A	C5-N7-C8	-14.43	96.68	103.90
1	13	792	A	N1-C6-N6	14.42	127.25	118.60
26	1H	860	U	N3-C2-O2	-14.42	112.11	122.20
26	1H	676	A	N3-C4-C5	14.30	136.81	126.80
26	1H	774	A	C5-N7-C8	-14.29	96.75	103.90
26	1H	1786	A	C6-C5-N7	-14.22	122.35	132.30
26	1H	1982	C	O5'-P-OP2	-14.16	92.96	105.70
26	14	1612	C	C6-N1-C2	14.04	125.92	120.30
26	1H	863	A	O5'-P-OP2	-14.00	93.10	105.70
26	1H	860	U	C4-C5-C6	13.93	128.06	119.70
26	1H	2374	C	C5-C6-N1	-13.92	114.04	121.00
26	1H	49	A	O5'-P-OP2	-13.82	93.26	105.70
26	14	2712	U	C5-C6-N1	-13.80	115.80	122.70
26	1H	783	A	C5-N7-C8	-13.79	97.00	103.90
26	1H	1786	A	N7-C8-N9	13.79	120.69	113.80
26	1H	621	A	C2-N3-C4	-13.66	103.77	110.60
24	3K	76	A	C5-N7-C8	-13.54	97.13	103.90
26	14	774	A	N3-C4-C5	13.51	136.26	126.80
26	14	945	A	C6-C5-N7	-13.49	122.86	132.30
26	14	737	C	N1-C2-O2	-13.45	110.83	118.90
26	14	2273	A	O5'-P-OP2	-13.41	93.63	105.70
26	1H	265	A	C2-N3-C4	-13.37	103.92	110.60
26	1H	2375	G	C8-N9-C4	13.30	111.72	106.40
26	1H	2490	G	N3-C4-C5	13.28	135.24	128.60
26	1H	1786	A	N1-C6-N6	13.28	126.56	118.60
26	14	2430	A	N1-C6-N6	13.27	126.56	118.60
26	1H	1899	G	N9-C4-C5	13.24	110.69	105.40
26	1H	210	C	C6-N1-C2	13.21	125.58	120.30
26	1H	140	A	N7-C8-N9	13.21	120.40	113.80
26	14	330	A	C2-N3-C4	-13.20	104.00	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	945	A	C4-C5-N7	13.14	117.27	110.70
26	1H	2584	U	N3-C2-O2	-13.06	113.06	122.20
26	1H	245	G	N1-C6-O6	13.05	127.73	119.90
26	1H	2430	A	N1-C2-N3	13.03	135.81	129.30
26	1H	2448	A	C5-C6-N6	-13.02	113.28	123.70
26	1H	2346	A	N1-C2-N3	13.00	135.80	129.30
26	1H	1332	G	C5-N7-C8	-12.99	97.80	104.30
26	1H	2053	G	C5-C6-O6	-12.96	120.82	128.60
1	13	690	G	C6-C5-N7	-12.95	122.63	130.40
26	14	783	A	N1-C6-N6	12.94	126.37	118.60
26	14	783	A	C5-C6-N1	-12.93	111.23	117.70
26	14	2042	A	O5'-P-OP2	-12.89	94.10	105.70
26	1H	1678	G	N3-C4-C5	12.88	135.04	128.60
26	1H	2713	A	C5-N7-C8	-12.88	97.46	103.90
26	1H	71	A	C5-N7-C8	-12.88	97.46	103.90
26	1H	698	C	C6-N1-C2	12.85	125.44	120.30
26	1H	1405	U	O5'-P-OP2	-12.84	94.14	105.70
26	1H	1678	G	C4-C5-N7	12.83	115.93	110.80
1	13	792	A	C4-C5-N7	12.81	117.11	110.70
26	1H	945	A	C8-N9-C4	-12.77	100.69	105.80
26	1H	676	A	N7-C8-N9	12.77	120.18	113.80
26	1H	1678	G	C5-N7-C8	-12.75	97.92	104.30
26	1H	2700	C	C6-N1-C2	12.71	125.39	120.30
26	14	1786	A	C4-C5-N7	12.69	117.04	110.70
26	1H	641	C	O5'-P-OP1	-12.67	94.30	105.70
26	1H	1496	A	C8-N9-C4	-12.67	100.73	105.80
26	1H	2430	A	N1-C6-N6	12.65	126.19	118.60
26	1H	2490	G	N7-C8-N9	12.65	119.42	113.10
26	1H	140	A	N1-C6-N6	12.65	126.19	118.60
26	1H	1614	A	C5-N7-C8	-12.64	97.58	103.90
27	16	47	C	C6-N1-C2	12.64	125.36	120.30
26	14	1786	A	C2-N3-C4	-12.62	104.29	110.60
26	1H	783	A	C5-C6-N1	-12.60	111.40	117.70
26	1H	1006	C	O5'-P-OP1	-12.59	94.37	105.70
24	3K	76	A	N1-C6-N6	12.54	126.13	118.60
26	14	510	C	O5'-P-OP2	-12.54	94.41	105.70
26	14	1698	A	C2-N3-C4	-12.51	104.35	110.60
26	1H	808	G	O5'-P-OP2	-12.50	94.45	105.70
26	14	140	A	N7-C8-N9	12.50	120.05	113.80
26	1H	676	A	C5-C6-N1	-12.50	111.45	117.70
26	14	1816	G	O5'-P-OP1	-12.46	94.48	105.70
26	14	1332	G	C5-N7-C8	-12.46	98.07	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	774	A	N3-C4-N9	-12.44	117.45	127.40
26	1H	945	A	O4'-C1'-N9	12.41	118.13	108.20
26	14	1698	A	C6-C5-N7	-12.41	123.61	132.30
26	14	2023	G	O5'-P-OP2	-12.41	94.53	105.70
26	14	828	U	C5-C4-O4	12.35	133.31	125.90
26	1H	1698	A	C5-N7-C8	-12.34	97.73	103.90
26	1H	245	G	C6-C5-N7	-12.34	123.00	130.40
26	14	1698	A	C4-C5-N7	12.31	116.85	110.70
26	1H	1496	A	N7-C8-N9	12.30	119.95	113.80
26	1H	2468	G	O4'-C1'-N9	12.29	118.04	108.20
26	1H	1616	A	C4-C5-N7	12.29	116.84	110.70
26	14	189	G	C8-N9-C4	12.28	111.31	106.40
26	1H	728	G	C8-N9-C4	12.24	111.30	106.40
26	14	2430	A	C5-C6-N1	-12.23	111.58	117.70
26	1H	774	A	C5-C6-N1	-12.21	111.59	117.70
26	14	2079	U	O5'-P-OP1	-12.21	94.71	105.70
26	1H	1614	A	C2-N3-C4	-12.19	104.50	110.60
26	14	1698	A	C5-N7-C8	-12.16	97.82	103.90
26	14	74	A	N3-C4-C5	12.16	135.31	126.80
26	1H	34	C	O5'-P-OP1	-12.15	94.76	105.70
26	14	140	A	C5-N7-C8	-12.14	97.83	103.90
26	14	2873	A	N1-C2-N3	12.12	135.36	129.30
26	1H	2490	G	C2-N3-C4	-12.11	105.85	111.90
26	1H	2442	C	N3-C4-N4	12.10	126.47	118.00
26	14	1616	A	C2-N3-C4	-12.09	104.55	110.60
26	14	2700	C	C6-N1-C2	12.06	125.12	120.30
26	1H	120	U	C5-C6-N1	-12.06	116.67	122.70
26	1H	2346	A	C2-N3-C4	-12.04	104.58	110.60
26	1H	2377	A	C8-N9-C4	12.05	110.62	105.80
26	1H	846	C	O5'-P-OP1	-12.04	94.87	105.70
26	1H	74	A	C5-C6-N1	-12.00	111.70	117.70
26	1H	2375	G	C5-C6-O6	-12.00	121.40	128.60
26	14	74	A	C5-C6-N1	-12.00	111.70	117.70
26	14	679	C	N1-C2-O2	-12.00	111.70	118.90
26	1H	814	C	O5'-P-OP2	-11.96	94.93	105.70
26	1H	329	G	O5'-P-OP2	-11.94	94.95	105.70
26	14	528	A	C2-N3-C4	-11.92	104.64	110.60
26	1H	860	U	C5-C6-N1	-11.92	116.74	122.70
26	1H	691	C	C6-N1-C2	11.91	125.06	120.30
26	1H	140	A	C4-C5-N7	11.87	116.63	110.70
26	1H	245	G	C5-C6-O6	-11.83	121.50	128.60
26	1H	2346	A	C6-C5-N7	-11.82	124.03	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	783	A	N3-C4-C5	11.78	135.04	126.80
26	1H	201	C	C6-N1-C2	11.77	125.01	120.30
26	1H	2713	A	C2-N3-C4	-11.76	104.72	110.60
1	13	1502	A	C2-N3-C4	-11.75	104.72	110.60
26	1H	2392	A	C5-N7-C8	-11.69	98.06	103.90
26	1H	774	A	C6-N1-C2	11.62	125.57	118.60
1	13	792	A	O4'-C1'-N9	11.61	117.48	108.20
26	1H	2374	C	C6-N1-C2	11.60	124.94	120.30
26	1H	1204	A	O4'-C1'-N9	11.58	117.46	108.20
26	14	991	C	O5'-P-OP1	-11.57	95.29	105.70
26	14	801	G	N1-C6-O6	-11.56	112.96	119.90
24	3K	76	A	N7-C8-N9	11.55	119.58	113.80
26	1H	1257	C	N1-C2-O2	-11.55	111.97	118.90
26	14	676	A	C2-N3-C4	-11.54	104.83	110.60
26	14	1600	C	O5'-P-OP2	-11.53	95.32	105.70
1	1G	108	G	C5-C6-O6	-11.50	121.70	128.60
26	1H	2622	C	C6-N1-C2	11.47	124.89	120.30
26	1H	828	U	C5-C4-O4	11.45	132.77	125.90
1	1G	332	G	C8-N9-C4	11.45	110.98	106.40
26	1H	633	A	N1-C6-N6	11.44	125.47	118.60
26	1H	2346	A	N7-C8-N9	11.44	119.52	113.80
26	1H	1616	A	N7-C8-N9	11.43	119.51	113.80
1	13	1502	A	O5'-P-OP2	-11.42	95.42	105.70
26	1H	683	C	N3-C4-C5	11.39	126.46	121.90
26	1H	758	C	N3-C4-C5	11.39	126.46	121.90
26	14	835	A	O5'-P-OP2	-11.39	95.45	105.70
26	14	2518	A	N1-C6-N6	11.38	125.43	118.60
26	1H	735	A	C8-N9-C4	11.37	110.35	105.80
1	13	792	A	C6-C5-N7	-11.36	124.35	132.30
26	1H	2392	A	C2-N3-C4	-11.35	104.92	110.60
26	1H	1021	A	C2-N3-C4	-11.34	104.93	110.60
26	14	1786	A	C8-N9-C4	-11.34	101.27	105.80
26	1H	578	A	O5'-P-OP2	-11.33	95.50	105.70
26	1H	945	A	C4-N9-C1'	11.32	146.69	126.30
26	1H	676	A	C8-N9-C4	-11.32	101.27	105.80
26	1H	621	A	N1-C6-N6	11.31	125.38	118.60
26	1H	787	U	O5'-P-OP1	11.29	124.25	110.70
26	1H	2430	A	N3-C4-C5	11.27	134.69	126.80
26	1H	141	A	C5-N7-C8	-11.24	98.28	103.90
26	1H	2573	C	C6-N1-C2	-11.20	115.82	120.30
27	1J	30	C	C6-N1-C2	-11.20	115.82	120.30
26	14	1602	U	O5'-P-OP2	11.19	124.13	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1404	C	O5'-P-OP2	-11.17	95.65	105.70
26	14	621	A	C2-N3-C4	-11.17	105.02	110.60
26	14	2392	A	C2-N3-C4	-11.16	105.02	110.60
26	1H	144	C	C6-N1-C2	11.16	124.76	120.30
1	13	899	C	C6-N1-C2	11.12	124.75	120.30
26	1H	1349	A	O5'-P-OP1	-11.11	95.71	105.70
26	1H	814	C	C5-C6-N1	-11.09	115.46	121.00
23	2K	21	U	C5-C4-O4	-11.09	119.25	125.90
26	1H	2584	U	C5-C4-O4	11.08	132.55	125.90
26	1H	2712	U	C2-N1-C1'	11.06	130.97	117.70
26	1H	140	A	C6-C5-N7	-11.06	124.56	132.30
26	1H	1990	C	C6-N1-C2	-11.06	115.88	120.30
26	1H	2375	G	N9-C4-C5	-11.05	100.98	105.40
26	14	1899	G	N1-C2-N3	11.03	130.52	123.90
1	13	525	C	C5-C6-N1	11.01	126.51	121.00
26	1H	679	C	C5-C6-N1	-11.01	115.49	121.00
26	1H	1931	U	N1-C2-N3	11.01	121.51	114.90
26	1H	1786	A	C4-C5-N7	11.01	116.20	110.70
26	1H	1225	C	C6-N1-C2	10.99	124.70	120.30
26	1H	621	A	C4-C5-N7	10.99	116.19	110.70
26	1H	860	U	C2-N1-C1'	10.99	130.88	117.70
26	1H	621	A	N3-C4-C5	10.98	134.49	126.80
1	13	789	U	C5-C4-O4	10.98	132.49	125.90
26	14	320	A	O5'-P-OP2	-10.98	95.82	105.70
26	14	783	A	N3-C4-N9	-10.96	118.63	127.40
26	1H	659	C	C6-N1-C2	10.96	124.68	120.30
26	1H	852	G	O5'-P-OP2	-10.95	95.85	105.70
26	1H	2330	G	C5-C6-O6	-10.94	122.04	128.60
26	14	1825	A	O5'-P-OP2	-10.94	95.85	105.70
26	14	783	A	N7-C8-N9	10.93	119.27	113.80
36	35	147	LEU	CA-CB-CG	10.93	140.44	115.30
26	1H	839	U	O5'-P-OP2	-10.90	95.89	105.70
26	1H	1632	A	N1-C6-N6	10.90	125.14	118.60
26	1H	252	G	O5'-P-OP2	-10.89	95.90	105.70
26	14	782	A	N1-C6-N6	-10.89	112.07	118.60
26	14	793	A	O5'-P-OP2	-10.89	95.90	105.70
24	3K	76	A	C4-C5-N7	10.89	116.14	110.70
26	1H	1382	G	C5-C6-O6	-10.88	122.07	128.60
26	1H	1950	G	N7-C8-N9	10.88	118.54	113.10
26	14	1253	A	C5-C6-N6	-10.88	115.00	123.70
1	1G	108	G	C4-C5-N7	10.88	115.15	110.80
26	14	1029	A	C8-N9-C4	10.85	110.14	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1786	A	C6-C5-N7	-10.85	124.70	132.30
26	1H	1496	A	C5-N7-C8	-10.85	98.47	103.90
26	1H	193	U	C5-C6-N1	-10.84	117.28	122.70
26	1H	2507	C	N3-C2-O2	-10.84	114.31	121.90
26	1H	140	A	C8-N9-C4	-10.83	101.47	105.80
26	1H	111	A	O5'-P-OP2	-10.82	95.96	105.70
26	1H	2502	G	N3-C4-C5	-10.82	123.19	128.60
26	14	945	A	C4-C5-N7	10.81	116.11	110.70
26	1H	2430	A	C5-N7-C8	-10.81	98.50	103.90
26	1H	252	G	O5'-P-OP1	10.80	123.67	110.70
26	1H	1950	G	C2-N3-C4	-10.80	106.50	111.90
26	1H	774	A	C4-C5-N7	10.79	116.09	110.70
26	1H	2607	G	C6-C5-N7	-10.77	123.94	130.40
26	1H	945	A	O5'-P-OP2	-10.77	96.01	105.70
26	1H	783	A	N7-C8-N9	10.75	119.17	113.80
26	1H	330	A	C2-N3-C4	-10.74	105.23	110.60
26	1H	1950	G	C5-N7-C8	-10.73	98.93	104.30
26	14	71	A	N1-C6-N6	10.72	125.03	118.60
26	1H	964	C	O5'-P-OP1	-10.72	96.05	105.70
26	14	2275	C	C5-C6-N1	10.71	126.36	121.00
26	1H	1825	A	N1-C6-N6	-10.70	112.18	118.60
1	13	966	G	C5-C6-O6	-10.70	122.18	128.60
26	1H	2518	A	C5-N7-C8	-10.69	98.56	103.90
26	1H	678	C	C2-N3-C4	-10.69	114.56	119.90
26	1H	2595	G	C4-C5-N7	10.68	115.07	110.80
26	1H	2713	A	N7-C8-N9	10.67	119.14	113.80
26	1H	2085	C	O5'-P-OP2	-10.67	96.10	105.70
1	13	792	A	C5-N7-C8	-10.66	98.57	103.90
26	1H	1558	A	N1-C6-N6	10.66	124.99	118.60
26	1H	74	A	C5-N7-C8	-10.65	98.57	103.90
26	14	2430	A	C6-C5-N7	-10.65	124.84	132.30
26	14	1616	A	C5-N7-C8	-10.65	98.57	103.90
26	1H	2420	C	O5'-P-OP1	-10.64	96.12	105.70
26	1H	815	C	C6-N1-C2	10.63	124.55	120.30
26	1H	2062	A	C8-N9-C4	10.63	110.05	105.80
26	1H	2713	A	N1-C6-N6	10.63	124.98	118.60
26	14	1619	G	O5'-P-OP2	-10.63	96.13	105.70
26	1H	783	A	N3-C4-C5	10.61	134.22	126.80
26	14	856	C	O5'-P-OP1	-10.61	96.16	105.70
26	14	140	A	N1-C6-N6	10.60	124.96	118.60
26	1H	2328	A	N1-C2-N3	10.59	134.59	129.30
24	3L	76	A	N7-C8-N9	10.58	119.09	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1660	C	O5'-P-OP2	-10.57	96.19	105.70
26	14	676	A	C5-N7-C8	-10.53	98.63	103.90
26	14	1678	G	C2-N3-C4	-10.53	106.63	111.90
26	1H	103	A	C8-N9-C4	10.53	110.01	105.80
26	1H	2401	U	C5-C6-N1	10.52	127.96	122.70
26	1H	530	G	N1-C6-O6	-10.52	113.59	119.90
26	1H	783	A	O5'-P-OP2	-10.48	96.26	105.70
26	1H	621	A	C5-C6-N1	-10.47	112.46	117.70
26	14	189	G	N9-C4-C5	-10.46	101.22	105.40
26	14	1678	G	N3-C4-C5	10.46	133.83	128.60
26	1H	2699	C	C6-N1-C2	10.46	124.48	120.30
26	14	1678	G	N3-C4-N9	-10.45	119.73	126.00
26	1H	746	A	O5'-P-OP2	10.45	123.23	110.70
26	1H	461	C	N1-C2-O2	-10.41	112.65	118.90
26	1H	783	A	N3-C4-N9	-10.41	119.07	127.40
26	1H	1379	A	C5-N7-C8	-10.40	98.70	103.90
26	1H	1914	C	N3-C2-O2	-10.40	114.62	121.90
26	1H	1021	A	C5-N7-C8	-10.40	98.70	103.90
26	1H	2346	A	O4'-C1'-N9	10.40	116.52	108.20
24	3K	76	A	C6-C5-N7	-10.39	125.03	132.30
26	1H	1518	C	O5'-P-OP1	-10.38	96.36	105.70
26	1H	2636	U	O5'-P-OP1	-10.38	96.35	105.70
26	1H	1779	U	O5'-P-OP2	-10.38	96.36	105.70
26	1H	1950	G	C8-N9-C4	-10.38	102.25	106.40
26	1H	144	C	C5-C6-N1	-10.38	115.81	121.00
23	2K	21	U	N3-C4-C5	10.36	120.82	114.60
26	1H	741	G	O5'-P-OP1	-10.34	96.39	105.70
26	1H	74	A	N1-C6-N6	10.34	124.80	118.60
26	14	801	G	C5-C6-O6	10.33	134.80	128.60
26	1H	456	C	C5-C6-N1	-10.33	115.84	121.00
26	1H	1566	A	O5'-P-OP2	-10.33	96.40	105.70
26	14	74	A	N1-C6-N6	10.33	124.80	118.60
26	1H	1195	G	C5-C6-O6	-10.31	122.41	128.60
26	14	2056	G	C5-C6-O6	-10.31	122.41	128.60
1	13	738	C	C6-N1-C2	-10.30	116.18	120.30
1	13	781	A	C5-C6-N6	-10.30	115.46	123.70
26	1H	528	A	C6-N1-C2	10.30	124.78	118.60
26	1H	783	A	C6-C5-N7	-10.30	125.09	132.30
1	13	690	G	C4-C5-N7	10.29	114.91	110.80
26	1H	2346	A	C5-N7-C8	-10.27	98.77	103.90
26	14	917	A	O5'-P-OP1	-10.27	96.46	105.70
26	14	2702	U	O4'-C1'-N1	10.27	116.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2521	C	C6-N1-C2	10.25	124.40	120.30
1	13	1502	A	C5-N7-C8	-10.25	98.78	103.90
26	1H	774	A	N1-C6-N6	10.25	124.75	118.60
26	1H	2507	C	C6-N1-C2	-10.24	116.20	120.30
26	14	71	A	C5-N7-C8	-10.24	98.78	103.90
26	14	1496	A	N7-C8-N9	10.23	118.92	113.80
26	1H	2544	G	C5-C6-O6	-10.23	122.46	128.60
26	1H	971	C	C6-N1-C2	-10.23	116.21	120.30
26	1H	491	G	O5'-P-OP1	-10.22	96.50	105.70
1	13	789	U	N3-C2-O2	-10.21	115.05	122.20
26	1H	74	A	N3-C4-C5	10.20	133.94	126.80
26	14	2873	A	N7-C8-N9	10.19	118.90	113.80
26	14	2430	A	N1-C2-N3	10.19	134.40	129.30
26	1H	2346	A	C4-C5-C6	10.18	122.09	117.00
26	14	140	A	C4-C5-N7	10.15	115.78	110.70
26	1H	459	U	O5'-P-OP2	-10.15	96.57	105.70
26	1H	2465	C	C5-C6-N1	-10.14	115.93	121.00
26	14	2702	U	N3-C2-O2	-10.12	115.12	122.20
26	14	1930	G	O5'-P-OP1	-10.11	96.60	105.70
26	1H	192	C	C6-N1-C2	10.10	124.34	120.30
26	14	1975	G	C5-C6-O6	-10.09	122.55	128.60
26	1H	51	G	C8-N9-C4	10.09	110.44	106.40
23	2K	74	A	N1-C6-N6	10.08	124.65	118.60
26	1H	265	A	C5-N7-C8	-10.07	98.86	103.90
26	1H	692	C	C2-N3-C4	-10.07	114.86	119.90
26	1H	1332	G	N7-C8-N9	10.07	118.14	113.10
26	1H	1377	G	O5'-P-OP2	-10.07	96.64	105.70
26	14	967	C	O5'-P-OP2	-10.06	96.65	105.70
26	1H	2447	G	N3-C4-C5	-10.05	123.58	128.60
26	1H	945	A	N1-C2-N3	10.04	134.32	129.30
26	14	1204	A	C2-N3-C4	-10.04	105.58	110.60
26	1H	2311	A	N1-C2-N3	10.03	134.31	129.30
27	16	5	C	C6-N1-C2	10.03	124.31	120.30
1	1G	1397	C	C6-N1-C2	-10.03	116.29	120.30
26	1H	686	G	C8-N9-C4	10.02	110.41	106.40
26	14	189	G	C5-C6-O6	-10.02	122.59	128.60
26	14	2017	U	O5'-P-OP1	-10.01	96.69	105.70
26	1H	432	A	N1-C6-N6	9.99	124.60	118.60
26	14	784	A	C5-C6-N6	9.99	131.69	123.70
26	1H	676	A	O4'-C1'-N9	9.98	116.18	108.20
26	14	783	A	C6-C5-N7	-9.98	125.32	132.30
26	1H	120	U	C4-C5-C6	9.97	125.68	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	180	G	C8-N9-C4	9.97	110.39	106.40
26	1H	2436	G	N3-C2-N2	-9.97	112.92	119.90
26	1H	2448	A	N9-C4-C5	-9.97	101.81	105.80
26	1H	1698	A	N1-C6-N6	9.96	124.58	118.60
26	1H	659	C	C5-C6-N1	-9.96	116.02	121.00
26	1H	1558	A	O5'-P-OP1	-9.95	96.74	105.70
26	1H	2490	G	N3-C4-N9	-9.95	120.03	126.00
26	1H	2609	U	C5-C6-N1	-9.95	117.72	122.70
26	1H	236	C	C4-C5-C6	9.95	122.37	117.40
26	1H	2253	G	C5-C6-O6	-9.93	122.64	128.60
26	1H	735	A	N7-C8-N9	-9.92	108.84	113.80
1	13	963	G	N3-C4-N9	9.92	131.95	126.00
26	14	2000	G	C8-N9-C4	9.88	110.35	106.40
26	1H	2346	A	N1-C6-N6	9.87	124.52	118.60
23	2L	21	U	C5-C4-O4	-9.87	119.98	125.90
26	14	945	A	C5-N7-C8	-9.86	98.97	103.90
26	14	453	C	C6-N1-C2	9.86	124.24	120.30
26	1H	787	U	O5'-P-OP2	-9.85	96.83	105.70
26	1H	2424	C	N1-C2-O2	9.85	124.81	118.90
26	1H	788	A	N9-C4-C5	-9.85	101.86	105.80
26	14	2430	A	C4-C5-C6	9.85	121.92	117.00
26	1H	2710	C	C6-N1-C2	9.84	124.24	120.30
26	1H	972	G	N1-C6-O6	-9.83	114.00	119.90
26	1H	1204	A	C2-N3-C4	-9.83	105.69	110.60
26	14	773	U	N1-C2-N3	9.83	120.80	114.90
26	1H	945	A	C5-C6-N6	-9.83	115.84	123.70
26	1H	2639	A	C2-N3-C4	-9.82	105.69	110.60
26	14	528	A	N3-C4-C5	9.82	133.67	126.80
26	1H	860	U	N1-C2-O2	9.80	129.66	122.80
26	1H	2312	U	O5'-P-OP1	-9.80	96.88	105.70
26	1H	859	G	N3-C4-C5	9.80	133.50	128.60
26	1H	2689	U	N3-C4-O4	-9.79	112.55	119.40
26	14	1266	G	C8-N9-C4	9.79	110.32	106.40
26	14	2439	A	P-O3'-C3'	9.79	131.44	119.70
26	1H	2599	G	N1-C6-O6	-9.79	114.03	119.90
26	1H	2070	G	O5'-P-OP2	-9.78	96.90	105.70
26	1H	2379	G	C5-C6-O6	-9.78	122.73	128.60
26	1H	812	C	N1-C2-O2	-9.77	113.04	118.90
26	1H	1324	G	N1-C6-O6	9.77	125.76	119.90
26	1H	621	A	N7-C8-N9	9.76	118.68	113.80
26	1H	1899	G	C8-N9-C1'	9.75	139.68	127.00
26	1H	2442	C	C5-C4-N4	-9.75	113.38	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	783	A	N1-C2-N3	9.75	134.17	129.30
26	14	252	G	C5-N7-C8	9.74	109.17	104.30
1	13	781	A	N1-C6-N6	9.74	124.44	118.60
26	1H	2689	U	N3-C2-O2	-9.74	115.38	122.20
26	1H	1284	A	O5'-P-OP2	-9.73	96.95	105.70
26	14	1614	A	C2-N3-C4	-9.72	105.74	110.60
26	1H	1210	A	C5-N7-C8	-9.72	99.04	103.90
26	1H	2773	C	C6-N1-C2	9.72	124.19	120.30
1	13	974	A	N1-C6-N6	9.70	124.42	118.60
26	1H	2270	G	C8-N9-C4	9.69	110.27	106.40
26	14	252	G	O5'-P-OP2	-9.69	96.98	105.70
26	1H	1977	A	C2-N3-C4	-9.67	105.77	110.60
1	13	1505	G	O5'-P-OP2	9.67	122.30	110.70
26	1H	910	A	N1-C6-N6	9.67	124.40	118.60
26	14	1404	C	O5'-P-OP1	-9.66	97.00	105.70
26	1H	2607	G	C4-C5-N7	9.66	114.66	110.80
1	1G	254	G	O5'-P-OP1	-9.65	97.01	105.70
26	1H	2448	A	C6-C5-N7	-9.65	125.55	132.30
27	16	30	C	C6-N1-C2	-9.65	116.44	120.30
26	1H	2448	A	C4-C5-N7	9.64	115.52	110.70
26	1H	2698	U	C5-C6-N1	-9.63	117.88	122.70
26	14	783	A	C4-C5-N7	9.63	115.52	110.70
1	13	525	C	C6-N1-C2	-9.63	116.45	120.30
26	14	774	A	C5-N7-C8	-9.63	99.09	103.90
26	1H	446	G	N1-C6-O6	9.62	125.67	119.90
26	14	639	U	O5'-P-OP2	-9.62	97.04	105.70
26	14	1342	A	C2-N3-C4	-9.62	105.79	110.60
26	1H	2374	C	C2-N3-C4	-9.61	115.10	119.90
26	1H	2346	A	C8-N9-C4	-9.60	101.96	105.80
26	1H	2380	C	C5-C6-N1	-9.59	116.20	121.00
26	14	252	G	C4-C5-N7	-9.59	106.96	110.80
26	1H	1614	A	N1-C6-N6	9.59	124.35	118.60
26	14	2873	A	C6-C5-N7	-9.59	125.59	132.30
26	14	830	G	C8-N9-C4	9.58	110.23	106.40
26	1H	528	A	N3-C4-N9	-9.57	119.74	127.40
26	1H	1599	C	O5'-P-OP2	-9.57	97.09	105.70
24	3L	71	G	O4'-C1'-N9	9.56	115.85	108.20
26	1H	1255	U	N3-C2-O2	9.55	128.89	122.20
26	1H	1564	C	N3-C4-N4	-9.55	111.31	118.00
26	1H	679	C	C2-N3-C4	-9.55	115.13	119.90
27	16	44	G	C4-N9-C1'	-9.55	114.09	126.50
26	14	2712	U	N3-C4-O4	-9.54	112.72	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1278	A	C8-N9-C4	9.54	109.62	105.80
26	14	2712	U	N3-C2-O2	-9.54	115.52	122.20
26	1H	913	U	N3-C2-O2	-9.53	115.53	122.20
1	13	792	A	N9-C4-C5	-9.53	101.99	105.80
26	1H	783	A	C8-N9-C4	-9.53	101.99	105.80
26	14	687	C	O5'-P-OP1	-9.52	97.13	105.70
26	14	2080	G	O5'-P-OP2	-9.51	97.14	105.70
26	1H	2465	C	C6-N1-C2	9.51	124.10	120.30
26	1H	2598	A	O5'-P-OP2	9.51	122.11	110.70
26	14	2713	A	C2-N3-C4	-9.51	105.85	110.60
1	13	1508	G	O5'-P-OP1	-9.49	97.16	105.70
26	1H	2598	A	C8-N9-C4	9.49	109.59	105.80
26	1H	1528	A	C8-N9-C4	-9.48	102.01	105.80
26	1H	1192	G	C8-N9-C4	9.48	110.19	106.40
26	14	737	C	N3-C4-N4	9.48	124.64	118.00
26	14	140	A	C8-N9-C4	-9.48	102.01	105.80
26	14	114	U	C5-C4-O4	-9.48	120.21	125.90
26	1H	816	C	N3-C4-N4	9.47	124.63	118.00
1	13	525	C	N3-C4-N4	9.47	124.63	118.00
1	13	810	C	O5'-P-OP2	-9.47	97.18	105.70
26	14	133	C	C6-N1-C2	9.46	124.09	120.30
24	3L	76	A	C5-N7-C8	-9.46	99.17	103.90
26	1H	1255	U	N1-C2-O2	-9.46	116.18	122.80
26	14	2374	C	C5-C6-N1	-9.45	116.27	121.00
26	14	2617	C	C6-N1-C2	9.45	124.08	120.30
26	14	2688	U	N1-C2-N3	9.45	120.57	114.90
26	14	2287	A	C2-N3-C4	-9.44	105.88	110.60
26	1H	1616	A	C8-N9-C4	-9.44	102.03	105.80
27	1J	103	U	C5-C6-N1	-9.43	117.99	122.70
26	1H	2449	U	N3-C4-O4	9.42	125.99	119.40
1	1G	862	C	C2-N1-C1'	9.41	129.15	118.80
26	1H	1931	U	C5-C4-O4	9.40	131.54	125.90
26	14	330	A	N1-C6-N6	9.40	124.24	118.60
26	1H	133	C	C6-N1-C2	9.40	124.06	120.30
26	1H	432	A	C5-C6-N6	-9.39	116.19	123.70
26	1H	2392	A	N7-C8-N9	9.39	118.49	113.80
26	14	848	G	N3-C4-C5	-9.38	123.91	128.60
26	14	1786	A	N1-C6-N6	9.38	124.23	118.60
26	1H	860	U	C6-N1-C1'	-9.38	108.06	121.20
1	1G	1499	A	C8-N9-C4	9.37	109.55	105.80
26	1H	783	A	N1-C6-N6	9.37	124.22	118.60
26	1H	1122	G	C8-N9-C4	9.37	110.15	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	692	C	C4-C5-C6	9.37	122.08	117.40
26	14	2374	C	C6-N1-C2	9.37	124.05	120.30
26	14	2873	A	C2-N3-C4	-9.37	105.92	110.60
26	1H	664	C	O5'-P-OP2	-9.36	97.28	105.70
26	1H	678	C	N3-C4-C5	9.36	125.64	121.90
26	1H	71	A	C4-C5-N7	9.35	115.38	110.70
26	1H	1021	A	N7-C8-N9	9.35	118.48	113.80
26	14	1314	C	N1-C2-O2	9.35	124.51	118.90
26	1H	655	A	C8-N9-C4	-9.35	102.06	105.80
26	1H	1332	G	C8-N9-C4	-9.35	102.66	106.40
26	1H	694	U	O5'-P-OP2	-9.34	97.29	105.70
26	1H	265	A	N7-C8-N9	9.34	118.47	113.80
26	14	675	A	N9-C4-C5	-9.34	102.06	105.80
1	13	1504	G	O5'-P-OP1	-9.34	97.30	105.70
26	1H	1614	A	N3-C4-C5	9.34	133.34	126.80
26	1H	2053	G	N1-C6-O6	9.33	125.50	119.90
26	1H	814	C	C2-N3-C4	-9.33	115.23	119.90
1	13	690	G	N7-C8-N9	9.32	117.76	113.10
26	1H	2710	C	C5-C6-N1	-9.32	116.34	121.00
26	1H	71	A	N7-C8-N9	9.32	118.46	113.80
1	1G	108	G	N1-C6-O6	9.32	125.49	119.90
26	1H	835	A	C6-N1-C2	-9.32	113.01	118.60
26	1H	1931	U	C5-C6-N1	-9.31	118.04	122.70
26	1H	930	U	C5-C4-O4	9.31	131.49	125.90
26	1H	782	A	N1-C6-N6	-9.30	113.02	118.60
1	13	690	G	N1-C6-O6	9.30	125.48	119.90
27	16	5	C	N3-C4-C5	9.30	125.62	121.90
26	1H	1885	A	C8-N9-C4	9.29	109.52	105.80
26	14	528	A	N3-C4-N9	-9.30	119.96	127.40
24	3K	71	G	O4'-C1'-N9	9.28	115.63	108.20
26	1H	837	C	O5'-P-OP1	-9.29	97.34	105.70
26	14	1350	C	O5'-P-OP1	-9.29	97.34	105.70
26	1H	676	A	N1-C2-N3	9.28	133.94	129.30
26	1H	788	A	N1-C6-N6	9.27	124.17	118.60
26	14	856	C	C6-N1-C2	-9.26	116.59	120.30
26	1H	74	A	N1-C2-N3	9.26	133.93	129.30
26	1H	667	U	N1-C2-O2	-9.25	116.32	122.80
26	1H	1614	A	C4-C5-N7	9.25	115.33	110.70
26	14	1925	C	N1-C2-O2	-9.25	113.35	118.90
1	13	789	U	N1-C2-N3	9.25	120.45	114.90
26	14	621	A	C5-C6-N1	-9.25	113.08	117.70
26	14	2544	G	C5-C6-O6	-9.24	123.05	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1660	C	N3-C4-C5	9.24	125.60	121.90
26	14	1274	A	N1-C6-N6	9.24	124.14	118.60
26	14	1496	A	C5-N7-C8	-9.23	99.28	103.90
26	1H	2544	G	N1-C6-O6	9.23	125.44	119.90
1	13	903	G	O5'-P-OP2	-9.23	97.39	105.70
26	1H	2053	G	N3-C2-N2	-9.23	113.44	119.90
26	1H	2440	C	C2-N3-C4	9.23	124.51	119.90
26	14	2217	G	N1-C6-O6	9.22	125.43	119.90
26	14	675	A	C8-N9-C4	9.21	109.48	105.80
26	1H	1204	A	C6-C5-N7	-9.21	125.86	132.30
26	1H	2072	G	N9-C4-C5	-9.21	101.72	105.40
22	1K	76	A	N7-C8-N9	9.20	118.40	113.80
26	1H	526	A	N1-C6-N6	-9.20	113.08	118.60
1	13	690	G	C5-N7-C8	-9.20	99.70	104.30
26	1H	2068	U	O5'-P-OP1	-9.20	97.42	105.70
26	1H	2271	G	N3-C4-N9	9.20	131.52	126.00
1	1G	811	C	N1-C2-O2	-9.20	113.38	118.90
26	1H	1700	A	O5'-P-OP2	-9.19	97.43	105.70
26	14	2426	A	N1-C6-N6	9.19	124.11	118.60
26	1H	2544	G	C8-N9-C4	9.18	110.07	106.40
26	1H	655	A	N7-C8-N9	9.18	118.39	113.80
26	1H	695	G	N1-C6-O6	-9.17	114.40	119.90
26	1H	180	G	N9-C4-C5	-9.17	101.73	105.40
26	14	1283	G	N3-C4-C5	-9.17	124.02	128.60
26	14	307	G	O5'-P-OP1	-9.16	97.45	105.70
26	1H	757	U	O5'-P-OP2	-9.16	97.46	105.70
27	16	100	G	C8-N9-C4	9.16	110.06	106.40
26	1H	456	C	C6-N1-C2	9.15	123.96	120.30
26	1H	2712	U	C6-N1-C1'	-9.15	108.39	121.20
26	14	2518	A	C5-N7-C8	-9.15	99.33	103.90
27	16	79	C	C6-N1-C2	-9.14	116.64	120.30
26	1H	456	C	O5'-P-OP2	-9.14	97.47	105.70
26	1H	1338	G	OP1-P-OP2	-9.14	105.89	119.60
26	1H	1189	A	N1-C6-N6	9.13	124.08	118.60
26	1H	107	C	C6-N1-C2	9.13	123.95	120.30
26	1H	575	A	O5'-P-OP1	-9.13	97.48	105.70
27	16	115	G	C5-C6-N1	9.13	116.07	111.50
26	1H	841	A	N1-C6-N6	9.13	124.08	118.60
26	14	530	G	C2-N3-C4	-9.12	107.34	111.90
26	14	265	A	C2-N3-C4	-9.12	106.04	110.60
26	14	676	A	N7-C8-N9	9.12	118.36	113.80
26	1H	658	C	O5'-P-OP2	-9.11	97.50	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1366	A	N1-C6-N6	9.11	124.07	118.60
26	1H	141	A	C4-C5-N7	9.11	115.25	110.70
26	14	2712	U	C2-N3-C4	-9.10	121.54	127.00
23	2L	21	U	N3-C4-C5	9.10	120.06	114.60
26	1H	1021	A	C5-C6-N1	-9.09	113.15	117.70
26	1H	116	C	N1-C2-O2	-9.09	113.45	118.90
26	1H	1789	A	C5-C6-N1	9.09	122.24	117.70
26	1H	1950	G	N3-C4-N9	-9.09	120.55	126.00
26	1H	2330	G	C8-N9-C4	9.09	110.03	106.40
1	13	1502	A	C4-C5-N7	9.09	115.24	110.70
26	14	1564	C	N3-C4-N4	-9.09	111.64	118.00
26	1H	453	C	N1-C2-O2	-9.08	113.45	118.90
26	1H	703	U	C5-C4-O4	9.07	131.34	125.90
26	14	1253	A	N9-C4-C5	-9.07	102.17	105.80
26	14	1342	A	N1-C2-N3	9.07	133.83	129.30
26	1H	560	C	O5'-P-OP2	9.06	121.58	110.70
26	1H	2287	A	C5-C6-N1	-9.06	113.17	117.70
1	1G	449	C	C6-N1-C2	-9.06	116.67	120.30
26	14	945	A	C2-N3-C4	-9.06	106.07	110.60
26	14	1313	U	C6-N1-C2	-9.05	115.57	121.00
26	1H	141	A	N7-C8-N9	9.05	118.33	113.80
26	1H	621	A	C6-N1-C2	9.05	124.03	118.60
26	1H	796	C	O5'-P-OP2	-9.04	97.56	105.70
26	1H	371	A	N1-C6-N6	9.04	124.02	118.60
26	1H	593	G	N1-C2-N3	9.04	129.32	123.90
26	1H	1604	C	C6-N1-C2	-9.04	116.68	120.30
26	1H	1681	G	C4-C5-N7	9.04	114.41	110.80
26	14	1812	A	O5'-P-OP2	-9.03	97.57	105.70
26	1H	2392	A	N3-C4-C5	9.03	133.12	126.80
26	14	140	A	C6-C5-N7	-9.02	125.99	132.30
26	14	1605	C	O5'-P-OP1	-9.02	97.58	105.70
1	13	814	A	O5'-P-OP2	9.02	121.52	110.70
26	1H	1817	G	C8-N9-C4	9.01	110.00	106.40
1	13	865	A	N1-C6-N6	9.01	124.01	118.60
26	14	2392	A	O5'-P-OP1	-9.01	97.59	105.70
26	1H	1304	C	N3-C4-C5	9.01	125.50	121.90
26	1H	1931	U	C4-C5-C6	9.00	125.10	119.70
26	14	2447	G	O5'-P-OP1	-8.99	97.60	105.70
26	1H	1437	C	C6-N1-C2	-8.99	116.70	120.30
26	1H	2430	A	C5-C6-N1	-8.98	113.21	117.70
26	1H	1022	G	N9-C4-C5	8.97	108.99	105.40
55	Q8	25	MET	N-CA-C	8.97	135.21	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	681	G	C2-N3-C4	-8.96	107.42	111.90
26	14	2249	U	N3-C2-O2	-8.96	115.93	122.20
26	1H	2375	G	N7-C8-N9	-8.96	108.62	113.10
26	1H	179	G	N3-C2-N2	-8.96	113.63	119.90
26	1H	1528	A	N7-C8-N9	8.96	118.28	113.80
26	1H	2446	G	N1-C6-O6	8.96	125.28	119.90
1	13	583	A	C8-N9-C4	8.95	109.38	105.80
1	13	990	C	C6-N1-C2	-8.94	116.72	120.30
26	1H	2392	A	C4-C5-N7	8.94	115.17	110.70
1	13	690	G	O4'-C1'-N9	8.94	115.35	108.20
26	1H	2712	U	O4'-C1'-N1	8.94	115.35	108.20
26	14	568	U	C4-C5-C6	-8.94	114.34	119.70
26	1H	2330	G	N9-C4-C5	-8.93	101.83	105.40
26	14	1807	G	C8-N9-C4	8.93	109.97	106.40
26	1H	1899	G	C5-C6-N1	-8.93	107.04	111.50
26	1H	537	C	O5'-P-OP1	8.93	121.41	110.70
26	1H	1698	A	C5-C6-N1	-8.92	113.24	117.70
26	14	2713	A	C5-N7-C8	-8.92	99.44	103.90
26	1H	120	U	C5-C4-O4	8.91	131.25	125.90
26	1H	193	U	C4-C5-C6	8.91	125.05	119.70
26	14	2776	A	C8-N9-C4	-8.91	102.23	105.80
26	14	2851	A	O5'-P-OP1	-8.91	97.68	105.70
26	1H	1266	G	N9-C4-C5	-8.91	101.84	105.40
26	14	2518	A	O4'-C1'-N9	-8.91	101.07	108.20
26	14	2357	U	O5'-P-OP2	-8.91	97.69	105.70
26	14	737	C	N3-C2-O2	8.90	128.13	121.90
26	14	1661	G	C5-C6-O6	-8.90	123.26	128.60
26	14	1970	A	O5'-P-OP2	-8.90	97.69	105.70
26	14	2873	A	N1-C6-N6	8.90	123.94	118.60
26	1H	737	C	C5-C6-N1	-8.89	116.55	121.00
26	14	1647	G	O5'-P-OP1	-8.89	97.70	105.70
26	1H	789	A	O5'-P-OP1	-8.89	97.70	105.70
26	14	2005	A	C8-N9-C4	8.88	109.35	105.80
26	1H	1678	G	N3-C4-N9	-8.88	120.67	126.00
26	1H	2591	C	O5'-P-OP1	-8.88	97.71	105.70
26	1H	686	G	N9-C4-C5	-8.87	101.85	105.40
26	1H	123	G	C5-C6-N1	8.87	115.93	111.50
26	1H	673	C	O5'-P-OP1	8.87	121.34	110.70
1	13	896	C	C6-N1-C2	8.86	123.84	120.30
22	1K	76	A	C8-N9-C4	-8.86	102.25	105.80
26	14	2087	G	C8-N9-C4	8.86	109.94	106.40
26	14	2688	U	N3-C2-O2	-8.85	116.00	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1616	A	C4-C5-N7	8.84	115.12	110.70
26	1H	1394	U	O5'-P-OP1	-8.84	97.75	105.70
26	1H	140	A	C5-C6-N6	-8.84	116.63	123.70
26	1H	2417	C	O5'-P-OP2	-8.84	97.75	105.70
26	1H	2433	A	N1-C2-N3	8.84	133.72	129.30
26	14	1408	C	N1-C2-O2	-8.84	113.60	118.90
26	1H	632	A	O5'-P-OP2	8.83	121.30	110.70
26	1H	1404	C	C6-N1-C2	8.83	123.83	120.30
26	1H	783	A	C4-C5-N7	8.82	115.11	110.70
26	1H	194	G	C5-C6-O6	-8.81	123.31	128.60
26	1H	681	G	N1-C2-N2	-8.81	108.27	116.20
26	14	949	C	N1-C2-O2	-8.81	113.61	118.90
26	14	2690	C	O5'-P-OP2	-8.81	97.77	105.70
26	1H	695	G	C5-C6-O6	8.80	133.88	128.60
26	1H	1204	A	N1-C2-N3	8.80	133.70	129.30
26	1H	203	C	O5'-P-OP2	8.80	121.26	110.70
26	1H	2392	A	C5-C6-N1	-8.80	113.30	117.70
26	14	1204	A	C5-C6-N1	-8.80	113.30	117.70
26	1H	120	U	N3-C2-O2	-8.80	116.04	122.20
26	14	2401	U	C5-C6-N1	8.79	127.10	122.70
26	1H	1255	U	N3-C4-O4	8.79	125.55	119.40
26	14	71	A	C4-C5-N7	8.79	115.10	110.70
26	1H	1786	A	C4-C5-C6	8.79	121.39	117.00
26	14	779	U	N3-C4-O4	-8.79	113.25	119.40
26	1H	226	G	O4'-C1'-N9	8.78	115.22	108.20
26	1H	1201	C	N3-C2-O2	8.77	128.04	121.90
36	35	62	LEU	N-CA-C	8.77	134.69	111.00
26	1H	1613	G	N3-C2-N2	8.77	126.04	119.90
1	13	656	C	C6-N1-C2	-8.77	116.79	120.30
26	14	2591	C	N1-C2-O2	-8.77	113.64	118.90
26	14	974(A)	C	C6-N1-C2	-8.77	116.79	120.30
26	1H	2446	G	C5-C6-O6	-8.76	123.34	128.60
26	14	208	C	N3-C4-C5	8.76	125.41	121.90
26	1H	528	A	C5-C6-N1	-8.76	113.32	117.70
26	14	2339	G	O5'-P-OP2	-8.76	97.82	105.70
26	14	2610	C	O5'-P-OP1	-8.76	97.82	105.70
26	14	871	U	O5'-P-OP1	-8.75	97.83	105.70
26	1H	1604	C	N3-C4-C5	-8.75	118.40	121.90
26	14	2035	G	O4'-C1'-N9	8.74	115.19	108.20
26	1H	1142(A)	A	C2-N3-C4	-8.74	106.23	110.60
26	1H	658	C	N3-C2-O2	-8.74	115.78	121.90
26	1H	1596	A	N1-C6-N6	-8.74	113.36	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	568	U	N3-C4-C5	8.74	119.84	114.60
26	14	2577	A	N1-C6-N6	8.74	123.84	118.60
26	14	2092	U	C5-C4-O4	8.74	131.14	125.90
26	14	1678	G	C5-N7-C8	-8.73	99.93	104.30
26	1H	1314	C	C2-N1-C1'	8.73	128.41	118.80
26	14	783	A	C8-N9-C4	-8.73	102.31	105.80
1	13	542	G	O5'-P-OP1	-8.73	97.84	105.70
26	1H	639	U	N3-C2-O2	-8.72	116.09	122.20
26	1H	957	A	N1-C6-N6	8.72	123.83	118.60
26	1H	2713	A	C4-C5-N7	8.72	115.06	110.70
26	14	2388	A	O4'-C1'-N9	8.72	115.18	108.20
1	1G	904	C	O5'-P-OP1	-8.72	97.85	105.70
26	1H	1376	C	C6-N1-C2	-8.71	116.81	120.30
26	1H	596	G	C5-C6-O6	-8.71	123.38	128.60
26	14	664	C	O5'-P-OP2	-8.71	97.86	105.70
26	14	1790	C	C6-N1-C2	8.70	123.78	120.30
26	1H	2578	G	C8-N9-C4	8.69	109.88	106.40
26	1H	763	G	N3-C4-C5	-8.69	124.25	128.60
26	1H	2518	A	N7-C8-N9	8.69	118.15	113.80
26	1H	796	C	N3-C4-C5	8.69	125.38	121.90
26	1H	1304	C	C6-N1-C2	8.69	123.78	120.30
26	1H	2390	U	O5'-P-OP1	-8.69	97.88	105.70
26	1H	738	G	C5-C6-O6	-8.69	123.39	128.60
26	1H	2609	U	C4-C5-C6	8.69	124.91	119.70
26	1H	204	A	C6-N1-C2	-8.68	113.39	118.60
26	1H	1612	C	N1-C2-O2	-8.68	113.69	118.90
26	1H	1616	A	N1-C6-N6	8.68	123.81	118.60
26	14	676	A	N1-C2-N3	8.68	133.64	129.30
26	1H	2451	A	N1-C6-N6	-8.68	113.39	118.60
26	1H	2755	C	C6-N1-C2	-8.68	116.83	120.30
1	13	963	G	N1-C2-N2	-8.67	108.40	116.20
26	1H	1574	C	C5-C6-N1	-8.67	116.67	121.00
26	1H	1798	U	O5'-P-OP2	-8.67	97.90	105.70
26	1H	2599	G	C6-C5-N7	8.67	135.60	130.40
26	14	1121	C	C6-N1-C2	8.67	123.77	120.30
26	1H	1779	U	C6-N1-C2	8.67	126.20	121.00
26	1H	1636	C	N1-C2-O2	-8.66	113.70	118.90
26	1H	1698	A	C4-C5-N7	8.66	115.03	110.70
26	1H	2627	G	C5-C6-O6	-8.66	123.41	128.60
26	14	2518	A	C6-C5-N7	-8.65	126.24	132.30
26	1H	107	C	C5-C6-N1	-8.65	116.67	121.00
26	1H	1257	C	C2-N3-C4	-8.65	115.57	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	679	C	N1-C2-O2	-8.65	113.71	118.90
26	1H	1162	G	C8-N9-C4	-8.65	102.94	106.40
26	1H	1350	C	C6-N1-C2	8.65	123.76	120.30
26	14	2873	A	C4-C5-C6	8.65	121.32	117.00
26	1H	1969	A	N1-C6-N6	-8.65	113.41	118.60
26	1H	1698	A	C6-C5-N7	-8.64	126.25	132.30
26	1H	1799	G	N3-C4-N9	8.63	131.18	126.00
26	1H	1425	G	C5-C6-N1	8.63	115.82	111.50
26	1H	2330	G	N1-C6-O6	8.63	125.08	119.90
26	1H	2599	G	C4-C5-N7	-8.63	107.35	110.80
26	1H	1678	G	C6-C5-N7	-8.63	125.22	130.40
26	1H	1767	C	O5'-P-OP1	-8.63	97.94	105.70
26	1H	512	G	O4'-C1'-N9	8.62	115.10	108.20
26	1H	2544	G	N9-C4-C5	-8.62	101.95	105.40
1	13	760	G	N1-C6-O6	8.62	125.07	119.90
26	1H	1950	G	N3-C4-C5	8.61	132.91	128.60
26	14	935	C	C6-N1-C2	8.62	123.75	120.30
26	1H	470	A	N1-C2-N3	8.61	133.60	129.30
26	1H	658	C	N1-C2-O2	8.61	124.06	118.90
1	1G	1517	G	O5'-P-OP2	-8.61	97.96	105.70
26	14	2272	U	O5'-P-OP2	-8.60	97.96	105.70
1	13	1322	C	C2-N1-C1'	8.60	128.26	118.80
26	1H	481	G	O5'-P-OP2	-8.60	97.96	105.70
26	1H	2552	U	N1-C2-O2	-8.60	116.78	122.80
26	1H	1376	C	O5'-P-OP1	-8.59	97.97	105.70
24	3L	76	A	N1-C6-N6	8.59	123.75	118.60
26	14	1366	A	N1-C6-N6	8.59	123.75	118.60
26	14	2447	G	P-O3'-C3'	8.59	130.00	119.70
26	1H	2380	C	C2-N3-C4	-8.58	115.61	119.90
26	14	1840	G	N1-C6-O6	8.58	125.05	119.90
26	1H	2779	U	C5-C6-N1	-8.58	118.41	122.70
26	14	971	C	C6-N1-C2	-8.57	116.87	120.30
26	1H	736	C	O5'-P-OP2	8.57	120.99	110.70
26	14	1279	G	N1-C6-O6	-8.57	114.76	119.90
26	14	2070	G	C2-N3-C4	-8.57	107.61	111.90
26	1H	528	A	N3-C4-C5	8.57	132.80	126.80
26	1H	1681	G	N3-C4-C5	8.57	132.88	128.60
26	14	2332	U	N1-C2-O2	8.57	128.80	122.80
26	1H	245	G	C4-C5-N7	8.56	114.22	110.80
1	13	1128	C	C6-N1-C2	-8.56	116.88	120.30
26	1H	1914	C	N1-C2-O2	8.56	124.04	118.90
26	1H	621	A	N3-C4-N9	-8.56	120.55	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	945	A	C8-N9-C1'	-8.56	112.29	127.70
26	1H	691	C	C5-C6-N1	-8.56	116.72	121.00
26	1H	409	C	C6-N1-C2	8.55	123.72	120.30
26	1H	1201	C	N1-C2-O2	-8.55	113.77	118.90
1	13	1422	G	O5'-P-OP2	-8.54	98.01	105.70
26	1H	245	G	N9-C4-C5	-8.54	101.98	105.40
26	1H	1786	A	C8-N9-C4	-8.54	102.38	105.80
27	16	115	G	C5-C6-O6	-8.54	123.47	128.60
26	1H	1827	C	C2-N3-C4	-8.54	115.63	119.90
26	1H	1021	A	N1-C6-N6	8.54	123.72	118.60
26	1H	1621	U	C5-C4-O4	-8.54	120.78	125.90
26	14	1902	C	N3-C4-C5	8.54	125.32	121.90
26	14	615	G	O4'-C1'-N9	8.54	115.03	108.20
26	1H	1332	G	N3-C2-N2	-8.54	113.92	119.90
26	1H	745	G	N1-C6-O6	8.53	125.02	119.90
26	1H	945	A	C2-N3-C4	-8.53	106.33	110.60
26	1H	2275	C	C6-N1-C2	-8.53	116.89	120.30
26	1H	2688	U	N1-C2-N3	8.53	120.02	114.90
26	14	2544	G	N1-C6-O6	8.53	125.02	119.90
26	1H	1338	G	C2-N3-C4	8.53	116.17	111.90
26	14	922	U	O5'-P-OP1	-8.53	98.02	105.70
26	1H	1678	G	N7-C8-N9	8.53	117.36	113.10
26	1H	1431	U	C5-C6-N1	8.52	126.96	122.70
26	14	1786	A	N9-C1'-C2'	8.52	125.08	114.00
26	1H	471	A	C2-N3-C4	-8.52	106.34	110.60
1	13	1502	A	C6-C5-N7	-8.52	126.34	132.30
26	1H	1698	A	N1-C2-N3	8.51	133.56	129.30
26	1H	1613	G	N1-C2-N2	-8.51	108.54	116.20
26	1H	821	A	OP1-P-OP2	8.51	132.36	119.60
26	1H	1899	G	C8-N9-C4	-8.51	103.00	106.40
26	1H	321	G	C6-C5-N7	-8.51	125.30	130.40
23	2K	17	C	N1-C2-O2	8.51	124.00	118.90
26	1H	2440	C	C5-C4-N4	8.51	126.16	120.20
26	1H	613	U	N3-C2-O2	-8.50	116.25	122.20
26	1H	948	G	C5-C6-O6	-8.50	123.50	128.60
26	1H	103	A	N9-C4-C5	-8.50	102.40	105.80
26	1H	122	G	C2-N3-C4	-8.50	107.65	111.90
1	13	1502	A	N1-C6-N6	8.49	123.70	118.60
26	1H	1528	A	O4'-C1'-N9	8.49	114.99	108.20
27	16	7	G	C4-C5-N7	8.49	114.20	110.80
26	14	2435	A	C8-N9-C4	-8.49	102.40	105.80
26	14	768	G	O5'-P-OP2	-8.49	98.06	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	827	U	O5'-P-OP2	-8.49	98.06	105.70
26	1H	190	A	C8-N9-C4	8.49	109.19	105.80
26	1H	2778	A	O5'-P-OP2	-8.48	98.06	105.70
26	1H	25	U	C5-C4-O4	-8.48	120.81	125.90
26	1H	679	C	C6-N1-C2	8.48	123.69	120.30
26	1H	1574	C	C2-N3-C4	-8.48	115.66	119.90
27	16	7	G	C5-N7-C8	-8.48	100.06	104.30
26	1H	2385	C	C2-N3-C4	-8.47	115.67	119.90
26	14	1349	A	N1-C6-N6	8.46	123.68	118.60
26	1H	71	A	N1-C2-N3	8.45	133.53	129.30
26	14	312	G	O5'-P-OP1	-8.45	98.10	105.70
26	1H	1202	C	N3-C4-C5	-8.44	118.52	121.90
27	16	112	G	C8-N9-C4	8.44	109.78	106.40
26	1H	2072	G	N3-C2-N2	8.44	125.81	119.90
26	1H	436	C	C6-N1-C2	8.44	123.67	120.30
26	14	1673	U	O5'-P-OP1	-8.44	98.11	105.70
26	14	528	A	C4-N9-C1'	-8.44	111.11	126.30
26	14	1571	A	C6-N1-C2	-8.44	113.54	118.60
26	1H	444	C	O5'-P-OP1	8.43	120.82	110.70
26	1H	507	A	O5'-P-OP2	8.43	120.82	110.70
26	1H	1649	G	N3-C4-C5	-8.43	124.39	128.60
26	14	2036	C	O5'-P-OP2	-8.43	98.11	105.70
26	1H	1698	A	N3-C4-C5	8.42	132.69	126.80
26	14	1253	A	C6-C5-N7	-8.42	126.40	132.30
1	13	963	G	N9-C4-C5	-8.42	102.03	105.40
26	1H	209	C	O5'-P-OP2	-8.42	98.12	105.70
26	1H	1665	A	O5'-P-OP1	-8.41	98.13	105.70
26	1H	1707	G	C5-C6-O6	-8.41	123.55	128.60
26	1H	967	C	C5-C6-N1	-8.40	116.80	121.00
26	1H	201	C	C5-C6-N1	-8.40	116.80	121.00
26	1H	1312	U	O5'-P-OP1	-8.40	98.14	105.70
26	1H	774	A	C8-N9-C1'	8.40	142.82	127.70
26	14	2570	G	N1-C6-O6	8.40	124.94	119.90
26	1H	1826	G	OP1-P-O3'	8.40	123.68	105.20
26	1H	686	G	OP1-P-OP2	8.39	132.19	119.60
26	14	530	G	N3-C4-C5	8.39	132.80	128.60
26	1H	664	C	C6-N1-C2	8.39	123.66	120.30
23	2L	21	U	C2-N3-C4	-8.39	121.97	127.00
26	1H	917	A	N1-C6-N6	8.39	123.63	118.60
26	1H	2429	G	C8-N9-C4	-8.39	103.05	106.40
26	1H	330	A	C5-N7-C8	-8.38	99.71	103.90
26	1H	913	U	O5'-P-OP2	-8.38	98.16	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2618	G	C8-N9-C4	-8.38	103.05	106.40
26	14	558	G	C8-N9-C4	8.38	109.75	106.40
26	1H	2310	A	C8-N9-C4	-8.38	102.45	105.80
26	14	1899	G	N1-C2-N2	-8.37	108.66	116.20
26	1H	85	G	O5'-P-OP2	-8.37	98.16	105.70
26	1H	1818	U	O5'-P-OP2	-8.37	98.17	105.70
26	14	2688	U	C5-C6-N1	-8.36	118.52	122.70
26	1H	1639	U	N3-C2-O2	-8.36	116.35	122.20
26	1H	245	G	N3-C4-N9	8.36	131.01	126.00
26	1H	2430	A	N3-C4-N9	-8.36	120.72	127.40
26	1H	265	A	C6-C5-N7	-8.35	126.45	132.30
26	1H	918	A	O5'-P-OP1	-8.35	98.18	105.70
1	13	690	G	C4-N9-C1'	8.35	137.35	126.50
26	1H	189	G	N1-C6-O6	8.34	124.91	119.90
26	1H	517	C	C5-C4-N4	-8.34	114.36	120.20
1	1G	345	C	C2-N1-C1'	8.34	127.98	118.80
26	1H	2698	U	O5'-P-OP2	-8.34	98.19	105.70
26	1H	674	G	C8-N9-C4	8.33	109.73	106.40
26	1H	2627	G	N9-C4-C5	-8.33	102.07	105.40
1	13	811	C	C2-N3-C4	-8.33	115.74	119.90
1	1G	691	G	N1-C6-O6	8.33	124.90	119.90
1	13	656	C	C5-C6-N1	8.32	125.16	121.00
26	1H	121	G	N3-C4-N9	8.32	130.99	126.00
26	14	1608	A	N1-C6-N6	-8.32	113.61	118.60
26	14	2439	A	N1-C6-N6	8.32	123.59	118.60
26	1H	948	G	N1-C6-O6	8.32	124.89	119.90
26	1H	2287	A	N1-C6-N6	8.32	123.59	118.60
26	1H	1297	C	OP1-P-O3'	8.31	123.49	105.20
26	1H	1422	G	O5'-P-OP1	-8.31	98.22	105.70
26	1H	455	C	C6-N1-C2	8.31	123.62	120.30
26	1H	1501	C	O5'-P-OP2	8.31	120.67	110.70
24	3K	71	G	C4-N9-C1'	-8.31	115.70	126.50
26	1H	814	C	N3-C4-C5	8.31	125.22	121.90
26	1H	1502	C	C6-N1-C2	-8.30	116.98	120.30
26	1H	1811	G	N1-C6-O6	-8.30	114.92	119.90
26	1H	688	U	N1-C2-N3	8.30	119.88	114.90
26	1H	698	C	C5-C4-N4	-8.30	114.39	120.20
26	1H	1313	U	C5-C6-N1	8.29	126.85	122.70
1	13	122	G	N1-C6-O6	8.29	124.87	119.90
26	1H	238	C	C5-C6-N1	-8.29	116.86	121.00
26	1H	2595	G	C5-N7-C8	-8.29	100.16	104.30
26	1H	865	C	O5'-P-OP2	8.28	120.64	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2318	G	N7-C8-N9	8.28	117.24	113.10
26	1H	2713	A	C6-C5-N7	-8.28	126.50	132.30
26	14	1853	A	O5'-P-OP1	-8.28	98.25	105.70
26	14	1939	U	O5'-P-OP1	-8.28	98.25	105.70
26	1H	200	U	O5'-P-OP1	-8.28	98.25	105.70
26	1H	845	G	N3-C2-N2	8.27	125.69	119.90
26	14	913	U	O5'-P-OP2	-8.27	98.26	105.70
26	1H	470	A	N1-C6-N6	8.27	123.56	118.60
1	13	692	U	N3-C4-O4	8.26	125.18	119.40
26	1H	470	A	C2-N3-C4	-8.26	106.47	110.60
26	1H	973	A	C2-N3-C4	-8.26	106.47	110.60
26	1H	2318	G	C5-N7-C8	-8.26	100.17	104.30
1	1G	1346	A	P-O3'-C3'	8.26	129.61	119.70
26	1H	1272	A	C4-C5-C6	-8.25	112.87	117.00
26	14	205	G	C8-N9-C4	8.25	109.70	106.40
1	13	781	A	N9-C4-C5	-8.25	102.50	105.80
26	1H	265	A	C5-C6-N1	-8.25	113.58	117.70
26	1H	1566	A	O5'-P-OP1	8.25	120.60	110.70
26	14	252	G	N1-C6-O6	-8.25	114.95	119.90
26	14	2331	G	C5-C6-O6	-8.25	123.65	128.60
26	14	2392	A	N7-C8-N9	8.25	117.92	113.80
1	13	1526	G	N1-C6-O6	8.24	124.85	119.90
26	1H	196	A	O4'-C1'-N9	8.24	114.79	108.20
26	1H	448	U	C4-C5-C6	8.24	124.64	119.70
26	1H	1900	A	O5'-P-OP1	8.24	120.58	110.70
26	1H	1950	G	O4'-C1'-N9	8.24	114.79	108.20
26	1H	2589	A	OP2-P-O3'	8.23	123.31	105.20
26	1H	418	G	O5'-P-OP1	-8.23	98.30	105.70
26	1H	2568	C	O5'-P-OP1	-8.23	98.30	105.70
1	13	1488	G	N1-C6-O6	8.22	124.83	119.90
26	1H	1899	G	C6-C5-N7	8.22	135.33	130.40
26	1H	2072	G	N1-C2-N3	-8.22	118.97	123.90
26	1H	2827	C	N3-C4-N4	8.22	123.76	118.00
1	13	781	A	C4-C5-N7	8.22	114.81	110.70
26	1H	517	C	N3-C4-N4	8.22	123.75	118.00
26	14	774	A	C5-C6-N1	-8.22	113.59	117.70
26	14	1975	G	N1-C6-O6	8.21	124.83	119.90
26	1H	1379	A	C4-C5-N7	8.21	114.81	110.70
26	1H	2688	U	C5-C4-O4	8.21	130.83	125.90
26	1H	262	A	N1-C6-N6	8.21	123.53	118.60
1	13	789	U	C4-C5-C6	8.21	124.62	119.70
26	1H	575	A	O5'-P-OP2	8.21	120.55	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	681	G	C8-N9-C4	8.21	109.68	106.40
26	14	1997	G	N3-C4-C5	-8.21	124.50	128.60
26	14	2056	G	N3-C2-N2	-8.21	114.16	119.90
26	1H	1379	A	N7-C8-N9	8.20	117.90	113.80
26	14	751	A	OP1-P-OP2	-8.20	107.30	119.60
26	14	189	G	N1-C6-O6	8.20	124.82	119.90
26	14	2346	A	N7-C8-N9	8.20	117.90	113.80
26	1H	1639	U	O5'-P-OP1	8.19	120.53	110.70
26	14	2272	U	O5'-P-OP1	8.20	120.53	110.70
26	1H	199	A	N1-C6-N6	-8.19	113.69	118.60
1	1G	690	G	N3-C4-N9	-8.19	121.09	126.00
26	14	1441	G	C8-N9-C4	8.19	109.68	106.40
1	13	1489	G	C8-N9-C4	8.19	109.67	106.40
1	13	1517	G	C5-C6-O6	-8.18	123.69	128.60
26	14	130	C	C6-N1-C2	8.18	123.57	120.30
26	14	148	C	C6-N1-C2	8.17	123.57	120.30
26	1H	796	C	C2-N3-C4	-8.17	115.81	119.90
26	1H	1128	A	O5'-P-OP1	-8.17	98.35	105.70
26	1H	1922	G	O5'-P-OP2	-8.17	98.35	105.70
26	1H	2232	U	C5-C4-O4	8.17	130.80	125.90
26	1H	1327	C	N1-C2-O2	-8.17	114.00	118.90
26	1H	2374	C	N3-C4-C5	8.16	125.16	121.90
26	1H	62	C	C6-N1-C2	8.16	123.56	120.30
26	1H	860	U	O5'-P-OP1	8.16	120.49	110.70
26	14	676	A	N1-C6-N6	8.16	123.49	118.60
26	14	1283	G	O5'-P-OP2	-8.16	98.36	105.70
1	13	966	G	N1-C6-O6	8.15	124.79	119.90
26	1H	197	A	N1-C2-N3	8.15	133.38	129.30
26	1H	470	A	C5-C6-N6	-8.15	117.18	123.70
26	1H	683	C	C6-N1-C2	8.15	123.56	120.30
26	1H	2639	A	C5-C6-N1	-8.15	113.62	117.70
26	14	798	G	N1-C6-O6	8.15	124.79	119.90
26	14	2688	U	C4-C5-C6	8.15	124.59	119.70
26	14	565	C	C5-C6-N1	-8.15	116.93	121.00
26	14	1950	G	N7-C8-N9	8.15	117.17	113.10
26	14	117	G	O5'-P-OP1	8.14	120.47	110.70
26	1H	2584	U	N3-C4-O4	-8.14	113.70	119.40
26	14	2068	U	O5'-P-OP1	-8.14	98.37	105.70
26	1H	245	G	C8-N9-C1'	-8.14	116.42	127.00
26	14	2375	G	C8-N9-C4	8.14	109.66	106.40
26	14	510	C	C6-N1-C2	-8.14	117.04	120.30
26	1H	208	C	C5-C6-N1	-8.13	116.93	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1210	A	N1-C6-N6	8.13	123.48	118.60
26	1H	141	A	N1-C6-N6	8.13	123.47	118.60
26	1H	2447	G	O4'-C1'-N9	8.12	114.70	108.20
26	1H	2573	C	N3-C4-C5	-8.12	118.65	121.90
26	14	1786	A	C5-C6-N1	-8.13	113.64	117.70
26	14	252	G	N7-C8-N9	-8.12	109.04	113.10
26	1H	699	A	N1-C6-N6	8.12	123.47	118.60
26	1H	1899	G	N1-C2-N3	8.12	128.77	123.90
26	14	1339	G	O5'-P-OP2	8.12	120.45	110.70
26	14	2278	A	N9-C4-C5	8.12	109.05	105.80
26	1H	198	C	N3-C4-C5	8.12	125.15	121.90
26	1H	992	C	C6-N1-C2	-8.12	117.05	120.30
26	1H	1969	A	C5-C6-N6	8.12	130.19	123.70
26	14	2590	A	C8-N9-C4	8.11	109.05	105.80
26	1H	950	G	N1-C2-N2	-8.11	108.90	116.20
26	1H	1950	G	C5-C6-N1	-8.11	107.45	111.50
26	14	1289	C	O5'-P-OP1	-8.11	98.40	105.70
26	14	2392	A	C8-N9-C4	-8.11	102.56	105.80
26	1H	265	A	N1-C6-N6	8.10	123.46	118.60
26	1H	1307	A	O5'-P-OP1	-8.10	98.41	105.70
26	1H	1781	C	C6-N1-C2	8.10	123.54	120.30
26	14	2360	A	C2-N3-C4	-8.10	106.55	110.60
26	1H	606	U	O5'-P-OP2	-8.10	98.42	105.70
26	1H	2058	A	C8-N9-C4	-8.09	102.56	105.80
26	1H	676	A	C4-C5-N7	8.09	114.75	110.70
26	1H	1210	A	C2-N3-C4	-8.09	106.55	110.60
26	1H	1573	G	OP1-P-O3'	-8.09	87.40	105.20
26	14	2689	U	C5-C6-N1	-8.09	118.66	122.70
26	1H	736	C	C2-N3-C4	-8.09	115.86	119.90
26	1H	391	G	C2-N3-C4	-8.08	107.86	111.90
23	2K	21	U	C4-C5-C6	-8.08	114.85	119.70
26	14	1299	G	O5'-P-OP1	-8.08	98.43	105.70
1	13	764	C	C6-N1-C2	8.07	123.53	120.30
23	2K	61	U	O5'-P-OP2	-8.07	98.43	105.70
26	1H	135	G	C8-N9-C4	8.07	109.63	106.40
26	1H	1195	G	N1-C6-O6	8.07	124.74	119.90
26	14	945	A	C4-C5-C6	8.07	121.03	117.00
26	14	2712	U	C5-C4-O4	8.07	130.74	125.90
26	1H	128	C	C6-N1-C2	8.06	123.53	120.30
26	1H	2584	U	N1-C2-N3	8.06	119.74	114.90
26	14	1619	G	C5-C6-O6	-8.06	123.76	128.60
26	14	2778	A	O5'-P-OP2	-8.06	98.44	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1482	G	O5'-P-OP2	-8.06	98.44	105.70
26	1H	609	A	N1-C6-N6	8.06	123.44	118.60
26	14	752	A	N1-C2-N3	8.06	133.33	129.30
1	13	1530	G	N3-C4-C5	8.06	132.63	128.60
26	1H	814	C	C6-N1-C2	8.06	123.52	120.30
26	1H	190	A	N9-C4-C5	-8.06	102.58	105.80
26	14	1332	G	C8-N9-C1'	8.05	137.47	127.00
26	1H	1363	C	C2-N3-C4	-8.05	115.87	119.90
26	14	1313	U	N1-C2-O2	-8.05	117.16	122.80
1	1G	413	G	C4-C5-N7	-8.05	107.58	110.80
26	1H	567	A	O5'-P-OP1	-8.05	98.46	105.70
26	1H	1496	A	C4-C5-N7	8.05	114.72	110.70
26	1H	2476	A	C8-N9-C4	-8.05	102.58	105.80
26	1H	507	A	N1-C6-N6	8.04	123.43	118.60
26	1H	2822	G	N1-C6-O6	8.04	124.73	119.90
26	14	1332	G	N7-C8-N9	8.04	117.12	113.10
26	14	2005	A	N7-C8-N9	-8.04	109.78	113.80
26	14	2078	C	C6-N1-C2	-8.04	117.08	120.30
1	13	1498	U	C2-N1-C1'	8.04	127.34	117.70
26	1H	1198	U	C5-C6-N1	-8.04	118.68	122.70
26	1H	2576	G	C8-N9-C4	8.04	109.61	106.40
26	1H	2607	G	N1-C2-N2	-8.03	108.97	116.20
26	14	1632	A	N1-C6-N6	8.03	123.42	118.60
26	14	2073	C	N1-C2-O2	-8.03	114.08	118.90
26	14	2592	G	O5'-P-OP2	-8.03	98.47	105.70
26	1H	858	U	O5'-P-OP2	-8.03	98.48	105.70
26	1H	660	G	C5-N7-C8	-8.02	100.29	104.30
26	1H	747	U	OP1-P-OP2	8.02	131.64	119.60
26	1H	2094	G	O5'-P-OP2	-8.02	98.48	105.70
26	1H	2427	C	O5'-P-OP2	8.02	120.33	110.70
26	14	1029	A	N9-C4-C5	-8.02	102.59	105.80
26	14	2323	G	C8-N9-C4	8.02	109.61	106.40
1	1G	1260	C	C6-N1-C2	-8.02	117.09	120.30
54	L5	34	ARG	NE-CZ-NH1	-8.02	116.29	120.30
1	13	813	U	N3-C4-O4	-8.02	113.79	119.40
26	1H	1632	A	C4-C5-N7	8.02	114.71	110.70
26	1H	1241	A	N1-C6-N6	8.02	123.41	118.60
26	14	71	A	C2-N3-C4	-8.02	106.59	110.60
26	14	1396	U	N3-C2-O2	-8.02	116.59	122.20
26	14	1616	A	N7-C8-N9	8.02	117.81	113.80
26	14	1145	C	C6-N1-C2	-8.01	117.09	120.30
26	14	196	A	O4'-C1'-N9	8.01	114.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1600	C	O5'-P-OP2	-8.01	98.49	105.70
26	1H	793	A	C5-C6-N6	-8.01	117.29	123.70
26	1H	1129	A	O5'-P-OP2	-8.00	98.50	105.70
26	1H	2272	U	O5'-P-OP1	8.00	120.30	110.70
26	1H	1899	G	C5-C6-O6	8.00	133.40	128.60
26	1H	2346	A	C4-N9-C1'	8.00	140.70	126.30
26	14	1187	G	O5'-P-OP2	-8.00	98.50	105.70
26	1H	1298	C	C5-C6-N1	8.00	125.00	121.00
26	1H	85	G	O5'-P-OP1	7.99	120.29	110.70
26	1H	447	A	O5'-P-OP1	-7.99	98.50	105.70
28	11	52	ARG	NE-CZ-NH1	-7.99	116.31	120.30
24	3L	76	A	C6-C5-N7	-7.99	126.71	132.30
1	13	792	A	C5-C6-N6	-7.98	117.31	123.70
1	13	1260	C	C6-N1-C2	-7.98	117.11	120.30
22	1K	74	C	C2-N1-C1'	7.98	127.58	118.80
26	14	569	U	C5-C6-N1	-7.98	118.71	122.70
26	1H	2689	U	N1-C2-N3	7.98	119.69	114.90
26	14	698	C	OP1-P-OP2	7.97	131.56	119.60
26	14	2237	G	N1-C2-N2	-7.97	109.03	116.20
26	1H	908	C	O5'-P-OP2	-7.97	98.53	105.70
26	1H	1694	C	P-O3'-C3'	7.97	129.26	119.70
26	14	1314	C	C6-N1-C1'	-7.97	111.24	120.80
26	1H	2030	A	N1-C6-N6	7.97	123.38	118.60
26	14	1376	C	O5'-P-OP1	-7.96	98.53	105.70
26	1H	691	C	N3-C4-C5	7.96	125.08	121.90
26	1H	635	C	O5'-P-OP2	-7.96	98.53	105.70
26	14	1189	A	OP1-P-OP2	-7.96	107.66	119.60
26	1H	736	C	N1-C2-O2	-7.96	114.12	118.90
1	13	966	G	C8-N9-C4	7.96	109.58	106.40
26	14	2584	U	C2-N1-C1'	7.96	127.25	117.70
1	13	577	G	N1-C6-O6	7.96	124.67	119.90
26	1H	2440	C	N3-C4-C5	-7.96	118.72	121.90
26	1H	2775	A	N1-C6-N6	7.96	123.37	118.60
26	14	2873	A	C5-N7-C8	-7.96	99.92	103.90
26	14	2374	C	C2-N3-C4	-7.95	115.92	119.90
26	1H	1647	G	O5'-P-OP1	-7.95	98.55	105.70
26	1H	2712	U	N3-C2-O2	-7.95	116.64	122.20
26	14	1942	C	C6-N1-C2	-7.95	117.12	120.30
26	1H	631	A	N7-C8-N9	-7.95	109.83	113.80
26	1H	1252	G	C8-N9-C4	7.94	109.58	106.40
26	1H	681	G	N1-C2-N3	7.94	128.66	123.90
26	1H	784	A	C5-C6-N6	7.94	130.05	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1598	C	O5'-P-OP2	7.94	120.23	110.70
1	13	889	A	O5'-P-OP2	-7.94	98.56	105.70
22	1L	74	C	O4'-C1'-N1	7.94	114.55	108.20
26	1H	123	G	C6-N1-C2	-7.94	120.34	125.10
26	1H	966	G	N1-C6-O6	-7.94	115.14	119.90
1	13	1158	C	N1-C2-O2	7.93	123.66	118.90
26	14	2406	U	O4'-C1'-N1	-7.93	101.85	108.20
24	3K	76	A	C2-N3-C4	-7.93	106.63	110.60
26	14	2513	G	C5-C6-O6	-7.93	123.84	128.60
1	13	811	C	C5-C6-N1	-7.93	117.03	121.00
26	1H	113	G	N1-C6-O6	7.93	124.66	119.90
26	1H	852	G	O5'-P-OP1	7.93	120.22	110.70
26	1H	1335	U	N3-C2-O2	-7.93	116.65	122.20
26	14	1204	A	O4'-C1'-N9	7.93	114.54	108.20
26	1H	1836	C	N3-C4-C5	-7.93	118.73	121.90
26	1H	1842	G	C8-N9-C4	7.93	109.57	106.40
26	14	2307	G	O4'-C1'-N9	7.93	114.54	108.20
26	1H	530	G	C5-C6-O6	7.92	133.35	128.60
26	1H	2271	G	N3-C4-C5	-7.92	124.64	128.60
1	1G	1395	C	O5'-P-OP1	-7.92	98.57	105.70
26	14	664	C	C5-C6-N1	-7.92	117.04	121.00
26	14	1956	U	N1-C2-O2	7.92	128.35	122.80
26	14	189	G	C4-C5-N7	7.92	113.97	110.80
26	14	676	A	O4'-C1'-N9	7.92	114.54	108.20
1	1G	882	C	O5'-P-OP1	-7.92	98.57	105.70
26	14	1600	C	C5-C6-N1	-7.92	117.04	121.00
23	2K	6	G	C8-N9-C4	7.92	109.57	106.40
26	1H	641	C	O5'-P-OP2	7.92	120.20	110.70
26	14	2253	G	C5-C6-O6	-7.91	123.85	128.60
26	1H	1314	C	C6-N1-C2	-7.91	117.14	120.30
26	14	2330	G	C8-N9-C4	7.91	109.56	106.40
26	14	568	U	N1-C2-N3	-7.91	110.16	114.90
26	14	2313	C	C6-N1-C2	-7.90	117.14	120.30
1	13	812	C	O5'-P-OP2	7.90	120.18	110.70
26	1H	731	C	C5-C4-N4	-7.90	114.67	120.20
26	14	459	U	N3-C2-O2	-7.90	116.67	122.20
26	1H	765	G	O5'-P-OP1	-7.90	98.59	105.70
27	16	81	G	C4-C5-N7	7.90	113.96	110.80
26	1H	2627	G	C4-C5-N7	7.89	113.96	110.80
26	14	2392	A	C5-C6-N1	-7.89	113.75	117.70
26	1H	2439	A	C5-N7-C8	-7.89	99.95	103.90
24	3K	32	U	C2-N1-C1'	7.89	127.16	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1189	A	C5-C6-N6	-7.89	117.39	123.70
26	1H	2032	G	C2-N3-C4	-7.89	107.96	111.90
26	1H	73	A	C2-N3-C4	7.88	114.54	110.60
26	1H	447	A	C8-N9-C4	-7.88	102.65	105.80
26	1H	2466	C	N3-C4-C5	7.88	125.05	121.90
26	14	621	A	C5-N7-C8	-7.88	99.96	103.90
26	14	2374	C	N3-C4-C5	7.88	125.05	121.90
26	14	1956	U	O5'-P-OP2	-7.88	98.61	105.70
26	14	681	G	N9-C4-C5	-7.88	102.25	105.40
1	13	1526	G	C4-C5-N7	7.88	113.95	110.80
26	1H	1438	U	N3-C4-C5	-7.88	109.87	114.60
26	14	2351	G	N3-C4-N9	7.88	130.72	126.00
26	1H	815	C	N3-C4-C5	7.87	125.05	121.90
26	1H	2054	A	OP2-P-O3'	7.87	122.52	105.20
26	1H	197	A	OP2-P-O3'	7.87	122.52	105.20
26	1H	622	G	N3-C2-N2	7.87	125.41	119.90
26	1H	2028	U	O5'-P-OP1	-7.87	98.62	105.70
1	1G	197	A	N7-C8-N9	7.87	117.74	113.80
26	1H	913	U	N1-C2-O2	7.87	128.31	122.80
26	1H	965	C	O5'-P-OP1	-7.87	98.62	105.70
26	14	1496	A	N1-C6-N6	7.87	123.32	118.60
26	1H	144	C	C2-N3-C4	-7.86	115.97	119.90
26	1H	1305	C	C6-N1-C2	7.86	123.44	120.30
24	3K	76	A	C8-N9-C4	-7.85	102.66	105.80
26	14	1314	C	C2-N1-C1'	7.85	127.44	118.80
26	1H	1622	G	N1-C6-O6	-7.85	115.19	119.90
26	1H	932	G	N1-C2-N2	-7.84	109.14	116.20
26	14	74	A	C5-N7-C8	-7.84	99.98	103.90
26	14	2046	G	N1-C6-O6	-7.84	115.19	119.90
26	14	2452	C	N3-C4-N4	7.84	123.49	118.00
26	1H	203	C	O5'-P-OP1	-7.84	98.64	105.70
26	1H	1210	A	C4-C5-N7	7.84	114.62	110.70
26	1H	630	G	C8-N9-C4	7.84	109.53	106.40
26	1H	189	G	C8-N9-C4	7.83	109.53	106.40
1	13	1205	U	N3-C4-C5	-7.83	109.90	114.60
26	1H	213	A	O5'-P-OP1	7.83	120.10	110.70
26	1H	1678	G	N1-C6-O6	7.83	124.60	119.90
1	13	1195	C	C6-N1-C2	-7.83	117.17	120.30
26	1H	728	G	N7-C8-N9	-7.83	109.19	113.10
1	13	880	C	C6-N1-C2	7.83	123.43	120.30
26	1H	769	G	N1-C2-N2	-7.83	109.15	116.20
26	14	2217	G	C6-C5-N7	-7.83	125.70	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	252	G	O5'-P-OP1	7.83	120.09	110.70
26	1H	845	G	C4-C5-N7	7.83	113.93	110.80
26	1H	1204	A	N1-C6-N6	7.82	123.29	118.60
26	1H	2261	C	OP2-P-O3'	7.82	122.41	105.20
26	1H	2036	C	C6-N1-C2	-7.82	117.17	120.30
26	14	2501	C	N3-C4-C5	7.82	125.03	121.90
26	1H	793	A	N1-C6-N6	7.82	123.29	118.60
26	1H	1382	G	C4-C5-N7	7.82	113.93	110.80
43	E8	42	ARG	NE-CZ-NH1	-7.82	116.39	120.30
26	14	74	A	N3-C4-N9	-7.82	121.14	127.40
26	14	1121	C	C5-C6-N1	-7.82	117.09	121.00
1	13	522	C	O5'-P-OP2	-7.81	98.67	105.70
26	1H	148	C	C5-C6-N1	-7.81	117.09	121.00
26	1H	1200	C	C2-N3-C4	-7.81	115.99	119.90
26	1H	1639	U	C5-C6-N1	-7.81	118.80	122.70
1	1G	1442	G	N3-C4-C5	7.81	132.50	128.60
26	14	801	G	O5'-P-OP2	-7.81	98.67	105.70
26	1H	2261	C	O5'-P-OP2	-7.80	98.68	105.70
26	1H	2609	U	C2-N3-C4	-7.80	122.32	127.00
1	1G	1112	C	C6-N1-C2	-7.80	117.18	120.30
26	1H	2552	U	N1-C2-N3	7.79	119.58	114.90
26	1H	631	A	C8-N9-C4	7.79	108.92	105.80
1	1G	1527	C	C5-C6-N1	-7.79	117.10	121.00
26	14	569	U	C2-N3-C4	-7.79	122.33	127.00
26	14	2829	C	N1-C2-O2	-7.79	114.22	118.90
26	14	735	A	C8-N9-C4	7.79	108.92	105.80
26	1H	839	U	N1-C2-N3	7.79	119.57	114.90
26	14	2244	U	N1-C2-O2	-7.79	117.35	122.80
26	1H	2375	G	C4-C5-N7	7.78	113.91	110.80
26	14	1609	A	C6-N1-C2	-7.78	113.93	118.60
26	1H	22	C	O5'-P-OP1	-7.78	98.70	105.70
26	1H	728	G	N9-C4-C5	-7.78	102.29	105.40
26	1H	1915	U	N3-C2-O2	-7.78	116.76	122.20
26	1H	2508	G	N9-C4-C5	7.78	108.51	105.40
26	1H	1204	A	N7-C8-N9	7.78	117.69	113.80
36	78	20	GLY	N-CA-C	7.77	132.53	113.10
23	2L	21	U	N1-C2-N3	7.77	119.56	114.90
26	14	1661	G	C8-N9-C4	7.77	109.51	106.40
26	1H	1933	G	C8-N9-C4	-7.77	103.29	106.40
1	13	644	G	O5'-P-OP2	-7.76	98.71	105.70
26	14	1309	G	C8-N9-C1'	-7.76	116.91	127.00
26	14	49	A	P-O3'-C3'	7.76	129.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	138	G	N7-C8-N9	7.76	116.98	113.10
26	1H	2377	A	N9-C4-C5	-7.76	102.69	105.80
26	1H	2444	G	C8-N9-C4	-7.76	103.30	106.40
27	16	81	G	C5-N7-C8	-7.76	100.42	104.30
26	14	974(A)	C	C5-C4-N4	7.76	125.63	120.20
26	1H	2062	A	N9-C4-C5	-7.76	102.70	105.80
26	14	2688	U	C5-C4-O4	7.76	130.55	125.90
26	1H	860	U	C2-N3-C4	-7.75	122.35	127.00
26	1H	214	G	C2-N3-C4	7.75	115.78	111.90
26	14	2044	C	N1-C2-O2	-7.75	114.25	118.90
26	1H	121	G	C5-C6-N1	7.75	115.37	111.50
26	1H	1355	G	N1-C6-O6	-7.75	115.25	119.90
26	14	2346	A	C8-N9-C4	-7.75	102.70	105.80
26	14	2463	C	C6-N1-C2	7.75	123.40	120.30
26	14	2502	G	C8-N9-C4	-7.75	103.30	106.40
26	1H	2473	U	C2-N1-C1'	7.75	126.99	117.70
26	1H	16	G	N3-C2-N2	-7.74	114.48	119.90
26	1H	526	A	N9-C4-C5	7.74	108.90	105.80
26	1H	2866	U	C5-C4-O4	7.74	130.54	125.90
26	1H	189	G	C5-C6-O6	-7.74	123.96	128.60
27	1J	101	A	C5-N7-C8	-7.74	100.03	103.90
26	1H	1928	A	O5'-P-OP1	-7.74	98.74	105.70
26	1H	2614	A	C2-N3-C4	7.74	114.47	110.60
26	14	2598	A	C8-N9-C4	7.74	108.89	105.80
26	1H	1437	C	C2-N1-C1'	7.73	127.31	118.80
26	1H	2031	A	C5-C6-N6	-7.73	117.52	123.70
26	14	1934	C	C6-N1-C2	7.73	123.39	120.30
26	1H	788	A	C8-N9-C4	7.73	108.89	105.80
26	14	2429	G	OP2-P-O3'	7.73	122.21	105.20
26	1H	141	A	O4'-C1'-N9	7.73	114.38	108.20
1	1G	893	C	C6-N1-C2	7.72	123.39	120.30
1	13	974	A	C6-C5-N7	-7.72	126.90	132.30
26	14	1612	C	N3-C4-C5	7.72	124.99	121.90
26	14	784	A	C5-C6-N1	-7.72	113.84	117.70
26	1H	482	A	C8-N9-C4	-7.72	102.71	105.80
26	1H	763	G	C6-N1-C2	-7.72	120.47	125.10
26	1H	2508	G	C8-N9-C4	-7.71	103.31	106.40
26	14	783	A	N1-C2-N3	7.71	133.16	129.30
26	1H	633	A	C6-C5-N7	-7.71	126.91	132.30
26	1H	2503	A	N1-C2-N3	-7.71	125.45	129.30
26	14	2301	C	C6-N1-C2	-7.71	117.22	120.30
26	14	127	A	C5-C6-N6	-7.70	117.54	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1612	C	C5-C6-N1	-7.70	117.15	121.00
26	1H	698	C	C5-C6-N1	-7.70	117.15	121.00
26	14	679	C	N3-C2-O2	7.70	127.29	121.90
1	13	1158	C	C2-N1-C1'	7.70	127.27	118.80
26	1H	667	U	N3-C2-O2	7.69	127.59	122.20
26	1H	2607	G	N9-C4-C5	-7.69	102.32	105.40
26	1H	2318	G	O4'-C1'-N9	7.69	114.35	108.20
4	3E	12	CYS	CA-CB-SG	7.69	127.84	114.00
26	1H	148	C	C6-N1-C2	7.69	123.38	120.30
26	1H	2548	G	N1-C6-O6	-7.69	115.28	119.90
1	13	1526	G	C5-C6-O6	-7.69	123.99	128.60
26	1H	1297	C	OP2-P-O3'	-7.69	88.29	105.20
26	1H	138	G	C8-N9-C4	-7.69	103.33	106.40
48	F5	82	LEU	CA-CB-CG	7.68	132.97	115.30
1	13	1227	A	C2-N3-C4	-7.68	106.76	110.60
1	1G	812	C	P-O3'-C3'	7.68	128.92	119.70
26	14	1304	C	N3-C2-O2	-7.68	116.52	121.90
26	1H	190	A	C5-C6-N6	-7.68	117.56	123.70
26	14	1698	A	C5-C6-N1	-7.68	113.86	117.70
26	1H	616	A	N1-C6-N6	7.67	123.20	118.60
39	65	110	LEU	CA-CB-CG	7.67	132.95	115.30
26	1H	71	A	O4'-C1'-N9	-7.67	102.06	108.20
1	1G	1286	A	C8-N9-C4	-7.67	102.73	105.80
26	14	468	G	OP1-P-OP2	-7.67	108.10	119.60
26	14	561	G	N3-C4-N9	-7.67	121.40	126.00
26	1H	599	G	N3-C2-N2	7.66	125.26	119.90
26	1H	103	A	N1-C6-N6	7.66	123.19	118.60
26	14	683	C	N3-C4-C5	7.66	124.96	121.90
26	14	2679	A	O5'-P-OP2	-7.66	98.81	105.70
26	1H	1232	G	C5-C6-O6	-7.66	124.01	128.60
1	1G	1432	G	C5-C6-N1	-7.66	107.67	111.50
26	1H	2030	A	C5-C6-N6	-7.65	117.58	123.70
26	1H	1266	G	C8-N9-C4	7.65	109.46	106.40
26	1H	2403	C	C6-N1-C2	-7.65	117.24	120.30
26	1H	2424	C	C2-N3-C4	7.65	123.72	119.90
26	14	134	C	C2-N3-C4	-7.65	116.08	119.90
26	1H	2287	A	N3-C4-C5	7.65	132.15	126.80
26	1H	675	A	C4-C5-N7	7.64	114.52	110.70
26	1H	2318	G	C8-N9-C4	-7.64	103.34	106.40
28	11	131	LEU	CA-CB-CG	7.64	132.88	115.30
26	14	1142	U	N1-C2-O2	7.64	128.15	122.80
26	14	2426	A	N9-C4-C5	-7.64	102.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	821	A	C4-C5-C6	7.64	120.82	117.00
1	13	1491	G	OP2-P-O3'	7.64	122.00	105.20
26	1H	1204	A	C5-N7-C8	-7.64	100.08	103.90
26	1H	271(B)	G	P-O3'-C3'	7.63	128.86	119.70
26	1H	1123	C	C2-N3-C4	-7.63	116.08	119.90
26	1H	2490	G	C8-N9-C4	-7.63	103.35	106.40
1	13	910	C	N3-C4-C5	7.63	124.95	121.90
26	1H	1616	A	C6-C5-N7	-7.62	126.96	132.30
26	1H	1616	A	O4'-C1'-N9	7.62	114.30	108.20
26	1H	2230	G	N3-C4-N9	-7.62	121.43	126.00
26	1H	2586	C	C5-C4-N4	-7.62	114.86	120.20
26	1H	2401	U	C6-N1-C2	-7.62	116.43	121.00
26	1H	2485	G	N9-C4-C5	-7.62	102.35	105.40
26	14	1394	U	O5'-P-OP2	7.62	119.84	110.70
26	1H	245	G	C4-N9-C1'	7.62	136.40	126.50
26	1H	2576	G	N9-C4-C5	-7.62	102.35	105.40
26	1H	88	G	N3-C4-C5	-7.61	124.79	128.60
26	1H	2411	A	N1-C6-N6	-7.61	114.03	118.60
26	1H	735	A	N1-C6-N6	7.61	123.17	118.60
26	14	330	A	C5-N7-C8	-7.61	100.09	103.90
26	14	470	A	C5-C6-N6	-7.61	117.61	123.70
1	13	186(A)	C	C6-N1-C2	-7.61	117.26	120.30
26	1H	1310	G	C5-C6-O6	-7.61	124.03	128.60
26	1H	1622	G	C6-C5-N7	7.61	134.97	130.40
26	14	2512	C	O5'-P-OP1	-7.61	98.85	105.70
26	1H	607	U	C6-N1-C2	7.61	125.56	121.00
26	1H	2271	G	C6-N1-C2	-7.60	120.54	125.10
26	1H	930	U	N3-C4-O4	-7.60	114.08	119.40
26	1H	2731	G	C6-C5-N7	-7.60	125.84	130.40
26	14	1379	A	C5-N7-C8	-7.60	100.10	103.90
26	14	2587	A	N1-C6-N6	7.60	123.16	118.60
26	1H	874	G	O5'-P-OP2	-7.60	98.86	105.70
26	14	780	G	O5'-P-OP1	-7.59	98.87	105.70
26	1H	1564	C	C5-C4-N4	7.59	125.51	120.20
26	1H	2451	A	N3-C4-N9	-7.59	121.33	127.40
26	14	1396	U	O5'-P-OP1	-7.59	98.87	105.70
26	1H	739	G	O5'-P-OP2	-7.59	98.87	105.70
26	1H	1914	C	C6-N1-C2	-7.58	117.27	120.30
26	14	2247	A	N1-C2-N3	7.58	133.09	129.30
1	13	1512	U	C5-C6-N1	-7.58	118.91	122.70
26	1H	560	C	O5'-P-OP1	-7.58	98.88	105.70
26	14	2592	G	N3-C4-N9	7.58	130.55	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2699	C	C5-C4-N4	-7.58	114.90	120.20
26	14	330	A	C4-C5-N7	7.58	114.49	110.70
26	1H	738	G	C6-N1-C2	-7.57	120.56	125.10
26	14	2331	G	N9-C4-C5	-7.57	102.37	105.40
26	1H	78	A	C8-N9-C4	7.57	108.83	105.80
26	14	199	A	O5'-P-OP2	-7.57	98.89	105.70
1	1G	898	G	C8-N9-C4	7.57	109.43	106.40
26	1H	1702	G	O5'-P-OP1	-7.57	98.89	105.70
26	1H	2616	C	N1-C2-O2	-7.57	114.36	118.90
23	2L	21	U	N3-C2-O2	-7.57	116.90	122.20
26	14	1313	U	C5-C6-N1	7.57	126.48	122.70
26	1H	2448	A	C5-N7-C8	-7.57	100.12	103.90
27	16	112	G	N9-C4-C5	-7.57	102.37	105.40
1	13	1128	C	C5-C6-N1	7.56	124.78	121.00
26	14	2278	A	C8-N9-C4	-7.56	102.78	105.80
1	13	1488	G	C6-C5-N7	-7.56	125.86	130.40
26	1H	139	G	N3-C4-C5	-7.56	124.82	128.60
1	1G	690	G	N3-C4-C5	7.56	132.38	128.60
26	14	1572	A	N1-C6-N6	7.56	123.14	118.60
26	1H	825	C	N3-C4-N4	7.56	123.29	118.00
26	1H	1977	A	O5'-P-OP2	-7.56	98.89	105.70
26	1H	1602	U	O5'-P-OP2	7.56	119.77	110.70
26	1H	2466	C	C5-C4-N4	-7.56	114.91	120.20
26	1H	2627	G	N1-C6-O6	7.56	124.44	119.90
1	1G	576	G	C6-C5-N7	-7.56	125.86	130.40
26	1H	74	A	N3-C4-N9	-7.56	121.35	127.40
26	1H	1220	A	N1-C6-N6	-7.56	114.07	118.60
26	1H	2053	G	N1-C2-N2	7.56	123.00	116.20
26	1H	2578	G	N7-C8-N9	-7.56	109.32	113.10
26	14	848	G	C4-N9-C1'	7.55	136.32	126.50
23	2K	21	U	C2-N1-C1'	7.55	126.76	117.70
1	13	1519	A	C5-C6-N6	7.55	129.74	123.70
26	1H	203	C	N1-C2-O2	-7.55	114.37	118.90
26	1H	1368	G	O5'-P-OP2	-7.55	98.91	105.70
26	14	1564	C	N3-C2-O2	-7.55	116.62	121.90
26	1H	792	G	C6-C5-N7	-7.55	125.87	130.40
1	1G	197	A	C8-N9-C4	-7.55	102.78	105.80
26	14	1681	G	C5-N7-C8	-7.55	100.53	104.30
26	1H	679	C	C4-C5-C6	7.54	121.17	117.40
26	1H	692	C	C5-C6-N1	-7.54	117.23	121.00
26	1H	733	G	N9-C4-C5	-7.54	102.38	105.40
26	1H	74	A	O4'-C1'-N9	-7.54	102.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1229(A)	G	O5'-P-OP2	-7.54	98.91	105.70
26	1H	2552	U	C5-C6-N1	-7.54	118.93	122.70
26	1H	2688	U	C4-C5-C6	7.54	124.23	119.70
26	1H	128	C	O5'-P-OP2	-7.54	98.91	105.70
26	1H	733	G	C6-C5-N7	-7.54	125.88	130.40
26	1H	1266	G	N1-C6-O6	7.54	124.42	119.90
26	1H	1614	A	O4'-C1'-N9	7.54	114.23	108.20
26	1H	2274	A	OP1-P-OP2	-7.54	108.29	119.60
1	1G	1501	C	C6-N1-C2	7.54	123.32	120.30
26	14	2435	A	N7-C8-N9	7.54	117.57	113.80
26	1H	932	G	N3-C2-N2	7.54	125.18	119.90
26	1H	1360	A	N1-C6-N6	7.54	123.12	118.60
26	14	466	A	C5-C6-N6	-7.54	117.67	123.70
26	14	1278	A	N7-C8-N9	-7.54	110.03	113.80
26	14	193	U	C2-N3-C4	-7.54	122.48	127.00
26	1H	1700	A	OP1-P-OP2	7.54	130.90	119.60
26	1H	2540	C	C6-N1-C2	7.53	123.31	120.30
26	14	1306	C	O5'-P-OP1	-7.53	98.92	105.70
26	1H	2232	U	N3-C2-O2	-7.53	116.93	122.20
26	14	2377	A	C8-N9-C4	7.53	108.81	105.80
26	14	2712	U	N1-C2-N3	7.53	119.42	114.90
26	1H	2447	G	N1-C6-O6	-7.52	115.39	119.90
26	14	2473	U	C2-N1-C1'	7.52	126.73	117.70
1	13	1526	G	C6-C5-N7	-7.52	125.89	130.40
26	1H	2430	A	C4-C5-N7	7.52	114.46	110.70
26	1H	635	C	O5'-P-OP1	7.52	119.72	110.70
26	1H	2070	G	N3-C4-N9	7.52	130.51	126.00
27	16	98	G	OP1-P-OP2	7.52	130.88	119.60
26	14	2506	U	C2-N1-C1'	7.52	126.72	117.70
26	14	2592	G	N3-C4-C5	-7.52	124.84	128.60
26	1H	791	C	OP1-P-O3'	-7.52	88.66	105.20
1	13	575	G	O4'-C1'-N9	-7.51	102.19	108.20
26	1H	663	G	C4-C5-C6	7.51	123.31	118.80
26	14	1462	C	C6-N1-C2	-7.51	117.29	120.30
1	13	817	C	C6-N1-C2	7.51	123.31	120.30
26	1H	1278	A	C5-C6-N6	-7.51	117.69	123.70
26	14	110	G	N1-C6-O6	7.51	124.41	119.90
1	13	967	C	N1-C2-O2	-7.51	114.39	118.90
26	1H	1428	C	C5-C6-N1	-7.51	117.25	121.00
26	14	1366	A	C4-C5-N7	7.51	114.45	110.70
26	1H	271(C)	U	C2-N1-C1'	7.51	126.71	117.70
26	1H	311	A	O5'-P-OP1	-7.50	98.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1671	U	OP1-P-OP2	7.50	130.85	119.60
26	1H	1022	G	C8-N9-C4	-7.50	103.40	106.40
26	1H	2406	U	O4'-C1'-N1	-7.50	102.20	108.20
26	14	681	G	N3-C4-N9	7.50	130.50	126.00
26	1H	1589	C	O5'-P-OP2	7.50	119.70	110.70
26	1H	1698	A	N7-C8-N9	7.50	117.55	113.80
27	16	44	G	C8-N9-C1'	7.50	136.75	127.00
28	19	272	ALA	N-CA-C	7.50	131.25	111.00
26	1H	839	U	C4-C5-C6	7.50	124.20	119.70
26	1H	1213	A	O5'-P-OP2	7.50	119.69	110.70
26	1H	1614	A	N7-C8-N9	7.50	117.55	113.80
26	1H	1253	A	C8-N9-C4	7.50	108.80	105.80
26	14	528	A	C8-N9-C1'	7.50	141.19	127.70
1	13	233	C	C6-N1-C2	-7.49	117.30	120.30
26	1H	593	G	C2-N3-C4	-7.49	108.16	111.90
1	13	185	A	C8-N9-C4	-7.49	102.80	105.80
26	1H	575	A	C6-N1-C2	-7.49	114.11	118.60
26	1H	1022	G	P-O3'-C3'	7.49	128.69	119.70
26	1H	1269	A	C2-N3-C4	-7.49	106.86	110.60
26	1H	1797	C	C5-C6-N1	-7.49	117.26	121.00
23	2K	74	A	C5-C6-N6	-7.48	117.71	123.70
26	1H	784	A	N9-C4-C5	7.48	108.79	105.80
26	1H	146	G	N1-C6-O6	7.48	124.39	119.90
26	1H	575	A	N1-C2-N3	7.48	133.04	129.30
26	1H	2286	A	C8-N9-C4	-7.48	102.81	105.80
26	14	670	A	C8-N9-C4	7.48	108.79	105.80
26	14	974(A)	C	N3-C2-O2	-7.48	116.66	121.90
26	14	2000	G	N7-C8-N9	-7.48	109.36	113.10
26	1H	198	C	C2-N3-C4	-7.48	116.16	119.90
26	14	252	G	C6-C5-N7	7.48	134.89	130.40
26	1H	2672	G	C6-C5-N7	-7.48	125.92	130.40
26	1H	2622	C	N3-C2-O2	7.47	127.13	121.90
26	1H	692	C	C5-C4-N4	-7.47	114.97	120.20
26	1H	1623	G	N1-C6-O6	-7.47	115.42	119.90
1	1G	197	A	P-O3'-C3'	7.47	128.66	119.70
1	1G	1442	G	N3-C4-N9	-7.47	121.52	126.00
26	1H	1356	G	C5-C6-O6	-7.47	124.12	128.60
26	1H	1468	C	C6-N1-C2	-7.47	117.31	120.30
26	1H	2385	C	O5'-P-OP2	-7.47	98.98	105.70
26	14	1333	C	N3-C4-C5	7.47	124.89	121.90
26	14	2880	C	C6-N1-C2	-7.46	117.31	120.30
1	13	1502	A	N7-C8-N9	7.46	117.53	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	936	C	C6-N1-C2	7.46	123.28	120.30
26	1H	948	G	C5-N7-C8	-7.46	100.57	104.30
26	1H	1632	A	N9-C4-C5	-7.46	102.81	105.80
26	14	2449	U	N3-C4-O4	7.46	124.62	119.40
26	14	2542	A	C8-N9-C4	7.46	108.78	105.80
1	13	892	A	C2-N3-C4	-7.46	106.87	110.60
1	13	966	G	N9-C4-C5	-7.46	102.42	105.40
23	2L	40	C	C6-N1-C2	-7.46	117.32	120.30
26	1H	733	G	N1-C2-N2	-7.46	109.49	116.20
1	13	1197	G	OP1-P-O3'	7.45	121.60	105.20
26	1H	566	U	C5-C4-O4	-7.45	121.43	125.90
26	1H	1279	G	N1-C6-O6	-7.45	115.43	119.90
26	1H	2485	G	C8-N9-C4	7.45	109.38	106.40
26	1H	2392	A	C6-N1-C2	7.45	123.07	118.60
26	1H	2509	G	C5-C6-N1	7.45	115.23	111.50
26	14	134	C	N3-C4-C5	7.45	124.88	121.90
26	14	786	C	C6-N1-C2	7.45	123.28	120.30
26	1H	837	C	O5'-P-OP2	7.45	119.63	110.70
26	1H	2371	G	N1-C6-O6	7.45	124.37	119.90
26	14	737	C	C5-C4-N4	-7.45	114.99	120.20
1	13	778	G	O5'-P-OP2	-7.44	99.00	105.70
26	1H	2392	A	N3-C4-N9	-7.44	121.44	127.40
26	14	1681	G	C4-C5-N7	7.44	113.78	110.80
26	14	2577	A	C5-C6-N1	-7.44	113.98	117.70
29	29	78	LEU	CA-CB-CG	7.44	132.42	115.30
26	1H	2595	G	C5-C6-O6	-7.44	124.13	128.60
26	1H	1305	C	N3-C4-C5	7.44	124.88	121.90
26	1H	2212	A	O4'-C1'-N9	7.44	114.15	108.20
26	14	134	C	C5-C6-N1	-7.44	117.28	121.00
26	14	1314	C	N1-C2-N3	-7.44	113.99	119.20
26	1H	2028	U	O5'-P-OP2	7.44	119.63	110.70
26	14	693	C	N3-C4-N4	-7.44	112.79	118.00
26	14	1332	G	N9-C4-C5	7.44	108.38	105.40
26	14	1776	G	O5'-P-OP1	7.44	119.63	110.70
26	1H	840	C	C6-N1-C2	7.44	123.28	120.30
26	1H	1332	G	N1-C6-O6	7.44	124.36	119.90
26	1H	2453	A	N1-C6-N6	-7.44	114.14	118.60
1	1G	862	C	C6-N1-C2	-7.44	117.33	120.30
26	14	856	C	C2-N1-C1'	7.44	126.98	118.80
24	3K	76	A	C5-C6-N6	-7.43	117.75	123.70
26	14	2542	A	N7-C8-N9	-7.43	110.08	113.80
26	1H	446	G	N9-C4-C5	-7.43	102.43	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	337	C	C5-C6-N1	7.43	124.72	121.00
26	14	2042	A	O5'-P-OP1	7.43	119.62	110.70
1	13	967	C	N3-C2-O2	7.43	127.10	121.90
26	1H	699	A	C2-N3-C4	7.43	114.31	110.60
26	1H	1632	A	C5-C6-N6	-7.43	117.76	123.70
26	1H	2392	A	C8-N9-C4	-7.43	102.83	105.80
26	14	912	C	C6-N1-C2	-7.43	117.33	120.30
26	1H	782	A	N9-C4-C5	7.43	108.77	105.80
26	1H	1729	A	O4'-C1'-N9	7.43	114.14	108.20
26	1H	2287	A	O5'-P-OP2	-7.43	99.02	105.70
26	1H	2822	G	C6-C5-N7	-7.43	125.94	130.40
26	1H	1394	U	O5'-P-OP2	7.42	119.61	110.70
26	1H	1602	U	N1-C2-N3	7.42	119.36	114.90
26	1H	1626	G	C8-N9-C4	-7.42	103.43	106.40
1	13	963	G	N3-C2-N2	7.42	125.10	119.90
1	13	576	G	N3-C4-N9	7.42	130.45	126.00
26	1H	2822	G	N9-C4-C5	-7.42	102.43	105.40
26	1H	1990	C	N3-C2-O2	-7.42	116.71	121.90
26	1H	2689	U	C5-C4-O4	7.42	130.35	125.90
26	14	488	G	C8-N9-C4	7.42	109.37	106.40
26	14	769	G	OP1-P-O3'	7.42	121.52	105.20
1	13	910	C	C6-N1-C2	7.42	123.27	120.30
26	14	1471	A	C8-N9-C4	-7.41	102.83	105.80
26	1H	512	G	O5'-P-OP1	-7.41	99.03	105.70
26	1H	1336	A	C2-N3-C4	7.41	114.30	110.60
26	1H	2430	A	C6-C5-N7	-7.41	127.12	132.30
26	1H	775	G	O4'-C1'-N9	7.40	114.12	108.20
26	14	2601	C	C6-N1-C2	-7.40	117.34	120.30
26	1H	1596	A	OP2-P-O3'	7.39	121.47	105.20
26	14	209	C	C2-N3-C4	-7.39	116.20	119.90
26	14	441	U	O5'-P-OP1	-7.39	99.05	105.70
26	14	502	A	C2-N3-C4	-7.39	106.90	110.60
1	13	353	A	C8-N9-C4	-7.39	102.84	105.80
26	1H	796	C	C5-C6-N1	-7.39	117.30	121.00
26	1H	1381	G	N3-C2-N2	-7.39	114.73	119.90
1	13	792	A	N3-C4-C5	7.39	131.97	126.80
26	14	1022	G	N9-C4-C5	7.39	108.36	105.40
26	1H	986	C	OP1-P-OP2	-7.38	108.52	119.60
26	1H	1248	G	N3-C2-N2	-7.38	114.73	119.90
26	1H	2192	G	C6-C5-N7	-7.38	125.97	130.40
1	1G	690	G	C5-N7-C8	-7.38	100.61	104.30
26	14	1340	U	C6-N1-C2	7.38	125.43	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1956	U	N3-C2-O2	-7.38	117.03	122.20
26	1H	2830	G	C8-N9-C4	-7.38	103.45	106.40
26	1H	2689	U	C2-N3-C4	-7.38	122.57	127.00
26	14	1400	G	O5'-P-OP1	7.38	119.56	110.70
26	1H	510	C	O5'-P-OP2	-7.38	99.06	105.70
26	1H	2056	G	OP1-P-O3'	7.38	121.44	105.20
26	1H	40	C	C5-C6-N1	-7.37	117.31	121.00
26	1H	1707	G	N1-C6-O6	7.37	124.32	119.90
26	14	114	U	N3-C4-O4	7.37	124.56	119.40
26	14	2386	C	C6-N1-C2	7.37	123.25	120.30
26	1H	2599	G	C5-C6-O6	7.37	133.02	128.60
23	2K	77	A	O5'-P-OP1	-7.37	99.07	105.70
39	A8	54	LEU	CA-CB-CG	7.36	132.24	115.30
26	14	574	C	C6-N1-C2	7.36	123.25	120.30
26	14	779	U	N1-C2-O2	7.36	127.95	122.80
1	13	690	G	C2-N3-C4	-7.36	108.22	111.90
26	1H	1950	G	C6-C5-N7	-7.36	125.98	130.40
26	14	2375	G	N7-C8-N9	-7.36	109.42	113.10
26	1H	121	G	C5-C6-O6	-7.36	124.19	128.60
26	1H	2518	A	C8-N9-C4	-7.36	102.86	105.80
26	14	1585	C	N1-C2-O2	7.36	123.31	118.90
26	1H	1332	G	C5-C6-N1	-7.35	107.82	111.50
1	13	1371	G	O5'-P-OP2	7.35	119.52	110.70
26	14	1402	C	C6-N1-C2	-7.35	117.36	120.30
26	1H	586	A	O5'-P-OP2	-7.35	99.08	105.70
26	1H	2699	C	C2-N3-C4	-7.35	116.22	119.90
1	1G	328	C	C6-N1-C2	-7.35	117.36	120.30
26	14	856	C	C5-C6-N1	7.35	124.67	121.00
26	1H	66	C	C6-N1-C2	-7.35	117.36	120.30
26	14	741	G	O5'-P-OP2	7.35	119.52	110.70
26	14	774	A	O5'-P-OP2	-7.35	99.09	105.70
26	14	2867	G	O4'-C1'-N9	7.35	114.08	108.20
1	13	525	C	C5-C4-N4	-7.34	115.06	120.20
26	14	1359	A	C8-N9-C4	7.34	108.74	105.80
26	14	2779	U	N3-C2-O2	-7.34	117.06	122.20
1	1G	108	G	C5-N7-C8	-7.34	100.63	104.30
26	14	15	G	O5'-P-OP1	-7.34	99.09	105.70
26	14	1671	U	O5'-P-OP1	-7.34	99.09	105.70
26	14	1762	A	O4'-C1'-N9	7.34	114.07	108.20
26	1H	208	C	C2-N3-C4	-7.34	116.23	119.90
26	1H	1187	G	N1-C6-O6	7.34	124.30	119.90
26	1H	1269	A	C5-N7-C8	-7.34	100.23	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1950	G	C4-C5-N7	7.33	113.73	110.80
26	14	1602	U	N3-C4-C5	-7.33	110.20	114.60
26	1H	1210	A	C6-C5-N7	-7.32	127.17	132.30
26	1H	2311	A	C2-N3-C4	-7.32	106.94	110.60
26	1H	2439	A	C2-N3-C4	-7.32	106.94	110.60
26	14	463	G	OP1-P-O3'	7.32	121.31	105.20
26	1H	737	C	C4-C5-C6	7.32	121.06	117.40
26	1H	265	A	C4-C5-N7	7.32	114.36	110.70
26	14	683	C	C2-N3-C4	-7.32	116.24	119.90
26	14	1391	U	O5'-P-OP1	-7.32	99.11	105.70
26	1H	116	C	C5-C6-N1	-7.32	117.34	121.00
26	1H	2059	A	N1-C2-N3	7.32	132.96	129.30
37	88	86	GLY	N-CA-C	-7.32	94.81	113.10
26	14	808	G	O5'-P-OP2	-7.32	99.11	105.70
26	1H	1681	G	C5-N7-C8	-7.32	100.64	104.30
26	1H	2330	G	C2-N3-C4	-7.32	108.24	111.90
26	1H	970	C	O5'-P-OP1	-7.31	99.12	105.70
26	1H	1606	G	C5-C6-O6	-7.31	124.21	128.60
26	1H	1797	C	C4-C5-C6	7.31	121.06	117.40
26	1H	1284	A	N1-C6-N6	7.31	122.99	118.60
27	16	7	G	C6-C5-N7	-7.31	126.01	130.40
26	1H	667	U	N3-C4-O4	7.31	124.52	119.40
26	1H	1189	A	C4-C5-N7	7.31	114.36	110.70
26	1H	1640	C	O5'-P-OP1	7.31	119.47	110.70
26	14	2237	G	N3-C2-N2	7.31	125.02	119.90
26	1H	950	G	C6-C5-N7	-7.31	126.02	130.40
26	1H	2295	C	C6-N1-C2	-7.31	117.38	120.30
26	14	1379	A	C4-C5-N7	7.31	114.35	110.70
26	1H	1198	U	C2-N3-C4	-7.30	122.62	127.00
26	14	1632	A	C5-C6-N6	-7.30	117.86	123.70
26	14	2324	C	C6-N1-C2	7.30	123.22	120.30
26	1H	664	C	C5-C6-N1	-7.30	117.35	121.00
26	14	487	C	O5'-P-OP1	-7.30	99.13	105.70
26	14	2331	G	C8-N9-C4	7.30	109.32	106.40
26	1H	2499	C	C6-N1-C2	-7.30	117.38	120.30
26	14	675	A	N1-C6-N6	7.29	122.98	118.60
26	1H	508	G	C4-C5-N7	7.28	113.71	110.80
26	1H	870	A	C5-C6-N1	7.28	121.34	117.70
26	1H	949	C	C5-C6-N1	-7.28	117.36	121.00
26	14	2038	G	C8-N9-C4	7.28	109.31	106.40
1	13	1310	G	C8-N9-C4	7.28	109.31	106.40
26	1H	2437	U	N3-C4-C5	-7.28	110.23	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	53	A	C8-N9-C4	-7.28	102.89	105.80
26	14	2045	C	C6-N1-C2	7.28	123.21	120.30
1	1G	449	C	N3-C2-O2	-7.27	116.81	121.90
26	14	2502	G	O5'-P-OP1	-7.27	99.15	105.70
1	1G	1297	C	P-O3'-C3'	7.27	128.43	119.70
26	1H	965	C	C5-C6-N1	7.27	124.64	121.00
26	1H	1611	C	C2-N3-C4	-7.27	116.27	119.90
26	1H	2598	A	N9-C4-C5	-7.27	102.89	105.80
24	3K	32	U	N3-C2-O2	-7.26	117.11	122.20
26	1H	2346	A	C5-C6-N1	-7.26	114.07	117.70
26	1H	1210	A	N7-C8-N9	7.26	117.43	113.80
26	1H	1573	G	OP2-P-O3'	7.26	121.17	105.20
26	14	1840	G	N3-C2-N2	-7.26	114.82	119.90
26	14	2503	A	O5'-P-OP2	-7.26	99.17	105.70
26	14	1029	A	N7-C8-N9	-7.26	110.17	113.80
26	14	2518	A	C2-N3-C4	-7.26	106.97	110.60
26	1H	1393	A	O5'-P-OP2	-7.26	99.17	105.70
26	14	565	C	C4-C5-C6	7.26	121.03	117.40
26	1H	738	G	N1-C2-N3	7.25	128.25	123.90
26	1H	845	G	OP1-P-O3'	7.25	121.16	105.20
27	1J	70	C	C6-N1-C2	-7.25	117.40	120.30
26	1H	2731	G	N1-C6-O6	7.25	124.25	119.90
26	14	2247	A	N1-C6-N6	-7.25	114.25	118.60
26	14	2713	A	N7-C8-N9	7.25	117.43	113.80
26	1H	630	G	O5'-P-OP1	7.25	119.40	110.70
26	1H	2004	G	O5'-P-OP2	-7.25	99.18	105.70
27	16	23	G	C8-N9-C4	7.25	109.30	106.40
26	1H	1546	C	O5'-P-OP1	-7.25	99.18	105.70
26	14	1698	A	N7-C8-N9	7.25	117.42	113.80
26	14	2518	A	C4-C5-N7	7.25	114.32	110.70
26	14	759	G	C5-C6-O6	-7.24	124.25	128.60
26	1H	1899	G	N1-C2-N2	7.24	122.72	116.20
26	14	310	A	O5'-P-OP1	-7.24	99.18	105.70
26	14	415	A	O5'-P-OP2	-7.24	99.18	105.70
26	1H	702	G	O5'-P-OP2	-7.24	99.18	105.70
28	11	52	ARG	NE-CZ-NH2	7.24	123.92	120.30
1	1G	332	G	C5-C6-O6	-7.24	124.25	128.60
1	13	1198	G	O5'-P-OP1	-7.24	99.19	105.70
26	1H	74	A	C6-C5-N7	-7.24	127.23	132.30
26	1H	99	U	N3-C2-O2	-7.24	117.13	122.20
26	1H	1899	G	C4-N9-C1'	-7.24	117.09	126.50
26	14	1325	G	N3-C4-N9	7.24	130.34	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2873	A	C8-N9-C4	-7.24	102.91	105.80
26	1H	199	A	C6-C5-N7	7.24	137.37	132.30
26	1H	762	U	N1-C2-O2	7.23	127.86	122.80
26	1H	2070	G	N1-C2-N2	-7.23	109.69	116.20
26	14	2689	U	P-O3'-C3'	7.23	128.38	119.70
26	1H	129	C	C4-C5-C6	7.23	121.01	117.40
26	14	74	A	C6-N1-C2	7.23	122.94	118.60
26	1H	1157	G	N1-C2-N3	7.23	128.24	123.90
1	1G	315	A	N1-C6-N6	7.23	122.94	118.60
26	14	2829	C	N3-C2-O2	7.23	126.96	121.90
26	1H	1894	C	C6-N1-C2	-7.22	117.41	120.30
1	13	576	G	C8-N9-C1'	-7.22	117.61	127.00
26	1H	785	G	C4-C5-N7	-7.22	107.91	110.80
26	1H	1204	A	C4-C5-C6	7.22	120.61	117.00
26	1H	1672	C	N1-C2-O2	-7.22	114.57	118.90
26	1H	2548	G	C5-C6-N1	7.22	115.11	111.50
1	1G	811	C	C6-N1-C2	-7.22	117.41	120.30
26	14	1309	G	N1-C6-O6	7.22	124.23	119.90
26	1H	2279	G	N3-C2-N2	7.22	124.95	119.90
26	1H	1241	A	C2-N3-C4	-7.22	106.99	110.60
1	13	827	U	C2-N1-C1'	7.21	126.36	117.70
26	1H	2552	U	C4-C5-C6	7.21	124.03	119.70
26	1H	636	G	O5'-P-OP2	7.21	119.36	110.70
26	1H	2577	A	N1-C6-N6	-7.21	114.27	118.60
26	1H	1401	G	C8-N9-C4	-7.21	103.52	106.40
26	14	2870	C	C6-N1-C2	-7.21	117.42	120.30
26	14	215	G	N1-C6-O6	7.21	124.23	119.90
26	1H	675	A	N9-C4-C5	-7.21	102.92	105.80
26	1H	906	G	N1-C6-O6	-7.21	115.57	119.90
26	1H	2599	G	C5-N7-C8	7.21	107.91	104.30
1	13	767	A	O5'-P-OP1	-7.21	99.21	105.70
26	1H	1604	C	N1-C2-O2	-7.21	114.58	118.90
26	1H	1955	U	C5-C4-O4	7.21	130.22	125.90
26	14	561	G	N9-C4-C5	7.21	108.28	105.40
26	1H	1938	A	N1-C6-N6	7.20	122.92	118.60
26	1H	1977	A	C8-N9-C4	7.20	108.68	105.80
26	14	951	C	N1-C2-O2	7.20	123.22	118.90
1	1G	1405	G	O5'-P-OP2	-7.20	99.22	105.70
26	14	2392	A	C5-N7-C8	-7.20	100.30	103.90
26	1H	2867	G	O5'-P-OP1	-7.20	99.22	105.70
26	1H	2688	U	N3-C2-O2	-7.20	117.16	122.20
26	1H	568	U	N3-C2-O2	7.19	127.23	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1142	U	C2-N1-C1'	7.19	126.33	117.70
26	14	1835	G	N1-C6-O6	-7.19	115.58	119.90
26	14	247	G	N1-C6-O6	7.19	124.21	119.90
26	1H	945	A	C5-C6-N1	-7.19	114.11	117.70
26	1H	2871	C	O5'-P-OP2	-7.19	99.23	105.70
26	1H	141	A	O5'-P-OP2	-7.18	99.23	105.70
26	1H	508	G	C6-C5-N7	-7.18	126.09	130.40
26	1H	510	C	N3-C4-C5	-7.18	119.03	121.90
26	14	1272	A	N1-C6-N6	7.18	122.91	118.60
26	1H	330	A	N1-C2-N3	7.18	132.89	129.30
26	1H	1885	A	N7-C8-N9	-7.18	110.21	113.80
26	1H	840	C	O5'-P-OP2	-7.17	99.24	105.70
26	14	133	C	C5-C6-N1	-7.17	117.41	121.00
26	1H	2318	G	N3-C4-N9	-7.17	121.70	126.00
26	1H	2439	A	O5'-P-OP2	-7.17	99.25	105.70
26	14	1773	A	O5'-P-OP1	7.17	119.31	110.70
26	1H	78	A	C2-N3-C4	-7.17	107.02	110.60
26	1H	146	G	C8-N9-C4	7.17	109.27	106.40
26	1H	150	C	O5'-P-OP2	-7.17	99.25	105.70
26	1H	752	A	P-O3'-C3'	7.17	128.30	119.70
26	14	1342	A	N1-C6-N6	7.17	122.90	118.60
26	1H	823	G	C8-N9-C4	7.17	109.27	106.40
26	1H	2311	A	O4'-C1'-N9	7.17	113.93	108.20
26	1H	2430	A	O5'-P-OP2	-7.17	99.25	105.70
26	1H	2546	U	C5-C6-N1	-7.17	119.12	122.70
27	16	41	U	C5-C6-N1	-7.17	119.12	122.70
26	14	1609	A	N1-C2-N3	7.16	132.88	129.30
26	1H	259	G	N1-C6-O6	7.16	124.20	119.90
1	1G	1442	G	C4-N9-C1'	-7.16	117.19	126.50
26	1H	1340	U	N3-C4-O4	7.16	124.41	119.40
26	14	1950	G	C5-N7-C8	-7.16	100.72	104.30
26	1H	587	C	N3-C2-O2	-7.16	116.89	121.90
26	14	2555	U	O5'-P-OP1	-7.16	99.26	105.70
27	1J	30	C	C2-N1-C1'	7.16	126.67	118.80
26	1H	2378	A	N1-C6-N6	7.16	122.89	118.60
26	14	1339	G	O5'-P-OP1	-7.16	99.26	105.70
26	14	2492	U	O5'-P-OP2	7.16	119.29	110.70
26	1H	1204	A	C4-N9-C1'	7.15	139.18	126.30
26	1H	1278	A	N1-C6-N6	7.15	122.89	118.60
26	14	2685	G	C5-C6-O6	-7.15	124.31	128.60
26	14	933	A	N1-C6-N6	7.15	122.89	118.60
26	14	2433	A	N7-C8-N9	7.15	117.38	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	459	U	N3-C2-O2	-7.15	117.19	122.20
26	1H	2429	G	N9-C4-C5	7.15	108.26	105.40
1	13	714	G	O5'-P-OP1	-7.15	99.27	105.70
26	1H	693	C	OP2-P-O3'	7.15	120.92	105.20
26	1H	2018	G	C6-C5-N7	-7.15	126.11	130.40
25	4L	13	A	P-O3'-C3'	7.15	128.28	119.70
1	13	690	G	C8-N9-C4	-7.15	103.54	106.40
26	1H	2507	C	N1-C2-O2	7.15	123.19	118.90
26	14	2703	C	C4-C5-C6	7.15	120.97	117.40
26	1H	2509	G	C8-N9-C4	7.14	109.26	106.40
1	1G	817	C	C6-N1-C2	7.14	123.16	120.30
26	1H	435	C	N1-C2-O2	7.14	123.19	118.90
26	14	790	C	O5'-P-OP2	-7.14	99.27	105.70
26	1H	599	G	N3-C4-N9	7.14	130.28	126.00
26	1H	2617	C	C6-N1-C2	7.14	123.16	120.30
26	1H	1827	C	C5-C6-N1	-7.14	117.43	121.00
26	14	795	C	O5'-P-OP2	-7.14	99.28	105.70
26	14	2872	G	C8-N9-C4	-7.14	103.55	106.40
26	1H	2004	G	OP1-P-OP2	7.14	130.31	119.60
26	14	574	C	N3-C4-N4	-7.14	113.00	118.00
26	14	672	C	O5'-P-OP2	-7.14	99.28	105.70
26	1H	2721	A	N1-C6-N6	7.13	122.88	118.60
26	14	584	C	N3-C4-C5	7.13	124.75	121.90
26	1H	1969	A	N9-C4-C5	7.13	108.65	105.80
1	13	768	A	C6-N1-C2	-7.13	114.32	118.60
26	1H	836	G	C2-N3-C4	7.13	115.47	111.90
26	1H	2031	A	C5-C6-N1	7.13	121.27	117.70
26	14	391	G	N1-C6-O6	7.13	124.18	119.90
26	1H	1602	U	C4-C5-C6	7.13	123.98	119.70
26	1H	448	U	N1-C2-N3	7.13	119.18	114.90
26	1H	908	C	C5-C6-N1	-7.13	117.44	121.00
26	1H	2438	U	C5-C6-N1	-7.13	119.14	122.70
26	14	982	C	C6-N1-C2	-7.12	117.45	120.30
26	1H	2726	U	C5-C6-N1	-7.12	119.14	122.70
1	1G	1417	G	N1-C6-O6	7.12	124.17	119.90
26	1H	825	C	N1-C2-O2	-7.12	114.63	118.90
28	11	122	ASP	CB-CG-OD2	7.12	124.71	118.30
1	13	1354	C	C6-N1-C2	-7.12	117.45	120.30
26	1H	213	A	C8-N9-C4	7.12	108.65	105.80
26	14	1558	A	C2-N3-C4	-7.12	107.04	110.60
1	13	901	A	N1-C2-N3	7.11	132.86	129.30
26	1H	2437	U	C5-C4-O4	7.11	130.17	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1379	A	N1-C6-N6	7.11	122.87	118.60
26	14	1520	U	C5-C4-O4	7.11	130.17	125.90
26	14	2258	C	C5-C4-N4	-7.11	115.22	120.20
26	14	2700	C	C5-C6-N1	-7.11	117.44	121.00
26	14	492	A	O5'-P-OP2	-7.11	99.30	105.70
26	14	1564	C	C5-C4-N4	7.11	125.18	120.20
26	14	1948	G	O5'-P-OP1	-7.11	99.30	105.70
26	1H	859	G	N3-C4-N9	-7.11	121.74	126.00
26	14	1330	C	O5'-P-OP1	-7.11	99.30	105.70
26	14	1261	C	O5'-P-OP1	-7.10	99.31	105.70
26	14	1373	A	C8-N9-C4	7.10	108.64	105.80
26	1H	248	G	O5'-P-OP2	-7.10	99.31	105.70
26	1H	188	G	C6-C5-N7	-7.10	126.14	130.40
26	14	770	G	OP1-P-OP2	-7.10	108.95	119.60
26	14	1247	A	O5'-P-OP2	-7.10	99.31	105.70
26	1H	660	G	N7-C8-N9	7.10	116.65	113.10
26	14	916	G	O5'-P-OP1	-7.10	99.31	105.70
26	1H	2328	A	C6-N1-C2	-7.09	114.34	118.60
1	1G	413	G	C6-C5-N7	7.09	134.66	130.40
26	1H	446	G	C6-C5-N7	-7.09	126.14	130.40
26	14	673	C	O5'-P-OP1	7.09	119.21	110.70
26	14	2707	G	O4'-C1'-N9	7.09	113.87	108.20
1	13	1322	C	C5-C6-N1	7.09	124.54	121.00
1	1G	1485	U	O5'-P-OP2	-7.09	99.32	105.70
26	1H	262	A	C5-C6-N6	-7.08	118.03	123.70
26	1H	1326	U	O5'-P-OP2	-7.08	99.32	105.70
26	1H	950	G	N1-C2-N3	7.08	128.15	123.90
1	1G	442	C	C6-N1-C2	-7.08	117.47	120.30
26	14	2331	G	N1-C6-O6	7.08	124.15	119.90
26	1H	1298	C	C6-N1-C2	-7.08	117.47	120.30
26	1H	2439	A	O4'-C1'-N9	-7.08	102.54	108.20
26	14	1332	G	C8-N9-C4	-7.08	103.57	106.40
26	1H	2010	G	N1-C6-O6	7.08	124.15	119.90
26	14	613	U	N3-C2-O2	-7.08	117.25	122.20
1	1G	332	G	N9-C4-C5	-7.08	102.57	105.40
26	1H	1612	C	C4-C5-C6	7.07	120.94	117.40
26	14	2056	G	C6-N1-C2	-7.07	120.86	125.10
26	1H	628	G	C8-N9-C4	7.07	109.23	106.40
26	1H	1325	G	O5'-P-OP2	7.07	119.19	110.70
26	1H	1595	G	O5'-P-OP1	-7.07	99.33	105.70
26	1H	1616	A	C5-C6-N6	-7.07	118.04	123.70
26	14	74	A	C4-C5-N7	7.07	114.23	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1249	U	N1-C2-O2	-7.07	117.85	122.80
26	1H	919	G	C4-C5-C6	7.07	123.04	118.80
26	14	1241	A	C2-N3-C4	-7.07	107.07	110.60
26	14	945	A	C5-C6-N6	-7.06	118.05	123.70
26	14	1698	A	N9-C4-C5	-7.06	102.97	105.80
26	14	2335	A	O4'-C1'-N9	7.06	113.85	108.20
26	1H	1943	U	O5'-P-OP2	-7.06	99.34	105.70
1	13	580	U	C5-C6-N1	-7.06	119.17	122.70
1	13	1322	C	C6-N1-C1'	-7.06	112.33	120.80
23	2K	21	U	C2-N3-C4	-7.06	122.76	127.00
26	1H	51	G	N7-C8-N9	-7.06	109.57	113.10
26	1H	577	G	OP1-P-OP2	-7.06	109.01	119.60
26	1H	2451	A	N9-C4-C5	7.06	108.62	105.80
26	14	127	A	OP1-P-O3'	7.06	120.73	105.20
26	14	2074	U	O5'-P-OP1	-7.06	99.35	105.70
26	14	861	A	O5'-P-OP1	-7.06	99.35	105.70
26	1H	1658	C	N3-C4-N4	7.06	122.94	118.00
26	1H	432	A	N9-C4-C5	-7.05	102.98	105.80
26	1H	866	A	N7-C8-N9	7.05	117.33	113.80
26	1H	841	A	C5-C6-N6	-7.05	118.06	123.70
26	1H	2351	G	N3-C4-N9	7.05	130.23	126.00
26	14	2584	U	C6-N1-C1'	-7.05	111.33	121.20
26	1H	121	G	C6-N1-C2	-7.05	120.87	125.10
26	1H	78	A	N9-C4-C5	-7.05	102.98	105.80
26	1H	2056	G	N3-C4-N9	7.05	130.23	126.00
26	1H	1361	G	C8-N9-C4	7.05	109.22	106.40
26	1H	2379	G	N1-C6-O6	7.05	124.13	119.90
26	1H	2607	G	C2-N3-C4	-7.04	108.38	111.90
1	13	1189	C	O5'-P-OP2	7.04	119.15	110.70
26	14	2501	C	C2-N1-C1'	-7.04	111.05	118.80
26	1H	598	G	O5'-P-OP2	-7.04	99.36	105.70
26	1H	2031	A	C2-N3-C4	7.04	114.12	110.60
26	14	130	C	N3-C4-C5	7.04	124.72	121.90
26	14	755	C	N1-C2-O2	-7.04	114.67	118.90
26	1H	2701	C	N3-C2-O2	-7.04	116.97	121.90
26	14	1280	G	OP2-P-O3'	7.04	120.69	105.20
26	1H	1699	G	C8-N9-C4	-7.04	103.58	106.40
1	13	910	C	C5-C6-N1	-7.04	117.48	121.00
26	1H	127	A	O5'-P-OP2	-7.04	99.37	105.70
26	1H	950	G	C2-N3-C4	-7.04	108.38	111.90
26	14	1782	C	N3-C2-O2	7.04	126.83	121.90
26	1H	146	G	C4-C5-N7	7.03	113.61	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2331	G	C8-N9-C4	7.03	109.21	106.40
26	14	2378	A	N1-C6-N6	7.03	122.82	118.60
26	1H	2272	U	O5'-P-OP2	-7.03	99.37	105.70
26	1H	214	G	N3-C4-C5	-7.03	125.08	128.60
26	14	2712(A)	A	C8-N9-C4	7.03	108.61	105.80
26	1H	598	G	C6-C5-N7	-7.03	126.18	130.40
26	1H	2048	G	N9-C4-C5	7.03	108.21	105.40
26	14	2361	A	C2-N3-C4	-7.03	107.09	110.60
26	1H	211	A	C8-N9-C4	7.03	108.61	105.80
27	16	99	A	OP1-P-OP2	7.03	130.14	119.60
1	13	865	A	C4-C5-N7	7.02	114.21	110.70
26	14	1623	G	N9-C4-C5	7.02	108.21	105.40
26	1H	631	A	C5-N7-C8	7.02	107.41	103.90
26	1H	1006	C	O5'-P-OP2	7.02	119.13	110.70
26	14	385	C	OP1-P-OP2	7.02	130.13	119.60
26	1H	1187	G	OP2-P-O3'	7.02	120.64	105.20
26	1H	1602	U	C5-C6-N1	-7.02	119.19	122.70
26	1H	1010	A	C8-N9-C4	7.02	108.61	105.80
26	1H	71	A	C6-C5-N7	-7.02	127.39	132.30
26	1H	1940	U	N3-C4-O4	7.02	124.31	119.40
26	1H	1277	G	C2-N3-C4	-7.02	108.39	111.90
26	1H	2871	C	O5'-P-OP1	7.02	119.12	110.70
1	1G	11	G	O5'-P-OP1	-7.02	99.39	105.70
26	1H	816	C	N3-C4-C5	-7.01	119.09	121.90
26	1H	1402	C	C6-N1-C2	-7.01	117.49	120.30
26	14	752	A	C6-N1-C2	-7.01	114.39	118.60
26	14	2702	U	O5'-P-OP2	-7.01	99.39	105.70
26	14	774	A	C4-C5-N7	7.01	114.21	110.70
26	1H	2199	A	N1-C6-N6	-7.01	114.39	118.60
26	1H	2368	C	O5'-P-OP1	-7.01	99.39	105.70
26	14	2307	G	C4-N9-C1'	7.01	135.61	126.50
26	1H	40	C	O5'-P-OP2	-7.01	99.39	105.70
26	1H	948	G	C4-C5-N7	7.01	113.60	110.80
26	14	1673	U	O5'-P-OP2	7.01	119.11	110.70
26	1H	2497	A	C4-C5-C6	7.01	120.50	117.00
26	14	736	C	N3-C2-O2	7.01	126.80	121.90
26	14	1307	A	C2-N3-C4	-7.01	107.10	110.60
1	13	5	U	P-O3'-C3'	7.00	128.11	119.70
26	1H	1191	G	OP1-P-OP2	7.00	130.11	119.60
26	14	1934	C	O5'-P-OP2	-7.00	99.40	105.70
26	1H	2025	C	C6-N1-C2	-7.00	117.50	120.30
26	14	193	U	C5-C6-N1	-7.00	119.20	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	946	G	O5'-P-OP1	-7.00	99.40	105.70
26	1H	131	G	C5-C6-O6	-7.00	124.40	128.60
26	1H	1604	C	O5'-P-OP1	-7.00	99.40	105.70
26	1H	2703	C	C6-N1-C2	-7.00	117.50	120.30
27	16	65	C	N1-C2-O2	7.00	123.10	118.90
26	14	2518	A	C5-C6-N6	-7.00	118.10	123.70
1	1G	1286	A	N7-C8-N9	7.00	117.30	113.80
26	1H	1681	G	N1-C6-O6	6.99	124.10	119.90
26	1H	52	A	N1-C2-N3	-6.99	125.80	129.30
1	13	1128	C	C2-N1-C1'	6.99	126.49	118.80
26	1H	263	C	O5'-P-OP2	-6.99	99.41	105.70
26	1H	507	A	C5-C6-N6	-6.99	118.11	123.70
26	1H	989	G	C5-C6-O6	-6.99	124.41	128.60
26	1H	1496	A	C6-C5-N7	-6.99	127.41	132.30
26	14	2346	A	O4'-C1'-N9	6.99	113.79	108.20
26	14	1332	G	N3-C2-N2	-6.99	115.01	119.90
26	1H	1312	U	C5-C4-O4	6.99	130.09	125.90
26	1H	1363	C	O5'-P-OP2	-6.99	99.41	105.70
26	14	841	A	C2-N3-C4	-6.99	107.11	110.60
26	1H	686	G	N7-C8-N9	-6.98	109.61	113.10
1	13	1049	U	C2-N1-C1'	-6.98	109.32	117.70
11	2I	102	GLY	N-CA-C	-6.98	95.65	113.10
1	13	47	C	N1-C2-O2	-6.98	114.71	118.90
1	13	982	U	N3-C2-O2	-6.98	117.31	122.20
26	1H	785	G	N3-C2-N2	-6.98	115.02	119.90
26	1H	915	C	N1-C2-O2	6.98	123.09	118.90
26	1H	2259	G	OP1-P-OP2	-6.97	109.14	119.60
26	14	451	C	O5'-P-OP1	-6.97	99.42	105.70
26	14	456	C	N1-C2-O2	-6.97	114.72	118.90
26	1H	1300	U	N1-C2-N3	6.97	119.08	114.90
1	1G	266	G	P-O3'-C3'	6.97	128.07	119.70
26	1H	699	A	N1-C2-N3	-6.97	125.81	129.30
27	16	101	A	C2-N3-C4	-6.97	107.11	110.60
26	1H	265	A	C8-N9-C4	-6.97	103.01	105.80
26	1H	2375	G	N1-C6-O6	6.97	124.08	119.90
26	14	133	C	N3-C4-C5	6.97	124.69	121.90
26	1H	2330	G	C4-C5-N7	6.97	113.59	110.80
26	1H	2689	U	C5-C6-N1	-6.97	119.22	122.70
26	1H	74	A	C4-C5-N7	6.96	114.18	110.70
26	1H	530	G	N3-C4-N9	-6.96	121.82	126.00
26	1H	599	G	N1-C2-N2	-6.96	109.93	116.20
26	14	48	G	OP2-P-O3'	6.96	120.52	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	165	U	C2-N1-C1'	6.96	126.06	117.70
26	14	471	A	C2-N3-C4	-6.96	107.12	110.60
1	13	1435	G	C8-N9-C4	6.96	109.19	106.40
26	1H	784	A	N1-C6-N6	-6.96	114.42	118.60
26	1H	1613	G	C5-C6-O6	6.96	132.78	128.60
26	1H	2506	U	N1-C2-O2	6.96	127.67	122.80
26	14	1698	A	C5-C6-N6	-6.96	118.13	123.70
26	1H	1314	C	O5'-P-OP2	-6.96	99.44	105.70
26	1H	2310	A	N7-C8-N9	6.96	117.28	113.80
26	14	2351	G	N3-C4-C5	-6.96	125.12	128.60
1	13	19	C	C6-N1-C2	-6.96	117.52	120.30
26	1H	2521	C	C5-C6-N1	-6.96	117.52	121.00
26	14	935	C	C5-C6-N1	-6.96	117.52	121.00
26	14	1989	G	N3-C2-N2	-6.96	115.03	119.90
26	1H	528	A	C8-N9-C1'	6.96	140.22	127.70
26	1H	774	A	N7-C8-N9	6.96	117.28	113.80
26	14	265	A	C6-C5-N7	-6.96	127.43	132.30
26	14	2249	U	C6-N1-C2	-6.96	116.83	121.00
26	1H	2513	G	O5'-P-OP2	-6.95	99.44	105.70
1	1G	904	C	N1-C2-O2	-6.95	114.73	118.90
26	1H	1437	C	N3-C2-O2	-6.95	117.03	121.90
26	1H	839	U	OP1-P-OP2	6.95	130.02	119.60
26	1H	432	A	C4-C5-N7	6.95	114.17	110.70
1	1G	266	G	C8-N9-C4	-6.95	103.62	106.40
26	14	1929	G	OP1-P-OP2	6.95	130.02	119.60
26	14	2272	U	N3-C4-O4	-6.95	114.54	119.40
26	14	1954	G	C8-N9-C1'	6.94	136.03	127.00
26	1H	134	C	C5-C6-N1	-6.94	117.53	121.00
26	1H	1624	G	O5'-P-OP2	-6.94	99.45	105.70
26	1H	2585	U	N3-C4-O4	-6.94	114.54	119.40
26	1H	2638	G	N3-C2-N2	6.94	124.76	119.90
26	14	774	A	N1-C6-N6	6.94	122.77	118.60
26	14	2554	U	O5'-P-OP1	-6.94	99.45	105.70
26	1H	239	U	N3-C4-O4	-6.94	114.54	119.40
26	1H	1153	C	O5'-P-OP2	-6.94	99.46	105.70
26	14	1441	G	N7-C8-N9	-6.94	109.63	113.10
26	1H	1296	G	O5'-P-OP2	-6.94	99.46	105.70
26	1H	1598	C	OP1-P-O3'	6.94	120.46	105.20
26	1H	236	C	C5-C6-N1	-6.93	117.53	121.00
26	1H	2006	C	C6-N1-C2	6.93	123.07	120.30
26	14	197	A	C6-N1-C2	-6.93	114.44	118.60
26	14	330	A	C6-C5-N7	-6.93	127.44	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	784	A	N1-C6-N6	-6.93	114.44	118.60
26	1H	583	G	OP1-P-O3'	6.93	120.44	105.20
26	1H	1928	A	C5-C6-N1	6.93	121.17	117.70
26	14	2697	G	C2-N3-C4	-6.93	108.44	111.90
26	1H	1229(A)	G	C6-C5-N7	-6.93	126.24	130.40
26	1H	2068	U	C5-C4-O4	6.93	130.06	125.90
26	1H	918	A	O5'-P-OP2	6.92	119.01	110.70
26	1H	2371	G	C5-C6-N1	-6.92	108.04	111.50
26	1H	2827	C	C5-C4-N4	-6.92	115.35	120.20
26	14	776	G	N1-C6-O6	6.92	124.06	119.90
26	1H	613	U	N1-C2-O2	6.92	127.65	122.80
26	1H	208	C	OP2-P-O3'	6.92	120.43	105.20
26	1H	2253	G	O5'-P-OP2	-6.92	99.47	105.70
27	16	7	G	N7-C8-N9	6.92	116.56	113.10
26	1H	1594	G	C8-N9-C4	-6.92	103.63	106.40
26	14	1616	A	C6-C5-N7	-6.92	127.46	132.30
26	1H	1225	C	C5-C6-N1	-6.92	117.54	121.00
26	1H	52	A	O5'-P-OP2	-6.92	99.48	105.70
26	1H	1834	U	N3-C2-O2	-6.92	117.36	122.20
26	1H	2277	G	C4-C5-N7	-6.92	108.03	110.80
26	14	807	U	N3-C4-O4	6.92	124.24	119.40
26	1H	774	A	C4-N9-C1'	-6.92	113.85	126.30
26	14	2272	U	N3-C2-O2	-6.92	117.36	122.20
1	13	974	A	C4-C5-N7	6.91	114.16	110.70
26	1H	786	C	C5-C6-N1	-6.91	117.54	121.00
26	14	140	A	C2-N3-C4	-6.91	107.14	110.60
26	1H	1336	A	N1-C6-N6	-6.91	114.45	118.60
26	14	2278	A	N1-C6-N6	-6.91	114.45	118.60
26	1H	1241	A	C6-C5-N7	-6.91	127.46	132.30
26	1H	1673	U	C5-C6-N1	-6.91	119.25	122.70
26	14	2707	G	C5-C6-N1	6.91	114.95	111.50
26	1H	1275	A	N1-C6-N6	6.91	122.74	118.60
26	1H	1332	G	C4-C5-N7	6.91	113.56	110.80
26	1H	1237	A	OP1-P-OP2	-6.90	109.24	119.60
26	1H	2032	G	N1-C2-N3	6.90	128.04	123.90
26	14	1482	U	C5-C4-O4	6.90	130.04	125.90
26	1H	2697	G	OP1-P-OP2	6.90	129.95	119.60
1	13	1525	G	N3-C4-C5	6.90	132.05	128.60
26	14	676	A	C4-C5-N7	6.90	114.15	110.70
26	1H	671	C	C2-N1-C1'	-6.90	111.21	118.80
26	1H	645	C	C5-C6-N1	6.90	124.45	121.00
26	14	2464	C	C6-N1-C2	6.90	123.06	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	827	U	N3-C2-O2	-6.89	117.37	122.20
26	14	512	G	O4'-C1'-N9	6.89	113.72	108.20
26	14	1616	A	O4'-C1'-N9	6.89	113.72	108.20
26	1H	122	G	C6-C5-N7	-6.89	126.26	130.40
26	1H	284	U	O5'-P-OP1	-6.89	99.50	105.70
39	A8	24	LEU	CA-CB-CG	6.89	131.15	115.30
52	N8	41	PRO	C-N-CD	-6.89	105.44	120.60
26	1H	966	G	C8-N9-C4	6.89	109.16	106.40
26	1H	1353	A	N1-C2-N3	6.89	132.75	129.30
26	1H	468	G	C5-C6-O6	-6.89	124.47	128.60
26	1H	1249	U	N3-C2-O2	6.89	127.02	122.20
26	14	735	A	N7-C8-N9	-6.89	110.36	113.80
26	14	787	U	O5'-P-OP1	6.89	118.97	110.70
26	1H	2713	A	C5-C6-N1	-6.89	114.26	117.70
27	16	5	C	C2-N3-C4	-6.89	116.46	119.90
26	1H	1340	U	C5-C4-O4	-6.88	121.77	125.90
26	14	2286	A	N7-C8-N9	6.88	117.24	113.80
27	16	24	G	N3-C4-C5	-6.88	125.16	128.60
26	1H	1303	G	O5'-P-OP2	-6.88	99.51	105.70
26	14	71	A	C5-C6-N6	-6.88	118.20	123.70
1	13	1395	C	C6-N1-C2	-6.88	117.55	120.30
26	1H	982	C	O5'-P-OP2	-6.88	99.51	105.70
1	13	896	C	C5-C6-N1	-6.87	117.56	121.00
26	1H	265	A	O4'-C1'-N9	6.87	113.70	108.20
26	1H	470	A	C4-C5-N7	6.87	114.14	110.70
26	1H	1299	G	C5-C6-O6	-6.87	124.48	128.60
26	1H	1626	G	N3-C2-N2	-6.87	115.09	119.90
26	1H	2287	A	N1-C2-N3	6.87	132.74	129.30
26	14	991	C	C6-N1-C2	-6.87	117.55	120.30
26	14	2326	C	N3-C4-C5	-6.87	119.15	121.90
1	13	586	C	C6-N1-C2	6.87	123.05	120.30
26	1H	802	A	N1-C6-N6	6.87	122.72	118.60
26	1H	1428	C	N3-C4-N4	-6.87	113.19	118.00
26	14	1332	G	OP1-P-O3'	6.87	120.32	105.20
26	14	1304	C	N1-C2-O2	6.87	123.02	118.90
26	14	2463	C	N3-C2-O2	6.87	126.71	121.90
26	1H	596	G	N1-C6-O6	6.87	124.02	119.90
26	1H	1931	U	C2-N3-C4	-6.87	122.88	127.00
1	1G	1260	C	C5-C6-N1	6.87	124.43	121.00
26	14	1314	C	C5-C6-N1	6.87	124.43	121.00
26	1H	246	C	C5-C6-N1	-6.86	117.57	121.00
26	1H	684	G	N9-C4-C5	6.86	108.14	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1604	C	O5'-P-OP1	-6.86	99.52	105.70
32	59	153	LYS	C-N-CD	6.86	142.81	128.40
26	1H	946	G	N7-C8-N9	-6.86	109.67	113.10
26	1H	2444	G	N3-C2-N2	-6.86	115.10	119.90
26	14	1760	A	C8-N9-C4	6.86	108.54	105.80
1	1G	1200	C	C2-N1-C1'	6.86	126.34	118.80
26	14	1276	A	N9-C4-C5	-6.86	103.06	105.80
26	14	1312	U	O5'-P-OP1	-6.86	99.53	105.70
26	1H	71	A	N3-C4-C5	6.86	131.60	126.80
26	1H	838	C	C4-C5-C6	6.86	120.83	117.40
26	14	965	C	C6-N1-C2	-6.86	117.56	120.30
26	14	1786	A	N3-C4-C5	6.86	131.60	126.80
26	1H	330	A	N1-C6-N6	6.85	122.71	118.60
26	1H	1247	A	C6-N1-C2	-6.85	114.49	118.60
26	14	1261	C	N3-C4-C5	6.85	124.64	121.90
36	35	65	ARG	N-CA-C	-6.85	92.50	111.00
1	13	899	C	N3-C2-O2	6.85	126.69	121.90
26	1H	449	A	N1-C6-N6	-6.85	114.49	118.60
26	1H	2501	C	C6-N1-C2	6.85	123.04	120.30
1	1G	690	G	N7-C8-N9	6.85	116.52	113.10
1	13	12	U	C6-N1-C2	-6.85	116.89	121.00
26	1H	1213	A	N1-C6-N6	6.85	122.71	118.60
26	1H	1372	U	C4-C5-C6	6.85	123.81	119.70
26	14	574	C	C2-N1-C1'	-6.85	111.27	118.80
26	14	2307	G	N7-C8-N9	6.85	116.52	113.10
1	1G	884	U	N3-C2-O2	-6.84	117.41	122.20
26	14	1386	C	N3-C4-C5	-6.84	119.16	121.90
1	1G	913	A	P-O3'-C3'	6.84	127.91	119.70
26	14	855	G	C8-N9-C4	-6.84	103.66	106.40
26	1H	335	C	C5-C6-N1	6.84	124.42	121.00
26	1H	486	C	O5'-P-OP2	6.84	118.91	110.70
26	1H	793	A	O5'-P-OP2	-6.84	99.54	105.70
26	1H	942	G	N3-C2-N2	-6.84	115.11	119.90
26	1H	2447	G	C4-C5-N7	-6.84	108.06	110.80
26	14	990	A	O5'-P-OP1	-6.84	99.55	105.70
27	16	60	C	C6-N1-C2	-6.84	117.56	120.30
26	1H	130	C	C2-N3-C4	-6.84	116.48	119.90
26	1H	593	G	O5'-P-OP2	-6.84	99.55	105.70
26	1H	624	C	O5'-P-OP2	6.84	118.90	110.70
26	1H	946	G	C8-N9-C4	6.84	109.14	106.40
26	1H	1789	A	C6-N1-C2	-6.84	114.50	118.60
27	16	47	C	C5-C6-N1	-6.84	117.58	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	188	G	N1-C6-O6	6.84	124.00	119.90
26	14	1318	C	C6-N1-C2	-6.84	117.56	120.30
26	14	2701	C	P-O3'-C3'	6.84	127.90	119.70
26	14	127	A	C5-C6-N1	6.83	121.12	117.70
1	13	813	U	C4-C5-C6	-6.83	115.60	119.70
26	1H	598	G	C4-C5-C6	6.83	122.90	118.80
26	1H	1215	G	C2-N3-C4	6.83	115.32	111.90
26	1H	1648	C	N1-C2-O2	-6.83	114.80	118.90
1	1G	121	C	N1-C2-O2	6.83	123.00	118.90
26	14	2281	C	C6-N1-C2	-6.83	117.57	120.30
26	1H	34	C	O5'-P-OP2	6.83	118.90	110.70
26	14	530	G	N1-C6-O6	6.83	124.00	119.90
26	1H	834	C	OP2-P-O3'	6.83	120.21	105.20
26	14	56	A	N1-C6-N6	-6.83	114.50	118.60
26	14	621	A	N7-C8-N9	6.83	117.21	113.80
26	1H	2286	A	N7-C8-N9	6.82	117.21	113.80
26	1H	2246	G	C5-N7-C8	6.82	107.71	104.30
26	1H	2342	C	C5-C6-N1	6.82	124.41	121.00
26	14	2307	G	C8-N9-C4	-6.82	103.67	106.40
1	13	115	G	N3-C4-C5	-6.82	125.19	128.60
26	1H	2708	G	O5'-P-OP2	-6.82	99.56	105.70
26	14	916	G	O5'-P-OP2	6.82	118.88	110.70
26	1H	398	G	O5'-P-OP2	-6.82	99.57	105.70
26	1H	761	A	O5'-P-OP2	-6.82	99.57	105.70
26	1H	1022	G	N3-C2-N2	-6.82	115.13	119.90
26	1H	1754	C	N3-C4-C5	-6.82	119.17	121.90
26	1H	2502	G	O5'-P-OP1	-6.82	99.57	105.70
26	1H	2830	G	N7-C8-N9	6.82	116.51	113.10
26	1H	391	G	N1-C2-N3	6.81	127.99	123.90
1	1G	862	C	N3-C2-O2	-6.81	117.13	121.90
26	14	2359	C	N3-C4-N4	-6.81	113.23	118.00
26	14	2607	G	N3-C4-N9	6.81	130.09	126.00
26	1H	1410	G	C4-N9-C1'	-6.81	117.65	126.50
43	E8	51	LEU	CA-CB-CG	6.81	130.97	115.30
26	14	848	G	C8-N9-C4	-6.81	103.68	106.40
26	1H	1266	G	C5-C6-O6	-6.81	124.52	128.60
26	14	71	A	O4'-C1'-N9	-6.81	102.75	108.20
26	14	265	A	N1-C6-N6	6.81	122.69	118.60
26	14	1782	C	N3-C4-N4	6.81	122.77	118.00
26	14	2314	C	C6-N1-C2	-6.81	117.58	120.30
26	14	2873	A	C5-C6-N1	-6.81	114.30	117.70
27	1J	14	U	O5'-P-OP2	-6.81	99.57	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1302	A	OP1-P-OP2	6.81	129.81	119.60
1	13	1322	C	N1-C2-O2	6.81	122.98	118.90
1	13	507	C	C6-N1-C2	-6.80	117.58	120.30
26	1H	2070	G	O5'-P-OP1	6.80	118.86	110.70
1	13	897	C	C5-C6-N1	-6.80	117.60	121.00
26	1H	1322	A	C5-N7-C8	-6.80	100.50	103.90
26	1H	2638	G	N3-C4-N9	6.80	130.08	126.00
1	1G	534	U	N3-C2-O2	-6.80	117.44	122.20
26	14	2005	A	O5'-P-OP2	-6.80	99.58	105.70
26	14	2685	G	N1-C6-O6	6.80	123.98	119.90
24	3K	35	A	O5'-P-OP2	-6.80	99.58	105.70
26	1H	1971	A	C6-N1-C2	-6.80	114.52	118.60
26	14	1616	A	N3-C4-C5	6.80	131.56	126.80
26	14	1496	A	C6-C5-N7	-6.79	127.54	132.30
1	13	1158	C	N3-C2-O2	-6.79	117.14	121.90
26	1H	845	G	P-O3'-C3'	6.79	127.85	119.70
26	14	676	A	OP1-P-OP2	6.79	129.79	119.60
26	14	953	A	N1-C6-N6	6.79	122.68	118.60
26	14	1251	C	OP1-P-OP2	6.79	129.79	119.60
26	14	2606	C	OP1-P-OP2	6.79	129.79	119.60
26	1H	1021	A	C8-N9-C4	-6.79	103.08	105.80
26	14	2059	A	O4'-C1'-N9	6.79	113.63	108.20
26	1H	1201	C	C5-C4-N4	-6.79	115.45	120.20
26	14	954	G	C4-C5-N7	-6.79	108.08	110.80
26	14	1379	A	N9-C1'-C2'	6.79	122.83	114.00
1	13	422	C	P-O3'-C3'	6.79	127.84	119.70
26	1H	682	G	C8-N9-C4	6.79	109.11	106.40
26	14	2332	U	N3-C4-O4	-6.79	114.65	119.40
26	14	2061	G	O5'-P-OP2	-6.79	99.59	105.70
1	13	496	A	C8-N9-C4	-6.78	103.09	105.80
26	1H	1817	G	N7-C8-N9	-6.78	109.71	113.10
26	1H	375	C	O5'-P-OP2	-6.78	99.60	105.70
26	1H	1444	G	N1-C6-O6	-6.78	115.83	119.90
45	C5	103	GLY	N-CA-C	6.78	130.06	113.10
26	1H	940	G	C6-N1-C2	-6.78	121.03	125.10
26	1H	1558	A	C5-C6-N6	-6.78	118.28	123.70
1	1G	885	G	C8-N9-C4	6.78	109.11	106.40
26	14	684	G	C8-N9-C4	-6.78	103.69	106.40
26	1H	508	G	C5-N7-C8	-6.78	100.91	104.30
26	1H	598	G	N1-C6-O6	6.78	123.97	119.90
26	1H	684	G	C8-N9-C4	-6.78	103.69	106.40
26	1H	1699	G	O4'-C1'-N9	6.78	113.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	798	G	C5-C6-O6	-6.78	124.53	128.60
26	14	1241	A	C5-C6-N1	-6.78	114.31	117.70
1	13	1505	G	OP1-P-OP2	-6.77	109.44	119.60
26	1H	199	A	C4-C5-C6	-6.77	113.61	117.00
26	14	945	A	C5-C6-N1	-6.77	114.31	117.70
26	1H	267	C	N3-C4-C5	6.77	124.61	121.90
26	14	209	C	N3-C4-C5	6.77	124.61	121.90
26	1H	2591	C	O5'-P-OP2	6.77	118.82	110.70
26	14	1623	G	C8-N9-C1'	6.77	135.80	127.00
26	1H	142	G	N3-C4-N9	-6.77	121.94	126.00
26	1H	232	G	O5'-P-OP2	-6.77	99.61	105.70
5	42	31	LEU	CA-CB-CG	6.77	130.86	115.30
26	1H	2466	C	C6-N1-C2	6.77	123.01	120.30
26	14	775	G	N3-C4-C5	-6.77	125.22	128.60
26	1H	448	U	C5-C6-N1	-6.76	119.32	122.70
1	1G	697	U	O5'-P-OP2	-6.76	99.61	105.70
26	1H	1780	A	N1-C6-N6	-6.76	114.54	118.60
26	1H	2439	A	N1-C6-N6	6.76	122.66	118.60
26	1H	676	A	C6-N1-C2	6.76	122.66	118.60
26	14	1349	A	C5-N7-C8	-6.76	100.52	103.90
1	13	328	C	N1-C2-O2	6.76	122.95	118.90
26	1H	1299	G	C4-C5-N7	6.76	113.50	110.80
26	1H	1621	U	N3-C4-O4	6.76	124.13	119.40
26	1H	2441	C	N3-C4-N4	-6.76	113.27	118.00
26	14	2429	G	O5'-P-OP1	6.76	118.81	110.70
26	1H	465	G	C5-C6-N1	-6.75	108.12	111.50
26	1H	931	G	N3-C4-C5	-6.75	125.22	128.60
26	1H	1162	G	N7-C8-N9	6.75	116.48	113.10
1	1G	1314	C	C6-N1-C2	-6.75	117.60	120.30
26	14	786	C	N3-C4-C5	6.75	124.60	121.90
26	14	2681	C	N3-C2-O2	-6.75	117.17	121.90
26	1H	452	G	C2-N3-C4	6.75	115.28	111.90
26	1H	2856	C	C6-N1-C2	-6.75	117.60	120.30
26	14	2329	G	C5-C6-N1	6.75	114.88	111.50
26	1H	828	U	N3-C4-O4	-6.75	114.67	119.40
26	1H	1924	C	N3-C2-O2	-6.75	117.17	121.90
26	14	1600	C	C6-N1-C2	6.75	123.00	120.30
26	1H	1157	G	N1-C6-O6	6.75	123.95	119.90
26	14	1397	U	C5-C4-O4	6.75	129.95	125.90
26	1H	2246	G	C4-C5-N7	-6.75	108.10	110.80
27	16	44	G	C6-C5-N7	6.75	134.45	130.40
26	1H	673	C	OP1-P-OP2	-6.75	109.48	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1972	A	OP1-P-OP2	-6.75	109.48	119.60
26	1H	1249	U	C2-N3-C4	-6.75	122.95	127.00
26	1H	210	C	N3-C4-C5	6.74	124.60	121.90
26	1H	1849	G	O5'-P-OP1	-6.74	99.63	105.70
26	14	768	G	OP1-P-OP2	6.74	129.72	119.60
26	14	79	G	C5-C6-O6	-6.74	124.56	128.60
26	1H	1673	U	C2-N1-C1'	-6.74	109.61	117.70
26	14	467	G	O5'-P-OP2	-6.74	99.64	105.70
26	1H	1225	C	OP1-P-OP2	6.74	129.71	119.60
26	1H	2435	A	N7-C8-N9	6.73	117.17	113.80
26	1H	94	G	C5-C6-O6	-6.73	124.56	128.60
26	1H	1607	C	C2-N1-C1'	6.73	126.21	118.80
26	1H	2433	A	C4-C5-C6	6.73	120.37	117.00
26	1H	2083	G	C2-N3-C4	-6.73	108.54	111.90
26	1H	675	A	C5-N7-C8	-6.73	100.54	103.90
26	1H	1257	C	N1-C2-N3	6.73	123.91	119.20
26	1H	1940	U	N1-C2-N3	6.73	118.94	114.90
26	1H	2620	C	N1-C2-O2	-6.73	114.86	118.90
26	14	827	U	N1-C2-O2	-6.73	118.09	122.80
1	13	912	C	C6-N1-C2	6.73	122.99	120.30
14	5I	27	CYS	CA-CB-SG	-6.73	101.89	114.00
26	1H	978	G	OP1-P-O3'	6.73	120.00	105.20
26	1H	205	G	C8-N9-C4	6.72	109.09	106.40
26	1H	2283	C	O5'-P-OP2	-6.72	99.65	105.70
26	14	1366	A	C5-C6-N6	-6.72	118.32	123.70
26	14	1696	G	O5'-P-OP2	-6.72	99.65	105.70
26	1H	1888	G	N3-C4-C5	-6.72	125.24	128.60
26	1H	2441	C	C5-C4-N4	6.72	124.91	120.20
26	1H	2779	U	C2-N3-C4	-6.72	122.97	127.00
26	14	1496	A	C8-N9-C4	-6.72	103.11	105.80
26	14	1826	G	N7-C8-N9	-6.72	109.74	113.10
23	2K	21	U	N3-C2-O2	-6.72	117.50	122.20
26	1H	2298	A	O5'-P-OP2	-6.72	99.65	105.70
26	14	530	G	C4-C5-N7	6.72	113.49	110.80
26	1H	1337	G	OP1-P-O3'	6.72	119.98	105.20
27	16	87	G	C8-N9-C4	6.72	109.09	106.40
26	1H	971	C	N3-C4-C5	-6.72	119.21	121.90
26	14	802	A	C6-N1-C2	-6.72	114.57	118.60
26	14	2029	G	O5'-P-OP1	-6.72	99.66	105.70
26	1H	778	G	C2-N3-C4	-6.71	108.54	111.90
26	1H	2690	C	N3-C4-C5	-6.71	119.21	121.90
26	14	2217	G	C4-C5-C6	6.71	122.83	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2324	C	N3-C4-C5	6.71	124.59	121.90
26	14	2042	A	C8-N9-C4	6.71	108.48	105.80
26	1H	862	G	O5'-P-OP2	-6.71	99.66	105.70
26	1H	2296	U	N3-C4-O4	6.71	124.10	119.40
26	1H	2709	G	O5'-P-OP1	6.71	118.75	110.70
26	1H	2011	U	N3-C2-O2	6.71	126.90	122.20
26	1H	2082	A	C6-N1-C2	-6.71	114.57	118.60
26	14	566	U	C5-C6-N1	-6.71	119.35	122.70
26	14	2512	C	C6-N1-C2	6.71	122.98	120.30
26	1H	1604	C	O5'-P-OP2	6.71	118.75	110.70
55	Q8	28	GLY	N-CA-C	6.70	129.86	113.10
26	1H	2363	C	C6-N1-C2	6.70	122.98	120.30
26	14	2490	G	C8-N9-C4	-6.70	103.72	106.40
26	1H	2502	G	C8-N9-C4	-6.70	103.72	106.40
26	14	1694	C	N1-C2-O2	6.70	122.92	118.90
26	1H	146	G	N9-C4-C5	-6.70	102.72	105.40
26	1H	188	G	C4-C5-N7	6.70	113.48	110.80
26	1H	415	A	N1-C6-N6	6.70	122.62	118.60
26	1H	1347	G	N1-C6-O6	6.70	123.92	119.90
26	1H	1356	G	N1-C6-O6	6.70	123.92	119.90
1	1G	1518	A	O5'-P-OP1	-6.70	99.67	105.70
26	14	1141	U	P-O3'-C3'	6.70	127.74	119.70
26	14	1625	C	O5'-P-OP2	-6.70	99.67	105.70
26	14	2702	U	N1-C2-O2	6.70	127.49	122.80
26	1H	732	C	N1-C2-O2	-6.70	114.88	118.90
26	1H	777	A	N1-C2-N3	6.70	132.65	129.30
26	1H	1006	C	C6-N1-C2	6.70	122.98	120.30
27	16	101	A	C8-N9-C4	6.70	108.48	105.80
26	14	2593	U	OP1-P-OP2	-6.70	109.56	119.60
1	1G	894	G	C4-C5-N7	6.69	113.48	110.80
26	1H	609	A	C8-N9-C4	6.69	108.48	105.80
26	1H	1348	G	OP1-P-O3'	6.69	119.92	105.20
26	1H	2823	A	C8-N9-C4	-6.69	103.12	105.80
1	13	932	C	C6-N1-C2	-6.69	117.62	120.30
1	13	974	A	O4'-C1'-N9	6.69	113.55	108.20
26	1H	2541	A	O5'-P-OP1	-6.69	99.68	105.70
26	14	918	A	O5'-P-OP1	-6.69	99.68	105.70
26	1H	1253	A	N7-C8-N9	-6.69	110.46	113.80
26	1H	2243	U	OP2-P-O3'	6.69	119.91	105.20
26	14	2286	A	C6-C5-N7	-6.69	127.62	132.30
26	14	2591	C	O5'-P-OP2	-6.69	99.68	105.70
26	1H	1619	G	N3-C4-C5	-6.69	125.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	51	G	N9-C4-C5	-6.68	102.73	105.40
26	1H	729	G	C8-N9-C4	-6.68	103.73	106.40
1	1G	32	A	C8-N9-C4	-6.68	103.13	105.80
26	14	639	U	C5-C4-O4	6.68	129.91	125.90
26	14	681	G	C8-N9-C1'	-6.68	118.31	127.00
26	14	2547	U	O5'-P-OP1	6.68	118.72	110.70
26	1H	1819	A	O5'-P-OP1	-6.68	99.69	105.70
26	1H	2782	G	N1-C6-O6	6.68	123.91	119.90
26	14	1571	A	C5-C6-N1	6.68	121.04	117.70
1	13	582	U	N3-C4-C5	6.68	118.61	114.60
26	14	2585	U	C2-N1-C1'	6.68	125.72	117.70
26	1H	371	A	C5-C6-N6	-6.68	118.36	123.70
26	1H	1159	U	N3-C2-O2	-6.68	117.53	122.20
26	14	134	C	C6-N1-C2	6.68	122.97	120.30
26	1H	2485	G	C2-N3-C4	-6.68	108.56	111.90
26	1H	2620	C	C6-N1-C2	6.68	122.97	120.30
22	1K	74	C	C6-N1-C1'	-6.68	112.79	120.80
26	1H	72	U	O5'-P-OP2	-6.67	99.69	105.70
26	1H	928	G	N3-C4-C5	6.67	131.94	128.60
26	1H	1759	A	O5'-P-OP1	-6.67	99.69	105.70
28	11	111	LEU	CA-CB-CG	6.67	130.65	115.30
26	14	1815	A	OP1-P-O3'	6.67	119.88	105.20
26	1H	1378	A	O5'-P-OP1	-6.67	99.69	105.70
26	1H	2566	A	C8-N9-C4	-6.67	103.13	105.80
26	14	2087	G	N7-C8-N9	-6.67	109.76	113.10
1	13	892	A	N1-C6-N6	6.67	122.60	118.60
26	1H	680	G	C5-C6-O6	-6.67	124.60	128.60
26	14	2495	G	C5-C6-N1	-6.67	108.17	111.50
26	1H	1528	A	C5-N7-C8	-6.67	100.56	103.90
26	1H	62	C	C5-C6-N1	-6.67	117.67	121.00
26	1H	396	G	N1-C6-O6	6.67	123.90	119.90
26	14	2267	A	OP1-P-OP2	6.67	129.60	119.60
26	1H	2330	G	C6-C5-N7	-6.67	126.40	130.40
26	1H	2665	A	N1-C2-N3	6.67	132.63	129.30
26	1H	2672	G	C8-N9-C4	-6.67	103.73	106.40
26	1H	2595	G	N9-C4-C5	-6.67	102.73	105.40
26	14	1344	G	N1-C6-O6	6.67	123.90	119.90
26	1H	470	A	C5-N7-C8	-6.66	100.57	103.90
26	1H	691	C	N3-C2-O2	6.66	126.56	121.90
26	1H	1385	G	N3-C4-N9	-6.66	122.00	126.00
26	1H	2373	G	N1-C2-N3	6.66	127.90	123.90
26	1H	2775	A	N9-C4-C5	-6.66	103.13	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1955	U	N1-C2-N3	6.66	118.90	114.90
26	14	2518	A	N7-C8-N9	6.66	117.13	113.80
1	13	1322	C	O5'-P-OP2	-6.66	99.70	105.70
26	1H	2503	A	C2-N3-C4	6.66	113.93	110.60
26	1H	462	C	O5'-P-OP2	-6.66	99.71	105.70
26	1H	528	A	C5-N7-C8	-6.66	100.57	103.90
26	1H	763	G	N3-C4-N9	6.66	130.00	126.00
26	1H	2275	C	N3-C4-C5	-6.66	119.24	121.90
26	1H	205	G	N9-C4-C5	-6.66	102.74	105.40
26	1H	2409	G	C5-C6-O6	-6.66	124.61	128.60
26	14	330	A	N1-C2-N3	6.66	132.63	129.30
26	1H	2276	G	N3-C2-N2	-6.65	115.24	119.90
26	14	2286	A	N1-C6-N6	6.65	122.59	118.60
26	1H	814	C	N3-C4-N4	-6.65	113.34	118.00
26	1H	1622	G	C4-C5-N7	-6.65	108.14	110.80
26	1H	1665	A	N1-C2-N3	6.65	132.63	129.30
26	14	2554	U	N1-C2-O2	-6.65	118.14	122.80
26	14	2712	U	C4-C5-C6	6.65	123.69	119.70
26	1H	627	A	C8-N9-C4	6.65	108.46	105.80
26	1H	1196	C	N3-C4-N4	6.65	122.66	118.00
26	1H	2342	C	C6-N1-C2	-6.65	117.64	120.30
26	14	502	A	N1-C2-N3	6.65	132.62	129.30
26	1H	610	C	C2-N3-C4	-6.65	116.58	119.90
26	1H	1429	G	O5'-P-OP2	-6.65	99.72	105.70
1	13	961	U	O5'-P-OP2	-6.65	99.72	105.70
26	1H	1326	U	N3-C2-O2	-6.65	117.55	122.20
26	14	1471	A	N7-C8-N9	6.65	117.12	113.80
24	3K	71	G	C8-N9-C1'	6.64	135.64	127.00
26	14	307	G	OP1-P-OP2	6.64	129.57	119.60
26	1H	2379	G	N9-C4-C5	-6.64	102.74	105.40
26	14	2374	C	N3-C4-N4	-6.64	113.35	118.00
26	14	2422	A	O5'-P-OP2	-6.64	99.72	105.70
26	1H	1193	G	O5'-P-OP1	6.64	118.67	110.70
26	14	681	G	N1-C6-O6	6.64	123.89	119.90
26	1H	1471	A	N1-C6-N6	6.64	122.58	118.60
26	14	2030	A	O5'-P-OP2	-6.64	99.72	105.70
1	13	548	G	O5'-P-OP2	-6.64	99.73	105.70
26	1H	639	U	C5-C4-O4	6.64	129.88	125.90
26	1H	1786	A	N9-C1'-C2'	6.64	122.63	114.00
26	1H	59	U	N3-C4-C5	-6.63	110.62	114.60
26	14	475	U	C6-N1-C2	-6.63	117.02	121.00
26	14	1599	C	O5'-P-OP1	-6.63	99.73	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	901	A	C2-N3-C4	-6.63	107.28	110.60
26	1H	1970	A	C2-N3-C4	6.63	113.92	110.60
26	14	775	G	N3-C4-N9	6.63	129.98	126.00
1	13	1517	G	O5'-P-OP2	-6.63	99.73	105.70
26	1H	463	G	N3-C2-N2	6.63	124.54	119.90
26	1H	580	C	N3-C4-C5	-6.63	119.25	121.90
26	1H	1649	G	N1-C6-O6	-6.63	115.92	119.90
26	1H	2265	U	N3-C4-O4	6.63	124.04	119.40
26	14	1253	A	C4-C5-N7	6.63	114.02	110.70
26	14	2730	C	C6-N1-C2	-6.63	117.65	120.30
26	1H	1124	C	C2-N3-C4	-6.63	116.59	119.90
26	1H	1391	U	C5-C6-N1	6.63	126.02	122.70
26	1H	245	G	C4-C5-C6	6.63	122.78	118.80
26	1H	1027	A	C2-N3-C4	-6.63	107.29	110.60
26	1H	2324	C	O5'-P-OP2	-6.63	99.74	105.70
26	1H	2449	U	O5'-P-OP1	-6.63	99.73	105.70
26	14	2866	U	O5'-P-OP2	-6.63	99.74	105.70
1	13	314	C	O5'-P-OP2	-6.62	99.74	105.70
1	13	1113	C	C6-N1-C2	-6.62	117.65	120.30
26	1H	657	U	C5-C6-N1	-6.62	119.39	122.70
26	1H	1558	A	C6-C5-N7	-6.62	127.66	132.30
26	1H	2084	C	C6-N1-C2	6.62	122.95	120.30
26	1H	2261	C	OP1-P-O3'	-6.62	90.63	105.20
26	14	186	G	N1-C2-N3	6.62	127.87	123.90
26	14	775	G	N1-C2-N2	-6.62	110.24	116.20
26	14	945	A	N7-C8-N9	6.62	117.11	113.80
26	14	1272	A	C5-C6-N6	-6.62	118.40	123.70
26	1H	179	G	N1-C6-O6	6.62	123.87	119.90
26	1H	943	U	O5'-P-OP1	-6.62	99.74	105.70
26	1H	1641	A	O5'-P-OP2	6.62	118.65	110.70
27	16	29	A	OP1-P-OP2	-6.62	109.67	119.60
26	14	581	C	C6-N1-C2	-6.62	117.65	120.30
26	14	779	U	N3-C4-C5	6.62	118.57	114.60
26	14	2598	A	N7-C8-N9	-6.62	110.49	113.80
1	13	800	G	N1-C6-O6	6.62	123.87	119.90
26	1H	146	G	C5-C6-O6	-6.62	124.63	128.60
26	1H	2409	G	C4-C5-N7	6.62	113.45	110.80
26	14	693	C	C5-C6-N1	-6.62	117.69	121.00
26	14	1337	G	OP1-P-O3'	6.62	119.76	105.20
26	1H	1158	C	C5-C6-N1	-6.62	117.69	121.00
26	1H	2708	G	N3-C4-N9	6.62	129.97	126.00
26	1H	528	A	C2-N3-C4	-6.62	107.29	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1395	A	O4'-C1'-N9	6.62	113.49	108.20
26	1H	2326	C	N1-C2-O2	6.62	122.87	118.90
26	1H	2419	U	OP1-P-O3'	6.62	119.75	105.20
26	1H	2491	U	N3-C2-O2	6.62	126.83	122.20
26	14	1437	C	C6-N1-C2	-6.62	117.65	120.30
26	1H	1324	G	N3-C2-N2	-6.61	115.27	119.90
26	1H	1516	U	C5-C4-O4	6.61	129.87	125.90
1	13	577	G	C5-C6-O6	-6.61	124.63	128.60
1	13	770	C	N3-C2-O2	6.61	126.53	121.90
1	1G	558	G	C5-C6-N1	-6.61	108.19	111.50
24	3L	76	A	O4'-C1'-N9	6.61	113.49	108.20
26	1H	1857	G	C6-C5-N7	-6.61	126.43	130.40
26	1H	1902	C	C4-C5-C6	6.61	120.70	117.40
26	1H	2585	U	C5-C6-N1	-6.61	119.39	122.70
26	14	784	A	N9-C4-C5	6.61	108.44	105.80
26	14	1463	C	C6-N1-C2	-6.61	117.66	120.30
26	1H	528	A	O4'-C1'-N9	-6.61	102.91	108.20
26	1H	378	C	N3-C4-N4	6.61	122.62	118.00
26	1H	782	A	C5-C6-N6	6.61	128.99	123.70
26	14	1678	G	N7-C8-N9	6.61	116.40	113.10
26	1H	71	A	N1-C6-N6	6.61	122.56	118.60
26	1H	99	U	N1-C2-O2	6.61	127.42	122.80
26	1H	2712(A)	A	C8-N9-C4	6.61	108.44	105.80
26	14	372	G	O4'-C1'-N9	6.60	113.48	108.20
26	14	1394	U	O5'-P-OP1	-6.60	99.76	105.70
26	14	2440	C	N3-C4-C5	-6.60	119.26	121.90
1	1G	1490	C	O5'-P-OP2	-6.60	99.76	105.70
26	1H	2036	C	OP2-P-O3'	6.60	119.72	105.20
26	1H	2084	C	C5-C6-N1	-6.60	117.70	121.00
26	14	852	G	N1-C6-O6	-6.60	115.94	119.90
26	1H	2439	A	OP2-P-O3'	-6.60	90.68	105.20
26	14	1210	A	C5-N7-C8	-6.60	100.60	103.90
36	35	85	LEU	CA-CB-CG	6.60	130.47	115.30
26	1H	305	U	C6-N1-C2	-6.60	117.04	121.00
1	13	1151	A	O4'-C1'-N9	6.59	113.47	108.20
23	2K	21	U	C6-N1-C1'	-6.59	111.97	121.20
26	1H	811	U	C5-C6-N1	-6.59	119.40	122.70
1	1G	631	G	C8-N9-C4	-6.59	103.76	106.40
26	14	330	A	C5-C6-N1	-6.59	114.40	117.70
26	14	1021	A	C2-N3-C4	-6.59	107.30	110.60
23	2K	6	G	C5-C6-O6	-6.59	124.65	128.60
26	1H	410	G	O5'-P-OP2	6.59	118.61	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	910	A	C4-C5-C6	6.59	120.30	117.00
26	1H	1433	U	O5'-P-OP2	-6.59	99.77	105.70
55	Q8	59	LYS	CD-CE-NZ	6.59	126.86	111.70
26	1H	675	A	O5'-P-OP2	-6.59	99.77	105.70
26	1H	2468	G	C6-C5-N7	-6.59	126.45	130.40
26	14	1968	G	C4-C5-N7	6.59	113.44	110.80
54	L5	34	ARG	NE-CZ-NH2	6.59	123.59	120.30
26	1H	2331	G	C2-N3-C4	-6.59	108.61	111.90
26	1H	2639	A	N1-C6-N6	6.59	122.55	118.60
26	14	363(F)	A	C8-N9-C4	6.59	108.43	105.80
26	14	475	U	C2-N1-C1'	6.59	125.61	117.70
26	14	698	C	O5'-P-OP1	-6.58	99.77	105.70
26	14	921	G	C8-N9-C4	-6.58	103.77	106.40
26	1H	1639	U	N3-C4-O4	-6.58	114.79	119.40
26	1H	594	U	C5-C6-N1	-6.58	119.41	122.70
26	1H	2731	G	C5-C6-O6	-6.58	124.65	128.60
26	14	2436	G	N3-C2-N2	-6.58	115.29	119.90
26	1H	671	C	N3-C4-N4	-6.58	113.39	118.00
44	F8	67	GLY	N-CA-C	-6.58	96.65	113.10
1	13	902	G	O5'-P-OP2	-6.58	99.78	105.70
1	13	1446	A	O4'-C1'-N9	6.58	113.46	108.20
27	1J	101	A	N1-C6-N6	6.58	122.55	118.60
26	1H	1968	G	C2-N3-C4	6.57	115.19	111.90
26	1H	1195	G	N3-C2-N2	-6.57	115.30	119.90
1	13	181	G	N3-C4-C5	-6.57	125.31	128.60
1	13	795	C	N1-C2-O2	-6.57	114.96	118.90
26	1H	51	G	O4'-C1'-N9	-6.57	102.94	108.20
26	1H	1330	C	O5'-P-OP1	-6.57	99.79	105.70
26	14	703	U	C5-C4-O4	6.57	129.84	125.90
26	14	819	A	C8-N9-C4	-6.57	103.17	105.80
26	14	940	G	C2-N3-C4	6.57	115.19	111.90
26	14	2392	A	N1-C2-N3	6.57	132.59	129.30
26	14	2595	G	O5'-P-OP1	-6.57	99.79	105.70
26	1H	247	G	C8-N9-C4	6.57	109.03	106.40
26	1H	828	U	N3-C2-O2	-6.57	117.60	122.20
26	14	110	G	C5-C6-O6	-6.57	124.66	128.60
26	1H	807	U	N3-C4-O4	6.57	124.00	119.40
26	1H	2446	G	C4-C5-N7	6.57	113.43	110.80
26	14	244	A	N1-C6-N6	6.57	122.54	118.60
26	1H	80	G	O5'-P-OP1	-6.57	99.79	105.70
26	1H	693	C	O5'-P-OP2	-6.57	99.79	105.70
26	1H	1021	A	C4-C5-N7	6.57	113.98	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	792	A	C3'-C2'-C1'	-6.56	96.25	101.50
26	1H	1830	C	N1-C2-O2	-6.56	114.96	118.90
23	2K	74	A	N9-C4-C5	-6.56	103.17	105.80
26	1H	874	G	O5'-P-OP1	6.56	118.58	110.70
26	1H	1300	U	OP1-P-O3'	6.56	119.64	105.20
26	1H	1358	G	C6-C5-N7	-6.56	126.46	130.40
26	14	2496	C	C5-C4-N4	-6.56	115.61	120.20
1	13	770	C	O5'-P-OP2	6.56	118.57	110.70
26	14	1899	G	C5-C6-N1	-6.56	108.22	111.50
1	13	285	G	N1-C6-O6	6.56	123.84	119.90
26	1H	2731	G	N3-C4-N9	6.56	129.94	126.00
26	1H	1373	A	C8-N9-C4	6.56	108.42	105.80
22	1K	38	A	N1-C6-N6	6.56	122.53	118.60
26	1H	138	G	C5-N7-C8	-6.56	101.02	104.30
26	14	2607	G	C8-N9-C1'	-6.56	118.48	127.00
26	1H	1203	G	O5'-P-OP2	-6.55	99.80	105.70
26	1H	1228	G	C2-N3-C4	-6.55	108.62	111.90
1	1G	566	G	O4'-C1'-N9	-6.55	102.96	108.20
1	13	1348	U	C5-C4-O4	6.55	129.83	125.90
26	1H	2604	U	N3-C2-O2	-6.55	117.61	122.20
26	14	2359	C	C5-C4-N4	6.55	124.79	120.20
26	1H	37	C	N3-C4-C5	-6.55	119.28	121.90
26	1H	922	U	O5'-P-OP2	6.55	118.56	110.70
26	1H	1347	G	C5-C6-O6	-6.55	124.67	128.60
26	1H	396	G	C5-C6-O6	-6.55	124.67	128.60
26	1H	2607	G	N3-C2-N2	6.55	124.48	119.90
26	14	2449	U	C5-C4-O4	-6.55	121.97	125.90
26	14	2581	G	OP1-P-OP2	6.55	129.42	119.60
1	13	560	U	C5-C6-N1	6.55	125.97	122.70
26	1H	1416	G	O4'-C1'-N9	6.55	113.44	108.20
26	1H	2586	C	N3-C4-C5	6.55	124.52	121.90
26	14	1786	A	C4-N9-C1'	6.55	138.08	126.30
1	13	763	G	C8-N9-C4	-6.54	103.78	106.40
26	1H	984	A	O5'-P-OP2	-6.54	99.81	105.70
26	14	1470	G	C5-C6-N1	-6.54	108.23	111.50
26	1H	197	A	C2-N3-C4	-6.54	107.33	110.60
26	14	1644	C	O5'-P-OP2	-6.54	99.81	105.70
26	1H	66	C	C5-C6-N1	6.54	124.27	121.00
26	14	1558	A	N1-C2-N3	6.54	132.57	129.30
26	14	2270	G	O5'-P-OP1	-6.54	99.81	105.70
26	1H	2546	U	N1-C2-O2	-6.54	118.22	122.80
26	1H	849	A	N1-C6-N6	6.54	122.52	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2210	G	C4-N9-C1'	6.54	135.00	126.50
26	14	1276	A	C8-N9-C4	6.54	108.42	105.80
26	1H	1839	G	C4-N9-C1'	6.54	135.00	126.50
26	1H	2307	G	N1-C6-O6	6.54	123.82	119.90
26	1H	2009	G	OP1-P-O3'	6.54	119.58	105.20
26	1H	2434	A	O5'-P-OP1	-6.54	99.82	105.70
1	1G	576	G	C4-N9-C1'	6.54	135.00	126.50
1	1G	690	G	O5'-P-OP2	-6.54	99.82	105.70
24	3L	76	A	C4-C5-N7	6.54	113.97	110.70
26	14	1543	A	O5'-P-OP1	6.54	118.54	110.70
26	14	2338	G	O5'-P-OP1	-6.54	99.82	105.70
26	1H	335	C	C6-N1-C2	-6.53	117.69	120.30
26	1H	1280	G	OP1-P-OP2	-6.53	109.80	119.60
26	1H	1931	U	N3-C4-O4	-6.53	114.83	119.40
26	14	188	G	C5-C6-O6	-6.53	124.68	128.60
26	14	1597	A	C8-N9-C4	6.53	108.41	105.80
26	14	2330	G	N1-C6-O6	6.53	123.82	119.90
26	1H	455	C	N3-C4-C5	6.53	124.51	121.90
26	1H	2390	U	O5'-P-OP2	6.53	118.54	110.70
1	1G	894	G	N1-C6-O6	6.53	123.82	119.90
26	14	2607	G	N9-C4-C5	-6.53	102.79	105.40
26	1H	500	G	C4-C5-N7	-6.53	108.19	110.80
26	1H	203	C	N3-C2-O2	6.53	126.47	121.90
26	1H	507	A	C4-C5-N7	6.53	113.96	110.70
26	1H	1278	A	C6-N1-C2	-6.53	114.68	118.60
1	1G	689	C	C6-N1-C2	-6.53	117.69	120.30
26	1H	613	U	C5-C6-N1	-6.53	119.44	122.70
26	1H	698	C	OP1-P-OP2	6.53	129.39	119.60
26	1H	2271	G	C8-N9-C1'	-6.53	118.52	127.00
1	1G	1436	U	C5-C6-N1	6.53	125.96	122.70
26	14	210	C	C2-N3-C4	-6.53	116.64	119.90
26	14	2275	C	P-O3'-C3'	6.53	127.53	119.70
1	13	418	C	N1-C2-O2	6.52	122.81	118.90
26	1H	2069	G	C8-N9-C4	6.52	109.01	106.40
26	1H	446	G	C5-C6-O6	-6.52	124.69	128.60
26	1H	1348	G	C5-C6-O6	-6.52	124.69	128.60
26	1H	1895	C	O5'-P-OP1	-6.52	99.83	105.70
26	1H	146	G	N3-C4-C5	6.52	131.86	128.60
26	1H	1022	G	C4-C5-N7	-6.52	108.19	110.80
26	1H	2011	U	OP1-P-O3'	6.52	119.54	105.20
1	1G	108	G	C6-C5-N7	-6.52	126.49	130.40
26	14	116	C	N1-C2-O2	-6.52	114.99	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	383	U	O5'-P-OP2	6.52	118.52	110.70
1	1G	576	G	N1-C6-O6	6.52	123.81	119.90
22	1K	74	C	N1-C2-O2	6.51	122.81	118.90
26	1H	2570	G	N9-C4-C5	6.51	108.00	105.40
26	1H	209	C	C2-N3-C4	-6.51	116.64	119.90
26	1H	1216	G	O5'-P-OP1	-6.51	99.84	105.70
26	1H	1831	G	O5'-P-OP2	6.51	118.51	110.70
1	1G	354	G	C6-C5-N7	-6.51	126.50	130.40
26	1H	866	A	C4-N9-C1'	6.51	138.01	126.30
26	14	1396	U	C5-C6-N1	-6.51	119.45	122.70
26	1H	1123	C	C5-C6-N1	-6.51	117.75	121.00
26	1H	2335	A	O5'-P-OP2	-6.51	99.84	105.70
26	14	1332	G	N1-C2-N3	6.51	127.80	123.90
26	1H	576	U	C4-C5-C6	6.50	123.60	119.70
26	1H	1694	C	OP2-P-O3'	6.50	119.51	105.20
26	1H	195	A	C5-N7-C8	-6.50	100.65	103.90
1	1G	692	U	N3-C4-O4	6.50	123.95	119.40
26	14	1958	C	C6-N1-C2	6.50	122.90	120.30
26	1H	134	C	C2-N3-C4	-6.50	116.65	119.90
26	14	655	A	N1-C6-N6	-6.50	114.70	118.60
26	1H	1931	U	N1-C2-O2	6.50	127.35	122.80
26	1H	202	U	N3-C4-C5	6.50	118.50	114.60
26	1H	783	A	OP1-P-OP2	6.50	129.35	119.60
26	1H	1572	A	N1-C6-N6	6.50	122.50	118.60
26	1H	1967	C	N3-C2-O2	-6.50	117.35	121.90
26	1H	2447	G	C6-N1-C2	-6.50	121.20	125.10
1	1G	1442	G	C8-N9-C1'	6.50	135.45	127.00
26	14	210	C	C5-C6-N1	-6.50	117.75	121.00
26	1H	32	C	C6-N1-C2	-6.50	117.70	120.30
26	1H	182	A	C8-N9-C4	6.50	108.40	105.80
26	1H	1142(A)	A	C5-C6-N1	-6.50	114.45	117.70
26	1H	1145	C	O5'-P-OP1	-6.50	99.85	105.70
26	1H	1763	G	O5'-P-OP2	-6.50	99.85	105.70
26	1H	1973	G	N1-C2-N2	-6.50	110.35	116.20
26	14	102	G	O4'-C1'-N9	6.50	113.40	108.20
26	14	735	A	O5'-P-OP2	-6.50	99.85	105.70
26	14	2512	C	N3-C4-C5	6.50	124.50	121.90
26	14	530	G	N9-C4-C5	-6.50	102.80	105.40
26	1H	781	A	O5'-P-OP1	-6.49	99.86	105.70
26	1H	2699	C	C5-C6-N1	-6.49	117.75	121.00
26	14	681	G	C5-C6-O6	-6.49	124.70	128.60
26	14	1586	A	C8-N9-C4	-6.49	103.20	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	780	G	C6-C5-N7	-6.49	126.51	130.40
26	1H	71	A	C8-N9-C4	-6.49	103.20	105.80
26	14	121	G	C6-N1-C2	-6.49	121.21	125.10
26	14	1283	G	N3-C4-N9	6.49	129.89	126.00
26	1H	593	G	C6-C5-N7	-6.49	126.51	130.40
26	14	2503	A	C2-N3-C4	6.49	113.84	110.60
1	13	760	G	C6-C5-N7	-6.49	126.51	130.40
26	1H	330	A	C4-C5-N7	6.49	113.94	110.70
26	1H	910	A	C6-C5-N7	-6.49	127.76	132.30
26	1H	265	A	N1-C2-N3	6.48	132.54	129.30
26	1H	2582	G	N3-C4-N9	6.48	129.89	126.00
26	1H	2881	C	O5'-P-OP1	-6.48	99.86	105.70
1	1G	1465	C	C6-N1-C2	-6.48	117.71	120.30
26	14	2580	U	N3-C4-O4	6.48	123.94	119.40
26	14	2880	C	C2-N1-C1'	6.48	125.93	118.80
26	1H	971	C	C4-C5-C6	6.48	120.64	117.40
26	1H	1332	G	C8-N9-C1'	6.48	135.43	127.00
26	1H	2439	A	OP1-P-O3'	6.48	119.46	105.20
26	1H	758	C	C4-C5-C6	-6.48	114.16	117.40
26	1H	2264	C	N3-C2-O2	-6.48	117.36	121.90
26	1H	507	A	C6-C5-N7	-6.48	127.77	132.30
26	1H	2563	U	C5-C4-O4	6.48	129.79	125.90
26	14	1367	A	C2-N3-C4	-6.48	107.36	110.60
26	14	2447	G	N1-C6-O6	6.48	123.79	119.90
26	14	1022	G	N3-C4-N9	-6.48	122.11	126.00
26	1H	839	U	N3-C4-C5	-6.48	110.72	114.60
26	1H	971	C	N1-C2-O2	-6.48	115.01	118.90
26	14	391	G	N9-C4-C5	-6.48	102.81	105.40
26	1H	2468	G	C4-N9-C1'	6.47	134.92	126.50
27	16	115	G	C6-N1-C2	-6.47	121.22	125.10
26	14	2731	G	N7-C8-N9	6.47	116.34	113.10
26	1H	734	A	C5-N7-C8	-6.47	100.66	103.90
26	1H	2541	A	O5'-P-OP2	6.47	118.47	110.70
26	14	1978	A	OP2-P-O3'	6.47	119.44	105.20
26	14	780	G	N1-C6-O6	6.47	123.78	119.90
1	13	285	G	C2-N3-C4	-6.47	108.67	111.90
1	13	1483	A	C5-N7-C8	-6.47	100.67	103.90
26	1H	745	G	C6-C5-N7	-6.47	126.52	130.40
26	1H	1622	G	C5-C6-O6	6.47	132.48	128.60
26	1H	2283	C	N1-C2-O2	-6.47	115.02	118.90
26	1H	277	C	N1-C2-O2	6.47	122.78	118.90
26	1H	1314	C	N3-C2-O2	-6.47	117.37	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	45	82	ARG	N-CA-C	6.47	128.46	111.00
26	1H	2269	A	C2-N3-C4	-6.47	107.37	110.60
1	13	684	A	C8-N9-C4	-6.46	103.21	105.80
26	1H	691	C	C2-N3-C4	-6.46	116.67	119.90
26	1H	944	G	N7-C8-N9	6.46	116.33	113.10
26	14	2287	A	N3-C4-C5	6.46	131.32	126.80
26	14	2390	U	O5'-P-OP1	-6.46	99.88	105.70
26	1H	1340	U	C5-C6-N1	-6.46	119.47	122.70
26	1H	1205	U	N1-C2-N3	6.46	118.78	114.90
26	1H	1627	G	O5'-P-OP2	-6.46	99.88	105.70
1	13	982	U	N1-C2-O2	6.46	127.32	122.80
1	13	1412	C	C6-N1-C2	6.46	122.88	120.30
26	1H	121	G	C8-N9-C1'	-6.46	118.60	127.00
26	1H	1597	A	O4'-C1'-N9	6.46	113.37	108.20
26	14	211	A	C2-N3-C4	-6.46	107.37	110.60
26	1H	1780	A	N1-C2-N3	6.46	132.53	129.30
26	1H	1789	A	C5-C6-N6	-6.46	118.53	123.70
26	1H	2232	U	O5'-P-OP2	-6.46	99.89	105.70
26	14	470	A	N1-C6-N6	6.46	122.47	118.60
26	14	2258	C	N3-C4-N4	6.46	122.52	118.00
1	13	865	A	C5-N7-C8	-6.46	100.67	103.90
26	1H	194	G	C8-N9-C4	6.46	108.98	106.40
26	1H	748	G	N3-C4-N9	-6.46	122.13	126.00
26	1H	928	G	C5-C6-O6	-6.46	124.73	128.60
26	1H	2598	A	OP2-P-O3'	6.46	119.41	105.20
43	E8	90	ARG	NE-CZ-NH1	-6.46	117.07	120.30
26	14	1309	G	C6-C5-N7	-6.46	126.53	130.40
26	14	1931	U	OP1-P-OP2	-6.46	109.92	119.60
26	1H	2550	G	N1-C6-O6	6.46	123.77	119.90
26	1H	330	A	C6-C5-N7	-6.45	127.78	132.30
26	1H	1197	G	OP2-P-O3'	6.45	119.40	105.20
26	1H	2377	A	N7-C8-N9	-6.45	110.57	113.80
26	14	113	G	N3-C4-C5	6.45	131.83	128.60
26	14	670	A	N9-C4-C5	-6.45	103.22	105.80
26	14	997	G	N1-C6-O6	-6.45	116.03	119.90
26	1H	613	U	C6-N1-C1'	-6.45	112.17	121.20
26	1H	1202	C	C4-C5-C6	6.45	120.63	117.40
26	14	864	G	OP1-P-OP2	-6.45	109.92	119.60
1	13	12	U	N3-C4-C5	-6.45	110.73	114.60
1	13	1227	A	N3-C4-C5	6.45	131.32	126.80
26	1H	1624	G	C5-C6-N1	6.45	114.72	111.50
26	14	148	C	C5-C6-N1	-6.45	117.78	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1562	A	N1-C6-N6	6.45	122.47	118.60
1	13	1310	G	O5'-P-OP2	-6.45	99.90	105.70
26	1H	2058	A	N9-C4-C5	6.45	108.38	105.80
26	14	130	C	C2-N3-C4	-6.45	116.68	119.90
26	1H	791	C	P-O3'-C3'	6.45	127.44	119.70
26	1H	1609	A	C8-N9-C4	6.45	108.38	105.80
26	1H	1915	U	N3-C4-C5	6.45	118.47	114.60
26	1H	676	A	OP1-P-OP2	6.45	129.27	119.60
26	1H	966	G	N1-C2-N2	-6.45	110.40	116.20
26	1H	1367	A	C2-N3-C4	-6.45	107.38	110.60
26	1H	1899	G	C4-C5-C6	-6.45	114.93	118.80
26	1H	2079	U	C4-C5-C6	6.45	123.57	119.70
1	1G	1124	G	O4'-C1'-N9	6.44	113.36	108.20
1	13	904	C	N3-C4-C5	6.44	124.48	121.90
1	13	1378	C	C6-N1-C2	-6.44	117.72	120.30
26	1H	965	C	N3-C4-N4	6.44	122.51	118.00
26	1H	2253	G	C4-C5-N7	6.44	113.38	110.80
26	1H	2666	C	N3-C4-N4	6.44	122.51	118.00
1	1G	925	G	C8-N9-C4	6.44	108.98	106.40
26	14	265	A	C5-C6-N1	-6.44	114.48	117.70
26	14	1349	A	C4-C5-N7	6.44	113.92	110.70
26	1H	99	U	C2-N1-C1'	6.44	125.43	117.70
26	1H	1916	A	C8-N9-C4	-6.44	103.22	105.80
26	14	2075	U	C5-C6-N1	-6.44	119.48	122.70
26	14	1345	C	C6-N1-C2	-6.44	117.72	120.30
26	1H	633	A	C5-C6-N1	-6.44	114.48	117.70
26	14	330	A	N3-C4-C5	6.44	131.31	126.80
26	1H	1382	G	C4-N9-C1'	-6.44	118.13	126.50
2	1E	158	LEU	CA-CB-CG	6.43	130.10	115.30
26	1H	1336	A	C5-C6-N1	6.43	120.92	117.70
26	1H	1972	A	C5-C6-N6	-6.43	118.55	123.70
26	14	215	G	C5-C6-O6	-6.43	124.74	128.60
26	14	1821	A	C6-N1-C2	-6.43	114.74	118.60
26	14	2430	A	OP1-P-OP2	-6.43	109.95	119.60
26	14	2547	U	OP2-P-O3'	6.43	119.36	105.20
26	1H	60	G	O5'-P-OP2	-6.43	99.91	105.70
26	1H	610	C	C5-C6-N1	-6.43	117.78	121.00
27	16	9	G	OP2-P-O3'	6.43	119.35	105.20
26	14	773	U	N3-C2-O2	-6.43	117.70	122.20
26	1H	1843	C	C5-C6-N1	-6.43	117.78	121.00
26	1H	51	G	OP2-P-O3'	6.43	119.34	105.20
26	1H	119	A	C4-C5-N7	-6.43	107.48	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2703	C	N3-C2-O2	-6.43	117.40	121.90
26	14	1982	C	C5-C6-N1	6.43	124.22	121.00
26	14	1999	C	C5-C4-N4	-6.43	115.70	120.20
1	1G	1417	G	C5-C6-N1	-6.43	108.29	111.50
26	14	2588	G	O5'-P-OP1	6.43	118.41	110.70
26	14	2873	A	C4-N9-C1'	6.43	137.87	126.30
26	1H	1815	A	C6-N1-C2	-6.43	114.74	118.60
26	14	1236	G	C8-N9-C4	6.43	108.97	106.40
26	14	1654	A	N1-C6-N6	-6.43	114.74	118.60
1	13	226	G	N3-C4-N9	6.42	129.85	126.00
26	1H	2307	G	C2-N3-C4	-6.42	108.69	111.90
26	14	1640	C	O5'-P-OP2	-6.42	99.92	105.70
26	14	2078	C	N3-C4-C5	-6.42	119.33	121.90
26	14	2249	U	N1-C2-O2	6.42	127.30	122.80
26	1H	1215	G	C8-N9-C4	-6.42	103.83	106.40
26	1H	2060	A	C2-N3-C4	6.42	113.81	110.60
26	1H	809	G	C5-C6-O6	-6.42	124.75	128.60
26	14	138	G	C5-C6-O6	-6.42	124.75	128.60
26	14	1904	G	O5'-P-OP2	-6.42	99.92	105.70
26	1H	51	G	N3-C2-N2	6.42	124.39	119.90
26	1H	919	G	N3-C4-C5	-6.42	125.39	128.60
26	1H	1021	A	C6-C5-N7	-6.42	127.81	132.30
26	14	740	U	C5-C4-O4	6.42	129.75	125.90
26	14	2224	G	N1-C6-O6	6.42	123.75	119.90
22	1K	34	G	C8-N9-C4	-6.42	103.83	106.40
26	1H	2585	U	N3-C2-O2	-6.42	117.71	122.20
27	16	79	C	OP2-P-O3'	6.42	119.31	105.20
1	13	484	G	N3-C4-C5	-6.41	125.39	128.60
1	13	1190	G	N1-C6-O6	6.41	123.75	119.90
26	1H	132	G	N7-C8-N9	6.41	116.31	113.10
26	1H	328	U	O5'-P-OP1	-6.41	99.93	105.70
26	1H	1805	U	OP1-P-O3'	-6.41	91.09	105.20
26	1H	2248	C	N3-C4-C5	6.41	124.47	121.90
26	1H	2419	U	OP1-P-OP2	-6.41	109.98	119.60
26	1H	2436	G	N1-C2-N2	6.41	121.97	116.20
1	13	1335	C	C6-N1-C2	6.41	122.86	120.30
23	2K	17	C	C2-N1-C1'	6.41	125.85	118.80
26	1H	1558	A	P-O3'-C3'	6.41	127.39	119.70
26	1H	1950	G	C5-C6-O6	6.41	132.45	128.60
26	1H	1968	G	C5-C6-O6	-6.41	124.75	128.60
26	1H	1982	C	C2-N1-C1'	6.41	125.85	118.80
26	14	664	C	C4-C5-C6	6.41	120.61	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	974	A	C5-C6-N6	-6.41	118.57	123.70
26	1H	194	G	N3-C4-N9	6.41	129.84	126.00
26	1H	2827	C	N1-C2-O2	-6.41	115.06	118.90
26	14	1804	C	C5-C4-N4	-6.41	115.71	120.20
26	1H	190	A	N1-C6-N6	6.41	122.44	118.60
26	1H	2027	G	C4-C5-N7	-6.41	108.24	110.80
26	1H	2048	G	C8-N9-C4	-6.41	103.84	106.40
26	1H	2599	G	N7-C8-N9	-6.41	109.90	113.10
1	1G	632	A	P-O3'-C3'	6.41	127.39	119.70
26	14	830	G	N9-C4-C5	-6.41	102.84	105.40
26	14	1252	G	C8-N9-C4	6.41	108.96	106.40
26	14	1663	C	C5-C4-N4	-6.41	115.72	120.20
26	14	1689	A	O5'-P-OP2	-6.41	99.94	105.70
1	13	767	A	C8-N9-C4	6.40	108.36	105.80
1	13	1234	C	N3-C2-O2	-6.40	117.42	121.90
26	1H	77	C	C5-C4-N4	-6.40	115.72	120.20
26	1H	1655	A	N1-C6-N6	6.40	122.44	118.60
26	1H	1700	A	C8-N9-C4	6.40	108.36	105.80
26	1H	2300	G	C6-C5-N7	-6.40	126.56	130.40
1	1G	537	G	O5'-P-OP1	-6.40	99.94	105.70
1	13	1519	A	C5-C6-N1	-6.40	114.50	117.70
26	1H	2627	G	C6-C5-N7	-6.40	126.56	130.40
26	1H	2708	G	N9-C4-C5	-6.40	102.84	105.40
26	1H	2827	C	N3-C2-O2	6.40	126.38	121.90
26	14	792	G	C5-C6-N1	6.40	114.70	111.50
26	14	2292	C	O5'-P-OP2	-6.40	99.94	105.70
26	1H	675	A	C5-C6-N6	-6.40	118.58	123.70
26	14	1131	G	O4'-C1'-N9	6.40	113.32	108.20
26	14	2237	G	N3-C4-N9	6.40	129.84	126.00
26	1H	809	G	N3-C4-N9	6.40	129.84	126.00
26	14	945	A	N9-C4-C5	-6.40	103.24	105.80
23	2K	68	C	C2-N1-C1'	6.40	125.83	118.80
26	1H	458	G	O4'-C1'-N9	6.40	113.32	108.20
26	1H	2252	G	OP1-P-OP2	6.40	129.19	119.60
26	14	1597	A	N7-C8-N9	-6.40	110.60	113.80
26	1H	238	C	C6-N1-C2	6.39	122.86	120.30
26	1H	2442	C	C4-C5-C6	6.39	120.60	117.40
24	3L	76	A	C8-N9-C4	-6.39	103.24	105.80
26	1H	1310	G	O5'-P-OP2	6.39	118.37	110.70
27	16	100	G	N7-C8-N9	-6.39	109.90	113.10
1	1G	1281	U	C2-N1-C1'	6.39	125.37	117.70
26	14	660	G	O5'-P-OP2	-6.39	99.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1607	C	C6-N1-C1'	-6.39	113.13	120.80
27	16	112	G	N3-C4-N9	6.39	129.83	126.00
26	14	1393	A	O5'-P-OP2	-6.39	99.95	105.70
26	1H	1123	C	N1-C2-O2	-6.39	115.07	118.90
26	14	1434	A	C8-N9-C4	6.39	108.36	105.80
36	35	62	LEU	CB-CG-CD2	-6.39	100.14	111.00
1	13	792	A	N9-C1'-C2'	6.39	122.31	114.00
26	14	1826	G	C5-N7-C8	6.39	107.49	104.30
1	13	1502	A	N1-C2-N3	6.38	132.49	129.30
26	14	1324	G	O5'-P-OP2	-6.38	99.95	105.70
1	13	963	G	C8-N9-C1'	-6.38	118.70	127.00
26	14	1266	G	N7-C8-N9	-6.38	109.91	113.10
26	14	1760	A	N7-C8-N9	-6.38	110.61	113.80
26	1H	1019	U	N3-C2-O2	-6.38	117.73	122.20
27	16	23	G	N3-C4-C5	6.38	131.79	128.60
8	72	133	LEU	CA-CB-CG	6.38	129.97	115.30
1	13	681	C	C6-N1-C2	-6.38	117.75	120.30
26	1H	1606	G	C5-C6-N1	6.38	114.69	111.50
26	1H	2737	G	N1-C6-O6	6.38	123.73	119.90
26	14	2346	A	N1-C2-N3	6.38	132.49	129.30
26	1H	645	C	C6-N1-C2	-6.38	117.75	120.30
1	13	1205	U	N1-C2-O2	-6.37	118.34	122.80
26	1H	1122	G	N9-C4-C5	-6.37	102.85	105.40
26	1H	1799	G	N9-C4-C5	-6.37	102.85	105.40
26	1H	2028	U	C5-C6-N1	-6.37	119.51	122.70
26	1H	2346	A	C4-C5-N7	6.37	113.89	110.70
1	1G	1502	A	C6-C5-N7	-6.37	127.84	132.30
22	1K	74	C	O4'-C1'-N1	6.37	113.30	108.20
26	1H	974	G	O4'-C1'-N9	-6.37	103.10	108.20
26	1H	1336	A	N9-C4-C5	6.37	108.35	105.80
26	1H	1436	G	P-O3'-C3'	6.37	127.35	119.70
26	1H	2853	C	OP2-P-O3'	6.37	119.22	105.20
26	14	683	C	N1-C2-O2	-6.37	115.08	118.90
26	14	802	A	C5-C6-N1	6.37	120.89	117.70
26	14	1801	G	O5'-P-OP1	-6.37	99.97	105.70
26	14	2606	C	O5'-P-OP1	-6.37	99.97	105.70
27	16	26	A	O5'-P-OP2	6.37	118.34	110.70
26	14	2210	G	C4-N9-C1'	6.37	134.78	126.50
26	14	2689	U	C2-N3-C4	-6.37	123.18	127.00
1	13	623	C	C6-N1-C2	-6.37	117.75	120.30
26	1H	371	A	C6-C5-N7	-6.37	127.84	132.30
26	1H	587	C	N1-C2-O2	6.37	122.72	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2271	G	C5-C6-N1	6.37	114.68	111.50
26	1H	2375	G	N9-C1'-C2'	-6.37	105.00	112.00
26	14	806	C	C5-C4-N4	-6.37	115.74	120.20
26	1H	1425	G	C6-N1-C2	-6.36	121.28	125.10
26	1H	1579	A	O4'-C1'-N9	6.36	113.29	108.20
26	1H	1680	U	C5-C4-O4	-6.36	122.08	125.90
26	14	1142(A)	A	C2-N3-C4	-6.36	107.42	110.60
26	1H	122	G	N1-C2-N3	6.36	127.72	123.90
26	1H	1264	G	OP1-P-O3'	6.36	119.19	105.20
26	14	681	G	C8-N9-C4	6.36	108.94	106.40
26	1H	1842	G	N7-C8-N9	-6.36	109.92	113.10
37	88	2	LEU	CA-CB-CG	6.36	129.92	115.30
55	Q8	50	LEU	CA-CB-CG	-6.36	100.68	115.30
26	14	202	U	N1-C2-O2	6.36	127.25	122.80
26	14	811	U	N1-C2-N3	6.36	118.71	114.90
1	13	667	G	C8-N9-C4	-6.36	103.86	106.40
26	1H	383	U	O4'-C1'-N1	6.36	113.28	108.20
26	1H	675	A	N1-C6-N6	6.36	122.41	118.60
26	1H	2445	G	C8-N9-C4	-6.36	103.86	106.40
26	1H	1303	G	OP2-P-O3'	6.35	119.18	105.20
26	1H	1604	C	N3-C4-N4	6.35	122.45	118.00
28	11	213	ARG	NE-CZ-NH2	-6.35	117.12	120.30
26	14	2247	A	N9-C4-C5	6.35	108.34	105.80
26	1H	2212	A	N1-C6-N6	6.35	122.41	118.60
26	1H	262	A	C8-N9-C4	6.35	108.34	105.80
26	1H	1334	G	C6-C5-N7	-6.35	126.59	130.40
26	1H	1733	G	N1-C6-O6	6.35	123.71	119.90
26	14	649	G	N1-C6-O6	6.35	123.71	119.90
26	14	2546	U	OP1-P-OP2	6.35	129.13	119.60
26	1H	127	A	N1-C6-N6	6.35	122.41	118.60
26	1H	129	C	C5-C6-N1	-6.35	117.83	121.00
26	1H	829	A	OP1-P-OP2	6.35	129.12	119.60
26	1H	1839	G	C6-C5-N7	-6.35	126.59	130.40
26	14	129	C	N1-C2-O2	6.35	122.71	118.90
26	1H	633	A	C5-N7-C8	-6.35	100.73	103.90
26	1H	792	G	C5-C6-O6	-6.35	124.79	128.60
26	1H	1225	C	C2-N1-C1'	-6.35	111.82	118.80
26	1H	1496	A	N1-C6-N6	6.35	122.41	118.60
26	1H	2018	G	C8-N9-C4	-6.35	103.86	106.40
26	14	1528	A	N1-C6-N6	6.35	122.41	118.60
26	1H	748	G	C8-N9-C1'	6.35	135.25	127.00
26	1H	842	G	C8-N9-C4	6.34	108.94	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1501	C	O5'-P-OP1	-6.34	99.99	105.70
26	1H	1592	C	C6-N1-C2	6.34	122.84	120.30
26	14	265	A	C5-N7-C8	-6.34	100.73	103.90
26	14	2575	C	C5-C4-N4	6.34	124.64	120.20
26	1H	934	G	O5'-P-OP1	-6.34	99.99	105.70
26	1H	2502	G	C6-N1-C2	-6.34	121.29	125.10
27	16	81	G	N7-C8-N9	6.34	116.27	113.10
32	51	171	LEU	CA-CB-CG	6.34	129.89	115.30
1	13	328	C	O5'-P-OP1	-6.34	99.99	105.70
55	Q8	13	ARG	NE-CZ-NH1	-6.34	117.13	120.30
26	14	466	A	N1-C6-N6	6.34	122.41	118.60
1	13	361	G	N1-C2-N3	6.34	127.70	123.90
26	14	204	A	C6-N1-C2	-6.34	114.80	118.60
26	14	1997	G	N3-C4-N9	6.34	129.80	126.00
27	16	78	A	C2-N3-C4	-6.34	107.43	110.60
1	1G	332	G	N7-C8-N9	-6.34	109.93	113.10
26	1H	1248	G	O5'-P-OP1	6.34	118.30	110.70
26	14	741	G	C5-C6-O6	-6.34	124.80	128.60
26	14	1843	C	C6-N1-C2	6.34	122.83	120.30
33	69	131	LYS	C-N-CD	-6.34	106.66	120.60
26	1H	378	C	C5-C4-N4	-6.33	115.77	120.20
26	1H	691	C	C5-C4-N4	-6.33	115.77	120.20
26	14	2277	G	C5-C6-O6	6.33	132.40	128.60
26	1H	1305	C	C5-C6-N1	-6.33	117.83	121.00
26	1H	1672	C	N3-C4-C5	6.33	124.43	121.90
26	14	1826	G	C8-N9-C4	6.33	108.93	106.40
26	1H	2232	U	N1-C2-N3	6.33	118.70	114.90
26	14	1274	A	C5-C6-N6	-6.33	118.64	123.70
26	1H	640	C	OP1-P-O3'	6.33	119.12	105.20
26	1H	741	G	C5-C6-O6	-6.33	124.80	128.60
26	1H	2264	C	C6-N1-C2	-6.33	117.77	120.30
1	1G	14	U	C5-C6-N1	6.33	125.86	122.70
1	1G	345	C	N1-C2-O2	6.33	122.70	118.90
26	14	297	C	C6-N1-C2	-6.33	117.77	120.30
26	14	641	C	O5'-P-OP2	6.33	118.30	110.70
26	14	1270	C	OP2-P-O3'	6.33	119.12	105.20
26	1H	120	U	N1-C2-N3	6.33	118.70	114.90
23	2K	22	A	O5'-P-OP1	-6.33	100.01	105.70
26	1H	140	A	C2-N3-C4	-6.33	107.44	110.60
26	1H	536	A	C8-N9-C4	-6.33	103.27	105.80
26	1H	1617	C	O5'-P-OP1	-6.33	100.01	105.70
27	16	53	A	N7-C8-N9	6.33	116.96	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	138	G	C8-N9-C4	-6.33	103.87	106.40
26	14	1781	C	C6-N1-C2	6.33	122.83	120.30
26	1H	204	A	C5-C6-N1	6.32	120.86	117.70
26	1H	866	A	C5-N7-C8	-6.32	100.74	103.90
26	14	786	C	C5-C6-N1	-6.32	117.84	121.00
26	14	1608	A	N9-C4-C5	6.32	108.33	105.80
26	1H	1347	G	N3-C2-N2	-6.32	115.47	119.90
26	1H	501	A	OP1-P-OP2	6.32	129.08	119.60
26	1H	728	G	O5'-P-OP2	-6.32	100.01	105.70
26	1H	137(A)	G	C5-C6-O6	-6.32	124.81	128.60
26	1H	467	G	C8-N9-C4	6.32	108.93	106.40
26	14	1251	C	N3-C4-N4	6.32	122.42	118.00
26	14	2477	C	C2-N1-C1'	6.32	125.75	118.80
26	1H	2695	C	N1-C2-O2	-6.32	115.11	118.90
1	1G	896	C	N3-C4-C5	6.32	124.43	121.90
26	14	122	G	C8-N9-C4	6.32	108.93	106.40
26	14	804	A	C8-N9-C4	6.32	108.33	105.80
26	1H	1373	A	N7-C8-N9	-6.32	110.64	113.80
26	1H	2281	C	C5-C4-N4	-6.32	115.78	120.20
26	1H	2581	G	N3-C2-N2	6.32	124.32	119.90
26	14	210	C	N3-C4-C5	6.32	124.43	121.90
26	14	681	G	C6-C5-N7	-6.32	126.61	130.40
26	14	827	U	C5-C4-O4	-6.32	122.11	125.90
26	14	2764	A	C8-N9-C4	6.32	108.33	105.80
48	F5	36	GLY	N-CA-C	6.32	128.89	113.10
26	14	566	U	C6-N1-C2	6.31	124.79	121.00
26	14	1216	G	N1-C6-O6	6.31	123.69	119.90
26	1H	36	G	O5'-P-OP2	-6.31	100.02	105.70
26	1H	541	C	N3-C2-O2	-6.31	117.48	121.90
26	1H	568	U	C5-C4-O4	-6.31	122.11	125.90
26	1H	1809	A	C5-C6-N1	6.31	120.86	117.70
27	1J	56	G	N3-C4-N9	6.31	129.79	126.00
26	1H	827	U	C5-C6-N1	-6.31	119.54	122.70
26	1H	1618	A	C5-N7-C8	-6.31	100.74	103.90
27	16	15	A	O4'-C1'-N9	6.31	113.25	108.20
1	13	913	A	C8-N9-C4	6.31	108.32	105.80
26	1H	1034	G	C5-C6-O6	-6.31	124.81	128.60
26	1H	2773	C	C5-C6-N1	-6.31	117.84	121.00
26	14	1325	G	N3-C4-C5	-6.31	125.45	128.60
1	13	576	G	C4-N9-C1'	6.31	134.70	126.50
26	1H	2708	G	C8-N9-C4	6.31	108.92	106.40
26	14	2065	C	C2-N1-C1'	6.31	125.74	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2427	C	N1-C2-O2	-6.31	115.12	118.90
26	14	2607	G	C6-C5-N7	-6.31	126.62	130.40
1	13	804	U	C5-C6-N1	-6.31	119.55	122.70
27	16	100	G	N9-C4-C5	-6.31	102.88	105.40
1	13	280	C	C6-N1-C2	6.30	122.82	120.30
26	1H	781	A	OP1-P-OP2	6.30	129.06	119.60
26	1H	1200	C	C5-C6-N1	-6.30	117.85	121.00
26	1H	1265	A	O5'-P-OP2	-6.30	100.03	105.70
26	1H	1308	A	C8-N9-C4	-6.30	103.28	105.80
26	1H	1936	A	C5-C6-N6	-6.30	118.66	123.70
26	1H	2026	C	C4-C5-C6	6.30	120.55	117.40
26	14	57	C	N3-C2-O2	6.30	126.31	121.90
26	14	1407	C	O5'-P-OP1	-6.30	100.03	105.70
26	14	1411	C	O5'-P-OP1	6.30	118.27	110.70
26	14	2433	A	C8-N9-C4	-6.30	103.28	105.80
1	13	821	G	C8-N9-C1'	-6.30	118.81	127.00
26	14	1349	A	C6-C5-N7	-6.30	127.89	132.30
1	13	583	A	N9-C4-C5	-6.30	103.28	105.80
26	1H	138	G	C4-C5-C6	-6.30	115.02	118.80
26	1H	142	G	C4-N9-C1'	-6.30	118.31	126.50
26	1H	748	G	C4-N9-C1'	-6.30	118.31	126.50
26	1H	1521	G	C8-N9-C4	-6.30	103.88	106.40
26	1H	2518	A	C4-C5-N7	6.30	113.85	110.70
26	14	1024	G	N1-C6-O6	6.30	123.68	119.90
26	14	1950	G	O4'-C1'-N9	6.30	113.24	108.20
26	1H	2580	U	OP2-P-O3'	6.30	119.06	105.20
26	1H	2620	C	N3-C2-O2	6.30	126.31	121.90
26	14	2346	A	C4-N9-C1'	6.30	137.64	126.30
26	1H	110	G	OP1-P-OP2	6.30	129.05	119.60
26	1H	994	C	C6-N1-C2	-6.30	117.78	120.30
26	1H	1385	G	N3-C4-C5	6.30	131.75	128.60
26	14	76	C	C6-N1-C2	-6.30	117.78	120.30
26	1H	1836	C	C6-N1-C2	-6.30	117.78	120.30
1	1G	1502	A	N7-C8-N9	6.30	116.95	113.80
26	14	2731	G	C6-C5-N7	-6.30	126.62	130.40
1	13	1495	U	C5-C4-O4	6.29	129.68	125.90
26	1H	1138	G	C8-N9-C1'	-6.29	118.82	127.00
1	13	1299	A	N1-C6-N6	6.29	122.38	118.60
26	1H	1413	G	C8-N9-C4	-6.29	103.88	106.40
26	14	690	G	N1-C6-O6	6.29	123.68	119.90
26	14	2490	G	N7-C8-N9	6.29	116.25	113.10
1	13	169	C	C2-N1-C1'	6.29	125.72	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	842	G	C5-C6-O6	-6.29	124.83	128.60
26	1H	1299	G	N9-C4-C5	-6.29	102.88	105.40
26	14	1614	A	C5-C6-N1	-6.29	114.55	117.70
26	1H	1229(A)	G	C2-N3-C4	-6.29	108.75	111.90
26	1H	1349	A	C2-N3-C4	-6.29	107.45	110.60
26	1H	1657	C	C6-N1-C2	-6.29	117.78	120.30
26	1H	2603	G	OP1-P-O3'	6.29	119.04	105.20
26	1H	790	C	N3-C2-O2	6.29	126.30	121.90
26	1H	1209	G	N1-C6-O6	6.29	123.67	119.90
26	1H	1613	G	N1-C6-O6	-6.29	116.13	119.90
26	1H	1698	A	N3-C4-N9	-6.29	122.37	127.40
1	1G	963	G	C4-N9-C1'	6.29	134.67	126.50
26	14	568	U	N1-C2-O2	6.29	127.20	122.80
26	1H	140	A	O4'-C1'-N9	6.29	113.23	108.20
26	1H	2761	G	C8-N9-C4	6.29	108.92	106.40
1	1G	121	C	C6-N1-C1'	-6.29	113.25	120.80
26	1H	2584	U	N1-C2-O2	6.29	127.20	122.80
1	1G	913	A	OP2-P-O3'	6.29	119.03	105.20
26	14	2076	U	O5'-P-OP2	-6.29	100.04	105.70
26	1H	266	G	O5'-P-OP2	-6.28	100.05	105.70
26	1H	1471	A	C4-C5-N7	6.28	113.84	110.70
26	1H	1598	C	N3-C4-C5	-6.28	119.39	121.90
26	1H	1695	G	N3-C2-N2	6.28	124.30	119.90
26	1H	2698	U	C4-C5-C6	6.28	123.47	119.70
25	4K	17	U	C5-C6-N1	-6.28	119.56	122.70
26	1H	823	G	N9-C4-C5	-6.28	102.89	105.40
1	13	541	G	C5-C6-O6	-6.28	124.83	128.60
26	1H	630	G	N7-C8-N9	-6.28	109.96	113.10
26	1H	1402	C	C5-C6-N1	6.28	124.14	121.00
28	19	111	LEU	CA-CB-CG	6.28	129.74	115.30
26	1H	657	U	OP2-P-O3'	6.28	119.01	105.20
26	1H	1424	G	N1-C2-N3	6.28	127.67	123.90
26	1H	2822	G	C4-C5-N7	6.28	113.31	110.80
1	13	764	C	N3-C4-C5	6.28	124.41	121.90
26	1H	468	G	C8-N9-C4	6.28	108.91	106.40
26	1H	811	U	N1-C2-O2	-6.28	118.41	122.80
26	1H	1379	A	N1-C6-N6	6.28	122.37	118.60
26	1H	1764	G	N1-C2-N3	6.28	127.67	123.90
26	14	1643	G	OP2-P-O3'	6.28	119.01	105.20
26	1H	966	G	C5-C6-O6	6.28	132.37	128.60
1	1G	353	A	N1-C6-N6	6.27	122.36	118.60
26	14	189	G	N7-C8-N9	-6.27	109.96	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	3E	32	ALA	N-CA-C	-6.27	94.06	111.00
26	14	2713	A	N1-C6-N6	6.27	122.36	118.60
26	1H	966	G	N7-C8-N9	-6.27	109.96	113.10
26	14	252	G	C5-C6-O6	6.27	132.36	128.60
26	1H	2389	G	OP1-P-O3'	6.27	118.99	105.20
26	14	196	A	O5'-P-OP2	-6.27	100.06	105.70
1	13	1517	G	C5-C6-N1	6.27	114.63	111.50
26	1H	845	G	N9-C4-C5	-6.27	102.89	105.40
26	1H	1786	A	C5-C6-N1	-6.27	114.57	117.70
26	14	798	G	N3-C2-N2	-6.27	115.51	119.90
26	14	2713	A	C4-C5-N7	6.27	113.83	110.70
26	1H	606	U	N3-C2-O2	-6.27	117.81	122.20
26	1H	906	G	C6-C5-N7	6.27	134.16	130.40
19	AI	25	LYS	N-CA-C	-6.26	94.09	111.00
26	1H	1193	G	N7-C8-N9	-6.26	109.97	113.10
26	1H	2192	G	C4-N9-C1'	6.26	134.64	126.50
26	1H	2247	A	O5'-P-OP1	-6.26	100.06	105.70
19	AA	82	GLY	N-CA-C	6.26	128.76	113.10
26	1H	2427	C	N1-C2-O2	-6.26	115.14	118.90
26	1H	2450	A	N1-C2-N3	6.26	132.43	129.30
26	14	848	G	N3-C4-N9	6.26	129.76	126.00
26	14	1804	C	C5-C6-N1	6.26	124.13	121.00
26	1H	1224	G	O5'-P-OP1	-6.26	100.07	105.70
1	1G	576	G	C4-C5-C6	6.26	122.56	118.80
26	14	1142	U	N3-C2-O2	-6.26	117.82	122.20
1	13	579	G	N1-C6-O6	6.26	123.65	119.90
26	14	2247	A	C5-C6-N6	6.26	128.70	123.70
22	1K	48	C	N1-C2-O2	6.25	122.65	118.90
1	13	1313	U	C5-C6-N1	6.25	125.83	122.70
26	1H	61	G	C8-N9-C4	6.25	108.90	106.40
26	1H	1520	U	C5-C4-O4	6.25	129.65	125.90
26	1H	1806	C	OP1-P-OP2	6.25	128.98	119.60
26	1H	2282	G	O5'-P-OP1	-6.25	100.07	105.70
26	1H	2625	G	C5-C6-O6	-6.25	124.85	128.60
12	3A	27	LEU	CA-CB-CG	6.25	129.68	115.30
26	1H	671	C	C6-N1-C2	6.25	122.80	120.30
26	1H	850	C	C5-C4-N4	-6.25	115.82	120.20
26	1H	2502	G	N3-C4-N9	6.25	129.75	126.00
26	14	1801	G	C5-C6-O6	-6.25	124.85	128.60
1	13	888	G	C8-N9-C4	6.25	108.90	106.40
26	1H	698	C	N3-C4-C5	6.25	124.40	121.90
26	1H	2314	C	O5'-P-OP2	-6.25	100.08	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	27	G	C8-N9-C4	6.25	108.90	106.40
26	14	1313	U	N3-C4-C5	-6.25	110.85	114.60
26	1H	1349	A	N1-C6-N6	6.25	122.35	118.60
26	14	703	U	N3-C4-O4	-6.25	115.03	119.40
26	14	1908	C	C6-N1-C2	-6.25	117.80	120.30
26	1H	179	G	N1-C2-N3	6.24	127.65	123.90
26	1H	762	U	C2-N1-C1'	6.24	125.19	117.70
26	1H	1607	C	N3-C4-N4	6.24	122.37	118.00
26	1H	2378	A	N9-C4-C5	-6.24	103.30	105.80
26	14	138	G	C2-N3-C4	6.24	115.02	111.90
26	14	1378	A	N1-C2-N3	-6.24	126.18	129.30
26	14	2499	C	N1-C2-O2	-6.24	115.15	118.90
26	1H	1366	A	N9-C4-C5	-6.24	103.30	105.80
26	14	1281	G	C4-C5-N7	6.24	113.30	110.80
26	1H	1379	A	N9-C1'-C2'	6.24	122.11	114.00
26	1H	52	A	C2-N3-C4	6.24	113.72	110.60
26	1H	263	C	O5'-P-OP1	6.24	118.18	110.70
26	1H	763	G	C4-C5-C6	6.24	122.54	118.80
26	1H	1594	G	N7-C8-N9	6.24	116.22	113.10
26	14	826	U	N3-C4-C5	-6.24	110.86	114.60
26	14	2707	G	N1-C6-O6	-6.24	116.16	119.90
26	1H	784	A	N3-C4-N9	-6.24	122.41	127.40
26	1H	2036	C	C5-C6-N1	6.24	124.12	121.00
1	13	1227	A	O5'-P-OP2	-6.23	100.09	105.70
26	1H	470	A	C6-N1-C2	-6.23	114.86	118.60
27	16	45	A	OP1-P-OP2	6.23	128.95	119.60
26	1H	427	U	N3-C2-O2	6.23	126.56	122.20
26	1H	526	A	C5-C6-N6	6.23	128.69	123.70
26	1H	2762	G	C4-C5-N7	6.23	113.29	110.80
26	14	187	G	C6-N1-C2	-6.23	121.36	125.10
26	14	2240	C	C6-N1-C2	-6.23	117.81	120.30
26	1H	336	C	N3-C4-N4	6.23	122.36	118.00
26	1H	655	A	C4-C5-C6	6.23	120.12	117.00
26	1H	1256	G	C8-N9-C1'	-6.23	118.90	127.00
26	1H	1300	U	N1-C2-O2	-6.23	118.44	122.80
1	1G	121	C	C2-N1-C1'	6.23	125.65	118.80
22	1K	34	G	N7-C8-N9	6.23	116.22	113.10
26	1H	1914	C	C5-C4-N4	6.23	124.56	120.20
1	13	22	G	O5'-P-OP1	-6.23	100.10	105.70
1	13	291	C	N1-C2-O2	-6.23	115.16	118.90
1	13	518	C	C6-N1-C2	6.23	122.79	120.30
26	1H	835	A	C5-C6-N1	6.23	120.81	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	949	C	C4-C5-C6	6.23	120.51	117.40
26	14	1030	G	C4-C5-N7	6.23	113.29	110.80
26	14	2084	C	N1-C2-O2	-6.23	115.16	118.90
26	14	1427	A	N1-C6-N6	-6.23	114.86	118.60
1	13	505	G	O5'-P-OP2	6.22	118.17	110.70
26	1H	733	G	N3-C2-N2	6.22	124.26	119.90
26	1H	2359	C	C5-C6-N1	-6.22	117.89	121.00
26	14	1125	G	N1-C6-O6	-6.22	116.17	119.90
26	14	2427	C	O5'-P-OP2	6.22	118.17	110.70
26	1H	305	U	C5-C6-N1	6.22	125.81	122.70
26	1H	823	G	N1-C2-N3	6.22	127.63	123.90
26	14	2720	U	C5-C4-O4	6.22	129.63	125.90
1	13	1260	C	C5-C6-N1	6.22	124.11	121.00
26	1H	689	A	O5'-P-OP2	-6.22	100.10	105.70
1	13	972	C	C6-N1-C2	-6.22	117.81	120.30
1	13	1498	U	P-O3'-C3'	6.22	127.16	119.70
26	1H	188	G	OP1-P-OP2	6.22	128.93	119.60
26	1H	1287	A	OP1-P-OP2	-6.22	110.27	119.60
26	1H	1655	A	C5-C6-N6	-6.22	118.72	123.70
1	1G	598	U	N1-C2-O2	-6.22	118.45	122.80
26	1H	2449	U	N3-C4-C5	-6.22	110.87	114.60
26	1H	827	U	N1-C2-O2	-6.22	118.45	122.80
26	14	203	C	C2-N3-C4	-6.22	116.79	119.90
26	14	1988	C	C5-C4-N4	-6.22	115.85	120.20
1	13	585	G	C8-N9-C4	6.21	108.89	106.40
23	2K	9	G	C2-N3-C4	6.21	115.01	111.90
26	1H	2451	A	C5-C6-N6	6.21	128.67	123.70
26	14	1394	U	C5-C4-O4	6.21	129.63	125.90
26	14	2681	C	C5-C4-N4	6.21	124.55	120.20
26	1H	1416	G	C4-N9-C1'	-6.21	118.42	126.50
26	1H	1942	C	C6-N1-C2	-6.21	117.81	120.30
26	1H	1021	A	N3-C4-C5	6.21	131.15	126.80
26	1H	1363	C	C5-C6-N1	-6.21	117.89	121.00
26	1H	2554	U	C5-C6-N1	6.21	125.81	122.70
26	1H	1641	A	O5'-P-OP1	-6.21	100.11	105.70
26	1H	2010	G	O5'-P-OP2	6.21	118.15	110.70
26	1H	736	C	C6-N1-C2	6.21	122.78	120.30
1	13	770	C	N1-C2-O2	-6.21	115.18	118.90
1	13	789	U	C6-N1-C2	-6.21	117.28	121.00
26	1H	59	U	OP2-P-O3'	6.21	118.85	105.20
26	1H	241	A	O5'-P-OP2	-6.21	100.11	105.70
26	1H	1269	A	N7-C8-N9	6.21	116.90	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	817	C	C5-C6-N1	-6.21	117.90	121.00
26	1H	561	G	OP1-P-OP2	6.20	128.91	119.60
26	1H	967	C	C6-N1-C2	6.20	122.78	120.30
26	1H	249	C	N3-C2-O2	-6.20	117.56	121.90
26	1H	112	U	N3-C2-O2	6.20	126.54	122.20
26	1H	2054	A	C5-C6-N6	-6.20	118.74	123.70
26	14	2406	U	OP1-P-O3'	6.20	118.84	105.20
1	13	893	C	N1-C2-O2	6.20	122.62	118.90
26	1H	585	G	N1-C6-O6	6.20	123.62	119.90
26	1H	826	U	N1-C2-O2	-6.20	118.46	122.80
26	14	1388	G	O5'-P-OP2	-6.20	100.12	105.70
26	1H	121	G	N3-C4-C5	-6.20	125.50	128.60
26	1H	786	C	C2-N3-C4	-6.20	116.80	119.90
27	1J	22	U	C5-C6-N1	6.20	125.80	122.70
26	1H	1574	C	O5'-P-OP1	6.20	118.13	110.70
26	1H	2254	C	N1-C2-O2	-6.20	115.18	118.90
26	1H	78	A	N1-C6-N6	6.19	122.32	118.60
26	1H	238	C	C2-N3-C4	-6.19	116.80	119.90
26	1H	779	U	C6-N1-C2	6.19	124.72	121.00
1	13	23	C	C6-N1-C2	-6.19	117.82	120.30
26	1H	124	G	C5-C6-N1	6.19	114.60	111.50
26	1H	774	A	C8-N9-C4	-6.19	103.32	105.80
26	1H	1915	U	C2-N3-C4	-6.19	123.28	127.00
27	16	7	G	N1-C6-O6	6.19	123.62	119.90
27	16	60	C	C5-C6-N1	6.19	124.10	121.00
26	14	330	A	N9-C4-C5	-6.19	103.32	105.80
26	14	597	U	N1-C2-O2	-6.19	118.47	122.80
26	14	2375	G	C5-N7-C8	6.19	107.40	104.30
26	14	2776	A	N7-C8-N9	6.19	116.90	113.80
26	1H	1228	G	N1-C2-N3	6.19	127.61	123.90
26	1H	1298	C	N1-C2-O2	6.19	122.61	118.90
26	1H	1647	G	C4-C5-N7	-6.19	108.32	110.80
1	1G	249	U	O5'-P-OP2	-6.19	100.13	105.70
26	14	2276	G	N3-C2-N2	-6.19	115.57	119.90
26	1H	175	G	N1-C6-O6	-6.19	116.19	119.90
26	1H	566	U	C6-N1-C2	6.19	124.71	121.00
26	1H	1537	C	C6-N1-C2	-6.19	117.83	120.30
27	16	61	G	C8-N9-C4	-6.19	103.92	106.40
26	14	40	C	C6-N1-C2	-6.19	117.83	120.30
26	1H	996	A	C8-N9-C4	6.18	108.27	105.80
26	1H	108	U	O5'-P-OP1	-6.18	100.14	105.70
1	1G	1508	G	C8-N9-C4	6.18	108.87	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1528	A	N7-C8-N9	6.18	116.89	113.80
1	13	1158	C	C6-N1-C2	-6.18	117.83	120.30
26	1H	130	C	C5-C4-N4	-6.18	115.88	120.20
26	1H	1249	U	C5-C4-O4	-6.18	122.19	125.90
26	1H	1614	A	C5-C6-N1	-6.18	114.61	117.70
26	14	2584	U	OP1-P-OP2	-6.18	110.33	119.60
26	1H	1790	C	N1-C2-O2	-6.18	115.19	118.90
35	68	22	ILE	CG1-CB-CG2	-6.18	97.81	111.40
26	1H	1266	G	C4-C5-N7	6.18	113.27	110.80
26	1H	1614	A	N3-C4-N9	-6.18	122.46	127.40
26	1H	2061	G	OP1-P-O3'	6.18	118.79	105.20
26	1H	2585	U	N1-C2-O2	6.18	127.12	122.80
26	1H	2713	A	N3-C4-C5	6.18	131.12	126.80
43	E8	11	ARG	NE-CZ-NH1	6.18	123.39	120.30
1	13	1405	G	C5-C6-O6	-6.17	124.89	128.60
26	1H	74	A	N7-C8-N9	6.17	116.89	113.80
37	88	82	ARG	N-CA-C	6.17	127.67	111.00
26	14	1407	C	N3-C2-O2	6.17	126.22	121.90
26	14	1661	G	N1-C6-O6	6.17	123.60	119.90
27	16	49	C	N3-C2-O2	6.17	126.22	121.90
26	14	2590	A	N7-C8-N9	-6.17	110.71	113.80
1	13	507	C	N3-C4-C5	-6.17	119.43	121.90
26	1H	216	A	N1-C2-N3	6.17	132.38	129.30
26	1H	651	G	O5'-P-OP2	6.17	118.11	110.70
26	14	1129	A	O5'-P-OP2	-6.17	100.15	105.70
26	1H	16	G	N1-C2-N3	6.17	127.60	123.90
26	1H	770	G	OP1-P-OP2	-6.17	110.35	119.60
26	1H	817	C	OP2-P-O3'	6.17	118.77	105.20
26	1H	1257	C	C5-C4-N4	-6.17	115.88	120.20
26	1H	2018	G	N7-C8-N9	6.17	116.18	113.10
26	1H	2550	G	O5'-P-OP2	-6.17	100.15	105.70
26	14	1474	C	N1-C2-O2	6.17	122.60	118.90
26	1H	2497	A	N3-C4-N9	6.17	132.33	127.40
1	1G	345	C	C5-C6-N1	6.17	124.08	121.00
26	14	2700	C	C5-C4-N4	-6.17	115.88	120.20
26	1H	2271	G	C6-C5-N7	-6.17	126.70	130.40
26	1H	2308	G	N1-C6-O6	6.17	123.60	119.90
26	14	621	A	N1-C6-N6	6.17	122.30	118.60
26	1H	1391	U	N3-C4-O4	6.16	123.72	119.40
1	1G	334	C	C6-N1-C2	6.16	122.77	120.30
1	1G	862	C	C6-N1-C1'	-6.16	113.40	120.80
26	14	776	G	C5-C6-O6	-6.16	124.90	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1332	A	C8-N9-C4	-6.16	103.34	105.80
26	14	57	C	N1-C2-O2	-6.16	115.20	118.90
26	1H	594	U	C6-N1-C2	6.16	124.69	121.00
26	14	558	G	N7-C8-N9	-6.16	110.02	113.10
26	14	2346	A	C5-N7-C8	-6.16	100.82	103.90
26	1H	1623	G	OP2-P-O3'	6.16	118.75	105.20
1	1G	1190	G	C4-C5-N7	-6.16	108.34	110.80
26	1H	455	C	N3-C4-N4	-6.16	113.69	118.00
48	J8	80	LEU	CA-CB-CG	6.16	129.46	115.30
26	14	1571	A	C5-C6-N6	-6.16	118.78	123.70
26	14	1572	A	C5-C6-N6	-6.16	118.78	123.70
26	14	2681	C	N3-C4-N4	-6.16	113.69	118.00
26	1H	1324	G	C5-C6-O6	-6.15	124.91	128.60
5	4E	12	LEU	CA-CB-CG	6.15	129.45	115.30
26	1H	1807	G	C5-C6-O6	-6.15	124.91	128.60
26	14	1470	G	N1-C6-O6	6.15	123.59	119.90
26	14	1992	G	C5-C6-N1	6.15	114.58	111.50
26	14	2554	U	O5'-P-OP2	6.15	118.08	110.70
26	1H	1285	G	C5-C6-N1	6.15	114.58	111.50
26	1H	1334	G	N7-C8-N9	6.15	116.17	113.10
26	1H	1559	G	N1-C6-O6	6.15	123.59	119.90
26	14	777	A	N1-C6-N6	-6.15	114.91	118.60
26	14	1342	A	O4'-C1'-N9	6.15	113.12	108.20
1	1G	875	C	N3-C2-O2	-6.15	117.60	121.90
26	14	1340	U	C5-C6-N1	-6.15	119.62	122.70
26	1H	593	G	C6-N1-C2	-6.15	121.41	125.10
26	1H	917	A	C6-C5-N7	-6.15	128.00	132.30
1	1G	898	G	N1-C6-O6	6.15	123.59	119.90
26	14	1253	A	N3-C4-N9	6.15	132.32	127.40
26	14	1407	C	C4-C5-C6	-6.15	114.33	117.40
26	14	2301	C	C5-C6-N1	6.15	124.07	121.00
1	13	23	C	C5-C6-N1	6.15	124.07	121.00
26	1H	2082	A	N1-C2-N3	6.15	132.37	129.30
26	14	801	G	C4-C5-N7	-6.15	108.34	110.80
26	1H	23	G	N3-C2-N2	-6.14	115.60	119.90
26	1H	2051	A	C5-N7-C8	-6.14	100.83	103.90
26	14	2570	G	N3-C2-N2	-6.14	115.60	119.90
26	1H	1264	G	C6-C5-N7	-6.14	126.72	130.40
26	1H	1624	G	C8-N9-C4	6.14	108.86	106.40
1	13	1412	C	C5-C6-N1	-6.14	117.93	121.00
26	1H	247	G	N9-C4-C5	-6.14	102.94	105.40
1	1G	481	G	N3-C4-N9	6.14	129.68	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1813	G	N1-C6-O6	-6.14	116.22	119.90
26	1H	738	G	C4-C5-N7	6.14	113.26	110.80
26	1H	1147	C	C6-N1-C2	6.14	122.76	120.30
26	1H	2439	A	C4-C5-N7	6.14	113.77	110.70
26	14	509	C	C4-C5-C6	6.14	120.47	117.40
26	14	1914	C	C6-N1-C2	-6.14	117.84	120.30
26	14	2304	G	C8-N9-C4	-6.14	103.94	106.40
26	1H	800	A	OP1-P-OP2	6.14	128.81	119.60
26	1H	1786	A	C4-N9-C1'	6.14	137.35	126.30
26	1H	1594	G	OP1-P-O3'	6.14	118.70	105.20
26	14	1795	C	C6-N1-C2	-6.14	117.85	120.30
26	1H	321	G	N1-C6-O6	6.13	123.58	119.90
26	1H	418	G	C8-N9-C4	6.13	108.85	106.40
26	1H	790	C	N1-C2-O2	-6.13	115.22	118.90
26	1H	1677	A	C8-N9-C4	6.13	108.25	105.80
23	2L	35	C	C2-N1-C1'	6.13	125.55	118.80
26	14	1279	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	2318	G	C2-N3-C4	-6.13	108.83	111.90
26	1H	1353	A	C6-N1-C2	-6.13	114.92	118.60
26	14	1355	G	N7-C8-N9	6.13	116.17	113.10
26	1H	346	A	C8-N9-C4	-6.13	103.35	105.80
26	1H	935	C	C6-N1-C2	6.13	122.75	120.30
26	1H	1929	G	O5'-P-OP2	-6.13	100.18	105.70
26	1H	2424	C	C5-C6-N1	6.13	124.06	121.00
1	1G	353	A	C4-C5-N7	6.13	113.76	110.70
26	14	1355	G	C8-N9-C4	-6.13	103.95	106.40
26	14	1366	A	C5-N7-C8	-6.13	100.84	103.90
26	14	2354	G	C5-C6-O6	-6.13	124.92	128.60
26	1H	130	C	C5-C6-N1	-6.13	117.94	121.00
26	1H	769	G	N3-C2-N2	6.13	124.19	119.90
26	1H	2488	A	N1-C6-N6	6.13	122.28	118.60
26	14	2224	G	C6-C5-N7	-6.13	126.72	130.40
26	14	2473	U	N1-C2-O2	6.13	127.09	122.80
27	1J	6	C	C6-N1-C2	6.13	122.75	120.30
26	1H	239	U	C5-C4-O4	6.12	129.57	125.90
26	1H	1192	G	O5'-P-OP2	-6.12	100.19	105.70
26	1H	2574	G	C5-C6-N1	6.12	114.56	111.50
1	1G	110	C	C6-N1-C2	6.12	122.75	120.30
26	14	1406	U	C5-C6-N1	6.12	125.76	122.70
1	13	807	A	C8-N9-C4	-6.12	103.35	105.80
26	1H	1364	G	N3-C2-N2	6.12	124.19	119.90
1	1G	905	U	C5-C6-N1	-6.12	119.64	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1470	G	N3-C2-N2	-6.12	115.61	119.90
26	1H	238	C	C4-C5-C6	6.12	120.46	117.40
26	1H	917	A	C5-C6-N1	-6.12	114.64	117.70
1	13	1519	A	C4-C5-N7	-6.12	107.64	110.70
26	1H	2380	C	C6-N1-C2	6.12	122.75	120.30
26	14	639	U	N3-C4-C5	-6.12	110.93	114.60
26	14	1309	G	C4-N9-C1'	6.12	134.46	126.50
26	14	748	G	C8-N9-C1'	6.12	134.96	127.00
1	13	812	C	P-O3'-C3'	6.12	127.04	119.70
26	1H	1574	C	C6-N1-C2	6.12	122.75	120.30
26	1H	1614	A	C6-C5-N7	-6.12	128.02	132.30
26	1H	2045	C	C5-C6-N1	-6.12	117.94	121.00
26	1H	2324	C	C6-N1-C1'	-6.12	113.46	120.80
26	1H	197	A	P-O3'-C3'	6.11	127.04	119.70
26	1H	1386	C	C5-C6-N1	6.11	124.06	121.00
26	1H	2263	C	N3-C4-C5	-6.11	119.45	121.90
1	1G	1157	A	P-O3'-C3'	6.11	127.04	119.70
1	13	690	G	C8-N9-C1'	-6.11	119.06	127.00
26	14	621	A	N3-C4-C5	6.11	131.08	126.80
1	13	582	U	N3-C4-O4	-6.11	115.12	119.40
1	13	1431	C	C6-N1-C2	6.11	122.74	120.30
26	1H	2412	A	C6-N1-C2	-6.11	114.93	118.60
1	13	1432	G	C8-N9-C1'	-6.11	119.06	127.00
26	1H	205	G	C5-C6-O6	-6.11	124.94	128.60
26	14	36	G	C8-N9-C4	-6.11	103.96	106.40
26	14	1313	U	N3-C4-O4	6.11	123.67	119.40
26	14	1939	U	OP2-P-O3'	6.11	118.64	105.20
1	13	1310	G	N9-C4-C5	-6.11	102.96	105.40
26	1H	1158	C	N3-C4-C5	6.11	124.34	121.90
26	1H	1790	C	C5-C4-N4	-6.11	115.93	120.20
26	14	1954	G	C4-N9-C1'	-6.11	118.56	126.50
26	14	2045	C	O5'-P-OP2	-6.11	100.20	105.70
26	14	2329	G	N1-C6-O6	-6.11	116.24	119.90
27	1J	78	A	C8-N9-C4	6.11	108.24	105.80
26	1H	1294	U	O5'-P-OP2	6.10	118.03	110.70
26	1H	447	A	OP2-P-O3'	6.10	118.63	105.20
26	1H	564	C	OP1-P-O3'	6.10	118.63	105.20
26	1H	2245	U	O5'-P-OP1	-6.10	100.21	105.70
26	1H	2419	U	O5'-P-OP2	6.10	118.02	110.70
26	1H	2439	A	N7-C8-N9	6.10	116.85	113.80
26	1H	2496	C	N3-C2-O2	6.10	126.17	121.90
1	1G	690	G	O4'-C1'-N9	6.10	113.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2346	A	C4-C5-C6	6.10	120.05	117.00
26	1H	651	G	N1-C6-O6	-6.10	116.24	119.90
26	1H	1775	U	OP1-P-O3'	6.10	118.62	105.20
1	1G	41	G	C8-N9-C4	6.10	108.84	106.40
26	14	613	U	C5-C4-O4	6.10	129.56	125.90
26	14	828	U	N3-C4-C5	-6.10	110.94	114.60
26	14	1939	U	C5-C6-N1	-6.10	119.65	122.70
1	13	690	G	C4-C5-C6	6.10	122.46	118.80
26	1H	470	A	N9-C4-C5	-6.10	103.36	105.80
26	1H	733	G	O5'-P-OP2	-6.10	100.21	105.70
26	1H	738	G	C6-C5-N7	-6.10	126.74	130.40
26	1H	1558	A	C4-C5-N7	6.10	113.75	110.70
26	1H	1660	C	C2-N3-C4	-6.10	116.85	119.90
26	14	462	C	O5'-P-OP2	-6.10	100.21	105.70
26	14	1977	A	OP2-P-O3'	6.10	118.61	105.20
1	13	797	C	N1-C2-O2	-6.10	115.24	118.90
26	1H	461	C	N3-C2-O2	6.10	126.17	121.90
26	1H	2355	C	O5'-P-OP2	6.10	118.02	110.70
26	14	124	G	N1-C6-O6	-6.10	116.24	119.90
26	1H	777	A	C2-N3-C4	-6.09	107.55	110.60
26	1H	1424	G	O5'-P-OP2	-6.09	100.22	105.70
26	1H	1936	A	C5-C6-N1	6.09	120.75	117.70
26	1H	1972	A	N1-C6-N6	6.09	122.26	118.60
1	1G	1499	A	N7-C8-N9	-6.09	110.75	113.80
26	14	1528	A	C5-N7-C8	-6.09	100.85	103.90
26	14	2584	U	N1-C2-O2	6.09	127.07	122.80
1	13	266	G	C5-N7-C8	-6.09	101.25	104.30
1	13	834	C	O5'-P-OP2	-6.09	100.22	105.70
1	13	1323	G	O5'-P-OP1	-6.09	100.22	105.70
26	1H	729	G	C6-C5-N7	-6.09	126.75	130.40
1	1G	729	A	C8-N9-C4	-6.09	103.36	105.80
26	1H	1332	G	N9-C4-C5	6.09	107.84	105.40
26	1H	1647	G	O4'-C1'-N9	-6.09	103.33	108.20
26	1H	1799	G	N3-C2-N2	6.09	124.16	119.90
1	1G	111	G	N1-C6-O6	6.09	123.55	119.90
1	1G	481	G	N3-C4-C5	-6.09	125.56	128.60
1	1G	1502	A	C5-N7-C8	-6.09	100.86	103.90
26	14	1968	G	C5-C6-O6	-6.09	124.95	128.60
26	1H	739	G	C5-C6-O6	-6.09	124.95	128.60
1	1G	738	C	C6-N1-C2	-6.09	117.86	120.30
26	14	752	A	N7-C8-N9	6.09	116.84	113.80
26	14	830	G	N7-C8-N9	-6.09	110.06	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	933	A	C5-N7-C8	-6.09	100.86	103.90
26	14	2581	G	O5'-P-OP2	-6.09	100.22	105.70
26	14	2075	U	OP2-P-O3'	6.08	118.59	105.20
26	1H	422	A	OP1-P-OP2	6.08	128.72	119.60
26	1H	731	C	N3-C4-N4	6.08	122.26	118.00
1	1G	1147	C	C2-N1-C1'	6.08	125.49	118.80
26	14	211	A	N1-C6-N6	6.08	122.25	118.60
26	1H	2075	U	N1-C2-O2	-6.08	118.54	122.80
26	14	1203	G	O5'-P-OP2	-6.08	100.23	105.70
26	14	2689	U	OP2-P-O3'	6.08	118.58	105.20
1	13	781	A	C5-N7-C8	-6.08	100.86	103.90
1	13	926	G	C8-N9-C4	-6.08	103.97	106.40
1	1G	1490	C	O5'-P-OP1	6.08	118.00	110.70
26	14	2275	C	C5'-C4'-O4'	-6.08	101.80	109.10
26	1H	1451	C	N1-C2-O2	6.08	122.55	118.90
26	1H	1857	G	N1-C6-O6	6.08	123.55	119.90
26	14	2056	G	C5-C6-N1	6.08	114.54	111.50
26	1H	789	A	OP2-P-O3'	6.08	118.57	105.20
26	1H	830	G	N1-C2-N3	6.08	127.55	123.90
26	1H	141	A	C6-C5-N7	-6.07	128.05	132.30
26	1H	1382	G	C5-C6-N1	6.07	114.54	111.50
26	1H	1691	C	OP1-P-O3'	6.07	118.56	105.20
26	1H	1786	A	O4'-C1'-N9	6.07	113.06	108.20
26	1H	1956	U	OP1-P-O3'	6.07	118.56	105.20
26	1H	1987	G	N3-C2-N2	-6.07	115.65	119.90
26	1H	453	C	N3-C2-O2	6.07	126.15	121.90
26	1H	1834	U	N1-C2-O2	6.07	127.05	122.80
26	14	1920	C	O5'-P-OP2	-6.07	100.23	105.70
1	13	377	G	O5'-P-OP2	-6.07	100.24	105.70
1	13	1500	A	C5-C6-N1	6.07	120.73	117.70
26	1H	1518	C	O5'-P-OP2	6.07	117.98	110.70
26	1H	2325	G	O5'-P-OP1	-6.07	100.24	105.70
26	1H	2527	C	N3-C4-N4	6.07	122.25	118.00
27	16	44	G	N7-C8-N9	-6.07	110.06	113.10
26	14	2210	G	C8-N9-C1'	-6.07	119.11	127.00
26	14	2586	C	C5-C6-N1	6.07	124.03	121.00
26	1H	543	C	C6-N1-C2	6.07	122.73	120.30
1	1G	884	U	C6-N1-C2	-6.07	117.36	121.00
2	1E	187	LEU	CA-CB-CG	6.07	129.25	115.30
26	1H	107	C	C4-C5-C6	6.07	120.43	117.40
26	1H	1673	U	C6-N1-C2	6.07	124.64	121.00
26	1H	2269	A	O5'-P-OP1	6.07	117.98	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2477	C	C2-N1-C1'	6.07	125.47	118.80
1	1G	898	G	C5-C6-O6	-6.07	124.96	128.60
26	14	698	C	C4-C5-C6	6.07	120.43	117.40
1	13	567	G	O5'-P-OP1	-6.07	100.24	105.70
26	1H	213	A	O5'-P-OP2	-6.07	100.24	105.70
1	1G	230	G	N1-C6-O6	6.07	123.54	119.90
26	14	689	A	C8-N9-C4	6.06	108.23	105.80
26	14	784	A	C4-C5-N7	-6.06	107.67	110.70
1	13	190	G	C4-N9-C1'	6.06	134.38	126.50
1	13	758	G	N1-C6-O6	6.06	123.54	119.90
1	1G	811	C	C5-C6-N1	6.06	124.03	121.00
26	14	840	C	C6-N1-C2	6.06	122.72	120.30
26	1H	2241	A	N1-C2-N3	6.06	132.33	129.30
1	13	122	G	C5-C6-O6	-6.06	124.97	128.60
26	1H	1520	U	C6-N1-C2	-6.06	117.36	121.00
26	1H	1941	C	N3-C4-C5	-6.06	119.48	121.90
26	1H	2684	U	O5'-P-OP1	-6.06	100.25	105.70
26	14	664	C	OP1-P-OP2	6.06	128.69	119.60
26	14	1783	A	C8-N9-C4	-6.06	103.38	105.80
26	1H	557	U	C5-C6-N1	-6.06	119.67	122.70
26	1H	1786	A	C5-C6-N6	-6.06	118.85	123.70
26	1H	1825	A	C5-C6-N6	6.06	128.54	123.70
1	1G	904	C	O5'-P-OP2	6.06	117.97	110.70
26	14	270(X)	G	C5-C6-N1	-6.06	108.47	111.50
27	1J	47	C	OP1-P-O3'	6.06	118.53	105.20
26	14	71	A	C6-C5-N7	-6.06	128.06	132.30
26	14	543	C	N1-C2-O2	6.06	122.53	118.90
26	1H	2017	U	N3-C4-O4	6.05	123.64	119.40
1	1G	400	C	C6-N1-C2	6.05	122.72	120.30
1	1G	576	G	C8-N9-C1'	-6.05	119.13	127.00
26	14	1302	A	N1-C6-N6	-6.05	114.97	118.60
26	14	1780	A	N1-C2-N3	6.05	132.33	129.30
26	14	2439	A	C5-C6-N6	-6.05	118.86	123.70
1	1G	108	G	N9-C4-C5	-6.05	102.98	105.40
26	14	759	G	N3-C2-N2	-6.05	115.66	119.90
26	14	1795	C	N3-C2-O2	-6.05	117.66	121.90
26	14	2071	A	C6-N1-C2	-6.05	114.97	118.60
27	1J	102	G	C8-N9-C4	6.05	108.82	106.40
1	13	528	C	N3-C4-C5	6.05	124.32	121.90
1	13	821	G	N3-C4-N9	6.05	129.63	126.00
26	1H	82	G	OP1-P-O3'	6.05	118.51	105.20
26	1H	2582	G	C5-C6-O6	-6.05	124.97	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	600	G	O5'-P-OP2	-6.05	100.26	105.70
26	1H	1187	G	C5-C6-N1	-6.05	108.47	111.50
26	1H	1836	C	OP1-P-O3'	6.05	118.51	105.20
26	1H	2449	U	C2-N1-C1'	6.05	124.96	117.70
1	1G	652	U	C2-N1-C1'	6.05	124.96	117.70
26	14	1356	G	O5'-P-OP1	-6.05	100.25	105.70
26	1H	830	G	C8-N9-C4	-6.05	103.98	106.40
26	1H	1661	G	N7-C8-N9	-6.05	110.08	113.10
26	14	2261	C	N3-C4-N4	-6.05	113.77	118.00
26	1H	2286	A	C4-C5-C6	6.05	120.02	117.00
26	14	53	A	OP1-P-O3'	6.05	118.50	105.20
26	14	2037	G	N1-C6-O6	-6.05	116.27	119.90
26	14	2353	G	N1-C6-O6	-6.05	116.27	119.90
1	13	1520	G	C5-C6-O6	-6.04	124.97	128.60
26	1H	835	A	N1-C2-N3	6.04	132.32	129.30
26	1H	2623	G	N3-C4-C5	-6.04	125.58	128.60
26	14	1528	A	C4-C5-N7	6.04	113.72	110.70
1	13	1227	A	N3-C4-N9	-6.04	122.56	127.40
1	13	1234	C	C6-N1-C2	-6.04	117.88	120.30
26	1H	222	A	P-O3'-C3'	6.04	126.95	119.70
26	1H	928	G	N3-C2-N2	-6.04	115.67	119.90
26	1H	2672	G	N7-C8-N9	6.04	116.12	113.10
27	16	56	G	C4-N9-C1'	6.04	134.36	126.50
26	14	1322	A	OP2-P-O3'	6.04	118.50	105.20
26	14	2431	U	N3-C2-O2	6.04	126.43	122.20
26	14	2441	C	N3-C4-N4	-6.04	113.77	118.00
1	13	1299	A	C6-C5-N7	-6.04	128.07	132.30
26	1H	203	C	N3-C4-C5	6.04	124.32	121.90
26	1H	210	C	C5-C6-N1	-6.04	117.98	121.00
26	1H	1283	G	O5'-P-OP2	-6.04	100.26	105.70
26	1H	2485	G	N1-C2-N2	-6.04	110.76	116.20
27	16	109	G	C8-N9-C4	-6.04	103.98	106.40
26	14	379	G	O5'-P-OP1	-6.04	100.26	105.70
26	14	2061	G	C8-N9-C4	6.04	108.82	106.40
26	14	2346	A	C6-C5-N7	-6.04	128.07	132.30
1	13	253	U	OP2-P-O3'	6.04	118.49	105.20
26	1H	706	A	O5'-P-OP1	-6.04	100.26	105.70
26	1H	1475	G	N3-C2-N2	-6.04	115.67	119.90
26	1H	784	A	C8-N9-C4	-6.04	103.39	105.80
26	1H	2431	U	OP2-P-O3'	-6.04	91.92	105.20
26	14	2779	U	C2-N3-C4	-6.04	123.38	127.00
26	1H	733	G	C8-N9-C1'	-6.04	119.15	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	629	G	O5'-P-OP2	-6.04	100.27	105.70
26	14	1324	G	N1-C6-O6	6.04	123.52	119.90
26	1H	1122	G	N7-C8-N9	-6.04	110.08	113.10
26	1H	1900	A	C5'-C4'-O4'	-6.04	101.86	109.10
26	1H	2690	C	N1-C2-O2	-6.04	115.28	118.90
26	1H	2838	G	O5'-P-OP1	-6.04	100.27	105.70
26	14	784	A	N3-C4-N9	-6.04	122.57	127.40
26	14	2712	U	O4'-C1'-N1	6.04	113.03	108.20
1	13	1416	G	O5'-P-OP1	-6.03	100.27	105.70
26	1H	46	C	N1-C2-O2	-6.03	115.28	118.90
26	1H	920	G	N7-C8-N9	-6.03	110.08	113.10
26	14	945	A	O4'-C1'-N9	6.03	113.03	108.20
26	14	1527	G	N3-C4-N9	-6.03	122.38	126.00
26	14	2622	C	C2-N1-C1'	-6.03	112.16	118.80
26	1H	698	C	C2-N3-C4	-6.03	116.88	119.90
26	1H	2230	G	N1-C2-N2	6.03	121.63	116.20
1	1G	275	G	N1-C6-O6	6.03	123.52	119.90
26	14	1204	A	C5-N7-C8	-6.03	100.88	103.90
26	1H	131	G	N1-C6-O6	6.03	123.52	119.90
26	1H	528	A	C8-N9-C4	-6.03	103.39	105.80
26	1H	2604	U	N1-C2-O2	6.03	127.02	122.80
26	14	833	U	C4-C5-C6	6.03	123.32	119.70
26	14	2044	C	N3-C2-O2	6.03	126.12	121.90
26	1H	512	G	OP1-P-O3'	6.03	118.47	105.20
26	1H	1265	A	N1-C2-N3	6.03	132.31	129.30
26	1H	1977	A	C5-C6-N1	-6.03	114.69	117.70
26	1H	2028	U	N3-C2-O2	-6.03	117.98	122.20
26	1H	2375	G	C5-C6-N1	6.03	114.51	111.50
26	14	2584	U	O5'-P-OP2	6.03	117.94	110.70
1	13	742	G	C8-N9-C4	6.03	108.81	106.40
26	1H	447	A	N7-C8-N9	6.03	116.81	113.80
26	1H	2275	C	OP1-P-O3'	6.03	118.46	105.20
26	1H	2567	G	O5'-P-OP1	-6.03	100.28	105.70
26	14	250	G	O5'-P-OP1	-6.03	100.28	105.70
26	14	1383	C	O4'-C1'-N1	6.03	113.02	108.20
26	14	2423	U	C6-N1-C2	6.03	124.62	121.00
1	13	564	C	O5'-P-OP1	-6.03	100.28	105.70
26	1H	420	C	C6-N1-C2	6.03	122.71	120.30
26	1H	2830	G	O5'-P-OP2	-6.03	100.28	105.70
26	1H	694	U	O5'-P-OP1	6.02	117.93	110.70
1	13	1307	U	C6-N1-C2	-6.02	117.39	121.00
26	1H	67	U	OP1-P-O3'	6.02	118.45	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1228	G	N3-C2-N2	-6.02	115.68	119.90
26	1H	2490	G	C6-C5-N7	-6.02	126.79	130.40
26	14	2023	G	OP1-P-OP2	6.02	128.63	119.60
26	14	2244	U	N1-C2-N3	6.02	118.51	114.90
23	2K	6	G	N7-C8-N9	-6.02	110.09	113.10
1	1G	690	G	C8-N9-C4	-6.02	103.99	106.40
26	14	2542	A	C5-N7-C8	6.02	106.91	103.90
26	14	2572	A	O5'-P-OP1	-6.02	100.28	105.70
1	13	1103	C	C6-N1-C2	-6.02	117.89	120.30
26	1H	450	G	C5-C6-N1	-6.02	108.49	111.50
26	1H	838	C	C2-N3-C4	-6.02	116.89	119.90
27	16	5	C	C5-C6-N1	-6.02	117.99	121.00
26	14	559	G	C5-C6-N1	-6.02	108.49	111.50
26	1H	1814	G	N1-C2-N2	-6.02	110.78	116.20
26	1H	2433	A	O5'-P-OP2	6.02	117.92	110.70
26	1H	2489	G	N1-C2-N3	6.02	127.51	123.90
27	16	79	C	C5-C6-N1	6.02	124.01	121.00
28	11	271	ILE	N-CA-C	6.02	127.25	111.00
26	14	759	G	C6-N1-C2	-6.02	121.49	125.10
1	13	123	C	O5'-P-OP2	-6.01	100.29	105.70
1	13	1500	A	N1-C6-N6	-6.01	114.99	118.60
26	1H	990	A	C2-N3-C4	-6.01	107.59	110.60
26	1H	1658	C	N1-C2-O2	-6.01	115.29	118.90
26	1H	1969	A	C4-C5-N7	-6.01	107.69	110.70
26	1H	2285	C	C4-C5-C6	-6.01	114.39	117.40
26	1H	2819	G	O5'-P-OP2	-6.01	100.29	105.70
1	1G	586	C	C5-C6-N1	6.01	124.01	121.00
26	1H	610	C	N3-C2-O2	-6.01	117.69	121.90
26	14	674	G	C5-C6-N1	6.01	114.51	111.50
1	13	1520	G	C8-N9-C4	6.01	108.80	106.40
26	1H	118	A	O5'-P-OP1	-6.01	100.29	105.70
26	1H	1987	G	N1-C6-O6	6.01	123.51	119.90
1	1G	945	G	N1-C6-O6	6.01	123.51	119.90
26	14	197	A	OP2-P-O3'	6.01	118.43	105.20
26	14	2423	U	C5-C6-N1	-6.01	119.69	122.70
47	E5	14	ARG	NE-CZ-NH1	-6.01	117.29	120.30
26	1H	25	U	N3-C4-C5	6.01	118.21	114.60
26	1H	768	G	O5'-P-OP2	-6.01	100.29	105.70
26	1H	655	A	C6-C5-N7	-6.01	128.09	132.30
26	1H	2616	C	O5'-P-OP2	6.01	117.91	110.70
1	13	1187	G	C4-N9-C1'	6.01	134.31	126.50
26	1H	1141	U	O4'-C1'-N1	6.01	113.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2422	A	O4'-C1'-N9	6.01	113.00	108.20
26	14	693	C	C2-N1-C1'	-6.01	112.19	118.80
26	14	1420	U	N3-C2-O2	-6.01	118.00	122.20
26	14	2502	G	N7-C8-N9	6.01	116.10	113.10
26	14	2523	G	N9-C4-C5	-6.01	103.00	105.40
26	1H	686	G	N3-C4-N9	6.00	129.60	126.00
1	13	285	G	N9-C4-C5	-6.00	103.00	105.40
26	1H	729	G	OP2-P-O3'	6.00	118.41	105.20
26	1H	792	G	C8-N9-C1'	-6.00	119.20	127.00
26	1H	2328	A	C2-N3-C4	-6.00	107.60	110.60
26	1H	2594	C	C6-N1-C2	-6.00	117.90	120.30
26	14	951	C	OP1-P-O3'	6.00	118.41	105.20
26	14	2277	G	O5'-P-OP2	-6.00	100.30	105.70
1	13	964	A	C8-N9-C4	6.00	108.20	105.80
26	1H	456	C	C2-N1-C1'	-6.00	112.20	118.80
26	1H	732	C	C4-C5-C6	6.00	120.40	117.40
26	14	2319	G	N1-C6-O6	-6.00	116.30	119.90
26	1H	429	A	O5'-P-OP1	-6.00	100.30	105.70
26	1H	688	U	OP2-P-O3'	6.00	118.40	105.20
26	1H	470	A	O5'-P-OP1	-6.00	100.30	105.70
26	14	1283	G	OP1-P-OP2	6.00	128.60	119.60
26	14	1402	C	N3-C4-C5	-6.00	119.50	121.90
23	2K	17	C	C6-N1-C1'	-6.00	113.60	120.80
26	1H	331	A	OP1-P-O3'	6.00	118.39	105.20
26	1H	840	C	C5-C6-N1	-6.00	118.00	121.00
26	14	1623	G	C6-C5-N7	6.00	134.00	130.40
27	1J	103	U	O5'-P-OP2	-6.00	100.30	105.70
26	1H	1252	G	N7-C8-N9	-6.00	110.10	113.10
26	1H	2318	G	N3-C4-C5	6.00	131.60	128.60
27	16	12	C	C5-C6-N1	-6.00	118.00	121.00
27	16	81	G	C6-C5-N7	-6.00	126.80	130.40
26	14	636	G	O5'-P-OP1	-6.00	100.30	105.70
26	14	827	U	N3-C2-O2	6.00	126.40	122.20
26	14	1619	G	C5-C6-N1	6.00	114.50	111.50
26	1H	299	A	OP2-P-O3'	5.99	118.39	105.20
26	1H	447	A	N9-C4-C5	5.99	108.20	105.80
26	1H	2743	C	C2-N3-C4	-5.99	116.90	119.90
1	1G	1285	A	P-O3'-C3'	5.99	126.89	119.70
26	14	1930	G	C4-C5-N7	-5.99	108.40	110.80
26	14	2267	A	O5'-P-OP2	-5.99	100.31	105.70
26	14	2623	G	O5'-P-OP1	5.99	117.89	110.70
26	1H	451	C	N1-C2-O2	-5.99	115.31	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	803	U	C5-C6-N1	-5.99	119.70	122.70
26	1H	1990	C	N3-C4-C5	-5.99	119.50	121.90
26	14	1975	G	C4-C5-N7	5.99	113.20	110.80
26	14	2297	C	O5'-P-OP1	-5.99	100.31	105.70
26	1H	568	U	C6-N1-C2	5.99	124.59	121.00
26	1H	662	G	OP1-P-OP2	5.99	128.59	119.60
26	1H	856	C	O5'-P-OP1	-5.99	100.31	105.70
26	14	1371	G	C5-C6-O6	-5.99	125.01	128.60
26	14	1379	A	C5-C6-N6	-5.99	118.91	123.70
26	1H	639	U	O5'-P-OP2	-5.99	100.31	105.70
26	14	244	A	O5'-P-OP1	5.99	117.89	110.70
26	14	511	U	C6-N1-C2	-5.99	117.41	121.00
26	14	568	U	C6-N1-C2	5.99	124.59	121.00
26	14	1616	A	N1-C6-N6	5.99	122.19	118.60
26	14	1678	G	C4-C5-N7	5.99	113.19	110.80
26	1H	2582	G	C4-C5-N7	5.99	113.19	110.80
1	13	970	C	C5-C6-N1	5.99	123.99	121.00
1	13	1371	G	O5'-P-OP1	-5.99	100.31	105.70
26	1H	209	C	C5-C6-N1	-5.99	118.01	121.00
26	1H	1035	U	C5-C4-O4	5.99	129.49	125.90
26	1H	1636	C	N3-C2-O2	5.99	126.09	121.90
26	1H	1671	U	N3-C4-O4	5.99	123.59	119.40
26	1H	2568	C	OP2-P-O3'	5.99	118.37	105.20
26	14	1021	A	C8-N9-C4	-5.99	103.41	105.80
26	1H	127	A	C5-C6-N6	-5.98	118.91	123.70
1	13	889	A	OP1-P-OP2	5.98	128.57	119.60
26	1H	753	C	OP1-P-OP2	5.98	128.57	119.60
26	1H	792	G	N1-C6-O6	5.98	123.49	119.90
26	1H	799	G	N3-C4-C5	5.98	131.59	128.60
26	1H	1334	G	C4-N9-C1'	5.98	134.28	126.50
50	L8	54	VAL	N-CA-C	5.98	127.15	111.00
26	14	1648	C	C6-N1-C2	-5.98	117.91	120.30
26	14	1930	G	N9-C4-C5	5.98	107.79	105.40
26	14	1972	A	OP2-P-O3'	5.98	118.36	105.20
26	1H	1649	G	N3-C4-N9	5.98	129.59	126.00
26	1H	2276	G	C4-C5-N7	-5.98	108.41	110.80
26	1H	2280	G	C2-N3-C4	5.98	114.89	111.90
26	14	801	G	C6-C5-N7	5.98	133.99	130.40
26	1H	1380	G	N3-C2-N2	5.98	124.08	119.90
26	1H	1437	C	N1-C2-O2	5.98	122.49	118.90
26	1H	1971	A	C2-N3-C4	5.98	113.59	110.60
26	1H	2424	C	C4-C5-C6	-5.98	114.41	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2726	U	N3-C2-O2	-5.98	118.02	122.20
26	1H	2731	G	C4-C5-N7	5.98	113.19	110.80
26	14	488	G	N7-C8-N9	-5.98	110.11	113.10
26	14	929	G	N3-C4-C5	-5.98	125.61	128.60
26	14	2433	A	C5-N7-C8	-5.98	100.91	103.90
26	1H	730	C	N3-C4-C5	5.98	124.29	121.90
26	1H	2712	U	N1-C2-N3	5.98	118.49	114.90
26	1H	62	C	C2-N3-C4	-5.97	116.91	119.90
26	1H	1777	U	O5'-P-OP1	-5.97	100.32	105.70
26	1H	1780	A	N9-C4-C5	5.97	108.19	105.80
26	14	939	G	N1-C6-O6	5.97	123.48	119.90
26	14	1391	U	O5'-P-OP2	5.97	117.87	110.70
26	14	1728	G	N3-C4-C5	-5.97	125.61	128.60
26	14	2023	G	C6-C5-N7	-5.97	126.81	130.40
27	1J	7	G	N9-C4-C5	-5.97	103.01	105.40
1	13	985	C	O5'-P-OP2	5.97	117.87	110.70
26	1H	633	A	C4-C5-N7	5.97	113.69	110.70
26	1H	1245	G	C6-N1-C2	-5.97	121.52	125.10
26	1H	2376	A	C8-N9-C4	5.97	108.19	105.80
26	1H	2577	A	N9-C4-C5	5.97	108.19	105.80
26	14	2332	U	N3-C2-O2	-5.97	118.02	122.20
26	14	2401	U	C2-N1-C1'	5.97	124.87	117.70
26	14	2560	C	O5'-P-OP1	-5.97	100.32	105.70
26	1H	2310	A	N3-C4-C5	-5.97	122.62	126.80
26	1H	2468	G	C8-N9-C1'	-5.97	119.24	127.00
26	1H	2574	G	C5-C6-O6	-5.97	125.02	128.60
55	Q8	49	VAL	CA-CB-CG2	5.97	119.86	110.90
26	14	1938	A	N1-C2-N3	5.97	132.29	129.30
26	14	2452	C	C5-C4-N4	-5.97	116.02	120.20
1	13	899	C	C5-C6-N1	-5.97	118.02	121.00
1	13	1518	A	C8-N9-C4	5.97	108.19	105.80
26	1H	586	A	N1-C6-N6	-5.97	115.02	118.60
26	1H	1757	U	OP1-P-O3'	5.97	118.33	105.20
33	61	131	LYS	C-N-CD	-5.97	107.47	120.60
1	1G	1500	A	N1-C6-N6	5.97	122.18	118.60
26	14	576	U	OP2-P-O3'	5.97	118.33	105.20
26	14	1954	G	N3-C4-N9	-5.97	122.42	126.00
1	13	1025	U	C5-C6-N1	5.97	125.68	122.70
26	1H	1142(A)	A	C5-N7-C8	-5.97	100.92	103.90
26	1H	2582	G	O5'-P-OP1	5.97	117.86	110.70
26	14	1402	C	N3-C4-N4	5.97	122.18	118.00
26	14	2702	U	C6-N1-C2	-5.97	117.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	293	U	N3-C4-O4	5.97	123.58	119.40
26	1H	698	C	N3-C2-O2	5.97	126.08	121.90
26	1H	808	G	OP1-P-OP2	5.97	128.55	119.60
26	1H	1380	G	N1-C2-N2	-5.97	110.83	116.20
26	14	756	C	O5'-P-OP1	-5.97	100.33	105.70
26	1H	114	U	OP1-P-O3'	5.96	118.32	105.20
26	1H	840	C	C2-N3-C4	-5.96	116.92	119.90
26	1H	1142(A)	A	N3-C4-N9	-5.96	122.63	127.40
26	1H	1199	U	C2-N3-C4	-5.96	123.42	127.00
26	1H	1380	G	C6-C5-N7	-5.96	126.82	130.40
26	14	2491	U	OP1-P-O3'	5.96	118.32	105.20
27	1J	81	G	C4-C5-N7	5.96	113.19	110.80
1	13	740	U	O5'-P-OP2	-5.96	100.33	105.70
26	1H	973	A	N3-C4-C5	5.96	130.97	126.80
26	1H	1776	G	N9-C4-C5	-5.96	103.02	105.40
26	1H	1973	G	N7-C8-N9	5.96	116.08	113.10
26	1H	2707	G	C4-N9-C1'	-5.96	118.75	126.50
26	14	694	U	N3-C2-O2	-5.96	118.03	122.20
26	1H	593	G	N1-C6-O6	5.96	123.48	119.90
26	1H	815	C	C5-C6-N1	-5.96	118.02	121.00
26	1H	2782	G	C6-C5-N7	-5.96	126.82	130.40
26	1H	128	C	O5'-P-OP1	5.96	117.85	110.70
26	1H	141	A	C2-N3-C4	-5.96	107.62	110.60
26	1H	733	G	N3-C4-N9	5.96	129.58	126.00
26	1H	1573	G	C8-N9-C4	5.96	108.78	106.40
26	1H	1975	G	N1-C6-O6	-5.96	116.32	119.90
26	1H	2256	G	C5-C6-O6	5.96	132.18	128.60
26	14	1313	U	N1-C2-N3	5.96	118.48	114.90
1	13	889	A	C4-C5-C6	5.96	119.98	117.00
1	13	1113	C	N1-C2-O2	5.96	122.47	118.90
26	14	193	U	C5-C4-O4	-5.96	122.33	125.90
26	14	245	G	O5'-P-OP1	-5.96	100.34	105.70
26	1H	194	G	N9-C4-C5	-5.96	103.02	105.40
26	1H	391	G	C5-C6-N1	-5.96	108.52	111.50
26	1H	1193	G	N1-C6-O6	-5.96	116.33	119.90
26	14	1994	C	O5'-P-OP2	-5.96	100.34	105.70
1	13	328	C	C2-N1-C1'	5.96	125.35	118.80
26	1H	583	G	C8-N9-C4	-5.96	104.02	106.40
26	1H	774	A	C4-C5-C6	-5.96	114.02	117.00
27	1J	100	G	N1-C2-N2	-5.96	110.84	116.20
1	13	1530	G	N3-C4-N9	-5.95	122.43	126.00
26	1H	851	U	OP2-P-O3'	5.95	118.30	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1413	G	N7-C8-N9	5.95	116.08	113.10
38	98	67	LEU	CA-CB-CG	5.95	128.99	115.30
26	14	268	C	C5-C6-N1	5.95	123.98	121.00
26	14	1852	C	O5'-P-OP1	-5.95	100.34	105.70
24	3K	32	U	N1-C2-O2	5.95	126.97	122.80
26	1H	1779	U	OP1-P-OP2	5.95	128.53	119.60
26	1H	1229(A)	G	N1-C6-O6	5.95	123.47	119.90
26	1H	1733	G	C5-C6-N1	-5.95	108.53	111.50
26	1H	2052	G	O5'-P-OP2	-5.95	100.34	105.70
26	1H	2609	U	N1-C2-O2	-5.95	118.63	122.80
27	16	78	A	C8-N9-C4	5.95	108.18	105.80
1	1G	1499	A	O5'-P-OP1	-5.95	100.34	105.70
26	14	2424	C	O5'-P-OP1	-5.95	100.34	105.70
1	13	811	C	N1-C2-O2	-5.95	115.33	118.90
1	13	1498	U	N3-C2-O2	-5.95	118.03	122.20
26	1H	743	G	OP1-P-OP2	5.95	128.52	119.60
26	14	1432	C	C6-N1-C2	5.95	122.68	120.30
24	3K	71	G	C5'-C4'-O4'	5.95	116.24	109.10
26	1H	571	A	C2-N3-C4	-5.95	107.63	110.60
26	1H	835	A	N9-C4-C5	5.95	108.18	105.80
26	1H	1365	A	C2-N3-C4	-5.95	107.63	110.60
26	1H	649	G	C6-C5-N7	-5.95	126.83	130.40
26	1H	736	C	N3-C4-C5	5.95	124.28	121.90
26	1H	812	C	N3-C2-O2	5.95	126.06	121.90
26	1H	1303	G	OP1-P-O3'	-5.95	92.12	105.20
26	1H	1792	G	N1-C6-O6	-5.95	116.33	119.90
26	1H	2061	G	N1-C6-O6	-5.95	116.33	119.90
26	14	2321	G	C8-N9-C4	-5.95	104.02	106.40
26	1H	256	A	N1-C6-N6	5.94	122.17	118.60
26	1H	740	U	O5'-P-OP1	5.94	117.83	110.70
26	1H	2550	G	C6-C5-N7	-5.94	126.83	130.40
26	14	2253	G	O5'-P-OP1	5.94	117.83	110.70
1	13	266	G	N7-C8-N9	5.94	116.07	113.10
1	13	1525	G	C2-N3-C4	-5.94	108.93	111.90
26	1H	1790	C	N3-C2-O2	5.94	126.06	121.90
26	14	2426	A	C6-C5-N7	-5.94	128.14	132.30
1	13	623	C	C5-C6-N1	5.94	123.97	121.00
23	2K	74	A	C6-C5-N7	-5.94	128.14	132.30
26	1H	1325	G	N3-C4-C5	-5.94	125.63	128.60
1	1G	1435	G	O5'-P-OP2	-5.94	100.35	105.70
1	1G	1488	G	N3-C4-N9	5.94	129.56	126.00
26	14	827	U	C2-N3-C4	-5.94	123.44	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1128	A	O5'-P-OP1	-5.94	100.35	105.70
25	4K	16	A	C8-N9-C4	5.94	108.18	105.80
26	1H	2435	A	C5-N7-C8	-5.94	100.93	103.90
1	1G	306	G	N3-C4-C5	5.94	131.57	128.60
1	13	169	C	C6-N1-C2	-5.94	117.92	120.30
14	5I	44	LEU	CA-CB-CG	5.94	128.96	115.30
26	1H	328	U	C6-N1-C2	-5.94	117.44	121.00
26	1H	1382	G	OP2-P-O3'	5.94	118.27	105.20
26	1H	1425	G	C2-N3-C4	5.94	114.87	111.90
26	1H	2666	C	C6-N1-C2	-5.94	117.92	120.30
1	1G	862	C	N1-C2-O2	5.94	122.46	118.90
26	1H	1957	C	C5-C6-N1	-5.94	118.03	121.00
26	14	72	U	N3-C2-O2	-5.94	118.05	122.20
26	1H	481	G	O4'-C1'-N9	5.93	112.95	108.20
26	1H	1966	A	O5'-P-OP2	-5.93	100.36	105.70
27	16	111	U	C5-C4-O4	5.93	129.46	125.90
26	14	479	A	N1-C6-N6	-5.93	115.04	118.60
1	13	1331	G	O5'-P-OP2	-5.93	100.36	105.70
26	14	2577	A	C6-C5-N7	-5.93	128.15	132.30
26	14	2731	G	C8-N9-C4	-5.93	104.03	106.40
26	1H	205	G	N3-C4-N9	5.93	129.56	126.00
26	14	664	C	C2-N3-C4	-5.93	116.93	119.90
26	1H	1274	A	O5'-P-OP1	-5.93	100.36	105.70
26	1H	1698	A	O4'-C1'-N9	5.93	112.94	108.20
26	14	130	C	C5-C4-N4	-5.93	116.05	120.20
26	14	565	C	C6-N1-C2	5.93	122.67	120.30
26	14	2539	C	C6-N1-C2	5.93	122.67	120.30
26	14	2612	C	N1-C2-O2	5.93	122.46	118.90
26	1H	1779	U	C5-C6-N1	-5.93	119.74	122.70
26	14	1328	G	N9-C4-C5	-5.93	103.03	105.40
26	14	1678	G	C8-N9-C4	-5.93	104.03	106.40
26	14	2087	G	N9-C4-C5	-5.93	103.03	105.40
1	13	1489	G	N7-C8-N9	-5.93	110.14	113.10
1	13	1519	A	C8-N9-C4	-5.93	103.43	105.80
26	1H	103	A	N7-C8-N9	-5.93	110.84	113.80
26	1H	787	U	OP1-P-OP2	-5.93	110.71	119.60
26	1H	1446	C	C6-N1-C2	-5.93	117.93	120.30
26	1H	2523	G	N9-C4-C5	5.93	107.77	105.40
26	14	247	G	N3-C4-C5	5.93	131.56	128.60
26	1H	142	G	N3-C4-C5	5.92	131.56	128.60
26	1H	852	G	OP2-P-O3'	5.92	118.23	105.20
26	1H	1204	A	C5-C6-N1	-5.92	114.74	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1368	G	C2-N3-C4	5.92	114.86	111.90
26	1H	2707	G	N3-C2-N2	-5.92	115.75	119.90
1	1G	586	C	C6-N1-C2	-5.92	117.93	120.30
1	1G	662	G	N3-C4-C5	-5.92	125.64	128.60
26	14	1496	A	C4-C5-N7	5.92	113.66	110.70
26	14	1961	C	C2-N1-C1'	-5.92	112.28	118.80
26	14	2604	U	C5-C6-N1	-5.92	119.74	122.70
1	13	738	C	N3-C4-C5	-5.92	119.53	121.90
26	1H	239	U	C5-C6-N1	-5.92	119.74	122.70
26	1H	139	G	C2-N3-C4	5.92	114.86	111.90
26	1H	291	C	C6-N1-C2	5.92	122.67	120.30
26	1H	690	G	C2-N3-C4	-5.92	108.94	111.90
26	1H	731	C	C2-N1-C1'	5.92	125.31	118.80
26	1H	1232	G	N1-C6-O6	5.92	123.45	119.90
26	1H	2068	U	C2-N3-C4	5.92	130.55	127.00
26	1H	2373	G	C6-N1-C2	-5.92	121.55	125.10
26	1H	417	C	O5'-P-OP2	5.92	117.80	110.70
26	1H	609	A	C5-C6-N6	-5.92	118.96	123.70
1	13	582	U	C5-C6-N1	-5.92	119.74	122.70
26	1H	1624	G	N7-C8-N9	-5.92	110.14	113.10
26	1H	2351	G	C4-N9-C1'	5.92	134.19	126.50
26	14	698	C	N3-C4-N4	5.92	122.14	118.00
26	14	2592	G	O5'-P-OP1	5.92	117.80	110.70
26	1H	461	C	N3-C4-N4	5.92	122.14	118.00
26	1H	775	G	N3-C4-C5	-5.92	125.64	128.60
26	1H	1300	U	C6-N1-C1'	5.92	129.48	121.20
26	1H	2518	A	C2-N3-C4	-5.92	107.64	110.60
1	1G	1346	A	OP2-P-O3'	5.92	118.22	105.20
1	1G	1475	G	OP1-P-OP2	5.92	128.47	119.60
26	14	380	U	O5'-P-OP2	-5.92	100.38	105.70
26	14	1342	A	N9-C1'-C2'	5.92	121.69	114.00
26	14	1409	C	O5'-P-OP2	-5.92	100.38	105.70
26	1H	1950	G	N1-C2-N2	-5.92	110.88	116.20
1	1G	528	C	O4'-C1'-N1	5.92	112.93	108.20
27	1J	22	U	C2-N1-C1'	5.92	124.80	117.70
1	13	1224	G	O5'-P-OP1	5.91	117.80	110.70
1	13	1417	G	N3-C4-N9	5.91	129.55	126.00
26	1H	259	G	C5-C6-O6	-5.91	125.05	128.60
26	1H	690	G	C8-N9-C4	5.91	108.77	106.40
26	1H	692	C	N3-C4-N4	5.91	122.14	118.00
26	1H	827	U	O5'-P-OP1	5.91	117.80	110.70
26	1H	1621	U	N3-C2-O2	5.91	126.34	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	972	C	C6-N1-C2	-5.91	117.93	120.30
26	14	186	G	N1-C6-O6	5.91	123.45	119.90
26	14	2363	C	C6-N1-C2	5.91	122.67	120.30
26	14	2406	U	P-O3'-C3'	5.91	126.80	119.70
26	14	2584	U	O4'-C1'-N1	5.91	112.93	108.20
26	1H	126	A	OP2-P-O3'	5.91	118.21	105.20
26	14	1320	C	N3-C4-C5	-5.91	119.53	121.90
26	14	1678	G	N3-C2-N2	-5.91	115.76	119.90
26	1H	398	G	OP1-P-OP2	5.91	128.47	119.60
26	1H	699	A	C5-C6-N6	-5.91	118.97	123.70
26	1H	1555	G	O5'-P-OP1	-5.91	100.38	105.70
26	1H	2269	A	C8-N9-C4	5.91	108.16	105.80
26	1H	2351	G	N3-C4-C5	-5.91	125.64	128.60
26	1H	119	A	N1-C6-N6	-5.91	115.06	118.60
26	1H	1159	U	O5'-P-OP2	-5.91	100.38	105.70
26	1H	1520	U	N1-C2-N3	5.91	118.44	114.90
26	1H	2269	A	N9-C4-C5	-5.91	103.44	105.80
26	1H	2618	G	N7-C8-N9	5.91	116.06	113.10
1	1G	345	C	C6-N1-C1'	-5.91	113.71	120.80
26	14	827	U	C5-C6-N1	-5.91	119.75	122.70
26	1H	458	G	OP1-P-OP2	5.91	128.46	119.60
26	1H	2328	A	C4-C5-C6	5.91	119.95	117.00
1	1G	150	C	C6-N1-C2	-5.91	117.94	120.30
1	1G	898	G	N9-C4-C5	-5.91	103.04	105.40
26	14	1268	A	C2-N3-C4	-5.91	107.65	110.60
26	14	2070	G	N1-C2-N3	5.91	127.44	123.90
26	14	2277	G	N1-C6-O6	-5.91	116.36	119.90
26	1H	752	A	C6-N1-C2	-5.90	115.06	118.60
26	1H	1825	A	N9-C4-C5	5.90	108.16	105.80
26	14	2377	A	N3-C4-C5	5.90	130.93	126.80
1	13	1436	U	O5'-P-OP2	5.90	117.78	110.70
26	1H	2231	C	C6-N1-C2	-5.90	117.94	120.30
26	1H	2335	A	O4'-C1'-N9	5.90	112.92	108.20
26	1H	2731	G	C8-N9-C1'	-5.90	119.33	127.00
1	1G	995	C	C6-N1-C2	-5.90	117.94	120.30
26	14	141	A	N7-C8-N9	5.90	116.75	113.80
1	13	1523	G	O5'-P-OP2	-5.90	100.39	105.70
26	1H	2244	U	C2-N3-C4	-5.90	123.46	127.00
26	14	278	A	OP1-P-O3'	5.90	118.18	105.20
26	1H	845	G	C5-N7-C8	-5.90	101.35	104.30
26	1H	1432	C	C4-C5-C6	5.90	120.35	117.40
26	1H	1626	G	N3-C4-N9	-5.90	122.46	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1993	U	C2-N3-C4	-5.90	123.46	127.00
26	1H	2581	G	O4'-C1'-N9	5.90	112.92	108.20
26	14	1807	G	N7-C8-N9	-5.90	110.15	113.10
26	1H	193	U	N1-C2-O2	-5.90	118.67	122.80
26	1H	370	G	O4'-C1'-N9	-5.90	103.48	108.20
26	1H	966	G	N3-C2-N2	5.90	124.03	119.90
26	1H	2483	C	O5'-P-OP1	-5.90	100.39	105.70
26	1H	607	U	N1-C2-N3	-5.90	111.36	114.90
26	1H	802	A	OP2-P-O3'	5.90	118.17	105.20
26	1H	824	A	C2-N3-C4	-5.90	107.65	110.60
26	1H	1204	A	C8-N9-C1'	-5.90	117.09	127.70
26	1H	1318	C	O5'-P-OP1	-5.90	100.39	105.70
26	14	537	C	C5-C6-N1	5.90	123.95	121.00
8	7E	71	GLY	N-CA-C	-5.89	98.36	113.10
26	1H	734	A	C5-C6-N1	-5.89	114.75	117.70
26	1H	734	A	C6-N1-C2	5.89	122.14	118.60
26	14	954	G	N3-C2-N2	-5.89	115.78	119.90
26	1H	88	G	C8-N9-C4	-5.89	104.04	106.40
26	1H	2383	G	C6-C5-N7	-5.89	126.86	130.40
26	1H	2550	G	C4-C5-C6	5.89	122.33	118.80
26	14	1383	C	O5'-P-OP2	-5.89	100.40	105.70
26	14	2388	A	O5'-P-OP1	5.89	117.77	110.70
26	1H	1194	A	C5-C6-N6	-5.89	118.99	123.70
26	14	827	U	O5'-P-OP1	5.89	117.77	110.70
26	14	1000	A	C8-N9-C4	-5.89	103.44	105.80
1	13	1281	U	N3-C2-O2	-5.89	118.08	122.20
26	1H	138	G	C5-C6-N1	5.89	114.44	111.50
26	1H	141	A	C8-N9-C4	-5.89	103.44	105.80
26	1H	148	C	C2-N3-C4	-5.89	116.95	119.90
26	14	1451	C	C6-N1-C2	5.89	122.66	120.30
26	14	1608	A	C5-C6-N6	5.89	128.41	123.70
26	14	1614	A	C6-C5-N7	-5.89	128.18	132.30
26	14	1771	C	C2-N3-C4	-5.89	116.95	119.90
1	13	1502	A	C5-C6-N1	-5.89	114.76	117.70
26	1H	435	C	C5-C6-N1	5.89	123.94	121.00
26	1H	733	G	C2-N3-C4	-5.89	108.96	111.90
26	1H	1341	U	C5-C4-O4	-5.89	122.37	125.90
26	14	1394	U	C6-N1-C1'	5.89	129.44	121.20
1	13	724	G	OP1-P-O3'	5.89	118.15	105.20
8	7E	112	LEU	CA-CB-CG	5.89	128.84	115.30
26	1H	94	G	C8-N9-C4	5.89	108.75	106.40
26	1H	763	G	C4-N9-C1'	5.89	134.15	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2312	U	C5-C4-O4	-5.89	122.37	125.90
26	1H	2361	A	C2-N3-C4	-5.89	107.66	110.60
1	13	291	C	C2-N1-C1'	-5.88	112.33	118.80
26	1H	1682	G	C8-N9-C1'	-5.88	119.35	127.00
1	1G	1396	A	O5'-P-OP1	-5.88	100.40	105.70
26	14	866	A	C8-N9-C1'	-5.88	117.11	127.70
26	14	939	G	C4-C5-C6	5.88	122.33	118.80
26	14	1284	A	C5-N7-C8	-5.88	100.96	103.90
26	1H	1215	G	OP1-P-O3'	5.88	118.14	105.20
26	1H	507	A	C5-N7-C8	-5.88	100.96	103.90
26	1H	536	A	N9-C4-C5	5.88	108.15	105.80
26	1H	583	G	C6-N1-C2	-5.88	121.57	125.10
26	1H	630	G	C5-C6-O6	-5.88	125.07	128.60
26	1H	2413	G	C5-C6-O6	-5.88	125.07	128.60
1	13	190	G	N3-C4-C5	-5.88	125.66	128.60
26	1H	103	A	C5-C6-N6	-5.88	119.00	123.70
26	1H	663	G	OP1-P-OP2	5.88	128.42	119.60
26	1H	2473	U	N1-C2-O2	5.88	126.92	122.80
39	A8	110	LEU	CA-CB-CG	5.88	128.82	115.30
26	1H	435	C	C6-N1-C2	-5.88	117.95	120.30
26	1H	1188	U	O5'-P-OP2	-5.88	100.41	105.70
26	1H	1769	G	O5'-P-OP2	-5.88	100.41	105.70
26	1H	2497	A	N3-C4-C5	-5.88	122.69	126.80
26	14	122	G	C5-C6-O6	-5.88	125.07	128.60
26	14	2439	A	C6-C5-N7	-5.88	128.19	132.30
26	1H	40	C	N1-C2-O2	-5.88	115.37	118.90
26	1H	54	G	C6-C5-N7	-5.88	126.87	130.40
26	1H	1291	C	N3-C4-N4	-5.88	113.89	118.00
26	1H	1771	C	N1-C2-O2	-5.88	115.37	118.90
26	1H	2409	G	C6-C5-N7	-5.88	126.87	130.40
26	14	2426	A	C5-C6-N6	-5.88	119.00	123.70
1	13	669	U	N1-C2-N3	5.88	118.42	114.90
26	1H	659	C	C2-N3-C4	-5.87	116.96	119.90
26	1H	996	A	N7-C8-N9	-5.87	110.86	113.80
26	1H	1293	C	OP1-P-O3'	5.87	118.12	105.20
26	1H	1780	A	O5'-P-OP2	5.87	117.75	110.70
26	1H	2067	G	N9-C4-C5	5.87	107.75	105.40
26	1H	2451	A	C4-C5-C6	-5.87	114.06	117.00
26	14	1274	A	C6-C5-N7	-5.87	128.19	132.30
26	14	1976	U	OP1-P-OP2	5.87	128.41	119.60
26	1H	1785	A	OP2-P-O3'	5.87	118.12	105.20
26	1H	2584	U	C4-C5-C6	5.87	123.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	774	A	C6-N1-C2	5.87	122.12	118.60
26	14	2013	A	C2-N3-C4	-5.87	107.66	110.60
26	14	2595	G	C4-C5-N7	5.87	113.15	110.80
26	14	2712(A)	A	N9-C4-C5	-5.87	103.45	105.80
1	1G	427	U	N1-C2-O2	5.87	126.91	122.80
23	2L	21	U	C4-C5-C6	-5.87	116.18	119.70
26	1H	786	C	OP2-P-O3'	5.87	118.11	105.20
26	1H	1265	A	C8-N9-C4	-5.87	103.45	105.80
26	1H	2749	A	C8-N9-C4	5.87	108.15	105.80
26	14	1934	C	N1-C2-O2	5.87	122.42	118.90
26	1H	215	G	C4-C5-N7	5.87	113.15	110.80
26	1H	1379	A	C5-C6-N6	-5.87	119.01	123.70
26	1H	1692	U	C5-C4-O4	-5.87	122.38	125.90
26	14	866	A	C4-N9-C1'	5.87	136.86	126.30
26	14	2542	A	O5'-P-OP2	-5.87	100.42	105.70
26	1H	1374	G	O5'-P-OP2	5.87	117.74	110.70
26	1H	1781	C	O5'-P-OP1	-5.87	100.42	105.70
26	1H	1848	A	N1-C6-N6	5.87	122.12	118.60
26	1H	2445	G	N9-C4-C5	5.87	107.75	105.40
1	1G	1234	C	N3-C2-O2	-5.87	117.79	121.90
26	1H	1942	C	N3-C4-C5	5.86	124.25	121.90
1	13	507	C	C4-C5-C6	5.86	120.33	117.40
26	1H	586	A	C5-C6-N6	5.86	128.39	123.70
26	1H	2449	U	OP2-P-O3'	5.86	118.10	105.20
25	4K	20	U	N3-C4-O4	5.86	123.50	119.40
26	1H	46	C	C6-N1-C2	-5.86	117.96	120.30
26	1H	48	G	OP2-P-O3'	5.86	118.09	105.20
26	1H	1355	G	N1-C2-N2	-5.86	110.92	116.20
26	1H	1381	G	C4-C5-N7	-5.86	108.46	110.80
26	14	1021	A	N7-C8-N9	5.86	116.73	113.80
26	14	1782	C	N1-C2-O2	-5.86	115.39	118.90
26	1H	1661	G	C8-N9-C4	5.86	108.74	106.40
26	1H	1998	G	C8-N9-C4	5.86	108.74	106.40
1	13	191	G	N1-C6-O6	5.86	123.41	119.90
26	1H	517	C	C6-N1-C2	-5.86	117.96	120.30
26	1H	2458	G	N3-C4-N9	5.86	129.51	126.00
26	14	1246	A	C8-N9-C4	5.86	108.14	105.80
26	14	1813	G	C4-C5-N7	-5.86	108.46	110.80
26	14	2260	C	C6-N1-C2	5.86	122.64	120.30
26	1H	2714	G	C5-C6-O6	-5.85	125.09	128.60
26	14	213	A	C8-N9-C4	5.85	108.14	105.80
26	14	2490	G	C5-C6-O6	5.85	132.11	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	452	G	N1-C6-O6	-5.85	116.39	119.90
26	1H	657	U	O5'-P-OP2	-5.85	100.43	105.70
26	1H	1671	U	C5-C4-O4	-5.85	122.39	125.90
26	1H	1687	G	C5-C6-N1	-5.85	108.57	111.50
41	C8	12	ARG	NE-CZ-NH2	-5.85	117.37	120.30
55	Q8	52	LYS	C-N-CD	-5.85	107.72	120.60
26	14	658	C	O5'-P-OP2	-5.85	100.43	105.70
26	14	743	G	C8-N9-C4	5.85	108.74	106.40
26	14	1614	A	O4'-C1'-N9	5.85	112.88	108.20
26	14	1728	G	N3-C4-N9	5.85	129.51	126.00
1	13	760	G	C5-C6-O6	-5.85	125.09	128.60
26	1H	1045	A	O4'-C1'-N9	5.85	112.88	108.20
26	1H	1403	C	C5-C4-N4	5.85	124.30	120.20
26	1H	2286	A	C6-C5-N7	-5.85	128.21	132.30
26	1H	2379	G	C6-C5-N7	-5.85	126.89	130.40
26	1H	2416	C	OP2-P-O3'	5.85	118.07	105.20
26	1H	2606	C	OP1-P-OP2	5.85	128.37	119.60
55	Q8	60	LEU	CA-CB-CG	5.85	128.75	115.30
26	14	632	A	O5'-P-OP2	5.85	117.72	110.70
26	14	1614	A	N1-C2-N3	5.85	132.22	129.30
27	1J	102	G	C6-C5-N7	5.85	133.91	130.40
26	1H	508	G	N7-C8-N9	5.85	116.02	113.10
26	1H	1037	G	C5-C6-O6	-5.85	125.09	128.60
26	1H	1259	G	OP2-P-O3'	5.85	118.06	105.20
26	1H	1561	G	OP1-P-O3'	5.85	118.06	105.20
26	1H	2438	U	C2-N3-C4	-5.85	123.49	127.00
1	1G	963	G	N3-C4-N9	5.85	129.51	126.00
1	1G	729	A	N1-C6-N6	-5.85	115.09	118.60
26	1H	1672	C	C2-N1-C1'	-5.84	112.37	118.80
26	1H	1807	G	C5-C6-N1	5.84	114.42	111.50
26	1H	2815	C	O5'-P-OP2	-5.84	100.44	105.70
26	1H	2857	G	O5'-P-OP1	-5.84	100.44	105.70
27	16	74	U	C5-C4-O4	5.84	129.41	125.90
26	14	141	A	C8-N9-C4	-5.84	103.46	105.80
26	14	1728	G	C2-N3-C4	5.84	114.82	111.90
26	1H	113	G	C2-N3-C4	-5.84	108.98	111.90
26	1H	336	C	N1-C2-O2	-5.84	115.39	118.90
26	1H	992	C	OP1-P-O3'	5.84	118.06	105.20
26	1H	1777	U	C4-C5-C6	5.84	123.21	119.70
26	1H	2236	C	N3-C2-O2	5.84	125.99	121.90
26	14	479	A	C4-C5-N7	-5.84	107.78	110.70
26	1H	2390	U	N3-C4-O4	5.84	123.49	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	31	176	LEU	CA-CB-CG	5.84	128.74	115.30
26	14	2415	G	N3-C2-N2	-5.84	115.81	119.90
26	14	2624	G	C5-C6-O6	-5.84	125.09	128.60
26	14	2880	C	C5-C6-N1	5.84	123.92	121.00
23	2K	9	G	C8-N9-C4	-5.84	104.06	106.40
26	1H	866	A	C8-N9-C1'	-5.84	117.19	127.70
26	1H	1471	A	C5-N7-C8	-5.84	100.98	103.90
27	16	74	U	N3-C4-O4	-5.84	115.31	119.40
1	1G	1462	G	N3-C4-N9	-5.84	122.50	126.00
26	14	31	C	O5'-P-OP1	-5.84	100.44	105.70
26	1H	1376	C	N3-C4-C5	-5.84	119.56	121.90
26	14	772	C	N1-C2-O2	-5.84	115.40	118.90
26	1H	1513	C	C5-C6-N1	5.84	123.92	121.00
26	14	828	U	N3-C2-O2	-5.84	118.11	122.20
26	14	1414	G	C4-N9-C1'	5.84	134.09	126.50
26	1H	1355	G	OP2-P-O3'	5.83	118.04	105.20
26	14	1686	C	C6-N1-C2	5.83	122.63	120.30
26	1H	296	C	C6-N1-C2	5.83	122.63	120.30
26	1H	1933	G	N9-C4-C5	5.83	107.73	105.40
26	14	2084	C	N3-C4-C5	-5.83	119.57	121.90
26	1H	330	A	N7-C8-N9	5.83	116.72	113.80
26	1H	1195	G	C6-N1-C2	-5.83	121.60	125.10
25	4L	16	A	C8-N9-C4	5.83	108.13	105.80
26	14	1437	C	C5-C6-N1	5.83	123.92	121.00
26	14	657	U	C5-C4-O4	5.83	129.40	125.90
1	13	769	G	N1-C6-O6	5.83	123.40	119.90
1	13	897	C	C2-N3-C4	-5.83	116.99	119.90
24	3K	35	A	N7-C8-N9	5.83	116.72	113.80
26	1H	695	G	N3-C2-N2	5.83	123.98	119.90
26	1H	834	C	N3-C4-N4	5.83	122.08	118.00
26	1H	2502	G	C4-C5-C6	5.83	122.30	118.80
26	1H	2871	C	N3-C4-N4	-5.83	113.92	118.00
1	1G	128	G	N9-C4-C5	5.83	107.73	105.40
26	14	2063	C	O5'-P-OP2	-5.83	100.45	105.70
26	14	2742	C	C6-N1-C2	5.83	122.63	120.30
26	1H	1544	C	N1-C2-O2	5.83	122.40	118.90
1	1G	388	G	C5-C6-O6	5.83	132.10	128.60
26	14	1827	C	OP1-P-O3'	5.83	118.02	105.20
27	1J	101	A	C4-C5-N7	5.83	113.61	110.70
1	13	1064	G	N3-C4-N9	-5.83	122.50	126.00
1	13	1381	U	O4'-C1'-N1	5.83	112.86	108.20
26	1H	2089	U	C6-N1-C2	5.83	124.50	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	769	G	C6-C5-N7	-5.82	126.91	130.40
26	1H	144	C	N3-C4-C5	5.82	124.23	121.90
26	1H	321	G	C4-C5-N7	5.82	113.13	110.80
26	1H	323	G	N1-C6-O6	-5.82	116.41	119.90
26	1H	398	G	N1-C2-N3	5.82	127.39	123.90
26	1H	2684	U	OP1-P-OP2	5.82	128.34	119.60
26	14	806	C	N3-C4-N4	5.82	122.08	118.00
26	14	1651	G	OP1-P-O3'	5.82	118.01	105.20
1	13	1096	C	C6-N1-C2	-5.82	117.97	120.30
26	1H	2010	G	O5'-P-OP1	-5.82	100.46	105.70
26	1H	1415	U	C5-C4-O4	5.82	129.39	125.90
26	14	1790	C	C5-C4-N4	-5.82	116.13	120.20
26	1H	656	G	OP2-P-O3'	5.82	118.00	105.20
26	1H	729	G	N7-C8-N9	5.82	116.01	113.10
1	1G	337	C	N3-C4-N4	5.82	122.07	118.00
26	14	2247	A	C8-N9-C4	-5.82	103.47	105.80
26	14	2431	U	N1-C2-O2	-5.82	118.73	122.80
26	1H	416	C	N3-C4-C5	5.82	124.23	121.90
26	1H	2078	C	N3-C4-C5	5.82	124.23	121.90
26	1H	2300	G	N7-C8-N9	5.82	116.01	113.10
26	1H	2718	G	N1-C6-O6	5.82	123.39	119.90
26	14	1022	G	C4-C5-N7	-5.82	108.47	110.80
26	14	1813	G	C6-C5-N7	5.82	133.89	130.40
1	13	860	A	N1-C6-N6	5.81	122.09	118.60
26	1H	815	C	C2-N3-C4	-5.81	116.99	119.90
26	1H	2083	G	N1-C6-O6	5.81	123.39	119.90
1	1G	1498	U	P-O3'-C3'	5.81	126.68	119.70
1	13	191(F)	U	C5-C6-N1	5.81	125.61	122.70
26	1H	613	U	C2-N1-C1'	5.81	124.67	117.70
26	1H	2286	A	C4-N9-C1'	5.81	136.76	126.30
26	1H	2713	A	C8-N9-C4	-5.81	103.47	105.80
1	1G	334	C	N3-C4-C5	5.81	124.22	121.90
26	14	807	U	C5-C4-O4	-5.81	122.41	125.90
1	13	692	U	C4-C5-C6	5.81	123.19	119.70
26	1H	40	C	C2-N3-C4	-5.81	117.00	119.90
26	1H	2387	U	O5'-P-OP2	5.81	117.67	110.70
26	1H	849	A	N9-C4-C5	-5.81	103.48	105.80
26	1H	1249	U	C6-N1-C2	5.81	124.48	121.00
26	1H	2368	C	C6-N1-C2	-5.81	117.98	120.30
27	16	78	A	O5'-P-OP1	5.81	117.67	110.70
26	14	1791	A	OP1-P-OP2	-5.81	110.88	119.60
26	14	2596	U	OP1-P-OP2	5.81	128.31	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	1	C	C6-N1-C2	-5.81	117.98	120.30
23	2K	68	C	C5-C6-N1	5.81	123.90	121.00
26	1H	741	G	C6-N1-C2	-5.81	121.62	125.10
26	1H	1783	A	O5'-P-OP2	-5.81	100.47	105.70
26	1H	1938	A	O4'-C1'-N9	5.81	112.85	108.20
26	1H	2060	A	C6-C5-N7	5.81	136.37	132.30
26	14	113	G	C8-N9-C4	5.81	108.72	106.40
26	1H	825	C	C5-C4-N4	-5.81	116.14	120.20
26	1H	2435	A	C8-N9-C4	-5.81	103.48	105.80
1	13	892	A	N9-C4-C5	-5.80	103.48	105.80
1	13	1103	C	O5'-P-OP2	-5.80	100.48	105.70
26	1H	29	U	OP1-P-O3'	5.80	117.97	105.20
26	1H	2238	G	OP1-P-OP2	5.80	128.31	119.60
26	1H	2466	C	N3-C2-O2	5.80	125.96	121.90
1	1G	197	A	C4-C5-C6	5.80	119.90	117.00
26	14	575	A	O4'-C1'-N9	5.80	112.84	108.20
26	14	740	U	C2-N3-C4	5.80	130.48	127.00
26	14	2362	G	O5'-P-OP2	5.80	117.66	110.70
1	13	739	C	N1-C2-O2	-5.80	115.42	118.90
26	1H	252	G	C6-N1-C2	-5.80	121.62	125.10
26	1H	806	C	N1-C2-O2	5.80	122.38	118.90
26	1H	1550	C	N1-C2-O2	-5.80	115.42	118.90
26	1H	1807	G	O5'-P-OP2	-5.80	100.48	105.70
26	1H	2555	U	N1-C2-O2	-5.80	118.74	122.80
26	1H	2586	C	N3-C2-O2	5.80	125.96	121.90
26	1H	2777	G	O4'-C1'-N9	-5.80	103.56	108.20
26	14	2020	A	C8-N9-C4	-5.80	103.48	105.80
26	14	2573	C	C2-N1-C1'	5.80	125.18	118.80
1	13	318	G	N1-C6-O6	5.80	123.38	119.90
23	2K	58	A	N1-C2-N3	5.80	132.20	129.30
26	1H	726	G	C8-N9-C4	5.80	108.72	106.40
26	1H	1279	G	O5'-P-OP1	5.80	117.66	110.70
1	1G	1506	U	C5-C4-O4	-5.80	122.42	125.90
26	14	1252	G	O4'-C1'-N9	-5.80	103.56	108.20
26	14	1264	G	C5-C6-O6	5.80	132.08	128.60
26	14	1332	G	C4-N9-C1'	-5.80	118.96	126.50
26	14	2578	G	C5-C6-O6	5.80	132.08	128.60
26	1H	2228	G	C6-C5-N7	-5.80	126.92	130.40
26	14	391	G	C8-N9-C1'	-5.80	119.46	127.00
26	1H	138	G	N9-C1'-C2'	5.80	121.53	114.00
26	1H	602	G	O4'-C1'-N9	5.80	112.84	108.20
26	1H	2708	G	C5-C6-O6	-5.80	125.12	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1543	A	C2-N3-C4	-5.80	107.70	110.60
22	1K	48	C	C2-N1-C1'	5.79	125.17	118.80
26	1H	920	G	C8-N9-C4	5.79	108.72	106.40
26	1H	1602	U	C5-C4-O4	5.79	129.38	125.90
26	14	1241	A	C6-N1-C2	5.79	122.08	118.60
26	1H	667	U	C5-C4-O4	-5.79	122.43	125.90
26	1H	1187	G	C6-C5-N7	-5.79	126.92	130.40
26	1H	1905	C	OP1-P-OP2	-5.79	110.91	119.60
26	1H	2331	G	C5-C6-O6	-5.79	125.12	128.60
26	1H	2413	G	N1-C6-O6	5.79	123.38	119.90
1	1G	353	A	C5-N7-C8	-5.79	101.00	103.90
26	14	1646	C	OP1-P-O3'	5.79	117.94	105.20
1	1G	567	G	N1-C6-O6	-5.79	116.43	119.90
26	14	657	U	C5-C6-N1	-5.79	119.81	122.70
26	1H	2073	C	C5-C4-N4	-5.79	116.15	120.20
26	1H	2552	U	C2-N3-C4	-5.79	123.53	127.00
26	14	661	C	N3-C4-C5	-5.79	119.58	121.90
26	1H	1192	G	N9-C4-C5	-5.79	103.08	105.40
26	1H	1619	G	C6-N1-C2	-5.79	121.63	125.10
26	1H	2387	U	OP2-P-O3'	5.79	117.93	105.20
23	2K	40	C	C5-C4-N4	-5.79	116.15	120.20
26	1H	187	G	C8-N9-C1'	-5.79	119.48	127.00
26	1H	859	G	C8-N9-C4	5.79	108.71	106.40
26	1H	1632	A	C5-N7-C8	-5.79	101.01	103.90
26	1H	2490	G	O4'-C1'-N9	5.79	112.83	108.20
26	14	1366	A	N1-C2-N3	-5.79	126.41	129.30
26	14	2473	U	N3-C2-O2	-5.79	118.15	122.20
26	1H	1897	G	C2-N3-C4	-5.78	109.01	111.90
26	1H	2245	U	C5-C6-N1	5.78	125.59	122.70
26	14	676	A	C6-C5-N7	-5.78	128.25	132.30
26	14	1210	A	C2-N3-C4	-5.78	107.71	110.60
26	14	1681	G	N7-C8-N9	5.78	115.99	113.10
26	14	1948	G	C5-C6-N1	5.78	114.39	111.50
26	14	2274	A	OP2-P-O3'	5.78	117.92	105.20
26	14	2597	G	C8-N9-C1'	-5.78	119.48	127.00
26	1H	265	A	N3-C4-C5	5.78	130.85	126.80
1	1G	729	A	N9-C4-C5	5.78	108.11	105.80
26	14	1202	C	C6-N1-C2	5.78	122.61	120.30
26	14	1307	A	N1-C2-N3	5.78	132.19	129.30
1	13	1201	A	O5'-P-OP2	-5.78	100.50	105.70
26	1H	256	A	N9-C4-C5	-5.78	103.49	105.80
26	1H	1839	G	C8-N9-C1'	-5.78	119.48	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2573	C	N1-C2-N3	5.78	123.25	119.20
26	14	121	G	C5-C6-N1	5.78	114.39	111.50
27	1J	101	A	N7-C8-N9	5.78	116.69	113.80
26	1H	1224	G	C8-N9-C4	5.78	108.71	106.40
26	1H	2624	G	C8-N9-C4	5.78	108.71	106.40
26	1H	1295	C	N1-C2-O2	-5.78	115.43	118.90
26	1H	1670	C	C5-C6-N1	-5.78	118.11	121.00
26	1H	1957	C	OP1-P-OP2	-5.78	110.93	119.60
26	1H	1971	A	C5-C6-N1	5.78	120.59	117.70
1	1G	258	G	N1-C6-O6	5.78	123.37	119.90
26	14	733	G	O5'-P-OP2	-5.78	100.50	105.70
26	1H	633	A	C2-N3-C4	-5.78	107.71	110.60
26	1H	792	G	C4-N9-C1'	5.78	134.01	126.50
26	1H	962	G	OP1-P-OP2	-5.78	110.94	119.60
1	1G	1200	C	N1-C2-O2	5.78	122.36	118.90
29	29	88	GLY	N-CA-C	5.78	127.54	113.10
26	14	1702	G	N1-C6-O6	5.77	123.36	119.90
24	3K	71	G	N7-C8-N9	-5.77	110.21	113.10
26	1H	739	G	N1-C6-O6	5.77	123.36	119.90
26	1H	1382	G	N1-C6-O6	5.77	123.36	119.90
26	1H	1784	A	O5'-P-OP1	5.77	117.63	110.70
26	14	1955	U	N3-C2-O2	-5.77	118.16	122.20
26	1H	2258	C	C5-C4-N4	-5.77	116.16	120.20
1	13	770	C	OP1-P-OP2	-5.77	110.95	119.60
1	13	821	G	C4-N9-C1'	5.77	134.00	126.50
26	1H	973	A	C8-N9-C4	5.77	108.11	105.80
26	1H	1359	A	N1-C2-N3	5.77	132.19	129.30
1	1G	579	G	C4-N9-C1'	5.77	134.00	126.50
1	1G	992	U	P-O3'-C3'	5.77	126.62	119.70
1	1G	1281	U	C5-C6-N1	5.77	125.58	122.70
26	14	1903	G	OP2-P-O3'	5.77	117.89	105.20
26	14	2447	G	N3-C2-N2	-5.77	115.86	119.90
26	14	2587	A	C5-C6-N6	-5.77	119.08	123.70
1	13	500	G	C8-N9-C4	5.77	108.71	106.40
1	13	1057	G	N1-C6-O6	-5.77	116.44	119.90
26	14	77	C	OP2-P-O3'	5.77	117.89	105.20
26	14	676	A	C8-N9-C4	-5.77	103.49	105.80
26	14	2443	C	C5-C4-N4	-5.77	116.16	120.20
26	1H	115	C	C4-C5-C6	5.77	120.28	117.40
26	1H	599	G	N3-C4-C5	-5.77	125.72	128.60
26	14	2510	C	OP1-P-OP2	5.77	128.25	119.60
26	1H	2324	C	C5-C4-N4	-5.76	116.17	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2327	A	C2-N3-C4	5.76	113.48	110.60
26	1H	2336	A	C2-N3-C4	5.76	113.48	110.60
30	31	32	LEU	CA-CB-CG	5.76	128.56	115.30
1	1G	1524	C	C4-C5-C6	5.76	120.28	117.40
26	14	214	G	C8-N9-C4	-5.76	104.09	106.40
26	14	922	U	C5-C6-N1	5.76	125.58	122.70
26	14	1605	C	OP1-P-OP2	5.76	128.25	119.60
26	14	1698	A	N3-C4-C5	5.76	130.84	126.80
26	14	1771	C	N3-C4-C5	5.76	124.21	121.90
26	1H	2763	G	C4-C5-N7	5.76	113.11	110.80
26	14	671	C	OP2-P-O3'	5.76	117.88	105.20
26	1H	119	A	N1-C2-N3	5.76	132.18	129.30
26	1H	463	G	OP1-P-O3'	5.76	117.88	105.20
26	1H	2401	U	C2-N1-C1'	5.76	124.61	117.70
26	14	2355	C	C6-N1-C2	5.76	122.61	120.30
1	13	1433	A	O5'-P-OP1	-5.76	100.52	105.70
23	2K	68	C	C6-N1-C2	-5.76	118.00	120.30
26	1H	1303	G	OP1-P-OP2	5.76	128.24	119.60
26	1H	2346	A	C8-N9-C1'	-5.76	117.33	127.70
1	1G	1145	C	N1-C2-O2	5.76	122.36	118.90
26	14	205	G	N7-C8-N9	-5.76	110.22	113.10
26	14	774	A	C8-N9-C1'	5.76	138.07	127.70
26	14	786	C	C2-N1-C1'	-5.76	112.47	118.80
26	14	948	G	N3-C2-N2	-5.76	115.87	119.90
26	14	1281	G	C5-C6-O6	-5.76	125.14	128.60
26	1H	115	C	C5-C6-N1	-5.76	118.12	121.00
26	1H	1969	A	C8-N9-C4	-5.76	103.50	105.80
26	1H	2297	C	C5-C6-N1	-5.76	118.12	121.00
1	1G	579	G	C6-C5-N7	-5.76	126.94	130.40
26	14	1663	C	N3-C2-O2	5.76	125.93	121.90
26	14	2463	C	N1-C2-O2	-5.76	115.44	118.90
26	1H	670	A	O4'-C1'-N9	-5.76	103.59	108.20
26	1H	2496	C	N1-C2-O2	-5.76	115.45	118.90
26	1H	2869	G	C8-N9-C4	-5.76	104.10	106.40
26	14	740	U	N3-C4-C5	-5.76	111.15	114.60
26	14	2375	G	N9-C1'-C2'	-5.76	105.67	112.00
26	14	262	A	O5'-P-OP2	-5.75	100.52	105.70
26	14	2386	C	C5-C4-N4	-5.75	116.17	120.20
1	13	1327	C	N3-C4-C5	5.75	124.20	121.90
26	1H	208	C	C6-N1-C2	5.75	122.60	120.30
26	1H	2269	A	O5'-P-OP2	-5.75	100.52	105.70
26	1H	609	A	N9-C4-C5	-5.75	103.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2295	C	N3-C4-C5	-5.75	119.60	121.90
55	Q8	60	LEU	CB-CG-CD2	5.75	120.78	111.00
26	14	1782	C	P-O3'-C3'	5.75	126.60	119.70
26	14	1315	C	N3-C4-N4	-5.75	113.97	118.00
26	14	2352	A	C2-N3-C4	-5.75	107.72	110.60
26	14	2489	G	OP2-P-O3'	5.75	117.85	105.20
1	13	522	C	C4-C5-C6	5.75	120.27	117.40
26	1H	1287	A	C8-N9-C4	-5.75	103.50	105.80
26	1H	1312	U	O5'-P-OP2	5.75	117.60	110.70
26	1H	2246	G	OP1-P-O3'	5.75	117.84	105.20
26	1H	2782	G	C8-N9-C1'	-5.75	119.53	127.00
26	1H	1340	U	C4-C5-C6	5.75	123.15	119.70
26	1H	1811	G	C5-C6-O6	5.75	132.05	128.60
26	1H	2672	G	C4-C5-C6	5.75	122.25	118.80
26	14	150	C	C5-C4-N4	5.75	124.22	120.20
26	14	441	U	OP1-P-OP2	5.75	128.22	119.60
26	14	1899	G	C5-C6-O6	5.75	132.05	128.60
26	14	2363	C	C2-N3-C4	-5.75	117.03	119.90
1	1G	1488	G	N9-C4-C5	-5.75	103.10	105.40
26	1H	587	C	C4-C5-C6	5.74	120.27	117.40
26	1H	864	G	C2-N3-C4	5.74	114.77	111.90
26	1H	1568	G	OP1-P-OP2	-5.74	110.98	119.60
1	1G	811	C	N3-C2-O2	5.74	125.92	121.90
26	14	809	G	OP2-P-O3'	-5.74	92.56	105.20
26	14	2547	U	O5'-P-OP2	-5.74	100.53	105.70
1	13	418	C	C2-N1-C1'	5.74	125.12	118.80
1	13	1065	U	P-O3'-C3'	5.74	126.59	119.70
26	1H	1693	U	OP1-P-OP2	5.74	128.21	119.60
26	1H	2731	G	N9-C4-C5	-5.74	103.10	105.40
26	14	2325	G	OP1-P-OP2	5.74	128.21	119.60
26	1H	686	G	N1-C2-N2	-5.74	111.03	116.20
26	1H	751	A	N1-C6-N6	-5.74	115.16	118.60
26	1H	1939	U	N3-C4-C5	5.74	118.04	114.60
26	1H	2318	G	C5-C6-N1	-5.74	108.63	111.50
26	14	47	C	C6-N1-C2	5.74	122.60	120.30
26	14	465	G	OP1-P-OP2	-5.74	110.99	119.60
26	14	1616	A	C8-N9-C4	-5.74	103.50	105.80
1	1G	1119	C	C6-N1-C2	-5.74	118.00	120.30
26	14	620	G	C8-N9-C4	-5.74	104.10	106.40
26	14	1343	G	N3-C4-N9	5.74	129.44	126.00
26	14	1396	U	N1-C2-O2	5.74	126.82	122.80
49	G5	42	GLY	N-CA-C	-5.74	98.76	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	974	A	C5-N7-C8	-5.74	101.03	103.90
26	14	948	G	N1-C6-O6	5.74	123.34	119.90
1	13	770	C	N3-C4-N4	5.74	122.02	118.00
26	1H	1321	A	C8-N9-C4	5.74	108.09	105.80
26	1H	1761	C	C5-C4-N4	-5.74	116.19	120.20
26	1H	1957	C	C4-C5-C6	5.74	120.27	117.40
26	1H	2257	U	N3-C4-C5	-5.74	111.16	114.60
26	14	391	G	C6-C5-N7	-5.74	126.96	130.40
26	14	1623	G	N3-C4-N9	-5.74	122.56	126.00
26	14	2517	C	O4'-C1'-N1	5.74	112.79	108.20
33	69	77	LEU	CA-CB-CG	5.74	128.49	115.30
26	1H	195	A	N1-C6-N6	5.73	122.04	118.60
26	1H	853	G	O5'-P-OP2	-5.73	100.54	105.70
26	1H	1241	A	P-O3'-C3'	5.73	126.58	119.70
1	13	313	A	O5'-P-OP2	-5.73	100.54	105.70
26	1H	1267	U	C5-C6-N1	-5.73	119.83	122.70
26	1H	1698	A	O5'-P-OP2	-5.73	100.54	105.70
26	1H	2569	G	O5'-P-OP2	-5.73	100.54	105.70
26	1H	695	G	OP1-P-OP2	-5.73	111.00	119.60
26	1H	2492	U	N3-C2-O2	-5.73	118.19	122.20
26	14	2513	G	N1-C6-O6	5.73	123.34	119.90
1	13	816	A	C8-N9-C4	-5.73	103.51	105.80
26	1H	54	G	O5'-P-OP1	-5.73	100.54	105.70
26	1H	180	G	C5-C6-O6	-5.73	125.16	128.60
1	13	692	U	N3-C4-C5	-5.73	111.16	114.60
26	1H	191	A	N1-C6-N6	5.73	122.04	118.60
26	1H	436	C	N1-C2-N3	-5.73	115.19	119.20
26	1H	847	U	N3-C4-O4	-5.73	115.39	119.40
26	1H	1326	U	C5-C4-O4	5.73	129.34	125.90
26	1H	1768	U	OP2-P-O3'	5.73	117.80	105.20
26	1H	2762	G	C5-N7-C8	-5.73	101.44	104.30
26	14	179	G	OP1-P-OP2	5.73	128.19	119.60
26	1H	686	G	C2-N3-C4	-5.73	109.04	111.90
26	1H	932	G	N1-C6-O6	-5.73	116.47	119.90
26	1H	1598	C	O5'-P-OP1	-5.73	100.55	105.70
26	1H	2607	G	N3-C4-N9	5.73	129.44	126.00
1	1G	345	C	C6-N1-C2	-5.73	118.01	120.30
1	1G	720	C	C5-C6-N1	5.73	123.86	121.00
26	14	416	C	N1-C2-O2	5.73	122.34	118.90
1	13	1284	C	C6-N1-C2	5.72	122.59	120.30
26	1H	404	C	P-O3'-C3'	5.72	126.57	119.70
26	1H	565	C	O5'-P-OP1	-5.72	100.55	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	664	C	C2-N3-C4	-5.72	117.04	119.90
26	1H	664	C	OP1-P-OP2	5.72	128.19	119.60
26	1H	1197	G	C8-N9-C4	5.72	108.69	106.40
1	13	127	G	OP2-P-O3'	5.72	117.79	105.20
1	13	356	A	O4'-C1'-N9	5.72	112.78	108.20
24	3K	37	A	O4'-C1'-N9	5.72	112.78	108.20
26	1H	1833	U	C6-N1-C2	-5.72	117.57	121.00
26	1H	2731	G	C4-N9-C1'	5.72	133.94	126.50
26	1H	195	A	P-O3'-C3'	5.72	126.56	119.70
26	1H	2051	A	N7-C8-N9	5.72	116.66	113.80
26	14	2689	U	N1-C2-N3	5.72	118.33	114.90
1	13	1417	G	C8-N9-C1'	-5.72	119.56	127.00
26	1H	441	U	OP1-P-O3'	5.72	117.78	105.20
26	1H	967	C	N3-C4-C5	5.72	124.19	121.90
26	1H	1632	A	C6-C5-N7	-5.72	128.30	132.30
26	1H	1971	A	OP1-P-O3'	5.72	117.78	105.20
1	1G	995	C	C5-C6-N1	5.72	123.86	121.00
26	14	2443	C	O5'-P-OP2	5.72	117.56	110.70
26	1H	1307	A	C8-N9-C4	5.72	108.09	105.80
26	14	186	G	C8-N9-C4	5.72	108.69	106.40
26	14	1797	C	N1-C2-O2	-5.72	115.47	118.90
1	13	1412	C	C2-N3-C4	-5.72	117.04	119.90
26	1H	983	A	C5-C6-N6	-5.72	119.13	123.70
26	1H	1193	G	OP1-P-OP2	-5.72	111.02	119.60
26	1H	1386	C	C6-N1-C2	-5.72	118.01	120.30
26	1H	2265	U	C6-N1-C2	-5.72	117.57	121.00
26	1H	2467	C	C6-N1-C2	5.72	122.59	120.30
1	13	1064	G	N9-C4-C5	5.71	107.69	105.40
24	3K	76	A	O4'-C1'-N9	5.71	112.77	108.20
26	1H	1368	G	N3-C2-N2	-5.71	115.90	119.90
26	1H	2078	C	O5'-P-OP2	5.71	117.56	110.70
26	14	329	G	C5-C6-N1	5.71	114.36	111.50
26	14	1780	A	N9-C4-C5	5.71	108.09	105.80
1	13	1412	C	N1-C2-O2	-5.71	115.47	118.90
26	1H	2024	G	N1-C6-O6	-5.71	116.47	119.90
26	1H	2690	C	C6-N1-C2	-5.71	118.02	120.30
43	E8	11	ARG	NE-CZ-NH2	-5.71	117.44	120.30
26	14	746	A	O5'-P-OP2	5.71	117.56	110.70
27	1J	103	U	C6-N1-C2	5.71	124.43	121.00
1	13	363	A	N1-C6-N6	-5.71	115.17	118.60
26	1H	967	C	O5'-P-OP2	-5.71	100.56	105.70
26	1H	1775	U	C5-C6-N1	-5.71	119.84	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	568	U	O5'-P-OP1	-5.71	100.56	105.70
26	14	1315	C	OP2-P-O3'	5.71	117.76	105.20
26	14	1582	C	N1-C2-O2	5.71	122.33	118.90
26	1H	805	G	C4-C5-C6	5.71	122.22	118.80
26	1H	1213	A	C4-C5-N7	5.71	113.55	110.70
26	1H	2866	U	N3-C4-C5	-5.71	111.17	114.60
23	2L	35	C	N1-C2-O2	5.71	122.33	118.90
26	14	188	G	C6-C5-N7	-5.71	126.97	130.40
26	14	510	C	N3-C4-C5	-5.71	119.62	121.90
26	1H	835	A	C8-N9-C4	-5.71	103.52	105.80
26	1H	848	G	O5'-P-OP1	5.71	117.55	110.70
26	1H	1019	U	C5-C4-O4	5.71	129.32	125.90
26	1H	2409	G	O5'-P-OP2	-5.71	100.56	105.70
26	14	204	A	C5-C6-N6	-5.71	119.13	123.70
26	14	1127	A	O5'-P-OP1	-5.71	100.56	105.70
26	14	2070	G	N1-C2-N2	-5.71	111.06	116.20
26	14	2293	C	N3-C4-N4	-5.71	114.00	118.00
1	13	865	A	C6-C5-N7	-5.71	128.31	132.30
26	1H	681	G	N7-C8-N9	-5.71	110.25	113.10
26	14	1928	A	C8-N9-C4	5.71	108.08	105.80
26	14	2235	G	C5-C6-O6	-5.71	125.18	128.60
26	14	2277	G	N9-C4-C5	5.71	107.68	105.40
26	1H	125	G	C6-C5-N7	-5.70	126.98	130.40
26	1H	194	G	N1-C6-O6	5.70	123.32	119.90
26	1H	829	A	C2-N3-C4	-5.70	107.75	110.60
26	1H	1366	A	C5-C6-N6	-5.70	119.14	123.70
26	1H	1427	A	C6-N1-C2	-5.70	115.18	118.60
26	1H	1520	U	N3-C2-O2	-5.70	118.21	122.20
26	1H	1830	C	N3-C4-C5	5.70	124.18	121.90
27	16	80	U	OP2-P-O3'	5.70	117.75	105.20
1	1G	1115	C	N3-C4-C5	-5.70	119.62	121.90
23	2L	48	U	P-O3'-C3'	5.70	126.54	119.70
26	14	2021	C	O5'-P-OP1	-5.70	100.57	105.70
26	14	2092	U	N3-C2-O2	-5.70	118.21	122.20
26	14	2615	U	C5-C6-N1	5.70	125.55	122.70
26	1H	2330	G	N1-C2-N3	5.70	127.32	123.90
26	1H	2448	A	N3-C4-N9	5.70	131.96	127.40
26	14	36	G	N7-C8-N9	5.70	115.95	113.10
26	14	93	C	C6-N1-C2	-5.70	118.02	120.30
1	13	1502	A	N9-C4-C5	-5.70	103.52	105.80
26	1H	791	C	OP2-P-O3'	5.70	117.74	105.20
26	1H	1413	G	O5'-P-OP2	5.70	117.54	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1690	A	C6-N1-C2	-5.70	115.18	118.60
26	1H	2255	G	C5-C6-N1	-5.70	108.65	111.50
26	1H	2458	G	C8-N9-C1'	-5.70	119.59	127.00
26	1H	621	A	C8-N9-C4	-5.70	103.52	105.80
26	1H	1197	G	OP1-P-OP2	5.70	128.15	119.60
26	1H	1707	G	C4-C5-N7	5.70	113.08	110.80
26	14	138	G	N3-C4-C5	-5.70	125.75	128.60
26	1H	188	G	C5-N7-C8	-5.70	101.45	104.30
26	1H	2538	C	C6-N1-C2	5.70	122.58	120.30
39	65	73	LEU	CA-CB-CG	5.70	128.40	115.30
1	13	779	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	117	G	C5-C6-O6	-5.70	125.18	128.60
26	1H	426	C	O5'-P-OP1	-5.70	100.58	105.70
26	1H	2545	G	N3-C4-C5	-5.70	125.75	128.60
26	1H	2573	C	C4-C5-C6	5.70	120.25	117.40
26	14	2379	G	O4'-C1'-N9	5.70	112.76	108.20
26	14	2776	A	P-O3'-C3'	5.70	126.53	119.70
26	1H	2212	A	C4-C5-N7	5.69	113.55	110.70
26	1H	2747	G	C6-C5-N7	-5.69	126.98	130.40
26	14	1938	A	C6-N1-C2	-5.69	115.18	118.60
26	14	1949	G	O5'-P-OP2	-5.69	100.58	105.70
26	1H	972	G	O5'-P-OP1	5.69	117.53	110.70
26	1H	1670	C	C6-N1-C2	5.69	122.58	120.30
1	1G	538	G	C6-C5-N7	-5.69	126.98	130.40
1	1G	1059	C	C6-N1-C2	-5.69	118.02	120.30
26	1H	98	G	OP1-P-OP2	5.69	128.14	119.60
26	1H	624	C	O5'-P-OP1	-5.69	100.58	105.70
26	1H	1284	A	C5-N7-C8	-5.69	101.05	103.90
26	14	530	G	C8-N9-C4	5.69	108.68	106.40
26	14	1909	C	N1-C2-O2	5.69	122.31	118.90
26	14	2597	G	O5'-P-OP1	5.69	117.53	110.70
42	95	80	GLN	N-CA-C	5.69	126.36	111.00
26	1H	416	C	C6-N1-C2	5.69	122.58	120.30
26	1H	847	U	C5-C6-N1	-5.69	119.86	122.70
26	1H	2523	G	C8-N9-C4	-5.69	104.12	106.40
1	1G	962	C	N1-C2-O2	5.69	122.31	118.90
26	14	1342	A	C6-C5-N7	-5.69	128.32	132.30
26	14	1585	C	N3-C2-O2	-5.69	117.92	121.90
26	14	2000	G	N9-C4-C5	-5.69	103.12	105.40
26	14	2501	C	C4-C5-C6	-5.69	114.56	117.40
26	1H	76	C	C4-C5-C6	5.69	120.24	117.40
26	1H	2509	G	N7-C8-N9	-5.69	110.26	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	983	A	OP2-P-O3'	5.69	117.71	105.20
26	14	2506	U	N3-C4-O4	5.69	123.38	119.40
1	13	792	A	C1'-O4'-C4'	-5.68	105.35	109.90
26	1H	1639	U	N1-C2-O2	5.68	126.78	122.80
27	16	6	C	N1-C2-O2	-5.68	115.49	118.90
1	1G	361	G	C8-N9-C4	5.68	108.67	106.40
1	13	809	G	O5'-P-OP1	-5.68	100.58	105.70
26	1H	113	G	C4-C5-C6	5.68	122.21	118.80
26	1H	330	A	O5'-P-OP2	-5.68	100.59	105.70
26	1H	671	C	C5-C6-N1	-5.68	118.16	121.00
26	1H	2330	G	C6-N1-C2	-5.68	121.69	125.10
26	1H	2546	U	C2-N1-C1'	-5.68	110.88	117.70
26	14	47	C	C5-C6-N1	-5.68	118.16	121.00
26	14	268	C	C6-N1-C2	-5.68	118.03	120.30
26	14	2721	A	OP1-P-O3'	5.68	117.70	105.20
26	1H	1246	A	C4-C5-C6	5.68	119.84	117.00
26	14	1397	U	N3-C4-O4	-5.68	115.42	119.40
1	13	484	G	C4-N9-C1'	5.68	133.88	126.50
26	1H	259	G	C8-N9-C4	5.68	108.67	106.40
26	1H	957	A	C6-C5-N7	-5.68	128.32	132.30
26	14	752	A	P-O3'-C3'	5.68	126.52	119.70
26	1H	1778	U	OP2-P-O3'	5.68	117.69	105.20
1	1G	330	C	N1-C2-O2	5.68	122.31	118.90
1	13	647	C	C6-N1-C2	-5.68	118.03	120.30
26	1H	53	A	OP1-P-O3'	5.68	117.69	105.20
26	1H	788	A	C5-C6-N1	-5.68	114.86	117.70
26	1H	1374	G	N1-C6-O6	5.68	123.31	119.90
26	1H	1393	A	OP1-P-O3'	5.68	117.69	105.20
26	1H	1935	G	N9-C4-C5	5.68	107.67	105.40
26	14	945	A	N1-C2-N3	5.68	132.14	129.30
1	13	897	C	C6-N1-C2	5.67	122.57	120.30
26	1H	324	A	O5'-P-OP2	5.67	117.51	110.70
26	1H	965	C	OP1-P-OP2	5.67	128.11	119.60
26	1H	1392	A	O5'-P-OP1	-5.67	100.59	105.70
26	14	2432	A	N1-C6-N6	5.67	122.00	118.60
1	13	1496	C	C4-C5-C6	5.67	120.24	117.40
26	14	62	C	C6-N1-C2	5.67	122.57	120.30
26	14	2224	G	C8-N9-C1'	-5.67	119.63	127.00
26	1H	763	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	952	G	C2-N3-C4	5.67	114.73	111.90
26	1H	2345	G	C8-N9-C4	5.67	108.67	106.40
26	14	391	G	C5-C6-O6	-5.67	125.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	756	C	C6-N1-C2	-5.67	118.03	120.30
26	14	1298	C	N1-C2-O2	5.67	122.30	118.90
26	14	2595	G	C5-N7-C8	-5.67	101.46	104.30
27	1J	60	C	C6-N1-C2	-5.67	118.03	120.30
26	14	791	C	P-O3'-C3'	5.67	126.50	119.70
26	1H	125	G	C4-C5-N7	5.67	113.07	110.80
26	1H	866	A	O4'-C1'-N9	-5.67	103.67	108.20
26	1H	1204	A	C4-C5-N7	5.67	113.53	110.70
26	1H	1339	G	O5'-P-OP2	5.67	117.50	110.70
1	1G	1436	U	C2-N1-C1'	5.67	124.50	117.70
26	1H	467	G	O5'-P-OP2	-5.67	100.60	105.70
26	1H	975	G	N3-C2-N2	-5.67	115.93	119.90
26	1H	2769	C	C6-N1-C2	-5.67	118.03	120.30
20	BI	13	LEU	CA-CB-CG	5.67	128.33	115.30
26	14	1792	G	C8-N9-C4	5.67	108.67	106.40
1	13	484	G	C8-N9-C4	-5.66	104.14	106.40
1	13	819	A	O5'-P-OP1	-5.66	100.60	105.70
26	1H	104	U	C5-C4-O4	-5.66	122.50	125.90
26	1H	745	G	C4-C5-C6	5.66	122.20	118.80
26	1H	832	G	C8-N9-C4	-5.66	104.13	106.40
26	1H	1244	G	C5-C6-O6	-5.66	125.20	128.60
26	1H	1382	G	C8-N9-C1'	5.66	134.36	127.00
26	1H	1558	A	C2-N3-C4	-5.66	107.77	110.60
26	14	511	U	N3-C4-C5	-5.66	111.20	114.60
26	14	2613	U	C4-C5-C6	5.66	123.10	119.70
26	1H	2059	A	C6-N1-C2	-5.66	115.20	118.60
26	1H	2325	G	OP1-P-OP2	5.66	128.09	119.60
26	1H	2506	U	O5'-P-OP2	5.66	117.49	110.70
26	14	769	G	C5-C6-O6	-5.66	125.20	128.60
26	14	1904	G	C4-C5-N7	-5.66	108.53	110.80
26	1H	649	G	N1-C6-O6	5.66	123.30	119.90
26	14	939	G	C6-C5-N7	-5.66	127.00	130.40
26	14	2351	G	C6-C5-N7	-5.66	127.00	130.40
26	14	2518	A	N1-C2-N3	5.66	132.13	129.30
26	1H	864	G	C5-C6-N1	5.66	114.33	111.50
26	1H	1226	G	OP1-P-OP2	5.66	128.09	119.60
26	1H	2070	G	N3-C2-N2	5.66	123.86	119.90
26	1H	2271	G	C4-N9-C1'	5.66	133.86	126.50
26	14	4	C	C2-N1-C1'	5.66	125.02	118.80
26	1H	2244	U	OP1-P-OP2	-5.66	111.11	119.60
26	1H	2300	G	N1-C6-O6	5.66	123.29	119.90
26	14	827	U	C6-N1-C2	5.66	124.39	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2332	U	O5'-P-OP1	5.66	117.49	110.70
1	13	295	C	O5'-P-OP2	-5.66	100.61	105.70
1	13	887	G	N1-C2-N2	-5.66	111.11	116.20
26	1H	115	C	N3-C4-N4	5.66	121.96	118.00
26	1H	783	A	N9-C1'-C2'	-5.66	105.78	112.00
26	1H	1200	C	N1-C2-O2	-5.66	115.51	118.90
26	1H	1968	G	N9-C1'-C2'	-5.66	105.78	112.00
26	1H	2721	A	C8-N9-C4	5.66	108.06	105.80
1	1G	547	A	C8-N9-C4	5.66	108.06	105.80
26	14	2685	G	C8-N9-C4	5.66	108.66	106.40
24	3K	71	G	C4-C5-N7	-5.65	108.54	110.80
26	1H	504	U	C2-N1-C1'	5.65	124.48	117.70
26	1H	2192	G	C8-N9-C1'	-5.65	119.65	127.00
27	16	14	U	OP1-P-OP2	5.65	128.08	119.60
26	1H	576	U	OP2-P-O3'	5.65	117.64	105.20
26	1H	920	G	C5-N7-C8	5.65	107.13	104.30
26	1H	1124	C	C4-C5-C6	5.65	120.23	117.40
26	1H	1626	G	N7-C8-N9	5.65	115.93	113.10
26	14	1807	G	N9-C4-C5	-5.65	103.14	105.40
1	13	827	U	C6-N1-C1'	-5.65	113.29	121.20
1	13	1436	U	OP1-P-OP2	-5.65	111.12	119.60
26	1H	184	C	C6-N1-C2	5.65	122.56	120.30
26	1H	684	G	N1-C6-O6	-5.65	116.51	119.90
26	1H	1969	A	C5-N7-C8	5.65	106.73	103.90
26	1H	1976	U	N3-C2-O2	-5.65	118.25	122.20
26	1H	2702	U	C5-C6-N1	5.65	125.53	122.70
26	14	393	C	C5-C4-N4	5.65	124.15	120.20
26	14	736	C	O5'-P-OP2	5.65	117.48	110.70
26	1H	246	C	C6-N1-C2	5.65	122.56	120.30
26	1H	912	C	C4-C5-C6	5.65	120.22	117.40
26	1H	1496	A	O4'-C1'-N9	5.65	112.72	108.20
26	14	2079	U	N1-C2-O2	5.65	126.75	122.80
26	14	2722	G	O5'-P-OP2	5.65	117.48	110.70
26	1H	2452	C	N3-C4-C5	5.65	124.16	121.90
26	14	408	G	O5'-P-OP2	-5.65	100.62	105.70
26	1H	692	C	N1-C2-O2	-5.64	115.51	118.90
26	1H	1389	G	C8-N9-C4	-5.64	104.14	106.40
26	1H	1424	G	C6-N1-C2	-5.64	121.71	125.10
26	1H	2465	C	C4-C5-C6	5.64	120.22	117.40
1	1G	221	C	C2-N1-C1'	5.64	125.01	118.80
26	14	74	A	N9-C4-C5	-5.64	103.54	105.80
26	1H	214	G	N3-C4-N9	5.64	129.38	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2501	C	C5-C4-N4	-5.64	116.25	120.20
26	14	728	G	C8-N9-C4	5.64	108.66	106.40
26	14	2049	G	N3-C2-N2	-5.64	115.95	119.90
1	13	566	G	O5'-P-OP2	-5.64	100.62	105.70
26	14	770	G	C8-N9-C4	5.64	108.66	106.40
26	14	2523	G	C5-C6-O6	-5.64	125.22	128.60
26	1H	414	C	C2-N3-C4	-5.64	117.08	119.90
26	1H	944	G	C4-N9-C1'	5.64	133.83	126.50
26	1H	994	C	N3-C4-C5	-5.64	119.64	121.90
26	1H	1195	G	N1-C2-N3	5.64	127.28	123.90
26	14	1162	G	O5'-P-OP1	-5.64	100.62	105.70
26	14	1785	A	C4-C5-C6	5.64	119.82	117.00
1	13	1407	C	N3-C4-N4	-5.64	114.05	118.00
26	1H	2700	C	N3-C4-C5	5.64	124.16	121.90
26	1H	182	A	N7-C8-N9	-5.64	110.98	113.80
26	1H	1728	G	N3-C4-N9	5.64	129.38	126.00
46	H8	24	LEU	CA-CB-CG	5.64	128.27	115.30
1	1G	831	U	C6-N1-C2	-5.64	117.62	121.00
26	14	759	G	OP1-P-OP2	-5.64	111.14	119.60
26	14	1965	C	O5'-P-OP1	-5.64	100.63	105.70
26	14	2072	G	OP1-P-OP2	-5.64	111.14	119.60
27	1J	104	A	C8-N9-C4	5.64	108.06	105.80
26	1H	138	G	C2-N3-C4	5.63	114.72	111.90
26	1H	302	C	O5'-P-OP2	-5.63	100.63	105.70
1	1G	662	G	N3-C4-N9	5.63	129.38	126.00
1	13	808	C	N3-C4-C5	-5.63	119.65	121.90
1	13	1322	C	C2-N3-C4	5.63	122.72	119.90
26	14	2238	G	N1-C2-N2	5.63	121.27	116.20
26	1H	803	U	C2-N3-C4	-5.63	123.62	127.00
26	1H	2247	A	C2-N3-C4	-5.63	107.78	110.60
1	1G	784	C	C6-N1-C2	5.63	122.55	120.30
26	14	809	G	OP1-P-O3'	5.63	117.59	105.20
1	13	881	G	C8-N9-C4	5.63	108.65	106.40
26	1H	2503	A	C5-C6-N6	-5.63	119.20	123.70
26	14	811	U	C4-C5-C6	5.63	123.08	119.70
26	1H	124	G	N3-C4-C5	5.63	131.41	128.60
26	1H	397	G	N3-C2-N2	-5.63	115.96	119.90
26	1H	508	G	C4-N9-C1'	5.63	133.82	126.50
26	1H	560	C	C5-C4-N4	-5.63	116.26	120.20
26	1H	1888	G	N3-C4-N9	5.63	129.38	126.00
26	1H	2061	G	N3-C4-C5	-5.63	125.79	128.60
26	14	265	A	N7-C8-N9	5.63	116.61	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	992	U	P-O3'-C3'	5.63	126.45	119.70
26	1H	2056	G	N9-C4-C5	-5.63	103.15	105.40
26	1H	2082	A	C8-N9-C4	5.63	108.05	105.80
26	14	1262	A	C5-C6-N6	-5.63	119.20	123.70
1	13	1374	A	C2-N3-C4	-5.62	107.79	110.60
1	1G	197	A	C6-C5-N7	-5.62	128.36	132.30
26	14	1965	C	N1-C2-O2	-5.62	115.53	118.90
26	14	2392	A	O4'-C1'-N9	5.62	112.70	108.20
1	13	1149	C	C6-N1-C2	-5.62	118.05	120.30
26	1H	746	A	N1-C6-N6	5.62	121.97	118.60
1	1G	723	U	C2-N1-C1'	5.62	124.45	117.70
26	14	784	A	C6-N1-C2	5.62	121.97	118.60
26	14	2060	A	N9-C4-C5	5.62	108.05	105.80
1	13	1526	G	C5-N7-C8	-5.62	101.49	104.30
26	1H	415	A	C5-C6-N6	-5.62	119.20	123.70
26	1H	1410	G	N3-C4-C5	5.62	131.41	128.60
1	1G	1527	C	N3-C2-O2	-5.62	117.97	121.90
1	13	1329	A	N1-C6-N6	5.62	121.97	118.60
26	1H	312	G	OP2-P-O3'	5.62	117.56	105.20
26	1H	939	G	C5-C6-O6	5.62	131.97	128.60
26	1H	1127	A	N1-C6-N6	5.62	121.97	118.60
26	1H	1294	U	O5'-P-OP1	-5.62	100.64	105.70
26	1H	2446	G	N9-C4-C5	-5.62	103.15	105.40
26	1H	1198	U	N1-C2-N3	5.62	118.27	114.90
26	1H	1291	C	OP1-P-O3'	5.62	117.56	105.20
26	1H	2354	G	OP1-P-O3'	5.62	117.56	105.20
55	Q8	7	HIS	N-CA-C	5.62	126.17	111.00
26	14	864	G	N3-C4-C5	-5.62	125.79	128.60
26	14	1984	G	OP1-P-OP2	5.62	128.03	119.60
26	14	2679	A	C8-N9-C4	5.62	108.05	105.80
26	1H	681	G	N9-C4-C5	-5.62	103.15	105.40
1	13	606	G	N3-C4-N9	5.62	129.37	126.00
1	13	1290	G	C4-N9-C1'	5.62	133.80	126.50
26	1H	113	G	C6-C5-N7	-5.62	127.03	130.40
26	1H	682	G	N7-C8-N9	-5.62	110.29	113.10
26	1H	738	G	N1-C6-O6	5.62	123.27	119.90
26	1H	1246	A	C6-N1-C2	-5.62	115.23	118.60
26	1H	2040	C	C5-C4-N4	-5.62	116.27	120.20
26	1H	2054	A	N1-C6-N6	5.62	121.97	118.60
26	14	2252	G	OP1-P-O3'	5.62	117.55	105.20
1	13	1336	C	P-O3'-C3'	5.61	126.44	119.70
26	1H	624	C	N1-C2-O2	-5.61	115.53	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1124	C	N1-C2-N3	5.61	123.13	119.20
26	14	1768	U	C5-C4-O4	5.61	129.27	125.90
26	14	1834	U	N3-C4-O4	5.61	123.33	119.40
1	13	538	G	N3-C4-N9	5.61	129.37	126.00
26	1H	816	C	C5-C4-N4	-5.61	116.27	120.20
26	1H	967	C	C2-N3-C4	-5.61	117.09	119.90
26	14	1965	C	C2-N1-C1'	-5.61	112.63	118.80
26	14	822	U	O5'-P-OP2	5.61	117.43	110.70
26	14	1348	G	C4-C5-N7	5.61	113.05	110.80
27	1J	49	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	202	U	O5'-P-OP2	5.61	117.43	110.70
26	1H	736	C	C5-C6-N1	-5.61	118.19	121.00
26	1H	2351	G	OP1-P-OP2	5.61	128.01	119.60
26	1H	2549	G	N1-C6-O6	5.61	123.27	119.90
26	14	1899	G	C8-N9-C4	-5.61	104.16	106.40
26	1H	184	C	O5'-P-OP1	-5.61	100.65	105.70
26	1H	847	U	OP1-P-OP2	5.61	128.01	119.60
26	1H	1190	G	OP1-P-OP2	5.61	128.01	119.60
26	1H	1649	G	N1-C2-N2	-5.61	111.15	116.20
26	1H	1900	A	OP1-P-OP2	-5.61	111.19	119.60
26	14	2354	G	N1-C6-O6	5.61	123.27	119.90
26	1H	779	U	N3-C4-C5	5.61	117.96	114.60
26	1H	967	C	O5'-P-OP1	5.61	117.43	110.70
26	1H	1306	C	N3-C4-C5	5.61	124.14	121.90
26	1H	2547	U	N3-C2-O2	5.61	126.12	122.20
26	14	801	G	N9-C4-C5	5.61	107.64	105.40
26	14	2509	G	OP1-P-OP2	5.61	128.01	119.60
26	14	2863	C	C6-N1-C2	5.61	122.54	120.30
26	1H	1335	U	N1-C2-O2	5.60	126.72	122.80
26	14	988	A	O5'-P-OP1	-5.60	100.66	105.70
26	1H	622	G	N3-C4-N9	5.60	129.36	126.00
26	1H	1201	C	N3-C4-N4	5.60	121.92	118.00
26	1H	1899	G	C5-N7-C8	-5.60	101.50	104.30
26	14	2551	C	C5-C6-N1	-5.60	118.20	121.00
1	13	276	G	N3-C2-N2	-5.60	115.98	119.90
26	1H	798	G	C4-C5-N7	5.60	113.04	110.80
26	14	1262	A	N9-C4-C5	-5.60	103.56	105.80
26	14	2291	U	C5-C4-O4	5.60	129.26	125.90
1	13	353	A	N7-C8-N9	5.60	116.60	113.80
26	1H	2249	U	O5'-P-OP1	-5.60	100.66	105.70
26	1H	2351	G	C8-N9-C1'	-5.60	119.72	127.00
26	1H	2604	U	O5'-P-OP1	-5.60	100.66	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	14	U	N3-C2-O2	-5.60	118.28	122.20
26	14	193	U	C4-C5-C6	5.60	123.06	119.70
26	14	1678	G	C5-C6-N1	-5.60	108.70	111.50
26	1H	831	G	C8-N9-C4	5.60	108.64	106.40
26	1H	1142(A)	A	N3-C4-C5	5.60	130.72	126.80
26	1H	1654	A	C6-N1-C2	-5.60	115.24	118.60
26	14	297	C	N3-C2-O2	-5.60	117.98	121.90
26	14	1209	G	OP1-P-OP2	5.60	128.00	119.60
26	14	1266	G	C5-C6-N1	5.60	114.30	111.50
26	14	2676	C	C5-C6-N1	-5.60	118.20	121.00
27	1J	56	G	C4-N9-C1'	5.60	133.78	126.50
26	1H	1401	G	N7-C8-N9	5.60	115.90	113.10
26	1H	1427	A	N1-C2-N3	5.60	132.10	129.30
26	1H	423	A	OP1-P-OP2	5.59	127.99	119.60
26	14	1409	C	OP1-P-OP2	5.59	127.99	119.60
26	1H	620	G	O5'-P-OP2	-5.59	100.67	105.70
26	14	2079	U	N3-C2-O2	-5.59	118.28	122.20
26	1H	783	A	C4-C5-C6	5.59	119.80	117.00
26	1H	2059	A	O4'-C1'-N9	5.59	112.67	108.20
26	1H	2617	C	N3-C2-O2	5.59	125.81	121.90
26	14	1925	C	C2-N1-C1'	-5.59	112.65	118.80
26	14	2513	G	C4-C5-N7	5.59	113.04	110.80
1	13	936	C	N3-C2-O2	-5.59	117.99	121.90
1	13	963	G	C6-C5-N7	-5.59	127.05	130.40
26	1H	116	C	C2-N1-C1'	-5.59	112.65	118.80
26	1H	631	A	O5'-P-OP1	-5.59	100.67	105.70
26	1H	2294	C	N3-C2-O2	-5.59	117.99	121.90
26	1H	2607	G	C5-N7-C8	-5.59	101.50	104.30
26	14	1949	G	OP1-P-OP2	5.59	127.98	119.60
26	14	2577	A	C4-C5-C6	5.59	119.80	117.00
33	69	102	SER	N-CA-C	-5.59	95.91	111.00
26	1H	616	A	OP2-P-O3'	5.59	117.49	105.20
1	1G	128	G	C4-C5-N7	-5.59	108.56	110.80
26	14	1342	A	C5-C6-N1	-5.59	114.91	117.70
1	13	1373	G	C8-N9-C4	-5.59	104.17	106.40
26	1H	124	G	C4-C5-N7	5.59	113.03	110.80
26	1H	1817	G	N9-C4-C5	-5.59	103.17	105.40
26	1H	2351	G	C6-C5-N7	-5.59	127.05	130.40
26	1H	2467	C	N3-C4-C5	5.59	124.14	121.90
1	1G	111	G	C5-C6-N1	-5.59	108.71	111.50
26	14	1285	G	C5-C6-N1	-5.59	108.71	111.50
26	14	2217	G	C4-N9-C1'	5.59	133.76	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2392	A	N1-C6-N6	5.58	121.95	118.60
26	1H	2438	U	C5-C4-O4	-5.58	122.55	125.90
1	1G	251	G	O4'-C1'-N9	-5.58	103.73	108.20
1	1G	924	C	OP1-P-OP2	5.58	127.98	119.60
1	1G	1232	U	O5'-P-OP2	-5.58	100.67	105.70
1	13	1432	G	C6-C5-N7	-5.58	127.05	130.40
26	1H	462	C	OP1-P-OP2	5.58	127.98	119.60
26	1H	1312	U	N1-C2-N3	5.58	118.25	114.90
26	1H	1633	G	OP2-P-O3'	5.58	117.48	105.20
26	1H	2067	G	C8-N9-C4	-5.58	104.17	106.40
43	E8	64	MET	N-CA-C	5.58	126.08	111.00
1	1G	449	C	C5-C4-N4	5.58	124.11	120.20
26	14	660	G	C5-C6-O6	5.58	131.95	128.60
26	14	750	A	OP1-P-O3'	5.58	117.49	105.20
26	1H	404	C	C6-N1-C2	5.58	122.53	120.30
26	1H	1010	A	N7-C8-N9	-5.58	111.01	113.80
26	1H	1349	A	N9-C4-C5	-5.58	103.57	105.80
26	1H	2379	G	C8-N9-C4	5.58	108.63	106.40
1	1G	970	C	O5'-P-OP1	-5.58	100.68	105.70
26	1H	1670	C	C2-N3-C4	-5.58	117.11	119.90
1	13	50	A	OP2-P-O3'	5.58	117.47	105.20
1	13	50	A	P-O3'-C3'	5.58	126.39	119.70
1	13	191	G	N7-C8-N9	5.58	115.89	113.10
26	1H	1272	A	C4-N9-C1'	-5.58	116.26	126.30
26	1H	1658	C	C5-C6-N1	5.58	123.79	121.00
26	1H	2374	C	N3-C4-N4	-5.58	114.10	118.00
27	16	89(A)	A	N1-C6-N6	5.58	121.95	118.60
26	14	632	A	OP1-P-OP2	-5.58	111.23	119.60
1	13	1513	A	C5-C6-N6	-5.58	119.24	123.70
26	1H	468	G	C6-N1-C2	-5.58	121.75	125.10
26	1H	626	U	OP1-P-O3'	5.58	117.47	105.20
26	1H	2477	C	C5-C6-N1	5.58	123.79	121.00
26	14	675	A	C4-C5-N7	5.58	113.49	110.70
26	14	740	U	C6-N1-C2	-5.58	117.65	121.00
26	14	1470	G	OP2-P-O3'	5.58	117.47	105.20
26	14	2703	C	C5-C6-N1	-5.58	118.21	121.00
1	13	36	C	C6-N1-C2	-5.58	118.07	120.30
26	1H	71	A	N3-C4-N9	-5.58	122.94	127.40
26	1H	198	C	C6-N1-C2	5.58	122.53	120.30
26	1H	572	A	OP1-P-OP2	-5.58	111.24	119.60
26	1H	2544	G	C4-C5-N7	5.58	113.03	110.80
26	1H	2549	G	C5-C6-O6	-5.58	125.25	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2718	G	C5-C6-O6	-5.58	125.25	128.60
26	14	150	C	N3-C4-N4	-5.58	114.10	118.00
26	14	597	U	N3-C4-O4	5.58	123.30	119.40
26	14	1612	C	N3-C2-O2	5.58	125.80	121.90
1	13	975	A	O4'-C1'-N9	-5.57	103.74	108.20
26	1H	813	U	OP1-P-OP2	5.57	127.96	119.60
26	14	848	G	C8-N9-C1'	-5.57	119.75	127.00
26	14	2054	A	C8-N9-C4	-5.57	103.57	105.80
26	14	2332	U	C5-C4-O4	5.57	129.24	125.90
26	14	2880	C	N3-C4-C5	-5.57	119.67	121.90
26	14	179	G	C8-N9-C4	5.57	108.63	106.40
26	1H	581	C	C6-N1-C2	-5.57	118.07	120.30
26	1H	944	G	C5-C6-O6	5.57	131.94	128.60
26	1H	954	G	O5'-P-OP2	5.57	117.39	110.70
26	1H	1196	C	N1-C2-O2	-5.57	115.56	118.90
26	1H	1222	C	C6-N1-C2	-5.57	118.07	120.30
26	14	2544	G	N9-C4-C5	-5.57	103.17	105.40
1	13	1468	A	C8-N9-C4	5.57	108.03	105.80
26	1H	424	G	N9-C4-C5	5.57	107.63	105.40
26	1H	249	C	N1-C2-O2	5.57	122.24	118.90
26	1H	972	G	C5-C6-N1	5.57	114.28	111.50
26	1H	1394	U	C2-N3-C4	5.57	130.34	127.00
26	1H	1749	A	C8-N9-C4	-5.57	103.57	105.80
1	1G	115	G	P-O3'-C3'	5.57	126.38	119.70
26	14	1308	A	C4-C5-C6	5.57	119.78	117.00
26	1H	866	A	C4-C5-N7	5.57	113.48	110.70
54	P8	9	ARG	NE-CZ-NH1	-5.57	117.52	120.30
26	14	1954	G	N9-C4-C5	5.57	107.63	105.40
55	M5	33	ASN	N-CA-C	5.57	126.03	111.00
26	1H	134	C	N3-C4-C5	5.56	124.13	121.90
1	13	856	C	C6-N1-C2	-5.56	118.08	120.30
26	1H	696	G	O5'-P-OP2	5.56	117.38	110.70
26	1H	762	U	C6-N1-C1'	-5.56	113.41	121.20
26	1H	802	A	OP1-P-O3'	-5.56	92.96	105.20
26	1H	2045	C	C6-N1-C2	5.56	122.53	120.30
27	16	47	C	N3-C4-C5	5.56	124.12	121.90
1	1G	1147	C	C6-N1-C1'	-5.56	114.13	120.80
26	14	1419	A	O4'-C1'-N9	5.56	112.65	108.20
26	14	1569	A	C8-N9-C4	-5.56	103.58	105.80
26	14	1667	G	C5-C6-N1	-5.56	108.72	111.50
26	1H	1035	U	C5-C6-N1	-5.56	119.92	122.70
26	1H	1144	G	C8-N9-C4	-5.56	104.17	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1352	U	C2-N3-C4	-5.56	123.66	127.00
26	1H	1559	G	N3-C4-C5	5.56	131.38	128.60
26	1H	2018	G	N1-C6-O6	5.56	123.24	119.90
26	1H	448	U	N3-C2-O2	-5.56	118.31	122.20
26	1H	866	A	C6-C5-N7	-5.56	128.41	132.30
26	1H	2672	G	N1-C2-N3	5.56	127.23	123.90
26	14	453	C	C5-C4-N4	-5.56	116.31	120.20
26	14	871	U	OP1-P-O3'	5.56	117.43	105.20
1	13	892	A	C8-N9-C4	5.56	108.02	105.80
26	1H	1284	A	C6-C5-N7	-5.56	128.41	132.30
26	1H	1287	A	O5'-P-OP1	5.56	117.37	110.70
26	1H	1292	U	C5-C6-N1	-5.56	119.92	122.70
26	1H	1611	C	N3-C4-C5	5.56	124.12	121.90
26	1H	2379	G	C4-C5-N7	5.56	113.02	110.80
45	G8	106	LEU	CA-CB-CG	5.56	128.08	115.30
26	14	2732	G	C6-N1-C2	-5.56	121.77	125.10
1	13	789	U	N3-C4-C5	-5.56	111.27	114.60
26	1H	301	G	OP1-P-OP2	5.56	127.93	119.60
26	1H	611	C	C5-C6-N1	-5.56	118.22	121.00
26	1H	1190	G	O5'-P-OP1	-5.56	100.70	105.70
1	1G	963	G	N3-C4-C5	-5.56	125.82	128.60
26	1H	917	A	O4'-C1'-N9	5.55	112.64	108.20
26	1H	1314	C	C6-N1-C1'	-5.55	114.13	120.80
1	1G	306	G	N3-C4-N9	-5.55	122.67	126.00
26	1H	1051	G	C6-C5-N7	-5.55	127.07	130.40
26	14	117	G	C5-C6-N1	5.55	114.28	111.50
26	14	570	G	C8-N9-C4	-5.55	104.18	106.40
26	1H	199	A	C5-C6-N6	5.55	128.14	123.70
26	1H	639	U	N1-C2-O2	5.55	126.69	122.80
26	1H	860	U	N1-C2-N3	5.55	118.23	114.90
26	1H	919	G	N1-C2-N3	5.55	127.23	123.90
26	1H	971	C	N1-C2-N3	5.55	123.09	119.20
26	1H	1272	A	N1-C6-N6	-5.55	115.27	118.60
26	14	1601	G	OP1-P-O3'	5.55	117.41	105.20
26	14	2225	A	P-O3'-C3'	5.55	126.36	119.70
1	13	595	G	C5-C6-O6	5.55	131.93	128.60
1	13	948	C	OP1-P-O3'	5.55	117.41	105.20
1	13	1279	A	N7-C8-N9	5.55	116.57	113.80
26	1H	371	A	N9-C4-C5	-5.55	103.58	105.80
26	1H	955	C	OP1-P-OP2	5.55	127.92	119.60
26	1H	975	G	N1-C2-N2	5.55	121.19	116.20
25	4L	16	A	N7-C8-N9	-5.55	111.03	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	833	U	C5-C6-N1	-5.55	119.92	122.70
26	14	974(A)	C	N3-C4-N4	-5.55	114.11	118.00
26	14	1480	G	N1-C6-O6	5.55	123.23	119.90
26	1H	659	C	N3-C4-C5	5.55	124.12	121.90
26	1H	2686	G	N3-C4-C5	-5.55	125.83	128.60
26	14	614	U	N3-C2-O2	-5.55	118.32	122.20
26	14	2084	C	N3-C2-O2	5.55	125.78	121.90
26	1H	113	G	C5-C6-N1	-5.55	108.73	111.50
26	1H	911	A	N1-C6-N6	5.55	121.93	118.60
26	1H	1487	G	N3-C4-C5	5.55	131.37	128.60
26	1H	1784	A	O4'-C1'-N9	-5.55	103.76	108.20
26	1H	1791	A	C2-N3-C4	5.55	113.37	110.60
26	1H	1982	C	N3-C4-N4	5.55	121.88	118.00
26	1H	2334	G	C5-C6-N1	5.55	114.27	111.50
26	14	409	C	C6-N1-C2	5.55	122.52	120.30
26	1H	109	G	C4-C5-N7	-5.54	108.58	110.80
26	1H	551	G	N7-C8-N9	-5.54	110.33	113.10
26	1H	1158	C	C2-N3-C4	-5.54	117.13	119.90
26	14	767	U	C5-C4-O4	5.54	129.23	125.90
1	13	1195	C	C5-C6-N1	5.54	123.77	121.00
26	1H	830	G	C2-N3-C4	-5.54	109.13	111.90
26	1H	1968	G	N3-C4-N9	5.54	129.33	126.00
26	1H	2368	C	N3-C4-C5	-5.54	119.68	121.90
26	14	1863	G	O5'-P-OP2	-5.54	100.71	105.70
1	13	122	G	N3-C2-N2	-5.54	116.02	119.90
1	13	1378	C	C5-C6-N1	5.54	123.77	121.00
26	1H	945	A	O5'-P-OP1	5.54	117.35	110.70
26	1H	2499	C	N3-C4-N4	5.54	121.88	118.00
26	14	1668	A	N9-C4-C5	-5.54	103.58	105.80
26	14	1979	C	C5-C4-N4	-5.54	116.32	120.20
26	14	2261	C	N3-C4-C5	5.54	124.12	121.90
27	1J	7	G	C6-C5-N7	-5.54	127.08	130.40
1	13	1203	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	825	C	C4-C5-C6	5.54	120.17	117.40
26	1H	2237	G	N3-C2-N2	5.54	123.78	119.90
26	14	2589	A	N7-C8-N9	-5.54	111.03	113.80
27	1J	60	C	C5-C6-N1	5.54	123.77	121.00
1	13	1128	C	N1-C2-O2	5.54	122.22	118.90
26	1H	535	C	C5-C6-N1	-5.54	118.23	121.00
26	1H	1605	C	N3-C4-C5	5.54	124.12	121.90
26	14	187	G	N3-C4-N9	5.54	129.32	126.00
26	14	1277	G	C8-N9-C4	5.54	108.62	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2574	G	C6-N1-C2	-5.54	121.78	125.10
26	14	1937	A	C5-C6-N1	-5.54	114.93	117.70
26	14	1997	G	C4-N9-C1'	5.54	133.70	126.50
27	1J	102	G	N3-C4-C5	5.54	131.37	128.60
1	13	238	G	N7-C8-N9	-5.54	110.33	113.10
26	1H	1200	C	O5'-P-OP1	5.54	117.34	110.70
26	1H	1660	C	N3-C2-O2	-5.54	118.03	121.90
26	1H	2265	U	N3-C4-C5	-5.54	111.28	114.60
26	1H	2708	G	N1-C2-N2	-5.54	111.22	116.20
26	14	205	G	C5-C6-O6	-5.54	125.28	128.60
26	14	2624	G	C2-N3-C4	5.54	114.67	111.90
1	13	740	U	N3-C4-C5	-5.53	111.28	114.60
26	1H	13	A	N1-C6-N6	-5.53	115.28	118.60
26	14	410	G	O5'-P-OP2	5.53	117.34	110.70
26	14	1700	A	O5'-P-OP2	5.53	117.34	110.70
26	14	1844	C	C5-C4-N4	-5.53	116.33	120.20
1	13	506	G	N3-C2-N2	-5.53	116.03	119.90
26	1H	1805	U	OP2-P-O3'	5.53	117.37	105.20
26	1H	2391	G	C5-C6-O6	5.53	131.92	128.60
26	1H	2538	C	C5-C6-N1	-5.53	118.23	121.00
1	1G	337	C	C6-N1-C2	-5.53	118.09	120.30
1	1G	555	C	C2-N1-C1'	5.53	124.88	118.80
26	14	130	C	C5-C6-N1	-5.53	118.23	121.00
26	14	1299	G	C4-C5-N7	5.53	113.01	110.80
26	14	1725	G	C4-N9-C1'	5.53	133.69	126.50
26	14	2392	A	O5'-P-OP2	5.53	117.34	110.70
1	13	667	G	N7-C8-N9	5.53	115.86	113.10
26	1H	639	U	C6-N1-C2	-5.53	117.68	121.00
26	1H	1345	C	OP2-P-O3'	5.53	117.36	105.20
26	1H	1606	G	O5'-P-OP2	-5.53	100.72	105.70
1	1G	687	A	P-O3'-C3'	5.53	126.33	119.70
26	1H	49	A	N1-C6-N6	5.53	121.92	118.60
26	1H	321	G	N3-C4-N9	5.53	129.32	126.00
26	1H	528	A	C5-C6-N6	5.53	128.12	123.70
26	1H	970	C	N1-C2-O2	-5.53	115.58	118.90
26	1H	1621	U	N1-C2-O2	-5.53	118.93	122.80
1	13	972	C	OP2-P-O3'	5.53	117.36	105.20
26	1H	142	G	C8-N9-C1'	5.53	134.18	127.00
26	1H	271(C)	U	C6-N1-C1'	-5.53	113.46	121.20
26	1H	1361	G	N7-C8-N9	-5.53	110.34	113.10
27	16	6	C	C5-C6-N1	-5.53	118.24	121.00
26	14	223	A	C8-N9-C4	-5.53	103.59	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2374	C	C4-C5-C6	5.52	120.16	117.40
26	1H	2468	G	N7-C8-N9	5.52	115.86	113.10
26	14	2254	C	OP2-P-O3'	5.52	117.35	105.20
1	13	788	U	N1-C2-N3	5.52	118.21	114.90
26	1H	805	G	OP1-P-O3'	5.52	117.35	105.20
26	1H	1301	A	N1-C6-N6	5.52	121.91	118.60
26	1H	1916	A	N1-C2-N3	5.52	132.06	129.30
26	1H	2755	C	C5-C6-N1	5.52	123.76	121.00
26	14	1334	G	N3-C2-N2	-5.52	116.03	119.90
26	14	2477	C	C6-N1-C2	-5.52	118.09	120.30
26	1H	468	G	N1-C6-O6	5.52	123.21	119.90
26	1H	1255	U	C5-C4-O4	-5.52	122.59	125.90
26	14	2877	G	O5'-P-OP1	5.52	117.33	110.70
1	13	1369	C	O5'-P-OP2	-5.52	100.73	105.70
26	1H	821	A	O5'-P-OP2	-5.52	100.73	105.70
26	1H	1780	A	C5-C6-N6	5.52	128.12	123.70
26	1H	2300	G	C8-N9-C4	-5.52	104.19	106.40
26	1H	2310	A	C6-N1-C2	-5.52	115.29	118.60
26	1H	2540	C	N3-C4-C5	5.52	124.11	121.90
30	31	176	LEU	CB-CG-CD2	-5.52	101.62	111.00
26	14	999	U	O5'-P-OP2	5.52	117.32	110.70
26	14	1982	C	C6-N1-C2	-5.52	118.09	120.30
1	13	190	G	C8-N9-C4	-5.52	104.19	106.40
26	1H	743	G	N3-C4-C5	-5.52	125.84	128.60
26	1H	1949	G	N3-C2-N2	-5.52	116.04	119.90
26	1H	2501	C	N3-C4-C5	5.52	124.11	121.90
26	1H	2593	U	C5-C6-N1	5.52	125.46	122.70
1	1G	701	C	N1-C2-O2	5.52	122.21	118.90
26	14	1806	C	O5'-P-OP2	-5.52	100.73	105.70
26	14	2592	G	N1-C2-N2	-5.52	111.23	116.20
26	1H	20	C	O5'-P-OP2	-5.52	100.74	105.70
26	1H	33	U	OP1-P-O3'	5.52	117.33	105.20
26	1H	528	A	C4-N9-C1'	-5.52	116.37	126.30
26	1H	2509	G	N9-C4-C5	-5.52	103.19	105.40
26	14	1377	G	N3-C4-C5	-5.52	125.84	128.60
26	14	1519	G	C5-C6-N1	-5.52	108.74	111.50
26	14	2011	U	C6-N1-C2	5.52	124.31	121.00
26	14	2708	G	N1-C2-N2	-5.52	111.23	116.20
1	13	1504	G	P-O3'-C3'	5.51	126.32	119.70
26	1H	463	G	N1-C2-N2	-5.51	111.24	116.20
26	1H	864	G	N3-C4-C5	-5.51	125.84	128.60
26	1H	2736	G	N3-C4-C5	5.51	131.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	6	G	N1-C6-O6	5.51	123.21	119.90
26	14	210	C	C6-N1-C2	5.51	122.50	120.30
26	14	602	G	N9-C4-C5	-5.51	103.19	105.40
26	14	2314	C	N3-C2-O2	-5.51	118.04	121.90
26	14	385	C	O5'-P-OP1	-5.51	100.74	105.70
26	1H	775	G	N3-C4-N9	5.51	129.31	126.00
26	1H	805	G	C8-N9-C4	-5.51	104.19	106.40
26	1H	2465	C	C2-N3-C4	-5.51	117.14	119.90
26	1H	2586	C	C6-N1-C2	5.51	122.50	120.30
26	14	2512	C	N3-C2-O2	5.51	125.76	121.90
26	1H	695	G	N1-C2-N2	-5.51	111.24	116.20
26	1H	1605	C	O5'-P-OP1	-5.51	100.74	105.70
27	16	44	G	C8-N9-C4	5.51	108.60	106.40
1	1G	906	G	C8-N9-C4	5.51	108.60	106.40
26	14	684	G	N7-C8-N9	5.51	115.86	113.10
26	14	1653	G	C5-N7-C8	5.51	107.05	104.30
48	F5	29	GLY	N-CA-C	5.51	126.88	113.10
26	1H	2440	C	OP1-P-OP2	5.51	127.86	119.60
26	1H	2871	C	N3-C2-O2	-5.51	118.04	121.90
26	14	1333	C	C4-C5-C6	-5.51	114.65	117.40
23	2K	35	C	C2-N1-C1'	5.51	124.86	118.80
26	1H	809	G	N3-C4-C5	-5.51	125.85	128.60
26	1H	868	U	N3-C2-O2	-5.51	118.35	122.20
1	1G	1061	G	C6-C5-N7	-5.51	127.10	130.40
26	14	479	A	C5-N7-C8	5.51	106.65	103.90
26	1H	1021	A	O4'-C1'-N9	-5.50	103.80	108.20
28	11	147	LEU	CB-CG-CD2	-5.50	101.64	111.00
26	14	665	C	C6-N1-C1'	-5.50	114.19	120.80
26	14	1777	U	N1-C2-N3	5.50	118.20	114.90
26	14	2508	G	C5-C6-N1	5.50	114.25	111.50
26	1H	684	G	N3-C4-C5	-5.50	125.85	128.60
26	1H	1949	G	N3-C4-N9	-5.50	122.70	126.00
26	1H	2073	C	N1-C2-O2	-5.50	115.60	118.90
26	1H	2076	U	N1-C2-O2	-5.50	118.95	122.80
26	1H	2775	A	C5-C6-N6	-5.50	119.30	123.70
39	A8	101	LEU	CA-CB-CG	5.50	127.96	115.30
26	14	475	U	N3-C2-O2	-5.50	118.35	122.20
26	14	748	G	N9-C4-C5	5.50	107.60	105.40
26	14	1277	G	OP1-P-OP2	5.50	127.86	119.60
26	1H	25	U	C6-N1-C2	5.50	124.30	121.00
26	1H	230	U	O5'-P-OP2	-5.50	100.75	105.70
26	1H	1192	G	N7-C8-N9	-5.50	110.35	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2080	G	N1-C6-O6	-5.50	116.60	119.90
1	1G	538	G	C4-N9-C1'	5.50	133.65	126.50
26	1H	1138	G	C4-N9-C1'	5.50	133.65	126.50
26	1H	1334	G	C4-C5-N7	5.50	113.00	110.80
1	1G	932	C	N1-C2-O2	5.50	122.20	118.90
1	13	1335	C	C5-C6-N1	-5.50	118.25	121.00
26	1H	1997	G	N1-C2-N3	5.50	127.20	123.90
26	1H	2611	U	N3-C2-O2	-5.50	118.35	122.20
1	1G	1530	G	N7-C8-N9	5.50	115.85	113.10
26	14	1567	A	C8-N9-C4	-5.50	103.60	105.80
26	14	1796	U	O5'-P-OP2	5.50	117.30	110.70
27	1J	44	G	C4-N9-C1'	-5.50	119.35	126.50
26	1H	51	G	C8-N9-C1'	-5.50	119.86	127.00
26	1H	133	C	N3-C4-C5	5.50	124.10	121.90
26	1H	670	A	N9-C4-C5	-5.50	103.60	105.80
26	1H	864	G	N3-C4-N9	5.50	129.30	126.00
26	1H	1343	G	N3-C4-N9	5.50	129.30	126.00
26	1H	1424	G	N3-C4-N9	5.50	129.30	126.00
26	1H	1685	C	OP1-P-O3'	5.50	117.29	105.20
27	16	8	U	C5-C4-O4	5.50	129.20	125.90
26	14	203	C	N3-C4-C5	5.50	124.10	121.90
26	14	1932	A	O5'-P-OP1	-5.50	100.75	105.70
1	13	138	G	O5'-P-OP1	5.50	117.29	110.70
26	1H	389	G	C8-N9-C4	5.50	108.60	106.40
26	1H	1222	C	C2-N1-C1'	5.50	124.84	118.80
26	1H	2032	G	C5-N7-C8	5.50	107.05	104.30
24	3L	71	G	C4-C5-N7	-5.50	108.60	110.80
26	14	2031	A	C5-C6-N6	-5.50	119.30	123.70
26	14	2258	C	N3-C2-O2	5.50	125.75	121.90
26	1H	719	C	C6-N1-C2	-5.49	118.10	120.30
26	1H	793	A	C4-C5-C6	5.49	119.75	117.00
26	1H	2243	U	O5'-P-OP2	-5.49	100.76	105.70
1	1G	912	C	C5-C6-N1	-5.49	118.25	121.00
26	14	1343	G	N3-C4-C5	-5.49	125.85	128.60
26	14	1820	U	O5'-P-OP2	5.49	117.29	110.70
26	1H	385	C	O5'-P-OP1	-5.49	100.76	105.70
26	1H	1394	U	N3-C4-C5	-5.49	111.31	114.60
1	13	238	G	C8-N9-C4	5.49	108.60	106.40
23	2K	10	G	O5'-P-OP1	-5.49	100.76	105.70
26	1H	1935	G	C5-C6-O6	5.49	131.90	128.60
24	3L	76	A	C2-N3-C4	-5.49	107.86	110.60
26	14	1734	C	C6-N1-C2	-5.49	118.10	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2042	A	C2-N3-C4	-5.49	107.86	110.60
26	14	2248	C	O5'-P-OP1	-5.49	100.76	105.70
26	1H	1951	U	O5'-P-OP2	-5.49	100.76	105.70
26	1H	2592	G	C6-C5-N7	-5.49	127.11	130.40
23	2L	76	C	N1-C2-O2	-5.49	115.61	118.90
26	14	508	G	OP1-P-OP2	5.49	127.83	119.60
26	14	1022	G	C6-C5-N7	5.49	133.69	130.40
26	14	1203	G	O5'-P-OP1	5.49	117.29	110.70
23	2K	74	A	C4-C5-N7	5.49	113.44	110.70
26	1H	848	G	O5'-P-OP2	-5.49	100.76	105.70
26	14	211	A	C5-C6-N6	-5.49	119.31	123.70
26	14	2426	A	C4-C5-N7	5.49	113.44	110.70
26	1H	2253	G	N1-C6-O6	5.49	123.19	119.90
53	O8	42	TRP	CA-CB-CG	5.49	124.12	113.70
1	1G	972	C	O5'-P-OP2	-5.49	100.76	105.70
26	14	915	C	N1-C2-O2	5.49	122.19	118.90
26	14	2442	C	C4-C5-C6	5.49	120.14	117.40
1	13	191(F)	U	C6-N1-C2	-5.48	117.71	121.00
1	13	910	C	C2-N3-C4	-5.48	117.16	119.90
23	2K	68	C	N3-C4-N4	5.48	121.84	118.00
26	1H	2453	A	N9-C4-C5	5.48	107.99	105.80
26	14	780	G	C4-C5-C6	5.48	122.09	118.80
26	14	2263	C	O5'-P-OP2	5.48	117.28	110.70
26	14	2502	G	N3-C4-C5	-5.48	125.86	128.60
26	1H	607	U	C5-C6-N1	-5.48	119.96	122.70
26	1H	687	C	O5'-P-OP1	-5.48	100.77	105.70
26	1H	793	A	C6-N1-C2	-5.48	115.31	118.60
26	1H	1363	C	N3-C4-C5	5.48	124.09	121.90
26	1H	1432	C	N3-C4-N4	5.48	121.84	118.00
26	1H	2061	G	N3-C2-N2	5.48	123.74	119.90
1	1G	320	C	C6-N1-C2	5.48	122.49	120.30
26	14	2330	G	N7-C8-N9	-5.48	110.36	113.10
26	14	2606	C	C2-N3-C4	-5.48	117.16	119.90
26	1H	627	A	N7-C8-N9	-5.48	111.06	113.80
26	1H	1129	A	OP1-P-OP2	5.48	127.82	119.60
26	1H	2324	C	OP1-P-OP2	5.48	127.82	119.60
26	14	263	C	N1-C2-O2	5.48	122.19	118.90
1	13	900	A	C5-C6-N1	5.48	120.44	117.70
26	1H	1051	G	N1-C6-O6	5.48	123.19	119.90
26	1H	1283	G	C8-N9-C1'	-5.48	119.88	127.00
26	14	1703	G	C4-C5-N7	5.48	112.99	110.80
26	1H	54	G	N1-C6-O6	5.48	123.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	768	G	C6-C5-N7	-5.48	127.11	130.40
26	14	1309	G	N9-C4-C5	-5.48	103.21	105.40
26	14	2435	A	OP1-P-O3'	5.48	117.25	105.20
26	1H	120	U	N3-C4-O4	-5.47	115.57	119.40
26	1H	622	G	N1-C2-N2	-5.47	111.27	116.20
26	1H	2439	A	C6-C5-N7	-5.47	128.47	132.30
26	1H	2473	U	C6-N1-C1'	-5.47	113.54	121.20
43	E8	107	LEU	CA-CB-CG	5.47	127.89	115.30
1	1G	245	C	N1-C2-O2	-5.47	115.61	118.90
26	14	954	G	N3-C4-C5	-5.47	125.86	128.60
26	14	2231	C	C5-C4-N4	-5.47	116.37	120.20
26	14	2443	C	N3-C4-N4	5.47	121.83	118.00
26	1H	1817	G	C5-N7-C8	5.47	107.04	104.30
26	1H	2359	C	C4-C5-C6	5.47	120.14	117.40
1	1G	1061	G	C4-N9-C1'	5.47	133.62	126.50
1	1G	1502	A	C2-N3-C4	-5.47	107.86	110.60
1	13	651	C	N1-C2-O2	5.47	122.18	118.90
26	1H	1428	C	C5-C4-N4	5.47	124.03	120.20
26	1H	1517	G	OP1-P-O3'	5.47	117.24	105.20
26	1H	371	A	C4-C5-N7	5.47	113.44	110.70
26	1H	634	C	O5'-P-OP2	-5.47	100.78	105.70
26	1H	1624	G	N1-C6-O6	-5.47	116.62	119.90
26	1H	1973	G	N3-C2-N2	5.47	123.73	119.90
26	1H	2782	G	N3-C4-N9	5.47	129.28	126.00
1	1G	328	C	P-O3'-C3'	5.47	126.26	119.70
1	1G	1527	C	C4-C5-C6	5.47	120.14	117.40
26	14	1569	A	O4'-C1'-N9	5.47	112.58	108.20
26	14	2272	U	N1-C2-O2	5.47	126.63	122.80
26	14	2523	G	C8-N9-C4	5.47	108.59	106.40
26	14	2597	G	C8-N9-C4	5.47	108.59	106.40
1	13	1529	G	OP2-P-O3'	5.47	117.23	105.20
1	1G	108	G	N1-C2-N3	-5.47	120.62	123.90
26	14	140	A	C5-C6-N6	-5.47	119.33	123.70
26	14	1827	C	N3-C2-O2	-5.47	118.07	121.90
1	13	226	G	C8-N9-C1'	-5.47	119.89	127.00
1	13	512	U	O5'-P-OP2	-5.47	100.78	105.70
1	13	578	C	N3-C4-N4	5.47	121.83	118.00
26	1H	1610	A	N1-C6-N6	5.47	121.88	118.60
26	1H	2241	A	C2-N3-C4	-5.47	107.87	110.60
26	14	2387	U	C5-C6-N1	-5.47	119.97	122.70
27	1J	103	U	C2-N1-C1'	-5.47	111.14	117.70
26	1H	380	U	N3-C2-O2	-5.46	118.38	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1312	U	P-O3'-C3'	5.46	126.26	119.70
26	1H	1791	A	N1-C2-N3	-5.46	126.57	129.30
26	1H	2438	U	C6-N1-C1'	-5.46	113.55	121.20
1	1G	392	G	C8-N9-C4	5.46	108.58	106.40
26	14	1313	U	C2-N1-C1'	5.46	124.26	117.70
26	14	2420	C	C6-N1-C1'	-5.46	114.24	120.80
26	14	2443	C	O5'-P-OP1	-5.46	100.78	105.70
26	1H	2458	G	C4-N9-C1'	5.46	133.60	126.50
26	1H	2467	C	C5-C6-N1	-5.46	118.27	121.00
26	14	2444	G	O5'-P-OP2	-5.46	100.78	105.70
1	13	237	C	N1-C2-O2	-5.46	115.62	118.90
26	1H	795	C	C6-N1-C2	5.46	122.48	120.30
26	1H	1311	G	C5-C6-O6	-5.46	125.32	128.60
26	1H	1332	G	N1-C2-N3	5.46	127.18	123.90
26	1H	1438	U	N3-C4-O4	5.46	123.22	119.40
26	1H	2299	G	N1-C6-O6	5.46	123.18	119.90
26	1H	2641	G	N1-C6-O6	5.46	123.18	119.90
26	14	782	A	N9-C4-C5	5.46	107.98	105.80
26	14	2003	G	N1-C6-O6	5.46	123.18	119.90
30	39	80	ALA	C-N-CD	5.46	139.87	128.40
26	14	1265	A	C5-C6-N6	-5.46	119.33	123.70
1	13	254	G	O5'-P-OP1	-5.46	100.79	105.70
26	1H	1626	G	N9-C4-C5	5.46	107.58	105.40
1	1G	576	G	C5-C6-N1	-5.46	108.77	111.50
26	14	2286	A	C8-N9-C4	-5.46	103.62	105.80
26	14	2679	A	N7-C8-N9	-5.46	111.07	113.80
1	13	1099	G	N1-C6-O6	-5.46	116.63	119.90
1	13	1475	G	OP1-P-OP2	5.46	127.78	119.60
26	1H	737	C	C2-N1-C1'	-5.46	112.80	118.80
26	1H	818	G	C5-C6-O6	5.46	131.87	128.60
26	1H	1471	A	C6-C5-N7	-5.46	128.48	132.30
26	14	71	A	N7-C8-N9	5.46	116.53	113.80
26	14	530	G	C5-C6-N1	-5.46	108.77	111.50
26	14	784	A	OP1-P-O3'	5.46	117.20	105.20
26	14	831	G	C8-N9-C4	5.46	108.58	106.40
26	14	1623	G	C4-N9-C1'	-5.46	119.41	126.50
26	14	2287	A	C5-C6-N1	-5.46	114.97	117.70
1	13	1416	G	O5'-P-OP2	5.46	117.25	110.70
1	13	1417	G	C4-N9-C1'	5.46	133.59	126.50
26	1H	777	A	C6-N1-C2	-5.46	115.33	118.60
26	1H	2579	C	C4-C5-C6	5.46	120.13	117.40
1	13	751	U	O5'-P-OP1	-5.45	100.79	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	204	A	C5-C6-N6	-5.45	119.34	123.70
26	1H	587	C	C6-N1-C2	-5.45	118.12	120.30
26	1H	2582	G	OP1-P-OP2	-5.45	111.42	119.60
26	14	140	A	OP2-P-O3'	5.45	117.20	105.20
26	14	559	G	C4-C5-N7	-5.45	108.62	110.80
26	14	775	G	N1-C6-O6	-5.45	116.63	119.90
26	14	2328	A	C8-N9-C4	5.45	107.98	105.80
1	13	263	A	O5'-P-OP2	5.45	117.24	110.70
26	1H	49	A	C4-C5-C6	5.45	119.73	117.00
26	14	2007	C	N1-C2-O2	-5.45	115.63	118.90
26	1H	382	G	OP1-P-O3'	5.45	117.19	105.20
26	1H	427	U	N1-C2-N3	-5.45	111.63	114.90
26	1H	1272	A	C6-C5-N7	5.45	136.12	132.30
26	1H	1423	G	N9-C4-C5	-5.45	103.22	105.40
26	1H	1644	C	C6-N1-C1'	-5.45	114.26	120.80
26	14	2624	G	C5-C6-N1	5.45	114.23	111.50
24	3K	32	U	C6-N1-C2	-5.45	117.73	121.00
26	1H	1491	G	N1-C6-O6	5.45	123.17	119.90
26	1H	2280	G	OP1-P-O3'	5.45	117.19	105.20
49	K8	61	LEU	CA-CB-CG	-5.45	102.77	115.30
26	14	2316	C	O5'-P-OP1	-5.45	100.80	105.70
1	13	1222	G	O5'-P-OP1	5.45	117.24	110.70
26	14	678	C	C6-N1-C2	5.45	122.48	120.30
1	13	1521	G	O5'-P-OP1	-5.45	100.80	105.70
26	1H	70	G	N1-C2-N2	-5.45	111.30	116.20
26	1H	2392	A	O4'-C1'-N9	5.45	112.56	108.20
26	1H	2401	U	O5'-P-OP1	-5.45	100.80	105.70
26	1H	2502	G	OP2-P-O3'	5.45	117.18	105.20
27	16	65	C	C2-N1-C1'	5.45	124.79	118.80
50	L8	31	LEU	CA-CB-CG	5.45	127.82	115.30
26	14	1302	A	OP1-P-OP2	5.45	127.77	119.60
26	14	1780	A	C8-N9-C4	-5.45	103.62	105.80
26	14	2249	U	C5-C4-O4	5.45	129.17	125.90
26	1H	1516	U	N3-C2-O2	-5.44	118.39	122.20
26	14	1821	A	N1-C2-N3	5.44	132.02	129.30
1	13	586	C	C5-C6-N1	-5.44	118.28	121.00
26	1H	593	G	C4-C5-C6	5.44	122.07	118.80
26	1H	798	G	N3-C4-C5	5.44	131.32	128.60
26	1H	1193	G	C4-C5-N7	-5.44	108.62	110.80
1	1G	377	G	N3-C4-N9	5.44	129.27	126.00
26	14	1347	G	OP1-P-O3'	5.44	117.17	105.20
26	14	2336	A	O4'-C1'-N9	-5.44	103.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2713	A	N3-C4-C5	5.44	130.61	126.80
27	1J	38	C	O5'-P-OP2	-5.44	100.80	105.70
1	13	1497	G	O5'-P-OP2	-5.44	100.80	105.70
26	1H	509	C	O5'-P-OP2	-5.44	100.80	105.70
26	14	1605	C	N1-C2-O2	-5.44	115.64	118.90
26	14	2464	C	C5-C6-N1	-5.44	118.28	121.00
26	1H	473	G	N1-C2-N2	-5.44	111.31	116.20
1	13	715	A	O5'-P-OP2	-5.44	100.81	105.70
1	13	1214	C	C6-N1-C2	5.44	122.47	120.30
26	1H	323	G	O5'-P-OP1	-5.44	100.81	105.70
26	1H	600	G	N3-C4-C5	5.44	131.32	128.60
26	1H	1189	A	N9-C4-C5	-5.44	103.62	105.80
26	1H	2030	A	OP1-P-O3'	5.44	117.16	105.20
26	1H	2238	G	OP2-P-O3'	5.44	117.16	105.20
1	1G	413	G	C5-N7-C8	5.44	107.02	104.30
26	14	2430	A	N9-C4-C5	-5.44	103.62	105.80
27	1J	81	G	C6-C5-N7	-5.44	127.14	130.40
37	88	2	LEU	N-CA-C	-5.44	96.32	111.00
26	14	970	C	N1-C2-O2	-5.44	115.64	118.90
26	14	1904	G	C8-N9-C4	5.44	108.57	106.40
26	1H	585	G	OP1-P-OP2	-5.43	111.45	119.60
26	1H	758	C	C5-C4-N4	-5.43	116.40	120.20
26	1H	973	A	N9-C4-C5	-5.43	103.63	105.80
28	11	236	GLY	N-CA-C	5.43	126.69	113.10
26	14	776	G	O4'-C1'-N9	-5.43	103.85	108.20
26	14	1254	A	O5'-P-OP2	-5.43	100.81	105.70
26	14	1954	G	C6-C5-N7	5.43	133.66	130.40
1	13	18	C	C5-C6-N1	5.43	123.72	121.00
26	1H	1663	C	C5-C4-N4	-5.43	116.40	120.20
26	1H	1827	C	C4-C5-C6	5.43	120.12	117.40
26	1H	2688	U	C5-C6-N1	-5.43	119.98	122.70
26	14	385	C	P-O3'-C3'	5.43	126.22	119.70
26	14	1980	G	N1-C6-O6	5.43	123.16	119.90
26	14	2051	A	C8-N9-C4	-5.43	103.63	105.80
26	14	2378	A	N9-C4-C5	-5.43	103.63	105.80
27	1J	89(A)	A	C2-N3-C4	5.43	113.32	110.60
26	1H	780	G	C4-C5-N7	5.43	112.97	110.80
26	1H	802	A	N9-C4-C5	-5.43	103.63	105.80
26	1H	1157	G	C6-C5-N7	-5.43	127.14	130.40
26	1H	1625	C	N1-C2-O2	5.43	122.16	118.90
26	1H	2072	G	C6-N1-C2	5.43	128.36	125.10
26	1H	743	G	C4-C5-N7	-5.43	108.63	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1193	G	C6-N1-C2	-5.43	121.84	125.10
26	1H	2721	A	N9-C4-C5	-5.43	103.63	105.80
26	14	807	U	C4-C5-C6	5.43	122.96	119.70
26	14	1382	G	C4-N9-C1'	-5.43	119.44	126.50
26	14	1760	A	O5'-P-OP2	-5.43	100.81	105.70
1	13	22	G	N3-C2-N2	-5.43	116.10	119.90
1	13	916	G	C4-N9-C1'	5.43	133.56	126.50
1	13	917	G	O5'-P-OP1	-5.43	100.81	105.70
26	1H	731	C	C2-N3-C4	-5.43	117.19	119.90
26	14	2286	A	C5-N7-C8	-5.43	101.19	103.90
26	14	2351	G	C4-N9-C1'	5.43	133.56	126.50
26	14	2702	U	N1-C1'-C2'	5.43	121.06	114.00
26	14	2730	C	N3-C2-O2	-5.43	118.10	121.90
1	13	1356	G	C8-N9-C4	-5.43	104.23	106.40
26	1H	1157	G	C8-N9-C1'	-5.43	119.95	127.00
26	1H	2388	A	C2-N3-C4	-5.43	107.89	110.60
26	14	1142(A)	A	N1-C2-N3	5.43	132.01	129.30
1	13	1307	U	OP1-P-O3'	5.42	117.13	105.20
26	1H	863	A	OP1-P-OP2	5.42	127.74	119.60
26	1H	2307	G	C4-C5-N7	5.42	112.97	110.80
26	14	2092	U	C6-N1-C2	-5.42	117.75	121.00
26	14	2327	A	N9-C4-C5	5.42	107.97	105.80
26	1H	763	G	OP2-P-O3'	5.42	117.13	105.20
26	1H	1674	G	O4'-C1'-N9	-5.42	103.86	108.20
1	1G	979	C	C4-C5-C6	5.42	120.11	117.40
26	14	215	G	N9-C4-C5	-5.42	103.23	105.40
1	13	1498	U	C6-N1-C1'	-5.42	113.61	121.20
26	1H	135	G	N7-C8-N9	-5.42	110.39	113.10
26	1H	680	G	C8-N9-C4	5.42	108.57	106.40
26	1H	956	G	N1-C6-O6	5.42	123.15	119.90
26	1H	1365	A	C5-C6-N1	-5.42	114.99	117.70
26	1H	2404	C	O5'-P-OP1	-5.42	100.82	105.70
26	1H	2686	G	N3-C4-N9	5.42	129.25	126.00
48	J8	85	LEU	CA-CB-CG	-5.42	102.83	115.30
26	14	1251	C	O5'-P-OP1	-5.42	100.82	105.70
26	14	1404	C	N1-C2-O2	5.42	122.15	118.90
26	1H	660	G	C4-C5-N7	5.42	112.97	110.80
26	1H	1429	G	C5-C6-O6	5.42	131.85	128.60
26	14	1154	G	C4-C5-N7	5.42	112.97	110.80
1	13	640	A	O5'-P-OP1	-5.42	100.82	105.70
26	1H	177	G	C8-N9-C4	-5.42	104.23	106.40
26	1H	2311	A	N7-C8-N9	5.42	116.51	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2329	G	OP1-P-OP2	5.42	127.73	119.60
26	1H	2476	A	N7-C8-N9	5.42	116.51	113.80
1	1G	501	C	C6-N1-C2	-5.42	118.13	120.30
26	14	948	G	C8-N9-C4	-5.42	104.23	106.40
26	14	2712(A)	A	C4-C5-C6	-5.42	114.29	117.00
38	55	79	LEU	CA-CB-CG	5.42	127.76	115.30
26	1H	119	A	C5-N7-C8	5.42	106.61	103.90
26	1H	386	G	O5'-P-OP1	-5.42	100.83	105.70
26	1H	1192	G	N3-C4-N9	5.42	129.25	126.00
26	1H	1293	C	OP1-P-OP2	-5.42	111.48	119.60
26	1H	1428	C	O5'-P-OP1	-5.42	100.83	105.70
26	1H	1520	U	OP2-P-O3'	5.42	117.12	105.20
26	1H	2035	G	O5'-P-OP1	-5.42	100.83	105.70
26	14	59	U	OP2-P-O3'	5.42	117.11	105.20
26	1H	215	G	C2-N3-C4	-5.42	109.19	111.90
26	1H	732	C	C5-C6-N1	-5.42	118.29	121.00
27	16	61	G	N9-C4-C5	5.42	107.57	105.40
26	1H	946	G	C6-C5-N7	5.41	133.65	130.40
26	1H	1899	G	OP2-P-O3'	5.41	117.11	105.20
26	1H	2384	G	C8-N9-C4	-5.41	104.23	106.40
22	1L	74	C	C2-N1-C1'	-5.41	112.84	118.80
26	14	53	A	O5'-P-OP1	-5.41	100.83	105.70
26	14	102	G	O5'-P-OP1	-5.41	100.83	105.70
26	14	804	A	N7-C8-N9	-5.41	111.09	113.80
26	14	1653	G	N7-C8-N9	-5.41	110.39	113.10
1	13	1432	G	N3-C4-N9	5.41	129.25	126.00
26	1H	779	U	N3-C4-O4	-5.41	115.61	119.40
26	1H	844	C	N3-C4-C5	-5.41	119.73	121.90
26	1H	1607	C	C5-C4-N4	-5.41	116.41	120.20
26	14	788	A	N7-C8-N9	5.41	116.50	113.80
26	14	1309	G	C8-N9-C4	5.41	108.56	106.40
1	13	896	C	C2-N3-C4	-5.41	117.20	119.90
26	1H	498	G	O5'-P-OP2	5.41	117.19	110.70
26	1H	818	G	N9-C4-C5	5.41	107.56	105.40
26	1H	1265	A	N9-C4-C5	5.41	107.96	105.80
26	14	1586	A	N7-C8-N9	5.41	116.50	113.80
26	1H	811	U	N1-C2-N3	5.41	118.14	114.90
36	78	88	LEU	CA-CB-CG	5.41	127.73	115.30
1	1G	720	C	C6-N1-C2	-5.41	118.14	120.30
1	1G	1374	A	O4'-C1'-N9	5.41	112.53	108.20
1	13	1525	G	C8-N9-C4	5.41	108.56	106.40
26	1H	202	U	C6-N1-C1'	-5.41	113.63	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	583	G	C5-C6-N1	5.41	114.20	111.50
26	1H	2071	A	C5-C6-N6	-5.41	119.38	123.70
26	14	1630(A)	C	C6-N1-C2	-5.41	118.14	120.30
26	14	1971	A	C5-C6-N1	5.41	120.40	117.70
26	14	2329	G	C6-N1-C2	-5.41	121.86	125.10
26	1H	841	A	C4-C5-N7	5.40	113.40	110.70
26	1H	1406	U	OP1-P-O3'	5.40	117.09	105.20
26	14	1975	G	N9-C4-C5	-5.40	103.24	105.40
26	14	1664	A	O4'-C1'-N9	-5.40	103.88	108.20
26	14	1756	G	N1-C6-O6	5.40	123.14	119.90
26	1H	2244	U	C4-C5-C6	5.40	122.94	119.70
26	14	141	A	OP2-P-O3'	5.40	117.08	105.20
46	D5	24	LEU	CA-CB-CG	5.40	127.72	115.30
26	14	476	G	OP1-P-OP2	5.40	127.70	119.60
26	14	2217	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	124	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	1019	U	C6-N1-C2	-5.40	117.76	121.00
26	1H	2613	U	C4-C5-C6	5.40	122.94	119.70
26	1H	2779	U	N3-C2-O2	-5.40	118.42	122.20
1	1G	1498	U	C2-N1-C1'	5.40	124.18	117.70
26	14	1768	U	C2-N1-C1'	-5.40	111.22	117.70
1	13	325	A	C4-C5-C6	-5.40	114.30	117.00
26	1H	424	G	N1-C6-O6	-5.40	116.66	119.90
26	1H	2028	U	N1-C2-N3	5.40	118.14	114.90
26	14	736	C	C4-C5-C6	-5.40	114.70	117.40
1	13	402	G	O5'-P-OP1	5.39	117.17	110.70
26	1H	871	U	O5'-P-OP2	5.39	117.17	110.70
27	16	101	A	N1-C2-N3	5.39	132.00	129.30
1	1G	175	C	C6-N1-C2	-5.39	118.14	120.30
26	14	138	G	OP1-P-O3'	5.39	117.07	105.20
26	14	1784	A	OP1-P-O3'	5.39	117.07	105.20
26	1H	528	A	OP1-P-O3'	5.39	117.06	105.20
26	1H	735	A	C4-C5-C6	5.39	119.70	117.00
26	1H	989	G	N1-C6-O6	5.39	123.14	119.90
26	1H	1357	U	OP1-P-OP2	5.39	127.69	119.60
26	1H	1470	G	OP2-P-O3'	5.39	117.06	105.20
26	1H	1658	C	N3-C4-C5	-5.39	119.74	121.90
26	1H	2362	G	N1-C6-O6	-5.39	116.67	119.90
27	16	85	G	C5-C6-N1	5.39	114.20	111.50
36	78	71	VAL	C-N-CD	5.39	139.72	128.40
26	14	679	C	C2-N3-C4	-5.39	117.20	119.90
26	14	1281	G	N1-C6-O6	5.39	123.14	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1939	U	C2-N1-C1'	-5.39	111.23	117.70
26	14	2724	C	N1-C2-O2	-5.39	115.66	118.90
26	1H	133	C	O5'-P-OP1	5.39	117.17	110.70
26	14	2281	C	O5'-P-OP2	5.39	117.17	110.70
1	13	362	G	O5'-P-OP1	-5.39	100.85	105.70
26	1H	784	A	P-O3'-C3'	5.39	126.17	119.70
26	1H	1249	U	C5-C6-N1	-5.39	120.00	122.70
26	1H	1782	C	O5'-P-OP2	5.39	117.17	110.70
26	1H	2244	U	OP2-P-O3'	5.39	117.06	105.20
37	88	82	ARG	NE-CZ-NH2	5.39	123.00	120.30
1	1G	1048	G	C8-N9-C4	-5.39	104.24	106.40
26	14	2074	U	OP1-P-OP2	5.39	127.69	119.60
2	12	23	ARG	N-CA-C	-5.39	96.45	111.00
26	14	2607	G	C4-C5-C6	5.39	122.03	118.80
1	13	798	G	C2-N3-C4	-5.39	109.21	111.90
1	13	888	G	N1-C2-N2	-5.39	111.35	116.20
26	1H	818	G	O5'-P-OP1	-5.39	100.85	105.70
26	1H	928	G	N1-C2-N2	5.39	121.05	116.20
26	1H	1799	G	P-O3'-C3'	5.39	126.16	119.70
26	1H	2331	G	N1-C2-N3	5.39	127.13	123.90
26	1H	2501	C	N3-C2-O2	5.39	125.67	121.90
26	1H	2584	U	C5-C6-N1	-5.39	120.01	122.70
26	1H	2639	A	C6-C5-N7	-5.39	128.53	132.30
26	1H	2641	G	C5-C6-O6	-5.39	125.37	128.60
26	14	1537	C	C6-N1-C2	-5.39	118.14	120.30
26	14	1979	C	N3-C4-N4	5.39	121.77	118.00
26	1H	139	G	C8-N9-C4	-5.38	104.25	106.40
26	1H	446	G	C2-N3-C4	-5.38	109.21	111.90
26	1H	755	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	963	U	OP1-P-OP2	-5.38	111.53	119.60
26	1H	1202	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	2397	G	C4-C5-N7	5.38	112.95	110.80
26	1H	2437	U	C4-C5-C6	5.38	122.93	119.70
26	14	246	C	N3-C4-C5	5.38	124.05	121.90
26	14	954	G	C6-C5-N7	5.38	133.63	130.40
26	14	1899	G	N3-C4-N9	-5.38	122.77	126.00
26	1H	1901	A	C6-N1-C2	-5.38	115.37	118.60
26	1H	1993	U	C5-C6-N1	-5.38	120.01	122.70
26	14	1660	C	OP1-P-OP2	5.38	127.67	119.60
26	1H	187	G	C4-N9-C1'	5.38	133.50	126.50
26	1H	430	G	OP1-P-O3'	5.38	117.04	105.20
26	1H	620	G	OP1-P-OP2	5.38	127.67	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1417	C	C6-N1-C2	-5.38	118.15	120.30
26	1H	2585	U	C5-C4-O4	5.38	129.13	125.90
27	16	78	A	N3-C4-C5	5.38	130.57	126.80
1	1G	12	U	N3-C2-O2	-5.38	118.43	122.20
26	14	141	A	C5-N7-C8	-5.38	101.21	103.90
26	14	2674	G	O5'-P-OP2	-5.38	100.86	105.70
26	1H	747	U	O5'-P-OP1	-5.38	100.86	105.70
1	1G	1474	G	N1-C6-O6	5.38	123.13	119.90
26	14	696	G	O5'-P-OP2	5.38	117.16	110.70
22	1K	76	A	C5-N7-C8	-5.38	101.21	103.90
26	1H	1003	G	OP1-P-OP2	5.38	127.67	119.60
26	1H	2518	A	N3-C4-N9	-5.38	123.10	127.40
26	14	948	G	N1-C2-N2	5.38	121.04	116.20
26	14	982	C	OP1-P-O3'	5.38	117.03	105.20
26	14	1776	G	N3-C4-N9	5.38	129.23	126.00
1	13	1518	A	C5-N7-C8	5.38	106.59	103.90
26	1H	760	G	N1-C6-O6	5.38	123.13	119.90
26	1H	2030	A	O4'-C1'-N9	-5.38	103.90	108.20
26	1H	2597	G	OP2-P-O3'	5.38	117.03	105.20
55	Q8	43	GLN	N-CA-C	5.38	125.52	111.00
27	1J	102	G	N7-C8-N9	-5.38	110.41	113.10
26	14	676	A	N3-C4-C5	5.38	130.56	126.80
26	14	1125	G	C4-C5-N7	-5.38	108.65	110.80
26	14	2445	G	C5-C6-N1	5.38	114.19	111.50
26	14	2446	G	O5'-P-OP2	-5.38	100.86	105.70
1	13	1187	G	C8-N9-C1'	-5.37	120.01	127.00
26	1H	94	G	N1-C6-O6	5.37	123.12	119.90
26	1H	859	G	C4-N9-C1'	-5.37	119.52	126.50
26	1H	1129	A	C5-C6-N6	-5.37	119.40	123.70
26	1H	2447	G	C5-C6-N1	5.37	114.19	111.50
1	1G	230	G	C5-C6-N1	-5.37	108.81	111.50
26	14	186	G	C5-C6-O6	-5.37	125.38	128.60
26	14	2330	G	C2-N3-C4	-5.37	109.21	111.90
26	14	2681	C	C5-C6-N1	-5.37	118.31	121.00
1	13	900	A	OP1-P-OP2	-5.37	111.54	119.60
26	1H	616	A	OP1-P-OP2	5.37	127.66	119.60
26	1H	752	A	N1-C2-N3	5.37	131.99	129.30
26	1H	782	A	C2-N3-C4	-5.37	107.91	110.60
26	1H	1854	A	N1-C6-N6	-5.37	115.38	118.60
26	1H	2064	C	N3-C4-C5	-5.37	119.75	121.90
1	1G	662	G	C4-N9-C1'	5.37	133.48	126.50
26	14	252	G	C2-N3-C4	5.37	114.59	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	987	G	C6-C5-N7	5.37	133.62	130.40
1	13	1497	G	O4'-C1'-N9	5.37	112.50	108.20
26	1H	215	G	N1-C6-O6	5.37	123.12	119.90
26	1H	645	C	C2-N1-C1'	5.37	124.71	118.80
26	1H	792	G	OP1-P-OP2	5.37	127.66	119.60
26	1H	1534	G	N3-C4-C5	-5.37	125.92	128.60
26	1H	2449	U	C4-C5-C6	5.37	122.92	119.70
26	14	1313	U	O4'-C1'-N1	5.37	112.50	108.20
1	13	974	A	N9-C4-C5	-5.37	103.65	105.80
26	1H	2010	G	OP1-P-O3'	5.37	117.01	105.20
26	1H	2578	G	N1-C6-O6	-5.37	116.68	119.90
38	98	18	LEU	CA-CB-CG	5.37	127.65	115.30
26	14	1704	G	N9-C4-C5	-5.37	103.25	105.40
26	14	2044	C	OP1-P-OP2	5.37	127.65	119.60
1	13	903	G	C6-N1-C2	-5.37	121.88	125.10
26	1H	1248	G	C4-C5-N7	-5.37	108.65	110.80
26	1H	2705	A	OP1-P-OP2	-5.37	111.55	119.60
26	14	2239	G	OP2-P-O3'	5.37	117.01	105.20
1	13	1496	C	N1-C2-O2	-5.37	115.68	118.90
26	1H	116	C	C4-C5-C6	5.37	120.08	117.40
26	1H	1294	U	C5-C6-N1	-5.37	120.02	122.70
26	1H	2607	G	N1-C6-O6	5.37	123.12	119.90
26	14	1570	A	C4-C5-N7	5.37	113.38	110.70
26	14	1797	C	C2-N3-C4	-5.37	117.22	119.90
26	14	2044	C	N3-C4-N4	5.37	121.75	118.00
26	1H	1855	G	N3-C4-N9	5.36	129.22	126.00
26	1H	1982	C	OP1-P-OP2	5.36	127.65	119.60
26	14	116	C	OP1-P-OP2	5.36	127.64	119.60
26	14	2443	C	C6-N1-C2	-5.36	118.15	120.30
26	1H	793	A	C6-C5-N7	-5.36	128.55	132.30
1	13	878	G	N3-C4-N9	5.36	129.22	126.00
26	1H	447	A	O5'-P-OP2	5.36	117.13	110.70
26	1H	1237	A	OP2-P-O3'	5.36	116.99	105.20
26	1H	2655	G	C4-N9-C1'	-5.36	119.53	126.50
27	16	24	G	N3-C4-N9	5.36	129.22	126.00
1	1G	402	G	C8-N9-C4	5.36	108.54	106.40
26	14	2096	U	C5-C6-N1	5.36	125.38	122.70
26	14	2454	G	O5'-P-OP2	-5.36	100.88	105.70
23	2K	9	G	C5-C6-N1	5.36	114.18	111.50
26	1H	530	G	N9-C4-C5	5.36	107.54	105.40
26	1H	1937	A	O5'-P-OP1	5.36	117.13	110.70
26	1H	2079	U	N1-C2-N3	5.36	118.11	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	41	98	ARG	NE-CZ-NH1	5.36	122.98	120.30
26	14	2501	C	C6-N1-C1'	5.36	127.23	120.80
26	1H	40	C	C4-C5-C6	5.36	120.08	117.40
26	1H	1236	G	OP1-P-O3'	5.36	116.99	105.20
1	1G	564	C	N3-C4-C5	-5.36	119.76	121.90
26	14	187	G	C8-N9-C1'	-5.36	120.04	127.00
1	13	226	G	C6-C5-N7	-5.36	127.19	130.40
26	1H	574	C	C2-N3-C4	5.36	122.58	119.90
26	1H	866	A	N9-C4-C5	-5.36	103.66	105.80
26	1H	970	C	OP1-P-O3'	-5.36	93.42	105.20
26	1H	1489	U	O5'-P-OP1	-5.36	100.88	105.70
26	1H	2689	U	P-O3'-C3'	5.36	126.13	119.70
1	1G	538	G	N1-C6-O6	5.36	123.11	119.90
26	14	945	A	C4-N9-C1'	5.36	135.94	126.30
26	14	2447	G	C5-C6-O6	-5.36	125.39	128.60
26	1H	67	U	C5-C6-N1	5.35	125.38	122.70
26	1H	397	G	N3-C4-N9	-5.35	122.79	126.00
26	1H	1021	A	N3-C4-N9	-5.35	123.12	127.40
26	1H	1612	C	N3-C4-C5	-5.35	119.76	121.90
26	1H	2266	A	OP1-P-OP2	-5.35	111.57	119.60
26	14	2603	G	OP1-P-O3'	5.35	116.98	105.20
26	14	1029	A	N1-C6-N6	5.35	121.81	118.60
26	14	1352	U	O5'-P-OP2	-5.35	100.88	105.70
1	13	1487	G	O5'-P-OP2	-5.35	100.88	105.70
26	14	2237	G	C8-N9-C1'	-5.35	120.04	127.00
1	13	804	U	OP2-P-O3'	5.35	116.97	105.20
1	13	818	G	C4-C5-N7	-5.35	108.66	110.80
26	1H	1646	C	O5'-P-OP1	-5.35	100.89	105.70
26	1H	2212	A	C6-C5-N7	-5.35	128.56	132.30
26	14	113	G	C5-C6-O6	-5.35	125.39	128.60
26	14	1145	C	C5-C6-N1	5.35	123.67	121.00
26	14	2377	A	C2-N3-C4	-5.35	107.92	110.60
1	13	1519	A	N9-C4-C5	5.35	107.94	105.80
24	3K	35	A	C8-N9-C4	-5.35	103.66	105.80
26	1H	1616	A	C2-N3-C4	-5.35	107.93	110.60
26	1H	2527	C	C5-C6-N1	5.35	123.67	121.00
27	16	33	G	OP1-P-O3'	5.35	116.97	105.20
41	C8	10	ARG	NE-CZ-NH1	-5.35	117.63	120.30
1	1G	337	C	C5-C4-N4	-5.35	116.46	120.20
26	14	179	G	O5'-P-OP2	-5.35	100.89	105.70
26	14	2232	U	C5-C4-O4	5.35	129.11	125.90
26	14	2426	A	N3-C4-N9	5.35	131.68	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2726	U	N3-C2-O2	-5.35	118.46	122.20
26	1H	467	G	N7-C8-N9	-5.35	110.43	113.10
26	1H	1935	G	C4-C5-N7	-5.35	108.66	110.80
27	16	86	G	C5-C6-N1	5.35	114.17	111.50
26	1H	1187	G	P-O3'-C3'	5.34	126.11	119.70
26	1H	2431	U	OP1-P-O3'	5.34	116.96	105.20
26	14	862	G	C5-C6-O6	5.34	131.81	128.60
26	14	1519	G	C4-C5-N7	-5.34	108.66	110.80
1	13	812	C	N3-C2-O2	-5.34	118.16	121.90
26	1H	1938	A	C5-C6-N6	-5.34	119.43	123.70
26	1H	1888	G	N1-C6-O6	-5.34	116.69	119.90
26	1H	2212	A	C5-N7-C8	-5.34	101.23	103.90
1	1G	43	C	C6-N1-C2	5.34	122.44	120.30
26	14	1026	U	C5-C6-N1	5.34	125.37	122.70
1	13	557	G	O5'-P-OP2	-5.34	100.89	105.70
1	13	923	A	O5'-P-OP1	-5.34	100.89	105.70
26	1H	856	C	N3-C4-N4	5.34	121.74	118.00
26	1H	1378	A	C5-N7-C8	-5.34	101.23	103.90
26	1H	1410	G	C8-N9-C1'	5.34	133.94	127.00
26	1H	2253	G	C5-C6-N1	5.34	114.17	111.50
1	1G	632	A	OP2-P-O3'	5.34	116.95	105.20
26	14	915	C	N3-C2-O2	-5.34	118.16	121.90
26	14	2356	C	C6-N1-C2	5.34	122.44	120.30
1	13	578	C	N1-C2-O2	-5.34	115.70	118.90
26	1H	742	G	C2-N3-C4	-5.34	109.23	111.90
26	1H	2069	G	N9-C4-C5	-5.34	103.27	105.40
26	1H	2614	A	N1-C2-N3	-5.34	126.63	129.30
30	31	38	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	13	726	C	O5'-P-OP1	-5.34	100.90	105.70
26	1H	200	U	N1-C2-N3	5.34	118.10	114.90
26	1H	1600	C	OP1-P-O3'	5.34	116.94	105.20
26	1H	1830	C	N3-C2-O2	5.34	125.64	121.90
26	1H	2403	C	C5-C6-N1	5.34	123.67	121.00
26	14	2420	C	O5'-P-OP1	-5.34	100.90	105.70
1	13	820	U	O5'-P-OP1	-5.33	100.90	105.70
26	1H	482	A	N7-C8-N9	5.33	116.47	113.80
26	1H	1456	G	N1-C6-O6	5.33	123.10	119.90
26	1H	2040	C	N3-C4-N4	5.33	121.73	118.00
26	14	991	C	OP1-P-OP2	5.33	127.60	119.60
1	13	484	G	P-O3'-C3'	5.33	126.10	119.70
26	1H	470	A	C6-C5-N7	-5.33	128.57	132.30
26	1H	563	G	C8-N9-C4	5.33	108.53	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1157	G	C4-N9-C1'	5.33	133.43	126.50
26	1H	2570	G	N3-C4-N9	-5.33	122.80	126.00
26	1H	2710	C	O5'-P-OP2	5.33	117.10	110.70
26	1H	2765	A	OP1-P-OP2	5.33	127.60	119.60
26	14	1588	C	C6-N1-C2	-5.33	118.17	120.30
26	14	2487	G	N1-C2-N2	-5.33	111.40	116.20
26	1H	621	A	C6-C5-N7	-5.33	128.57	132.30
26	14	779	U	C5-C6-N1	-5.33	120.03	122.70
26	14	912	C	C5-C6-N1	5.33	123.67	121.00
26	14	1904	G	N7-C8-N9	-5.33	110.43	113.10
26	14	2535	G	O5'-P-OP2	-5.33	100.90	105.70
48	F5	11	ARG	NE-CZ-NH1	-5.33	117.63	120.30
26	1H	1373	A	O5'-P-OP1	5.33	117.10	110.70
1	1G	1415	G	C8-N9-C4	5.33	108.53	106.40
26	14	1853	A	OP1-P-OP2	5.33	127.59	119.60
26	14	2330	G	N9-C4-C5	-5.33	103.27	105.40
1	13	1432	G	C4-N9-C1'	5.33	133.43	126.50
26	1H	138	G	O4'-C1'-N9	5.33	112.46	108.20
26	1H	746	A	C4-C5-N7	5.33	113.36	110.70
26	1H	1272	A	OP1-P-O3'	5.33	116.92	105.20
26	1H	1965	C	C4-C5-C6	-5.33	114.73	117.40
26	1H	2287	A	C5-N7-C8	-5.33	101.24	103.90
26	1H	2446	G	C6-C5-N7	-5.33	127.20	130.40
1	1G	413	G	C4-N9-C1'	-5.33	119.57	126.50
26	14	204	A	N1-C6-N6	5.33	121.80	118.60
26	14	1259	G	OP2-P-O3'	5.33	116.92	105.20
26	14	1336	A	O5'-P-OP2	-5.33	100.91	105.70
26	14	2234	G	N3-C4-C5	-5.33	125.94	128.60
1	13	989	C	N1-C2-O2	5.33	122.09	118.90
26	1H	415	A	N9-C4-C5	-5.33	103.67	105.80
26	1H	576	U	N1-C2-O2	-5.33	119.07	122.80
26	1H	1270	C	C4-C5-C6	5.33	120.06	117.40
26	1H	1644	C	C2-N1-C1'	5.33	124.66	118.80
26	14	150	C	C6-N1-C1'	5.33	127.19	120.80
26	14	689	A	O5'-P-OP2	-5.33	100.91	105.70
26	14	725	G	C4-C5-N7	-5.33	108.67	110.80
26	1H	125	G	N3-C2-N2	5.32	123.63	119.90
26	1H	271(C)	U	C5-C6-N1	5.32	125.36	122.70
26	1H	2345	G	N9-C4-C5	-5.32	103.27	105.40
1	1G	1446	A	O4'-C1'-N9	5.32	112.46	108.20
26	14	1142	U	C6-N1-C1'	-5.32	113.75	121.20
26	1H	198	C	C5-C4-N4	-5.32	116.47	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1286	A	OP2-P-O3'	5.32	116.91	105.20
27	16	80	U	N1-C2-O2	5.32	126.53	122.80
1	1G	261	U	N3-C2-O2	-5.32	118.47	122.20
1	1G	1400	C	N3-C4-C5	5.32	124.03	121.90
1	13	1498	U	N1-C2-O2	5.32	126.53	122.80
1	13	1498	U	O4'-C1'-N1	-5.32	103.94	108.20
26	1H	255	A	OP2-P-O3'	5.32	116.91	105.20
26	1H	807	U	C4-C5-C6	5.32	122.89	119.70
26	1H	2485	G	N1-C2-N3	5.32	127.09	123.90
27	16	12	C	C4-C5-C6	5.32	120.06	117.40
26	14	189	G	N3-C4-C5	5.32	131.26	128.60
26	14	677	A	O5'-P-OP2	-5.32	100.91	105.70
26	14	1755	A	C2-N3-C4	-5.32	107.94	110.60
26	14	1840	G	C5-C6-N1	-5.32	108.84	111.50
1	13	582	U	C2-N3-C4	-5.32	123.81	127.00
26	1H	1970	A	C8-N9-C4	-5.32	103.67	105.80
26	14	1394	U	C2-N1-C1'	-5.32	111.32	117.70
42	95	49	THR	C-N-CD	5.32	139.57	128.40
1	13	541	G	N1-C6-O6	5.32	123.09	119.90
1	13	899	C	C2-N1-C1'	-5.32	112.95	118.80
1	13	900	A	C8-N9-C4	5.32	107.93	105.80
26	1H	417	C	C5-C4-N4	-5.32	116.48	120.20
26	1H	768	G	OP1-P-OP2	5.32	127.58	119.60
26	1H	1894	C	C5-C6-N1	5.32	123.66	121.00
26	14	139	G	C4-C5-N7	-5.32	108.67	110.80
26	14	247	G	C5-C6-N1	-5.32	108.84	111.50
26	14	2000	G	C5-N7-C8	5.32	106.96	104.30
1	13	880	C	N3-C4-C5	5.32	124.03	121.90
23	2K	27	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	1301	A	N9-C4-C5	-5.32	103.67	105.80
26	1H	1313	U	C2-N1-C1'	5.32	124.08	117.70
26	1H	2033	A	C2-N3-C4	-5.32	107.94	110.60
26	14	187	G	N3-C4-C5	-5.32	125.94	128.60
26	14	1786	A	OP1-P-O3'	5.32	116.89	105.20
26	14	1840	G	C2-N3-C4	-5.32	109.24	111.90
26	14	2427	C	OP2-P-O3'	5.32	116.89	105.20
26	1H	2244	U	N1-C2-N3	5.31	118.09	114.90
1	13	1530	G	O5'-P-OP2	-5.31	100.92	105.70
26	1H	115	C	N1-C2-O2	-5.31	115.71	118.90
26	1H	910	A	N9-C4-C5	-5.31	103.67	105.80
26	1H	960	A	C8-N9-C4	5.31	107.92	105.80
26	1H	2280	G	C4-C5-N7	-5.31	108.67	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2468	G	O5'-P-OP1	5.31	117.07	110.70
26	1H	2717	G	C8-N9-C4	5.31	108.53	106.40
26	14	1282	U	C5-C6-N1	-5.31	120.04	122.70
27	1J	47	C	N3-C4-C5	5.31	124.03	121.90
26	1H	277	C	C2-N1-C1'	5.31	124.64	118.80
26	1H	1403	C	N3-C4-N4	-5.31	114.28	118.00
26	1H	2312	U	N3-C4-O4	5.31	123.12	119.40
26	1H	2427	C	O5'-P-OP1	-5.31	100.92	105.70
26	14	197	A	C5-C6-N6	-5.31	119.45	123.70
26	14	1436	G	N3-C4-N9	5.31	129.19	126.00
26	14	1663	C	N1-C2-O2	-5.31	115.71	118.90
1	13	771	G	N1-C2-N3	5.31	127.08	123.90
1	13	1276	G	C8-N9-C4	-5.31	104.28	106.40
26	1H	439	G	OP1-P-O3'	5.31	116.88	105.20
26	1H	1839	G	O4'-C1'-N9	-5.31	103.95	108.20
26	1H	2038	G	N3-C2-N2	5.31	123.62	119.90
26	1H	2329	G	C5-C6-O6	-5.31	125.41	128.60
1	1G	772	U	N3-C2-O2	-5.31	118.48	122.20
26	14	583	G	C8-N9-C4	-5.31	104.28	106.40
1	13	1475	G	O5'-P-OP1	-5.31	100.92	105.70
26	1H	564	C	C5-C6-N1	5.31	123.65	121.00
26	1H	1318	C	N3-C4-C5	5.31	124.02	121.90
26	1H	1645	G	C5-C6-N1	5.31	114.15	111.50
26	1H	1982	C	C5-C4-N4	-5.31	116.48	120.20
1	1G	481	G	C4-N9-C1'	5.31	133.40	126.50
26	14	226	G	O4'-C1'-N9	5.31	112.45	108.20
26	1H	1764	G	N1-C2-N2	-5.31	111.42	116.20
27	16	115	G	C4-C5-N7	5.31	112.92	110.80
25	4L	15	A	N1-C6-N6	5.31	121.78	118.60
26	14	115	C	C5-C6-N1	-5.30	118.35	121.00
26	14	594	U	OP2-P-O3'	5.30	116.87	105.20
26	14	621	A	C4-C5-N7	5.30	113.35	110.70
26	14	665	C	N1-C2-O2	5.30	122.08	118.90
26	14	1474	C	C6-N1-C2	-5.30	118.18	120.30
26	14	1981	A	C2-N3-C4	-5.30	107.95	110.60
22	1K	34	G	C4-N9-C1'	5.30	133.39	126.50
26	1H	1786	A	OP1-P-O3'	5.30	116.87	105.20
26	1H	2617	C	N1-C2-O2	-5.30	115.72	118.90
26	14	929	G	N3-C4-N9	5.30	129.18	126.00
26	1H	400	G	C5-C6-O6	-5.30	125.42	128.60
26	1H	2230	G	N3-C4-C5	5.30	131.25	128.60
1	1G	317	G	N7-C8-N9	5.30	115.75	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	436	C	C6-N1-C2	5.30	122.42	120.30
26	14	1204	A	N1-C2-N3	5.30	131.95	129.30
26	14	1836	C	OP1-P-O3'	5.30	116.86	105.20
26	1H	177	G	N1-C6-O6	-5.30	116.72	119.90
26	1H	500	G	OP1-P-OP2	5.30	127.55	119.60
26	1H	796	C	O5'-P-OP1	5.30	117.06	110.70
26	1H	1465	G	O5'-P-OP2	-5.30	100.93	105.70
26	14	829	A	OP1-P-OP2	5.30	127.55	119.60
26	14	1216	G	C4-N9-C1'	5.30	133.39	126.50
26	14	1291	C	O5'-P-OP2	-5.30	100.93	105.70
26	14	1323	U	N1-C2-O2	-5.30	119.09	122.80
26	14	1342	A	OP1-P-OP2	-5.30	111.65	119.60
26	14	2086	U	N1-C2-O2	5.30	126.51	122.80
1	13	1395	C	P-O3'-C3'	5.30	126.06	119.70
26	1H	136	G	N9-C4-C5	-5.30	103.28	105.40
26	1H	794	G	C4-C5-N7	-5.30	108.68	110.80
26	1H	1225	C	N3-C4-N4	-5.30	114.29	118.00
26	1H	1658	C	N3-C2-O2	5.30	125.61	121.90
32	51	82	GLY	N-CA-C	5.30	126.34	113.10
26	14	1373	A	N7-C8-N9	-5.30	111.15	113.80
26	1H	634	C	N3-C4-N4	-5.29	114.29	118.00
26	1H	2082	A	N7-C8-N9	-5.29	111.15	113.80
1	1G	1481	U	O5'-P-OP1	-5.29	100.93	105.70
26	14	2332	U	O5'-P-OP2	-5.29	100.94	105.70
26	14	2713	A	C5-C6-N1	-5.29	115.05	117.70
1	13	112	G	C8-N9-C4	-5.29	104.28	106.40
1	13	328	C	C6-N1-C1'	-5.29	114.45	120.80
26	1H	1197	G	N7-C8-N9	-5.29	110.45	113.10
26	1H	2040	C	N3-C2-O2	5.29	125.61	121.90
26	14	298	G	N1-C6-O6	5.29	123.08	119.90
26	14	1198	U	N3-C2-O2	-5.29	118.49	122.20
26	14	2514	U	O5'-P-OP2	5.29	117.05	110.70
26	1H	1639	U	C5-C4-O4	5.29	129.07	125.90
1	1G	666	G	C6-C5-N7	-5.29	127.22	130.40
26	14	1204	A	N7-C8-N9	5.29	116.45	113.80
26	14	2360	A	C8-N9-C4	5.29	107.92	105.80
26	1H	737	C	C2-N3-C4	-5.29	117.25	119.90
26	1H	125	G	O4'-C1'-N9	-5.29	103.97	108.20
26	1H	746	A	O4'-C1'-N9	5.29	112.43	108.20
26	1H	2593	U	N3-C2-O2	-5.29	118.50	122.20
26	1H	2622	C	C5-C6-N1	-5.29	118.36	121.00
29	21	186	GLY	N-CA-C	5.29	126.32	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1498	U	O4'-C1'-N1	-5.29	103.97	108.20
26	14	810	U	OP1-P-O3'	5.29	116.83	105.20
1	1G	1488	G	C8-N9-C1'	-5.29	120.13	127.00
26	14	447	A	O4'-C1'-N9	-5.29	103.97	108.20
26	14	584	C	C6-N1-C2	5.29	122.42	120.30
26	14	2675	A	C2-N3-C4	-5.29	107.96	110.60
1	13	572	A	N1-C6-N6	-5.29	115.43	118.60
1	13	836	G	N9-C4-C5	-5.29	103.29	105.40
26	1H	1451	C	N3-C2-O2	-5.29	118.20	121.90
26	1H	1782	C	C4-C5-C6	5.29	120.04	117.40
27	16	7	G	C5-C6-O6	-5.29	125.43	128.60
1	1G	353	A	N7-C8-N9	5.29	116.44	113.80
26	14	267	C	C6-N1-C2	-5.29	118.19	120.30
26	14	1297	C	C2-N1-C1'	-5.29	112.99	118.80
27	1J	30	C	N3-C2-O2	-5.29	118.20	121.90
26	1H	1791	A	OP1-P-OP2	-5.28	111.68	119.60
26	1H	1805	U	N3-C4-O4	5.28	123.10	119.40
26	1H	2287	A	C6-C5-N7	-5.28	128.60	132.30
45	G8	79	CYS	N-CA-C	5.28	125.27	111.00
1	1G	518	C	O5'-P-OP1	5.28	117.04	110.70
26	14	1857	G	C6-C5-N7	-5.28	127.23	130.40
28	19	43	ARG	CG-CD-NE	5.28	122.89	111.80
1	13	1495	U	N3-C4-O4	-5.28	115.70	119.40
26	1H	1562	A	N9-C4-C5	-5.28	103.69	105.80
26	1H	2071	A	C6-N1-C2	-5.28	115.43	118.60
26	14	1235	G	N1-C6-O6	-5.28	116.73	119.90
1	13	936	C	C6-N1-C2	-5.28	118.19	120.30
26	1H	388	G	OP2-P-O3'	5.28	116.82	105.20
28	11	229	VAL	CB-CA-C	-5.28	101.37	111.40
1	1G	631	G	N7-C8-N9	5.28	115.74	113.10
1	1G	1062	U	O5'-P-OP2	-5.28	100.95	105.70
26	14	614	U	C6-N1-C2	-5.28	117.83	121.00
26	14	1240	U	O5'-P-OP2	-5.28	100.95	105.70
26	14	2044	C	C5-C4-N4	-5.28	116.50	120.20
26	14	2578	G	N1-C2-N2	-5.28	111.45	116.20
1	13	354	G	C6-C5-N7	-5.28	127.23	130.40
1	13	380	G	N3-C4-N9	-5.28	122.83	126.00
1	13	1508	G	N3-C4-N9	-5.28	122.83	126.00
26	1H	430	G	C6-C5-N7	-5.28	127.23	130.40
26	1H	1124	C	C5-C6-N1	-5.28	118.36	121.00
26	1H	1416	G	C8-N9-C4	5.28	108.51	106.40
26	1H	2620	C	C5-C4-N4	-5.28	116.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	778	G	OP1-P-O3'	5.28	116.81	105.20
26	14	738	G	N1-C2-N2	-5.28	111.45	116.20
26	14	1673	U	C2-N1-C1'	-5.28	111.37	117.70
26	14	2012	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	563	G	C6-C5-N7	5.28	133.57	130.40
26	1H	1824	G	C5-N7-C8	5.28	106.94	104.30
26	14	429	A	N1-C6-N6	5.28	121.77	118.60
26	14	602	G	N3-C4-N9	5.28	129.17	126.00
26	14	613	U	N1-C2-O2	5.28	126.50	122.80
26	14	1414	G	C6-C5-N7	-5.28	127.23	130.40
26	14	1961	C	N3-C2-O2	5.28	125.59	121.90
1	13	511	C	N1-C2-O2	-5.28	115.73	118.90
26	1H	239	U	O5'-P-OP2	-5.28	100.95	105.70
26	1H	741	G	N1-C2-N3	5.28	127.07	123.90
26	1H	1528	A	C2-N3-C4	-5.28	107.96	110.60
26	1H	1609	A	N7-C8-N9	-5.28	111.16	113.80
26	1H	1799	G	N3-C4-C5	-5.28	125.96	128.60
26	1H	1942	C	C5-C6-N1	5.28	123.64	121.00
26	1H	2269	A	N1-C6-N6	5.28	121.77	118.60
26	14	2644	G	C2-N3-C4	-5.28	109.26	111.90
39	65	4	LEU	CA-CB-CG	-5.28	103.17	115.30
26	1H	872	A	C2-N3-C4	-5.27	107.96	110.60
26	1H	914	C	C5-C4-N4	5.27	123.89	120.20
26	1H	1849	G	O5'-P-OP2	5.27	117.03	110.70
1	1G	697	U	C5-C6-N1	-5.27	120.06	122.70
26	14	781	A	OP1-P-OP2	5.27	127.51	119.60
1	13	220	G	C4-N9-C1'	5.27	133.35	126.50
1	13	533	A	O4'-C1'-N9	5.27	112.42	108.20
1	13	811	C	C4-C5-C6	5.27	120.04	117.40
26	1H	911	A	C5-C6-N1	-5.27	115.06	117.70
26	1H	1184	G	OP2-P-O3'	5.27	116.80	105.20
26	1H	2743	C	N1-C2-O2	-5.27	115.74	118.90
41	C8	3	ARG	NE-CZ-NH1	5.27	122.94	120.30
23	2L	40	C	C5-C6-N1	5.27	123.64	121.00
26	14	1267	U	P-O3'-C3'	5.27	126.03	119.70
26	14	1679	U	OP1-P-O3'	5.27	116.80	105.20
1	13	652	U	C5-C6-N1	5.27	125.34	122.70
26	1H	392	C	OP1-P-O3'	5.27	116.80	105.20
26	1H	2265	U	C5-C6-N1	5.27	125.33	122.70
26	14	866	A	O4'-C1'-N9	-5.27	103.98	108.20
26	14	1992	G	C8-N9-C4	5.27	108.51	106.40
1	13	814	A	O5'-P-OP1	-5.27	100.96	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	815	A	C8-N9-C4	5.27	107.91	105.80
1	13	1488	G	N9-C4-C5	-5.27	103.29	105.40
23	2K	38	A	O5'-P-OP2	-5.27	100.96	105.70
26	1H	456	C	C2-N3-C4	-5.27	117.27	119.90
26	1H	992	C	C2-N1-C1'	5.27	124.60	118.80
27	16	95	U	C2-N1-C1'	-5.27	111.38	117.70
26	14	709	U	C5-C4-O4	5.27	129.06	125.90
26	14	771	G	N7-C8-N9	-5.27	110.47	113.10
26	14	1314	C	C2-N3-C4	5.27	122.53	119.90
26	14	1601	G	O5'-P-OP2	-5.27	100.96	105.70
26	1H	1573	G	N1-C6-O6	5.27	123.06	119.90
26	1H	2035	G	C5-C6-N1	-5.27	108.87	111.50
26	14	199	A	C2-N3-C4	5.27	113.23	110.60
26	14	265	A	C4-C5-N7	5.27	113.33	110.70
26	14	1352	U	C5-C6-N1	-5.27	120.07	122.70
26	14	2568	C	C6-N1-C2	-5.27	118.19	120.30
23	2K	15	G	C2-N3-C4	-5.27	109.27	111.90
26	1H	954	G	N3-C2-N2	-5.27	116.21	119.90
26	1H	2341	G	OP1-P-O3'	5.27	116.78	105.20
26	14	114	U	C2-N1-C1'	5.27	124.02	117.70
26	14	2351	G	C5-C6-O6	-5.27	125.44	128.60
1	13	465	A	N7-C8-N9	-5.26	111.17	113.80
26	1H	141	A	C5-C6-N6	-5.26	119.49	123.70
26	1H	586	A	C4-C5-N7	-5.26	108.07	110.70
26	1H	803	U	C5-C4-O4	-5.26	122.74	125.90
26	1H	928	G	C5-N7-C8	-5.26	101.67	104.30
26	1H	1662	C	C4-C5-C6	5.26	120.03	117.40
26	1H	2060	A	C4-C5-C6	-5.26	114.37	117.00
26	1H	2443	C	N3-C4-N4	5.26	121.69	118.00
26	1H	2751	G	C4-N9-C1'	5.26	133.34	126.50
1	1G	427	U	N3-C2-O2	-5.26	118.51	122.20
1	1G	546	G	C8-N9-C4	-5.26	104.29	106.40
26	14	742	G	N1-C2-N3	5.26	127.06	123.90
26	14	980	A	C6-C5-N7	-5.26	128.62	132.30
26	14	2430	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	35	G	C5-C6-O6	5.26	131.76	128.60
1	13	263	A	O5'-P-OP1	-5.26	100.97	105.70
1	13	800	G	C5-C6-O6	-5.26	125.44	128.60
1	13	1306	A	O5'-P-OP2	-5.26	100.96	105.70
1	13	1513	A	OP2-P-O3'	5.26	116.78	105.20
26	1H	1925	C	C6-N1-C2	-5.26	118.19	120.30
37	88	19	GLY	N-CA-C	5.26	126.25	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3L	71	G	C5'-C4'-O4'	5.26	115.41	109.10
26	14	773	U	OP1-P-OP2	-5.26	111.71	119.60
26	14	788	A	C8-N9-C4	-5.26	103.70	105.80
27	1J	98	G	C8-N9-C1'	-5.26	120.16	127.00
1	13	62	U	O5'-P-OP2	-5.26	100.97	105.70
1	13	538	G	N9-C4-C5	-5.26	103.30	105.40
26	1H	528	A	N7-C8-N9	5.26	116.43	113.80
26	1H	660	G	C8-N9-C4	-5.26	104.30	106.40
26	1H	1620	G	O5'-P-OP2	5.26	117.01	110.70
26	1H	2010	G	C5-C6-O6	-5.26	125.44	128.60
26	1H	2666	C	N3-C4-C5	-5.26	119.80	121.90
27	16	78	A	N7-C8-N9	-5.26	111.17	113.80
26	14	236	C	N1-C2-O2	-5.26	115.75	118.90
26	1H	128	C	C5-C6-N1	-5.26	118.37	121.00
26	1H	2072	G	N3-C4-N9	5.26	129.16	126.00
26	1H	2503	A	N1-C6-N6	5.26	121.75	118.60
26	14	1264	G	N1-C6-O6	-5.26	116.75	119.90
1	13	376	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	398	G	C2-N3-C4	-5.26	109.27	111.90
26	1H	2018	G	C5-N7-C8	-5.26	101.67	104.30
26	1H	2239	G	OP1-P-OP2	-5.26	111.72	119.60
26	1H	2246	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	2447	G	C2-N3-C4	5.26	114.53	111.90
26	14	381	G	C8-N9-C4	5.26	108.50	106.40
26	14	769	G	N1-C6-O6	5.26	123.05	119.90
26	14	1271	G	O5'-P-OP2	-5.26	100.97	105.70
26	14	1566	A	C4-C5-C6	-5.26	114.37	117.00
26	1H	1368	G	C6-N1-C2	-5.25	121.95	125.10
26	14	663	G	OP1-P-OP2	5.25	127.48	119.60
26	14	1396	U	C4-C5-C6	5.25	122.85	119.70
1	13	115	G	P-O3'-C3'	5.25	126.00	119.70
26	1H	1254	A	C8-N9-C4	5.25	107.90	105.80
26	1H	1933	G	N7-C8-N9	5.25	115.73	113.10
26	1H	2069	G	OP2-P-O3'	5.25	116.76	105.20
26	1H	2598	A	C4-C5-C6	-5.25	114.37	117.00
26	1H	2782	G	C4-N9-C1'	5.25	133.33	126.50
23	2L	21	U	C2-N1-C1'	5.25	124.00	117.70
26	1H	579	G	C2-N3-C4	5.25	114.53	111.90
26	1H	1265	A	C5'-C4'-C3'	-5.25	107.60	116.00
26	1H	2061	G	C2-N3-C4	5.25	114.53	111.90
26	1H	2550	G	O5'-P-OP1	5.25	117.00	110.70
26	14	192	C	N1-C2-O2	-5.25	115.75	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1605	C	C2-N3-C4	-5.25	117.27	119.90
26	14	1709	U	C6-N1-C2	-5.25	117.85	121.00
26	14	2253	G	N1-C6-O6	5.25	123.05	119.90
26	14	2314	C	N1-C2-O2	5.25	122.05	118.90
26	1H	318	C	O5'-P-OP1	-5.25	100.97	105.70
26	1H	735	A	C5-N7-C8	5.25	106.53	103.90
26	1H	2427	C	C2-N1-C1'	-5.25	113.03	118.80
1	1G	916	G	C2-N3-C4	5.25	114.53	111.90
26	14	93	C	C2-N1-C1'	5.25	124.58	118.80
26	14	870	A	OP1-P-O3'	5.25	116.75	105.20
26	14	2056	G	N1-C6-O6	5.25	123.05	119.90
26	1H	729	G	C4-N9-C1'	5.25	133.32	126.50
26	1H	1125	G	C5-C6-N1	5.25	114.12	111.50
26	1H	2007	C	O5'-P-OP1	5.25	117.00	110.70
26	1H	2373	G	C4-C5-C6	5.25	121.95	118.80
26	14	965	C	O5'-P-OP1	-5.25	100.98	105.70
1	13	963	G	C8-N9-C4	5.25	108.50	106.40
1	13	1395	C	C5-C6-N1	5.25	123.62	121.00
26	1H	33	U	OP2-P-O3'	-5.25	93.66	105.20
26	1H	1225	C	C5-C4-N4	5.25	123.87	120.20
26	1H	1598	C	C6-N1-C2	-5.25	118.20	120.30
27	16	103	U	OP2-P-O3'	5.25	116.74	105.20
26	14	204	A	N1-C2-N3	5.25	131.92	129.30
26	14	690	G	OP1-P-O3'	5.25	116.74	105.20
26	14	1828	G	C4-C5-C6	5.25	121.95	118.80
26	14	2820	A	C2-N3-C4	-5.25	107.98	110.60
26	1H	672	C	OP2-P-O3'	5.25	116.74	105.20
26	1H	1314	C	N1-C2-O2	5.25	122.05	118.90
26	1H	1543	A	C5-C6-N1	-5.25	115.08	117.70
26	1H	2290	G	O5'-P-OP2	5.25	116.99	110.70
26	1H	2434	A	N1-C6-N6	-5.25	115.45	118.60
26	1H	2546	U	N3-C2-O2	5.25	125.87	122.20
26	1H	2878	U	C2-N1-C1'	5.25	123.99	117.70
27	16	87	G	N9-C4-C5	-5.25	103.30	105.40
1	1G	1502	A	N1-C2-N3	5.25	131.92	129.30
26	14	1950	G	C4-N9-C1'	5.25	133.32	126.50
26	14	1977	A	C8-N9-C4	5.25	107.90	105.80
26	1H	795	C	N3-C4-C5	5.24	124.00	121.90
26	1H	1305	C	C2-N3-C4	-5.24	117.28	119.90
26	1H	1391	U	C2-N3-C4	5.24	130.15	127.00
26	1H	1438	U	C6-N1-C2	-5.24	117.85	121.00
26	1H	2451	A	C6-C5-N7	5.24	135.97	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2672	G	C4-N9-C1'	5.24	133.32	126.50
26	1H	2822	G	C5-C6-O6	-5.24	125.45	128.60
26	14	598	G	OP1-P-OP2	5.24	127.47	119.60
26	14	1899	G	C6-C5-N7	-5.24	127.25	130.40
26	14	2522	U	N3-C2-O2	-5.24	118.53	122.20
26	1H	121	G	C8-N9-C4	5.24	108.50	106.40
26	1H	663	G	C5-C6-N1	-5.24	108.88	111.50
26	1H	787	U	N3-C4-C5	5.24	117.75	114.60
26	1H	1224	G	C4-N9-C1'	-5.24	119.69	126.50
26	14	458	G	O5'-P-OP2	-5.24	100.98	105.70
26	14	1496	A	O4'-C1'-N9	5.24	112.39	108.20
1	13	418	C	C5-C6-N1	5.24	123.62	121.00
1	13	813	U	O5'-P-OP2	-5.24	100.98	105.70
26	1H	484	C	OP1-P-O3'	5.24	116.73	105.20
26	1H	758	C	C2-N3-C4	-5.24	117.28	119.90
26	1H	775	G	C6-C5-N7	-5.24	127.26	130.40
26	1H	1268	A	N7-C8-N9	-5.24	111.18	113.80
26	1H	1424	G	C8-N9-C1'	-5.24	120.19	127.00
26	1H	2372	G	C5-C6-O6	-5.24	125.45	128.60
30	31	140	LEU	CA-CB-CG	5.24	127.35	115.30
1	1G	1348	U	N3-C2-O2	-5.24	118.53	122.20
26	14	1918	A	N9-C4-C5	-5.24	103.70	105.80
26	14	2330	G	C6-C5-N7	-5.24	127.26	130.40
1	13	359	U	C5-C4-O4	5.24	129.04	125.90
1	13	759	A	OP2-P-O3'	5.24	116.73	105.20
26	1H	1941	C	C6-N1-C2	-5.24	118.20	120.30
26	1H	2690	C	O4'-C1'-N1	5.24	112.39	108.20
29	21	65	GLY	N-CA-C	-5.24	100.00	113.10
26	14	754	C	N3-C4-C5	-5.24	119.81	121.90
26	14	1558	A	P-O3'-C3'	5.24	125.99	119.70
26	14	1703	G	C8-N9-C4	5.24	108.50	106.40
26	14	2224	G	N3-C4-N9	5.24	129.14	126.00
26	1H	2550	G	C4-N9-C1'	5.24	133.31	126.50
1	1G	963	G	C8-N9-C1'	-5.24	120.19	127.00
26	1H	87	C	C5-C4-N4	-5.24	116.53	120.20
26	1H	1191	G	N1-C6-O6	-5.24	116.76	119.90
26	1H	1684	C	O5'-P-OP2	-5.24	100.99	105.70
26	1H	1955	U	O5'-P-OP2	-5.24	100.99	105.70
26	1H	2055	C	OP2-P-O3'	5.24	116.72	105.20
26	1H	2235	G	O5'-P-OP1	5.24	116.98	110.70
26	1H	2495	G	C5-C6-N1	-5.24	108.88	111.50
26	1H	2525	G	C5-C6-O6	-5.24	125.46	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	17	C	N1-C2-O2	5.24	122.04	118.90
26	14	2681	C	C4-C5-C6	5.24	120.02	117.40
27	1J	56	G	N3-C4-C5	-5.24	125.98	128.60
14	5I	44	LEU	CB-CG-CD1	5.23	119.90	111.00
26	1H	837	C	C5-C4-N4	-5.23	116.54	120.20
26	1H	2737	G	C5-C6-O6	-5.23	125.46	128.60
1	13	1469	G	C5-C6-O6	-5.23	125.46	128.60
26	1H	199	A	N1-C2-N3	-5.23	126.68	129.30
26	1H	835	A	N3-C4-C5	-5.23	123.14	126.80
26	1H	1166	C	C5-C6-N1	5.23	123.62	121.00
26	1H	1564	C	N3-C2-O2	-5.23	118.24	121.90
26	1H	2307	G	C6-C5-N7	-5.23	127.26	130.40
26	1H	2699	C	N3-C4-C5	5.23	123.99	121.90
1	1G	1297	C	OP2-P-O3'	5.23	116.71	105.20
26	14	752	A	C8-N9-C4	-5.23	103.71	105.80
26	14	803	U	O5'-P-OP1	5.23	116.98	110.70
26	14	1279	G	C5-C6-O6	5.23	131.74	128.60
26	14	2426	A	N7-C8-N9	5.23	116.42	113.80
26	14	2599	G	N1-C6-O6	-5.23	116.76	119.90
26	1H	760	G	OP1-P-OP2	-5.23	111.75	119.60
26	1H	827	U	C2-N1-C1'	-5.23	111.42	117.70
26	1H	1334	G	N3-C4-N9	5.23	129.14	126.00
26	1H	1689	A	N1-C6-N6	-5.23	115.46	118.60
26	1H	2626	C	N3-C4-C5	5.23	123.99	121.90
26	1H	674	G	N9-C4-C5	-5.23	103.31	105.40
26	1H	799	G	N3-C4-N9	-5.23	122.86	126.00
1	1G	525	C	C5-C6-N1	5.23	123.61	121.00
26	14	1325	G	C2-N3-C4	5.23	114.51	111.90
1	13	1488	G	C5-C6-O6	-5.23	125.46	128.60
26	1H	2035	G	O4'-C1'-N9	5.23	112.38	108.20
26	1H	2072	G	C4-C5-N7	5.23	112.89	110.80
26	14	688	U	C5-C6-N1	-5.23	120.09	122.70
26	14	863	A	C8-N9-C4	-5.23	103.71	105.80
26	14	2491	U	N1-C2-O2	-5.23	119.14	122.80
26	1H	748	G	N3-C4-C5	5.23	131.21	128.60
26	1H	974	G	O5'-P-OP2	-5.23	101.00	105.70
26	1H	1301	A	C6-C5-N7	-5.23	128.64	132.30
26	1H	1653	G	O5'-P-OP2	-5.23	101.00	105.70
26	1H	2597	G	P-O3'-C3'	5.23	125.97	119.70
26	14	396	G	OP1-P-O3'	5.23	116.70	105.20
1	13	244	U	C4-C5-C6	5.22	122.83	119.70
1	13	1178	G	C8-N9-C4	-5.22	104.31	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	980	A	N3-C4-C5	-5.22	123.14	126.80
26	1H	1238	G	N9-C1'-C2'	-5.22	106.25	112.00
26	1H	1915	U	N1-C2-O2	5.22	126.46	122.80
27	16	75	G	C8-N9-C4	5.22	108.49	106.40
26	14	2004	G	O5'-P-OP1	-5.22	101.00	105.70
26	14	2585	U	O4'-C1'-N1	5.22	112.38	108.20
28	19	244	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	13	1111	A	N1-C6-N6	-5.22	115.47	118.60
1	13	1209	C	N3-C4-N4	5.22	121.66	118.00
23	2K	62	C	C6-N1-C2	-5.22	118.21	120.30
26	1H	97	C	OP1-P-OP2	5.22	127.44	119.60
26	1H	188	G	N1-C2-N2	-5.22	111.50	116.20
26	1H	569	U	N1-C2-O2	-5.22	119.14	122.80
26	1H	792	G	N3-C4-N9	5.22	129.13	126.00
26	1H	1339	G	C5-C6-O6	-5.22	125.47	128.60
26	1H	2323	G	C4-C5-N7	5.22	112.89	110.80
26	1H	2851	A	OP2-P-O3'	5.22	116.69	105.20
26	1H	2870	C	OP2-P-O3'	5.22	116.69	105.20
26	14	315	G	O5'-P-OP2	-5.22	101.00	105.70
26	14	1216	G	C6-C5-N7	-5.22	127.27	130.40
26	14	1351	C	C4-C5-C6	5.22	120.01	117.40
26	14	2032	G	N1-C6-O6	5.22	123.03	119.90
26	1H	455	C	C4-C5-C6	-5.22	114.79	117.40
1	13	181	G	N3-C4-N9	5.22	129.13	126.00
1	13	889	A	C5-C6-N1	-5.22	115.09	117.70
26	1H	667	U	OP2-P-O3'	5.22	116.68	105.20
26	1H	827	U	C2-N3-C4	-5.22	123.87	127.00
26	1H	833	U	C5-C6-N1	-5.22	120.09	122.70
26	1H	1423	G	OP1-P-OP2	5.22	127.43	119.60
1	1G	798	G	N1-C6-O6	5.22	123.03	119.90
26	14	561	G	C4-C5-N7	-5.22	108.71	110.80
26	14	2030	A	C5-C6-N6	-5.22	119.52	123.70
26	14	2511	U	OP1-P-O3'	5.22	116.68	105.20
26	14	2617	C	N3-C2-O2	5.22	125.55	121.90
26	1H	1476	C	O5'-P-OP1	-5.22	101.00	105.70
26	14	2063	C	O5'-P-OP1	5.22	116.96	110.70
26	14	2724	C	OP2-P-O3'	5.22	116.68	105.20
26	1H	322	A	O5'-P-OP1	-5.22	101.00	105.70
26	1H	1356	G	O5'-P-OP1	-5.22	101.01	105.70
26	1H	1386	C	N1-C2-O2	-5.22	115.77	118.90
26	1H	1437	C	C5-C6-N1	5.22	123.61	121.00
27	16	7	G	C2-N3-C4	-5.22	109.29	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	32	135	LEU	CA-CB-CG	5.22	127.30	115.30
26	14	1290	C	OP1-P-OP2	5.22	127.42	119.60
43	A5	92	ARG	NE-CZ-NH2	-5.22	117.69	120.30
25	4K	18	G	N3-C4-N9	-5.21	122.87	126.00
26	1H	2210	G	N7-C8-N9	5.21	115.71	113.10
26	1H	2347	C	C5-C6-N1	5.21	123.61	121.00
26	1H	2702	U	C5'-C4'-O4'	5.21	115.36	109.10
1	1G	1190	G	N9-C4-C5	5.21	107.49	105.40
26	14	186	G	O5'-P-OP1	-5.21	101.01	105.70
26	14	1022	G	C8-N9-C1'	5.21	133.78	127.00
1	13	703	G	C4-N9-C1'	5.21	133.28	126.50
26	1H	203	C	C6-N1-C2	5.21	122.39	120.30
26	1H	751	A	N7-C8-N9	-5.21	111.19	113.80
26	1H	828	U	C4-C5-C6	5.21	122.83	119.70
26	1H	1258	C	OP2-P-O3'	5.21	116.67	105.20
26	1H	1798	U	N3-C4-C5	5.21	117.73	114.60
1	1G	772	U	O5'-P-OP2	-5.21	101.01	105.70
22	1K	74	C	C5-C6-N1	5.21	123.61	121.00
26	1H	1011	G	N3-C4-C5	-5.21	125.99	128.60
26	1H	1250	G	C5-C6-O6	-5.21	125.47	128.60
28	11	239	ARG	NE-CZ-NH1	-5.21	117.69	120.30
26	14	828	U	N3-C4-O4	-5.21	115.75	119.40
26	14	1265	A	N1-C6-N6	5.21	121.73	118.60
26	14	1678	G	N1-C6-O6	5.21	123.03	119.90
26	14	1914	C	C2-N1-C1'	5.21	124.53	118.80
26	14	2713	A	C6-C5-N7	-5.21	128.65	132.30
26	1H	75	G	C5-C6-N1	5.21	114.11	111.50
26	1H	632	A	OP1-P-OP2	-5.21	111.78	119.60
26	1H	889	C	C2-N1-C1'	5.21	124.53	118.80
1	13	1113	C	N3-C2-O2	-5.21	118.25	121.90
26	1H	1775	U	C4-C5-C6	5.21	122.83	119.70
26	1H	2215	G	C8-N9-C4	5.21	108.48	106.40
27	16	95	U	C5-C4-O4	5.21	129.03	125.90
26	14	470	A	OP1-P-OP2	5.21	127.41	119.60
26	14	479	A	N9-C4-C5	5.21	107.88	105.80
26	14	980	A	N1-C6-N6	5.21	121.72	118.60
26	14	2032	G	C6-C5-N7	-5.21	127.28	130.40
26	1H	1824	G	C5-C6-O6	-5.21	125.48	128.60
26	1H	1942	C	C4-C5-C6	-5.21	114.80	117.40
1	1G	1529	G	C4-N9-C1'	5.21	133.27	126.50
26	14	669	G	N3-C4-C5	-5.21	126.00	128.60
26	14	1023	U	C5-C4-O4	5.21	129.02	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1798	U	C2-N3-C4	-5.21	123.88	127.00
1	13	1266	G	N3-C4-N9	-5.21	122.88	126.00
26	1H	119	A	N9-C4-C5	5.21	107.88	105.80
26	1H	738	G	N3-C4-N9	5.21	129.12	126.00
26	1H	910	A	C5-C6-N1	-5.21	115.10	117.70
26	1H	2264	C	N1-C2-O2	5.21	122.02	118.90
27	16	14	U	O5'-P-OP2	-5.21	101.02	105.70
27	16	17	C	N3-C2-O2	-5.21	118.26	121.90
25	4K	20	U	C2-N1-C1'	5.20	123.94	117.70
26	1H	219	G	N9-C4-C5	5.20	107.48	105.40
26	1H	1950	G	N3-C2-N2	5.20	123.54	119.90
26	1H	2542	A	C8-N9-C4	5.20	107.88	105.80
26	1H	2712	U	N3-C4-O4	5.20	123.04	119.40
26	14	1769	G	N3-C4-N9	5.20	129.12	126.00
26	14	2335	A	O5'-P-OP1	-5.20	101.02	105.70
27	1J	103	U	N3-C4-O4	-5.20	115.76	119.40
26	1H	1204	A	C8-N9-C4	-5.20	103.72	105.80
26	1H	1560	G	OP1-P-O3'	5.20	116.64	105.20
26	1H	2238	G	O5'-P-OP1	-5.20	101.02	105.70
26	14	2405	G	N1-C6-O6	5.20	123.02	119.90
1	13	123	C	C5-C6-N1	-5.20	118.40	121.00
1	13	412	A	P-O3'-C3'	5.20	125.94	119.70
23	2K	6	G	N9-C4-C5	-5.20	103.32	105.40
26	1H	660	G	C2-N3-C4	-5.20	109.30	111.90
26	1H	834	C	C5-C4-N4	-5.20	116.56	120.20
26	1H	971	C	OP2-P-O3'	5.20	116.64	105.20
26	1H	1559	G	C2-N3-C4	-5.20	109.30	111.90
26	1H	2054	A	OP1-P-O3'	-5.20	93.76	105.20
26	1H	2210	G	C8-N9-C4	-5.20	104.32	106.40
38	98	75	LEU	CA-CB-CG	5.20	127.26	115.30
1	1G	498	A	C8-N9-C4	5.20	107.88	105.80
26	14	1279	G	N3-C4-C5	-5.20	126.00	128.60
26	14	1991	U	C5-C4-O4	5.20	129.02	125.90
26	14	2356	C	C5-C6-N1	-5.20	118.40	121.00
26	14	2593	U	O5'-P-OP1	5.20	116.94	110.70
26	1H	404	C	N3-C2-O2	5.20	125.54	121.90
26	1H	763	G	N1-C2-N3	5.20	127.02	123.90
26	1H	1193	G	C8-N9-C4	5.20	108.48	106.40
26	1H	1307	A	OP1-P-OP2	5.20	127.40	119.60
26	1H	2606	C	OP1-P-O3'	5.20	116.64	105.20
1	1G	244	U	C5-C4-O4	-5.20	122.78	125.90
26	14	863	A	OP2-P-O3'	5.20	116.64	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	974(A)	C	N1-C2-N3	5.20	122.84	119.20
26	14	1573	G	O5'-P-OP1	5.20	116.94	110.70
1	13	557	G	N3-C4-N9	5.20	129.12	126.00
1	13	1417	G	N3-C4-C5	-5.20	126.00	128.60
26	1H	512	G	N1-C6-O6	-5.20	116.78	119.90
26	1H	609	A	N7-C8-N9	-5.20	111.20	113.80
26	1H	931	G	C6-N1-C2	-5.20	121.98	125.10
26	1H	1310	G	N1-C6-O6	5.20	123.02	119.90
26	1H	2397	G	N1-C6-O6	5.20	123.02	119.90
26	14	1284	A	N1-C6-N6	5.20	121.72	118.60
26	14	2540	C	O5'-P-OP2	-5.20	101.02	105.70
26	1H	28	A	C2-N3-C4	5.20	113.20	110.60
26	1H	1021	A	C6-N1-C2	5.20	121.72	118.60
26	1H	1562	A	N1-C6-N6	5.20	121.72	118.60
50	L8	54	VAL	CB-CA-C	-5.20	101.53	111.40
26	14	2298	A	O5'-P-OP2	-5.20	101.02	105.70
27	1J	116	G	N3-C4-C5	5.20	131.20	128.60
26	1H	105	C	C6-N1-C2	-5.19	118.22	120.30
26	1H	2449	U	OP1-P-OP2	5.19	127.39	119.60
26	14	1969	A	OP1-P-OP2	-5.19	111.81	119.60
26	14	2622	C	C5-C6-N1	-5.19	118.40	121.00
26	1H	1186	G	N3-C2-N2	-5.19	116.27	119.90
26	1H	1210	A	C8-N9-C4	-5.19	103.72	105.80
26	1H	2396	G	C4-N9-C1'	-5.19	119.75	126.50
26	1H	2688	U	C6-N1-C2	-5.19	117.89	121.00
1	1G	1339	A	O4'-C1'-N9	5.19	112.35	108.20
26	14	760	G	O5'-P-OP2	5.19	116.93	110.70
26	14	933	A	C4-C5-N7	5.19	113.30	110.70
26	14	1414	G	C8-N9-C1'	-5.19	120.25	127.00
26	14	1664	A	N1-C2-N3	5.19	131.90	129.30
26	14	2607	G	C8-N9-C4	5.19	108.48	106.40
1	13	115	G	C2-N3-C4	5.19	114.50	111.90
1	13	221	C	C6-N1-C2	-5.19	118.22	120.30
1	13	1469	G	N7-C8-N9	5.19	115.69	113.10
22	1K	76	A	O4'-C1'-N9	5.19	112.35	108.20
26	1H	670	A	N1-C6-N6	5.19	121.71	118.60
26	1H	736	C	N3-C2-O2	5.19	125.53	121.90
26	1H	849	A	C5-C6-N6	-5.19	119.55	123.70
26	1H	1367	A	C8-N9-C4	5.19	107.88	105.80
26	1H	1817	G	N3-C2-N2	5.19	123.53	119.90
26	1H	2329	G	C8-N9-C4	5.19	108.48	106.40
26	1H	2645	G	N3-C4-C5	5.19	131.19	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	91	C	C5-C6-N1	5.19	123.59	121.00
26	14	2456	C	N3-C4-C5	-5.19	119.82	121.90
1	13	1327	C	C6-N1-C2	5.19	122.38	120.30
26	1H	681	G	O5'-P-OP2	5.19	116.93	110.70
26	1H	2558	C	OP2-P-O3'	5.19	116.61	105.20
26	14	1633	G	C8-N9-C4	-5.19	104.32	106.40
1	13	538	G	C6-C5-N7	-5.19	127.29	130.40
26	1H	782	A	N1-C2-N3	5.19	131.89	129.30
26	1H	1311	G	N1-C6-O6	5.19	123.01	119.90
26	1H	1817	G	N3-C4-N9	5.19	129.11	126.00
26	1H	2778	A	C2-N3-C4	-5.19	108.01	110.60
26	14	666	G	C2-N3-C4	-5.19	109.31	111.90
26	14	773	U	C4-C5-C6	5.19	122.81	119.70
26	14	1155	A	OP1-P-O3'	5.19	116.61	105.20
26	14	1528	A	C8-N9-C4	-5.19	103.72	105.80
26	14	1961	C	N1-C2-O2	-5.19	115.79	118.90
26	14	1971	A	OP1-P-O3'	5.19	116.61	105.20
26	1H	431	U	OP1-P-OP2	-5.19	111.82	119.60
26	1H	1348	G	N1-C6-O6	5.19	123.01	119.90
26	1H	2277	G	C5-C6-O6	5.19	131.71	128.60
27	16	49	C	N1-C2-O2	-5.19	115.79	118.90
1	1G	413	G	N1-C6-O6	-5.19	116.79	119.90
1	13	185	A	N7-C8-N9	5.18	116.39	113.80
1	13	576	G	N3-C4-C5	-5.18	126.01	128.60
26	1H	256	A	C8-N9-C4	5.18	107.87	105.80
26	1H	1189	A	C5-N7-C8	-5.18	101.31	103.90
26	14	451	C	O4'-C1'-N1	5.18	112.35	108.20
26	14	583	G	N7-C8-N9	5.18	115.69	113.10
26	14	1319	G	O5'-P-OP2	-5.18	101.03	105.70
26	14	2548	G	C8-N9-C4	-5.18	104.33	106.40
26	1H	616	A	C6-C5-N7	-5.18	128.67	132.30
26	1H	1272	A	C8-N9-C4	5.18	107.87	105.80
26	1H	1471	A	N7-C8-N9	5.18	116.39	113.80
26	1H	1766	U	C5-C4-O4	-5.18	122.79	125.90
26	1H	2599	G	OP2-P-O3'	5.18	116.60	105.20
28	11	95	LEU	CA-CB-CG	5.18	127.22	115.30
46	H8	161	VAL	CB-CA-C	-5.18	101.55	111.40
26	14	774	A	C4-N9-C1'	-5.18	116.97	126.30
26	14	2333	A	C5-N7-C8	5.18	106.49	103.90
26	14	2572	A	N9-C4-C5	5.18	107.87	105.80
1	13	219	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	1726	G	C4-N9-C1'	-5.18	119.77	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	301	G	O5'-P-OP2	-5.18	101.04	105.70
26	14	1619	G	C4-C5-N7	5.18	112.87	110.80
1	13	266	G	C4-C5-N7	5.18	112.87	110.80
1	13	966	G	N3-C4-N9	5.18	129.11	126.00
26	1H	389	G	N9-C4-C5	-5.18	103.33	105.40
26	1H	417	C	N3-C2-O2	5.18	125.53	121.90
26	1H	568	U	O5'-P-OP2	-5.18	101.04	105.70
26	1H	628	G	N7-C8-N9	-5.18	110.51	113.10
26	1H	683	C	C2-N3-C4	-5.18	117.31	119.90
26	1H	2468	G	N1-C2-N2	-5.18	111.54	116.20
26	14	2376	A	C8-N9-C4	5.18	107.87	105.80
26	14	2601	C	N3-C2-O2	-5.18	118.27	121.90
1	13	1518	A	N7-C8-N9	-5.18	111.21	113.80
26	1H	1241	A	C5-C6-N1	-5.18	115.11	117.70
26	1H	1299	G	N3-C4-N9	5.18	129.11	126.00
26	14	783	A	O5'-P-OP2	-5.18	101.04	105.70
26	14	1208	C	O5'-P-OP1	-5.18	101.04	105.70
27	1J	103	U	C2-N3-C4	-5.18	123.89	127.00
1	13	891	U	OP2-P-O3'	5.18	116.59	105.20
26	1H	580	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	972	G	C5-C6-O6	5.18	131.71	128.60
26	1H	1889	A	C5-N7-C8	-5.18	101.31	103.90
26	14	600	G	C8-N9-C4	5.18	108.47	106.40
2	1E	196	LEU	CA-CB-CG	5.17	127.20	115.30
26	1H	477	A	OP1-P-OP2	-5.17	111.84	119.60
26	1H	2586	C	N1-C2-O2	-5.17	115.80	118.90
26	1H	2751	G	C5-N7-C8	-5.17	101.71	104.30
1	1G	35	G	C8-N9-C4	-5.17	104.33	106.40
1	1G	413	G	C5-C6-O6	5.17	131.71	128.60
1	1G	583	A	C8-N9-C4	5.17	107.87	105.80
1	1G	1200	C	C6-N1-C1'	-5.17	114.59	120.80
1	13	413	G	C4-C5-N7	-5.17	108.73	110.80
23	2K	76	C	C5-C4-N4	-5.17	116.58	120.20
26	1H	1022	G	C6-N1-C2	-5.17	122.00	125.10
50	L8	49	LYS	CD-CE-NZ	-5.17	99.80	111.70
1	13	1290	G	C6-C5-N7	-5.17	127.30	130.40
26	1H	207	A	C2-N3-C4	-5.17	108.01	110.60
26	1H	835	A	OP2-P-O3'	5.17	116.58	105.20
26	1H	1249	U	N3-C4-C5	5.17	117.70	114.60
26	1H	2380	C	N3-C4-C5	5.17	123.97	121.90
1	13	888	G	C2-N3-C4	-5.17	109.31	111.90
26	1H	197	A	C5-N7-C8	-5.17	101.31	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1138	G	C6-C5-N7	-5.17	127.30	130.40
26	14	2039	C	N1-C2-O2	5.17	122.00	118.90
1	13	963	G	N3-C4-C5	-5.17	126.02	128.60
26	1H	613	U	C2-N3-C4	-5.17	123.90	127.00
26	1H	2396	G	C8-N9-C1'	5.17	133.72	127.00
26	14	2319	G	N3-C4-C5	-5.17	126.02	128.60
26	14	2430	A	O5'-P-OP1	5.17	116.90	110.70
26	1H	863	A	N1-C6-N6	-5.17	115.50	118.60
26	1H	1502	C	C5-C6-N1	5.17	123.58	121.00
27	16	90	C	N3-C4-C5	5.17	123.97	121.90
26	14	388	G	N3-C4-C5	5.17	131.18	128.60
26	14	1431	U	N3-C4-C5	5.17	117.70	114.60
26	14	1702	G	C5-C6-O6	-5.17	125.50	128.60
26	14	1772	G	N9-C1'-C2'	-5.17	106.32	112.00
26	14	2013	A	C8-N9-C4	5.17	107.87	105.80
1	13	1455	G	C8-N9-C4	5.17	108.47	106.40
26	1H	2636	U	C6-N1-C2	5.17	124.10	121.00
26	1H	2757	A	N1-C6-N6	5.17	121.70	118.60
26	14	18	C	O5'-P-OP1	-5.17	101.05	105.70
26	14	1527	G	N3-C4-C5	5.17	131.18	128.60
1	13	328	C	N3-C2-O2	-5.16	118.28	121.90
26	1H	474	G	N9-C4-C5	5.16	107.47	105.40
26	1H	948	G	N3-C4-C5	5.16	131.18	128.60
26	1H	1355	G	C5-C6-N1	5.16	114.08	111.50
26	1H	1611	C	C5-C4-N4	-5.16	116.58	120.20
26	1H	1776	G	C4-C5-N7	5.16	112.87	110.80
26	1H	2246	G	N7-C8-N9	-5.16	110.52	113.10
26	14	1797	C	C5-C4-N4	-5.16	116.58	120.20
26	14	2068	U	C5-C6-N1	-5.16	120.12	122.70
26	14	2763	G	N3-C2-N2	5.16	123.51	119.90
26	1H	841	A	C6-C5-N7	-5.16	128.69	132.30
26	1H	1799	G	N1-C2-N2	-5.16	111.55	116.20
26	14	726	G	C5-C6-O6	5.16	131.70	128.60
26	14	982	C	N3-C4-C5	-5.16	119.83	121.90
26	14	2086	U	O5'-P-OP2	-5.16	101.05	105.70
1	13	908	A	C2-N3-C4	-5.16	108.02	110.60
26	1H	1656	C	OP2-P-O3'	5.16	116.55	105.20
31	41	44	GLY	N-CA-C	-5.16	100.20	113.10
26	14	194	G	O5'-P-OP2	5.16	116.89	110.70
26	14	955	C	O5'-P-OP2	-5.16	101.06	105.70
26	14	1253	A	C4-C5-C6	5.16	119.58	117.00
26	14	1311	G	C5-C6-N1	-5.16	108.92	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	928	G	O5'-P-OP1	-5.16	101.06	105.70
26	1H	865	C	OP1-P-OP2	-5.16	111.86	119.60
26	1H	1364	G	OP2-P-O3'	5.16	116.55	105.20
26	1H	1630(A)	C	O5'-P-OP1	-5.16	101.06	105.70
26	1H	2029	G	O5'-P-OP1	-5.16	101.06	105.70
26	1H	2429	G	OP1-P-OP2	-5.16	111.86	119.60
1	1G	552	U	OP2-P-O3'	5.16	116.55	105.20
26	14	2627	G	C8-N9-C1'	-5.16	120.30	127.00
26	1H	825	C	N3-C2-O2	5.16	125.51	121.90
26	1H	1283	G	N3-C4-N9	5.16	129.09	126.00
26	1H	1695	G	N1-C2-N2	-5.16	111.56	116.20
26	1H	2575	C	C5-C6-N1	-5.16	118.42	121.00
26	1H	2697	G	C6-C5-N7	-5.16	127.31	130.40
26	14	2057	A	C2-N3-C4	-5.16	108.02	110.60
26	1H	598	G	N3-C4-C5	-5.16	126.02	128.60
26	1H	1649	G	N3-C2-N2	5.16	123.51	119.90
26	1H	1728	G	N3-C2-N2	5.16	123.51	119.90
26	1H	2275	C	C5'-C4'-O4'	-5.16	102.91	109.10
26	14	2377	A	C4-N9-C1'	-5.16	117.02	126.30
26	1H	1369	G	O5'-P-OP2	-5.15	101.06	105.70
26	1H	1698	A	N9-C1'-C2'	5.15	120.70	114.00
26	1H	1930	G	OP2-P-O3'	5.15	116.54	105.20
26	14	141	A	O4'-C1'-N9	5.15	112.32	108.20
26	1H	236	C	N3-C4-C5	-5.15	119.84	121.90
26	1H	772	C	N3-C4-N4	5.15	121.61	118.00
26	1H	805	G	C6-C5-N7	-5.15	127.31	130.40
26	1H	1214	A	OP2-P-O3'	5.15	116.53	105.20
26	1H	1271	G	N9-C4-C5	-5.15	103.34	105.40
26	1H	2028	U	C4-C5-C6	5.15	122.79	119.70
41	C8	50	ARG	NE-CZ-NH2	-5.15	117.72	120.30
26	14	929	G	C4-N9-C1'	5.15	133.20	126.50
26	14	1277	G	N3-C4-C5	5.15	131.18	128.60
26	14	2043	C	C6-N1-C2	-5.15	118.24	120.30
26	1H	193	U	C2-N3-C4	-5.15	123.91	127.00
26	1H	321	G	C5-C6-O6	-5.15	125.51	128.60
26	1H	411	G	C4-C5-N7	-5.15	108.74	110.80
26	1H	571	A	C8-N9-C4	5.15	107.86	105.80
26	1H	911	A	C5-N7-C8	-5.15	101.33	103.90
26	1H	1257	C	N3-C4-N4	5.15	121.61	118.00
1	1G	509	A	N9-C1'-C2'	-5.15	106.33	112.00
26	14	1121	C	C2-N3-C4	-5.15	117.33	119.90
26	14	1971	A	C8-N9-C4	5.15	107.86	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1293	C	C2-N1-C1'	5.15	124.46	118.80
26	1H	1298	C	C2-N3-C4	5.15	122.47	119.90
26	14	982	C	C5-C6-N1	5.15	123.58	121.00
26	14	1936	A	O4'-C1'-N9	5.15	112.32	108.20
1	13	1292	U	C5-C6-N1	-5.15	120.13	122.70
26	1H	517	C	N1-C2-O2	-5.15	115.81	118.90
26	1H	770	G	C4-C5-N7	5.15	112.86	110.80
26	1H	937	U	C6-N1-C2	5.15	124.09	121.00
26	1H	1692	U	C2-N1-C1'	5.15	123.88	117.70
26	1H	2368	C	O5'-P-OP2	5.15	116.88	110.70
27	16	85	G	C5-C6-O6	-5.15	125.51	128.60
1	1G	397	A	C2-N3-C4	5.15	113.17	110.60
26	14	27	G	OP1-P-O3'	5.15	116.52	105.20
26	14	1030	G	C6-C5-N7	-5.15	127.31	130.40
26	14	1350	C	O5'-P-OP2	5.15	116.88	110.70
1	13	795	C	O5'-P-OP2	-5.15	101.07	105.70
26	1H	508	G	N9-C1'-C2'	5.15	120.69	114.00
1	1G	128	G	N3-C2-N2	-5.15	116.30	119.90
1	1G	176	C	C6-N1-C2	-5.15	118.24	120.30
24	3L	37	A	C2-N3-C4	5.15	113.17	110.60
26	14	757	U	C6-N1-C2	-5.15	117.91	121.00
26	14	1407	C	O5'-P-OP2	5.15	116.88	110.70
26	14	1652	A	O5'-P-OP2	-5.15	101.07	105.70
28	19	43	ARG	NE-CZ-NH2	-5.15	117.73	120.30
1	13	266	G	O4'-C1'-N9	-5.14	104.08	108.20
26	1H	73	A	N3-C4-C5	-5.14	123.20	126.80
26	1H	678	C	C5-C6-N1	-5.14	118.43	121.00
26	1H	838	C	N3-C4-N4	5.14	121.60	118.00
26	1H	1623	G	C4-C5-N7	-5.14	108.74	110.80
26	1H	1800	C	OP1-P-O3'	5.14	116.52	105.20
26	14	932	G	N3-C4-N9	-5.14	122.91	126.00
26	14	1433	U	O5'-P-OP2	-5.14	101.07	105.70
26	14	2437	U	OP1-P-OP2	5.14	127.32	119.60
1	13	124	G	O5'-P-OP1	5.14	116.87	110.70
1	13	653	A	O4'-C1'-N9	5.14	112.31	108.20
1	13	1432	G	C4-C5-C6	5.14	121.89	118.80
26	1H	140	A	OP2-P-O3'	5.14	116.51	105.20
26	1H	542	C	N3-C4-C5	-5.14	119.84	121.90
26	1H	655	A	C5-N7-C8	-5.14	101.33	103.90
26	1H	944	G	C8-N9-C4	-5.14	104.34	106.40
26	1H	972	G	C5-N7-C8	5.14	106.87	104.30
26	1H	1514	U	O5'-P-OP1	-5.14	101.07	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2252	G	N7-C8-N9	-5.14	110.53	113.10
26	1H	2503	A	OP1-P-OP2	-5.14	111.89	119.60
1	1G	345	C	P-O3'-C3'	5.14	125.87	119.70
1	1G	1128	C	P-O3'-C3'	5.14	125.87	119.70
1	1G	1237	C	C6-N1-C2	-5.14	118.24	120.30
23	2L	72	C	OP2-P-O3'	5.14	116.51	105.20
26	14	1276	A	C4-C5-N7	5.14	113.27	110.70
26	14	1332	G	C4-C5-N7	5.14	112.86	110.80
26	14	1439	A	N1-C2-N3	5.14	131.87	129.30
26	14	2265	U	N3-C4-O4	5.14	123.00	119.40
26	14	2627	G	C6-C5-N7	-5.14	127.31	130.40
1	13	1486	G	O5'-P-OP2	-5.14	101.07	105.70
1	13	1514	C	OP2-P-O3'	5.14	116.51	105.20
23	2K	9	G	N1-C6-O6	-5.14	116.82	119.90
26	1H	602	G	C6-C5-N7	-5.14	127.31	130.40
26	14	1826	G	N3-C4-N9	5.14	129.08	126.00
1	13	12	U	C5-C6-N1	5.14	125.27	122.70
1	13	1408	A	N1-C6-N6	5.14	121.68	118.60
26	1H	563	G	N7-C8-N9	-5.14	110.53	113.10
26	1H	1667	G	C4-C5-N7	5.14	112.86	110.80
26	1H	2042	A	N3-C4-N9	-5.14	123.29	127.40
26	1H	2051	A	N1-C6-N6	5.14	121.68	118.60
1	1G	266	G	N3-C4-C5	-5.14	126.03	128.60
26	14	1632	A	C4-C5-N7	5.14	113.27	110.70
1	13	862	C	N3-C4-C5	-5.14	119.84	121.90
26	1H	1142(A)	A	N7-C8-N9	5.14	116.37	113.80
26	1H	1647	G	C5-N7-C8	5.14	106.87	104.30
26	1H	2751	G	N7-C8-N9	5.14	115.67	113.10
1	13	1227	A	C5-C6-N1	-5.14	115.13	117.70
24	3K	72	C	C6-N1-C2	-5.14	118.25	120.30
26	1H	1936	A	C5-N7-C8	-5.14	101.33	103.90
26	14	246	C	C6-N1-C2	5.14	122.36	120.30
26	14	2547	U	OP1-P-O3'	-5.14	93.90	105.20
1	13	577	G	C6-C5-N7	-5.13	127.32	130.40
26	1H	1814	G	C5-C6-O6	5.13	131.68	128.60
26	1H	2246	G	C5-C6-N1	5.13	114.07	111.50
37	88	106	VAL	CB-CA-C	-5.13	101.64	111.40
26	14	1427	A	C4-C5-N7	-5.13	108.13	110.70
26	14	1599	C	OP2-P-O3'	5.13	116.50	105.20
26	14	1628	G	O5'-P-OP2	-5.13	101.08	105.70
26	1H	321	G	C4-N9-C1'	5.13	133.17	126.50
26	1H	1215	G	N3-C4-C5	-5.13	126.03	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1395	A	C2-N3-C4	-5.13	108.03	110.60
26	14	391	G	N3-C4-N9	5.13	129.08	126.00
26	14	684	G	C5-C6-N1	5.13	114.07	111.50
1	13	419	C	C2-N1-C1'	5.13	124.45	118.80
26	1H	73	A	C5-C6-N1	5.13	120.27	117.70
26	1H	680	G	N1-C6-O6	5.13	122.98	119.90
26	1H	2278	A	C6-N1-C2	-5.13	115.52	118.60
27	16	80	U	N3-C2-O2	-5.13	118.61	122.20
26	14	114	U	C6-N1-C1'	-5.13	114.02	121.20
26	14	1331	A	C6-N1-C2	-5.13	115.52	118.60
26	1H	185	U	N1-C2-N3	5.13	117.98	114.90
26	1H	1601	G	OP1-P-O3'	5.13	116.49	105.20
26	1H	1709	U	C6-N1-C2	-5.13	117.92	121.00
26	1H	2363	C	OP2-P-O3'	5.13	116.49	105.20
26	1H	2488	A	C6-C5-N7	-5.13	128.71	132.30
26	14	828	U	C4-C5-C6	5.13	122.78	119.70
26	14	1643	G	O5'-P-OP2	-5.13	101.08	105.70
26	1H	742	G	N3-C2-N2	-5.13	116.31	119.90
26	1H	1448	G	O5'-P-OP1	-5.13	101.08	105.70
26	1H	1835	G	C2-N3-C4	5.13	114.46	111.90
26	1H	2578	G	C5-N7-C8	5.13	106.86	104.30
26	14	189	G	O5'-P-OP1	-5.13	101.08	105.70
26	14	433	C	C6-N1-C2	-5.13	118.25	120.30
26	14	1308	A	N1-C2-N3	5.13	131.86	129.30
26	14	1636	C	O5'-P-OP2	5.13	116.86	110.70
26	14	2329	G	N7-C8-N9	-5.13	110.53	113.10
1	13	809	G	N1-C6-O6	-5.13	116.82	119.90
26	1H	259	G	N9-C4-C5	-5.13	103.35	105.40
26	1H	1060	U	P-O3'-C3'	5.13	125.85	119.70
26	1H	1597	A	N1-C2-N3	5.13	131.86	129.30
26	1H	1688	U	OP2-P-O3'	5.13	116.48	105.20
26	1H	1758	G	N3-C2-N2	-5.13	116.31	119.90
26	1H	2271	G	N1-C2-N2	-5.13	111.59	116.20
26	1H	2555	U	N1-C2-N3	5.13	117.97	114.90
1	1G	579	G	N7-C8-N9	5.13	115.66	113.10
26	14	70	G	N3-C4-C5	-5.13	126.04	128.60
26	14	693	C	OP2-P-O3'	5.13	116.48	105.20
26	14	1520	U	N3-C4-O4	-5.13	115.81	119.40
26	14	2763	G	N1-C6-O6	-5.13	116.83	119.90
26	1H	165	U	N1-C2-O2	5.12	126.39	122.80
26	1H	864	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	2444	G	N9-C4-C5	5.12	107.45	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2477	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	2762	G	N1-C6-O6	5.12	122.97	119.90
27	16	8	U	O5'-P-OP1	5.12	116.85	110.70
26	14	113	G	N1-C6-O6	5.12	122.97	119.90
26	14	191	A	C6-N1-C2	5.12	121.67	118.60
26	14	392	C	N3-C4-C5	5.12	123.95	121.90
26	14	954	G	N1-C6-O6	-5.12	116.83	119.90
33	69	131	LYS	C-N-CA	5.12	143.53	122.00
23	2K	44	A	C8-N9-C4	-5.12	103.75	105.80
26	1H	988	A	P-O3'-C3'	5.12	125.85	119.70
26	1H	1759	A	OP1-P-OP2	5.12	127.28	119.60
26	1H	2073	C	OP2-P-O3'	5.12	116.47	105.20
26	1H	2428	G	P-O3'-C3'	5.12	125.85	119.70
23	2L	6	G	C8-N9-C4	5.12	108.45	106.40
23	2L	21	U	O4'-C1'-N1	5.12	112.30	108.20
26	14	694	U	N1-C2-O2	5.12	126.39	122.80
26	14	933	A	C5-C6-N6	-5.12	119.60	123.70
1	13	1335	C	C2-N1-C1'	-5.12	113.17	118.80
26	1H	701	G	C6-C5-N7	-5.12	127.33	130.40
26	1H	2295	C	C4-C5-C6	5.12	119.96	117.40
26	1H	2322	A	N9-C4-C5	5.12	107.85	105.80
26	1H	2497	A	N1-C6-N6	5.12	121.67	118.60
26	14	768	G	C4-C5-C6	5.12	121.87	118.80
26	14	782	A	C8-N9-C4	-5.12	103.75	105.80
26	14	949	C	C2-N1-C1'	-5.12	113.17	118.80
26	1H	574	C	N1-C2-N3	-5.12	115.62	119.20
1	1G	915	A	OP1-P-O3'	5.12	116.47	105.20
26	14	863	A	O5'-P-OP2	-5.12	101.09	105.70
26	14	1633	G	N7-C8-N9	5.12	115.66	113.10
1	13	756	C	OP2-P-O3'	5.12	116.46	105.20
26	1H	194	G	N7-C8-N9	-5.12	110.54	113.10
26	1H	957	A	C5-C6-N6	-5.12	119.61	123.70
26	1H	1654	A	C8-N9-C4	-5.12	103.75	105.80
26	1H	1790	C	C6-N1-C2	5.12	122.35	120.30
26	1H	2875	C	C6-N1-C2	5.12	122.35	120.30
1	1G	401	C	O5'-P-OP1	5.12	116.84	110.70
1	1G	570	G	C8-N9-C4	-5.12	104.35	106.40
26	14	278	A	P-O3'-C3'	5.12	125.84	119.70
26	14	1128	A	C5-C6-N1	5.12	120.26	117.70
26	14	1600	C	N3-C4-N4	-5.12	114.42	118.00
26	14	1968	G	C5-N7-C8	-5.12	101.74	104.30
26	14	2196	C	N1-C2-O2	-5.12	115.83	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2279	G	O5'-P-OP2	-5.12	101.09	105.70
26	14	2381	C	N3-C4-C5	5.12	123.95	121.90
52	J5	51	TYR	CA-CB-CG	5.12	123.12	113.40
26	1H	737	C	N1-C2-O2	-5.12	115.83	118.90
26	1H	811	U	OP1-P-OP2	5.12	127.28	119.60
26	1H	1566	A	C6-N1-C2	-5.12	115.53	118.60
1	1G	1488	G	C8-N9-C4	5.12	108.45	106.40
23	2K	48	U	C2-N1-C1'	5.12	123.84	117.70
26	1H	20	C	OP2-P-O3'	5.12	116.45	105.20
26	1H	1144	G	OP1-P-O3'	5.12	116.46	105.20
26	1H	1192	G	C5-N7-C8	5.12	106.86	104.30
26	1H	1793	C	C6-N1-C2	5.12	122.35	120.30
1	1G	250	A	P-O3'-C3'	5.12	125.84	119.70
1	1G	538	G	C8-N9-C1'	-5.12	120.35	127.00
1	1G	1499	A	N9-C4-C5	-5.12	103.75	105.80
26	14	2323	G	N7-C8-N9	-5.12	110.54	113.10
26	14	2626	C	C5-C4-N4	-5.12	116.62	120.20
1	13	67	C	N3-C2-O2	-5.11	118.32	121.90
26	1H	762	U	C5-C4-O4	-5.11	122.83	125.90
26	1H	2237	G	N9-C4-C5	-5.11	103.36	105.40
26	1H	2346	A	P-O3'-C3'	5.11	125.84	119.70
26	1H	2438	U	C4-C5-C6	5.11	122.77	119.70
26	14	771	G	OP1-P-O3'	5.11	116.45	105.20
26	14	2441	C	C5-C4-N4	5.11	123.78	120.20
26	14	2487	G	N3-C4-N9	5.11	129.07	126.00
26	1H	180	G	N3-C4-N9	5.11	129.07	126.00
26	1H	1430	C	OP1-P-O3'	5.11	116.45	105.20
26	1H	1934	C	OP1-P-O3'	5.11	116.45	105.20
26	1H	585	G	C5-C6-O6	-5.11	125.53	128.60
26	1H	617	G	OP1-P-OP2	-5.11	111.94	119.60
26	1H	736	C	O5'-P-OP1	-5.11	101.10	105.70
26	1H	1804	C	C5-C6-N1	-5.11	118.44	121.00
26	1H	2748	A	O5'-P-OP1	-5.11	101.10	105.70
1	1G	1055	A	N9-C4-C5	-5.11	103.76	105.80
1	1G	1529	G	C8-N9-C4	-5.11	104.36	106.40
26	14	2277	G	C4-C5-N7	-5.11	108.75	110.80
26	1H	1430	C	N3-C4-C5	-5.11	119.86	121.90
26	1H	1939	U	C4-C5-C6	-5.11	116.63	119.70
26	1H	2014	A	C6-N1-C2	-5.11	115.53	118.60
1	1G	306	G	C4-N9-C1'	-5.11	119.86	126.50
26	14	852	G	O5'-P-OP2	-5.11	101.10	105.70
26	14	1267	U	OP2-P-O3'	5.11	116.44	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2877	G	C5-C6-N1	-5.11	108.94	111.50
1	13	226	G	C4-N9-C1'	5.11	133.14	126.50
26	1H	779	U	N1-C2-N3	-5.11	111.84	114.90
27	16	96	G	C2-N3-C4	5.11	114.45	111.90
1	1G	1435	G	C6-C5-N7	-5.11	127.33	130.40
26	14	748	G	C4-N9-C1'	-5.11	119.86	126.50
26	14	1621	U	N1-C2-O2	-5.11	119.22	122.80
26	14	1941	C	O5'-P-OP1	-5.11	101.10	105.70
26	14	2419	U	C5-C6-N1	5.11	125.25	122.70
26	14	2432	A	N1-C2-N3	5.11	131.85	129.30
26	14	2584	U	N3-C2-O2	-5.11	118.62	122.20
1	13	291	C	O5'-P-OP2	-5.11	101.11	105.70
1	13	690	G	C5-C6-N1	-5.11	108.95	111.50
1	13	1091	U	N3-C2-O2	-5.11	118.63	122.20
1	13	1500	A	C2-N3-C4	5.11	113.15	110.60
26	1H	1161	C	OP1-P-OP2	-5.11	111.94	119.60
26	1H	1308	A	N1-C2-N3	5.11	131.85	129.30
26	1H	1936	A	C4-C5-N7	5.11	113.25	110.70
26	1H	2089	U	N3-C2-O2	5.11	125.77	122.20
26	1H	2488	A	C2-N3-C4	-5.11	108.05	110.60
1	1G	1441	G	O5'-P-OP1	-5.11	101.11	105.70
26	14	2308	G	N3-C4-N9	-5.11	122.94	126.00
26	1H	202	U	N1-C2-O2	5.10	126.37	122.80
26	1H	1368	G	C5-C6-N1	5.10	114.05	111.50
26	1H	2447	G	N3-C4-N9	5.10	129.06	126.00
26	14	1498	C	OP1-P-O3'	5.10	116.43	105.20
1	13	1139	G	C8-N9-C4	5.10	108.44	106.40
1	13	1502	A	N3-C4-C5	5.10	130.37	126.80
26	1H	188	G	N3-C2-N2	5.10	123.47	119.90
26	1H	966	G	O5'-P-OP2	-5.10	101.11	105.70
26	1H	1281	G	C4-C5-C6	-5.10	115.74	118.80
26	1H	1393	A	O4'-C1'-N9	5.10	112.28	108.20
26	1H	1671	U	C2-N1-C1'	5.10	123.82	117.70
26	1H	2056	G	N1-C2-N3	5.10	126.96	123.90
26	1H	2233	U	N1-C2-O2	-5.10	119.23	122.80
26	1H	2509	G	N3-C2-N2	5.10	123.47	119.90
26	14	608	A	C2-N3-C4	-5.10	108.05	110.60
26	14	779	U	N3-C2-O2	-5.10	118.63	122.20
26	14	1663	C	N3-C4-N4	5.10	121.57	118.00
26	1H	189	G	N7-C8-N9	-5.10	110.55	113.10
26	1H	1513	C	C6-N1-C2	-5.10	118.26	120.30
1	13	580	U	N3-C4-O4	-5.10	115.83	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1128	C	N3-C2-O2	-5.10	118.33	121.90
26	1H	386	G	C2-N3-C4	5.10	114.45	111.90
26	1H	701	G	N1-C2-N3	5.10	126.96	123.90
26	1H	1360	A	C6-C5-N7	-5.10	128.73	132.30
26	1H	1366	A	C4-C5-N7	5.10	113.25	110.70
26	1H	1786	A	C1'-O4'-C4'	-5.10	105.82	109.90
26	1H	2270	G	N9-C4-C5	-5.10	103.36	105.40
1	1G	112	G	N1-C6-O6	5.10	122.96	119.90
26	14	2433	A	O5'-P-OP2	5.10	116.82	110.70
1	13	872	A	O4'-C1'-N9	5.10	112.28	108.20
1	13	1286	A	C8-N9-C4	-5.10	103.76	105.80
26	1H	77	C	OP1-P-OP2	-5.10	111.95	119.60
26	1H	496	G	O5'-P-OP2	-5.10	101.11	105.70
26	1H	762	U	N3-C4-C5	5.10	117.66	114.60
26	1H	1767	C	N3-C2-O2	-5.10	118.33	121.90
26	1H	2070	G	C5-C6-N1	5.10	114.05	111.50
26	1H	2444	G	N1-C2-N2	5.10	120.79	116.20
1	1G	297	G	C8-N9-C4	5.10	108.44	106.40
26	14	1563	G	OP2-P-O3'	5.10	116.42	105.20
26	14	2237	G	OP1-P-OP2	5.10	127.25	119.60
1	13	798	G	N1-C2-N2	-5.10	111.61	116.20
1	13	803	G	C5-C6-O6	5.10	131.66	128.60
26	1H	1241	A	C4-C5-C6	5.10	119.55	117.00
26	1H	2721	A	C4-C5-N7	5.10	113.25	110.70
26	14	2249	U	N3-C4-C5	-5.10	111.54	114.60
26	14	2286	A	C4-N9-C1'	5.10	135.47	126.30
26	1H	617	G	C8-N9-C4	5.09	108.44	106.40
26	1H	1190	G	C5-C6-O6	-5.09	125.54	128.60
26	1H	1215	G	C5-C6-N1	5.09	114.05	111.50
26	1H	1218	C	C5-C4-N4	-5.09	116.63	120.20
26	1H	2065	C	N3-C4-C5	5.09	123.94	121.90
26	1H	2779	U	C4-C5-C6	5.09	122.76	119.70
26	14	1801	G	C4-C5-N7	5.09	112.84	110.80
26	1H	801	G	N3-C2-N2	-5.09	116.33	119.90
26	1H	928	G	N1-C6-O6	5.09	122.96	119.90
26	1H	1948	G	C5-C6-O6	5.09	131.66	128.60
26	1H	2373	G	C8-N9-C1'	-5.09	120.38	127.00
26	1H	2592	G	N3-C4-C5	-5.09	126.05	128.60
26	14	782	A	C5-C6-N1	5.09	120.25	117.70
26	14	1608	A	O5'-P-OP1	-5.09	101.12	105.70
1	13	1407	C	O5'-P-OP2	-5.09	101.12	105.70
26	1H	526	A	C6-C5-N7	5.09	135.86	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	961	C	N3-C2-O2	-5.09	118.33	121.90
26	1H	1265	A	C4-C5-C6	5.09	119.55	117.00
26	1H	1879	C	C6-N1-C2	-5.09	118.26	120.30
26	1H	1904	G	N9-C1'-C2'	-5.09	106.40	112.00
26	14	191	A	N1-C6-N6	5.09	121.66	118.60
26	14	215	G	C6-C5-N7	-5.09	127.34	130.40
26	14	1320	C	N3-C4-N4	5.09	121.56	118.00
26	1H	1321	A	N1-C2-N3	5.09	131.84	129.30
26	1H	1692	U	C6-N1-C1'	-5.09	114.07	121.20
26	1H	2026	C	N3-C4-C5	-5.09	119.86	121.90
26	1H	2757	A	O5'-P-OP2	-5.09	101.12	105.70
26	14	610	C	C5-C6-N1	-5.09	118.45	121.00
26	14	677	A	OP1-P-OP2	5.09	127.23	119.60
26	14	2287	A	N1-C6-N6	5.09	121.65	118.60
1	13	189	U	C2-N1-C1'	5.09	123.81	117.70
26	1H	196	A	C6-N1-C2	5.09	121.65	118.60
26	1H	1376	C	N1-C2-N3	5.09	122.76	119.20
26	1H	2392	A	C6-C5-N7	-5.09	128.74	132.30
26	14	194	G	N1-C6-O6	5.09	122.95	119.90
26	14	1826	G	N3-C4-C5	-5.09	126.06	128.60
26	14	1904	G	C5-N7-C8	5.09	106.84	104.30
26	14	2269	A	OP1-P-O3'	5.09	116.39	105.20
26	1H	787	U	C2-N3-C4	-5.09	123.95	127.00
26	1H	1340	U	O4'-C1'-N1	5.09	112.27	108.20
26	1H	1400	G	C8-N9-C4	-5.09	104.36	106.40
26	14	733	G	OP1-P-OP2	5.09	127.23	119.60
26	14	992	C	C6-N1-C2	-5.09	118.27	120.30
26	14	2083	G	N1-C2-N3	5.09	126.95	123.90
26	14	2168	G	C4-N9-C1'	5.09	133.11	126.50
26	14	2564	A	N1-C6-N6	5.09	121.65	118.60
26	1H	508	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	2445	G	N3-C2-N2	-5.08	116.34	119.90
26	1H	2512	C	N1-C2-O2	-5.08	115.85	118.90
26	1H	2751	G	C4-C5-N7	5.08	112.83	110.80
1	1G	555	C	C6-N1-C2	-5.08	118.27	120.30
26	14	725	G	O5'-P-OP1	-5.08	101.12	105.70
26	14	848	G	C2-N3-C4	5.08	114.44	111.90
26	14	2850	A	OP1-P-O3'	5.08	116.39	105.20
26	1H	432	A	N1-C2-N3	-5.08	126.76	129.30
26	1H	940	G	C5-C6-N1	5.08	114.04	111.50
26	1H	1695	G	C4-N9-C1'	5.08	133.11	126.50
26	1H	1784	A	OP1-P-O3'	5.08	116.38	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2056	G	C6-N1-C2	-5.08	122.05	125.10
23	2L	48	U	OP2-P-O3'	5.08	116.38	105.20
26	14	74	A	C6-C5-N7	-5.08	128.74	132.30
26	14	122	G	N7-C8-N9	-5.08	110.56	113.10
26	14	603	A	C4-N9-C1'	5.08	135.45	126.30
26	14	729	G	C2-N3-C4	5.08	114.44	111.90
26	14	2523	G	N1-C6-O6	5.08	122.95	119.90
26	14	2607	G	O5'-P-OP2	-5.08	101.12	105.70
1	13	35	G	C8-N9-C4	-5.08	104.37	106.40
1	13	278	G	N3-C4-N9	5.08	129.05	126.00
23	2K	31	G	C5-C6-N1	-5.08	108.96	111.50
26	1H	62	C	OP2-P-O3'	5.08	116.38	105.20
26	1H	1162	G	N9-C4-C5	5.08	107.43	105.40
26	1H	1400	G	N9-C4-C5	5.08	107.43	105.40
26	1H	2007	C	O5'-P-OP2	-5.08	101.13	105.70
54	P8	11	LYS	CD-CE-NZ	5.08	123.39	111.70
1	1G	815	A	OP2-P-O3'	5.08	116.38	105.20
26	14	49	A	O5'-P-OP2	-5.08	101.13	105.70
26	14	79	G	N1-C6-O6	5.08	122.95	119.90
26	14	805	G	OP1-P-O3'	5.08	116.38	105.20
26	14	871	U	O5'-P-OP2	5.08	116.80	110.70
26	1H	577	G	O5'-P-OP1	5.08	116.80	110.70
26	1H	2440	C	C6-N1-C1'	5.08	126.90	120.80
26	14	1414	G	N3-C4-N9	5.08	129.05	126.00
26	14	1779	U	C6-N1-C1'	-5.08	114.09	121.20
26	14	2429	G	OP1-P-OP2	-5.08	111.98	119.60
1	13	1205	U	C6-N1-C2	-5.08	117.95	121.00
26	1H	2486	G	O5'-P-OP1	5.08	116.79	110.70
26	1H	2701	C	C6-N1-C2	-5.08	118.27	120.30
29	21	119	ARG	NE-CZ-NH1	5.08	122.84	120.30
26	14	138	G	N1-C6-O6	5.08	122.95	119.90
26	14	477	A	C2-N3-C4	-5.08	108.06	110.60
26	14	1695	G	C6-C5-N7	-5.08	127.35	130.40
26	14	2423	U	C2-N3-C4	-5.08	123.95	127.00
26	14	2491	U	N3-C2-O2	5.08	125.75	122.20
27	1J	56	G	C8-N9-C1'	-5.08	120.40	127.00
26	1H	2260	C	C5-C4-N4	-5.08	116.65	120.20
22	1L	40	C	C6-N1-C2	-5.08	118.27	120.30
1	13	574	A	OP1-P-OP2	-5.08	111.99	119.60
26	1H	650	C	OP1-P-O3'	5.08	116.37	105.20
26	1H	1203	G	OP1-P-O3'	5.08	116.37	105.20
26	1H	1264	G	C4-C5-N7	5.08	112.83	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1388	G	O5'-P-OP2	-5.08	101.13	105.70
26	1H	1787	A	O4'-C1'-N9	-5.08	104.14	108.20
26	1H	2582	G	N9-C4-C5	-5.08	103.37	105.40
26	1H	2711	A	OP2-P-O3'	-5.08	94.03	105.20
1	1G	150	C	C5-C6-N1	5.08	123.54	121.00
1	1G	972	C	C5-C6-N1	5.08	123.54	121.00
26	14	947	G	N3-C4-C5	5.08	131.14	128.60
26	14	1623	G	N3-C2-N2	-5.08	116.35	119.90
1	13	765	G	C6-C5-N7	-5.07	127.36	130.40
26	1H	315	G	N1-C6-O6	5.07	122.94	119.90
26	1H	1318	C	N1-C2-O2	5.07	121.94	118.90
26	1H	1325	G	C8-N9-C4	-5.07	104.37	106.40
26	1H	1888	G	C2-N3-C4	5.07	114.44	111.90
26	1H	2497	A	C6-N1-C2	-5.07	115.56	118.60
26	14	1257	C	N1-C2-O2	-5.07	115.86	118.90
26	14	1909	C	N3-C2-O2	-5.07	118.35	121.90
26	14	1926	U	N1-C2-N3	5.07	117.94	114.90
26	1H	468	G	OP1-P-OP2	-5.07	111.99	119.60
26	1H	916	G	O5'-P-OP2	5.07	116.79	110.70
26	1H	1213	A	C2-N3-C4	-5.07	108.06	110.60
26	14	510	C	OP1-P-OP2	5.07	127.21	119.60
26	1H	940	G	C5-C6-O6	-5.07	125.56	128.60
26	1H	1352	U	N1-C2-O2	-5.07	119.25	122.80
26	1H	1491	G	C5-C6-N1	-5.07	108.97	111.50
26	1H	2319	G	N3-C4-N9	5.07	129.04	126.00
26	1H	2641	G	C6-C5-N7	-5.07	127.36	130.40
27	16	41	U	N3-C4-O4	-5.07	115.85	119.40
1	1G	691	G	C5-C6-O6	-5.07	125.56	128.60
26	14	1955	U	C2-N3-C4	-5.07	123.96	127.00
27	1J	84	C	C5-C6-N1	-5.07	118.46	121.00
23	2K	5	G	N3-C4-C5	5.07	131.13	128.60
26	1H	177	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	2393	A	O5'-P-OP1	-5.07	101.14	105.70
26	1H	2512	C	C6-N1-C2	5.07	122.33	120.30
26	14	488	G	O5'-P-OP2	-5.07	101.14	105.70
1	13	306	G	C6-C5-N7	5.07	133.44	130.40
1	13	768	A	N1-C2-N3	5.07	131.83	129.30
26	1H	9	U	C2-N1-C1'	5.07	123.78	117.70
26	1H	1304	C	C2-N1-C1'	-5.07	113.22	118.80
26	1H	1909	C	OP1-P-O3'	5.07	116.35	105.20
1	1G	52	G	N1-C6-O6	-5.07	116.86	119.90
1	1G	1390	U	C5-C4-O4	5.07	128.94	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	962	G	N1-C6-O6	5.07	122.94	119.90
26	14	1029	A	N1-C2-N3	-5.07	126.77	129.30
26	14	1314	C	C4-C5-C6	-5.07	114.87	117.40
26	14	2242	G	C8-N9-C4	-5.07	104.37	106.40
26	14	2275	C	N3-C2-O2	-5.07	118.35	121.90
1	13	319	G	N1-C6-O6	-5.07	116.86	119.90
1	13	1096	C	C5-C6-N1	5.07	123.53	121.00
26	1H	649	G	O5'-P-OP2	-5.07	101.14	105.70
26	1H	691	C	N1-C2-O2	-5.07	115.86	118.90
26	1H	912	C	N3-C4-N4	5.07	121.55	118.00
26	1H	1281	G	C5-C6-N1	5.07	114.03	111.50
26	1H	1610	A	C4-C5-N7	5.07	113.23	110.70
26	1H	2712	U	C2-N3-C4	-5.07	123.96	127.00
1	1G	1200	C	N3-C2-O2	-5.07	118.35	121.90
2	12	196	LEU	CA-CB-CG	5.07	126.95	115.30
26	14	1594	G	O5'-P-OP2	5.07	116.78	110.70
26	14	1612	C	C5-C4-N4	-5.07	116.66	120.20
26	14	1617	C	N1-C2-O2	-5.07	115.86	118.90
26	14	2430	A	C4-C5-N7	5.07	113.23	110.70
26	14	2596	U	O5'-P-OP1	-5.07	101.14	105.70
26	1H	606	U	C5-C6-N1	-5.06	120.17	122.70
26	1H	1926	U	C5-C4-O4	5.06	128.94	125.90
26	1H	2491	U	C4-C5-C6	-5.06	116.66	119.70
26	14	781	A	O5'-P-OP1	-5.06	101.14	105.70
26	14	2330	G	C5-C6-O6	-5.06	125.56	128.60
27	1J	78	A	N1-C6-N6	5.06	121.64	118.60
1	13	857	C	C4-C5-C6	5.06	119.93	117.40
24	3K	36	A	P-O3'-C3'	5.06	125.77	119.70
26	1H	1144	G	C5-C6-O6	-5.06	125.56	128.60
26	14	470	A	C4-C5-N7	5.06	113.23	110.70
26	14	1642	G	N1-C6-O6	-5.06	116.86	119.90
26	14	1977	A	N1-C2-N3	5.06	131.83	129.30
26	14	2419	U	OP1-P-O3'	5.06	116.34	105.20
26	1H	655	A	N1-C2-N3	5.06	131.83	129.30
26	1H	860	U	O5'-P-OP2	-5.06	101.14	105.70
26	14	236	C	C6-N1-C2	5.06	122.32	120.30
26	14	921	G	N7-C8-N9	5.06	115.63	113.10
1	13	738	C	C5-C6-N1	5.06	123.53	121.00
26	1H	101	G	C8-N9-C4	5.06	108.42	106.40
26	1H	255	A	C5-C6-N6	-5.06	119.65	123.70
26	1H	1398	C	OP2-P-O3'	5.06	116.33	105.20
26	1H	2256	G	N3-C2-N2	5.06	123.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2595	G	C5-C6-N1	5.06	114.03	111.50
1	1G	221	C	C5-C6-N1	5.06	123.53	121.00
1	1G	481	G	C8-N9-C1'	-5.06	120.42	127.00
26	14	1698	A	C4-C5-C6	5.06	119.53	117.00
26	14	2048	G	N1-C6-O6	-5.06	116.86	119.90
26	14	2417	C	O5'-P-OP2	-5.06	101.15	105.70
26	14	2447	G	C2-N3-C4	-5.06	109.37	111.90
1	13	772	U	C5-C4-O4	5.06	128.93	125.90
1	13	1505	G	O5'-P-OP1	-5.06	101.15	105.70
26	1H	262	A	N9-C4-C5	-5.06	103.78	105.80
26	1H	858	U	OP2-P-O3'	5.06	116.33	105.20
26	1H	907	U	C5-C6-N1	-5.06	120.17	122.70
26	1H	949	C	C6-N1-C2	5.06	122.32	120.30
26	1H	1934	C	N3-C2-O2	5.06	125.44	121.90
1	1G	354	G	C4-C5-N7	5.06	112.82	110.80
26	14	46	C	N3-C4-N4	-5.06	114.46	118.00
26	14	1085	A	P-O3'-C3'	5.06	125.77	119.70
28	19	41	GLY	C-N-CA	-5.06	111.68	122.30
1	13	266	G	C8-N9-C4	-5.06	104.38	106.40
26	1H	696	G	N1-C2-N2	-5.06	111.65	116.20
26	1H	906	G	N9-C4-C5	5.06	107.42	105.40
1	1G	1247	U	C5-C6-N1	5.06	125.23	122.70
26	14	1790	C	N3-C2-O2	5.06	125.44	121.90
26	14	2600	A	N1-C6-N6	-5.06	115.57	118.60
26	14	2723	C	N1-C2-O2	-5.06	115.87	118.90
1	13	975	A	N1-C6-N6	5.05	121.63	118.60
1	13	1414	U	OP2-P-O3'	5.05	116.32	105.20
26	1H	1365	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	1379	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	1389	G	OP1-P-O3'	5.05	116.32	105.20
26	1H	1425	G	C5-C6-O6	-5.05	125.57	128.60
26	1H	1599	C	N3-C4-N4	-5.05	114.46	118.00
26	1H	2455	G	N1-C2-N3	5.05	126.93	123.90
26	1H	2823	A	N7-C8-N9	5.05	116.33	113.80
25	4L	14	A	C8-N9-C4	5.05	107.82	105.80
26	14	2053	G	C2-N3-C4	5.05	114.43	111.90
1	13	571	U	O5'-P-OP2	5.05	116.76	110.70
26	1H	1123	C	N3-C4-C5	5.05	123.92	121.90
26	1H	1971	A	C5-C6-N6	-5.05	119.66	123.70
24	3L	16	U	N1-C2-O2	5.05	126.34	122.80
26	14	462	C	N1-C2-N3	5.05	122.74	119.20
26	14	570	G	C4-C5-C6	5.05	121.83	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	858	G	C8-N9-C4	-5.05	104.38	106.40
26	1H	270(C)	C	C6-N1-C2	5.05	122.32	120.30
26	1H	536	A	C6-N1-C2	-5.05	115.57	118.60
26	1H	2611	U	N3-C4-O4	-5.05	115.86	119.40
42	D8	40	LEU	CA-CB-CG	5.05	126.92	115.30
26	14	621	A	C6-C5-N7	-5.05	128.76	132.30
26	14	984	A	C8-N9-C4	5.05	107.82	105.80
26	14	1247	A	O5'-P-OP1	5.05	116.76	110.70
26	14	1551	C	C2-N3-C4	5.05	122.43	119.90
1	13	1214	C	C2-N1-C1'	-5.05	113.25	118.80
26	1H	586	A	N7-C8-N9	-5.05	111.28	113.80
26	1H	663	G	C4-N9-C1'	5.05	133.06	126.50
26	1H	1569	A	C8-N9-C4	-5.05	103.78	105.80
1	1G	265	G	C8-N9-C4	5.05	108.42	106.40
1	1G	341	C	C6-N1-C2	5.05	122.32	120.30
26	14	2238	G	N3-C2-N2	-5.05	116.36	119.90
26	14	2256	G	C6-C5-N7	-5.05	127.37	130.40
26	1H	1708	C	C5-C4-N4	-5.05	116.67	120.20
26	1H	2039	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	2377	A	N3-C4-C5	5.05	130.33	126.80
26	14	573	G	C2-N3-C4	5.05	114.42	111.90
1	13	558	G	C5-C6-N1	-5.05	108.98	111.50
1	13	690	G	C5-C6-O6	-5.05	125.57	128.60
1	13	1286	A	N7-C8-N9	5.05	116.32	113.80
26	1H	77	C	N3-C4-N4	5.05	121.53	118.00
26	1H	734	A	N7-C8-N9	5.05	116.32	113.80
26	1H	1550	C	N3-C2-O2	5.05	125.43	121.90
26	1H	1839	G	N1-C6-O6	5.05	122.93	119.90
26	1H	2246	G	C6-C5-N7	5.05	133.43	130.40
26	1H	2447	G	P-O3'-C3'	5.05	125.76	119.70
26	1H	2456	C	N3-C4-N4	5.05	121.53	118.00
26	1H	2772	C	C5-C6-N1	-5.05	118.48	121.00
52	N8	40	LYS	C-N-CD	5.05	139.00	128.40
1	1G	422	C	O4'-C1'-N1	5.05	112.24	108.20
9	82	128	ARG	NE-CZ-NH1	5.05	122.82	120.30
26	14	2039	C	C2-N1-C1'	5.05	124.35	118.80
1	13	299	G	N3-C4-N9	-5.04	122.97	126.00
26	1H	138	G	N1-C6-O6	-5.04	116.87	119.90
26	1H	2426	A	O5'-P-OP2	-5.04	101.16	105.70
27	1J	7	G	C4-C5-N7	5.04	112.82	110.80
1	13	20	U	O5'-P-OP2	-5.04	101.16	105.70
26	1H	536	A	O5'-P-OP1	5.04	116.75	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1256	G	N1-C6-O6	5.04	122.93	119.90
26	1H	1317	A	O5'-P-OP2	-5.04	101.16	105.70
26	1H	1605	C	C2-N3-C4	-5.04	117.38	119.90
26	1H	2070	G	N9-C4-C5	-5.04	103.38	105.40
26	14	747	U	C6-N1-C2	5.04	124.03	121.00
26	14	1648	C	C4-C5-C6	5.04	119.92	117.40
1	13	1082	G	N1-C6-O6	5.04	122.92	119.90
26	1H	1554	A	OP1-P-O3'	5.04	116.29	105.20
26	1H	2655	G	C8-N9-C1'	5.04	133.56	127.00
41	C8	74	LEU	CA-CB-CG	5.04	126.90	115.30
26	14	1262	A	N1-C6-N6	5.04	121.62	118.60
26	14	2047	U	N3-C4-C5	5.04	117.62	114.60
26	14	2435	A	C5-C6-N1	5.04	120.22	117.70
1	13	758	G	N3-C4-C5	5.04	131.12	128.60
26	1H	786	C	N3-C4-N4	-5.04	114.47	118.00
26	1H	2566	A	P-O3'-C3'	5.04	125.75	119.70
1	1G	44	G	C4-N9-C1'	5.04	133.05	126.50
26	14	949	C	OP2-P-O3'	5.04	116.29	105.20
26	14	970	C	C2-N1-C1'	-5.04	113.26	118.80
26	14	2445	G	C8-N9-C4	-5.04	104.38	106.40
26	1H	908	C	C4-C5-C6	5.04	119.92	117.40
26	1H	1704	G	C8-N9-C4	5.04	108.42	106.40
26	1H	1947	C	N3-C4-N4	5.04	121.53	118.00
26	1H	2197	U	OP2-P-O3'	5.04	116.29	105.20
27	16	8	U	O4'-C1'-N1	5.04	112.23	108.20
1	1G	1025	U	C2-N1-C1'	5.04	123.75	117.70
26	14	621	A	C6-N1-C2	5.04	121.62	118.60
26	14	1349	A	C2-N3-C4	-5.04	108.08	110.60
26	14	2318	G	N7-C8-N9	5.04	115.62	113.10
27	1J	83	G	C5-C6-N1	-5.04	108.98	111.50
26	1H	946	G	C4-C5-N7	-5.04	108.78	110.80
26	1H	1380	G	N3-C4-N9	5.04	129.02	126.00
26	14	560	C	C6-N1-C2	5.04	122.31	120.30
26	14	1900	A	C6-C5-N7	-5.04	128.77	132.30
26	14	2014	A	C8-N9-C4	5.04	107.81	105.80
1	13	1488	G	C4-C5-C6	5.04	121.82	118.80
26	1H	802	A	C5-N7-C8	-5.04	101.38	103.90
26	1H	2332	U	OP1-P-OP2	-5.04	112.05	119.60
26	1H	2457	U	N3-C2-O2	5.04	125.72	122.20
26	14	270(Y)	G	C5-C6-O6	5.04	131.62	128.60
26	14	2444	G	C2-N3-C4	-5.04	109.38	111.90
1	13	788	U	N3-C2-O2	-5.03	118.68	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1298	C	C4-C5-C6	-5.03	114.88	117.40
26	1H	2417	C	OP2-P-O3'	5.03	116.27	105.20
26	14	2249	U	C5-C6-N1	5.03	125.22	122.70
1	1G	894	G	C5-C6-O6	-5.03	125.58	128.60
26	14	631	A	N7-C8-N9	-5.03	111.28	113.80
1	13	816	A	N9-C4-C5	5.03	107.81	105.80
26	1H	586	A	C6-C5-N7	5.03	135.82	132.30
26	1H	1895	C	N1-C2-O2	-5.03	115.88	118.90
26	1H	2274	A	OP2-P-O3'	5.03	116.27	105.20
1	1G	505	G	C4-C5-N7	5.03	112.81	110.80
26	14	2321	G	C4-N9-C1'	5.03	133.04	126.50
26	1H	223	A	N1-C6-N6	5.03	121.62	118.60
26	1H	530	G	C8-N9-C1'	5.03	133.54	127.00
26	1H	1373	A	OP1-P-OP2	-5.03	112.06	119.60
26	1H	2491	U	C6-N1-C2	5.03	124.02	121.00
26	14	2373	G	N3-C2-N2	-5.03	116.38	119.90
1	13	191	G	C8-N9-C4	-5.03	104.39	106.40
1	13	660	G	O5'-P-OP2	5.03	116.73	110.70
26	1H	130	C	C6-N1-C1'	-5.03	114.77	120.80
26	1H	500	G	O5'-P-OP1	-5.03	101.18	105.70
26	1H	1487	G	OP1-P-O3'	5.03	116.26	105.20
26	14	453	C	C5-C6-N1	-5.03	118.49	121.00
26	14	675	A	C5-C6-N6	-5.03	119.68	123.70
26	14	1298	C	C5-C6-N1	5.03	123.51	121.00
26	1H	37	C	C4-C5-C6	5.03	119.91	117.40
26	1H	1398	C	OP1-P-OP2	-5.03	112.06	119.60
26	1H	1672	C	N3-C2-O2	5.03	125.42	121.90
26	1H	1894	C	N3-C4-C5	-5.03	119.89	121.90
26	1H	2352	A	O5'-P-OP1	-5.03	101.18	105.70
26	1H	2363	C	C2-N1-C1'	-5.03	113.27	118.80
26	14	629	G	N1-C6-O6	-5.03	116.88	119.90
26	14	980	A	C4-C5-C6	5.03	119.51	117.00
26	14	1380	G	O5'-P-OP2	-5.03	101.18	105.70
26	14	2036	C	O5'-P-OP1	5.03	116.73	110.70
26	14	2420	C	N3-C4-C5	5.03	123.91	121.90
26	1H	800	A	N7-C8-N9	-5.02	111.29	113.80
26	1H	906	G	C5-C6-O6	5.02	131.61	128.60
26	1H	1697	G	OP1-P-O3'	5.02	116.25	105.20
26	14	127	A	C6-N1-C2	-5.02	115.58	118.60
26	14	1914	C	N3-C2-O2	-5.02	118.38	121.90
1	13	781	A	C8-N9-C4	5.02	107.81	105.80
1	13	812	C	C4-C5-C6	5.02	119.91	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1522	U	C5-C6-N1	-5.02	120.19	122.70
26	1H	642	G	N3-C4-N9	-5.02	122.99	126.00
26	1H	827	U	N3-C2-O2	5.02	125.72	122.20
26	1H	1278	A	C8-N9-C4	5.02	107.81	105.80
1	1G	175	C	C5-C6-N1	5.02	123.51	121.00
22	1L	34	G	C4-N9-C1'	5.02	133.03	126.50
26	14	213	A	N3-C4-C5	5.02	130.32	126.80
26	14	214	G	N7-C8-N9	5.02	115.61	113.10
26	14	479	A	C5-C6-N6	5.02	127.72	123.70
26	14	778	G	O5'-P-OP2	-5.02	101.18	105.70
26	14	811	U	C5-C6-N1	-5.02	120.19	122.70
26	14	1482	U	C6-N1-C1'	5.02	128.23	121.20
26	14	1598	C	OP1-P-OP2	-5.02	112.07	119.60
26	14	2054	A	N7-C8-N9	5.02	116.31	113.80
26	14	2555	U	N1-C2-O2	-5.02	119.28	122.80
26	14	2642	G	C5-C6-O6	-5.02	125.59	128.60
26	1H	1010	A	OP2-P-O3'	5.02	116.25	105.20
26	14	2426	A	C5-N7-C8	-5.02	101.39	103.90
1	13	540	G	O5'-P-OP2	-5.02	101.18	105.70
1	13	813	U	N3-C4-C5	5.02	117.61	114.60
26	1H	180	G	C4-C5-N7	5.02	112.81	110.80
26	1H	375	C	O5'-P-OP1	5.02	116.72	110.70
26	1H	683	C	C4-C5-C6	-5.02	114.89	117.40
26	1H	827	U	C6-N1-C2	5.02	124.01	121.00
26	1H	2275	C	O4'-C1'-N1	-5.02	104.18	108.20
26	1H	2518	A	N3-C4-C5	5.02	130.31	126.80
26	1H	2763	G	N9-C4-C5	-5.02	103.39	105.40
1	1G	913	A	C8-N9-C4	-5.02	103.79	105.80
26	14	947	G	N3-C4-N9	-5.02	122.99	126.00
26	14	1958	C	N3-C2-O2	5.02	125.41	121.90
26	14	2225	A	N9-C1'-C2'	-5.02	106.48	112.00
26	14	2615	U	N3-C2-O2	-5.02	118.69	122.20
26	1H	866	A	N1-C6-N6	5.02	121.61	118.60
26	1H	935	C	C5-C6-N1	-5.02	118.49	121.00
26	1H	1780	A	OP1-P-OP2	-5.02	112.08	119.60
26	1H	1781	C	N3-C4-C5	5.02	123.91	121.90
27	16	81	G	C2-N3-C4	-5.02	109.39	111.90
1	1G	1237	C	C5-C6-N1	5.02	123.51	121.00
1	1G	1502	A	C8-N9-C4	-5.02	103.79	105.80
26	14	665	C	C6-N1-C2	5.02	122.31	120.30
26	14	2296	U	OP1-P-O3'	5.02	116.24	105.20
1	13	266	G	C6-C5-N7	-5.02	127.39	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	435	C	N3-C2-O2	-5.02	118.39	121.90
26	1H	593	G	C5-C6-O6	-5.02	125.59	128.60
26	1H	2751	G	C6-C5-N7	-5.02	127.39	130.40
26	14	188	G	C8-N9-C4	5.02	108.41	106.40
26	14	514	A	C5-N7-C8	5.02	106.41	103.90
26	14	1893	C	C6-N1-C2	-5.02	118.29	120.30
26	14	1939	U	C2-N3-C4	-5.02	123.99	127.00
26	14	2011	U	C2-N1-C1'	-5.02	111.68	117.70
1	13	909	A	C5-C6-N1	-5.01	115.19	117.70
23	2K	68	C	C5-C4-N4	-5.01	116.69	120.20
26	1H	132	G	C5-N7-C8	-5.01	101.79	104.30
26	1H	212	G	C8-N9-C4	5.01	108.41	106.40
26	1H	404	C	N1-C2-O2	-5.01	115.89	118.90
26	1H	919	G	C6-N1-C2	-5.01	122.09	125.10
26	1H	992	C	C5-C6-N1	5.01	123.51	121.00
26	1H	1300	U	OP2-P-O3'	-5.01	94.17	105.20
26	1H	1681	G	C6-C5-N7	-5.01	127.39	130.40
26	1H	2040	C	C6-N1-C2	5.01	122.31	120.30
1	1G	22	G	C8-N9-C4	-5.01	104.39	106.40
1	1G	865	A	C8-N9-C4	-5.01	103.79	105.80
1	1G	1400	C	N1-C2-O2	5.01	121.91	118.90
1	1G	1524	C	C2-N3-C4	-5.01	117.39	119.90
18	9A	31	LEU	CA-CB-CG	5.01	126.83	115.30
26	14	240	G	N3-C4-C5	5.01	131.11	128.60
26	14	468	G	N3-C2-N2	-5.01	116.39	119.90
26	14	2315	G	OP1-P-O3'	5.01	116.23	105.20
26	1H	205	G	OP2-P-O3'	5.01	116.23	105.20
26	1H	1368	G	N3-C4-C5	-5.01	126.09	128.60
26	1H	2219	G	O5'-P-OP1	-5.01	101.19	105.70
1	1G	1300	G	P-O3'-C3'	5.01	125.72	119.70
26	14	762	U	OP1-P-O3'	5.01	116.23	105.20
26	14	1210	A	N7-C8-N9	5.01	116.31	113.80
26	14	2011	U	O5'-P-OP1	-5.01	101.19	105.70
1	13	1251	A	N1-C6-N6	-5.01	115.59	118.60
26	1H	145	G	N1-C6-O6	5.01	122.91	119.90
26	1H	623	G	C8-N9-C4	5.01	108.41	106.40
26	1H	2247	A	C5-C6-N1	-5.01	115.19	117.70
26	1H	2700	C	C5-C6-N1	-5.01	118.49	121.00
28	11	131	LEU	CB-CG-CD2	-5.01	102.48	111.00
1	1G	310	G	C8-N9-C1'	5.01	133.51	127.00
1	1G	497	U	N1-C2-O2	5.01	126.31	122.80
1	1G	769	G	N3-C4-C5	-5.01	126.09	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	660	G	N1-C6-O6	-5.01	116.89	119.90
26	14	2544	G	C4-C5-N7	5.01	112.80	110.80
1	13	496	A	OP2-P-O3'	5.01	116.22	105.20
1	13	503	C	C2-N1-C1'	5.01	124.31	118.80
26	1H	111	A	N1-C6-N6	-5.01	115.59	118.60
26	1H	219	G	C4-C5-N7	-5.01	108.80	110.80
26	1H	665	C	C5-C6-N1	-5.01	118.50	121.00
26	1H	1308	A	N7-C8-N9	5.01	116.31	113.80
26	1H	2071	A	C6-C5-N7	-5.01	128.79	132.30
24	3L	4	C	C6-N1-C2	-5.01	118.30	120.30
26	14	456	C	C5-C6-N1	-5.01	118.50	121.00
26	14	589	C	N3-C4-C5	-5.01	119.90	121.90
26	14	782	A	O5'-P-OP1	-5.01	101.19	105.70
26	14	1602	U	C4-C5-C6	5.01	122.70	119.70
1	13	1306	A	N1-C6-N6	5.01	121.61	118.60
1	13	1388	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	1977	A	OP1-P-O3'	5.01	116.22	105.20
26	1H	2502	G	C4-N9-C1'	5.01	133.01	126.50
38	98	4	LEU	CA-CB-CG	-5.01	103.78	115.30
1	1G	509	A	C5-N7-C8	-5.01	101.40	103.90
26	1H	973	A	C5-C6-N1	-5.01	115.20	117.70
26	1H	1162	G	C5-N7-C8	-5.01	101.80	104.30
26	1H	1245	G	N3-C4-C5	-5.01	126.10	128.60
26	1H	1537	C	C5-C6-N1	5.01	123.50	121.00
1	1G	111	G	C6-C5-N7	-5.01	127.40	130.40
1	1G	702	A	O5'-P-OP2	-5.01	101.19	105.70
1	1G	1056	U	N1-C2-O2	-5.01	119.30	122.80
26	14	138	G	C4-N9-C1'	5.01	133.01	126.50
26	14	1636	C	N3-C4-C5	-5.01	119.90	121.90
26	14	1798	U	O5'-P-OP2	-5.01	101.19	105.70
26	14	1950	G	C6-C5-N7	-5.01	127.40	130.40
26	14	2445	G	N3-C4-C5	-5.01	126.10	128.60
26	14	2820	A	OP1-P-O3'	5.01	116.22	105.20
26	1H	19	C	C6-N1-C2	5.00	122.30	120.30
26	1H	1280	G	N9-C1'-C2'	-5.00	106.49	112.00
26	1H	1319	G	OP1-P-O3'	5.00	116.21	105.20
26	14	186	G	C6-N1-C2	-5.00	122.10	125.10
1	13	312	C	C6-N1-C2	-5.00	118.30	120.30
1	13	1530	G	C4-N9-C1'	-5.00	120.00	126.50
26	1H	579	G	OP2-P-O3'	5.00	116.21	105.20
26	1H	657	U	C2-N3-C4	-5.00	124.00	127.00
26	1H	1355	G	N3-C2-N2	5.00	123.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	791	C	OP2-P-O3'	5.00	116.21	105.20
26	14	1204	A	N1-C6-N6	5.00	121.60	118.60
26	14	1668	A	C8-N9-C4	5.00	107.80	105.80
26	14	2385	C	N3-C4-N4	5.00	121.50	118.00
26	14	2477	C	N1-C2-O2	5.00	121.90	118.90
26	14	2574	G	C5-C6-O6	-5.00	125.60	128.60
27	1J	94	C	N1-C2-O2	5.00	121.90	118.90
1	13	528	C	C6-N1-C2	5.00	122.30	120.30
1	13	713	G	OP1-P-O3'	5.00	116.20	105.20
1	13	800	G	C6-C5-N7	-5.00	127.40	130.40
1	13	1406	U	OP2-P-O3'	5.00	116.20	105.20
26	1H	734	A	OP1-P-OP2	5.00	127.10	119.60
26	1H	867	C	C6-N1-C2	5.00	122.30	120.30
26	1H	1202	C	OP1-P-OP2	5.00	127.10	119.60
26	1H	1299	G	C6-C5-N7	-5.00	127.40	130.40
26	1H	1357	U	O5'-P-OP2	-5.00	101.20	105.70
24	3L	16	U	C2-N1-C1'	5.00	123.70	117.70
26	14	373	U	C2-N1-C1'	5.00	123.70	117.70
26	14	802	A	N1-C2-N3	5.00	131.80	129.30
26	14	1193	G	N1-C6-O6	5.00	122.90	119.90
26	14	2385	C	N1-C2-O2	-5.00	115.90	118.90
36	35	62	LEU	CB-CA-C	-5.00	100.70	110.20

There are no chirality outliers.

All (142) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	197	GLY	Peptide
2	12	22	LYS	Peptide
34	15	41	ASP	Peptide
34	15	50	ASP	Peptide
28	19	237	GLU	Peptide
28	19	271	ILE	Peptide
28	19	32	SER	Peptide
28	19	37	LEU	Peptide
10	1A	55	LYS	Peptide
10	1A	87	THR	Peptide
2	1E	15	VAL	Peptide
29	21	56	PRO	Peptide
29	21	57	LYS	Peptide
29	21	82	ARG	Peptide
29	29	139	GLY	Peptide

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Mol	Chain	Res	Type	Group
29	29	186	GLY	Peptide
29	29	201	THR	Peptide
29	29	65	GLY	Peptide
11	2A	126	ARG	Peptide
11	2A	49	GLY	Peptide
30	31	133	ASN	Peptide
4	32	152	SER	Peptide
4	32	28	SER	Peptide
4	32	30	LYS	Peptide
4	32	33	MET	Peptide
36	35	110	TYR	Peptide
36	35	36	LYS	Peptide
36	35	64	LYS	Peptide
36	35	70	GLN	Peptide
30	39	127	GLU	Peptide
30	39	166	ALA	Peptide
30	39	20	LEU	Peptide
30	39	24	LEU	Peptide
30	39	26	ALA	Peptide
30	39	85	GLY	Peptide
12	3A	18	VAL	Peptide
4	3E	31	CYS	Peptide
12	3I	87	GLY	Peptide
31	41	85	GLY	Peptide
31	41	95	ARG	Peptide
37	45	134	ARG	Peptide
37	45	25	ASP	Peptide
37	45	26	TYR	Peptide
37	45	79	LEU	Peptide
37	45	86	GLY	Peptide
37	45	87	LYS	Peptide
31	49	13	GLU	Peptide
38	55	106	GLY	Peptide
34	58	56	ASN	Peptide
34	58	95	PRO	Peptide
32	59	155	SER	Peptide
32	59	89	ILE	Peptide
32	59	90	LYS	Peptide
33	61	11	ASN	Peptide
33	61	114	LEU	Peptide
33	61	134	PRO	Peptide
33	61	143	SER	Peptide

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Mol	Chain	Res	Type	Group
33	61	82	ARG	Peptide
39	65	59	LYS	Peptide
39	65	87	PHE	Peptide
35	68	27	GLY	Peptide
33	69	101	LEU	Peptide
33	69	112	LYS	Peptide
15	6I	87	ILE	Peptide
40	75	4	GLY	Peptide
36	78	11	GLY	Peptide
36	78	5	ASP	Peptide
9	82	117	HIS	Peptide
9	82	118	LYS	Peptide
41	85	72	HIS	Peptide
41	85	98	LEU	Peptide
37	88	58	PHE	Peptide
37	88	78	PRO	Peptide
42	95	44	LYS	Peptide
38	98	1	MET	Peptide
38	98	44	LEU	Peptide
38	98	8	ARG	Peptide
43	A5	109	GLU	Peptide
43	A5	43	GLY	Peptide
43	A5	93	ALA	Peptide
39	A8	106	ARG	Peptide
39	A8	110	LEU	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
44	B5	24	GLY	Peptide
44	B5	61	GLY	Peptide
40	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
45	C5	100	ALA	Peptide
45	C5	102	CYS	Peptide
45	C5	81	LYS	Peptide
41	C8	90	VAL	Peptide
41	C8	92	ARG	Peptide
46	D5	142	SER	Peptide
46	D5	61	LEU	Peptide
48	F5	85	LEU	Peptide
44	F8	24	GLY	Peptide

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Mol	Chain	Res	Type	Group
49	G5	15	LYS	Peptide
49	G5	17	SER	Peptide
49	G5	43	GLN	Peptide
45	G8	5	MET	Peptide
45	G8	53	PRO	Peptide
45	G8	54	LYS	Peptide
46	H8	59	LEU	Peptide
46	H8	63	ASP	Peptide
51	I5	26	SER	Peptide
51	I5	36	CYS	Peptide
47	I8	83	PRO	Peptide
47	I8	9	SER	Peptide
48	J8	75	GLU	Peptide
48	J8	85	LEU	Peptide
53	K5	16	CYS	Peptide
53	K5	43	CYS	Peptide
53	K5	44	ARG	Peptide
49	K8	17	SER	Peptide
49	K8	46	GLN	Peptide
49	K8	5	GLU	Peptide
55	M5	30	ARG	Peptide
55	M5	33	ASN	Peptide
55	M5	40	GLU	Peptide
51	M8	38	LYS	Peptide
51	M8	40	HIS	Peptide
52	N8	41	PRO	Peptide
52	N8	5	PRO	Peptide
53	O8	15	GLU	Peptide
53	O8	27	LYS	Peptide
53	O8	44	ARG	Peptide
55	Q8	18	ALA	Peptide
55	Q8	19	SER	Peptide
55	Q8	27	THR	Peptide
55	Q8	33	ASN	Peptide
55	Q8	37	SER	Peptide
55	Q8	49	VAL	Peptide
55	Q8	51	ALA	Peptide
55	Q8	52	LYS	Peptide
55	Q8	56	GLU	Peptide
55	Q8	57	ARG	Peptide
55	Q8	6	THR	Peptide
55	Q8	7	HIS	Peptide

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Mol	Chain	Res	Type	Group
55	Q8	9	GLY	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	32207	0	16256	882	0
1	1G	32182	0	16244	875	0
2	12	1924	0	1975	85	0
2	1E	1924	0	1975	103	0
3	22	1612	0	1677	79	0
3	2E	1605	0	1668	65	0
4	32	1703	0	1763	94	0
4	3E	1703	0	1762	100	0
5	42	1155	0	1213	62	0
5	4E	1155	0	1213	54	0
6	52	843	0	857	44	0
6	5E	843	0	857	39	0
7	62	1257	0	1296	62	0
7	6E	1257	0	1296	49	0
8	72	1116	0	1177	57	0
8	7E	1116	0	1177	64	0
9	82	1010	0	1037	76	0
9	8E	1010	0	1037	61	0
10	1A	801	0	849	43	0
10	1I	801	0	849	62	0
11	2A	885	0	904	40	0
11	2I	885	0	904	44	0
12	3A	975	0	1062	47	0
12	3I	975	0	1062	43	0
13	4A	933	0	992	66	0
13	4I	938	0	997	50	0
14	5A	476	0	511	30	0
14	5I	492	0	529	29	0
15	6A	734	0	771	25	0
15	6I	734	0	771	29	0
16	7A	705	0	725	43	0
16	7I	705	0	725	54	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	8A	834	0	904	25	0
17	8I	834	0	904	51	0
18	9A	591	0	662	27	0
18	9I	591	0	662	29	0
19	AA	624	0	636	47	0
19	AI	647	0	665	57	0
20	BA	763	0	861	45	0
20	BI	763	0	861	44	0
21	1B	217	0	234	11	0
21	1F	217	0	234	13	0
22	1K	1626	0	834	28	0
22	1L	1626	0	834	41	0
23	2K	1646	0	845	38	0
23	2L	1646	0	845	39	0
24	3K	1619	0	822	52	0
24	3L	1619	0	822	60	0
25	4K	301	0	153	11	0
25	4L	131	0	66	5	0
26	14	62647	0	31580	1604	1
26	1H	62707	0	31607	1779	1
27	16	2617	0	1328	71	0
27	1J	2617	0	1328	99	0
28	11	2120	0	2197	122	0
28	19	2120	0	2197	117	0
29	21	1568	0	1634	107	0
29	29	1568	0	1634	117	0
30	31	1585	0	1632	104	0
30	39	1627	0	1680	101	0
31	41	1473	0	1535	77	0
31	49	1473	0	1535	70	0
32	51	1336	0	1418	94	0
32	59	1307	0	1382	73	0
33	61	1136	0	1223	63	0
33	69	1136	0	1223	56	0
34	15	1104	0	1180	55	0
34	58	1104	0	1180	70	0
35	25	933	0	996	48	0
35	68	933	0	996	41	0
36	35	1145	0	1228	113	0
36	78	1145	0	1228	119	0
37	45	1122	0	1179	84	0
37	88	1087	0	1129	83	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	55	960	0	1021	65	0
38	98	968	0	1033	72	0
39	65	882	0	943	62	0
39	A8	882	0	943	67	0
40	75	1141	0	1202	67	0
40	B8	1141	0	1202	76	0
41	85	964	0	1022	54	0
41	C8	964	0	1022	65	0
42	95	779	0	852	66	0
42	D8	779	0	852	40	0
43	A5	900	0	964	34	0
43	E8	900	0	964	50	0
44	B5	730	0	780	32	0
44	F8	742	0	803	56	0
45	C5	794	0	884	58	0
45	G8	791	0	882	57	0
46	D5	1428	0	1454	88	0
46	H8	1397	0	1430	85	0
47	E5	613	0	633	48	0
47	I8	627	0	642	34	0
48	F5	763	0	848	32	0
48	J8	763	0	848	38	0
49	G5	558	0	610	32	1
49	K8	563	0	612	41	1
50	H5	469	0	518	16	0
50	L8	452	0	503	33	0
51	I5	515	0	514	40	0
51	M8	533	0	526	48	0
52	J5	459	0	480	32	0
52	N8	454	0	475	33	0
53	K5	389	0	404	21	0
53	O8	389	0	404	31	0
54	L5	398	0	441	19	0
54	P8	418	0	467	22	0
55	M5	477	0	540	47	0
55	Q8	480	0	549	132	0
56	11	4	0	0	0	0
56	13	151	0	0	0	0
56	14	389	0	0	0	0
56	16	13	0	0	0	0
56	1G	103	0	0	0	0
56	1H	529	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1J	9	0	0	0	0
56	1K	2	0	0	0	0
56	21	2	0	0	0	0
56	29	2	0	0	0	0
56	2K	3	0	0	0	0
56	2L	2	0	0	0	0
56	31	1	0	0	0	0
56	35	1	0	0	0	0
56	3E	2	0	0	0	0
56	3I	1	0	0	0	0
56	41	2	0	0	0	0
56	49	1	0	0	0	0
56	4A	1	0	0	0	0
56	5E	1	0	0	0	0
56	6A	1	0	0	0	0
56	75	1	0	0	0	0
56	78	2	0	0	0	0
56	85	1	0	0	0	0
56	88	2	0	0	0	0
56	98	1	0	0	0	0
56	AI	1	0	0	0	0
56	C5	1	0	0	0	0
56	C8	1	0	0	0	0
56	E8	1	0	0	0	0
56	F5	1	0	0	0	0
56	I8	2	0	0	0	0
56	J8	2	0	0	0	0
56	L8	1	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	32	1	0	0	0	0
57	3E	1	0	0	0	0
57	5A	1	0	0	0	0
57	5I	1	0	0	0	0
57	C5	1	0	0	0	0
57	G8	1	0	0	0	0
58	11	9	0	0	0	0
58	13	212	0	0	36	0
58	14	730	0	0	169	0
58	16	16	0	0	2	0
58	19	11	0	0	0	0
58	1G	99	0	0	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	1H	1097	0	0	264	0
58	1I	2	0	0	0	0
58	1J	12	0	0	3	0
58	1K	1	0	0	0	0
58	21	5	0	0	3	0
58	29	6	0	0	0	0
58	31	10	0	0	0	0
58	39	7	0	0	0	0
58	3E	1	0	0	0	0
58	3I	1	0	0	0	0
58	3K	1	0	0	0	0
58	4E	2	0	0	0	0
58	4K	4	0	0	0	0
58	55	1	0	0	0	0
58	58	1	0	0	0	0
58	5I	2	0	0	0	0
58	78	4	0	0	0	0
58	7A	2	0	0	0	0
58	85	1	0	0	0	0
58	8E	2	0	0	0	0
58	98	1	0	0	0	0
58	A5	1	0	0	0	0
58	BA	1	0	0	0	0
58	C8	2	0	0	1	0
58	D8	1	0	0	0	0
58	E8	2	0	0	0	0
58	G8	3	0	0	0	0
58	H5	1	0	0	0	0
58	I8	6	0	0	0	0
58	L5	1	0	0	0	0
58	L8	2	0	0	0	0
58	P8	2	0	0	0	0
58	Q8	2	0	0	0	0
All	All	300537	0	200491	9898	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 21.

All (9898) 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)
4:32:9:CYS:SG	4:32:31:CYS:HB2	1.81	1.19
26:1H:2714:G:OP2	58:1H:3670:HOH:O	1.68	1.11
36:78:19:VAL:HG12	36:78:21:ARG:H	1.15	1.07
26:14:2593:U:O4	58:14:4084:HOH:O	1.72	1.07
26:1H:1614:A:OP1	58:1H:3921:HOH:O	1.73	1.06
26:14:2685:G:O6	58:14:4089:HOH:O	1.75	1.04
26:14:450:G:O6	58:14:4019:HOH:O	1.74	1.04
26:1H:1359:A:N1	26:1H:1372:U:N3	2.06	1.03
26:14:274:G:H2'	26:14:275:G:H4'	1.41	1.02
26:1H:730:C:OP2	58:1H:3689:HOH:O	1.76	1.02
55:Q8:46:ARG:HH21	55:Q8:48:PHE:HB3	1.19	1.01
26:1H:585:G:OP2	58:1H:4547:HOH:O	1.78	1.00
26:14:1582:C:HO2'	26:14:1586:A:H8	1.03	1.00
26:1H:810:U:OP1	58:1H:3713:HOH:O	1.77	1.00
46:H8:128:VAL:HA	46:H8:161:VAL:HG11	1.44	0.99
26:14:2017:U:OP1	58:14:3577:HOH:O	1.80	0.99
26:14:2505:G:O6	58:14:3717:HOH:O	1.81	0.99
26:14:1689:A:H62	26:14:1698:A:H2	1.09	0.98
26:14:676:A:H8	26:14:2069:G:H21	1.07	0.97
39:65:85:VAL:H	39:65:110:LEU:HB3	1.29	0.97
26:1H:2593:U:O4	58:1H:3683:HOH:O	1.81	0.97
26:1H:973:A:OP2	58:1H:4553:HOH:O	1.81	0.97
26:14:1614:A:OP1	58:14:3409:HOH:O	1.83	0.97
26:14:1771:C:HO2'	26:14:1786:A:H8	0.98	0.96
26:1H:563:G:OP2	58:1H:3636:HOH:O	1.83	0.95
2:1E:104:ASN:HD21	2:1E:107:THR:HB	1.29	0.95
26:14:568:U:O4	58:14:4004:HOH:O	1.81	0.95
26:1H:135:G:N7	58:1H:4152:HOH:O	1.97	0.94
26:1H:1601:G:N7	58:1H:4021:HOH:O	1.98	0.94
26:1H:2017:U:OP1	58:1H:4641:HOH:O	1.83	0.94
26:1H:2577:A:OP1	58:1H:3800:HOH:O	1.83	0.94
1:13:1348:U:H3	1:13:1374:A:H2	1.09	0.94
26:1H:511:U:OP2	58:1H:4662:HOH:O	1.85	0.94
26:1H:2582:G:OP2	58:1H:3812:HOH:O	1.84	0.94
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.00	0.94
27:1J:80:U:H2'	27:1J:81:G:H21	1.30	0.94
26:1H:2248:C:OP2	58:1H:3722:HOH:O	1.85	0.93
26:1H:586:A:OP2	58:1H:3885:HOH:O	1.84	0.93
26:1H:2705:A:OP2	58:1H:4669:HOH:O	1.86	0.93
26:1H:751:A:OP1	58:1H:3923:HOH:O	1.85	0.92
45:C5:97:ARG:NH1	45:C5:104:GLY:O	2.02	0.92
1:13:1502:A:H2	1:13:1505:G:H1	1.11	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2298:A:H62	26:1H:2318:G:H8	1.14	0.92
26:1H:2308:G:H1	26:1H:2311:A:H2	1.10	0.92
1:13:601:C:H2'	1:13:602:A:H8	1.35	0.92
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.50	0.92
26:1H:1327:C:OP2	58:1H:3645:HOH:O	1.88	0.92
26:1H:450:G:O6	58:1H:3896:HOH:O	1.88	0.91
26:1H:567:A:OP1	58:1H:3606:HOH:O	1.88	0.91
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.32	0.91
32:59:159:GLU:O	32:59:163:TYR:OH	1.86	0.91
36:35:19:VAL:HG13	36:35:21:ARG:H	1.35	0.91
26:14:741:G:OP1	58:14:4071:HOH:O	1.88	0.91
26:1H:741:G:OP1	58:1H:3970:HOH:O	1.87	0.91
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.94	0.91
26:1H:2271:G:N7	58:1H:4245:HOH:O	2.02	0.91
26:14:323:G:HO2'	26:14:1205:U:H3	0.97	0.91
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.03	0.90
26:1H:1622:G:OP2	58:1H:4308:HOH:O	1.88	0.90
28:11:17:THR:HG22	28:11:205:VAL:H	1.36	0.90
26:14:1043:C:N3	26:14:1112:G:N2	2.20	0.90
26:14:2720:U:H3	26:14:2873:A:H2	1.19	0.90
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.54	0.90
26:14:882:G:H22	26:14:894:C:H42	1.20	0.90
1:13:1128:C:O2	1:13:1146:A:N6	2.04	0.89
31:41:21:ARG:HG2	31:41:21:ARG:HH11	1.37	0.89
26:14:1616:A:O2'	58:14:3542:HOH:O	1.88	0.89
42:95:85:LYS:HD2	42:95:86:GLY:H	1.36	0.89
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.55	0.89
37:88:82:ARG:HD2	37:88:82:ARG:N	1.85	0.89
26:1H:1997:G:OP2	58:1H:4005:HOH:O	1.89	0.89
54:P8:9:ARG:HH21	54:P8:47:ARG:HD2	1.35	0.89
26:1H:399:G:OP2	58:1H:4045:HOH:O	1.90	0.89
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.38	0.89
1:13:1506:U:O2'	58:13:1803:HOH:O	1.89	0.89
26:1H:730:C:H3'	58:1H:3687:HOH:O	1.71	0.89
26:1H:2249:U:O4	58:1H:3722:HOH:O	1.91	0.89
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.07	0.88
26:1H:1639:U:OP1	58:1H:3675:HOH:O	1.91	0.88
3:2E:60:ALA:H	3:2E:63:ASN:HB3	1.38	0.88
26:1H:1187:G:OP2	58:1H:3882:HOH:O	1.90	0.88
46:H8:30:ASN:HD22	46:H8:90:VAL:HB	1.38	0.88
1:1G:1502:A:H2	1:1G:1505:G:H1	1.20	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.55	0.88
1:13:737:A:H2'	1:13:738:C:H6	1.35	0.88
26:1H:330:A:HO2'	26:1H:331:A:H8	0.93	0.88
26:1H:265:A:H8	26:1H:266:G:H1'	1.39	0.88
26:1H:1778:U:H2'	26:1H:1784:A:N6	1.88	0.88
26:14:2701:C:H3'	26:14:2702:U:H5"	1.54	0.88
26:1H:2407:G:OP1	58:1H:4630:HOH:O	1.92	0.88
1:13:74:C:H42	1:13:96:G:H1	1.19	0.88
26:1H:1327:C:OP2	58:1H:3643:HOH:O	1.91	0.88
26:1H:620:G:H4'	26:1H:621:A:H5"	1.54	0.87
26:1H:846:C:O2'	58:1H:3757:HOH:O	1.90	0.87
26:1H:2656:U:H3	26:1H:2665:A:H2	1.22	0.87
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.38	0.87
7:62:70:LYS:HG2	7:62:96:GLN:HB3	1.57	0.87
1:1G:21:G:OP1	58:1G:1836:HOH:O	1.92	0.87
26:1H:2533:A:OP2	58:1H:4420:HOH:O	1.92	0.87
1:13:352:C:OP1	58:13:1899:HOH:O	1.91	0.87
14:5I:29:ARG:HH21	14:5I:41:ARG:HH12	1.18	0.87
26:1H:510:C:OP1	58:1H:4662:HOH:O	1.90	0.87
26:14:1997:G:OP2	58:14:3494:HOH:O	1.91	0.87
26:14:2035:G:OP1	58:14:3603:HOH:O	1.92	0.87
41:85:92:ARG:HD3	41:85:94:ASN:HB3	1.57	0.87
26:1H:882:G:H22	26:1H:894:C:H42	1.20	0.86
26:1H:1453:A:OP2	58:1H:4658:HOH:O	1.92	0.86
26:14:446:G:OP2	58:14:3695:HOH:O	1.93	0.86
26:14:654(D):G:H22	26:14:654(Q):C:H42	1.23	0.86
1:13:768:A:OP2	58:13:1840:HOH:O	1.92	0.86
26:1H:748:G:OP2	58:1H:4460:HOH:O	1.92	0.86
37:88:12:GLN:HE21	37:88:72:LYS:HG3	1.38	0.86
1:1G:521:G:O6	1:1G:528:C:N4	2.07	0.86
13:4A:81:LEU:HD13	13:4A:88:ARG:HD2	1.56	0.86
26:1H:945:A:OP1	58:1H:4113:HOH:O	1.94	0.86
26:14:751:A:OP1	58:14:3408:HOH:O	1.94	0.86
26:14:2431:U:OP1	58:14:3415:HOH:O	1.94	0.86
29:21:105:THR:OG1	29:21:199:ARG:NH2	2.08	0.86
26:14:249:C:OP1	58:14:3411:HOH:O	1.94	0.86
26:14:1019:U:H3	26:14:1142(A):A:H62	1.24	0.86
26:14:1828:G:OP1	58:14:3449:HOH:O	1.94	0.86
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.57	0.85
26:14:662:G:H5'	36:35:15:ARG:HA	1.57	0.85
26:14:1330:C:OP1	58:14:3641:HOH:O	1.94	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:83:TYR:HB3	32:51:135:GLY:H	1.40	0.85
1:13:1003:G:N2	1:13:1037:C:N3	2.23	0.85
26:1H:1253:A:N7	58:1H:3713:HOH:O	2.08	0.85
26:1H:2432:A:OP2	58:1H:3905:HOH:O	1.92	0.85
26:14:2588:G:OP1	58:14:3471:HOH:O	1.94	0.85
42:95:71:LEU:N	42:95:86:GLY:HA2	1.91	0.85
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.42	0.85
39:A8:34:HIS:HB2	39:A8:36:TYR:HE1	1.41	0.85
1:13:21:G:OP1	58:13:1836:HOH:O	1.93	0.85
26:14:1327:C:OP2	58:14:3551:HOH:O	1.93	0.85
27:1J:15:A:H5'	27:1J:16:G:H8	1.42	0.85
26:1H:2608:G:N7	58:1H:3814:HOH:O	2.08	0.85
26:14:400:G:N7	58:14:4115:HOH:O	2.10	0.85
26:14:1664:A:OP2	58:14:3497:HOH:O	1.91	0.85
26:1H:860:U:H5	26:1H:917:A:C2	1.94	0.85
26:1H:2035:G:OP1	58:1H:3793:HOH:O	1.94	0.85
26:1H:574:C:OP1	58:1H:4544:HOH:O	1.94	0.85
26:1H:1689:A:H62	26:1H:1698:A:H2	1.24	0.85
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.58	0.85
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.23	0.85
1:13:1157:A:H61	1:13:1178:G:H21	1.25	0.84
26:1H:442:G:H1'	30:31:48:THR:HG21	1.58	0.84
26:1H:945:A:OP2	58:1H:4578:HOH:O	1.93	0.84
55:Q8:49:VAL:HB	55:Q8:52:LYS:O	1.77	0.84
55:M5:52:LYS:HZ3	55:M5:53:PRO:HA	1.40	0.84
26:1H:1828:G:OP1	58:1H:4688:HOH:O	1.93	0.84
26:1H:2502:G:OP2	58:1H:3629:HOH:O	1.92	0.84
1:13:812:C:N3	58:13:1809:HOH:O	2.09	0.84
26:1H:1639:U:OP2	58:1H:4526:HOH:O	1.94	0.84
55:Q8:49:VAL:HG21	55:Q8:53:PRO:HD2	1.59	0.84
1:1G:396:G:O2'	1:1G:398:C:OP1	1.94	0.84
1:1G:1129:C:H41	1:1G:1141:C:H42	1.25	0.84
26:14:848:G:H2'	26:14:849:A:H8	1.42	0.84
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.12	0.84
32:51:150:ALA:O	32:51:153:LYS:NZ	2.10	0.84
1:1G:975:A:H4'	1:1G:976:G:H5"	1.59	0.84
26:14:1327:C:OP2	58:14:3556:HOH:O	1.95	0.84
26:14:1845:G:N7	58:14:3856:HOH:O	2.10	0.84
26:14:907:U:O2'	37:45:101:ARG:NH2	2.10	0.84
29:29:81:ILE:HG22	29:29:82:ARG:H	1.43	0.84
26:1H:1434:A:H61	26:1H:1558:A:N6	1.76	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2068:U:H3	26:1H:2430:A:H2	1.22	0.84
30:39:116:ASP:OD2	36:35:1:MET:N	2.09	0.84
36:35:39:LYS:HD2	36:35:45:LEU:HD21	1.59	0.84
26:14:910:A:H62	37:45:12:GLN:HA	1.41	0.84
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.10	0.84
26:1H:2452:C:OP1	58:1H:4435:HOH:O	1.95	0.84
26:1H:780:G:H21	26:1H:783:A:H62	1.20	0.84
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.43	0.84
12:3I:32:PHE:HB3	12:3I:84:LEU:HD11	1.60	0.83
26:1H:577:G:O6	58:1H:4650:HOH:O	1.96	0.83
26:14:1037:G:O6	26:14:1118:C:N4	2.11	0.83
26:1H:574:C:OP2	58:1H:4652:HOH:O	1.94	0.83
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.43	0.83
26:14:1622:G:OP2	58:14:3866:HOH:O	1.95	0.83
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.22	0.83
28:11:60:ARG:HD3	28:11:86:PRO:HB2	1.58	0.83
28:11:93:ALA:HB3	28:11:105:ILE:HG22	1.58	0.83
39:A8:7:TYR:HA	39:A8:10:ARG:HH21	1.43	0.83
6:5E:50:TYR:OH	18:9I:74:ARG:O	1.94	0.83
26:1H:226:G:H21	26:1H:228:A:H2	1.26	0.83
26:14:1382:G:N7	58:14:3691:HOH:O	2.11	0.83
26:14:2267:A:OP2	58:14:3824:HOH:O	1.94	0.83
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.27	0.83
26:1H:1332:G:OP1	58:1H:4561:HOH:O	1.96	0.83
49:K8:50:ILE:HD12	49:K8:51:ARG:H	1.43	0.83
9:82:128:ARG:NH2	23:2L:34:U:OP2	2.11	0.83
1:13:664:G:H22	1:13:741:G:H1	1.26	0.83
26:1H:450:G:OP2	58:1H:3893:HOH:O	1.96	0.83
1:13:975:A:H4'	1:13:976:G:H5"	1.58	0.83
26:1H:1249:U:OP1	58:1H:3886:HOH:O	1.97	0.83
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.60	0.83
1:13:606:G:N3	1:13:632:A:N6	2.27	0.83
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.43	0.83
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.61	0.83
1:13:144:G:N2	1:13:178:C:O2	2.09	0.83
26:1H:1658:C:OP1	58:1H:4531:HOH:O	1.95	0.83
26:1H:2056:G:OP2	58:1H:3624:HOH:O	1.96	0.83
26:1H:2447:G:OP2	58:1H:3853:HOH:O	1.96	0.83
30:31:6:VAL:N	30:31:24:LEU:O	2.12	0.83
26:14:2331:G:H4'	47:E5:43:THR:H	1.44	0.83
27:1J:40:U:O2	27:1J:45:A:N6	2.10	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:963:U:OP1	58:1H:3857:HOH:O	1.96	0.83
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.61	0.82
36:35:85:LEU:HA	36:35:88:LEU:HB3	1.59	0.82
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.11	0.82
1:13:1145:C:H4'	1:13:1146:A:H5'	1.61	0.82
40:B8:6:LEU:HA	40:B8:9:LEU:HB2	1.61	0.82
26:14:94:G:N3	49:G5:47:ASN:ND2	2.27	0.82
1:13:972:C:OP1	58:13:1830:HOH:O	1.98	0.82
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.45	0.82
1:1G:827:U:H3	1:1G:872:A:H62	1.27	0.82
26:14:848:G:H2'	26:14:849:A:C8	2.13	0.82
46:D5:111:VAL:HB	46:D5:143:GLY:HA3	1.61	0.82
26:1H:676:A:H8	26:1H:2069:G:H21	1.27	0.82
26:1H:411:G:OP1	58:1H:4630:HOH:O	1.98	0.82
1:13:524:G:H2'	1:13:525:C:C6	2.15	0.82
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.43	0.82
41:85:92:ARG:HD2	41:85:95:LEU:HD12	1.60	0.82
24:3K:76:A:H8	26:1H:2394:C:H42	1.25	0.82
46:H8:76:LEU:H	46:H8:76:LEU:HD22	1.44	0.82
1:1G:957:U:O2'	1:1G:959:A:N7	2.12	0.82
1:1G:998:G:N2	1:1G:1043:C:N3	2.27	0.82
26:14:2499:C:OP1	58:14:4009:HOH:O	1.96	0.82
49:G5:25:VAL:HG12	49:G5:60:LEU:HD23	1.60	0.82
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.59	0.82
26:1H:910:A:N7	37:88:13:GLN:HG3	1.94	0.82
26:14:1041:C:H42	26:14:1114:G:H22	1.25	0.82
26:14:2127:G:O6	26:14:2161:C:N4	2.13	0.82
33:69:75:LEU:HD22	33:69:76:THR:H	1.44	0.82
26:1H:1410:G:O6	26:1H:1592:C:N4	2.09	0.82
32:51:30:LYS:HE3	32:51:81:GLU:H	1.45	0.82
26:1H:2033:A:OP1	58:1H:4060:HOH:O	1.98	0.81
24:3L:52:G:H1	24:3L:62:C:H42	1.26	0.81
46:D5:5:LEU:HG	46:D5:47:VAL:HG21	1.61	0.81
1:13:736:C:H2'	1:13:737:A:C8	2.14	0.81
26:1H:2502:G:N7	58:1H:3855:HOH:O	2.13	0.81
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.61	0.81
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.24	0.81
26:1H:624:C:OP1	58:1H:4303:HOH:O	1.97	0.81
37:88:14:ARG:HG2	37:88:41:TRP:HH2	1.45	0.81
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.09	0.81
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1022:G:O2'	26:14:1024:G:O6	1.96	0.81
26:14:2264:C:N4	47:E5:15:ASP:OD2	2.11	0.81
33:69:102:SER:O	33:69:106:GLY:N	2.13	0.81
30:31:29:ASN:H	30:31:112:MET:HE1	1.45	0.81
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.62	0.81
1:1G:1162:C:H42	1:1G:1174:G:H1	1.29	0.81
26:14:1309:G:N7	58:14:3847:HOH:O	2.12	0.81
26:1H:187:G:OP2	58:1H:4410:HOH:O	1.98	0.81
26:1H:2712(A):A:OP2	58:1H:3670:HOH:O	1.97	0.81
26:14:958:U:OP2	37:45:14:ARG:NH1	2.13	0.81
26:14:1970:A:OP1	58:14:3455:HOH:O	1.98	0.81
1:13:1110:A:OP2	58:13:1960:HOH:O	1.98	0.81
48:J8:83:GLU:HG2	48:J8:85:LEU:H	1.46	0.81
1:1G:673:G:H2'	1:1G:674:G:C8	2.16	0.81
26:14:2873:A:H8	38:55:6:SER:H	1.29	0.81
1:13:1004:A:O5'	1:13:1025:U:N3	2.12	0.81
55:Q8:53:PRO:HA	55:Q8:55:ALA:N	1.96	0.81
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.63	0.81
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.62	0.81
26:14:1658:C:OP1	58:14:3490:HOH:O	1.99	0.81
26:1H:732:C:OP2	58:1H:4074:HOH:O	1.98	0.81
26:1H:1828:G:OP2	58:1H:4634:HOH:O	1.97	0.81
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.14	0.81
30:39:5:ALA:HB1	30:39:125:LEU:HD21	1.63	0.81
1:13:36:C:OP1	12:3I:123:LYS:NZ	2.13	0.81
1:13:352:C:O2'	1:13:354:G:OP1	1.98	0.81
38:98:12:ARG:HD3	38:98:16:HIS:CG	2.15	0.81
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.63	0.81
1:1G:475:G:OP1	16:7A:81:ARG:NH2	2.13	0.81
1:13:1240:U:OP2	7:6E:116:ALA:N	2.13	0.81
26:1H:2256:G:N7	58:1H:4119:HOH:O	2.12	0.81
19:AA:60:VAL:HG21	19:AA:74:PHE:HB3	1.63	0.81
26:1H:1952:A:C5	35:68:22:ILE:HD11	2.15	0.80
38:98:12:ARG:HG2	38:98:12:ARG:HH11	1.44	0.80
19:AA:29:ARG:HH11	19:AA:48:THR:HG23	1.46	0.80
1:13:1027:C:N4	1:13:1032(A):G:O6	2.14	0.80
26:1H:2598:A:OP1	58:1H:3652:HOH:O	2.00	0.80
26:1H:2392:A:H2	26:1H:2424:C:H42	1.30	0.80
1:1G:411:A:H62	1:1G:413:G:H21	1.28	0.80
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.63	0.80
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.17	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2210:G:H5'	26:1H:2211:G:C8	2.17	0.80
8:7E:27:PRO:O	8:7E:32:LYS:NZ	2.15	0.80
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.64	0.80
28:11:146:GLU:HB2	28:11:189:CYS:HB3	1.63	0.80
26:14:259:G:H21	26:14:621:A:H8	1.29	0.80
27:1J:5:C:H42	27:1J:115:G:H1	1.30	0.80
26:14:2074:U:OP1	58:14:3403:HOH:O	1.98	0.80
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.14	0.80
26:1H:265:A:C8	26:1H:266:G:H1'	2.15	0.80
26:1H:1780:A:OP1	58:1H:3626:HOH:O	1.99	0.80
26:1H:2713:A:OP2	58:1H:3673:HOH:O	2.00	0.80
26:14:2392:A:H2	26:14:2424:C:H42	1.26	0.80
26:1H:945:A:OP1	58:1H:4115:HOH:O	2.00	0.80
26:1H:1484:G:N2	26:1H:1505:C:O2	2.14	0.80
21:1B:8:THR:HG22	21:1B:11:GLY:H	1.47	0.80
26:14:833:U:O2	36:35:55:ARG:NH1	2.14	0.80
26:14:2210:G:O5'	26:14:2211:G:N2	2.14	0.80
26:1H:1152:C:H3'	58:1H:4003:HOH:O	1.80	0.79
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.17	0.79
1:13:504:C:OP1	58:13:1880:HOH:O	2.00	0.79
1:1G:1298:C:OP2	7:62:114:ARG:NH2	2.15	0.79
26:14:141:A:H8	26:14:1595:G:H21	1.28	0.79
28:19:69:ARG:NH2	28:19:128:GLY:O	2.15	0.79
26:14:1774:C:OP1	58:14:4078:HOH:O	1.98	0.79
1:13:659:U:H2'	1:13:660:G:C8	2.17	0.79
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.64	0.79
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.64	0.79
36:78:19:VAL:HB	36:78:27:HIS:HB2	1.62	0.79
3:22:141:VAL:HA	3:22:144:SER:HB3	1.64	0.79
26:14:1678:G:H22	26:14:1989:G:H22	1.28	0.79
1:13:1500:A:OP1	58:13:1804:HOH:O	2.00	0.79
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.47	0.79
29:21:105:THR:HG22	29:21:106:GLY:H	1.44	0.79
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.17	0.79
35:25:115:VAL:HG13	35:25:121:VAL:HG21	1.63	0.79
44:B5:27:THR:HB	44:B5:80:ILE:HG22	1.63	0.79
26:14:453:C:OP1	58:14:4019:HOH:O	2.00	0.79
51:I5:22:ILE:HG12	51:I5:23:GLU:H	1.47	0.79
29:21:135:HIS:CD2	58:21:405:HOH:O	2.35	0.79
23:2K:62:C:H2'	23:2K:63:C:H6	1.47	0.79
36:78:29:LYS:HD3	36:78:30:THR:HG22	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:N8:40:LYS:HZ3	52:N8:46:CYS:HB3	1.47	0.79
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.45	0.79
30:39:25:PRO:HB2	30:39:27:GLU:H	1.47	0.79
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.64	0.79
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.47	0.79
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.16	0.78
33:61:39:ALA:HB1	33:61:44:LEU:HD13	1.64	0.78
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.66	0.78
26:14:2610:C:O2'	58:14:3716:HOH:O	1.97	0.78
29:29:66:HIS:NE2	29:29:73:GLU:OE1	2.16	0.78
42:95:71:LEU:H	42:95:86:GLY:HA2	1.47	0.78
5:4E:33:VAL:HG11	5:4E:109:ILE:HG12	1.65	0.78
10:1I:22:LYS:NZ	10:1I:88:LEU:O	2.17	0.78
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.48	0.78
26:1H:1658:C:OP1	58:1H:4532:HOH:O	1.99	0.78
26:1H:2057:A:OP2	58:1H:3621:HOH:O	2.00	0.78
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.64	0.78
20:BI:57:ARG:HH22	20:BI:102:GLY:HA2	1.49	0.78
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.64	0.78
26:1H:801:G:OP2	58:1H:4182:HOH:O	1.99	0.78
30:31:167:ALA:HB1	30:31:173:VAL:HG11	1.65	0.78
34:58:65:LYS:HB3	34:58:69:GLN:HG3	1.64	0.78
5:42:81:GLU:HG2	5:42:90:VAL:HG13	1.66	0.78
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.65	0.78
26:1H:1138:G:H21	34:58:106:MET:HE3	1.45	0.78
26:1H:1643:G:N7	58:1H:3942:HOH:O	2.16	0.78
30:31:29:ASN:N	30:31:112:MET:HE1	1.99	0.78
1:1G:961:U:O2	1:1G:1201:A:N6	2.16	0.78
12:3A:59:ARG:NH2	12:3A:65:GLU:OE1	2.17	0.78
26:14:1858:G:O2'	26:14:1884:A:N6	2.16	0.78
29:29:61:ARG:HA	29:29:63:LEU:HG	1.66	0.78
30:39:103:LYS:HA	30:39:106:ARG:HG3	1.66	0.78
26:1H:2431:U:OP2	58:1H:3908:HOH:O	2.01	0.78
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.16	0.78
1:13:1023:G:H3'	1:13:1024:G:H5"	1.64	0.78
26:1H:860:U:C5	26:1H:917:A:H2	2.02	0.78
31:41:105:LYS:HE2	51:M8:26:SER:HB2	1.65	0.78
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.63	0.78
1:13:736:C:H2'	1:13:737:A:H8	1.48	0.78
26:1H:761:A:N7	58:1H:4073:HOH:O	2.17	0.78
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2502:G:OP2	58:1H:3631:HOH:O	2.01	0.78
29:21:135:HIS:HE1	58:21:404:HOH:O	1.45	0.78
22:1L:74:C:N4	26:14:2554:U:O2	2.16	0.78
26:14:273(C):C:H42	26:14:363(C):G:H1	1.29	0.78
26:14:1225:C:O3'	42:95:85:LYS:HA	1.83	0.78
42:95:35:LEU:O	42:95:37:VAL:HG22	1.83	0.78
46:D5:27:VAL:HG12	46:D5:87:ASP:HB3	1.65	0.78
1:13:262:A:H2'	1:13:263:A:C8	2.19	0.78
26:1H:763:G:OP1	58:1H:3691:HOH:O	2.01	0.78
26:1H:878:A:N6	26:1H:899:A:O2'	2.17	0.78
26:1H:67:U:H3	26:1H:74:A:H2	1.30	0.78
26:1H:510:C:OP1	58:1H:4667:HOH:O	2.02	0.78
32:51:4:ILE:HD13	32:51:4:ILE:H	1.49	0.78
3:22:11:ARG:NH2	3:22:177:THR:O	2.17	0.78
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.66	0.78
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.16	0.78
48:F5:24:ALA:HB3	48:F5:27:GLU:HG3	1.66	0.78
1:13:1367:C:H5'	10:1I:60:ARG:HH21	1.49	0.77
26:1H:2636:U:OP1	29:21:79:ARG:HA	1.84	0.77
7:62:79:ARG:HG2	7:62:84:ASN:HB3	1.66	0.77
26:14:607:U:H3	26:14:621:A:H2	1.29	0.77
26:1H:248:G:H5'	26:1H:250:G:N7	1.98	0.77
26:1H:1171:G:N2	26:1H:1178:C:N3	2.32	0.77
44:F8:24:GLY:HA3	44:F8:82:GLN:HE22	1.50	0.77
46:H8:62:PRO:C	46:H8:64:GLY:HA2	2.05	0.77
1:1G:560:U:H5'	1:1G:566:G:N2	1.99	0.77
13:4A:57:ARG:HH12	51:I5:17:GLY:HA3	1.49	0.77
24:3L:18:G:H2'	24:3L:57:G:H1	1.46	0.77
30:39:101:LEU:O	30:39:106:ARG:NH1	2.17	0.77
39:65:3:ARG:HE	39:65:4:LEU:N	1.82	0.77
26:14:1890:A:OP2	58:14:3914:HOH:O	2.02	0.77
26:14:2448:A:OP1	58:14:4009:HOH:O	2.03	0.77
26:14:660:G:H21	36:35:12:ALA:HB2	1.49	0.77
41:85:90:VAL:HA	42:95:39:LEU:HD23	1.64	0.77
26:1H:654(D):G:H1	26:1H:654(Q):C:H42	1.31	0.77
26:1H:878:A:N6	26:1H:899:A:HO2'	1.82	0.77
26:1H:1727:U:H3	26:1H:1733:G:H1	1.32	0.77
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.17	0.77
46:H8:163:LEU:HB3	46:H8:165:VAL:H	1.50	0.77
1:1G:324:G:N7	58:1G:1848:HOH:O	2.17	0.77
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2415:G:H4'	36:35:67:MET:H	1.50	0.77
17:8I:88:TYR:HD1	17:8I:89:LEU:HD23	1.48	0.77
19:AI:15:LEU:HB2	19:AI:31:ILE:HD11	1.66	0.77
26:1H:2057:A:OP2	58:1H:3624:HOH:O	2.01	0.77
1:1G:1310:G:H5'	13:4A:77:ASN:HD21	1.48	0.77
13:4A:82:MET:HG2	13:4A:83:ASP:H	1.49	0.77
40:75:1:MET:HB3	40:75:5:ALA:HB3	1.66	0.77
26:1H:987:G:OP2	58:1H:3995:HOH:O	2.02	0.77
33:61:73:GLU:HG3	33:61:136:VAL:HG23	1.67	0.77
28:19:60:ARG:NH1	28:19:86:PRO:O	2.17	0.77
30:31:66:PRO:O	30:31:67:GLN:HB3	1.84	0.77
1:1G:999:U:H2'	1:1G:1000:A:H8	1.50	0.77
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.18	0.77
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.66	0.77
26:14:2250:G:C4	37:45:82:ARG:HG3	2.20	0.77
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.16	0.77
43:E8:14:PRO:HB3	43:E8:18:ARG:HH12	1.49	0.77
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.67	0.77
26:14:240:G:O6	58:14:3613:HOH:O	2.03	0.77
29:29:12:THR:O	29:29:23:VAL:HG23	1.85	0.77
37:45:26:TYR:O	37:45:28:ALA:N	2.17	0.77
26:1H:2685:G:N7	58:1H:4089:HOH:O	2.18	0.76
1:1G:179:A:OP2	58:1G:1895:HOH:O	2.03	0.76
1:1G:500:G:N2	1:1G:545:C:O2	2.18	0.76
26:14:140:A:H8	26:14:1408:C:HO2'	1.27	0.76
26:14:1676:A:OP2	58:14:3433:HOH:O	2.02	0.76
26:14:1970:A:OP2	58:14:3458:HOH:O	2.03	0.76
1:1G:353:A:H5'	1:1G:353:A:H8	1.50	0.76
26:1H:2785:C:OP1	29:21:41:LYS:NZ	2.16	0.76
1:1G:1028(A):C:O2	1:1G:1033:G:N2	2.17	0.76
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	1.67	0.76
26:14:802:A:OP1	58:14:3908:HOH:O	2.02	0.76
27:16:42:C:O3'	31:41:67:LYS:NZ	2.16	0.76
46:H8:19:ARG:NH1	46:H8:84:GLU:O	2.19	0.76
1:1G:588:G:H1	1:1G:651:C:H42	1.34	0.76
26:14:152:G:H1	26:14:174:C:H42	1.30	0.76
26:14:1664:A:OP1	58:14:3504:HOH:O	2.04	0.76
26:14:2207:C:H42	26:14:2217:G:H1	1.33	0.76
39:65:106:ARG:NH1	39:65:107:GLU:OE2	2.18	0.76
1:13:601:C:H2'	1:13:602:A:C8	2.19	0.76
26:1H:2718:G:N7	58:1H:4512:HOH:O	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.18	0.76
1:1G:979:C:H3'	1:1G:980:C:H5"	1.67	0.76
26:14:629:G:O6	26:14:634:C:N4	2.17	0.76
33:69:130:TYR:HB3	33:69:136:VAL:HG13	1.67	0.76
46:D5:44:PHE:HE2	46:D5:86:VAL:HG11	1.51	0.76
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.04	0.76
26:14:397:G:N7	58:14:3932:HOH:O	2.19	0.76
26:14:509:C:OP1	58:14:3884:HOH:O	2.04	0.76
26:14:1048:A:N6	26:14:1112:G:O2'	2.18	0.76
26:14:2287:A:H62	26:14:2344:U:H3	1.32	0.76
26:1H:761:A:OP1	58:1H:3689:HOH:O	2.03	0.76
26:1H:1701:A:OP2	58:1H:4389:HOH:O	2.04	0.76
26:1H:2759:G:OP2	58:1H:4474:HOH:O	2.02	0.76
26:14:578:A:OP2	58:14:3576:HOH:O	2.02	0.76
26:14:630:G:N2	26:14:633:A:OP2	2.16	0.76
26:14:1060:U:H4'	26:14:1061:U:H5"	1.68	0.76
26:14:2120:G:N2	26:14:2178:C:N3	2.34	0.76
1:13:692:U:O2'	1:13:694:A:N7	2.19	0.76
26:1H:2028:U:O4	58:1H:4060:HOH:O	2.03	0.76
28:11:223:GLY:HA3	28:11:231:HIS:ND1	2.01	0.76
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.67	0.76
29:21:111:ARG:HD3	29:21:160:TYR:CD2	2.21	0.76
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.18	0.76
31:49:41:GLN:NE2	31:49:154:GLY:O	2.19	0.76
26:1H:1952:A:C6	35:68:22:ILE:HD11	2.20	0.76
29:21:131:ALA:HB1	58:21:404:HOH:O	1.86	0.76
55:Q8:30:ARG:HH11	55:Q8:30:ARG:HG3	1.51	0.76
55:Q8:49:VAL:HG12	55:Q8:52:LYS:HB2	1.68	0.76
3:22:152:ILE:HG12	3:22:167:TRP:HB2	1.67	0.76
26:14:2114:A:N6	26:14:2119:A:N7	2.34	0.76
26:14:2272:U:O4	58:14:3822:HOH:O	2.00	0.76
26:14:2375:G:N7	58:14:3706:HOH:O	2.17	0.76
26:14:2786:U:O2'	29:29:62:PRO:O	2.02	0.76
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.04	0.76
1:13:1366:C:O2'	10:1I:60:ARG:NH2	2.20	0.75
19:AI:78:ARG:HE	19:AI:78:ARG:H	1.28	0.75
26:1H:862:G:OP2	58:1H:3993:HOH:O	2.02	0.75
1:13:272:C:H2'	1:13:273:A:H8	1.51	0.75
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.32	0.75
33:61:110:ASP:OD1	33:61:110:ASP:N	2.19	0.75
1:1G:156:G:N2	1:1G:165:C:O2	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:195:A:OP2	58:1G:1894:HOH:O	2.04	0.75
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.19	0.75
1:13:1306:A:H61	1:13:1331:G:H1'	1.52	0.75
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.49	0.75
26:1H:1676:A:OP2	58:1H:3708:HOH:O	2.04	0.75
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.68	0.75
26:14:2782:G:OP2	58:14:3786:HOH:O	2.03	0.75
34:15:56:ASN:HA	34:15:125:GLY:H	1.52	0.75
4:3E:25:ARG:NH1	4:3E:30:LYS:O	2.20	0.75
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.68	0.75
26:1H:1381:G:N7	58:1H:4562:HOH:O	2.18	0.75
26:1H:330:A:O2'	26:1H:331:A:H8	1.69	0.75
26:1H:883:G:O6	26:1H:893:C:N4	2.18	0.75
26:1H:1314:C:OP1	58:1H:4561:HOH:O	2.03	0.75
34:58:96:GLU:HG2	34:58:97:ARG:N	1.99	0.75
1:1G:547:A:OP1	58:1G:1804:HOH:O	2.05	0.75
1:1G:768:A:OP2	58:1G:1811:HOH:O	2.03	0.75
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.67	0.75
31:49:56:ALA:HA	31:49:59:GLU:HB2	1.69	0.75
31:49:161:THR:HG22	31:49:163:ALA:H	1.51	0.75
26:1H:620:G:H4'	26:1H:621:A:C5'	2.17	0.75
26:1H:1153:C:OP2	58:1H:4000:HOH:O	2.03	0.75
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.22	0.75
26:1H:999:U:OP2	58:1H:4004:HOH:O	2.04	0.75
26:1H:2709:G:O2'	58:1H:3679:HOH:O	2.04	0.75
40:75:4:GLY:HA2	40:75:8:LYS:HZ3	1.52	0.75
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.33	0.75
7:62:113:GLU:O	7:62:119:ARG:HD3	1.86	0.75
26:14:912:C:OP1	37:45:8:LYS:NZ	2.20	0.75
26:14:1729:A:H2'	26:14:1731:G:N2	2.02	0.75
36:35:55:ARG:HG2	36:35:56:SER:H	1.52	0.75
26:14:2705:A:OP2	58:14:3522:HOH:O	2.05	0.74
30:39:120:GLU:HG3	30:39:122:LYS:HZ2	1.51	0.74
1:13:717:C:H5"	1:13:717:C:H6	1.51	0.74
1:13:737:A:H2'	1:13:738:C:C6	2.22	0.74
1:13:1305:G:H21	1:13:1331:G:H2'	1.51	0.74
34:58:39:ARG:NH2	34:58:41:ASP:OD2	2.20	0.74
26:14:654(B):C:O2	26:14:654(S):G:N2	2.19	0.74
40:B8:108:ARG:HA	40:B8:111:ARG:NE	2.02	0.74
26:14:1636:C:OP2	58:14:4091:HOH:O	2.04	0.74
23:2K:47:7MG:H81	23:2K:48:U:H5	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:26:ASP:HB2	40:B8:91:ARG:HA	1.69	0.74
46:H8:151:HIS:ND1	46:H8:169:GLU:O	2.19	0.74
55:Q8:34:TRP:CB	55:Q8:35:GLN:HA	2.17	0.74
1:1G:785:G:N7	58:1G:1860:HOH:O	2.19	0.74
9:82:111:ARG:HB3	9:82:113:LYS:HE2	1.68	0.74
1:13:926:G:N2	25:4K:15:A:OP2	2.19	0.74
1:13:1003:G:H1	1:13:1037:C:H42	1.33	0.74
1:13:1286:A:H5"	21:1F:26:LYS:HB2	1.69	0.74
38:98:29:LEU:HB3	38:98:75:LEU:HD11	1.67	0.74
26:14:2581:G:O6	58:14:3718:HOH:O	2.02	0.74
41:85:90:VAL:HG22	42:95:39:LEU:HB3	1.68	0.74
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.14	0.74
39:A8:34:HIS:HB2	39:A8:36:TYR:CE1	2.23	0.74
48:J8:92:LYS:HA	48:J8:95:LEU:HB2	1.70	0.74
55:Q8:46:ARG:NH2	55:Q8:48:PHE:HB3	1.99	0.74
26:14:973:A:OP2	58:14:4007:HOH:O	2.04	0.74
26:1H:860:U:H5	26:1H:917:A:H2	1.32	0.74
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.23	0.74
26:14:1298:C:OP2	58:14:4064:HOH:O	2.04	0.74
26:14:2498:C:OP2	58:14:4053:HOH:O	2.06	0.74
29:29:23:VAL:HG11	29:29:183:LEU:HD23	1.68	0.74
36:35:30:THR:HG21	36:35:35:HIS:H	1.53	0.74
1:13:1129:C:H4'	1:13:1130:A:H5'	1.70	0.74
15:6I:6:GLU:HA	15:6I:9:GLN:HB2	1.69	0.74
17:8I:13:ASP:OD1	17:8I:14:LYS:NZ	2.19	0.74
26:1H:392:C:OP1	58:1H:3749:HOH:O	2.06	0.74
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.23	0.74
41:C8:92:ARG:O	41:C8:94:ASN:N	2.20	0.74
1:1G:1125:U:O4	10:1A:5:ARG:NH1	2.21	0.74
26:14:2357:U:OP1	47:E5:20:ARG:NH1	2.21	0.74
46:D5:71:VAL:HA	46:D5:88:PHE:HA	1.69	0.74
11:2I:107:SER:HA	18:9I:87:ARG:HD2	1.70	0.74
26:1H:4:C:O2	26:1H:2899:G:N2	2.20	0.74
1:1G:1213:A:N6	1:1G:1215:G:N3	2.35	0.74
53:K5:24:GLU:HG3	53:K5:25:LYS:H	1.52	0.74
1:13:673:G:H2'	1:13:674:G:C8	2.23	0.73
1:13:1224:G:C6	1:13:1322:C:H1'	2.23	0.73
1:13:1500:A:OP1	58:13:1802:HOH:O	2.06	0.73
26:1H:802:A:OP1	58:1H:4587:HOH:O	2.06	0.73
26:1H:1359:A:H2	26:1H:1372:U:O4	1.70	0.73
26:1H:2115:G:N2	26:1H:2172:U:O2	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.70	0.73
37:88:135:ASP:HB3	37:88:137:TYR:H	1.51	0.73
26:14:450:G:OP2	58:14:4104:HOH:O	2.05	0.73
26:1H:1036:G:N2	26:1H:1119:C:O2	2.20	0.73
26:14:654:A:O2'	26:14:654(A):A:N7	2.21	0.73
26:14:1642:G:N7	58:14:3951:HOH:O	2.21	0.73
36:35:71:VAL:HG13	36:35:72:PRO:HD3	1.70	0.73
4:3E:15:GLU:OE2	4:3E:59:ARG:NH2	2.20	0.73
10:1I:28:ARG:HG3	10:1I:34:VAL:HG22	1.69	0.73
26:1H:563:G:OP2	58:1H:3635:HOH:O	2.05	0.73
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.22	0.73
26:1H:1899:G:H22	26:1H:1902:C:H5	1.37	0.73
26:1H:2794:C:N4	26:1H:2802:G:O6	2.21	0.73
28:11:142:VAL:HG23	28:11:193:VAL:HA	1.69	0.73
10:1A:3:LYS:N	10:1A:74:ILE:O	2.21	0.73
26:14:399:G:OP2	58:14:4113:HOH:O	2.05	0.73
26:14:2000:G:OP2	58:14:3947:HOH:O	2.05	0.73
1:13:150:C:H2'	1:13:151:A:H8	1.52	0.73
23:2K:16:C:OP2	23:2K:17:C:N4	2.21	0.73
26:1H:2308:G:N1	26:1H:2311:A:H2	1.86	0.73
31:41:64:THR:HG23	31:41:94:LEU:HD13	1.69	0.73
48:J8:91:LYS:O	48:J8:94:LEU:N	2.20	0.73
26:14:619:G:H5"	26:14:620:G:N2	2.04	0.73
26:14:2652:C:H42	26:14:2668:G:H1	1.36	0.73
29:29:9:VAL:HG12	40:75:8:LYS:HZ1	1.52	0.73
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.70	0.73
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.22	0.73
26:1H:120:U:OP2	58:1H:4135:HOH:O	2.05	0.73
26:1H:1113:U:H5'	32:51:2:SER:HB2	1.70	0.73
1:1G:639:G:H2'	1:1G:640:A:H8	1.52	0.73
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.23	0.73
40:75:4:GLY:O	40:75:7:ILE:N	2.22	0.73
53:K5:28:ARG:HB3	53:K5:32:ASN:HA	1.68	0.73
26:1H:400:G:O6	58:1H:4042:HOH:O	2.03	0.73
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.71	0.73
1:1G:1003:G:N2	1:1G:1037:C:O2	2.15	0.73
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.20	0.73
26:14:1839:G:OP2	58:14:3985:HOH:O	2.06	0.73
26:1H:409:C:OP1	58:1H:3749:HOH:O	2.06	0.73
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.23	0.73
1:1G:192:U:H2'	1:1G:193:C:H6	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:426:G:OP1	4:32:38:TYR:OH	2.05	0.73
26:14:84:A:N6	26:14:102:G:O2'	2.16	0.73
36:35:14:LYS:O	36:35:16:ARG:N	2.22	0.73
42:95:57:VAL:HG23	42:95:99:ILE:H	1.53	0.73
55:M5:40:GLU:H	55:M5:43:GLN:HG3	1.53	0.73
1:13:533:A:OP1	58:13:1870:HOH:O	2.06	0.73
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.24	0.73
26:1H:49:A:N7	26:1H:120:U:H5	1.85	0.73
26:1H:1077:A:H3'	26:1H:1078:U:H5'	1.70	0.73
26:1H:2392:A:H8	36:78:61:ARG:HG2	1.53	0.73
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.23	0.73
38:98:56:LYS:NZ	38:98:90:ARG:O	2.20	0.73
39:A8:25:ARG:NH1	39:A8:42:ASP:OD2	2.22	0.73
4:32:18:LYS:HD3	4:32:31:CYS:SG	2.29	0.73
26:14:882:G:H22	26:14:894:C:N4	1.87	0.73
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.24	0.73
26:14:2121:G:H1	26:14:2177:C:H42	1.35	0.73
30:39:25:PRO:HB3	30:39:28:ILE:HG23	1.70	0.73
46:D5:139:VAL:HG13	46:D5:156:LYS:HE2	1.70	0.73
1:13:1007:C:H42	1:13:1022:G:H1	1.36	0.73
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	1.70	0.73
26:1H:176:G:O2'	26:1H:177:G:H5'	1.89	0.73
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.22	0.73
27:16:80:U:H2'	27:16:81:G:H21	1.53	0.73
36:78:52:GLU:HG3	36:78:57:THR:HA	1.71	0.73
24:3L:11:C:H2'	24:3L:12:U:H6	1.54	0.73
26:14:2502:G:OP2	58:14:4030:HOH:O	2.06	0.73
42:95:70:ILE:N	42:95:86:GLY:O	2.18	0.73
26:1H:1438:U:H2'	26:1H:1439:A:H8	1.54	0.73
26:1H:2347:C:OP1	53:O8:39:TYR:OH	2.06	0.73
29:21:111:ARG:HD3	29:21:160:TYR:CE2	2.24	0.73
55:Q8:46:ARG:HH21	55:Q8:48:PHE:CB	1.97	0.73
1:1G:1316:G:H22	1:1G:1319:A:H5"	1.52	0.73
19:AA:20:LEU:O	19:AA:23:ASN:ND2	2.21	0.73
26:14:1899:G:N2	26:14:1902:C:N4	2.36	0.73
32:59:6:ARG:HH11	32:59:6:ARG:H	1.35	0.73
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.69	0.73
45:C5:19:LYS:HG3	45:C5:20:TYR:H	1.53	0.73
55:M5:52:LYS:NZ	55:M5:53:PRO:HA	2.03	0.73
26:1H:1803:A:O2'	28:11:259:THR:HG21	1.89	0.72
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:57:ARG:HD3	55:Q8:57:ARG:N	2.03	0.72
26:14:2343:C:O2'	26:14:2373:G:O2'	2.05	0.72
1:13:1358:U:OP2	1:13:1359:C:N4	2.20	0.72
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.55	0.72
26:1H:1495:A:OP2	58:1H:4431:HOH:O	2.06	0.72
26:1H:2312:U:H5'	31:41:88:ILE:HD12	1.70	0.72
32:51:124:GLU:HB3	32:51:132:ARG:HB3	1.70	0.72
55:Q8:21:LYS:HE2	55:Q8:48:PHE:HE1	1.54	0.72
55:Q8:31:HIS:ND1	55:Q8:31:HIS:O	2.22	0.72
24:3L:8:U:H3	24:3L:14:A:H62	1.33	0.72
44:B5:5:TYR:HB3	49:G5:33:MET:HB2	1.70	0.72
26:1H:331:A:N1	58:1H:3844:HOH:O	2.22	0.72
26:1H:2033:A:H8	58:1H:4060:HOH:O	1.71	0.72
44:F8:3:THR:OG1	44:F8:4:ALA:HA	1.88	0.72
1:1G:371:G:H1	1:1G:390:C:H42	1.35	0.72
27:1J:80:U:H2'	27:1J:81:G:N2	2.05	0.72
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.71	0.72
1:13:1008:C:N4	1:13:1021:G:O6	2.18	0.72
9:8E:96:LEU:HD23	9:8E:102:LEU:HD21	1.70	0.72
26:1H:1994:C:OP1	58:1H:4006:HOH:O	2.06	0.72
43:E8:96:ILE:HD13	43:E8:96:ILE:H	1.52	0.72
45:G8:87:LYS:HB3	45:G8:94:LYS:HG2	1.70	0.72
46:H8:165:VAL:HB	46:H8:167:PRO:HD3	1.71	0.72
1:1G:947:G:O3'	13:4A:109:THR:OG1	2.07	0.72
26:14:323:G:O2'	26:14:1205:U:N3	2.13	0.72
26:14:1308:A:OP2	58:14:3849:HOH:O	2.08	0.72
26:14:2468:G:H3'	26:14:2476:A:N1	2.04	0.72
39:65:84:GLN:HA	39:65:110:LEU:HD12	1.70	0.72
23:2K:47:7MG:H82	23:2K:47:7MG:H5'	1.72	0.72
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.24	0.72
1:1G:707:C:H2'	1:1G:708:C:H6	1.53	0.72
26:14:731:C:OP1	58:14:4108:HOH:O	2.08	0.72
26:14:2572:A:C8	29:29:144:ARG:HD2	2.23	0.72
1:13:963:G:N2	1:13:972:C:N3	2.31	0.72
1:13:1213:A:O2'	1:13:1215:G:N7	2.17	0.72
26:1H:1828:G:OP1	58:1H:4686:HOH:O	2.07	0.72
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.37	0.72
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.22	0.72
55:Q8:6:THR:N	55:Q8:59:LYS:HE3	2.04	0.72
55:Q8:49:VAL:HG23	55:Q8:50:LEU:H	1.55	0.72
1:1G:8:A:C6	4:32:209:ARG:HB2	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1311:G:N2	1:1G:1326:C:O2	2.20	0.72
3:22:65:ALA:HA	3:22:100:ALA:HB3	1.71	0.72
16:7A:37:GLY:HA2	16:7A:50:LYS:HD3	1.70	0.72
26:14:1061:U:H4'	26:14:1070:A:H1'	1.70	0.72
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.70	0.72
24:3K:19:G:OP1	24:3K:60:U:N3	2.19	0.72
28:11:10:THR:OG1	28:11:13:ARG:HB2	1.90	0.72
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.22	0.72
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.72	0.72
27:1J:15:A:H5'	27:1J:16:G:C8	2.25	0.72
31:49:40:ASN:HB2	31:49:91:ARG:HG3	1.72	0.72
45:C5:52:SER:HA	45:C5:55:TYR:O	1.89	0.72
1:13:963:G:N3	10:1I:55:LYS:NZ	2.38	0.72
24:3K:72:C:H3'	24:3K:73:A:H5"	1.72	0.72
26:1H:761:A:OP1	58:1H:3686:HOH:O	2.08	0.72
26:1H:1639:U:O2'	26:1H:1640:C:H5'	1.89	0.72
26:14:1264:G:OP1	52:J5:19:ARG:NH2	2.21	0.72
26:14:2134:A:O2'	26:14:2159:G:N2	2.22	0.72
26:14:2340:G:H2'	26:14:2341:G:H8	1.53	0.72
26:14:2393:A:H4'	36:35:62:LEU:H	1.52	0.72
26:1H:974(A):C:OP1	58:1H:4189:HOH:O	2.07	0.72
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.54	0.72
30:31:155:LEU:HD11	30:31:176:LEU:HD13	1.72	0.72
38:98:67:LEU:HD13	38:98:76:VAL:HG21	1.71	0.72
1:1G:1432:G:N2	58:1G:1858:HOH:O	2.23	0.72
26:14:1899:G:H21	26:14:1902:C:N4	1.87	0.72
26:14:2327:A:H2'	26:14:2328:A:C8	2.25	0.72
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.23	0.71
26:1H:764:A:H2	28:11:219:PRO:HG3	1.53	0.71
26:1H:951:C:O2	26:1H:966:G:N2	2.20	0.71
29:21:116:VAL:HG11	29:21:138:PRO:HB3	1.71	0.71
26:1H:240:G:O6	58:1H:4452:HOH:O	2.06	0.71
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.22	0.71
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.73	0.71
14:5I:29:ARG:HH21	14:5I:41:ARG:NH1	1.88	0.71
29:21:201:THR:HG22	29:21:203:LYS:H	1.55	0.71
26:14:674:G:O2'	30:39:74:ARG:HG3	1.89	0.71
26:14:1434:A:H61	26:14:1558:A:H62	1.37	0.71
40:75:92:GLY:HA2	40:75:116:ALA:HA	1.71	0.71
14:5I:26:ARG:NH1	14:5I:43:CYS:SG	2.63	0.71
26:1H:731:C:OP2	58:1H:3690:HOH:O	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1479:G:N7	26:1H:1510:A:N6	2.37	0.71
26:1H:2871:C:N3	58:1H:4092:HOH:O	2.22	0.71
38:98:100:LEU:HD11	38:98:113:LEU:HD13	1.72	0.71
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.54	0.71
26:14:34:C:O2'	26:14:35:G:OP1	2.06	0.71
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.18	0.71
1:13:1194:U:H2'	1:13:1195:C:C6	2.26	0.71
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.72	0.71
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.24	0.71
26:1H:910:A:H62	37:88:12:GLN:HA	1.55	0.71
26:1H:2053:G:OP1	58:1H:3801:HOH:O	2.08	0.71
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.73	0.71
26:14:2096:U:H3	26:14:2193:G:H1	1.37	0.71
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.23	0.71
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.22	0.71
26:1H:256:A:OP2	58:1H:4457:HOH:O	2.07	0.71
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.24	0.71
31:41:112:PRO:HB3	51:M8:37:SER:H	1.55	0.71
1:1G:1157:A:H61	1:1G:1178:G:H21	1.38	0.71
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.20	0.71
39:65:34:HIS:HE2	39:65:54:LEU:HD13	1.56	0.71
55:M5:33:ASN:OD1	55:M5:33:ASN:N	2.23	0.71
24:3K:50:U:H3	24:3K:64:A:H61	1.37	0.71
26:1H:2597:G:O3'	58:1H:3651:HOH:O	2.07	0.71
37:88:32:TYR:CE2	37:88:133:ARG:HG3	2.26	0.71
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.24	0.71
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.71	0.71
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.73	0.71
26:14:1332:G:N2	26:14:1609:A:O2'	2.23	0.71
27:1J:42:C:N3	31:49:91:ARG:NH2	2.39	0.71
37:45:22:LYS:HG2	37:45:23:GLY:HA2	1.72	0.71
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.73	0.71
23:2K:40:C:O2'	24:3K:35:A:O2'	2.08	0.71
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.25	0.71
29:21:117:MET:HE1	29:21:136:ARG:HA	1.72	0.71
34:58:130:HIS:C	34:58:134:ARG:HH22	1.93	0.71
26:14:2392:A:H1'	36:35:61:ARG:HH21	1.54	0.71
46:D5:30:ASN:HA	46:D5:89:PHE:HE1	1.54	0.71
1:13:14:U:OP2	58:13:1860:HOH:O	2.09	0.71
26:1H:516:C:OP1	52:N8:13:LYS:NZ	2.24	0.71
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2286:A:H2'	53:O8:31:PRO:HD3	1.72	0.71
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.72	0.71
38:98:91:GLN:NE2	38:98:91:GLN:O	2.21	0.71
26:14:67:U:H3	26:14:74:A:H2	1.35	0.71
30:39:135:LYS:HB3	30:39:138:GLU:HG3	1.73	0.71
22:1K:27:G:N2	22:1K:43:C:O2	2.14	0.71
26:1H:2419:U:O4	55:Q8:29:LYS:NZ	2.13	0.71
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.55	0.71
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.55	0.71
26:14:2499:C:OP2	58:14:4052:HOH:O	2.08	0.71
37:45:85:LYS:HG2	37:45:86:GLY:H	1.56	0.71
10:1I:57:LYS:HD2	10:1I:60:ARG:HH12	1.56	0.70
26:1H:2758:A:OP2	58:1H:4479:HOH:O	2.08	0.70
53:O8:9:LEU:HB3	53:O8:27:LYS:HA	1.73	0.70
6:52:7:ASN:HD22	18:9A:76:LEU:HD11	1.54	0.70
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.71	0.70
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.72	0.70
1:1G:690:G:H1	11:2A:55:LYS:HZ3	1.38	0.70
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.26	0.70
26:14:1412:A:H2'	26:14:1413:G:C8	2.26	0.70
26:14:2420:C:N4	55:M5:31:HIS:O	2.24	0.70
31:49:97:ASP:HA	31:49:100:TRP:HD1	1.55	0.70
46:D5:30:ASN:HD22	46:D5:90:VAL:HB	1.55	0.70
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.09	0.70
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.23	0.70
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.23	0.70
6:52:23:LYS:HE3	6:52:61:LEU:HD21	1.71	0.70
26:1H:534:U:H5'	41:C8:42:ALA:HB1	1.74	0.70
26:1H:1434:A:H61	26:1H:1558:A:H61	1.39	0.70
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.24	0.70
36:78:138:LEU:HD12	36:78:144:GLU:HG3	1.73	0.70
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.73	0.70
1:1G:501:C:H2'	1:1G:502:G:H8	1.57	0.70
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.73	0.70
26:14:2846:G:N7	58:14:3519:HOH:O	2.23	0.70
30:39:188:ARG:HA	36:35:3:LEU:HD11	1.73	0.70
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.54	0.70
26:1H:848:G:H2'	26:1H:849:A:C8	2.26	0.70
26:1H:910:A:C5	37:88:13:GLN:HG3	2.26	0.70
26:1H:1330:C:OP1	58:1H:3963:HOH:O	2.10	0.70
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.27	0.70
26:14:2878:U:O4	58:14:3855:HOH:O	2.09	0.70
32:59:10:PRO:HD2	32:59:50:VAL:HG13	1.71	0.70
32:59:106:THR:HG22	32:59:112:PRO:HB3	1.73	0.70
1:13:233:C:H2'	1:13:234:C:H6	1.57	0.70
1:13:659:U:H2'	1:13:660:G:H8	1.55	0.70
7:6E:95:ARG:HH21	7:6E:99:LEU:HD11	1.55	0.70
23:2K:47:7MG:H81	23:2K:48:U:C5	2.25	0.70
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.71	0.70
26:1H:1899:G:N2	26:1H:1902:C:H5	1.90	0.70
41:C8:92:ARG:NH1	41:C8:94:ASN:OD1	2.25	0.70
55:Q8:37:SER:HA	55:Q8:39:LYS:O	1.90	0.70
1:1G:330:C:O2	58:1G:1821:HOH:O	2.10	0.70
26:14:2331:G:O2'	47:E5:43:THR:HB	1.92	0.70
31:49:16:ARG:NH2	31:49:28:VAL:O	2.23	0.70
1:13:1391:U:H2'	1:13:1392:G:C8	2.27	0.70
26:1H:1156:A:C8	41:C8:51:LYS:HD2	2.26	0.70
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.37	0.70
26:1H:2838:G:N7	58:1H:4251:HOH:O	2.25	0.70
27:16:101:A:OP2	58:16:303:HOH:O	2.08	0.70
39:A8:48:LEU:HD23	39:A8:82:ILE:HD11	1.74	0.70
53:O8:32:ASN:OD1	53:O8:32:ASN:N	2.23	0.70
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.24	0.70
26:14:796:C:H2'	26:14:797:C:C6	2.26	0.70
26:14:2818:G:OP2	38:55:42:LYS:NZ	2.25	0.70
26:14:2837:G:N7	58:14:3851:HOH:O	2.24	0.70
51:I5:34:GLU:HG2	51:I5:35:VAL:H	1.57	0.70
1:13:1423:G:OP1	35:68:49:ARG:NH2	2.25	0.70
26:1H:76:C:O2'	49:K8:62:THR:HG21	1.91	0.70
26:1H:568:U:O4	58:1H:4553:HOH:O	2.04	0.70
26:1H:860:U:C5	26:1H:917:A:C2	2.78	0.70
26:1H:2711:A:OP2	58:1H:3670:HOH:O	2.09	0.70
49:K8:18:PRO:HA	49:K8:21:LEU:HB2	1.73	0.70
4:32:31:CYS:C	4:32:33:MET:H	1.93	0.70
28:19:223:GLY:HA2	28:19:226:MET:HG3	1.71	0.70
45:C5:99:CYS:SG	45:C5:100:ALA:N	2.65	0.70
1:13:403:C:OP1	4:3E:137:SER:OG	2.08	0.70
1:1G:371:G:O2'	1:1G:373:A:N7	2.24	0.70
26:14:1170:G:O6	26:14:1179:C:N4	2.25	0.70
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.72	0.70
44:F8:2:LYS:HG2	49:K8:26:ARG:HE	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:154:G:O6	26:14:172:C:N4	2.24	0.70
28:19:72:LYS:NZ	28:19:99:ASP:OD2	2.22	0.70
26:1H:1858:G:O6	58:1H:4447:HOH:O	2.10	0.69
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.25	0.69
1:1G:1132:C:H42	1:1G:1142:G:H1	1.40	0.69
26:14:1111:A:H4'	32:59:3:ARG:HD3	1.73	0.69
26:14:1891:G:O6	58:14:3913:HOH:O	2.04	0.69
1:13:77:C:H1'	1:13:92:G:H1	1.56	0.69
11:2I:86:GLY:N	11:2I:112:THR:OG1	2.19	0.69
26:1H:578:A:OP2	58:1H:4640:HOH:O	2.08	0.69
38:98:87:TYR:HE1	38:98:117:VAL:HG12	1.56	0.69
1:13:56:U:H4'	33:69:82:ARG:HH21	1.57	0.69
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.57	0.69
26:1H:1382:G:O6	58:1H:4567:HOH:O	2.07	0.69
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.26	0.69
27:16:44:G:O2'	27:16:47:C:N4	2.25	0.69
43:E8:14:PRO:HG2	43:E8:78:GLU:HB2	1.73	0.69
43:E8:73:ALA:HB3	43:E8:106:ILE:HB	1.73	0.69
1:1G:64:G:H4'	1:1G:65:U:H5"	1.74	0.69
1:1G:957:U:H1'	1:1G:960:U:C5	2.27	0.69
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.74	0.69
26:14:424:G:O6	58:14:3828:HOH:O	2.09	0.69
27:1J:2:C:H2'	27:1J:3:C:H6	1.58	0.69
1:13:1157:A:N6	1:13:1178:G:H21	1.88	0.69
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.73	0.69
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.56	0.69
51:M8:48:ARG:HA	51:M8:48:ARG:HH11	1.57	0.69
18:9A:32:ARG:HD3	18:9A:65:ILE:HD11	1.73	0.69
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.27	0.69
36:35:121:LYS:HG3	36:35:122:PRO:HD2	1.73	0.69
45:C5:73:ARG:NH2	45:C5:81:LYS:O	2.26	0.69
55:M5:22:VAL:HB	55:M5:53:PRO:HG3	1.74	0.69
1:13:1435:G:H2'	1:13:1436:U:C6	2.27	0.69
1:13:1508:G:OP1	58:13:1802:HOH:O	2.09	0.69
34:58:96:GLU:C	34:58:98:VAL:H	1.96	0.69
52:N8:41:PRO:HD2	52:N8:44:THR:HG21	1.74	0.69
1:1G:519:C:H2'	1:1G:520:A:O4'	1.91	0.69
1:1G:1286:A:H5'	21:1B:25:LYS:HZ3	1.57	0.69
26:14:1828:G:OP1	58:14:3447:HOH:O	2.10	0.69
26:14:2364:C:H4'	47:E5:56:ASP:OD1	1.91	0.69
31:49:106:LEU:HA	31:49:110:ALA:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:104:LYS:HA	34:15:107:LEU:HD12	1.73	0.69
1:13:111:G:H5"	16:7I:27:LYS:HG2	1.74	0.69
26:1H:878:A:H61	26:1H:899:A:HO2'	1.39	0.69
26:1H:2213:U:O2	48:J8:52:ARG:NH2	2.25	0.69
26:1H:2334:G:H5'	39:A8:9:ARG:HG2	1.74	0.69
32:51:74:ASN:HA	32:51:77:LYS:HD3	1.74	0.69
40:B8:64:ARG:HB2	40:B8:73:GLU:HG2	1.74	0.69
46:H8:4:ARG:NH1	46:H8:60:GLU:OE1	2.25	0.69
26:14:1021:A:H62	26:14:1141:U:H3	1.38	0.69
36:35:105:LEU:O	36:35:106:LEU:HB3	1.92	0.69
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.75	0.69
26:1H:1678:G:H22	26:1H:1989:G:H22	1.38	0.69
55:Q8:53:PRO:HB3	55:Q8:56:GLU:H	1.58	0.69
24:3L:33:U:N3	24:3L:36:A:OP2	2.25	0.69
26:14:2210:G:H3'	26:14:2211:G:C2	2.28	0.69
26:14:2777:G:H5"	26:14:2778:A:H5'	1.75	0.69
41:85:49:HIS:HA	41:85:52:ARG:HB2	1.75	0.69
1:13:523:A:H61	12:3I:92:ASP:HB2	1.55	0.69
1:13:1160:G:H22	1:13:1177:G:H22	1.40	0.69
20:BI:26:ASN:O	20:BI:30:LYS:HB2	1.93	0.69
26:1H:280:C:N3	26:1H:361:G:N2	2.41	0.69
26:1H:323:G:C8	30:31:171:PRO:HG3	2.28	0.69
26:1H:760:G:OP1	58:1H:3829:HOH:O	2.09	0.69
26:1H:2031:A:O2'	26:1H:2454:G:N2	2.26	0.69
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.28	0.69
27:16:44:G:H1'	27:16:47:C:H42	1.58	0.69
27:16:100:G:OP1	58:16:315:HOH:O	2.09	0.69
32:51:15:VAL:HG12	32:51:28:GLY:HA3	1.73	0.69
33:61:8:PRO:HA	33:61:14:ASP:HA	1.73	0.69
45:G8:55:TYR:HB2	45:G8:58:GLY:HA3	1.75	0.69
1:1G:979:C:H5	1:1G:980:C:C6	2.11	0.69
1:1G:1132:C:N3	1:1G:1142:G:N2	2.40	0.69
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.09	0.69
2:12:178:ARG:NH1	2:12:196:LEU:O	2.20	0.69
26:14:802:A:H4'	58:14:3622:HOH:O	1.93	0.69
26:14:1757:U:H3	26:14:1762:A:H2	1.39	0.69
26:14:2689:U:P	26:14:2719:G:H22	2.14	0.69
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.74	0.69
43:A5:62:HIS:HB2	43:A5:64:MET:HG3	1.75	0.69
39:A8:24:LEU:HB2	39:A8:85:VAL:HG12	1.75	0.69
5:42:9:LYS:HB2	5:42:112:LEU:HD11	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:28:ILE:HA	30:39:112:MET:HG2	1.73	0.69
1:13:504:C:OP1	58:13:1883:HOH:O	2.11	0.69
1:13:560:U:O2'	1:13:561:U:OP2	2.11	0.69
1:13:1302:U:OP2	13:4I:21:TYR:OH	2.08	0.69
33:61:131:LYS:HB3	33:61:132:PRO:HA	1.74	0.69
37:88:75:THR:HG21	37:88:85:LYS:HD2	1.73	0.69
26:14:1187:G:OP2	58:14:3586:HOH:O	2.10	0.69
2:1E:100:GLY:O	2:1E:104:ASN:N	2.25	0.68
16:7I:50:LYS:HD3	16:7I:51:VAL:H	1.58	0.68
22:1K:76:A:H2	26:1H:2602:A:H2	1.40	0.68
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.28	0.68
26:1H:2249:U:O4	58:1H:3724:HOH:O	2.10	0.68
46:H8:152:ALA:HB3	46:H8:167:PRO:HA	1.73	0.68
1:1G:114:U:H2'	1:1G:115:G:C8	2.28	0.68
1:1G:345:C:H1'	1:1G:346:G:C2	2.28	0.68
16:7A:11:SER:H	16:7A:14:ASN:HB3	1.57	0.68
26:14:973:A:OP2	58:14:4004:HOH:O	2.09	0.68
43:A5:14:PRO:HG2	43:A5:78:GLU:HG3	1.73	0.68
9:8E:49:PRO:HA	9:8E:52:ALA:HB3	1.74	0.68
26:1H:2469:A:H2	26:1H:2481:G:H21	1.41	0.68
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.58	0.68
43:E8:24:ILE:HG12	43:E8:36:LEU:HD21	1.74	0.68
1:1G:452:A:O2'	1:1G:453:A:O4'	2.07	0.68
1:1G:1149:C:O2'	1:1G:1280:A:N1	2.24	0.68
13:4A:82:MET:HG2	13:4A:83:ASP:N	2.09	0.68
20:BA:26:ASN:HD22	20:BA:71:THR:HA	1.58	0.68
26:14:2061:G:OP2	58:14:4027:HOH:O	2.10	0.68
30:39:88:VAL:HG23	30:39:89:VAL:O	1.93	0.68
49:G5:47:ASN:O	49:G5:49:LYS:N	2.25	0.68
1:13:1159:U:O4'	1:13:1182:G:N2	2.26	0.68
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.26	0.68
26:1H:2027:G:N7	58:1H:4063:HOH:O	2.25	0.68
40:B8:16:ARG:HE	40:B8:19:LEU:HD21	1.58	0.68
48:J8:18:ILE:HG13	48:J8:37:ILE:HG23	1.75	0.68
2:12:212:GLN:HE22	2:12:216:SER:HB2	1.58	0.68
26:14:96:G:H4'	49:G5:48:HIS:CE1	2.28	0.68
26:14:943:U:OP2	36:35:36:LYS:HG3	1.93	0.68
31:49:109:VAL:HG11	31:49:142:PRO:HG3	1.75	0.68
37:45:25:ASP:HB3	37:45:102:VAL:HG23	1.73	0.68
45:C5:76:CYS:SG	45:C5:97:ARG:HG3	2.33	0.68
26:1H:566:U:OP1	36:78:29:LYS:NZ	2.22	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:625:G:N7	36:78:107:LYS:NZ	2.42	0.68
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	1.76	0.68
28:11:30:GLU:HB3	28:11:33:LEU:HB2	1.74	0.68
44:F8:36:LYS:HG2	44:F8:54:VAL:HB	1.75	0.68
1:1G:631:G:H3'	1:1G:632:A:H8	1.57	0.68
19:AA:38:SER:HB2	19:AA:71:LEU:HG	1.74	0.68
26:14:792:G:O6	58:14:3469:HOH:O	2.06	0.68
26:14:1678:G:H22	26:14:1989:G:N2	1.92	0.68
16:7I:47:ASP:N	16:7I:47:ASP:OD1	2.24	0.68
26:1H:2126:A:N6	26:1H:2163:C:O2	2.26	0.68
1:1G:554:C:H2'	1:1G:555:C:C6	2.28	0.68
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.58	0.68
34:15:13:TRP:O	34:15:135:PRO:HD2	1.94	0.68
35:25:47:ILE:HG13	35:25:48:PRO:HD2	1.76	0.68
40:75:56:GLY:O	40:75:59:THR:HG23	1.92	0.68
26:1H:2287:A:N6	26:1H:2344:U:H3	1.92	0.68
28:11:136:ILE:O	28:11:168:ARG:NH2	2.27	0.68
45:G8:76:CYS:O	45:G8:78:ALA:N	2.27	0.68
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.58	0.68
26:14:309:G:N3	26:14:329:G:O2'	2.27	0.68
26:14:2392:A:H2	26:14:2424:C:N4	1.91	0.68
37:45:21:THR:HG22	37:45:23:GLY:HA3	1.75	0.68
37:45:57:HIS:NE2	37:45:116:GLU:HB3	2.08	0.68
52:J5:20:ARG:HG2	52:J5:23:HIS:CD2	2.28	0.68
26:1H:71:A:H2	44:F8:31:HIS:HE1	1.40	0.68
26:1H:850:C:O3'	50:L8:49:LYS:NZ	2.26	0.68
26:1H:1857:G:N7	58:1H:4448:HOH:O	2.26	0.68
32:51:83:TYR:HB3	32:51:135:GLY:N	2.08	0.68
40:B8:26:ASP:CB	40:B8:92:GLY:H	2.06	0.68
1:1G:664:G:H22	1:1G:741:G:H1	1.42	0.68
30:39:117:ARG:HH12	36:35:1:MET:H2	1.39	0.68
38:55:20:LEU:HD21	38:55:40:LYS:HD3	1.74	0.68
26:1H:1678:G:N2	26:1H:1989:G:H22	1.92	0.68
26:1H:1771:C:OP2	58:1H:3986:HOH:O	2.12	0.68
26:1H:2313:C:H4'	31:41:91:ARG:HG3	1.74	0.68
31:41:67:LYS:HE2	51:M8:6:HIS:CE1	2.29	0.68
32:51:113:VAL:HG11	32:51:151:ILE:HD13	1.76	0.68
26:14:674:G:OP2	58:14:3905:HOH:O	2.10	0.68
26:14:2750:A:OP2	32:59:6:ARG:NH2	2.27	0.68
49:G5:17:SER:N	49:G5:20:GLU:OE2	2.26	0.68
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:810:U:OP1	58:1H:3711:HOH:O	2.11	0.68
26:1H:879:G:O6	26:1H:898:C:N4	2.26	0.68
28:11:182:LEU:H	28:11:272:ALA:HB3	1.58	0.68
31:41:37:VAL:H	31:41:99:MET:HE3	1.58	0.68
37:88:5:ARG:H	37:88:5:ARG:HD3	1.59	0.68
54:P8:9:ARG:NH2	54:P8:47:ARG:HD2	2.07	0.68
1:1G:1130:A:H62	1:1G:1144:G:H21	1.40	0.68
23:2L:24:C:H2'	23:2L:25:U:C6	2.28	0.68
26:14:67:U:H2'	26:14:68:G:H8	1.58	0.68
26:14:71:A:H2	44:B5:31:HIS:HE2	1.42	0.68
26:14:2157:G:HO2'	26:14:2158:A:H8	1.39	0.68
46:D5:69:THR:HG22	46:D5:90:VAL:HG22	1.76	0.68
1:1G:978:A:O2'	1:1G:1322:C:N3	2.27	0.68
9:82:128:ARG:NH1	23:2L:36:A:OP2	2.27	0.68
12:3A:117:ARG:HB3	12:3A:122:THR:HB	1.76	0.68
22:1L:76:A:H62	26:14:2583:G:H21	1.41	0.68
26:14:1300:U:OP1	58:14:4093:HOH:O	2.12	0.68
26:14:1778:U:H2'	26:14:1784:A:N6	2.09	0.68
26:14:1890:A:OP2	58:14:3912:HOH:O	2.12	0.68
26:14:2228:G:O6	58:14:4035:HOH:O	2.12	0.68
26:14:2720:U:N3	26:14:2873:A:H2	1.90	0.68
29:29:151:TYR:HD2	29:29:154:LYS:HZ2	1.41	0.68
1:13:287:U:H2'	1:13:288:A:H8	1.57	0.67
1:13:1422:G:H5"	35:68:48:PRO:HB3	1.75	0.67
20:BI:43:LEU:HD13	20:BI:51:GLU:HB3	1.75	0.67
26:1H:376:C:OP1	58:1H:3754:HOH:O	2.12	0.67
26:1H:836:G:H5"	26:1H:837:C:OP2	1.94	0.67
26:14:1188:U:O2'	26:14:1189:A:H5'	1.93	0.67
26:14:1849:G:H2'	26:14:1850:G:H8	1.60	0.67
26:14:2445:G:N7	58:14:4029:HOH:O	2.26	0.67
26:1H:299:A:H5'	26:1H:300:A:OP2	1.94	0.67
26:1H:376:C:OP2	58:1H:3750:HOH:O	2.12	0.67
26:1H:1253:A:N7	58:1H:3710:HOH:O	2.27	0.67
28:11:181:GLU:HA	28:11:272:ALA:HB3	1.75	0.67
29:21:120:TRP:CD2	29:21:155:LYS:HD3	2.29	0.67
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.77	0.67
2:12:19:HIS:NE2	2:12:205:ASP:OD1	2.25	0.67
2:12:144:ARG:HH21	2:12:148:TYR:HD2	1.43	0.67
26:14:34:C:HO2'	26:14:35:G:P	2.16	0.67
26:14:1828:G:OP2	58:14:3421:HOH:O	2.12	0.67
26:14:2709:G:N3	58:14:3434:HOH:O	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:57:THR:HB	36:35:60:MET:HB2	1.76	0.67
1:13:1305:G:N2	1:13:1331:G:H2'	2.09	0.67
26:1H:2364:C:H4'	47:I8:56:ASP:OD1	1.95	0.67
30:39:4:VAL:HA	30:39:19:GLU:HB3	1.77	0.67
1:13:156:G:H1	1:13:165:C:H42	1.42	0.67
1:13:396:G:O2'	1:13:398:C:OP1	2.09	0.67
22:1K:76:A:H8	26:1H:2507:C:H1'	1.58	0.67
26:1H:2074:U:P	58:1H:4530:HOH:O	2.53	0.67
33:61:110:ASP:HB2	33:61:112:LYS:H	1.59	0.67
43:E8:60:ASN:HD22	43:E8:60:ASN:N	1.90	0.67
1:1G:513:C:H42	1:1G:538:G:H1	1.40	0.67
26:14:1784:A:H5"	58:14:4067:HOH:O	1.93	0.67
4:3E:167:GLY:HA2	28:19:135:PHE:HE1	1.60	0.67
26:1H:155:C:H42	26:1H:171:G:H1	1.40	0.67
26:1H:751:A:OP1	58:1H:3922:HOH:O	2.11	0.67
26:1H:2262:U:OP1	26:1H:2387:U:O2'	2.10	0.67
26:1H:2287:A:H62	26:1H:2344:U:H3	1.39	0.67
46:H8:63:ASP:OD2	46:H8:65:GLN:NE2	2.27	0.67
1:1G:793:U:OP1	58:1G:1859:HOH:O	2.10	0.67
1:1G:1306:A:N6	1:1G:1331:G:O2'	2.27	0.67
26:14:2688:U:H5	26:14:2720:U:OP2	1.77	0.67
46:D5:17:ALA:HA	46:D5:20:ARG:HD2	1.76	0.67
1:13:405:U:O4	4:3E:2:GLY:N	2.28	0.67
1:13:624:C:O3'	16:7I:10:GLY:HA2	1.93	0.67
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.74	0.67
26:1H:2410:G:N7	58:1H:3729:HOH:O	2.28	0.67
37:88:72:LYS:HB3	37:88:94:VAL:HG23	1.75	0.67
40:B8:56:GLY:O	40:B8:59:THR:HG22	1.94	0.67
45:G8:76:CYS:SG	45:G8:97:ARG:HG2	2.35	0.67
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.41	0.67
26:14:1047:G:H2'	26:14:1110:G:H1	1.58	0.67
26:14:1406:U:H6	26:14:1406:U:H5"	1.58	0.67
1:13:353:A:H8	1:13:353:A:H5'	1.58	0.67
1:13:395:C:N4	58:13:1901:HOH:O	2.28	0.67
12:3I:90:VAL:HG12	12:3I:92:ASP:H	1.59	0.67
26:1H:587:C:O2	36:78:33:ARG:NH1	2.27	0.67
26:1H:1517:G:H5"	26:1H:1518:C:OP2	1.94	0.67
26:1H:1646:C:O3'	58:1H:3926:HOH:O	2.13	0.67
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.07	0.67
26:1H:1997:G:H5"	58:1H:4005:HOH:O	1.94	0.67
33:61:110:ASP:HB2	33:61:112:LYS:HG2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:186(A):C:H5"	20:BA:86:ARG:HH21	1.59	0.67
1:1G:625:G:H2'	1:1G:626:U:H6	1.60	0.67
24:3L:76:A:H8	26:14:2394:C:H42	1.38	0.67
26:14:305:U:H2'	26:14:306:U:C6	2.29	0.67
26:14:1130:U:O2	29:29:149:ARG:NH2	2.27	0.67
26:14:1971:A:OP1	58:14:3452:HOH:O	2.12	0.67
31:49:124:SER:HB2	31:49:131:TYR:CE2	2.30	0.67
1:13:1182:G:H4'	1:13:1183:A:H5"	1.74	0.67
1:13:1266:G:N7	58:13:2005:HOH:O	2.27	0.67
22:1K:51:U:H2'	22:1K:52:G:H8	1.59	0.67
26:1H:1418:G:OP2	58:1H:4023:HOH:O	2.10	0.67
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.27	0.67
26:1H:2690:C:H5"	26:1H:2872:G:H21	1.60	0.67
35:68:63:VAL:HG12	35:68:106:LEU:HD11	1.75	0.67
53:O8:10:LEU:HD23	55:Q8:32:LEU:HD22	1.76	0.67
6:52:81:ILE:HD11	28:19:125:ILE:HG12	1.77	0.67
26:14:1416:G:O2'	26:14:1417:C:O5'	2.12	0.67
26:14:2286:A:H2'	53:K5:28:ARG:HH21	1.60	0.67
46:D5:4:ARG:HA	46:D5:58:VAL:HB	1.76	0.67
1:13:272:C:H2'	1:13:273:A:C8	2.28	0.67
1:13:1216:G:OP2	58:13:1998:HOH:O	2.11	0.67
3:2E:84:ILE:HG13	3:2E:101:LEU:HD22	1.75	0.67
26:1H:1633:G:OP2	58:1H:4371:HOH:O	2.12	0.67
1:1G:1503:A:N3	25:4L:13:A:N6	2.42	0.67
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.75	0.67
24:3L:71:G:O2'	26:14:1851:U:O2'	2.01	0.67
26:14:987:G:O2'	26:14:1000:A:N3	2.28	0.67
26:14:1024:G:H3'	26:14:1025:G:H5"	1.77	0.67
26:14:1226:G:OP1	42:95:69:LYS:NZ	2.26	0.67
27:1J:13:A:H5"	27:1J:15:A:C6	2.29	0.67
38:55:33:ARG:NH2	38:55:115:GLU:OE2	2.26	0.67
38:55:74:LYS:HE3	38:55:77:ARG:HH21	1.59	0.67
38:55:86:ARG:NH2	38:55:87:TYR:OH	2.27	0.67
1:13:417:C:H2'	1:13:418:C:H6	1.60	0.67
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.60	0.67
26:1H:1657:C:OP2	29:21:136:ARG:HG3	1.94	0.67
26:1H:2074:U:OP1	58:1H:4530:HOH:O	2.12	0.67
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.27	0.67
30:31:127:GLU:HG2	30:31:196:LEU:HB2	1.75	0.67
37:88:21:THR:HG22	37:88:99:PRO:O	1.95	0.67
1:1G:1126:U:H4'	1:1G:1127:G:N7	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:87:LEU:HA	3:22:90:GLU:HG2	1.76	0.67
26:14:399:G:OP2	58:14:4118:HOH:O	2.12	0.67
26:14:1419:A:H2'	26:14:1421:G:N7	2.09	0.67
26:14:1754:C:H2'	26:14:1755:A:C8	2.29	0.67
1:13:490:G:OP2	4:3E:132:ARG:NH2	2.26	0.66
11:2I:98:LEU:O	11:2I:101:SER:OG	2.11	0.66
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.29	0.66
29:21:105:THR:HG21	29:21:164:ARG:NH1	2.10	0.66
49:K8:32:LEU:HD11	49:K8:54:LYS:HG2	1.75	0.66
1:1G:310:G:OP2	16:7A:27:LYS:NZ	2.21	0.66
1:1G:1127:G:H22	1:1G:1144:G:H1	1.43	0.66
5:42:122:GLU:O	5:42:126:ARG:NH1	2.28	0.66
26:14:2598:A:OP1	58:14:4081:HOH:O	2.12	0.66
26:1H:731:C:OP2	58:1H:3689:HOH:O	2.13	0.66
37:88:12:GLN:HG2	37:88:73:PRO:HD2	1.76	0.66
19:AA:9:VAL:HG13	51:I5:63:TYR:HE1	1.59	0.66
26:1H:446:G:OP2	58:1H:3702:HOH:O	2.13	0.66
26:1H:567:A:OP1	58:1H:3601:HOH:O	2.13	0.66
26:1H:1298:C:H5"	26:1H:1299:G:OP2	1.96	0.66
1:13:1118:C:H1'	1:13:1179:A:C4	2.31	0.66
6:5E:38:GLU:OE1	6:5E:64:GLN:NE2	2.27	0.66
26:1H:138:G:N2	44:F8:44:GLU:OE2	2.22	0.66
26:1H:298:G:P	45:G8:84:ARG:HH12	2.18	0.66
26:1H:1636:C:OP2	58:1H:3609:HOH:O	2.13	0.66
39:A8:88:ASP:O	39:A8:89:ARG:HB3	1.95	0.66
46:H8:17:ALA:HA	46:H8:20:ARG:HB2	1.78	0.66
1:1G:411:A:C5	1:1G:413:G:H1'	2.31	0.66
1:1G:957:U:H1'	1:1G:960:U:H5	1.61	0.66
26:14:760:G:OP1	58:14:4111:HOH:O	2.12	0.66
26:14:1111:A:H4'	32:59:3:ARG:HH11	1.61	0.66
30:39:123:LEU:O	30:39:125:LEU:N	2.27	0.66
36:35:125:VAL:O	36:35:144:GLU:HB3	1.96	0.66
26:1H:991:C:H2'	26:1H:992:C:H6	1.61	0.66
26:1H:1021:A:H62	26:1H:1141:U:H3	1.43	0.66
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.58	0.66
33:61:7:GLU:HA	33:61:15:VAL:HG22	1.76	0.66
26:14:1443:G:N7	58:14:3772:HOH:O	2.28	0.66
26:14:2873:A:H8	38:55:6:SER:N	1.92	0.66
47:E5:49:LYS:HG3	47:E5:80:HIS:HB3	1.77	0.66
26:1H:1438:U:H2'	26:1H:1439:A:C8	2.30	0.66
29:21:70:ALA:O	29:21:73:GLU:N	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:131:TYR:O	31:41:159:VAL:HG22	1.96	0.66
22:1L:74:C:H1'	22:1L:75:C:H5'	1.76	0.66
26:14:2598:A:OP1	58:14:4079:HOH:O	2.11	0.66
33:69:76:THR:HG21	33:69:140:LEU:HD12	1.77	0.66
35:25:68:GLU:HB3	35:25:78:ARG:HD3	1.77	0.66
38:55:38:VAL:HG12	38:55:42:LYS:HD2	1.77	0.66
1:13:143:A:H2	1:13:220:G:H1	1.43	0.66
26:1H:250:G:H2'	26:1H:251:A:C8	2.31	0.66
26:1H:1153:C:OP2	58:1H:4003:HOH:O	2.12	0.66
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.31	0.66
39:A8:14:VAL:HG21	39:A8:89:ARG:HE	1.59	0.66
43:E8:70:TYR:HD1	43:E8:70:TYR:H	1.44	0.66
49:K8:15:LYS:H	49:K8:67:LYS:NZ	1.94	0.66
26:14:1949:G:O6	58:14:3816:HOH:O	2.10	0.66
26:14:2080:G:H5'	48:F5:35:THR:OG1	1.95	0.66
33:69:70:GLU:O	33:69:74:ASN:ND2	2.28	0.66
1:13:630:G:N2	58:13:1982:HOH:O	2.28	0.66
26:1H:1257:C:H4'	30:31:83:PHE:CE1	2.31	0.66
26:1H:1332:G:N2	26:1H:1610:A:C8	2.64	0.66
26:1H:2659:G:H4'	32:51:175:LYS:HD2	1.77	0.66
26:1H:2701:C:H2'	26:1H:2702:U:H2'	1.77	0.66
29:21:82:ARG:O	29:21:84:PHE:N	2.28	0.66
48:J8:87:PRO:HA	48:J8:90:ILE:HG13	1.78	0.66
24:3L:56:C:H5'	26:14:2169:A:C8	2.30	0.66
26:14:531:C:H4'	26:14:532:A:H5"	1.78	0.66
26:14:900:A:H3'	26:14:901:A:H8	1.61	0.66
26:14:1225:C:O2'	42:95:85:LYS:N	2.28	0.66
29:29:65:GLY:O	29:29:67:PHE:N	2.27	0.66
39:65:34:HIS:NE2	39:65:54:LEU:HD13	2.11	0.66
51:I5:48:ARG:HH22	51:I5:51:ASP:HB3	1.61	0.66
1:13:1160:G:H1	1:13:1177:G:H22	1.44	0.66
1:13:1429:C:H2'	1:13:1430:C:C6	2.31	0.66
26:1H:1331:A:O3'	58:1H:4559:HOH:O	2.13	0.66
26:1H:1334:G:OP2	58:1H:3955:HOH:O	2.14	0.66
26:1H:1693:U:H1'	28:11:14:ARG:NH2	2.11	0.66
26:1H:2701:C:H3'	26:1H:2702:U:H5"	1.78	0.66
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.11	0.66
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.76	0.66
26:14:39:C:O2	30:39:46:ARG:NH2	2.29	0.66
26:14:1599:C:H2'	26:14:1600:C:H6	1.59	0.66
43:A5:13:SER:HB3	43:A5:16:LYS:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.29	0.66
26:1H:213:A:OP2	58:1H:4290:HOH:O	2.14	0.66
45:G8:81:LYS:HB3	45:G8:82:PRO:HA	1.78	0.66
51:M8:65:ASP:OD1	51:M8:65:ASP:N	2.28	0.66
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.77	0.66
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.78	0.66
26:14:987:G:OP2	58:14:4040:HOH:O	2.14	0.66
26:14:1464:C:HO2'	26:14:1528:A:H8	1.41	0.66
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.77	0.66
46:D5:152:ALA:HB3	46:D5:167:PRO:HA	1.78	0.66
51:I5:11:PRO:HA	51:I5:25:TYR:HA	1.77	0.66
1:13:627:G:H2'	1:13:628:G:H8	1.61	0.65
1:13:835:U:H3	1:13:851:G:H1	1.44	0.65
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.60	0.65
22:1K:76:A:H2	26:1H:2602:A:C2	2.13	0.65
26:1H:570:G:OP2	58:1H:3873:HOH:O	2.12	0.65
26:1H:770:G:OP2	58:1H:4400:HOH:O	2.13	0.65
26:1H:1671:U:OP2	58:1H:3665:HOH:O	2.13	0.65
26:1H:2165:G:N7	26:1H:2166:G:N2	2.44	0.65
39:A8:28:VAL:HG11	39:A8:98:VAL:HG12	1.77	0.65
55:Q8:6:THR:H	55:Q8:59:LYS:HE3	1.60	0.65
2:12:70:PHE:O	2:12:93:VAL:N	2.20	0.65
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.78	0.65
4:32:24:GLU:N	4:32:24:GLU:OE2	2.28	0.65
26:14:780:G:H21	26:14:783:A:H62	1.44	0.65
26:14:1079:C:N4	26:14:1088:A:OP1	2.29	0.65
36:35:113:LYS:HD3	36:35:115:LEU:HD21	1.78	0.65
40:75:20:PRO:HD2	40:75:86:ILE:HG23	1.78	0.65
1:13:1062:U:H2'	1:13:1063:C:C6	2.30	0.65
10:1I:46:ARG:NH2	10:1I:64:GLU:OE1	2.29	0.65
26:1H:2789:C:O2	26:1H:2894:G:N2	2.28	0.65
30:31:67:GLN:HG3	30:31:67:GLN:O	1.96	0.65
45:G8:87:LYS:O	45:G8:94:LYS:HB2	1.95	0.65
1:1G:1145:C:O2'	1:1G:1146:A:N7	2.29	0.65
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.77	0.65
26:14:1847:A:H8	26:14:1847:A:OP1	1.79	0.65
27:1J:6:C:H2'	27:1J:7:G:H5"	1.78	0.65
37:45:75:THR:HB	37:45:86:GLY:HA3	1.78	0.65
1:13:191(F):U:H2'	1:13:191:G:H8	1.61	0.65
1:13:292:G:N7	1:13:293:G:H1'	2.12	0.65
22:1K:14:A:N6	22:1K:22:G:N3	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1056:G:H21	26:1H:1103:A:H62	1.44	0.65
26:1H:1586:A:H3'	26:1H:1587:A:H8	1.60	0.65
32:51:6:ARG:HB3	32:51:65:HIS:CG	2.32	0.65
55:Q8:7:HIS:ND1	55:Q8:7:HIS:O	2.29	0.65
26:14:270(Q):C:H5"	33:69:45:LYS:HE3	1.78	0.65
26:14:1073:A:OP2	26:14:1094:U:N3	2.29	0.65
28:19:16:MET:HE1	28:19:208:LYS:HG2	1.77	0.65
1:13:191(F):U:H2'	1:13:191:G:C8	2.31	0.65
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.28	0.65
26:1H:453:C:OP1	58:1H:3896:HOH:O	2.15	0.65
34:58:56:ASN:N	34:58:125:GLY:O	2.15	0.65
49:K8:5:GLU:HA	49:K8:5:GLU:OE2	1.93	0.65
51:M8:52:THR:OG1	51:M8:53:GLU:N	2.29	0.65
1:1G:940:C:H2'	1:1G:941:G:C8	2.32	0.65
5:42:143:ARG:NH1	8:72:77:GLU:OE2	2.26	0.65
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.78	0.65
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.29	0.65
1:13:926:G:H5'	1:13:927:G:O5'	1.96	0.65
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.37	0.65
4:3E:88:VAL:HB	4:3E:91:SER:HB2	1.78	0.65
26:1H:646:A:H2'	26:1H:647:G:O4'	1.96	0.65
26:1H:1024:G:H3'	26:1H:1025:G:H5"	1.78	0.65
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.32	0.65
32:51:4:ILE:HG21	32:51:6:ARG:NH1	2.12	0.65
1:1G:359:U:H2'	1:1G:360:A:C8	2.31	0.65
26:14:910:A:C5	37:45:13:GLN:HG3	2.31	0.65
1:13:407:G:OP1	4:3E:115:ARG:NH1	2.30	0.65
1:13:859:A:H2'	1:13:860:A:H8	1.60	0.65
1:13:1352:C:H2'	1:13:1353:G:C8	2.31	0.65
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.79	0.65
24:3K:22:G:N7	24:3K:46:G:N2	2.45	0.65
26:1H:187:G:N7	58:1H:4406:HOH:O	2.29	0.65
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.31	0.65
26:1H:2032:G:H21	29:21:146:THR:HG23	1.61	0.65
40:B8:3:ARG:O	40:B8:7:ILE:N	2.27	0.65
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.77	0.65
26:14:2681:C:H5	26:14:2725:A:H62	1.42	0.65
26:14:2718:G:N7	58:14:3760:HOH:O	2.29	0.65
40:75:98:LYS:HB3	40:75:100:TYR:CE2	2.31	0.65
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.79	0.65
26:1H:731:C:H5"	58:1H:3827:HOH:O	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2837:G:N7	58:1H:4253:HOH:O	2.28	0.65
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.31	0.65
32:51:12:PRO:HG2	32:51:13:LYS:HG2	1.78	0.65
33:61:144:VAL:HG22	33:61:145:VAL:HG23	1.79	0.65
4:32:156:GLU:HA	4:32:159:ARG:HD2	1.78	0.65
26:14:1211:U:OP1	26:14:1211:U:H2'	1.97	0.65
26:14:2150:U:H2'	26:14:2151:G:H8	1.62	0.65
48:F5:14:VAL:HG11	48:F5:39:LYS:HD3	1.79	0.65
23:2K:3:C:H42	23:2K:71:G:H1	1.44	0.65
26:1H:439:G:O6	58:1H:4674:HOH:O	2.10	0.65
26:1H:945:A:N3	58:1H:3865:HOH:O	2.28	0.65
26:1H:1253:A:C8	58:1H:3713:HOH:O	2.48	0.65
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.12	0.65
26:1H:2263:C:OP2	58:1H:4140:HOH:O	2.14	0.65
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.31	0.65
55:Q8:49:VAL:HG12	55:Q8:52:LYS:CB	2.27	0.65
1:1G:1179:A:H4'	9:82:103:THR:HA	1.78	0.65
1:1G:1316:G:N2	1:1G:1319:A:H5"	2.11	0.65
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.29	0.65
26:14:2615:U:C2	52:J5:7:PRO:HA	2.32	0.65
29:29:8:LYS:HB3	29:29:193:GLY:H	1.62	0.65
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.78	0.65
1:13:74:C:N4	1:13:96:G:H1	1.93	0.65
1:13:339:C:OP2	35:68:97:ARG:NH1	2.28	0.65
1:13:505:G:OP1	58:13:1880:HOH:O	2.14	0.65
1:13:649:G:H2'	1:13:650:G:H8	1.62	0.65
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.30	0.65
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.78	0.65
26:1H:1377:G:OP2	58:1H:4125:HOH:O	2.15	0.65
26:1H:2331:G:O3'	47:I8:43:THR:HG22	1.95	0.65
30:31:160:ASN:OD1	30:31:163:VAL:HG23	1.96	0.65
32:51:149:ARG:HA	32:51:162:ILE:HG21	1.78	0.65
5:42:82:VAL:HG12	5:42:89:ILE:HG22	1.77	0.65
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.15	0.65
26:14:2836:U:H2'	26:14:2837:G:C8	2.32	0.65
1:13:963:G:H21	10:1I:55:LYS:HE2	1.62	0.65
26:1H:270(L):U:H3	33:61:50:ARG:HG2	1.62	0.65
26:1H:779:U:OP1	28:11:49:ILE:HG13	1.95	0.65
26:1H:847:U:OP2	58:1H:3755:HOH:O	2.14	0.65
26:1H:1164:G:H2'	26:1H:1165:U:H6	1.60	0.65
36:78:13:ASN:ND2	36:78:15:ARG:HD3	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:63:ARG:HB2	38:98:80:PHE:HE2	1.62	0.65
1:1G:555:C:H2'	1:1G:556:C:C6	2.32	0.65
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.78	0.65
26:14:38:A:H1'	30:39:48:THR:HB	1.77	0.65
26:14:801:G:OP2	58:14:3736:HOH:O	2.14	0.65
26:14:1945:G:H2'	26:14:1946:U:H6	1.61	0.65
26:14:2064:C:H2'	26:14:2065:C:C6	2.32	0.65
26:14:2453:A:H61	26:14:2500:U:H3	1.44	0.65
27:1J:4:C:H42	27:1J:116:G:H1	1.45	0.65
29:29:33:VAL:HG12	29:29:89:ASP:HB3	1.77	0.65
42:95:85:LYS:CD	42:95:86:GLY:H	2.08	0.65
50:H5:46:ASN:O	50:H5:50:VAL:HG22	1.97	0.65
19:AI:30:LEU:HD22	19:AI:30:LEU:H	1.62	0.64
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.33	0.64
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.61	0.64
29:21:64:LYS:O	29:21:70:ALA:HB2	1.97	0.64
47:I8:49:LYS:HG3	47:I8:80:HIS:HB3	1.80	0.64
55:Q8:54:GLU:O	55:Q8:56:GLU:N	2.30	0.64
11:2A:33:THR:OG1	11:2A:34:ASP:O	2.16	0.64
26:14:2415:G:H4'	36:35:67:MET:N	2.11	0.64
40:75:55:ASN:N	40:75:59:THR:HG22	2.12	0.64
42:95:44:LYS:O	42:95:46:VAL:N	2.24	0.64
1:13:474:G:H2'	1:13:475:G:C8	2.33	0.64
1:13:1000:A:H2'	1:13:1001:G:H8	1.61	0.64
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.79	0.64
26:1H:1932:A:H2'	26:1H:1933:G:O4'	1.96	0.64
29:21:3:GLY:HA3	29:21:81:ILE:HG21	1.79	0.64
1:1G:54:C:N4	1:1G:353:A:OP2	2.29	0.64
1:1G:458:C:H42	1:1G:474:G:H1	1.44	0.64
11:2I:99:GLN:HG2	11:2I:105:VAL:HG21	1.78	0.64
36:78:101:VAL:HG12	36:78:106:LEU:HD12	1.79	0.64
38:98:51:LEU:HD22	38:98:66:VAL:HG13	1.79	0.64
3:22:81:GLY:HA2	3:22:85:ARG:HD3	1.79	0.64
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.80	0.64
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.61	0.64
27:16:90:C:H5'	37:88:18:LYS:HA	1.77	0.64
28:11:177:LEU:HD11	28:11:183:ARG:HG2	1.80	0.64
30:31:6:VAL:HG21	30:31:119:ARG:HB2	1.79	0.64
3:22:91:LEU:O	3:22:95:THR:OG1	2.15	0.64
26:14:1332:G:N2	26:14:1610:A:C8	2.65	0.64
26:14:2261:C:O2'	26:14:2262:U:H5'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:148:GLU:HB2	28:19:151:LYS:HD2	1.78	0.64
46:D5:139:VAL:HG22	46:D5:156:LYS:HG2	1.78	0.64
48:F5:87:PRO:HA	48:F5:90:ILE:HG13	1.78	0.64
1:13:501:C:OP2	12:3I:124:LYS:NZ	2.25	0.64
1:13:939:G:H5"	7:6E:102:ARG:NH2	2.12	0.64
1:13:1002:G:O6	1:13:1038:C:N4	2.30	0.64
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.31	0.64
1:13:1190:G:OP1	3:2E:4:LYS:HA	1.98	0.64
1:13:1429:C:H2'	1:13:1430:C:H6	1.61	0.64
1:13:1505:G:OP1	58:13:1804:HOH:O	2.14	0.64
26:1H:654(H):G:N7	26:1H:654(N):G:N2	2.45	0.64
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.32	0.64
26:1H:1702:G:O6	58:1H:4393:HOH:O	2.12	0.64
26:1H:2061:G:OP2	26:1H:2502:G:H5'	1.98	0.64
26:1H:2161:C:H2'	26:1H:2162:G:H8	1.61	0.64
36:78:1:MET:HE2	36:78:6:LEU:HD13	1.78	0.64
26:14:2471:C:N4	26:14:2476:A:O2'	2.31	0.64
42:95:14:VAL:HB	42:95:96:ILE:HG13	1.79	0.64
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.79	0.64
1:13:323:U:H2'	1:13:324:G:O4'	1.98	0.64
2:1E:141:GLU:O	2:1E:145:LEU:HB2	1.98	0.64
26:1H:450:G:OP2	58:1H:3889:HOH:O	2.15	0.64
26:1H:1971:A:C4	28:11:241:PRO:HD3	2.33	0.64
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.79	0.64
30:31:152:GLU:HG3	30:31:191:ARG:HD2	1.80	0.64
10:1A:8:LEU:HD22	10:1A:20:ALA:HB2	1.80	0.64
26:14:1113:U:OP1	32:59:3:ARG:N	2.31	0.64
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.30	0.64
1:13:991:U:O2'	1:13:992:U:O5'	2.15	0.64
18:9I:59:SER:OG	18:9I:60:ALA:N	2.30	0.64
20:BI:86:ARG:NH1	20:BI:90:GLN:OE1	2.30	0.64
26:1H:2080:G:O6	58:1H:4320:HOH:O	2.11	0.64
55:Q8:34:TRP:HB3	55:Q8:35:GLN:HA	1.78	0.64
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.33	0.64
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.79	0.64
5:42:36:ASP:HB2	5:42:38:GLN:HG3	1.80	0.64
20:BA:87:LYS:HE3	20:BA:91:LEU:HD11	1.79	0.64
23:2L:20:G:C2	23:2L:58:A:C2	2.86	0.64
26:14:884:C:N4	26:14:892:G:O6	2.30	0.64
26:14:1040:C:O2	26:14:1115:G:N2	2.20	0.64
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:34:G:N7	24:3K:35:A:H8	1.95	0.64
26:1H:495:G:O2'	43:E8:62:HIS:HE1	1.80	0.64
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.80	0.64
26:1H:2352:A:H2'	26:1H:2353:G:O4'	1.98	0.64
24:3L:36:A:N7	24:3L:37:A:N6	2.46	0.64
26:14:996:A:N6	26:14:1160:G:C6	2.66	0.64
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.80	0.64
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.79	0.64
26:1H:250:G:P	36:78:60:MET:HE1	2.38	0.64
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.80	0.64
55:Q8:49:VAL:CG2	55:Q8:53:PRO:HD2	2.27	0.64
3:22:136:GLN:O	3:22:140:ARG:N	2.29	0.64
26:14:2304:G:O2'	31:49:156:ASP:OD1	2.11	0.64
29:29:33:VAL:HG11	29:29:36:ARG:HH21	1.62	0.64
45:C5:17:SER:HB3	45:C5:71:LYS:HB3	1.79	0.64
1:13:477:G:N7	58:13:2008:HOH:O	2.29	0.64
26:1H:547:A:H2'	26:1H:548:A:C8	2.33	0.64
41:C8:8:VAL:HG23	41:C8:11:ARG:NH2	2.11	0.64
1:1G:297:G:N2	1:1G:300:A:OP2	2.31	0.64
3:22:14:ILE:HG12	3:22:15:THR:H	1.62	0.64
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.80	0.64
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.33	0.64
15:6A:54:ARG:NH1	15:6A:58:MET:SD	2.71	0.64
26:14:590:A:H2'	26:14:591:C:C6	2.33	0.64
26:14:994:C:OP2	41:85:54:LYS:NZ	2.27	0.64
26:14:1022:G:H22	26:14:1142(A):A:H2	1.45	0.64
30:39:129:PHE:HA	30:39:142:TRP:CD1	2.33	0.64
41:85:100:VAL:O	41:85:101:ARG:HG2	1.98	0.64
45:C5:87:LYS:H	45:C5:94:LYS:HG2	1.62	0.64
1:13:750:G:N3	15:6I:23:GLY:HA3	2.13	0.63
3:2E:42:LEU:O	3:2E:46:GLU:HG2	1.98	0.63
26:1H:2002:G:N7	58:1H:4225:HOH:O	2.30	0.63
32:51:83:TYR:CG	32:51:134:SER:HA	2.33	0.63
4:32:61:LYS:NZ	4:32:72:GLU:OE2	2.29	0.63
7:62:84:ASN:OD1	7:62:84:ASN:N	2.31	0.63
26:14:619:G:H5"	26:14:620:G:H21	1.61	0.63
26:14:2056:G:H1	52:J5:4:HIS:HB3	1.62	0.63
26:14:2074:U:H2'	26:14:2075:U:C6	2.33	0.63
26:14:2646:C:H2'	26:14:2647:U:O4'	1.98	0.63
44:B5:55:ASN:HB2	44:B5:80:ILE:HG13	1.79	0.63
2:1E:28:PHE:HD1	2:1E:194:PRO:HD3	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:95:GLY:O	4:3E:99:SER:OG	2.16	0.63
26:1H:981:A:H8	26:1H:982:C:C5	2.15	0.63
39:A8:29:PHE:HD1	39:A8:30:ARG:N	1.95	0.63
42:D8:59:ALA:HB2	42:D8:96:ILE:HD13	1.79	0.63
55:Q8:16:ILE:HD13	55:Q8:56:GLU:OE2	1.97	0.63
1:1G:532:A:N6	1:1G:1206:G:O2'	2.31	0.63
1:1G:1028:C:H42	1:1G:1033:G:H1	1.45	0.63
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.26	0.63
10:1I:40:LEU:HB2	10:1I:69:ASN:HB3	1.80	0.63
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.64	0.63
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.33	0.63
37:88:51:ARG:HH12	37:88:52:VAL:HG23	1.63	0.63
40:B8:58:ASN:C	40:B8:58:ASN:HD22	2.02	0.63
24:3L:48:C:N4	24:3L:59:U:O2	2.31	0.63
32:59:6:ARG:H	32:59:6:ARG:HD2	1.64	0.63
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.13	0.63
17:8I:76:LEU:HD12	17:8I:77:VAL:N	2.13	0.63
26:1H:410:G:H3'	58:1H:4628:HOH:O	1.99	0.63
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.34	0.63
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.61	0.63
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.72	0.63
45:G8:100:ALA:HB1	45:G8:101:LYS:HB2	1.81	0.63
13:4A:3:ARG:HB2	51:I5:34:GLU:HG3	1.80	0.63
26:14:1593:G:H2'	26:14:1594:G:C8	2.33	0.63
27:1J:116:G:H5'	39:65:55:ALA:HB2	1.80	0.63
1:13:200:G:H1	1:13:217:C:H42	1.45	0.63
1:13:686:U:O4	1:13:703:G:H1'	1.99	0.63
1:13:1263:C:H2'	1:13:1264:C:H6	1.64	0.63
26:1H:1018:C:H2'	26:1H:1019:U:H6	1.64	0.63
26:1H:2068:U:N3	26:1H:2430:A:H2	1.94	0.63
38:98:104:ARG:NH1	38:98:107:ASP:OD2	2.32	0.63
1:1G:690:G:H1	11:2A:55:LYS:NZ	1.96	0.63
26:14:779:U:O4	58:14:3960:HOH:O	2.10	0.63
29:29:89:ASP:O	29:29:91:VAL:N	2.29	0.63
36:35:11:GLY:C	36:35:13:ASN:H	2.01	0.63
55:M5:40:GLU:HA	55:M5:43:GLN:HB2	1.79	0.63
1:13:859:A:H2'	1:13:860:A:C8	2.34	0.63
5:4E:13:ILE:HD12	5:4E:30:ALA:HA	1.80	0.63
26:1H:2056:G:C2	26:1H:2057:A:C8	2.87	0.63
34:58:6:PRO:HG3	34:58:41:ASP:HB2	1.80	0.63
41:C8:28:ARG:NH1	41:C8:38:THR:OG1	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.79	0.63
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.34	0.63
23:2L:41:C:H2'	23:2L:42:C:H6	1.64	0.63
26:14:588:U:H2'	26:14:589:C:C6	2.32	0.63
26:14:1926:U:H2'	26:14:1928:A:OP2	1.99	0.63
42:95:6:LYS:H	42:95:37:VAL:HG12	1.64	0.63
1:13:77:C:O2'	1:13:92:G:N2	2.32	0.63
1:13:179:A:H2'	1:13:180:U:H6	1.64	0.63
1:13:1505:G:P	58:13:1804:HOH:O	2.57	0.63
26:1H:141:A:C8	26:1H:1408:C:H1'	2.33	0.63
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.33	0.63
26:1H:2061:G:P	58:1H:3633:HOH:O	2.57	0.63
26:1H:2360:A:OP1	55:Q8:48:PHE:HB2	1.98	0.63
26:1H:2594:C:N4	58:1H:3683:HOH:O	2.32	0.63
34:58:18:ALA:HA	34:58:21:LYS:HG3	1.80	0.63
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.34	0.63
26:14:1828:G:OP2	58:14:3417:HOH:O	2.15	0.63
32:59:6:ARG:HH11	32:59:6:ARG:N	1.97	0.63
34:15:95:PRO:O	34:15:98:VAL:HG22	1.98	0.63
38:55:52:ILE:O	38:55:55:ALA:N	2.32	0.63
46:D5:153:SER:HB3	46:D5:167:PRO:HG3	1.80	0.63
9:8E:42:ARG:HH11	9:8E:71:SER:HB3	1.63	0.63
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.63	0.63
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.80	0.63
2:12:149:LEU:HD23	2:12:152:PHE:HB3	1.80	0.63
26:14:760:G:OP1	58:14:4109:HOH:O	2.15	0.63
29:29:47:VAL:HG21	29:29:86:PRO:HD2	1.81	0.63
32:59:26:VAL:HG12	32:59:33:LEU:H	1.63	0.63
1:13:1178:G:N7	9:8E:97:LYS:NZ	2.46	0.63
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.98	0.63
23:2K:52:C:O2	23:2K:64:G:N2	2.28	0.63
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.34	0.63
36:78:19:VAL:HG12	36:78:21:ARG:N	2.01	0.63
37:88:66:ILE:HG22	37:88:67:ARG:H	1.64	0.63
46:H8:73:GLN:HB2	46:H8:87:ASP:HB2	1.81	0.63
1:1G:677:U:H3	1:1G:713:G:H22	1.47	0.63
26:14:1784:A:H4'	26:14:1785:A:O5'	1.99	0.63
26:14:2645:G:H3'	26:14:2646:C:H5'	1.81	0.63
30:39:117:ARG:NH1	36:35:1:MET:H2	1.96	0.63
1:13:131:C:OP1	1:13:190:G:N2	2.32	0.62
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.79	0.62
26:1H:1252:G:N3	41:C8:33:ARG:HD2	2.14	0.62
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.33	0.62
26:1H:1728:G:H8	26:1H:1732:A:H62	1.47	0.62
1:1G:554:C:H2'	1:1G:555:C:H6	1.62	0.62
1:1G:707:C:H2'	1:1G:708:C:C6	2.34	0.62
1:1G:963:G:N2	1:1G:972:C:N3	2.44	0.62
29:29:197:ILE:HD11	29:29:199:ARG:HE	1.64	0.62
51:I5:56:VAL:HG22	51:I5:57:GLU:HG3	1.81	0.62
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.34	0.62
26:1H:1798:U:C5'	28:11:259:THR:HG22	2.27	0.62
39:A8:74:ALA:HB1	39:A8:107:GLU:O	1.99	0.62
1:1G:760:G:N2	17:8A:94:ASN:OD1	2.32	0.62
1:1G:1139:G:H4'	1:1G:1140:C:H5'	1.80	0.62
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.79	0.62
7:62:92:SER:HB2	7:62:95:ARG:HB2	1.81	0.62
26:14:579:G:H2'	26:14:580:C:C6	2.34	0.62
26:14:1329:U:H5"	26:14:1330:C:H5	1.65	0.62
26:14:2275:C:O2'	37:45:83:MET:HA	1.99	0.62
26:14:2415:G:O3'	36:35:66:GLY:HA3	1.99	0.62
27:1J:62:C:H2'	27:1J:63:G:H8	1.62	0.62
31:49:60:LEU:O	31:49:64:THR:HG22	1.98	0.62
32:59:82:GLY:HA3	32:59:135:GLY:O	1.99	0.62
1:13:674:G:H2'	1:13:675:A:H8	1.64	0.62
1:13:1316:G:N2	1:13:1318:A:H3'	2.15	0.62
26:1H:49:A:N7	26:1H:120:U:C5	2.67	0.62
26:1H:571:A:OP2	58:1H:4551:HOH:O	2.16	0.62
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.64	0.62
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.35	0.62
26:1H:2096:U:H3	26:1H:2193:G:H1	1.47	0.62
36:78:68:GLN:NE2	55:Q8:12:LYS:HB3	2.14	0.62
38:98:10:LEU:O	38:98:12:ARG:N	2.32	0.62
50:L8:39:ASP:OD2	50:L8:44:ARG:NH1	2.33	0.62
23:2L:10:G:N2	23:2L:27:G:H1'	2.14	0.62
26:14:330:A:H2	26:14:1210:A:O2'	1.82	0.62
27:1J:52:A:H62	39:65:33:LYS:HG3	1.63	0.62
39:65:3:ARG:HE	39:65:4:LEU:H	1.47	0.62
45:C5:87:LYS:HB2	45:C5:94:LYS:HA	1.80	0.62
1:13:1286:A:C8	1:13:1287:A:H4'	2.34	0.62
7:6E:95:ARG:NH2	7:6E:99:LEU:HD11	2.14	0.62
7:6E:115:ARG:O	7:6E:118:VAL:HG12	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.81	0.62
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.31	0.62
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.13	0.62
35:68:7:TYR:CZ	35:68:44:LYS:HG3	2.34	0.62
50:L8:38:GLU:CD	50:L8:38:GLU:H	2.01	0.62
1:1G:1335:C:OP1	1:1G:1337:G:N2	2.30	0.62
24:3L:5:G:H1	24:3L:68:C:H42	1.46	0.62
24:3L:30:G:H2'	24:3L:31:A:H8	1.65	0.62
26:14:67:U:H2'	26:14:68:G:C8	2.34	0.62
26:14:819:A:OP2	26:14:1187:G:N2	2.32	0.62
26:14:990:A:H5'	26:14:990:A:H8	1.63	0.62
29:29:55:ASN:O	29:29:57:LYS:NZ	2.32	0.62
37:45:34:LEU:HB2	37:45:118:LEU:HD13	1.81	0.62
1:13:156:G:H1	1:13:165:C:N4	1.97	0.62
26:1H:862:G:OP2	58:1H:3992:HOH:O	2.16	0.62
26:1H:2057:A:P	58:1H:3621:HOH:O	2.56	0.62
36:78:78:PRO:HB3	36:78:111:ARG:NH2	2.14	0.62
38:98:41:ALA:O	38:98:44:LEU:N	2.33	0.62
1:1G:1220:G:O3'	19:AA:36:ARG:HD3	1.99	0.62
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.32	0.62
2:12:5:ILE:HA	2:12:221:LEU:HD21	1.80	0.62
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.31	0.62
5:42:151:LEU:HD22	8:72:67:PRO:HD3	1.81	0.62
8:72:25:ASP:OD1	8:72:25:ASP:N	2.32	0.62
26:14:491:G:H2'	26:14:492:A:C8	2.35	0.62
26:14:1040:C:H2'	26:14:1041:C:C6	2.35	0.62
26:14:1340:U:H4'	26:14:1394:U:O2'	1.99	0.62
27:1J:70:C:H2'	27:1J:71:C:H6	1.63	0.62
1:13:474:G:H2'	1:13:475:G:H8	1.61	0.62
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.14	0.62
26:1H:998:C:H3'	58:1H:4004:HOH:O	1.99	0.62
45:G8:85:VAL:HG22	45:G8:98:VAL:HB	1.80	0.62
51:M8:13:ARG:H	51:M8:30:GLU:H	1.47	0.62
1:1G:940:C:H2'	1:1G:941:G:H8	1.62	0.62
26:14:2010:G:N7	58:14:3546:HOH:O	2.31	0.62
26:14:2291:U:H5"	26:14:2380:C:O2'	1.98	0.62
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.30	0.62
45:C5:48:ALA:HB3	45:C5:59:GLY:C	2.20	0.62
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.14	0.62
1:13:1412:C:H42	1:13:1488:G:H1	1.48	0.62
2:1E:163:PHE:CD1	2:1E:185:ILE:HG13	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	1.80	0.62
16:7I:26:ARG:HH21	16:7I:31:LYS:HD3	1.63	0.62
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.47	0.62
34:58:4:TYR:O	41:C8:64:ARG:NH1	2.32	0.62
46:H8:10:ARG:HG3	46:H8:36:LYS:HB3	1.81	0.62
55:Q8:6:THR:HA	55:Q8:58:ILE:H	1.64	0.62
1:1G:1130:A:N6	1:1G:1144:G:H21	1.97	0.62
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.35	0.62
13:4A:23:TYR:CZ	13:4A:71:ARG:HG3	2.35	0.62
26:14:273(C):C:N4	26:14:363(C):G:H1	1.96	0.62
26:14:661:C:H1'	36:35:12:ALA:HA	1.81	0.62
27:1J:8:U:H3	27:1J:112:G:H1	1.47	0.62
45:C5:68:HIS:HB3	45:C5:71:LYS:HG3	1.81	0.62
14:5I:29:ARG:NH2	14:5I:41:ARG:HH12	1.94	0.62
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.81	0.62
40:B8:54:ARG:HA	40:B8:59:THR:HB	1.82	0.62
55:Q8:53:PRO:HB3	55:Q8:56:GLU:N	2.14	0.62
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.34	0.62
2:12:7:VAL:HG22	2:12:8:LYS:H	1.63	0.62
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.31	0.62
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.81	0.62
27:1J:21:G:H2'	27:1J:22:U:O4'	2.00	0.62
39:65:34:HIS:HD2	39:65:54:LEU:HB2	1.64	0.62
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.33	0.62
2:1E:74:LYS:HE3	2:1E:166:ASP:HB2	1.81	0.62
26:1H:851:U:P	50:L8:49:LYS:HZ2	2.22	0.62
26:1H:2428:G:N3	36:78:61:ARG:NH1	2.48	0.62
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.35	0.62
26:1H:2787:C:H1'	29:21:62:PRO:HG3	1.81	0.62
28:11:72:LYS:HD2	28:11:75:ILE:HD12	1.81	0.62
35:68:88:ASN:HD22	35:68:88:ASN:H	1.47	0.62
37:88:86:GLY:HA3	37:88:87:LYS:HD3	1.81	0.62
50:L8:31:LEU:O	50:L8:32:GLN:HB2	2.00	0.62
2:12:12:GLU:HB3	2:12:213:LEU:HD13	1.82	0.62
7:62:62:PHE:HA	7:62:124:LEU:HD13	1.81	0.62
33:69:80:PRO:HA	33:69:143:SER:HA	1.80	0.62
39:65:15:ARG:O	39:65:19:LYS:HD3	2.00	0.62
40:75:26:ASP:O	40:75:49:VAL:HG22	1.99	0.62
42:95:87:HIS:CE1	42:95:89:GLN:HB2	2.35	0.62
12:3I:52:LEU:O	12:3I:54:LYS:NZ	2.32	0.62
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:21:U:H4'	23:2K:22:A:OP1	1.98	0.62
51:M8:18:CYS:HB3	51:M8:39:CYS:SG	2.40	0.62
1:1G:300:A:H1'	1:1G:565:U:O2	2.00	0.62
1:1G:980:C:H5'	1:1G:981:U:C5	2.35	0.62
1:1G:1007:C:O2	1:1G:1023:G:N2	2.33	0.62
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.80	0.62
26:14:571:A:H5'	26:14:2030:A:N7	2.15	0.62
46:D5:23:LYS:HD3	46:D5:40:ASP:HA	1.81	0.62
1:13:1280:A:C8	10:1I:41:PRO:HD3	2.35	0.61
1:13:1349:A:OP2	9:8E:118:LYS:NZ	2.33	0.61
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.81	0.61
10:1I:30:SER:OG	10:1I:84:GLN:NE2	2.33	0.61
17:8I:66:SER:OG	17:8I:69:LYS:HB2	1.99	0.61
19:AI:5:LEU:HB3	19:AI:10:PHE:HE1	1.65	0.61
26:1H:517:C:OP1	52:N8:16:ARG:NH2	2.33	0.61
26:1H:2531:A:C8	32:51:175:LYS:HG2	2.34	0.61
26:1H:2793:G:N2	26:1H:2804:C:O2	2.33	0.61
29:21:149:ARG:HH11	29:21:149:ARG:HG3	1.64	0.61
33:61:1:MET:O	33:61:20:ASP:HA	1.98	0.61
40:B8:111:ARG:HD3	40:B8:111:ARG:H	1.65	0.61
51:M8:39:CYS:SG	51:M8:41:PRO:HD3	2.40	0.61
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.65	0.61
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.30	0.61
24:3L:19:G:O5'	24:3L:57:G:N2	2.33	0.61
26:14:479:A:N3	26:14:481:G:H5"	2.15	0.61
34:15:38:HIS:CD2	34:15:39:ARG:HG3	2.35	0.61
41:85:76:TYR:CZ	41:85:80:ILE:HG13	2.35	0.61
1:13:1423:G:P	35:68:49:ARG:HH22	2.22	0.61
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.00	0.61
24:3K:69:G:H2'	24:3K:70:G:C8	2.35	0.61
26:1H:607:U:H3	26:1H:621:A:H2	1.42	0.61
26:1H:1843:C:H5'	28:11:253:GLN:OE1	1.99	0.61
30:31:103:LYS:HA	30:31:106:ARG:HG3	1.82	0.61
32:51:4:ILE:HG13	32:51:6:ARG:NE	2.14	0.61
44:F8:1:MET:O	44:F8:3:THR:HG23	1.99	0.61
52:N8:58:LEU:HD22	52:N8:60:VAL:HG13	1.82	0.61
1:1G:434:U:H2'	1:1G:435:C:C6	2.35	0.61
2:12:47:THR:HA	2:12:202:PRO:HG2	1.80	0.61
4:32:104:VAL:HA	4:32:107:ARG:HB2	1.82	0.61
8:72:19:VAL:HG23	8:72:21:LYS:HB2	1.82	0.61
18:9A:22:VAL:HG12	18:9A:56:THR:HA	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:581:C:H2'	26:14:582:G:H8	1.65	0.61
26:14:1252:G:N3	41:85:33:ARG:HD2	2.16	0.61
35:25:25:LEU:HB2	35:25:38:VAL:HG23	1.82	0.61
29:21:170:LEU:HD21	29:21:187:ALA:HB3	1.83	0.61
32:51:92:ILE:CD1	32:51:93:GLY:H	2.14	0.61
42:D8:60:GLU:HB2	42:D8:97:LYS:HE2	1.82	0.61
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.01	0.61
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.35	0.61
4:32:4:TYR:HE2	4:32:11:LEU:HD11	1.64	0.61
22:1L:26:A:H61	22:1L:44:G:H22	1.48	0.61
26:14:273(D):C:H42	26:14:363(B):G:H1	1.48	0.61
26:14:676:A:H8	26:14:2069:G:N2	1.90	0.61
26:14:824:A:H1'	26:14:2358:G:N7	2.14	0.61
1:13:664:G:N2	1:13:741:G:H1	1.97	0.61
2:1E:52:GLU:HG2	2:1E:56:ARG:HH21	1.66	0.61
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.83	0.61
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.35	0.61
29:21:201:THR:CG2	29:21:203:LYS:H	2.13	0.61
40:B8:2:ASN:O	40:B8:3:ARG:HG2	2.00	0.61
55:Q8:35:GLN:O	55:Q8:37:SER:N	2.26	0.61
7:62:50:ILE:HD12	7:62:61:VAL:HG11	1.81	0.61
18:9A:34:TYR:HB3	18:9A:69:THR:HB	1.81	0.61
26:14:739:G:OP1	58:14:3635:HOH:O	2.16	0.61
26:14:2537:U:H2'	26:14:2538:C:C6	2.35	0.61
26:14:2567:G:H2'	26:14:2568:C:C6	2.35	0.61
38:55:97:VAL:HG12	38:55:114:VAL:HG22	1.81	0.61
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.27	0.61
26:1H:607:U:OP1	30:31:102:PRO:HA	2.01	0.61
35:68:88:ASN:ND2	35:68:92:GLU:H	1.97	0.61
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.83	0.61
26:14:19:C:H2'	26:14:20:C:H6	1.64	0.61
26:14:1569:A:H5'	28:19:61:LEU:HD21	1.82	0.61
32:59:42:ARG:NH1	32:59:53:GLU:O	2.32	0.61
1:13:243:A:H4'	1:13:244:U:H5"	1.83	0.61
1:13:637:G:H2'	1:13:638:G:C8	2.36	0.61
5:4E:144:THR:H	5:4E:147:ASP:HB2	1.66	0.61
26:1H:141:A:OP2	26:1H:141(A):C:N4	2.28	0.61
26:1H:468:G:N7	54:P8:39:ARG:NH2	2.49	0.61
26:1H:814:C:N4	26:1H:1193:G:O6	2.17	0.61
26:1H:1899:G:H1	26:1H:1902:C:H41	1.48	0.61
26:1H:2255:G:OP2	58:1H:4121:HOH:O	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:21:TYR:HB3	38:98:47:PHE:CD2	2.35	0.61
46:H8:53:ILE:HG22	46:H8:71:VAL:HG22	1.82	0.61
55:Q8:4:MET:HB3	55:Q8:59:LYS:HZ2	1.66	0.61
26:14:71:A:H5'	26:14:71:A:C8	2.36	0.61
29:29:93:VAL:HG22	29:29:182:LEU:HD13	1.82	0.61
29:29:112:GLY:O	29:29:159:HIS:HA	2.01	0.61
1:13:619:U:H3	4:3E:134:ASP:HB2	1.66	0.61
1:13:1077:G:N2	1:13:1080:A:OP2	2.24	0.61
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.81	0.61
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.65	0.61
15:6I:6:GLU:CD	15:6I:6:GLU:H	2.04	0.61
26:1H:1351:C:OP2	58:1H:4124:HOH:O	2.16	0.61
26:1H:1798:U:H5'	28:11:259:THR:HG22	1.82	0.61
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.83	0.61
31:41:61:ALA:O	51:M8:7:PRO:HG2	2.01	0.61
36:78:62:LEU:HD13	55:Q8:23:VAL:HG21	1.81	0.61
55:Q8:53:PRO:HA	55:Q8:54:GLU:C	2.21	0.61
1:1G:690:G:H2'	1:1G:691:G:O4'	2.00	0.61
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.66	0.61
1:1G:1376:U:OP1	7:62:98:SER:OG	2.15	0.61
24:3L:9:A:H2'	24:3L:11:C:H41	1.65	0.61
26:14:1954:G:C2	26:14:2551:C:H5"	2.35	0.61
26:14:2815:C:H5'	52:J5:29:THR:HG21	1.83	0.61
34:15:56:ASN:H	34:15:125:GLY:HA3	1.66	0.61
35:25:63:VAL:HG12	35:25:106:LEU:HD11	1.81	0.61
1:13:994:A:N7	1:13:1216:G:H4'	2.16	0.61
1:13:1497:G:C2'	1:13:1498:U:H5'	2.30	0.61
4:3E:150:GLU:HG3	4:3E:153:ARG:HE	1.64	0.61
4:3E:153:ARG:HH11	4:3E:181:MET:HB2	1.65	0.61
32:51:8:PRO:HG2	32:51:69:ARG:NH2	2.16	0.61
37:88:137:TYR:CE1	46:H8:83:PRO:HG3	2.36	0.61
1:1G:547:A:OP1	58:1G:1801:HOH:O	2.16	0.61
5:42:37:ARG:HG2	5:42:112:LEU:HA	1.83	0.61
26:14:2557:G:H2'	26:14:2558:C:C6	2.36	0.61
31:49:60:LEU:HD21	31:49:92:VAL:HG11	1.83	0.61
35:25:14:THR:HG22	35:25:52:VAL:HB	1.81	0.61
40:75:45:PHE:CE2	40:75:74:ARG:HD3	2.36	0.61
40:75:105:LEU:HD23	40:75:109:GLU:HG3	1.81	0.61
1:13:1122:U:O4	1:13:1123:A:N6	2.33	0.61
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.66	0.61
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.00	0.61
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.36	0.61
49:K8:47:ASN:O	49:K8:49:LYS:N	2.34	0.61
50:L8:5:LYS:HD2	50:L8:34:GLU:OE1	2.00	0.61
1:1G:358:U:H2'	1:1G:359:U:H6	1.66	0.61
1:1G:728:A:H2'	1:1G:729:A:C8	2.34	0.61
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.36	0.61
26:14:2432:A:H5"	26:14:2433:A:OP2	2.00	0.61
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.82	0.61
37:45:34:LEU:HD11	37:45:129:THR:HB	1.83	0.61
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.81	0.61
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.35	0.61
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.34	0.61
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.36	0.61
26:1H:1143:A:OP1	34:58:25:ARG:NH2	2.15	0.61
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.36	0.61
26:1H:1252:G:O4'	41:C8:33:ARG:HD3	2.01	0.61
26:1H:1332:G:N2	26:1H:1610:A:H8	1.97	0.61
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.64	0.61
26:1H:1839:G:H5"	26:1H:1839:G:H8	1.64	0.61
26:1H:2683:C:OP1	40:B8:53:ARG:NH2	2.33	0.61
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.82	0.61
26:14:994:C:O2'	26:14:996:A:OP1	2.17	0.61
26:14:1316:U:O2'	26:14:1317:A:H5'	2.00	0.61
26:14:1332:G:N2	26:14:1610:A:H8	1.98	0.61
26:14:1688:U:O2	26:14:1700:A:H5'	2.00	0.61
1:13:50:A:H1'	1:13:52:G:C8	2.36	0.60
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.34	0.60
1:13:637:G:H2'	1:13:638:G:H8	1.66	0.60
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.83	0.60
37:88:66:ILE:HG22	37:88:67:ARG:N	2.15	0.60
37:88:109:VAL:HG13	37:88:113:GLN:HB3	1.83	0.60
40:B8:66:VAL:HA	40:B8:71:GLY:HA2	1.83	0.60
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.66	0.60
1:1G:680:C:H42	1:1G:710:G:H1	1.48	0.60
4:32:31:CYS:O	4:32:33:MET:N	2.34	0.60
10:1A:79:ARG:H	10:1A:79:ARG:HD3	1.65	0.60
13:4A:78:ILE:HD13	13:4A:92:HIS:CE1	2.36	0.60
26:14:140:A:C8	26:14:1408:C:O2'	2.51	0.60
26:14:2126:A:N1	26:14:2163:C:O2'	2.24	0.60
47:E5:53:MET:HG3	47:E5:59:LEU:HD23	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:505:G:N7	58:13:1882:HOH:O	2.31	0.60
26:1H:1359:A:C2	26:1H:1372:U:O4	2.51	0.60
30:31:28:ILE:HG22	30:31:112:MET:HE3	1.83	0.60
32:51:92:ILE:HD12	32:51:93:GLY:H	1.66	0.60
34:58:46:VAL:HG11	34:58:48:MET:HG3	1.82	0.60
35:68:60:ALA:HB1	35:68:84:ALA:HB1	1.83	0.60
55:Q8:14:VAL:HG11	55:Q8:21:LYS:HZ1	1.65	0.60
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.01	0.60
4:32:119:GLN:HG2	4:32:123:HIS:HE1	1.66	0.60
9:82:42:ARG:HD3	9:82:71:SER:HB3	1.82	0.60
26:14:1516:U:H2'	26:14:1517:G:C8	2.36	0.60
26:14:1955:U:OP2	58:14:3818:HOH:O	2.16	0.60
26:14:2296:U:H4'	26:14:2297:C:OP1	2.01	0.60
26:14:2823:A:OP1	29:29:113:PHE:HB2	2.01	0.60
30:39:133:ASN:HA	30:39:162:LEU:HD23	1.81	0.60
37:45:57:HIS:CD2	37:45:117:ALA:HB2	2.35	0.60
1:13:1004:A:P	1:13:1025:U:H3	2.25	0.60
3:2E:84:ILE:HD11	3:2E:88:ARG:HH21	1.67	0.60
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.00	0.60
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	1.82	0.60
26:1H:270(E):G:H1	26:1H:270(U):C:N4	1.99	0.60
26:1H:2413:G:O6	58:1H:3735:HOH:O	2.16	0.60
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.65	0.60
1:1G:1226:C:H4'	19:AA:80:TYR:CZ	2.36	0.60
8:72:68:ARG:NH1	8:72:70:GLN:HG2	2.16	0.60
26:14:1014:U:H2'	26:14:1015:G:H8	1.65	0.60
26:14:2068:U:H3	26:14:2430:A:H2	1.45	0.60
27:1J:88:C:H3'	27:1J:89:G:N7	2.16	0.60
37:45:35:VAL:HG12	37:45:36:ALA:H	1.65	0.60
46:D5:8:TYR:CD1	46:D5:62:PRO:HG3	2.36	0.60
1:13:1414:U:H2'	1:13:1415:G:H8	1.66	0.60
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.83	0.60
26:1H:1901:A:OP2	28:11:255:LYS:HE2	2.01	0.60
27:16:30:C:H2'	27:16:31:C:H5'	1.84	0.60
29:21:152:LYS:HD3	34:58:77:GLY:HA3	1.83	0.60
32:51:17:VAL:HG21	32:51:50:VAL:HG11	1.82	0.60
33:61:123:LEU:HD23	33:61:143:SER:HA	1.83	0.60
34:58:46:VAL:CG1	34:58:48:MET:HG3	2.31	0.60
49:K8:14:ARG:NH1	49:K8:66:GLU:OE2	2.35	0.60
5:42:42:GLY:HA3	5:42:65:ASN:O	2.01	0.60
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:26:ARG:O	14:5A:26:ARG:HG2	2.01	0.60
26:14:1288:U:C2	26:14:1327:C:O2	2.54	0.60
26:14:1337:G:H2'	26:14:1338:G:H8	1.67	0.60
26:14:1434:A:H61	26:14:1558:A:N6	2.00	0.60
26:14:1849:G:H2'	26:14:1850:G:C8	2.36	0.60
30:39:18:ARG:HG2	30:39:19:GLU:H	1.67	0.60
48:F5:76:ARG:HG3	48:F5:94:LEU:HD13	1.81	0.60
1:13:1004:A:H1'	1:13:1036:G:N2	2.17	0.60
1:13:1239:A:H62	1:13:1299:A:H62	1.49	0.60
1:13:1349:A:H2'	1:13:1350:A:H8	1.66	0.60
3:2E:77:ILE:O	3:2E:84:ILE:HG22	2.01	0.60
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.02	0.60
26:1H:84:A:OP2	45:G8:8:LYS:NZ	2.30	0.60
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.01	0.60
26:1H:2378:A:H2'	39:A8:21:THR:HG21	1.83	0.60
26:1H:2562:U:O2'	35:68:23:ARG:NH1	2.34	0.60
29:21:101:ARG:HG2	29:21:169:ASN:OD1	2.01	0.60
39:A8:66:ALA:HA	39:A8:69:VAL:HG12	1.83	0.60
1:1G:430:A:OP2	4:32:8:VAL:HG23	2.01	0.60
1:1G:1095:U:P	1:1G:1108:G:H1	2.24	0.60
4:32:31:CYS:C	4:32:33:MET:N	2.54	0.60
22:1L:27:G:N2	22:1L:43:C:O2	2.34	0.60
26:14:1889:A:H3'	58:14:3914:HOH:O	2.01	0.60
28:19:93:ALA:HB3	28:19:105:ILE:HG22	1.84	0.60
45:C5:74:PRO:HG2	45:C5:82:PRO:HG2	1.83	0.60
55:M5:59:LYS:O	55:M5:60:LEU:HG	2.01	0.60
1:13:368:U:OP1	33:69:91:SER:OG	2.19	0.60
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.36	0.60
1:13:1395:C:O2'	1:13:1401:G:O2'	2.17	0.60
20:BI:89:ARG:HD2	20:BI:104:LEU:HD21	1.83	0.60
26:1H:1355:G:O6	58:1H:3717:HOH:O	2.16	0.60
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.65	0.60
46:H8:93:ASP:HA	46:H8:130:PRO:HG2	1.83	0.60
1:1G:338:A:H2	1:1G:351:G:H22	1.50	0.60
1:1G:539:A:H2'	1:1G:540:G:C8	2.37	0.60
4:32:126:ILE:HG22	4:32:127:THR:H	1.66	0.60
26:14:839:U:H2'	26:14:840:C:C6	2.37	0.60
26:14:2656:U:H3	26:14:2665:A:H2	1.45	0.60
29:29:76:ARG:HG3	29:29:195:LEU:HD22	1.83	0.60
36:35:39:LYS:HD2	36:35:45:LEU:CD2	2.30	0.60
44:B5:5:TYR:CZ	49:G5:30:ARG:HG3	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:G5:10:LEU:HD13	49:G5:59:ARG:HG2	1.84	0.60
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.35	0.60
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.01	0.60
29:21:167:VAL:HG21	29:21:187:ALA:HB3	1.84	0.60
40:B8:50:ILE:HD13	40:B8:64:ARG:HB3	1.82	0.60
49:K8:48:HIS:N	49:K8:50:ILE:HD11	2.16	0.60
1:1G:520:A:N1	1:1G:536:C:H1'	2.16	0.60
1:1G:958:A:N3	1:1G:985:C:O2'	2.30	0.60
8:72:97:VAL:HA	8:72:100:ILE:HD11	1.83	0.60
9:82:33:PHE:HE1	9:82:37:PHE:HD2	1.49	0.60
26:14:336:C:H5"	45:C5:6:HIS:CD2	2.37	0.60
26:14:1041:C:H42	26:14:1114:G:N2	1.98	0.60
27:1J:13:A:N1	27:1J:69:G:O2'	2.29	0.60
35:25:4:PRO:O	35:25:5:GLN:HB2	2.01	0.60
36:35:55:ARG:HG2	36:35:56:SER:N	2.16	0.60
1:13:240:C:H2'	1:13:241:C:H6	1.67	0.60
1:13:345:C:O2'	1:13:346:G:N2	2.33	0.60
5:4E:70:PRO:O	5:4E:72:GLN:NE2	2.34	0.60
9:8E:115:GLY:HA2	10:1I:58:ASP:OD1	2.01	0.60
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.84	0.60
26:1H:1022:G:H4'	26:1H:1023:U:O5'	2.02	0.60
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.65	0.60
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.01	0.60
41:C8:69:CYS:HB3	41:C8:74:LEU:HD13	1.84	0.60
2:12:15:VAL:O	2:12:209:ARG:NH2	2.34	0.60
5:42:60:TYR:HB3	5:42:64:ARG:HH21	1.64	0.60
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.02	0.60
18:9A:53:ARG:HH21	18:9A:60:ALA:N	1.99	0.60
24:3L:72:C:H3'	24:3L:73:A:H5"	1.83	0.60
26:14:801:G:OP2	58:14:3734:HOH:O	2.16	0.60
26:14:2776:A:OP1	26:14:2776:A:H3'	2.01	0.60
29:29:31:CYS:HB3	29:29:49:LEU:HB3	1.81	0.60
33:69:14:ASP:OD1	33:69:15:VAL:N	2.34	0.60
1:13:1086:U:H3	1:13:1099:G:H22	1.49	0.60
1:13:1287:A:H2'	1:13:1288:A:C8	2.37	0.60
4:3E:26:CYS:HA	4:3E:31:CYS:HB2	1.82	0.60
24:3K:76:A:H5"	48:J8:30:VAL:HG11	1.83	0.60
26:1H:427:U:OP2	58:1H:4623:HOH:O	2.17	0.60
26:1H:2392:A:H2	26:1H:2424:C:N4	1.97	0.60
1:1G:1182:G:H5'	1:1G:1183:A:H5'	1.82	0.60
26:14:892:G:N2	26:14:894:C:OP1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1250:G:OP2	36:35:21:ARG:HD3	2.02	0.60
26:14:1479:G:O2'	26:14:1558:A:H5'	2.02	0.60
26:14:1653:G:C6	38:55:9:LYS:HB2	2.36	0.60
26:14:2784:C:H2'	26:14:2785:C:C6	2.37	0.60
28:19:17:THR:O	28:19:211:ARG:NH2	2.34	0.60
30:39:46:ARG:HG2	30:39:46:ARG:HH11	1.66	0.60
36:35:59:LEU:O	36:35:59:LEU:HD22	2.02	0.60
1:13:671:G:H2'	1:13:672:U:H6	1.67	0.60
1:13:991:U:C4	1:13:1212:U:H1'	2.36	0.60
6:5E:61:LEU:HD23	6:5E:63:TYR:HE1	1.67	0.60
26:1H:419:C:H2'	26:1H:420:C:O4'	2.02	0.60
26:1H:492:A:H2'	26:1H:493:G:O4'	2.02	0.60
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.19	0.60
26:1H:2053:G:OP1	29:21:144:ARG:HD3	2.02	0.60
33:61:143:SER:HB2	33:61:144:VAL:HG12	1.82	0.60
34:58:96:GLU:HG2	34:58:97:ARG:H	1.64	0.60
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.84	0.60
5:42:61:TYR:HA	5:42:64:ARG:HB2	1.82	0.60
26:14:1709:U:H2'	26:14:1710:C:C6	2.37	0.60
27:1J:2:C:H2'	27:1J:3:C:C6	2.36	0.60
34:15:56:ASN:HB2	34:15:59:LYS:HG3	1.83	0.60
51:I5:23:GLU:HG3	51:I5:24:THR:H	1.67	0.60
1:13:116:A:H61	1:13:313:A:H1'	1.67	0.59
1:13:642:A:N3	8:7E:113:SER:OG	2.35	0.59
1:13:1263:C:H2'	1:13:1264:C:C6	2.37	0.59
1:13:1503:A:O2'	25:4K:13:A:N6	2.35	0.59
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.35	0.59
26:1H:943:U:P	58:1H:4508:HOH:O	2.60	0.59
26:1H:2829:C:H2'	26:1H:2830:G:H5"	1.84	0.59
27:16:12:C:O2'	47:I8:74:ARG:HG2	2.02	0.59
34:58:96:GLU:O	34:58:98:VAL:HG12	2.02	0.59
44:F8:89:ILE:HG22	44:F8:92:LEU:HB2	1.83	0.59
1:1G:692:U:O2'	1:1G:694:A:N7	2.32	0.59
22:1L:12:U:O2	22:1L:24:G:N2	2.35	0.59
26:14:176:G:O2'	26:14:177:G:H5'	2.02	0.59
26:14:459:U:H2'	26:14:460:A:C8	2.37	0.59
26:14:524:U:H2'	26:14:525:U:H6	1.66	0.59
26:14:2317:C:H2'	26:14:2318:G:O4'	2.02	0.59
36:35:78:PRO:HA	36:35:110:TYR:CD2	2.36	0.59
37:45:34:LEU:HD12	37:45:130:LYS:O	2.02	0.59
37:45:75:THR:HA	37:45:89:ASN:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:106:GLY:O	38:55:107:ASP:HB3	2.02	0.59
1:13:1157:A:H61	1:13:1178:G:N2	1.96	0.59
1:13:1410:G:H2'	1:13:1411:C:H6	1.67	0.59
9:8E:42:ARG:NH1	9:8E:71:SER:O	2.35	0.59
26:1H:946:G:OP2	58:1H:4576:HOH:O	2.16	0.59
26:1H:1093:G:O2'	26:1H:1099:G:N2	2.35	0.59
26:1H:2685:G:OP2	40:B8:51:ARG:NH2	2.34	0.59
32:51:4:ILE:HB	32:51:6:ARG:HG3	1.84	0.59
1:1G:1396:A:H4'	1:1G:1397:C:OP2	2.01	0.59
26:14:459:U:H2'	26:14:460:A:H8	1.67	0.59
26:14:831:G:H5"	26:14:832:G:OP2	2.02	0.59
26:14:1665:A:H4'	35:25:67:LYS:HB2	1.84	0.59
33:69:18:VAL:HG21	33:69:44:LEU:HD21	1.84	0.59
36:35:146:VAL:HG13	36:35:147:LEU:HD13	1.85	0.59
53:K5:26:ASN:OD1	53:K5:28:ARG:HG2	2.02	0.59
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.36	0.59
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.83	0.59
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.84	0.59
24:3K:58:A:O2'	24:3K:59:U:OP1	2.21	0.59
26:1H:229:A:H4'	26:1H:230:U:H5'	1.83	0.59
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.38	0.59
27:16:80:U:H2'	27:16:81:G:N2	2.17	0.59
49:K8:23:LYS:NZ	49:K8:27:GLU:OE2	2.23	0.59
1:1G:987:G:N2	1:1G:1218:C:N3	2.38	0.59
2:12:84:GLU:HB3	2:12:219:VAL:HG11	1.85	0.59
3:22:18:TRP:CD1	14:5A:54:PRO:HA	2.37	0.59
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.83	0.59
26:14:1798:U:H5'	28:19:259:THR:OG1	2.02	0.59
26:14:1818:U:H2'	28:19:157:ARG:HD3	1.83	0.59
26:14:2037:G:H2'	26:14:2038:G:C8	2.37	0.59
38:55:82:GLU:H	38:55:85:PRO:HG2	1.66	0.59
42:95:35:LEU:HB3	42:95:37:VAL:CG1	2.32	0.59
1:13:313:A:H2'	1:13:314:C:C6	2.37	0.59
1:13:406:G:H2'	1:13:407:G:H8	1.66	0.59
1:13:1014:A:H4'	19:AI:14:HIS:CD2	2.38	0.59
13:4I:39:ILE:HD12	13:4I:56:LEU:HG	1.83	0.59
20:BI:50:GLU:HB2	20:BI:100:ILE:HD13	1.85	0.59
23:2K:62:C:H2'	23:2K:63:C:C6	2.34	0.59
26:1H:833:U:O2	36:78:55:ARG:NH1	2.31	0.59
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.35	0.59
26:1H:1602:U:O4	58:1H:4018:HOH:O	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.17	0.59
30:31:8:GLN:H	30:31:8:GLN:CD	2.06	0.59
53:O8:15:GLU:HB3	53:O8:49:HIS:CD2	2.38	0.59
55:Q8:9:GLY:O	55:Q8:13:ARG:HD2	2.03	0.59
1:1G:243:A:H4'	1:1G:244:U:H5"	1.83	0.59
4:32:119:GLN:O	4:32:123:HIS:ND1	2.35	0.59
10:1A:3:LYS:NZ	10:1A:75:ILE:O	2.36	0.59
26:14:672:C:H5'	30:39:89:VAL:HG13	1.84	0.59
26:14:1292:U:H2'	26:14:1293:C:C6	2.37	0.59
26:14:1774:C:OP1	58:14:4076:HOH:O	2.16	0.59
31:49:36:LYS:HG2	31:49:38:VAL:HG23	1.85	0.59
31:49:43:LEU:HD12	31:49:45:GLU:OE1	2.02	0.59
1:13:1000:A:H2'	1:13:1001:G:C8	2.37	0.59
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.84	0.59
6:5E:36:ARG:HH21	6:5E:38:GLU:HG2	1.66	0.59
24:3K:19:G:C6	26:1H:2112:G:H1'	2.38	0.59
26:1H:125:G:H5'	26:1H:125:G:C8	2.38	0.59
26:1H:1021:A:H3'	26:1H:1021:A:H8	1.68	0.59
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.37	0.59
26:1H:2702:U:H6	26:1H:2702:U:OP1	1.85	0.59
58:1H:4503:HOH:O	27:16:100:G:H5"	2.03	0.59
29:21:51:PHE:O	29:21:74:PRO:HB2	2.02	0.59
39:A8:26:LEU:HD23	39:A8:87:PHE:CD1	2.37	0.59
42:D8:65:GLY:HA3	42:D8:91:TYR:CE1	2.36	0.59
55:Q8:48:PHE:CG	55:Q8:49:VAL:HG13	2.37	0.59
23:2L:24:C:H2'	23:2L:25:U:H6	1.67	0.59
26:14:2690:C:OP2	38:55:14:SER:HB3	2.01	0.59
35:25:31:LYS:HB3	35:25:32:TYR:CD1	2.37	0.59
38:55:33:ARG:HD3	38:55:113:LEU:HD12	1.85	0.59
40:75:53:ARG:HH11	40:75:60:THR:HG23	1.67	0.59
1:13:1502:A:H2	1:13:1505:G:N1	1.92	0.59
26:1H:125:G:H5'	26:1H:125:G:H8	1.68	0.59
26:1H:1252:G:N7	41:C8:36:ARG:NH1	2.51	0.59
26:1H:1577:C:OP2	58:1H:4025:HOH:O	2.17	0.59
26:1H:2264:C:H5"	26:1H:2265:U:OP2	2.03	0.59
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.84	0.59
42:D8:41:GLY:O	42:D8:45:THR:HA	2.02	0.59
47:I8:64:ASP:HB2	47:I8:85:ALA:HB1	1.84	0.59
1:1G:1004:A:H8	1:1G:1036:G:H22	1.51	0.59
46:D5:58:VAL:HG12	46:D5:60:GLU:HB3	1.83	0.59
1:13:947:G:O3'	13:4I:109:THR:OG1	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1096:C:H2'	1:13:1097:C:H6	1.66	0.59
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	1.83	0.59
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	1.85	0.59
14:5I:48:ALA:HB2	14:5I:53:LEU:HD12	1.84	0.59
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.37	0.59
26:1H:512:G:N7	58:1H:4665:HOH:O	2.36	0.59
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.01	0.59
26:1H:2815:C:H2'	26:1H:2816:C:H6	1.67	0.59
28:11:16:MET:HE3	28:11:211:ARG:HD3	1.84	0.59
31:41:67:LYS:HE2	31:41:67:LYS:H	1.67	0.59
31:41:94:LEU:H	31:41:94:LEU:HD23	1.67	0.59
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.84	0.59
46:H8:126:VAL:HG12	46:H8:163:LEU:HA	1.83	0.59
52:N8:20:ARG:HG2	52:N8:23:HIS:CE1	2.38	0.59
1:1G:108:G:H5'	1:1G:109:A:H5"	1.83	0.59
1:1G:179:A:H2'	1:1G:180:U:H6	1.66	0.59
1:1G:280:C:H3'	1:1G:281:G:H5'	1.85	0.59
1:1G:736:C:H2'	1:1G:737:A:C8	2.38	0.59
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.84	0.59
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.38	0.59
26:14:607:U:OP1	30:39:102:PRO:HA	2.02	0.59
26:14:1952:A:C6	35:25:22:ILE:HD11	2.37	0.59
40:75:24:PRO:HA	40:75:49:VAL:HG23	1.84	0.59
1:13:973:G:H3'	1:13:974:A:H5"	1.85	0.59
16:7I:11:SER:HB2	16:7I:14:ASN:HB3	1.82	0.59
26:1H:65:C:H2'	26:1H:66:C:H6	1.67	0.59
26:1H:428:A:OP1	58:1H:4617:HOH:O	2.17	0.59
26:1H:535:C:O3'	41:C8:53:ARG:NH1	2.35	0.59
26:1H:1216:G:OP2	41:C8:12:ARG:NH2	2.34	0.59
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.68	0.59
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.33	0.59
26:1H:2431:U:OP2	58:1H:3905:HOH:O	2.16	0.59
26:1H:2801:A:H2'	26:1H:2802:G:H4'	1.83	0.59
34:58:127:ASP:OD1	34:58:127:ASP:N	2.35	0.59
35:68:93:PRO:HG3	35:68:114:ILE:HG12	1.84	0.59
1:1G:617:G:H1	1:1G:623:C:H42	1.50	0.59
1:1G:764:C:H5"	15:6A:50:HIS:ND1	2.17	0.59
1:1G:1127:G:N3	1:1G:1147:C:N4	2.50	0.59
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.85	0.59
16:7A:38:TYR:CE2	16:7A:50:LYS:HD2	2.38	0.59
22:1L:76:A:O5'	26:14:2602:A:N6	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:329:G:H8	26:14:329:G:OP1	1.84	0.59
27:1J:40:U:C5	51:I5:1:MET:HB3	2.36	0.59
36:35:5:ASP:O	36:35:7:ARG:NH1	2.36	0.59
47:E5:48:GLY:HA3	47:E5:80:HIS:ND1	2.17	0.59
48:F5:92:LYS:O	48:F5:95:LEU:N	2.31	0.59
1:13:827:U:C5	1:13:870:U:C4	2.91	0.59
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.03	0.59
7:6E:5:ARG:NH1	7:6E:8:GLU:OE2	2.36	0.59
21:1F:9:ARG:HH22	21:1F:23:PRO:HD2	1.68	0.59
26:1H:764:A:O4'	28:11:213:ARG:HG3	2.03	0.59
26:1H:2138:C:H42	26:1H:2153:G:H1	1.50	0.59
44:F8:15:GLU:HG3	44:F8:16:LYS:N	2.18	0.59
1:1G:954:G:H21	1:1G:1227:A:H62	1.51	0.59
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.66	0.59
5:42:145:LYS:O	5:42:149:GLU:N	2.34	0.59
6:52:100:ASN:OD1	18:9A:23:LYS:NZ	2.23	0.59
21:1B:2:GLY:O	21:1B:5:ASP:N	2.29	0.59
26:14:584:C:OP2	41:85:10:ARG:NH2	2.36	0.59
26:14:1197:G:H2'	26:14:1198:U:H6	1.68	0.59
46:D5:163:LEU:HD23	46:D5:163:LEU:H	1.67	0.59
17:8I:88:TYR:CD1	17:8I:89:LEU:HD23	2.35	0.59
26:1H:929:G:O6	58:1H:3758:HOH:O	2.17	0.59
31:41:97:ASP:O	31:41:100:TRP:N	2.35	0.59
36:78:114:ILE:HD11	36:78:130:PHE:HD2	1.68	0.59
41:C8:106:PHE:O	41:C8:109:LEU:HB2	2.03	0.59
45:G8:15:VAL:HG21	45:G8:42:VAL:HG21	1.84	0.59
1:1G:1108:G:H5'	3:22:176:HIS:HD2	1.68	0.59
5:42:7:GLU:OE1	5:42:37:ARG:NH2	2.35	0.59
27:1J:24:G:H5'	27:1J:25:A:C8	2.38	0.59
42:95:85:LYS:HB3	42:95:87:HIS:H	1.68	0.59
45:C5:87:LYS:HG2	45:C5:88:LYS:HD2	1.85	0.59
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.84	0.58
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.03	0.58
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.86	0.58
26:1H:2131:G:H5"	26:1H:2133:G:H4'	1.85	0.58
26:1H:2684:U:C4	26:1H:2685:G:N7	2.71	0.58
26:1H:2734:A:H5'	26:1H:2735:G:OP2	2.02	0.58
29:21:33:VAL:O	29:21:69:LYS:HD2	2.03	0.58
55:Q8:30:ARG:HH11	55:Q8:30:ARG:CG	2.13	0.58
1:1G:861:G:C5	1:1G:862:C:H5	2.20	0.58
6:52:36:ARG:NH2	6:52:38:GLU:OE2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:78:A:OP1	49:G5:14:ARG:NH2	2.36	0.58
26:14:1025:G:H8	26:14:1025:G:OP1	1.85	0.58
28:19:222:ARG:HB2	28:19:222:ARG:HH11	1.66	0.58
46:D5:130:PRO:HA	46:D5:133:ILE:HD11	1.84	0.58
55:M5:30:ARG:O	55:M5:32:LEU:N	2.35	0.58
1:13:1505:G:H5'	58:13:1801:HOH:O	2.02	0.58
23:2K:64:G:H2'	23:2K:65:G:H8	1.67	0.58
26:1H:2591:C:OP2	28:11:239:ARG:HB2	2.04	0.58
52:N8:30:LEU:HD23	52:N8:41:PRO:HA	1.85	0.58
55:Q8:34:TRP:CE3	55:Q8:36:LYS:HD3	2.38	0.58
1:1G:522:C:OP2	12:3A:69:TYR:OH	2.21	0.58
17:8A:22:LEU:HD11	17:8A:39:SER:HB2	1.83	0.58
21:1B:2:GLY:O	21:1B:4:GLY:N	2.36	0.58
26:14:635:C:O2'	26:14:639:U:OP1	2.20	0.58
26:14:1858:G:H2'	26:14:1883:G:H22	1.68	0.58
26:14:2018:G:P	52:J5:9:LYS:HZ1	2.26	0.58
49:G5:29:LYS:HG3	49:G5:57:ILE:HD13	1.85	0.58
1:13:1074:G:O2'	1:13:1101:A:N1	2.31	0.58
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.02	0.58
1:13:1369:C:H2'	1:13:1370:G:C8	2.37	0.58
26:1H:155:C:N4	26:1H:171:G:H1	2.00	0.58
26:1H:1069:A:H4'	26:1H:1070:A:H5"	1.84	0.58
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.67	0.58
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.38	0.58
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.38	0.58
26:1H:2845:G:OP2	58:1H:4683:HOH:O	2.17	0.58
38:98:87:TYR:HD1	38:98:90:ARG:HD2	1.67	0.58
40:B8:20:PRO:HD2	40:B8:86:ILE:HG23	1.85	0.58
44:F8:3:THR:HA	44:F8:6:ASP:OD2	2.03	0.58
45:G8:85:VAL:HG23	45:G8:96:ILE:HB	1.83	0.58
51:M8:38:LYS:NZ	51:M8:44:THR:OG1	2.36	0.58
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.58
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.69	0.58
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.85	0.58
9:82:63:ILE:HD11	9:82:81:ILE:HD11	1.85	0.58
26:14:1328:G:O6	58:14:3555:HOH:O	2.16	0.58
26:14:2645:G:N2	26:14:2767:C:OP2	2.35	0.58
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.85	0.58
1:13:536:C:H2'	1:13:537:G:C8	2.38	0.58
1:13:727:G:N2	1:13:730:G:OP2	2.21	0.58
10:1I:4:ILE:HG12	10:1I:100:THR:HA	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:6:ILE:HG22	10:1I:98:ILE:HG13	1.85	0.58
11:2I:121:PRO:HG2	11:2I:126:ARG:HG3	1.85	0.58
26:1H:270(M):U:OP1	26:1H:270(N):G:N2	2.36	0.58
26:1H:698:C:O2'	26:1H:734:A:N6	2.36	0.58
39:A8:35:ILE:HG22	39:A8:97:ARG:HH21	1.66	0.58
39:A8:61:ASN:HB3	39:A8:64:GLU:HG3	1.84	0.58
55:Q8:27:THR:O	55:Q8:29:LYS:HA	2.02	0.58
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.24	0.58
8:72:32:LYS:HA	8:72:35:ILE:HD12	1.85	0.58
26:14:2823:A:OP1	29:29:159:HIS:NE2	2.37	0.58
51:I5:49:PHE:HD2	51:I5:50:VAL:HG22	1.67	0.58
1:13:1497:G:H2'	1:13:1498:U:H5'	1.86	0.58
2:1E:11:LEU:HB3	2:1E:213:LEU:HD11	1.85	0.58
6:5E:24:GLU:HG3	6:5E:28:ARG:NH2	2.18	0.58
12:3I:53:ARG:HH12	12:3I:92:ASP:CB	2.17	0.58
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.18	0.58
26:1H:71:A:C2	44:F8:31:HIS:HE1	2.21	0.58
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.68	0.58
26:1H:2331:G:O2'	26:1H:2336:A:N1	2.30	0.58
28:11:132:PRO:HD3	28:11:190:TYR:CZ	2.38	0.58
39:A8:26:LEU:HD11	39:A8:73:LEU:HD13	1.86	0.58
46:H8:128:VAL:HB	46:H8:161:VAL:HG21	1.84	0.58
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.38	0.58
4:32:103:ASN:OD1	4:32:114:ARG:NH2	2.32	0.58
26:14:287:C:H2'	26:14:288:C:C6	2.38	0.58
26:14:602:G:O2'	26:14:655:A:N6	2.36	0.58
26:14:2157:G:O2'	26:14:2158:A:H8	1.85	0.58
26:14:2232:U:P	48:F5:40:ARG:HH12	2.26	0.58
26:14:2749:A:N1	26:14:2750:A:N6	2.51	0.58
28:19:67:PHE:HB3	28:19:153:ALA:H	1.68	0.58
36:35:3:LEU:H	36:35:3:LEU:HD12	1.68	0.58
1:13:313:A:H2'	1:13:314:C:H6	1.69	0.58
1:13:1325:C:H2'	1:13:1326:C:H6	1.68	0.58
1:13:1453:G:C8	20:BI:39:LYS:HE2	2.38	0.58
1:13:1503:A:HO2'	25:4K:13:A:N6	2.00	0.58
4:3E:62:GLN:HB3	4:3E:66:ARG:NH1	2.18	0.58
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.86	0.58
26:1H:639:U:H2'	26:1H:640:C:C6	2.39	0.58
26:1H:1567:A:H5"	28:11:58:HIS:ND1	2.19	0.58
26:1H:1785:A:H4'	26:1H:1982:C:O2'	2.04	0.58
33:61:75:LEU:HB3	33:61:105:HIS:CD2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:4:PRO:O	35:68:5:GLN:HB2	2.01	0.58
36:78:122:PRO:HA	36:78:142:GLY:HA3	1.84	0.58
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.38	0.58
5:42:78:HIS:HA	8:72:105:ARG:HG3	1.86	0.58
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.23	0.58
9:82:18:PHE:HD2	9:82:62:TYR:HD2	1.49	0.58
24:3L:5:G:H2'	24:3L:6:G:H8	1.68	0.58
26:14:1467:C:H2'	26:14:1468:C:H6	1.69	0.58
26:14:1486:A:H2'	26:14:1487:G:H8	1.68	0.58
26:14:1510:A:H2'	26:14:1511:A:C8	2.39	0.58
26:14:2812:G:N2	26:14:2889:C:O2	2.36	0.58
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.86	0.58
39:65:83:LYS:HG3	39:65:84:GLN:HG2	1.85	0.58
1:13:963:G:H21	10:1I:55:LYS:CE	2.16	0.58
11:2I:18:ARG:HB3	11:2I:33:THR:OG1	2.03	0.58
26:1H:1270:C:H5"	26:1H:1271:G:H5'	1.83	0.58
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.67	0.58
26:1H:1800:C:OP2	28:11:183:ARG:NH2	2.32	0.58
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.38	0.58
28:11:17:THR:HG22	28:11:205:VAL:N	2.13	0.58
28:11:145:VAL:HG12	28:11:146:GLU:O	2.04	0.58
1:1G:481:G:O2'	1:1G:483:C:N4	2.36	0.58
1:1G:964:A:N3	1:1G:969:A:O2'	2.32	0.58
1:1G:980:C:H3'	1:1G:981:U:C6	2.39	0.58
2:12:19:HIS:CG	2:12:20:GLU:H	2.22	0.58
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.85	0.58
16:7A:22:THR:HA	16:7A:33:ILE:HG12	1.84	0.58
26:14:1759:A:H4'	26:14:2715:C:O4'	2.04	0.58
27:1J:88:C:H3'	27:1J:89:G:C8	2.38	0.58
28:19:206:LEU:HD22	28:19:211:ARG:HG2	1.85	0.58
44:B5:8:ILE:O	49:G5:36:ARG:NH2	2.37	0.58
47:E5:66:VAL:HG12	47:E5:67:VAL:H	1.69	0.58
48:F5:85:LEU:HA	48:F5:87:PRO:HD2	1.85	0.58
55:M5:29:LYS:HB3	55:M5:44:LYS:HB2	1.86	0.58
1:13:674:G:H2'	1:13:675:A:C8	2.38	0.58
1:13:677:U:H3	1:13:713:G:H22	1.52	0.58
1:13:948:C:O2'	1:13:949:A:H5'	2.03	0.58
3:2E:134:ILE:O	3:2E:138:VAL:HG12	2.03	0.58
13:4I:74:VAL:O	13:4I:78:ILE:HD12	2.03	0.58
26:1H:527:C:H4'	26:1H:528:A:H5'	1.85	0.58
26:1H:588:U:H2'	26:1H:589:C:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:634:C:H2'	26:1H:635:C:C6	2.37	0.58
26:1H:1110:G:O2'	26:1H:1111:A:H8	1.87	0.58
39:A8:89:ARG:HG2	39:A8:89:ARG:O	2.03	0.58
45:G8:55:TYR:CE1	45:G8:61:ILE:HD11	2.39	0.58
1:1G:619:U:N3	4:32:134:ASP:OD1	2.35	0.58
6:52:11:ASN:ND2	6:52:84:ASN:OD1	2.36	0.58
12:3A:46:LYS:HE2	12:3A:47:LYS:HB2	1.86	0.58
24:3L:18:G:H2'	24:3L:57:G:N1	2.18	0.58
26:14:270(J):G:C2	26:14:270(K):C:H1'	2.39	0.58
26:14:605:C:O2	26:14:657:U:O2'	2.21	0.58
26:14:718:A:H3'	26:14:719:C:H6	1.68	0.58
26:14:1093:G:O2'	26:14:1099:G:N2	2.37	0.58
26:14:1520:U:H2'	26:14:1521:G:O4'	2.03	0.58
31:49:64:THR:HG23	31:49:66:GLN:H	1.67	0.58
36:35:84:ASN:ND2	36:35:117:GLU:HB3	2.19	0.58
44:B5:11:PRO:HB3	44:B5:92:LEU:HD21	1.86	0.58
46:D5:157:LEU:HG	46:D5:161:VAL:HG11	1.86	0.58
1:13:413:G:N2	1:13:428:G:H1'	2.19	0.58
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.85	0.58
24:3K:50:U:H3	24:3K:64:A:N6	2.00	0.58
26:1H:270(N):G:OP1	33:61:57:ARG:NH2	2.37	0.58
26:1H:286:C:H2'	26:1H:287:C:H6	1.68	0.58
26:1H:2019:A:H2	26:1H:2035:G:H22	1.52	0.58
30:31:64:ILE:HG23	30:31:65:TRP:CD1	2.39	0.58
38:98:72:ASP:O	38:98:76:VAL:HG23	2.02	0.58
38:98:103:ARG:HD2	38:98:108:GLY:O	2.03	0.58
46:H8:72:ARG:NH2	46:H8:97:GLU:O	2.27	0.58
5:42:10:MET:HA	5:42:32:VAL:HG22	1.86	0.58
26:14:453:C:OP1	58:14:4015:HOH:O	2.17	0.58
26:14:854:G:H2'	26:14:855:G:H8	1.69	0.58
26:14:1570:A:H2'	26:14:1571:A:C8	2.39	0.58
26:14:2340:G:H2'	26:14:2341:G:C8	2.38	0.58
32:59:8:PRO:HG2	32:59:69:ARG:HH21	1.67	0.58
41:85:47:TYR:HA	41:85:50:ARG:NH2	2.19	0.58
50:H5:10:LYS:NZ	50:H5:15:TYR:OH	2.29	0.58
51:I5:18:CYS:SG	51:I5:19:GLY:HA2	2.43	0.58
11:2I:85:ARG:HD3	11:2I:113:PRO:HD3	1.86	0.58
22:1K:76:A:C8	26:1H:2507:C:H1'	2.39	0.58
24:3K:64:A:C2	24:3K:65:G:H1'	2.39	0.58
26:1H:1342:A:OP2	58:1H:4018:HOH:O	2.17	0.58
26:1H:1653:G:H3'	38:98:2:ARG:HG2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:13:HIS:CE1	38:98:15:SER:HB3	2.38	0.58
47:I8:55:ARG:HG3	47:I8:55:ARG:HH11	1.69	0.58
1:1G:632:A:H1'	1:1G:633:G:OP2	2.04	0.58
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.39	0.58
5:42:140:ARG:O	5:42:143:ARG:NH2	2.37	0.58
6:52:7:ASN:N	6:52:7:ASN:OD1	2.37	0.58
9:82:29:ASN:N	9:82:63:ILE:O	2.36	0.58
22:1L:9:A:OP2	22:1L:13:C:N4	2.36	0.58
26:14:2298:A:H1'	26:14:2321:G:N2	2.18	0.58
1:13:451:A:N6	1:13:480:U:H2'	2.18	0.57
1:13:604:G:H2'	1:13:605:U:O4'	2.04	0.57
1:13:1004:A:H1'	1:13:1036:G:H22	1.69	0.57
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.04	0.57
26:1H:507:A:H5"	26:1H:508:G:H5'	1.86	0.57
26:1H:582:G:H2'	26:1H:583:G:C8	2.39	0.57
26:1H:780:G:H21	26:1H:783:A:N6	1.97	0.57
26:1H:814:C:N3	26:1H:1193:G:N1	2.46	0.57
26:1H:2300:G:H1	26:1H:2316:C:H42	1.52	0.57
27:16:15:A:H5'	27:16:16:G:C8	2.38	0.57
29:21:8:LYS:HA	29:21:26:ILE:HG22	1.86	0.57
40:B8:31:SER:OG	40:B8:85:LYS:NZ	2.36	0.57
1:1G:600:C:H2'	1:1G:601:C:C6	2.39	0.57
1:1G:960:U:H4'	1:1G:961:U:H5"	1.85	0.57
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.19	0.57
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.86	0.57
3:22:57:ILE:HG12	3:22:66:VAL:HG22	1.86	0.57
4:32:176:LEU:HG	4:32:178:VAL:HG13	1.85	0.57
7:62:67:GLU:OE2	7:62:70:LYS:NZ	2.35	0.57
9:82:51:ARG:HG2	9:82:56:LEU:HB2	1.84	0.57
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.38	0.57
26:14:751:A:OP1	58:14:3410:HOH:O	2.17	0.57
26:14:1927:A:H2'	26:14:1928:A:C8	2.38	0.57
29:29:8:LYS:HG2	29:29:192:ASN:HA	1.86	0.57
30:39:67:GLN:HG3	30:39:67:GLN:O	2.04	0.57
33:69:6:LEU:HB2	33:69:36:ALA:HA	1.86	0.57
44:B5:36:LYS:HG3	44:B5:56:THR:HG23	1.86	0.57
47:E5:18:ALA:HB3	47:E5:20:ARG:HH21	1.67	0.57
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.37	0.57
1:13:412:A:OP2	4:3E:35:ARG:NH2	2.37	0.57
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.86	0.57
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.68	0.57
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.39	0.57
26:1H:732:C:H3'	58:1H:4070:HOH:O	2.04	0.57
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.32	0.57
26:1H:1283:G:N2	26:1H:1285:G:H3'	2.20	0.57
26:1H:1807:G:N7	58:1H:4385:HOH:O	2.32	0.57
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.86	0.57
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.19	0.57
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.04	0.57
36:78:114:ILE:HD11	36:78:130:PHE:CD2	2.38	0.57
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.18	0.57
2:12:145:LEU:O	2:12:149:LEU:HB2	2.04	0.57
26:14:877:U:O4	26:14:899:A:N6	2.37	0.57
26:14:996:A:H4'	41:85:92:ARG:CZ	2.34	0.57
26:14:2233:U:H2'	26:14:2234:G:C8	2.39	0.57
27:1J:87:G:H3'	27:1J:88:C:C5'	2.32	0.57
38:55:67:LEU:HD12	38:55:76:VAL:HG11	1.86	0.57
41:85:50:ARG:HH22	42:95:72:VAL:HG23	1.68	0.57
47:E5:54:GLY:O	47:E5:57:PHE:N	2.36	0.57
1:13:1396:A:H4'	1:13:1397:C:H5"	1.86	0.57
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.72	0.57
6:5E:101:ALA:HB2	18:9I:28:GLU:HG2	1.86	0.57
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	1.84	0.57
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.84	0.57
26:1H:701:G:N2	26:1H:731:C:O2	2.33	0.57
26:1H:1403:C:C5'	26:1H:1471:A:H1'	2.34	0.57
27:16:29:A:H2'	27:16:30:C:O4'	2.04	0.57
33:61:69:LYS:HG3	33:61:136:VAL:HB	1.86	0.57
46:H8:52:SER:O	46:H8:52:SER:OG	2.13	0.57
1:1G:457:C:H2'	1:1G:458:C:C6	2.39	0.57
1:1G:999:U:H2'	1:1G:1000:A:C8	2.34	0.57
1:1G:1238:A:H62	1:1G:1301:U:H3	1.50	0.57
24:3L:58:A:O2'	24:3L:59:U:O5'	2.21	0.57
26:14:1087:G:H2'	26:14:1089:G:H1'	1.86	0.57
26:14:1430:C:H2'	26:14:1431:U:C6	2.40	0.57
26:14:2392:A:OP2	55:M5:32:LEU:HD23	2.04	0.57
42:95:85:LYS:HD2	42:95:86:GLY:N	2.14	0.57
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.04	0.57
17:8I:83:ASP:N	17:8I:83:ASP:OD1	2.37	0.57
26:1H:574:C:OP1	58:1H:4541:HOH:O	2.17	0.57
26:1H:607:U:C2	26:1H:621:A:N1	2.71	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.40	0.57
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.04	0.57
44:F8:11:PRO:HB3	44:F8:92:LEU:HD21	1.86	0.57
44:F8:26:TYR:O	44:F8:81:VAL:HG12	2.05	0.57
50:L8:8:LEU:HD13	50:L8:31:LEU:HD23	1.85	0.57
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.37	0.57
1:1G:1190:G:H5'	3:22:176:HIS:CE1	2.40	0.57
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.85	0.57
19:AA:79:THR:O	19:AA:79:THR:OG1	2.23	0.57
22:1L:51:U:H2'	22:1L:52:G:C8	2.39	0.57
26:14:1600:C:OP1	44:B5:58:HIS:NE2	2.28	0.57
38:55:72:ASP:O	38:55:76:VAL:HG12	2.04	0.57
42:95:69:LYS:HB3	42:95:88:ARG:HG3	1.85	0.57
4:3E:79:PHE:O	4:3E:83:SER:HB2	2.04	0.57
26:1H:172:C:H2'	26:1H:173:G:H8	1.70	0.57
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.04	0.57
26:1H:1062:G:N1	26:1H:1076:C:O2	2.36	0.57
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.05	0.57
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.39	0.57
26:1H:1965:C:H2'	26:1H:1966:A:C8	2.39	0.57
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.27	0.57
26:1H:2684:U:H1'	35:68:70:LYS:HD2	1.87	0.57
27:16:42:C:O2'	31:41:67:LYS:HE3	2.04	0.57
33:61:21:VAL:HG21	33:61:25:TYR:HD2	1.68	0.57
37:88:66:ILE:O	37:88:104:PHE:N	2.38	0.57
1:1G:60:A:N6	1:1G:110:C:N3	2.50	0.57
14:5A:21:TYR:HE1	14:5A:23:ARG:NE	1.98	0.57
24:3L:76:A:H8	26:14:2394:C:N4	2.02	0.57
26:14:288:C:H2'	26:14:289:A:C8	2.38	0.57
26:14:918:A:O2'	27:1J:96:G:N2	2.37	0.57
26:14:2506:U:O5'	26:14:2506:U:H6	1.87	0.57
37:45:22:LYS:N	37:45:23:GLY:HA3	2.19	0.57
45:C5:42:VAL:HG13	45:C5:65:ALA:HB3	1.86	0.57
46:D5:39:VAL:HG21	46:D5:44:PHE:HD2	1.69	0.57
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.39	0.57
16:7I:34:GLU:HG2	16:7I:35:LYS:N	2.19	0.57
26:1H:303:U:H2'	26:1H:304:G:H8	1.69	0.57
26:1H:950:G:H2'	26:1H:951:C:C6	2.40	0.57
26:1H:2062:A:OP1	58:1H:4649:HOH:O	2.17	0.57
36:78:49:ARG:HE	55:Q8:57:ARG:HG2	1.69	0.57
37:88:14:ARG:HG2	37:88:41:TRP:CH2	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:55:ALA:HA	38:98:80:PHE:CE1	2.38	0.57
44:F8:49:VAL:HG12	44:F8:50:LYS:N	2.20	0.57
50:L8:28:LEU:HD23	50:L8:33:GLN:HG2	1.86	0.57
1:1G:345:C:O2'	1:1G:346:G:O5'	2.21	0.57
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.39	0.57
6:52:69:GLU:H	6:52:69:GLU:CD	2.07	0.57
23:2L:47:7MG:H3'	23:2L:48:U:C6	2.39	0.57
23:2L:63:C:H2'	23:2L:64:G:C8	2.39	0.57
26:14:1041:C:N4	26:14:1114:G:H22	1.99	0.57
26:14:2860:A:H5"	26:14:2861:G:OP2	2.04	0.57
27:1J:15:A:H1'	27:1J:109:G:C4	2.39	0.57
30:39:3:GLU:HG3	30:39:20:LEU:O	2.04	0.57
32:59:81:GLU:HG2	32:59:83:TYR:H	1.69	0.57
37:45:25:ASP:OD1	37:45:25:ASP:N	2.38	0.57
1:13:110:C:H2'	1:13:111:G:O4'	2.05	0.57
3:2E:40:ARG:HH11	3:2E:40:ARG:HG3	1.69	0.57
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.85	0.57
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.38	0.57
26:1H:7:G:H2'	26:1H:8:A:O4'	2.04	0.57
26:1H:298:G:OP2	45:G8:84:ARG:NH1	2.36	0.57
26:1H:1045:A:H1'	26:1H:1047:G:N3	2.19	0.57
26:1H:2404:C:OP2	58:1H:4219:HOH:O	2.17	0.57
28:11:71:ASP:OD2	28:11:103:ARG:NH2	2.37	0.57
30:31:127:GLU:OE1	30:31:128:ALA:N	2.37	0.57
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.19	0.57
9:82:4:TYR:HB2	9:82:19:LEU:HB2	1.85	0.57
26:14:1677:A:H2'	26:14:1678:G:C8	2.40	0.57
26:14:2311:A:N6	31:49:44:GLY:HA3	2.19	0.57
26:14:2745:C:O2	32:59:139:GLN:NE2	2.29	0.57
27:1J:62:C:H2'	27:1J:63:G:C8	2.38	0.57
29:29:36:ARG:NH1	29:29:85:ASN:OD1	2.33	0.57
47:E5:66:VAL:HG12	47:E5:67:VAL:N	2.20	0.57
48:F5:29:GLY:O	48:F5:30:VAL:HG22	2.04	0.57
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.38	0.57
4:3E:18:LYS:NZ	4:3E:26:CYS:O	2.34	0.57
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	1.87	0.57
26:1H:141:A:H8	26:1H:1408:C:H1'	1.70	0.57
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.88	0.57
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.70	0.57
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.05	0.57
26:1H:1654:A:OP2	38:98:1:MET:N	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2064:C:H2'	26:1H:2065:C:C6	2.39	0.57
29:21:120:TRP:CE3	29:21:155:LYS:HD3	2.40	0.57
40:B8:15:VAL:HG23	40:B8:79:HIS:CE1	2.39	0.57
40:B8:107:ASP:O	40:B8:110:ILE:HG23	2.05	0.57
45:G8:94:LYS:HG3	45:G8:95:LYS:H	1.69	0.57
1:1G:359:U:H2'	1:1G:360:A:H8	1.66	0.57
3:22:129:ALA:O	3:22:133:ALA:N	2.38	0.57
4:32:59:ARG:HA	4:32:62:GLN:HB2	1.87	0.57
13:4A:86:CYS:SG	13:4A:88:ARG:HB3	2.45	0.57
23:2L:63:C:H2'	23:2L:64:G:H8	1.68	0.57
26:14:2693:A:H2'	26:14:2694:G:H8	1.70	0.57
31:49:39:ILE:HG23	31:49:157:ILE:HG23	1.85	0.57
47:E5:27:GLU:HB2	47:E5:69:PHE:HD1	1.69	0.57
1:13:271:C:H2'	1:13:272:C:H6	1.70	0.57
4:3E:43:HIS:HA	4:3E:46:LYS:HZ3	1.70	0.57
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.15	0.57
17:8I:48:GLU:O	17:8I:50:LYS:HG2	2.03	0.57
26:1H:172:C:H2'	26:1H:173:G:C8	2.40	0.57
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.87	0.57
26:1H:1250:G:OP2	36:78:18:ARG:NH1	2.38	0.57
26:1H:2489:G:O2'	26:1H:2518:A:N6	2.38	0.57
26:1H:2496:C:OP1	37:88:82:ARG:HD3	2.05	0.57
27:16:75:G:H21	46:H8:85:HIS:CE1	2.23	0.57
30:31:51:THR:HG23	30:31:92:PRO:HG2	1.87	0.57
1:1G:1081:G:OP1	5:42:18:ARG:HB2	2.05	0.57
3:22:8:ILE:HD11	3:22:184:TYR:HB3	1.85	0.57
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.87	0.57
12:3A:24:VAL:O	12:3A:26:ALA:N	2.37	0.57
26:14:31:C:OP1	58:14:3729:HOH:O	2.18	0.57
26:14:443:A:H1'	26:14:1201:C:O4'	2.04	0.57
26:14:794:G:H2'	26:14:795:C:C6	2.39	0.57
26:14:1036:G:OP1	32:59:59:ARG:N	2.35	0.57
26:14:1485:G:H2'	26:14:1486:A:C8	2.40	0.57
26:14:1819:A:H4'	26:14:1820:U:O5'	2.04	0.57
28:19:40:THR:OG1	28:19:41:GLY:N	2.37	0.57
32:59:23:ARG:HA	32:59:36:PRO:HA	1.87	0.57
32:59:137:ASP:HB3	32:59:140:LYS:HB3	1.87	0.57
42:95:69:LYS:HD3	42:95:86:GLY:HA3	1.86	0.57
10:1I:16:LEU:HD23	10:1I:94:VAL:HG13	1.86	0.57
10:1I:48:THR:OG1	10:1I:62:HIS:ND1	2.38	0.57
24:3K:60:U:O2'	24:3K:61:C:OP1	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.05	0.57
27:16:15:A:H1'	27:16:109:G:C8	2.40	0.57
36:78:80:TYR:CZ	36:78:111:ARG:HD3	2.40	0.57
45:G8:35:TYR:CD2	45:G8:69:ALA:HB3	2.39	0.57
55:Q8:27:THR:HG22	55:Q8:29:LYS:HB3	1.86	0.57
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.40	0.57
1:1G:1206:G:O2'	3:22:192:THR:O	2.12	0.57
3:22:20:SER:HB2	3:22:40:ARG:HH12	1.70	0.57
9:82:111:ARG:HD2	14:5A:61:TRP:OXT	2.05	0.57
26:14:144:C:H2'	26:14:145:G:H8	1.69	0.57
26:14:184:C:H2'	26:14:185:U:H6	1.70	0.57
26:14:688:U:C2'	26:14:689:A:H5'	2.35	0.57
29:29:25:VAL:HG12	29:29:26:ILE:H	1.69	0.57
32:59:20:ALA:O	32:59:22:GLY:N	2.36	0.57
1:13:255:G:P	17:8I:69:LYS:HZ3	2.28	0.56
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.70	0.56
26:1H:286:C:H2'	26:1H:287:C:C6	2.40	0.56
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.05	0.56
28:11:79:VAL:HG12	28:11:113:VAL:HA	1.87	0.56
30:31:139:PHE:HB2	30:31:166:ALA:HB1	1.86	0.56
41:C8:92:ARG:HD3	41:C8:94:ASN:HB3	1.86	0.56
50:L8:7:LYS:HB2	50:L8:34:GLU:HG2	1.87	0.56
55:Q8:53:PRO:HB3	55:Q8:56:GLU:HG3	1.86	0.56
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.05	0.56
1:1G:1163:C:N3	1:1G:1174:G:N2	2.52	0.56
1:1G:1191:A:OP1	3:22:4:LYS:NZ	2.34	0.56
22:1L:55:U:H2'	22:1L:57:G:OP2	2.05	0.56
26:14:95:G:O2'	49:G5:48:HIS:HB3	2.05	0.56
26:14:424:G:OP1	48:F5:96:LYS:NZ	2.38	0.56
26:14:1796:U:H2'	26:14:1797:C:C6	2.40	0.56
26:14:2849:U:O4	40:75:23:ARG:NH2	2.38	0.56
27:1J:101:A:OP2	58:1J:311:HOH:O	2.17	0.56
27:1J:104:A:H2'	27:1J:105:G:O4'	2.05	0.56
38:55:8:ARG:HH11	38:55:39:PRO:HB3	1.68	0.56
49:G5:53:LEU:O	49:G5:57:ILE:HG13	2.05	0.56
1:13:586:C:O2'	1:13:878:G:H4'	2.05	0.56
11:2I:95:ILE:HD13	11:2I:108:ILE:HG21	1.86	0.56
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.40	0.56
26:1H:1568:G:H4'	28:11:59:LYS:HB3	1.87	0.56
33:61:47:LEU:HA	33:61:50:ARG:HB2	1.87	0.56
34:58:22:THR:HG22	34:58:23:LEU:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:51:ALA:HB3	39:A8:73:LEU:HG	1.86	0.56
46:H8:76:LEU:H	46:H8:76:LEU:CD2	2.15	0.56
1:1G:142:G:H2'	1:1G:143:A:H8	1.69	0.56
1:1G:954:G:H2'	1:1G:955:U:C6	2.40	0.56
7:62:78:ARG:CZ	7:62:80:VAL:HB	2.36	0.56
8:72:120:THR:HG23	8:72:123:GLU:H	1.70	0.56
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.86	0.56
26:14:660:G:H21	36:35:12:ALA:CB	2.17	0.56
26:14:2410:G:C2	26:14:2411:A:H1'	2.40	0.56
32:59:19:VAL:HG12	32:59:20:ALA:H	1.69	0.56
34:15:15:LEU:HB2	34:15:134:ARG:HG2	1.85	0.56
40:75:4:GLY:HA2	40:75:8:LYS:HB2	1.86	0.56
46:D5:5:LEU:HD11	46:D5:44:PHE:HA	1.87	0.56
46:D5:44:PHE:CE2	46:D5:86:VAL:HG11	2.37	0.56
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.38	0.56
1:13:652:U:O4	1:13:752:G:O2'	2.14	0.56
1:13:1026:G:H1	1:13:1035:A:H61	1.54	0.56
1:13:1026:G:H1	1:13:1035:A:N6	2.03	0.56
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.86	0.56
4:3E:155:LEU:HD12	4:3E:158:ILE:HD11	1.86	0.56
26:1H:443:A:N7	30:31:45:ARG:HG2	2.21	0.56
26:1H:1016:G:O6	58:1H:4298:HOH:O	2.17	0.56
26:1H:1042:G:H1	26:1H:1113:U:H3	1.53	0.56
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.05	0.56
26:1H:2566:A:H4'	26:1H:2567:G:O5'	2.05	0.56
28:11:71:ASP:CB	28:11:103:ARG:HH22	2.18	0.56
31:41:33:ARG:O	31:41:162:THR:HG23	2.06	0.56
31:41:161:THR:HG22	31:41:163:ALA:H	1.68	0.56
32:51:46:GLU:OE1	32:51:51:ARG:NH2	2.38	0.56
43:E8:14:PRO:HB3	43:E8:18:ARG:NH1	2.20	0.56
44:F8:1:MET:C	44:F8:3:THR:H	2.08	0.56
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.06	0.56
55:Q8:49:VAL:HG12	55:Q8:52:LYS:CG	2.36	0.56
1:1G:222:U:H2'	1:1G:223:U:C6	2.40	0.56
1:1G:1329:A:H5'	13:4A:29:ARG:HE	1.70	0.56
4:32:53:ASP:O	4:32:57:ARG:NH1	2.39	0.56
4:32:76:ARG:NH2	4:32:80:GLU:OE1	2.37	0.56
7:62:115:ARG:O	7:62:118:VAL:HG22	2.04	0.56
8:72:12:ARG:HE	8:72:26:VAL:HA	1.70	0.56
24:3L:18:G:H1'	24:3L:58:A:H2	1.70	0.56
26:14:389:G:N1	36:35:71:VAL:HG12	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:575:A:OP2	26:14:2055:C:N4	2.33	0.56
26:14:582:G:H2'	26:14:583:G:C8	2.41	0.56
26:14:667:U:O2	55:M5:2:PRO:HD2	2.05	0.56
26:14:920:G:H2'	26:14:921:G:C8	2.40	0.56
26:14:1021:A:H8	26:14:1021:A:H3'	1.70	0.56
26:14:1864:U:OP1	26:14:2410:G:O2'	2.14	0.56
26:14:2286:A:H4'	26:14:2287:A:O4'	2.04	0.56
30:39:64:ILE:HG13	30:39:65:TRP:CD1	2.40	0.56
30:39:183:VAL:O	30:39:187:VAL:HG23	2.05	0.56
32:59:152:ARG:HD2	32:59:153:LYS:HG3	1.86	0.56
33:69:81:VAL:HG23	33:69:143:SER:HB2	1.87	0.56
40:75:99:LEU:HD22	40:75:101:PHE:HE1	1.71	0.56
1:13:36:C:O2'	12:3I:117:ARG:NH2	2.38	0.56
1:13:1149:C:H2'	1:13:1150:U:H6	1.71	0.56
12:3I:62:SER:HB2	12:3I:64:TYR:CD1	2.40	0.56
24:3K:30:G:N2	24:3K:40:C:O2	2.36	0.56
26:1H:322:A:H5'	26:1H:340:A:H1'	1.87	0.56
26:1H:1608:A:H4'	58:1H:3840:HOH:O	2.04	0.56
34:58:43:THR:O	34:58:46:VAL:HG12	2.05	0.56
36:78:49:ARG:HA	55:Q8:54:GLU:HG2	1.88	0.56
36:78:130:PHE:HE1	36:78:146:VAL:HG23	1.69	0.56
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.38	0.56
45:G8:82:PRO:HG3	45:G8:97:ARG:HG3	1.88	0.56
53:O8:44:ARG:O	53:O8:45:LYS:HG2	2.05	0.56
55:Q8:34:TRP:HB3	55:Q8:36:LYS:H	1.69	0.56
55:Q8:48:PHE:O	55:Q8:49:VAL:HG22	2.05	0.56
1:1G:1321:C:C2	1:1G:1322:C:H5	2.24	0.56
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.86	0.56
26:14:61:G:OP2	49:G5:54:LYS:NZ	2.39	0.56
26:14:527:C:OP2	26:14:2779:U:H5	1.89	0.56
26:14:823:G:H2'	26:14:824:A:C8	2.41	0.56
26:14:1167:U:C2	26:14:1183:G:N2	2.73	0.56
26:14:2311:A:H62	31:49:44:GLY:HA3	1.71	0.56
30:39:181:LEU:HD23	30:39:186:ILE:HD11	1.87	0.56
34:15:128:HIS:CE1	34:15:130:HIS:HA	2.41	0.56
51:I5:12:ALA:O	51:I5:24:THR:OG1	2.22	0.56
1:13:277:C:P	17:8I:68:ARG:HH12	2.29	0.56
1:13:828:A:H2'	1:13:829:G:O4'	2.06	0.56
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.19	0.56
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.70	0.56
7:6E:150:ALA:HB2	11:2I:50:TYR:OH	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:763:G:O2'	26:1H:764:A:H3'	2.05	0.56
26:1H:1190:G:N7	58:1H:3874:HOH:O	2.33	0.56
30:31:164:ARG:HG2	30:31:164:ARG:HH11	1.71	0.56
32:51:4:ILE:HD11	32:51:7:LEU:HD21	1.87	0.56
38:98:63:ARG:HB2	38:98:80:PHE:CE2	2.40	0.56
39:A8:88:ASP:OD1	39:A8:90:GLY:N	2.33	0.56
46:H8:67:LEU:HD22	46:H8:90:VAL:HG11	1.87	0.56
55:Q8:5:LYS:H	55:Q8:59:LYS:HZ2	1.53	0.56
55:Q8:48:PHE:CD2	55:Q8:49:VAL:HG13	2.41	0.56
1:1G:1443:G:O2'	40:75:122:ASP:OD2	2.23	0.56
6:52:82:ARG:HB2	6:52:85:VAL:HG23	1.86	0.56
11:2A:100:ALA:O	11:2A:102:GLY:N	2.38	0.56
24:3L:11:C:H2'	24:3L:12:U:C6	2.37	0.56
26:14:736:C:OP1	58:14:3867:HOH:O	2.18	0.56
26:14:746:A:H2'	26:14:2612:C:H5"	1.87	0.56
26:14:854:G:H2'	26:14:855:G:C8	2.39	0.56
26:14:2134:A:H62	26:14:2157:G:H1'	1.69	0.56
26:14:2277:G:H2'	26:14:2278:A:H5"	1.87	0.56
32:59:152:ARG:HG3	32:59:153:LYS:HB2	1.88	0.56
33:69:112:LYS:HA	33:69:114:LEU:H	1.69	0.56
42:95:69:LYS:HB2	42:95:86:GLY:HA3	1.87	0.56
53:K5:9:LEU:HD13	53:K5:11:LEU:HD21	1.85	0.56
53:K5:36:LEU:HD23	53:K5:50:ARG:HD3	1.87	0.56
1:13:963:G:H21	10:1I:55:LYS:NZ	2.03	0.56
5:4E:110:LEU:CD1	5:4E:118:ILE:HD13	2.35	0.56
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.39	0.56
26:1H:993:G:C4	26:1H:994:C:H5	2.23	0.56
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.70	0.56
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.40	0.56
36:78:58:THR:HG21	55:Q8:52:LYS:HE2	1.86	0.56
1:1G:713:G:H2'	1:1G:714:G:C8	2.39	0.56
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.20	0.56
4:32:8:VAL:O	4:32:11:LEU:N	2.32	0.56
16:7A:57:ARG:HG3	16:7A:79:VAL:HG13	1.86	0.56
26:14:328:U:H4'	45:C5:68:HIS:CD2	2.40	0.56
26:14:959:A:N6	26:14:960:A:N1	2.54	0.56
26:14:2273:A:H2'	26:14:2274:A:C8	2.41	0.56
37:45:32:TYR:O	37:45:105:GLU:HB2	2.05	0.56
46:D5:138:GLU:O	46:D5:156:LYS:HG3	2.05	0.56
1:13:1278:U:H5"	1:13:1279:A:O4'	2.05	0.56
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.06	0.56
31:41:67:LYS:HE3	31:41:67:LYS:O	2.06	0.56
36:78:52:GLU:OE1	36:78:55:ARG:NE	2.28	0.56
41:C8:92:ARG:HD2	42:D8:11:GLN:HB2	1.87	0.56
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	1.88	0.56
55:Q8:48:PHE:N	55:Q8:48:PHE:CD1	2.74	0.56
1:1G:680:C:N4	1:1G:710:G:H1	2.02	0.56
8:72:110:ALA:HB3	8:72:121:ASP:HB3	1.86	0.56
26:14:966:G:H2'	26:14:967:C:H6	1.70	0.56
28:19:52:ARG:HB2	28:19:53:PHE:CD2	2.41	0.56
32:59:130:ARG:HH12	32:59:132:ARG:HH22	1.51	0.56
36:35:85:LEU:HB3	36:35:114:ILE:HD11	1.86	0.56
40:75:55:ASN:O	40:75:55:ASN:ND2	2.31	0.56
52:J5:3:LYS:HA	52:J5:3:LYS:HE3	1.88	0.56
1:13:1022:G:H2'	1:13:1023:G:H8	1.71	0.56
2:1E:189:ASP:HB2	2:1E:205:ASP:CG	2.27	0.56
4:3E:61:LYS:HG3	4:3E:203:VAL:HG13	1.87	0.56
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.06	0.56
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.05	0.56
24:3K:37:A:O2'	24:3K:38:A:O5'	2.23	0.56
26:1H:442:G:C4	26:1H:444:C:C5	2.94	0.56
26:1H:2498:C:O2'	26:1H:2499:C:H5'	2.06	0.56
43:E8:58:ALA:O	43:E8:64:MET:HB2	2.06	0.56
49:K8:63:VAL:HA	49:K8:66:GLU:HG3	1.88	0.56
1:1G:167:G:H2'	1:1G:168:G:H8	1.70	0.56
1:1G:737:A:H2'	1:1G:738:C:H6	1.69	0.56
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.39	0.56
2:12:9:GLU:HA	2:12:12:GLU:HG3	1.88	0.56
9:82:112:LYS:HA	9:82:119:ALA:CB	2.35	0.56
26:14:1268:A:H2'	26:14:1269:A:O4'	2.05	0.56
26:14:1514:U:O2'	26:14:1515:C:H5'	2.06	0.56
26:14:2119:A:N6	26:14:2170:A:N7	2.53	0.56
26:14:2120:G:H2'	26:14:2121:G:H8	1.70	0.56
26:14:2880:C:H1'	38:55:92:GLY:HA3	1.87	0.56
33:69:73:GLU:HG3	33:69:136:VAL:HG23	1.87	0.56
42:95:60:GLU:HG3	42:95:97:LYS:HE2	1.86	0.56
42:95:71:LEU:H	42:95:86:GLY:CA	2.16	0.56
46:D5:152:ALA:HB2	46:D5:169:GLU:O	2.06	0.56
55:M5:34:TRP:CG	55:M5:35:GLN:N	2.61	0.56
1:13:767:A:H3'	58:13:1840:HOH:O	2.05	0.56
1:13:804:U:H5"	1:13:805:C:OP2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:919:A:O2'	1:13:920:U:H5'	2.06	0.56
1:13:1508:G:P	58:13:1803:HOH:O	2.64	0.56
2:1E:59:GLU:HG3	2:1E:225:ALA:HB2	1.87	0.56
26:1H:185:U:H4'	26:1H:218:A:H4'	1.88	0.56
26:1H:399:G:OP2	58:1H:4043:HOH:O	2.18	0.56
26:1H:1349:A:OP1	58:1H:4126:HOH:O	2.18	0.56
26:1H:2594:C:H2'	26:1H:2595:G:C8	2.41	0.56
28:11:52:ARG:HB2	28:11:53:PHE:CD2	2.41	0.56
29:21:79:ARG:HG3	29:21:80:GLU:O	2.06	0.56
29:21:119:ARG:HH11	29:21:120:TRP:HE1	1.54	0.56
40:B8:26:ASP:O	40:B8:49:VAL:HG12	2.06	0.56
1:1G:1239:A:H62	1:1G:1299:A:H62	1.54	0.56
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.19	0.56
2:12:109:SER:HA	2:12:112:VAL:HG23	1.86	0.56
6:52:6:VAL:HG13	6:52:90:VAL:HG22	1.87	0.56
24:3L:13:C:H2'	24:3L:14:A:H8	1.71	0.56
24:3L:71:G:H2'	24:3L:72:C:O4'	2.05	0.56
26:14:309:G:O3'	45:C5:18:GLY:HA3	2.05	0.56
26:14:1427:A:H4'	26:14:1428:C:O4'	2.05	0.56
26:14:1693:U:O2'	28:19:14:ARG:NH2	2.39	0.56
26:14:1966:A:H4'	26:14:1967:C:OP1	2.06	0.56
26:14:2294:C:OP1	39:65:89:ARG:NH2	2.39	0.56
37:45:66:ILE:HG13	37:45:67:ARG:H	1.69	0.56
42:95:35:LEU:HB3	42:95:37:VAL:HG11	1.88	0.56
23:2K:20:G:C2	23:2K:58:A:N3	2.74	0.56
26:1H:241:A:H5"	58:1H:4304:HOH:O	2.06	0.56
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.35	0.56
26:1H:1514:U:H2'	26:1H:1515:C:H6	1.71	0.56
26:1H:2371:G:H4'	53:O8:45:LYS:HG3	1.88	0.56
26:1H:2431:U:H3'	58:1H:3905:HOH:O	2.05	0.56
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.05	0.56
31:41:47:LYS:HD3	31:41:81:LYS:CB	2.36	0.56
34:58:12:ARG:HH21	34:58:14:VAL:HG22	1.71	0.56
36:78:122:PRO:HA	36:78:142:GLY:CA	2.36	0.56
1:1G:1075:C:OP1	2:12:179:LYS:NZ	2.30	0.56
9:82:24:GLY:HA2	9:82:59:PHE:O	2.06	0.56
26:14:214:G:H4'	26:14:214:G:OP1	2.03	0.56
26:14:649:G:H2'	26:14:650:C:C6	2.41	0.56
26:14:1496:A:H8	26:14:1577:C:HO2'	1.51	0.56
28:19:71:ASP:OD2	28:19:103:ARG:NH1	2.32	0.56
28:19:153:ALA:O	28:19:157:ARG:NH1	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:123:LEU:HD22	33:69:143:SER:HB3	1.88	0.56
36:35:64:LYS:HB2	55:M5:30:ARG:HH22	1.70	0.56
37:45:87:LYS:HB3	37:45:90:VAL:HG23	1.88	0.56
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.20	0.56
51:I5:22:ILE:HG12	51:I5:23:GLU:N	2.20	0.56
2:1E:189:ASP:HB3	2:1E:191:ASP:HB2	1.89	0.55
19:AI:42:PRO:HD3	51:M8:63:TYR:OH	2.06	0.55
26:1H:1163:G:C2	26:1H:1164:G:C8	2.95	0.55
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.71	0.55
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.87	0.55
40:B8:77:PRO:HG2	40:B8:80:SER:HB2	1.87	0.55
43:E8:88:ARG:NH1	43:E8:94:ASP:OD2	2.31	0.55
45:G8:87:LYS:HD2	45:G8:96:ILE:HD11	1.87	0.55
53:O8:15:GLU:OE2	53:O8:44:ARG:NH2	2.39	0.55
1:1G:538:G:H3'	12:3A:115:LYS:HZ3	1.71	0.55
1:1G:827:U:H3	1:1G:872:A:N6	2.00	0.55
1:1G:1220:G:H5'	19:AA:35:SER:HA	1.87	0.55
2:12:115:LEU:HB2	2:12:145:LEU:HD12	1.87	0.55
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.39	0.55
26:14:2324:C:H5"	26:14:2325:G:H5'	1.88	0.55
26:14:2875:C:OP1	40:75:3:ARG:NH1	2.39	0.55
31:49:42:GLY:O	31:49:43:LEU:HD13	2.04	0.55
47:E5:51:VAL:HG23	47:E5:81:VAL:HG23	1.87	0.55
1:13:113:G:H2'	1:13:114:U:H6	1.71	0.55
1:13:1013:G:N2	1:13:1016:A:OP2	2.40	0.55
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.88	0.55
26:1H:50:U:H3'	26:1H:51:G:H5'	1.88	0.55
26:1H:2019:A:C6	26:1H:2020:A:N7	2.74	0.55
29:21:97:LYS:N	29:21:100:GLU:OE1	2.39	0.55
30:31:40:GLN:NE2	30:31:184:TYR:HB3	2.21	0.55
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.21	0.55
31:41:35:GLU:OE1	31:41:36:LYS:N	2.39	0.55
43:E8:12:ILE:HG13	43:E8:42:ARG:NH1	2.22	0.55
45:G8:94:LYS:HZ2	45:G8:95:LYS:H	1.53	0.55
48:J8:3:LYS:O	48:J8:12:PRO:HD3	2.06	0.55
55:Q8:48:PHE:CD1	55:Q8:49:VAL:HG13	2.42	0.55
1:1G:649:G:H2'	1:1G:650:G:H8	1.71	0.55
26:14:573:G:O2'	26:14:574:C:H3'	2.06	0.55
26:14:2029:G:H2'	26:14:2031:A:OP1	2.07	0.55
26:14:2378:A:O5'	26:14:2378:A:H8	1.89	0.55
51:I5:20:ASN:HD21	51:I5:36:CYS:HB2	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:654:G:C2'	1:13:655:A:H5'	2.36	0.55
1:13:724:G:C2	1:13:725:G:C8	2.94	0.55
1:13:1128:C:H6	1:13:1139:G:C6	2.24	0.55
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.71	0.55
24:3K:76:A:H8	26:1H:2394:C:N4	2.01	0.55
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.22	0.55
1:1G:853:G:H2'	1:1G:854:G:H8	1.71	0.55
17:8A:99:SER:O	17:8A:100:LYS:NZ	2.36	0.55
24:3L:52:G:N2	24:3L:62:C:N3	2.39	0.55
26:14:2345:G:N3	26:14:2381:C:H2'	2.21	0.55
36:35:13:ASN:C	36:35:15:ARG:H	2.08	0.55
36:35:15:ARG:HB2	36:35:15:ARG:CZ	2.36	0.55
36:35:85:LEU:HB2	36:35:88:LEU:HD23	1.88	0.55
37:45:25:ASP:CB	37:45:102:VAL:H	2.20	0.55
1:13:187:C:O2	1:13:191(A):G:N1	2.39	0.55
1:13:419:C:H5'	1:13:420:U:OP2	2.07	0.55
1:13:669:U:C2	1:13:670:G:C8	2.95	0.55
13:4I:65:LYS:HZ2	51:M8:52:THR:HB	1.70	0.55
14:5I:24:CYS:HB3	14:5I:28:GLY:H	1.71	0.55
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.87	0.55
26:1H:686:G:OP1	54:P8:11:LYS:NZ	2.40	0.55
26:1H:831:G:N2	36:78:53:GLY:O	2.39	0.55
26:1H:1279:G:H4'	38:98:31:HIS:CD2	2.40	0.55
26:1H:1433:U:O2	26:1H:1561:G:C2	2.60	0.55
26:1H:2645:G:H3'	26:1H:2646:C:H5'	1.88	0.55
1:1G:196:A:OP1	20:BA:68:LYS:NZ	2.40	0.55
1:1G:1128:C:H4'	9:82:16:ARG:HH22	1.72	0.55
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.25	0.55
2:12:12:GLU:HB2	2:12:16:HIS:CG	2.42	0.55
6:52:70:ASP:OD1	6:52:70:ASP:N	2.39	0.55
26:14:1233:C:H2'	26:14:1234:U:H6	1.71	0.55
26:14:1419:A:N6	26:14:1494:A:N1	2.45	0.55
26:14:1945:G:H2'	26:14:1946:U:C6	2.39	0.55
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.06	0.55
26:14:2564:A:OP1	26:14:2648:C:H4'	2.06	0.55
27:1J:3:C:H2'	27:1J:4:C:C6	2.42	0.55
27:1J:38:C:H42	27:1J:44:G:H1	1.52	0.55
1:13:406:G:H2'	1:13:407:G:C8	2.40	0.55
1:13:1157:A:H8	1:13:1158:C:N4	2.03	0.55
2:1E:15:VAL:HG21	2:1E:209:ARG:HB3	1.89	0.55
3:2E:3:ASN:O	3:2E:4:LYS:HG2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.71	0.55
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.72	0.55
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.05	0.55
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.07	0.55
26:1H:638:G:C5	26:1H:651:G:C2	2.95	0.55
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.71	0.55
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.05	0.55
27:16:15:A:H3'	27:16:16:G:H5'	1.88	0.55
27:16:78:A:C2	27:16:99:A:C4	2.94	0.55
31:41:62:LEU:HD12	51:M8:27:THR:HG21	1.89	0.55
55:Q8:48:PHE:N	55:Q8:48:PHE:HD1	2.04	0.55
1:1G:513:C:N4	1:1G:538:G:H1	2.03	0.55
1:1G:532:A:H62	1:1G:1207:G:H5'	1.71	0.55
1:1G:994:A:C5	1:1G:1216:G:H4'	2.40	0.55
1:1G:1298:C:H1'	1:1G:1299:A:C6	2.42	0.55
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.41	0.55
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.71	0.55
2:12:127:ILE:HA	2:12:130:ARG:HG3	1.88	0.55
2:12:162:ILE:HD11	2:12:184:VAL:HG13	1.88	0.55
5:42:107:ARG:O	5:42:110:LEU:N	2.39	0.55
22:1L:18:G:O2'	22:1L:19:G:OP1	2.24	0.55
22:1L:23:A:H2'	22:1L:24:G:H8	1.72	0.55
26:14:315:G:H2'	26:14:316:C:C6	2.40	0.55
26:14:755:C:H2'	26:14:756:C:C6	2.41	0.55
26:14:2015:A:N3	52:J5:2:ALA:N	2.54	0.55
26:14:2256:G:H2'	26:14:2257:U:H6	1.71	0.55
32:59:149:ARG:HH21	32:59:154:PRO:HB2	1.72	0.55
46:D5:70:LEU:O	46:D5:89:PHE:N	2.39	0.55
55:M5:60:LEU:HD12	55:M5:61:LEU:H	1.71	0.55
1:13:343:U:N3	1:13:347:G:C6	2.74	0.55
1:13:1160:G:H1	1:13:1177:G:N2	2.04	0.55
1:13:1160:G:N2	1:13:1177:G:H22	2.03	0.55
1:13:1410:G:H2'	1:13:1411:C:C6	2.41	0.55
6:5E:100:ASN:HB2	18:9I:27:GLY:O	2.05	0.55
26:1H:484:C:H2'	26:1H:485:C:C6	2.41	0.55
26:1H:969:U:OP1	50:L8:17:LYS:HG2	2.06	0.55
26:1H:1694:C:H4'	26:1H:1695:G:O5'	2.06	0.55
26:1H:1788:C:H2'	26:1H:1789:A:H8	1.71	0.55
26:1H:2392:A:C8	36:78:61:ARG:HG2	2.40	0.55
32:51:77:LYS:NZ	32:51:82:GLY:O	2.37	0.55
33:61:102:SER:HA	33:61:107:VAL:O	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:D8:3:ALA:HB1	42:D8:38:LEU:HD11	1.89	0.55
45:G8:76:CYS:HB2	45:G8:82:PRO:HD3	1.88	0.55
55:Q8:48:PHE:HD1	55:Q8:48:PHE:H	1.54	0.55
1:1G:111:G:H8	1:1G:111:G:O5'	1.89	0.55
3:22:6:HIS:HB3	14:5A:49:HIS:CD2	2.42	0.55
7:62:146:GLU:O	7:62:149:ARG:HB2	2.07	0.55
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	1.89	0.55
26:14:247:G:H4'	26:14:386:G:C5	2.41	0.55
26:14:832:G:H5'	36:35:45:LEU:HD11	1.89	0.55
26:14:1360:A:H5"	26:14:1361:G:OP2	2.07	0.55
26:14:2439:A:H5'	26:14:2439:A:C8	2.40	0.55
34:15:136:GLU:O	34:15:137:LYS:NZ	2.40	0.55
36:35:63:PRO:O	55:M5:30:ARG:NH2	2.40	0.55
36:35:127:ALA:O	36:35:147:LEU:N	2.37	0.55
45:C5:87:LYS:HG2	45:C5:88:LYS:H	1.71	0.55
1:13:452:A:H2'	1:13:453:A:C8	2.42	0.55
1:13:1014:A:C2	1:13:1219:U:H1'	2.42	0.55
19:AI:78:ARG:HE	19:AI:78:ARG:N	2.03	0.55
26:1H:225:A:N6	26:1H:419:C:H4'	2.22	0.55
26:1H:1797:C:O2'	28:11:259:THR:HB	2.07	0.55
33:61:120:ILE:HD12	33:61:121:LYS:H	1.71	0.55
46:H8:9:TYR:CE1	46:H8:35:ARG:HD3	2.41	0.55
1:1G:1435:G:H2'	1:1G:1436:U:H6	1.63	0.55
7:62:23:VAL:O	7:62:27:ILE:HG12	2.07	0.55
20:BA:16:HIS:O	20:BA:19:SER:N	2.39	0.55
26:14:208:C:H2'	26:14:209:C:H6	1.71	0.55
26:14:289:A:H3'	26:14:290:G:H8	1.71	0.55
26:14:646:A:H2'	26:14:647:G:O4'	2.07	0.55
26:14:1666:G:OP1	35:25:66:LYS:HD3	2.07	0.55
26:14:2528:U:O2'	26:14:2530:A:OP1	2.15	0.55
29:29:92:THR:O	29:29:95:ILE:HG13	2.06	0.55
32:59:144:VAL:HA	32:59:147:ASN:HB2	1.88	0.55
40:75:24:PRO:HD3	40:75:52:ILE:HG13	1.89	0.55
42:95:76:LYS:HB2	42:95:79:VAL:HG23	1.88	0.55
53:K5:9:LEU:N	53:K5:27:LYS:HG3	2.21	0.55
1:13:130:A:O2'	1:13:131:C:O5'	2.24	0.55
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.88	0.55
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.88	0.55
24:3K:71:G:H2'	24:3K:72:C:O4'	2.07	0.55
26:1H:2171:A:O2'	26:1H:2172:U:O5'	2.24	0.55
29:21:2:LYS:HD2	29:21:200:GLU:OE2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:68:ILE:HG23	37:88:103:MET:HB3	1.88	0.55
39:A8:26:LEU:HD23	39:A8:87:PHE:HD1	1.70	0.55
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.07	0.55
55:Q8:23:VAL:HG13	55:Q8:46:ARG:HG3	1.89	0.55
55:Q8:52:LYS:N	55:Q8:52:LYS:HD2	2.21	0.55
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.42	0.55
3:22:34:LEU:HD11	3:22:38:ARG:HH21	1.71	0.55
8:72:29:SER:H	8:72:32:LYS:HB2	1.71	0.55
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.21	0.55
19:AA:18:LYS:O	19:AA:22:LEU:HB2	2.07	0.55
24:3L:18:G:H2'	24:3L:57:G:H22	1.72	0.55
26:14:337:C:H2'	26:14:338:G:O4'	2.06	0.55
26:14:606:U:H4'	26:14:658:C:H4'	1.89	0.55
26:14:1689:A:N6	26:14:1698:A:H2	1.92	0.55
26:14:2494:G:H2'	26:14:2495:G:H8	1.71	0.55
26:14:2697:G:H2'	26:14:2698:U:O4'	2.07	0.55
28:19:20:ASP:OD2	28:19:22:SER:OG	2.24	0.55
28:19:43:ARG:HH11	28:19:43:ARG:CG	2.19	0.55
28:19:118:VAL:HG22	28:19:119:ALA:H	1.72	0.55
29:29:111:ARG:HA	38:55:2:ARG:HH12	1.70	0.55
38:55:81:ASP:O	38:55:82:GLU:HB3	2.07	0.55
41:85:8:VAL:HG11	41:85:12:ARG:HH21	1.72	0.55
46:D5:8:TYR:HD1	46:D5:62:PRO:HG3	1.70	0.55
1:13:814:A:N7	1:13:816:A:C4	2.75	0.55
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.88	0.55
3:2E:191:THR:HG22	3:2E:192:THR:H	1.72	0.55
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.20	0.55
14:5I:4:LYS:O	14:5I:7:ILE:HG13	2.06	0.55
24:3K:70:G:C6	24:3K:71:G:C5	2.95	0.55
26:1H:582:G:H2'	26:1H:583:G:H8	1.72	0.55
26:1H:673:C:H5"	30:31:81:PRO:HD2	1.88	0.55
26:1H:937:U:H2'	26:1H:938:G:O4'	2.07	0.55
26:1H:1803:A:H4'	28:11:259:THR:CG2	2.36	0.55
26:1H:2032:G:H21	29:21:146:THR:CG2	2.20	0.55
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.21	0.55
26:1H:2376:A:N1	39:A8:87:PHE:HD2	2.05	0.55
32:51:154:PRO:HD3	32:51:162:ILE:O	2.06	0.55
33:61:4:ILE:HG12	33:61:18:VAL:HG22	1.89	0.55
1:1G:588:G:H1	1:1G:651:C:N4	2.02	0.55
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.72	0.55
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:32:ALA:HA	10:1A:76:ASN:HB2	1.88	0.55
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.89	0.55
26:14:871:U:OP1	37:45:5:ARG:HG3	2.07	0.55
26:14:972:G:O2'	58:14:3594:HOH:O	2.18	0.55
26:14:986:C:O2'	26:14:1001:A:O2'	2.25	0.55
26:14:1485:G:H2'	26:14:1486:A:H8	1.70	0.55
26:14:1537:C:H2'	26:14:1538:G:C8	2.41	0.55
26:14:2103:C:H2'	26:14:2104:G:C8	2.42	0.55
26:14:2294:C:P	39:65:89:ARG:HH22	2.30	0.55
26:14:2363:C:O2	47:E5:39:ARG:NH2	2.39	0.55
26:14:2420:C:N4	55:M5:31:HIS:HB3	2.22	0.55
26:14:2432:A:C8	48:F5:33:LYS:HD2	2.41	0.55
26:14:2540:C:O2'	26:14:2740:A:N3	2.37	0.55
29:29:81:ILE:HG22	29:29:82:ARG:N	2.18	0.55
29:29:101:ARG:O	29:29:201:THR:OG1	2.24	0.55
40:75:21:GLU:O	40:75:91:ARG:NH2	2.37	0.55
40:75:54:ARG:HA	40:75:59:THR:HB	1.89	0.55
44:B5:84:ALA:O	44:B5:87:GLN:HG3	2.06	0.55
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.41	0.55
1:13:486:U:H2'	1:13:487:A:H8	1.71	0.55
26:1H:796:C:H2'	26:1H:797:C:C6	2.42	0.55
26:1H:1062:G:H1'	26:1H:1088:A:C5	2.42	0.55
26:1H:1478:G:O2'	26:1H:1558:A:H2	1.90	0.55
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.42	0.55
34:58:58:ASP:HB2	34:58:95:PRO:HB2	1.89	0.55
35:68:75:SER:OG	40:B8:74:ARG:NH2	2.40	0.55
40:B8:58:ASN:ND2	40:B8:58:ASN:O	2.36	0.55
53:O8:36:LEU:HD22	53:O8:50:ARG:HG2	1.88	0.55
1:1G:1125:U:OP2	1:1G:1145:C:N4	2.39	0.55
1:1G:1320:C:H1'	19:AA:73:GLU:HG2	1.89	0.55
1:1G:1365:G:H2'	1:1G:1366:C:H6	1.71	0.55
2:12:219:VAL:O	2:12:222:ILE:HG13	2.07	0.55
9:82:77:ILE:O	9:82:81:ILE:HG12	2.07	0.55
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.72	0.55
26:14:739:G:P	58:14:3635:HOH:O	2.65	0.55
26:14:975:G:C2	26:14:990:A:C8	2.95	0.55
39:65:78:LEU:HD12	39:65:107:GLU:HB3	1.89	0.55
46:D5:175:VAL:HA	46:D5:177:PRO:HD3	1.88	0.55
51:I5:34:GLU:HG2	51:I5:35:VAL:N	2.22	0.55
1:13:417:C:H2'	1:13:418:C:C6	2.42	0.54
1:13:626:U:C2	1:13:627:G:C8	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:826:C:H2'	1:13:827:U:O2	2.07	0.54
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.22	0.54
18:9I:44:LEU:HD11	18:9I:70:ILE:HG21	1.88	0.54
26:1H:881:G:O6	26:1H:895:U:N3	2.38	0.54
26:1H:2773:C:H5"	29:21:164:ARG:HG2	1.89	0.54
1:1G:527:G:O6	12:3A:49:ASN:ND2	2.37	0.54
1:1G:674:G:H21	11:2A:116:HIS:HB2	1.71	0.54
15:6A:55:GLY:HA2	15:6A:58:MET:HE2	1.88	0.54
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.89	0.54
1:13:392:G:H5'	16:7I:12:LYS:HE3	1.89	0.54
4:3E:117:ALA:O	4:3E:120:LEU:HB2	2.08	0.54
6:5E:61:LEU:HD23	6:5E:63:TYR:CE1	2.41	0.54
16:7I:77:ALA:HB3	16:7I:79:VAL:H	1.72	0.54
26:1H:1055:G:H1'	26:1H:1085:A:H2	1.71	0.54
26:1H:1265:A:H3'	52:N8:19:ARG:NH1	2.23	0.54
29:21:48:GLN:OE1	29:21:77:ILE:HD13	2.07	0.54
52:N8:50:GLY:H	52:N8:56:LYS:HG3	1.72	0.54
55:Q8:9:GLY:N	55:Q8:12:LYS:HG3	2.23	0.54
1:1G:881:G:P	12:3A:12:ARG:HH12	2.29	0.54
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.23	0.54
4:32:18:LYS:HG3	4:32:20:TYR:H	1.71	0.54
26:14:1034:G:H2'	26:14:1035:U:O4'	2.07	0.54
26:14:2295:C:H5	39:65:13:ARG:HH22	1.55	0.54
27:1J:52:A:O2'	27:1J:53:A:N7	2.37	0.54
28:19:3:VAL:H	28:19:20:ASP:HB2	1.72	0.54
29:29:68:ALA:O	29:29:69:LYS:HB2	2.07	0.54
31:49:37:VAL:HG23	31:49:99:MET:HE3	1.89	0.54
33:69:101:LEU:HB2	33:69:105:HIS:HB2	1.88	0.54
38:55:70:LEU:HD13	38:55:75:LEU:HD13	1.89	0.54
46:D5:158:PRO:HD2	46:D5:161:VAL:HG13	1.88	0.54
49:G5:10:LEU:O	49:G5:14:ARG:HB2	2.08	0.54
1:13:240:C:H2'	1:13:241:C:C6	2.41	0.54
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.89	0.54
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.42	0.54
23:2K:2:G:H2'	23:2K:3:C:C6	2.42	0.54
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.89	0.54
27:16:89:G:H2'	27:16:89(A):A:C8	2.43	0.54
29:21:143:ASN:HD22	29:21:147:PRO:HD2	1.72	0.54
40:B8:93:ARG:HG3	40:B8:93:ARG:HH11	1.70	0.54
1:1G:141:A:H1'	1:1G:182:U:O2	2.08	0.54
1:1G:607:A:H2'	1:1G:608:A:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1248:A:H2'	9:82:70:LYS:NZ	2.22	0.54
1:1G:1279:A:HO2'	1:1G:1282:C:N4	2.05	0.54
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.90	0.54
15:6A:50:HIS:O	15:6A:53:HIS:HB3	2.06	0.54
26:14:571:A:OP2	58:14:4005:HOH:O	2.18	0.54
26:14:839:U:H2'	26:14:840:C:H6	1.72	0.54
26:14:920:G:H2'	26:14:921:G:H8	1.72	0.54
26:14:1337:G:H2'	26:14:1338:G:C8	2.42	0.54
26:14:1686:C:H2'	26:14:1687:G:O4'	2.07	0.54
26:14:2849:U:H4'	26:14:2868:A:C2	2.42	0.54
46:D5:40:ASP:OD2	46:D5:43:GLU:HG2	2.07	0.54
1:13:688:G:H2'	1:13:689:C:H6	1.72	0.54
1:13:820:U:H4'	1:13:821:G:OP2	2.07	0.54
1:13:1510:U:H2'	1:13:1511:G:C8	2.43	0.54
2:1E:238:LEU:H	2:1E:238:LEU:HD12	1.71	0.54
4:3E:192:GLU:OE1	4:3E:192:GLU:N	2.31	0.54
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.08	0.54
25:4K:23:A:H3'	25:4K:24:A:C8	2.43	0.54
26:1H:428:A:P	58:1H:4617:HOH:O	2.66	0.54
26:1H:1472:A:H2'	26:1H:1473:G:C8	2.42	0.54
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.08	0.54
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.07	0.54
29:21:51:PHE:CD2	29:21:52:LEU:HG	2.42	0.54
37:88:30:GLY:HA2	37:88:107:ALA:HB2	1.90	0.54
49:K8:58:ALA:O	49:K8:62:THR:HG22	2.07	0.54
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.07	0.54
1:1G:547:A:OP2	4:32:2:GLY:N	2.40	0.54
1:1G:1369:C:OP2	9:82:112:LYS:N	2.40	0.54
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.41	0.54
19:AA:66:MET:HB3	19:AA:69:HIS:CD2	2.42	0.54
26:14:1486:A:H2'	26:14:1487:G:C8	2.42	0.54
26:14:2250:G:C6	37:45:82:ARG:HD2	2.42	0.54
26:14:2745:C:H4'	32:59:142:GLY:O	2.07	0.54
28:19:75:ILE:O	28:19:118:VAL:HG23	2.07	0.54
29:29:63:LEU:O	29:29:66:HIS:CG	2.60	0.54
32:59:41:MET:N	32:59:41:MET:SD	2.80	0.54
37:45:110:THR:HG23	37:45:113:GLN:NE2	2.22	0.54
39:65:85:VAL:HG22	39:65:110:LEU:HG	1.88	0.54
47:E5:18:ALA:HB3	47:E5:20:ARG:HE	1.73	0.54
1:13:1288:A:N3	1:13:1352:C:O2'	2.37	0.54
4:3E:209:ARG:HA	4:3E:209:ARG:HH11	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:24:VAL:HG12	10:1I:25:GLU:HG3	1.88	0.54
26:1H:296:C:H2'	26:1H:297:C:H6	1.72	0.54
26:1H:821:A:H2'	26:1H:946:G:H5"	1.88	0.54
26:1H:1204:A:H2	26:1H:1241:A:N1	2.04	0.54
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.42	0.54
26:1H:2250:G:C8	26:1H:2496:C:H5"	2.43	0.54
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.07	0.54
26:1H:2592:G:C5	26:1H:2593:U:C4	2.95	0.54
28:11:76:PRO:HB2	28:11:116:GLN:NE2	2.23	0.54
40:B8:55:ASN:H	40:B8:59:THR:HB	1.71	0.54
43:E8:82:LEU:HD13	43:E8:84:ARG:HH21	1.72	0.54
1:1G:114:U:O2'	1:1G:115:G:H5'	2.07	0.54
1:1G:1096:C:H2'	1:1G:1097:C:H6	1.71	0.54
1:1G:1217:C:H5"	14:5A:9:LYS:HE2	1.90	0.54
8:72:86:ILE:HD12	8:72:133:LEU:HD11	1.88	0.54
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.71	0.54
19:AA:9:VAL:HG13	51:I5:63:TYR:CE1	2.41	0.54
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.07	0.54
23:2L:22:A:N6	23:2L:47:7MG:H2'	2.23	0.54
26:14:17:G:H2'	26:14:18:C:H6	1.72	0.54
26:14:19:C:H2'	26:14:20:C:C6	2.42	0.54
26:14:172:C:H2'	26:14:173:G:H8	1.72	0.54
26:14:2446:G:C3'	26:14:2447:G:H5"	2.38	0.54
29:29:154:LYS:HE3	29:29:154:LYS:HA	1.88	0.54
30:39:112:MET:O	30:39:115:ALA:HB3	2.07	0.54
40:75:85:LYS:NZ	40:75:87:ASP:OD2	2.24	0.54
44:B5:5:TYR:HD1	49:G5:33:MET:SD	2.31	0.54
52:J5:31:VAL:HG13	52:J5:42:PRO:HG3	1.89	0.54
1:13:201:C:H42	1:13:216:G:H1	1.54	0.54
1:13:1412:C:H2'	1:13:1413:A:C8	2.43	0.54
1:13:1486:G:H2'	1:13:1487:G:O4'	2.07	0.54
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.89	0.54
40:B8:81:PRO:HG2	40:B8:82:LEU:HD12	1.89	0.54
43:E8:88:ARG:HB3	43:E8:92:ARG:HB3	1.88	0.54
44:F8:12:VAL:HG13	44:F8:27:THR:HG23	1.88	0.54
44:F8:67:GLY:O	44:F8:69:TYR:N	2.41	0.54
1:1G:298:A:H5"	1:1G:299:G:OP2	2.06	0.54
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.39	0.54
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.90	0.54
3:22:45:LYS:O	3:22:48:TYR:HB3	2.08	0.54
26:14:568:U:O2'	58:14:4012:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:638:G:H2'	26:14:639:U:O4'	2.07	0.54
26:14:1021:A:H3'	26:14:1021:A:C8	2.43	0.54
26:14:1636:C:H2'	26:14:1637:A:C8	2.42	0.54
26:14:1856:G:H1	26:14:1886:C:N4	2.06	0.54
26:14:2275:C:H6	26:14:2275:C:H5'	1.72	0.54
26:14:2287:A:N6	26:14:2344:U:H3	2.03	0.54
26:14:2542:A:N3	26:14:2542:A:H5"	2.23	0.54
28:19:255:LYS:HE3	28:19:255:LYS:H	1.72	0.54
30:39:153:SER:OG	30:39:190:GLU:HB2	2.07	0.54
38:55:72:ASP:OD2	38:55:75:LEU:HB2	2.08	0.54
1:13:407:G:H1	1:13:435:C:H42	1.55	0.54
1:13:1016:A:H2'	1:13:1017:G:O4'	2.08	0.54
1:13:1309:G:N2	1:13:1329:A:H1'	2.22	0.54
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.71	0.54
26:1H:761:A:H5"	58:1H:3686:HOH:O	2.07	0.54
30:31:7:TYR:HA	30:31:22:ALA:O	2.08	0.54
31:41:110:ALA:HA	31:41:140:ILE:O	2.07	0.54
43:E8:18:ARG:HD3	43:E8:76:VAL:HG13	1.90	0.54
46:H8:103:ARG:HG3	46:H8:136:PHE:CD2	2.43	0.54
52:N8:40:LYS:NZ	52:N8:46:CYS:HB3	2.19	0.54
1:1G:1272:G:C2	1:1G:1273:G:H1'	2.42	0.54
1:1G:1360:A:H8	1:1G:1360:A:OP1	1.91	0.54
1:1G:1411:C:H2'	1:1G:1412:C:H6	1.71	0.54
13:4A:2:ALA:HB1	51:I5:34:GLU:HB3	1.89	0.54
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.88	0.54
26:14:152:G:H1	26:14:174:C:N4	2.04	0.54
26:14:1113:U:H2'	26:14:1114:G:O4'	2.08	0.54
26:14:1141:U:H5"	26:14:1142(A):A:O4'	2.08	0.54
26:14:1298:C:H5"	26:14:1299:G:OP2	2.08	0.54
26:14:2054:A:H5"	26:14:2055:C:O5'	2.06	0.54
35:25:97:ARG:CZ	35:25:99:PHE:HE1	2.20	0.54
46:D5:7:ALA:O	46:D5:8:TYR:CG	2.60	0.54
1:13:44:G:C2	1:13:45:U:H1'	2.43	0.54
1:13:179:A:H2'	1:13:180:U:C6	2.43	0.54
1:13:438:G:O2'	1:13:494:U:O4	2.21	0.54
1:13:444:C:H2'	1:13:445:G:H8	1.73	0.54
1:13:544:G:H2'	1:13:545:C:H6	1.72	0.54
18:9I:50:ILE:HG12	18:9I:70:ILE:HD12	1.90	0.54
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.06	0.54
29:21:181:LEU:HD21	40:B8:7:ILE:HG23	1.90	0.54
31:41:109:VAL:O	31:41:113:ARG:HG3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:3:VAL:HG12	33:61:38:LEU:HA	1.89	0.54
36:78:130:PHE:CE1	36:78:146:VAL:HG23	2.43	0.54
43:E8:17:VAL:HG13	43:E8:76:VAL:HG11	1.89	0.54
1:1G:187:C:H2'	1:1G:188:U:O4'	2.08	0.54
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.42	0.54
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.90	0.54
26:14:898:C:H3'	26:14:899:A:H5"	1.90	0.54
26:14:910:A:N3	26:14:2264:C:O2'	2.39	0.54
27:1J:9:G:H5'	39:65:25:ARG:HH12	1.72	0.54
36:35:8:PRO:HG2	36:35:13:ASN:HB3	1.90	0.54
40:75:18:ASP:OD1	40:75:18:ASP:N	2.38	0.54
1:13:186(E):C:H42	1:13:191(B):G:H1	1.55	0.54
1:13:924:C:H2'	1:13:925:G:C8	2.43	0.54
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.43	0.54
8:7E:39:LEU:HB3	8:7E:45:ILE:HD11	1.90	0.54
9:8E:89:ASN:O	9:8E:91:ASP:N	2.39	0.54
24:3K:48:C:C5	24:3K:59:U:H1'	2.43	0.54
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.39	0.54
26:1H:589:C:H2'	26:1H:590:A:C8	2.43	0.54
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.42	0.54
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.42	0.54
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.42	0.54
29:21:77:ILE:O	29:21:79:ARG:N	2.39	0.54
29:21:167:VAL:HG13	29:21:189:PRO:HD3	1.90	0.54
33:61:99:GLU:HG2	33:61:103:ARG:HH21	1.73	0.54
34:58:133:GLN:OE1	34:58:133:GLN:N	2.37	0.54
36:78:111:ARG:HG2	36:78:128:HIS:CG	2.43	0.54
39:A8:67:ARG:NH1	39:A8:67:ARG:HB2	2.23	0.54
55:Q8:34:TRP:HB3	55:Q8:36:LYS:N	2.22	0.54
55:Q8:46:ARG:NH2	55:Q8:47:LYS:O	2.41	0.54
55:Q8:49:VAL:HB	55:Q8:52:LYS:C	2.27	0.54
1:1G:198:G:H2'	1:1G:199:G:H8	1.73	0.54
1:1G:590:C:H2'	1:1G:591:U:H6	1.72	0.54
1:1G:1027:C:O2'	1:1G:1035:A:N6	2.41	0.54
4:32:13:ARG:C	4:32:15:GLU:H	2.11	0.54
26:14:303:U:H2'	26:14:304:G:C8	2.43	0.54
26:14:566:U:H2'	26:14:567:A:O4'	2.08	0.54
26:14:731:C:H5"	58:14:4110:HOH:O	2.07	0.54
26:14:2304:G:N2	26:14:2312:U:O4	2.36	0.54
29:29:11:MET:HA	29:29:24:THR:HA	1.88	0.54
46:D5:6:LYS:HE2	46:D5:43:GLU:HG3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:33:ASN:O	55:M5:36:LYS:HE3	2.08	0.54
1:13:630:G:H2'	1:13:631:G:O4'	2.07	0.54
1:13:1342:C:O2'	9:8E:124:GLN:HG2	2.07	0.54
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.73	0.54
26:1H:729:G:C8	28:11:208:LYS:HD3	2.43	0.54
26:1H:988:A:P	50:L8:11:SER:HB2	2.48	0.54
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.40	0.54
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.08	0.54
32:51:23:ARG:HH12	32:51:25:LYS:HD2	1.72	0.54
34:58:4:TYR:CE2	41:C8:100:VAL:HG11	2.42	0.54
1:1G:11:G:C5	1:1G:12:U:C5	2.96	0.54
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.26	0.54
5:42:41:VAL:O	5:42:67:VAL:N	2.41	0.54
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	1.89	0.54
20:BA:97:ALA:O	20:BA:99:LEU:HD12	2.08	0.54
23:2L:47:7MG:H3'	23:2L:48:U:H6	1.73	0.54
26:14:2165:G:H2'	26:14:2166:G:H5'	1.89	0.54
27:1J:31:C:H2'	27:1J:32:C:H5'	1.90	0.54
28:19:200:ASP:OD1	28:19:203:ASN:ND2	2.41	0.54
30:39:141:ALA:O	30:39:144:LYS:HB3	2.07	0.54
38:55:98:LEU:HB2	38:55:113:LEU:CD2	2.38	0.54
45:C5:17:SER:HB2	45:C5:71:LYS:HD2	1.90	0.54
47:E5:72:ARG:HB3	47:E5:75:LEU:HB2	1.90	0.54
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.37	0.53
6:5E:97:PHE:HD2	18:9I:31:LEU:HD21	1.71	0.53
19:AI:53:ASN:O	19:AI:77:THR:HG22	2.07	0.53
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.72	0.53
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.08	0.53
40:B8:29:ARG:NH1	40:B8:46:GLU:OE2	2.38	0.53
44:F8:3:THR:CB	44:F8:6:ASP:HB2	2.38	0.53
47:I8:44:ARG:HB2	47:I8:44:ARG:HH11	1.73	0.53
1:1G:382:A:H2'	1:1G:383:A:C8	2.43	0.53
1:1G:861:G:C4	1:1G:862:C:H5	2.27	0.53
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.89	0.53
3:22:70:VAL:HG11	3:22:76:VAL:HG11	1.90	0.53
4:32:107:ARG:HE	4:32:173:TRP:HZ2	1.56	0.53
5:42:101:ILE:H	5:42:101:ILE:HD13	1.73	0.53
20:BA:85:MET:HB2	20:BA:104:LEU:HD21	1.90	0.53
26:14:1007:C:OP1	34:15:37:LYS:NZ	2.40	0.53
26:14:1167:U:O2	26:14:1183:G:N2	2.41	0.53
26:14:1347:G:H5"	26:14:1348:G:OP2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1654:A:H1'	26:14:2823:A:H5'	1.90	0.53
26:14:2001:A:H2'	26:14:2002:G:C8	2.43	0.53
26:14:2094:G:H5'	33:69:25:TYR:CD1	2.43	0.53
26:14:2103:C:H2'	26:14:2104:G:H8	1.73	0.53
26:14:2567:G:H2'	26:14:2568:C:H6	1.72	0.53
28:19:253:GLN:HB3	28:19:255:LYS:NZ	2.23	0.53
33:69:63:ALA:HA	33:69:66:GLU:HG2	1.91	0.53
36:35:30:THR:HG21	36:35:35:HIS:N	2.22	0.53
1:13:554:C:H2'	1:13:555:C:H6	1.73	0.53
2:1E:8:LYS:H	2:1E:8:LYS:HE2	1.73	0.53
9:8E:25:LYS:NZ	9:8E:26:VAL:O	2.39	0.53
26:1H:381:G:C4	26:1H:394:A:C2	2.96	0.53
26:1H:1642:G:N7	58:1H:3947:HOH:O	2.34	0.53
26:1H:2784:C:O2'	29:21:37:ARG:NH1	2.40	0.53
28:11:46:GLN:HB2	28:11:48:ARG:HG2	1.90	0.53
31:41:166:ASP:N	31:41:166:ASP:OD1	2.41	0.53
36:78:2:LYS:HE3	36:78:4:SER:HB3	1.91	0.53
42:D8:59:ALA:CB	42:D8:96:ILE:HD13	2.38	0.53
26:14:218:A:H2	26:14:235:U:H4'	1.72	0.53
26:14:678:C:H2'	26:14:679:C:C6	2.43	0.53
26:14:1229:G:H2'	26:14:1229(A):G:H5"	1.90	0.53
32:59:9:ILE:HG22	32:59:51:ARG:HA	1.89	0.53
35:25:15:GLY:O	35:25:47:ILE:HB	2.08	0.53
44:B5:40:LYS:HA	44:B5:51:VAL:HG11	1.90	0.53
51:I5:12:ALA:HB1	51:I5:29:PRO:HA	1.90	0.53
53:K5:51:GLU:HG2	53:K5:52:VAL:H	1.73	0.53
1:13:412:A:H4'	1:13:413:G:O5'	2.08	0.53
1:13:863:U:O2'	1:13:865:A:N7	2.34	0.53
3:2E:175:LEU:HD21	3:2E:201:TYR:CE2	2.44	0.53
8:7E:87:SER:CB	8:7E:93:VAL:H	2.22	0.53
11:2I:48:ILE:HG12	11:2I:63:LEU:HB2	1.90	0.53
13:4I:65:LYS:NZ	51:M8:52:THR:HB	2.22	0.53
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.90	0.53
26:1H:606:U:H4'	26:1H:658:C:H4'	1.89	0.53
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.73	0.53
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.09	0.53
26:1H:2335:A:C8	26:1H:2337:G:C5	2.96	0.53
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.43	0.53
26:1H:2747:G:OP1	32:51:138:LYS:NZ	2.40	0.53
42:D8:46:VAL:HG12	42:D8:47:VAL:H	1.73	0.53
44:F8:80:ILE:HG13	44:F8:80:ILE:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:O8:16:CYS:O	53:O8:17:LYS:HB2	2.08	0.53
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.73	0.53
1:1G:428:G:C5	1:1G:430:A:C6	2.96	0.53
1:1G:1131:G:H2'	1:1G:1132:C:C6	2.43	0.53
2:12:163:PHE:HD1	2:12:185:ILE:HG13	1.73	0.53
3:22:112:SER:O	3:22:116:VAL:HG23	2.08	0.53
26:14:288:C:O2	26:14:353:G:N2	2.35	0.53
26:14:588:U:O4	26:14:670:A:H1'	2.08	0.53
26:14:1056:G:H1'	26:14:1103:A:H61	1.73	0.53
26:14:1542:G:O6	26:14:1543:A:N6	2.42	0.53
26:14:1774:C:P	58:14:4078:HOH:O	2.65	0.53
26:14:2844:G:H3'	26:14:2845:G:H8	1.72	0.53
31:49:55:LYS:O	31:49:58:GLN:HG3	2.07	0.53
32:59:17:VAL:HG23	32:59:26:VAL:HA	1.89	0.53
37:45:110:THR:OG1	37:45:112:GLU:OE1	2.23	0.53
55:M5:22:VAL:HG12	55:M5:50:LEU:HB2	1.90	0.53
1:13:280:C:C2	17:8I:38:ARG:HG3	2.44	0.53
1:13:491:G:H2'	1:13:492:G:O4'	2.08	0.53
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.56	0.53
6:5E:36:ARG:NH2	6:5E:38:GLU:HG2	2.24	0.53
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.08	0.53
11:2I:44:SER:OG	11:2I:47:VAL:HG23	2.07	0.53
16:7I:34:GLU:HG2	16:7I:35:LYS:H	1.72	0.53
26:1H:631:A:OP1	36:78:65:ARG:NH2	2.41	0.53
26:1H:699:A:H2'	26:1H:700:G:O4'	2.08	0.53
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.74	0.53
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.43	0.53
26:1H:2347:C:P	55:Q8:36:LYS:HE3	2.48	0.53
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.43	0.53
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.72	0.53
28:11:223:GLY:HA3	28:11:231:HIS:CE1	2.44	0.53
37:88:51:ARG:NH1	37:88:52:VAL:HG23	2.23	0.53
38:98:63:ARG:NH2	38:98:80:PHE:HD2	2.07	0.53
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.43	0.53
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.90	0.53
19:AA:28:LYS:HG2	19:AA:29:ARG:H	1.71	0.53
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.07	0.53
22:1L:10:G:H2'	22:1L:11:C:C6	2.44	0.53
26:14:25:U:H5'	43:A5:79:GLY:HA2	1.90	0.53
26:14:842:G:O5'	26:14:842:G:H8	1.91	0.53
26:14:1665:A:OP2	58:14:3506:HOH:O	2.18	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1935:G:H1'	26:14:1964:G:N2	2.23	0.53
26:14:2378:A:H4'	39:65:23:ARG:HH11	1.73	0.53
27:1J:13:A:H2'	27:1J:70:C:O2'	2.09	0.53
29:29:105:THR:OG1	29:29:199:ARG:NH2	2.41	0.53
33:69:109:ILE:HB	33:69:130:TYR:CZ	2.43	0.53
36:35:62:LEU:HG	55:M5:25:MET:HB2	1.90	0.53
39:65:67:ARG:NH1	39:65:67:ARG:HB2	2.24	0.53
40:75:99:LEU:HD22	40:75:101:PHE:CE1	2.43	0.53
1:13:448:A:P	1:13:485:G:H22	2.30	0.53
1:13:486:U:H2'	1:13:487:A:C8	2.44	0.53
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.40	0.53
3:2E:79:ARG:NH1	18:9A:87:ARG:HH12	2.06	0.53
8:7E:12:ARG:NH1	8:7E:27:PRO:HD2	2.24	0.53
11:2I:21:ILE:HD13	11:2I:84:VAL:HG12	1.90	0.53
17:8I:14:LYS:H	17:8I:14:LYS:HD2	1.72	0.53
26:1H:1138:G:H21	34:58:106:MET:CE	2.18	0.53
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.43	0.53
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.73	0.53
26:1H:2291:U:O2'	26:1H:2374:C:O2	2.25	0.53
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.08	0.53
27:16:87:G:N2	27:16:89(A):A:OP2	2.40	0.53
30:31:32:LEU:CD2	30:31:105:VAL:HG13	2.39	0.53
43:E8:38:TYR:HE2	52:N8:41:PRO:HD3	1.73	0.53
50:L8:9:VAL:HG22	50:L8:54:VAL:HA	1.91	0.53
54:P8:16:HIS:HB2	54:P8:44:PRO:HG2	1.91	0.53
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.09	0.53
2:12:74:LYS:HE3	2:12:166:ASP:HB2	1.89	0.53
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.25	0.53
11:2A:14:VAL:HG11	11:2A:35:PRO:HD3	1.90	0.53
14:5A:25:VAL:O	14:5A:26:ARG:HB3	2.09	0.53
22:1L:54:U:H5'	37:45:51:ARG:HH22	1.73	0.53
24:3L:46:G:H2'	24:3L:47:U:H4'	1.91	0.53
26:14:780:G:OP1	28:19:218:ARG:NH2	2.41	0.53
26:14:826:U:H2'	26:14:828:U:O4'	2.08	0.53
26:14:1776:G:OP2	58:14:3427:HOH:O	2.19	0.53
33:69:77:LEU:HD13	33:69:141:LYS:HD2	1.91	0.53
36:35:80:TYR:CD2	36:35:111:ARG:HB3	2.43	0.53
1:13:1504:G:OP1	1:13:1507:A:H4'	2.09	0.53
10:1I:42:THR:HG23	10:1I:67:THR:O	2.08	0.53
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.89	0.53
26:1H:2347:C:P	53:O8:39:TYR:HH	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:68:LYS:HB3	28:11:70:TRP:CH2	2.43	0.53
29:21:105:THR:HG22	29:21:106:GLY:N	2.21	0.53
33:61:67:ARG:O	33:61:71:ILE:HG22	2.08	0.53
34:58:38:HIS:O	41:C8:67:ALA:HB1	2.08	0.53
36:78:39:LYS:HG3	36:78:45:LEU:HD23	1.91	0.53
41:C8:6:THR:N	58:C8:302:HOH:O	2.40	0.53
49:K8:47:ASN:O	49:K8:49:LYS:HG3	2.08	0.53
1:1G:589:C:N3	1:1G:650:G:N2	2.54	0.53
1:1G:617:G:N7	58:1G:1839:HOH:O	2.33	0.53
1:1G:821:G:H5"	58:1G:1865:HOH:O	2.09	0.53
1:1G:1226:C:H4'	19:AA:80:TYR:OH	2.07	0.53
7:62:15:ASP:HB3	7:62:19:GLY:H	1.73	0.53
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.91	0.53
9:82:103:THR:HG22	9:82:105:ASP:H	1.73	0.53
26:14:31:C:OP1	58:14:3732:HOH:O	2.19	0.53
26:14:576:U:H5	58:14:3567:HOH:O	1.91	0.53
26:14:2702:U:O2'	26:14:2703:C:C5	2.60	0.53
26:14:2712:U:H2'	26:14:2714:G:H5"	1.90	0.53
27:1J:16:G:H2'	27:1J:17:C:C6	2.44	0.53
29:29:56:PRO:HD2	29:29:58:ARG:HD3	1.90	0.53
29:29:89:ASP:C	29:29:91:VAL:H	2.11	0.53
30:39:89:VAL:HG12	30:39:90:PHE:H	1.73	0.53
30:39:132:VAL:O	30:39:134:GLY:N	2.42	0.53
34:15:67:LEU:O	34:15:88:GLU:HG3	2.08	0.53
43:A5:50:VAL:HG22	43:A5:105:VAL:HG23	1.89	0.53
1:13:765:G:H5"	1:13:766:A:OP1	2.08	0.53
1:13:1160:G:H22	1:13:1177:G:N2	2.07	0.53
1:13:1349:A:H2'	1:13:1350:A:C8	2.44	0.53
8:7E:41:ARG:NH1	8:7E:123:GLU:OE1	2.42	0.53
8:7E:45:ILE:HB	8:7E:47:GLY:H	1.73	0.53
20:BI:97:ALA:O	20:BI:99:LEU:N	2.42	0.53
24:3K:28:G:H2'	24:3K:29:G:H8	1.74	0.53
26:1H:85:G:OP2	45:G8:9:LYS:HB2	2.08	0.53
26:1H:396:G:O4'	48:J8:13:ILE:HD11	2.09	0.53
27:16:2:C:H2'	27:16:3:C:C6	2.43	0.53
28:11:108:PRO:HG3	28:11:143:HIS:HE1	1.72	0.53
29:21:119:ARG:HD2	29:21:120:TRP:CE2	2.44	0.53
46:H8:117:LEU:H	46:H8:117:LEU:HD13	1.74	0.53
50:L8:7:LYS:O	50:L8:54:VAL:HG23	2.08	0.53
55:Q8:5:LYS:H	55:Q8:59:LYS:NZ	2.06	0.53
1:1G:157:G:H1	1:1G:164:U:H3	1.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:778:G:O2'	11:2A:119:CYS:HB2	2.09	0.53
9:82:112:LYS:HE3	9:82:118:LYS:H	1.72	0.53
19:AA:35:SER:O	19:AA:71:LEU:HD12	2.09	0.53
21:1B:9:ARG:NE	21:1B:10:ARG:HG2	2.23	0.53
26:14:194:G:H2'	26:14:195:A:O4'	2.09	0.53
26:14:353:G:H2'	26:14:354:G:C8	2.43	0.53
26:14:1019:U:H3	26:14:1142(A):A:N6	1.99	0.53
26:14:1638:C:H1'	26:14:2698:U:O2'	2.09	0.53
26:14:2689:U:OP2	26:14:2719:G:N2	2.42	0.53
29:29:51:PHE:O	29:29:52:LEU:HB2	2.07	0.53
44:B5:35:THR:HB	44:B5:38:GLU:H	1.73	0.53
1:13:652:U:O2'	1:13:653:A:O5'	2.26	0.53
1:13:1418:A:C2	1:13:1483:A:C2	2.97	0.53
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.08	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.44	0.53
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.91	0.53
26:1H:389:G:H22	36:78:72:PRO:HD3	1.73	0.53
26:1H:654(G):C:O2	26:1H:654(N):G:N2	2.41	0.53
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.08	0.53
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.08	0.53
26:1H:1653:G:H3'	38:98:2:ARG:CG	2.39	0.53
27:16:73:A:C4	27:16:104:A:C2	2.97	0.53
41:C8:95:LEU:HG	42:D8:4:ILE:HD13	1.91	0.53
53:O8:26:ASN:ND2	53:O8:35:GLU:OE2	2.42	0.53
1:1G:688:G:H2'	1:1G:689:C:H6	1.74	0.53
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.09	0.53
26:14:251:A:C5	26:14:252:G:H1'	2.44	0.53
26:14:688:U:H2'	26:14:689:A:H5'	1.91	0.53
26:14:1358:G:O2'	26:14:1359:A:H5'	2.08	0.53
26:14:2299:G:H2'	26:14:2300:G:C8	2.43	0.53
26:14:2502:G:H8	58:14:3687:HOH:O	1.92	0.53
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.91	0.53
31:49:172:LEU:O	31:49:176:LEU:HB2	2.08	0.53
39:65:64:GLU:O	39:65:68:GLN:HG3	2.09	0.53
45:C5:39:VAL:HG23	45:C5:41:GLY:H	1.73	0.53
48:F5:8:SER:HB3	48:F5:66:HIS:CD2	2.44	0.53
49:G5:59:ARG:O	49:G5:63:VAL:HG23	2.09	0.53
52:J5:16:ARG:HG3	52:J5:17:ASP:N	2.24	0.53
1:13:452:A:H62	1:13:480:U:H3	1.56	0.53
1:13:719:C:H1'	18:9I:49:LYS:HB3	1.91	0.53
1:13:1492:A:H1'	25:4K:20:U:O2'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:49:THR:O	13:4I:52:GLU:HG3	2.09	0.53
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.91	0.53
24:3K:24:G:H2'	24:3K:25:C:C6	2.44	0.53
26:1H:415:A:H2'	26:1H:416:C:O4'	2.08	0.53
26:1H:528:A:C2	26:1H:2043:C:H4'	2.44	0.53
26:1H:963:U:H5"	58:1H:3858:HOH:O	2.09	0.53
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.43	0.53
26:1H:1500:G:N2	28:11:99:ASP:O	2.36	0.53
26:1H:2461:C:H2'	26:1H:2462:U:H6	1.74	0.53
26:1H:2617:C:H2'	26:1H:2618:G:H8	1.73	0.53
30:31:52:LYS:O	30:31:88:VAL:HG23	2.09	0.53
7:62:91:VAL:HG12	7:62:95:ARG:HB3	1.90	0.53
11:2A:86:GLY:N	11:2A:112:THR:OG1	2.38	0.53
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.08	0.53
26:14:1278:A:OP1	38:55:36:THR:HG22	2.09	0.53
26:14:2371:G:O2'	53:K5:46:HIS:ND1	2.32	0.53
26:14:2390:U:O2'	26:14:2391:G:H5'	2.09	0.53
29:29:96:PHE:O	29:29:175:VAL:HG11	2.08	0.53
55:M5:40:GLU:N	55:M5:43:GLN:HG3	2.22	0.53
1:13:7:G:H5'	1:13:298:A:O4'	2.09	0.53
1:13:615:C:C2	1:13:616:G:C8	2.97	0.53
1:13:616:G:C2	1:13:617:G:N7	2.77	0.53
1:13:984:C:H2'	1:13:985:C:C6	2.44	0.53
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.43	0.53
13:4I:11:ARG:HG2	13:4I:12:ASN:H	1.73	0.53
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.74	0.53
26:1H:302:C:H2'	26:1H:303:U:C6	2.44	0.53
26:1H:512:G:C8	58:1H:4665:HOH:O	2.53	0.53
26:1H:527:C:OP2	26:1H:2779:U:H5	1.91	0.53
26:1H:821:A:H5"	26:1H:822:U:H6	1.74	0.53
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.40	0.53
28:11:182:LEU:N	28:11:272:ALA:HB3	2.23	0.53
36:78:113:LYS:HG2	36:78:115:LEU:HD23	1.89	0.53
40:B8:99:LEU:HB3	40:B8:101:PHE:CE1	2.44	0.53
41:C8:14:HIS:O	41:C8:18:LEU:HD12	2.09	0.53
46:H8:45:ASP:OD2	46:H8:49:ARG:NH1	2.42	0.53
55:Q8:38:GLY:HA2	55:Q8:39:LYS:O	2.09	0.53
55:Q8:57:ARG:HA	55:Q8:58:ILE:C	2.29	0.53
1:1G:142:G:H2'	1:1G:143:A:C8	2.44	0.53
1:1G:407:G:OP1	4:32:115:ARG:NE	2.41	0.53
1:1G:513:C:N3	1:1G:538:G:N2	2.50	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:193:ASP:OD1	2:12:196:LEU:HG	2.09	0.53
5:42:5:ASP:HA	5:42:63:ARG:HH12	1.73	0.53
26:14:1169:G:N2	26:14:1180:C:O2	2.41	0.53
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.73	0.53
26:14:1678:G:N2	26:14:1989:G:H22	2.01	0.53
26:14:1999:C:H4'	26:14:2723:C:O2	2.08	0.53
26:14:2016:U:OP1	58:14:3792:HOH:O	2.18	0.53
36:35:39:LYS:HB2	36:35:45:LEU:HD21	1.90	0.53
45:C5:49:VAL:O	45:C5:51:VAL:HG12	2.09	0.53
1:13:93:U:H2'	1:13:95:G:O4'	2.09	0.52
1:13:427:U:H3'	1:13:428:G:H2'	1.90	0.52
1:13:558:G:H5"	1:13:559:A:OP2	2.08	0.52
26:1H:394:A:C6	26:1H:395:U:N3	2.76	0.52
26:1H:569:U:C4	26:1H:570:G:C6	2.97	0.52
26:1H:661:C:HO2'	36:78:14:LYS:H	1.55	0.52
26:1H:988:A:O5'	50:L8:11:SER:HB2	2.09	0.52
26:1H:999:U:P	58:1H:3999:HOH:O	2.67	0.52
26:1H:1062:G:H2'	26:1H:1063:G:C8	2.44	0.52
26:1H:1093:G:H1'	26:1H:1099:G:H22	1.74	0.52
26:1H:1290:C:H2'	26:1H:1291:C:H6	1.73	0.52
26:1H:1784:A:OP1	58:1H:3967:HOH:O	2.19	0.52
26:1H:1839:G:H5"	26:1H:1839:G:C8	2.43	0.52
26:1H:2155:G:H2'	26:1H:2156:G:H5'	1.90	0.52
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.92	0.52
29:21:32:PRO:HD2	29:21:50:GLY:O	2.09	0.52
36:78:19:VAL:CB	36:78:27:HIS:HB2	2.37	0.52
1:1G:179:A:H2'	1:1G:180:U:C6	2.43	0.52
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.24	0.52
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.09	0.52
30:39:140:LEU:HD21	30:39:170:LEU:HD21	1.90	0.52
31:49:118:ARG:HB3	31:49:181:ARG:HG3	1.91	0.52
42:95:7:THR:HG23	42:95:22:VAL:HG21	1.89	0.52
1:13:4:U:O4	8:7E:105:ARG:HD2	2.10	0.52
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.72	0.52
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.42	0.52
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.43	0.52
20:BI:30:LYS:HE2	20:BI:72:LEU:HD22	1.92	0.52
26:1H:507:A:H5"	26:1H:508:G:H3'	1.90	0.52
26:1H:2138:C:N4	26:1H:2153:G:H1	2.07	0.52
26:1H:2724:C:OP1	29:21:118:LYS:HE3	2.09	0.52
37:88:135:ASP:HB3	37:88:137:TYR:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:19:LEU:HD11	6:52:59:TYR:CD2	2.44	0.52
24:3L:35:A:H2	25:4L:14:A:C6	2.27	0.52
26:14:71:A:OP2	26:14:71:A:H3'	2.08	0.52
26:14:275:G:H2'	26:14:276:A:C8	2.44	0.52
26:14:696:G:H2'	26:14:697:C:H6	1.75	0.52
26:14:748:G:C8	43:A5:89:ALA:HB1	2.45	0.52
27:1J:9:G:P	39:65:25:ARG:HH22	2.32	0.52
30:39:164:ARG:O	30:39:167:ALA:HB3	2.08	0.52
31:49:95:ARG:HG2	31:49:96:ARG:HG2	1.91	0.52
34:15:62:VAL:HG22	34:15:66:LYS:HD2	1.91	0.52
44:B5:67:GLY:O	44:B5:69:TYR:N	2.40	0.52
48:F5:52:ARG:HH11	48:F5:57:GLU:HB2	1.74	0.52
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.91	0.52
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.35	0.52
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.23	0.52
17:8I:29:HIS:N	17:8I:34:LYS:O	2.39	0.52
26:1H:35:G:H2'	26:1H:36:G:O4'	2.08	0.52
26:1H:280:C:N3	26:1H:361:G:C2	2.77	0.52
26:1H:300:A:H2'	26:1H:334:C:H1'	1.92	0.52
26:1H:518:G:H5'	43:E8:18:ARG:NH2	2.25	0.52
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.07	0.52
26:1H:857:C:H4'	47:I8:23:VAL:HG21	1.90	0.52
26:1H:1649:G:O2'	38:98:107:ASP:OD1	2.13	0.52
28:11:121:PRO:HB3	28:11:135:PHE:CE2	2.44	0.52
41:C8:92:ARG:NE	42:D8:11:GLN:H	2.06	0.52
48:J8:65:SER:OG	48:J8:66:HIS:ND1	2.31	0.52
55:Q8:39:LYS:O	55:Q8:40:GLU:HB3	2.09	0.52
1:1G:103:C:OP2	20:BA:14:LYS:HE2	2.08	0.52
1:1G:1096:C:H2'	1:1G:1097:C:C6	2.44	0.52
2:12:50:GLU:HB3	2:12:200:ILE:O	2.10	0.52
3:22:39:ILE:O	3:22:43:LEU:HB2	2.10	0.52
5:42:12:LEU:O	5:42:30:ALA:HA	2.09	0.52
5:42:145:LYS:O	5:42:149:GLU:HG2	2.09	0.52
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.52
23:2L:46:G:H4'	23:2L:47:7MG:OP1	2.09	0.52
26:14:2315:G:H2'	26:14:2316:C:C6	2.45	0.52
26:14:2440:C:H5'	58:14:3470:HOH:O	2.09	0.52
26:14:2448:A:N1	58:14:3682:HOH:O	2.34	0.52
26:14:2572:A:H62	29:29:145:LYS:HD2	1.74	0.52
29:29:179:GLU:HB3	29:29:181:LEU:HD22	1.90	0.52
32:59:121:ILE:HG23	32:59:133:VAL:HG13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:39:PRO:HD3	37:45:99:PRO:HD3	1.90	0.52
41:85:98:LEU:HA	41:85:100:VAL:O	2.08	0.52
46:D5:15:PRO:HB2	46:D5:19:ARG:NH2	2.24	0.52
47:E5:37:LEU:HG	47:E5:60:PHE:HA	1.92	0.52
1:13:757:U:OP1	1:13:822:C:O2'	2.27	0.52
1:13:958:A:O4'	19:AI:55:LYS:NZ	2.43	0.52
1:13:971:G:N2	1:13:1363:A:OP2	2.34	0.52
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.45	0.52
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.42	0.52
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.10	0.52
9:8E:79:LEU:HD22	9:8E:83:ARG:HG3	1.91	0.52
10:1I:40:LEU:HB2	10:1I:69:ASN:CB	2.39	0.52
15:6I:27:VAL:O	15:6I:31:LEU:HB2	2.08	0.52
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.09	0.52
26:1H:4:C:H2'	26:1H:5:A:C8	2.44	0.52
26:1H:621:A:O4'	26:1H:621:A:N3	2.41	0.52
26:1H:1403:C:H5'	26:1H:1471:A:H1'	1.92	0.52
26:1H:1566:A:O2'	26:1H:1567:A:H5'	2.09	0.52
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.45	0.52
28:11:69:ARG:HH21	28:11:130:ALA:H	1.57	0.52
33:61:12:LEU:HG	33:61:19:VAL:HG21	1.92	0.52
47:I8:60:PHE:CD1	47:I8:60:PHE:N	2.77	0.52
1:1G:56:U:H2'	1:1G:57:G:C8	2.45	0.52
1:1G:518:C:H5"	1:1G:519:C:C6	2.45	0.52
1:1G:763:G:H2'	1:1G:764:C:C6	2.44	0.52
1:1G:804:U:H5"	1:1G:805:C:OP2	2.08	0.52
1:1G:854:G:O6	58:1G:1881:HOH:O	2.19	0.52
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.24	0.52
1:1G:1328:C:OP1	21:1B:21:TYR:OH	2.24	0.52
9:82:16:ARG:O	9:82:63:ILE:HG23	2.10	0.52
13:4A:81:LEU:HB3	13:4A:88:ARG:HG3	1.92	0.52
23:2L:54:G:H3'	23:2L:55:5MU:H71	1.90	0.52
26:14:1327:C:O3'	38:55:105:ARG:NH2	2.43	0.52
26:14:1536:A:H3'	26:14:1537:C:O4'	2.09	0.52
26:14:1538:G:H2'	26:14:1539:G:H8	1.73	0.52
26:14:1963:U:H5"	26:14:1963:U:O2	2.10	0.52
26:14:2023:G:OP2	26:14:2617:C:H4'	2.08	0.52
26:14:2131:G:C5'	26:14:2158:A:H61	2.22	0.52
37:45:39:PRO:HA	37:45:97:VAL:O	2.09	0.52
43:A5:69:LEU:HD22	43:A5:107:LEU:HB3	1.92	0.52
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:31:G:O2'	1:13:48:C:N4	2.43	0.52
1:13:693:G:H2'	1:13:694:A:C8	2.45	0.52
1:13:1063:C:H3'	1:13:1064:G:H2'	1.90	0.52
1:13:1125:U:H5'	1:13:1126:U:C5	2.45	0.52
4:3E:100:ARG:NH1	4:3E:137:SER:HA	2.25	0.52
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.10	0.52
7:6E:15:ASP:OD2	7:6E:44:TYR:OH	2.28	0.52
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.74	0.52
24:3K:70:G:H2'	24:3K:71:G:O4'	2.10	0.52
26:1H:1187:G:P	58:1H:3882:HOH:O	2.66	0.52
26:1H:1510:A:H4'	26:1H:1511:A:N7	2.25	0.52
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.44	0.52
26:1H:1899:G:H22	26:1H:1902:C:H41	1.58	0.52
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.10	0.52
28:11:26:LYS:HE2	28:11:94:LEU:HD12	1.90	0.52
32:51:154:PRO:HB3	32:51:163:TYR:CE2	2.45	0.52
37:88:23:GLY:O	37:88:25:ASP:HB3	2.10	0.52
38:98:44:LEU:HD22	38:98:48:VAL:HG22	1.92	0.52
39:A8:35:ILE:HD11	39:A8:101:LEU:HD23	1.90	0.52
43:E8:60:ASN:N	43:E8:60:ASN:ND2	2.57	0.52
43:E8:74:ALA:HA	43:E8:104:THR:O	2.09	0.52
47:I8:72:ARG:HB3	47:I8:75:LEU:HB2	1.90	0.52
50:L8:4:LEU:HG	50:L8:39:ASP:HB2	1.92	0.52
1:1G:195:A:C6	1:1G:196:A:N1	2.78	0.52
1:1G:604:G:H2'	1:1G:605:U:O4'	2.10	0.52
1:1G:993:G:O2'	1:1G:994:A:N7	2.42	0.52
1:1G:1372:U:OP1	9:82:72:GLY:N	2.43	0.52
2:12:77:ALA:O	2:12:81:VAL:HG23	2.08	0.52
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.91	0.52
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.23	0.52
9:82:117:HIS:O	9:82:118:LYS:HB2	2.07	0.52
12:3A:28:LYS:HZ1	12:3A:33:ARG:HH22	1.58	0.52
13:4A:29:ARG:HB3	13:4A:64:TRP:CZ2	2.45	0.52
13:4A:60:VAL:HG13	13:4A:64:TRP:NE1	2.24	0.52
26:14:138:G:N2	44:B5:44:GLU:OE2	2.43	0.52
26:14:2506:U:H4'	26:14:2507:C:OP1	2.07	0.52
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.42	0.52
26:14:2860:A:N7	26:14:2861:G:H1'	2.25	0.52
35:25:59:LYS:HB3	35:25:87:ILE:HG22	1.91	0.52
39:65:102:ALA:HA	39:65:105:ALA:HB3	1.91	0.52
40:75:55:ASN:H	40:75:59:THR:HG22	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:A5:51:LEU:HD23	43:A5:105:VAL:HG11	1.92	0.52
46:D5:117:LEU:HD12	46:D5:119:GLU:HG2	1.91	0.52
52:J5:11:THR:HG23	52:J5:15:ARG:HB3	1.92	0.52
1:13:360:A:H2'	1:13:361:G:C8	2.44	0.52
1:13:375:U:OP1	16:7I:69:THR:HG21	2.10	0.52
1:13:767:A:H2'	1:13:768:A:O4'	2.10	0.52
1:13:1028(A):C:H42	1:13:1032(A):G:H1	1.58	0.52
1:13:1148:U:H2'	1:13:1149:C:O4'	2.09	0.52
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.09	0.52
24:3K:71:G:H2'	24:3K:72:C:H5"	1.91	0.52
26:1H:859:G:O2'	26:1H:916:G:O6	2.27	0.52
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.40	0.52
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.20	0.52
26:1H:1547:C:H2'	26:1H:1548:C:C6	2.43	0.52
26:1H:1826:G:OP2	28:11:222:ARG:HB3	2.10	0.52
26:1H:1931:U:H5	26:1H:1969:A:N7	2.08	0.52
26:1H:2233:U:H2'	26:1H:2234:G:H8	1.72	0.52
30:31:37:VAL:HG21	36:78:6:LEU:HD21	1.91	0.52
32:51:97:ARG:NH2	32:51:104:GLU:OE2	2.40	0.52
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.91	0.52
46:H8:11:GLU:HA	46:H8:36:LYS:HE3	1.92	0.52
1:1G:32:A:H2'	1:1G:33:A:C8	2.44	0.52
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.44	0.52
2:12:95:GLN:OE1	2:12:147:LYS:HG2	2.09	0.52
26:14:40:C:H2'	26:14:41:C:H6	1.75	0.52
26:14:1492:G:OP1	26:14:2210:G:N1	2.31	0.52
26:14:2353:G:H2'	26:14:2354:G:O4'	2.10	0.52
27:1J:14:U:H4'	27:1J:70:C:O2	2.10	0.52
27:1J:52:A:N6	39:65:33:LYS:HG3	2.25	0.52
28:19:237:GLU:HG3	28:19:239:ARG:H	1.75	0.52
31:49:39:ILE:HD11	31:49:94:LEU:HD11	1.91	0.52
34:15:42:TRP:O	41:85:64:ARG:NH2	2.33	0.52
1:13:407:G:O2'	4:3E:116:GLN:HG3	2.09	0.52
3:2E:7:PRO:O	3:2E:11:ARG:NH1	2.43	0.52
11:2I:20:TYR:HB2	11:2I:31:THR:HG22	1.92	0.52
17:8I:59:ILE:HG22	17:8I:73:VAL:HA	1.91	0.52
19:AI:11:VAL:HG13	19:AI:16:LEU:HD22	1.92	0.52
26:1H:654(M):C:H5'	26:1H:654(N):G:C5	2.45	0.52
26:1H:1855:G:N7	58:1H:4282:HOH:O	2.33	0.52
26:1H:2611:U:H2'	52:N8:3:LYS:HG3	1.91	0.52
32:51:105:LEU:HD23	32:51:105:LEU:H	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:2:LYS:HG2	36:78:4:SER:HB3	1.92	0.52
39:A8:30:ARG:HG3	39:A8:30:ARG:O	2.09	0.52
39:A8:48:LEU:CD2	39:A8:82:ILE:HD11	2.39	0.52
43:E8:57:ASN:O	43:E8:61:ASN:HB2	2.10	0.52
43:E8:84:ARG:HB3	43:E8:96:ILE:HD11	1.91	0.52
43:E8:86:LEU:C	43:E8:86:LEU:HD12	2.29	0.52
1:1G:358:U:H2'	1:1G:359:U:C6	2.45	0.52
1:1G:590:C:H2'	1:1G:591:U:C6	2.45	0.52
10:1A:4:ILE:HA	10:1A:100:THR:HG22	1.91	0.52
21:1B:6:ARG:HD3	21:1B:15:ARG:CZ	2.39	0.52
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.45	0.52
26:14:782:A:H5'	26:14:783:A:C2	2.45	0.52
26:14:1936:A:C8	26:14:1940:U:O2	2.63	0.52
26:14:2418:A:OP1	55:M5:29:LYS:NZ	2.38	0.52
26:14:2447:G:H3'	58:14:4011:HOH:O	2.08	0.52
32:59:105:LEU:HG	32:59:113:VAL:HG13	1.92	0.52
47:E5:25:ARG:HD2	47:E5:29:GLN:NE2	2.25	0.52
54:L5:10:ARG:O	54:L5:14:LYS:HB2	2.10	0.52
1:13:77:C:H2'	1:13:78:G:H5"	1.91	0.52
1:13:222:U:H2'	1:13:223:U:H6	1.74	0.52
1:13:974:A:OP2	14:5I:29:ARG:NH2	2.43	0.52
1:13:976:G:H5'	1:13:1358:U:O2'	2.10	0.52
1:13:1081:G:H2'	1:13:1082:G:H8	1.75	0.52
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.92	0.52
26:1H:566:U:P	36:78:29:LYS:HZ2	2.32	0.52
26:1H:607:U:O2	26:1H:621:A:N1	2.43	0.52
26:1H:1012:U:O4	34:58:25:ARG:HA	2.09	0.52
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.44	0.52
26:1H:1858:G:H2'	26:1H:1883:G:N2	2.25	0.52
26:1H:1950:G:N2	58:1H:4011:HOH:O	1.99	0.52
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.75	0.52
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.75	0.52
28:11:17:THR:CG2	28:11:204:ILE:HA	2.39	0.52
38:98:21:TYR:OH	38:98:43:GLU:HG2	2.10	0.52
38:98:52:ILE:O	38:98:55:ALA:N	2.42	0.52
1:1G:538:G:H2'	1:1G:539:A:C8	2.45	0.52
1:1G:538:G:H2'	1:1G:539:A:H8	1.74	0.52
1:1G:616:G:N3	1:1G:617:G:C8	2.78	0.52
1:1G:909:A:H2'	1:1G:910:C:O4'	2.10	0.52
10:1A:5:ARG:HG3	10:1A:73:ASP:OD1	2.10	0.52
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.50	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:52:G:H1	24:3L:62:C:N4	2.03	0.52
24:3L:64:A:C2	24:3L:65:G:H1'	2.45	0.52
26:14:1270:C:H5"	26:14:1271:G:H5'	1.92	0.52
34:15:128:HIS:NE2	34:15:134:ARG:HD2	2.25	0.52
1:13:654:G:H2'	1:13:655:A:H5'	1.92	0.52
2:1E:17:PHE:HD1	2:1E:17:PHE:H	1.56	0.52
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.91	0.52
4:3E:25:ARG:NH1	4:3E:30:LYS:HG3	2.24	0.52
13:4I:82:MET:O	13:4I:84:ILE:N	2.41	0.52
26:1H:11:G:H2'	26:1H:12:U:H5'	1.92	0.52
26:1H:194:G:H2'	26:1H:195:A:O4'	2.09	0.52
26:1H:580:C:H2'	26:1H:581:C:C6	2.45	0.52
26:1H:674:G:P	58:1H:4586:HOH:O	2.67	0.52
26:1H:839:U:H2'	26:1H:840:C:C6	2.44	0.52
26:1H:987:G:O2'	26:1H:1000:A:N3	2.39	0.52
26:1H:1853:A:H2'	26:1H:1854:A:C8	2.45	0.52
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.23	0.52
26:1H:2845:G:O2'	26:1H:2846:G:H5'	2.09	0.52
29:21:1:MET:N	29:21:83:ASP:O	2.42	0.52
29:21:46:ALA:HB1	29:21:80:GLU:HB3	1.91	0.52
34:58:128:HIS:HB2	34:58:129:PRO:HD2	1.90	0.52
37:88:37:LEU:HD21	37:88:130:LYS:HE2	1.92	0.52
1:1G:340:U:H3	1:1G:349:A:H61	1.56	0.52
1:1G:587:G:N2	1:1G:754:C:OP2	2.43	0.52
1:1G:983:A:O2'	1:1G:1050:G:OP2	2.20	0.52
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.34	0.52
2:12:9:GLU:HB2	2:12:217:ARG:NH2	2.24	0.52
26:14:796:C:H2'	26:14:797:C:H6	1.73	0.52
26:14:1028:A:N3	26:14:2486:G:O2'	2.36	0.52
28:19:80:ALA:HB3	28:19:94:LEU:HB3	1.92	0.52
28:19:267:SER:O	28:19:268:ARG:HG2	2.10	0.52
32:59:44:VAL:HG13	32:59:51:ARG:HB2	1.92	0.52
37:45:37:LEU:HD11	37:45:130:LYS:HB2	1.91	0.52
42:95:85:LYS:HG3	42:95:87:HIS:N	2.25	0.52
43:A5:18:ARG:HG3	43:A5:76:VAL:HG13	1.92	0.52
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.91	0.52
24:3K:18:G:O2'	24:3K:19:G:OP1	2.26	0.52
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.42	0.52
26:1H:588:U:C2	30:31:90:PHE:CE1	2.97	0.52
26:1H:600:G:N2	26:1H:605:C:O3'	2.42	0.52
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1788:C:H2'	26:1H:1789:A:C8	2.45	0.52
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.45	0.52
27:16:37:C:C2'	27:16:38:C:H5'	2.40	0.52
31:41:5:VAL:H	51:M8:25:TYR:HE2	1.58	0.52
33:61:129:THR:HA	33:61:137:PRO:HA	1.91	0.52
35:68:122:LEU:HD23	40:B8:43:GLN:HE22	1.75	0.52
46:H8:105:VAL:O	46:H8:140:ASP:HA	2.10	0.52
1:1G:838:G:N2	1:1G:849:C:N3	2.57	0.52
1:1G:975:A:C4'	1:1G:976:G:H5"	2.38	0.52
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.45	0.52
1:1G:1281:U:H3'	1:1G:1282:C:H5	1.75	0.52
7:62:46:ALA:O	7:62:50:ILE:HG12	2.09	0.52
11:2A:21:ILE:HD12	11:2A:95:ILE:HD13	1.92	0.52
23:2L:48:U:H4'	23:2L:49:C:H5'	1.92	0.52
26:14:566:U:OP1	36:35:29:LYS:HD2	2.09	0.52
26:14:654(D):G:N2	26:14:654(Q):C:H42	2.01	0.52
26:14:1204:A:O2'	26:14:1205:U:OP2	2.26	0.52
26:14:1729:A:C2	26:14:1730:U:H5	2.27	0.52
26:14:2557:G:H2'	26:14:2558:C:H6	1.75	0.52
28:19:37:LEU:HA	28:19:38:LYS:CG	2.40	0.52
30:39:4:VAL:HG11	30:39:17:ARG:CZ	2.40	0.52
38:55:21:TYR:OH	38:55:43:GLU:HG2	2.09	0.52
42:95:10:LYS:NZ	42:95:23:GLU:OE1	2.43	0.52
1:13:444:C:H2'	1:13:445:G:C8	2.45	0.51
1:13:806:C:H2'	1:13:807:A:H8	1.74	0.51
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.25	0.51
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ3	1.74	0.51
23:2K:64:G:H2'	23:2K:65:G:C8	2.44	0.51
24:3K:7:A:O2'	24:3K:49:C:O4'	2.21	0.51
26:1H:65:C:H2'	26:1H:66:C:C6	2.45	0.51
26:1H:661:C:O3'	36:78:15:ARG:NE	2.43	0.51
26:1H:882:G:N2	26:1H:894:C:H42	2.00	0.51
26:1H:1028:A:N6	26:1H:1125:G:H2'	2.25	0.51
26:1H:1086:A:H1'	26:1H:1103:A:H61	1.76	0.51
26:1H:1242:A:H5"	26:1H:1243:G:OP2	2.10	0.51
35:68:88:ASN:HD21	35:68:92:GLU:H	1.56	0.51
38:98:55:ALA:HB2	38:98:79:LEU:HD13	1.93	0.51
39:A8:15:ARG:HD2	39:A8:88:ASP:OD2	2.09	0.51
52:N8:31:VAL:HB	52:N8:41:PRO:O	2.10	0.51
55:Q8:48:PHE:CE1	55:Q8:49:VAL:HG13	2.46	0.51
1:1G:830:G:H2'	1:1G:831:U:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1122:U:C4	1:1G:1123:A:N7	2.78	0.51
1:1G:1157:A:H61	1:1G:1178:G:N2	2.07	0.51
1:1G:1268:A:N3	1:1G:1326:C:O2'	2.43	0.51
1:1G:1286:A:H8	1:1G:1286:A:H3'	1.75	0.51
2:12:178:ARG:NH2	8:72:68:ARG:HH22	2.08	0.51
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.75	0.51
26:14:198:C:H5'	26:14:2244:U:OP1	2.09	0.51
26:14:718:A:H3'	26:14:719:C:C6	2.44	0.51
26:14:1180:C:H2'	26:14:1181:C:C6	2.44	0.51
26:14:1188:U:C2'	26:14:1189:A:H5'	2.40	0.51
26:14:1678:G:N2	26:14:1989:G:N2	2.56	0.51
26:14:1901:A:N3	26:14:1901:A:H2'	2.25	0.51
26:14:2139:C:N4	26:14:2152:G:O6	2.43	0.51
26:14:2207:C:N3	26:14:2217:G:N2	2.47	0.51
26:14:2636:U:OP1	29:29:80:GLU:HB2	2.10	0.51
27:1J:50:G:OP1	39:65:63:THR:HG23	2.09	0.51
32:59:137:ASP:HB2	32:59:140:LYS:HE2	1.90	0.51
35:25:16:ALA:HB2	35:25:52:VAL:HG11	1.92	0.51
39:65:27:SER:HA	39:65:88:ASP:HB2	1.91	0.51
41:85:102:GLU:HG3	42:95:2:PHE:CE2	2.45	0.51
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.26	0.51
1:13:237:C:H5"	17:8I:25:ARG:NH2	2.25	0.51
1:13:1453:G:H8	20:BI:39:LYS:HE2	1.75	0.51
8:7E:58:TYR:O	8:7E:59:LEU:HD23	2.09	0.51
26:1H:719:C:H2'	26:1H:720:C:C6	2.45	0.51
26:1H:962:G:H2'	26:1H:963:U:C6	2.45	0.51
26:1H:1388:G:O2'	26:1H:1389:G:H5'	2.10	0.51
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.45	0.51
26:1H:2210:G:H5'	26:1H:2211:G:H8	1.73	0.51
32:51:83:TYR:CB	32:51:134:SER:HA	2.40	0.51
44:F8:11:PRO:HD3	49:K8:37:PHE:CD2	2.45	0.51
1:1G:284:G:H2'	1:1G:285:G:H8	1.75	0.51
1:1G:567:G:O2'	58:1G:1835:HOH:O	2.19	0.51
1:1G:1111:A:H2'	1:1G:1112:C:H6	1.75	0.51
6:52:23:LYS:NZ	6:52:42:GLU:OE2	2.34	0.51
16:7A:74:LEU:HD13	16:7A:79:VAL:HG21	1.93	0.51
26:14:621:A:H3'	26:14:622:G:H8	1.74	0.51
26:14:2068:U:N3	26:14:2430:A:H2	2.07	0.51
26:14:2245:U:H5"	26:14:2246:G:H5'	1.92	0.51
26:14:2461:C:H2'	26:14:2462:U:C6	2.45	0.51
27:1J:29:A:H5"	27:1J:30:C:OP2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:68:LYS:HD3	28:19:70:TRP:CZ2	2.45	0.51
28:19:255:LYS:H	28:19:255:LYS:CE	2.23	0.51
1:13:1443:G:O2'	40:B8:122:ASP:OD2	2.23	0.51
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.10	0.51
3:2E:6:HIS:ND1	3:2E:7:PRO:HD2	2.25	0.51
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.91	0.51
23:2K:24:C:H2'	23:2K:25:U:C6	2.46	0.51
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.11	0.51
26:1H:764:A:N3	28:11:213:ARG:HD3	2.25	0.51
26:1H:1509:C:H3'	26:1H:1510:A:H5"	1.93	0.51
26:1H:1891:G:N7	58:1H:4325:HOH:O	2.34	0.51
28:11:134:ARG:HD3	28:11:135:PHE:CZ	2.46	0.51
32:51:101:ARG:NH2	32:51:121:ILE:O	2.43	0.51
33:61:77:LEU:HD11	33:61:140:LEU:HD23	1.91	0.51
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.24	0.51
42:D8:43:GLU:OE2	42:D8:44:LYS:NZ	2.38	0.51
46:H8:58:VAL:O	46:H8:60:GLU:N	2.42	0.51
55:Q8:53:PRO:HG3	55:Q8:56:GLU:HG3	1.92	0.51
1:1G:31:G:O2'	1:1G:48:C:N4	2.43	0.51
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.93	0.51
1:1G:1369:C:H2'	1:1G:1370:G:O4'	2.10	0.51
4:32:108:LEU:HD11	4:32:174:LEU:HB3	1.92	0.51
13:4A:81:LEU:HD22	13:4A:88:ARG:HG2	1.91	0.51
23:2L:21:U:O2	23:2L:21:U:H2'	2.10	0.51
24:3L:30:G:H2'	24:3L:31:A:C8	2.44	0.51
26:14:943:U:P	36:35:36:LYS:HG3	2.50	0.51
26:14:2261:C:H1'	26:14:2388:A:N3	2.26	0.51
26:14:2690:C:OP1	38:55:17:ARG:NH1	2.42	0.51
33:69:92:VAL:HB	33:69:120:ILE:HG13	1.91	0.51
38:55:21:TYR:HB3	38:55:47:PHE:CD2	2.45	0.51
40:75:107:ASP:N	40:75:107:ASP:OD1	2.44	0.51
1:13:21:G:OP1	58:13:1838:HOH:O	2.19	0.51
4:3E:31:CYS:SG	4:3E:32:ALA:N	2.83	0.51
7:6E:79:ARG:NE	7:6E:84:ASN:HB2	2.25	0.51
10:1I:5:ARG:HB2	10:1I:73:ASP:HA	1.92	0.51
26:1H:181:A:H1'	26:1H:435:C:H5'	1.91	0.51
26:1H:1047:G:H2'	26:1H:1110:G:N2	2.25	0.51
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.46	0.51
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.26	0.51
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.11	0.51
46:H8:111:VAL:HG11	46:H8:146:ILE:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M8:26:SER:OG	51:M8:27:THR:O	2.26	0.51
1:1G:411:A:H62	1:1G:413:G:N2	2.01	0.51
1:1G:442:C:H2'	1:1G:443:C:C6	2.46	0.51
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.10	0.51
1:1G:630:G:H3'	1:1G:631:G:C8	2.45	0.51
1:1G:765:G:N2	1:1G:813:U:OP2	2.35	0.51
1:1G:1338:G:N7	1:1G:1339:A:C6	2.78	0.51
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.11	0.51
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.46	0.51
26:14:142:G:H2'	26:14:143:C:H6	1.75	0.51
26:14:903:C:H2'	26:14:904:C:C6	2.46	0.51
26:14:1113:U:P	32:59:3:ARG:H	2.33	0.51
26:14:1900:A:OP2	58:14:3461:HOH:O	2.19	0.51
27:1J:15:A:H3'	27:1J:16:G:H5'	1.92	0.51
29:29:51:PHE:CE2	29:29:52:LEU:HG	2.45	0.51
34:15:111:PRO:HA	34:15:114:ARG:NH1	2.25	0.51
37:45:25:ASP:HB3	37:45:102:VAL:CG2	2.39	0.51
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.44	0.51
4:3E:128:VAL:HG23	4:3E:146:ILE:HG23	1.92	0.51
9:8E:97:LYS:HD3	9:8E:102:LEU:HB2	1.92	0.51
16:7I:53:VAL:O	16:7I:57:ARG:HG3	2.11	0.51
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.45	0.51
22:1K:36:A:H62	22:1K:37:MIA:H122	1.75	0.51
22:1K:76:A:C2	26:1H:2602:A:H2	2.25	0.51
24:3K:51:U:H2'	24:3K:52:G:C8	2.46	0.51
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.74	0.51
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.25	0.51
26:1H:2815:C:H5'	52:N8:29:THR:HG21	1.93	0.51
27:16:43:C:H5"	51:M8:1:MET:HG2	1.93	0.51
28:11:71:ASP:HB2	28:11:103:ARG:HH22	1.76	0.51
36:78:98:GLU:O	36:78:101:VAL:HG13	2.11	0.51
36:78:101:VAL:HA	36:78:105:LEU:O	2.11	0.51
44:F8:3:THR:HB	44:F8:6:ASP:HB2	1.93	0.51
55:Q8:6:THR:HG22	55:Q8:59:LYS:HG3	1.91	0.51
1:1G:287:U:H2'	1:1G:288:A:C8	2.46	0.51
1:1G:313:A:H2'	1:1G:314:C:C6	2.46	0.51
16:7A:57:ARG:HA	16:7A:60:LEU:HD12	1.92	0.51
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.93	0.51
18:9A:41:LYS:O	18:9A:41:LYS:HD3	2.11	0.51
20:BA:26:ASN:HA	20:BA:29:LYS:HG2	1.92	0.51
26:14:117:G:OP1	26:14:124:G:N1	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2016:U:O2	52:J5:7:PRO:HG2	2.11	0.51
26:14:2280:G:O2'	26:14:2388:A:N1	2.32	0.51
26:14:2443:C:OP1	30:39:68:LYS:HG3	2.11	0.51
26:14:2542:A:H4'	26:14:2542:A:OP1	2.11	0.51
26:14:2575:C:H2'	26:14:2578:G:O6	2.11	0.51
27:1J:42:C:C4	31:49:91:ARG:NH2	2.79	0.51
28:19:69:ARG:NE	28:19:105:ILE:HD11	2.25	0.51
32:59:55:PRO:HG2	32:59:61:HIS:CD2	2.46	0.51
45:C5:86:ARG:HG3	45:C5:87:LYS:N	2.24	0.51
48:F5:18:ILE:HG12	48:F5:37:ILE:HG13	1.92	0.51
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.11	0.51
1:13:484:G:O2'	1:13:485:G:OP2	2.25	0.51
1:13:511:C:H4'	4:3E:43:HIS:CD2	2.45	0.51
1:13:1208:C:H2'	1:13:1209:C:O4'	2.10	0.51
1:13:1325:C:H2'	1:13:1326:C:C6	2.46	0.51
1:13:1385:G:N7	58:13:1950:HOH:O	2.34	0.51
9:8E:10:ARG:NH1	9:8E:75:ASP:OD2	2.44	0.51
20:BI:57:ARG:HH12	20:BI:102:GLY:C	2.14	0.51
26:1H:566:U:P	36:78:29:LYS:NZ	2.84	0.51
26:1H:618:G:H2'	26:1H:618(A):C:C6	2.46	0.51
26:1H:654:A:H2'	26:1H:654(A):A:H5"	1.93	0.51
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.10	0.51
26:1H:1359:A:O4'	26:1H:1359:A:N3	2.42	0.51
26:1H:1899:G:H22	26:1H:1902:C:N4	2.08	0.51
26:1H:1899:G:H1	26:1H:1902:C:N4	2.07	0.51
41:C8:97:ASP:O	41:C8:101:ARG:N	2.41	0.51
55:Q8:45:GLY:N	55:Q8:46:ARG:O	2.43	0.51
1:1G:445:G:H2'	1:1G:446:G:C8	2.45	0.51
1:1G:859:A:OP2	1:1G:869:G:N2	2.37	0.51
8:72:30:ARG:O	8:72:34:GLU:HG2	2.10	0.51
24:3L:58:A:O2'	24:3L:60:U:OP2	2.27	0.51
26:14:686:G:OP1	54:L5:11:LYS:HE2	2.11	0.51
26:14:1366:A:H2'	26:14:1367:A:O4'	2.10	0.51
26:14:1753:G:N1	26:14:1756:G:C2	2.79	0.51
26:14:2130:U:H2'	26:14:2158:A:N1	2.26	0.51
26:14:2602:A:H4'	26:14:2603:G:O5'	2.10	0.51
28:19:182:LEU:H	28:19:272:ALA:HB2	1.76	0.51
30:39:5:ALA:CB	30:39:125:LEU:HD21	2.39	0.51
30:39:40:GLN:HE22	30:39:182:ASN:HB2	1.76	0.51
30:39:146:ALA:HB3	30:39:148:LEU:HG	1.92	0.51
32:59:54:ARG:HD3	32:59:65:HIS:ND1	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:29:TYR:O	33:69:32:PRO:HD2	2.10	0.51
55:M5:8:LYS:HB3	55:M5:12:LYS:HE3	1.92	0.51
1:13:922:G:C6	1:13:923:A:C6	2.98	0.51
1:13:963:G:H1	1:13:972:C:H42	1.59	0.51
1:13:998:G:H2'	1:13:998(A):C:C6	2.46	0.51
1:13:1305:G:O2'	1:13:1331:G:N2	2.44	0.51
12:3I:27:LEU:HD23	12:3I:33:ARG:HB2	1.92	0.51
26:1H:71:A:H2	44:F8:31:HIS:CE1	2.26	0.51
26:1H:300:A:N3	26:1H:319:C:H1'	2.26	0.51
26:1H:779:U:O4	58:1H:4569:HOH:O	2.19	0.51
26:1H:784:A:H5"	28:11:227:ASN:ND2	2.25	0.51
26:1H:1260:G:H2'	26:1H:1261:C:C6	2.45	0.51
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.45	0.51
26:1H:2841:C:H2'	26:1H:2842:G:H8	1.74	0.51
27:16:24:G:N7	27:16:56:G:H2'	2.25	0.51
29:21:116:VAL:O	29:21:117:MET:HB3	2.10	0.51
32:51:4:ILE:HG21	32:51:6:ARG:HH11	1.76	0.51
49:K8:15:LYS:H	49:K8:67:LYS:HZ3	1.58	0.51
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.46	0.51
2:12:98:LEU:O	2:12:101:MET:HG2	2.10	0.51
6:52:41:GLU:HG3	6:52:62:TRP:CE3	2.46	0.51
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.10	0.51
22:1L:14:A:C2	22:1L:22:G:H1'	2.46	0.51
26:14:126:A:O5'	54:L5:19:ARG:HG3	2.11	0.51
26:14:218:A:C2	26:14:235:U:H4'	2.45	0.51
26:14:287:C:H2'	26:14:288:C:H6	1.76	0.51
26:14:817:C:H2'	26:14:818:G:O4'	2.10	0.51
26:14:863:A:H2	26:14:914:C:N4	2.08	0.51
26:14:1161:C:H2'	26:14:1162:G:H8	1.76	0.51
26:14:1266:G:O5'	43:A5:15:ARG:NH2	2.44	0.51
26:14:1386:C:H2'	26:14:1387:C:C6	2.46	0.51
26:14:1557:C:H5"	26:14:1558:A:OP2	2.11	0.51
26:14:1639:U:P	58:14:4066:HOH:O	2.67	0.51
26:14:2016:U:H2'	26:14:2017:U:C6	2.45	0.51
26:14:2331:G:H4'	47:E5:43:THR:N	2.21	0.51
26:14:2383:G:O2'	26:14:2384:G:H5'	2.10	0.51
26:14:2655:G:N2	26:14:2665:A:OP2	2.44	0.51
26:14:2788:C:O2'	26:14:2809:A:N3	2.44	0.51
38:55:78:LYS:O	38:55:83:ILE:HG13	2.11	0.51
1:13:295:C:H2'	1:13:296:U:O4'	2.10	0.51
12:3I:53:ARG:HH12	12:3I:92:ASP:HB2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.93	0.51
19:AI:41:VAL:H	19:AI:44:MET:HB2	1.75	0.51
23:2K:17:C:H2'	23:2K:18:C:H2'	1.92	0.51
26:1H:192:C:P	58:1H:4537:HOH:O	2.68	0.51
26:1H:580:C:H2'	26:1H:581:C:H6	1.76	0.51
26:1H:751:A:P	58:1H:3922:HOH:O	2.69	0.51
26:1H:993:G:C4	26:1H:994:C:C5	2.99	0.51
26:1H:2053:G:H5'	29:21:144:ARG:O	2.10	0.51
32:51:149:ARG:HA	32:51:162:ILE:CG2	2.40	0.51
34:58:90:MET:O	34:58:94:HIS:N	2.30	0.51
36:78:49:ARG:NH2	55:Q8:59:LYS:HZ3	2.09	0.51
42:D8:76:LYS:HB2	42:D8:81:TYR:HB3	1.93	0.51
46:H8:3:TYR:O	46:H8:58:VAL:HG23	2.11	0.51
46:H8:5:LEU:HD23	46:H8:47:VAL:HG21	1.93	0.51
1:1G:353:A:H5'	1:1G:353:A:C8	2.40	0.51
1:1G:403:C:N4	58:1G:1804:HOH:O	2.44	0.51
1:1G:625:G:H2'	1:1G:626:U:C6	2.44	0.51
1:1G:1055:A:C6	1:1G:1056:U:O2	2.64	0.51
1:1G:1105:A:H2'	1:1G:1106:G:C8	2.45	0.51
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.46	0.51
3:22:84:ILE:HG12	3:22:88:ARG:NH2	2.26	0.51
10:1A:38:ILE:HB	10:1A:71:LEU:HB3	1.93	0.51
13:4A:3:ARG:HG2	13:4A:9:ILE:HG13	1.93	0.51
26:14:137(A):G:H2'	26:14:139:G:C8	2.46	0.51
26:14:1171:G:O2'	26:14:1173:G:O4'	2.29	0.51
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.46	0.51
26:14:2757:A:N1	32:59:67:LEU:HD22	2.26	0.51
30:39:83:PHE:C	30:39:85:GLY:H	2.13	0.51
37:45:26:TYR:O	37:45:26:TYR:CD1	2.64	0.51
52:J5:3:LYS:HA	52:J5:3:LYS:CE	2.38	0.51
1:13:524:G:H8	1:13:524:G:O5'	1.94	0.51
3:2E:64:VAL:HG23	3:2E:98:ASN:O	2.11	0.51
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.11	0.51
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.93	0.51
18:9I:53:ARG:NE	18:9I:59:SER:O	2.43	0.51
22:1K:44:G:H2'	22:1K:45:U:C6	2.46	0.51
26:1H:325:G:H2'	26:1H:326:G:H8	1.76	0.51
26:1H:2033:A:OP1	58:1H:4062:HOH:O	2.18	0.51
27:16:15:A:O2'	27:16:109:G:C8	2.60	0.51
32:51:51:ARG:HG2	32:51:52:VAL:H	1.76	0.51
38:98:18:LEU:HD11	38:98:22:ARG:CZ	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:F8:3:THR:HA	44:F8:6:ASP:CG	2.31	0.51
1:1G:448:A:P	1:1G:485:G:H22	2.34	0.51
1:1G:1028(A):C:H5	1:1G:1029:G:C2	2.29	0.51
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.45	0.51
3:22:6:HIS:CG	14:5A:49:HIS:HB3	2.46	0.51
9:82:26:VAL:HG13	9:82:61:ALA:HB3	1.93	0.51
14:5A:43:CYS:O	14:5A:46:GLU:HG3	2.11	0.51
16:7A:75:ARG:O	16:7A:78:GLY:N	2.40	0.51
19:AA:11:VAL:HG12	19:AA:39:THR:HB	1.93	0.51
26:14:1378:A:O2'	26:14:1380:G:N7	2.40	0.51
26:14:1726:G:N2	26:14:1734:C:O2	2.40	0.51
26:14:2061:G:P	58:14:4027:HOH:O	2.68	0.51
29:29:120:TRP:CE3	29:29:155:LYS:HD3	2.45	0.51
31:49:32:PRO:HB2	31:49:172:LEU:HD22	1.92	0.51
40:75:8:LYS:HZ3	40:75:8:LYS:HB2	1.76	0.51
45:C5:87:LYS:CB	45:C5:94:LYS:HA	2.40	0.51
1:13:793:U:H5'	1:13:794:A:H5"	1.92	0.51
1:13:1194:U:H2'	1:13:1195:C:H6	1.75	0.51
1:13:1446:A:OP1	1:13:1446:A:H4'	2.11	0.51
1:13:1447:G:H8	1:13:1447:G:O5'	1.94	0.51
2:1E:178:ARG:HB2	2:1E:178:ARG:HH11	1.76	0.51
4:3E:30:LYS:CB	4:3E:35:ARG:HE	2.24	0.51
4:3E:52:SER:O	4:3E:55:ALA:HB3	2.11	0.51
4:3E:173:TRP:CD1	4:3E:189:PRO:HG3	2.46	0.51
26:1H:654(D):G:N2	26:1H:654(R):C:N3	2.59	0.51
26:1H:671:C:OP1	36:78:42:SER:O	2.29	0.51
26:1H:1200:C:H5'	58:1H:3697:HOH:O	2.11	0.51
26:1H:1407:C:H2'	26:1H:1408:C:H6	1.75	0.51
26:1H:1805:U:O2	28:11:50:THR:HB	2.11	0.51
27:16:31:C:H2'	27:16:32:C:H6	1.76	0.51
30:31:53:THR:O	30:31:56:GLU:N	2.39	0.51
32:51:33:LEU:HD21	32:51:136:ILE:HB	1.93	0.51
34:58:132:ALA:HB1	34:58:133:GLN:OE1	2.11	0.51
38:98:32:GLY:HA2	38:98:116:LEU:HD12	1.92	0.51
45:G8:85:VAL:O	45:G8:86:ARG:HD3	2.11	0.51
50:L8:7:LYS:HE3	50:L8:32:GLN:HA	1.93	0.51
19:AA:10:PHE:O	51:I5:63:TYR:OH	2.28	0.51
26:14:71:A:H2	44:B5:31:HIS:NE2	2.07	0.51
26:14:706:A:H2'	26:14:707:G:O4'	2.11	0.51
26:14:2387:U:P	47:E5:55:ARG:HH22	2.34	0.51
29:29:52:LEU:C	29:29:74:PRO:HB3	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:60:ARG:O	32:59:63:SER:OG	2.29	0.51
37:45:110:THR:HG23	37:45:113:GLN:HE21	1.76	0.51
41:85:74:LEU:HD13	41:85:79:PHE:HB2	1.92	0.51
48:F5:51:VAL:HG23	48:F5:58:ILE:HB	1.93	0.51
1:13:114:U:O2'	1:13:115:G:H5'	2.10	0.50
1:13:757:U:H2'	1:13:758:G:O4'	2.11	0.50
1:13:813:U:OP2	1:13:813:U:H6	1.94	0.50
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.11	0.50
1:13:1226:C:H2'	13:4I:103:THR:HB	1.93	0.50
1:13:1530:G:O2'	1:13:1531:A:OP2	2.24	0.50
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.41	0.50
24:3K:33:U:H3'	24:3K:34:G:H5"	1.93	0.50
26:1H:627:A:H4'	26:1H:628:G:OP1	2.11	0.50
26:1H:674:G:OP2	58:1H:4586:HOH:O	2.18	0.50
26:1H:757:U:H2'	26:1H:758:C:O4'	2.11	0.50
27:16:7:G:O5'	39:A8:29:PHE:CE2	2.64	0.50
32:51:83:TYR:CG	32:51:84:SER:N	2.78	0.50
34:58:133:GLN:HG2	34:58:134:ARG:H	1.76	0.50
49:K8:8:LYS:HZ3	49:K8:12:GLU:HG2	1.76	0.50
53:O8:26:ASN:OD1	53:O8:28:ARG:HB2	2.11	0.50
55:Q8:48:PHE:CE2	55:Q8:49:VAL:HG13	2.46	0.50
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.28	0.50
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.93	0.50
7:62:32:ARG:O	7:62:34:GLY:N	2.44	0.50
13:4A:3:ARG:HG2	13:4A:9:ILE:CG1	2.41	0.50
26:14:330:A:H2	26:14:1210:A:HO2'	1.56	0.50
26:14:751:A:H2'	26:14:789:A:C2	2.47	0.50
26:14:959:A:C6	26:14:960:A:C2	2.99	0.50
26:14:1357:U:H2'	26:14:1358:G:O4'	2.11	0.50
26:14:1856:G:H1	26:14:1886:C:H42	1.59	0.50
26:14:1994:C:OP1	58:14:3493:HOH:O	2.19	0.50
26:14:2115:G:H2'	26:14:2116:G:C8	2.46	0.50
28:19:70:TRP:CD1	28:19:70:TRP:C	2.85	0.50
30:39:132:VAL:C	30:39:134:GLY:H	2.14	0.50
39:65:109:GLY:O	39:65:110:LEU:HD22	2.11	0.50
41:85:90:VAL:HG22	42:95:39:LEU:CB	2.38	0.50
44:B5:24:GLY:HA3	44:B5:82:GLN:HG3	1.93	0.50
47:E5:23:VAL:HG13	47:E5:38:VAL:HG23	1.93	0.50
1:13:690:G:H2'	1:13:691:G:O4'	2.12	0.50
1:13:1002:G:C4	1:13:1003:G:C8	3.00	0.50
1:13:1106:G:H5"	3:2E:172:ARG:HG2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.46	0.50
1:13:1243:C:OP1	21:1F:10:ARG:HG3	2.11	0.50
5:4E:15:ARG:NH1	25:4K:25:A:H3'	2.25	0.50
10:1I:35:SER:OG	10:1I:73:ASP:HB2	2.11	0.50
13:4I:84:ILE:HG13	19:AI:74:PHE:HE2	1.76	0.50
20:BI:73:HIS:HB3	20:BI:74:LYS:HZ3	1.76	0.50
26:1H:556:G:H2'	26:1H:557:U:C6	2.45	0.50
26:1H:1800:C:OP1	28:11:266:SER:OG	2.24	0.50
26:1H:2577:A:H4'	52:N8:3:LYS:HB3	1.93	0.50
30:31:108:LYS:O	30:31:112:MET:HG3	2.10	0.50
30:31:123:LEU:HD12	30:31:124:LEU:H	1.75	0.50
40:B8:20:PRO:HG2	40:B8:86:ILE:O	2.12	0.50
44:F8:24:GLY:CA	44:F8:82:GLN:HE22	2.19	0.50
48:J8:91:LYS:CG	48:J8:92:LYS:H	2.23	0.50
51:M8:54:GLY:O	51:M8:58:ARG:N	2.43	0.50
1:1G:265:G:O3'	17:8A:66:SER:HA	2.11	0.50
1:1G:589:C:C2	1:1G:650:G:N2	2.77	0.50
1:1G:1040:U:H2'	1:1G:1041:A:H8	1.75	0.50
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.46	0.50
24:3L:48:C:C5	24:3L:59:U:H1'	2.46	0.50
26:14:71:A:H5'	26:14:71:A:H8	1.74	0.50
26:14:1530:G:O6	26:14:1542:G:N2	2.44	0.50
26:14:2134:A:N6	26:14:2157:G:O2'	2.43	0.50
26:14:2808:U:H5"	26:14:2891:G:O6	2.11	0.50
30:39:25:PRO:C	30:39:27:GLU:N	2.65	0.50
34:15:128:HIS:HB2	34:15:129:PRO:HD2	1.94	0.50
41:85:92:ARG:HH22	42:95:10:LYS:HA	1.76	0.50
1:13:266:G:H5"	1:13:267:C:C5	2.46	0.50
1:13:560:U:H5'	1:13:566:G:N2	2.25	0.50
1:13:587:G:N2	1:13:755:G:C5	2.79	0.50
1:13:628:G:H2'	1:13:629:G:C8	2.46	0.50
1:13:684:A:C6	1:13:685:G:C6	3.00	0.50
1:13:878:G:H5'	8:7E:89:PRO:HG2	1.93	0.50
8:7E:49:GLU:O	8:7E:51:VAL:HG13	2.10	0.50
11:2I:57:THR:HG22	11:2I:60:ALA:H	1.76	0.50
26:1H:276:A:C8	26:1H:278:A:H2	2.29	0.50
26:1H:1142(A):A:C4	26:1H:1144:G:C8	2.99	0.50
26:1H:2469:A:O2'	37:88:56:ARG:NE	2.41	0.50
27:16:48:A:H4'	39:A8:95:HIS:HD2	1.76	0.50
29:21:117:MET:HE1	29:21:136:ARG:CA	2.38	0.50
30:31:34:TRP:HB2	36:78:6:LEU:HG	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:29:LYS:CD	36:78:30:THR:HG22	2.37	0.50
37:88:75:THR:HA	37:88:87:LYS:O	2.12	0.50
43:E8:12:ILE:HD13	43:E8:17:VAL:HB	1.93	0.50
43:E8:38:TYR:OH	52:N8:47:PRO:HG3	2.12	0.50
45:G8:82:PRO:HG3	45:G8:97:ARG:HA	1.93	0.50
45:G8:97:ARG:HD2	45:G8:97:ARG:N	2.26	0.50
47:I8:44:ARG:HB2	47:I8:44:ARG:NH1	2.26	0.50
1:1G:164:U:H2'	1:1G:165:C:H6	1.77	0.50
1:1G:685:G:C2	1:1G:686:U:C4	2.99	0.50
1:1G:749:C:H2'	1:1G:750:G:H8	1.77	0.50
1:1G:986:A:H1'	19:AA:54:GLY:O	2.11	0.50
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.76	0.50
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.94	0.50
4:32:172:PRO:HD2	4:32:173:TRP:CZ3	2.46	0.50
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.38	0.50
24:3L:51:U:H2'	24:3L:52:G:H8	1.76	0.50
26:14:57:C:H2'	26:14:58:G:O4'	2.12	0.50
26:14:433:C:C4	26:14:434:U:O4	2.65	0.50
26:14:1333:C:H2'	26:14:1334:G:H8	1.77	0.50
26:14:1348:G:C6	26:14:1349:A:N1	2.79	0.50
26:14:2239:G:P	58:14:3404:HOH:O	2.69	0.50
27:1J:113:C:O2'	39:65:46:VAL:HG13	2.12	0.50
30:39:114:VAL:HG21	30:39:202:PHE:CE1	2.46	0.50
30:39:117:ARG:NH1	30:39:120:GLU:OE1	2.44	0.50
36:35:89:ALA:HB1	36:35:121:LYS:HD2	1.93	0.50
38:55:103:ARG:HH21	38:55:110:PRO:HB3	1.76	0.50
1:13:153:C:N4	1:13:168:G:H1	2.09	0.50
3:2E:124:ILE:HG12	3:2E:130:VAL:HG22	1.93	0.50
7:6E:18:TYR:HD2	7:6E:59:LEU:HD22	1.76	0.50
9:8E:7:THR:O	9:8E:83:ARG:HD2	2.11	0.50
10:1I:57:LYS:O	10:1I:60:ARG:NH1	2.45	0.50
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.44	0.50
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.12	0.50
23:2K:70:C:H2'	23:2K:71:G:O4'	2.11	0.50
26:1H:910:A:C4	37:88:13:GLN:NE2	2.80	0.50
26:1H:2294:C:C4	26:1H:2295:C:C5	3.00	0.50
28:11:85:ASP:HB2	28:11:92:ILE:HG12	1.93	0.50
28:11:108:PRO:HD2	28:11:111:LEU:HG	1.94	0.50
31:41:104:GLU:OE1	51:M8:23:GLU:HG3	2.11	0.50
33:61:68:LEU:HA	33:61:71:ILE:CG2	2.41	0.50
34:58:36:GLY:HA2	34:58:38:HIS:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:P8:9:ARG:HE	54:P8:47:ARG:HB2	1.76	0.50
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.46	0.50
1:1G:662:G:O2'	1:1G:836:G:OP1	2.28	0.50
1:1G:688:G:O2'	1:1G:704:A:N1	2.40	0.50
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.45	0.50
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.44	0.50
1:1G:1153:C:H2'	1:1G:1154:G:C8	2.46	0.50
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.27	0.50
1:1G:1231:G:O3'	9:82:126:SER:OG	2.24	0.50
3:22:91:LEU:HB2	3:22:99:VAL:HG11	1.94	0.50
22:1L:75:C:H2'	22:1L:76:A:H5"	1.93	0.50
26:14:547:A:H3'	26:14:548:A:C8	2.47	0.50
26:14:602:G:N2	26:14:655:A:C8	2.77	0.50
26:14:656:G:H2'	26:14:657:U:O4'	2.11	0.50
26:14:686:G:N7	54:L5:5:TRP:CH2	2.80	0.50
26:14:1152:C:H4'	41:85:77:SER:HA	1.94	0.50
26:14:1794:U:O2'	26:14:1795:C:H5'	2.12	0.50
29:29:120:TRP:CD2	29:29:155:LYS:HD3	2.47	0.50
33:69:76:THR:HG23	33:69:77:LEU:N	2.26	0.50
40:75:5:ALA:O	40:75:9:LEU:HB2	2.11	0.50
1:13:79:G:H2'	1:13:79:G:N3	2.25	0.50
1:13:1414:U:H2'	1:13:1415:G:C8	2.45	0.50
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.12	0.50
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.93	0.50
6:5E:75:LEU:HD22	6:5E:79:LEU:HG	1.94	0.50
11:2I:106:LYS:O	11:2I:107:SER:OG	2.24	0.50
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.12	0.50
15:6I:12:ILE:HG12	15:6I:31:LEU:HD11	1.94	0.50
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.75	0.50
26:1H:475:U:C4	26:1H:481:G:O6	2.65	0.50
26:1H:817:C:H4'	26:1H:932:G:C5	2.47	0.50
26:1H:1465:G:H5'	26:1H:1528:A:H1'	1.94	0.50
26:1H:2344:U:O2'	53:O8:37:ARG:HG2	2.11	0.50
26:1H:2700:C:C2'	26:1H:2701:C:H5'	2.40	0.50
28:11:147:LEU:HD13	28:11:155:LEU:HD21	1.93	0.50
30:31:29:ASN:H	30:31:112:MET:CE	2.22	0.50
46:H8:6:LYS:HE3	46:H8:8:TYR:HE1	1.75	0.50
12:3A:55:VAL:HA	12:3A:70:ILE:HG13	1.92	0.50
16:7A:18:ARG:HA	16:7A:38:TYR:HA	1.92	0.50
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.12	0.50
21:1B:9:ARG:CZ	21:1B:10:ARG:HG2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:392:C:H5"	26:14:409:C:H5"	1.93	0.50
26:14:1871:A:H2'	26:14:1872:A:C8	2.46	0.50
26:14:2472:G:H8	26:14:2472:G:O5'	1.94	0.50
26:14:2660:A:H8	26:14:2660:A:OP1	1.94	0.50
36:35:15:ARG:HB2	36:35:15:ARG:NH1	2.27	0.50
39:65:87:PHE:CZ	39:65:102:ALA:HB2	2.46	0.50
47:E5:26:TYR:O	47:E5:29:GLN:HB2	2.12	0.50
1:13:407:G:H2'	1:13:408:A:C8	2.46	0.50
1:13:625:G:H2'	1:13:626:U:H6	1.75	0.50
7:6E:69:VAL:HG12	7:6E:100:ALA:HA	1.93	0.50
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.11	0.50
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.27	0.50
19:AI:30:LEU:HA	19:AI:48:THR:O	2.11	0.50
26:1H:527:C:OP2	26:1H:2779:U:C5	2.64	0.50
26:1H:581:C:H2'	26:1H:582:G:H8	1.77	0.50
26:1H:1346:G:H2'	26:1H:1347:G:C8	2.46	0.50
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.35	0.50
26:1H:1636:C:P	58:1H:3609:HOH:O	2.69	0.50
27:16:91:C:H5"	46:H8:79:ARG:NH2	2.26	0.50
55:Q8:7:HIS:CD2	55:Q8:57:ARG:NH2	2.79	0.50
55:Q8:25:MET:HG2	55:Q8:46:ARG:HG2	1.94	0.50
2:12:43:ASP:O	2:12:47:THR:OG1	2.29	0.50
2:12:141:GLU:O	2:12:145:LEU:HB2	2.12	0.50
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.93	0.50
26:14:39:C:O2'	26:14:40:C:H5'	2.12	0.50
26:14:184:C:H2'	26:14:185:U:C6	2.46	0.50
26:14:323:G:H5'	30:39:169:ASN:HD21	1.77	0.50
26:14:1729:A:H2	26:14:1730:U:H5	1.58	0.50
26:14:2867:G:OP2	40:75:119:LYS:NZ	2.31	0.50
30:39:51:THR:HG23	30:39:92:PRO:HG2	1.93	0.50
31:49:103:LEU:HD22	31:49:178:PHE:HZ	1.76	0.50
32:59:76:VAL:HA	32:59:79:VAL:HG22	1.94	0.50
35:25:13:ASN:HD21	35:25:97:ARG:H	1.60	0.50
36:35:101:VAL:HG23	36:35:107:LYS:N	2.26	0.50
46:D5:30:ASN:HA	46:D5:89:PHE:CE1	2.41	0.50
1:13:1157:A:H1'	1:13:1158:C:C4	2.46	0.50
12:3I:42:THR:HG22	12:3I:54:LYS:HG3	1.92	0.50
13:4I:107:ALA:HB3	13:4I:111:LYS:HD2	1.93	0.50
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.93	0.50
26:1H:59:U:O2'	26:1H:73:A:H2'	2.11	0.50
26:1H:565:C:H4'	58:1H:3712:HOH:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:631:A:H61	26:1H:2402:C:N4	2.09	0.50
26:1H:855:G:O2'	47:I8:27:GLU:HG2	2.12	0.50
26:1H:2109:U:N3	26:1H:2110:G:O6	2.45	0.50
26:1H:2124:G:H2'	26:1H:2125:G:H5'	1.92	0.50
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.77	0.50
37:88:35:VAL:HG13	37:88:130:LYS:HB3	1.94	0.50
40:B8:47:GLY:HA3	40:B8:65:LYS:HB3	1.93	0.50
42:D8:20:LEU:HD21	42:D8:22:VAL:HG23	1.94	0.50
49:K8:22:GLU:OE2	49:K8:68:ARG:NH2	2.37	0.50
1:1G:963:G:H21	10:1A:55:LYS:NZ	2.09	0.50
1:1G:987:G:H1	1:1G:1218:C:H42	1.59	0.50
1:1G:1207:G:H2'	1:1G:1208:C:H6	1.77	0.50
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.94	0.50
11:2A:48:ILE:HG23	11:2A:63:LEU:HD22	1.94	0.50
19:AA:29:ARG:HD3	19:AA:48:THR:H	1.76	0.50
26:14:107:C:H2'	26:14:108:U:H6	1.76	0.50
26:14:185:U:H4'	26:14:218:A:H4'	1.93	0.50
26:14:528:A:C2	26:14:2043:C:H4'	2.47	0.50
26:14:2472:G:H21	26:14:2478:A:H62	1.58	0.50
26:14:2677:G:H2'	26:14:2678:C:C6	2.46	0.50
28:19:267:SER:HA	28:19:270:ILE:HD12	1.94	0.50
30:39:83:PHE:O	30:39:85:GLY:N	2.45	0.50
37:45:17:LEU:HD21	37:45:41:TRP:HE1	1.75	0.50
42:95:76:LYS:HD2	42:95:80:GLN:O	2.11	0.50
52:J5:36:CYS:HG	52:J5:49:CYS:HB3	1.77	0.50
15:6I:63:ARG:O	15:6I:67:LEU:HD12	2.12	0.50
17:8I:65:ILE:HB	17:8I:69:LYS:HB3	1.94	0.50
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.46	0.50
26:1H:1335:U:H2'	26:1H:1336:A:O4'	2.12	0.50
26:1H:1913:A:H4'	26:1H:1914:C:H5'	1.93	0.50
26:1H:2243:U:O2'	26:1H:2244:U:H5'	2.12	0.50
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.11	0.50
28:11:231:HIS:CD2	28:11:249:PRO:HA	2.47	0.50
30:31:101:LEU:CD1	30:31:105:VAL:HB	2.42	0.50
32:51:10:PRO:HG2	32:51:50:VAL:O	2.12	0.50
41:C8:6:THR:HG21	41:C8:10:ARG:HB2	1.93	0.50
44:F8:1:MET:C	44:F8:3:THR:N	2.65	0.50
1:1G:485:G:O2'	1:1G:486:U:O5'	2.30	0.50
1:1G:979:C:H3'	1:1G:980:C:C5'	2.39	0.50
1:1G:1316:G:H5"	14:5A:17:LYS:NZ	2.27	0.50
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:18:TRP:HE1	14:5A:55:GLY:H	1.60	0.50
13:4A:57:ARG:NH1	51:I5:34:GLU:O	2.45	0.50
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.11	0.50
26:14:1025:G:C4	26:14:1135:C:H1'	2.46	0.50
26:14:1352:U:O2	26:14:1570:A:H2	1.95	0.50
26:14:1430:C:H2'	26:14:1431:U:H6	1.75	0.50
26:14:2688:U:H1'	26:14:2721:A:N6	2.27	0.50
29:29:62:PRO:C	29:29:64:LYS:H	2.15	0.50
30:39:36:VAL:HG11	30:39:183:VAL:HG11	1.93	0.50
30:39:93:LYS:HB3	30:39:94:PRO:HD2	1.93	0.50
32:59:6:ARG:HD3	32:59:54:ARG:HH12	1.77	0.50
41:85:92:ARG:O	41:85:94:ASN:N	2.44	0.50
49:G5:25:VAL:O	49:G5:29:LYS:HB2	2.10	0.50
1:13:55:A:H2	33:69:82:ARG:HG2	1.76	0.50
1:13:985:C:H2'	1:13:986:A:C8	2.47	0.50
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.92	0.50
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.94	0.50
8:7E:53:VAL:HB	8:7E:58:TYR:CD2	2.46	0.50
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.94	0.50
12:3I:126:LYS:HG3	12:3I:128:ALA:H	1.76	0.50
22:1K:16:U:O2'	22:1K:18:G:OP2	2.28	0.50
26:1H:33:U:H4'	26:1H:34:C:OP1	2.11	0.50
26:1H:184:C:H2'	26:1H:185:U:C6	2.47	0.50
26:1H:212:G:H2'	26:1H:213:A:O4'	2.12	0.50
26:1H:225:A:H61	26:1H:419:C:H4'	1.77	0.50
26:1H:564:C:H2'	26:1H:565:C:O4'	2.11	0.50
26:1H:981:A:C8	26:1H:982:C:C5	2.98	0.50
26:1H:2169:A:H3'	26:1H:2170:A:C8	2.47	0.50
26:1H:2591:C:OP1	28:11:239:ARG:HG3	2.12	0.50
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.27	0.50
27:16:25:A:H5"	27:16:26:A:OP2	2.12	0.50
27:16:73:A:H2'	27:16:73:A:N3	2.27	0.50
27:16:116:G:C5'	39:A8:55:ALA:HB2	2.42	0.50
28:11:60:ARG:HD3	28:11:86:PRO:CB	2.38	0.50
30:31:65:TRP:CZ3	30:31:72:ARG:HB3	2.47	0.50
31:41:112:PRO:HB3	51:M8:36:CYS:HA	1.93	0.50
31:41:112:PRO:HG3	51:M8:38:LYS:HD2	1.94	0.50
38:98:60:LEU:O	38:98:64:ARG:HG3	2.12	0.50
39:A8:5:THR:HG23	39:A8:8:GLU:OE2	2.11	0.50
40:B8:62:THR:HG22	40:B8:75:ILE:HG12	1.94	0.50
48:J8:64:ALA:HA	48:J8:67:ILE:HG13	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:L8:6:VAL:HG12	50:L8:56:VAL:HG22	1.94	0.50
53:O8:17:LYS:O	53:O8:19:ARG:N	2.42	0.50
1:1G:313:A:H2'	1:1G:314:C:H6	1.77	0.50
1:1G:971:G:N2	1:1G:1363:A:OP2	2.34	0.50
1:1G:994:A:N3	14:5A:5:ALA:HB2	2.26	0.50
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.77	0.50
1:1G:1228:C:P	13:4A:115:LYS:HZ3	2.35	0.50
1:1G:1418:A:H2	26:14:1948:G:N3	2.10	0.50
1:1G:1502:A:H2	1:1G:1505:G:N1	2.01	0.50
2:12:12:GLU:HB3	2:12:213:LEU:HD22	1.94	0.50
4:32:138:TYR:HD1	4:32:139:ARG:N	2.10	0.50
22:1L:19:G:N2	22:1L:56:C:H42	2.09	0.50
26:14:270(L):U:O2	33:69:50:ARG:HD2	2.12	0.50
26:14:747:U:C6	52:J5:2:ALA:HB3	2.47	0.50
26:14:1646:C:O3'	58:14:3541:HOH:O	2.20	0.50
26:14:2306:C:H3'	26:14:2307:G:H5"	1.94	0.50
26:14:2528:U:O3'	26:14:2529:G:N2	2.29	0.50
28:19:172:TYR:CD1	28:19:186:HIS:HA	2.47	0.50
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.47	0.49
2:1E:226:ARG:HG3	2:1E:227:GLY:N	2.25	0.49
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.93	0.49
8:7E:103:VAL:HG12	8:7E:104:ARG:HG3	1.92	0.49
11:2I:13:GLN:HG3	11:2I:75:TYR:O	2.12	0.49
13:4I:32:GLU:O	13:4I:35:GLU:HG2	2.12	0.49
26:1H:193:U:H5	58:1H:4537:HOH:O	1.95	0.49
26:1H:557:U:H2'	26:1H:558:G:H8	1.75	0.49
26:1H:573:G:O2'	26:1H:574:C:H3'	2.11	0.49
26:1H:1528:A:C6	26:1H:1545:A:N1	2.80	0.49
26:1H:1836:C:H2'	26:1H:1837:C:H6	1.78	0.49
26:1H:1971:A:N3	28:11:241:PRO:HD3	2.27	0.49
27:16:37:C:H2'	27:16:38:C:H5'	1.94	0.49
28:11:238:GLY:O	28:11:240:ALA:N	2.44	0.49
36:78:18:ARG:O	36:78:19:VAL:HG22	2.11	0.49
42:D8:24:LYS:HA	42:D8:92:THR:HG23	1.92	0.49
51:M8:38:LYS:HD2	51:M8:38:LYS:H	1.77	0.49
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.45	0.49
1:1G:1152:A:O3'	10:1A:13:HIS:NE2	2.45	0.49
2:12:70:PHE:HB2	2:12:92:TYR:CB	2.42	0.49
7:62:95:ARG:HH21	7:62:99:LEU:HD11	1.77	0.49
10:1A:32:ALA:HB2	10:1A:81:THR:HG21	1.94	0.49
10:1A:48:THR:OG1	10:1A:62:HIS:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:476:G:H4'	26:14:502:A:N1	2.27	0.49
26:14:531:C:OP1	26:14:561:G:N2	2.45	0.49
26:14:987:G:OP2	58:14:4038:HOH:O	2.20	0.49
26:14:1071:G:N2	26:14:1087:G:H22	2.10	0.49
26:14:2113:U:N3	26:14:2114:A:O2'	2.42	0.49
26:14:2262:U:H4'	26:14:2328:A:C2	2.46	0.49
26:14:2639:A:O3'	34:15:97:ARG:NH2	2.36	0.49
35:25:17:ARG:HB2	35:25:45:GLU:HG2	1.94	0.49
37:45:136:ALA:HB1	37:45:138:ASP:OD1	2.11	0.49
38:55:59:ASP:OD2	38:55:61:HIS:HB3	2.12	0.49
40:75:16:ARG:HD3	40:75:79:HIS:HA	1.94	0.49
40:75:16:ARG:HH21	40:75:19:LEU:HD21	1.77	0.49
1:13:975:A:H5'	1:13:975:A:H8	1.78	0.49
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.45	0.49
1:13:1321:C:H3'	1:13:1322:C:H5"	1.93	0.49
7:6E:40:ALA:O	7:6E:44:TYR:HB2	2.11	0.49
13:4I:27:LYS:HA	13:4I:31:LYS:NZ	2.27	0.49
19:AI:63:THR:OG1	19:AI:64:GLU:N	2.45	0.49
21:1F:9:ARG:NH2	21:1F:23:PRO:HD2	2.26	0.49
26:1H:511:U:H5"	26:1H:512:G:OP2	2.12	0.49
26:1H:932:G:H4'	26:1H:933:A:O5'	2.12	0.49
26:1H:1858:G:O2'	26:1H:1884:A:N6	2.45	0.49
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.11	0.49
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.46	0.49
26:1H:2392:A:P	55:Q8:30:ARG:HH22	2.34	0.49
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.12	0.49
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.47	0.49
29:21:119:ARG:HG2	29:21:160:TYR:HB2	1.94	0.49
36:78:18:ARG:HH21	36:78:18:ARG:HG2	1.77	0.49
40:B8:79:HIS:N	40:B8:79:HIS:CD2	2.79	0.49
45:G8:29:GLU:HB3	45:G8:38:ILE:CG2	2.43	0.49
46:H8:44:PHE:CE2	46:H8:86:VAL:HG11	2.47	0.49
49:K8:15:LYS:HD3	49:K8:67:LYS:HZ1	1.77	0.49
1:1G:15:G:H4'	5:42:24:ARG:NH1	2.28	0.49
1:1G:818:G:N2	1:1G:873:A:OP1	2.44	0.49
1:1G:1151:A:O2'	1:1G:1152:A:O4'	2.30	0.49
4:32:31:CYS:SG	4:32:31:CYS:O	2.70	0.49
4:32:126:ILE:HG22	4:32:127:THR:N	2.26	0.49
5:42:147:ASP:O	5:42:151:LEU:HG	2.12	0.49
22:1L:14:A:H3'	22:1L:15:G:H8	1.77	0.49
22:1L:76:A:H62	26:14:2583:G:N2	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:239:U:H2'	26:14:240:G:O4'	2.12	0.49
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.11	0.49
26:14:370:G:H4'	26:14:371:A:OP2	2.11	0.49
26:14:618:G:H2'	26:14:618(A):C:O4'	2.12	0.49
26:14:672:C:H5'	30:39:89:VAL:CG1	2.41	0.49
26:14:779:U:OP1	28:19:49:ILE:HG22	2.12	0.49
26:14:832:G:H5'	36:35:45:LEU:CD1	2.42	0.49
26:14:2061:G:H5"	26:14:2503:A:C2	2.46	0.49
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.93	0.49
46:D5:99:TYR:CZ	46:D5:125:LEU:HD12	2.46	0.49
53:K5:14:THR:O	53:K5:49:HIS:HA	2.11	0.49
1:13:883:C:C2'	1:13:884:U:H5'	2.41	0.49
1:13:1137:C:O2	1:13:1138:G:N2	2.45	0.49
1:13:1177:G:O2'	1:13:1178:G:O5'	2.28	0.49
2:1E:88:ALA:O	2:1E:226:ARG:NH1	2.45	0.49
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.12	0.49
4:3E:100:ARG:HH12	4:3E:137:SER:HA	1.76	0.49
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.80	0.49
7:6E:43:PHE:O	7:6E:46:ALA:HB3	2.12	0.49
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.93	0.49
26:1H:327:G:H2'	26:1H:328:U:C6	2.47	0.49
26:1H:660:G:H21	36:78:12:ALA:HA	1.77	0.49
26:1H:1265:A:OP2	58:1H:3618:HOH:O	2.18	0.49
26:1H:1348:G:H5"	26:1H:1349:A:OP2	2.12	0.49
26:1H:1469:A:H2'	26:1H:1470:G:H8	1.78	0.49
26:1H:2345:G:H1'	26:1H:2382:G:H5'	1.93	0.49
26:1H:2577:A:P	58:1H:3800:HOH:O	2.64	0.49
27:16:11:C:O5'	27:16:12:C:H5	1.95	0.49
30:31:149:ASP:OD1	30:31:149:ASP:N	2.33	0.49
34:58:46:VAL:HG13	34:58:47:ALA:N	2.27	0.49
34:58:95:PRO:O	34:58:96:GLU:CD	2.50	0.49
40:B8:45:PHE:HE2	40:B8:63:VAL:HB	1.77	0.49
42:D8:19:LYS:HG3	42:D8:95:LEU:HD23	1.94	0.49
1:1G:323:U:H5'	20:BA:23:ARG:HB2	1.94	0.49
1:1G:371:G:H1	1:1G:390:C:N4	2.07	0.49
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.93	0.49
1:1G:766:A:H2'	1:1G:767:A:O4'	2.13	0.49
1:1G:890:G:O2'	1:1G:906:G:O6	2.20	0.49
1:1G:922:G:N3	1:1G:1398:A:H2	2.09	0.49
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.47	0.49
1:1G:1298:C:H4'	1:1G:1299:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:142:LEU:O	2:12:142:LEU:HD23	2.12	0.49
5:42:16:THR:O	5:42:16:THR:OG1	2.28	0.49
8:72:99:GLU:OE2	8:72:100:ILE:N	2.33	0.49
11:2A:109:VAL:HG13	18:9A:86:VAL:HG13	1.94	0.49
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.45	0.49
26:14:297:C:H2'	26:14:298:G:O4'	2.12	0.49
26:14:639:U:H3	26:14:649:G:H1	1.60	0.49
26:14:1858:G:H2'	26:14:1883:G:N2	2.27	0.49
28:19:108:PRO:HG2	28:19:111:LEU:HB2	1.93	0.49
29:29:8:LYS:HB3	29:29:193:GLY:N	2.27	0.49
31:49:145:THR:O	31:49:146:TYR:HB3	2.12	0.49
36:35:78:PRO:HA	36:35:110:TYR:CE2	2.47	0.49
48:F5:52:ARG:NH1	48:F5:57:GLU:HB2	2.27	0.49
1:13:188:U:O2'	1:13:189:U:H5'	2.12	0.49
1:13:739:C:O2'	15:6I:42:HIS:ND1	2.29	0.49
1:13:1132:C:H2'	1:13:1133:G:H8	1.77	0.49
1:13:1154:G:H2'	1:13:1155:G:H8	1.78	0.49
1:13:1301:U:O2'	1:13:1302:U:H5'	2.12	0.49
3:2E:11:ARG:HE	3:2E:180:ALA:HB3	1.77	0.49
3:2E:156:ARG:HG2	3:2E:163:ALA:HB2	1.93	0.49
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.47	0.49
4:3E:190:ASP:HB2	4:3E:193:ASP:OD1	2.13	0.49
8:7E:21:LYS:O	8:7E:63:LEU:HD23	2.13	0.49
24:3K:64:A:H8	24:3K:64:A:O5'	1.95	0.49
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.60	0.49
26:1H:510:C:H3'	58:1H:4662:HOH:O	2.12	0.49
26:1H:1007:C:OP1	34:58:35:ARG:NH1	2.42	0.49
26:1H:1568:G:H5"	28:11:61:LEU:HD22	1.94	0.49
26:1H:1899:G:N2	26:1H:1902:C:C5	2.65	0.49
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.95	0.49
26:1H:2058:A:N6	58:1H:3619:HOH:O	2.42	0.49
26:1H:2405:G:OP1	36:78:77:ARG:NH2	2.45	0.49
26:1H:2689:U:OP2	26:1H:2719:G:N2	2.33	0.49
34:58:68:GLU:HG3	34:58:88:GLU:OE2	2.12	0.49
51:M8:26:SER:OG	51:M8:27:THR:N	2.45	0.49
1:1G:722:A:C8	1:1G:724:G:H1'	2.47	0.49
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.94	0.49
1:1G:1367:C:H5'	10:1A:60:ARG:NH2	2.28	0.49
26:14:118:A:N3	26:14:178:G:H1'	2.28	0.49
26:14:279:C:N4	26:14:361:G:H1	2.10	0.49
26:14:289:A:H5'	26:14:290:G:OP2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:303:U:H2'	26:14:304:G:H8	1.77	0.49
26:14:1945:G:C4	26:14:1946:U:C5	3.01	0.49
26:14:1952:A:C5	35:25:22:ILE:HD11	2.47	0.49
26:14:2116:G:N3	26:14:2117:A:N6	2.60	0.49
26:14:2674:G:H4'	35:25:30:ALA:HB2	1.95	0.49
26:14:2852:G:H2'	26:14:2853:C:C6	2.46	0.49
28:19:124:PRO:HG2	28:19:129:ASN:ND2	2.28	0.49
29:29:11:MET:SD	29:29:24:THR:HG22	2.52	0.49
39:65:106:ARG:O	39:65:106:ARG:HD2	2.13	0.49
1:13:244:U:H4'	1:13:245:C:O5'	2.12	0.49
1:13:524:G:H2'	1:13:525:C:C5	2.47	0.49
1:13:575:G:C5	1:13:881:G:C2	3.00	0.49
2:1E:47:THR:HG22	2:1E:51:LEU:HD12	1.93	0.49
3:2E:8:ILE:HD13	3:2E:184:TYR:HB3	1.94	0.49
7:6E:45:ASP:O	7:6E:49:ILE:HG12	2.13	0.49
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	1.93	0.49
17:8I:18:THR:HG21	17:8I:69:LYS:HD2	1.95	0.49
23:2K:63:C:O2	23:2K:64:G:C8	2.65	0.49
26:1H:29:U:H2'	26:1H:30:G:C8	2.47	0.49
26:1H:309:G:N3	26:1H:329:G:O2'	2.41	0.49
26:1H:518:G:H5'	43:E8:18:ARG:HH21	1.77	0.49
26:1H:579:G:H2'	26:1H:580:C:C6	2.47	0.49
26:1H:805:G:OP2	36:78:41:ARG:HG2	2.13	0.49
26:1H:806:C:OP2	36:78:41:ARG:HD3	2.12	0.49
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.47	0.49
31:41:37:VAL:HG22	31:41:159:VAL:HG12	1.93	0.49
32:51:118:PRO:HD2	32:51:121:ILE:HB	1.93	0.49
37:88:21:THR:HG21	37:88:101:ARG:N	2.27	0.49
41:C8:75:ASN:HB3	41:C8:77:SER:H	1.77	0.49
43:E8:37:ARG:HH22	52:N8:47:PRO:CB	2.25	0.49
46:H8:28:MET:HG3	46:H8:37:VAL:HG11	1.94	0.49
52:N8:49:CYS:SG	52:N8:60:VAL:HB	2.53	0.49
1:1G:419:C:H5'	1:1G:420:U:OP2	2.13	0.49
1:1G:617:G:OP2	58:1G:1842:HOH:O	2.18	0.49
1:1G:827:U:H5'	1:1G:828:A:OP2	2.13	0.49
1:1G:1108:G:OP1	3:22:175:LEU:HD12	2.13	0.49
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.25	0.49
1:1G:1368:G:OP2	9:82:112:LYS:HD2	2.11	0.49
2:12:221:LEU:HA	2:12:224:GLN:HB2	1.94	0.49
4:32:150:GLU:C	4:32:152:SER:H	2.16	0.49
26:14:192:C:P	58:14:4102:HOH:O	2.70	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:278:A:H8	26:14:278:A:OP2	1.96	0.49
26:14:278:A:HO2'	26:14:279:C:H5	1.60	0.49
26:14:1204:A:H2	26:14:1241:A:N1	2.11	0.49
26:14:1669:A:H5"	26:14:1670:C:OP2	2.11	0.49
26:14:1678:G:N3	26:14:1678:G:H2'	2.28	0.49
26:14:1993:U:H4'	29:29:128:SER:HB3	1.95	0.49
26:14:2271:G:OP1	47:E5:18:ALA:HB1	2.12	0.49
26:14:2301:C:H3'	26:14:2301:C:H6	1.77	0.49
28:19:29:PRO:HA	28:19:83:GLU:OE1	2.12	0.49
31:49:125:PHE:HB3	31:49:166:ASP:HB2	1.94	0.49
39:65:5:THR:O	39:65:8:GLU:N	2.44	0.49
41:85:8:VAL:O	41:85:12:ARG:HG3	2.13	0.49
41:85:28:ARG:HH11	41:85:38:THR:HG1	1.53	0.49
43:A5:20:VAL:CG2	43:A5:47:VAL:HG21	2.43	0.49
51:I5:43:TYR:CG	51:I5:43:TYR:O	2.66	0.49
1:13:953:G:H2'	1:13:954:G:O4'	2.13	0.49
1:13:1147:C:O2	9:8E:16:ARG:NH1	2.45	0.49
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.93	0.49
19:AI:64:GLU:O	19:AI:67:VAL:HG13	2.12	0.49
26:1H:303:U:H2'	26:1H:304:G:C8	2.46	0.49
26:1H:459:U:H2'	26:1H:460:A:C8	2.46	0.49
26:1H:784:A:OP1	26:1H:2588:G:H5"	2.13	0.49
26:1H:1668:A:N6	26:1H:1676:A:H61	2.11	0.49
26:1H:1754:C:H5	40:B8:96:ARG:CZ	2.25	0.49
27:16:7:G:H4'	39:A8:29:PHE:HD2	1.73	0.49
31:41:139:LEU:HD22	31:41:146:TYR:HD1	1.76	0.49
37:88:17:LEU:HD21	37:88:96:VAL:HG13	1.95	0.49
38:98:77:ARG:O	38:98:80:PHE:N	2.46	0.49
40:B8:108:ARG:HA	40:B8:111:ARG:CZ	2.42	0.49
46:H8:31:ARG:HD2	46:H8:32:HIS:CE1	2.47	0.49
55:Q8:48:PHE:CZ	55:Q8:49:VAL:HG13	2.47	0.49
1:1G:229:U:H2'	1:1G:230:G:H8	1.78	0.49
1:1G:565:U:OP2	1:1G:566:G:O2'	2.23	0.49
1:1G:1127:G:C2'	1:1G:1147:C:H42	2.26	0.49
3:22:73:PRO:HG3	3:22:105:GLU:HG3	1.93	0.49
4:32:149:ALA:O	4:32:153:ARG:HG2	2.12	0.49
4:32:173:TRP:HB3	4:32:187:ARG:HH11	1.76	0.49
9:82:33:PHE:CE2	9:82:47:LEU:HD23	2.47	0.49
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.12	0.49
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.94	0.49
20:BA:45:GLN:HB2	20:BA:91:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:53:G:H2'	24:3L:54:U:C6	2.48	0.49
26:14:5:A:H2'	26:14:6:A:C8	2.48	0.49
26:14:17:G:H2'	26:14:18:C:C6	2.48	0.49
26:14:30:G:O6	58:14:3893:HOH:O	2.18	0.49
26:14:662:G:H5'	36:35:15:ARG:CA	2.36	0.49
26:14:1019:U:HO2'	26:14:1021:A:H2	1.59	0.49
26:14:1217:C:OP1	41:85:15:LYS:NZ	2.37	0.49
26:14:1441:G:H2'	26:14:1442:G:H8	1.78	0.49
26:14:2019:A:N7	52:J5:9:LYS:HD2	2.27	0.49
26:14:2027:G:H2'	26:14:2028:U:O4'	2.13	0.49
26:14:2439:A:H5'	26:14:2439:A:H8	1.77	0.49
26:14:2716:U:O2'	26:14:2717:G:H5'	2.12	0.49
28:19:43:ARG:HH11	28:19:43:ARG:HG2	1.77	0.49
34:15:15:LEU:HD13	34:15:16:ILE:N	2.28	0.49
37:45:29:PHE:HB3	37:45:65:PHE:CE2	2.48	0.49
38:55:51:LEU:HD22	38:55:66:VAL:HG13	1.93	0.49
40:75:4:GLY:O	40:75:6:LEU:N	2.45	0.49
40:75:64:ARG:CB	40:75:73:GLU:HG2	2.42	0.49
50:H5:8:LEU:HD22	50:H5:10:LYS:O	2.13	0.49
50:H5:9:VAL:HG11	50:H5:55:ARG:HB2	1.94	0.49
1:13:142:G:C2	1:13:143:A:C5	3.00	0.49
1:13:232:G:H2'	1:13:233:C:H6	1.78	0.49
1:13:457:C:H2'	1:13:458:C:H6	1.78	0.49
1:13:619:U:O2	4:3E:135:LEU:HD22	2.12	0.49
1:13:792:A:H4'	1:13:793:U:O5'	2.12	0.49
1:13:1034:G:N2	1:13:1035:A:N7	2.60	0.49
1:13:1366:C:H2'	1:13:1367:C:C6	2.47	0.49
26:1H:30:G:H2'	26:1H:31:C:C6	2.48	0.49
26:1H:57:C:H2'	26:1H:58:G:O4'	2.13	0.49
26:1H:250:G:OP1	36:78:60:MET:HE1	2.13	0.49
26:1H:311:A:C6	26:1H:328:U:C4	3.01	0.49
26:1H:459:U:H2'	26:1H:460:A:H8	1.77	0.49
26:1H:581:C:H2'	26:1H:582:G:C8	2.47	0.49
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.12	0.49
26:1H:1327:C:H2'	26:1H:1328:G:O4'	2.13	0.49
26:1H:1403:C:H5"	26:1H:1471:A:H1'	1.95	0.49
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.12	0.49
26:1H:1798:U:H5"	28:11:259:THR:HG22	1.94	0.49
27:16:3:C:H2'	27:16:4:C:C6	2.48	0.49
32:51:20:ALA:HB1	32:51:21:PRO:HD2	1.94	0.49
38:98:53:HIS:ND1	38:98:94:TYR:OH	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:100:TYR:HB3	40:B8:103:ARG:NH1	2.26	0.49
45:G8:39:VAL:HB	45:G8:42:VAL:HG13	1.93	0.49
53:O8:47:THR:HG22	53:O8:48:VAL:H	1.77	0.49
1:1G:408:A:H2'	1:1G:409:G:O4'	2.12	0.49
1:1G:652:U:H2'	1:1G:653:A:H5"	1.95	0.49
1:1G:1129:C:H41	1:1G:1141:C:N4	2.03	0.49
5:42:60:TYR:CB	5:42:64:ARG:HH21	2.26	0.49
19:AA:23:ASN:HA	19:AA:27:GLU:HG3	1.95	0.49
20:BA:11:SER:HA	20:BA:13:LEU:H	1.77	0.49
23:2L:24:C:C2	23:2L:25:U:C5	3.00	0.49
26:14:146:G:H2'	26:14:147:U:O4'	2.12	0.49
26:14:208:C:H2'	26:14:209:C:C6	2.47	0.49
26:14:389:G:H1	36:35:71:VAL:HG12	1.75	0.49
26:14:831:G:N7	58:14:3673:HOH:O	2.34	0.49
26:14:1015:G:O2'	26:14:1016:G:H5'	2.12	0.49
26:14:1462:C:H4'	26:14:2703:C:H5'	1.94	0.49
26:14:1771:C:H1'	26:14:1786:A:C8	2.47	0.49
26:14:1826:G:H4'	28:19:242:ARG:NH1	2.28	0.49
26:14:2593:U:H2'	26:14:2594:C:C6	2.48	0.49
26:14:2629:A:H2'	26:14:2629:A:N3	2.28	0.49
29:29:120:TRP:CD1	29:29:155:LYS:HB3	2.48	0.49
32:59:30:LYS:HE2	32:59:136:ILE:HG22	1.95	0.49
33:69:120:ILE:HG22	33:69:122:GLU:H	1.78	0.49
34:15:38:HIS:CD2	34:15:39:ARG:H	2.30	0.49
35:25:24:VAL:HB	35:25:33:ALA:HB2	1.93	0.49
38:55:107:ASP:C	38:55:107:ASP:OD1	2.50	0.49
46:D5:11:GLU:CG	46:D5:12:GLY:H	2.25	0.49
46:D5:128:VAL:HG22	46:D5:129:SER:H	1.77	0.49
1:13:324:G:N1	1:13:327:A:OP2	2.44	0.49
1:13:413:G:H22	1:13:428:G:H1'	1.77	0.49
1:13:947:G:H2'	1:13:948:C:O4'	2.13	0.49
1:13:1129:C:N4	1:13:1139:G:H1	2.11	0.49
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.13	0.49
26:1H:530:G:C5	26:1H:2022:U:H5"	2.48	0.49
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.81	0.49
26:1H:731:C:P	58:1H:3689:HOH:O	2.70	0.49
26:1H:886:C:H5'	26:1H:887:A:OP2	2.13	0.49
26:1H:1903:G:C2'	26:1H:1904:G:H5'	2.43	0.49
28:11:27:THR:HG23	28:11:28:GLU:HG2	1.93	0.49
31:41:21:ARG:HG2	31:41:21:ARG:NH1	2.16	0.49
32:51:154:PRO:HB3	32:51:163:TYR:CZ	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:113:LYS:HA	36:78:129:ALA:O	2.12	0.49
39:A8:63:THR:O	39:A8:66:ALA:HB3	2.12	0.49
45:G8:49:VAL:HG21	45:G8:55:TYR:HE2	1.78	0.49
55:Q8:6:THR:OG1	55:Q8:6:THR:O	2.23	0.49
1:1G:599:C:H2'	1:1G:600:C:C6	2.47	0.49
1:1G:735:C:H2'	1:1G:736:C:H6	1.78	0.49
1:1G:952:U:H4'	1:1G:964:A:N1	2.28	0.49
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.47	0.49
7:62:92:SER:HB3	7:62:94:ARG:HG3	1.93	0.49
8:72:44:PHE:HD1	8:72:80:ILE:HG12	1.77	0.49
13:4A:27:LYS:HD2	13:4A:31:LYS:HE3	1.93	0.49
26:14:27:G:O2'	26:14:28:A:OP2	2.27	0.49
26:14:528:A:C2	26:14:2042:A:H2'	2.47	0.49
26:14:1161:C:H2'	26:14:1162:G:C8	2.48	0.49
26:14:1331:A:O2'	26:14:1332:G:H8	1.95	0.49
26:14:1439:A:C2	26:14:1553:A:C5	3.00	0.49
26:14:1889:A:O2'	26:14:2087:G:H5'	2.13	0.49
28:19:79:VAL:HG12	28:19:113:VAL:HA	1.95	0.49
37:45:41:TRP:HZ3	37:45:74:TYR:HE1	1.59	0.49
49:G5:25:VAL:HA	49:G5:28:LYS:HB2	1.94	0.49
1:13:725:G:H2'	1:13:726:C:H6	1.78	0.49
1:13:1128:C:C6	1:13:1139:G:C6	3.00	0.49
1:13:1285:A:H4'	1:13:1286:A:C5'	2.43	0.49
2:1E:69:LEU:HD22	2:1E:91:PRO:HB2	1.95	0.49
4:3E:9:CYS:O	4:3E:13:ARG:HG2	2.13	0.49
4:3E:72:GLU:OE1	4:3E:207:TYR:OH	2.27	0.49
5:4E:100:VAL:HG22	5:4E:115:VAL:HG12	1.95	0.49
13:4I:81:LEU:HD22	13:4I:88:ARG:HB3	1.94	0.49
16:7I:71:ARG:O	16:7I:75:ARG:N	2.46	0.49
20:BI:53:LEU:HA	20:BI:56:MET:HB3	1.94	0.49
22:1K:10:G:H2'	22:1K:11:C:C6	2.48	0.49
22:1K:14:A:C6	22:1K:22:G:N3	2.81	0.49
26:1H:445:C:O2'	26:1H:446:G:H5'	2.13	0.49
26:1H:1189:A:OP2	58:1H:3874:HOH:O	2.19	0.49
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.48	0.49
26:1H:1568:G:P	28:11:63:ARG:HH12	2.36	0.49
26:1H:1678:G:N2	26:1H:1989:G:N2	2.60	0.49
26:1H:2324:C:H5"	26:1H:2325:G:H5"	1.95	0.49
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.95	0.49
28:11:6:PHE:HE1	28:11:18:VAL:HG23	1.78	0.49
46:H8:4:ARG:HD3	46:H8:60:GLU:OE2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:127:LYS:NZ	46:H8:162:GLU:OE2	2.42	0.49
48:J8:81:LYS:HD2	48:J8:81:LYS:N	2.28	0.49
1:1G:115:G:H1'	1:1G:116:A:N7	2.27	0.49
1:1G:409:G:OP1	4:32:25:ARG:HB2	2.13	0.49
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.23	0.49
26:14:273(D):C:N4	26:14:363(B):G:H1	2.10	0.49
26:14:600:G:N2	26:14:605:C:O3'	2.46	0.49
26:14:1024:G:C3'	26:14:1025:G:H5"	2.41	0.49
26:14:1204:A:C2	26:14:1241:A:N1	2.80	0.49
26:14:1322:A:N1	26:14:1333:C:O2'	2.43	0.49
26:14:2080:G:O2'	26:14:2081:C:H5'	2.12	0.49
26:14:2128:C:H42	26:14:2160:G:H1	1.60	0.49
26:14:2575:C:H5'	29:29:143:ASN:O	2.12	0.49
27:1J:50:G:OP1	39:65:62:LYS:HB2	2.13	0.49
29:29:176:ILE:HB	29:29:181:LEU:HB2	1.95	0.49
30:39:66:PRO:O	30:39:67:GLN:HB3	2.13	0.49
30:39:146:ALA:CB	30:39:148:LEU:HG	2.42	0.49
31:49:104:GLU:HG2	51:I5:23:GLU:HG3	1.93	0.49
37:45:103:MET:O	37:45:104:PHE:HB2	2.12	0.49
37:45:118:LEU:HD12	37:45:131:ILE:HG23	1.93	0.49
38:55:57:ARG:NE	38:55:59:ASP:OD1	2.38	0.49
40:75:53:ARG:NH1	40:75:60:THR:HG23	2.27	0.49
45:C5:97:ARG:HG2	45:C5:102:CYS:O	2.13	0.49
46:D5:99:TYR:HA	46:D5:124:ILE:O	2.12	0.49
1:13:296:U:H2'	1:13:297:G:C8	2.48	0.49
1:13:511:C:C2	1:13:512:U:C5	3.00	0.49
2:1E:73:THR:OG1	2:1E:170:GLU:OE2	2.11	0.49
11:2I:34:ASP:HB2	11:2I:35:PRO:HD2	1.94	0.49
12:3I:43:VAL:HG23	12:3I:93:LEU:HD22	1.95	0.49
22:1K:5:G:H1'	22:1K:69:G:N2	2.26	0.49
26:1H:70:G:H21	26:1H:71:A:N6	2.11	0.49
26:1H:184:C:H2'	26:1H:185:U:H6	1.78	0.49
26:1H:1443:G:C2	26:1H:1549:C:N3	2.81	0.49
26:1H:2460:U:H2'	26:1H:2461:C:H6	1.78	0.49
26:1H:2780:G:OP1	34:58:118:LYS:NZ	2.30	0.49
27:16:13:A:N6	27:16:70:C:H5'	2.27	0.49
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.12	0.49
35:68:112:MET:HA	35:68:115:VAL:HG13	1.93	0.49
37:88:20:ALA:HB2	46:H8:79:ARG:HG2	1.93	0.49
46:H8:7:ALA:HB3	46:H8:61:LEU:HB3	1.93	0.49
49:K8:18:PRO:O	49:K8:22:GLU:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:302:G:O2'	1:1G:556:C:H5"	2.13	0.49
1:1G:373:A:C2	1:1G:374:A:C8	3.01	0.49
1:1G:1211:U:H1'	1:1G:1213:A:C2	2.48	0.49
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.95	0.49
8:72:20:TYR:CE2	8:72:75:ARG:HB3	2.48	0.49
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.95	0.49
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.95	0.49
19:AA:20:LEU:HA	19:AA:23:ASN:HD22	1.77	0.49
26:14:639:U:H2'	26:14:640:C:C6	2.47	0.49
26:14:2185:C:H2'	26:14:2186:G:C8	2.47	0.49
26:14:2378:A:O2'	39:65:21:THR:HG21	2.13	0.49
26:14:2701:C:H3'	26:14:2702:U:C5'	2.37	0.49
27:1J:13:A:H5"	27:1J:15:A:N6	2.28	0.49
31:49:103:LEU:HD22	31:49:178:PHE:CZ	2.48	0.49
37:45:38:GLU:HB2	37:45:127:ILE:HG22	1.94	0.49
41:85:92:ARG:C	41:85:94:ASN:H	2.16	0.49
47:E5:53:MET:HG3	47:E5:59:LEU:CD2	2.42	0.49
1:13:232:G:H2'	1:13:233:C:C6	2.47	0.48
1:13:745:C:OP1	1:13:851:G:O2'	2.30	0.48
1:13:963:G:C2	10:1I:55:LYS:NZ	2.81	0.48
1:13:1126:U:H3	1:13:1127:G:N2	2.11	0.48
4:3E:108:LEU:HD11	4:3E:174:LEU:HD22	1.94	0.48
4:3E:148:VAL:HG12	4:3E:149:ALA:O	2.13	0.48
4:3E:155:LEU:O	4:3E:157:LEU:N	2.46	0.48
26:1H:11:G:C2'	26:1H:12:U:H5'	2.44	0.48
26:1H:321:G:O3'	30:31:168:ARG:NH2	2.44	0.48
26:1H:322:A:P	30:31:168:ARG:HH21	2.35	0.48
26:1H:1170:G:N2	26:1H:1180:C:C2	2.81	0.48
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.27	0.48
26:1H:2319:G:N1	26:1H:2334:G:OP2	2.46	0.48
26:1H:2406:U:H3'	58:1H:3728:HOH:O	2.12	0.48
26:1H:2705:A:O2'	26:1H:2852:G:OP1	2.23	0.48
28:11:12:SER:O	28:11:16:MET:HB2	2.12	0.48
29:21:60:ASN:OD1	29:21:62:PRO:HD2	2.13	0.48
36:78:91:PHE:N	36:78:91:PHE:CD1	2.81	0.48
36:78:111:ARG:HG2	36:78:128:HIS:CD2	2.48	0.48
50:L8:6:VAL:HB	50:L8:54:VAL:HG21	1.94	0.48
1:1G:1346:A:H3'	1:1G:1346:A:OP2	2.13	0.48
4:32:138:TYR:CD1	4:32:139:ARG:N	2.81	0.48
8:72:17:THR:O	8:72:78:GLN:NE2	2.46	0.48
9:82:102:LEU:O	9:82:103:THR:OG1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:666:G:H5"	36:35:47:ASP:O	2.13	0.48
26:14:861:A:N3	27:1J:79:C:O2'	2.46	0.48
26:14:2412:A:H2'	26:14:2413:G:O4'	2.13	0.48
26:14:2569:G:C2	26:14:2570:G:C8	3.01	0.48
27:1J:10:C:C4	27:1J:11:C:C5	3.01	0.48
27:1J:40:U:H1'	27:1J:46:A:N1	2.28	0.48
29:29:33:VAL:HG11	29:29:36:ARG:NH2	2.27	0.48
30:39:120:GLU:HG3	30:39:122:LYS:NZ	2.23	0.48
35:25:105:GLU:HA	35:25:108:GLU:OE1	2.13	0.48
38:55:24:GLN:OE1	38:55:36:THR:HG21	2.11	0.48
38:55:32:GLY:HA2	38:55:116:LEU:CD1	2.43	0.48
40:75:4:GLY:HA2	40:75:8:LYS:NZ	2.26	0.48
49:G5:37:PHE:O	49:G5:41:ILE:HG12	2.13	0.48
1:13:38:G:C2	1:13:397:A:C2	3.01	0.48
1:13:55:A:C5	1:13:56:U:C5	3.01	0.48
1:13:244:U:H4'	1:13:245:C:C5'	2.43	0.48
1:13:648:A:H2'	1:13:649:G:C8	2.48	0.48
1:13:1203:C:H2'	1:13:1204:A:O4'	2.13	0.48
1:13:1478:C:H2'	1:13:1479:C:C6	2.48	0.48
2:1E:76:GLN:HA	2:1E:208:ILE:HG12	1.95	0.48
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.43	0.48
4:3E:53:ASP:HB3	4:3E:57:ARG:NH1	2.28	0.48
6:5E:23:LYS:HB2	6:5E:23:LYS:NZ	2.28	0.48
11:2I:34:ASP:OD1	11:2I:36:ASP:N	2.40	0.48
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.94	0.48
23:2K:52:C:H2'	23:2K:53:G:O4'	2.13	0.48
24:3K:66:U:H2'	24:3K:67:C:C6	2.48	0.48
26:1H:324:A:C2'	26:1H:325:G:H5'	2.42	0.48
26:1H:449:A:OP2	58:1H:3897:HOH:O	2.20	0.48
26:1H:658:C:H2'	26:1H:659:C:C6	2.48	0.48
26:1H:851:U:OP1	50:L8:49:LYS:NZ	2.45	0.48
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.13	0.48
26:1H:1771:C:OP1	58:1H:3983:HOH:O	2.20	0.48
26:1H:2401:U:H2'	26:1H:2402:C:C6	2.49	0.48
26:1H:2627:G:N2	26:1H:2777:G:OP2	2.46	0.48
26:1H:2694:G:C4	26:1H:2695:C:C5	3.01	0.48
30:31:123:LEU:HD12	30:31:124:LEU:N	2.28	0.48
30:31:138:GLU:O	30:31:141:ALA:HB3	2.13	0.48
30:31:179:GLU:H	30:31:179:GLU:CD	2.16	0.48
35:68:85:VAL:HG11	35:68:114:ILE:HD13	1.94	0.48
38:98:13:HIS:ND1	38:98:15:SER:HB3	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:91:GLN:H	38:98:91:GLN:CD	2.15	0.48
40:B8:78:LEU:O	40:B8:78:LEU:HD13	2.12	0.48
1:1G:1028(A):C:H42	1:1G:1032(B):G:H22	1.61	0.48
1:1G:1249:C:O2'	9:82:73:GLN:OE1	2.31	0.48
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.27	0.48
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.13	0.48
26:14:5:A:H2'	26:14:6:A:N7	2.27	0.48
26:14:39:C:H2'	26:14:40:C:C6	2.49	0.48
26:14:320:A:H4'	26:14:322:A:C8	2.48	0.48
26:14:524:U:H2'	26:14:525:U:C6	2.47	0.48
26:14:1043:C:H42	26:14:1112:G:H1	1.60	0.48
26:14:1210:A:H5'	26:14:1212:G:O4'	2.13	0.48
26:14:1423:G:OP1	26:14:1492:G:O2'	2.31	0.48
26:14:1425:G:H2'	26:14:1426:G:C8	2.47	0.48
26:14:1536:A:C8	26:14:1537:C:H1'	2.48	0.48
26:14:2131:G:OP1	26:14:2132:U:H3'	2.13	0.48
26:14:2394:C:OP1	36:35:63:PRO:HG2	2.13	0.48
26:14:2873:A:C8	38:55:5:LYS:HA	2.48	0.48
29:29:31:CYS:O	29:29:91:VAL:HG22	2.14	0.48
32:59:149:ARG:HG2	32:59:162:ILE:HG22	1.95	0.48
34:15:96:GLU:H	34:15:96:GLU:CD	2.17	0.48
45:C5:63:LYS:NZ	45:C5:63:LYS:HA	2.28	0.48
49:G5:33:MET:O	49:G5:37:PHE:HD1	1.95	0.48
51:I5:22:ILE:HD13	51:I5:22:ILE:H	1.76	0.48
1:13:113:G:H2'	1:13:114:U:C6	2.47	0.48
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.13	0.48
1:13:590:C:H2'	1:13:591:U:H6	1.78	0.48
1:13:600:C:H2'	1:13:601:C:C6	2.48	0.48
2:1E:163:PHE:HD1	2:1E:185:ILE:HG13	1.78	0.48
4:3E:19:LEU:HD23	4:3E:21:LEU:HD21	1.95	0.48
6:5E:33:TYR:CD2	6:5E:75:LEU:HD23	2.48	0.48
13:4I:3:ARG:CZ	13:4I:7:VAL:HG13	2.43	0.48
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.79	0.48
18:9I:47:THR:O	18:9I:83:GLU:N	2.37	0.48
26:1H:6:A:H4'	34:58:129:PRO:HB3	1.94	0.48
26:1H:69:C:H2'	26:1H:70:G:H8	1.78	0.48
26:1H:1028:A:N3	26:1H:2486:G:O2'	2.37	0.48
26:1H:1427:A:C2	28:11:31:LYS:HE2	2.48	0.48
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.11	0.48
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.79	0.48
26:1H:1705:G:C6	26:1H:1706:U:C4	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2371:G:C4'	53:O8:45:LYS:HG3	2.43	0.48
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.49	0.48
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.13	0.48
32:51:12:PRO:HD3	32:51:48:GLY:O	2.12	0.48
37:88:66:ILE:O	37:88:67:ARG:HB2	2.14	0.48
39:A8:38:GLN:HG3	39:A8:47:THR:HG21	1.94	0.48
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.48	0.48
43:E8:72:LYS:N	43:E8:106:ILE:O	2.46	0.48
45:G8:44:ILE:HA	45:G8:64:GLU:HA	1.93	0.48
49:K8:42:GLY:O	49:K8:44:LEU:N	2.46	0.48
55:Q8:47:LYS:NZ	55:Q8:47:LYS:HB2	2.27	0.48
1:1G:1006:C:N3	1:1G:1007:C:N4	2.61	0.48
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.38	0.48
10:1A:38:ILE:N	10:1A:71:LEU:O	2.37	0.48
26:14:94:G:OP1	45:C5:54:LYS:NZ	2.32	0.48
26:14:248:G:H5'	26:14:250:G:N7	2.27	0.48
26:14:568:U:H6	26:14:568:U:H5"	1.79	0.48
26:14:751:A:P	58:14:3410:HOH:O	2.71	0.48
26:14:1127:A:N3	26:14:2518:A:H5'	2.28	0.48
26:14:1533:C:H42	26:14:1538:G:H1	1.60	0.48
26:14:2335:A:C8	26:14:2337:G:C5	3.01	0.48
27:1J:12:C:O2'	47:E5:74:ARG:HG2	2.12	0.48
27:1J:46:A:H2'	27:1J:47:C:C6	2.48	0.48
29:29:11:MET:HE3	29:29:187:ALA:H	1.78	0.48
32:59:3:ARG:HD2	32:59:4:ILE:HG13	1.95	0.48
40:75:51:ARG:HB3	40:75:62:THR:HG23	1.94	0.48
42:95:85:LYS:CB	42:95:87:HIS:H	2.27	0.48
44:B5:57:LEU:N	44:B5:57:LEU:HD23	2.28	0.48
46:D5:19:ARG:NH1	46:D5:84:GLU:O	2.45	0.48
46:D5:103:ARG:HE	46:D5:136:PHE:HB3	1.78	0.48
1:13:806:C:H2'	1:13:807:A:C8	2.48	0.48
1:13:1103:C:H2'	1:13:1104:G:O4'	2.13	0.48
1:13:1425:U:H2'	1:13:1426:C:C6	2.49	0.48
1:13:1485:U:O2'	1:13:1486:G:H5'	2.13	0.48
2:1E:19:HIS:HB3	2:1E:189:ASP:OD2	2.14	0.48
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.95	0.48
26:1H:141:A:H1'	26:1H:1408:C:O4'	2.14	0.48
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.28	0.48
26:1H:1301:A:N3	26:1H:1301:A:H2'	2.29	0.48
26:1H:2213:U:O4'	48:J8:52:ARG:NH2	2.46	0.48
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2860:A:C8	26:1H:2861:G:H1'	2.48	0.48
32:51:149:ARG:HG3	32:51:162:ILE:HG22	1.95	0.48
34:58:73:THR:HB	34:58:82:LEU:HD11	1.95	0.48
45:G8:53:PRO:O	45:G8:54:LYS:NZ	2.40	0.48
48:J8:25:LYS:NZ	48:J8:25:LYS:HB3	2.28	0.48
1:1G:316:G:OP2	1:1G:351:G:O2'	2.31	0.48
1:1G:433:C:H2'	1:1G:434:U:C6	2.49	0.48
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.95	0.48
1:1G:1362:C:H2'	1:1G:1362(A):C:H5"	1.96	0.48
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.13	0.48
2:12:208:ILE:HA	2:12:211:ILE:HD12	1.94	0.48
3:22:14:ILE:HG12	3:22:15:THR:N	2.29	0.48
6:52:25:ILE:HD13	6:52:82:ARG:CD	2.43	0.48
7:62:18:TYR:HB3	7:62:59:LEU:HD12	1.94	0.48
9:82:53:VAL:HG22	9:82:95:LYS:NZ	2.29	0.48
26:14:587:C:O2	36:35:33:ARG:NH1	2.47	0.48
26:14:821:A:O2'	26:14:946:G:OP2	2.21	0.48
26:14:1344:G:O2'	26:14:1385:G:H2'	2.13	0.48
26:14:1641:A:H5"	26:14:1642:G:OP2	2.12	0.48
26:14:2275:C:H6	26:14:2275:C:C5'	2.25	0.48
26:14:2286:A:H8	26:14:2287:A:N6	2.12	0.48
26:14:2318:G:H5'	26:14:2319:G:OP2	2.13	0.48
29:29:111:ARG:HB2	29:29:160:TYR:O	2.13	0.48
47:E5:21:LEU:HD11	47:E5:41:ARG:NH1	2.28	0.48
1:13:337:C:H2'	1:13:338:A:C8	2.48	0.48
1:13:1178:G:H5"	9:8E:93:ARG:NH2	2.28	0.48
13:4I:50:GLU:O	13:4I:54:VAL:HG23	2.13	0.48
26:1H:217:G:P	58:1H:4616:HOH:O	2.70	0.48
26:1H:243:U:OP2	55:Q8:8:LYS:NZ	2.38	0.48
26:1H:956:G:OP2	37:88:14:ARG:NH2	2.46	0.48
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.79	0.48
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.48	0.48
26:1H:1142(A):A:C4	26:1H:1144:G:N7	2.82	0.48
26:1H:2846:G:N7	58:1H:4680:HOH:O	2.34	0.48
28:11:118:VAL:HG22	28:11:119:ALA:H	1.79	0.48
30:31:34:TRP:CZ3	30:31:35:GLU:HG2	2.49	0.48
30:31:174:VAL:HG11	30:31:189:THR:HG21	1.96	0.48
32:51:86:GLU:H	32:51:86:GLU:CD	2.16	0.48
38:98:29:LEU:HD23	38:98:70:LEU:HD11	1.94	0.48
41:C8:52:ARG:HA	41:C8:55:ARG:HG3	1.96	0.48
46:H8:63:ASP:HB2	46:H8:65:GLN:HG3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M8:38:LYS:O	51:M8:39:CYS:HB3	2.12	0.48
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.12	0.48
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.14	0.48
5:42:39:GLY:HA2	5:42:71:LEU:HD12	1.95	0.48
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.47	0.48
17:8A:99:SER:C	17:8A:100:LYS:HZ3	2.16	0.48
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.13	0.48
26:14:38:A:H2'	26:14:39:C:C6	2.49	0.48
26:14:511:U:C5	26:14:512:G:C5	3.02	0.48
26:14:953:A:H2'	26:14:954:G:H8	1.77	0.48
26:14:1006:C:H5'	34:15:28:THR:HG23	1.95	0.48
26:14:1416:G:H21	26:14:1586:A:N6	2.12	0.48
26:14:2495:G:O3'	37:45:81:VAL:HG12	2.13	0.48
27:1J:41:U:C4	31:49:70:VAL:HG23	2.48	0.48
40:75:105:LEU:CD2	40:75:109:GLU:HG3	2.44	0.48
1:13:135:C:H2'	1:13:136:C:H5'	1.95	0.48
1:13:291:C:N4	1:13:309:G:H1	2.12	0.48
1:13:428:G:O4'	1:13:430:A:C8	2.67	0.48
1:13:992:U:O2'	1:13:993:G:OP2	2.29	0.48
1:13:1123:A:O2'	10:1I:37:PRO:O	2.24	0.48
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.14	0.48
1:13:1417:G:N2	1:13:1482:G:H2'	2.29	0.48
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.13	0.48
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.13	0.48
5:4E:13:ILE:HD12	5:4E:13:ILE:HA	1.74	0.48
5:4E:68:GLU:O	5:4E:68:GLU:HG3	2.13	0.48
15:6I:82:ILE:O	15:6I:86:GLY:N	2.44	0.48
24:3K:5:G:H1'	24:3K:69:G:N2	2.29	0.48
26:1H:86:C:H4'	26:1H:104:U:H1'	1.95	0.48
26:1H:668:G:H2'	26:1H:670:A:H62	1.78	0.48
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.79	0.48
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.13	0.48
26:1H:2109:U:O2'	26:1H:2181:G:N2	2.47	0.48
26:1H:2206:C:H2'	26:1H:2207:C:H6	1.77	0.48
26:1H:2864:G:H2'	26:1H:2865:U:H6	1.79	0.48
29:21:6:GLY:O	29:21:195:LEU:HD23	2.13	0.48
31:41:67:LYS:CE	51:M8:6:HIS:CE1	2.95	0.48
33:61:68:LEU:HA	33:61:71:ILE:HG22	1.96	0.48
41:C8:93:LYS:O	41:C8:96:ALA:HB2	2.13	0.48
45:G8:40:GLU:HG3	45:G8:40:GLU:O	2.13	0.48
51:M8:14:ILE:HA	51:M8:31:ILE:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:4:MET:HB2	55:Q8:59:LYS:HD2	1.95	0.48
1:1G:451:A:N6	1:1G:480:U:H2'	2.28	0.48
1:1G:617:G:C2	1:1G:618:C:C5	3.01	0.48
1:1G:622:A:C8	1:1G:623:C:C6	3.02	0.48
1:1G:675:A:N1	1:1G:716:A:H2	2.12	0.48
1:1G:737:A:H2'	1:1G:738:C:C6	2.47	0.48
1:1G:1072:G:C6	1:1G:1073:U:C4	3.01	0.48
1:1G:1114:C:H2'	1:1G:1115:C:H6	1.78	0.48
12:3A:27:LEU:HB3	12:3A:33:ARG:CG	2.44	0.48
12:3A:89:ARG:O	12:3A:99:HIS:HE1	1.96	0.48
26:14:307:G:N2	26:14:310:A:O5'	2.38	0.48
26:14:329:G:P	45:C5:71:LYS:HD3	2.54	0.48
26:14:943:U:OP2	36:35:36:LYS:HE3	2.13	0.48
26:14:955:C:OP1	37:45:85:LYS:NZ	2.47	0.48
26:14:996:A:C2	26:14:997:G:C8	3.02	0.48
26:14:1027:A:C2	26:14:2488:A:H5'	2.49	0.48
26:14:1069:A:H2'	26:14:1073:A:N7	2.29	0.48
26:14:2134:A:OP2	26:14:2157:G:N2	2.45	0.48
26:14:2537:U:H2'	26:14:2538:C:H6	1.75	0.48
26:14:2647:U:H2'	26:14:2648:C:C6	2.49	0.48
27:1J:31:C:C2'	27:1J:32:C:H5'	2.44	0.48
28:19:253:GLN:HB2	28:19:257:LEU:HD12	1.94	0.48
37:45:42:ILE:O	37:45:95:ALA:N	2.44	0.48
1:13:450:G:OP1	16:7I:43:LYS:NZ	2.47	0.48
1:13:872:A:C4	1:13:874:G:N7	2.82	0.48
1:13:1452:C:H4'	1:13:1453:G:O5'	2.13	0.48
2:1E:112:VAL:O	2:1E:115:LEU:N	2.47	0.48
10:1I:46:ARG:HB2	10:1I:46:ARG:NH1	2.29	0.48
23:2K:26:C:H2'	23:2K:27:G:O4'	2.14	0.48
26:1H:142:G:C1'	44:F8:37:THR:HG21	2.42	0.48
26:1H:1142(A):A:N3	26:1H:1144:G:C8	2.82	0.48
26:1H:1564:C:H2'	26:1H:1565:C:C6	2.49	0.48
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.13	0.48
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.14	0.48
26:1H:2347:C:H4'	53:O8:39:TYR:HE2	1.79	0.48
26:1H:2791:C:N3	26:1H:2807:G:N2	2.61	0.48
27:16:90:C:P	37:88:16:ARG:HH21	2.36	0.48
38:98:26:LYS:HE2	38:98:70:LEU:O	2.13	0.48
40:B8:16:ARG:HH21	40:B8:19:LEU:HD21	1.77	0.48
45:G8:68:HIS:O	45:G8:71:LYS:HB2	2.14	0.48
1:1G:468:A:O2'	16:7A:82:GLN:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:485:G:H1'	1:1G:486:U:H5	1.78	0.48
1:1G:625:G:C4	1:1G:626:U:C5	3.02	0.48
1:1G:742:G:H5'	15:6A:58:MET:HE1	1.96	0.48
1:1G:1052:U:H5"	1:1G:1053:G:OP2	2.14	0.48
1:1G:1305:G:H1	1:1G:1331:G:H2'	1.79	0.48
3:22:21:ARG:O	3:22:58:GLU:HA	2.13	0.48
7:62:87:VAL:HG22	7:62:88:PRO:O	2.14	0.48
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.13	0.48
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.48	0.48
23:2L:9:G:N3	23:2L:46:G:H2'	2.29	0.48
26:14:863:A:H2'	26:14:864:G:H8	1.78	0.48
26:14:1179:C:H2'	26:14:1180:C:C6	2.49	0.48
26:14:2563:U:H4'	35:25:28:SER:HA	1.96	0.48
28:19:124:PRO:HG2	28:19:129:ASN:HD21	1.78	0.48
34:15:39:ARG:NH1	34:15:41:ASP:HB2	2.29	0.48
36:35:52:GLU:O	36:35:54:GLY:N	2.36	0.48
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.29	0.48
1:13:501:C:H2'	1:13:502:G:H8	1.79	0.48
1:13:558:G:C4	1:13:559:A:C2	3.01	0.48
1:13:1027:C:H1'	1:13:1028:C:C5	2.49	0.48
1:13:1036:G:N7	1:13:1037:C:N4	2.61	0.48
7:6E:146:GLU:O	7:6E:149:ARG:HB2	2.13	0.48
26:1H:324:A:H2'	26:1H:325:G:H5'	1.95	0.48
26:1H:356:G:H2'	26:1H:357:A:H8	1.78	0.48
26:1H:484:C:H2'	26:1H:485:C:H6	1.79	0.48
26:1H:747:U:O2	26:1H:2014:A:H1'	2.13	0.48
26:1H:917:A:N6	27:16:80:U:H4'	2.29	0.48
26:1H:934:G:H2'	26:1H:935:C:H6	1.78	0.48
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.48	0.48
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.67	0.48
26:1H:2126:A:H2'	26:1H:2126:A:N3	2.28	0.48
26:1H:2309:A:C5	26:1H:2310:A:H8	2.32	0.48
26:1H:2402:C:OP1	26:1H:2402:C:H4'	2.12	0.48
27:16:15:A:H1'	27:16:109:G:N9	2.29	0.48
31:41:67:LYS:HE2	51:M8:6:HIS:HE1	1.75	0.48
33:61:2:LYS:NZ	33:61:20:ASP:HB3	2.29	0.48
42:D8:15:GLU:HG3	42:D8:16:PRO:HD2	1.96	0.48
46:H8:9:TYR:HE1	46:H8:28:MET:HE1	1.78	0.48
49:K8:15:LYS:HD3	49:K8:67:LYS:NZ	2.29	0.48
1:1G:32:A:C2	1:1G:33:A:C4	3.02	0.48
1:1G:509:A:C8	1:1G:509:A:H3'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:563:A:N6	58:1G:1833:HOH:O	2.45	0.48
1:1G:1129:C:N4	1:1G:1141:C:H42	2.04	0.48
1:1G:1151:A:HO2'	1:1G:1152:A:C5'	2.25	0.48
1:1G:1248:A:H2'	9:82:70:LYS:HZ1	1.78	0.48
3:22:18:TRP:HD1	14:5A:54:PRO:HA	1.77	0.48
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.78	0.48
7:62:45:ASP:HB3	7:62:117:ALA:HB1	1.95	0.48
24:3L:18:G:C2'	24:3L:57:G:H22	2.26	0.48
26:14:1534:G:O2'	26:14:1538:G:N2	2.45	0.48
26:14:2238:G:N7	58:14:3607:HOH:O	2.35	0.48
26:14:2608:G:H8	26:14:2608:G:O5'	1.96	0.48
26:14:2869:G:H2'	26:14:2870:C:O4'	2.12	0.48
30:39:181:LEU:CD2	30:39:186:ILE:HD11	2.43	0.48
32:59:30:LYS:HB3	32:59:79:VAL:O	2.14	0.48
42:95:85:LYS:HG3	42:95:87:HIS:HA	1.95	0.48
48:F5:67:ILE:N	48:F5:68:PRO:HD2	2.28	0.48
1:13:157:G:H1	1:13:164:U:H3	1.62	0.48
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.13	0.48
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.78	0.48
8:7E:104:ARG:HB2	8:7E:107:LEU:HB3	1.95	0.48
22:1K:44:G:H2'	22:1K:45:U:C5	2.49	0.48
24:3K:1:G:H3'	24:3K:2:C:H5"	1.96	0.48
26:1H:141:A:H8	26:1H:1595:G:H21	1.62	0.48
26:1H:1168:G:C2	26:1H:1182:A:C2	3.02	0.48
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.44	0.48
26:1H:2232:U:OP1	48:J8:40:ARG:NH1	2.45	0.48
28:11:44:ASN:OD1	28:11:46:GLN:HG3	2.14	0.48
30:31:135:LYS:HB3	30:31:138:GLU:HG3	1.96	0.48
31:41:16:ARG:O	31:41:20:ILE:HG12	2.14	0.48
38:98:117:VAL:O	38:98:118:GLU:HB2	2.12	0.48
46:H8:44:PHE:HE2	46:H8:86:VAL:HG11	1.78	0.48
1:1G:583:A:H2'	1:1G:584:G:O4'	2.13	0.48
6:52:30:LEU:HD23	6:52:75:LEU:HD11	1.95	0.48
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	1.95	0.48
26:14:841:A:H2'	26:14:842:G:C8	2.49	0.48
26:14:925:C:H2'	26:14:926:A:H8	1.78	0.48
26:14:940:G:N3	26:14:1191:G:H4'	2.29	0.48
26:14:1142:U:O2	26:14:1142:U:H2'	2.13	0.48
26:14:2211:G:O2'	26:14:2212:A:OP1	2.32	0.48
27:1J:94:C:H2'	27:1J:95:U:C6	2.49	0.48
42:95:22:VAL:HG22	42:95:23:GLU:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:57:G:H2'	1:13:58:C:C6	2.49	0.48
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.13	0.48
1:13:1117:G:O3'	9:8E:104:ARG:HD3	2.13	0.48
1:13:1216:G:H5"	14:5I:5:ALA:HB2	1.96	0.48
3:2E:71:ALA:HB2	3:2E:109:PRO:HB3	1.96	0.48
4:3E:57:ARG:HE	4:3E:205:GLU:HB3	1.78	0.48
7:6E:31:MET:SD	7:6E:36:LYS:HG2	2.54	0.48
13:4I:27:LYS:HA	13:4I:31:LYS:HZ2	1.79	0.48
15:6I:26:GLU:OE2	15:6I:77:ARG:NH1	2.45	0.48
20:BI:35:THR:O	20:BI:38:LYS:HB2	2.13	0.48
22:1K:3:C:H6	22:1K:3:C:O5'	1.97	0.48
26:1H:396:G:O3'	48:J8:44:PRO:HA	2.14	0.48
26:1H:1215:G:C5	26:1H:1216:G:C8	3.02	0.48
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.14	0.48
29:21:25:VAL:HB	29:21:183:LEU:HD12	1.96	0.48
31:41:33:ARG:HB2	31:41:162:THR:HG21	1.96	0.48
31:41:96:ARG:O	31:41:97:ASP:HB2	2.14	0.48
38:98:45:ARG:HB3	38:98:46:GLY:H	1.57	0.48
44:F8:34:ALA:O	44:F8:77:LYS:NZ	2.47	0.48
47:I8:63:VAL:HG23	47:I8:64:ASP:O	2.14	0.48
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.47	0.48
52:N8:50:GLY:N	52:N8:56:LYS:HG3	2.28	0.48
55:Q8:6:THR:H	55:Q8:59:LYS:CE	2.24	0.48
55:Q8:46:ARG:NH1	55:Q8:46:ARG:HB2	2.29	0.48
1:1G:868:C:H2'	1:1G:869:G:O4'	2.13	0.48
1:1G:1065:U:H6	1:1G:1190:G:H21	1.62	0.48
1:1G:1295:G:H21	1:1G:1302:U:H3	1.61	0.48
1:1G:1312:G:N2	1:1G:1325:C:O2	2.40	0.48
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.29	0.48
1:1G:1448:C:H2'	1:1G:1449:C:O4'	2.13	0.48
10:1A:96:ILE:HD11	10:1A:98:ILE:HG12	1.96	0.48
19:AA:11:VAL:HB	19:AA:12:ASP:OD1	2.14	0.48
21:1B:25:LYS:HE3	21:1B:26:LYS:HG2	1.95	0.48
22:1L:10:G:O2'	22:1L:11:C:OP1	2.29	0.48
23:2L:44:A:H2'	23:2L:45:A:C8	2.49	0.48
24:3L:56:C:H3'	24:3L:57:G:H8	1.78	0.48
26:14:175:G:C2'	26:14:176:G:H5'	2.43	0.48
26:14:2114:A:N6	26:14:2119:A:H62	2.12	0.48
26:14:2291:U:O2'	26:14:2374:C:O2	2.29	0.48
28:19:239:ARG:HB2	28:19:240:ALA:H	1.44	0.48
29:29:4:ILE:HD12	29:29:198:VAL:HB	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:7:LEU:HB2	31:49:104:GLU:OE1	2.14	0.48
31:49:173:LEU:HD22	31:49:178:PHE:CE1	2.49	0.48
45:C5:81:LYS:HB2	45:C5:99:CYS:SG	2.54	0.48
45:C5:82:PRO:HB3	45:C5:97:ARG:HB3	1.96	0.48
50:H5:23:LEU:HD23	50:H5:28:LEU:HB2	1.96	0.48
1:13:22:G:H2'	1:13:23:C:C6	2.49	0.47
1:13:112:G:H2'	1:13:113:G:H5'	1.96	0.47
1:13:977:A:O2'	1:13:979:C:OP2	2.28	0.47
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.47	0.47
2:1E:157:ARG:HB3	2:1E:157:ARG:NH1	2.28	0.47
6:5E:7:ASN:ND2	6:5E:62:TRP:HD1	2.12	0.47
7:6E:40:ALA:HB1	7:6E:44:TYR:CD2	2.49	0.47
26:1H:455:C:N3	26:1H:473:G:H5'	2.29	0.47
26:1H:567:A:N6	58:1H:4551:HOH:O	2.46	0.47
26:1H:706:A:OP1	28:11:7:LYS:HE3	2.14	0.47
26:1H:900:A:H5'	26:1H:901:A:OP2	2.14	0.47
26:1H:1006:C:O2	34:58:106:MET:HG2	2.14	0.47
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.97	0.47
26:1H:1219:G:OP2	41:C8:19:LYS:NZ	2.39	0.47
26:1H:1230:C:H2'	26:1H:1231:G:H8	1.77	0.47
26:1H:1300:U:H3'	58:1H:3608:HOH:O	2.14	0.47
26:1H:1533:C:C3'	26:1H:1534:G:H5"	2.44	0.47
26:1H:1900:A:N1	26:1H:1970:A:C6	2.82	0.47
26:1H:2114:A:H5"	26:1H:2117:A:OP2	2.14	0.47
26:1H:2378:A:H4'	39:A8:23:ARG:NH1	2.29	0.47
26:1H:2392:A:N1	26:1H:2424:C:N3	2.61	0.47
28:11:38:LYS:HE2	28:11:39:LYS:O	2.14	0.47
32:51:43:VAL:HB	32:51:52:VAL:HG22	1.96	0.47
37:88:17:LEU:HD23	37:88:17:LEU:HA	1.53	0.47
38:98:45:ARG:HD2	38:98:97:VAL:HG21	1.95	0.47
1:1G:464:G:C6	1:1G:466:C:H5'	2.48	0.47
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.78	0.47
2:12:23:ARG:C	2:12:23:ARG:HD3	2.34	0.47
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.95	0.47
5:42:6:PHE:HD1	5:42:36:ASP:HB3	1.79	0.47
5:42:109:ILE:HG22	5:42:110:LEU:HD23	1.96	0.47
7:62:72:ARG:NH2	7:62:96:GLN:OE1	2.46	0.47
15:6A:75:PRO:HB2	15:6A:79:ARG:HH12	1.79	0.47
17:8A:86:GLU:O	17:8A:90:ILE:HG12	2.13	0.47
20:BA:81:LYS:O	20:BA:85:MET:HG2	2.14	0.47
22:1L:51:U:H2'	22:1L:52:G:H8	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:73:A:O2'	22:1L:75:C:OP2	2.32	0.47
26:14:244:A:C2	26:14:255:A:C4	3.02	0.47
26:14:775:G:C4	26:14:794:G:C8	3.02	0.47
26:14:1138:G:H21	34:15:106:MET:HE3	1.79	0.47
26:14:2165:G:C2'	26:14:2166:G:H5'	2.44	0.47
26:14:2187:G:C5	26:14:2188:C:C4	3.02	0.47
26:14:2520:C:H41	26:14:2542:A:H62	1.61	0.47
26:14:2850:A:C2	26:14:2851:A:C4	3.01	0.47
31:49:107:LEU:HD21	31:49:178:PHE:CE2	2.49	0.47
37:45:26:TYR:O	37:45:26:TYR:HD1	1.96	0.47
39:65:62:LYS:O	39:65:66:ALA:N	2.42	0.47
45:C5:33:LYS:HE2	45:C5:34:LYS:HG3	1.96	0.47
1:13:166:G:H2'	1:13:167:G:C8	2.48	0.47
1:13:1052:U:O2'	1:13:1055:A:OP2	2.31	0.47
4:3E:104:VAL:O	4:3E:107:ARG:N	2.47	0.47
13:4I:57:ARG:HB2	13:4I:57:ARG:HH11	1.79	0.47
15:6I:87:ILE:HG22	15:6I:88:ARG:N	2.29	0.47
16:7I:18:ARG:NH1	16:7I:32:TYR:OH	2.47	0.47
26:1H:557:U:H2'	26:1H:558:G:C8	2.49	0.47
26:1H:1077:A:H5'	26:1H:1078:U:OP2	2.13	0.47
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.49	0.47
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.14	0.47
26:1H:1568:G:N3	28:11:58:HIS:HE1	2.12	0.47
26:1H:2346:A:O2'	53:O8:24:GLU:OE2	2.31	0.47
31:41:94:LEU:HD23	31:41:94:LEU:N	2.28	0.47
32:51:46:GLU:CD	32:51:51:ARG:HH22	2.18	0.47
35:68:104:ARG:HD3	40:B8:36:GLU:HG2	1.94	0.47
1:1G:446:G:H2'	1:1G:447:G:O4'	2.14	0.47
1:1G:922:G:H4'	5:42:20:GLN:HA	1.96	0.47
7:62:69:VAL:HG13	7:62:134:ALA:O	2.13	0.47
24:3L:51:U:H2'	24:3L:52:G:C8	2.49	0.47
26:14:355:G:H2'	26:14:356:G:C8	2.49	0.47
26:14:478:A:N1	26:14:500:G:H4'	2.28	0.47
26:14:1607:C:H4'	26:14:1608:A:O5'	2.13	0.47
26:14:1665:A:C4'	35:25:67:LYS:HB2	2.44	0.47
26:14:1778:U:P	58:14:3630:HOH:O	2.71	0.47
26:14:2134:A:H62	26:14:2157:G:C1'	2.26	0.47
26:14:2134:A:C2	26:14:2159:G:H1'	2.49	0.47
26:14:2776:A:H4'	26:14:2777:G:O5'	2.14	0.47
26:14:2854:G:C2	26:14:2864:G:C2	3.01	0.47
27:1J:39:A:N1	51:I5:1:MET:N	2.56	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:61:ARG:HA	33:69:64:GLU:HB2	1.96	0.47
1:13:10:A:O2'	1:13:11:G:H5'	2.14	0.47
1:13:626:U:H5"	16:7I:38:TYR:CD2	2.49	0.47
1:13:1323:G:H4'	1:13:1362(A):C:N3	2.29	0.47
1:13:1339:A:H2'	1:13:1340:A:O4'	2.15	0.47
1:13:1442:G:C6	1:13:1446:A:N6	2.82	0.47
26:1H:197:A:N6	26:1H:2430:A:H2'	2.27	0.47
26:1H:528:A:N1	26:1H:2042:A:H2'	2.29	0.47
26:1H:1111:A:H5'	32:51:3:ARG:HD2	1.96	0.47
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.13	0.47
26:1H:2032:G:N2	29:21:146:THR:HG23	2.29	0.47
27:16:16:G:N2	27:16:69:G:H1'	2.29	0.47
28:11:112:GLN:H	28:11:115:GLN:HG3	1.79	0.47
30:31:114:VAL:HG21	30:31:202:PHE:CZ	2.50	0.47
32:51:30:LYS:HE3	32:51:81:GLU:N	2.22	0.47
33:61:29:TYR:O	33:61:32:PRO:HD2	2.13	0.47
42:D8:10:LYS:NZ	42:D8:23:GLU:OE1	2.47	0.47
55:Q8:56:GLU:HA	55:Q8:58:ILE:HG22	1.95	0.47
1:1G:229:U:H2'	1:1G:230:G:C8	2.49	0.47
1:1G:447:G:O6	1:1G:485:G:H2'	2.14	0.47
1:1G:673:G:H5"	6:52:87:ARG:NH1	2.29	0.47
1:1G:1198:G:H2'	1:1G:1199:U:H6	1.80	0.47
5:42:72:GLN:O	5:42:75:THR:HG22	2.14	0.47
9:82:111:ARG:HG2	9:82:112:LYS:H	1.79	0.47
19:AA:51:VAL:HG12	19:AA:52:TYR:H	1.79	0.47
20:BA:51:GLU:HA	20:BA:54:LYS:HB3	1.96	0.47
26:14:20:C:OP1	41:85:22:LYS:NZ	2.33	0.47
26:14:1658:C:H2'	26:14:1659:U:C6	2.49	0.47
26:14:2012:G:OP1	43:A5:11:ARG:NH2	2.44	0.47
26:14:2503:A:OP1	58:14:3571:HOH:O	2.19	0.47
26:14:2712:U:OP1	26:14:2714:G:H4'	2.14	0.47
27:1J:56:G:H4'	27:1J:57:A:C8	2.49	0.47
27:1J:100:G:O5'	58:1J:309:HOH:O	2.20	0.47
28:19:273:ARG:O	28:19:273:ARG:HG2	2.15	0.47
29:29:89:ASP:CG	29:29:90:THR:H	2.18	0.47
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.78	0.47
1:13:380:G:N2	1:13:384:G:C5	2.83	0.47
1:13:791:G:C6	1:13:792:A:C2	3.02	0.47
2:1E:87:ARG:NH2	2:1E:233:SER:HB2	2.30	0.47
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.46	0.47
26:1H:1188:U:C4'	42:D8:79:VAL:HG22	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1203:G:H5'	36:78:3:LEU:HD13	1.96	0.47
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.14	0.47
26:1H:2311:A:H1'	31:41:88:ILE:HD13	1.95	0.47
26:1H:2452:C:OP1	58:1H:4436:HOH:O	2.20	0.47
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.49	0.47
27:16:40:U:H5	51:M8:2:LYS:HE2	1.79	0.47
29:21:45:THR:O	29:21:83:ASP:N	2.48	0.47
31:41:77:ILE:O	31:41:81:LYS:O	2.32	0.47
31:41:84:LYS:HG3	31:41:84:LYS:O	2.14	0.47
32:51:3:ARG:CZ	32:51:3:ARG:HA	2.44	0.47
32:51:37:VAL:HG22	32:51:68:THR:HG22	1.96	0.47
32:51:83:TYR:CD2	32:51:134:SER:HA	2.50	0.47
34:58:41:ASP:O	41:C8:64:ARG:NH2	2.47	0.47
34:58:99:LEU:O	34:58:103:VAL:HG23	2.14	0.47
35:68:120:GLU:HG2	35:68:122:LEU:HG	1.95	0.47
41:C8:47:TYR:CD1	41:C8:47:TYR:C	2.88	0.47
54:P8:37:LYS:HG3	54:P8:37:LYS:O	2.14	0.47
55:Q8:24:ALA:O	55:Q8:46:ARG:HG2	2.14	0.47
55:Q8:34:TRP:HB2	55:Q8:35:GLN:HA	1.95	0.47
1:1G:251:G:H4'	1:1G:252:U:O5'	2.14	0.47
1:1G:1454:G:OP1	20:BA:39:LYS:NZ	2.38	0.47
2:12:6:THR:OG1	2:12:7:VAL:N	2.47	0.47
6:52:35:ALA:HA	6:52:67:MET:HB3	1.95	0.47
7:62:101:LEU:O	7:62:105:VAL:HG23	2.14	0.47
11:2A:87:THR:O	11:2A:87:THR:OG1	2.26	0.47
13:4A:57:ARG:O	13:4A:61:GLU:HB2	2.14	0.47
26:14:460:A:H5"	26:14:461:C:OP2	2.15	0.47
26:14:603:A:H8	26:14:604:G:H1'	1.79	0.47
26:14:1016:G:H2'	26:14:1017:G:O4'	2.15	0.47
26:14:1252:G:O4'	41:85:33:ARG:HD3	2.15	0.47
26:14:1439:A:C2	26:14:1553:A:C4	3.02	0.47
26:14:1774:C:O5'	26:14:1774:C:H6	1.97	0.47
26:14:2002:G:O6	58:14:3797:HOH:O	2.20	0.47
26:14:2259:G:C2	26:14:2282:G:N1	2.83	0.47
29:29:25:VAL:O	29:29:26:ILE:HG12	2.14	0.47
29:29:33:VAL:HG23	29:29:47:VAL:HG13	1.95	0.47
37:45:20:ALA:HA	37:45:99:PRO:HG2	1.96	0.47
42:95:62:LEU:HD21	42:95:95:LEU:HB2	1.97	0.47
49:G5:5:GLU:CD	49:G5:5:GLU:H	2.18	0.47
54:L5:29:LYS:HA	54:L5:32:LYS:HB2	1.95	0.47
1:13:15:G:OP1	1:13:1396:A:O2'	2.24	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:807:A:H2'	1:13:808:C:C6	2.50	0.47
1:13:1156:G:H2'	1:13:1157:A:H5"	1.96	0.47
1:13:1504:G:H3'	1:13:1504:G:P	2.54	0.47
3:2E:191:THR:HG21	3:2E:193:TYR:CZ	2.50	0.47
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.96	0.47
9:8E:25:LYS:HZ1	9:8E:32:ASP:HA	1.80	0.47
11:2I:34:ASP:OD2	11:2I:38:ASN:HB2	2.15	0.47
12:3I:47:LYS:HA	12:3I:49:ASN:N	2.29	0.47
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.95	0.47
26:1H:207:A:H2'	26:1H:208:C:O4'	2.14	0.47
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.14	0.47
26:1H:296:C:H2'	26:1H:297:C:C6	2.50	0.47
26:1H:589:C:H2'	26:1H:590:A:H8	1.79	0.47
26:1H:805:G:P	36:78:41:ARG:HG2	2.54	0.47
26:1H:861:A:H5"	58:1H:3993:HOH:O	2.13	0.47
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.13	0.47
26:1H:1215:G:C4	26:1H:1216:G:C8	3.02	0.47
26:1H:1324:G:C4	26:1H:1328:G:O6	2.67	0.47
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.14	0.47
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.13	0.47
26:1H:1665:A:N7	58:1H:4084:HOH:O	2.35	0.47
26:1H:1811:G:H2'	26:1H:1812:A:O4'	2.13	0.47
26:1H:2284:C:C2'	26:1H:2285:C:H5'	2.45	0.47
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.49	0.47
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.15	0.47
27:16:54:G:H2'	27:16:55:U:H6	1.78	0.47
28:11:140:THR:HG22	28:11:141:VAL:O	2.15	0.47
35:68:8:LEU:HB2	35:68:19:ILE:HG13	1.96	0.47
36:78:18:ARG:C	36:78:19:VAL:HG22	2.34	0.47
44:F8:3:THR:CB	44:F8:4:ALA:HA	2.43	0.47
45:G8:54:LYS:O	45:G8:55:TYR:CG	2.67	0.47
1:1G:438:G:C4'	4:32:123:HIS:HD2	2.27	0.47
1:1G:537:G:H2'	1:1G:538:G:C8	2.50	0.47
1:1G:1013:G:N2	1:1G:1017:G:O6	2.46	0.47
1:1G:1099:G:OP1	2:12:148:TYR:OH	2.32	0.47
1:1G:1188:A:O3'	14:5A:58:LYS:HE3	2.15	0.47
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.50	0.47
2:12:54:THR:HG23	2:12:199:TYR:HB3	1.97	0.47
5:42:18:ARG:HH21	5:42:25:ARG:HB3	1.79	0.47
26:14:297:C:O2	26:14:341:G:N2	2.42	0.47
26:14:579:G:H2'	26:14:580:C:H6	1.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:581:C:H2'	26:14:582:G:C8	2.46	0.47
26:14:698:C:O2'	26:14:734:A:N6	2.47	0.47
26:14:1971:A:H5"	58:14:3452:HOH:O	2.12	0.47
26:14:2154:G:H2'	26:14:2155:G:O4'	2.13	0.47
26:14:2311:A:C8	31:49:88:ILE:HG12	2.49	0.47
26:14:2342:C:O2'	26:14:2374:C:H5"	2.15	0.47
26:14:2883:A:H5'	26:14:2884:U:H5'	1.94	0.47
27:1J:99:A:C4	27:1J:100:G:C8	3.03	0.47
50:H5:35:ARG:HB3	50:H5:37:LEU:HD21	1.96	0.47
1:13:127:G:O2'	17:8I:2:PRO:O	2.33	0.47
1:13:196:A:O2'	1:13:221:C:O2'	2.29	0.47
1:13:618:C:H5"	1:13:619:U:H5"	1.96	0.47
1:13:1084:G:C5	1:13:1085:U:C4	3.02	0.47
5:4E:76:ILE:HG13	5:4E:93:PRO:HB3	1.96	0.47
26:1H:813:U:H2'	26:1H:814:C:C6	2.49	0.47
26:1H:1171:G:N2	26:1H:1179:C:N3	2.62	0.47
26:1H:1647:G:H3'	26:1H:1647:G:OP2	2.13	0.47
26:1H:2081:C:H2'	26:1H:2082:A:C8	2.50	0.47
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.49	0.47
26:1H:2815:C:H2'	26:1H:2816:C:C6	2.49	0.47
27:16:29:A:OP2	39:A8:31:SER:HB2	2.15	0.47
32:51:94:TYR:HA	32:51:106:THR:O	2.14	0.47
33:61:46:ALA:O	33:61:50:ARG:N	2.42	0.47
41:C8:88:ILE:O	41:C8:90:VAL:N	2.47	0.47
43:E8:38:TYR:CE2	52:N8:41:PRO:HD3	2.48	0.47
1:1G:192:U:H2'	1:1G:193:C:C6	2.41	0.47
1:1G:918:A:H2'	1:1G:919:A:O4'	2.15	0.47
1:1G:1279:A:H61	3:22:26:LYS:HZ1	1.61	0.47
2:12:144:ARG:HG3	2:12:145:LEU:N	2.28	0.47
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.14	0.47
6:52:100:ASN:ND2	18:9A:23:LYS:O	2.45	0.47
11:2A:120:ARG:HA	11:2A:121:PRO:HD3	1.67	0.47
13:4A:23:TYR:HE1	13:4A:70:LEU:HD12	1.79	0.47
17:8A:79:SER:OG	17:8A:80:GLY:N	2.47	0.47
22:1L:46:G:H2'	22:1L:48:C:H1'	1.96	0.47
26:14:93:C:H5'	26:14:94:G:OP2	2.15	0.47
26:14:996:A:N3	26:14:997:G:C8	2.82	0.47
26:14:1450:C:H2'	26:14:1451:C:C6	2.50	0.47
26:14:2025:C:N4	58:14:3606:HOH:O	2.47	0.47
26:14:2208:U:H2'	26:14:2209:C:C6	2.49	0.47
26:14:2447:G:O2'	58:14:4050:HOH:O	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2702:U:HO2'	26:14:2703:C:H5	1.55	0.47
32:59:22:GLY:O	32:59:37:VAL:HG12	2.14	0.47
33:69:135:GLU:CD	33:69:135:GLU:H	2.17	0.47
47:E5:48:GLY:HA3	47:E5:80:HIS:CE1	2.48	0.47
1:13:254:G:OP1	17:8I:68:ARG:HB3	2.15	0.47
1:13:339:C:H2'	1:13:340:U:H6	1.80	0.47
1:13:648:A:H2'	1:13:649:G:H8	1.80	0.47
1:13:945:G:C2	1:13:946:A:C8	3.02	0.47
1:13:1218:C:H2'	1:13:1219:U:C6	2.50	0.47
1:13:1347:G:OP2	9:8E:107:ARG:HG2	2.14	0.47
1:13:1360:A:O2'	1:13:1361:G:H5'	2.14	0.47
1:13:1360:A:H2'	1:13:1361:G:C8	2.50	0.47
1:13:1389:C:H2'	1:13:1390:U:O4'	2.15	0.47
2:1E:7:VAL:HB	2:1E:217:ARG:HH11	1.79	0.47
2:1E:74:LYS:NZ	2:1E:205:ASP:O	2.47	0.47
3:2E:134:ILE:HG22	3:2E:168:ALA:HB3	1.97	0.47
4:3E:147:ALA:HB2	4:3E:182:LYS:HB3	1.97	0.47
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.79	0.47
9:8E:86:VAL:O	9:8E:90:PRO:HB3	2.15	0.47
11:2I:18:ARG:O	11:2I:33:THR:N	2.45	0.47
19:AI:40:ILE:HA	19:AI:44:MET:SD	2.54	0.47
19:AI:68:GLY:HA3	51:M8:59:PHE:CZ	2.49	0.47
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.12	0.47
20:BI:34:LYS:O	20:BI:38:LYS:HG3	2.14	0.47
26:1H:66:C:H2'	26:1H:67:U:H6	1.79	0.47
26:1H:460:A:H5"	26:1H:461:C:OP2	2.14	0.47
26:1H:1163:G:C2	26:1H:1164:G:N7	2.83	0.47
26:1H:1250:G:OP2	36:78:21:ARG:NH1	2.46	0.47
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.14	0.47
26:1H:1523:U:C2	26:1H:1524:G:C8	3.02	0.47
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.49	0.47
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.78	0.47
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.49	0.47
26:1H:2680:C:H5'	29:21:189:PRO:HA	1.97	0.47
28:11:3:VAL:HG12	28:11:17:THR:HG23	1.97	0.47
28:11:67:PHE:HB3	28:11:153:ALA:H	1.80	0.47
31:41:104:GLU:CD	51:M8:23:GLU:HG3	2.34	0.47
32:51:77:LYS:HE2	32:51:138:LYS:HD2	1.96	0.47
34:58:96:GLU:C	34:58:98:VAL:N	2.66	0.47
35:68:112:MET:HA	35:68:115:VAL:HG22	1.97	0.47
40:B8:3:ARG:O	40:B8:6:LEU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:16:ARG:HH21	40:B8:19:LEU:CD2	2.28	0.47
44:F8:55:ASN:HB2	44:F8:80:ILE:HG13	1.96	0.47
47:I8:54:GLY:O	47:I8:57:PHE:N	2.44	0.47
53:O8:30:THR:HA	53:O8:31:PRO:C	2.35	0.47
55:Q8:28:GLY:N	55:Q8:29:LYS:HB3	2.29	0.47
1:1G:4:U:O4	8:72:105:ARG:HD3	2.15	0.47
1:1G:186(C):G:C6	1:1G:186(D):C:C4	3.03	0.47
1:1G:390:C:O3'	16:7A:28:ARG:NH2	2.45	0.47
1:1G:630:G:H3'	1:1G:631:G:H8	1.80	0.47
1:1G:685:G:N1	1:1G:686:U:O4	2.47	0.47
1:1G:954:G:H21	1:1G:1227:A:N6	2.10	0.47
1:1G:957:U:H2'	1:1G:959:A:OP2	2.15	0.47
1:1G:1123:A:O2'	10:1A:37:PRO:O	2.15	0.47
1:1G:1127:G:N2	1:1G:1144:G:H22	2.13	0.47
1:1G:1320:C:OP1	19:AA:70:LYS:HE3	2.14	0.47
2:12:21:ARG:HA	2:12:39:ILE:HA	1.95	0.47
3:22:9:GLY:HA3	14:5A:49:HIS:HA	1.95	0.47
4:32:105:VAL:HG12	4:32:117:ALA:HB1	1.95	0.47
4:32:173:TRP:O	4:32:174:LEU:HD23	2.15	0.47
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.69	0.47
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.47	0.47
19:AA:66:MET:SD	19:AA:66:MET:N	2.88	0.47
24:3L:70:G:H2'	24:3L:71:G:O4'	2.14	0.47
26:14:116:C:H2'	26:14:117:G:O4'	2.13	0.47
26:14:235:U:H2'	26:14:236:C:C6	2.49	0.47
26:14:609(A):G:H2'	26:14:610:C:C6	2.50	0.47
26:14:654(A):A:H2'	26:14:654(B):C:C6	2.50	0.47
26:14:839:U:H3	26:14:939:G:H1	1.63	0.47
26:14:1000:A:C6	26:14:1001:A:N1	2.83	0.47
26:14:2266:A:H5'	26:14:2267:A:C5	2.49	0.47
26:14:2495:G:H2'	26:14:2496:C:H6	1.80	0.47
26:14:2555:U:C5	26:14:2556:C:C2	3.03	0.47
26:14:2586:C:C2'	26:14:2587:A:H5'	2.44	0.47
26:14:2611:U:H6	26:14:2611:U:H5'	1.79	0.47
27:1J:88:C:P	27:1J:88:C:H6	2.38	0.47
28:19:16:MET:CE	28:19:208:LYS:HG2	2.44	0.47
28:19:34:VAL:HG11	28:19:61:LEU:HG	1.95	0.47
29:29:62:PRO:O	29:29:64:LYS:N	2.46	0.47
30:39:29:ASN:HA	30:39:30:PRO:HD3	1.67	0.47
30:39:65:TRP:CZ3	30:39:72:ARG:HB3	2.50	0.47
30:39:132:VAL:HG13	30:39:133:ASN:ND2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:36:GLY:H	34:15:42:TRP:HZ3	1.62	0.47
36:35:93:GLY:H	36:35:123:LEU:HD12	1.80	0.47
36:35:144:GLU:CD	36:35:144:GLU:N	2.68	0.47
38:55:104:ARG:HB2	38:55:107:ASP:OD1	2.15	0.47
46:D5:30:ASN:ND2	46:D5:90:VAL:HB	2.28	0.47
1:13:490:G:H2'	1:13:491:G:H8	1.79	0.47
1:13:631:G:C8	1:13:632:A:C2	3.03	0.47
1:13:834:C:C2	1:13:853:G:C2	3.02	0.47
1:13:872:A:C5	1:13:874:G:C8	3.03	0.47
1:13:1057:G:H2'	1:13:1058:G:O4'	2.15	0.47
1:13:1276:G:N3	1:13:1282:C:O2'	2.42	0.47
2:1E:11:LEU:HD12	2:1E:217:ARG:HH12	1.80	0.47
2:1E:195:ASP:O	8:7E:74:PRO:HG3	2.15	0.47
3:2E:6:HIS:HB2	14:5I:49:HIS:ND1	2.29	0.47
5:4E:10:MET:HG3	5:4E:10:MET:O	2.15	0.47
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.95	0.47
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.63	0.47
11:2I:87:THR:HG22	11:2I:88:GLY:H	1.79	0.47
12:3I:49:ASN:ND2	12:3I:92:ASP:OD2	2.34	0.47
19:AI:44:MET:O	19:AI:47:HIS:HB2	2.15	0.47
26:1H:108:U:C2	26:1H:109:G:C8	3.03	0.47
26:1H:1024:G:C3'	26:1H:1025:G:H5"	2.43	0.47
26:1H:1144:G:C4	26:1H:1145:C:C5	3.02	0.47
26:1H:2152:G:H2'	26:1H:2153:G:O4'	2.14	0.47
26:1H:2264:C:N4	47:I8:15:ASP:OD2	2.45	0.47
26:1H:2592:G:C6	26:1H:2593:U:C4	3.03	0.47
26:1H:2612:C:C5	26:1H:2613:U:H5	2.33	0.47
31:41:47:LYS:HD3	31:41:81:LYS:HB3	1.97	0.47
32:51:4:ILE:HG13	32:51:6:ARG:CZ	2.45	0.47
33:61:131:LYS:HB3	33:61:132:PRO:CA	2.43	0.47
38:98:94:TYR:O	38:98:117:VAL:HB	2.14	0.47
44:F8:5:TYR:CE1	49:K8:30:ARG:HD2	2.50	0.47
55:Q8:14:VAL:O	55:Q8:15:LYS:HD3	2.14	0.47
55:Q8:49:VAL:HA	55:Q8:52:LYS:HG2	1.97	0.47
1:1G:446:G:H1	1:1G:488:C:H42	1.63	0.47
1:1G:763:G:H2'	1:1G:764:C:H6	1.80	0.47
1:1G:1287:A:N3	1:1G:1353:G:O2'	2.38	0.47
1:1G:1503:A:H1'	25:4L:13:A:H61	1.79	0.47
4:32:117:ALA:O	4:32:121:VAL:HG23	2.14	0.47
7:62:60:LYS:HD2	7:62:60:LYS:HA	1.65	0.47
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:912:C:C2	26:14:913:U:C5	3.03	0.47
26:14:1006:C:H1'	34:15:106:MET:HE3	1.96	0.47
26:14:1970:A:OP2	58:14:3459:HOH:O	2.20	0.47
26:14:2114:A:H61	26:14:2170:A:N6	2.13	0.47
26:14:2300:G:C2	26:14:2301:C:N3	2.82	0.47
26:14:2328:A:H2'	26:14:2329:G:C8	2.50	0.47
26:14:2702:U:O2'	26:14:2703:C:H5	1.97	0.47
26:14:2774:C:H2'	26:14:2775:A:O4'	2.14	0.47
29:29:60:ASN:C	29:29:62:PRO:HD3	2.36	0.47
32:59:46:GLU:OE2	32:59:51:ARG:NH1	2.47	0.47
33:69:129:THR:HA	33:69:137:PRO:HA	1.97	0.47
36:35:63:PRO:CA	55:M5:13:ARG:HG2	2.45	0.47
36:35:65:ARG:HE	55:M5:15:LYS:HB3	1.79	0.47
37:45:117:ALA:HA	37:45:120:ILE:HB	1.96	0.47
43:A5:73:ALA:H	43:A5:106:ILE:HG12	1.78	0.47
45:C5:87:LYS:HB2	45:C5:96:ILE:HD11	1.96	0.47
51:I5:20:ASN:HB3	51:I5:39:CYS:SG	2.55	0.47
1:13:390:C:H2'	1:13:391:G:C8	2.50	0.47
1:13:975:A:H5'	1:13:975:A:C8	2.49	0.47
1:13:1376:U:H2'	1:13:1377:A:C8	2.49	0.47
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	1.97	0.47
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.47	0.47
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.80	0.47
10:1I:6:ILE:HG22	10:1I:98:ILE:CG1	2.44	0.47
26:1H:562:U:O4	26:1H:2036:C:H1'	2.15	0.47
26:1H:1144:G:H2'	26:1H:1145:C:H6	1.79	0.47
26:1H:1386:C:OP2	26:1H:1396:U:H5	1.98	0.47
26:1H:1973:G:H2'	26:1H:1974:C:H6	1.80	0.47
26:1H:2081:C:H2'	26:1H:2082:A:H8	1.79	0.47
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.38	0.47
26:1H:2309:A:C6	26:1H:2310:A:C8	3.03	0.47
26:1H:2846:G:H2'	26:1H:2847:U:O4'	2.14	0.47
27:16:116:G:H5"	39:A8:55:ALA:HB2	1.96	0.47
37:88:32:TYR:CZ	37:88:111:GLU:HG3	2.50	0.47
39:A8:47:THR:HG22	39:A8:48:LEU:H	1.78	0.47
40:B8:60:THR:HG22	40:B8:77:PRO:HA	1.96	0.47
42:D8:21:ARG:HG2	42:D8:91:TYR:CE2	2.50	0.47
45:G8:35:TYR:CE2	45:G8:69:ALA:HB3	2.49	0.47
46:H8:116:VAL:H	46:H8:174:VAL:HG13	1.80	0.47
46:H8:133:ILE:HA	46:H8:134:PRO:HD2	1.76	0.47
49:K8:47:ASN:HB2	49:K8:50:ILE:HD11	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:23:VAL:O	55:Q8:46:ARG:HG3	2.15	0.47
1:1G:577:G:C8	1:1G:816:A:C6	3.02	0.47
1:1G:691:G:N7	11:2A:26:ASN:HB3	2.30	0.47
1:1G:1154:G:N3	1:1G:1155:G:C8	2.82	0.47
1:1G:1177:G:OP2	9:82:97:LYS:NZ	2.48	0.47
1:1G:1392:G:H21	1:1G:1502:A:H8	1.62	0.47
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.15	0.47
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.96	0.47
10:1A:45:ARG:HB3	10:1A:65:LEU:HB3	1.97	0.47
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.96	0.47
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.97	0.47
18:9A:45:SER:OG	18:9A:46:GLU:N	2.48	0.47
26:14:69:C:H2'	26:14:70:G:H8	1.80	0.47
26:14:110:G:C2	26:14:111:A:C8	3.02	0.47
26:14:142:G:H2'	26:14:143:C:C6	2.50	0.47
26:14:270(J):G:N2	26:14:270(K):C:H1'	2.30	0.47
26:14:531:C:OP1	26:14:561:G:C2	2.67	0.47
26:14:932:G:OP1	50:H5:29:ARG:NH1	2.48	0.47
26:14:1114:G:H2'	26:14:1115:G:C8	2.50	0.47
26:14:1354:A:H2'	26:14:1355:G:O4'	2.15	0.47
26:14:1558:A:H4'	26:14:1559:G:H5'	1.97	0.47
26:14:1664:A:OP1	58:14:3507:HOH:O	2.20	0.47
26:14:2173:A:P	26:14:2173:A:H8	2.38	0.47
26:14:2228:G:OP1	28:19:261:LYS:HE3	2.15	0.47
26:14:2542:A:H1'	26:14:2543:G:C8	2.50	0.47
27:1J:14:U:H5'	27:1J:71:C:O4'	2.15	0.47
32:59:85:LYS:HG2	32:59:141:VAL:HG12	1.96	0.47
34:15:121:LYS:HB3	34:15:123:TYR:CE1	2.50	0.47
37:45:118:LEU:HD22	37:45:118:LEU:HA	1.68	0.47
41:85:90:VAL:CG2	42:95:39:LEU:HB3	2.43	0.47
42:95:71:LEU:O	42:95:72:VAL:HG12	2.15	0.47
52:J5:48:GLU:H	52:J5:48:GLU:HG2	1.35	0.47
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.30	0.47
1:13:44:G:OP1	16:7I:12:LYS:HB3	2.15	0.47
1:13:427:U:H5'	4:3E:41:GLY:HA2	1.97	0.47
1:13:1332:A:H2'	1:13:1333:A:C8	2.50	0.47
1:13:1386:G:O2'	1:13:1387:G:H5'	2.14	0.47
11:2I:12:ARG:HG3	11:2I:13:GLN:N	2.31	0.47
22:1K:14:A:N1	22:1K:22:G:H1'	2.30	0.47
26:1H:182:A:H2'	26:1H:183:C:C6	2.50	0.47
26:1H:444:C:H4'	30:31:49:ALA:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1288:U:H4'	26:1H:1289:C:OP2	2.15	0.47
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.50	0.47
26:1H:1456:G:OP2	58:1H:4659:HOH:O	2.19	0.47
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.50	0.47
26:1H:2396:G:H5"	48:J8:25:LYS:HE2	1.96	0.47
26:1H:2468:G:OP1	37:88:119:ARG:NH2	2.44	0.47
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.50	0.47
26:1H:2557:G:O2'	26:1H:2558:C:H5'	2.15	0.47
28:11:69:ARG:NH2	28:11:128:GLY:O	2.29	0.47
43:E8:3:ALA:HB3	43:E8:58:ALA:HB2	1.95	0.47
45:G8:34:LYS:HD3	45:G8:36:ALA:HB2	1.97	0.47
46:H8:59:LEU:O	46:H8:60:GLU:HB2	2.14	0.47
46:H8:113:ALA:N	46:H8:114:GLY:HA2	2.29	0.47
48:J8:92:LYS:HA	48:J8:95:LEU:CB	2.43	0.47
50:L8:31:LEU:HB3	50:L8:32:GLN:OE1	2.15	0.47
55:Q8:57:ARG:HB2	55:Q8:59:LYS:HE2	1.97	0.47
1:1G:397:A:H3'	1:1G:397:A:N3	2.30	0.47
1:1G:791:G:C6	1:1G:792:A:N7	2.82	0.47
1:1G:843:U:H3'	1:1G:848:C:O4'	2.15	0.47
1:1G:1004:A:H2	1:1G:1024:G:C5	2.32	0.47
1:1G:1092:A:C2	1:1G:1183:A:H2	2.32	0.47
13:4A:35:GLU:O	13:4A:38:GLY:N	2.44	0.47
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	1.97	0.47
24:3L:4:C:H2'	24:3L:5:G:O4'	2.15	0.47
26:14:55:G:C2	26:14:116:C:C2	3.03	0.47
26:14:196:A:C8	36:35:46:LYS:HD2	2.50	0.47
26:14:249:C:H4'	26:14:250:G:O5'	2.15	0.47
26:14:459:U:H5"	54:L5:40:TRP:CE2	2.49	0.47
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.49	0.47
26:14:676:A:H2	26:14:802:A:H61	1.61	0.47
26:14:864:G:C6	26:14:865:C:N4	2.83	0.47
26:14:1251:C:H5	58:14:3962:HOH:O	1.98	0.47
26:14:1416:G:H21	26:14:1586:A:H62	1.62	0.47
26:14:2197:U:H1'	26:14:2198:A:C8	2.50	0.47
26:14:2467:C:H4'	37:45:123:HIS:CE1	2.50	0.47
26:14:2502:G:OP2	58:14:4028:HOH:O	2.20	0.47
26:14:2693:A:H2'	26:14:2694:G:C8	2.49	0.47
26:14:2750:A:H8	26:14:2752:C:H41	1.63	0.47
30:39:25:PRO:HB2	30:39:27:GLU:O	2.15	0.47
33:69:117:GLU:CD	33:69:117:GLU:H	2.18	0.47
47:E5:66:VAL:CG1	47:E5:67:VAL:H	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:H5:19:GLN:OE1	50:H5:52:HIS:NE2	2.47	0.47
1:13:32:A:C2	1:13:33:A:C4	3.04	0.46
1:13:181:G:HO2'	1:13:182:U:H6	1.61	0.46
1:13:544:G:H2'	1:13:545:C:C6	2.50	0.46
1:13:1073:U:H2'	1:13:1074:G:C8	2.50	0.46
2:1E:115:LEU:HD21	2:1E:153:ARG:HD3	1.98	0.46
5:4E:91:LEU:HD12	5:4E:120:THR:CG2	2.45	0.46
8:7E:87:SER:HB2	8:7E:93:VAL:HG23	1.97	0.46
14:5I:39:LEU:HD11	14:5I:47:LEU:HD12	1.96	0.46
26:1H:265:A:H1'	26:1H:266:G:O4'	2.15	0.46
26:1H:775:G:O5'	26:1H:777:A:H1'	2.15	0.46
26:1H:1260:G:H2'	26:1H:1261:C:H6	1.80	0.46
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.29	0.46
26:1H:2309:A:C4	26:1H:2310:A:H8	2.33	0.46
26:1H:2756:U:H1'	26:1H:2757:A:H5"	1.97	0.46
32:51:51:ARG:HG2	32:51:52:VAL:N	2.30	0.46
35:68:88:ASN:ND2	35:68:92:GLU:O	2.47	0.46
36:78:38:GLN:O	36:78:41:ARG:HB2	2.15	0.46
36:78:59:LEU:O	36:78:59:LEU:HD12	2.15	0.46
55:Q8:45:GLY:CA	55:Q8:46:ARG:C	2.83	0.46
55:Q8:53:PRO:CB	55:Q8:56:GLU:HG3	2.45	0.46
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.30	0.46
1:1G:881:G:C6	1:1G:882:C:C4	3.03	0.46
1:1G:1263:C:N3	1:1G:1273:G:N2	2.64	0.46
2:12:8:LYS:HG2	2:12:11:LEU:HD22	1.97	0.46
7:62:50:ILE:O	7:62:54:THR:HG23	2.15	0.46
8:72:68:ARG:HH11	8:72:70:GLN:HG2	1.79	0.46
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.49	0.46
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.15	0.46
15:6A:55:GLY:O	15:6A:59:MET:HG3	2.14	0.46
23:2L:13:C:O2'	26:14:1924:C:H4'	2.16	0.46
26:14:307:G:H2'	26:14:309:G:OP2	2.15	0.46
26:14:1012:U:O4	34:15:25:ARG:HA	2.15	0.46
26:14:1590:U:H2'	26:14:1591:G:H8	1.80	0.46
26:14:2279:G:N2	26:14:2280:G:H1'	2.31	0.46
26:14:2299:G:N1	26:14:2318:G:C8	2.82	0.46
26:14:2472:G:C4	26:14:2475:C:N4	2.83	0.46
29:29:23:VAL:HA	29:29:184:VAL:O	2.15	0.46
29:29:117:MET:HB2	29:29:122:PHE:O	2.15	0.46
46:D5:106:GLY:HA3	46:D5:140:ASP:OD2	2.15	0.46
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:F5:20:ARG:HG2	48:F5:20:ARG:HH11	1.80	0.46
1:13:103:C:C2	1:13:104:G:C8	3.04	0.46
1:13:250:A:H4'	1:13:251:G:C5'	2.45	0.46
1:13:490:G:H2'	1:13:491:G:C8	2.50	0.46
1:13:627:G:H2'	1:13:628:G:C8	2.45	0.46
1:13:1305:G:H8	1:13:1305:G:OP2	1.97	0.46
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.96	0.46
15:6I:71:GLN:O	15:6I:71:GLN:HG2	2.14	0.46
20:BI:30:LYS:CE	20:BI:80:ARG:HH12	2.29	0.46
26:1H:1962:C:H4'	26:1H:1963:U:H5	1.80	0.46
26:1H:2250:G:C4	37:88:82:ARG:HG2	2.50	0.46
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.50	0.46
26:1H:2577:A:H2'	26:1H:2614:A:N6	2.30	0.46
34:58:42:TRP:N	41:C8:64:ARG:HD2	2.31	0.46
34:58:96:GLU:O	34:58:98:VAL:N	2.44	0.46
36:78:38:GLN:HG2	36:78:45:LEU:HD13	1.97	0.46
36:78:91:PHE:O	36:78:123:LEU:HD11	2.15	0.46
51:M8:9:LEU:HD12	51:M8:27:THR:N	2.29	0.46
54:P8:35:ARG:NH1	54:P8:42:LEU:HD11	2.30	0.46
55:Q8:48:PHE:O	55:Q8:49:VAL:CG2	2.63	0.46
1:1G:194:C:H5"	20:BA:65:LYS:HZ2	1.80	0.46
1:1G:599:C:H2'	1:1G:600:C:H6	1.81	0.46
1:1G:600:C:H2'	1:1G:601:C:H6	1.80	0.46
1:1G:616:G:C2	1:1G:617:G:C8	3.04	0.46
1:1G:811:C:H4'	1:1G:900:A:N6	2.29	0.46
1:1G:1158:C:N4	1:1G:1181:G:H22	2.13	0.46
1:1G:1442:G:C6	1:1G:1446:A:N6	2.83	0.46
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.96	0.46
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.51	0.46
5:42:57:LYS:O	5:42:60:TYR:HB2	2.15	0.46
6:52:81:ILE:HD11	28:19:125:ILE:CG1	2.43	0.46
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.81	0.46
10:1A:27:ALA:HB2	10:1A:85:LEU:HD11	1.96	0.46
22:1L:19:G:N7	26:14:882:G:H4'	2.30	0.46
22:1L:56:C:N4	22:1L:57:G:O6	2.49	0.46
23:2L:26:C:H2'	23:2L:27:G:O4'	2.16	0.46
26:14:1019:U:OP1	26:14:1035:U:O2'	2.24	0.46
26:14:1049:C:O2	26:14:1113:U:H4'	2.15	0.46
26:14:1131:G:H4'	34:15:82:LEU:HB2	1.97	0.46
26:14:1656:C:H2'	26:14:1657:C:H6	1.80	0.46
26:14:1786:A:C2	26:14:2606:C:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2052:G:H4'	29:29:143:ASN:N	2.30	0.46
26:14:2666:C:H3'	26:14:2667:C:H6	1.80	0.46
28:19:83:GLU:OE2	28:19:104:TYR:HE1	1.98	0.46
29:29:26:ILE:HG22	29:29:27:LEU:C	2.35	0.46
31:49:120:LEU:HG	31:49:179:PRO:O	2.16	0.46
41:85:86:ALA:HB2	41:85:116:ALA:HB2	1.97	0.46
42:95:57:VAL:HG23	42:95:99:ILE:N	2.28	0.46
46:D5:10:ARG:NH2	46:D5:26:GLY:O	2.48	0.46
47:E5:60:PHE:CD1	47:E5:60:PHE:N	2.83	0.46
50:H5:18:ASP:HA	50:H5:21:ALA:HB3	1.97	0.46
53:K5:52:VAL:HG22	53:K5:53:LYS:H	1.80	0.46
1:13:97:U:H2'	1:13:99:C:C6	2.50	0.46
1:13:192:U:O4'	20:BI:103:GLY:HA2	2.15	0.46
1:13:271:C:H2'	1:13:272:C:C6	2.50	0.46
1:13:538:G:OP2	12:3I:115:LYS:HG3	2.14	0.46
1:13:711:G:O2'	1:13:712:A:H5'	2.15	0.46
1:13:963:G:N2	10:1I:55:LYS:NZ	2.63	0.46
1:13:1124:G:N7	1:13:1145:C:H2'	2.30	0.46
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.16	0.46
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.15	0.46
26:1H:16:G:H2'	26:1H:17:G:H8	1.80	0.46
26:1H:626:U:O4	36:78:107:LYS:HD3	2.15	0.46
26:1H:655:A:H8	26:1H:656:G:O4'	1.98	0.46
26:1H:821:A:C2'	26:1H:946:G:H5"	2.45	0.46
26:1H:900:A:H3'	26:1H:901:A:H8	1.81	0.46
26:1H:2288:A:C2	26:1H:2325:G:C8	3.03	0.46
26:1H:2302:G:C6	26:1H:2315:G:C6	3.03	0.46
26:1H:2450:A:C2	26:1H:2451:A:C4	3.04	0.46
27:16:31:C:H2'	27:16:32:C:C6	2.51	0.46
30:31:132:VAL:HG23	30:31:133:ASN:N	2.29	0.46
32:51:11:VAL:HG12	32:51:12:PRO:HD2	1.97	0.46
44:F8:57:LEU:HG	44:F8:78:LYS:HG3	1.97	0.46
45:G8:20:TYR:CE1	45:G8:43:ASN:HA	2.51	0.46
45:G8:49:VAL:HG21	45:G8:55:TYR:CE2	2.50	0.46
53:O8:43:CYS:HB3	53:O8:44:ARG:HH11	1.80	0.46
1:1G:197:A:H8	1:1G:198:G:N9	2.13	0.46
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.48	0.46
1:1G:536:C:H2'	1:1G:537:G:C8	2.50	0.46
1:1G:862:C:O2	1:1G:862:C:H2'	2.16	0.46
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.15	0.46
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.38	0.46
6:52:25:ILE:HD13	6:52:82:ARG:HD2	1.97	0.46
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.98	0.46
23:2L:32:G:C5	23:2L:33:OMC:C5	3.04	0.46
26:14:527:C:H4'	26:14:528:A:O5'	2.15	0.46
26:14:662:G:OP1	36:35:15:ARG:NH2	2.47	0.46
26:14:933:A:C5	26:14:934:G:C8	3.03	0.46
26:14:1161:C:O2'	42:95:8:GLY:HA2	2.15	0.46
26:14:1278:A:O2'	38:55:34:ILE:HD11	2.16	0.46
26:14:1342:A:C2	26:14:1397:U:C2	3.03	0.46
26:14:1441:G:H2'	26:14:1442:G:C8	2.51	0.46
26:14:2019:A:OP2	52:J5:9:LYS:NZ	2.44	0.46
26:14:2231:C:OP1	48:F5:42:GLN:HA	2.16	0.46
26:14:2360:A:H2'	26:14:2361:A:O4'	2.15	0.46
29:29:37:ARG:NE	29:29:42:ASP:OD2	2.48	0.46
30:39:122:LYS:HD3	30:39:191:ARG:HH21	1.80	0.46
30:39:205:ARG:HB2	30:39:205:ARG:NH1	2.30	0.46
34:15:35:ARG:HB2	34:15:42:TRP:CZ3	2.49	0.46
37:45:86:GLY:O	37:45:88:GLY:N	2.47	0.46
40:75:16:ARG:HB3	40:75:18:ASP:OD1	2.15	0.46
42:95:67:GLY:O	42:95:88:ARG:HG2	2.15	0.46
46:D5:126:VAL:HA	46:D5:163:LEU:HA	1.97	0.46
1:13:77:C:H1'	1:13:92:G:H22	1.79	0.46
1:13:924:C:H2'	1:13:925:G:H8	1.78	0.46
1:13:1007:C:N4	1:13:1022:G:H1	2.08	0.46
2:1E:192:SER:OG	2:1E:193:ASP:N	2.46	0.46
5:4E:30:ALA:O	5:4E:45:PHE:HA	2.15	0.46
7:6E:5:ARG:NH1	7:6E:7:ALA:HA	2.31	0.46
19:AI:25:LYS:HG2	19:AI:27:GLU:OE1	2.15	0.46
26:1H:412:A:H5"	26:1H:413:C:OP2	2.15	0.46
26:1H:576:U:H5	58:1H:4654:HOH:O	1.99	0.46
26:1H:709:U:H2'	26:1H:710:G:C8	2.50	0.46
26:1H:729:G:OP2	28:11:13:ARG:NH1	2.46	0.46
26:1H:866:A:H5"	26:1H:867:C:OP2	2.15	0.46
26:1H:958:U:OP2	37:88:14:ARG:HD3	2.15	0.46
26:1H:975:G:H1'	26:1H:990:A:C2	2.50	0.46
26:1H:1162:G:H1'	42:D8:23:GLU:OE2	2.16	0.46
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.15	0.46
27:16:94:C:H2'	27:16:95:U:C6	2.50	0.46
36:78:135:LEU:HD13	36:78:139:LYS:NZ	2.31	0.46
40:B8:26:ASP:CB	40:B8:91:ARG:HA	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:F8:57:LEU:N	44:F8:57:LEU:HD23	2.31	0.46
48:J8:78:LYS:HE3	48:J8:78:LYS:H	1.80	0.46
1:1G:10:A:H2'	1:1G:11:G:H8	1.79	0.46
1:1G:852:G:C6	1:1G:853:G:N7	2.83	0.46
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.48	0.46
3:22:195:VAL:O	3:22:196:LEU:HD22	2.16	0.46
6:52:54:LYS:HE2	6:52:54:LYS:HB2	1.66	0.46
10:1A:61:GLU:OE1	14:5A:58:LYS:HE2	2.16	0.46
11:2A:124:LYS:H	11:2A:124:LYS:HG2	1.28	0.46
14:5A:23:ARG:HD2	14:5A:29:ARG:O	2.16	0.46
26:14:95:G:H4'	49:G5:46:GLN:HB2	1.97	0.46
26:14:506:G:H5"	26:14:509:C:O2'	2.15	0.46
26:14:631:A:H2'	26:14:632:A:O4'	2.15	0.46
26:14:830:G:H4'	26:14:831:G:OP2	2.16	0.46
26:14:873:G:N2	26:14:905:U:C2	2.84	0.46
26:14:2376:A:H2'	26:14:2377:A:C8	2.50	0.46
26:14:2779:U:OP1	58:14:3844:HOH:O	2.20	0.46
28:19:18:VAL:HG12	28:19:19:ALA:N	2.31	0.46
28:19:121:PRO:HB3	28:19:135:PHE:CD2	2.50	0.46
32:59:8:PRO:HG2	32:59:69:ARG:HE	1.80	0.46
36:35:13:ASN:O	36:35:15:ARG:N	2.48	0.46
39:65:77:ALA:O	39:65:80:LEU:HB2	2.15	0.46
48:F5:92:LYS:O	48:F5:93:GLU:C	2.54	0.46
1:13:258:G:H2'	1:13:259:G:H8	1.79	0.46
1:13:457:C:H2'	1:13:458:C:C6	2.49	0.46
1:13:474:G:H5"	16:7I:81:ARG:CZ	2.45	0.46
1:13:976:G:N2	1:13:1362(A):C:OP2	2.49	0.46
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.96	0.46
3:2E:167:TRP:CD1	3:2E:167:TRP:C	2.88	0.46
5:4E:147:ASP:HA	5:4E:150:ARG:NH2	2.30	0.46
26:1H:445:C:OP1	41:C8:2:PRO:HA	2.15	0.46
26:1H:803:U:C4	26:1H:804:A:N7	2.84	0.46
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.92	0.46
26:1H:1232:G:C6	26:1H:1233:C:C4	3.03	0.46
26:1H:1387:C:C2	26:1H:1388:G:C8	3.04	0.46
26:1H:1534:G:C2'	26:1H:1535:U:H4'	2.45	0.46
26:1H:2156:G:H2'	26:1H:2157:G:N3	2.30	0.46
26:1H:2358:G:C5	26:1H:2359:C:C5	3.04	0.46
26:1H:2635:C:H5"	29:21:78:LEU:HA	1.98	0.46
26:1H:2705:A:H3'	26:1H:2706:G:H8	1.80	0.46
35:68:44:LYS:HD3	35:68:44:LYS:HA	1.72	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:59:ARG:C	37:88:61:GLY:H	2.18	0.46
40:B8:31:SER:HB2	40:B8:84:GLN:HB3	1.96	0.46
45:G8:40:GLU:HB2	45:G8:64:GLU:OE1	2.14	0.46
55:Q8:46:ARG:CZ	55:Q8:46:ARG:HA	2.44	0.46
55:Q8:49:VAL:HG12	55:Q8:52:LYS:HG2	1.96	0.46
1:1G:298:A:O5'	1:1G:298:A:H8	1.98	0.46
1:1G:926:G:C6	1:1G:1505:G:C6	3.03	0.46
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.98	0.46
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.50	0.46
3:22:11:ARG:HH21	3:22:180:ALA:HB3	1.81	0.46
6:52:79:LEU:HB3	6:52:88:VAL:HG21	1.98	0.46
7:62:45:ASP:HB3	7:62:117:ALA:CB	2.46	0.46
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.16	0.46
18:9A:59:SER:HB2	18:9A:62:GLU:H	1.79	0.46
19:AA:36:ARG:HD2	19:AA:52:TYR:O	2.16	0.46
19:AA:41:VAL:HG12	19:AA:42:PRO:HD2	1.97	0.46
20:BA:13:LEU:O	20:BA:17:ARG:HG3	2.15	0.46
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.36	0.46
23:2L:62:C:H2'	23:2L:63:C:H6	1.81	0.46
26:14:1260:G:C6	26:14:1261:C:C4	3.03	0.46
26:14:2420:C:H41	55:M5:31:HIS:HB3	1.81	0.46
26:14:2845:G:H2'	26:14:2846:G:C8	2.51	0.46
29:29:58:ARG:HD2	29:29:58:ARG:H	1.80	0.46
38:55:32:GLY:HA2	38:55:116:LEU:HD12	1.96	0.46
40:75:64:ARG:HB2	40:75:73:GLU:HG2	1.96	0.46
46:D5:124:ILE:HD11	46:D5:165:VAL:HG11	1.97	0.46
1:13:112:G:C2'	1:13:113:G:H5'	2.46	0.46
1:13:342:C:N3	1:13:348:G:C2	2.83	0.46
1:13:598:U:H4'	8:7E:94:TYR:CG	2.51	0.46
1:13:894:G:H2'	1:13:895:G:O4'	2.16	0.46
1:13:1346:A:C6	7:6E:10:ARG:HD3	2.50	0.46
4:3E:167:GLY:HA2	28:19:135:PHE:CE1	2.47	0.46
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.16	0.46
8:7E:114:THR:HG22	8:7E:130:GLY:O	2.16	0.46
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.96	0.46
26:1H:370:G:H4'	26:1H:371:A:OP2	2.15	0.46
26:1H:500:G:N2	26:1H:502:A:H3'	2.30	0.46
26:1H:556:G:H2'	26:1H:557:U:H6	1.80	0.46
26:1H:602:G:O2'	26:1H:655:A:N6	2.48	0.46
26:1H:1070:A:N7	26:1H:1096:A:H2'	2.31	0.46
26:1H:1575:C:H2'	26:1H:1576:U:H6	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1581:G:C6	26:1H:1582:C:C4	3.04	0.46
26:1H:2052:G:H4'	29:21:143:ASN:O	2.16	0.46
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.50	0.46
26:1H:2286:A:OP1	53:O8:28:ARG:NH2	2.48	0.46
26:1H:2335:A:C8	26:1H:2337:G:C6	3.04	0.46
26:1H:2388:A:C2'	26:1H:2389:G:H5'	2.46	0.46
26:1H:2841:C:H2'	26:1H:2842:G:C8	2.49	0.46
30:31:8:GLN:CD	30:31:8:GLN:N	2.68	0.46
34:58:96:GLU:HB2	34:58:122:VAL:HG12	1.96	0.46
37:88:104:PHE:CE2	37:88:125:LEU:HD11	2.45	0.46
39:A8:18:ILE:O	39:A8:21:THR:OG1	2.32	0.46
39:A8:80:LEU:HA	39:A8:80:LEU:HD13	1.65	0.46
44:F8:24:GLY:HA3	44:F8:82:GLN:NE2	2.24	0.46
46:H8:119:GLU:H	46:H8:119:GLU:CD	2.19	0.46
49:K8:15:LYS:H	49:K8:67:LYS:HZ1	1.63	0.46
55:Q8:39:LYS:HE3	55:Q8:40:GLU:H	1.80	0.46
1:1G:197:A:H3'	1:1G:197:A:OP2	2.15	0.46
1:1G:216:G:H2'	1:1G:217:C:C6	2.50	0.46
1:1G:360:A:H2'	1:1G:361:G:C8	2.50	0.46
1:1G:539:A:H2'	1:1G:540:G:H8	1.78	0.46
1:1G:659:U:N3	1:1G:660:G:N7	2.63	0.46
1:1G:790:A:H8	1:1G:790:A:O5'	1.98	0.46
3:22:135:LYS:NZ	5:42:52:PRO:HG2	2.30	0.46
4:32:155:LEU:O	4:32:158:ILE:HD12	2.16	0.46
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.97	0.46
26:14:442:G:C6	26:14:444:C:N4	2.84	0.46
26:14:448:U:H4'	58:14:4020:HOH:O	2.15	0.46
26:14:997:G:H2'	26:14:998:C:H6	1.81	0.46
26:14:1014:U:H2'	26:14:1015:G:C8	2.48	0.46
26:14:1197:G:H2'	26:14:1198:U:C6	2.49	0.46
26:14:1328:G:H2'	26:14:1330:C:C5	2.50	0.46
26:14:1431:U:H2'	26:14:1432:C:C6	2.51	0.46
26:14:1951:U:N3	26:14:1954:G:OP2	2.39	0.46
26:14:2142:C:H2'	26:14:2143:C:C6	2.50	0.46
27:1J:5:C:N4	27:1J:115:G:H1	2.06	0.46
27:1J:101:A:OP2	27:1J:101:A:H8	1.99	0.46
33:69:97:ILE:O	33:69:100:ALA:HB3	2.16	0.46
40:75:8:LYS:O	40:75:11:GLU:HB2	2.15	0.46
43:A5:29:LEU:HD11	43:A5:33:ARG:HE	1.81	0.46
1:13:17:U:H2'	1:13:18:C:C6	2.51	0.46
1:13:1186:G:H21	14:5I:61:TRP:C	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1365:G:H2'	1:13:1366:C:C6	2.51	0.46
2:1E:185:ILE:HA	2:1E:199:TYR:O	2.16	0.46
7:6E:26:PHE:CE2	7:6E:30:ILE:HD11	2.50	0.46
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.81	0.46
26:1H:182:A:H2'	26:1H:183:C:H6	1.81	0.46
26:1H:389:G:O5'	26:1H:389:G:H8	1.99	0.46
26:1H:748:G:OP2	43:E8:88:ARG:HG3	2.15	0.46
26:1H:749:C:H5"	58:1H:4461:HOH:O	2.14	0.46
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.80	0.46
26:1H:1359:A:C2	26:1H:1372:U:C4	3.04	0.46
26:1H:1749:A:C4	26:1H:1750:G:C8	3.03	0.46
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.81	0.46
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.31	0.46
26:1H:2602:A:H4'	26:1H:2603:G:O5'	2.15	0.46
26:1H:2844:G:O6	58:1H:4096:HOH:O	2.20	0.46
30:31:114:VAL:HG21	30:31:202:PHE:CE1	2.51	0.46
32:51:8:PRO:O	32:51:10:PRO:HD3	2.16	0.46
32:51:85:LYS:HD3	32:51:85:LYS:HA	1.44	0.46
45:G8:52:SER:OG	45:G8:53:PRO:HD2	2.15	0.46
45:G8:88:LYS:HD3	45:G8:88:LYS:HA	1.69	0.46
55:Q8:25:MET:HB2	55:Q8:42:ARG:HB2	1.98	0.46
1:1G:236:G:H1'	17:8A:4:LYS:NZ	2.31	0.46
1:1G:1530:G:H8	1:1G:1530:G:H5"	1.81	0.46
2:12:209:ARG:HD3	2:12:240:GLN:HE22	1.79	0.46
16:7A:43:LYS:HE2	16:7A:43:LYS:HB2	1.62	0.46
22:1L:18:G:O2'	22:1L:60:U:O4	2.31	0.46
26:14:26:G:OP1	43:A5:80:PRO:HB3	2.16	0.46
26:14:196:A:O4'	36:35:46:LYS:HE2	2.15	0.46
26:14:548:A:H2'	26:14:549:G:O4'	2.16	0.46
26:14:717:G:H2'	26:14:718:A:O4'	2.16	0.46
26:14:1011:G:H2'	26:14:1013:C:O4'	2.15	0.46
26:14:1104:C:H2'	26:14:1105:U:C6	2.49	0.46
26:14:1160:G:C6	26:14:1161:C:C4	3.04	0.46
26:14:1599:C:H2'	26:14:1600:C:C6	2.47	0.46
26:14:1599:C:C5	26:14:1600:C:H5	2.34	0.46
26:14:1857:G:O2'	26:14:1885:A:N6	2.48	0.46
26:14:1970:A:OP1	26:14:1970:A:H4'	2.16	0.46
26:14:2419:U:O4	55:M5:31:HIS:CD2	2.69	0.46
26:14:2845:G:N2	26:14:2871:C:O2	2.43	0.46
31:49:60:LEU:HD22	31:49:68:PRO:HB3	1.98	0.46
33:69:2:LYS:H	33:69:2:LYS:HG2	1.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:41:GLU:O	33:69:45:LYS:HG2	2.16	0.46
40:75:85:LYS:HD2	40:75:87:ASP:OD1	2.16	0.46
41:85:88:ILE:HG22	41:85:90:VAL:HG23	1.98	0.46
45:C5:19:LYS:CG	45:C5:20:TYR:H	2.17	0.46
46:D5:29:TYR:CE2	46:D5:87:ASP:HB2	2.51	0.46
47:E5:34:GLY:HA2	47:E5:61:ALA:O	2.16	0.46
1:13:42:G:H2'	1:13:43:C:O4'	2.16	0.46
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.30	0.46
1:13:713:G:H2'	1:13:714:G:C8	2.51	0.46
1:13:730:G:C5	1:13:731:G:H1'	2.51	0.46
2:1E:209:ARG:HG3	2:1E:240:GLN:NE2	2.30	0.46
5:4E:153:LYS:HG3	5:4E:154:GLY:H	1.80	0.46
7:6E:91:VAL:HB	7:6E:96:GLN:HG2	1.98	0.46
11:2I:125:PHE:N	11:2I:125:PHE:CD1	2.82	0.46
16:7I:21:VAL:O	16:7I:33:ILE:N	2.44	0.46
26:1H:236:C:H2'	26:1H:237:C:H6	1.81	0.46
26:1H:239:U:H2'	26:1H:240:G:O4'	2.16	0.46
26:1H:289:A:H2'	26:1H:290:G:O4'	2.15	0.46
26:1H:356:G:H2'	26:1H:357:A:C8	2.51	0.46
26:1H:901:A:H5'	26:1H:902:C:OP2	2.16	0.46
26:1H:903:C:O2'	46:H8:169:GLU:OE1	2.34	0.46
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.51	0.46
26:1H:2104:G:N1	26:1H:2186:G:C2	2.84	0.46
26:1H:2168:G:OP1	26:1H:2168:G:H4'	2.16	0.46
26:1H:2549:G:H5"	26:1H:2549:G:H8	1.81	0.46
29:21:103:ASP:OD2	29:21:168:MET:HG2	2.15	0.46
31:41:67:LYS:NZ	51:M8:6:HIS:CE1	2.84	0.46
32:51:86:GLU:HG3	32:51:165:ALA:HB3	1.98	0.46
33:61:55:ALA:HA	33:61:58:LEU:HB3	1.98	0.46
38:98:13:HIS:H	38:98:13:HIS:CD2	2.33	0.46
40:B8:45:PHE:CZ	40:B8:65:LYS:HG2	2.50	0.46
42:D8:9:GLY:O	42:D8:10:LYS:HG3	2.16	0.46
52:N8:9:LYS:HD3	52:N8:9:LYS:HA	1.58	0.46
1:1G:15:G:H2'	1:1G:16:A:C8	2.51	0.46
1:1G:25:C:H2'	1:1G:26:A:H8	1.81	0.46
1:1G:345:C:HO2'	1:1G:346:G:P	2.39	0.46
1:1G:448:A:H2'	1:1G:449:C:O2	2.16	0.46
1:1G:922:G:C2	1:1G:923:A:C4	3.04	0.46
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.45	0.46
1:1G:1512:U:C2	1:1G:1513:A:C8	3.04	0.46
3:22:136:GLN:O	3:22:139:GLN:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:159:ARG:H	4:32:159:ARG:HG3	1.55	0.46
9:82:42:ARG:NH1	9:82:71:SER:O	2.48	0.46
11:2A:72:ALA:HB1	11:2A:77:MET:HE3	1.98	0.46
24:3L:76:A:O2'	26:14:2394:C:N3	2.45	0.46
26:14:492:A:H2'	26:14:493:G:O4'	2.15	0.46
26:14:1115:G:H2'	26:14:1116:C:C6	2.51	0.46
26:14:1421:G:C2	26:14:1422:G:C8	3.04	0.46
26:14:1569:A:H2'	26:14:1570:A:O4'	2.15	0.46
26:14:1598:C:O3'	44:B5:35:THR:HG22	2.15	0.46
29:29:181:LEU:HD12	29:29:181:LEU:HA	1.77	0.46
33:69:77:LEU:HA	33:69:141:LYS:HB3	1.98	0.46
38:55:58:GLY:HA2	38:55:80:PHE:CE2	2.50	0.46
39:65:11:LYS:HE3	39:65:15:ARG:HH22	1.80	0.46
51:I5:42:PHE:O	51:I5:43:TYR:HB3	2.15	0.46
1:13:358:U:H2'	1:13:359:U:O4'	2.16	0.46
1:13:712:A:H2'	1:13:713:G:C8	2.50	0.46
1:13:891:U:H2'	1:13:892:A:H8	1.80	0.46
1:13:1139:G:H4'	1:13:1140:C:C5'	2.46	0.46
1:13:1218:C:OP2	14:5I:9:LYS:NZ	2.39	0.46
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.81	0.46
2:1E:69:LEU:HD13	2:1E:92:TYR:HA	1.98	0.46
4:3E:142:PRO:HB3	4:3E:186:LEU:O	2.16	0.46
13:4I:67:GLU:OE2	13:4I:68:GLY:N	2.48	0.46
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.79	0.46
22:1K:26:A:H61	22:1K:44:G:N2	2.13	0.46
23:2K:35:C:H5"	23:2K:36:A:OP2	2.16	0.46
24:3K:57:G:O5'	24:3K:57:G:H8	1.99	0.46
26:1H:270(J):G:H3'	26:1H:270(K):C:H6	1.81	0.46
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.46	0.46
26:1H:2436:G:C6	26:1H:2437:U:C4	3.03	0.46
26:1H:2436:G:C5	26:1H:2437:U:C5	3.04	0.46
26:1H:2590:A:H2'	26:1H:2591:C:H6	1.79	0.46
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.51	0.46
27:16:71:C:C2	27:16:72:G:C8	3.03	0.46
29:21:27:LEU:HD22	40:B8:1:MET:HE3	1.98	0.46
30:31:40:GLN:HE22	30:31:184:TYR:HB3	1.81	0.46
32:51:42:ARG:HB2	32:51:42:ARG:NH1	2.30	0.46
32:51:86:GLU:HB2	32:51:165:ALA:HB3	1.97	0.46
33:61:40:THR:O	33:61:44:LEU:HB2	2.16	0.46
34:58:132:ALA:O	34:58:134:ARG:NH2	2.49	0.46
37:88:87:LYS:HD3	37:88:87:LYS:HA	1.70	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:95:HIS:O	39:A8:98:VAL:HG23	2.16	0.46
46:H8:75:ASN:O	46:H8:84:GLU:N	2.41	0.46
1:1G:37:U:O2'	1:1G:547:A:N1	2.42	0.46
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.13	0.46
1:1G:259:G:H2'	1:1G:260:G:O4'	2.15	0.46
1:1G:438:G:H5'	4:32:123:HIS:HD2	1.81	0.46
1:1G:624:C:O3'	16:7A:10:GLY:HA2	2.16	0.46
1:1G:998:G:H22	1:1G:1043:C:H42	1.64	0.46
1:1G:1320:C:O2	19:AA:36:ARG:NH2	2.49	0.46
3:22:91:LEU:CB	3:22:99:VAL:HG11	2.45	0.46
8:72:64:LYS:O	8:72:79:VAL:HB	2.15	0.46
15:6A:17:ARG:HD3	15:6A:26:GLU:HG3	1.98	0.46
16:7A:8:ARG:HD3	16:7A:17:TYR:CE1	2.51	0.46
20:BA:67:ALA:HA	20:BA:73:HIS:HA	1.97	0.46
26:14:212:G:H2'	26:14:213:A:O4'	2.16	0.46
26:14:300:A:N6	58:14:3654:HOH:O	2.38	0.46
26:14:1339:G:H21	26:14:1603:A:H1'	1.81	0.46
26:14:1889:A:N1	26:14:2234:G:H1'	2.31	0.46
26:14:2048:G:N7	58:14:3562:HOH:O	2.36	0.46
26:14:2419:U:H5'	53:K5:23:THR:HG21	1.97	0.46
27:1J:109:G:C5	27:1J:110:G:N7	2.84	0.46
31:49:27:ASN:HB3	31:49:30:GLU:HG3	1.98	0.46
1:13:300:A:H1'	1:13:565:U:O2	2.16	0.46
1:13:382:A:H2'	1:13:383:A:C8	2.51	0.46
1:13:435:C:H2'	1:13:436:C:H6	1.81	0.46
1:13:536:C:H2'	1:13:537:G:H8	1.77	0.46
1:13:819:A:H4'	1:13:820:U:OP2	2.16	0.46
1:13:1023:G:H3'	1:13:1024:G:C5'	2.42	0.46
1:13:1133:G:N2	1:13:1141:C:N3	2.56	0.46
1:13:1298:C:P	7:6E:114:ARG:HH22	2.39	0.46
2:1E:104:ASN:ND2	2:1E:107:THR:HB	2.13	0.46
6:5E:33:TYR:HB2	6:5E:75:LEU:HG	1.98	0.46
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.81	0.46
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	1.97	0.46
13:4I:82:MET:HG2	13:4I:93:ARG:HG3	1.96	0.46
24:3K:24:G:C6	24:3K:25:C:N4	2.84	0.46
24:3K:25:C:N4	24:3K:26:A:C8	2.84	0.46
26:1H:66:C:H2'	26:1H:67:U:C6	2.51	0.46
26:1H:155:C:H5'	26:1H:161:U:OP2	2.16	0.46
26:1H:631:A:H61	26:1H:2402:C:H42	1.64	0.46
26:1H:654(C):G:H2'	26:1H:654(D):G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1161:C:H1'	42:D8:8:GLY:O	2.16	0.46
26:1H:1591:G:O2'	26:1H:1592:C:H5'	2.15	0.46
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.31	0.46
26:1H:2053:G:P	58:1H:3801:HOH:O	2.74	0.46
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.46	0.46
26:1H:2317:C:H2'	26:1H:2318:G:H5'	1.98	0.46
26:1H:2801:A:H2'	26:1H:2802:G:C4'	2.46	0.46
27:16:116:G:H2'	27:16:117:G:O4'	2.15	0.46
28:11:232:PRO:HB3	28:11:244:ARG:CZ	2.46	0.46
31:41:62:LEU:HD12	31:41:62:LEU:HA	1.68	0.46
32:51:105:LEU:HD23	32:51:105:LEU:N	2.31	0.46
33:61:81:VAL:HG21	33:61:88:ILE:HD13	1.96	0.46
38:98:117:VAL:HG13	38:98:118:GLU:N	2.31	0.46
45:G8:28:LYS:HD2	45:G8:40:GLU:HB3	1.97	0.46
46:H8:80:ARG:H	46:H8:80:ARG:HG2	1.60	0.46
46:H8:146:ILE:HA	46:H8:174:VAL:O	2.15	0.46
1:1G:570:G:H1'	1:1G:820:U:C4	2.51	0.46
1:1G:578:C:OP1	58:1G:1866:HOH:O	2.20	0.46
1:1G:1016:A:H3'	1:1G:1017:G:C8	2.52	0.46
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.50	0.46
3:22:70:VAL:HG11	3:22:76:VAL:CG1	2.46	0.46
4:32:12:CYS:SG	4:32:18:LYS:HG3	2.56	0.46
5:42:31:LEU:HD22	5:42:43:LEU:HD11	1.98	0.46
5:42:68:GLU:OE2	5:42:70:PRO:HG3	2.16	0.46
8:72:39:LEU:HD12	8:72:39:LEU:HA	1.78	0.46
8:72:89:PRO:HA	8:72:92:ARG:HE	1.81	0.46
18:9A:61:LYS:O	18:9A:65:ILE:HG22	2.15	0.46
26:14:384:U:H2'	26:14:385:C:H6	1.80	0.46
26:14:863:A:H2'	26:14:864:G:C8	2.51	0.46
26:14:952:G:C6	26:14:966:G:C6	3.04	0.46
26:14:1153:C:OP1	41:85:93:LYS:NZ	2.47	0.46
26:14:1225:C:H4'	42:95:85:LYS:HG2	1.98	0.46
26:14:2016:U:H2'	26:14:2017:U:H6	1.79	0.46
26:14:2068:U:N3	26:14:2430:A:C2	2.76	0.46
26:14:2231:C:H2'	26:14:2232:U:O4'	2.16	0.46
26:14:2781:A:H5"	26:14:2782:G:H5'	1.98	0.46
27:1J:28:C:H42	27:1J:56:G:H1	1.62	0.46
28:19:132:PRO:HG3	28:19:190:TYR:CE1	2.51	0.46
30:39:41:LEU:HD23	30:39:41:LEU:HA	1.67	0.46
30:39:196:LEU:HD22	30:39:196:LEU:HA	1.82	0.46
37:45:22:LYS:HG2	37:45:23:GLY:CA	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:C5:20:TYR:CZ	45:C5:42:VAL:HA	2.51	0.46
1:13:105:G:H2'	1:13:106:C:C6	2.50	0.45
1:13:142:G:H2'	1:13:143:A:C8	2.50	0.45
1:13:186(E):C:N4	1:13:191(B):G:H1	2.15	0.45
1:13:544:G:C5	1:13:545:C:C5	3.04	0.45
1:13:952:U:O4	13:4I:104:ARG:HD3	2.16	0.45
1:13:1073:U:H2'	1:13:1074:G:H8	1.81	0.45
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.64	0.45
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.98	0.45
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.16	0.45
25:4K:13:A:O2'	25:4K:14:A:OP1	2.33	0.45
26:1H:483:A:O2'	45:G8:59:GLY:HA2	2.16	0.45
26:1H:989:G:N7	50:L8:13:ILE:HD11	2.31	0.45
26:1H:1437:C:C2	26:1H:1438:U:C5	3.04	0.45
26:1H:2114:A:H2'	26:1H:2168:G:H5"	1.98	0.45
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.52	0.45
28:11:119:ALA:CB	28:11:130:ALA:HB3	2.46	0.45
31:41:63:ILE:HD12	31:41:141:PHE:CE2	2.51	0.45
31:41:98:ARG:HA	31:41:101:ILE:HG23	1.97	0.45
31:41:99:MET:HG3	31:41:100:TRP:N	2.31	0.45
36:78:86:LYS:HB3	36:78:118:GLY:CA	2.45	0.45
38:98:28:LEU:HD23	38:98:28:LEU:HA	1.77	0.45
41:C8:75:ASN:HB2	41:C8:78:THR:OG1	2.16	0.45
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.16	0.45
46:H8:60:GLU:HB3	46:H8:61:LEU:H	1.46	0.45
47:I8:23:VAL:HG13	47:I8:38:VAL:HG23	1.97	0.45
47:I8:53:MET:HG3	47:I8:59:LEU:CD2	2.46	0.45
55:Q8:35:GLN:C	55:Q8:37:SER:H	2.15	0.45
1:1G:90:C:H2'	1:1G:91:C:C6	2.51	0.45
1:1G:618:C:H5'	1:1G:619:U:H5"	1.98	0.45
1:1G:801:U:H2'	1:1G:802:A:C8	2.51	0.45
1:1G:826:C:H2'	1:1G:827:U:C6	2.51	0.45
1:1G:857:C:H2'	1:1G:858:G:O4'	2.16	0.45
1:1G:1157:A:H4'	1:1G:1158:C:O5'	2.17	0.45
3:22:27:LYS:HB2	3:22:28:GLN:NE2	2.31	0.45
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.31	0.45
8:72:114:THR:OG1	8:72:115:SER:N	2.49	0.45
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.16	0.45
13:4A:13:LYS:NZ	13:4A:21:TYR:OH	2.49	0.45
26:14:17:G:H4'	41:85:25:TRP:CH2	2.52	0.45
26:14:443:A:H2	26:14:1245:G:N3	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:847:U:H5'	26:14:848:G:OP2	2.16	0.45
26:14:1005:C:O2'	34:15:28:THR:HG21	2.16	0.45
26:14:1011:G:C2	26:14:1151:G:C2	3.04	0.45
26:14:1049:C:H42	26:14:2751:G:H1	1.64	0.45
26:14:1786:A:H2	26:14:2606:C:H1'	1.81	0.45
26:14:2002:G:C6	58:14:3797:HOH:O	2.69	0.45
26:14:2212:A:H1'	26:14:2215:G:C5	2.51	0.45
26:14:2346:A:C2	26:14:2383:G:C2	3.04	0.45
26:14:2393:A:C2'	26:14:2394:C:H5'	2.45	0.45
27:1J:99:A:H3'	58:1J:309:HOH:O	2.16	0.45
32:59:54:ARG:NH2	32:59:57:ASP:OD1	2.36	0.45
36:35:63:PRO:HA	55:M5:13:ARG:HA	1.98	0.45
41:85:21:ALA:HA	41:85:24:TYR:CE2	2.51	0.45
49:G5:31:GLU:HB2	49:G5:53:LEU:HD11	1.98	0.45
1:13:41:G:H2'	1:13:42:G:C8	2.51	0.45
1:13:741:G:H2'	1:13:742:G:O4'	2.16	0.45
1:13:825:G:C6	1:13:826:C:C4	3.05	0.45
1:13:1057:G:C5	1:13:1204:A:C2	3.04	0.45
1:13:1113:C:H2'	1:13:1114:C:H6	1.81	0.45
7:6E:15:ASP:O	7:6E:19:GLY:HA2	2.15	0.45
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.98	0.45
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.17	0.45
20:BI:49:ALA:HB1	20:BI:99:LEU:HB2	1.98	0.45
23:2K:67:C:H2'	23:2K:68:C:O4'	2.15	0.45
24:3K:19:G:O2'	24:3K:57:G:N3	2.47	0.45
26:1H:654(D):G:H1	26:1H:654(Q):C:N4	2.08	0.45
26:1H:674:G:H1'	30:31:74:ARG:HH11	1.81	0.45
26:1H:1170:G:N2	26:1H:1180:C:O2	2.50	0.45
26:1H:1358:G:N2	26:1H:1372:U:C5	2.84	0.45
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.77	0.45
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.81	0.45
26:1H:1776:G:OP2	58:1H:3656:HOH:O	2.21	0.45
26:1H:1864:U:OP1	26:1H:2410:G:O2'	2.19	0.45
26:1H:2418:A:OP2	55:Q8:39:LYS:NZ	2.41	0.45
26:1H:2531:A:H5'	32:51:157:TYR:CZ	2.52	0.45
26:1H:2590:A:C2	26:1H:2605:U:C2	3.05	0.45
28:11:70:TRP:CD1	28:11:70:TRP:C	2.90	0.45
29:21:49:LEU:HD12	29:21:49:LEU:HA	1.72	0.45
30:31:23:ASP:CG	30:31:24:LEU:H	2.19	0.45
30:31:174:VAL:CG1	30:31:189:THR:HG21	2.47	0.45
34:58:10:GLU:HG3	34:58:11:PRO:HD2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:47:THR:HG22	39:A8:48:LEU:N	2.31	0.45
42:D8:21:ARG:HG2	42:D8:91:TYR:HE2	1.80	0.45
50:L8:10:LYS:HB3	50:L8:53:LEU:HD23	1.98	0.45
51:M8:15:ILE:HG22	51:M8:16:CYS:H	1.81	0.45
1:1G:433:C:H2'	1:1G:434:U:H6	1.78	0.45
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.17	0.45
1:1G:661:G:H1	1:1G:744:C:H42	1.64	0.45
1:1G:1086:U:H3	1:1G:1099:G:H22	1.64	0.45
1:1G:1129:C:N4	1:1G:1142:G:O6	2.35	0.45
1:1G:1517:G:C6	1:1G:1518:A:C5	3.04	0.45
5:42:127:ASN:OD1	5:42:130:ASN:ND2	2.47	0.45
9:82:53:VAL:HG22	9:82:95:LYS:HZ2	1.81	0.45
9:82:95:LYS:HE2	9:82:95:LYS:HB2	1.77	0.45
13:4A:78:ILE:HA	13:4A:81:LEU:HD12	1.98	0.45
15:6A:4:THR:OG1	15:6A:7:GLU:HB2	2.17	0.45
16:7A:49:LEU:HD12	16:7A:50:LYS:N	2.31	0.45
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.98	0.45
26:14:150:C:H42	26:14:176:G:H1	1.63	0.45
26:14:747:U:O2	26:14:2014:A:H1'	2.16	0.45
26:14:784:A:C8	26:14:792:G:C5	3.05	0.45
26:14:972:G:OP2	26:14:974:G:H5"	2.16	0.45
26:14:1060:U:H5"	26:14:1061:U:C6	2.50	0.45
26:14:1093:G:N1	26:14:1097:U:OP2	2.48	0.45
26:14:1164:G:H1	26:14:1185:C:H42	1.63	0.45
26:14:1813:G:H1'	28:19:50:THR:OG1	2.16	0.45
26:14:2666:C:H3'	26:14:2667:C:C6	2.51	0.45
26:14:2805:G:H2'	26:14:2807:G:H8	1.81	0.45
26:14:2882:A:H5'	38:55:96:ARG:HG3	1.97	0.45
27:1J:87:G:N2	27:1J:89:G:H3'	2.31	0.45
28:19:94:LEU:HD23	28:19:94:LEU:HA	1.77	0.45
29:29:100:GLU:O	29:29:172:VAL:HG23	2.16	0.45
30:39:27:GLU:O	30:39:28:ILE:HG12	2.16	0.45
30:39:200:GLU:O	30:39:203:GLN:HB2	2.16	0.45
33:69:29:TYR:C	33:69:32:PRO:HD2	2.37	0.45
35:25:3:GLN:HB2	35:25:4:PRO:HD2	1.97	0.45
38:55:79:LEU:HA	38:55:83:ILE:HB	1.98	0.45
42:95:85:LYS:HG3	42:95:87:HIS:CA	2.46	0.45
1:13:448:A:OP2	1:13:485:G:N2	2.33	0.45
1:13:515:G:N7	58:13:1869:HOH:O	2.36	0.45
1:13:685:G:O2'	1:13:686:U:H5'	2.16	0.45
1:13:724:G:O2'	1:13:725:G:H5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.16	0.45
1:13:1020:U:H2'	1:13:1021:G:C8	2.52	0.45
1:13:1312:G:H5'	19:AI:6:LYS:CD	2.46	0.45
2:1E:36:ARG:HA	2:1E:36:ARG:HD2	1.81	0.45
6:5E:62:TRP:CE2	18:9I:35:ARG:NH2	2.85	0.45
8:7E:85:ARG:HD3	8:7E:86:ILE:O	2.16	0.45
10:1I:17:ASP:O	10:1I:21:GLN:HG2	2.16	0.45
15:6I:6:GLU:CD	15:6I:6:GLU:N	2.69	0.45
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.16	0.45
19:AI:78:ARG:H	19:AI:78:ARG:NE	2.04	0.45
26:1H:2111:C:O2'	26:1H:2119:A:OP1	2.34	0.45
26:1H:2690:C:H5"	26:1H:2872:G:N2	2.29	0.45
29:21:134:ILE:C	29:21:134:ILE:HD12	2.36	0.45
30:31:6:VAL:N	30:31:24:LEU:HB3	2.31	0.45
30:31:32:LEU:HD22	30:31:105:VAL:HG13	1.98	0.45
30:31:119:ARG:HE	30:31:119:ARG:HB3	1.58	0.45
38:98:72:ASP:OD2	38:98:75:LEU:HB2	2.16	0.45
39:A8:11:LYS:O	39:A8:15:ARG:HB2	2.16	0.45
55:Q8:21:LYS:HD2	55:Q8:21:LYS:HA	1.70	0.45
55:Q8:22:VAL:HG22	55:Q8:47:LYS:NZ	2.31	0.45
55:Q8:34:TRP:CB	55:Q8:35:GLN:CA	2.92	0.45
1:1G:1072:G:H2'	1:1G:1073:U:C6	2.52	0.45
2:12:105:PHE:HA	2:12:108:ILE:HB	1.97	0.45
3:22:37:GLN:O	3:22:40:ARG:HG3	2.17	0.45
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.51	0.45
10:1A:35:SER:HB3	10:1A:73:ASP:HB2	1.97	0.45
17:8A:3:LYS:HB3	17:8A:61:GLU:HB3	1.98	0.45
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.16	0.45
22:1L:72:C:H2'	22:1L:73:A:H5"	1.99	0.45
26:14:307:G:H21	26:14:330:A:H62	1.63	0.45
26:14:311:A:C6	26:14:328:U:C4	3.05	0.45
26:14:342:G:H2'	26:14:343:C:H6	1.81	0.45
26:14:484:C:H2'	26:14:485:C:H6	1.82	0.45
26:14:690:G:O2'	28:19:43:ARG:NH2	2.49	0.45
26:14:906:G:OP1	37:45:140:ALA:HB3	2.16	0.45
26:14:1131:G:C2	26:14:1132:A:C4	3.05	0.45
26:14:1225:C:H4'	42:95:85:LYS:CG	2.45	0.45
26:14:1235:G:C6	26:14:1236:G:N1	2.84	0.45
26:14:1364:G:OP2	48:F5:2:SER:N	2.48	0.45
26:14:1648:C:H42	26:14:2009:G:H1	1.64	0.45
26:14:1751:C:O2'	26:14:1752:C:H5'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2762:G:H5'	26:14:2763:G:OP2	2.15	0.45
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.46	0.45
29:29:5:LEU:HD23	29:29:51:PHE:HB2	1.98	0.45
29:29:13:ARG:HA	29:29:21:VAL:O	2.16	0.45
30:39:63:LYS:HE2	30:39:67:GLN:HB3	1.98	0.45
35:25:10:VAL:CG1	35:25:19:ILE:HG23	2.46	0.45
37:45:19:GLY:O	37:45:99:PRO:HD2	2.16	0.45
39:65:31:SER:OG	39:65:34:HIS:N	2.48	0.45
40:75:19:LEU:HB3	40:75:86:ILE:CG2	2.46	0.45
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.16	0.45
48:F5:82:LEU:HB2	48:F5:83:GLU:H	1.59	0.45
51:I5:37:SER:OG	51:I5:38:LYS:N	2.49	0.45
1:13:22:G:H2'	1:13:23:C:H6	1.80	0.45
1:13:153:C:H42	1:13:168:G:H1	1.63	0.45
1:13:222:U:C2	1:13:223:U:C5	3.05	0.45
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.49	0.45
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.17	0.45
1:13:540:G:H2'	1:13:541:G:O4'	2.16	0.45
1:13:555:C:OP2	12:3I:20:LYS:NZ	2.48	0.45
1:13:1028:C:H42	1:13:1033:G:H1	1.64	0.45
1:13:1074:G:C2	1:13:1075:C:C2	3.05	0.45
1:13:1164:G:C6	1:13:1165:C:C4	3.04	0.45
1:13:1513:A:H2'	1:13:1514:C:C6	2.51	0.45
2:1E:189:ASP:HB3	2:1E:191:ASP:H	1.82	0.45
2:1E:210:SER:O	2:1E:214:ILE:HG12	2.16	0.45
3:2E:149:ALA:HA	3:2E:201:TYR:O	2.15	0.45
6:5E:100:ASN:ND2	18:9I:26:LEU:O	2.49	0.45
8:7E:38:ILE:HD11	8:7E:118:VAL:O	2.17	0.45
19:AI:51:VAL:HG12	19:AI:52:TYR:N	2.31	0.45
22:1K:74:C:H1'	22:1K:75:C:H5'	1.96	0.45
23:2K:77:A:O2'	26:1H:2602:A:N7	2.39	0.45
26:1H:29:U:H2'	26:1H:30:G:H8	1.82	0.45
26:1H:270(K):C:O2'	26:1H:270(M):U:OP1	2.17	0.45
26:1H:721:C:H2'	26:1H:722:A:C8	2.51	0.45
26:1H:881:G:H5'	26:1H:882:G:O5'	2.15	0.45
26:1H:1108:U:O4	26:1H:1109:C:N4	2.49	0.45
26:1H:1204:A:N1	26:1H:1241:A:H2	2.14	0.45
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.17	0.45
26:1H:1471:A:C2	26:1H:1472:A:C8	3.04	0.45
26:1H:1500:G:O2'	28:11:100:GLY:O	2.30	0.45
26:1H:1888:G:H5'	26:1H:1889:A:OP1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2208:U:H4'	28:11:151:LYS:HG2	1.97	0.45
26:1H:2542:A:H4'	26:1H:2543:G:H8	1.80	0.45
26:1H:2859:G:C6	26:1H:2860:A:N6	2.85	0.45
28:11:136:ILE:H	28:11:136:ILE:HG12	1.61	0.45
29:21:47:VAL:O	29:21:80:GLU:HA	2.16	0.45
32:51:4:ILE:C	32:51:6:ARG:H	2.19	0.45
33:61:79:ILE:HD13	33:61:79:ILE:HA	1.73	0.45
36:78:94:GLU:OE1	36:78:124:LYS:HD3	2.17	0.45
1:1G:8:A:N6	4:32:209:ARG:HB2	2.30	0.45
1:1G:646:U:H2'	1:1G:647:C:C6	2.50	0.45
1:1G:926:G:C6	1:1G:1505:G:C5	3.04	0.45
1:1G:1072:G:C2	1:1G:1073:U:C2	3.05	0.45
1:1G:1198:G:H2'	1:1G:1199:U:C6	2.51	0.45
1:1G:1228:C:H5'	13:4A:114:ARG:HB3	1.99	0.45
7:62:21:VAL:O	7:62:24:THR:HB	2.17	0.45
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.52	0.45
13:4A:7:VAL:HG11	31:49:115:ARG:HE	1.81	0.45
19:AA:12:ASP:OD1	19:AA:12:ASP:N	2.47	0.45
22:1L:73:A:O3'	22:1L:74:C:H3'	2.17	0.45
24:3L:9:A:OP1	24:3L:46:G:O2'	2.29	0.45
26:14:2:G:N2	26:14:2901:C:H42	2.14	0.45
26:14:1196:C:O2'	26:14:1228:G:O2'	2.27	0.45
26:14:1341:U:O4	44:B5:16:LYS:NZ	2.40	0.45
26:14:2074:U:P	58:14:3403:HOH:O	2.70	0.45
26:14:2453:A:H2'	26:14:2454:G:O4'	2.16	0.45
26:14:2751:G:N1	32:59:2:SER:HB3	2.30	0.45
29:29:128:SER:OG	29:29:129:HIS:N	2.49	0.45
29:29:195:LEU:HD12	29:29:195:LEU:HA	1.76	0.45
30:39:132:VAL:HG22	30:39:133:ASN:OD1	2.16	0.45
31:49:81:LYS:HB3	31:49:82:LEU:H	1.55	0.45
38:55:29:LEU:HD23	38:55:70:LEU:HD11	1.98	0.45
39:65:102:ALA:O	39:65:105:ALA:N	2.49	0.45
45:C5:75:ILE:HG23	45:C5:76:CYS:N	2.32	0.45
1:13:687:A:C2'	1:13:701:C:H41	2.30	0.45
1:13:881:G:P	12:3I:12:ARG:HH22	2.38	0.45
1:13:1206:G:C6	1:13:1207:G:C5	3.04	0.45
1:13:1274:G:H2'	1:13:1275:A:H8	1.80	0.45
1:13:1399:C:O2	58:13:1909:HOH:O	2.18	0.45
3:2E:24:ALA:HB2	3:2E:32:LEU:HD12	1.98	0.45
5:4E:54:ALA:HA	5:4E:57:LYS:HG3	1.98	0.45
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:104:ARG:HD2	8:7E:138:TRP:CG	2.52	0.45
8:7E:122:ARG:O	8:7E:126:LYS:HG3	2.16	0.45
11:2I:21:ILE:HG13	11:2I:30:VAL:HG12	1.97	0.45
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.52	0.45
20:BI:39:LYS:HB2	20:BI:55:ILE:HG21	1.97	0.45
20:BI:73:HIS:HB3	20:BI:74:LYS:HG3	1.99	0.45
26:1H:2161:C:H2'	26:1H:2162:G:C8	2.48	0.45
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.16	0.45
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.34	0.45
30:31:198:ALA:O	30:31:201:VAL:N	2.50	0.45
32:51:4:ILE:O	32:51:4:ILE:HG12	2.16	0.45
38:98:55:ALA:HA	38:98:80:PHE:HE1	1.78	0.45
40:B8:39:ARG:HD2	40:B8:40:THR:H	1.82	0.45
44:F8:82:GLN:HE21	44:F8:83:VAL:N	2.14	0.45
52:N8:40:LYS:HD3	52:N8:46:CYS:SG	2.56	0.45
53:O8:11:LEU:O	53:O8:23:THR:HB	2.17	0.45
1:1G:406:G:H5'	4:32:5:ILE:HG22	1.97	0.45
1:1G:411:A:N7	1:1G:413:G:N3	2.64	0.45
1:1G:1117:G:O3'	9:82:104:ARG:HD2	2.16	0.45
1:1G:1272:G:N3	1:1G:1273:G:H1'	2.31	0.45
3:22:90:GLU:OE2	3:22:93:LYS:HD2	2.16	0.45
3:22:173:VAL:HG12	3:22:175:LEU:HG	1.99	0.45
26:14:16:G:H2'	26:14:17:G:H8	1.82	0.45
26:14:601:C:O2	26:14:605:C:H4'	2.17	0.45
26:14:783:A:H8	26:14:784:A:H4'	1.80	0.45
26:14:797:C:H2'	26:14:798:G:O4'	2.15	0.45
26:14:1754:C:H5	40:75:96:ARG:NH2	2.15	0.45
26:14:1885:A:H5'	26:14:1886:C:OP2	2.16	0.45
26:14:1971:A:H1'	28:19:240:ALA:O	2.16	0.45
26:14:2748:A:H2'	26:14:2749:A:H8	1.82	0.45
27:1J:45:A:N3	27:1J:45:A:H2'	2.30	0.45
27:1J:61:G:C6	27:1J:62:C:C4	3.04	0.45
28:19:71:ASP:CG	28:19:103:ARG:HH12	2.19	0.45
28:19:213:ARG:HA	28:19:213:ARG:HD2	1.73	0.45
31:49:41:GLN:HB3	31:49:43:LEU:HD21	1.98	0.45
33:69:69:LYS:O	33:69:73:GLU:HB2	2.16	0.45
34:15:67:LEU:HD23	34:15:88:GLU:HG2	1.98	0.45
36:35:97:PRO:HG3	36:35:112:LEU:HD12	1.98	0.45
37:45:43:THR:O	37:45:46:GLN:HB2	2.17	0.45
39:65:11:LYS:O	39:65:15:ARG:HG2	2.16	0.45
44:B5:32:PRO:HA	44:B5:77:LYS:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:19:ARG:HE	46:D5:19:ARG:HB2	1.34	0.45
50:H5:12:PRO:HB2	50:H5:20:LYS:HG2	1.98	0.45
1:13:19:C:OP1	5:4E:125:SER:OG	2.21	0.45
1:13:22:G:H4'	1:13:885:G:C8	2.52	0.45
1:13:189:U:O2	17:8I:63:ARG:NH2	2.49	0.45
1:13:223:U:H2'	1:13:224:C:O4'	2.17	0.45
1:13:565:U:H3'	1:13:566:G:H2'	1.98	0.45
1:13:591:U:H2'	1:13:592:G:C8	2.52	0.45
1:13:724:G:N3	1:13:725:G:C8	2.85	0.45
1:13:939:G:C6	1:13:940:C:C4	3.04	0.45
1:13:963:G:N2	1:13:972:C:C2	2.84	0.45
1:13:1015:A:H2'	1:13:1016:A:C8	2.52	0.45
1:13:1081:G:H2'	1:13:1082:G:C8	2.51	0.45
6:5E:97:PHE:O	18:9I:31:LEU:HD23	2.16	0.45
8:7E:39:LEU:HD13	8:7E:111:ILE:HD11	1.99	0.45
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.37	0.45
17:8I:29:HIS:O	17:8I:33:GLY:N	2.36	0.45
26:1H:244:A:H4'	36:78:74:GLU:HB3	1.97	0.45
26:1H:396:G:C8	48:J8:13:ILE:HD11	2.52	0.45
26:1H:527:C:N4	26:1H:2777:G:O2'	2.50	0.45
26:1H:530:G:N3	26:1H:530:G:O4'	2.49	0.45
26:1H:562:U:C4	26:1H:2036:C:O4'	2.69	0.45
26:1H:719:C:H2'	26:1H:720:C:H6	1.81	0.45
26:1H:751:A:C6	26:1H:789:A:C5	3.05	0.45
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.16	0.45
26:1H:1766:U:H2'	26:1H:1767:C:C6	2.51	0.45
26:1H:1858:G:C6	26:1H:1883:G:C6	3.04	0.45
26:1H:2153:G:H2'	26:1H:2154:G:O4'	2.16	0.45
26:1H:2347:C:OP2	55:Q8:36:LYS:HE3	2.16	0.45
26:1H:2427:C:H5"	26:1H:2428:G:OP1	2.16	0.45
26:1H:2636:U:P	29:21:79:ARG:HA	2.56	0.45
26:1H:2645:G:C3'	26:1H:2646:C:H5'	2.46	0.45
29:21:57:LYS:HE2	29:21:59:VAL:HG12	1.98	0.45
32:51:170:ARG:HD3	32:51:170:ARG:HA	1.54	0.45
38:98:9:LYS:HA	38:98:17:ARG:NE	2.32	0.45
40:B8:112:ARG:HA	40:B8:115:ARG:NE	2.32	0.45
47:I8:53:MET:HG3	47:I8:59:LEU:HD23	1.97	0.45
55:Q8:47:LYS:HB2	55:Q8:47:LYS:HZ3	1.82	0.45
1:1G:219:C:H2'	1:1G:220:G:O4'	2.17	0.45
1:1G:309:G:O2'	1:1G:607:A:N1	2.50	0.45
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:591:U:H2'	1:1G:592:G:C8	2.51	0.45
1:1G:860:A:H2'	1:1G:861:G:O4'	2.16	0.45
1:1G:967:C:H2'	1:1G:968:A:C8	2.51	0.45
1:1G:1310:G:H5'	13:4A:77:ASN:ND2	2.23	0.45
1:1G:1386:G:C2	1:1G:1387:G:C8	3.05	0.45
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.16	0.45
4:32:81:GLU:O	4:32:85:LYS:HB2	2.16	0.45
12:3A:69:TYR:HB2	12:3A:96:VAL:HG11	1.99	0.45
15:6A:53:HIS:O	15:6A:56:LEU:HB3	2.15	0.45
17:8A:45:HIS:NE2	17:8A:47:PRO:HB3	2.31	0.45
20:BA:56:MET:HG2	20:BA:84:LEU:HD13	1.99	0.45
23:2L:32:G:C4	23:2L:33:OMC:C5	3.05	0.45
26:14:1011:G:N3	26:14:1151:G:C2	2.85	0.45
26:14:1069:A:H4'	26:14:1070:A:H5"	1.98	0.45
26:14:1321:A:H2'	26:14:1322:A:O4'	2.16	0.45
26:14:1386:C:OP2	26:14:1396:U:H5	1.99	0.45
26:14:1420:U:O2'	26:14:1421:G:OP1	2.29	0.45
26:14:1590:U:H2'	26:14:1591:G:C8	2.52	0.45
26:14:1784:A:H4'	26:14:1785:A:C5'	2.46	0.45
26:14:2414:G:H21	36:35:67:MET:CE	2.30	0.45
26:14:2529:G:H21	26:14:2529:G:P	2.38	0.45
27:1J:44:G:C2	27:1J:48:A:C2	3.04	0.45
27:1J:99:A:C5	27:1J:100:G:C8	3.04	0.45
29:29:9:VAL:HG12	40:75:8:LYS:NZ	2.29	0.45
29:29:51:PHE:O	29:29:74:PRO:HB2	2.16	0.45
29:29:103:ASP:OD1	29:29:201:THR:HG23	2.16	0.45
36:35:88:LEU:HD22	36:35:114:ILE:HD13	1.97	0.45
39:65:54:LEU:HA	39:65:54:LEU:HD12	1.77	0.45
45:C5:87:LYS:CG	45:C5:88:LYS:H	2.30	0.45
46:D5:61:LEU:HB3	46:D5:62:PRO:O	2.16	0.45
1:13:555:C:P	12:3I:20:LYS:NZ	2.90	0.45
1:13:826:C:H4'	8:7E:12:ARG:HG2	1.99	0.45
1:13:861:G:H4'	8:7E:18:ARG:HH21	1.82	0.45
1:13:994:A:C8	1:13:1216:G:H4'	2.51	0.45
1:13:1365:G:H2'	1:13:1366:C:H6	1.82	0.45
1:13:1425:U:H2'	1:13:1426:C:H6	1.82	0.45
6:5E:35:ALA:HB1	6:5E:65:VAL:HG21	1.98	0.45
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.63	0.45
12:3I:8:ASN:HA	12:3I:11:VAL:HG23	1.98	0.45
21:1F:2:GLY:O	21:1F:4:GLY:N	2.50	0.45
23:2K:37:U:H2'	23:2K:38:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:26:G:OP1	43:E8:80:PRO:HB3	2.16	0.45
26:1H:287:C:H2'	26:1H:288:C:H6	1.82	0.45
26:1H:302:C:H2'	26:1H:303:U:H6	1.82	0.45
26:1H:323:G:C2	26:1H:333:G:H1'	2.51	0.45
26:1H:1392:A:C6	26:1H:1393:A:N1	2.85	0.45
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.78	0.45
26:1H:1511:A:H2'	26:1H:1512:G:O4'	2.17	0.45
26:1H:1537:C:O5'	26:1H:1537:C:H6	1.99	0.45
26:1H:2373:G:H1	26:1H:2380:C:H42	1.63	0.45
26:1H:2672:G:H5"	26:1H:2672:G:H8	1.81	0.45
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.17	0.45
27:16:69:G:C5	27:16:70:C:C5	3.04	0.45
28:11:20:ASP:OD2	28:11:22:SER:HB2	2.17	0.45
30:31:176:LEU:HB3	30:31:177:ALA:O	2.17	0.45
31:41:67:LYS:HE2	31:41:67:LYS:N	2.32	0.45
37:88:63:LYS:HE2	37:88:65:PHE:CZ	2.52	0.45
40:B8:26:ASP:HB3	40:B8:92:GLY:N	2.18	0.45
43:E8:33:ARG:NE	43:E8:52:GLU:OE1	2.50	0.45
49:K8:16:LEU:HG	49:K8:17:SER:N	2.31	0.45
55:Q8:33:ASN:ND2	55:Q8:33:ASN:O	2.50	0.45
1:1G:415:A:C5	1:1G:416:G:C5	3.05	0.45
1:1G:485:G:HO2'	1:1G:486:U:H6	1.59	0.45
1:1G:619:U:O2	4:32:135:LEU:HD22	2.17	0.45
1:1G:1127:G:C6	1:1G:1145:C:N3	2.85	0.45
12:3A:35:GLY:HA3	12:3A:58:VAL:CG1	2.47	0.45
24:3L:36:A:H2'	24:3L:37:A:N7	2.32	0.45
26:14:223:A:N1	26:14:407:G:O2'	2.40	0.45
26:14:635:C:H2'	26:14:636:G:O4'	2.16	0.45
26:14:775:G:C5	26:14:794:G:C8	3.04	0.45
26:14:1171:G:O2'	26:14:1173:G:OP2	2.35	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.14	0.45
26:14:1627:G:OP2	58:14:3836:HOH:O	2.21	0.45
26:14:2262:U:O2'	26:14:2263:C:H5'	2.16	0.45
30:39:165:ARG:HA	30:39:168:ARG:HH11	1.81	0.45
34:15:15:LEU:HD22	34:15:53:VAL:HB	1.99	0.45
34:15:16:ILE:HB	34:15:54:VAL:HG22	1.99	0.45
37:45:1:MET:H3	37:45:69:PHE:HE1	1.60	0.45
39:65:88:ASP:HB3	39:65:89:ARG:H	1.44	0.45
41:85:59:ARG:O	41:85:63:VAL:HG23	2.16	0.45
43:A5:59:VAL:HG12	43:A5:60:ASN:ND2	2.31	0.45
45:C5:73:ARG:NH2	45:C5:82:PRO:O	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:J5:4:HIS:O	52:J5:5:PRO:C	2.55	0.45
54:L5:34:ARG:HB3	54:L5:42:LEU:HD22	1.99	0.45
1:13:625:G:H4'	16:7I:16:HIS:CD2	2.51	0.45
1:13:737:A:C4	1:13:738:C:C5	3.05	0.45
1:13:760:G:H2'	1:13:761:G:H5'	1.99	0.45
1:13:909:A:H2'	1:13:910:C:O4'	2.16	0.45
1:13:922:G:H1'	5:4E:19:MET:HB2	1.98	0.45
1:13:1412:C:N4	1:13:1488:G:H1	2.13	0.45
4:3E:9:CYS:HB3	4:3E:32:ALA:CB	2.44	0.45
4:3E:107:ARG:HH22	4:3E:194:LEU:CD2	2.19	0.45
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.17	0.45
14:5I:42:ILE:O	14:5I:46:GLU:HG3	2.16	0.45
14:5I:50:LYS:HB3	14:5I:50:LYS:HE3	1.66	0.45
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.36	0.45
20:BI:48:LYS:HE3	20:BI:48:LYS:HB3	1.73	0.45
26:1H:325:G:H2'	26:1H:326:G:C8	2.52	0.45
26:1H:880:G:O2'	26:1H:881:G:O5'	2.27	0.45
26:1H:889:C:H3'	26:1H:890:A:H4'	1.99	0.45
26:1H:1018:C:O3'	26:1H:1120:G:N2	2.50	0.45
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.81	0.45
26:1H:1259:G:O2'	26:1H:1260:G:H5'	2.17	0.45
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.82	0.45
26:1H:2062:A:N6	26:1H:2503:A:H62	2.15	0.45
26:1H:2287:A:C2	26:1H:2346:A:C2	3.05	0.45
29:21:105:THR:HG21	29:21:164:ARG:CZ	2.46	0.45
30:31:197:ASP:O	30:31:199:TRP:N	2.49	0.45
31:41:178:PHE:O	31:41:180:PHE:HD1	2.00	0.45
33:61:30:LEU:HD23	33:61:30:LEU:HA	1.81	0.45
33:61:85:GLU:OE2	33:61:85:GLU:HA	2.17	0.45
37:88:52:VAL:HA	37:88:55:VAL:HG13	1.98	0.45
39:A8:70:GLY:HA2	39:A8:101:LEU:HD13	1.98	0.45
40:B8:50:ILE:HD11	40:B8:102:ILE:HD11	1.97	0.45
40:B8:107:ASP:O	40:B8:111:ARG:NH1	2.50	0.45
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.32	0.45
44:F8:82:GLN:NE2	44:F8:82:GLN:HA	2.31	0.45
46:H8:40:ASP:OD1	46:H8:43:GLU:HG3	2.17	0.45
52:N8:33:CYS:SG	52:N8:40:LYS:HD3	2.56	0.45
1:1G:8:A:C5	4:32:209:ARG:HB2	2.51	0.45
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.51	0.45
1:1G:177:C:H2'	1:1G:178:C:H6	1.82	0.45
1:1G:310:G:P	16:7A:27:LYS:HD3	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:427:U:H3'	1:1G:428:G:H2'	1.98	0.45
1:1G:1149:C:H2'	1:1G:1150:U:C6	2.51	0.45
6:52:7:ASN:ND2	18:9A:76:LEU:HD11	2.28	0.45
10:1A:16:LEU:HD23	10:1A:16:LEU:HA	1.84	0.45
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.17	0.45
23:2L:5:G:H2'	23:2L:6:G:O4'	2.17	0.45
24:3L:44:G:H2'	24:3L:45:U:O4'	2.16	0.45
26:14:193:U:H5	58:14:4102:HOH:O	1.98	0.45
26:14:315:G:H2'	26:14:316:C:H6	1.81	0.45
26:14:439:G:H2'	26:14:440:G:H8	1.82	0.45
26:14:1348:G:H2'	26:14:1348:G:N3	2.32	0.45
26:14:1614:A:H61	43:A5:88:ARG:H	1.63	0.45
26:14:2400:G:H3'	26:14:2401:U:H6	1.80	0.45
26:14:2469:A:H2	26:14:2481:G:N2	2.15	0.45
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.52	0.45
28:19:237:GLU:HB3	28:19:238:GLY:H	1.59	0.45
43:A5:72:LYS:HB3	43:A5:106:ILE:HG13	1.99	0.45
48:F5:73:LEU:HB3	48:F5:90:ILE:HG22	1.99	0.45
53:K5:19:ARG:NH2	53:K5:52:VAL:HG21	2.32	0.45
1:13:66:G:C2	1:13:67:C:C6	3.04	0.45
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.98	0.45
1:13:628:G:H2'	1:13:629:G:H8	1.81	0.45
1:13:665:A:N3	1:13:732:C:H2'	2.32	0.45
1:13:1022:G:H2'	1:13:1023:G:C8	2.50	0.45
1:13:1367:C:H5'	10:1I:60:ARG:NH2	2.26	0.45
1:13:1368:G:H5"	9:8E:112:LYS:CB	2.43	0.45
11:2I:99:GLN:HA	11:2I:105:VAL:HG21	1.99	0.45
14:5I:37:PHE:CE2	14:5I:53:LEU:HD13	2.51	0.45
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.17	0.45
24:3K:19:G:N2	26:1H:2112:G:H21	2.15	0.45
26:1H:37:C:H2'	26:1H:38:A:C8	2.52	0.45
26:1H:46:C:H2'	26:1H:47:C:C6	2.52	0.45
26:1H:69:C:H2'	26:1H:70:G:C8	2.51	0.45
26:1H:270(C):C:O2'	26:1H:273(B):C:H5'	2.17	0.45
26:1H:277:C:H3'	26:1H:278:A:O4'	2.17	0.45
26:1H:527:C:H4'	26:1H:528:A:C5'	2.46	0.45
26:1H:1042:G:C6	26:1H:1043:C:C4	3.05	0.45
26:1H:1329:U:H5"	26:1H:1330:C:C5	2.51	0.45
26:1H:1364:G:OP1	48:J8:3:LYS:HG2	2.17	0.45
26:1H:1810:A:H2'	26:1H:1811:G:O4'	2.17	0.45
27:16:7:G:H5"	27:16:7:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:155:LEU:HD13	28:11:155:LEU:N	2.32	0.45
30:31:68:LYS:O	30:31:69:HIS:HB2	2.17	0.45
31:41:128:ARG:HB2	31:41:128:ARG:HH21	1.81	0.45
34:58:18:ALA:H	34:58:21:LYS:NZ	2.15	0.45
35:68:13:ASN:ND2	35:68:97:ARG:HB3	2.31	0.45
36:78:80:TYR:CE2	36:78:111:ARG:HD3	2.51	0.45
37:88:21:THR:OG1	37:88:22:LYS:O	2.31	0.45
37:88:134:ARG:NH2	46:H8:122:ARG:HD2	2.31	0.45
44:F8:3:THR:HG22	44:F8:6:ASP:HB2	1.99	0.45
46:H8:6:LYS:HE3	46:H8:8:TYR:CE1	2.51	0.45
1:1G:567:G:O6	12:3A:5:PRO:HD3	2.17	0.45
1:1G:973:G:O4'	10:1A:55:LYS:HB3	2.17	0.45
4:32:19:LEU:HB2	4:32:21:LEU:HD21	1.98	0.45
4:32:191:ARG:NH1	4:32:200:GLU:OE1	2.45	0.45
9:82:128:ARG:NH2	23:2L:34:U:P	2.90	0.45
12:3A:59:ARG:CZ	12:3A:65:GLU:HB2	2.46	0.45
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.80	0.45
19:AA:23:ASN:HA	19:AA:27:GLU:CG	2.47	0.45
23:2L:16:C:O2'	23:2L:62:C:OP1	2.28	0.45
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.17	0.45
26:14:602:G:OP2	26:14:602:G:H8	1.99	0.45
26:14:1396:U:O2	26:14:1396:U:H2'	2.17	0.45
26:14:1551:C:H2'	26:14:1552:G:O4'	2.17	0.45
26:14:2847:U:OP1	40:75:98:LYS:HE2	2.16	0.45
27:1J:33:G:N3	27:1J:50:G:C2	2.85	0.45
29:29:119:ARG:HD2	29:29:120:TRP:CE2	2.52	0.45
30:39:81:PRO:HB3	30:39:87:GLY:O	2.17	0.45
31:49:38:VAL:HG22	31:49:93:THR:HG23	1.98	0.45
34:15:29:LYS:H	34:15:29:LYS:HG2	1.42	0.45
39:65:86:ALA:O	39:65:87:PHE:HB2	2.17	0.45
41:85:92:ARG:CZ	42:95:11:GLN:H	2.30	0.45
1:13:438:G:OP1	4:3E:125:HIS:HE1	2.00	0.45
1:13:558:G:H2'	1:13:559:A:H2	1.81	0.45
1:13:833:U:H3	1:13:853:G:H1	1.65	0.45
11:2I:121:PRO:HG2	11:2I:126:ARG:CG	2.47	0.45
12:3I:33:ARG:O	12:3I:85:ILE:HG12	2.17	0.45
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.81	0.45
24:3K:4:C:H2'	24:3K:5:G:O4'	2.17	0.45
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.05	0.45
26:1H:442:G:N3	30:31:48:THR:CG2	2.80	0.45
26:1H:536:A:H2'	26:1H:537:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1378:A:O2'	26:1H:1380:G:N7	2.43	0.45
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.52	0.45
26:1H:1639:U:C2'	26:1H:1640:C:H5'	2.47	0.45
26:1H:2016:U:H1'	52:N8:6:VAL:HG13	1.98	0.45
27:16:57:A:H8	27:16:57:A:O5'	2.00	0.45
30:31:24:LEU:HD21	30:31:114:VAL:HG12	1.98	0.45
33:61:129:THR:HG22	33:61:137:PRO:HB3	1.99	0.45
36:78:95:VAL:O	36:78:126:VAL:HG23	2.17	0.45
40:B8:5:ALA:O	40:B8:8:LYS:HG2	2.17	0.45
40:B8:120:ARG:HA	40:B8:123:GLN:HG2	1.99	0.45
45:G8:93:GLY:O	45:G8:94:LYS:HB2	2.17	0.45
46:H8:128:VAL:CB	46:H8:161:VAL:HG21	2.47	0.45
48:J8:50:ARG:HD2	48:J8:57:GLU:OE2	2.17	0.45
1:1G:57:G:H2'	1:1G:58:C:C6	2.52	0.45
1:1G:532:A:N7	1:1G:1207:G:H4'	2.32	0.45
1:1G:569:C:H1'	1:1G:574:A:C4	2.51	0.45
1:1G:1057:G:H2'	1:1G:1058:G:C8	2.52	0.45
1:1G:1162:C:C2	1:1G:1175:G:C2	3.05	0.45
1:1G:1250:A:H4'	9:82:68:GLY:N	2.32	0.45
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.42	0.45
5:42:129:ILE:O	5:42:132:ALA:HB3	2.17	0.45
6:52:86:ARG:O	6:52:87:ARG:HG2	2.17	0.45
7:62:50:ILE:HB	7:62:58:PRO:HG3	1.99	0.45
7:62:131:LYS:HB3	7:62:131:LYS:HE3	1.58	0.45
11:2A:56:GLY:O	11:2A:89:ALA:HB3	2.17	0.45
12:3A:110:VAL:HB	12:3A:113:ARG:HB2	1.99	0.45
13:4A:23:TYR:CE1	13:4A:70:LEU:HD12	2.52	0.45
14:5A:47:LEU:HA	14:5A:47:LEU:HD23	1.68	0.45
23:2L:3:C:H5'	26:14:2255:G:O2'	2.17	0.45
24:3L:36:A:H2'	24:3L:37:A:C8	2.52	0.45
26:14:484:C:H2'	26:14:485:C:C6	2.52	0.45
26:14:807:U:H4'	26:14:2446:G:OP1	2.16	0.45
26:14:942:G:H4'	26:14:1190:G:H5'	1.98	0.45
26:14:959:A:C6	26:14:960:A:N1	2.85	0.45
26:14:1439:A:C8	26:14:1440:G:C8	3.05	0.45
26:14:1495:A:O2'	26:14:1496:A:H5'	2.17	0.45
26:14:2301:C:C5	26:14:2302:G:N7	2.85	0.45
26:14:2716:U:H2'	26:14:2717:G:C8	2.53	0.45
29:29:50:GLY:HA2	29:29:78:LEU:HB3	1.99	0.45
29:29:117:MET:HA	29:29:122:PHE:N	2.32	0.45
31:49:135:LEU:HD11	31:49:157:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:43:THR:HB	37:45:45:GLN:HG2	1.98	0.45
39:65:6:ALA:O	39:65:10:ARG:HG3	2.17	0.45
41:85:58:ARG:HA	41:85:61:TRP:CE3	2.52	0.45
41:85:62:ILE:HD11	41:85:93:LYS:HD3	1.98	0.45
51:I5:37:SER:HB3	51:I5:39:CYS:HB2	1.99	0.45
51:I5:37:SER:C	51:I5:39:CYS:H	2.21	0.45
1:13:984:C:H2'	1:13:985:C:H6	1.82	0.44
2:1E:11:LEU:HD13	2:1E:217:ARG:HH22	1.81	0.44
2:1E:87:ARG:HH21	2:1E:233:SER:HB2	1.82	0.44
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.32	0.44
18:9I:37:VAL:O	18:9I:41:LYS:N	2.36	0.44
24:3K:8:U:O2'	24:3K:9:A:OP1	2.28	0.44
26:1H:66:C:C2	26:1H:67:U:C6	3.06	0.44
26:1H:609:A:H8	26:1H:609:A:O5'	2.00	0.44
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.79	0.44
26:1H:1945:G:C4	26:1H:1946:U:C5	3.06	0.44
26:1H:2388:A:H2'	26:1H:2389:G:H5'	1.99	0.44
26:1H:2444:G:O6	58:1H:4648:HOH:O	2.20	0.44
26:1H:2661:G:OP2	26:1H:2661:G:H8	2.00	0.44
26:1H:2723:C:OP1	29:21:109:LYS:HD3	2.17	0.44
29:21:144:ARG:HH11	29:21:144:ARG:HG3	1.82	0.44
31:41:16:ARG:N	31:41:17:PRO:HD2	2.31	0.44
33:61:10:GLU:HG3	33:61:10:GLU:O	2.16	0.44
38:98:24:GLN:HE22	38:98:36:THR:CG2	2.29	0.44
38:98:53:HIS:HB2	38:98:94:TYR:HE2	1.82	0.44
41:C8:11:ARG:O	41:C8:15:LYS:HG3	2.17	0.44
42:D8:25:LEU:H	42:D8:92:THR:CG2	2.30	0.44
48:J8:76:ARG:HH11	48:J8:94:LEU:HD22	1.81	0.44
49:K8:55:ARG:O	49:K8:58:ALA:HB3	2.16	0.44
1:1G:286:G:C6	1:1G:287:U:C4	3.05	0.44
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.98	0.44
2:12:185:ILE:CG2	2:12:199:TYR:HB2	2.46	0.44
4:32:25:ARG:NH1	4:32:31:CYS:HA	2.32	0.44
4:32:43:HIS:O	4:32:46:LYS:HB2	2.17	0.44
11:2A:38:ASN:HA	11:2A:39:PRO:HD3	1.84	0.44
12:3A:93:LEU:HB3	12:3A:96:VAL:HG21	1.99	0.44
17:8A:95:TYR:HA	17:8A:98:LEU:HG	1.99	0.44
26:14:117:G:C6	26:14:119:A:C6	3.05	0.44
26:14:279:C:H42	26:14:361:G:H1	1.64	0.44
26:14:396:G:O4'	48:F5:13:ILE:HD11	2.17	0.44
26:14:668:G:H2'	26:14:670:A:H62	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1112:G:H2'	26:14:1113:U:C6	2.52	0.44
26:14:1165:U:H2'	26:14:1166:C:C6	2.52	0.44
26:14:1385:G:C4	26:14:1386:C:C5	3.05	0.44
26:14:2324:C:H42	26:14:2331:G:H1	1.65	0.44
28:19:65:ILE:HD11	28:19:67:PHE:CE1	2.52	0.44
31:49:130:ASN:HB3	31:49:159:VAL:O	2.16	0.44
32:59:82:GLY:O	32:59:134:SER:HA	2.17	0.44
32:59:83:TYR:O	32:59:84:SER:OG	2.34	0.44
37:45:29:PHE:HD2	37:45:65:PHE:CZ	2.35	0.44
43:A5:36:LEU:HD11	43:A5:47:VAL:HG12	1.98	0.44
43:A5:71:VAL:HA	43:A5:107:LEU:HD12	1.99	0.44
46:D5:60:GLU:HB2	46:D5:66:SER:OG	2.18	0.44
53:K5:28:ARG:NH1	53:K5:30:THR:O	2.50	0.44
1:13:161:A:H2'	1:13:162:A:C8	2.52	0.44
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.35	0.44
6:5E:76:ALA:O	6:5E:80:ARG:HG3	2.18	0.44
11:2I:41:THR:HG21	11:2I:71:LYS:HB3	1.99	0.44
17:8I:60:ILE:O	17:8I:62:SER:OG	2.33	0.44
24:3K:35:A:C6	24:3K:36:A:N6	2.86	0.44
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.52	0.44
26:1H:1380:G:N2	26:1H:1570:A:C2	2.85	0.44
26:1H:1439:A:H3'	26:1H:1440:G:H8	1.82	0.44
26:1H:1469:A:H2'	26:1H:1470:G:C8	2.52	0.44
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.51	0.44
26:1H:1625:C:H2'	26:1H:1626:G:O4'	2.18	0.44
26:1H:1899:G:N2	26:1H:1902:C:H41	2.15	0.44
26:1H:2097:C:C2'	26:1H:2098:U:H5'	2.47	0.44
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.52	0.44
27:16:30:C:H2'	27:16:31:C:C5'	2.46	0.44
30:31:183:VAL:O	30:31:187:VAL:HG23	2.17	0.44
48:J8:5:CYS:CB	48:J8:8:SER:HG	2.30	0.44
49:K8:61:LEU:HD23	49:K8:61:LEU:HA	1.59	0.44
55:Q8:14:VAL:HB	55:Q8:21:LYS:HE3	1.99	0.44
1:1G:34:C:H2'	1:1G:35:G:C8	2.52	0.44
1:1G:417:C:H2'	1:1G:418:C:C6	2.53	0.44
1:1G:720:C:O5'	1:1G:720:C:H6	2.00	0.44
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.16	0.44
1:1G:1054:C:N4	22:1L:34:G:C8	2.86	0.44
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.17	0.44
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.18	0.44
1:1G:1355:G:H2'	1:1G:1356:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.17	0.44
2:12:214:ILE:HG22	2:12:215:LEU:HD22	2.00	0.44
4:32:101:LEU:HA	4:32:101:LEU:HD12	1.69	0.44
5:42:34:VAL:O	5:42:41:VAL:HG12	2.16	0.44
26:14:111:A:H4'	49:G5:69:ARG:NH2	2.32	0.44
26:14:360:G:H2'	26:14:361:G:O4'	2.16	0.44
26:14:491:G:H2'	26:14:492:A:H8	1.78	0.44
26:14:753:C:H2'	26:14:754:C:H6	1.81	0.44
26:14:1677:A:H2'	26:14:1678:G:H8	1.81	0.44
26:14:2331:G:H5'	47:E5:44:ARG:HG2	1.99	0.44
26:14:2395:C:H2'	26:14:2396:G:O4'	2.17	0.44
26:14:2412:A:C2	26:14:2413:G:H1'	2.53	0.44
26:14:2472:G:N2	26:14:2478:A:H62	2.14	0.44
26:14:2629:A:H4'	26:14:2630:G:H5'	1.99	0.44
27:1J:15:A:H1'	27:1J:109:G:N9	2.32	0.44
27:1J:31:C:N4	39:65:32:LEU:HD13	2.33	0.44
29:29:134:ILE:HD12	29:29:134:ILE:O	2.16	0.44
30:39:124:LEU:HB3	30:39:126:VAL:CG1	2.47	0.44
32:59:66:GLY:O	32:59:69:ARG:HB3	2.17	0.44
36:35:39:LYS:CD	36:35:45:LEU:HD21	2.40	0.44
38:55:35:THR:HG21	38:55:100:LEU:HD11	1.99	0.44
42:95:55:ALA:HA	42:95:101:GLY:HA2	1.98	0.44
46:D5:10:ARG:HH21	46:D5:26:GLY:H	1.66	0.44
46:D5:39:VAL:HG21	46:D5:44:PHE:HB2	1.99	0.44
46:D5:158:PRO:HB2	46:D5:159:PRO:HD2	1.99	0.44
55:M5:8:LYS:HD3	55:M5:8:LYS:N	2.31	0.44
1:13:948:C:C2'	1:13:949:A:H5'	2.47	0.44
1:13:958:A:C6	1:13:959:A:N1	2.85	0.44
1:13:1347:G:H22	1:13:1374:A:P	2.39	0.44
2:1E:136:VAL:O	2:1E:140:HIS:N	2.50	0.44
3:2E:115:LEU:HA	3:2E:115:LEU:HD23	1.66	0.44
5:4E:126:ARG:HH11	5:4E:126:ARG:CG	2.30	0.44
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.47	0.44
9:8E:89:ASN:C	9:8E:91:ASP:H	2.21	0.44
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.53	0.44
19:AI:4:SER:C	19:AI:5:LEU:HG	2.35	0.44
19:AI:5:LEU:CB	19:AI:10:PHE:HE1	2.31	0.44
26:1H:64:A:O3'	44:F8:71:GLY:HA3	2.17	0.44
26:1H:357:A:H2'	26:1H:358:U:H6	1.82	0.44
26:1H:444:C:C4'	30:31:49:ALA:HB2	2.47	0.44
26:1H:537:C:H2'	26:1H:539:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:785:G:C5	26:1H:786:C:C5	3.04	0.44
26:1H:973:A:O4'	26:1H:1188:U:C6	2.71	0.44
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.50	0.44
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.52	0.44
26:1H:2253:G:OP1	58:1H:3724:HOH:O	2.21	0.44
26:1H:2275:C:O2'	37:88:83:MET:HA	2.18	0.44
26:1H:2286:A:H8	53:O8:37:ARG:HH11	1.66	0.44
26:1H:2303:G:O2'	31:41:132:ASN:HB2	2.17	0.44
27:16:88:C:H2'	27:16:89:G:O4'	2.17	0.44
28:11:26:LYS:CE	28:11:94:LEU:HD12	2.47	0.44
29:21:149:ARG:HH11	29:21:149:ARG:CG	2.30	0.44
30:31:57:VAL:HG13	30:31:59:TYR:CD2	2.52	0.44
33:61:93:THR:O	33:61:97:ILE:HG13	2.18	0.44
35:68:116:SER:OG	35:68:117:LEU:N	2.50	0.44
39:A8:49:VAL:HG12	39:A8:73:LEU:HD23	2.00	0.44
41:C8:104:GLN:H	41:C8:104:GLN:CD	2.20	0.44
46:H8:60:GLU:O	46:H8:61:LEU:HD23	2.16	0.44
47:I8:19:LYS:HA	47:I8:19:LYS:HD3	1.59	0.44
54:P8:46:VAL:HG22	54:P8:48:LYS:HE3	2.00	0.44
1:1G:15:G:N7	1:1G:1396:A:C2	2.84	0.44
1:1G:79:G:H2'	1:1G:79:G:N3	2.32	0.44
1:1G:651:C:H2'	1:1G:652:U:C6	2.53	0.44
1:1G:1106:G:C2	1:1G:1107:C:C6	3.06	0.44
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.49	0.44
1:1G:1298:C:H5"	7:62:114:ARG:HH12	1.82	0.44
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.53	0.44
1:1G:1459:C:H2'	1:1G:1460:A:O4'	2.17	0.44
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.83	0.44
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.16	0.44
18:9A:69:THR:HA	18:9A:72:ARG:HB2	1.98	0.44
19:AA:53:ASN:HA	19:AA:77:THR:HG22	1.99	0.44
21:1B:6:ARG:O	21:1B:12:LYS:HE2	2.17	0.44
24:3L:36:A:H5'	24:3L:37:A:OP2	2.18	0.44
26:14:322:A:H3'	30:39:169:ASN:OD1	2.17	0.44
26:14:900:A:H2'	26:14:900:A:N3	2.32	0.44
26:14:2076:U:H5"	26:14:2238:G:H22	1.82	0.44
26:14:2092:U:H4'	26:14:2093:G:O5'	2.17	0.44
26:14:2729:G:H2'	26:14:2730:C:H6	1.81	0.44
30:39:68:LYS:HB3	30:39:69:HIS:CD2	2.53	0.44
31:49:95:ARG:HG2	31:49:96:ARG:H	1.82	0.44
32:59:75:ALA:O	32:59:79:VAL:HG13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:80:SER:HB3	40:75:83:ILE:HG13	1.99	0.44
1:13:286:G:C6	1:13:287:U:C4	3.04	0.44
1:13:475:G:H2'	1:13:476:G:H8	1.83	0.44
1:13:644:G:H2'	1:13:645:C:O4'	2.18	0.44
1:13:1285:A:H4'	1:13:1286:A:H5'	1.98	0.44
2:1E:166:ASP:C	2:1E:168:THR:H	2.20	0.44
4:3E:59:ARG:HH22	4:3E:66:ARG:HH22	1.66	0.44
4:3E:86:LYS:H	4:3E:86:LYS:HD2	1.83	0.44
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.48	0.44
7:6E:46:ALA:O	7:6E:49:ILE:N	2.50	0.44
13:4I:7:VAL:HB	31:41:115:ARG:NH1	2.32	0.44
16:7I:38:TYR:CE1	16:7I:50:LYS:HB2	2.52	0.44
17:8I:31:LEU:HD23	17:8I:32:TYR:CE2	2.52	0.44
24:3K:37:A:HO2'	24:3K:38:A:C5'	2.29	0.44
26:1H:242:G:H5'	55:Q8:60:LEU:CD1	2.48	0.44
26:1H:374:A:C2	26:1H:401:A:C4	3.06	0.44
26:1H:449:A:H3'	58:1H:3893:HOH:O	2.17	0.44
26:1H:587:C:H4'	26:1H:588:U:O5'	2.17	0.44
26:1H:886:C:C6	26:1H:887:A:H1'	2.52	0.44
26:1H:1053:C:H42	26:1H:1106:G:H1	1.64	0.44
26:1H:1111:A:H5'	32:51:3:ARG:CD	2.48	0.44
26:1H:1534:G:H2'	26:1H:1534:G:N3	2.33	0.44
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.80	0.44
26:1H:1675:C:N3	29:21:128:SER:OG	2.49	0.44
26:1H:2123:G:H1	26:1H:2175:C:H42	1.65	0.44
26:1H:2650:U:H2'	26:1H:2651:C:C6	2.53	0.44
26:1H:2689:U:P	26:1H:2719:G:H22	2.38	0.44
30:31:101:LEU:O	30:31:106:ARG:NH1	2.51	0.44
31:41:26:GLN:HG3	31:41:30:GLU:OE1	2.18	0.44
34:58:74:ARG:CZ	34:58:85:ILE:HD11	2.48	0.44
34:58:121:LYS:HB3	34:58:123:TYR:HE1	1.81	0.44
35:68:4:PRO:O	35:68:5:GLN:CB	2.66	0.44
36:78:15:ARG:CB	36:78:16:ARG:HB2	2.47	0.44
36:78:39:LYS:HG3	36:78:45:LEU:CD2	2.46	0.44
39:A8:62:LYS:HB3	39:A8:97:ARG:HD2	1.99	0.44
39:A8:72:ALA:O	39:A8:76:LYS:HG3	2.17	0.44
41:C8:39:LEU:HA	41:C8:39:LEU:HD23	1.76	0.44
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	2.00	0.44
55:Q8:47:LYS:HA	55:Q8:47:LYS:HD3	1.51	0.44
1:1G:17:U:H2'	1:1G:18:C:C6	2.51	0.44
1:1G:373:A:N3	1:1G:374:A:C8	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:438:G:H5'	4:32:123:HIS:CD2	2.52	0.44
1:1G:1028(A):C:N4	1:1G:1032(B):G:H22	2.15	0.44
1:1G:1068:G:N7	1:1G:1094:G:C8	2.86	0.44
1:1G:1321:C:C2	1:1G:1322:C:C5	3.03	0.44
2:12:185:ILE:HG22	2:12:199:TYR:CD1	2.53	0.44
5:42:92:LYS:HB3	5:42:119:LEU:HB2	1.99	0.44
6:52:2:ARG:HD3	6:52:92:LYS:HE3	2.00	0.44
6:52:8:ILE:HG13	6:52:88:VAL:HG22	1.99	0.44
11:2A:70:LYS:HB2	11:2A:70:LYS:HE3	1.65	0.44
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.84	0.44
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.98	0.44
22:1L:11:C:C4	22:1L:12:U:C4	3.05	0.44
26:14:120:U:OP2	58:14:3995:HOH:O	2.21	0.44
26:14:270(R):G:H2'	26:14:270(S):G:C8	2.51	0.44
26:14:1844:C:O3'	28:19:258:LYS:NZ	2.38	0.44
26:14:1894:C:C2'	26:14:1895:C:H5'	2.47	0.44
26:14:1910:G:O2'	26:14:1911:U:H5'	2.18	0.44
26:14:1993:U:H4'	29:29:128:SER:CB	2.47	0.44
26:14:2228:G:C5	26:14:2229:C:C4	3.05	0.44
32:59:58:GLU:HB2	32:59:61:HIS:CE1	2.52	0.44
35:25:11:ALA:HB1	35:25:99:PHE:O	2.17	0.44
36:35:101:VAL:HG23	36:35:107:LYS:H	1.83	0.44
36:35:128:HIS:HA	36:35:147:LEU:HA	1.99	0.44
37:45:41:TRP:CZ3	37:45:74:TYR:HE1	2.35	0.44
39:65:67:ARG:O	39:65:71:ARG:HB2	2.18	0.44
40:75:45:PHE:CD2	40:75:74:ARG:HD3	2.52	0.44
41:85:39:LEU:HD23	41:85:39:LEU:HA	1.67	0.44
45:C5:92:ASN:HB3	45:C5:93:GLY:H	1.65	0.44
47:E5:32:ARG:O	47:E5:34:GLY:N	2.43	0.44
55:M5:6:THR:HG22	55:M5:59:LYS:O	2.17	0.44
1:13:115:G:C2	1:13:289:G:N7	2.86	0.44
1:13:414:A:H2'	1:13:415:A:C8	2.52	0.44
1:13:636:U:H2'	1:13:637:G:H8	1.83	0.44
1:13:649:G:N3	1:13:650:G:C8	2.85	0.44
1:13:720:C:C4	1:13:721:G:C5	3.05	0.44
1:13:1124:G:N3	1:13:1127:G:N2	2.65	0.44
1:13:1442:G:C6	1:13:1446:A:C6	3.05	0.44
4:3E:61:LYS:HD2	4:3E:207:TYR:OH	2.17	0.44
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.82	0.44
10:1I:47:PHE:CE2	14:5I:37:PHE:HE1	2.36	0.44
19:AI:5:LEU:HB3	19:AI:10:PHE:CE1	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:90:U:H4'	26:1H:91:A:H5'	1.99	0.44
26:1H:478:A:C6	26:1H:480:A:C6	3.05	0.44
26:1H:739:G:OP2	26:1H:739:G:H8	1.99	0.44
26:1H:754:C:H2'	26:1H:755:C:C6	2.53	0.44
26:1H:755:C:H2'	26:1H:756:C:C6	2.53	0.44
26:1H:860:U:H2'	26:1H:861:A:H8	1.83	0.44
26:1H:879:G:O5'	26:1H:879:G:H8	2.00	0.44
26:1H:1204:A:N6	26:1H:1240:U:H2'	2.30	0.44
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.35	0.44
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.44
26:1H:2111:C:HO2'	26:1H:2119:A:P	2.40	0.44
26:1H:2287:A:H2	26:1H:2346:A:C2	2.35	0.44
26:1H:2373:G:H1	26:1H:2380:C:N4	2.16	0.44
26:1H:2743:C:H2'	26:1H:2744:G:O4'	2.18	0.44
28:11:75:ILE:HD13	28:11:99:ASP:OD2	2.18	0.44
29:21:128:SER:OG	29:21:129:HIS:N	2.50	0.44
30:31:7:TYR:O	30:31:22:ALA:N	2.48	0.44
32:51:125:VAL:HG12	32:51:127:GLU:O	2.18	0.44
33:61:5:LEU:HD12	33:61:13:GLY:O	2.17	0.44
35:68:10:VAL:HG23	35:68:17:ARG:O	2.18	0.44
39:A8:9:ARG:O	39:A8:12:PHE:N	2.51	0.44
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.85	0.44
42:D8:44:LYS:NZ	42:D8:44:LYS:HA	2.33	0.44
48:J8:72:GLU:O	48:J8:76:ARG:HG2	2.18	0.44
50:L8:50:VAL:HG23	50:L8:54:VAL:HG12	1.99	0.44
50:L8:54:VAL:O	50:L8:54:VAL:HG13	2.17	0.44
1:1G:448:A:OP2	1:1G:485:G:N1	2.45	0.44
1:1G:476:G:O2'	1:1G:477:G:H5'	2.17	0.44
1:1G:807:A:H2'	1:1G:808:C:C6	2.53	0.44
1:1G:1082:G:H8	1:1G:1082:G:OP2	2.01	0.44
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.53	0.44
1:1G:1280:A:P	10:1A:40:LEU:HD21	2.58	0.44
1:1G:1330:U:H4'	13:4A:23:TYR:CE2	2.53	0.44
2:12:8:LYS:HE2	2:12:213:LEU:HD21	1.98	0.44
2:12:204:ASN:OD1	2:12:204:ASN:N	2.51	0.44
6:52:15:ASP:OD1	6:52:17:SER:N	2.49	0.44
11:2A:54:ARG:H	11:2A:54:ARG:HG3	1.58	0.44
26:14:513:A:C2	26:14:514:A:C5	3.05	0.44
26:14:747:U:OP1	52:J5:3:LYS:HD3	2.16	0.44
26:14:756:C:C2'	26:14:757:U:H5'	2.48	0.44
26:14:1005:C:O2	26:14:1143:A:C6	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1011:G:C6	26:14:1013:C:C4	3.06	0.44
26:14:1225:C:H5"	42:95:85:LYS:NZ	2.33	0.44
26:14:2425:A:H5'	26:14:2427:C:O4'	2.18	0.44
30:39:158:THR:O	30:39:177:ALA:HA	2.18	0.44
43:A5:15:ARG:O	43:A5:19:LEU:HD13	2.16	0.44
43:A5:27:LYS:O	43:A5:71:VAL:HG23	2.18	0.44
47:E5:12:ASN:HA	47:E5:14:ARG:HH21	1.82	0.44
53:K5:51:GLU:HG2	53:K5:52:VAL:N	2.32	0.44
1:13:109:A:N7	1:13:326:G:H2'	2.33	0.44
1:13:322:C:H5	1:13:328:C:C5	2.36	0.44
1:13:412:A:C8	4:3E:35:ARG:NH1	2.85	0.44
1:13:626:U:H2'	1:13:627:G:H8	1.82	0.44
1:13:992:U:H2'	1:13:1043:C:H41	1.83	0.44
2:1E:28:PHE:O	2:1E:32:ILE:HG22	2.18	0.44
8:7E:1:MET:HB3	8:7E:2:LEU:H	1.61	0.44
26:1H:500:G:N1	26:1H:503:A:OP2	2.48	0.44
26:1H:686:G:H22	54:P8:15:THR:HG21	1.83	0.44
26:1H:1479:G:C4	26:1H:1480:G:C8	3.06	0.44
26:1H:1500:G:C5	26:1H:1501:C:C4	3.06	0.44
26:1H:1753:G:N1	26:1H:1756:G:C2	2.86	0.44
26:1H:2000:G:C6	26:1H:2001:A:N7	2.86	0.44
26:1H:2850:A:C2	26:1H:2851:A:C4	3.06	0.44
27:16:15:A:H1'	27:16:109:G:C4	2.52	0.44
27:16:25:A:H2'	27:16:26:A:O4'	2.18	0.44
40:B8:51:ARG:HB2	40:B8:98:LYS:HD3	1.99	0.44
40:B8:93:ARG:HG3	40:B8:93:ARG:NH1	2.33	0.44
41:C8:21:ALA:HA	41:C8:24:TYR:CE2	2.53	0.44
43:E8:19:LEU:HD23	52:N8:25:LEU:HD21	2.00	0.44
43:E8:45:TYR:CE1	43:E8:49:LYS:HD2	2.53	0.44
44:F8:47:PHE:O	44:F8:49:VAL:HG23	2.17	0.44
45:G8:17:SER:HA	45:G8:21:LYS:HB2	1.99	0.44
46:H8:15:PRO:O	46:H8:19:ARG:HB2	2.18	0.44
54:P8:10:ARG:O	54:P8:10:ARG:HG2	2.18	0.44
54:P8:24:THR:HG23	54:P8:27:GLY:N	2.33	0.44
55:Q8:32:LEU:HD23	55:Q8:32:LEU:H	1.83	0.44
1:1G:629:G:H2'	1:1G:630:G:O4'	2.18	0.44
1:1G:744:C:O2'	1:1G:851:G:N2	2.50	0.44
1:1G:1147:C:O2	9:82:16:ARG:NE	2.51	0.44
1:1G:1153:C:H2'	1:1G:1154:G:H8	1.83	0.44
1:1G:1157:A:O5'	1:1G:1158:C:H5	2.01	0.44
1:1G:1157:A:N6	1:1G:1178:G:H21	2.11	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1237:C:H5"	1:1G:1238:A:O4'	2.17	0.44
1:1G:1255:G:C2	1:1G:1283:G:C2	3.05	0.44
3:22:113:ALA:HA	3:22:202:ILE:HD11	2.00	0.44
4:32:61:LYS:HE2	4:32:206:PHE:CE2	2.52	0.44
9:82:33:PHE:HE2	9:82:47:LEU:HD23	1.82	0.44
26:14:49:A:C5	26:14:177:G:C6	3.06	0.44
26:14:81:G:O2'	26:14:295:G:O2'	2.35	0.44
26:14:301:G:C4	26:14:302:C:C5	3.06	0.44
26:14:562:U:O4	26:14:2036:C:H1'	2.17	0.44
26:14:723:G:H2'	26:14:724:U:O4'	2.18	0.44
26:14:815:C:H2'	26:14:816:C:C6	2.52	0.44
26:14:829:A:N7	26:14:2248:C:H5'	2.33	0.44
26:14:923:C:H2'	26:14:924:C:C6	2.53	0.44
26:14:1022:G:C6	26:14:1140:C:C4	3.06	0.44
26:14:1496:A:C8	26:14:1577:C:O2'	2.71	0.44
26:14:1709:U:O4'	26:14:2860:A:H1'	2.18	0.44
26:14:2392:A:H1'	36:35:61:ARG:NH2	2.27	0.44
26:14:2473:U:O2	26:14:2473:U:H2'	2.17	0.44
26:14:2599:G:OP2	28:19:236:GLY:N	2.51	0.44
27:1J:18:G:H2'	27:1J:19:G:H5"	1.99	0.44
28:19:2:ALA:HB3	28:19:20:ASP:HB2	2.00	0.44
28:19:85:ASP:OD2	28:19:88:ARG:HD2	2.18	0.44
29:29:57:LYS:HD3	29:29:57:LYS:HA	1.66	0.44
31:49:144:ILE:HG22	31:49:148:MET:HB3	2.00	0.44
33:69:128:LEU:O	33:69:137:PRO:HA	2.18	0.44
35:25:93:PRO:HD3	35:25:113:LYS:HG3	1.99	0.44
52:J5:52:TYR:CD1	52:J5:53:ALA:N	2.86	0.44
1:13:465:A:N7	1:13:467:G:N7	2.65	0.44
1:13:901:A:C5	1:13:902:G:H1'	2.53	0.44
1:13:942:G:C2	1:13:1342:C:C2	3.06	0.44
1:13:1084:G:H2'	1:13:1085:U:C5	2.52	0.44
1:13:1489:G:H2'	1:13:1490:C:O4'	2.18	0.44
1:13:1504:G:O3'	58:13:1804:HOH:O	2.21	0.44
8:7E:64:LYS:HB3	8:7E:79:VAL:HG21	2.00	0.44
11:2I:114:VAL:HA	11:2I:115:PRO:HD2	1.90	0.44
16:7I:28:ARG:HD2	16:7I:29:ASP:OD1	2.17	0.44
26:1H:1086:A:H1'	26:1H:1103:A:N6	2.32	0.44
26:1H:1576:U:N3	26:1H:1577:C:C5	2.85	0.44
26:1H:2012:G:OP2	43:E8:16:LYS:NZ	2.51	0.44
26:1H:2818:G:H4'	26:1H:2837:G:O4'	2.18	0.44
27:16:79:C:O5'	27:16:79:C:H6	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:49:ARG:HG3	55:Q8:57:ARG:HD2	2.00	0.44
37:88:109:VAL:HG12	37:88:114:ALA:HB2	2.00	0.44
38:98:92:GLY:H	38:98:94:TYR:HE1	1.66	0.44
43:E8:82:LEU:HD13	43:E8:84:ARG:NH2	2.32	0.44
55:Q8:6:THR:HG22	55:Q8:59:LYS:CG	2.47	0.44
1:1G:109:A:H5'	1:1G:110:C:C5	2.53	0.44
1:1G:476:G:H2'	1:1G:477:G:H8	1.83	0.44
1:1G:683:G:C6	1:1G:684:A:C6	3.06	0.44
1:1G:1300:G:C5	1:1G:1334:G:C6	3.06	0.44
2:12:190:THR:O	2:12:191:ASP:HB3	2.18	0.44
4:32:108:LEU:CD2	4:32:183:GLY:HA3	2.47	0.44
5:42:118:ILE:HG12	5:42:119:LEU:H	1.83	0.44
5:42:118:ILE:HG12	5:42:119:LEU:N	2.32	0.44
6:52:95:GLU:HA	6:52:96:PRO:HD3	1.83	0.44
12:3A:40:VAL:HG11	12:3A:77:LEU:HB3	2.00	0.44
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.99	0.44
13:4A:78:ILE:HD13	13:4A:92:HIS:HE1	1.82	0.44
26:14:447:A:C8	26:14:473:G:C6	3.06	0.44
26:14:749:C:H4'	26:14:1271:G:N3	2.33	0.44
26:14:886:C:H1'	26:14:890:A:C2	2.53	0.44
26:14:1047:G:N2	26:14:1111:A:H62	2.16	0.44
26:14:1131:G:O6	26:14:2040:C:H1'	2.18	0.44
26:14:1179:C:H2'	26:14:1180:C:H6	1.82	0.44
26:14:1674:G:H1'	26:14:1676:A:N6	2.32	0.44
26:14:1986:A:H2'	26:14:1987:G:C8	2.53	0.44
26:14:2012:G:OP2	43:A5:16:LYS:NZ	2.50	0.44
26:14:2286:A:C8	26:14:2287:A:N6	2.86	0.44
26:14:2611:U:H1'	52:J5:3:LYS:HE2	2.00	0.44
26:14:2864:G:C6	26:14:2865:U:N3	2.86	0.44
27:1J:43:C:OP1	51:I5:6:HIS:HE1	2.01	0.44
28:19:37:LEU:HD23	28:19:62:TYR:HB2	1.99	0.44
28:19:70:TRP:CD1	28:19:71:ASP:N	2.86	0.44
28:19:244:ARG:HB2	28:19:245:PRO:HD2	2.00	0.44
28:19:263:ARG:HE	28:19:263:ARG:HB2	1.30	0.44
31:49:15:VAL:O	31:49:19:LEU:HD23	2.17	0.44
37:45:25:ASP:HB3	37:45:102:VAL:H	1.81	0.44
38:55:54:LEU:HD12	38:55:54:LEU:HA	1.85	0.44
54:L5:8:ASN:C	54:L5:8:ASN:OD1	2.57	0.44
1:13:159:G:N2	1:13:161:A:H5"	2.33	0.44
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.41	0.44
1:13:1280:A:H3'	1:13:1281:U:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1521:G:H2'	1:13:1522:U:C6	2.53	0.44
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.17	0.44
3:2E:8:ILE:O	3:2E:11:ARG:N	2.45	0.44
4:3E:85:LYS:HG2	4:3E:86:LYS:N	2.32	0.44
5:4E:69:VAL:O	5:4E:71:LEU:N	2.51	0.44
10:1I:63:PHE:HA	14:5I:58:LYS:HA	1.98	0.44
10:1I:78:ASN:OD1	10:1I:78:ASN:N	2.51	0.44
15:6I:33:THR:HG21	15:6I:85:LEU:HD22	1.99	0.44
26:1H:143:C:H2'	26:1H:144:C:H6	1.83	0.44
26:1H:250:G:H5'	36:78:60:MET:CE	2.48	0.44
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.53	0.44
26:1H:320:A:H2'	30:31:136:THR:HG21	2.00	0.44
26:1H:623:G:H2'	26:1H:624:C:C6	2.52	0.44
26:1H:686:G:N2	54:P8:15:THR:HG21	2.33	0.44
26:1H:946:G:P	58:1H:4573:HOH:O	2.76	0.44
26:1H:1000:A:C8	26:1H:1154:G:N2	2.86	0.44
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.18	0.44
26:1H:1338:G:O2'	26:1H:1393:A:N1	2.42	0.44
26:1H:1471:A:N3	26:1H:1472:A:C8	2.85	0.44
26:1H:1528:A:C2	26:1H:1543:A:N1	2.86	0.44
26:1H:1543:A:H3'	26:1H:1543:A:OP2	2.17	0.44
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.18	0.44
26:1H:2691:C:O3'	26:1H:2871:C:H4'	2.17	0.44
33:61:29:TYR:C	33:61:32:PRO:HD2	2.38	0.44
38:98:44:LEU:HD23	38:98:44:LEU:HA	1.82	0.44
40:B8:74:ARG:HD3	40:B8:76:PHE:CZ	2.52	0.44
41:C8:92:ARG:HD3	41:C8:94:ASN:CB	2.48	0.44
42:D8:46:VAL:HG11	42:D8:52:VAL:HG21	1.99	0.44
42:D8:47:VAL:HG22	42:D8:48:GLY:N	2.33	0.44
47:I8:44:ARG:HG2	47:I8:45:PHE:CE1	2.53	0.44
50:L8:38:GLU:OE2	50:L8:38:GLU:N	2.37	0.44
51:M8:40:HIS:CG	51:M8:45:GLY:HA3	2.53	0.44
1:1G:51:A:C6	1:1G:353:A:C2	3.06	0.44
1:1G:1255:G:OP1	10:1A:45:ARG:NH1	2.48	0.44
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.83	0.44
1:1G:1299:A:N1	1:1G:1301:U:N3	2.65	0.44
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.17	0.44
8:72:69:ARG:HD3	8:72:76:PRO:HA	1.99	0.44
13:4A:76:ALA:HA	13:4A:79:LYS:HB2	2.00	0.44
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.99	0.44
17:8A:21:VAL:HG11	17:8A:59:ILE:HG13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:607:U:H5	26:14:619:G:C5	2.36	0.44
26:14:1142(A):A:C4	26:14:1144:G:C8	3.06	0.44
26:14:1461:G:H2'	26:14:1462:C:C6	2.52	0.44
26:14:1665:A:H1'	35:25:1:MET:HG3	2.00	0.44
26:14:1805:U:H5"	28:19:250:TRP:CD2	2.53	0.44
26:14:2115:G:H8	26:14:2117:A:OP2	2.00	0.44
26:14:2123:G:C2	26:14:2176:A:C6	3.06	0.44
26:14:2168:G:N2	26:14:2170:A:OP2	2.51	0.44
26:14:2400:G:H3'	26:14:2401:U:C6	2.52	0.44
26:14:2422:A:H8	26:14:2422:A:H2'	1.64	0.44
26:14:2438:U:O3'	26:14:2439:A:H3'	2.16	0.44
26:14:2527:C:C4	26:14:2528:U:C5	3.06	0.44
26:14:2850:A:N7	26:14:2868:A:O2'	2.45	0.44
28:19:92:ILE:HG21	28:19:92:ILE:HD13	1.72	0.44
28:19:242:ARG:N	28:19:242:ARG:HD3	2.32	0.44
29:29:89:ASP:OD1	29:29:90:THR:N	2.50	0.44
29:29:106:GLY:HA3	29:29:189:PRO:HB2	1.99	0.44
34:15:128:HIS:CE1	34:15:134:ARG:HD2	2.52	0.44
38:55:29:LEU:HB3	38:55:75:LEU:HD21	2.00	0.44
38:55:92:GLY:O	38:55:94:TYR:CE1	2.71	0.44
46:D5:157:LEU:HA	46:D5:158:PRO:HD2	1.72	0.44
47:E5:26:TYR:HB2	47:E5:29:GLN:OE1	2.17	0.44
51:I5:40:HIS:CG	51:I5:45:GLY:HA3	2.53	0.44
53:K5:36:LEU:HA	53:K5:50:ARG:HG2	1.99	0.44
1:13:61:G:H2'	1:13:62:U:O4'	2.18	0.44
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.51	0.44
1:13:501:C:H2'	1:13:502:G:C8	2.52	0.44
1:13:1015:A:H2'	1:13:1016:A:H8	1.83	0.44
1:13:1028(B):C:OP2	1:13:1029:G:H5"	2.18	0.44
1:13:1118:C:OP1	9:8E:104:ARG:NH1	2.49	0.44
1:13:1191:A:H2'	1:13:1192:C:C6	2.53	0.44
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.52	0.44
1:13:1356:G:H2'	1:13:1357:A:C8	2.53	0.44
6:5E:41:GLU:HB2	6:5E:62:TRP:CE3	2.53	0.44
13:4I:13:LYS:O	13:4I:44:ARG:NE	2.51	0.44
20:BI:53:LEU:HD22	20:BI:53:LEU:H	1.82	0.44
20:BI:63:ILE:HG22	20:BI:77:ALA:HB1	1.99	0.44
24:3K:4:C:H2'	24:3K:5:G:C8	2.53	0.44
26:1H:50:U:H3'	26:1H:51:G:C5'	2.48	0.44
26:1H:128:C:H2'	26:1H:129:C:H6	1.83	0.44
26:1H:297:C:H2'	26:1H:298:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:643:A:O2'	26:1H:644:A:H5'	2.18	0.44
26:1H:1750:G:C2	26:1H:1751:C:C5	3.06	0.44
26:1H:2048:G:H1'	26:1H:2823:A:N6	2.32	0.44
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.52	0.44
32:51:126:PRO:HG2	32:51:130:ARG:HH12	1.83	0.44
34:58:127:ASP:O	34:58:128:HIS:HB3	2.18	0.44
35:68:88:ASN:OD1	35:68:90:GLN:HB2	2.18	0.44
36:78:42:SER:O	36:78:44:GLY:N	2.51	0.44
36:78:144:GLU:HA	36:78:145:PRO:HD3	1.91	0.44
45:G8:9:LYS:HA	45:G8:27:VAL:CG2	2.46	0.44
55:Q8:7:HIS:CD2	55:Q8:57:ARG:HH22	2.36	0.44
1:1G:828:A:H2'	1:1G:829:G:O4'	2.18	0.44
1:1G:854:G:N1	1:1G:855:G:N7	2.66	0.44
1:1G:942:G:C2	1:1G:1342:C:C2	3.06	0.44
1:1G:965:A:C2	1:1G:969:A:C2	3.06	0.44
1:1G:1338:G:N7	1:1G:1339:A:C5	2.86	0.44
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.53	0.44
2:12:98:LEU:HD23	2:12:98:LEU:HA	1.83	0.44
3:22:70:VAL:HG12	3:22:72:LYS:H	1.83	0.44
3:22:109:PRO:HB2	3:22:115:LEU:HD12	1.99	0.44
4:32:108:LEU:HB3	4:32:110:PHE:CE1	2.53	0.44
7:62:137:LYS:O	7:62:141:VAL:HG23	2.18	0.44
10:1A:99:LYS:CE	10:1A:100:THR:H	2.31	0.44
11:2A:24:SER:OG	11:2A:26:ASN:N	2.46	0.44
11:2A:29:ILE:HG22	11:2A:44:SER:CB	2.38	0.44
26:14:307:G:N2	26:14:309:G:H3'	2.33	0.44
26:14:469:G:OP2	58:14:3711:HOH:O	2.21	0.44
26:14:932:G:H4'	26:14:933:A:O5'	2.18	0.44
26:14:1331:A:H2'	26:14:1333:C:C5	2.53	0.44
26:14:2780:G:OP1	34:15:118:LYS:HE2	2.18	0.44
27:1J:109:G:C6	27:1J:110:G:C5	3.05	0.44
28:19:13:ARG:HA	28:19:13:ARG:HD2	1.59	0.44
28:19:148:GLU:CB	28:19:151:LYS:HD2	2.47	0.44
29:29:31:CYS:HB2	29:29:91:VAL:CG2	2.48	0.44
30:39:53:THR:HG22	30:39:56:GLU:CD	2.38	0.44
30:39:102:PRO:O	30:39:105:VAL:N	2.48	0.44
32:59:89:ILE:CG2	32:59:130:ARG:HA	2.48	0.44
34:15:56:ASN:O	34:15:56:ASN:ND2	2.43	0.44
36:35:107:LYS:O	36:35:109:GLY:N	2.42	0.44
36:35:126:VAL:HG13	36:35:145:PRO:HB2	2.00	0.44
45:C5:36:ALA:HA	45:C5:67:LEU:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:10:ARG:HH21	46:D5:26:GLY:N	2.15	0.44
46:D5:44:PHE:CE1	46:D5:48:PHE:HB2	2.53	0.44
1:13:51:A:C6	1:13:353:A:C2	3.06	0.43
1:13:60:A:H4'	1:13:61:G:H5'	2.00	0.43
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.18	0.43
1:13:232:G:C5	1:13:233:C:C5	3.06	0.43
1:13:253:U:OP2	17:8I:67:LYS:NZ	2.44	0.43
1:13:458:C:H42	1:13:474:G:H1	1.66	0.43
1:13:765:G:H2'	58:13:1807:HOH:O	2.17	0.43
1:13:1009:G:C2	1:13:1010:G:C8	3.05	0.43
1:13:1284:C:H3'	1:13:1285:A:H8	1.83	0.43
1:13:1310:G:O2'	1:13:1311:G:H5'	2.17	0.43
1:13:1453:G:HO2'	1:13:1454:G:P	2.41	0.43
2:1E:25:ASN:HA	2:1E:26:PRO:HD3	1.73	0.43
2:1E:121:LEU:HA	2:1E:124:SER:OG	2.18	0.43
7:6E:61:VAL:HG12	7:6E:124:LEU:HD23	1.99	0.43
8:7E:86:ILE:HG22	8:7E:87:SER:N	2.32	0.43
10:1I:26:ALA:HB1	10:1I:84:GLN:HG2	2.00	0.43
26:1H:247:G:O6	55:Q8:8:LYS:HB3	2.17	0.43
26:1H:483:A:O4'	45:G8:48:ALA:HB1	2.18	0.43
26:1H:883:G:H2'	26:1H:884:C:H4'	1.99	0.43
26:1H:912:C:OP1	37:88:8:LYS:NZ	2.42	0.43
26:1H:919:G:H4'	27:16:81:G:H4'	2.00	0.43
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.65	0.43
26:1H:1137:G:H2'	26:1H:1138:G:H8	1.82	0.43
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.54	0.43
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.33	0.43
26:1H:2400:G:C4	26:1H:2401:U:C5	3.06	0.43
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.18	0.43
29:21:37:ARG:HA	29:21:42:ASP:OD2	2.18	0.43
29:21:105:THR:HG1	29:21:199:ARG:NH2	2.12	0.43
29:21:181:LEU:HD12	29:21:181:LEU:HA	1.59	0.43
30:31:111:ALA:HB2	30:31:206:ILE:HG21	2.00	0.43
31:41:47:LYS:NZ	31:41:81:LYS:HB2	2.33	0.43
33:61:79:ILE:HD11	33:61:100:ALA:CB	2.48	0.43
34:58:96:GLU:HB2	34:58:122:VAL:CG1	2.48	0.43
36:78:29:LYS:HB3	36:78:30:THR:H	1.50	0.43
36:78:49:ARG:HG3	55:Q8:57:ARG:NE	2.33	0.43
36:78:86:LYS:HB3	36:78:118:GLY:HA3	2.00	0.43
36:78:100:LEU:HD12	36:78:100:LEU:HA	1.70	0.43
37:88:39:PRO:HA	37:88:97:VAL:O	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:D8:2:PHE:O	42:D8:42:GLY:N	2.51	0.43
48:J8:85:LEU:N	48:J8:85:LEU:HD22	2.33	0.43
1:1G:818:G:O2'	1:1G:819:A:H5'	2.17	0.43
1:1G:1158:C:N3	1:1G:1160:G:C8	2.86	0.43
1:1G:1346:A:C6	7:62:10:ARG:NH1	2.86	0.43
6:52:2:ARG:HB3	6:52:4:TYR:CE1	2.53	0.43
8:72:73:ASP:HA	8:72:74:PRO:HD2	1.77	0.43
13:4A:92:HIS:CD2	13:4A:98:VAL:HG11	2.53	0.43
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.17	0.43
24:3L:8:U:H4'	24:3L:9:A:OP1	2.17	0.43
26:14:74:A:H4'	26:14:75:G:O5'	2.17	0.43
26:14:1496:A:H8	26:14:1577:C:O2'	2.01	0.43
26:14:1647:G:OP2	58:14:3540:HOH:O	2.21	0.43
26:14:1693:U:H4'	26:14:1694:C:OP2	2.19	0.43
26:14:2156:G:O6	26:14:2157:G:N2	2.51	0.43
26:14:2572:A:N7	29:29:144:ARG:HD2	2.32	0.43
26:14:2791:C:C4	26:14:2893:G:C6	3.06	0.43
29:29:73:GLU:HA	29:29:74:PRO:HD2	1.61	0.43
30:39:185:ASP:HA	30:39:188:ARG:HE	1.83	0.43
33:69:38:LEU:HD12	33:69:38:LEU:H	1.83	0.43
38:55:10:LEU:O	38:55:12:ARG:HG3	2.18	0.43
42:95:5:VAL:HB	42:95:37:VAL:HG11	2.00	0.43
52:J5:45:VAL:HG22	52:J5:51:TYR:CE2	2.53	0.43
53:K5:28:ARG:CD	53:K5:32:ASN:H	2.31	0.43
1:13:312:C:H2'	1:13:313:A:H8	1.83	0.43
1:13:465:A:H2'	1:13:466:C:H5"	2.00	0.43
1:13:590:C:H2'	1:13:591:U:C6	2.53	0.43
1:13:724:G:O6	1:13:733:A:N6	2.51	0.43
1:13:1367:C:H4'	10:1I:48:THR:HG21	1.98	0.43
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.83	0.43
3:2E:23:TYR:CD1	3:2E:24:ALA:N	2.87	0.43
3:2E:108:ASN:ND2	3:2E:110:ASN:HB2	2.33	0.43
8:7E:122:ARG:HB3	8:7E:126:LYS:HE2	1.99	0.43
11:2I:41:THR:HG21	11:2I:71:LYS:CB	2.49	0.43
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.48	0.43
16:7I:12:LYS:C	16:7I:14:ASN:H	2.20	0.43
17:8I:14:LYS:HD2	17:8I:14:LYS:N	2.33	0.43
23:2K:3:C:N4	23:2K:71:G:H1	2.13	0.43
24:3K:9:A:H3'	24:3K:10:G:C8	2.53	0.43
26:1H:460:A:H3'	26:1H:461:C:H6	1.82	0.43
26:1H:463:G:N2	26:1H:466:A:OP2	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:639:U:H3	26:1H:649:G:H1	1.66	0.43
26:1H:780:G:N2	26:1H:783:A:H62	2.00	0.43
26:1H:986:C:C2'	26:1H:987:G:H5'	2.48	0.43
26:1H:1071:G:P	26:1H:1071:G:H8	2.41	0.43
26:1H:1288:U:C2	26:1H:1327:C:O2	2.71	0.43
26:1H:1589:C:H2'	26:1H:1590:U:C6	2.53	0.43
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.18	0.43
26:1H:2038:G:H2'	26:1H:2039:C:H6	1.83	0.43
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.53	0.43
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.83	0.43
26:1H:2893:G:H4'	26:1H:2894:G:O4'	2.19	0.43
27:16:44:G:C2	27:16:48:A:C2	3.06	0.43
29:21:21:VAL:HA	29:21:22:PRO:HD3	1.53	0.43
30:31:59:TYR:CD1	30:31:78:ILE:HD11	2.54	0.43
31:41:10:LYS:O	31:41:15:VAL:HG23	2.18	0.43
31:41:122:PRO:HB3	31:41:180:PHE:HD2	1.81	0.43
34:58:42:TRP:HA	34:58:48:MET:SD	2.58	0.43
36:78:97:PRO:HA	36:78:100:LEU:HB2	1.99	0.43
46:H8:160:GLY:O	46:H8:161:VAL:HG13	2.18	0.43
51:M8:43:TYR:O	51:M8:46:GLN:HA	2.18	0.43
52:N8:46:CYS:SG	52:N8:50:GLY:HA2	2.59	0.43
1:1G:135:C:C2	16:7A:1:MET:HB3	2.53	0.43
1:1G:198:G:H2'	1:1G:199:G:C8	2.51	0.43
1:1G:552:U:O2'	12:3A:86:ARG:O	2.36	0.43
1:1G:636:U:H2'	1:1G:637:G:C8	2.54	0.43
1:1G:814:A:N7	1:1G:816:A:C4	2.86	0.43
3:22:61:ALA:C	3:22:63:ASN:H	2.22	0.43
4:32:101:LEU:HD23	4:32:121:VAL:HG13	1.99	0.43
6:52:39:LYS:HE3	6:52:64:GLN:HE21	1.83	0.43
16:7A:14:ASN:O	16:7A:16:HIS:N	2.50	0.43
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.52	0.43
19:AA:66:MET:HA	19:AA:67:VAL:O	2.18	0.43
26:14:68:G:H2'	26:14:69:C:C6	2.53	0.43
26:14:992:C:H2'	26:14:993:G:H8	1.83	0.43
26:14:997:G:P	41:85:58:ARG:HH21	2.41	0.43
26:14:1438:U:O2	26:14:1438:U:H2'	2.16	0.43
26:14:1756:G:OP2	58:14:3804:HOH:O	2.21	0.43
26:14:1954:G:H1'	26:14:1956:U:O4	2.17	0.43
26:14:2211:G:O2'	26:14:2212:A:P	2.76	0.43
26:14:2743:C:H2'	26:14:2744:G:O4'	2.17	0.43
26:14:2748:A:H2'	26:14:2749:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:83:PHE:O	30:39:84:VAL:HB	2.18	0.43
32:59:99:VAL:HG13	32:59:100:GLY:H	1.83	0.43
40:75:29:ARG:HD3	40:75:44:ASP:OD2	2.18	0.43
44:B5:5:TYR:CE1	49:G5:30:ARG:HG3	2.53	0.43
51:I5:8:LYS:HD3	51:I5:8:LYS:HA	1.82	0.43
51:I5:23:GLU:HG3	51:I5:24:THR:N	2.33	0.43
1:13:525:C:O5'	1:13:525:C:H6	2.01	0.43
1:13:611:A:H61	1:13:629:G:H1	1.65	0.43
1:13:818:G:C2	1:13:820:U:O2'	2.69	0.43
1:13:939:G:C6	1:13:940:C:N4	2.86	0.43
1:13:955:U:H1'	1:13:1227:A:N6	2.33	0.43
1:13:993:G:H2'	1:13:993:G:N3	2.33	0.43
1:13:1098:C:C2	1:13:1099:G:C8	3.06	0.43
1:13:1320:C:N4	19:AI:36:ARG:HG3	2.34	0.43
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	2.01	0.43
19:AI:81:ARG:HE	19:AI:81:ARG:HB2	1.61	0.43
26:1H:140:A:C8	26:1H:1408:C:O2'	2.69	0.43
26:1H:375:C:H2'	26:1H:376:C:C6	2.54	0.43
26:1H:433:C:H2'	26:1H:434:U:C6	2.54	0.43
26:1H:476:G:N1	26:1H:479:A:OP2	2.52	0.43
26:1H:895:U:H4'	26:1H:895:U:OP1	2.16	0.43
26:1H:981:A:H1'	26:1H:2037:G:O4'	2.18	0.43
26:1H:1337:G:C4	26:1H:1338:G:C8	3.06	0.43
26:1H:1389:G:C2	26:1H:1399:C:O2	2.71	0.43
26:1H:1491:G:O4'	28:11:99:ASP:HB3	2.18	0.43
26:1H:1705:G:C6	26:1H:1706:U:N3	2.86	0.43
26:1H:1885:A:H2'	26:1H:1886:C:O4'	2.17	0.43
26:1H:2137:C:N3	26:1H:2138:C:N4	2.67	0.43
26:1H:2358:G:H2'	26:1H:2359:C:H6	1.83	0.43
26:1H:2862:G:C4	26:1H:2863:C:C5	3.07	0.43
29:21:14:ILE:HD13	29:21:14:ILE:HA	1.63	0.43
33:61:11:ASN:O	33:61:12:LEU:HB2	2.17	0.43
35:68:91:LEU:HD12	35:68:91:LEU:HA	1.72	0.43
37:88:30:GLY:CA	37:88:107:ALA:HB2	2.47	0.43
41:C8:88:ILE:O	41:C8:88:ILE:HG22	2.19	0.43
44:F8:31:HIS:CD2	44:F8:33:LYS:H	2.37	0.43
45:G8:45:VAL:N	45:G8:63:LYS:O	2.43	0.43
46:H8:26:GLY:HA2	46:H8:85:HIS:CD2	2.53	0.43
55:Q8:23:VAL:HG22	55:Q8:24:ALA:N	2.32	0.43
55:Q8:45:GLY:HA2	55:Q8:46:ARG:C	2.38	0.43
1:1G:59:A:N1	58:1G:1824:HOH:O	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:137:C:C2	1:1G:227:G:C2	3.06	0.43
1:1G:895:G:H1	1:1G:904:C:H42	1.64	0.43
1:1G:1103:C:H2'	1:1G:1104:G:O4'	2.18	0.43
1:1G:1225:A:H5"	13:4A:103:THR:OG1	2.17	0.43
4:32:59:ARG:O	4:32:63:LYS:N	2.52	0.43
7:62:105:VAL:O	7:62:108:ALA:HB3	2.18	0.43
13:4A:91:ARG:NE	13:4A:97:PRO:O	2.51	0.43
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.18	0.43
20:BA:88:VAL:O	20:BA:92:LEU:HG	2.19	0.43
26:14:84:A:H5"	45:C5:8:LYS:HG3	1.99	0.43
26:14:192:C:OP1	58:14:4099:HOH:O	2.21	0.43
26:14:898:C:N4	26:14:899:A:N3	2.66	0.43
26:14:948:G:C2	26:14:970:C:O2	2.72	0.43
26:14:1953:A:H5"	26:14:1954:G:OP2	2.18	0.43
26:14:2065:C:H5"	26:14:2252:G:H1'	2.00	0.43
26:14:2129:C:C4	26:14:2130:U:C4	3.06	0.43
26:14:2295:C:H41	39:65:13:ARG:NH2	2.15	0.43
26:14:2301:C:N4	26:14:2315:G:O6	2.51	0.43
26:14:2468:G:H3'	26:14:2476:A:C2	2.53	0.43
26:14:2562:U:H4'	35:25:25:LEU:HD21	2.00	0.43
26:14:2576:G:O2'	26:14:2579:C:OP2	2.30	0.43
27:1J:66:A:C6	27:1J:108:C:C6	3.06	0.43
30:39:117:ARG:HG3	30:39:192:LEU:HD12	2.00	0.43
44:B5:31:HIS:HA	44:B5:32:PRO:HD3	1.77	0.43
46:D5:52:SER:C	46:D5:54:HIS:H	2.21	0.43
46:D5:59:LEU:HD22	46:D5:59:LEU:HA	1.65	0.43
46:D5:148:ASP:OD2	46:D5:175:VAL:HG11	2.18	0.43
49:G5:18:PRO:O	49:G5:21:LEU:HB2	2.19	0.43
50:H5:50:VAL:O	50:H5:54:VAL:HG23	2.18	0.43
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.48	0.43
1:13:626:U:H2'	1:13:627:G:C8	2.53	0.43
1:13:799:G:C6	1:13:800:G:C4	3.06	0.43
6:5E:14:LEU:HA	6:5E:14:LEU:HD23	1.53	0.43
13:4I:84:ILE:HD11	19:AI:66:MET:CG	2.48	0.43
23:2K:21:U:H6	23:2K:21:U:H2'	1.61	0.43
26:1H:74:A:H5"	26:1H:74:A:H8	1.83	0.43
26:1H:507:A:C5'	26:1H:508:G:H5'	2.47	0.43
26:1H:515:A:H1'	26:1H:581:C:H1'	2.01	0.43
26:1H:1257:C:H4'	30:31:83:PHE:HD1	1.77	0.43
26:1H:1532:C:N3	26:1H:1539:G:N2	2.62	0.43
26:1H:2027:G:O2'	26:1H:2028:U:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2337:G:H2'	26:1H:2338:G:H8	1.83	0.43
26:1H:2572:A:C8	29:21:144:ARG:HB3	2.53	0.43
26:1H:2572:A:C4	29:21:144:ARG:NH1	2.87	0.43
26:1H:2592:G:C6	26:1H:2593:U:N3	2.87	0.43
26:1H:2692:C:O2'	26:1H:2693:A:H5'	2.18	0.43
28:11:269:PHE:N	28:11:269:PHE:CD1	2.86	0.43
30:31:184:TYR:CE1	36:78:3:LEU:HD11	2.53	0.43
31:41:81:LYS:HB3	31:41:82:LEU:H	1.57	0.43
34:58:96:GLU:CG	34:58:97:ARG:H	2.31	0.43
36:78:31:ALA:O	36:78:32:THR:HB	2.19	0.43
40:B8:21:GLU:H	40:B8:21:GLU:HG3	1.56	0.43
41:C8:28:ARG:O	41:C8:35:ALA:HA	2.19	0.43
46:H8:23:LYS:HD3	46:H8:40:ASP:HA	1.99	0.43
1:1G:15:G:H4'	5:42:24:ARG:HH12	1.82	0.43
1:1G:198:G:C6	1:1G:220:G:C2	3.06	0.43
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.34	0.43
1:1G:589:C:H42	1:1G:650:G:H1	1.66	0.43
1:1G:953:G:H2'	1:1G:954:G:O4'	2.18	0.43
1:1G:1065:U:C5	1:1G:1190:G:N3	2.87	0.43
3:22:35:GLU:HG2	3:22:39:ILE:HD11	2.00	0.43
3:22:50:ALA:HB3	3:22:76:VAL:HG12	2.00	0.43
6:52:14:LEU:HD12	6:52:18:GLN:HB3	2.00	0.43
7:62:50:ILE:HG21	7:62:58:PRO:HA	1.99	0.43
8:72:69:ARG:NH1	8:72:75:ARG:O	2.51	0.43
13:4A:15:VAL:HG12	13:4A:45:VAL:HG22	1.99	0.43
19:AA:66:MET:N	19:AA:67:VAL:HB	2.34	0.43
26:14:120:U:P	58:14:3994:HOH:O	2.76	0.43
26:14:637:A:H2'	36:35:117:GLU:OE2	2.19	0.43
26:14:664:C:H2'	26:14:665:C:H6	1.82	0.43
26:14:816:C:P	58:14:3587:HOH:O	2.77	0.43
26:14:881:G:N7	26:14:882:G:C2	2.87	0.43
26:14:966:G:H2'	26:14:967:C:C6	2.52	0.43
26:14:1138:G:H21	34:15:106:MET:CE	2.32	0.43
26:14:1214:A:H8	26:14:1214:A:O5'	2.01	0.43
26:14:1259:G:H2'	26:14:1260:G:C8	2.54	0.43
26:14:1534:G:H3'	26:14:1535:U:C5'	2.49	0.43
26:14:1615:C:C5	26:14:1617:C:C4	3.06	0.43
26:14:1638:C:H5"	26:14:2710:C:O2	2.18	0.43
26:14:1833:U:H2'	26:14:1834:U:O4'	2.19	0.43
26:14:1997:G:OP2	58:14:3495:HOH:O	2.21	0.43
26:14:2115:G:H4'	26:14:2168:G:N7	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2287:A:C2	26:14:2289:G:C8	3.07	0.43
30:39:46:ARG:HG2	30:39:46:ARG:NH1	2.32	0.43
36:35:51:PHE:CE2	36:35:53:GLY:HA2	2.53	0.43
36:35:147:LEU:HD23	36:35:148:LEU:H	1.83	0.43
37:45:1:MET:HB2	37:45:69:PHE:HE1	1.83	0.43
41:85:16:LYS:O	41:85:20:LEU:HD13	2.19	0.43
41:85:61:TRP:O	41:85:65:ILE:HD13	2.18	0.43
45:C5:90:LEU:HA	45:C5:91:GLU:HA	1.86	0.43
46:D5:67:LEU:HA	46:D5:68:PRO:HD3	1.68	0.43
46:D5:102:LEU:HD22	46:D5:104:PHE:HE1	1.84	0.43
55:M5:15:LYS:HE3	55:M5:16:ILE:O	2.18	0.43
55:M5:29:LYS:HB3	55:M5:44:LYS:HD2	2.01	0.43
1:13:256:U:H2'	1:13:257:G:C8	2.53	0.43
1:13:595:G:H22	1:13:643:C:H41	1.66	0.43
1:13:926:G:H5'	1:13:927:G:C5'	2.49	0.43
1:13:1126:U:N3	1:13:1127:G:C2	2.86	0.43
1:13:1126:U:O2'	1:13:1127:G:OP1	2.34	0.43
3:2E:24:ALA:HB1	3:2E:28:GLN:HB2	2.00	0.43
10:1I:23:ILE:H	10:1I:23:ILE:HG13	1.67	0.43
10:1I:40:LEU:HB3	10:1I:41:PRO:HD2	1.99	0.43
21:1F:12:LYS:O	21:1F:16:GLY:N	2.51	0.43
24:3K:13:C:O2'	24:3K:14:A:H5'	2.18	0.43
26:1H:51:G:N3	26:1H:119:A:C2	2.86	0.43
26:1H:142:G:H1'	44:F8:37:THR:CG2	2.44	0.43
26:1H:444:C:H2'	26:1H:445:C:H6	1.83	0.43
26:1H:449:A:C6	26:1H:450:G:C5	3.06	0.43
26:1H:583:G:H5"	41:C8:10:ARG:NH1	2.33	0.43
26:1H:738:G:C6	26:1H:739:G:C2	3.06	0.43
26:1H:1329:U:H3'	26:1H:1330:C:H6	1.82	0.43
26:1H:1586:A:H3'	26:1H:1587:A:C8	2.46	0.43
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.52	0.43
26:1H:2206:C:H2'	26:1H:2207:C:C6	2.52	0.43
26:1H:2643:G:H2'	26:1H:2644:G:O4'	2.19	0.43
26:1H:2849:U:OP2	40:B8:95:ARG:NH1	2.52	0.43
27:16:61:G:C6	27:16:62:C:C4	3.06	0.43
29:21:66:HIS:ND1	29:21:66:HIS:O	2.51	0.43
31:41:41:GLN:HG3	31:41:60:LEU:HD11	1.99	0.43
31:41:67:LYS:HZ3	51:M8:6:HIS:CE1	2.35	0.43
37:88:68:ILE:CG2	37:88:103:MET:HB3	2.47	0.43
44:F8:66:LEU:O	44:F8:66:LEU:HG	2.19	0.43
48:J8:85:LEU:HD13	48:J8:85:LEU:HA	1.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:49:VAL:CG2	55:Q8:50:LEU:H	2.22	0.43
1:1G:376:G:H5"	16:7A:5:ARG:HD3	2.01	0.43
1:1G:389:A:H2'	1:1G:389:A:N3	2.33	0.43
1:1G:596:C:H2'	1:1G:597:G:C8	2.53	0.43
1:1G:1252:A:H61	1:1G:1285:A:H61	1.67	0.43
1:1G:1288:A:N1	1:1G:1371:G:H1'	2.34	0.43
2:12:118:LEU:O	2:12:122:PHE:N	2.51	0.43
3:22:59:ARG:HG2	3:22:64:VAL:HG23	2.01	0.43
6:52:10:LEU:HD12	6:52:10:LEU:N	2.33	0.43
6:52:21:LEU:HD22	6:52:21:LEU:HA	1.76	0.43
8:72:83:ILE:HB	8:72:137:VAL:HG13	1.99	0.43
9:82:119:ALA:O	9:82:120:ARG:HB2	2.18	0.43
9:82:121:ARG:NH1	9:82:122:ALA:O	2.52	0.43
26:14:35:G:H2'	26:14:36:G:O4'	2.17	0.43
26:14:40:C:H2'	26:14:41:C:C6	2.51	0.43
26:14:1485:G:H1	26:14:1504:C:H42	1.67	0.43
26:14:1953:A:H2	26:14:2549:G:N3	2.17	0.43
26:14:2038:G:H2'	26:14:2039:C:C6	2.53	0.43
26:14:2187:G:C6	26:14:2188:C:C4	3.07	0.43
26:14:2256:G:C5	26:14:2257:U:C5	3.06	0.43
26:14:2262:U:H4'	26:14:2328:A:H2	1.83	0.43
26:14:2300:G:N2	26:14:2317:C:C2	2.87	0.43
26:14:2391:G:O6	26:14:2425:A:H8	2.01	0.43
27:1J:113:C:OP2	27:1J:113:C:H6	2.02	0.43
29:29:91:VAL:HG23	29:29:91:VAL:O	2.18	0.43
32:59:41:MET:HB3	32:59:42:ARG:H	1.64	0.43
32:59:130:ARG:O	32:59:131:VAL:HB	2.18	0.43
36:35:62:LEU:CD2	55:M5:27:THR:HA	2.48	0.43
39:65:34:HIS:CD2	39:65:54:LEU:HD13	2.54	0.43
44:B5:25:LYS:HA	44:B5:81:VAL:O	2.19	0.43
46:D5:87:ASP:N	46:D5:87:ASP:OD1	2.51	0.43
1:13:380:G:C2	1:13:384:G:C6	3.06	0.43
1:13:595:G:N2	1:13:643:C:N4	2.66	0.43
1:13:717:C:H5"	1:13:717:C:C6	2.42	0.43
1:13:1096:C:H2'	1:13:1097:C:C6	2.51	0.43
1:13:1284:C:H3'	1:13:1285:A:C8	2.54	0.43
2:1E:88:ALA:HB3	2:1E:90:MET:HG2	2.01	0.43
2:1E:170:GLU:CD	2:1E:170:GLU:N	2.71	0.43
4:3E:173:TRP:CG	4:3E:189:PRO:HG3	2.53	0.43
13:4I:84:ILE:HG23	13:4I:86:CYS:HB3	2.00	0.43
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:78:TYR:CE1	15:6I:82:ILE:HD11	2.54	0.43
24:3K:28:G:H2'	24:3K:29:G:C8	2.53	0.43
26:1H:445:C:OP1	58:1H:3702:HOH:O	2.20	0.43
26:1H:547:A:C6	26:1H:548:A:C6	3.07	0.43
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.54	0.43
26:1H:1607:C:N4	26:1H:1621:U:H2'	2.32	0.43
26:1H:1793:C:O2	26:1H:1900:A:H2	2.02	0.43
26:1H:2334:G:C2	39:A8:12:PHE:CD1	3.07	0.43
29:21:97:LYS:O	29:21:100:GLU:HG3	2.18	0.43
30:31:192:LEU:HD23	30:31:193:VAL:N	2.33	0.43
32:51:92:ILE:H	32:51:92:ILE:HG13	1.59	0.43
33:61:69:LYS:O	33:61:73:GLU:HB2	2.18	0.43
38:98:10:LEU:O	38:98:12:ARG:HG2	2.18	0.43
38:98:92:GLY:N	38:98:94:TYR:HE1	2.15	0.43
41:C8:92:ARG:NH2	42:D8:10:LYS:HB3	2.33	0.43
42:D8:64:HIS:ND1	42:D8:92:THR:HG22	2.33	0.43
55:Q8:14:VAL:CG1	55:Q8:21:LYS:HZ1	2.31	0.43
55:Q8:21:LYS:HE2	55:Q8:21:LYS:C	2.38	0.43
1:1G:404:U:OP1	4:32:118:ARG:NH1	2.48	0.43
1:1G:823:G:H21	8:72:1:MET:HE2	1.82	0.43
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.54	0.43
1:1G:1313:U:OP1	19:AA:7:LYS:N	2.51	0.43
2:12:22:LYS:HB3	2:12:40:HIS:CE1	2.54	0.43
2:12:119:GLU:HA	2:12:122:PHE:HD2	1.83	0.43
7:62:74:GLU:O	7:62:89:MET:N	2.51	0.43
7:62:111:ARG:NH1	7:62:126:ASP:OD2	2.31	0.43
8:72:89:PRO:HA	8:72:92:ARG:HH21	1.83	0.43
26:14:480:A:H1'	45:C5:44:ILE:HG12	2.01	0.43
26:14:513:A:C2	26:14:514:A:C4	3.06	0.43
26:14:844:C:C5	26:14:845:G:C6	3.07	0.43
26:14:1138:G:C4	26:14:1139:G:H1'	2.52	0.43
26:14:2002:G:N7	58:14:3797:HOH:O	2.36	0.43
26:14:2031:A:C6	26:14:2498:C:H1'	2.53	0.43
26:14:2056:G:N3	26:14:2056:G:H2'	2.34	0.43
26:14:2140:C:H1'	26:14:2152:G:N2	2.34	0.43
26:14:2547:U:O2	35:25:23:ARG:NH2	2.50	0.43
27:1J:28:C:P	39:65:36:TYR:HH	2.42	0.43
29:29:199:ARG:HB3	29:29:200:GLU:OE1	2.19	0.43
33:69:76:THR:HG22	33:69:139:GLN:O	2.18	0.43
35:25:31:LYS:HB3	35:25:32:TYR:CE1	2.54	0.43
37:45:55:VAL:HG23	37:45:64:ILE:HD12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:106:SER:HA	40:75:110:ILE:HD12	1.99	0.43
41:85:31:SER:O	41:85:31:SER:OG	2.37	0.43
55:M5:4:MET:HB3	55:M5:60:LEU:HD13	2.00	0.43
1:13:75:C:H2'	1:13:76:G:O4'	2.18	0.43
1:13:349:A:O2'	1:13:350:G:H5'	2.18	0.43
1:13:585:G:O2'	1:13:879:C:H5"	2.19	0.43
1:13:683:G:C6	1:13:684:A:C6	3.07	0.43
1:13:1128:C:O2'	1:13:1139:G:O6	2.37	0.43
2:1E:149:LEU:HD23	2:1E:149:LEU:HA	1.79	0.43
2:1E:149:LEU:O	2:1E:153:ARG:N	2.52	0.43
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.55	0.43
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.19	0.43
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.33	0.43
26:1H:836:G:C5	26:1H:837:C:C4	3.07	0.43
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.19	0.43
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.18	0.43
26:1H:1419:A:C8	26:1H:1421:G:C6	3.07	0.43
26:1H:1510:A:N3	26:1H:1510:A:H2'	2.33	0.43
26:1H:1826:G:H4'	28:11:242:ARG:CZ	2.48	0.43
26:1H:2061:G:H5'	58:1H:3633:HOH:O	2.18	0.43
26:1H:2821:A:H2'	26:1H:2822:G:O4'	2.19	0.43
32:51:95:ARG:HB3	32:51:95:ARG:NH1	2.34	0.43
36:78:57:THR:HB	36:78:59:LEU:H	1.83	0.43
37:88:34:LEU:HD23	37:88:104:PHE:HD2	1.82	0.43
37:88:77:LYS:HE3	37:88:82:ARG:HA	2.00	0.43
37:88:110:THR:HG23	37:88:113:GLN:OE1	2.18	0.43
39:A8:29:PHE:CD1	39:A8:30:ARG:N	2.82	0.43
41:C8:66:ASN:CB	41:C8:76:TYR:HB2	2.49	0.43
41:C8:97:ASP:HB2	41:C8:101:ARG:HH11	1.83	0.43
43:E8:64:MET:O	43:E8:65:LEU:HB2	2.18	0.43
46:H8:18:LEU:O	46:H8:21:ALA:HB3	2.18	0.43
47:I8:51:VAL:N	47:I8:62:LEU:HD12	2.33	0.43
55:Q8:38:GLY:HA2	55:Q8:39:LYS:C	2.39	0.43
1:1G:316:G:H2'	1:1G:317:G:C8	2.53	0.43
1:1G:407:G:H2'	1:1G:408:A:C8	2.53	0.43
1:1G:1274:G:N2	1:1G:1275:A:N7	2.57	0.43
1:1G:1292:U:H5'	9:82:38:GLN:NE2	2.34	0.43
1:1G:1299:A:C6	1:1G:1301:U:C2	3.06	0.43
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.19	0.43
3:22:18:TRP:HE1	14:5A:55:GLY:N	2.16	0.43
7:62:15:ASP:HB3	7:62:19:GLY:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:10:ARG:HD2	9:82:105:ASP:HB3	2.00	0.43
19:AA:71:LEU:HD23	19:AA:71:LEU:HA	1.75	0.43
26:14:238:C:C2	26:14:260:G:C2	3.06	0.43
26:14:335:C:H4'	45:C5:73:ARG:CZ	2.48	0.43
26:14:341:G:C6	26:14:342:G:C5	3.06	0.43
26:14:607:U:N3	26:14:621:A:C2	2.78	0.43
26:14:686:G:N2	26:14:788:A:H61	2.16	0.43
26:14:1161:C:H1'	42:95:8:GLY:O	2.18	0.43
26:14:1198:U:C2	26:14:1199:U:C5	3.07	0.43
26:14:1204:A:HO2'	26:14:1205:U:P	2.41	0.43
26:14:1375:C:H2'	26:14:1376:C:H6	1.82	0.43
26:14:1608:A:H1'	26:14:1610:A:OP2	2.19	0.43
26:14:1812:A:O2'	28:19:45:ASN:N	2.51	0.43
26:14:1900:A:N1	26:14:1970:A:C6	2.86	0.43
26:14:1954:G:N2	26:14:1956:U:C2	2.87	0.43
26:14:2298:A:N6	26:14:2318:G:C8	2.86	0.43
26:14:2480:C:H5'	26:14:2481:G:OP2	2.18	0.43
26:14:2508:G:HO2'	26:14:2554:U:HO2'	1.66	0.43
27:1J:9:G:OP1	39:65:25:ARG:NH2	2.51	0.43
29:29:33:VAL:HG12	29:29:89:ASP:CB	2.44	0.43
30:39:160:ASN:HB3	30:39:163:VAL:HB	2.00	0.43
31:49:64:THR:OG1	31:49:94:LEU:HD21	2.19	0.43
34:15:17:ASP:O	34:15:18:ALA:HB3	2.18	0.43
36:35:110:TYR:HB3	36:35:111:ARG:H	1.47	0.43
41:85:66:ASN:CB	41:85:76:TYR:HB2	2.41	0.43
46:D5:59:LEU:HB3	46:D5:60:GLU:H	1.48	0.43
48:F5:85:LEU:HB3	48:F5:87:PRO:HG2	1.99	0.43
1:13:68:G:N2	1:13:69:G:H1'	2.33	0.43
1:13:101:A:H8	1:13:101:A:OP2	2.02	0.43
1:13:1316:G:H5"	14:5I:17:LYS:NZ	2.34	0.43
7:6E:113:GLU:HB2	7:6E:118:VAL:HG13	2.00	0.43
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.83	0.43
13:4I:54:VAL:O	13:4I:58:GLU:HG3	2.19	0.43
18:9I:31:LEU:HD23	18:9I:31:LEU:H	1.84	0.43
20:BI:56:MET:HG3	20:BI:88:VAL:HG21	2.00	0.43
26:1H:8:A:H2'	26:1H:9:U:C6	2.53	0.43
26:1H:58:G:N2	26:1H:70:G:C4	2.87	0.43
26:1H:183:C:H42	26:1H:213:A:H61	1.67	0.43
26:1H:265:A:C2	26:1H:428:A:C2	3.07	0.43
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.53	0.43
26:1H:481:G:H1'	26:1H:507:A:N1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:518:G:H2'	26:1H:519:U:C6	2.54	0.43
26:1H:581:C:OP1	41:C8:33:ARG:HG3	2.18	0.43
26:1H:775:G:C4	26:1H:794:G:C8	3.06	0.43
26:1H:1665:A:H1'	35:68:1:MET:HG3	2.01	0.43
26:1H:1843:C:O5'	26:1H:1843:C:H6	2.02	0.43
26:1H:2593:U:C4	58:1H:3683:HOH:O	2.57	0.43
30:31:125:LEU:HD11	30:31:199:TRP:CD2	2.54	0.43
31:41:26:GLN:OE1	31:41:27:ASN:HB2	2.19	0.43
32:51:52:VAL:HG12	32:51:65:HIS:CD2	2.53	0.43
37:88:133:ARG:O	37:88:134:ARG:HB2	2.17	0.43
42:D8:35:LEU:O	42:D8:37:VAL:N	2.52	0.43
44:F8:21:PHE:HE1	44:F8:92:LEU:HD13	1.83	0.43
55:Q8:30:ARG:HB2	55:Q8:30:ARG:CZ	2.49	0.43
1:1G:266:G:H5"	1:1G:268:C:H41	1.83	0.43
1:1G:375:U:O3'	16:7A:6:LEU:HB2	2.17	0.43
1:1G:532:A:H2	3:22:156:ARG:HH12	1.64	0.43
1:1G:620:C:H3'	1:1G:621:A:H8	1.84	0.43
1:1G:756:C:H2'	1:1G:757:U:O4'	2.19	0.43
1:1G:1172:C:H2'	1:1G:1173:G:H8	1.83	0.43
17:8A:10:VAL:HG23	17:8A:54:GLY:N	2.32	0.43
26:14:619:G:H5'	26:14:620:G:OP2	2.19	0.43
26:14:900:A:H5"	26:14:901:A:OP2	2.19	0.43
26:14:909:A:C8	26:14:912:C:N4	2.87	0.43
26:14:993:G:N3	42:95:89:GLN:NE2	2.59	0.43
26:14:1021:A:C8	26:14:1021:A:C3'	3.02	0.43
26:14:1259:G:H2'	26:14:1260:G:H8	1.84	0.43
26:14:1754:C:N3	26:14:2716:U:O2'	2.51	0.43
26:14:1848:A:C4	26:14:1849:G:C8	3.06	0.43
26:14:2015:A:H1'	52:J5:2:ALA:HA	2.01	0.43
26:14:2040:C:H2'	26:14:2041:U:O4'	2.19	0.43
26:14:2072:G:H2'	26:14:2073:C:O4'	2.19	0.43
26:14:2091:U:OP2	26:14:2092:U:O2'	2.24	0.43
26:14:2207:C:N4	26:14:2217:G:H1	2.08	0.43
26:14:2228:G:C6	26:14:2229:C:C4	3.07	0.43
26:14:2299:G:N1	26:14:2318:G:H8	2.17	0.43
26:14:2376:A:H2	39:65:112:PHE:HB3	1.84	0.43
32:59:68:THR:O	32:59:72:ILE:HG13	2.19	0.43
33:69:65:ALA:O	33:69:68:LEU:N	2.51	0.43
33:69:109:ILE:HB	33:69:130:TYR:OH	2.18	0.43
35:25:19:ILE:HD12	35:25:41:ALA:CB	2.49	0.43
36:35:2:LYS:O	36:35:5:ASP:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:1:MET:HB3	37:45:2:LEU:H	1.61	0.43
37:45:19:GLY:H	37:45:98:LYS:HZ3	1.66	0.43
40:75:90:GLN:OE1	40:75:121:ILE:HD11	2.18	0.43
46:D5:11:GLU:HG3	46:D5:12:GLY:H	1.83	0.43
1:13:232:G:C5	1:13:233:C:C4	3.07	0.43
1:13:412:A:H1'	1:13:413:G:OP2	2.19	0.43
1:13:749:C:H2'	1:13:750:G:H8	1.83	0.43
1:13:1342:C:H2'	1:13:1343:G:C8	2.54	0.43
2:1E:71:VAL:HG12	2:1E:93:VAL:HB	2.00	0.43
2:1E:111:ARG:HG2	2:1E:111:ARG:NH1	2.33	0.43
5:4E:15:ARG:HB2	5:4E:28:PHE:CE2	2.54	0.43
5:4E:110:LEU:O	5:4E:115:VAL:HB	2.19	0.43
6:5E:94:GLN:H	6:5E:94:GLN:HG3	1.55	0.43
7:6E:111:ARG:HB3	7:6E:113:GLU:OE2	2.18	0.43
8:7E:88:LYS:O	8:7E:92:ARG:HD3	2.18	0.43
9:8E:10:ARG:HD2	9:8E:11:LYS:HG3	1.99	0.43
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.19	0.43
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.39	0.43
16:7I:53:VAL:HG13	16:7I:79:VAL:HA	2.01	0.43
26:1H:828:U:H2'	26:1H:829:A:C8	2.54	0.43
26:1H:950:G:H2'	26:1H:951:C:H6	1.82	0.43
26:1H:1153:C:C4	26:1H:1154:G:C5	3.07	0.43
26:1H:1484:G:C2	26:1H:1485:G:C8	3.06	0.43
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.18	0.43
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.17	0.43
26:1H:1975:G:H5"	58:1H:3984:HOH:O	2.17	0.43
26:1H:2017:U:P	58:1H:4643:HOH:O	2.76	0.43
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.19	0.43
26:1H:2679:A:H61	26:1H:2728:U:H3	1.65	0.43
26:1H:2830:G:N3	26:1H:2883:A:H2	2.16	0.43
26:1H:2843:G:O2'	26:1H:2844:G:H5'	2.18	0.43
35:68:2:ILE:HD12	35:68:6:THR:HG21	2.01	0.43
36:78:80:TYR:CD2	36:78:111:ARG:HB3	2.53	0.43
37:88:103:MET:H	37:88:103:MET:HG2	1.40	0.43
39:A8:41:ASP:OD2	39:A8:44:LYS:HB2	2.19	0.43
42:D8:98:GLU:OE2	42:D8:100:ARG:NH1	2.49	0.43
45:G8:94:LYS:HG3	45:G8:95:LYS:N	2.33	0.43
53:O8:25:LYS:HB3	53:O8:25:LYS:HE3	1.80	0.43
55:Q8:18:ALA:O	55:Q8:19:SER:OG	2.34	0.43
1:1G:674:G:N2	11:2A:116:HIS:HB2	2.33	0.43
1:1G:937:A:C5	1:1G:938:A:N7	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:979:C:C5	1:1G:980:C:C6	3.00	0.43
1:1G:1009:G:C2	1:1G:1010:G:C8	3.06	0.43
1:1G:1050:G:C6	1:1G:1051:C:N4	2.87	0.43
7:62:92:SER:O	7:62:96:GLN:HG3	2.18	0.43
8:72:36:LEU:HD23	8:72:36:LEU:HA	1.86	0.43
26:14:139:G:N2	26:14:141:A:N1	2.67	0.43
26:14:664:C:H2'	26:14:665:C:C6	2.53	0.43
26:14:931:G:H3'	26:14:931:G:C8	2.54	0.43
26:14:947:G:H2'	26:14:948:G:C8	2.54	0.43
26:14:1027:A:H5'	27:1J:88:C:H41	1.84	0.43
26:14:1141:U:P	34:15:63:THR:HG21	2.59	0.43
26:14:1507:A:C2	26:14:1508:A:H1'	2.54	0.43
26:14:1956:U:C2	26:14:1957:C:C6	3.06	0.43
26:14:2113:U:O4	26:14:2168:G:O2'	2.32	0.43
26:14:2305:A:H8	31:49:156:ASP:OD2	2.02	0.43
26:14:2352:A:N1	47:E5:33:ALA:O	2.52	0.43
26:14:2592:G:C6	26:14:2593:U:C4	3.07	0.43
26:14:2640:G:OP1	34:15:97:ARG:NH1	2.45	0.43
26:14:2820:A:C6	38:55:4:LEU:HD11	2.54	0.43
28:19:228:PRO:HG3	28:19:234:GLY:O	2.18	0.43
29:29:35:GLN:HG2	29:29:37:ARG:HG2	2.01	0.43
31:49:81:LYS:HA	31:49:81:LYS:HD3	1.69	0.43
37:45:110:THR:H	37:45:113:GLN:HE21	1.67	0.43
38:55:94:TYR:C	38:55:117:VAL:HG23	2.39	0.43
39:65:23:ARG:NH2	39:65:84:GLN:HG3	2.34	0.43
46:D5:94:GLU:O	46:D5:130:PRO:HD3	2.18	0.43
55:M5:35:GLN:HG3	55:M5:35:GLN:O	2.19	0.43
1:13:4:U:C4	8:7E:105:ARG:HD2	2.54	0.43
1:13:8:A:H62	4:3E:208:SER:HB2	1.84	0.43
1:13:658:G:H2'	1:13:659:U:C6	2.54	0.43
1:13:668:G:O2'	15:6I:46:HIS:HB3	2.19	0.43
1:13:671:G:C4	1:13:672:U:C6	3.07	0.43
1:13:711:G:H2'	1:13:712:A:H8	1.84	0.43
1:13:790:A:C6	1:13:791:G:C6	3.07	0.43
1:13:983:A:H5'	1:13:984:C:OP2	2.19	0.43
1:13:1225:A:H2'	1:13:1225:A:N3	2.34	0.43
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.83	0.43
4:3E:13:ARG:NH1	4:3E:38:TYR:O	2.52	0.43
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.52	0.43
4:3E:167:GLY:CA	28:19:135:PHE:HE1	2.29	0.43
5:4E:63:ARG:O	5:4E:66:MET:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:38:A:C2	24:3K:39:U:C4	3.07	0.43
26:1H:71:A:OP1	26:1H:72:U:H2'	2.19	0.43
26:1H:467:G:OP1	54:P8:33:ARG:NH1	2.48	0.43
26:1H:660:G:O3'	30:31:38:ARG:NH2	2.52	0.43
26:1H:818:G:H5'	26:1H:839:U:OP1	2.19	0.43
26:1H:1359:A:N1	26:1H:1372:U:C4	2.84	0.43
26:1H:1545(A):A:H2'	26:1H:1546:C:O4'	2.19	0.43
26:1H:1592:C:H2'	26:1H:1593:G:H8	1.84	0.43
26:1H:1666:G:C2'	26:1H:1667:G:H5'	2.49	0.43
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.49	0.43
26:1H:1869:G:N2	26:1H:1872:A:OP2	2.48	0.43
26:1H:2031:A:HO2'	26:1H:2454:G:N2	2.17	0.43
26:1H:2256:G:C5	58:1H:4119:HOH:O	2.69	0.43
26:1H:2352:A:N6	26:1H:2365:G:O2'	2.51	0.43
26:1H:2360:A:O2'	36:78:61:ARG:NH2	2.52	0.43
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.54	0.43
26:1H:2725:A:C4	26:1H:2727:G:C8	3.07	0.43
28:11:248:SER:HB3	28:11:252:TRP:CZ3	2.54	0.43
29:21:23:VAL:HA	29:21:185:LYS:HA	2.00	0.43
30:31:177:ALA:HB1	30:31:178:PRO:HD2	2.01	0.43
32:51:116:GLU:HG3	32:51:117:PRO:HD2	2.01	0.43
33:61:79:ILE:HA	33:61:80:PRO:HD2	1.93	0.43
34:58:133:GLN:O	34:58:134:ARG:HB2	2.18	0.43
38:98:8:ARG:NH1	38:98:39:PRO:HB3	2.34	0.43
38:98:78:LYS:O	38:98:83:ILE:HG13	2.19	0.43
44:F8:31:HIS:CD2	44:F8:33:LYS:HB2	2.54	0.43
49:K8:48:HIS:H	49:K8:50:ILE:HD11	1.83	0.43
52:N8:3:LYS:HB2	52:N8:4:HIS:H	1.61	0.43
1:1G:17:U:H1'	1:1G:1080:A:H1'	2.01	0.43
1:1G:582:U:H1'	1:1G:760:G:C6	2.54	0.43
1:1G:636:U:H2'	1:1G:637:G:H8	1.84	0.43
1:1G:673:G:H2'	1:1G:674:G:H8	1.78	0.43
1:1G:757:U:O2'	1:1G:879:C:O2	2.37	0.43
1:1G:861:G:C4	1:1G:862:C:C5	3.06	0.43
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.19	0.43
1:1G:963:G:HO2'	10:1A:54:PHE:HZ	1.66	0.43
1:1G:974:A:P	14:5A:41:ARG:HH12	2.42	0.43
2:12:186:ALA:O	2:12:201:ILE:HG12	2.19	0.43
4:32:22:LYS:HG3	4:32:26:CYS:SG	2.59	0.43
4:32:101:LEU:HB2	4:32:138:TYR:HB3	2.00	0.43
11:2A:124:LYS:HB2	11:2A:125:PHE:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:7:VAL:HG11	31:49:115:ARG:NE	2.34	0.43
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.34	0.43
18:9A:32:ARG:HB2	18:9A:65:ILE:HD11	2.01	0.43
26:14:654(E):C:H42	26:14:654(P):G:H1	1.64	0.43
26:14:878:A:N6	26:14:899:A:O2'	2.52	0.43
26:14:1967:C:H2'	26:14:1968:G:O4'	2.18	0.43
26:14:2065:C:H2'	26:14:2066:C:C6	2.54	0.43
26:14:2107:C:H2'	26:14:2108:C:O4'	2.19	0.43
26:14:2150:U:H2'	26:14:2151:G:C8	2.49	0.43
26:14:2318:G:N2	39:65:3:ARG:HB2	2.34	0.43
26:14:2766:G:N3	26:14:2766:G:H2'	2.34	0.43
26:14:2789:C:H3'	26:14:2790:A:H5"	2.00	0.43
26:14:2861:G:O2'	26:14:2862:G:H5'	2.19	0.43
29:29:119:ARG:HA	29:29:160:TYR:CD2	2.54	0.43
40:75:8:LYS:HB2	40:75:8:LYS:NZ	2.34	0.43
43:A5:29:LEU:HD21	43:A5:33:ARG:NH2	2.34	0.43
44:B5:66:LEU:HD23	44:B5:66:LEU:HA	1.88	0.43
46:D5:44:PHE:HE1	46:D5:48:PHE:CD2	2.37	0.43
47:E5:24:LYS:O	47:E5:25:ARG:HD3	2.18	0.43
1:13:63:C:N4	1:13:105:G:O6	2.52	0.42
1:13:869:G:H4'	1:13:872:A:O4'	2.18	0.42
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.52	0.42
1:13:1258:G:H2'	1:13:1259:C:C6	2.54	0.42
1:13:1492:A:H1'	25:4K:20:U:HO2'	1.84	0.42
6:5E:7:ASN:HD21	6:5E:62:TRP:HD1	1.67	0.42
20:BI:29:LYS:HE3	20:BI:29:LYS:HB2	1.80	0.42
26:1H:188:G:H1	26:1H:208:C:H42	1.67	0.42
26:1H:341:G:H2'	26:1H:342:G:O4'	2.19	0.42
26:1H:1282:U:H2'	26:1H:1283:G:C8	2.54	0.42
26:1H:1677:A:H2'	26:1H:1678:G:C8	2.54	0.42
26:1H:1972:A:OP2	58:1H:4636:HOH:O	2.21	0.42
26:1H:2266:A:H4'	26:1H:2267:A:N3	2.34	0.42
26:1H:2617:C:O2'	26:1H:2618:G:H5'	2.19	0.42
28:11:44:ASN:O	28:11:46:GLN:O	2.36	0.42
28:11:105:ILE:HD12	28:11:105:ILE:HA	1.55	0.42
30:31:163:VAL:O	30:31:166:ALA:HB3	2.18	0.42
32:51:97:ARG:O	32:51:103:LEU:HD12	2.18	0.42
32:51:144:VAL:O	32:51:148:ILE:HG12	2.19	0.42
34:58:18:ALA:CA	34:58:21:LYS:HG3	2.49	0.42
34:58:75:TYR:HA	34:58:81:GLY:O	2.19	0.42
34:58:91:LEU:HA	34:58:95:PRO:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:129:PRO:O	34:58:134:ARG:NH1	2.52	0.42
37:88:118:LEU:HD23	37:88:118:LEU:HA	1.89	0.42
43:E8:29:LEU:HD21	43:E8:33:ARG:NH2	2.34	0.42
48:J8:20:ARG:HG2	48:J8:20:ARG:HH11	1.84	0.42
49:K8:14:ARG:HG2	49:K8:63:VAL:HG11	2.00	0.42
51:M8:22:ILE:C	51:M8:24:THR:HG23	2.40	0.42
54:P8:10:ARG:HG2	54:P8:14:LYS:HD3	2.01	0.42
1:1G:1305:G:O2'	1:1G:1306:A:H8	2.01	0.42
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.84	0.42
2:12:6:THR:H	2:12:221:LEU:HD11	1.84	0.42
5:42:51:VAL:HG23	5:42:52:PRO:HD3	2.01	0.42
9:82:34:ASN:O	9:82:38:GLN:HB2	2.19	0.42
26:14:710:G:C2	26:14:722:A:C2	3.06	0.42
26:14:751:A:C6	26:14:789:A:C5	3.07	0.42
26:14:820:A:H2'	26:14:821:A:C8	2.54	0.42
26:14:1777:U:O2'	26:14:1778:U:H5'	2.19	0.42
26:14:1925:C:C2'	26:14:1926:U:H5'	2.49	0.42
26:14:2579:C:H4'	29:29:134:ILE:HG12	2.01	0.42
26:14:2600:A:N6	58:14:4084:HOH:O	2.43	0.42
29:29:134:ILE:HA	29:29:137:HIS:CD2	2.53	0.42
30:39:110:LEU:O	30:39:114:VAL:HG23	2.19	0.42
30:39:157:VAL:HB	30:39:194:MET:HB3	1.99	0.42
31:49:111:LEU:HD23	31:49:111:LEU:HA	1.83	0.42
33:69:7:GLU:HG3	33:69:8:PRO:HD2	2.01	0.42
33:69:110:ASP:HA	33:69:111:PRO:HD3	1.82	0.42
35:25:47:ILE:HD12	35:25:47:ILE:HA	1.79	0.42
40:75:53:ARG:HG3	40:75:53:ARG:O	2.19	0.42
40:75:54:ARG:HB3	40:75:54:ARG:HH11	1.84	0.42
41:85:106:PHE:O	41:85:109:LEU:HB2	2.19	0.42
42:95:35:LEU:HB3	42:95:37:VAL:HG13	2.00	0.42
45:C5:40:GLU:CD	45:C5:40:GLU:N	2.72	0.42
46:D5:141:VAL:HG11	46:D5:150:LEU:HD22	2.01	0.42
53:K5:48:VAL:HG21	53:K5:50:ARG:NH2	2.34	0.42
1:13:186(F):C:H2'	1:13:187:C:O4'	2.19	0.42
1:13:591:U:H2'	1:13:592:G:H8	1.84	0.42
1:13:668:G:C6	1:13:669:U:C5	3.07	0.42
1:13:694:A:H5"	11:2I:53:SER:OG	2.20	0.42
1:13:827:U:C5	1:13:872:A:N1	2.87	0.42
1:13:931:C:O2'	1:13:932:C:H5'	2.19	0.42
1:13:1350:A:C6	1:13:1351:U:N3	2.87	0.42
2:1E:75:LYS:HA	2:1E:78:GLN:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:95:THR:HB	3:2E:97:LYS:H	1.84	0.42
5:4E:53:LEU:O	5:4E:56:GLN:HB2	2.18	0.42
9:8E:45:ALA:O	9:8E:48:GLU:HG2	2.19	0.42
9:8E:114:TYR:HB2	10:1I:60:ARG:HG3	2.02	0.42
15:6I:70:LEU:HD11	15:6I:77:ARG:HG2	2.01	0.42
17:8I:34:LYS:HD3	17:8I:36:ILE:HG22	2.00	0.42
18:9I:38:GLU:HA	18:9I:41:LYS:HE3	2.01	0.42
26:1H:109:G:H2'	26:1H:110:G:O4'	2.18	0.42
26:1H:250:G:H5'	36:78:60:MET:HE1	2.01	0.42
26:1H:784:A:H5"	28:11:227:ASN:HD21	1.84	0.42
26:1H:1163:G:N3	26:1H:1164:G:C8	2.88	0.42
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.19	0.42
26:1H:1423:G:C6	26:1H:1424:G:N7	2.87	0.42
26:1H:1473:G:H2'	26:1H:1474:C:O4'	2.20	0.42
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.55	0.42
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.84	0.42
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.54	0.42
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.19	0.42
26:1H:1945:G:H2'	26:1H:1946:U:H6	1.83	0.42
26:1H:2017:U:O2	52:N8:10:LYS:HB2	2.19	0.42
26:1H:2138:C:N3	26:1H:2153:G:N2	2.55	0.42
26:1H:2287:A:C2	26:1H:2346:A:H2	2.37	0.42
28:11:14:ARG:HD3	28:11:15:PHE:CZ	2.53	0.42
29:21:117:MET:HB3	29:21:117:MET:HE3	1.81	0.42
32:51:101:ARG:NH1	32:51:122:THR:OG1	2.48	0.42
34:58:22:THR:HG22	34:58:23:LEU:H	1.84	0.42
36:78:121:LYS:HE2	36:78:121:LYS:HB3	1.82	0.42
38:98:29:LEU:HD12	38:98:29:LEU:HA	1.69	0.42
41:C8:90:VAL:HG12	41:C8:91:ASP:HA	2.01	0.42
41:C8:110:VAL:O	41:C8:114:LYS:N	2.38	0.42
43:E8:12:ILE:HG13	43:E8:42:ARG:HH11	1.83	0.42
44:F8:5:TYR:HB3	49:K8:33:MET:HB2	2.01	0.42
52:N8:42:PRO:HB2	52:N8:43:HIS:ND1	2.34	0.42
1:1G:6:G:O2'	1:1G:7:G:O5'	2.37	0.42
1:1G:247:G:OP2	17:8A:100:LYS:HE2	2.19	0.42
1:1G:304:U:H2'	1:1G:305:G:C8	2.54	0.42
1:1G:502:G:C2	1:1G:503:C:C2	3.07	0.42
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.18	0.42
1:1G:812:C:H1'	1:1G:813:U:OP2	2.19	0.42
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.19	0.42
1:1G:1097:C:H2'	1:1G:1098:C:H6	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.19	0.42
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.52	0.42
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.83	0.42
1:1G:1357:A:C5	1:1G:1358:U:C4	3.07	0.42
1:1G:1459:C:OP1	20:BA:31:SER:OG	2.35	0.42
2:12:24:TRP:NE1	2:12:26:PRO:HG3	2.34	0.42
18:9A:74:ARG:HB3	18:9A:81:PHE:CE1	2.54	0.42
20:BA:14:LYS:HA	20:BA:17:ARG:CZ	2.49	0.42
20:BA:26:ASN:HB2	20:BA:71:THR:HG23	2.00	0.42
20:BA:37:SER:O	20:BA:41:ILE:HG12	2.20	0.42
20:BA:64:ASP:OD1	20:BA:64:ASP:N	2.52	0.42
26:14:26:G:C6	26:14:27:G:N1	2.87	0.42
26:14:55:G:H2'	26:14:56:A:C8	2.55	0.42
26:14:55:G:H2'	26:14:56:A:H8	1.83	0.42
26:14:80:G:C6	26:14:81:G:C5	3.07	0.42
26:14:221:A:C4	26:14:266:G:N7	2.87	0.42
26:14:273(F):C:H3'	26:14:274:G:H5"	2.02	0.42
26:14:890:A:H2'	26:14:892:G:C8	2.54	0.42
26:14:1022:G:C5	26:14:1140:C:C4	3.07	0.42
26:14:1280:G:H5"	26:14:1280:G:C8	2.53	0.42
26:14:1668:A:OP1	35:25:5:GLN:HG2	2.20	0.42
26:14:1794:U:H2'	26:14:1795:C:H6	1.84	0.42
26:14:1839:G:N3	26:14:1839:G:H2'	2.34	0.42
27:1J:7:G:N2	39:65:38:GLN:OE1	2.34	0.42
27:1J:83:G:H1	27:1J:93:C:H42	1.67	0.42
28:19:64:ILE:O	28:19:64:ILE:HG12	2.18	0.42
31:49:19:LEU:HD13	31:49:23:PHE:HE2	1.84	0.42
31:49:76:SER:OG	31:49:84:LYS:N	2.51	0.42
37:45:43:THR:O	37:45:46:GLN:N	2.52	0.42
40:75:61:PHE:CE1	40:75:76:PHE:HB2	2.54	0.42
44:B5:67:GLY:C	44:B5:69:TYR:H	2.20	0.42
47:E5:66:VAL:CG1	47:E5:67:VAL:N	2.82	0.42
50:H5:7:LYS:HG3	50:H5:34:GLU:CG	2.49	0.42
1:13:21:G:H2'	1:13:22:G:C8	2.54	0.42
1:13:347:G:H8	1:13:347:G:OP2	2.03	0.42
1:13:560:U:O5'	1:13:560:U:H6	2.01	0.42
1:13:746:A:C2'	1:13:747:C:H5'	2.49	0.42
1:13:1090:U:H2'	1:13:1091:U:C6	2.54	0.42
1:13:1110:A:OP2	58:13:1958:HOH:O	2.22	0.42
1:13:1145:C:H5"	1:13:1146:A:OP1	2.20	0.42
1:13:1309:G:C6	1:13:1329:A:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.35	0.42
4:3E:70:ILE:HD12	4:3E:70:ILE:HA	1.82	0.42
4:3E:120:LEU:HD23	4:3E:120:LEU:HA	1.86	0.42
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	2.00	0.42
11:2I:29:ILE:HG13	11:2I:44:SER:HB3	2.01	0.42
16:7I:4:ILE:HD12	16:7I:66:PRO:HB3	2.02	0.42
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.18	0.42
22:1K:74:C:O2'	22:1K:75:C:O5'	2.37	0.42
23:2K:8:4SU:O2	23:2K:22:A:H2	2.01	0.42
23:2K:56:PSU:O4	23:2K:58:A:C8	2.72	0.42
26:1H:139:G:N3	26:1H:141:A:N1	2.67	0.42
26:1H:219:G:H2'	26:1H:220:G:C8	2.54	0.42
26:1H:301:G:C4	26:1H:302:C:C5	3.08	0.42
26:1H:583:G:H5"	41:C8:10:ARG:HH12	1.85	0.42
26:1H:665:C:H2'	26:1H:666:G:C8	2.54	0.42
26:1H:671:C:H42	26:1H:809:G:H1	1.65	0.42
26:1H:674:G:O2'	30:31:74:ARG:HD3	2.19	0.42
26:1H:835:A:N6	26:1H:836:G:C6	2.88	0.42
26:1H:847:U:C5	26:1H:933:A:N1	2.87	0.42
26:1H:1426:G:H2'	26:1H:1427:A:C8	2.54	0.42
26:1H:1472:A:H2'	26:1H:1473:G:H8	1.84	0.42
26:1H:1931:U:C5	26:1H:1969:A:N7	2.87	0.42
26:1H:2072:G:H2'	26:1H:2073:C:O4'	2.19	0.42
30:31:63:LYS:HE3	30:31:65:TRP:O	2.18	0.42
33:61:93:THR:OG1	33:61:96:ASP:OD1	2.21	0.42
37:88:56:ARG:HD2	37:88:56:ARG:HA	1.90	0.42
45:G8:79:CYS:HB2	45:G8:80:GLY:H	1.51	0.42
47:I8:75:LEU:HA	47:I8:75:LEU:HD23	1.56	0.42
48:J8:73:LEU:HD11	48:J8:95:LEU:HD21	2.01	0.42
49:K8:50:ILE:HD12	49:K8:51:ARG:N	2.23	0.42
49:K8:64:LEU:HD22	49:K8:68:ARG:HD2	1.99	0.42
55:Q8:52:LYS:HA	55:Q8:54:GLU:HB2	2.02	0.42
1:1G:540:G:H2'	1:1G:541:G:O4'	2.19	0.42
1:1G:838:G:N2	1:1G:842:C:H1'	2.34	0.42
1:1G:1187:G:H4'	9:82:111:ARG:HH11	1.83	0.42
4:32:25:ARG:HG2	4:32:30:LYS:O	2.19	0.42
8:72:10:LEU:HD22	8:72:83:ILE:HD11	2.00	0.42
8:72:92:ARG:HB3	8:72:94:TYR:CE2	2.53	0.42
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	2.00	0.42
16:7A:22:THR:CA	16:7A:33:ILE:HG12	2.48	0.42
22:1L:76:A:N6	26:14:2583:G:H21	2.11	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:5:G:N1	23:2L:69:C:O2	2.52	0.42
24:3L:58:A:H4'	24:3L:59:U:OP1	2.20	0.42
26:14:259:G:N2	26:14:621:A:H8	2.05	0.42
26:14:1043:C:H2'	26:14:1044:G:H5'	2.01	0.42
26:14:1359:A:N7	26:14:1372:U:O4	2.52	0.42
26:14:1592:C:O5'	26:14:1592:C:H6	2.02	0.42
26:14:1743:G:C2	26:14:1746:G:C8	3.07	0.42
26:14:1832:C:N4	26:14:1833:U:C4	2.87	0.42
26:14:2348:U:OP2	55:M5:42:ARG:NH2	2.52	0.42
26:14:2706:G:C2	26:14:2707:G:H1'	2.54	0.42
30:39:63:LYS:HE3	30:39:75:HIS:O	2.18	0.42
31:49:53:LEU:HD12	31:49:54:GLU:N	2.34	0.42
31:49:108:ASN:O	51:I5:37:SER:HA	2.19	0.42
35:25:78:ARG:NH2	40:75:73:GLU:OE2	2.53	0.42
36:35:138:LEU:HD22	36:35:138:LEU:HA	1.90	0.42
38:55:58:GLY:HA2	38:55:80:PHE:HE2	1.84	0.42
42:95:48:GLY:HA3	42:95:51:VAL:C	2.40	0.42
42:95:72:VAL:O	42:95:72:VAL:HG13	2.19	0.42
42:95:85:LYS:CG	42:95:86:GLY:H	2.31	0.42
44:B5:26:TYR:O	44:B5:81:VAL:HG22	2.18	0.42
53:K5:35:GLU:HB2	53:K5:51:GLU:HB2	2.01	0.42
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.84	0.42
1:13:8:A:N7	4:3E:208:SER:HB3	2.34	0.42
1:13:49:U:O2	1:13:362:G:H1'	2.19	0.42
1:13:551:U:H2'	1:13:552:U:C6	2.54	0.42
1:13:648:A:C6	1:13:649:G:C6	3.07	0.42
1:13:1145:C:H4'	1:13:1146:A:H8	1.84	0.42
1:13:1409:C:H2'	1:13:1410:G:H8	1.83	0.42
1:13:1434:A:H2'	1:13:1435:G:O4'	2.19	0.42
7:6E:108:ALA:HB2	7:6E:123:GLU:HG2	2.01	0.42
8:7E:100:ILE:HA	8:7E:101:PRO:HD3	1.85	0.42
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.34	0.42
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.54	0.42
12:3I:59:ARG:HA	12:3I:65:GLU:HA	2.00	0.42
16:7I:57:ARG:NH2	16:7I:79:VAL:O	2.48	0.42
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.84	0.42
23:2K:20:G:HO2'	23:2K:21:U:H3	1.67	0.42
26:1H:410:G:H2'	58:1H:4631:HOH:O	2.19	0.42
26:1H:1142(A):A:C2	26:1H:1144:G:C8	3.08	0.42
26:1H:1543:A:C8	26:1H:1545:A:H5"	2.54	0.42
26:1H:1798:U:H5'	28:11:259:THR:CG2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.18	0.42
26:1H:2746:U:O4	26:1H:2755:C:H4'	2.19	0.42
28:11:182:LEU:H	28:11:272:ALA:CB	2.30	0.42
31:41:130:ASN:HB3	31:41:159:VAL:O	2.18	0.42
34:58:73:THR:HG22	34:58:84:LYS:HG2	2.02	0.42
37:88:41:TRP:HB3	37:88:94:VAL:HG11	2.02	0.42
38:98:48:VAL:O	38:98:51:LEU:N	2.52	0.42
44:F8:2:LYS:HG2	49:K8:26:ARG:NE	2.30	0.42
1:1G:29:G:H5'	1:1G:296:U:OP1	2.20	0.42
1:1G:135:C:O2	16:7A:1:MET:HB3	2.18	0.42
1:1G:476:G:C4	1:1G:477:G:C8	3.07	0.42
1:1G:746:A:H2'	1:1G:747:C:C6	2.55	0.42
1:1G:1512:U:N3	1:1G:1513:A:N7	2.66	0.42
3:22:3:ASN:HD22	3:22:3:ASN:H	1.67	0.42
5:42:43:LEU:HB3	5:42:136:MET:SD	2.60	0.42
8:72:136:GLU:HG3	8:72:136:GLU:O	2.18	0.42
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.49	0.42
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.54	0.42
22:1L:38:A:H2'	22:1L:39:PSU:H6	1.84	0.42
23:2L:7:G:H3'	23:2L:8:4SU:C5'	2.48	0.42
26:14:315:G:C6	26:14:316:C:C4	3.07	0.42
26:14:866:A:H5"	26:14:867:C:OP2	2.19	0.42
26:14:999:U:C5	26:14:1154:G:C5	3.07	0.42
26:14:1163:G:H2'	26:14:1164:G:H8	1.83	0.42
26:14:1217:C:OP2	41:85:15:LYS:HE3	2.20	0.42
26:14:2057:A:H2'	26:14:2058:A:C8	2.54	0.42
26:14:2141:G:C6	26:14:2151:G:C6	3.07	0.42
26:14:2275:C:C5'	26:14:2275:C:C6	3.01	0.42
26:14:2431:U:O2	26:14:2433:A:C8	2.72	0.42
28:19:120:GLY:HA2	28:19:190:TYR:OH	2.19	0.42
30:39:89:VAL:O	30:39:90:PHE:C	2.58	0.42
32:59:70:THR:O	32:59:74:ASN:N	2.52	0.42
36:35:122:PRO:HB3	36:35:141:ALA:HB1	2.02	0.42
47:E5:72:ARG:CB	47:E5:75:LEU:HB2	2.49	0.42
48:F5:11:ARG:HB3	48:F5:11:ARG:CZ	2.49	0.42
1:13:142:G:O2'	1:13:196:A:N1	2.48	0.42
1:13:286:G:C6	1:13:287:U:N3	2.87	0.42
1:13:605:U:C2'	1:13:606:G:H5'	2.49	0.42
1:13:1234:C:H2'	1:13:1235:U:C6	2.54	0.42
1:13:1238:A:N3	1:13:1241:G:O2'	2.49	0.42
1:13:1316:G:N1	1:13:1319:A:OP2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1368:G:OP2	9:8E:112:LYS:HE2	2.19	0.42
1:13:1500:A:P	58:13:1804:HOH:O	2.73	0.42
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.80	0.42
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.19	0.42
7:6E:48:LYS:HB3	7:6E:48:LYS:HE2	1.80	0.42
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	2.00	0.42
8:7E:9:MET:O	8:7E:12:ARG:N	2.50	0.42
10:1I:62:HIS:CD2	10:1I:62:HIS:N	2.86	0.42
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.84	0.42
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.54	0.42
15:6I:71:GLN:HG3	15:6I:78:TYR:CD2	2.55	0.42
19:AI:10:PHE:CD1	19:AI:10:PHE:N	2.87	0.42
20:BI:59:ALA:HA	20:BI:62:LEU:HD12	2.00	0.42
26:1H:26:G:C6	26:1H:27:G:N1	2.87	0.42
26:1H:138:G:H2'	26:1H:139:G:C8	2.54	0.42
26:1H:220:G:O2'	26:1H:233:A:N3	2.41	0.42
26:1H:236:C:H2'	26:1H:237:C:C6	2.55	0.42
26:1H:301:G:C6	26:1H:317:G:C5	3.08	0.42
26:1H:644:A:C2	26:1H:646:A:C4	3.08	0.42
26:1H:646:A:C8	26:1H:647:G:H1'	2.55	0.42
26:1H:773:U:C4'	28:11:47:GLY:HA3	2.49	0.42
26:1H:825:C:O2	36:78:55:ARG:NH2	2.51	0.42
26:1H:1136:G:H2'	26:1H:1136:G:N3	2.34	0.42
26:1H:1161:C:O2'	42:D8:8:GLY:HA2	2.19	0.42
26:1H:1204:A:C2	26:1H:1241:A:N1	2.86	0.42
26:1H:1265:A:OP2	58:1H:3616:HOH:O	2.20	0.42
26:1H:1689:A:C6	26:1H:1700:A:C2	3.07	0.42
26:1H:1711:C:H2'	26:1H:1712:C:C6	2.54	0.42
26:1H:1986:A:C2	26:1H:1987:G:C5	3.08	0.42
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.54	0.42
26:1H:2259:G:C2	26:1H:2282:G:N1	2.87	0.42
29:21:67:PHE:O	29:21:69:LYS:HE2	2.19	0.42
29:21:182:LEU:HD12	29:21:183:LEU:H	1.84	0.42
30:31:78:ILE:HA	30:31:83:PHE:CD2	2.54	0.42
31:41:81:LYS:HA	31:41:81:LYS:HD3	1.84	0.42
31:41:111:LEU:HD23	31:41:114:ILE:HD12	2.01	0.42
31:41:128:ARG:HB2	31:41:128:ARG:NH2	2.35	0.42
32:51:101:ARG:HE	32:51:101:ARG:HB3	1.60	0.42
35:68:104:ARG:NH1	40:B8:36:GLU:OE2	2.53	0.42
37:88:1:MET:O	37:88:2:LEU:HB2	2.20	0.42
37:88:30:GLY:O	37:88:134:ARG:HD2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:34:TRP:HB3	55:Q8:35:GLN:CA	2.48	0.42
1:1G:149:A:H2'	1:1G:150:C:C6	2.54	0.42
1:1G:474:G:C2	1:1G:475:G:C5	3.08	0.42
1:1G:735:C:O2'	1:1G:736:C:H5'	2.20	0.42
1:1G:778:G:H2'	1:1G:779:C:O4'	2.19	0.42
1:1G:1053:G:O2'	1:1G:1054:C:OP2	2.35	0.42
1:1G:1151:A:OP1	10:1A:42:THR:N	2.44	0.42
1:1G:1418:A:H5"	1:1G:1419:G:OP2	2.19	0.42
4:32:30:LYS:CB	4:32:35:ARG:HD2	2.48	0.42
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.42
8:72:51:VAL:HG11	8:72:60:ARG:HH21	1.84	0.42
13:4A:49:THR:N	13:4A:52:GLU:OE1	2.25	0.42
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.20	0.42
20:BA:26:ASN:CB	20:BA:71:THR:HG23	2.50	0.42
23:2L:20:G:H1	23:2L:57:C:N4	2.17	0.42
26:14:30:G:C5	26:14:31:C:C4	3.08	0.42
26:14:69:C:H2'	26:14:70:G:C8	2.54	0.42
26:14:325:G:H2'	26:14:326:G:O4'	2.19	0.42
26:14:513:A:N3	26:14:514:A:C8	2.88	0.42
26:14:675:A:C6	26:14:676:A:C6	3.07	0.42
26:14:1023:U:H4'	26:14:1123:C:OP1	2.19	0.42
26:14:1788:C:H2'	26:14:1789:A:H8	1.83	0.42
26:14:1854:A:H2'	26:14:1855:G:O4'	2.20	0.42
26:14:2185:C:H2'	26:14:2186:G:H8	1.84	0.42
26:14:2305:A:C6	31:49:154:GLY:N	2.88	0.42
26:14:2344:U:OP1	53:K5:38:LYS:HD3	2.19	0.42
26:14:2352:A:C2	47:E5:33:ALA:HB1	2.54	0.42
26:14:2388:A:O2'	26:14:2389:G:H5'	2.20	0.42
26:14:2654:A:H8	26:14:2654:A:OP1	2.03	0.42
27:1J:89:G:C8	27:1J:89:G:OP2	2.73	0.42
29:29:97:LYS:O	29:29:100:GLU:HG3	2.19	0.42
29:29:181:LEU:HD11	40:75:7:ILE:HD11	2.01	0.42
33:69:88:ILE:HG13	33:69:121:LYS:C	2.39	0.42
34:15:34:LEU:O	34:15:49:GLY:HA3	2.19	0.42
37:45:2:LEU:O	37:45:70:PRO:HG2	2.20	0.42
37:45:31:ASP:H	37:45:107:ALA:HB2	1.84	0.42
37:45:36:ALA:HB2	37:45:103:MET:SD	2.59	0.42
39:65:24:LEU:HB2	39:65:85:VAL:HG12	2.01	0.42
41:85:91:ASP:CG	41:85:96:ALA:HB2	2.40	0.42
45:C5:73:ARG:HE	45:C5:73:ARG:HB3	1.48	0.42
46:D5:69:THR:HB	46:D5:88:PHE:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:F5:80:LEU:HD23	48:F5:82:LEU:HD21	2.01	0.42
51:I5:21:VAL:HG22	51:I5:22:ILE:H	1.84	0.42
55:M5:11:LYS:HA	55:M5:59:LYS:HZ2	1.84	0.42
1:13:46:G:H2'	1:13:366:C:C5	2.54	0.42
1:13:134:A:H1'	1:13:325:A:C5	2.55	0.42
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.28	0.42
1:13:375:U:C4	1:13:376:G:N7	2.88	0.42
1:13:635:G:C6	1:13:636:U:C4	3.08	0.42
1:13:1124:G:C2	1:13:1127:G:N2	2.87	0.42
2:1E:7:VAL:HG21	2:1E:11:LEU:HD12	2.02	0.42
2:1E:11:LEU:O	2:1E:16:HIS:NE2	2.53	0.42
3:2E:19:GLU:HB3	3:2E:40:ARG:NH2	2.35	0.42
20:BI:68:LYS:HB2	20:BI:68:LYS:HE3	1.67	0.42
22:1K:37:MIA:H112	22:1K:38:A:N3	2.34	0.42
26:1H:53:A:H2'	26:1H:54:G:O4'	2.20	0.42
26:1H:425:G:C2	26:1H:426:C:C6	3.07	0.42
26:1H:960:A:H61	37:88:82:ARG:HH21	1.67	0.42
26:1H:962:G:H4'	26:1H:2496:C:O2'	2.20	0.42
26:1H:1194:A:H8	26:1H:1194:A:OP2	2.03	0.42
26:1H:1297:C:OP1	26:1H:2710:C:H4'	2.19	0.42
26:1H:1471:A:C4	26:1H:1472:A:C8	3.08	0.42
26:1H:1651:G:H5'	38:98:39:PRO:HG2	2.00	0.42
26:1H:2641:G:H5"	26:1H:2641:G:H8	1.85	0.42
26:1H:2766:G:H5"	26:1H:2767:C:OP2	2.19	0.42
26:1H:2878:U:O4	58:1H:4250:HOH:O	2.21	0.42
28:11:81:ALA:HB3	28:11:94:LEU:HB3	2.02	0.42
30:31:108:LYS:HE2	30:31:108:LYS:HB3	1.76	0.42
31:41:12:TYR:HD1	31:41:16:ARG:HD3	1.83	0.42
32:51:86:GLU:HG2	32:51:87:LEU:H	1.84	0.42
32:51:91:GLY:O	32:51:94:TYR:HB2	2.19	0.42
34:58:57:ALA:C	34:58:59:LYS:H	2.23	0.42
36:78:106:LEU:O	36:78:106:LEU:HD22	2.19	0.42
38:98:10:LEU:O	38:98:11:ASN:C	2.58	0.42
47:I8:37:LEU:HD11	47:I8:61:ALA:N	2.35	0.42
1:1G:430:A:C4	1:1G:431:A:C8	3.07	0.42
1:1G:434:U:H2'	1:1G:435:C:H6	1.80	0.42
1:1G:683:G:N2	1:1G:707:C:O2	2.44	0.42
1:1G:728:A:C2	1:1G:729:A:C5	3.08	0.42
1:1G:754:C:H3'	1:1G:755:G:H5'	2.01	0.42
1:1G:1320:C:C1'	19:AA:73:GLU:HG2	2.48	0.42
3:22:111:LEU:HD21	3:22:146:ALA:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:22:GLU:O	6:52:26:ILE:HG13	2.19	0.42
7:62:18:TYR:CD2	7:62:59:LEU:HD12	2.54	0.42
7:62:65:ALA:HB3	7:62:124:LEU:HD22	2.01	0.42
25:4L:15:A:H8	25:4L:15:A:O5'	2.02	0.42
26:14:51:G:N3	26:14:119:A:C2	2.88	0.42
26:14:118:A:OP2	26:14:119:A:H5"	2.20	0.42
26:14:271(B):G:N7	26:14:421:U:H2'	2.35	0.42
26:14:289:A:H3'	26:14:290:G:C8	2.52	0.42
26:14:300:A:H1'	26:14:319:C:H1'	2.01	0.42
26:14:531:C:OP1	26:14:561:G:N1	2.52	0.42
26:14:634:C:H2'	26:14:635:C:C6	2.54	0.42
26:14:729:G:H2'	26:14:1775:U:O2	2.18	0.42
26:14:864:G:H8	26:14:864:G:O5'	2.03	0.42
26:14:873:G:H1'	37:45:29:PHE:HE2	1.85	0.42
26:14:902:C:H2'	26:14:903:C:C6	2.55	0.42
26:14:1035:U:H2'	26:14:1036:G:C8	2.54	0.42
26:14:2420:C:OP1	55:M5:34:TRP:HB3	2.18	0.42
26:14:2784:C:H2'	26:14:2785:C:H6	1.83	0.42
26:14:2854:G:N2	26:14:2864:G:C4	2.87	0.42
27:1J:23:G:C2	27:1J:24:G:O6	2.72	0.42
29:29:16:ARG:HB2	29:29:21:VAL:HG21	2.01	0.42
36:35:63:PRO:HB3	55:M5:13:ARG:HG2	2.02	0.42
36:35:131:SER:HB3	36:35:134:ALA:CB	2.50	0.42
36:35:138:LEU:HD12	36:35:144:GLU:HG3	2.00	0.42
38:55:94:TYR:O	38:55:117:VAL:HG23	2.20	0.42
40:75:33:LYS:HD3	40:75:82:LEU:O	2.19	0.42
45:C5:76:CYS:HB2	45:C5:97:ARG:HE	1.84	0.42
46:D5:111:VAL:HG22	46:D5:112:ARG:HH11	1.85	0.42
1:13:57:G:C5	1:13:58:C:C4	3.07	0.42
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.43	0.42
1:13:282:A:N3	1:13:282:A:H2'	2.34	0.42
1:13:353:A:H5'	1:13:353:A:C8	2.47	0.42
1:13:515:G:N2	1:13:537:G:C4	2.88	0.42
1:13:549:C:C2	1:13:550:G:C8	3.08	0.42
1:13:872:A:C8	1:13:874:G:C8	3.08	0.42
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.17	0.42
1:13:1144:G:H21	1:13:1146:A:H62	1.66	0.42
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.53	0.42
1:13:1288:A:O3'	21:1F:10:ARG:NH2	2.53	0.42
2:1E:15:VAL:HB	2:1E:210:SER:HB2	2.01	0.42
4:3E:30:LYS:HB2	4:3E:35:ARG:HE	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	2.02	0.42
14:5I:6:LEU:HD23	14:5I:6:LEU:HA	1.91	0.42
15:6I:61:GLY:O	15:6I:64:ARG:HB3	2.19	0.42
19:AI:13:ASP:HA	19:AI:16:LEU:HB3	2.02	0.42
26:1H:129:C:H2'	26:1H:130:C:C6	2.55	0.42
26:1H:364:C:H6	26:1H:364:C:H5'	1.84	0.42
26:1H:1051:G:OP2	26:1H:1051:G:H8	2.02	0.42
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.20	0.42
26:1H:2197:U:H1'	26:1H:2198:A:C8	2.55	0.42
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.34	0.42
26:1H:2336:A:H61	47:I8:43:THR:HB	1.84	0.42
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.19	0.42
26:1H:2693:A:C4	26:1H:2694:G:C8	3.07	0.42
27:16:95:U:H2'	27:16:96:G:C8	2.55	0.42
28:11:85:ASP:OD1	28:11:86:PRO:HD2	2.20	0.42
29:21:78:LEU:O	29:21:79:ARG:HB2	2.19	0.42
30:31:34:TRP:CH2	36:78:8:PRO:HB3	2.55	0.42
31:41:112:PRO:HB3	51:M8:37:SER:N	2.28	0.42
38:98:45:ARG:HD2	38:98:97:VAL:CG2	2.48	0.42
43:E8:110:LYS:HG3	43:E8:111:HIS:H	1.84	0.42
44:F8:41:ASN:N	44:F8:41:ASN:OD1	2.52	0.42
45:G8:84:ARG:NE	45:G8:84:ARG:O	2.53	0.42
55:Q8:39:LYS:CD	55:Q8:40:GLU:H	2.32	0.42
1:1G:21:G:OP2	58:1G:1834:HOH:O	2.22	0.42
1:1G:130:A:H1'	1:1G:263:A:O2'	2.19	0.42
1:1G:518:C:H5"	1:1G:519:C:H6	1.85	0.42
1:1G:608:A:H2'	1:1G:609:A:O4'	2.20	0.42
1:1G:758:G:H4'	1:1G:880:C:H4'	2.02	0.42
10:1A:78:ASN:OD1	10:1A:80:LYS:HB3	2.20	0.42
13:4A:73:GLU:O	13:4A:77:ASN:HB2	2.18	0.42
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.87	0.42
24:3L:25:C:C4	24:3L:26:A:C8	3.07	0.42
24:3L:51:U:C2	24:3L:52:G:C8	3.08	0.42
26:14:16:G:O2'	26:14:17:G:H5'	2.18	0.42
26:14:225:A:N6	26:14:226:G:C2	2.88	0.42
26:14:945:A:C4	26:14:2448:A:C2	3.07	0.42
26:14:1011:G:N3	26:14:1151:G:N2	2.67	0.42
26:14:1067:A:N3	26:14:1067:A:H2'	2.34	0.42
26:14:1268:A:C2	26:14:2013:A:C4	3.08	0.42
26:14:1465:G:N2	26:14:1466:G:H1'	2.35	0.42
26:14:1483:G:C2	26:14:1484:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.19	0.42
26:14:1769:G:C5	26:14:1984:G:C6	3.08	0.42
26:14:2632:A:O2'	26:14:2811:G:O2'	2.12	0.42
26:14:2782:G:N7	58:14:3788:HOH:O	2.37	0.42
27:1J:93:C:H2'	27:1J:94:C:H6	1.84	0.42
27:1J:117:G:O5'	27:1J:117:G:H8	2.01	0.42
28:19:118:VAL:HG22	28:19:119:ALA:N	2.33	0.42
28:19:136:ILE:HA	28:19:137:PRO:HD3	1.88	0.42
31:49:88:ILE:HD12	31:49:88:ILE:HA	1.89	0.42
34:15:96:GLU:HB2	34:15:122:VAL:HG12	2.00	0.42
42:95:48:GLY:HA3	42:95:52:VAL:N	2.35	0.42
46:D5:52:SER:O	46:D5:54:HIS:N	2.52	0.42
46:D5:71:VAL:HB	46:D5:88:PHE:CD2	2.55	0.42
53:K5:28:ARG:HA	53:K5:28:ARG:HH11	1.84	0.42
1:13:636:U:H2'	1:13:637:G:C8	2.55	0.42
1:13:652:U:C4	1:13:752:G:N3	2.88	0.42
1:13:664:G:P	18:9I:64:ARG:HH21	2.42	0.42
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.44	0.42
2:1E:130:ARG:HA	2:1E:131:PRO:HD3	1.88	0.42
3:2E:4:LYS:HE3	3:2E:4:LYS:HB3	1.57	0.42
3:2E:84:ILE:HD11	3:2E:88:ARG:NH2	2.32	0.42
4:3E:173:TRP:CE3	4:3E:193:ASP:HB3	2.54	0.42
5:4E:98:THR:HG22	5:4E:99:GLY:O	2.20	0.42
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	2.01	0.42
17:8I:63:ARG:HG3	17:8I:64:PRO:N	2.35	0.42
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.20	0.42
26:1H:300:A:H1'	26:1H:319:C:O4'	2.19	0.42
26:1H:463:G:N2	26:1H:465:G:H3'	2.35	0.42
26:1H:498:G:C6	26:1H:499:U:C4	3.08	0.42
26:1H:681:G:H2'	26:1H:682:G:O4'	2.20	0.42
26:1H:950:G:C5	26:1H:951:C:C4	3.08	0.42
26:1H:989:G:C5	50:L8:13:ILE:HG13	2.54	0.42
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.54	0.42
26:1H:1825:A:O4'	28:11:254:THR:HG21	2.20	0.42
26:1H:2235:G:H2'	26:1H:2236:C:H6	1.85	0.42
26:1H:2404:C:O3'	36:78:77:ARG:NH2	2.52	0.42
26:1H:2818:G:O2'	26:1H:2837:G:H5'	2.20	0.42
29:21:15:PHE:HA	29:21:19:ARG:O	2.19	0.42
32:51:130:ARG:NH1	32:51:130:ARG:HB3	2.35	0.42
36:78:112:LEU:HD23	36:78:112:LEU:HA	1.87	0.42
38:98:12:ARG:HD3	38:98:16:HIS:CD2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:61:PHE:CE1	40:B8:76:PHE:HB2	2.55	0.42
44:F8:84:ALA:HB3	44:F8:87:GLN:OE1	2.19	0.42
46:H8:61:LEU:CD2	46:H8:67:LEU:HD12	2.49	0.42
50:L8:7:LYS:C	50:L8:54:VAL:HG23	2.40	0.42
1:1G:165:C:H2'	1:1G:166:G:C8	2.55	0.42
1:1G:1063:C:H3'	1:1G:1064:G:H2'	2.02	0.42
2:12:22:LYS:H	2:12:22:LYS:HG3	1.70	0.42
2:12:71:VAL:HG23	2:12:164:VAL:HG22	2.02	0.42
3:22:62:ASP:O	3:22:97:LYS:HB2	2.20	0.42
4:32:152:SER:O	4:32:153:ARG:C	2.58	0.42
5:42:99:GLY:O	5:42:117:ASP:HA	2.19	0.42
9:82:111:ARG:HG2	9:82:112:LYS:N	2.34	0.42
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.19	0.42
18:9A:45:SER:N	18:9A:49:LYS:O	2.51	0.42
20:BA:76:ALA:O	20:BA:80:ARG:HG2	2.18	0.42
22:1L:73:A:H5'	22:1L:74:C:OP2	2.19	0.42
24:3L:66:U:H2'	24:3L:67:C:C6	2.55	0.42
26:14:654(C):G:C2	26:14:654(S):G:C2	3.08	0.42
26:14:819:A:H2'	26:14:820:A:H5'	2.01	0.42
26:14:1063:G:C4	26:14:1076:C:N4	2.88	0.42
26:14:1357:U:OP2	58:14:3624:HOH:O	2.22	0.42
26:14:1479:G:C2'	26:14:1480:G:H5'	2.49	0.42
26:14:1794:U:H2'	26:14:1795:C:C6	2.55	0.42
26:14:1902:C:N4	26:14:1903:G:C4	2.87	0.42
26:14:2273:A:H2'	26:14:2274:A:H8	1.81	0.42
28:19:33:LEU:HD12	28:19:33:LEU:HA	1.70	0.42
29:29:197:ILE:HD11	29:29:199:ARG:HH21	1.85	0.42
31:49:95:ARG:CG	31:49:96:ARG:H	2.33	0.42
32:59:68:THR:HG22	32:59:72:ILE:HD11	2.02	0.42
33:69:113:ARG:HA	33:69:113:ARG:HD3	1.76	0.42
35:25:22:ILE:HA	35:25:22:ILE:HD12	1.43	0.42
45:C5:35:TYR:CE2	45:C5:69:ALA:HB3	2.54	0.42
52:J5:41:PRO:HG2	52:J5:44:THR:OG1	2.19	0.42
1:13:323:U:H5'	20:BI:23:ARG:HB2	2.01	0.42
1:13:386:C:H2'	1:13:387:U:O4'	2.20	0.42
1:13:1121:U:H2'	1:13:1122:U:C6	2.55	0.42
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.82	0.42
11:2I:69:ALA:O	11:2I:73:MET:HG3	2.19	0.42
12:3I:34:ARG:HH11	12:3I:82:VAL:HG21	1.84	0.42
12:3I:70:ILE:CD1	12:3I:77:LEU:HD12	2.47	0.42
15:6I:4:THR:O	15:6I:7:GLU:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:59:ILE:HB	17:8I:71:PHE:HD2	1.85	0.42
22:1K:23:A:H2'	22:1K:24:G:O4'	2.19	0.42
24:3K:18:G:H2'	24:3K:57:G:N2	2.34	0.42
26:1H:142:G:O3'	44:F8:35:THR:HG21	2.19	0.42
26:1H:274:G:H2'	26:1H:275:G:H4'	2.02	0.42
26:1H:361:G:H8	26:1H:361:G:O5'	2.03	0.42
26:1H:448:U:O4	26:1H:583:G:H1'	2.19	0.42
26:1H:483:A:H5"	45:G8:50:ARG:HE	1.84	0.42
26:1H:996:A:C2	26:1H:997:G:C8	3.08	0.42
26:1H:1058:U:H2'	26:1H:1059:G:H8	1.84	0.42
26:1H:1183:G:OP2	26:1H:1183:G:H8	2.02	0.42
26:1H:1437:C:H2'	26:1H:1438:U:C6	2.54	0.42
26:1H:2215:G:H2'	26:1H:2216:G:H8	1.85	0.42
27:16:99:A:C4	27:16:100:G:C8	3.07	0.42
29:21:77:ILE:HG22	29:21:78:LEU:N	2.34	0.42
33:61:95:LYS:HE3	33:61:99:GLU:OE2	2.20	0.42
37:88:58:PHE:O	37:88:60:ARG:N	2.53	0.42
37:88:81:VAL:C	37:88:82:ARG:HD2	2.38	0.42
38:98:57:ARG:HB3	38:98:59:ASP:OD1	2.19	0.42
39:A8:14:VAL:HG21	39:A8:89:ARG:NE	2.29	0.42
39:A8:24:LEU:CD1	39:A8:41:ASP:HB2	2.50	0.42
40:B8:50:ILE:CD1	40:B8:102:ILE:HD11	2.50	0.42
44:F8:52:VAL:N	44:F8:82:GLN:O	2.38	0.42
1:1G:20:U:H2'	1:1G:21:G:O4'	2.20	0.42
1:1G:45:U:H2'	1:1G:46:G:C8	2.55	0.42
1:1G:78:G:C2	1:1G:79:G:C8	3.08	0.42
1:1G:522:C:H2'	1:1G:523:A:O4'	2.20	0.42
1:1G:639:G:O2'	1:1G:640:A:H5'	2.20	0.42
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.55	0.42
1:1G:1269:A:H5"	1:1G:1270:C:OP2	2.20	0.42
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.55	0.42
1:1G:1442:G:C5	1:1G:1446:A:C6	3.08	0.42
2:12:19:HIS:CG	2:12:20:GLU:N	2.86	0.42
4:32:5:ILE:H	4:32:5:ILE:HG13	1.67	0.42
8:72:31:PHE:CE2	8:72:35:ILE:HD11	2.55	0.42
8:72:97:VAL:HG22	8:72:129:VAL:C	2.40	0.42
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.30	0.42
22:1L:26:A:H5"	22:1L:27:G:N7	2.34	0.42
26:14:94:G:O2'	49:G5:46:GLN:HB3	2.20	0.42
26:14:235:U:H2'	26:14:236:C:H6	1.85	0.42
26:14:795:C:O2'	26:14:796:C:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:869:G:C2	26:14:870:A:C8	3.08	0.42
26:14:934:G:H2'	26:14:935:C:C6	2.55	0.42
26:14:1426:G:H8	26:14:1426:G:O5'	2.02	0.42
26:14:1778:U:OP2	58:14:3630:HOH:O	2.22	0.42
26:14:2100:G:N2	26:14:2190:G:H1'	2.34	0.42
26:14:2831:G:P	29:29:58:ARG:HH11	2.43	0.42
28:19:159:ALA:HB1	28:19:198:ASN:O	2.20	0.42
30:39:70:THR:OG1	30:39:71:GLY:N	2.52	0.42
30:39:143:ALA:HB1	30:39:148:LEU:HB2	2.02	0.42
33:69:78:THR:HG21	33:69:104:GLN:HG3	2.02	0.42
34:15:38:HIS:CD2	34:15:38:HIS:H	2.36	0.42
35:25:66:LYS:HD2	35:25:81:ASP:HA	2.01	0.42
36:35:86:LYS:HB3	36:35:118:GLY:HA3	2.02	0.42
38:55:67:LEU:O	38:55:71:GLN:N	2.48	0.42
39:65:66:ALA:HA	39:65:69:VAL:HG12	2.00	0.42
42:95:83:ARG:HD2	42:95:83:ARG:HA	1.78	0.42
45:C5:88:LYS:O	45:C5:89:PHE:HB3	2.19	0.42
46:D5:54:HIS:HB3	46:D5:101:PRO:HG3	2.02	0.42
1:13:730:G:N2	1:13:766:A:OP1	2.43	0.42
2:1E:72:GLY:HA3	2:1E:165:VAL:HG22	2.01	0.42
4:3E:188:LEU:HD22	4:3E:188:LEU:HA	1.74	0.42
19:AI:20:LEU:O	19:AI:23:ASN:HB2	2.19	0.42
20:BI:30:LYS:HD2	20:BI:30:LYS:HA	1.78	0.42
22:1K:70:G:OP1	22:1K:70:G:H4'	2.18	0.42
24:3K:32:U:O2	24:3K:33:U:H5"	2.20	0.42
26:1H:250:G:H5'	36:78:60:MET:SD	2.59	0.42
26:1H:270:A:OP1	58:1H:4580:HOH:O	2.21	0.42
26:1H:299:A:N6	26:1H:300:A:N6	2.68	0.42
26:1H:732:C:H2'	26:1H:733:G:O4'	2.20	0.42
26:1H:849:A:H5"	26:1H:850:C:OP2	2.20	0.42
26:1H:1442:G:C2	26:1H:1550:C:O2	2.73	0.42
26:1H:1689:A:C2	26:1H:1690:A:C5	3.07	0.42
26:1H:1728:G:H3'	26:1H:1729:A:H5"	2.02	0.42
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.84	0.42
26:1H:2032:G:H1'	29:21:145:LYS:HE3	2.02	0.42
26:1H:2076:U:H5	26:1H:2596:U:O2	2.02	0.42
26:1H:2790:A:H4'	26:1H:2791:C:OP2	2.20	0.42
26:1H:2849:U:P	40:B8:95:ARG:HH12	2.42	0.42
28:11:67:PHE:CD1	28:11:153:ALA:HB3	2.55	0.42
28:11:172:TYR:CD1	28:11:186:HIS:HA	2.55	0.42
29:21:116:VAL:HG11	29:21:138:PRO:CB	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:43:LEU:N	31:41:88:ILE:O	2.46	0.42
33:61:79:ILE:O	33:61:142:VAL:HA	2.20	0.42
36:78:59:LEU:O	55:Q8:13:ARG:HD3	2.19	0.42
50:L8:8:LEU:HD13	50:L8:31:LEU:HA	2.01	0.42
1:1G:28:G:C6	1:1G:29:G:C5	3.07	0.42
1:1G:146:G:C2	1:1G:147:G:C8	3.08	0.42
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.55	0.42
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.85	0.42
1:1G:887:G:H21	1:1G:1489:G:H4'	1.85	0.42
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.27	0.42
1:1G:1113:C:H2'	1:1G:1114:C:C6	2.55	0.42
1:1G:1227:A:O2'	13:4A:115:LYS:HD2	2.20	0.42
1:1G:1278:U:H5'	1:1G:1279:A:O4'	2.20	0.42
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.19	0.42
4:32:24:GLU:HG2	4:32:25:ARG:H	1.84	0.42
6:52:68:PRO:HG2	6:52:71:ARG:HG3	2.01	0.42
9:82:48:GLU:N	9:82:49:PRO:HD2	2.35	0.42
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	2.02	0.42
16:7A:74:LEU:HB3	16:7A:80:PHE:HE1	1.85	0.42
19:AA:15:LEU:HD22	19:AA:15:LEU:HA	1.96	0.42
24:3L:29:G:H2'	24:3L:30:G:C8	2.55	0.42
26:14:30:G:H2'	26:14:31:C:C6	2.55	0.42
26:14:107:C:H2'	26:14:108:U:C6	2.55	0.42
26:14:691:C:H2'	26:14:692:C:C6	2.55	0.42
26:14:756:C:H2'	26:14:757:U:H5'	2.01	0.42
26:14:769:G:H5'	26:14:1379:A:N6	2.34	0.42
26:14:773:U:H5'	28:19:47:GLY:HA3	2.02	0.42
26:14:905:U:H5"	26:14:906:G:OP2	2.20	0.42
26:14:914:C:N3	26:14:915:C:H1'	2.35	0.42
26:14:975:G:H1'	26:14:990:A:C2	2.55	0.42
26:14:1000:A:C6	26:14:1001:A:C6	3.08	0.42
26:14:1359:A:N7	26:14:1372:U:C4	2.88	0.42
26:14:1374:G:H2'	26:14:1375:C:C6	2.55	0.42
26:14:1750:G:O2'	26:14:1751:C:H5'	2.20	0.42
26:14:1986:A:OP1	58:14:3747:HOH:O	2.21	0.42
26:14:2014:A:H2'	26:14:2015:A:C8	2.55	0.42
26:14:2394:C:H2'	26:14:2395:C:C6	2.54	0.42
26:14:2750:A:H5'	32:59:6:ARG:HH22	1.85	0.42
26:14:2789:C:H1'	26:14:2892:A:H2	1.85	0.42
31:49:109:VAL:O	31:49:113:ARG:HG3	2.20	0.42
32:59:89:ILE:HG23	32:59:130:ARG:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:6:LEU:HD13	36:35:6:LEU:HA	1.77	0.42
39:65:62:LYS:HA	39:65:65:VAL:HG12	2.02	0.42
43:A5:89:ALA:O	43:A5:90:ARG:HB2	2.20	0.42
45:C5:7:VAL:HG21	45:C5:37:VAL:HG11	2.02	0.42
54:L5:36:GLN:O	54:L5:36:GLN:HG2	2.20	0.42
1:13:119:A:N6	1:13:288:A:H1'	2.35	0.41
1:13:247:G:OP2	17:8I:100:LYS:HB2	2.20	0.41
1:13:985:C:H2'	1:13:986:A:H8	1.85	0.41
1:13:1072:G:H2'	1:13:1073:U:O4'	2.20	0.41
1:13:1268:A:N3	1:13:1326:C:O2'	2.52	0.41
1:13:1286:A:H5"	21:1F:26:LYS:HD3	2.02	0.41
4:3E:57:ARG:HB3	4:3E:206:PHE:HB2	2.02	0.41
4:3E:142:PRO:HG3	4:3E:187:ARG:HA	2.02	0.41
8:7E:25:ASP:HA	8:7E:59:LEU:O	2.20	0.41
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	2.01	0.41
11:2I:57:THR:HA	11:2I:58:PRO:HD2	1.76	0.41
18:9I:38:GLU:H	18:9I:38:GLU:HG2	1.61	0.41
26:1H:71:A:C2	44:F8:31:HIS:CE1	3.04	0.41
26:1H:88:G:C2'	26:1H:89:G:H5'	2.49	0.41
26:1H:234:C:N3	26:1H:235:U:C5	2.88	0.41
26:1H:617:G:H2'	26:1H:618:G:O4'	2.19	0.41
26:1H:718:A:H8	26:1H:718:A:O5'	2.01	0.41
26:1H:721:C:H2'	26:1H:722:A:H8	1.85	0.41
26:1H:818:G:N7	26:1H:1187:G:C6	2.88	0.41
26:1H:993:G:C6	26:1H:1162:G:C6	3.08	0.41
26:1H:1113:U:OP1	32:51:2:SER:N	2.53	0.41
26:1H:1206:G:C6	26:1H:1207:C:C4	3.07	0.41
26:1H:1666:G:O2'	26:1H:1667:G:H5'	2.19	0.41
26:1H:2347:C:P	53:O8:39:TYR:OH	2.76	0.41
26:1H:2408:U:H2'	26:1H:2409:G:H8	1.85	0.41
26:1H:2546:U:O4	58:1H:4469:HOH:O	2.21	0.41
26:1H:2850:A:C8	26:1H:2869:G:O4'	2.72	0.41
28:11:4:LYS:HA	28:11:4:LYS:HD3	1.90	0.41
30:31:116:ASP:O	30:31:120:GLU:HG3	2.20	0.41
34:58:28:THR:HA	34:58:106:MET:HE2	2.02	0.41
35:68:22:ILE:HD13	35:68:22:ILE:HA	1.45	0.41
38:98:91:GLN:NE2	38:98:91:GLN:H	2.18	0.41
43:E8:59:VAL:HG12	43:E8:60:ASN:HD22	1.85	0.41
45:G8:44:ILE:H	45:G8:44:ILE:HG13	1.67	0.41
53:O8:10:LEU:CD2	55:Q8:32:LEU:HD22	2.48	0.41
1:1G:191:G:C2	1:1G:192:U:C2	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:567:G:N2	58:1G:1833:HOH:O	2.50	0.41
1:1G:580:U:H2'	1:1G:581:G:O4'	2.20	0.41
1:1G:736:C:OP2	18:9A:68:LYS:HE2	2.20	0.41
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.48	0.41
1:1G:1227:A:C8	1:1G:1227:A:H3'	2.55	0.41
5:42:102:ALA:HB2	5:42:120:THR:HG21	2.02	0.41
8:72:12:ARG:HH21	8:72:27:PRO:HD3	1.84	0.41
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	2.02	0.41
16:7A:43:LYS:HG3	16:7A:48:TRP:CE3	2.55	0.41
22:1L:29:G:N2	22:1L:42:C:O2	2.52	0.41
23:2L:20:G:H1	23:2L:57:C:H42	1.68	0.41
24:3L:35:A:H2	25:4L:14:A:N6	2.18	0.41
24:3L:65:G:N3	24:3L:65:G:H2'	2.35	0.41
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.20	0.41
26:14:638:G:C6	26:14:639:U:C4	3.07	0.41
26:14:792:G:H3'	26:14:793:A:H5'	2.02	0.41
26:14:817:C:H6	26:14:817:C:O5'	2.03	0.41
26:14:947:G:N2	26:14:971:C:C2	2.88	0.41
26:14:2093:G:OP1	33:69:23:PRO:HG2	2.20	0.41
26:14:2844:G:N2	26:14:2874:C:C2	2.88	0.41
28:19:37:LEU:CB	28:19:38:LYS:HG2	2.50	0.41
28:19:260:ARG:NH2	28:19:264:LYS:HD3	2.34	0.41
29:29:26:ILE:HG22	29:29:28:ALA:N	2.35	0.41
30:39:66:PRO:O	30:39:67:GLN:CB	2.68	0.41
31:49:116:ASP:O	31:49:117:PHE:HB3	2.19	0.41
34:15:115:ARG:O	34:15:118:LYS:HB2	2.20	0.41
36:35:124:LYS:HE2	36:35:124:LYS:HA	2.02	0.41
38:55:8:ARG:NE	38:55:43:GLU:OE2	2.53	0.41
39:65:36:TYR:HA	39:65:52:SER:HB3	2.02	0.41
40:75:19:LEU:HB3	40:75:86:ILE:HG21	2.01	0.41
42:95:85:LYS:HG3	42:95:87:HIS:H	1.84	0.41
44:B5:35:THR:O	44:B5:39:ILE:HG13	2.19	0.41
51:I5:49:PHE:CD2	51:I5:50:VAL:HG22	2.52	0.41
1:13:9:G:C2	1:13:26:A:N1	2.88	0.41
1:13:260:G:H2'	1:13:261:U:C6	2.55	0.41
1:13:358:U:H5"	33:69:87:LYS:HG2	2.01	0.41
1:13:397:A:N7	1:13:548:G:C8	2.89	0.41
1:13:646:U:H2'	1:13:647:C:C6	2.54	0.41
1:13:712:A:C6	1:13:713:G:C6	3.07	0.41
1:13:835:U:OP2	18:9I:60:ALA:HB3	2.19	0.41
1:13:977:A:C8	1:13:1223:C:N3	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1054:C:N3	22:1K:34:G:H1'	2.34	0.41
1:13:1399:C:C2	1:13:1502:A:N6	2.88	0.41
1:13:1405:G:H1'	1:13:1519:A:O4'	2.20	0.41
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	2.02	0.41
2:1E:47:THR:O	2:1E:51:LEU:HB2	2.20	0.41
3:2E:152:ILE:HG12	3:2E:167:TRP:HB2	2.02	0.41
6:5E:4:TYR:CD1	6:5E:92:LYS:HA	2.55	0.41
6:5E:72:VAL:CG2	6:5E:90:VAL:HG11	2.51	0.41
8:7E:82:HIS:CE1	8:7E:138:TRP:NE1	2.88	0.41
12:3I:21:LYS:HD2	12:3I:21:LYS:N	2.34	0.41
13:4I:82:MET:C	13:4I:84:ILE:H	2.22	0.41
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.19	0.41
23:2K:9:G:N3	23:2K:46:G:H2'	2.35	0.41
26:1H:146:G:H2'	26:1H:147:U:O4'	2.20	0.41
26:1H:442:G:C6	26:1H:444:C:N4	2.88	0.41
26:1H:612:G:H2'	26:1H:613:U:O2	2.20	0.41
26:1H:774:A:H2	26:1H:787:U:HO2'	1.61	0.41
26:1H:776:G:C8	26:1H:793:A:C2	3.07	0.41
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.32	0.41
26:1H:1167:U:C2	26:1H:1183:G:N2	2.88	0.41
26:1H:1215:G:C5	26:1H:1216:G:N7	2.88	0.41
26:1H:1547:C:H2'	26:1H:1548:C:H6	1.84	0.41
26:1H:1647:G:C8	26:1H:1647:G:H5'	2.54	0.41
26:1H:1690:A:H2'	26:1H:1691:C:O4'	2.20	0.41
26:1H:2061:G:H5"	26:1H:2503:A:C2	2.55	0.41
26:1H:2679:A:H4'	29:21:165:VAL:HG11	2.02	0.41
27:16:12:C:C2	47:I8:74:ARG:NH1	2.88	0.41
27:16:28:C:OP1	39:A8:31:SER:OG	2.28	0.41
28:11:65:ILE:HD12	28:11:66:ASP:N	2.34	0.41
28:11:182:LEU:HD23	28:11:182:LEU:HA	1.89	0.41
29:21:188:VAL:HA	29:21:189:PRO:HD3	1.72	0.41
31:41:20:ILE:O	31:41:24:GLY:N	2.52	0.41
33:61:75:LEU:HB3	33:61:105:HIS:HD2	1.84	0.41
36:78:79:ARG:HB2	36:78:110:TYR:HD1	1.85	0.41
36:78:116:GLY:H	36:78:134:ALA:HB2	1.84	0.41
37:88:11:LYS:HE2	37:88:86:GLY:HA2	2.00	0.41
49:K8:17:SER:HB3	49:K8:18:PRO:HD2	2.02	0.41
50:L8:10:LYS:HD3	50:L8:53:LEU:HD23	2.00	0.41
1:1G:260:G:H2'	1:1G:261:U:C6	2.55	0.41
1:1G:406:G:C2	1:1G:407:G:C8	3.09	0.41
1:1G:487:A:H2'	1:1G:488:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:509:A:C6	1:1G:510:A:N1	2.87	0.41
1:1G:598:U:H2'	1:1G:599:C:C6	2.55	0.41
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.54	0.41
1:1G:944:G:C4	1:1G:1340:A:N1	2.88	0.41
1:1G:991:U:O4	1:1G:1212:U:O2'	2.28	0.41
1:1G:1055:A:C6	1:1G:1206:G:C4	3.08	0.41
1:1G:1320:C:C4	1:1G:1321:C:C4	3.08	0.41
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.02	0.41
4:32:173:TRP:HA	4:32:187:ARG:HD3	2.02	0.41
7:62:26:PHE:O	7:62:30:ILE:HG13	2.20	0.41
7:62:78:ARG:O	7:62:84:ASN:HA	2.19	0.41
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	2.01	0.41
22:1L:21:A:N6	22:1L:46:G:N3	2.68	0.41
23:2L:32:G:H5"	23:2L:33:OMC:OP2	2.20	0.41
26:14:439:G:H2'	26:14:440:G:C8	2.55	0.41
26:14:844:C:C2'	26:14:845:G:H5'	2.50	0.41
26:14:868:U:C4	26:14:869:G:N7	2.88	0.41
26:14:1639:U:OP2	58:14:4066:HOH:O	2.22	0.41
26:14:2250:G:OP1	26:14:2275:C:H2'	2.19	0.41
26:14:2256:G:H2'	26:14:2257:U:C6	2.54	0.41
26:14:2857:G:C6	26:14:2861:G:O6	2.73	0.41
28:19:92:ILE:HA	28:19:105:ILE:O	2.20	0.41
28:19:95:LEU:O	28:19:102:LYS:HA	2.20	0.41
29:29:34:VAL:HG11	29:29:64:LYS:HD3	2.01	0.41
31:49:96:ARG:HG2	31:49:96:ARG:HH11	1.85	0.41
33:69:90:GLY:O	33:69:121:LYS:HD2	2.20	0.41
37:45:4:PRO:HD3	37:45:70:PRO:O	2.20	0.41
37:45:54:MET:HE2	37:45:118:LEU:HD22	2.01	0.41
41:85:65:ILE:HG22	41:85:66:ASN:N	2.34	0.41
41:85:88:ILE:HG22	41:85:90:VAL:CG2	2.50	0.41
44:B5:11:PRO:HD3	49:G5:37:PHE:CD2	2.55	0.41
45:C5:48:ALA:HB1	45:C5:50:ARG:NE	2.36	0.41
46:D5:99:TYR:CE2	46:D5:125:LEU:HD12	2.56	0.41
47:E5:21:LEU:HD23	47:E5:21:LEU:HA	1.88	0.41
50:H5:50:VAL:HG23	50:H5:54:VAL:HG21	2.02	0.41
1:13:266:G:H8	1:13:266:G:H2'	1.75	0.41
1:13:381:C:H2'	1:13:382:A:O4'	2.20	0.41
1:13:453:A:C6	1:13:454:C:C4	3.08	0.41
1:13:682:G:H2'	1:13:683:G:O4'	2.21	0.41
1:13:1080:A:H5"	5:4E:16:THR:HG21	2.01	0.41
1:13:1120:G:C2	1:13:1154:G:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1129:C:N4	1:13:1142:G:O6	2.52	0.41
7:6E:26:PHE:CD2	7:6E:30:ILE:HD11	2.55	0.41
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.20	0.41
26:1H:18:C:O3'	41:C8:23:GLY:HA2	2.20	0.41
26:1H:99:U:C6	26:1H:102:G:C2	3.08	0.41
26:1H:255:A:H1'	26:1H:384:U:C6	2.55	0.41
26:1H:550:G:O2'	26:1H:1220:A:N3	2.40	0.41
26:1H:745:G:OP2	29:21:133:LYS:HE2	2.20	0.41
26:1H:991:C:H42	26:1H:1163:G:H1	1.68	0.41
26:1H:1173:G:N2	26:1H:1175:U:H5	2.18	0.41
26:1H:1332:G:P	58:1H:4559:HOH:O	2.78	0.41
26:1H:1448:G:N2	26:1H:1449:A:N6	2.68	0.41
26:1H:1572:A:H8	26:1H:1572:A:O5'	2.03	0.41
26:1H:1614:A:N6	43:E8:88:ARG:H	2.17	0.41
26:1H:1665:A:C2'	26:1H:1666:G:H5'	2.50	0.41
26:1H:1952:A:C6	35:68:22:ILE:CD1	2.99	0.41
26:1H:2239:G:P	58:1H:4527:HOH:O	2.78	0.41
26:1H:2408:U:O5'	26:1H:2408:U:H6	2.03	0.41
26:1H:2543:G:H2'	26:1H:2544:G:O4'	2.20	0.41
26:1H:2749:A:H1'	32:51:63:SER:OG	2.19	0.41
28:11:6:PHE:CE1	28:11:18:VAL:HG23	2.55	0.41
30:31:33:LEU:HD23	36:78:1:MET:HG3	2.01	0.41
30:31:117:ARG:O	30:31:120:GLU:HB2	2.21	0.41
33:61:40:THR:HG22	33:61:41:GLU:OE1	2.20	0.41
33:61:107:VAL:HG12	33:61:108:THR:N	2.35	0.41
36:78:144:GLU:CD	36:78:144:GLU:N	2.74	0.41
38:98:37:THR:OG1	38:98:39:PRO:HD2	2.21	0.41
40:B8:19:LEU:HA	40:B8:20:PRO:HD3	1.81	0.41
41:C8:88:ILE:C	41:C8:90:VAL:H	2.23	0.41
46:H8:30:ASN:ND2	46:H8:90:VAL:HB	2.19	0.41
46:H8:126:VAL:HA	46:H8:164:ALA:H	1.84	0.41
46:H8:146:ILE:HD13	46:H8:174:VAL:HG12	2.02	0.41
47:I8:31:VAL:HG21	47:I8:61:ALA:HB2	2.02	0.41
47:I8:47:PRO:HB3	47:I8:51:VAL:HG12	2.01	0.41
50:L8:7:LYS:HD2	50:L8:34:GLU:HG2	2.01	0.41
53:O8:21:TYR:HB2	53:O8:22:ALA:H	1.50	0.41
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.35	0.41
54:P8:47:ARG:HB2	54:P8:47:ARG:HH11	1.84	0.41
1:1G:284:G:H2'	1:1G:285:G:C8	2.54	0.41
1:1G:309:G:H1'	1:1G:608:A:C2	2.55	0.41
1:1G:376:G:H5"	16:7A:5:ARG:CD	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:781:A:H4'	1:1G:1522:U:O2'	2.21	0.41
1:1G:949:A:H2'	1:1G:950:U:C6	2.55	0.41
1:1G:1002:G:H22	1:1G:1038:C:H42	1.67	0.41
1:1G:1023:G:H2'	1:1G:1024:G:H5"	2.02	0.41
1:1G:1320:C:N3	19:AA:36:ARG:NH2	2.68	0.41
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.20	0.41
3:22:72:LYS:HG3	3:22:75:VAL:HG23	2.02	0.41
4:32:30:LYS:HB2	4:32:35:ARG:HD2	2.02	0.41
9:82:14:VAL:O	9:82:65:VAL:HA	2.20	0.41
10:1A:68:HIS:HB3	10:1A:70:ARG:HH21	1.85	0.41
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.51	0.41
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	2.02	0.41
13:4A:37:THR:HG21	13:4A:56:LEU:HD23	2.01	0.41
13:4A:84:ILE:C	13:4A:86:CYS:H	2.23	0.41
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.86	0.41
26:14:522:G:H2'	26:14:523:C:C6	2.55	0.41
26:14:654:A:H8	26:14:654:A:OP1	2.03	0.41
26:14:725:G:O5'	26:14:725:G:H8	2.03	0.41
26:14:860:U:C2	26:14:2268:A:C8	3.08	0.41
26:14:962:G:C2	26:14:963:U:C2	3.08	0.41
26:14:1708:C:O2'	26:14:1709:U:H5'	2.19	0.41
26:14:2065:C:H1'	26:14:2449:U:H3	1.86	0.41
26:14:2366:A:H2'	26:14:2367:G:O4'	2.20	0.41
26:14:2407:G:O5'	26:14:2407:G:C8	2.74	0.41
26:14:2639:A:C2	26:14:2778:A:C8	3.08	0.41
26:14:2729:G:H2'	26:14:2730:C:C6	2.56	0.41
34:15:12:ARG:HH21	34:15:38:HIS:CE1	2.38	0.41
35:25:22:ILE:HG22	35:25:40:VAL:HB	2.01	0.41
35:25:90:GLN:O	35:25:91:LEU:HB2	2.19	0.41
39:65:67:ARG:HB2	39:65:67:ARG:CZ	2.50	0.41
49:G5:50:ILE:HG22	49:G5:54:LYS:HE3	2.03	0.41
51:I5:9:LEU:HD22	51:I5:9:LEU:H	1.85	0.41
1:13:16:A:O2'	1:13:17:U:H5'	2.20	0.41
1:13:95:G:H3'	1:13:96:G:H8	1.85	0.41
1:13:236:G:H5"	17:8I:42:TYR:OH	2.20	0.41
1:13:428:G:C8	1:13:430:A:C5	3.08	0.41
1:13:607:A:C2	16:7I:31:LYS:HG3	2.56	0.41
1:13:615:C:N3	1:13:616:G:N7	2.68	0.41
1:13:658:G:H2'	1:13:659:U:H6	1.85	0.41
1:13:976:G:C8	1:13:1362:C:N4	2.87	0.41
1:13:1193:G:P	3:2E:167:TRP:HZ3	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1207:G:C6	1:13:1208:C:C4	3.09	0.41
1:13:1277:C:O2'	1:13:1279:A:H1'	2.21	0.41
1:13:1350:A:C2	1:13:1351:U:C2	3.08	0.41
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	2.02	0.41
4:3E:105:VAL:HG13	4:3E:110:PHE:HB2	2.01	0.41
4:3E:150:GLU:OE1	4:3E:150:GLU:N	2.53	0.41
6:5E:100:ASN:O	18:9I:28:GLU:HG3	2.19	0.41
10:1I:3:LYS:N	10:1I:75:ILE:HA	2.34	0.41
13:4I:80:ARG:HH11	19:AI:65:ASN:HB2	1.85	0.41
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	2.02	0.41
22:1K:21:A:N7	22:1K:46:G:C6	2.89	0.41
26:1H:25:U:H2'	26:1H:26:G:C8	2.54	0.41
26:1H:59:U:HO2'	26:1H:73:A:H2'	1.84	0.41
26:1H:94:G:H2'	26:1H:95:G:O4'	2.20	0.41
26:1H:142:G:H2'	26:1H:143:C:C6	2.55	0.41
26:1H:200:U:O2	26:1H:386:G:N2	2.53	0.41
26:1H:583:G:OP2	41:C8:10:ARG:HD2	2.20	0.41
26:1H:633:A:H2'	26:1H:634:C:H5'	2.02	0.41
26:1H:720:C:H2'	26:1H:721:C:C6	2.56	0.41
26:1H:1389:G:C2	26:1H:1390:U:C2	3.08	0.41
26:1H:2348:U:OP1	55:Q8:36:LYS:HD2	2.20	0.41
26:1H:2475:C:O2'	26:1H:2476:A:H5'	2.20	0.41
26:1H:2732:G:H3'	26:1H:2733:A:C4'	2.50	0.41
26:1H:2811:G:OP1	29:21:60:ASN:HB2	2.21	0.41
34:58:17:ASP:O	34:58:56:ASN:HB2	2.21	0.41
41:C8:17:ILE:O	41:C8:20:LEU:HB2	2.20	0.41
48:J8:91:LYS:O	48:J8:93:GLU:N	2.53	0.41
49:K8:14:ARG:HD3	49:K8:66:GLU:OE1	2.19	0.41
50:L8:30:ARG:H	50:L8:30:ARG:HG3	1.76	0.41
51:M8:49:PHE:CD2	51:M8:50:VAL:HB	2.55	0.41
55:Q8:32:LEU:HG	55:Q8:33:ASN:N	2.35	0.41
1:1G:337:C:H2'	1:1G:338:A:C8	2.55	0.41
1:1G:1057:G:O2'	1:1G:1058:G:H5'	2.20	0.41
1:1G:1254:C:OP1	10:1A:45:ARG:HA	2.19	0.41
1:1G:1349:A:P	9:82:118:LYS:HZ1	2.44	0.41
2:12:7:VAL:HG13	2:12:8:LYS:HG3	2.03	0.41
4:32:42:GLN:HG2	4:32:43:HIS:ND1	2.36	0.41
7:62:65:ALA:CB	7:62:124:LEU:HD22	2.51	0.41
9:82:33:PHE:HE1	9:82:37:PHE:CD2	2.35	0.41
16:7A:9:PHE:CE1	16:7A:18:ARG:HG3	2.56	0.41
24:3L:39:U:O2	24:3L:39:U:H2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.55	0.41
26:14:650:C:H5"	26:14:651:G:OP2	2.20	0.41
26:14:660:G:N2	36:35:12:ALA:HB2	2.26	0.41
26:14:663:G:H2'	26:14:664:C:O4'	2.20	0.41
26:14:699:A:H2'	26:14:700:G:O4'	2.20	0.41
26:14:911:A:H2'	37:45:9:TYR:OH	2.20	0.41
26:14:1762:A:H4'	26:14:1763:G:OP2	2.19	0.41
26:14:1952:A:C2	35:25:22:ILE:HG13	2.55	0.41
26:14:2271:G:H5"	47:E5:20:ARG:NE	2.34	0.41
26:14:2428:G:H21	36:35:61:ARG:HH11	1.69	0.41
26:14:2472:G:N1	26:14:2476:A:O2'	2.53	0.41
26:14:2536:G:C6	26:14:2537:U:C4	3.09	0.41
28:19:127:VAL:HA	28:19:193:VAL:HG22	2.02	0.41
28:19:231:HIS:ND1	28:19:232:PRO:HD2	2.35	0.41
32:59:85:LYS:HZ2	32:59:142:GLY:HA2	1.85	0.41
34:15:5:VAL:HG12	34:15:6:PRO:HD2	2.02	0.41
37:45:43:THR:HG22	37:45:94:VAL:HG12	2.01	0.41
37:45:66:ILE:HG13	37:45:67:ARG:N	2.35	0.41
37:45:102:VAL:O	37:45:102:VAL:HG12	2.20	0.41
38:55:52:ILE:O	38:55:54:LEU:N	2.53	0.41
43:A5:90:ARG:HH11	43:A5:90:ARG:HG3	1.85	0.41
46:D5:39:VAL:HG21	46:D5:44:PHE:CD2	2.52	0.41
48:F5:34:THR:O	48:F5:34:THR:HG22	2.20	0.41
1:13:429:U:H1'	1:13:430:A:H5"	2.02	0.41
1:13:622:A:C8	1:13:623:C:C6	3.09	0.41
1:13:827:U:C5	1:13:870:U:C5	3.09	0.41
1:13:998(A):C:O2'	1:13:999:U:H5'	2.21	0.41
1:13:1154:G:H2'	1:13:1155:G:C8	2.56	0.41
1:13:1171:G:O2'	1:13:1172:C:H5'	2.20	0.41
4:3E:160:GLN:O	4:3E:160:GLN:NE2	2.53	0.41
5:4E:16:THR:OG1	5:4E:17:ALA:N	2.54	0.41
13:4I:84:ILE:HD11	19:AI:66:MET:HG2	2.03	0.41
17:8I:7:THR:OG1	17:8I:58:GLU:HG2	2.19	0.41
22:1K:51:U:H2'	22:1K:52:G:C8	2.47	0.41
26:1H:253:C:H2'	26:1H:254:G:O4'	2.19	0.41
26:1H:339:U:O5'	26:1H:339:U:H6	2.03	0.41
26:1H:729:G:O2'	26:1H:763:G:H4'	2.21	0.41
26:1H:824:A:H1'	26:1H:2358:G:N7	2.36	0.41
26:1H:832:G:H4'	36:78:45:LEU:HD11	2.01	0.41
26:1H:1198:U:H2'	26:1H:1199:U:C6	2.56	0.41
26:1H:1668:A:OP1	35:68:5:GLN:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1825:A:OP1	28:11:249:PRO:HD3	2.21	0.41
26:1H:2128:C:N4	26:1H:2160:G:H1	2.17	0.41
26:1H:2171:A:H8	26:1H:2171:A:P	2.43	0.41
26:1H:2339:G:N2	26:1H:2340:G:C4	2.89	0.41
26:1H:2619:C:H4'	29:21:151:TYR:O	2.20	0.41
26:1H:2694:G:H2'	26:1H:2695:C:H6	1.86	0.41
27:16:7:G:O5'	39:A8:29:PHE:HE2	2.03	0.41
27:16:44:G:H1'	27:16:47:C:N4	2.32	0.41
29:21:2:LYS:HD3	29:21:200:GLU:HB2	2.03	0.41
30:31:64:ILE:HD13	30:31:64:ILE:HA	1.70	0.41
30:31:179:GLU:OE1	30:31:179:GLU:N	2.39	0.41
31:41:112:PRO:HB3	51:M8:36:CYS:CA	2.51	0.41
32:51:24:VAL:HG11	32:51:72:ILE:HD11	2.03	0.41
32:51:124:GLU:HG2	32:51:126:PRO:HG3	2.03	0.41
37:88:25:ASP:OD2	46:H8:78:LYS:NZ	2.40	0.41
41:C8:44:ASN:ND2	42:D8:75:PHE:O	2.39	0.41
46:H8:59:LEU:HA	46:H8:59:LEU:HD23	1.64	0.41
48:J8:75:GLU:O	48:J8:77:ALA:N	2.54	0.41
51:M8:22:ILE:HA	51:M8:24:THR:HG23	2.02	0.41
1:1G:247:G:OP2	17:8A:100:LYS:HG2	2.20	0.41
1:1G:374:A:C6	1:1G:375:U:C4	3.09	0.41
1:1G:464:G:N2	1:1G:467:G:C8	2.88	0.41
1:1G:520:A:OP1	12:3A:52:LEU:HB2	2.20	0.41
1:1G:781:A:H2'	1:1G:782:A:H5'	2.03	0.41
1:1G:1097:C:H2'	1:1G:1098:C:C6	2.56	0.41
1:1G:1099:G:C6	1:1G:1100:C:N3	2.88	0.41
1:1G:1185:G:H2'	1:1G:1186:G:O4'	2.20	0.41
1:1G:1260:C:P	1:1G:1284:C:H4'	2.61	0.41
1:1G:1316:G:HO2'	1:1G:1318:A:H62	1.69	0.41
1:1G:1379:G:OP1	7:62:6:ARG:NH1	2.54	0.41
1:1G:1496:C:H2'	1:1G:1497:G:C8	2.55	0.41
2:12:217:ARG:HB2	2:12:217:ARG:NH1	2.36	0.41
3:22:73:PRO:O	3:22:77:ILE:HG13	2.20	0.41
4:32:113:SER:OG	4:32:116:GLN:HB2	2.20	0.41
5:42:106:PRO:O	5:42:110:LEU:HG	2.21	0.41
5:42:136:MET:HE2	5:42:136:MET:HB3	1.99	0.41
6:52:6:VAL:HG12	6:52:8:ILE:HD11	2.03	0.41
6:52:30:LEU:HD23	6:52:30:LEU:HA	1.82	0.41
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.53	0.41
10:1A:4:ILE:HG12	10:1A:100:THR:HG22	2.02	0.41
14:5A:21:TYR:HD1	14:5A:22:THR:O	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.84	0.41
22:1L:11:C:H2'	22:1L:12:U:C6	2.56	0.41
23:2L:54:G:H2'	23:2L:55:5MU:C6	2.56	0.41
26:14:633:A:H2'	26:14:634:C:H5'	2.02	0.41
26:14:767:U:O2'	26:14:768:G:H5'	2.21	0.41
26:14:982:C:O5'	26:14:982:C:H6	2.02	0.41
26:14:1319:G:C6	26:14:1320:C:N4	2.89	0.41
26:14:1716:U:H2'	26:14:1717:G:H8	1.84	0.41
26:14:2543:G:H2'	26:14:2544:G:C8	2.55	0.41
26:14:2656:U:C4	26:14:2664:G:N2	2.89	0.41
26:14:2815:C:C5'	52:J5:29:THR:HG21	2.49	0.41
28:19:8:PRO:HB3	28:19:14:ARG:HB2	2.02	0.41
28:19:210:GLY:O	28:19:213:ARG:HB2	2.19	0.41
30:39:29:ASN:OD1	30:39:32:LEU:HB2	2.21	0.41
30:39:40:GLN:NE2	30:39:182:ASN:HB2	2.34	0.41
36:35:85:LEU:CA	36:35:88:LEU:HB3	2.41	0.41
37:45:116:GLU:O	37:45:117:ALA:HB3	2.19	0.41
38:55:51:LEU:HA	38:55:51:LEU:HD23	1.83	0.41
43:A5:70:TYR:O	43:A5:107:LEU:HD12	2.19	0.41
43:A5:90:ARG:HG3	43:A5:90:ARG:NH1	2.35	0.41
45:C5:75:ILE:CG2	45:C5:76:CYS:N	2.84	0.41
47:E5:29:GLN:O	47:E5:67:VAL:HG23	2.20	0.41
52:J5:38:ALA:CB	52:J5:48:GLU:HG3	2.51	0.41
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.86	0.41
1:13:243:A:C2	1:13:246:A:C8	3.08	0.41
1:13:654:G:C6	1:13:655:A:C5	3.08	0.41
1:13:684:A:N6	1:13:685:G:C6	2.88	0.41
1:13:811:C:H4'	1:13:900:A:N6	2.35	0.41
1:13:1057:G:C4	1:13:1204:A:C2	3.09	0.41
1:13:1120:G:H2'	1:13:1121:U:C6	2.55	0.41
1:13:1152:A:C6	1:13:1153:C:C4	3.09	0.41
2:1E:108:ILE:O	2:1E:111:ARG:HB2	2.20	0.41
4:3E:187:ARG:O	4:3E:189:PRO:HD3	2.21	0.41
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.21	0.41
15:6I:8:LYS:O	15:6I:12:ILE:HG13	2.21	0.41
24:3K:32:U:H2'	24:3K:33:U:H5"	2.03	0.41
26:1H:526:A:N3	26:1H:2044:C:H1'	2.36	0.41
26:1H:658:C:H2'	26:1H:659:C:H6	1.84	0.41
26:1H:686:G:H4'	26:1H:687:C:OP2	2.21	0.41
26:1H:1144:G:H2'	26:1H:1145:C:C6	2.55	0.41
26:1H:1181:C:C2'	26:1H:1182:A:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.20	0.41
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.21	0.41
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.55	0.41
26:1H:1498:C:O4'	26:1H:1577:C:H4'	2.20	0.41
26:1H:2119:A:H62	26:1H:2168:G:N2	2.18	0.41
26:1H:2127:G:N1	26:1H:2162:G:N3	2.68	0.41
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.85	0.41
26:1H:2614:A:H3'	58:1H:3613:HOH:O	2.20	0.41
26:1H:2666:C:H5"	26:1H:2667:C:OP2	2.20	0.41
26:1H:2733:A:C2	26:1H:2734:A:H1'	2.56	0.41
26:1H:2820:A:H2'	26:1H:2820:A:N3	2.36	0.41
27:16:94:C:H2'	27:16:95:U:H6	1.86	0.41
27:16:99:A:C6	27:16:100:G:C5	3.08	0.41
28:11:25:THR:HG21	28:11:113:VAL:HG21	2.03	0.41
32:51:56:SER:OG	32:51:58:GLU:HG2	2.21	0.41
37:88:16:ARG:HH11	37:88:16:ARG:HD3	1.76	0.41
41:C8:90:VAL:HA	42:D8:39:LEU:HD23	2.02	0.41
45:G8:94:LYS:HZ2	45:G8:95:LYS:N	2.16	0.41
51:M8:12:ALA:HA	51:M8:29:PRO:HB3	2.02	0.41
54:P8:9:ARG:HH11	54:P8:9:ARG:HD2	1.71	0.41
1:1G:109:A:H5'	1:1G:110:C:H5	1.85	0.41
1:1G:236:G:H2'	1:1G:237:C:O4'	2.21	0.41
1:1G:570:G:H2'	1:1G:571:U:C6	2.55	0.41
1:1G:1002:G:H1	1:1G:1038:C:H42	1.68	0.41
1:1G:1129:C:C4	1:1G:1139:G:N1	2.89	0.41
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.56	0.41
1:1G:1220:G:H1'	19:AA:52:TYR:HD2	1.86	0.41
1:1G:1228:C:OP1	13:4A:115:LYS:NZ	2.54	0.41
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.50	0.41
2:12:19:HIS:CD2	2:12:20:GLU:HG2	2.56	0.41
8:72:103:VAL:HG21	8:72:110:ALA:HB2	2.02	0.41
17:8A:59:ILE:HD13	17:8A:73:VAL:HA	2.02	0.41
22:1L:52:G:C2	22:1L:63:G:C2	3.09	0.41
26:14:71:A:H4'	26:14:72:U:H5"	2.03	0.41
26:14:242:G:C8	55:M5:5:LYS:HG3	2.55	0.41
26:14:322:A:H5'	26:14:340:A:H1'	2.03	0.41
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.84	0.41
26:14:609(A):G:N2	26:14:619:G:H1'	2.36	0.41
26:14:822:U:O2'	26:14:823:G:H5'	2.21	0.41
26:14:1027:A:N6	26:14:1126:A:C4	2.88	0.41
26:14:1420:U:O2'	26:14:1421:G:P	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1477:A:H2'	26:14:1478:G:O4'	2.21	0.41
26:14:1830:C:H6	26:14:1830:C:O5'	2.04	0.41
26:14:1925:C:O2'	26:14:1926:U:H5'	2.21	0.41
26:14:2408:U:O2'	26:14:2409:G:H5'	2.21	0.41
26:14:2516:G:C6	26:14:2517:C:N4	2.88	0.41
26:14:2533:A:N6	26:14:2534:A:C6	2.89	0.41
26:14:2556:C:H2'	26:14:2557:G:O4'	2.21	0.41
26:14:2859:G:C8	26:14:2859:G:H3'	2.55	0.41
27:1J:97:G:H2'	27:1J:98:G:O4'	2.20	0.41
28:19:133:LEU:HB2	28:19:187:GLY:HA2	2.02	0.41
32:59:85:LYS:NZ	32:59:142:GLY:HA2	2.35	0.41
33:69:6:LEU:HD13	33:69:37:VAL:CG2	2.51	0.41
35:25:101:PRO:HG3	40:75:67:SER:OG	2.20	0.41
36:35:11:GLY:C	36:35:13:ASN:N	2.71	0.41
38:55:29:LEU:HD12	38:55:29:LEU:HA	1.75	0.41
46:D5:29:TYR:HB3	46:D5:34:ASN:OD1	2.20	0.41
46:D5:178:GLU:HG3	46:D5:179:ASP:H	1.86	0.41
48:F5:49:VAL:HG11	48:F5:70:VAL:HG11	2.03	0.41
48:F5:65:SER:OG	48:F5:66:HIS:ND1	2.30	0.41
1:13:1251:A:H2'	1:13:1252:A:C8	2.56	0.41
3:2E:186:PHE:CE2	3:2E:188:LEU:HD23	2.56	0.41
8:7E:100:ILE:HD13	8:7E:112:LEU:HD21	2.02	0.41
9:8E:23:ASN:OD1	9:8E:25:LYS:HB2	2.20	0.41
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.63	0.41
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.21	0.41
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.21	0.41
23:2K:24:C:H2'	23:2K:25:U:H6	1.86	0.41
26:1H:129:C:H2'	26:1H:130:C:H6	1.86	0.41
26:1H:175:G:O2'	26:1H:176:G:H5'	2.21	0.41
26:1H:242:G:H5'	55:Q8:60:LEU:HD11	2.03	0.41
26:1H:319:C:C2	26:1H:333:G:N2	2.89	0.41
26:1H:528:A:O4'	26:1H:528:A:N3	2.50	0.41
26:1H:911:A:H2'	37:88:9:TYR:OH	2.20	0.41
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.56	0.41
26:1H:1025:G:H8	26:1H:1025:G:OP1	2.03	0.41
26:1H:1301:A:H2	26:1H:1626:G:H21	1.66	0.41
26:1H:1331:A:H2'	26:1H:1333:C:C5	2.55	0.41
26:1H:1973:G:H2'	26:1H:1974:C:C6	2.56	0.41
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.56	0.41
26:1H:2298:A:H5"	26:1H:2299:G:OP2	2.21	0.41
26:1H:2881:C:C2	26:1H:2882:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:65:ILE:HG13	28:11:67:PHE:CE2	2.56	0.41
28:11:101:GLU:HG3	28:11:102:LYS:N	2.35	0.41
30:31:34:TRP:CZ2	36:78:8:PRO:HB3	2.55	0.41
30:31:64:ILE:HG23	30:31:65:TRP:NE1	2.36	0.41
33:61:117:GLU:H	33:61:117:GLU:HG2	1.47	0.41
36:78:147:LEU:O	36:78:148:LEU:HD23	2.20	0.41
38:98:94:TYR:CD1	38:98:94:TYR:N	2.88	0.41
39:A8:66:ALA:HA	39:A8:69:VAL:CG1	2.49	0.41
41:C8:34:LYS:HA	41:C8:34:LYS:HE3	2.03	0.41
43:E8:22:ASP:HA	43:E8:25:ARG:NH1	2.35	0.41
43:E8:78:GLU:OE1	43:E8:99:ARG:HD3	2.20	0.41
44:F8:49:VAL:CG1	44:F8:50:LYS:N	2.82	0.41
44:F8:50:LYS:O	44:F8:83:VAL:HA	2.21	0.41
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.36	0.41
1:1G:109:A:C6	1:1G:326:G:C6	3.08	0.41
1:1G:145:G:H2'	1:1G:146:G:O4'	2.21	0.41
1:1G:693:G:H2'	1:1G:694:A:O4'	2.21	0.41
1:1G:791:G:C5	1:1G:792:A:N7	2.89	0.41
1:1G:828:A:C4	1:1G:859:A:C8	3.08	0.41
1:1G:1001:G:O6	1:1G:1002:G:N2	2.53	0.41
1:1G:1048:G:H3'	1:1G:1048:G:C8	2.55	0.41
1:1G:1057:G:C5	1:1G:1204:A:C2	3.08	0.41
1:1G:1323:G:H4'	1:1G:1362(A):C:C2	2.56	0.41
1:1G:1324:A:H5'	1:1G:1362:C:O2'	2.21	0.41
3:22:18:TRP:H	3:22:18:TRP:HE3	1.68	0.41
12:3A:113:ARG:HH21	12:3A:116:SER:HG	1.68	0.41
17:8A:14:LYS:HB2	17:8A:14:LYS:HE3	1.86	0.41
23:2L:14:A:C2	23:2L:23:G:C4	3.09	0.41
26:14:553:U:C4	26:14:554:U:C4	3.09	0.41
26:14:663:G:C5	26:14:664:C:C5	3.08	0.41
26:14:817:C:O2'	26:14:839:U:H5"	2.20	0.41
26:14:872:A:C6	26:14:906:G:C2	3.09	0.41
26:14:1062:G:N2	26:14:1077:A:N3	2.67	0.41
26:14:1235:G:C5	26:14:1236:G:C6	3.08	0.41
26:14:1356:G:C5	26:14:1357:U:C5	3.09	0.41
26:14:1894:C:O2'	26:14:1895:C:H5'	2.21	0.41
26:14:2387:U:H1'	47:E5:41:ARG:CD	2.49	0.41
26:14:2459:A:C5	26:14:2460:U:C5	3.08	0.41
26:14:2733:A:H61	29:29:202:LYS:HB3	1.86	0.41
26:14:2839:G:H21	38:55:92:GLY:HA2	1.86	0.41
28:19:133:LEU:HD23	28:19:133:LEU:HA	1.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:48:GLN:OE1	29:29:78:LEU:HD13	2.21	0.41
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.56	0.41
45:C5:89:PHE:O	45:C5:90:LEU:HB2	2.21	0.41
50:H5:5:LYS:HB3	50:H5:5:LYS:HE3	1.64	0.41
52:J5:36:CYS:HG	52:J5:49:CYS:CB	2.33	0.41
55:M5:39:LYS:HG2	55:M5:43:GLN:HG3	2.02	0.41
1:13:418:C:O2'	1:13:540:G:H1'	2.21	0.41
1:13:484:G:HO2'	1:13:485:G:P	2.43	0.41
1:13:1234:C:O2'	1:13:1235:U:H5'	2.21	0.41
1:13:1256:A:H4'	1:13:1258:G:C4	2.56	0.41
1:13:1256:A:N3	1:13:1277:C:C4	2.89	0.41
1:13:1333:A:H2'	1:13:1334:G:O4'	2.20	0.41
1:13:1348:U:N3	1:13:1374:A:H2	1.94	0.41
5:4E:87:SER:HB3	5:4E:125:SER:O	2.20	0.41
13:4I:49:THR:C	13:4I:51:ALA:N	2.74	0.41
18:9I:53:ARG:HE	18:9I:59:SER:C	2.24	0.41
19:AI:71:LEU:HD23	19:AI:71:LEU:HA	1.88	0.41
24:3K:25:C:C4	24:3K:26:A:C8	3.09	0.41
26:1H:195:A:H4'	26:1H:251:A:O2'	2.21	0.41
26:1H:275:G:C8	26:1H:363:G:C5	3.08	0.41
26:1H:447:A:C2	26:1H:473:G:C8	3.09	0.41
26:1H:1137:G:H2'	26:1H:1138:G:C8	2.55	0.41
26:1H:1357:U:C4	26:1H:1358:G:C5	3.08	0.41
26:1H:1761:C:H5"	26:1H:1762:A:OP2	2.21	0.41
26:1H:2003:G:H2'	26:1H:2004:G:O5'	2.20	0.41
26:1H:2283:C:C2	26:1H:2389:G:C2	3.08	0.41
29:21:52:LEU:O	29:21:75:VAL:HG23	2.20	0.41
30:31:40:GLN:NE2	30:31:184:TYR:CB	2.83	0.41
30:31:46:ARG:HD2	30:31:46:ARG:HA	1.73	0.41
31:41:12:TYR:CD1	31:41:16:ARG:HD3	2.56	0.41
31:41:63:ILE:HG12	31:41:64:THR:N	2.36	0.41
32:51:8:PRO:HD2	32:51:69:ARG:HE	1.85	0.41
32:51:42:ARG:HB2	32:51:42:ARG:HH11	1.86	0.41
40:B8:43:GLN:HG2	40:B8:44:ASP:N	2.35	0.41
42:D8:20:LEU:HD21	42:D8:22:VAL:CG2	2.51	0.41
43:E8:23:LEU:HD22	52:N8:25:LEU:HD12	2.02	0.41
43:E8:90:ARG:HE	43:E8:90:ARG:HB3	1.45	0.41
45:G8:8:LYS:HG2	45:G8:11:ASP:OD1	2.20	0.41
46:H8:135:GLU:H	46:H8:135:GLU:HG2	1.70	0.41
47:I8:53:MET:CG	47:I8:59:LEU:HD23	2.51	0.41
49:K8:42:GLY:C	49:K8:44:LEU:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:4:MET:CB	55:Q8:59:LYS:HD2	2.51	0.41
1:1G:18:C:H4'	1:1G:1078:U:O2	2.21	0.41
1:1G:382:A:H2'	1:1G:383:A:H8	1.83	0.41
1:1G:437:U:C4	1:1G:438:G:C5	3.09	0.41
1:1G:468:A:O2'	16:7A:81:ARG:HA	2.20	0.41
1:1G:1004:A:N6	1:1G:1025:U:HO2'	2.18	0.41
1:1G:1010:G:C2	1:1G:1020:U:H1'	2.56	0.41
5:42:76:ILE:HG23	5:42:77:PRO:HD2	2.02	0.41
6:52:14:LEU:HB2	6:52:18:GLN:OE1	2.19	0.41
10:1A:7:LYS:O	10:1A:96:ILE:HB	2.21	0.41
10:1A:8:LEU:HG	10:1A:96:ILE:HG21	2.02	0.41
14:5A:38:GLY:O	14:5A:39:LEU:HD23	2.21	0.41
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.21	0.41
17:8A:81:ARG:HG2	17:8A:84:LEU:HD12	2.03	0.41
19:AA:17:GLU:O	19:AA:21:GLU:HG2	2.21	0.41
26:14:121:G:C2	26:14:131:G:C4	3.09	0.41
26:14:153:C:H42	26:14:173:G:H1	1.67	0.41
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.86	0.41
26:14:693:C:H42	26:14:769:G:H1	1.69	0.41
26:14:1005:C:C2	26:14:1143:A:C5	3.09	0.41
26:14:1141:U:H6	26:14:1141:U:H2'	1.59	0.41
26:14:1648:C:N4	26:14:2009:G:H1	2.19	0.41
26:14:1709:U:H2'	26:14:1710:C:H6	1.81	0.41
26:14:1961:C:O2'	26:14:1962:C:H5'	2.21	0.41
26:14:2017:U:O2	52:J5:10:LYS:HB2	2.21	0.41
26:14:2128:C:C4	26:14:2129:C:C4	3.09	0.41
26:14:2392:A:H8	36:35:61:ARG:HD2	1.86	0.41
26:14:2611:U:O2	52:J5:3:LYS:HE3	2.21	0.41
26:14:2851:A:H2'	26:14:2852:G:C8	2.55	0.41
27:1J:33:G:H1'	27:1J:50:G:N2	2.36	0.41
27:1J:40:U:C2'	27:1J:45:A:H61	2.33	0.41
27:1J:57:A:C2'	27:1J:58:A:H5'	2.51	0.41
31:49:104:GLU:HG2	51:I5:23:GLU:CG	2.50	0.41
32:59:120:GLY:O	32:59:121:ILE:HD13	2.21	0.41
32:59:137:ASP:CB	32:59:140:LYS:HB3	2.49	0.41
33:69:76:THR:HG21	33:69:140:LEU:HA	2.03	0.41
36:35:144:GLU:HA	36:35:145:PRO:HD3	1.76	0.41
41:85:50:ARG:NH2	42:95:72:VAL:HG23	2.34	0.41
42:95:20:LEU:HA	42:95:20:LEU:HD12	1.76	0.41
45:C5:62:GLU:CD	45:C5:63:LYS:H	2.23	0.41
46:D5:111:VAL:HG12	46:D5:145:GLU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:H5:6:VAL:O	50:H5:34:GLU:HA	2.20	0.41
1:13:9:G:C2	1:13:26:A:C2	3.08	0.41
1:13:198:G:C2	1:13:199:G:C8	3.09	0.41
1:13:222:U:H2'	1:13:223:U:C6	2.55	0.41
1:13:338:A:P	35:68:97:ARG:HH12	2.43	0.41
1:13:708:C:H2'	1:13:709:G:H8	1.86	0.41
1:13:923:A:OP1	5:4E:21:ALA:HB2	2.21	0.41
1:13:963:G:H5'	58:13:1942:HOH:O	2.20	0.41
1:13:979:C:N4	58:13:1827:HOH:O	2.54	0.41
1:13:1091:U:C2	1:13:1095:U:N3	2.89	0.41
1:13:1247:U:H3	1:13:1290:G:H1	1.67	0.41
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.36	0.41
2:1E:36:ARG:C	2:1E:38:GLY:H	2.24	0.41
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.41
4:3E:107:ARG:HA	4:3E:107:ARG:HD2	1.78	0.41
6:5E:42:GLU:O	6:5E:42:GLU:HG2	2.20	0.41
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.56	0.41
7:6E:91:VAL:HG12	7:6E:95:ARG:HB3	2.02	0.41
7:6E:109:ASN:OD1	7:6E:119:ARG:NH2	2.49	0.41
8:7E:81:HIS:HB2	8:7E:138:TRP:CZ3	2.56	0.41
8:7E:82:HIS:ND1	8:7E:138:TRP:CE2	2.89	0.41
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	2.03	0.41
9:8E:15:ALA:HB2	9:8E:65:VAL:HG23	2.02	0.41
10:1I:8:LEU:HD22	10:1I:96:ILE:HG22	2.02	0.41
10:1I:33:GLN:O	10:1I:75:ILE:HG13	2.21	0.41
10:1I:57:LYS:CD	10:1I:60:ARG:HH12	2.31	0.41
11:2I:59:TYR:OH	11:2I:63:LEU:HD21	2.21	0.41
12:3I:28:LYS:HA	12:3I:28:LYS:HD2	1.77	0.41
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.86	0.41
16:7I:17:TYR:CE2	16:7I:41:PRO:HG3	2.56	0.41
16:7I:77:ALA:HB1	16:7I:79:VAL:HG23	2.03	0.41
17:8I:52:LYS:HD2	17:8I:55:ASP:OD1	2.21	0.41
18:9I:26:LEU:HD12	18:9I:29:PHE:CE1	2.56	0.41
20:BI:43:LEU:HD23	20:BI:43:LEU:HA	1.92	0.41
20:BI:56:MET:HB3	20:BI:56:MET:HE2	1.73	0.41
22:1K:2:C:H2'	22:1K:3:C:C5	2.56	0.41
22:1K:34:G:H5"	22:1K:35:A:OP2	2.21	0.41
23:2K:19:G:C2	23:2K:59:A:C5	3.09	0.41
23:2K:41:C:O2'	23:2K:42:C:H5'	2.21	0.41
24:3K:37:A:HO2'	24:3K:38:A:C4'	2.34	0.41
26:1H:17:G:H2'	26:1H:18:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:107:C:H2'	26:1H:108:U:H6	1.86	0.41
26:1H:117:G:C6	26:1H:119:A:C6	3.09	0.41
26:1H:128:C:H2'	26:1H:129:C:C6	2.56	0.41
26:1H:154:G:H2'	26:1H:155:C:C6	2.56	0.41
26:1H:174:C:H2'	26:1H:175:G:O4'	2.19	0.41
26:1H:188:G:H1	26:1H:208:C:N4	2.19	0.41
26:1H:234:C:C2	26:1H:235:U:C6	3.09	0.41
26:1H:511:U:C5	26:1H:512:G:C5	3.09	0.41
26:1H:760:G:C2'	26:1H:761:A:H5'	2.51	0.41
26:1H:802:A:P	58:1H:4587:HOH:O	2.77	0.41
26:1H:806:C:C2	26:1H:807:U:C5	3.09	0.41
26:1H:818:G:H4'	26:1H:838:C:O3'	2.21	0.41
26:1H:931:G:C4	26:1H:933:A:C8	3.08	0.41
26:1H:960:A:C8	26:1H:962:G:C8	3.08	0.41
26:1H:962:G:H2'	26:1H:963:U:H6	1.86	0.41
26:1H:963:U:H2'	26:1H:964:C:C6	2.56	0.41
26:1H:993:G:H2'	26:1H:994:C:H6	1.86	0.41
26:1H:994:C:H5"	26:1H:995:C:OP1	2.21	0.41
26:1H:994:C:O2	26:1H:994:C:H2'	2.20	0.41
26:1H:1001:A:C8	26:1H:1002:G:C8	3.09	0.41
26:1H:1041:C:H2'	26:1H:1042:G:C8	2.56	0.41
26:1H:1165:U:C2	26:1H:1166:C:C5	3.08	0.41
26:1H:1465:G:C6	26:1H:1466:G:C5	3.09	0.41
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.21	0.41
26:1H:1732:A:H2'	26:1H:1733:G:O4'	2.20	0.41
26:1H:1761:C:H42	26:1H:1762:A:H62	1.67	0.41
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.21	0.41
26:1H:2356:C:H2'	26:1H:2357:U:O4'	2.20	0.41
26:1H:2704:C:H2'	26:1H:2705:A:C8	2.55	0.41
26:1H:2751:G:O2'	26:1H:2752:C:H5'	2.21	0.41
28:11:165:ILE:H	28:11:165:ILE:HG12	1.44	0.41
28:11:238:GLY:O	28:11:239:ARG:C	2.60	0.41
29:21:15:PHE:HB3	40:B8:81:PRO:HG3	2.02	0.41
29:21:31:CYS:HA	29:21:32:PRO:HD3	1.64	0.41
30:31:197:ASP:N	30:31:197:ASP:OD1	2.54	0.41
31:41:53:LEU:HG	31:41:90:LEU:HD21	2.02	0.41
31:41:61:ALA:HA	31:41:66:GLN:O	2.21	0.41
33:61:9:LEU:HD12	33:61:9:LEU:HA	1.86	0.41
33:61:99:GLU:HG2	33:61:103:ARG:NH2	2.36	0.41
34:58:40:PRO:HB3	41:C8:67:ALA:HB3	2.03	0.41
34:58:65:LYS:HB2	34:58:65:LYS:HE3	1.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:88:ASN:HD21	35:68:92:GLU:HG3	1.86	0.41
37:88:1:MET:HB3	37:88:2:LEU:H	1.67	0.41
38:98:52:ILE:HB	38:98:94:TYR:HD2	1.86	0.41
39:A8:36:TYR:N	39:A8:36:TYR:HD1	2.18	0.41
40:B8:108:ARG:O	40:B8:111:ARG:HG2	2.20	0.41
41:C8:90:VAL:O	41:C8:92:ARG:N	2.54	0.41
46:H8:7:ALA:HB3	46:H8:61:LEU:CB	2.51	0.41
47:I8:41:ARG:NE	47:I8:41:ARG:HA	2.33	0.41
48:J8:82:LEU:HD22	48:J8:82:LEU:H	1.86	0.41
50:L8:4:LEU:O	50:L8:36:VAL:HA	2.21	0.41
50:L8:28:LEU:HA	50:L8:33:GLN:OE1	2.21	0.41
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	2.02	0.41
53:O8:11:LEU:HD22	53:O8:26:ASN:HB3	2.03	0.41
1:1G:4:U:H3'	1:1G:5:U:H5'	2.02	0.41
1:1G:485:G:O2'	1:1G:486:U:H6	2.03	0.41
1:1G:596:C:H2'	1:1G:597:G:H8	1.86	0.41
1:1G:728:A:H2'	1:1G:729:A:H8	1.83	0.41
1:1G:735:C:H2'	1:1G:736:C:C6	2.56	0.41
1:1G:775:G:H2'	1:1G:776:G:O4'	2.20	0.41
1:1G:1002:G:H22	1:1G:1038:C:N4	2.18	0.41
1:1G:1104:G:O3'	2:12:111:ARG:NH2	2.53	0.41
1:1G:1205:U:O2'	3:22:195:VAL:HG13	2.20	0.41
1:1G:1300:G:O2'	1:1G:1301:U:P	2.79	0.41
2:12:5:ILE:HG12	2:12:6:THR:HG22	2.02	0.41
2:12:22:LYS:HE3	2:12:22:LYS:HB2	1.66	0.41
2:12:207:ALA:O	2:12:211:ILE:HG13	2.21	0.41
2:12:219:VAL:HG23	2:12:222:ILE:HD11	2.03	0.41
3:22:33:LEU:O	3:22:36:ASP:N	2.53	0.41
3:22:130:VAL:O	3:22:134:ILE:HG12	2.21	0.41
6:52:8:ILE:N	6:52:8:ILE:HD12	2.36	0.41
7:62:95:ARG:NH2	7:62:99:LEU:HD11	2.35	0.41
8:72:54:ASP:N	8:72:54:ASP:OD1	2.53	0.41
8:72:78:GLN:H	8:72:78:GLN:HG2	1.47	0.41
9:82:53:VAL:C	9:82:55:ALA:H	2.24	0.41
9:82:65:VAL:HG21	9:82:73:GLN:HB3	2.03	0.41
10:1A:50:ILE:H	10:1A:50:ILE:HD12	1.86	0.41
11:2A:40:ILE:HA	11:2A:40:ILE:HD13	1.68	0.41
14:5A:41:ARG:O	14:5A:45:ARG:HB2	2.20	0.41
15:6A:58:MET:HE2	15:6A:58:MET:HB2	1.93	0.41
15:6A:76:GLU:HA	15:6A:79:ARG:HH11	1.85	0.41
22:1L:23:A:H2'	22:1L:24:G:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:8:U:O2'	24:3L:9:A:H5"	2.21	0.41
24:3L:9:A:N6	24:3L:22:G:C8	2.89	0.41
24:3L:15:G:C6	24:3L:48:C:N3	2.89	0.41
24:3L:18:G:H2'	24:3L:57:G:N2	2.36	0.41
26:14:137(A):G:H2'	26:14:139:G:N7	2.35	0.41
26:14:234:C:H2'	26:14:235:U:H6	1.85	0.41
26:14:531:C:C5	26:14:2035:G:C2	3.09	0.41
26:14:536:A:H2'	26:14:537:C:C6	2.56	0.41
26:14:540:G:C6	26:14:541:C:C4	3.09	0.41
26:14:582:G:H2'	26:14:583:G:H8	1.86	0.41
26:14:629:G:N1	26:14:634:C:N3	2.49	0.41
26:14:660:G:H21	36:35:12:ALA:CA	2.34	0.41
26:14:740:U:H5"	26:14:1784:A:H3'	2.03	0.41
26:14:1409:C:H2'	26:14:1410:G:O4'	2.21	0.41
26:14:1420:U:HO2'	26:14:1421:G:P	2.44	0.41
26:14:1568:G:H5'	28:19:60:ARG:HA	2.03	0.41
26:14:1599:C:C4	26:14:1600:C:C5	3.08	0.41
26:14:1628:G:H2'	26:14:1629:U:C6	2.56	0.41
26:14:1716:U:O2'	26:14:1717:G:H5'	2.20	0.41
26:14:1970:A:P	58:14:3458:HOH:O	2.74	0.41
26:14:2101:G:H2'	26:14:2102:U:O4'	2.20	0.41
26:14:2238:G:N3	26:14:2238:G:H2'	2.35	0.41
26:14:2355:C:H5"	26:14:2356:C:OP2	2.21	0.41
26:14:2399:G:H2'	26:14:2400:G:O4'	2.21	0.41
26:14:2436:G:C5	26:14:2437:U:C5	3.09	0.41
26:14:2558:C:C4	26:14:2559:C:C5	3.09	0.41
26:14:2643:G:H2'	26:14:2644:G:O4'	2.21	0.41
26:14:2850:A:C8	26:14:2869:G:O4'	2.73	0.41
26:14:2893:G:H5'	26:14:2894:G:OP1	2.21	0.41
27:1J:76:G:H2'	27:1J:77:U:O4'	2.20	0.41
28:19:37:LEU:HB2	28:19:38:LYS:HG2	2.02	0.41
28:19:264:LYS:HE2	28:19:266:SER:HB3	2.02	0.41
28:19:271:ILE:HG12	28:19:271:ILE:O	2.21	0.41
29:29:9:VAL:HG23	29:29:26:ILE:O	2.21	0.41
29:29:23:VAL:O	29:29:184:VAL:O	2.39	0.41
30:39:53:THR:HG22	30:39:56:GLU:OE1	2.21	0.41
30:39:80:ALA:O	30:39:83:PHE:HB2	2.21	0.41
31:49:68:PRO:HB2	31:49:90:LEU:HD12	2.03	0.41
31:49:104:GLU:OE1	51:I5:23:GLU:HG2	2.21	0.41
32:59:27:LYS:HD2	32:59:32:GLU:HG3	2.03	0.41
32:59:92:ILE:HD11	32:59:160:LYS:NZ	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:17:ASP:O	34:15:56:ASN:ND2	2.54	0.41
34:15:63:THR:H	34:15:63:THR:HG23	1.60	0.41
34:15:127:ASP:HB3	34:15:128:HIS:H	1.59	0.41
35:25:68:GLU:HB3	35:25:78:ARG:HB2	2.03	0.41
36:35:27:HIS:HB3	36:35:32:THR:HG23	2.02	0.41
36:35:60:MET:C	36:35:61:ARG:HG2	2.33	0.41
38:55:18:LEU:HD22	38:55:22:ARG:HG3	2.03	0.41
38:55:44:LEU:HD23	38:55:44:LEU:HA	1.83	0.41
38:55:74:LYS:CE	38:55:77:ARG:HH21	2.31	0.41
38:55:96:ARG:NH2	38:55:117:VAL:HG13	2.36	0.41
45:C5:15:VAL:HG12	45:C5:21:LYS:HA	2.03	0.41
45:C5:67:LEU:HA	45:C5:67:LEU:HD12	1.67	0.41
45:C5:77:PRO:O	45:C5:78:ALA:HB3	2.21	0.41
46:D5:155:LEU:O	46:D5:157:LEU:HD13	2.21	0.41
54:L5:6:GLN:HA	54:L5:7:PRO:HD3	1.81	0.41
55:M5:32:LEU:HD12	55:M5:32:LEU:HA	1.74	0.41
55:M5:34:TRP:CD1	55:M5:35:GLN:N	2.86	0.41
1:13:114:U:H2'	1:13:115:G:C8	2.56	0.41
1:13:502:G:C6	1:13:503:C:C4	3.09	0.41
1:13:587:G:C2	1:13:755:G:C5	3.09	0.41
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.54	0.41
1:13:958:A:C6	1:13:959:A:C6	3.09	0.41
1:13:1029:G:H1'	1:13:1032(A):G:H22	1.86	0.41
1:13:1124:G:H5'	10:1I:35:SER:HB2	2.02	0.41
1:13:1171:G:H2'	1:13:1172:C:C6	2.55	0.41
1:13:1291:G:H2'	1:13:1292:U:C6	2.56	0.41
1:13:1415:G:C6	1:13:1486:G:C6	3.09	0.41
16:7I:26:ARG:HE	16:7I:31:LYS:HB3	1.86	0.41
16:7I:74:LEU:HA	16:7I:74:LEU:HD23	1.87	0.41
16:7I:83:GLU:HB3	16:7I:84:ALA:H	1.52	0.41
17:8I:48:GLU:O	17:8I:50:LYS:N	2.54	0.41
19:AI:40:ILE:HG23	19:AI:67:VAL:O	2.21	0.41
23:2K:48:U:O2'	23:2K:49:C:OP2	2.26	0.41
25:4K:23:A:H3'	25:4K:24:A:H8	1.83	0.41
26:1H:51:G:H1'	26:1H:119:A:N1	2.36	0.41
26:1H:590:A:H2'	26:1H:591:C:C6	2.56	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.55	0.41
26:1H:856:C:H5'	47:I8:27:GLU:OE2	2.21	0.41
26:1H:943:U:OP2	58:1H:4508:HOH:O	2.21	0.41
26:1H:1483:G:H2'	26:1H:1484:G:H8	1.85	0.41
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2473:U:O2'	26:1H:2474:C:H5'	2.21	0.41
26:1H:2702:U:OP1	26:1H:2702:U:C6	2.70	0.41
26:1H:2788:C:P	29:21:61:ARG:HH22	2.43	0.41
30:31:78:ILE:HA	30:31:83:PHE:CE2	2.56	0.41
30:31:125:LEU:HA	30:31:125:LEU:HD23	1.80	0.41
31:41:36:LYS:HG2	31:41:38:VAL:HG23	2.02	0.41
33:61:4:ILE:HD11	33:61:44:LEU:HD12	2.03	0.41
34:58:42:TRP:HA	34:58:48:MET:CE	2.51	0.41
37:88:52:VAL:HG13	37:88:56:ARG:HG2	2.03	0.41
37:88:85:LYS:HG3	37:88:86:GLY:N	2.36	0.41
39:A8:58:LEU:HD12	39:A8:68:GLN:OE1	2.21	0.41
46:H8:44:PHE:CD1	46:H8:44:PHE:C	2.94	0.41
46:H8:69:THR:HA	46:H8:89:PHE:O	2.21	0.41
46:H8:128:VAL:HG22	46:H8:129:SER:O	2.20	0.41
51:M8:40:HIS:HA	51:M8:44:THR:O	2.22	0.41
55:Q8:30:ARG:CG	55:Q8:30:ARG:NH1	2.76	0.41
1:1G:15:G:H2'	1:1G:16:A:H8	1.87	0.41
1:1G:503:C:H6	1:1G:503:C:O5'	2.04	0.41
1:1G:626:U:C2	1:1G:627:G:C8	3.09	0.41
1:1G:1442:G:H2'	1:1G:1443:G:H5"	2.02	0.41
2:12:19:HIS:HE1	2:12:206:ASP:HB2	1.86	0.41
5:42:42:GLY:HA3	5:42:66:MET:HA	2.02	0.41
9:82:3:GLN:O	9:82:4:TYR:HD1	2.04	0.41
9:82:10:ARG:HD3	9:82:75:ASP:HB3	2.03	0.41
13:4A:29:ARG:HD3	13:4A:64:TRP:CE3	2.55	0.41
15:6A:10:LYS:HA	15:6A:10:LYS:HD2	1.92	0.41
20:BA:13:LEU:HD12	20:BA:13:LEU:HA	1.70	0.41
22:1L:72:C:C2'	22:1L:73:A:H5"	2.51	0.41
24:3L:58:A:H1'	24:3L:60:U:C5	2.56	0.41
26:14:277:C:H5"	26:14:278:A:C8	2.55	0.41
26:14:494:G:OP1	43:A5:8:ARG:HD3	2.21	0.41
26:14:1056:G:H1'	26:14:1103:A:N6	2.36	0.41
26:14:1188:U:H2'	26:14:1189:A:H8	1.85	0.41
26:14:1537:C:H2'	26:14:1538:G:N9	2.36	0.41
26:14:1839:G:C8	26:14:1927:A:H1'	2.55	0.41
26:14:2116:G:C2	26:14:2117:A:N6	2.89	0.41
26:14:2208:U:H4'	28:19:151:LYS:HG2	2.02	0.41
26:14:2298:A:H61	26:14:2318:G:H2'	1.86	0.41
26:14:2507:C:H2'	26:14:2508:G:O4'	2.21	0.41
26:14:2637:U:C4	26:14:2638:G:C6	3.08	0.41
26:14:2720:U:C2	26:14:2721:A:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:33:G:N3	27:1J:50:G:N2	2.68	0.41
27:1J:44:G:O2'	27:1J:48:A:N6	2.54	0.41
28:19:149:PRO:O	28:19:150:LYS:HB2	2.21	0.41
30:39:78:ILE:HA	30:39:83:PHE:CE2	2.52	0.41
30:39:107:LYS:HD3	30:39:107:LYS:HA	1.56	0.41
36:35:62:LEU:CD1	55:M5:30:ARG:HH21	2.34	0.41
37:45:70:PRO:HA	37:45:94:VAL:O	2.20	0.41
42:95:87:HIS:HE1	42:95:89:GLN:HB2	1.83	0.41
43:A5:29:LEU:HD21	43:A5:33:ARG:HH21	1.85	0.41
43:A5:57:ASN:HA	43:A5:61:ASN:HD22	1.85	0.41
46:D5:103:ARG:NE	46:D5:136:PHE:HB3	2.36	0.41
46:D5:151:HIS:HB2	46:D5:154:ASP:CG	2.42	0.41
1:13:247:G:O6	1:13:278:G:C6	2.74	0.40
1:13:726:C:H2'	1:13:727:G:H8	1.85	0.40
1:13:1183:A:O2'	1:13:1184:G:OP1	2.32	0.40
1:13:1498:U:C4	25:4K:17:U:H5"	2.56	0.40
2:1E:97:TRP:CZ3	2:1E:172:ILE:HD12	2.57	0.40
2:1E:176:GLU:O	2:1E:180:LEU:HG	2.21	0.40
6:5E:18:GLN:O	6:5E:21:LEU:HB2	2.21	0.40
13:4I:40:ASN:HA	13:4I:41:PRO:HD3	1.96	0.40
15:6I:26:GLU:H	15:6I:26:GLU:HG2	1.47	0.40
21:1F:6:ARG:O	21:1F:12:LYS:HD2	2.21	0.40
26:1H:104:U:C5	26:1H:105:C:C5	3.09	0.40
26:1H:568:U:OP1	36:78:36:LYS:HE3	2.21	0.40
26:1H:754:C:H4'	26:1H:1272:A:N6	2.37	0.40
26:1H:826:U:H2'	26:1H:828:U:O4'	2.21	0.40
26:1H:858:U:O2	26:1H:2268:A:H2'	2.21	0.40
26:1H:1225:C:O2'	42:D8:85:LYS:HA	2.21	0.40
26:1H:1523:U:H2'	26:1H:1524:G:O4'	2.21	0.40
26:1H:1556:C:H2'	26:1H:1557:C:H6	1.86	0.40
26:1H:1803:A:H61	26:1H:1814:G:H1'	1.85	0.40
26:1H:2075:U:C4	26:1H:2238:G:C6	3.09	0.40
26:1H:2744:G:N2	32:51:143:GLN:OE1	2.53	0.40
32:51:6:ARG:HG2	32:51:66:GLY:CA	2.51	0.40
33:61:57:ARG:O	33:61:61:ARG:HB2	2.21	0.40
33:61:63:ALA:O	33:61:67:ARG:HD3	2.21	0.40
34:58:111:PRO:HA	34:58:114:ARG:NH1	2.35	0.40
36:78:49:ARG:NE	55:Q8:57:ARG:HG2	2.35	0.40
37:88:136:ALA:HB2	46:H8:52:SER:HB2	2.02	0.40
39:A8:67:ARG:O	39:A8:71:ARG:HG3	2.21	0.40
40:B8:55:ASN:N	40:B8:59:THR:HB	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:62:THR:CG2	40:B8:75:ILE:HG12	2.50	0.40
43:E8:9:TYR:CD1	43:E8:102:HIS:HE1	2.39	0.40
43:E8:29:LEU:HD12	43:E8:29:LEU:O	2.20	0.40
46:H8:25:PRO:O	46:H8:85:HIS:HA	2.21	0.40
48:J8:58:ILE:HG23	48:J8:87:PRO:HG3	2.04	0.40
1:1G:38:G:N2	1:1G:397:A:C4	2.90	0.40
1:1G:167:G:C4	1:1G:168:G:C8	3.09	0.40
1:1G:376:G:O2'	1:1G:377:G:H5'	2.21	0.40
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.21	0.40
1:1G:1137:C:H1'	1:1G:1138:G:C2	2.56	0.40
1:1G:1306:A:C6	1:1G:1307:U:C2	3.09	0.40
4:32:39:PRO:O	4:32:44:GLY:HA3	2.21	0.40
9:82:83:ARG:O	9:82:87:GLN:HB2	2.20	0.40
15:6A:82:ILE:HD13	15:6A:88:ARG:HB2	2.01	0.40
20:BA:58:LYS:O	20:BA:58:LYS:HD3	2.21	0.40
21:1B:6:ARG:HD3	21:1B:15:ARG:NH2	2.36	0.40
22:1L:18:G:O2'	22:1L:19:G:P	2.79	0.40
23:2L:14:A:H2'	23:2L:15:G:H5'	2.02	0.40
23:2L:30:G:N2	23:2L:42:C:O2	2.46	0.40
24:3L:69:G:N1	24:3L:70:G:C6	2.89	0.40
26:14:430:G:H5"	26:14:431:U:OP2	2.21	0.40
26:14:631:A:O2'	36:35:67:MET:HB3	2.21	0.40
26:14:674:G:H1'	30:39:74:ARG:HD3	2.03	0.40
26:14:686:G:C8	54:L5:7:PRO:HA	2.57	0.40
26:14:686:G:O6	54:L5:12:ARG:HG3	2.21	0.40
26:14:1142:U:H5"	26:14:1142(A):A:C8	2.56	0.40
26:14:2207:C:O2	28:19:151:LYS:NZ	2.52	0.40
26:14:2439:A:H4'	26:14:2440:C:O5'	2.20	0.40
30:39:170:LEU:HA	30:39:171:PRO:HD3	1.92	0.40
32:59:94:TYR:CD1	32:59:94:TYR:N	2.89	0.40
37:45:69:PHE:HA	37:45:70:PRO:HD2	1.68	0.40
39:65:15:ARG:HD2	39:65:25:ARG:HH21	1.85	0.40
46:D5:7:ALA:O	46:D5:8:TYR:CD2	2.75	0.40
46:D5:114:GLY:HA2	46:D5:174:VAL:HG11	2.04	0.40
49:G5:20:GLU:O	49:G5:24:LEU:HB2	2.21	0.40
1:13:272:C:C2	1:13:273:A:C8	3.08	0.40
1:13:338:A:C6	1:13:339:C:C4	3.09	0.40
1:13:465:A:N7	1:13:467:G:C5	2.89	0.40
1:13:658:G:C6	1:13:659:U:C4	3.08	0.40
1:13:868:C:H2'	1:13:869:G:O4'	2.20	0.40
1:13:940:C:H2'	1:13:941:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1170:A:C8	1:13:1171:G:C8	3.09	0.40
1:13:1285:A:H4'	1:13:1286:A:O5'	2.21	0.40
1:13:1503:A:O2'	25:4K:13:A:C6	2.67	0.40
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.53	0.40
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.54	0.40
9:8E:20:ARG:HA	9:8E:21:PRO:HD3	1.95	0.40
10:1I:5:ARG:HB2	10:1I:73:ASP:OD1	2.22	0.40
10:1I:76:ASN:HA	10:1I:77:PRO:HD2	1.92	0.40
12:3I:113:ARG:O	12:3I:114:LYS:HD2	2.21	0.40
16:7I:15:PRO:HD2	16:7I:42:ARG:HD3	2.03	0.40
26:1H:14:A:O5'	26:1H:14:A:H8	2.02	0.40
26:1H:15:G:C4	26:1H:16:G:C8	3.09	0.40
26:1H:46:C:OP2	26:1H:215:G:H2'	2.21	0.40
26:1H:309:G:O2'	26:1H:329:G:C8	2.73	0.40
26:1H:447:A:C4	26:1H:473:G:N7	2.90	0.40
26:1H:489:G:N3	26:1H:489:G:H2'	2.36	0.40
26:1H:637:A:O5'	36:78:116:GLY:HA3	2.22	0.40
26:1H:1612:C:O3'	54:P8:5:TRP:HB3	2.21	0.40
26:1H:1640:C:H2'	26:1H:1641:A:C8	2.57	0.40
26:1H:1663:C:O2'	26:1H:2686:G:H4'	2.21	0.40
26:1H:1784:A:H4'	26:1H:1785:A:O5'	2.22	0.40
26:1H:2035:G:P	58:1H:3793:HOH:O	2.74	0.40
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.21	0.40
28:11:69:ARG:NH2	28:11:130:ALA:H	2.19	0.40
30:31:206:ILE:HG21	30:31:206:ILE:HD13	1.86	0.40
31:41:181:ARG:HB3	31:41:181:ARG:HH11	1.86	0.40
32:51:88:LEU:HB3	32:51:130:ARG:HG2	2.03	0.40
38:98:96:ARG:NH2	38:98:118:GLU:H	2.20	0.40
46:H8:126:VAL:HA	46:H8:164:ALA:N	2.36	0.40
48:J8:11:ARG:HH11	48:J8:11:ARG:HD2	1.75	0.40
48:J8:91:LYS:HZ3	48:J8:91:LYS:HA	1.86	0.40
53:O8:15:GLU:CG	53:O8:16:CYS:N	2.84	0.40
1:1G:109:A:H2'	1:1G:326:G:N2	2.37	0.40
1:1G:328:C:H4'	1:1G:329:A:C5'	2.51	0.40
1:1G:526:C:C4	1:1G:527:G:H1'	2.56	0.40
1:1G:1055:A:N6	1:1G:1056:U:O2	2.55	0.40
1:1G:1141:C:C2	1:1G:1142:G:C8	3.09	0.40
1:1G:1310:G:C5'	13:4A:77:ASN:HD21	2.27	0.40
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.21	0.40
5:42:76:ILE:O	5:42:93:PRO:HB3	2.21	0.40
8:72:34:GLU:HB3	8:72:118:VAL:HG21	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	2.04	0.40
11:2A:40:ILE:HG23	11:2A:75:TYR:CD2	2.56	0.40
20:BA:56:MET:HE2	20:BA:56:MET:HB3	2.00	0.40
23:2L:38:A:H2'	23:2L:39:A:O4'	2.21	0.40
26:14:144:C:C2	26:14:145:G:C8	3.09	0.40
26:14:513:A:C2	26:14:514:A:C8	3.10	0.40
26:14:675:A:C8	26:14:804:A:C6	3.09	0.40
26:14:827:U:H4'	26:14:828:U:O2	2.21	0.40
26:14:1019:U:O2'	26:14:1021:A:H2	2.04	0.40
26:14:1249:U:O2	26:14:1249:U:H2'	2.21	0.40
26:14:1614:A:H2	58:14:3409:HOH:O	2.02	0.40
26:14:1668:A:H4'	26:14:1669:A:O5'	2.21	0.40
26:14:2187:G:H2'	26:14:2188:C:O4'	2.20	0.40
26:14:2287:A:C4	26:14:2289:G:C8	3.09	0.40
26:14:2303:G:O2'	31:49:132:ASN:ND2	2.48	0.40
26:14:2327:A:H2'	26:14:2328:A:H8	1.81	0.40
26:14:2607:G:H2'	26:14:2608:G:O4'	2.21	0.40
26:14:2660:A:H2'	26:14:2661:G:O4'	2.21	0.40
26:14:2881:C:C4	26:14:2882:A:N7	2.89	0.40
27:1J:13:A:O2'	27:1J:14:U:H3'	2.20	0.40
27:1J:68:C:H6	27:1J:68:C:O5'	2.04	0.40
28:19:264:LYS:HA	28:19:265:PRO:HD2	1.95	0.40
29:29:5:LEU:HB2	29:29:51:PHE:CG	2.56	0.40
29:29:26:ILE:HD12	29:29:26:ILE:HG23	1.74	0.40
33:69:62:LYS:HE2	33:69:133:HIS:ND1	2.35	0.40
33:69:99:GLU:H	33:69:99:GLU:HG3	1.60	0.40
34:15:16:ILE:HG21	34:15:26:LEU:HD11	2.03	0.40
34:15:121:LYS:HB3	34:15:123:TYR:HE1	1.86	0.40
35:25:76:ALA:HB3	40:75:75:ILE:HD12	2.03	0.40
36:35:39:LYS:CB	36:35:45:LEU:HD21	2.51	0.40
36:35:124:LYS:HA	36:35:143:GLY:O	2.22	0.40
38:55:28:LEU:HD23	38:55:28:LEU:HA	1.78	0.40
41:85:91:ASP:OD1	41:85:96:ALA:HB2	2.22	0.40
42:95:75:PHE:HE1	42:95:81:TYR:CE1	2.38	0.40
42:95:80:GLN:CD	42:95:81:TYR:H	2.24	0.40
44:B5:26:TYR:OH	44:B5:88:LYS:HB2	2.21	0.40
50:H5:17:LYS:NZ	50:H5:21:ALA:HB2	2.35	0.40
55:M5:59:LYS:C	55:M5:60:LEU:HG	2.41	0.40
1:13:291:C:C2	1:13:310:G:C2	3.10	0.40
1:13:324:G:N2	1:13:326:G:H3'	2.37	0.40
1:13:339:C:H2'	1:13:340:U:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:435:C:H2'	1:13:436:C:C6	2.55	0.40
1:13:721:G:N1	1:13:733:A:C2	2.89	0.40
1:13:1111:A:N1	3:2E:177:THR:HG23	2.36	0.40
1:13:1133:G:H2'	1:13:1134:G:C8	2.56	0.40
1:13:1312:G:H5'	19:AI:6:LYS:HD2	2.03	0.40
2:1E:200:ILE:O	2:1E:201:ILE:HD13	2.22	0.40
3:2E:8:ILE:HG22	3:2E:9:GLY:N	2.37	0.40
3:2E:19:GLU:HG3	3:2E:54:ARG:CZ	2.51	0.40
3:2E:40:ARG:HG3	3:2E:40:ARG:NH1	2.36	0.40
3:2E:62:ASP:OD1	3:2E:62:ASP:N	2.53	0.40
7:6E:95:ARG:HB3	7:6E:95:ARG:HE	1.69	0.40
8:7E:75:ARG:HE	8:7E:75:ARG:HB2	1.48	0.40
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	2.02	0.40
13:4I:77:ASN:OD1	51:M8:55:ARG:HD2	2.21	0.40
15:6I:4:THR:OG1	15:6I:7:GLU:HB2	2.21	0.40
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.21	0.40
26:1H:230:U:H6	26:1H:230:U:OP2	2.03	0.40
26:1H:749:C:C4	26:1H:1618:A:C2	3.09	0.40
26:1H:792:G:OP1	26:1H:792:G:H3'	2.21	0.40
26:1H:1110:G:O2'	26:1H:1111:A:C8	2.71	0.40
26:1H:2053:G:N2	26:1H:2054:A:C4	2.90	0.40
26:1H:2117:A:H2'	26:1H:2118:U:C6	2.56	0.40
26:1H:2829:C:C2'	26:1H:2830:G:H5"	2.52	0.40
28:11:133:LEU:HD23	28:11:133:LEU:HA	1.87	0.40
34:58:10:GLU:HA	34:58:11:PRO:HD3	1.96	0.40
37:88:77:LYS:HA	37:88:78:PRO:HD3	1.92	0.40
40:B8:9:LEU:HD23	40:B8:9:LEU:HA	1.94	0.40
49:K8:51:ARG:NH1	49:K8:55:ARG:HH12	2.19	0.40
51:M8:15:ILE:HB	51:M8:32:TYR:HD1	1.86	0.40
55:Q8:33:ASN:HA	55:Q8:34:TRP:CD1	2.57	0.40
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.40
1:1G:861:G:N2	1:1G:872:A:H2	2.18	0.40
1:1G:983:A:H3'	1:1G:983:A:N3	2.35	0.40
1:1G:1226:C:H2'	13:4A:103:THR:HB	2.03	0.40
1:1G:1354:C:O5'	1:1G:1354:C:H6	2.04	0.40
4:32:18:LYS:HG2	4:32:20:TYR:CD1	2.57	0.40
6:52:10:LEU:HB2	6:52:59:TYR:HB3	2.03	0.40
7:62:150:ALA:HB2	11:2A:50:TYR:OH	2.22	0.40
8:72:17:THR:HG22	8:72:78:GLN:HE21	1.86	0.40
16:7A:50:LYS:HG2	16:7A:51:VAL:N	2.36	0.40
26:14:353:G:H2'	26:14:354:G:H8	1.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:363:G:H2'	26:14:363(A):A:O4'	2.20	0.40
26:14:384:U:H2'	26:14:385:C:C6	2.55	0.40
26:14:415:A:H2'	26:14:416:C:C6	2.57	0.40
26:14:455:C:N3	26:14:473:G:H5'	2.36	0.40
26:14:1109:C:H2'	26:14:1110:G:N9	2.36	0.40
26:14:1190:G:O2'	26:14:1191:G:H5'	2.21	0.40
26:14:1299:G:OP1	58:14:4092:HOH:O	2.22	0.40
26:14:1467:C:H2'	26:14:1468:C:C6	2.52	0.40
26:14:1480:G:C6	26:14:1482:U:N3	2.90	0.40
26:14:1826:G:H2'	26:14:1827:C:H6	1.85	0.40
26:14:1846:G:H5"	26:14:1847:A:OP2	2.22	0.40
26:14:2288:A:H8	26:14:2288:A:O5'	2.03	0.40
26:14:2493:U:H2'	26:14:2494:G:O4'	2.21	0.40
26:14:2582:G:C2	26:14:2583:G:C8	3.09	0.40
26:14:2679:A:H2'	26:14:2680:C:O4'	2.21	0.40
26:14:2782:G:OP2	58:14:3788:HOH:O	2.22	0.40
27:1J:57:A:H8	27:1J:57:A:O5'	2.03	0.40
28:19:181:GLU:HA	28:19:272:ALA:HB1	2.02	0.40
29:29:171:GLU:OE2	29:29:185:LYS:HE2	2.21	0.40
36:35:85:LEU:HA	36:35:88:LEU:CB	2.41	0.40
42:95:15:GLU:O	42:95:96:ILE:HB	2.21	0.40
42:95:71:LEU:HD13	42:95:71:LEU:HA	1.77	0.40
43:A5:12:ILE:HG13	43:A5:42:ARG:NH1	2.37	0.40
46:D5:126:VAL:HG12	46:D5:163:LEU:HB3	2.03	0.40
48:F5:97:LEU:O	48:F5:98:LEU:HD23	2.21	0.40
1:13:12:U:O2'	1:13:526:C:H4'	2.22	0.40
1:13:67:C:H2'	1:13:68:G:C8	2.57	0.40
1:13:669:U:N3	1:13:670:G:N7	2.69	0.40
1:13:883:C:O2'	1:13:884:U:H5'	2.20	0.40
1:13:1006:C:H2'	1:13:1007:C:H5"	2.03	0.40
1:13:1024:G:H2'	1:13:1025:U:C6	2.56	0.40
1:13:1396:A:O4'	1:13:1398:A:H1'	2.21	0.40
1:13:1467:G:O5'	1:13:1467:G:H8	2.04	0.40
1:13:1517:G:H1'	26:1H:1919:A:O3'	2.21	0.40
2:1E:17:PHE:HB2	2:1E:42:ILE:HG22	2.03	0.40
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	2.04	0.40
2:1E:135:GLN:O	2:1E:139:LYS:HB2	2.22	0.40
3:2E:87:LEU:O	3:2E:90:GLU:N	2.54	0.40
3:2E:150:LYS:HD3	3:2E:152:ILE:HD11	2.04	0.40
3:2E:195:VAL:C	3:2E:196:LEU:HD23	2.42	0.40
4:3E:89:THR:N	4:3E:92:VAL:HG23	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:112:LYS:HD3	9:8E:117:HIS:O	2.22	0.40
16:7I:82:GLN:HG2	16:7I:82:GLN:H	1.65	0.40
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.04	0.40
23:2K:9:G:H21	23:2K:47:7MG:C5'	2.34	0.40
26:1H:55:G:C2	26:1H:116:C:C2	3.09	0.40
26:1H:248:G:C2	26:1H:2431:U:H4'	2.56	0.40
26:1H:252:G:P	36:78:50:ARG:HH12	2.44	0.40
26:1H:374:A:C8	26:1H:375:C:C5	3.10	0.40
26:1H:910:A:C6	26:1H:911:A:C6	3.09	0.40
26:1H:1791:A:H4'	28:11:206:LEU:HB2	2.04	0.40
26:1H:1831:G:C4	26:1H:1975:G:N2	2.89	0.40
26:1H:1993:U:H4'	29:21:128:SER:HB2	2.03	0.40
26:1H:2744:G:C8	26:1H:2755:C:C6	3.10	0.40
26:1H:2870:C:H5"	38:98:65:LEU:HD21	2.02	0.40
31:41:16:ARG:NH1	31:41:31:VAL:HG22	2.37	0.40
32:51:124:GLU:O	32:51:126:PRO:HD3	2.22	0.40
35:68:106:LEU:HD23	35:68:106:LEU:HA	1.67	0.40
36:78:135:LEU:HD23	36:78:135:LEU:HA	1.73	0.40
37:88:17:LEU:HD13	37:88:39:PRO:HB2	2.03	0.40
41:C8:69:CYS:HB3	41:C8:74:LEU:CD1	2.50	0.40
1:1G:25:C:H2'	1:1G:26:A:C8	2.55	0.40
1:1G:233:C:H2'	1:1G:234:C:H6	1.87	0.40
1:1G:641:U:O3'	1:1G:642:A:H8	2.05	0.40
1:1G:878:G:H5'	8:72:89:PRO:HG2	2.04	0.40
1:1G:1054:C:O2'	1:1G:1055:A:O5'	2.38	0.40
1:1G:1192:C:N4	1:1G:1193:G:C2	2.90	0.40
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.21	0.40
2:12:119:GLU:HA	2:12:122:PHE:CD2	2.57	0.40
2:12:171:ALA:HA	2:12:174:VAL:HG23	2.04	0.40
4:32:8:VAL:HG12	4:32:21:LEU:HD12	2.03	0.40
4:32:199:ASN:C	4:32:201:GLN:H	2.25	0.40
7:62:94:ARG:O	7:62:97:GLN:HB3	2.22	0.40
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.56	0.40
18:9A:19:LYS:HG3	18:9A:20:ALA:H	1.87	0.40
20:BA:59:ALA:O	20:BA:62:LEU:N	2.55	0.40
20:BA:97:ALA:HA	20:BA:98:PRO:HD3	1.81	0.40
26:14:265:A:H1'	26:14:266:G:O4'	2.22	0.40
26:14:370:G:O5'	26:14:370:G:H8	2.04	0.40
26:14:1096:A:C5	26:14:1097:U:H1'	2.56	0.40
26:14:1562:A:H2'	26:14:1563:G:O4'	2.21	0.40
26:14:1952:A:H5"	26:14:1953:A:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2086:U:H2'	26:14:2087:G:C8	2.56	0.40
26:14:2124:G:H2'	26:14:2125:G:H5'	2.03	0.40
26:14:2133:G:O2'	26:14:2158:A:N6	2.55	0.40
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.21	0.40
26:14:2495:G:H2'	26:14:2496:C:C6	2.55	0.40
26:14:2520:C:H41	26:14:2542:A:N6	2.19	0.40
26:14:2586:C:H2'	26:14:2587:A:H5'	2.03	0.40
28:19:267:SER:C	28:19:269:PHE:H	2.23	0.40
29:29:88:GLY:HA2	29:29:89:ASP:HA	1.15	0.40
32:59:125:VAL:HG22	32:59:126:PRO:HA	2.04	0.40
35:25:7:TYR:HE1	35:25:20:MET:CE	2.35	0.40
35:25:16:ALA:HB2	35:25:52:VAL:CG1	2.51	0.40
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.56	0.40
37:45:59:ARG:O	37:45:60:ARG:HG3	2.22	0.40
37:45:85:LYS:HG2	37:45:86:GLY:N	2.32	0.40
41:85:57:PHE:HD1	41:85:57:PHE:HA	1.81	0.40
43:A5:65:LEU:HD23	43:A5:65:LEU:HA	1.94	0.40
45:C5:75:ILE:O	45:C5:76:CYS:HB3	2.21	0.40
1:13:277:C:H2'	1:13:278:G:H8	1.87	0.40
1:13:750:G:C2	1:13:751:U:C5	3.09	0.40
1:13:814:A:C8	1:13:816:A:C4	3.09	0.40
1:13:1118:C:O4'	1:13:1179:A:H1'	2.21	0.40
5:4E:37:ARG:HH12	5:4E:111:GLU:HB3	1.87	0.40
7:6E:45:ASP:OD1	7:6E:48:LYS:NZ	2.52	0.40
8:7E:39:LEU:HB3	8:7E:45:ILE:CD1	2.52	0.40
9:8E:97:LYS:HA	9:8E:97:LYS:HD2	1.91	0.40
14:5I:47:LEU:HD23	14:5I:47:LEU:HA	1.84	0.40
24:3K:21:A:H61	24:3K:46:G:H2'	1.86	0.40
26:1H:95:G:O2'	49:K8:48:HIS:HB3	2.22	0.40
26:1H:123:G:O6	26:1H:128:C:N3	2.55	0.40
26:1H:270(O):U:H3	33:61:52:ARG:HH21	1.69	0.40
26:1H:336:C:H5"	45:G8:6:HIS:CD2	2.55	0.40
26:1H:533:G:H5'	41:C8:24:TYR:CE1	2.56	0.40
26:1H:598:G:H2'	26:1H:599:G:O4'	2.21	0.40
26:1H:880:G:H22	26:1H:897:C:N4	2.20	0.40
26:1H:1087:G:O6	26:1H:1089:G:N2	2.54	0.40
26:1H:1519:G:C2'	26:1H:1520:U:H5'	2.52	0.40
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.56	0.40
26:1H:2082:A:H2'	26:1H:2083:G:O4'	2.20	0.40
26:1H:2335:A:N7	26:1H:2337:G:C5	2.90	0.40
26:1H:2549:G:H5"	26:1H:2549:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2726:U:H5'	26:1H:2726:U:O2	2.21	0.40
27:16:12:C:N3	47:I8:74:ARG:NH1	2.70	0.40
30:31:101:LEU:HA	30:31:101:LEU:HD22	1.64	0.40
36:78:122:PRO:HA	36:78:142:GLY:N	2.36	0.40
38:98:2:ARG:O	38:98:5:LYS:HB2	2.22	0.40
38:98:81:ASP:O	38:98:85:PRO:HG2	2.22	0.40
39:A8:25:ARG:HH12	39:A8:42:ASP:CG	2.25	0.40
40:B8:85:LYS:HE3	40:B8:87:ASP:OD2	2.20	0.40
42:D8:83:ARG:HA	42:D8:83:ARG:HD3	1.82	0.40
44:F8:89:ILE:O	44:F8:93:GLU:HG2	2.22	0.40
46:H8:100:VAL:HG21	46:H8:134:PRO:HG2	2.03	0.40
51:M8:42:PHE:O	51:M8:43:TYR:HB3	2.21	0.40
1:1G:147:G:C2	1:1G:148:G:C8	3.09	0.40
1:1G:474:G:H2'	1:1G:475:G:C8	2.56	0.40
1:1G:520:A:OP2	12:3A:51:ALA:HB1	2.22	0.40
1:1G:649:G:H2'	1:1G:650:G:C8	2.54	0.40
1:1G:1122:U:N3	1:1G:1123:A:N7	2.69	0.40
1:1G:1182:G:H5'	1:1G:1183:A:C5'	2.48	0.40
1:1G:1246:C:H2'	1:1G:1247:U:H6	1.86	0.40
2:12:101:MET:O	2:12:105:PHE:HB2	2.22	0.40
3:22:155:GLY:O	3:22:157:ILE:HG13	2.22	0.40
4:32:153:ARG:HD3	4:32:153:ARG:HA	1.72	0.40
9:82:47:LEU:HB2	9:82:50:LEU:HD12	2.02	0.40
9:82:53:VAL:N	9:82:95:LYS:HZ1	2.20	0.40
9:82:99:LEU:HB3	9:82:101:PHE:HD1	1.82	0.40
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.50	0.40
13:4A:4:ILE:HG12	13:4A:5:ALA:N	2.34	0.40
20:BA:84:LEU:HD23	20:BA:84:LEU:HA	1.92	0.40
26:14:29:U:O2'	26:14:30:G:H5'	2.21	0.40
26:14:172:C:H2'	26:14:173:G:C8	2.54	0.40
26:14:827:U:O2	26:14:2246:G:H4'	2.21	0.40
26:14:1032:A:N1	26:14:1122:G:O6	2.54	0.40
26:14:1149:G:C2	26:14:1150:C:N3	2.89	0.40
26:14:1260:G:H2'	26:14:1261:C:C6	2.56	0.40
26:14:1432:C:H2'	26:14:1433:U:O4'	2.22	0.40
26:14:1519:G:C6	26:14:1520:U:C4	3.09	0.40
26:14:1954:G:N3	26:14:2551:C:H5"	2.37	0.40
26:14:2244:U:O5'	26:14:2244:U:H6	2.04	0.40
26:14:2298:A:N6	26:14:2318:G:H2'	2.36	0.40
26:14:2705:A:H2'	26:14:2706:G:O4'	2.21	0.40
26:14:2766:G:C2	26:14:2767:C:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2862:G:C6	26:14:2863:C:C4	3.09	0.40
28:19:182:LEU:H	28:19:272:ALA:CB	2.34	0.40
28:19:206:LEU:HD23	28:19:206:LEU:HA	1.80	0.40
29:29:37:ARG:HD2	29:29:80:GLU:OE2	2.21	0.40
29:29:152:LYS:HG3	34:15:77:GLY:O	2.21	0.40
31:49:122:PRO:O	31:49:125:PHE:HD2	2.04	0.40
33:69:58:LEU:O	33:69:61:ARG:N	2.54	0.40
33:69:111:PRO:O	33:69:112:LYS:C	2.60	0.40
39:65:39:ILE:HD13	39:65:39:ILE:HA	1.91	0.40
43:A5:75:TYR:CZ	43:A5:104:THR:HG21	2.56	0.40
45:C5:42:VAL:O	45:C5:65:ALA:N	2.45	0.40
46:D5:24:LEU:HA	46:D5:25:PRO:HD3	1.96	0.40
46:D5:104:PHE:O	46:D5:105:VAL:HB	2.21	0.40
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	2.03	0.40
49:G5:27:GLU:O	49:G5:31:GLU:HG3	2.22	0.40
52:J5:4:HIS:O	52:J5:6:VAL:HG23	2.21	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)
49:K8:17:SER:OG	26:14:307:G:OP1[2_564]	1.99	0.21
26:1H:277:C:O2'	49:G5:49:LYS:NZ[2_564]	2.13	0.07

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%)	194 (83%)	38 (16%)	3 (1%)	12 44
2	1E	235/256 (92%)	198 (84%)	35 (15%)	2 (1%)	17 53
3	22	204/239 (85%)	180 (88%)	24 (12%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	2E	203/239 (85%)	179 (88%)	23 (11%)	1 (0%)	29	65
4	32	206/209 (99%)	181 (88%)	24 (12%)	1 (0%)	29	65
4	3E	206/209 (99%)	190 (92%)	14 (7%)	2 (1%)	15	51
5	42	149/162 (92%)	141 (95%)	8 (5%)	0	100	100
5	4E	149/162 (92%)	139 (93%)	9 (6%)	1 (1%)	22	59
6	52	99/101 (98%)	95 (96%)	4 (4%)	0	100	100
6	5E	99/101 (98%)	91 (92%)	8 (8%)	0	100	100
7	62	153/156 (98%)	146 (95%)	6 (4%)	1 (1%)	22	59
7	6E	153/156 (98%)	142 (93%)	11 (7%)	0	100	100
8	72	136/138 (99%)	126 (93%)	8 (6%)	2 (2%)	10	41
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	22	59
9	82	125/128 (98%)	111 (89%)	13 (10%)	1 (1%)	19	55
9	8E	125/128 (98%)	107 (86%)	18 (14%)	0	100	100
10	1A	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
10	1I	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
11	2A	117/129 (91%)	102 (87%)	12 (10%)	3 (3%)	5	28
11	2I	117/129 (91%)	103 (88%)	13 (11%)	1 (1%)	17	53
12	3A	123/132 (93%)	100 (81%)	18 (15%)	5 (4%)	3	18
12	3I	123/132 (93%)	105 (85%)	18 (15%)	0	100	100
13	4A	115/126 (91%)	94 (82%)	19 (16%)	2 (2%)	9	38
13	4I	116/126 (92%)	94 (81%)	22 (19%)	0	100	100
14	5A	56/61 (92%)	47 (84%)	8 (14%)	1 (2%)	8	37
14	5I	58/61 (95%)	47 (81%)	9 (16%)	2 (3%)	3	21
15	6A	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
15	6I	86/89 (97%)	77 (90%)	9 (10%)	0	100	100
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100	100
16	7I	82/88 (93%)	75 (92%)	6 (7%)	1 (1%)	13	46
17	8A	98/105 (93%)	91 (93%)	7 (7%)	0	100	100
17	8I	98/105 (93%)	93 (95%)	5 (5%)	0	100	100
18	9A	70/88 (80%)	65 (93%)	5 (7%)	0	100	100
18	9I	70/88 (80%)	62 (89%)	7 (10%)	1 (1%)	11	43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	AA	76/93 (82%)	61 (80%)	13 (17%)	2 (3%)	5	28
19	AI	79/93 (85%)	65 (82%)	10 (13%)	4 (5%)	2	13
20	BA	97/106 (92%)	84 (87%)	11 (11%)	2 (2%)	7	33
20	BI	97/106 (92%)	82 (84%)	14 (14%)	1 (1%)	15	51
21	1B	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
21	1F	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
28	11	271/276 (98%)	252 (93%)	14 (5%)	5 (2%)	8	37
28	19	271/276 (98%)	252 (93%)	14 (5%)	5 (2%)	8	37
29	21	203/206 (98%)	161 (79%)	30 (15%)	12 (6%)	1	11
29	29	203/206 (98%)	156 (77%)	35 (17%)	12 (6%)	1	11
30	31	200/210 (95%)	183 (92%)	15 (8%)	2 (1%)	15	51
30	39	206/210 (98%)	159 (77%)	41 (20%)	6 (3%)	4	25
31	41	179/182 (98%)	159 (89%)	17 (10%)	3 (2%)	9	38
31	49	179/182 (98%)	158 (88%)	20 (11%)	1 (1%)	25	62
32	51	172/180 (96%)	148 (86%)	17 (10%)	7 (4%)	3	18
32	59	168/180 (93%)	129 (77%)	34 (20%)	5 (3%)	4	24
33	61	144/148 (97%)	117 (81%)	23 (16%)	4 (3%)	5	26
33	69	144/148 (97%)	119 (83%)	21 (15%)	4 (3%)	5	26
34	15	136/140 (97%)	124 (91%)	11 (8%)	1 (1%)	22	59
34	58	136/140 (97%)	116 (85%)	16 (12%)	4 (3%)	4	25
35	25	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
35	68	120/122 (98%)	111 (92%)	8 (7%)	1 (1%)	19	55
36	35	148/150 (99%)	114 (77%)	28 (19%)	6 (4%)	3	18
36	78	148/150 (99%)	121 (82%)	21 (14%)	6 (4%)	3	18
37	45	139/141 (99%)	114 (82%)	23 (16%)	2 (1%)	11	43
37	88	134/141 (95%)	110 (82%)	18 (13%)	6 (4%)	2	16
38	55	115/118 (98%)	104 (90%)	9 (8%)	2 (2%)	9	38
38	98	116/118 (98%)	97 (84%)	18 (16%)	1 (1%)	17	53
39	65	109/112 (97%)	87 (80%)	18 (16%)	4 (4%)	3	19
39	A8	109/112 (97%)	90 (83%)	18 (16%)	1 (1%)	17	53
40	75	135/146 (92%)	119 (88%)	15 (11%)	1 (1%)	22	59

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	B8	135/146 (92%)	122 (90%)	13 (10%)	0	100	100
41	85	115/118 (98%)	99 (86%)	15 (13%)	1 (1%)	17	53
41	C8	115/118 (98%)	101 (88%)	10 (9%)	4 (4%)	3	21
42	95	99/101 (98%)	78 (79%)	16 (16%)	5 (5%)	2	13
42	D8	99/101 (98%)	94 (95%)	3 (3%)	2 (2%)	7	34
43	A5	111/113 (98%)	100 (90%)	11 (10%)	0	100	100
43	E8	111/113 (98%)	101 (91%)	10 (9%)	0	100	100
44	B5	91/96 (95%)	82 (90%)	8 (9%)	1 (1%)	14	48
44	F8	92/96 (96%)	84 (91%)	7 (8%)	1 (1%)	14	48
45	C5	102/110 (93%)	75 (74%)	22 (22%)	5 (5%)	2	14
45	G8	102/110 (93%)	82 (80%)	14 (14%)	6 (6%)	1	11
46	D5	177/206 (86%)	130 (73%)	37 (21%)	10 (6%)	2	12
46	H8	173/206 (84%)	136 (79%)	28 (16%)	9 (5%)	2	13
47	E5	75/85 (88%)	66 (88%)	8 (11%)	1 (1%)	12	44
47	I8	78/85 (92%)	65 (83%)	12 (15%)	1 (1%)	12	44
48	F5	95/98 (97%)	88 (93%)	6 (6%)	1 (1%)	14	48
48	J8	95/98 (97%)	86 (90%)	7 (7%)	2 (2%)	7	33
49	G5	64/72 (89%)	59 (92%)	3 (5%)	2 (3%)	4	23
49	K8	65/72 (90%)	60 (92%)	3 (5%)	2 (3%)	4	23
50	H5	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
50	L8	55/60 (92%)	50 (91%)	4 (7%)	1 (2%)	8	37
51	I5	61/71 (86%)	34 (56%)	24 (39%)	3 (5%)	2	14
51	M8	64/71 (90%)	40 (62%)	21 (33%)	3 (5%)	2	15
52	J5	57/60 (95%)	50 (88%)	6 (10%)	1 (2%)	8	37
52	N8	56/60 (93%)	48 (86%)	6 (11%)	2 (4%)	3	20
53	K5	43/54 (80%)	26 (60%)	14 (33%)	3 (7%)	1	7
53	O8	43/54 (80%)	28 (65%)	13 (30%)	2 (5%)	2	15
54	L5	44/49 (90%)	42 (96%)	2 (4%)	0	100	100
54	P8	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
55	M5	58/65 (89%)	47 (81%)	9 (16%)	2 (3%)	3	21
55	Q8	58/65 (89%)	31 (53%)	16 (28%)	11 (19%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	11340/12054 (94%)	9786 (86%)	1332 (12%)	222 (2%)	7 34

All (222) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	1E	237	ALA
18	9I	22	VAL
29	21	83	ASP
32	51	169	VAL
36	78	57	THR
41	C8	89	GLU
45	G8	54	LYS
49	K8	48	HIS
50	L8	54	VAL
51	M8	50	VAL
52	N8	41	PRO
55	Q8	7	HIS
55	Q8	44	LYS
55	Q8	50	LEU
55	Q8	55	ALA
9	82	118	LYS
19	AA	11	VAL
28	19	237	GLU
29	29	25	VAL
29	29	66	HIS
30	39	28	ILE
30	39	84	VAL
37	45	27	VAL
38	55	107	ASP
42	95	45	THR
46	D5	53	ILE
46	D5	165	VAL
46	D5	171	ILE
48	F5	30	VAL
51	I5	5	ILE
8	7E	86	ILE
14	5I	13	THR
29	21	60	ASN
29	21	78	LEU
31	41	96	ARG
32	51	168	PRO
37	88	66	ILE

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Mol	Chain	Res	Type
37	88	79	LEU
38	98	11	ASN
41	C8	93	LYS
42	D8	47	VAL
46	H8	60	GLU
46	H8	165	VAL
53	O8	17	LYS
55	Q8	8	LYS
55	Q8	36	LYS
55	Q8	49	VAL
55	Q8	51	ALA
4	32	32	ALA
11	2A	48	ILE
11	2A	100	ALA
12	3A	18	VAL
12	3A	26	ALA
14	5A	29	ARG
20	BA	73	HIS
28	19	33	LEU
29	29	51	PHE
29	29	81	ILE
29	29	90	THR
32	59	131	VAL
33	69	111	PRO
33	69	117	GLU
36	35	15	ARG
36	35	35	HIS
39	65	89	ARG
45	C5	17	SER
45	C5	29	GLU
46	D5	105	VAL
49	G5	47	ASN
49	G5	48	HIS
52	J5	57	VAL
55	M5	35	GLN
4	3E	31	CYS
4	3E	155	LEU
19	AI	7	LYS
19	AI	67	VAL
29	21	56	PRO
29	21	82	ARG
33	61	145	VAL

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Mol	Chain	Res	Type
34	58	127	ASP
34	58	128	HIS
36	78	36	LYS
37	88	2	LEU
39	A8	88	ASP
41	C8	88	ILE
44	F8	68	ARG
45	G8	53	PRO
46	H8	6	LYS
47	I8	83	PRO
48	J8	75	GLU
48	J8	76	ARG
52	N8	42	PRO
7	62	33	ASP
11	2A	101	SER
29	29	9	VAL
30	39	124	LEU
30	39	167	ALA
32	59	92	ILE
33	69	145	VAL
42	95	71	LEU
46	D5	7	ALA
47	E5	33	ALA
51	I5	26	SER
53	K5	17	LYS
14	5I	14	PRO
28	11	122	ASP
28	11	239	ARG
29	21	21	VAL
29	21	118	LYS
30	31	198	ALA
31	41	97	ASP
32	51	10	PRO
32	51	167	GLU
33	61	133	HIS
34	58	97	ARG
35	68	97	ARG
36	78	42	SER
37	88	20	ALA
45	G8	84	ARG
46	H8	59	LEU
49	K8	47	ASN

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Mol	Chain	Res	Type
55	Q8	31	HIS
20	BA	49	ALA
28	19	239	ARG
34	15	128	HIS
36	35	6	LEU
39	65	110	LEU
40	75	2	ASN
42	95	37	VAL
45	C5	92	ASN
46	D5	116	VAL
46	D5	158	PRO
46	D5	161	VAL
55	M5	31	HIS
28	11	3	VAL
31	41	5	VAL
32	51	12	PRO
34	58	22	THR
36	78	19	VAL
45	G8	76	CYS
45	G8	81	LYS
46	H8	81	ARG
51	M8	5	ILE
53	O8	18	ARG
2	12	73	THR
8	72	73	ASP
12	3A	19	ARG
29	29	26	ILE
29	29	62	PRO
30	39	25	PRO
32	59	168	PRO
36	35	108	LYS
39	65	87	PHE
41	85	93	LYS
42	95	44	LYS
45	C5	101	LYS
53	K5	42	TRP
2	1E	239	VAL
16	7I	51	VAL
30	31	24	LEU
33	61	12	LEU
37	88	3	MET
41	C8	90	VAL

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Mol	Chain	Res	Type
51	M8	34	GLU
55	Q8	47	LYS
2	12	7	VAL
12	3A	47	LYS
13	4A	95	GLY
29	29	63	LEU
29	29	77	ILE
38	55	3	HIS
39	65	111	GLU
51	I5	33	VAL
5	4E	115	VAL
11	2I	82	VAL
19	AI	41	VAL
28	11	240	ALA
29	21	55	ASN
29	21	72	VAL
32	51	92	ILE
33	61	131	LYS
36	78	95	VAL
45	G8	77	PRO
37	45	78	PRO
44	B5	51	VAL
46	D5	141	VAL
3	2E	13	GLY
29	21	22	PRO
42	D8	49	THR
55	Q8	58	ILE
2	12	39	ILE
8	72	100	ILE
12	3A	96	VAL
13	4A	84	ILE
28	19	3	VAL
30	39	89	VAL
31	49	5	VAL
28	11	123	ALA
36	78	7	ARG
46	H8	61	LEU
46	H8	62	PRO
46	H8	141	VAL
19	AA	67	VAL
29	29	52	LEU
33	69	144	VAL

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Mol	Chain	Res	Type
42	95	72	VAL
19	AI	9	VAL
20	BI	63	ILE
29	21	4	ILE
29	21	138	PRO
37	88	27	VAL
46	H8	53	ILE
28	19	118	VAL
29	29	91	VAL
32	59	4	ILE
32	59	167	GLU
36	35	7	ARG
36	35	34	GLY
53	K5	52	VAL
32	51	127	GLU
45	C5	76	CYS
46	D5	176	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%)	169 (82%)	36 (18%)	2 9
2	1E	205/220 (93%)	152 (74%)	53 (26%)	0 2
3	22	160/188 (85%)	134 (84%)	26 (16%)	2 10
3	2E	159/188 (85%)	128 (80%)	31 (20%)	1 7
4	32	180/181 (99%)	144 (80%)	36 (20%)	1 6
4	3E	180/181 (99%)	138 (77%)	42 (23%)	1 3
5	42	116/123 (94%)	84 (72%)	32 (28%)	0 1
5	4E	116/123 (94%)	88 (76%)	28 (24%)	0 2
6	52	90/90 (100%)	71 (79%)	19 (21%)	1 5
6	5E	90/90 (100%)	78 (87%)	12 (13%)	4 17
7	62	126/127 (99%)	97 (77%)	29 (23%)	1 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	6E	126/127 (99%)	99 (79%)	27 (21%)	1	5
8	72	119/119 (100%)	91 (76%)	28 (24%)	1	3
8	7E	119/119 (100%)	95 (80%)	24 (20%)	1	6
9	82	98/99 (99%)	77 (79%)	21 (21%)	1	5
9	8E	98/99 (99%)	77 (79%)	21 (21%)	1	5
10	1A	89/92 (97%)	71 (80%)	18 (20%)	1	6
10	1I	89/92 (97%)	71 (80%)	18 (20%)	1	6
11	2A	90/99 (91%)	64 (71%)	26 (29%)	0	1
11	2I	90/99 (91%)	71 (79%)	19 (21%)	1	5
12	3A	104/109 (95%)	85 (82%)	19 (18%)	1	8
12	3I	104/109 (95%)	84 (81%)	20 (19%)	1	7
13	4A	94/101 (93%)	70 (74%)	24 (26%)	0	2
13	4I	94/101 (93%)	72 (77%)	22 (23%)	1	3
14	5A	48/50 (96%)	40 (83%)	8 (17%)	2	9
14	5I	49/50 (98%)	37 (76%)	12 (24%)	0	2
15	6A	79/80 (99%)	65 (82%)	14 (18%)	2	8
15	6I	79/80 (99%)	70 (89%)	9 (11%)	5	23
16	7A	72/74 (97%)	57 (79%)	15 (21%)	1	5
16	7I	72/74 (97%)	52 (72%)	20 (28%)	0	1
17	8A	95/97 (98%)	77 (81%)	18 (19%)	1	7
17	8I	95/97 (98%)	73 (77%)	22 (23%)	1	3
18	9A	63/77 (82%)	46 (73%)	17 (27%)	0	1
18	9I	63/77 (82%)	51 (81%)	12 (19%)	1	7
19	AA	67/80 (84%)	50 (75%)	17 (25%)	0	2
19	AI	70/80 (88%)	49 (70%)	21 (30%)	0	1
20	BA	76/82 (93%)	64 (84%)	12 (16%)	2	11
20	BI	76/82 (93%)	61 (80%)	15 (20%)	1	6
21	1B	20/22 (91%)	18 (90%)	2 (10%)	7	28
21	1F	20/22 (91%)	19 (95%)	1 (5%)	24	57
28	11	214/218 (98%)	167 (78%)	47 (22%)	1	4
28	19	214/218 (98%)	173 (81%)	41 (19%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	21	165/166 (99%)	122 (74%)	43 (26%)	0	2
29	29	165/166 (99%)	125 (76%)	40 (24%)	0	2
30	31	161/166 (97%)	127 (79%)	34 (21%)	1	5
30	39	165/166 (99%)	124 (75%)	41 (25%)	0	2
31	41	155/156 (99%)	125 (81%)	30 (19%)	1	7
31	49	155/156 (99%)	127 (82%)	28 (18%)	1	8
32	51	145/148 (98%)	111 (77%)	34 (23%)	1	3
32	59	142/148 (96%)	105 (74%)	37 (26%)	0	2
33	61	122/124 (98%)	95 (78%)	27 (22%)	1	4
33	69	122/124 (98%)	89 (73%)	33 (27%)	0	1
34	15	117/119 (98%)	94 (80%)	23 (20%)	1	6
34	58	117/119 (98%)	90 (77%)	27 (23%)	1	3
35	25	100/100 (100%)	78 (78%)	22 (22%)	1	4
35	68	100/100 (100%)	89 (89%)	11 (11%)	6	24
36	35	116/116 (100%)	76 (66%)	40 (34%)	0	0
36	78	116/116 (100%)	85 (73%)	31 (27%)	0	1
37	45	111/111 (100%)	85 (77%)	26 (23%)	1	3
37	88	104/111 (94%)	78 (75%)	26 (25%)	0	2
38	55	100/101 (99%)	80 (80%)	20 (20%)	1	6
38	98	101/101 (100%)	73 (72%)	28 (28%)	0	1
39	65	87/88 (99%)	60 (69%)	27 (31%)	0	1
39	A8	87/88 (99%)	63 (72%)	24 (28%)	0	1
40	75	120/127 (94%)	81 (68%)	39 (32%)	0	0
40	B8	120/127 (94%)	89 (74%)	31 (26%)	0	2
41	85	93/94 (99%)	74 (80%)	19 (20%)	1	5
41	C8	93/94 (99%)	76 (82%)	17 (18%)	1	8
42	95	82/82 (100%)	64 (78%)	18 (22%)	1	4
42	D8	82/82 (100%)	57 (70%)	25 (30%)	0	1
43	A5	92/92 (100%)	69 (75%)	23 (25%)	0	2
43	E8	92/92 (100%)	66 (72%)	26 (28%)	0	1
44	B5	74/78 (95%)	50 (68%)	24 (32%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
44	F8	76/78 (97%)	60 (79%)	16 (21%)	1	5
45	C5	85/91 (93%)	59 (69%)	26 (31%)	0	1
45	G8	85/91 (93%)	59 (69%)	26 (31%)	0	1
46	D5	158/179 (88%)	119 (75%)	39 (25%)	0	2
46	H8	154/179 (86%)	128 (83%)	26 (17%)	2	9
47	E5	62/67 (92%)	51 (82%)	11 (18%)	2	8
47	I8	61/67 (91%)	45 (74%)	16 (26%)	0	2
48	F5	82/83 (99%)	67 (82%)	15 (18%)	1	8
48	J8	82/83 (99%)	61 (74%)	21 (26%)	0	2
49	G5	62/67 (92%)	46 (74%)	16 (26%)	0	2
49	K8	62/67 (92%)	42 (68%)	20 (32%)	0	0
50	H5	51/52 (98%)	38 (74%)	13 (26%)	0	2
50	L8	49/52 (94%)	33 (67%)	16 (33%)	0	0
51	I5	57/63 (90%)	46 (81%)	11 (19%)	1	7
51	M8	59/63 (94%)	42 (71%)	17 (29%)	0	1
52	J5	51/52 (98%)	40 (78%)	11 (22%)	1	5
52	N8	51/52 (98%)	39 (76%)	12 (24%)	1	3
53	K5	44/52 (85%)	36 (82%)	8 (18%)	1	8
53	O8	44/52 (85%)	30 (68%)	14 (32%)	0	0
54	L5	39/42 (93%)	31 (80%)	8 (20%)	1	5
54	P8	41/42 (98%)	31 (76%)	10 (24%)	0	2
55	M5	49/55 (89%)	37 (76%)	12 (24%)	0	2
55	Q8	50/55 (91%)	30 (60%)	20 (40%)	0	0
All	All	9568/9998 (96%)	7376 (77%)	2192 (23%)	1	4

All (2192) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	15	VAL
2	1E	17	PHE
2	1E	20	GLU
2	1E	21	ARG
2	1E	28	PHE

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Mol	Chain	Res	Type
2	1E	32	ILE
2	1E	37	ASN
2	1E	40	HIS
2	1E	64	ARG
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	74	LYS
2	1E	82	ARG
2	1E	87	ARG
2	1E	96	ARG
2	1E	108	ILE
2	1E	113	HIS
2	1E	116	GLU
2	1E	118	LEU
2	1E	122	PHE
2	1E	125	PRO
2	1E	127	ILE
2	1E	130	ARG
2	1E	136	VAL
2	1E	144	ARG
2	1E	145	LEU
2	1E	146	GLN
2	1E	155	LEU
2	1E	157	ARG
2	1E	158	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	163	PHE
2	1E	164	VAL
2	1E	170	GLU
2	1E	172	ILE
2	1E	175	ARG
2	1E	178	ARG
2	1E	187	LEU
2	1E	190	THR
2	1E	196	LEU
2	1E	200	ILE
2	1E	209	ARG
2	1E	213	LEU
2	1E	215	LEU
2	1E	216	SER

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Mol	Chain	Res	Type
2	1E	223	ILE
2	1E	226	ARG
2	1E	229	VAL
2	1E	231	GLU
2	1E	233	SER
3	2E	3	ASN
3	2E	4	LYS
3	2E	5	ILE
3	2E	8	ILE
3	2E	12	LEU
3	2E	17	ASP
3	2E	21	ARG
3	2E	26	LYS
3	2E	29	TYR
3	2E	31	HIS
3	2E	36	ASP
3	2E	56	ASP
3	2E	58	GLU
3	2E	62	ASP
3	2E	64	VAL
3	2E	84	ILE
3	2E	93	LYS
3	2E	95	THR
3	2E	98	ASN
3	2E	104	GLN
3	2E	108	ASN
3	2E	111	LEU
3	2E	136	GLN
3	2E	157	ILE
3	2E	161	GLU
3	2E	164	ARG
3	2E	167	TRP
3	2E	179	ARG
3	2E	188	LEU
3	2E	191	THR
3	2E	202	ILE
4	3E	3	ARG
4	3E	5	ILE
4	3E	10	ARG
4	3E	11	LEU
4	3E	13	ARG
4	3E	15	GLU

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Mol	Chain	Res	Type
4	3E	18	LYS
4	3E	24	GLU
4	3E	31	CYS
4	3E	45	GLN
4	3E	49	ARG
4	3E	50	ARG
4	3E	58	LEU
4	3E	59	ARG
4	3E	66	ARG
4	3E	71	SER
4	3E	83	SER
4	3E	86	LYS
4	3E	99	SER
4	3E	101	LEU
4	3E	106	TYR
4	3E	108	LEU
4	3E	122	ARG
4	3E	127	THR
4	3E	128	VAL
4	3E	132	ARG
4	3E	135	LEU
4	3E	138	TYR
4	3E	146	ILE
4	3E	151	LYS
4	3E	154	ASN
4	3E	179	GLU
4	3E	182	LYS
4	3E	184	LYS
4	3E	187	ARG
4	3E	188	LEU
4	3E	190	ASP
4	3E	191	ARG
4	3E	193	ASP
4	3E	200	GLU
4	3E	201	GLN
4	3E	209	ARG
5	4E	6	PHE
5	4E	11	ILE
5	4E	13	ILE
5	4E	15	ARG
5	4E	16	THR
5	4E	24	ARG

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Mol	Chain	Res	Type
5	4E	25	ARG
5	4E	26	PHE
5	4E	27	ARG
5	4E	31	LEU
5	4E	33	VAL
5	4E	41	VAL
5	4E	50	GLU
5	4E	51	VAL
5	4E	57	LYS
5	4E	65	ASN
5	4E	66	MET
5	4E	68	GLU
5	4E	72	GLN
5	4E	79	GLU
5	4E	80	ILE
5	4E	87	SER
5	4E	91	LEU
5	4E	116	THR
5	4E	126	ARG
5	4E	131	ILE
5	4E	151	LEU
5	4E	152	ARG
6	5E	19	LEU
6	5E	23	LYS
6	5E	27	GLN
6	5E	46	ARG
6	5E	55	ASP
6	5E	64	GLN
6	5E	65	VAL
6	5E	74	ASP
6	5E	75	LEU
6	5E	87	ARG
6	5E	89	MET
6	5E	94	GLN
7	6E	8	GLU
7	6E	9	VAL
7	6E	13	GLN
7	6E	22	LEU
7	6E	27	ILE
7	6E	31	MET
7	6E	36	LYS
7	6E	38	LEU

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Mol	Chain	Res	Type
7	6E	45	ASP
7	6E	48	LYS
7	6E	54	THR
7	6E	63	LYS
7	6E	66	VAL
7	6E	75	VAL
7	6E	80	VAL
7	6E	89	MET
7	6E	90	GLU
7	6E	91	VAL
7	6E	97	GLN
7	6E	98	SER
7	6E	104	LEU
7	6E	113	GLU
7	6E	124	LEU
7	6E	131	LYS
7	6E	146	GLU
7	6E	155	ARG
7	6E	156	TRP
8	7E	1	MET
8	7E	26	VAL
8	7E	29	SER
8	7E	33	GLU
8	7E	35	ILE
8	7E	39	LEU
8	7E	41	ARG
8	7E	45	ILE
8	7E	50	ARG
8	7E	52	ASP
8	7E	54	ASP
8	7E	63	LEU
8	7E	68	ARG
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	85	ARG
8	7E	88	LYS
8	7E	95	VAL
8	7E	102	ARG
8	7E	107	LEU
8	7E	112	LEU
8	7E	129	VAL

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Mol	Chain	Res	Type
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	16	ARG
9	8E	25	LYS
9	8E	27	THR
9	8E	31	GLN
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG
9	8E	47	LEU
9	8E	53	VAL
9	8E	54	ASP
9	8E	65	VAL
9	8E	79	LEU
9	8E	91	ASP
9	8E	95	LYS
9	8E	112	LYS
9	8E	117	HIS
9	8E	121	ARG
9	8E	124	GLN
9	8E	125	TYR
10	1I	5	ARG
10	1I	13	HIS
10	1I	16	LEU
10	1I	17	ASP
10	1I	19	SER
10	1I	24	VAL
10	1I	38	ILE
10	1I	48	THR
10	1I	49	VAL
10	1I	60	ARG
10	1I	62	HIS
10	1I	70	ARG
10	1I	76	ASN
10	1I	78	ASN
10	1I	84	GLN
10	1I	88	LEU
10	1I	92	THR
10	1I	96	ILE
11	2I	12	ARG
11	2I	13	GLN

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Mol	Chain	Res	Type
11	2I	14	VAL
11	2I	48	ILE
11	2I	63	LEU
11	2I	79	SER
11	2I	81	ASP
11	2I	84	VAL
11	2I	87	THR
11	2I	91	ARG
11	2I	93	GLN
11	2I	96	ARG
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
12	3I	7	ILE
12	3I	11	VAL
12	3I	12	ARG
12	3I	18	VAL
12	3I	20	LYS
12	3I	28	LYS
12	3I	33	ARG
12	3I	38	THR
12	3I	55	VAL
12	3I	60	LEU
12	3I	61	THR
12	3I	62	SER
12	3I	64	TYR
12	3I	79	GLU
12	3I	82	VAL
12	3I	89	ARG
12	3I	96	VAL
12	3I	104	VAL
12	3I	114	LYS
12	3I	116	SER
13	4I	11	ARG
13	4I	14	ARG
13	4I	19	LEU
13	4I	32	GLU
13	4I	44	ARG

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Mol	Chain	Res	Type
13	4I	45	VAL
13	4I	48	LEU
13	4I	52	GLU
13	4I	56	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	83	ASP
13	4I	86	CYS
13	4I	88	ARG
13	4I	94	ARG
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	110	ARG
13	4I	114	ARG
13	4I	115	LYS
14	5I	4	LYS
14	5I	8	GLU
14	5I	12	ARG
14	5I	17	LYS
14	5I	22	THR
14	5I	23	ARG
14	5I	26	ARG
14	5I	33	VAL
14	5I	40	CYS
14	5I	44	LEU
14	5I	50	LYS
14	5I	58	LYS
15	6I	6	GLU
15	6I	26	GLU
15	6I	39	LEU
15	6I	47	LYS
15	6I	66	LEU
15	6I	67	LEU
15	6I	68	ARG
15	6I	83	GLU
15	6I	87	ILE
16	7I	2	VAL
16	7I	4	ILE
16	7I	6	LEU
16	7I	19	ILE

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Mol	Chain	Res	Type
16	7I	20	VAL
16	7I	21	VAL
16	7I	22	THR
16	7I	25	ARG
16	7I	33	ILE
16	7I	45	THR
16	7I	47	ASP
16	7I	50	LYS
16	7I	54	GLU
16	7I	62	VAL
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	76	GLN
16	7I	82	GLN
16	7I	83	GLU
17	8I	6	LEU
17	8I	9	VAL
17	8I	12	SER
17	8I	27	PHE
17	8I	35	VAL
17	8I	38	ARG
17	8I	45	HIS
17	8I	48	GLU
17	8I	52	LYS
17	8I	60	ILE
17	8I	63	ARG
17	8I	67	LYS
17	8I	68	ARG
17	8I	74	LEU
17	8I	76	LEU
17	8I	79	SER
17	8I	87	LYS
17	8I	92	ARG
17	8I	97	SER
17	8I	99	SER
17	8I	100	LYS
17	8I	101	ARG
18	9I	18	ARG
18	9I	25	THR
18	9I	26	LEU
18	9I	29	PHE

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Mol	Chain	Res	Type
18	9I	31	LEU
18	9I	32	ARG
18	9I	33	ASP
18	9I	35	ARG
18	9I	46	GLU
18	9I	53	ARG
18	9I	58	LEU
18	9I	84	LYS
19	AI	5	LEU
19	AI	7	LYS
19	AI	12	ASP
19	AI	13	ASP
19	AI	15	LEU
19	AI	20	LEU
19	AI	21	GLU
19	AI	22	LEU
19	AI	29	ARG
19	AI	30	LEU
19	AI	31	ILE
19	AI	37	ARG
19	AI	43	GLU
19	AI	58	VAL
19	AI	60	VAL
19	AI	61	TYR
19	AI	64	GLU
19	AI	67	VAL
19	AI	77	THR
19	AI	78	ARG
19	AI	81	ARG
20	BI	9	ASN
20	BI	10	LEU
20	BI	11	SER
20	BI	13	LEU
20	BI	24	LEU
20	BI	30	LYS
20	BI	57	ARG
20	BI	64	ASP
20	BI	72	LEU
20	BI	73	HIS
20	BI	74	LYS
20	BI	75	ASN
20	BI	90	GLN

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Mol	Chain	Res	Type
20	BI	99	LEU
20	BI	100	ILE
21	1F	10	ARG
28	11	3	VAL
28	11	13	ARG
28	11	15	PHE
28	11	17	THR
28	11	23	GLU
28	11	28	GLU
28	11	30	GLU
28	11	34	VAL
28	11	35	LYS
28	11	37	LEU
28	11	46	GLN
28	11	58	HIS
28	11	59	LYS
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	68	LYS
28	11	94	LEU
28	11	95	LEU
28	11	105	ILE
28	11	106	ILE
28	11	111	LEU
28	11	113	VAL
28	11	131	LEU
28	11	136	ILE
28	11	141	VAL
28	11	142	VAL
28	11	150	LYS
28	11	155	LEU
28	11	162	SER
28	11	165	ILE
28	11	183	ARG
28	11	192	THR
28	11	193	VAL
28	11	200	ASP
28	11	212	SER
28	11	217	ARG
28	11	222	ARG
28	11	229	VAL

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Mol	Chain	Res	Type
28	11	239	ARG
28	11	242	ARG
28	11	257	LEU
28	11	259	THR
28	11	260	ARG
28	11	270	ILE
28	11	271	ILE
28	11	273	ARG
29	21	2	LYS
29	21	13	ARG
29	21	14	ILE
29	21	16	ARG
29	21	33	VAL
29	21	34	VAL
29	21	45	THR
29	21	47	VAL
29	21	48	GLN
29	21	55	ASN
29	21	59	VAL
29	21	63	LEU
29	21	66	HIS
29	21	72	VAL
29	21	78	LEU
29	21	87	GLU
29	21	89	ASP
29	21	92	THR
29	21	101	ARG
29	21	111	ARG
29	21	113	PHE
29	21	116	VAL
29	21	117	MET
29	21	118	LYS
29	21	119	ARG
29	21	136	ARG
29	21	138	PRO
29	21	144	ARG
29	21	146	THR
29	21	149	ARG
29	21	167	VAL
29	21	170	LEU
29	21	175	VAL
29	21	179	GLU

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Mol	Chain	Res	Type
29	21	180	ASN
29	21	185	LYS
29	21	188	VAL
29	21	195	LEU
29	21	196	VAL
29	21	197	ILE
29	21	200	GLU
29	21	202	LYS
29	21	203	LYS
30	31	8	GLN
30	31	9	ILE
30	31	12	LEU
30	31	15	SER
30	31	18	ARG
30	31	27	GLU
30	31	32	LEU
30	31	57	VAL
30	31	59	TYR
30	31	64	ILE
30	31	66	PRO
30	31	70	THR
30	31	77	ASP
30	31	78	ILE
30	31	88	VAL
30	31	101	LEU
30	31	103	LYS
30	31	106	ARG
30	31	116	ASP
30	31	117	ARG
30	31	119	ARG
30	31	132	VAL
30	31	145	GLU
30	31	148	LEU
30	31	158	THR
30	31	161	GLU
30	31	164	ARG
30	31	170	LEU
30	31	181	LEU
30	31	191	ARG
30	31	196	LEU
30	31	197	ASP
30	31	201	VAL

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Mol	Chain	Res	Type
30	31	203	GLN
31	41	3	LEU
31	41	4	ASP
31	41	10	LYS
31	41	13	GLU
31	41	14	GLU
31	41	20	ILE
31	41	21	ARG
31	41	26	GLN
31	41	28	VAL
31	41	31	VAL
31	41	34	LEU
31	41	43	LEU
31	41	45	GLU
31	41	62	LEU
31	41	63	ILE
31	41	67	LYS
31	41	74	LYS
31	41	76	SER
31	41	77	ILE
31	41	80	PHE
31	41	82	LEU
31	41	84	LYS
31	41	86	MET
31	41	94	LEU
31	41	101	ILE
31	41	135	LEU
31	41	155	MET
31	41	162	THR
31	41	166	ASP
31	41	174	GLU
32	51	2	SER
32	51	3	ARG
32	51	4	ILE
32	51	7	LEU
32	51	10	PRO
32	51	11	VAL
32	51	13	LYS
32	51	15	VAL
32	51	24	VAL
32	51	40	GLU
32	51	41	MET

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Mol	Chain	Res	Type
32	51	42	ARG
32	51	43	VAL
32	51	45	VAL
32	51	50	VAL
32	51	64	LEU
32	51	68	THR
32	51	71	LEU
32	51	72	ILE
32	51	77	LYS
32	51	80	SER
32	51	87	LEU
32	51	88	LEU
32	51	97	ARG
32	51	104	GLU
32	51	105	LEU
32	51	107	VAL
32	51	122	THR
32	51	129	THR
32	51	132	ARG
32	51	136	ILE
32	51	139	GLN
32	51	149	ARG
32	51	169	VAL
33	61	2	LYS
33	61	6	LEU
33	61	9	LEU
33	61	20	ASP
33	61	37	VAL
33	61	47	LEU
33	61	56	LYS
33	61	64	GLU
33	61	70	GLU
33	61	74	ASN
33	61	77	LEU
33	61	78	THR
33	61	82	ARG
33	61	85	GLU
33	61	86	THR
33	61	92	VAL
33	61	96	ASP
33	61	105	HIS
33	61	110	ASP

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Mol	Chain	Res	Type
33	61	116	LEU
33	61	117	GLU
33	61	131	LYS
33	61	135	GLU
33	61	139	GLN
33	61	140	LEU
33	61	142	VAL
33	61	143	SER
34	58	1	MET
34	58	2	LYS
34	58	5	VAL
34	58	7	LYS
34	58	12	ARG
34	58	14	VAL
34	58	28	THR
34	58	32	THR
34	58	34	LEU
34	58	38	HIS
34	58	43	THR
34	58	48	MET
34	58	50	ASP
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	79	PRO
34	58	87	LEU
34	58	90	MET
34	58	91	LEU
34	58	96	GLU
34	58	99	LEU
34	58	120	LEU
34	58	127	ASP
34	58	134	ARG
35	68	3	GLN
35	68	22	ILE
35	68	23	ARG
35	68	24	VAL
35	68	28	SER
35	68	66	LYS
35	68	88	ASN

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Mol	Chain	Res	Type
35	68	91	LEU
35	68	94	ARG
35	68	98	VAL
35	68	112	MET
36	78	10	PRO
36	78	13	ASN
36	78	15	ARG
36	78	16	ARG
36	78	18	ARG
36	78	19	VAL
36	78	30	THR
36	78	32	THR
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	49	ARG
36	78	50	ARG
36	78	55	ARG
36	78	57	THR
36	78	61	ARG
36	78	74	GLU
36	78	77	ARG
36	78	88	LEU
36	78	96	THR
36	78	99	LEU
36	78	100	LEU
36	78	105	LEU
36	78	106	LEU
36	78	112	LEU
36	78	119	GLU
36	78	126	VAL
36	78	135	LEU
36	78	138	LEU
36	78	144	GLU
36	78	147	LEU
37	88	1	MET
37	88	5	ARG
37	88	6	ARG
37	88	16	ARG
37	88	25	ASP
37	88	26	TYR
37	88	42	ILE

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Mol	Chain	Res	Type
37	88	45	GLN
37	88	58	PHE
37	88	59	ARG
37	88	67	ARG
37	88	76	LYS
37	88	77	LYS
37	88	82	ARG
37	88	85	LYS
37	88	87	LYS
37	88	103	MET
37	88	109	VAL
37	88	110	THR
37	88	112	GLU
37	88	115	MET
37	88	119	ARG
37	88	129	THR
37	88	134	ARG
37	88	139	GLU
37	88	141	GLN
38	98	4	LEU
38	98	6	SER
38	98	9	LYS
38	98	10	LEU
38	98	12	ARG
38	98	28	LEU
38	98	29	LEU
38	98	34	ILE
38	98	36	THR
38	98	44	LEU
38	98	45	ARG
38	98	48	VAL
38	98	59	ASP
38	98	65	LEU
38	98	67	LEU
38	98	71	GLN
38	98	75	LEU
38	98	79	LEU
38	98	82	GLU
38	98	88	ARG
38	98	91	GLN
38	98	94	TYR
38	98	96	ARG

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Mol	Chain	Res	Type
38	98	105	ARG
38	98	107	ASP
38	98	113	LEU
38	98	117	VAL
38	98	118	GLU
39	A8	3	ARG
39	A8	4	LEU
39	A8	8	GLU
39	A8	15	ARG
39	A8	17	ARG
39	A8	29	PHE
39	A8	32	LEU
39	A8	35	ILE
39	A8	36	TYR
39	A8	43	GLU
39	A8	44	LYS
39	A8	46	VAL
39	A8	48	LEU
39	A8	50	SER
39	A8	56	LEU
39	A8	58	LEU
39	A8	61	ASN
39	A8	73	LEU
39	A8	80	LEU
39	A8	83	LYS
39	A8	89	ARG
39	A8	98	VAL
39	A8	101	LEU
39	A8	106	ARG
40	B8	6	LEU
40	B8	10	VAL
40	B8	11	GLU
40	B8	16	ARG
40	B8	19	LEU
40	B8	21	GLU
40	B8	27	THR
40	B8	30	VAL
40	B8	35	LYS
40	B8	38	ASN
40	B8	39	ARG
40	B8	42	ILE
40	B8	48	ILE

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Mol	Chain	Res	Type
40	B8	50	ILE
40	B8	58	ASN
40	B8	59	THR
40	B8	64	ARG
40	B8	65	LYS
40	B8	82	LEU
40	B8	85	LYS
40	B8	86	ILE
40	B8	89	VAL
40	B8	95	ARG
40	B8	96	ARG
40	B8	98	LYS
40	B8	99	LEU
40	B8	106	SER
40	B8	108	ARG
40	B8	110	ILE
40	B8	111	ARG
40	B8	112	ARG
41	C8	3	ARG
41	C8	5	LYS
41	C8	17	ILE
41	C8	27	LEU
41	C8	34	LYS
41	C8	52	ARG
41	C8	60	LEU
41	C8	70	ARG
41	C8	74	LEU
41	C8	85	LYS
41	C8	89	GLU
41	C8	92	ARG
41	C8	94	ASN
41	C8	104	GLN
41	C8	108	GLU
41	C8	111	GLU
41	C8	112	ARG
42	D8	1	MET
42	D8	5	VAL
42	D8	6	LYS
42	D8	7	THR
42	D8	12	TYR
42	D8	15	GLU
42	D8	18	LEU

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Mol	Chain	Res	Type
42	D8	19	LYS
42	D8	20	LEU
42	D8	22	VAL
42	D8	24	LYS
42	D8	33	VAL
42	D8	35	LEU
42	D8	38	LEU
42	D8	40	LEU
42	D8	44	LYS
42	D8	47	VAL
42	D8	73	SER
42	D8	79	VAL
42	D8	82	ARG
42	D8	83	ARG
42	D8	85	LYS
42	D8	87	HIS
42	D8	88	ARG
42	D8	100	ARG
43	E8	1	MET
43	E8	11	ARG
43	E8	14	PRO
43	E8	15	ARG
43	E8	27	LYS
43	E8	51	LEU
43	E8	60	ASN
43	E8	62	HIS
43	E8	63	ASP
43	E8	66	GLU
43	E8	69	LEU
43	E8	70	TYR
43	E8	76	VAL
43	E8	78	GLU
43	E8	84	ARG
43	E8	86	LEU
43	E8	88	ARG
43	E8	90	ARG
43	E8	92	ARG
43	E8	96	ILE
43	E8	97	LYS
43	E8	103	ILE
43	E8	107	LEU
43	E8	109	GLU

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Mol	Chain	Res	Type
43	E8	111	HIS
43	E8	113	LYS
44	F8	2	LYS
44	F8	12	VAL
44	F8	14	SER
44	F8	15	GLU
44	F8	23	GLU
44	F8	48	LYS
44	F8	53	LYS
44	F8	54	VAL
44	F8	57	LEU
44	F8	68	ARG
44	F8	72	LYS
44	F8	76	ARG
44	F8	78	LYS
44	F8	80	ILE
44	F8	87	GLN
44	F8	88	LYS
45	G8	6	HIS
45	G8	7	VAL
45	G8	9	LYS
45	G8	21	LYS
45	G8	24	VAL
45	G8	26	LYS
45	G8	33	LYS
45	G8	38	ILE
45	G8	39	VAL
45	G8	40	GLU
45	G8	42	VAL
45	G8	44	ILE
45	G8	50	ARG
45	G8	51	VAL
45	G8	52	SER
45	G8	54	LYS
45	G8	57	GLN
45	G8	63	LYS
45	G8	64	GLU
45	G8	67	LEU
45	G8	79	CYS
45	G8	84	ARG
45	G8	85	VAL
45	G8	86	ARG

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Mol	Chain	Res	Type
45	G8	97	ARG
45	G8	99	CYS
46	H8	1	MET
46	H8	5	LEU
46	H8	19	ARG
46	H8	24	LEU
46	H8	42	VAL
46	H8	46	LYS
46	H8	53	ILE
46	H8	60	GLU
46	H8	61	LEU
46	H8	71	VAL
46	H8	76	LEU
46	H8	77	ASP
46	H8	80	ARG
46	H8	81	ARG
46	H8	86	VAL
46	H8	91	LEU
46	H8	94	GLU
46	H8	96	VAL
46	H8	105	VAL
46	H8	117	LEU
46	H8	119	GLU
46	H8	140	ASP
46	H8	144	LEU
46	H8	148	ASP
46	H8	150	LEU
46	H8	154	ASP
47	I8	11	ARG
47	I8	27	GLU
47	I8	29	GLN
47	I8	36	ILE
47	I8	37	LEU
47	I8	38	VAL
47	I8	40	GLN
47	I8	41	ARG
47	I8	46	LYS
47	I8	49	LYS
47	I8	53	MET
47	I8	55	ARG
47	I8	58	THR
47	I8	66	VAL

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Mol	Chain	Res	Type
47	I8	70	GLN
47	I8	74	ARG
48	J8	13	ILE
48	J8	21	ARG
48	J8	35	THR
48	J8	41	ARG
48	J8	46	LEU
48	J8	51	VAL
48	J8	57	GLU
48	J8	62	VAL
48	J8	72	GLU
48	J8	78	LYS
48	J8	80	LEU
48	J8	81	LYS
48	J8	82	LEU
48	J8	83	GLU
48	J8	86	SER
48	J8	90	ILE
48	J8	91	LYS
48	J8	93	GLU
48	J8	94	LEU
48	J8	97	LEU
48	J8	98	LEU
49	K8	4	SER
49	K8	5	GLU
49	K8	6	VAL
49	K8	16	LEU
49	K8	19	VAL
49	K8	24	LEU
49	K8	25	VAL
49	K8	41	ILE
49	K8	45	SER
49	K8	46	GLN
49	K8	47	ASN
49	K8	48	HIS
49	K8	49	LYS
49	K8	50	ILE
49	K8	52	ASP
49	K8	53	LEU
49	K8	54	LYS
49	K8	55	ARG
49	K8	62	THR

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Mol	Chain	Res	Type
49	K8	64	LEU
50	L8	3	ARG
50	L8	6	VAL
50	L8	8	LEU
50	L8	11	SER
50	L8	13	ILE
50	L8	17	LYS
50	L8	30	ARG
50	L8	31	LEU
50	L8	33	GLN
50	L8	36	VAL
50	L8	40	THR
50	L8	43	ILE
50	L8	44	ARG
50	L8	53	LEU
50	L8	57	GLU
50	L8	58	VAL
51	M8	6	HIS
51	M8	15	ILE
51	M8	16	CYS
51	M8	23	GLU
51	M8	26	SER
51	M8	36	CYS
51	M8	38	LYS
51	M8	39	CYS
51	M8	48	ARG
51	M8	50	VAL
51	M8	52	THR
51	M8	55	ARG
51	M8	59	PHE
51	M8	61	ARG
51	M8	62	ARG
51	M8	63	TYR
51	M8	65	ASP
52	N8	3	LYS
52	N8	9	LYS
52	N8	15	ARG
52	N8	16	ARG
52	N8	29	THR
52	N8	31	VAL
52	N8	40	LYS
52	N8	51	TYR

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Mol	Chain	Res	Type
52	N8	55	ARG
52	N8	56	LYS
52	N8	59	GLU
52	N8	60	VAL
53	O8	9	LEU
53	O8	10	LEU
53	O8	12	GLU
53	O8	17	LYS
53	O8	23	THR
53	O8	27	LYS
53	O8	30	THR
53	O8	32	ASN
53	O8	36	LEU
53	O8	37	ARG
53	O8	39	TYR
53	O8	44	ARG
53	O8	47	THR
53	O8	51	GLU
54	P8	4	THR
54	P8	8	ASN
54	P8	14	LYS
54	P8	19	ARG
54	P8	22	MET
54	P8	32	LYS
54	P8	41	ARG
54	P8	43	THR
54	P8	47	ARG
54	P8	48	LYS
55	Q8	6	THR
55	Q8	8	LYS
55	Q8	11	LYS
55	Q8	19	SER
55	Q8	21	LYS
55	Q8	26	LYS
55	Q8	30	ARG
55	Q8	31	HIS
55	Q8	32	LEU
55	Q8	41	ILE
55	Q8	42	ARG
55	Q8	43	GLN
55	Q8	46	ARG
55	Q8	47	LYS

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Mol	Chain	Res	Type
55	Q8	48	PHE
55	Q8	50	LEU
55	Q8	52	LYS
55	Q8	57	ARG
55	Q8	58	ILE
55	Q8	59	LYS
2	12	5	ILE
2	12	17	PHE
2	12	22	LYS
2	12	23	ARG
2	12	24	TRP
2	12	31	TYR
2	12	33	TYR
2	12	42	ILE
2	12	44	LEU
2	12	55	PHE
2	12	69	LEU
2	12	71	VAL
2	12	75	LYS
2	12	83	MET
2	12	96	ARG
2	12	107	THR
2	12	108	ILE
2	12	117	GLU
2	12	122	PHE
2	12	130	ARG
2	12	139	LYS
2	12	144	ARG
2	12	145	LEU
2	12	155	LEU
2	12	164	VAL
2	12	172	ILE
2	12	178	ARG
2	12	185	ILE
2	12	193	ASP
2	12	196	LEU
2	12	204	ASN
2	12	212	GLN
2	12	213	LEU
2	12	222	ILE
2	12	226	ARG
2	12	238	LEU

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Mol	Chain	Res	Type
3	22	4	LYS
3	22	5	ILE
3	22	16	ARG
3	22	21	ARG
3	22	29	TYR
3	22	32	LEU
3	22	43	LEU
3	22	47	LEU
3	22	52	LEU
3	22	67	THR
3	22	69	HIS
3	22	95	THR
3	22	119	ARG
3	22	120	VAL
3	22	124	ILE
3	22	128	PHE
3	22	139	GLN
3	22	140	ARG
3	22	142	MET
3	22	167	TRP
3	22	175	LEU
3	22	190	ARG
3	22	191	THR
3	22	193	TYR
3	22	195	VAL
3	22	202	ILE
4	32	3	ARG
4	32	5	ILE
4	32	8	VAL
4	32	18	LYS
4	32	24	GLU
4	32	30	LYS
4	32	36	ARG
4	32	50	ARG
4	32	59	ARG
4	32	61	LYS
4	32	71	SER
4	32	73	ARG
4	32	76	ARG
4	32	78	LEU
4	32	106	TYR
4	32	107	ARG

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Mol	Chain	Res	Type
4	32	108	LEU
4	32	119	GLN
4	32	122	ARG
4	32	127	THR
4	32	134	ASP
4	32	135	LEU
4	32	138	TYR
4	32	139	ARG
4	32	141	ARG
4	32	152	SER
4	32	159	ARG
4	32	162	LEU
4	32	163	GLU
4	32	169	LYS
4	32	187	ARG
4	32	191	ARG
4	32	192	GLU
4	32	199	ASN
4	32	200	GLU
4	32	209	ARG
5	42	8	GLU
5	42	12	LEU
5	42	14	ARG
5	42	16	THR
5	42	19	MET
5	42	25	ARG
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	45	PHE
5	42	47	LYS
5	42	51	VAL
5	42	53	LEU
5	42	56	GLN
5	42	68	GLU
5	42	72	GLN
5	42	73	ASN
5	42	78	HIS
5	42	79	GLU
5	42	82	VAL
5	42	83	GLU
5	42	87	SER

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Mol	Chain	Res	Type
5	42	90	VAL
5	42	91	LEU
5	42	101	ILE
5	42	115	VAL
5	42	116	THR
5	42	126	ARG
5	42	136	MET
5	42	137	GLU
5	42	144	THR
5	42	150	ARG
6	52	2	ARG
6	52	3	ARG
6	52	7	ASN
6	52	14	LEU
6	52	15	ASP
6	52	21	LEU
6	52	27	GLN
6	52	28	ARG
6	52	40	VAL
6	52	45	LEU
6	52	47	ARG
6	52	54	LYS
6	52	57	GLN
6	52	64	GLN
6	52	65	VAL
6	52	69	GLU
6	52	70	ASP
6	52	72	VAL
6	52	86	ARG
7	62	5	ARG
7	62	8	GLU
7	62	9	VAL
7	62	21	VAL
7	62	29	LYS
7	62	31	MET
7	62	45	ASP
7	62	51	GLN
7	62	52	GLU
7	62	54	THR
7	62	60	LYS
7	62	61	VAL
7	62	63	LYS

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Mol	Chain	Res	Type
7	62	70	LYS
7	62	72	ARG
7	62	73	MET
7	62	78	ARG
7	62	84	ASN
7	62	85	TYR
7	62	86	GLN
7	62	89	MET
7	62	90	GLU
7	62	91	VAL
7	62	104	LEU
7	62	114	ARG
7	62	137	LYS
7	62	144	MET
7	62	146	GLU
7	62	149	ARG
8	72	1	MET
8	72	2	LEU
8	72	12	ARG
8	72	21	LYS
8	72	25	ASP
8	72	35	ILE
8	72	39	LEU
8	72	54	ASP
8	72	69	ARG
8	72	73	ASP
8	72	77	GLU
8	72	78	GLN
8	72	81	HIS
8	72	82	HIS
8	72	83	ILE
8	72	84	ARG
8	72	86	ILE
8	72	88	LYS
8	72	91	ARG
8	72	92	ARG
8	72	95	VAL
8	72	97	VAL
8	72	99	GLU
8	72	102	ARG
8	72	112	LEU
8	72	114	THR

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Mol	Chain	Res	Type
8	72	115	SER
8	72	133	LEU
9	82	10	ARG
9	82	31	GLN
9	82	33	PHE
9	82	42	ARG
9	82	53	VAL
9	82	54	ASP
9	82	70	LYS
9	82	75	ASP
9	82	79	LEU
9	82	88	TYR
9	82	93	ARG
9	82	95	LYS
9	82	99	LEU
9	82	104	ARG
9	82	109	VAL
9	82	112	LYS
9	82	113	LYS
9	82	117	HIS
9	82	118	LYS
9	82	125	TYR
9	82	128	ARG
10	1A	16	LEU
10	1A	17	ASP
10	1A	29	ARG
10	1A	40	LEU
10	1A	43	ARG
10	1A	47	PHE
10	1A	48	THR
10	1A	55	LYS
10	1A	58	ASP
10	1A	59	SER
10	1A	62	HIS
10	1A	69	ASN
10	1A	70	ARG
10	1A	74	ILE
10	1A	79	ARG
10	1A	86	MET
10	1A	96	ILE
10	1A	99	LYS
11	2A	12	ARG

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Mol	Chain	Res	Type
11	2A	13	GLN
11	2A	14	VAL
11	2A	18	ARG
11	2A	24	SER
11	2A	29	ILE
11	2A	31	THR
11	2A	33	THR
11	2A	38	ASN
11	2A	57	THR
11	2A	63	LEU
11	2A	70	LYS
11	2A	82	VAL
11	2A	87	THR
11	2A	93	GLN
11	2A	95	ILE
11	2A	96	ARG
11	2A	103	LEU
11	2A	105	VAL
11	2A	106	LYS
11	2A	109	VAL
11	2A	116	HIS
11	2A	119	CYS
11	2A	120	ARG
11	2A	124	LYS
11	2A	127	LYS
12	3A	13	LYS
12	3A	19	ARG
12	3A	20	LYS
12	3A	28	LYS
12	3A	33	ARG
12	3A	40	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	50	SER
12	3A	54	LYS
12	3A	57	LYS
12	3A	64	TYR
12	3A	81	SER
12	3A	83	VAL
12	3A	85	ILE
12	3A	89	ARG
12	3A	96	VAL

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Mol	Chain	Res	Type
12	3A	111	LYS
12	3A	118	SER
13	4A	4	ILE
13	4A	8	GLU
13	4A	17	VAL
13	4A	32	GLU
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	64	TRP
13	4A	65	LYS
13	4A	66	LEU
13	4A	69	GLU
13	4A	70	LEU
13	4A	71	ARG
13	4A	82	MET
13	4A	83	ASP
13	4A	88	ARG
13	4A	92	HIS
13	4A	93	ARG
13	4A	94	ARG
13	4A	98	VAL
13	4A	103	THR
13	4A	108	ARG
13	4A	114	ARG
13	4A	115	LYS
14	5A	8	GLU
14	5A	12	ARG
14	5A	17	LYS
14	5A	22	THR
14	5A	23	ARG
14	5A	33	VAL
14	5A	37	PHE
14	5A	44	LEU
15	6A	3	ILE
15	6A	6	GLU
15	6A	22	THR
15	6A	31	LEU
15	6A	41	GLU
15	6A	47	LYS
15	6A	48	LYS
15	6A	51	HIS

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Mol	Chain	Res	Type
15	6A	58	MET
15	6A	82	ILE
15	6A	83	GLU
15	6A	84	LYS
15	6A	87	ILE
15	6A	88	ARG
16	7A	1	MET
16	7A	2	VAL
16	7A	5	ARG
16	7A	6	LEU
16	7A	8	ARG
16	7A	21	VAL
16	7A	25	ARG
16	7A	43	LYS
16	7A	51	VAL
16	7A	55	ARG
16	7A	65	GLN
16	7A	67	THR
16	7A	72	ARG
16	7A	74	LEU
16	7A	82	GLN
17	8A	6	LEU
17	8A	9	VAL
17	8A	25	ARG
17	8A	26	GLN
17	8A	35	VAL
17	8A	50	LYS
17	8A	53	LEU
17	8A	60	ILE
17	8A	62	SER
17	8A	63	ARG
17	8A	68	ARG
17	8A	70	ARG
17	8A	74	LEU
17	8A	79	SER
17	8A	91	ARG
17	8A	92	ARG
17	8A	100	LYS
17	8A	101	ARG
18	9A	21	LYS
18	9A	26	LEU
18	9A	29	PHE

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Mol	Chain	Res	Type
18	9A	31	LEU
18	9A	36	ASN
18	9A	42	ARG
18	9A	44	LEU
18	9A	47	THR
18	9A	53	ARG
18	9A	54	ARG
18	9A	58	LEU
18	9A	59	SER
18	9A	65	ILE
18	9A	82	THR
18	9A	84	LYS
18	9A	86	VAL
18	9A	87	ARG
19	AA	11	VAL
19	AA	13	ASP
19	AA	15	LEU
19	AA	22	LEU
19	AA	25	LYS
19	AA	30	LEU
19	AA	31	ILE
19	AA	33	THR
19	AA	34	TRP
19	AA	41	VAL
19	AA	44	MET
19	AA	49	ILE
19	AA	64	GLU
19	AA	66	MET
19	AA	79	THR
19	AA	81	ARG
19	AA	83	HIS
20	BA	11	SER
20	BA	13	LEU
20	BA	23	ARG
20	BA	56	MET
20	BA	68	LYS
20	BA	70	SER
20	BA	73	HIS
20	BA	74	LYS
20	BA	75	ASN
20	BA	84	LEU
20	BA	86	ARG

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Mol	Chain	Res	Type
20	BA	88	VAL
21	1B	9	ARG
21	1B	25	LYS
28	19	10	THR
28	19	13	ARG
28	19	24	ILE
28	19	25	THR
28	19	32	SER
28	19	38	LYS
28	19	43	ARG
28	19	49	ILE
28	19	61	LEU
28	19	64	ILE
28	19	65	ILE
28	19	68	LYS
28	19	69	ARG
28	19	73	VAL
28	19	78	LYS
28	19	88	ARG
28	19	91	ARG
28	19	94	LEU
28	19	99	ASP
28	19	105	ILE
28	19	138	VAL
28	19	141	VAL
28	19	154	LYS
28	19	169	GLU
28	19	181	GLU
28	19	182	LEU
28	19	192	THR
28	19	208	LYS
28	19	211	ARG
28	19	212	SER
28	19	217	ARG
28	19	222	ARG
28	19	239	ARG
28	19	242	ARG
28	19	244	ARG
28	19	255	LYS
28	19	260	ARG
28	19	263	ARG
28	19	266	SER

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Mol	Chain	Res	Type
28	19	268	ARG
28	19	271	ILE
29	29	1	MET
29	29	4	ILE
29	29	7	VAL
29	29	16	ARG
29	29	23	VAL
29	29	25	VAL
29	29	27	LEU
29	29	41	LYS
29	29	44	TYR
29	29	45	THR
29	29	48	GLN
29	29	58	ARG
29	29	59	VAL
29	29	66	HIS
29	29	67	PHE
29	29	75	VAL
29	29	76	ARG
29	29	79	ARG
29	29	82	ARG
29	29	87	GLU
29	29	90	THR
29	29	93	VAL
29	29	107	THR
29	29	113	PHE
29	29	116	VAL
29	29	117	MET
29	29	119	ARG
29	29	121	ASN
29	29	144	ARG
29	29	146	THR
29	29	154	LYS
29	29	170	LEU
29	29	175	VAL
29	29	178	GLU
29	29	179	GLU
29	29	181	LEU
29	29	188	VAL
29	29	200	GLU
29	29	201	THR
29	29	202	LYS

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Mol	Chain	Res	Type
30	39	2	LYS
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	12	LEU
30	39	13	SER
30	39	20	LEU
30	39	24	LEU
30	39	29	ASN
30	39	38	ARG
30	39	45	ARG
30	39	62	ARG
30	39	65	TRP
30	39	66	PRO
30	39	67	GLN
30	39	69	HIS
30	39	74	ARG
30	39	83	PHE
30	39	106	ARG
30	39	107	LYS
30	39	110	LEU
30	39	112	MET
30	39	123	LEU
30	39	124	LEU
30	39	125	LEU
30	39	127	GLU
30	39	140	LEU
30	39	152	GLU
30	39	153	SER
30	39	158	THR
30	39	169	ASN
30	39	181	LEU
30	39	191	ARG
30	39	192	LEU
30	39	193	VAL
30	39	194	MET
30	39	196	LEU
30	39	197	ASP
30	39	201	VAL
30	39	202	PHE
30	39	205	ARG
31	49	3	LEU

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Mol	Chain	Res	Type
31	49	7	LEU
31	49	13	GLU
31	49	19	LEU
31	49	20	ILE
31	49	28	VAL
31	49	52	ILE
31	49	58	GLN
31	49	64	THR
31	49	67	LYS
31	49	70	VAL
31	49	71	THR
31	49	82	LEU
31	49	83	ARG
31	49	84	LYS
31	49	91	ARG
31	49	96	ARG
31	49	109	VAL
31	49	116	ASP
31	49	118	ARG
31	49	130	ASN
31	49	137	GLU
31	49	139	LEU
31	49	144	ILE
31	49	153	ARG
31	49	157	ILE
31	49	159	VAL
31	49	162	THR
32	59	3	ARG
32	59	4	ILE
32	59	6	ARG
32	59	7	LEU
32	59	11	VAL
32	59	16	SER
32	59	37	VAL
32	59	41	MET
32	59	43	VAL
32	59	44	VAL
32	59	45	VAL
32	59	46	GLU
32	59	71	LEU
32	59	74	ASN
32	59	83	TYR

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Mol	Chain	Res	Type
32	59	85	LYS
32	59	86	GLU
32	59	89	ILE
32	59	99	VAL
32	59	103	LEU
32	59	105	LEU
32	59	122	THR
32	59	123	PHE
32	59	124	GLU
32	59	125	VAL
32	59	129	THR
32	59	131	VAL
32	59	132	ARG
32	59	137	ASP
32	59	139	GLN
32	59	143	GLN
32	59	144	VAL
32	59	147	ASN
32	59	152	ARG
32	59	160	LYS
32	59	164	TYR
32	59	171	LEU
33	69	2	LYS
33	69	7	GLU
33	69	9	LEU
33	69	10	GLU
33	69	35	LEU
33	69	37	VAL
33	69	43	ASN
33	69	44	LEU
33	69	51	ILE
33	69	56	LYS
33	69	58	LEU
33	69	64	GLU
33	69	67	ARG
33	69	68	LEU
33	69	73	GLU
33	69	75	LEU
33	69	77	LEU
33	69	78	THR
33	69	81	VAL
33	69	82	ARG

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Mol	Chain	Res	Type
33	69	87	LYS
33	69	88	ILE
33	69	91	SER
33	69	96	ASP
33	69	101	LEU
33	69	109	ILE
33	69	110	ASP
33	69	113	ARG
33	69	114	LEU
33	69	117	GLU
33	69	125	GLU
33	69	131	LYS
33	69	133	HIS
34	15	4	TYR
34	15	5	VAL
34	15	29	LYS
34	15	32	THR
34	15	33	LEU
34	15	34	LEU
34	15	35	ARG
34	15	38	HIS
34	15	43	THR
34	15	46	VAL
34	15	48	MET
34	15	56	ASN
34	15	59	LYS
34	15	63	THR
34	15	67	LEU
34	15	73	THR
34	15	74	ARG
34	15	85	ILE
34	15	93	THR
34	15	106	MET
34	15	112	LEU
34	15	130	HIS
34	15	137	LYS
35	25	5	GLN
35	25	22	ILE
35	25	24	VAL
35	25	28	SER
35	25	31	LYS
35	25	32	TYR

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Mol	Chain	Res	Type
35	25	38	VAL
35	25	47	ILE
35	25	49	ARG
35	25	53	LYS
35	25	58	VAL
35	25	70	LYS
35	25	80	ASP
35	25	87	ILE
35	25	94	ARG
35	25	96	THR
35	25	97	ARG
35	25	98	VAL
35	25	104	ARG
35	25	113	LYS
35	25	116	SER
35	25	117	LEU
36	35	1	MET
36	35	3	LEU
36	35	6	LEU
36	35	10	PRO
36	35	14	LYS
36	35	15	ARG
36	35	18	ARG
36	35	21	ARG
36	35	30	THR
36	35	36	LYS
36	35	41	ARG
36	35	45	LEU
36	35	46	LYS
36	35	50	ARG
36	35	61	ARG
36	35	62	LEU
36	35	65	ARG
36	35	67	MET
36	35	70	GLN
36	35	75	ILE
36	35	81	GLN
36	35	85	LEU
36	35	90	ARG
36	35	96	THR
36	35	98	GLU
36	35	105	LEU

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Mol	Chain	Res	Type
36	35	106	LEU
36	35	110	TYR
36	35	111	ARG
36	35	112	LEU
36	35	114	ILE
36	35	123	LEU
36	35	124	LYS
36	35	125	VAL
36	35	133	SER
36	35	135	LEU
36	35	138	LEU
36	35	144	GLU
36	35	146	VAL
36	35	147	LEU
37	45	5	ARG
37	45	6	ARG
37	45	10	ARG
37	45	16	ARG
37	45	18	LYS
37	45	21	THR
37	45	22	LYS
37	45	25	ASP
37	45	27	VAL
37	45	45	GLN
37	45	56	ARG
37	45	59	ARG
37	45	60	ARG
37	45	77	LYS
37	45	79	LEU
37	45	81	VAL
37	45	83	MET
37	45	91	GLU
37	45	103	MET
37	45	112	GLU
37	45	116	GLU
37	45	118	LEU
37	45	127	ILE
37	45	128	LYS
37	45	134	ARG
37	45	141	GLN
38	55	15	SER
38	55	18	LEU

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Mol	Chain	Res	Type
38	55	24	GLN
38	55	28	LEU
38	55	29	LEU
38	55	35	THR
38	55	44	LEU
38	55	57	ARG
38	55	65	LEU
38	55	67	LEU
38	55	74	LYS
38	55	75	LEU
38	55	76	VAL
38	55	79	LEU
38	55	80	PHE
38	55	81	ASP
38	55	82	GLU
38	55	91	GLN
38	55	95	THR
38	55	102	GLU
39	65	4	LEU
39	65	12	PHE
39	65	20	ARG
39	65	21	THR
39	65	23	ARG
39	65	30	ARG
39	65	36	TYR
39	65	38	GLN
39	65	42	ASP
39	65	52	SER
39	65	56	LEU
39	65	58	LEU
39	65	64	GLU
39	65	65	VAL
39	65	69	VAL
39	65	71	ARG
39	65	78	LEU
39	65	82	ILE
39	65	88	ASP
39	65	89	ARG
39	65	93	LYS
39	65	95	HIS
39	65	101	LEU
39	65	106	ARG

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Mol	Chain	Res	Type
39	65	107	GLU
39	65	110	LEU
39	65	112	PHE
40	75	6	LEU
40	75	7	ILE
40	75	8	LYS
40	75	9	LEU
40	75	10	VAL
40	75	11	GLU
40	75	13	ARG
40	75	19	LEU
40	75	21	GLU
40	75	23	ARG
40	75	24	PRO
40	75	27	THR
40	75	28	VAL
40	75	34	VAL
40	75	39	ARG
40	75	40	THR
40	75	41	ARG
40	75	52	ILE
40	75	54	ARG
40	75	55	ASN
40	75	60	THR
40	75	62	THR
40	75	63	VAL
40	75	64	ARG
40	75	66	VAL
40	75	67	SER
40	75	74	ARG
40	75	88	ILE
40	75	91	ARG
40	75	93	ARG
40	75	105	LEU
40	75	106	SER
40	75	107	ASP
40	75	112	ARG
40	75	120	ARG
40	75	124	ASP
40	75	125	ARG
40	75	129	ARG
40	75	132	LYS

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Mol	Chain	Res	Type
41	85	3	ARG
41	85	5	LYS
41	85	8	VAL
41	85	15	LYS
41	85	17	ILE
41	85	31	SER
41	85	34	LYS
41	85	55	ARG
41	85	57	PHE
41	85	65	ILE
41	85	71	GLN
41	85	74	LEU
41	85	83	LEU
41	85	88	ILE
41	85	92	ARG
41	85	95	LEU
41	85	97	ASP
41	85	100	VAL
41	85	105	VAL
42	95	13	ARG
42	95	15	GLU
42	95	19	LYS
42	95	26	ASP
42	95	32	THR
42	95	33	VAL
42	95	38	LEU
42	95	47	VAL
42	95	49	THR
42	95	62	LEU
42	95	66	ARG
42	95	70	ILE
42	95	74	LYS
42	95	83	ARG
42	95	85	LYS
42	95	89	GLN
42	95	91	TYR
42	95	95	LEU
43	A5	6	ILE
43	A5	11	ARG
43	A5	23	LEU
43	A5	28	SER
43	A5	35	ILE

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Mol	Chain	Res	Type
43	A5	37	ARG
43	A5	39	THR
43	A5	41	LYS
43	A5	51	LEU
43	A5	65	LEU
43	A5	67	ASP
43	A5	76	VAL
43	A5	86	LEU
43	A5	88	ARG
43	A5	90	ARG
43	A5	94	ASP
43	A5	95	ILE
43	A5	96	ILE
43	A5	97	LYS
43	A5	100	THR
43	A5	106	ILE
43	A5	107	LEU
43	A5	110	LYS
44	B5	3	THR
44	B5	12	VAL
44	B5	15	GLU
44	B5	23	GLU
44	B5	25	LYS
44	B5	27	THR
44	B5	30	VAL
44	B5	35	THR
44	B5	36	LYS
44	B5	37	THR
44	B5	40	LYS
44	B5	45	THR
44	B5	49	VAL
44	B5	52	VAL
44	B5	54	VAL
44	B5	60	ARG
44	B5	63	LYS
44	B5	65	ARG
44	B5	69	TYR
44	B5	70	LEU
44	B5	76	ARG
44	B5	78	LYS
44	B5	87	GLN
44	B5	88	LYS

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Mol	Chain	Res	Type
45	C5	14	LEU
45	C5	29	GLU
45	C5	31	LEU
45	C5	33	LYS
45	C5	37	VAL
45	C5	38	ILE
45	C5	43	ASN
45	C5	44	ILE
45	C5	47	LYS
45	C5	50	ARG
45	C5	51	VAL
45	C5	55	TYR
45	C5	60	PHE
45	C5	62	GLU
45	C5	68	HIS
45	C5	84	ARG
45	C5	85	VAL
45	C5	86	ARG
45	C5	87	LYS
45	C5	88	LYS
45	C5	89	PHE
45	C5	90	LEU
45	C5	92	ASN
45	C5	97	ARG
45	C5	99	CYS
45	C5	102	CYS
46	D5	2	GLU
46	D5	4	ARG
46	D5	5	LEU
46	D5	19	ARG
46	D5	24	LEU
46	D5	27	VAL
46	D5	28	MET
46	D5	31	ARG
46	D5	33	LEU
46	D5	36	LYS
46	D5	41	LEU
46	D5	44	PHE
46	D5	53	ILE
46	D5	56	VAL
46	D5	59	LEU
46	D5	63	ASP

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Mol	Chain	Res	Type
46	D5	70	LEU
46	D5	72	ARG
46	D5	73	GLN
46	D5	74	VAL
46	D5	76	LEU
46	D5	77	ASP
46	D5	84	GLU
46	D5	87	ASP
46	D5	88	PHE
46	D5	89	PHE
46	D5	94	GLU
46	D5	103	ARG
46	D5	107	THR
46	D5	117	LEU
46	D5	121	HIS
46	D5	122	ARG
46	D5	123	ASP
46	D5	136	PHE
46	D5	144	LEU
46	D5	161	VAL
46	D5	165	VAL
46	D5	168	GLU
46	D5	175	VAL
47	E5	10	THR
47	E5	12	ASN
47	E5	14	ARG
47	E5	19	LYS
47	E5	36	ILE
47	E5	38	VAL
47	E5	43	THR
47	E5	44	ARG
47	E5	55	ARG
47	E5	64	ASP
47	E5	70	GLN
48	F5	11	ARG
48	F5	13	ILE
48	F5	21	ARG
48	F5	25	LYS
48	F5	35	THR
48	F5	38	SER
48	F5	46	LEU
48	F5	56	GLN

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Mol	Chain	Res	Type
48	F5	62	VAL
48	F5	76	ARG
48	F5	78	LYS
48	F5	82	LEU
48	F5	83	GLU
48	F5	85	LEU
48	F5	90	ILE
49	G5	4	SER
49	G5	5	GLU
49	G5	14	ARG
49	G5	15	LYS
49	G5	16	LEU
49	G5	17	SER
49	G5	24	LEU
49	G5	32	LEU
49	G5	44	LEU
49	G5	46	GLN
49	G5	48	HIS
49	G5	49	LYS
49	G5	53	LEU
49	G5	55	ARG
49	G5	60	LEU
49	G5	66	GLU
50	H5	5	LYS
50	H5	7	LYS
50	H5	8	LEU
50	H5	13	ILE
50	H5	17	LYS
50	H5	18	ASP
50	H5	23	LEU
50	H5	35	ARG
50	H5	37	LEU
50	H5	40	THR
50	H5	44	ARG
50	H5	48	GLU
50	H5	55	ARG
51	I5	1	MET
51	I5	8	LYS
51	I5	18	CYS
51	I5	21	VAL
51	I5	22	ILE
51	I5	30	GLU

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Mol	Chain	Res	Type
51	I5	39	CYS
51	I5	44	THR
51	I5	59	PHE
51	I5	60	GLN
51	I5	61	ARG
52	J5	3	LYS
52	J5	4	HIS
52	J5	10	LYS
52	J5	15	ARG
52	J5	25	LEU
52	J5	29	THR
52	J5	33	CYS
52	J5	35	GLU
52	J5	36	CYS
52	J5	48	GLU
52	J5	55	ARG
53	K5	10	LEU
53	K5	12	GLU
53	K5	20	ASN
53	K5	27	LYS
53	K5	28	ARG
53	K5	29	ASN
53	K5	34	LEU
53	K5	47	THR
54	L5	1	MET
54	L5	2	LYS
54	L5	4	THR
54	L5	8	ASN
54	L5	14	LYS
54	L5	41	ARG
54	L5	42	LEU
54	L5	43	THR
55	M5	15	LYS
55	M5	23	VAL
55	M5	25	MET
55	M5	31	HIS
55	M5	33	ASN
55	M5	34	TRP
55	M5	37	SER
55	M5	46	ARG
55	M5	50	LEU
55	M5	52	LYS

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Mol	Chain	Res	Type
55	M5	58	ILE
55	M5	60	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (28) such sidechains are listed below:

Mol	Chain	Res	Type
3	2E	6	HIS
3	2E	108	ASN
4	3E	43	HIS
6	5E	64	GLN
10	1I	84	GLN
16	7I	16	HIS
28	11	227	ASN
29	21	143	ASN
30	31	40	GLN
35	68	88	ASN
36	78	13	ASN
37	88	12	GLN
38	98	13	HIS
43	E8	62	HIS
44	F8	31	HIS
44	F8	82	GLN
47	I8	70	GLN
2	12	212	GLN
13	4A	77	ASN
13	4A	92	HIS
19	AA	23	ASN
32	59	74	ASN
34	15	38	HIS
37	45	113	GLN
38	55	91	GLN
45	C5	92	ASN
51	I5	6	HIS
51	I5	20	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1495/1522 (98%)	358 (23%)	29 (1%)
1	1G	1495/1522 (98%)	366 (24%)	36 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
22	1K	74/76 (97%)	36 (48%)	1 (1%)
22	1L	74/76 (97%)	32 (43%)	3 (4%)
23	2K	76/77 (98%)	21 (27%)	3 (3%)
23	2L	76/77 (98%)	19 (25%)	4 (5%)
24	3K	75/76 (98%)	39 (52%)	8 (10%)
24	3L	75/76 (98%)	41 (54%)	3 (4%)
25	4K	13/30 (43%)	6 (46%)	1 (7%)
25	4L	6/30 (20%)	2 (33%)	1 (16%)
26	14	2908/2917 (99%)	777 (26%)	51 (1%)
26	1H	2911/2917 (99%)	743 (25%)	61 (2%)
27	16	121/122 (99%)	21 (17%)	1 (0%)
27	1J	121/122 (99%)	35 (28%)	2 (1%)
All	All	9520/9640 (98%)	2496 (26%)	204 (2%)

All (2496) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	6	G
1	13	8	A
1	13	9	G
1	13	28	G
1	13	32	A
1	13	39	G
1	13	41	G
1	13	44	G
1	13	47	C
1	13	48	C
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	77	C
1	13	78	G
1	13	79	G
1	13	91	C
1	13	95	G
1	13	101	A
1	13	113	G
1	13	116	A

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Mol	Chain	Res	Type
1	13	117	G
1	13	121	C
1	13	131	C
1	13	138	G
1	13	144	G
1	13	147	G
1	13	151	A
1	13	161	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	175	C
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	222	U
1	13	226	G
1	13	231	G
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	253	U
1	13	256	U
1	13	262	A
1	13	266	G
1	13	267	C
1	13	273	A
1	13	289	G
1	13	316	G
1	13	318	G

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Mol	Chain	Res	Type
1	13	319	G
1	13	321	A
1	13	324	G
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	341	C
1	13	342	C
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	351	G
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	388	G
1	13	390	C
1	13	392	G
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	418	C
1	13	419	C
1	13	421	U
1	13	423	G
1	13	424	G
1	13	428	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	451	A
1	13	452	A
1	13	454	C

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Mol	Chain	Res	Type
1	13	466	C
1	13	467	G
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	498	A
1	13	505	G
1	13	506	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	519	C
1	13	524	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	536	C
1	13	547	A
1	13	549	C
1	13	559	A
1	13	561	U
1	13	562	C
1	13	567	G
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	581	G
1	13	607	A
1	13	610	G
1	13	616	G
1	13	617	G
1	13	619	U
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G

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Mol	Chain	Res	Type
1	13	650	G
1	13	655	A
1	13	661	G
1	13	665	A
1	13	666	G
1	13	704	A
1	13	723	U
1	13	724	G
1	13	734	G
1	13	747	C
1	13	748	C
1	13	749	C
1	13	750	G
1	13	753	A
1	13	755	G
1	13	763	G
1	13	777	A
1	13	786	G
1	13	792	A
1	13	793	U
1	13	794	A
1	13	805	C
1	13	812	C
1	13	813	U
1	13	817	C
1	13	818	G
1	13	828	A
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	853	G
1	13	859	A
1	13	864	A
1	13	870	U
1	13	874	G
1	13	882	C
1	13	884	U
1	13	885	G
1	13	887	G
1	13	902	G
1	13	914	A

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Mol	Chain	Res	Type
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	940	C
1	13	949	A
1	13	953	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	982	U
1	13	984	C
1	13	991	U
1	13	992	U
1	13	993	G
1	13	994	A
1	13	995	C
1	13	999	U
1	13	1004	A
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1017	G
1	13	1021	G
1	13	1024	G
1	13	1025	U
1	13	1028	C
1	13	1029	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1033	G
1	13	1040	U
1	13	1042	G
1	13	1044	A

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Mol	Chain	Res	Type
1	13	1046	A
1	13	1055	A
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1092	A
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1123	A
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1143	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1155	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G
1	13	1161	C
1	13	1164	G
1	13	1165	C
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1184	G
1	13	1189	C
1	13	1194	U
1	13	1196	U
1	13	1197	G
1	13	1201	A

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Mol	Chain	Res	Type
1	13	1202	G
1	13	1203	C
1	13	1212	U
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1246	C
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1260	C
1	13	1261	A
1	13	1262	C
1	13	1270	C
1	13	1272	G
1	13	1273	G
1	13	1280	A
1	13	1281	U
1	13	1282	C
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1299	A
1	13	1300	G
1	13	1302	U
1	13	1305	G
1	13	1320	C
1	13	1322	C
1	13	1323	G
1	13	1326	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

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Mol	Chain	Res	Type
1	13	1353	G
1	13	1360	A
1	13	1363	A
1	13	1364	U
1	13	1368	G
1	13	1370	G
1	13	1377	A
1	13	1396	A
1	13	1401	G
1	13	1402	C
1	13	1406	U
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1455	G
1	13	1467	G
1	13	1469	G
1	13	1487	G
1	13	1492	A
1	13	1494	G
1	13	1495	U
1	13	1499	A
1	13	1503	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1507	A
1	13	1509	C
1	13	1514	C
1	13	1517	G
1	13	1519	A
1	13	1520	G
1	13	1529	G
1	13	1530	G
22	1K	3	C
22	1K	4	C
22	1K	9	A

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Mol	Chain	Res	Type
22	1K	10	G
22	1K	11	C
22	1K	16	U
22	1K	17	C
22	1K	18	G
22	1K	19	G
22	1K	20	U
22	1K	21	A
22	1K	22	G
22	1K	24	G
22	1K	26	A
22	1K	34	G
22	1K	41	C
22	1K	44	G
22	1K	45	U
22	1K	46	G
22	1K	47	U
22	1K	48	C
22	1K	49	C
22	1K	52	G
22	1K	56	C
22	1K	59	U
22	1K	62	C
22	1K	64	A
22	1K	66	U
22	1K	68	C
22	1K	69	G
22	1K	70	G
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
22	1K	76	A
23	2K	2	G
23	2K	6	G
23	2K	9	G
23	2K	13	C
23	2K	15	G
23	2K	18	C
23	2K	20	G
23	2K	21	U
23	2K	22	A

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Mol	Chain	Res	Type
23	2K	23	G
23	2K	35	C
23	2K	44	A
23	2K	47	7MG
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	53	G
23	2K	62	C
23	2K	68	C
23	2K	73	A
23	2K	77	A
24	3K	2	C
24	3K	3	C
24	3K	4	C
24	3K	5	G
24	3K	7	A
24	3K	9	A
24	3K	10	G
24	3K	13	C
24	3K	14	A
24	3K	17	C
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	22	G
24	3K	24	G
24	3K	26	A
24	3K	33	U
24	3K	34	G
24	3K	35	A
24	3K	36	A
24	3K	37	A
24	3K	45	U
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	C
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	58	A

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Mol	Chain	Res	Type
24	3K	59	U
24	3K	60	U
24	3K	61	C
24	3K	65	G
24	3K	69	G
24	3K	70	G
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	14	A
25	4K	15	A
25	4K	19	C
25	4K	22	A
25	4K	25	A
25	4K	26	A
26	1H	5	A
26	1H	7	G
26	1H	9	U
26	1H	12	U
26	1H	17	G
26	1H	27	G
26	1H	34	C
26	1H	37	C
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	56	A
26	1H	63	U
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	93	C
26	1H	95	G
26	1H	102	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	138	G

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Mol	Chain	Res	Type
26	1H	147	U
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	200	U
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	228	A
26	1H	229	A
26	1H	230	U
26	1H	233	A
26	1H	235	U
26	1H	243	U
26	1H	244	A
26	1H	245	G
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	269	U
26	1H	270(F)	U
26	1H	270(G)	C
26	1H	270(M)	U
26	1H	270(P)	C
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	278	A
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	323	G

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Mol	Chain	Res	Type
26	1H	324	A
26	1H	326	G
26	1H	329	G
26	1H	330	A
26	1H	342	G
26	1H	345	A
26	1H	346	A
26	1H	347	A
26	1H	352	G
26	1H	363	G
26	1H	364	C
26	1H	372	G
26	1H	382	G
26	1H	386	G
26	1H	389	G
26	1H	393	C
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	413	C
26	1H	428	A
26	1H	435	C
26	1H	436	C
26	1H	444	C
26	1H	445	C
26	1H	446	G
26	1H	447	A
26	1H	448	U
26	1H	451	C
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	460	A
26	1H	462	C
26	1H	467	G
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	488	G
26	1H	501	A
26	1H	505	A

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Mol	Chain	Res	Type
26	1H	508	G
26	1H	509	C
26	1H	513	A
26	1H	529	A
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	545	G
26	1H	546	C
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	564	C
26	1H	567	A
26	1H	573	G
26	1H	574	C
26	1H	575	A
26	1H	583	G
26	1H	586	A
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	607	U
26	1H	609(A)	G
26	1H	614	U
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	632	A
26	1H	637	A
26	1H	644	A
26	1H	645	C
26	1H	646	A
26	1H	654	A
26	1H	654(A)	A
26	1H	654(H)	G
26	1H	654(I)	C
26	1H	654(J)	A
26	1H	654(K)	C
26	1H	654(M)	C
26	1H	654(N)	G

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Mol	Chain	Res	Type
26	1H	654(O)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	667	U
26	1H	669	G
26	1H	686	G
26	1H	699	A
26	1H	715	G
26	1H	717	G
26	1H	730	C
26	1H	731	C
26	1H	739	G
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	765	G
26	1H	776	G
26	1H	777	A
26	1H	782	A
26	1H	783	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	793	A
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	836	G
26	1H	846	C
26	1H	847	U
26	1H	853	G
26	1H	859	G
26	1H	861	A
26	1H	863	A
26	1H	866	A
26	1H	879	G
26	1H	880	G

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Mol	Chain	Res	Type
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	890	A
26	1H	892	G
26	1H	893	C
26	1H	894	C
26	1H	895	U
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	925	C
26	1H	926	A
26	1H	932	G
26	1H	938	G
26	1H	940	G
26	1H	941	A
26	1H	946	G
26	1H	947	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	990	A
26	1H	996	A
26	1H	997	G
26	1H	1003	G
26	1H	1005	C
26	1H	1008	C

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Mol	Chain	Res	Type
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1015	G
26	1H	1016	G
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1024	G
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1041	C
26	1H	1046	A
26	1H	1047	G
26	1H	1056	G
26	1H	1057	A
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1064	C
26	1H	1066	U
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1072	C
26	1H	1073	A
26	1H	1076	C
26	1H	1078	U
26	1H	1082	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1089	G
26	1H	1090	U
26	1H	1095	A
26	1H	1096	A
26	1H	1098	A
26	1H	1111	A

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Mol	Chain	Res	Type
26	1H	1112	G
26	1H	1122	G
26	1H	1126	A
26	1H	1129	A
26	1H	1130	U
26	1H	1131	G
26	1H	1133	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1143	A
26	1H	1149	G
26	1H	1150	C
26	1H	1154	G
26	1H	1155	A
26	1H	1156	A
26	1H	1157	G
26	1H	1173	G
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1180	C
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1231	G
26	1H	1234	U
26	1H	1237	A
26	1H	1241	A
26	1H	1242	A
26	1H	1244	G
26	1H	1245	G
26	1H	1250	G
26	1H	1253	A

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Mol	Chain	Res	Type
26	1H	1255	U
26	1H	1256	G
26	1H	1265	A
26	1H	1269	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1275	A
26	1H	1280	G
26	1H	1287	A
26	1H	1292	U
26	1H	1293	C
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A
26	1H	1313	U
26	1H	1314	C
26	1H	1319	G
26	1H	1329	U
26	1H	1332	G
26	1H	1334	G
26	1H	1338	G
26	1H	1342	A
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1351	C
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	1369	G
26	1H	1370	C
26	1H	1378	A
26	1H	1379	A
26	1H	1380	G
26	1H	1383	C
26	1H	1384	A

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Mol	Chain	Res	Type
26	1H	1385	G
26	1H	1386	C
26	1H	1391	U
26	1H	1395	A
26	1H	1397	U
26	1H	1403	C
26	1H	1406	U
26	1H	1416	G
26	1H	1420	U
26	1H	1421	G
26	1H	1428	C
26	1H	1431	U
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1454	U
26	1H	1455	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1472	A
26	1H	1483	G
26	1H	1493	C
26	1H	1497	U
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1522	G
26	1H	1526	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G

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Mol	Chain	Res	Type
26	1H	1540	G
26	1H	1543	A
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	1567	A
26	1H	1569	A
26	1H	1578	U
26	1H	1579	A
26	1H	1580	A
26	1H	1586	A
26	1H	1587	A
26	1H	1592	C
26	1H	1594	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1634	A
26	1H	1640	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1664	A
26	1H	1666	G
26	1H	1674	G
26	1H	1684	C
26	1H	1685	C
26	1H	1694	C
26	1H	1695	G
26	1H	1699	G
26	1H	1707	G
26	1H	1728	G
26	1H	1729	A
26	1H	1731	G
26	1H	1743	G
26	1H	1756	G
26	1H	1762	A

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Mol	Chain	Res	Type
26	1H	1763	G
26	1H	1764	G
26	1H	1765	C
26	1H	1773	A
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	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1833	U
26	1H	1835	G
26	1H	1836	C
26	1H	1839	G
26	1H	1847	A
26	1H	1858	G
26	1H	1859	A
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1904	G
26	1H	1906	G
26	1H	1914	C
26	1H	1915	U
26	1H	1919	A
26	1H	1924	C
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1932	A
26	1H	1938	A
26	1H	1951	U
26	1H	1952	A
26	1H	1953	A
26	1H	1955	U

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Mol	Chain	Res	Type
26	1H	1960	A
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	1976	U
26	1H	1982	C
26	1H	1983	C
26	1H	1993	U
26	1H	2023	G
26	1H	2030	A
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2036	C
26	1H	2043	C
26	1H	2047	U
26	1H	2048	G
26	1H	2049	G
26	1H	2051	A
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2058	A
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G
26	1H	2070	G
26	1H	2087	G
26	1H	2098	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G

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Mol	Chain	Res	Type
26	1H	2118	U
26	1H	2122	U
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	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2154	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G
26	1H	2169	A
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2176	A
26	1H	2177	C
26	1H	2181	G
26	1H	2190	G
26	1H	2198	A
26	1H	2207	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	2226	C
26	1H	2237	G
26	1H	2238	G
26	1H	2240	C

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Mol	Chain	Res	Type
26	1H	2264	C
26	1H	2267	A
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2278	A
26	1H	2280	G
26	1H	2283	C
26	1H	2285	C
26	1H	2286	A
26	1H	2287	A
26	1H	2288	A
26	1H	2294	C
26	1H	2298	A
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2340	G
26	1H	2343	C
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2352	A
26	1H	2360	A
26	1H	2361	A
26	1H	2372	G
26	1H	2377	A
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2389	G
26	1H	2392	A

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Mol	Chain	Res	Type
26	1H	2393	A
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2413	G
26	1H	2414	G
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2468	G
26	1H	2469	A
26	1H	2474	C
26	1H	2475	C
26	1H	2476	A
26	1H	2478	A
26	1H	2479	G
26	1H	2482	G
26	1H	2484	G
26	1H	2487	G
26	1H	2494	G
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2525	G
26	1H	2529	G
26	1H	2531	A
26	1H	2553	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2568	C
26	1H	2569	G

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Mol	Chain	Res	Type
26	1H	2570	G
26	1H	2573	C
26	1H	2574	G
26	1H	2579	C
26	1H	2582	G
26	1H	2583	G
26	1H	2584	U
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2630	G
26	1H	2632	A
26	1H	2636	U
26	1H	2637	U
26	1H	2641	G
26	1H	2646	C
26	1H	2654	A
26	1H	2657	A
26	1H	2665	A
26	1H	2666	C
26	1H	2672	G
26	1H	2679	A
26	1H	2689	U
26	1H	2690	C
26	1H	2691	C
26	1H	2700	C
26	1H	2701	C
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	2719	G
26	1H	2726	U
26	1H	2729	G

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Mol	Chain	Res	Type
26	1H	2733	A
26	1H	2744	G
26	1H	2749	A
26	1H	2750	A
26	1H	2752	C
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A
26	1H	2779	U
26	1H	2781	A
26	1H	2787	C
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	2799	A
26	1H	2801	A
26	1H	2802	G
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
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	2838	G
26	1H	2849	U
26	1H	2850	A
26	1H	2851	A
26	1H	2872	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G

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Mol	Chain	Res	Type
26	1H	2895	U
26	1H	2899	G
27	16	1	U
27	16	5	C
27	16	7	G
27	16	13	A
27	16	15	A
27	16	25	A
27	16	35	U
27	16	42	C
27	16	45	A
27	16	56	G
27	16	65	C
27	16	66	A
27	16	73	A
27	16	74	U
27	16	81	G
27	16	82	G
27	16	83	G
27	16	105	G
27	16	109	G
27	16	117	G
27	16	119	A
1	1G	5	U
1	1G	6	G
1	1G	9	G
1	1G	15	G
1	1G	21	G
1	1G	26	A
1	1G	32	A
1	1G	39	G
1	1G	41	G
1	1G	42	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	65	U
1	1G	90	C
1	1G	91	C

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Mol	Chain	Res	Type
1	1G	95	G
1	1G	101	A
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	146	G
1	1G	162	A
1	1G	163	C
1	1G	167	G
1	1G	174	C
1	1G	182	U
1	1G	183	G
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	191(E)	G
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	217	C
1	1G	231	G
1	1G	240	C
1	1G	247	G
1	1G	249	U
1	1G	250	A
1	1G	251	G
1	1G	266	G
1	1G	267	C
1	1G	281	G
1	1G	283	C
1	1G	289	G
1	1G	298	A
1	1G	299	G

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Mol	Chain	Res	Type
1	1G	316	G
1	1G	317	G
1	1G	318	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	345	C
1	1G	346	G
1	1G	347	G
1	1G	349	A
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	363	A
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	419	C
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	442	C
1	1G	452	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	476	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	498	A
1	1G	500	G
1	1G	505	G
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	521	G
1	1G	524	G
1	1G	527	G
1	1G	528	C
1	1G	529	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	534	U
1	1G	536	C
1	1G	544	G
1	1G	545	C
1	1G	547	A
1	1G	559	A
1	1G	560	U
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	566	G
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	596	C
1	1G	607	A
1	1G	614	A

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Mol	Chain	Res	Type
1	1G	618	C
1	1G	620	C
1	1G	630	G
1	1G	632	A
1	1G	633	G
1	1G	642	A
1	1G	651	C
1	1G	652	U
1	1G	653	A
1	1G	660	G
1	1G	665	A
1	1G	670	G
1	1G	687	A
1	1G	688	G
1	1G	702	A
1	1G	704	A
1	1G	710	G
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	742	G
1	1G	748	C
1	1G	764	C
1	1G	777	A
1	1G	778	G
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	805	C
1	1G	813	U
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	859	A
1	1G	871	U
1	1G	885	G
1	1G	889	A
1	1G	891	U

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Mol	Chain	Res	Type
1	1G	902	G
1	1G	914	A
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	940	C
1	1G	958	A
1	1G	960	U
1	1G	961	U
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	984	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	994	A
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1014	A
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1027	C
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1031	G
1	1G	1032(A)	G

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Mol	Chain	Res	Type
1	1G	1033	G
1	1G	1036	G
1	1G	1038	C
1	1G	1040	U
1	1G	1046	A
1	1G	1047	G
1	1G	1050	G
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1064	G
1	1G	1066	C
1	1G	1081	G
1	1G	1082	G
1	1G	1085	U
1	1G	1086	U
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1101	A
1	1G	1113	C
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1130	A
1	1G	1131	G
1	1G	1133	G
1	1G	1136	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1141	C
1	1G	1145	C
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1155	G
1	1G	1157	A
1	1G	1158	C

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Mol	Chain	Res	Type
1	1G	1159	U
1	1G	1160	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1185	G
1	1G	1187	G
1	1G	1188	A
1	1G	1189	C
1	1G	1190	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1225	A
1	1G	1227	A
1	1G	1236	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1267	C
1	1G	1269	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1289	A
1	1G	1291	G
1	1G	1295	G
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1300	G

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Mol	Chain	Res	Type
1	1G	1301	U
1	1G	1303	C
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1337	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1359	C
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1365	G
1	1G	1370	G
1	1G	1379	G
1	1G	1382	C
1	1G	1396	A
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1401	G
1	1G	1404	C
1	1G	1405	G
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1484	C

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Mol	Chain	Res	Type
1	1G	1492	A
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1510	U
1	1G	1517	G
1	1G	1520	G
1	1G	1529	G
1	1G	1530	G
22	1L	8	U
22	1L	9	A
22	1L	10	G
22	1L	11	C
22	1L	13	C
22	1L	16	U
22	1L	17	C
22	1L	18	G
22	1L	19	G
22	1L	21	A
22	1L	22	G
22	1L	25	C
22	1L	26	A
22	1L	27	G
22	1L	36	A
22	1L	46	G
22	1L	47	U
22	1L	48	C
22	1L	51	U
22	1L	56	C
22	1L	58	A
22	1L	59	U
22	1L	61	C
22	1L	64	A
22	1L	68	C
22	1L	69	G
22	1L	70	G
22	1L	72	C
22	1L	73	A
22	1L	74	C
22	1L	75	C

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Mol	Chain	Res	Type
22	1L	76	A
23	2L	2	G
23	2L	7	G
23	2L	8	4SU
23	2L	9	G
23	2L	16	C
23	2L	17	C
23	2L	19	G
23	2L	21	U
23	2L	22	A
23	2L	23	G
23	2L	27	G
23	2L	32	G
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	61	U
23	2L	68	C
23	2L	70	C
23	2L	77	A
24	3L	5	G
24	3L	6	G
24	3L	7	A
24	3L	9	A
24	3L	13	C
24	3L	16	U
24	3L	17	C
24	3L	18	G
24	3L	19	G
24	3L	20	U
24	3L	21	A
24	3L	22	G
24	3L	23	A
24	3L	24	G
24	3L	26	A
24	3L	27	G
24	3L	30	G
24	3L	31	A
24	3L	34	G
24	3L	36	A
24	3L	37	A
24	3L	38	A

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Mol	Chain	Res	Type
24	3L	39	U
24	3L	40	C
24	3L	41	C
24	3L	44	G
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	49	C
24	3L	53	G
24	3L	54	U
24	3L	58	A
24	3L	59	U
24	3L	61	C
24	3L	65	G
24	3L	66	U
24	3L	68	C
24	3L	72	C
24	3L	73	A
24	3L	76	A
25	4L	14	A
25	4L	15	A
26	14	4	C
26	14	5	A
26	14	6	A
26	14	9	U
26	14	14	A
26	14	15	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	41	C
26	14	46	C
26	14	49	A
26	14	50	U
26	14	54	G
26	14	55	G
26	14	58	G
26	14	70	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G

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Mol	Chain	Res	Type
26	14	76	C
26	14	78	A
26	14	82	G
26	14	83	G
26	14	84	A
26	14	91	A
26	14	93	C
26	14	99	U
26	14	102	G
26	14	112	U
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	129	C
26	14	138	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	176	G
26	14	181	A
26	14	183	C
26	14	196	A
26	14	199	A
26	14	205	G
26	14	214	G
26	14	216	A
26	14	218	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	240	G
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	265	A

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Mol	Chain	Res	Type
26	14	266	G
26	14	270(G)	C
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
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	311	A
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	335	C
26	14	336	C
26	14	346	A
26	14	352	G
26	14	363	G
26	14	363(A)	A
26	14	363(E)	U
26	14	386	G
26	14	391	G
26	14	396	G
26	14	399	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	428	A
26	14	443	A

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Mol	Chain	Res	Type
26	14	444	C
26	14	447	A
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A
26	14	459	U
26	14	460	A
26	14	470	A
26	14	471	A
26	14	479	A
26	14	481	G
26	14	498	G
26	14	501	A
26	14	504	U
26	14	505	A
26	14	509	C
26	14	510	C
26	14	513	A
26	14	528	A
26	14	529	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	573	G
26	14	575	A
26	14	587	C
26	14	599	G
26	14	602	G
26	14	603	A
26	14	607	U
26	14	609(A)	G
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	618	G

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Mol	Chain	Res	Type
26	14	618(A)	C
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	637	A
26	14	645	C
26	14	646	A
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(E)	C
26	14	654(G)	C
26	14	654(H)	G
26	14	654(I)	C
26	14	654(K)	C
26	14	654(L)	G
26	14	654(N)	G
26	14	654(T)	A
26	14	654(V)	A
26	14	667	U
26	14	669	G
26	14	672	C
26	14	676	A
26	14	686	G
26	14	689	A
26	14	699	A
26	14	715	G
26	14	717	G
26	14	720	C
26	14	722	A
26	14	730	C
26	14	748	G
26	14	750	A
26	14	752	A
26	14	753	C
26	14	757	U
26	14	758	C
26	14	762	U
26	14	765	G
26	14	769	G
26	14	771	G

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Mol	Chain	Res	Type
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	792	G
26	14	797	C
26	14	805	G
26	14	812	C
26	14	819	A
26	14	820	A
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	836	G
26	14	845	G
26	14	846	C
26	14	847	U
26	14	858	U
26	14	859	G
26	14	863	A
26	14	865	C
26	14	866	A
26	14	869	G
26	14	880	G
26	14	881	G
26	14	882	G
26	14	885	C
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	890	A
26	14	894	C
26	14	896	A
26	14	897	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	902	C

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Mol	Chain	Res	Type
26	14	903	C
26	14	904	C
26	14	905	U
26	14	910	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	918	A
26	14	919	G
26	14	932	G
26	14	933	A
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	952	G
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	968	G
26	14	972	G
26	14	974	G
26	14	980	A
26	14	983	A
26	14	986	C
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1002	G
26	14	1005	C
26	14	1012	U
26	14	1013	C
26	14	1017	G
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1034	G

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Mol	Chain	Res	Type
26	14	1035	U
26	14	1037	G
26	14	1038	C
26	14	1039	G
26	14	1044	G
26	14	1045	A
26	14	1046	A
26	14	1047	G
26	14	1048	A
26	14	1050	A
26	14	1051	G
26	14	1054	A
26	14	1056	G
26	14	1057	A
26	14	1058	U
26	14	1059	G
26	14	1060	U
26	14	1062	G
26	14	1065	U
26	14	1067	A
26	14	1068	G
26	14	1070	A
26	14	1073	A
26	14	1077	A
26	14	1079	C
26	14	1082	U
26	14	1083	U
26	14	1085	A
26	14	1086	A
26	14	1087	G
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1094	U
26	14	1095	A
26	14	1096	A
26	14	1097	U
26	14	1098	A
26	14	1105	U
26	14	1110	G
26	14	1111	A

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Mol	Chain	Res	Type
26	14	1112	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1138	G
26	14	1139	G
26	14	1141	U
26	14	1142	U
26	14	1142(A)	A
26	14	1143	A
26	14	1144	G
26	14	1149	G
26	14	1155	A
26	14	1157	G
26	14	1160	G
26	14	1167	U
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1183	G
26	14	1204	A
26	14	1205	U
26	14	1206	G
26	14	1210	A
26	14	1211	U
26	14	1212	G
26	14	1220	A
26	14	1229(A)	G
26	14	1237	A
26	14	1244	G
26	14	1247	A
26	14	1248	G
26	14	1249	U
26	14	1250	G
26	14	1253	A
26	14	1256	G
26	14	1267	U

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Mol	Chain	Res	Type
26	14	1271	G
26	14	1272	A
26	14	1275	A
26	14	1287	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1306	C
26	14	1313	U
26	14	1314	C
26	14	1316	U
26	14	1318	C
26	14	1319	G
26	14	1321	A
26	14	1329	U
26	14	1332	G
26	14	1338	G
26	14	1342	A
26	14	1345	C
26	14	1347	G
26	14	1349	A
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1378	A
26	14	1379	A
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1403	C
26	14	1406	U
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1427	A
26	14	1428	C

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Mol	Chain	Res	Type
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1455	G
26	14	1459	G
26	14	1460	A
26	14	1461	G
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1483	G
26	14	1490	A
26	14	1493	C
26	14	1494	A
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1522	G
26	14	1524	G
26	14	1528	A
26	14	1533	C
26	14	1535	U
26	14	1537	C
26	14	1538	G
26	14	1543	A
26	14	1554	A
26	14	1558	A
26	14	1559	G
26	14	1560	G
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	1598	C
26	14	1608	A

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Mol	Chain	Res	Type
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1616	A
26	14	1617	C
26	14	1618	A
26	14	1622	G
26	14	1625	C
26	14	1631	A
26	14	1632	A
26	14	1636	C
26	14	1640	C
26	14	1641	A
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1661	G
26	14	1669	A
26	14	1670	C
26	14	1671	U
26	14	1674	G
26	14	1678	G
26	14	1694	C
26	14	1697	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1742	C
26	14	1750	G
26	14	1756	G
26	14	1761	C
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A

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Mol	Chain	Res	Type
26	14	1781	C
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1812	A
26	14	1816	G
26	14	1819	A
26	14	1820	U
26	14	1829	A
26	14	1830	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1878	G
26	14	1884	A
26	14	1888	G
26	14	1889	A
26	14	1895	C
26	14	1906	G
26	14	1909	C
26	14	1917	U
26	14	1919	A
26	14	1929	G
26	14	1930	G
26	14	1933	G
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1968	G
26	14	1969	A
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1985	G

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Mol	Chain	Res	Type
26	14	1993	U
26	14	1996	C
26	14	2018	G
26	14	2019	A
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2048	G
26	14	2049	G
26	14	2053	G
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	2082	A
26	14	2096	U
26	14	2100	G
26	14	2105	C
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2114	A
26	14	2117	A
26	14	2118	U
26	14	2119	A
26	14	2122	U
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2136	C
26	14	2137	C
26	14	2140	C

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Mol	Chain	Res	Type
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2160	G
26	14	2171	A
26	14	2173	A
26	14	2174	C
26	14	2177	C
26	14	2183	C
26	14	2188	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2238	G
26	14	2239	G
26	14	2240	C
26	14	2251	G
26	14	2252	G
26	14	2261	C
26	14	2267	A
26	14	2268	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

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Mol	Chain	Res	Type
26	14	2289	G
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2327	A
26	14	2333	A
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2342	C
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2352	A
26	14	2353	G
26	14	2354	G
26	14	2355	C
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2394	C
26	14	2396	G
26	14	2401	U
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2407	G
26	14	2410	G
26	14	2414	G
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2429	G

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Mol	Chain	Res	Type
26	14	2430	A
26	14	2432	A
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2445	G
26	14	2447	G
26	14	2448	A
26	14	2449	U
26	14	2465	C
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2474	C
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2480	C
26	14	2482	G
26	14	2483	C
26	14	2484	G
26	14	2487	G
26	14	2489	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2507	C
26	14	2514	U
26	14	2518	A
26	14	2519	U
26	14	2527	C
26	14	2529	G
26	14	2532	G
26	14	2542	A
26	14	2543	G
26	14	2552	U
26	14	2554	U

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Mol	Chain	Res	Type
26	14	2555	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2577	A
26	14	2585	U
26	14	2587	A
26	14	2601	C
26	14	2602	A
26	14	2603	G
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2617	C
26	14	2630	G
26	14	2636	U
26	14	2646	C
26	14	2647	U
26	14	2654	A
26	14	2655	G
26	14	2663	G
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2691	C
26	14	2700	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	2718	G
26	14	2719	G
26	14	2726	U

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Mol	Chain	Res	Type
26	14	2729	G
26	14	2733	A
26	14	2736	G
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2754	U
26	14	2758	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2802	G
26	14	2808	U
26	14	2811	G
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2849	U
26	14	2860	A
26	14	2861	G
26	14	2872	G
26	14	2873	A
26	14	2880	C
26	14	2886	G
26	14	2889	C
26	14	2894	G
26	14	2896	C

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Mol	Chain	Res	Type
27	1J	0	A
27	1J	2	C
27	1J	5	C
27	1J	7	G
27	1J	8	U
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	19	G
27	1J	22	U
27	1J	24	G
27	1J	29	A
27	1J	30	C
27	1J	32	C
27	1J	41	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	47	C
27	1J	52	A
27	1J	53	A
27	1J	58	A
27	1J	73	A
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	100	G
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	113	C
27	1J	114	G

All (204) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	50	A
1	13	115	G

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Mol	Chain	Res	Type
1	13	244	U
1	13	251	G
1	13	266	G
1	13	412	A
1	13	422	C
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	703	G
1	13	748	C
1	13	793	U
1	13	812	C
1	13	991	U
1	13	992	U
1	13	1027	C
1	13	1065	U
1	13	1126	U
1	13	1285	A
1	13	1302	U
1	13	1336	C
1	13	1452	C
1	13	1453	G
1	13	1498	U
1	13	1504	G
22	1K	10	G
23	2K	21	U
23	2K	47	7MG
23	2K	48	U
24	3K	2	C
24	3K	8	U
24	3K	18	G
24	3K	33	U
24	3K	36	A
24	3K	58	A
24	3K	60	U
24	3K	71	G
25	4K	25	A
26	1H	125	G
26	1H	196	A
26	1H	199	A

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Mol	Chain	Res	Type
26	1H	222	A
26	1H	229	A
26	1H	242	G
26	1H	271(B)	G
26	1H	404	C
26	1H	481	G
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	668	G
26	1H	685	A
26	1H	752	A
26	1H	764	A
26	1H	776	G
26	1H	800	A
26	1H	880	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1084	A
26	1H	1085	A
26	1H	1110	G
26	1H	1178	C
26	1H	1241	A
26	1H	1252	G
26	1H	1301	A
26	1H	1312	U
26	1H	1378	A
26	1H	1396	U
26	1H	1420	U
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1694	C
26	1H	1699	G
26	1H	1799	G
26	1H	1800	C
26	1H	1900	A
26	1H	1980	G
26	1H	2060	A

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Mol	Chain	Res	Type
26	1H	2062	A
26	1H	2111	C
26	1H	2135	A
26	1H	2157	G
26	1H	2167	U
26	1H	2225	A
26	1H	2286	A
26	1H	2307	G
26	1H	2426	A
26	1H	2428	G
26	1H	2475	C
26	1H	2481	G
26	1H	2566	A
26	1H	2611	U
26	1H	2689	U
26	1H	2756	U
27	16	108	C
1	1G	115	G
1	1G	173	U
1	1G	197	A
1	1G	201	C
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	328	C
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	465	A
1	1G	485	G
1	1G	509	A
1	1G	528	C
1	1G	560	U
1	1G	632	A
1	1G	687	A
1	1G	723	U
1	1G	793	U
1	1G	812	C
1	1G	913	A
1	1G	992	U
1	1G	1054	C
1	1G	1064	G

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Mol	Chain	Res	Type
1	1G	1128	C
1	1G	1157	A
1	1G	1212	U
1	1G	1285	A
1	1G	1297	C
1	1G	1298	C
1	1G	1300	G
1	1G	1346	A
1	1G	1396	A
1	1G	1453	G
1	1G	1498	U
22	1L	10	G
22	1L	18	G
22	1L	73	A
23	2L	20	G
23	2L	21	U
23	2L	46	G
23	2L	48	U
24	3L	8	U
24	3L	58	A
24	3L	71	G
25	4L	13	A
26	14	34	C
26	14	49	A
26	14	123	G
26	14	128	C
26	14	196	A
26	14	197	A
26	14	278	A
26	14	310	A
26	14	385	C
26	14	503	A
26	14	528	A
26	14	685	A
26	14	686	G
26	14	752	A
26	14	764	A
26	14	783	A
26	14	886	C
26	14	960	A
26	14	974	G
26	14	990	A

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Mol	Chain	Res	Type
26	14	1085	A
26	14	1141	U
26	14	1378	A
26	14	1420	U
26	14	1460	A
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1647	G
26	14	1819	A
26	14	1984	G
26	14	2191	G
26	14	2210	G
26	14	2211	G
26	14	2225	A
26	14	2238	G
26	14	2275	C
26	14	2335	A
26	14	2406	U
26	14	2425	A
26	14	2439	A
26	14	2447	G
26	14	2506	U
26	14	2602	A
26	14	2629	A
26	14	2689	U
26	14	2726	U
26	14	2776	A
26	14	2778	A
26	14	2859	G
26	14	2893	G
27	1J	52	A
27	1J	88	C

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

16 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	5MU	2K	55	56,23	19,22,23	3.94	5 (26%)	28,32,35	3.55	7 (25%)
23	7MG	2L	47	23	22,26,27	3.16	5 (22%)	29,39,42	2.91	11 (37%)
22	PSU	1L	32	22	18,21,22	2.52	5 (27%)	22,30,33	1.47	3 (13%)
23	PSU	2K	56	23	18,21,22	2.35	4 (22%)	22,30,33	1.89	5 (22%)
23	OMC	2K	33	23	19,22,23	1.73	3 (15%)	26,31,34	1.08	3 (11%)
22	MIA	1L	37	22	24,31,32	2.45	4 (16%)	26,44,47	3.41	10 (38%)
23	5MU	2L	55	23	19,22,23	3.90	5 (26%)	28,32,35	3.32	10 (35%)
23	4SU	2L	8	23	18,21,22	1.73	3 (16%)	26,30,33	2.51	5 (19%)
23	PSU	2L	56	23	18,21,22	2.60	5 (27%)	22,30,33	1.68	4 (18%)
22	MIA	1K	37	22	24,31,32	2.35	5 (20%)	26,44,47	2.31	6 (23%)
22	PSU	1K	39	22	18,21,22	2.23	5 (27%)	22,30,33	1.66	4 (18%)
23	OMC	2L	33	23	19,22,23	1.79	3 (15%)	26,31,34	1.17	3 (11%)
22	PSU	1K	32	22	18,21,22	2.33	5 (27%)	22,30,33	1.52	4 (18%)
23	4SU	2K	8	23	18,21,22	1.87	3 (16%)	26,30,33	2.90	6 (23%)
23	7MG	2K	47	23	22,26,27	3.22	6 (27%)	29,39,42	2.72	12 (41%)
22	PSU	1L	39	22	18,21,22	2.56	5 (27%)	22,30,33	1.32	3 (13%)

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	5MU	2K	55	56,23	-	0/7/25/26	0/2/2/2
23	7MG	2L	47	23	-	3/7/37/38	0/3/3/3
22	PSU	1L	32	22	-	0/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	1/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
22	MIA	1L	37	22	-	7/11/33/34	0/3/3/3
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
22	MIA	1K	37	22	-	5/11/33/34	0/3/3/3
22	PSU	1K	39	22	-	2/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	PSU	1K	32	22	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	7MG	2K	47	23	-	1/7/37/38	0/3/3/3
22	PSU	1L	39	22	-	0/7/25/26	0/2/2/2

All (71) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	55	5MU	C2-N1	12.95	1.59	1.38
23	2L	55	5MU	C2-N1	12.62	1.58	1.38
23	2K	47	7MG	C4-N9	-9.20	1.27	1.37
23	2L	47	7MG	C5-N7	9.15	1.46	1.35
22	1K	37	MIA	C13-C14	8.69	1.57	1.32
22	1L	37	MIA	C13-C14	8.58	1.57	1.32
23	2K	47	7MG	C5-N7	8.03	1.44	1.35
23	2L	47	7MG	C4-N9	-7.59	1.28	1.37
22	1L	39	PSU	C6-N1	6.83	1.47	1.36
22	1L	32	PSU	C6-N1	6.56	1.47	1.36
23	2L	56	PSU	C6-N1	6.41	1.46	1.36
23	2L	55	5MU	C4-N3	-6.22	1.27	1.38
22	1K	39	PSU	C6-N1	6.11	1.46	1.36
23	2L	47	7MG	C4-N3	5.97	1.48	1.34
23	2L	56	PSU	C2-N1	5.92	1.44	1.36
23	2K	56	PSU	C6-N1	5.91	1.46	1.36
22	1K	32	PSU	C6-N1	5.90	1.46	1.36
23	2K	55	5MU	C2-N3	5.84	1.48	1.38
23	2K	47	7MG	C4-N3	5.76	1.48	1.34
23	2K	55	5MU	C4-N3	-5.76	1.28	1.38
23	2L	8	4SU	C5-C4	5.72	1.49	1.42
23	2L	55	5MU	C2-N3	5.70	1.48	1.38
22	1L	37	MIA	C6-N6	5.66	1.44	1.34
23	2K	8	4SU	C5-C4	5.56	1.49	1.42
22	1K	37	MIA	C6-N6	5.53	1.44	1.34
22	1L	32	PSU	C2-N1	5.50	1.44	1.36
22	1L	39	PSU	C2-N1	5.45	1.44	1.36
23	2K	55	5MU	C4-C5	5.42	1.53	1.44
23	2K	55	5MU	C6-N1	5.35	1.47	1.38
23	2L	55	5MU	C4-C5	5.26	1.53	1.44
23	2L	55	5MU	C6-N1	5.22	1.47	1.38
23	2K	56	PSU	C2-N1	5.14	1.43	1.36
22	1K	32	PSU	C2-N1	4.91	1.43	1.36
23	2L	33	OMC	C2-N3	4.67	1.45	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	33	OMC	C2-N3	4.64	1.45	1.36
23	2L	33	OMC	C4-N4	4.60	1.44	1.33
23	2K	47	7MG	C5-C4	-4.49	1.23	1.38
23	2K	56	PSU	C1'-C5	-4.46	1.40	1.50
22	1L	37	MIA	C2-S10	4.42	1.79	1.75
23	2K	33	OMC	C4-N4	4.40	1.44	1.33
23	2L	47	7MG	C5-C4	-4.35	1.23	1.38
22	1K	32	PSU	C1'-C5	-4.28	1.40	1.50
22	1K	39	PSU	C2-N1	4.23	1.42	1.36
22	1L	39	PSU	C1'-C5	-4.04	1.41	1.50
23	2L	56	PSU	C1'-C5	-3.96	1.41	1.50
23	2K	8	4SU	C2-N1	3.89	1.44	1.38
22	1K	39	PSU	C1'-C5	-3.85	1.41	1.50
23	2L	33	OMC	C5-C4	3.45	1.50	1.42
22	1L	32	PSU	C1'-C5	-3.44	1.42	1.50
23	2K	33	OMC	C5-C4	3.33	1.50	1.42
23	2L	56	PSU	C2-N3	3.30	1.43	1.37
22	1L	32	PSU	C2-N3	3.28	1.43	1.37
23	2L	47	7MG	C2-N2	3.24	1.41	1.34
23	2L	8	4SU	C2-N1	3.18	1.43	1.38
22	1L	32	PSU	C4-C5	3.11	1.53	1.44
22	1L	39	PSU	C2-N3	3.11	1.42	1.37
23	2L	56	PSU	C4-C5	3.04	1.52	1.44
23	2K	47	7MG	C2-N2	2.98	1.41	1.34
22	1L	37	MIA	C6-N1	2.95	1.36	1.32
22	1K	32	PSU	C2-N3	2.95	1.42	1.37
23	2K	8	4SU	C6-N1	2.83	1.44	1.38
23	2K	56	PSU	C2-N3	2.62	1.42	1.37
23	2L	8	4SU	C6-N1	2.59	1.44	1.38
22	1K	32	PSU	C4-C5	2.56	1.51	1.44
23	2K	47	7MG	C8-N9	2.50	1.47	1.46
22	1K	39	PSU	C2-N3	2.49	1.41	1.37
22	1L	39	PSU	C4-C5	2.47	1.51	1.44
22	1K	37	MIA	C2-S10	2.33	1.77	1.75
22	1K	39	PSU	C4-C5	2.19	1.50	1.44
22	1K	37	MIA	C15-C14	2.10	1.56	1.50
22	1K	37	MIA	C4-N3	-2.05	1.32	1.35

All (96) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	37	MIA	C11-S10-C2	11.25	110.67	102.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C4-N3	10.82	124.55	115.31
23	2L	55	5MU	C5-C4-N3	10.67	124.42	115.31
23	2K	8	4SU	C4-N3-C2	-9.53	118.09	127.34
22	1L	37	MIA	C12-C13-C14	-9.29	109.05	127.14
23	2L	8	4SU	C4-N3-C2	-8.73	118.86	127.34
23	2K	8	4SU	C5-C4-N3	8.30	122.39	114.69
22	1K	37	MIA	C12-C13-C14	-8.00	111.57	127.14
23	2K	55	5MU	C5-C6-N1	-7.55	115.58	123.34
23	2L	47	7MG	C4-C5-N7	6.91	115.13	105.53
23	2K	47	7MG	C4-C5-N7	6.86	115.06	105.53
23	2K	55	5MU	C6-C5-C4	6.73	123.66	118.03
23	2K	55	5MU	C4-N3-C2	-6.72	118.65	127.35
23	2L	8	4SU	C5-C4-N3	6.70	120.90	114.69
23	2L	55	5MU	C4-N3-C2	-6.53	118.89	127.35
23	2L	55	5MU	C5-C6-N1	-6.53	116.62	123.34
23	2K	47	7MG	C5-C4-N9	6.25	114.47	106.35
23	2K	55	5MU	C5M-C5-C6	-6.15	114.63	122.85
23	2L	47	7MG	CM7-N7-C5	6.15	142.26	126.40
23	2L	55	5MU	C6-C5-C4	5.93	122.99	118.03
23	2L	47	7MG	C5-C4-N9	5.44	113.41	106.35
23	2K	47	7MG	CM7-N7-C5	5.36	140.22	126.40
23	2L	55	5MU	C5M-C5-C6	-5.29	115.78	122.85
23	2L	47	7MG	C5-C6-N1	5.25	120.24	110.99
23	2K	8	4SU	C5-C4-S4	-4.96	118.07	124.47
23	2K	55	5MU	O4-C4-C5	-4.96	119.15	124.90
23	2K	56	PSU	C4-N3-C2	-4.76	119.48	126.34
23	2L	47	7MG	C2-N3-C4	4.66	120.61	112.30
23	2K	56	PSU	N1-C2-N3	4.46	120.19	115.13
23	2L	8	4SU	N3-C2-N1	4.46	120.81	114.89
22	1L	37	MIA	C16-C14-C13	-4.36	110.05	122.65
23	2L	47	7MG	C6-C5-N7	-4.31	125.14	131.91
23	2L	56	PSU	N1-C2-N3	4.16	119.84	115.13
23	2K	47	7MG	C6-C5-N7	-4.14	125.40	131.91
22	1K	37	MIA	C16-C14-C13	-4.14	110.68	122.65
23	2L	47	7MG	C5-C4-N3	-4.12	120.27	128.13
23	2K	47	7MG	C5-C6-N1	4.08	118.19	110.99
23	2L	55	5MU	O4-C4-C5	-4.06	120.20	124.90
23	2L	56	PSU	C4-N3-C2	-4.05	120.50	126.34
22	1K	37	MIA	C15-C14-C13	-4.00	111.09	122.65
22	1L	37	MIA	C15-C14-C13	-3.98	111.15	122.65
22	1K	39	PSU	N1-C2-N3	3.88	119.53	115.13
22	1L	37	MIA	C2-N3-C4	3.85	120.63	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	32	PSU	C4-N3-C2	-3.73	120.96	126.34
22	1K	32	PSU	C4-N3-C2	-3.67	121.05	126.34
23	2K	8	4SU	N3-C2-N1	3.64	119.72	114.89
22	1K	37	MIA	C5-C6-N1	-3.59	117.83	120.81
22	1L	32	PSU	N1-C2-N3	3.57	119.17	115.13
22	1K	32	PSU	N1-C2-N3	3.56	119.17	115.13
22	1K	39	PSU	C4-N3-C2	-3.49	121.31	126.34
22	1K	39	PSU	C6-N1-C2	-3.47	119.14	122.68
23	2K	56	PSU	C6-N1-C2	-3.45	119.15	122.68
22	1L	39	PSU	C4-N3-C2	-3.43	121.39	126.34
23	2L	47	7MG	O6-C6-C5	-3.38	119.25	127.54
23	2K	47	7MG	O6-C6-C5	-3.38	119.26	127.54
23	2K	47	7MG	C2-N3-C4	3.24	118.07	112.30
23	2K	47	7MG	N9-C8-N7	-3.20	98.80	103.38
23	2L	47	7MG	N9-C8-N7	-2.98	99.12	103.38
22	1L	37	MIA	C5-C6-N1	-2.96	118.35	120.81
23	2L	47	7MG	C2-N1-C6	-2.88	119.85	125.10
22	1K	37	MIA	C4-C5-N7	-2.83	106.45	109.40
22	1L	37	MIA	C4-C5-N7	-2.72	106.57	109.40
23	2L	33	OMC	C1'-N1-C2	2.70	124.46	118.42
23	2K	55	5MU	C5M-C5-C4	2.67	121.71	118.77
22	1K	39	PSU	O2-C2-N1	-2.67	119.85	122.79
23	2L	33	OMC	N4-C4-N3	2.66	122.63	117.97
22	1K	32	PSU	C6-N1-C2	-2.64	119.99	122.68
23	2K	47	7MG	C5-C4-N3	-2.63	123.11	128.13
22	1K	37	MIA	C2-N3-C4	2.62	118.94	115.32
22	1L	39	PSU	N1-C2-N3	2.62	118.10	115.13
22	1L	37	MIA	N3-C2-N1	-2.62	122.17	126.98
23	2L	8	4SU	S4-C4-N3	-2.58	117.67	120.21
22	1K	32	PSU	O2-C2-N1	-2.55	119.99	122.79
23	2K	8	4SU	C1'-N1-C2	2.54	122.17	117.57
23	2L	55	5MU	O4-C4-N3	-2.47	115.38	120.12
23	2L	33	OMC	C1'-N1-C6	-2.44	115.53	120.84
23	2L	8	4SU	C5-C4-S4	-2.36	121.43	124.47
23	2L	55	5MU	N3-C2-N1	2.33	117.98	114.89
23	2K	47	7MG	N2-C2-N1	2.30	121.61	116.71
23	2K	47	7MG	C2-N1-C6	-2.29	120.92	125.10
23	2K	33	OMC	N4-C4-N3	2.28	121.96	117.97
23	2L	55	5MU	C5M-C5-C4	2.24	121.23	118.77
22	1L	32	PSU	C6-N1-C2	-2.22	120.41	122.68
23	2L	56	PSU	C6-C5-C4	2.21	119.75	118.20
23	2L	56	PSU	C6-N1-C2	-2.20	120.43	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	55	5MU	C6-N1-C2	-2.19	119.08	121.30
23	2K	33	OMC	C1'-N1-C6	-2.18	116.10	120.84
23	2K	56	PSU	C5-C4-N3	2.17	121.49	116.58
23	2L	47	7MG	N1-C2-N3	-2.16	119.30	123.32
22	1L	37	MIA	C2-N1-C6	2.15	121.04	117.19
22	1L	37	MIA	C16-C14-C15	-2.12	109.91	114.60
23	2K	8	4SU	C1'-N1-C6	-2.09	116.29	120.84
23	2K	56	PSU	O4-C4-C5	-2.07	118.64	124.05
23	2K	47	7MG	N9-C4-N3	-2.04	122.42	125.47
22	1L	39	PSU	C6-N1-C2	-2.02	120.62	122.68
23	2K	33	OMC	C1'-N1-C2	2.02	122.93	118.42

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	37	MIA	C5-C6-N6-C12
22	1K	37	MIA	N1-C2-S10-C11
22	1K	37	MIA	N3-C2-S10-C11
22	1K	37	MIA	C12-C13-C14-C16
22	1L	37	MIA	C5-C6-N6-C12
22	1L	37	MIA	N1-C6-N6-C12
22	1L	37	MIA	N1-C2-S10-C11
22	1L	37	MIA	N3-C2-S10-C11
22	1L	37	MIA	N6-C12-C13-C14
22	1L	37	MIA	C12-C13-C14-C15
22	1L	37	MIA	C12-C13-C14-C16
23	2L	47	7MG	C3'-C4'-C5'-O5'
23	2L	47	7MG	O4'-C4'-C5'-O5'
22	1K	37	MIA	N1-C6-N6-C12
23	2L	47	7MG	C4'-C5'-O5'-P
22	1K	39	PSU	O4'-C1'-C5-C4
23	2K	56	PSU	O4'-C1'-C5-C4
23	2K	47	7MG	O4'-C4'-C5'-O5'
22	1K	39	PSU	O4'-C1'-C5-C6
23	2L	33	OMC	C2'-C1'-N1-C2

There are no ring outliers.

11 monomers are involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2K	55	5MU	2	0
23	2L	47	7MG	4	0
23	2K	56	PSU	1	0
23	2L	55	5MU	2	0
23	2L	8	4SU	1	0
23	2L	56	PSU	1	0
22	1K	37	MIA	2	0
23	2L	33	OMC	3	0
23	2K	8	4SU	2	0
23	2K	47	7MG	4	0
22	1L	39	PSU	1	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1245 ligands modelled in this entry, 1245 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (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
1	13	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	13	1530:G	O3'	1531:A	P	3.03

6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	13	1498/1522 (98%)	-0.66	0	100	100	61, 110, 194, 290	0
1	1G	1497/1522 (98%)	-0.67	2 (0%)	95	95	73, 129, 204, 306	0
2	12	237/256 (92%)	0.59	28 (11%)	4	2	151, 185, 205, 218	0
2	1E	237/256 (92%)	0.42	25 (10%)	6	3	119, 155, 183, 193	0
3	22	206/239 (86%)	1.05	39 (18%)	1	0	149, 166, 190, 202	0
3	2E	205/239 (85%)	0.48	17 (8%)	11	6	98, 122, 159, 171	0
4	32	208/209 (99%)	0.60	16 (7%)	13	6	107, 128, 153, 160	0
4	3E	208/209 (99%)	0.50	18 (8%)	10	5	92, 122, 146, 155	0
5	42	151/162 (93%)	0.67	14 (9%)	8	5	118, 139, 159, 195	0
5	4E	151/162 (93%)	0.54	14 (9%)	8	5	88, 109, 135, 174	0
6	52	101/101 (100%)	0.53	10 (9%)	7	4	92, 115, 133, 160	0
6	5E	101/101 (100%)	0.40	3 (2%)	50	33	87, 110, 132, 154	0
7	62	155/156 (99%)	0.44	19 (12%)	4	2	124, 143, 178, 199	0
7	6E	155/156 (99%)	0.08	14 (9%)	9	5	110, 129, 160, 179	0
8	72	138/138 (100%)	0.30	7 (5%)	28	15	115, 145, 160, 163	0
8	7E	138/138 (100%)	0.47	10 (7%)	15	8	93, 118, 128, 142	0
9	82	127/128 (99%)	0.55	6 (4%)	31	17	123, 171, 189, 197	0
9	8E	127/128 (99%)	-0.07	0	100	100	94, 149, 170, 180	0
10	1A	99/105 (94%)	0.60	10 (10%)	7	3	139, 174, 192, 197	0
10	1I	99/105 (94%)	0.69	10 (10%)	7	3	90, 148, 181, 187	0
11	2A	119/129 (92%)	1.74	45 (37%)	0	0	94, 125, 152, 183	0
11	2I	119/129 (92%)	1.36	26 (21%)	0	0	77, 113, 153, 182	0
12	3A	125/132 (94%)	1.17	30 (24%)	0	0	91, 114, 144, 175	0
12	3I	125/132 (94%)	0.41	6 (4%)	30	17	74, 84, 117, 179	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	117/126 (92%)	0.41	12 (10%) 6 3	127, 171, 192, 200	0
13	4I	118/126 (93%)	0.05	3 (2%) 57 42	86, 127, 148, 156	0
14	5A	58/61 (95%)	0.90	12 (20%) 1 0	152, 166, 179, 184	0
14	5I	60/61 (98%)	-0.21	2 (3%) 46 29	92, 113, 128, 135	0
15	6A	88/89 (98%)	0.08	1 (1%) 80 70	96, 125, 143, 148	0
15	6I	88/89 (98%)	0.36	5 (5%) 23 12	82, 104, 122, 129	0
16	7A	84/88 (95%)	0.11	2 (2%) 59 43	100, 117, 142, 174	0
16	7I	84/88 (95%)	-0.41	0 100 100	110, 126, 158, 174	0
17	8A	100/105 (95%)	0.08	2 (2%) 65 50	105, 122, 138, 160	0
17	8I	100/105 (95%)	0.39	5 (5%) 28 15	97, 114, 125, 129	0
18	9A	72/88 (81%)	1.55	21 (29%) 0 0	106, 128, 167, 178	0
18	9I	72/88 (81%)	1.18	18 (25%) 0 0	90, 113, 143, 175	0
19	AA	78/93 (83%)	0.65	11 (14%) 2 1	160, 189, 203, 207	0
19	AI	81/93 (87%)	0.56	12 (14%) 2 1	103, 127, 156, 165	0
20	BA	99/106 (93%)	0.09	3 (3%) 50 33	97, 118, 150, 162	0
20	BI	99/106 (93%)	-0.45	0 100 100	115, 131, 165, 172	0
21	1B	25/27 (92%)	0.16	0 100 100	125, 153, 169, 189	0
21	1F	25/27 (92%)	-0.74	0 100 100	100, 112, 127, 154	0
22	1K	73/76 (96%)	2.25	30 (41%) 0 0	97, 221, 259, 264	0
22	1L	73/76 (96%)	3.30	38 (52%) 0 0	134, 254, 277, 285	0
23	2K	72/77 (93%)	-0.41	1 (1%) 75 63	73, 95, 128, 139	0
23	2L	72/77 (93%)	-0.26	1 (1%) 75 63	87, 121, 153, 165	0
24	3K	76/76 (100%)	-0.07	4 (5%) 26 13	77, 253, 279, 282	0
24	3L	76/76 (100%)	0.43	6 (7%) 12 6	89, 259, 278, 280	0
25	4K	14/30 (46%)	-0.25	0 100 100	76, 107, 151, 155	0
25	4L	6/30 (20%)	-0.25	0 100 100	100, 108, 158, 160	0
26	14	2909/2917 (99%)	-0.33	38 (1%) 77 66	53, 91, 249, 335	0
26	1H	2912/2917 (99%)	-0.34	30 (1%) 82 73	40, 77, 231, 309	0
27	16	122/122 (100%)	-0.71	1 (0%) 86 78	69, 98, 122, 202	0
27	1J	122/122 (100%)	-0.66	1 (0%) 86 78	89, 133, 162, 212	0
28	11	273/276 (98%)	0.13	1 (0%) 92 89	43, 66, 84, 98	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
28	19	273/276 (98%)	0.08	1 (0%)	92	89	54, 80, 97, 112	0
29	21	205/206 (99%)	0.57	24 (11%)	4	2	49, 94, 143, 161	0
29	29	205/206 (99%)	0.65	25 (12%)	4	2	64, 99, 146, 173	0
30	31	202/210 (96%)	-0.10	2 (0%)	82	73	47, 80, 119, 141	0
30	39	208/210 (99%)	0.66	25 (12%)	4	2	60, 109, 170, 198	0
31	41	181/182 (99%)	0.72	20 (11%)	5	3	83, 109, 145, 156	0
31	49	181/182 (99%)	1.91	76 (41%)	0	0	127, 154, 181, 199	0
32	51	174/180 (96%)	0.54	13 (7%)	14	7	85, 109, 129, 142	0
32	59	170/180 (94%)	1.31	46 (27%)	0	0	155, 205, 228, 248	0
33	61	146/148 (98%)	0.43	12 (8%)	11	6	80, 139, 157, 163	0
33	69	146/148 (98%)	0.81	25 (17%)	1	1	88, 135, 157, 168	0
34	15	138/140 (98%)	0.51	8 (5%)	23	12	85, 116, 149, 165	0
34	58	138/140 (98%)	0.18	6 (4%)	35	21	69, 95, 137, 156	0
35	25	122/122 (100%)	0.52	3 (2%)	57	42	73, 93, 108, 124	0
35	68	122/122 (100%)	0.33	2 (1%)	72	59	61, 80, 99, 112	0
36	35	150/150 (100%)	0.90	29 (19%)	1	0	62, 113, 145, 183	0
36	78	150/150 (100%)	0.28	10 (6%)	17	9	49, 85, 116, 166	0
37	45	141/141 (100%)	0.66	18 (12%)	3	2	81, 111, 145, 155	0
37	88	138/141 (97%)	0.11	3 (2%)	62	47	56, 83, 107, 138	0
38	55	117/118 (99%)	0.09	3 (2%)	56	40	64, 84, 99, 117	0
38	98	118/118 (100%)	0.28	2 (1%)	70	57	63, 87, 109, 120	0
39	65	111/112 (99%)	0.65	14 (12%)	3	2	98, 128, 148, 162	0
39	A8	111/112 (99%)	0.27	5 (4%)	33	19	75, 94, 123, 133	0
40	75	137/146 (93%)	0.13	4 (2%)	51	35	83, 101, 161, 195	0
40	B8	137/146 (93%)	-0.20	2 (1%)	73	61	76, 97, 154, 179	0
41	85	117/118 (99%)	0.45	7 (5%)	21	11	73, 104, 150, 174	0
41	C8	117/118 (99%)	0.04	2 (1%)	70	57	56, 82, 115, 134	0
42	95	101/101 (100%)	0.94	18 (17%)	1	1	71, 134, 155, 175	0
42	D8	101/101 (100%)	0.62	13 (12%)	3	2	61, 111, 141, 155	0
43	A5	113/113 (100%)	0.10	1 (0%)	84	75	66, 80, 117, 174	0
43	E8	113/113 (100%)	0.00	4 (3%)	44	27	58, 76, 112, 159	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B5	93/96 (96%)	0.28	5 (5%) 25 13	71, 89, 113, 121	0
44	F8	94/96 (97%)	0.23	5 (5%) 26 13	56, 73, 97, 117	0
45	C5	104/110 (94%)	1.18	20 (19%) 1 0	89, 122, 160, 166	0
45	G8	104/110 (94%)	0.66	5 (4%) 30 17	75, 98, 142, 149	0
46	D5	179/206 (86%)	2.07	78 (43%) 0 0	124, 161, 240, 246	0
46	H8	175/206 (84%)	0.47	15 (8%) 10 5	86, 128, 212, 218	0
47	E5	77/85 (90%)	0.75	6 (7%) 13 6	77, 96, 116, 162	0
47	I8	80/85 (94%)	0.05	2 (2%) 57 42	58, 77, 114, 117	0
48	F5	97/98 (98%)	0.97	13 (13%) 3 2	63, 89, 143, 161	0
48	J8	97/98 (98%)	0.55	10 (10%) 6 3	54, 77, 128, 161	0
49	G5	66/72 (91%)	0.50	3 (4%) 33 19	89, 112, 130, 148	0
49	K8	67/72 (93%)	-0.00	1 (1%) 73 61	65, 81, 99, 132	0
50	H5	59/60 (98%)	0.82	5 (8%) 10 5	80, 109, 155, 173	0
50	L8	57/60 (95%)	0.59	3 (5%) 26 13	64, 83, 112, 120	0
51	I5	63/71 (88%)	3.80	45 (71%) 0 0	167, 206, 219, 221	0
51	M8	66/71 (92%)	1.61	22 (33%) 0 0	114, 161, 192, 200	0
52	J5	59/60 (98%)	0.17	3 (5%) 28 15	66, 91, 159, 212	0
52	N8	58/60 (96%)	0.70	7 (12%) 4 2	53, 100, 178, 183	0
53	K5	45/54 (83%)	6.24	42 (93%) 0 0	141, 181, 194, 201	0
53	O8	45/54 (83%)	4.71	42 (93%) 0 0	117, 148, 168, 171	0
54	L5	46/49 (93%)	-0.18	0 100 100	53, 63, 75, 86	0
54	P8	48/49 (97%)	-0.26	0 100 100	46, 51, 88, 112	0
55	M5	60/65 (92%)	0.30	2 (3%) 46 29	73, 86, 108, 133	0
55	Q8	60/65 (92%)	0.13	1 (1%) 70 57	61, 73, 104, 119	0
All	All	21056/21694 (97%)	0.13	1387 (6%) 18 10	40, 109, 201, 335	0

All (1387) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
26	14	2901	C	18.3
53	K5	13	CYS	17.4
53	K5	51	GLU	15.2
52	N8	60	VAL	14.4
22	1L	3	C	14.3

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Mol	Chain	Res	Type	RSRZ
26	1H	2900	A	14.1
22	1L	71	G	13.8
30	39	1	MET	13.2
26	1H	2901	C	13.1
53	K5	26	ASN	12.7
48	F5	98	LEU	12.4
26	14	2899	G	12.3
22	1L	72	C	12.1
51	I5	31	ILE	11.7
22	1K	17	C	11.5
22	1L	70	G	11.1
53	K5	25	LYS	11.0
53	K5	12	GLU	11.0
53	K5	42	TRP	10.9
46	D5	178	GLU	10.6
7	62	82	GLY	10.6
51	I5	52	THR	10.4
7	62	81	GLY	10.3
46	D5	147	GLY	10.3
22	1K	71	G	10.2
53	K5	50	ARG	10.2
26	14	2900	A	10.2
26	14	2902	C	10.0
11	2I	129	SER	10.0
18	9A	88	LYS	9.9
22	1L	76	A	9.7
53	K5	52	VAL	9.7
22	1L	17	C	9.7
26	14	2797	U	9.6
53	O8	13	CYS	9.4
11	2I	128	ALA	9.3
7	6E	83	ALA	9.3
22	1L	75	C	9.1
52	N8	59	GLU	9.0
26	1H	4	C	9.0
53	O8	20	ASN	9.0
53	K5	14	THR	9.0
31	49	138	GLN	8.9
12	3I	129	ALA	8.9
22	1K	70	G	8.8
22	1K	3	C	8.8
51	I5	47	GLN	8.7

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Mol	Chain	Res	Type	RSRZ
37	45	1	MET	8.7
52	J5	59	GLU	8.6
26	1H	1	G	8.6
48	F5	97	LEU	8.6
53	O8	42	TRP	8.6
46	D5	179	ASP	8.5
22	1K	76	A	8.4
26	1H	2902	C	8.4
52	J5	60	VAL	8.3
42	95	45	THR	8.2
11	2I	11	LYS	8.2
18	9A	87	ARG	8.1
17	8A	101	ARG	7.9
22	1L	45	U	7.9
7	62	80	VAL	7.9
22	1K	69	G	7.9
53	K5	22	ALA	7.9
53	K5	53	LYS	7.8
46	D5	146	ILE	7.8
22	1L	68	C	7.8
53	K5	39	TYR	7.8
51	I5	40	HIS	7.8
7	6E	82	GLY	7.8
53	K5	31	PRO	7.7
51	I5	44	THR	7.7
26	14	654(K)	C	7.7
22	1K	16	U	7.7
36	35	149	GLU	7.7
51	I5	30	GLU	7.7
53	O8	18	ARG	7.4
30	39	208	GLY	7.4
46	D5	112	ARG	7.3
53	O8	49	HIS	7.3
46	D5	172	ALA	7.3
51	I5	42	PHE	7.3
53	K5	9	LEU	7.3
53	O8	50	ARG	7.3
22	1L	47	U	7.3
29	29	69	LYS	7.3
53	K5	24	GLU	7.3
53	K5	49	HIS	7.2
43	A5	113	LYS	7.2

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Mol	Chain	Res	Type	RSRZ
51	I5	29	PRO	7.2
11	2I	12	ARG	7.2
32	59	100	GLY	7.2
51	I5	28	LYS	7.2
53	K5	21	TYR	7.2
53	O8	53	LYS	7.2
29	21	90	THR	7.2
26	14	2799	A	7.1
26	1H	654(I)	C	7.1
51	I5	43	TYR	7.0
7	6E	81	GLY	7.0
31	49	139	LEU	7.0
22	1L	2	C	7.0
36	35	110	TYR	7.0
22	1L	16	U	6.9
22	1L	4	C	6.9
29	21	205	ALA	6.8
53	O8	43	CYS	6.8
26	14	2795	G	6.8
42	D8	1	MET	6.7
13	4A	4	ILE	6.7
12	3I	127	GLU	6.6
26	14	2798	C	6.6
18	9I	88	LYS	6.6
22	1K	73	A	6.6
11	2A	12	ARG	6.6
53	K5	41	PRO	6.6
26	14	654(J)	A	6.6
7	62	78	ARG	6.6
47	I8	85	ALA	6.5
7	6E	154	TYR	6.5
26	1H	2	G	6.5
51	I5	46	GLN	6.5
52	N8	58	LEU	6.5
12	3A	64	TYR	6.4
11	2A	128	ALA	6.4
53	K5	23	THR	6.4
7	62	85	TYR	6.4
46	D5	162	GLU	6.4
51	I5	32	TYR	6.4
53	K5	36	LEU	6.4
46	D5	68	PRO	6.4

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Mol	Chain	Res	Type	RSRZ
53	O8	22	ALA	6.3
46	D5	117	LEU	6.3
31	49	137	GLU	6.3
19	AA	82	GLY	6.3
53	O8	15	GLU	6.3
26	14	2	G	6.3
53	O8	14	THR	6.2
53	O8	47	THR	6.2
46	H8	113	ALA	6.2
51	I5	41	PRO	6.2
12	3I	128	ALA	6.2
26	1H	2899	G	6.2
22	1L	56	C	6.2
53	O8	48	VAL	6.2
26	14	654(I)	C	6.1
26	14	654(L)	G	6.1
50	H5	60	GLU	6.1
53	K5	16	CYS	6.1
26	14	4	C	6.1
53	K5	11	LEU	6.0
29	21	72	VAL	6.0
22	1L	73	A	6.0
51	I5	24	THR	6.0
36	78	150	ALA	6.0
31	49	90	LEU	5.9
48	J8	98	LEU	5.9
13	4A	2	ALA	5.9
53	K5	30	THR	5.9
22	1L	74	C	5.9
46	D5	107	THR	5.9
3	22	53	ALA	5.9
32	59	99	VAL	5.8
47	E5	85	ALA	5.8
53	K5	20	ASN	5.8
11	2A	50	TYR	5.7
26	1H	654(J)	A	5.7
26	1H	654(K)	C	5.7
51	I5	55	ARG	5.7
37	45	91	GLU	5.6
53	K5	40	CYS	5.6
45	C5	47	LYS	5.6
33	69	4	ILE	5.6

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Mol	Chain	Res	Type	RSRZ
24	3L	34	G	5.6
46	D5	154	ASP	5.6
22	1L	1	G	5.6
36	35	148	LEU	5.6
26	14	3	U	5.5
51	I5	10	VAL	5.5
53	O8	35	GLU	5.5
11	2A	13	GLN	5.5
46	D5	163	LEU	5.5
53	O8	34	LEU	5.4
46	D5	142	SER	5.4
53	O8	44	ARG	5.4
31	49	133	LEU	5.4
31	49	39	ILE	5.4
31	49	178	PHE	5.4
12	3A	128	ALA	5.3
46	D5	149	SER	5.3
46	D5	176	PRO	5.3
22	1K	4	C	5.3
29	21	88	GLY	5.3
53	O8	21	TYR	5.3
29	29	54	GLN	5.2
31	49	48	GLU	5.2
7	6E	84	ASN	5.2
26	1H	3	U	5.2
43	E8	113	LYS	5.2
53	K5	35	GLU	5.2
31	49	155	MET	5.2
14	5A	39	LEU	5.2
51	I5	63	TYR	5.2
53	K5	18	ARG	5.2
31	49	146	TYR	5.1
7	62	86	GLN	5.1
45	C5	49	VAL	5.1
53	O8	51	GLU	5.1
42	D8	36	PRO	5.1
51	I5	7	PRO	5.1
30	39	2	LYS	5.1
45	C5	58	GLY	5.1
26	14	2898	U	5.1
40	B8	1	MET	5.0
29	21	89	ASP	5.0

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Mol	Chain	Res	Type	RSRZ
10	1I	6	ILE	5.0
22	1L	20	U	5.0
22	1K	67	C	5.0
53	O8	26	ASN	5.0
3	22	146	ALA	5.0
53	O8	16	CYS	5.0
31	49	177	GLY	5.0
48	J8	92	LYS	5.0
46	D5	141	VAL	5.0
12	3A	68	ALA	4.9
53	K5	10	LEU	4.9
46	D5	148	ASP	4.9
51	M8	34	GLU	4.9
51	M8	31	ILE	4.9
12	3A	32	PHE	4.9
7	62	153	HIS	4.9
37	45	90	VAL	4.9
2	12	240	GLN	4.8
51	I5	51	ASP	4.8
31	49	37	VAL	4.8
46	D5	153	SER	4.8
53	K5	19	ARG	4.8
11	2A	129	SER	4.8
45	C5	59	GLY	4.8
11	2A	11	LYS	4.8
48	F5	96	LYS	4.8
11	2A	49	GLY	4.8
35	25	1	MET	4.8
46	D5	159	PRO	4.8
32	59	169	VAL	4.8
46	D5	171	ILE	4.8
24	3L	6	G	4.8
29	29	70	ALA	4.8
53	O8	36	LEU	4.8
36	78	149	GLU	4.7
14	5A	38	GLY	4.7
12	3A	129	ALA	4.7
36	35	106	LEU	4.7
51	I5	54	GLY	4.7
36	35	150	ALA	4.7
11	2A	89	ALA	4.7
12	3A	69	TYR	4.7

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Mol	Chain	Res	Type	RSRZ
13	4A	6	GLY	4.7
31	49	89	GLY	4.7
32	59	45	VAL	4.7
18	9A	26	LEU	4.7
44	F8	92	LEU	4.7
46	D5	121	HIS	4.7
31	49	182	LYS	4.7
31	49	92	VAL	4.7
13	4A	65	LYS	4.7
51	I5	39	CYS	4.7
22	1L	67	C	4.6
39	65	2	ALA	4.6
26	14	2794	C	4.6
31	49	175	LEU	4.6
26	1H	2799	A	4.6
33	69	3	VAL	4.6
45	G8	106	LEU	4.6
46	D5	111	VAL	4.6
29	21	55	ASN	4.6
3	22	143	GLU	4.6
7	62	79	ARG	4.6
22	1K	72	C	4.6
33	69	1	MET	4.6
13	4A	7	VAL	4.5
32	59	55	PRO	4.5
26	14	2802	G	4.5
51	I5	11	PRO	4.5
31	49	58	GLN	4.5
24	3L	7	A	4.5
51	M8	66	SER	4.5
53	K5	34	LEU	4.5
51	I5	45	GLY	4.5
53	O8	19	ARG	4.5
52	N8	57	VAL	4.5
30	39	20	LEU	4.5
31	41	26	GLN	4.5
46	D5	116	VAL	4.5
46	D5	151	HIS	4.5
48	J8	97	LEU	4.5
3	22	147	LYS	4.4
7	6E	85	TYR	4.4
7	62	154	TYR	4.4

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Mol	Chain	Res	Type	RSRZ
19	AA	78	ARG	4.4
51	I5	5	ILE	4.4
53	O8	52	VAL	4.4
6	5E	101	ALA	4.4
48	J8	93	GLU	4.4
5	42	155	GLU	4.4
22	1K	75	C	4.4
22	1K	13	C	4.4
2	12	163	PHE	4.4
51	I5	36	CYS	4.4
11	2A	91	ARG	4.4
18	9A	43	PHE	4.3
22	1L	5	G	4.3
22	1L	69	G	4.3
22	1L	48	C	4.3
53	O8	45	LYS	4.3
22	1K	68	C	4.3
22	1K	74	C	4.3
51	I5	13	ARG	4.3
53	O8	23	THR	4.3
11	2I	42	TRP	4.3
18	9A	17	SER	4.3
31	49	136	ARG	4.3
51	I5	27	THR	4.3
37	45	104	PHE	4.3
45	C5	29	GLU	4.3
51	M8	52	THR	4.3
29	29	76	ARG	4.3
15	6I	89	GLY	4.3
33	61	113	ARG	4.2
7	6E	80	VAL	4.2
29	21	78	LEU	4.2
51	M8	32	TYR	4.2
33	69	16	GLY	4.2
32	59	4	ILE	4.2
36	78	106	LEU	4.2
29	29	73	GLU	4.1
26	14	2790	A	4.1
24	3K	17	C	4.1
48	F5	93	GLU	4.1
53	O8	32	ASN	4.1
46	D5	115	GLY	4.1

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Mol	Chain	Res	Type	RSRZ
22	1L	44	G	4.1
26	14	654(H)	G	4.1
53	O8	31	PRO	4.1
22	1L	57	G	4.1
49	K8	43	GLN	4.1
51	M8	22	ILE	4.1
32	59	49	VAL	4.1
18	9A	23	LYS	4.1
33	69	85	GLU	4.1
31	49	145	THR	4.0
26	1H	2795	G	4.0
26	14	1	G	4.0
33	69	11	ASN	4.0
53	O8	29	ASN	4.0
31	49	75	LYS	4.0
3	22	198	VAL	4.0
7	62	83	ALA	4.0
48	J8	96	LYS	4.0
32	51	172	LYS	4.0
53	O8	25	LYS	4.0
2	1E	188	ALA	4.0
31	49	34	LEU	4.0
31	49	63	ILE	4.0
26	1H	654(F)	C	4.0
22	1K	12	U	4.0
22	1K	20	U	4.0
31	49	152	LEU	4.0
46	D5	155	LEU	4.0
11	2A	21	ILE	4.0
51	I5	18	CYS	3.9
22	1L	18	G	3.9
32	59	114	VAL	3.9
46	D5	96	VAL	3.9
3	22	204	LEU	3.9
30	39	22	ALA	3.9
18	9A	18	ARG	3.9
31	49	167	GLU	3.9
7	62	88	PRO	3.9
7	62	152	ALA	3.9
11	2A	65	ALA	3.9
33	69	35	LEU	3.9
11	2A	90	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
5	42	45	PHE	3.9
29	29	51	PHE	3.9
51	I5	35	VAL	3.9
22	1K	66	U	3.9
26	1H	2898	U	3.9
26	1H	654(H)	G	3.9
36	35	123	LEU	3.9
22	1L	65	G	3.9
45	C5	44	ILE	3.8
7	6E	78	ARG	3.8
29	29	205	ALA	3.8
26	1H	2798	C	3.8
31	41	2	PRO	3.8
29	29	77	ILE	3.8
31	49	62	LEU	3.8
45	C5	92	ASN	3.8
36	35	125	VAL	3.8
12	3A	56	ALA	3.8
6	52	38	GLU	3.8
46	D5	168	GLU	3.8
2	12	14	GLY	3.8
46	D5	2	GLU	3.8
46	D5	150	LEU	3.8
6	52	101	ALA	3.8
37	45	92	GLY	3.8
29	21	204	ALA	3.8
11	2A	59	TYR	3.8
14	5A	26	ARG	3.8
31	49	82	LEU	3.8
41	85	91	ASP	3.8
51	M8	56	VAL	3.8
44	B5	92	LEU	3.7
3	22	103	VAL	3.7
12	3A	28	LYS	3.7
32	51	3	ARG	3.7
2	1E	187	LEU	3.7
12	3I	64	TYR	3.7
46	D5	125	LEU	3.7
53	K5	37	ARG	3.7
32	59	25	LYS	3.7
5	4E	154	GLY	3.7
12	3A	55	VAL	3.7

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Mol	Chain	Res	Type	RSRZ
3	22	206	GLU	3.7
51	M8	55	ARG	3.7
45	C5	60	PHE	3.7
48	F5	95	LEU	3.7
45	C5	45	VAL	3.7
29	21	91	VAL	3.7
4	32	179	GLU	3.7
7	6E	79	ARG	3.6
26	14	2801	A	3.6
26	14	1536	A	3.6
31	49	135	LEU	3.6
22	1K	7	A	3.6
31	49	140	ILE	3.6
29	21	76	ARG	3.6
11	2A	92	GLU	3.6
53	O8	41	PRO	3.6
29	29	78	LEU	3.6
46	D5	1	MET	3.6
53	K5	45	LYS	3.6
2	12	155	LEU	3.6
14	5I	52	GLN	3.6
46	D5	92	SER	3.6
2	12	165	VAL	3.6
53	O8	12	GLU	3.6
3	22	155	GLY	3.6
39	65	112	PHE	3.6
22	1L	58	A	3.6
33	69	36	ALA	3.6
32	59	94	TYR	3.6
29	29	59	VAL	3.6
51	M8	40	HIS	3.6
5	42	151	LEU	3.6
19	AA	83	HIS	3.6
19	AI	61	TYR	3.6
19	AA	84	GLY	3.6
26	14	888	C	3.5
32	59	46	GLU	3.5
53	O8	17	LYS	3.5
36	35	111	ARG	3.5
29	29	96	PHE	3.5
42	95	14	VAL	3.5
12	3A	60	LEU	3.5

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Mol	Chain	Res	Type	RSRZ
33	69	12	LEU	3.5
42	95	91	TYR	3.5
51	I5	50	VAL	3.5
6	5E	46	ARG	3.5
22	1L	66	U	3.5
31	49	166	ASP	3.5
40	75	6	LEU	3.5
42	95	1	MET	3.5
46	D5	173	ALA	3.5
32	51	171	LEU	3.5
36	35	91	PHE	3.5
3	22	132	ARG	3.5
34	15	51	PHE	3.5
41	85	72	HIS	3.5
7	6E	153	HIS	3.5
33	69	20	ASP	3.5
50	H5	26	LEU	3.5
45	C5	46	LYS	3.5
53	K5	48	VAL	3.5
33	69	34	GLY	3.5
46	D5	132	ASN	3.5
11	2A	31	THR	3.5
46	D5	5	LEU	3.5
32	59	106	THR	3.5
29	21	199	ARG	3.5
32	59	103	LEU	3.5
53	K5	46	HIS	3.5
4	32	176	LEU	3.4
6	52	39	LYS	3.4
11	2A	48	ILE	3.4
22	1K	1	G	3.4
46	D5	55	HIS	3.4
31	49	142	PRO	3.4
46	D5	169	GLU	3.4
51	I5	12	ALA	3.4
36	35	126	VAL	3.4
3	22	201	TYR	3.4
31	41	114	ILE	3.4
17	8I	17	LYS	3.4
46	D5	51	ALA	3.4
13	4I	6	GLY	3.4
2	12	232	PRO	3.4

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Mol	Chain	Res	Type	RSRZ
46	D5	4	ARG	3.4
26	1H	5	A	3.4
11	2I	82	VAL	3.4
13	4A	66	LEU	3.4
12	3A	127	GLU	3.4
33	69	18	VAL	3.4
36	35	145	PRO	3.4
12	3A	94	PRO	3.3
24	3K	20	U	3.3
30	31	6	VAL	3.3
11	2A	42	TRP	3.3
33	69	17	GLN	3.3
11	2I	98	LEU	3.3
19	AI	48	THR	3.3
42	D8	37	VAL	3.3
43	E8	111	HIS	3.3
51	I5	26	SER	3.3
53	K5	17	LYS	3.3
26	14	654(O)	G	3.3
3	22	64	VAL	3.3
15	6I	88	ARG	3.3
29	29	67	PHE	3.3
31	49	157	ILE	3.3
45	C5	50	ARG	3.3
32	59	39	PRO	3.3
42	95	12	TYR	3.3
31	41	135	LEU	3.3
31	49	97	ASP	3.3
42	95	5	VAL	3.3
8	7E	24	THR	3.3
45	C5	90	LEU	3.3
22	1K	47	U	3.3
39	A8	2	ALA	3.3
31	49	68	PRO	3.3
46	D5	156	LYS	3.3
33	61	140	LEU	3.3
5	4E	118	ILE	3.3
3	22	205	GLY	3.3
46	D5	109	ALA	3.3
36	35	124	LYS	3.3
31	41	181	ARG	3.3
3	22	144	SER	3.3

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Mol	Chain	Res	Type	RSRZ
46	D5	138	GLU	3.3
2	1E	160	ASP	3.3
40	75	99	LEU	3.3
18	9I	21	LYS	3.3
3	22	124	ILE	3.3
32	59	107	VAL	3.3
51	I5	33	VAL	3.3
11	2A	43	SER	3.2
29	29	204	ALA	3.2
53	O8	9	LEU	3.2
4	3E	110	PHE	3.2
11	2I	21	ILE	3.2
14	5A	58	LYS	3.2
42	95	44	LYS	3.2
10	1I	5	ARG	3.2
18	9A	86	VAL	3.2
37	45	33	GLY	3.2
26	1H	2797	U	3.2
42	95	16	PRO	3.2
37	45	105	GLU	3.2
53	O8	33	LYS	3.2
31	49	134	GLY	3.2
53	O8	40	CYS	3.2
32	59	84	SER	3.2
46	D5	139	VAL	3.2
22	1L	59	U	3.2
10	1I	23	ILE	3.2
37	45	103	MET	3.2
45	C5	5	MET	3.2
36	35	128	HIS	3.2
3	2E	128	PHE	3.2
32	51	16	SER	3.2
33	69	37	VAL	3.2
45	C5	53	PRO	3.2
11	2I	43	SER	3.2
32	59	115	VAL	3.2
11	2I	13	GLN	3.2
31	49	35	GLU	3.2
30	39	133	ASN	3.2
53	O8	37	ARG	3.2
32	59	43	VAL	3.2
46	H8	173	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
46	H8	148	ASP	3.2
31	41	182	LYS	3.1
26	14	2897	U	3.1
13	4A	5	ALA	3.1
39	65	37	ALA	3.1
40	B8	106	SER	3.1
22	1L	23	A	3.1
31	49	160	VAL	3.1
7	62	151	TYR	3.1
51	M8	13	ARG	3.1
53	K5	29	ASN	3.1
5	4E	155	GLU	3.1
3	2E	139	GLN	3.1
31	49	83	ARG	3.1
2	12	157	ARG	3.1
29	21	69	LYS	3.1
3	22	7	PRO	3.1
8	7E	137	VAL	3.1
19	AI	40	ILE	3.1
13	4A	3	ARG	3.1
18	9I	42	ARG	3.1
48	J8	70	VAL	3.1
3	22	10	PHE	3.1
3	22	203	PHE	3.1
51	M8	33	VAL	3.1
51	I5	34	GLU	3.1
11	2A	127	LYS	3.1
18	9I	31	LEU	3.1
42	D8	38	LEU	3.1
50	L8	57	GLU	3.1
48	J8	95	LEU	3.1
2	12	152	PHE	3.1
3	22	177	THR	3.1
5	4E	98	THR	3.1
11	2A	108	ILE	3.1
18	9I	19	LYS	3.1
32	59	87	LEU	3.1
31	49	147	ASP	3.1
46	D5	52	SER	3.1
46	D5	133	ILE	3.1
10	1I	101	VAL	3.1
14	5A	25	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
39	65	56	LEU	3.0
42	95	36	PRO	3.0
31	49	176	LEU	3.0
19	AA	47	HIS	3.0
31	49	141	PHE	3.0
46	D5	106	GLY	3.0
22	1K	21	A	3.0
31	49	108	ASN	3.0
31	49	94	LEU	3.0
49	G5	44	LEU	3.0
48	F5	92	LYS	3.0
13	4I	5	ALA	3.0
39	65	108	GLY	3.0
10	1I	10	GLY	3.0
10	1A	10	GLY	3.0
26	1H	2897	U	3.0
31	49	181	ARG	3.0
46	D5	170	THR	3.0
12	3A	65	GLU	3.0
37	45	102	VAL	3.0
39	65	83	LYS	3.0
53	O8	46	HIS	3.0
53	K5	33	LYS	3.0
4	32	23	GLY	3.0
31	49	74	LYS	3.0
44	B5	69	TYR	3.0
45	G8	42	VAL	3.0
46	D5	56	VAL	3.0
19	AI	41	VAL	3.0
9	82	33	PHE	3.0
24	3L	17	C	3.0
31	49	41	GLN	3.0
31	49	86	MET	3.0
18	9A	84	LYS	3.0
31	41	139	LEU	3.0
52	N8	55	ARG	3.0
30	39	172	TRP	3.0
46	H8	106	GLY	3.0
18	9A	42	ARG	3.0
2	12	102	LEU	3.0
3	2E	91	LEU	3.0
4	3E	135	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
22	1L	13	C	3.0
11	2I	96	ARG	2.9
46	D5	9	TYR	2.9
7	62	73	MET	2.9
3	22	200	ALA	2.9
36	35	130	PHE	2.9
3	22	142	MET	2.9
40	75	1	MET	2.9
29	21	79	ARG	2.9
31	41	136	ARG	2.9
12	3A	62	SER	2.9
36	35	1	MET	2.9
2	12	5	ILE	2.9
11	2A	83	ILE	2.9
36	35	138	LEU	2.9
2	12	70	PHE	2.9
3	2E	79	ARG	2.9
13	4A	8	GLU	2.9
31	49	149	VAL	2.9
4	32	49	ARG	2.9
14	5A	37	PHE	2.9
24	3K	6	G	2.9
23	2L	1	C	2.9
7	6E	86	GLN	2.9
46	D5	91	LEU	2.9
45	G8	64	GLU	2.9
51	M8	53	GLU	2.9
29	29	181	LEU	2.9
31	49	102	PHE	2.9
36	35	92	GLU	2.9
31	49	109	VAL	2.9
26	14	1535	U	2.9
47	E5	75	LEU	2.9
3	2E	82	GLU	2.9
42	95	93	GLU	2.9
26	1H	163	U	2.9
55	M5	34	TRP	2.9
11	2I	83	ILE	2.9
4	32	69	GLY	2.9
11	2A	66	LEU	2.9
14	5A	53	LEU	2.9
44	F8	86	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
46	D5	32	HIS	2.9
11	2A	61	ALA	2.8
3	22	145	GLY	2.8
7	6E	156	TRP	2.8
2	1E	11	LEU	2.8
2	1E	77	ALA	2.8
28	11	111	LEU	2.8
10	1A	47	PHE	2.8
30	39	207	GLY	2.8
46	H8	172	ALA	2.8
29	21	4	ILE	2.8
46	H8	146	ILE	2.8
52	N8	53	ALA	2.8
3	22	170	GLN	2.8
42	D8	60	GLU	2.8
19	AI	47	HIS	2.8
45	C5	81	LYS	2.8
51	M8	65	ASP	2.8
31	49	174	GLU	2.8
46	D5	145	GLU	2.8
8	7E	46	LYS	2.8
46	D5	177	PRO	2.8
6	52	64	GLN	2.8
10	1A	34	VAL	2.8
18	9A	22	VAL	2.8
19	AA	41	VAL	2.8
31	41	138	GLN	2.8
32	59	72	ILE	2.8
37	45	65	PHE	2.8
53	O8	24	GLU	2.8
2	12	6	THR	2.8
46	D5	108	PRO	2.8
11	2I	84	VAL	2.8
26	1H	896	A	2.8
36	35	129	ALA	2.8
30	39	191	ARG	2.8
51	M8	42	PHE	2.8
19	AI	71	LEU	2.8
39	A8	48	LEU	2.8
7	62	147	ALA	2.8
51	I5	22	ILE	2.7
10	1A	93	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
11	2I	19	ALA	2.7
45	G8	65	ALA	2.7
46	D5	69	THR	2.7
32	59	53	GLU	2.7
6	52	61	LEU	2.7
31	41	72	ARG	2.7
33	61	121	LYS	2.7
33	69	5	LEU	2.7
22	1L	46	G	2.7
33	69	21	VAL	2.7
31	49	143	GLU	2.7
51	I5	14	ILE	2.7
18	9I	87	ARG	2.7
32	59	35	VAL	2.7
32	59	83	TYR	2.7
29	29	53	PRO	2.7
34	58	136	GLU	2.7
4	3E	168	ARG	2.7
22	1K	6	G	2.7
20	BA	104	LEU	2.7
31	49	116	ASP	2.7
5	4E	6	PHE	2.7
3	2E	101	LEU	2.7
46	H8	107	THR	2.7
29	21	67	PHE	2.7
11	2A	25	TYR	2.7
2	1E	31	TYR	2.7
2	12	71	VAL	2.7
31	49	159	VAL	2.7
35	68	52	VAL	2.7
5	42	12	LEU	2.7
14	5A	36	PHE	2.7
43	E8	112	GLY	2.7
5	42	94	ALA	2.7
32	59	101	ARG	2.7
45	C5	35	TYR	2.7
18	9I	40	LEU	2.7
42	95	39	LEU	2.7
18	9I	29	PHE	2.7
31	49	85	GLY	2.7
12	3A	70	ILE	2.7
8	72	1	MET	2.7

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Mol	Chain	Res	Type	RSRZ
34	58	133	GLN	2.7
5	4E	73	ASN	2.7
36	35	127	ALA	2.7
44	B5	89	ILE	2.7
46	D5	8	TYR	2.7
31	49	15	VAL	2.7
8	72	112	LEU	2.7
22	1L	60	U	2.7
2	1E	66	GLY	2.7
22	1L	6	G	2.7
32	51	96	ALA	2.7
33	61	109	ILE	2.7
30	39	148	LEU	2.6
42	D8	39	LEU	2.6
48	F5	94	LEU	2.6
51	M8	28	LYS	2.6
15	6A	31	LEU	2.6
32	59	17	VAL	2.6
36	35	118	GLY	2.6
39	65	60	GLY	2.6
2	12	116	GLU	2.6
3	22	187	ALA	2.6
14	5A	34	TYR	2.6
35	25	11	ALA	2.6
46	D5	3	TYR	2.6
46	D5	95	PRO	2.6
51	I5	9	LEU	2.6
2	1E	228	GLY	2.6
12	3A	85	ILE	2.6
22	1L	55	U	2.6
8	72	2	LEU	2.6
33	61	65	ALA	2.6
42	95	4	ILE	2.6
29	21	51	PHE	2.6
12	3I	65	GLU	2.6
6	52	45	LEU	2.6
18	9I	79	LEU	2.6
44	F8	89	ILE	2.6
51	M8	5	ILE	2.6
42	D8	44	LYS	2.6
5	42	29	GLY	2.6
3	22	135	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
36	35	134	ALA	2.6
4	3E	170	VAL	2.6
11	2A	88	GLY	2.6
32	59	41	MET	2.6
23	2K	1	C	2.6
46	D5	97	GLU	2.6
46	D5	161	VAL	2.6
18	9A	85	LEU	2.6
31	41	75	LYS	2.6
33	69	38	LEU	2.6
3	22	184	TYR	2.6
12	3A	59	ARG	2.6
39	A8	111	GLU	2.6
2	1E	213	LEU	2.6
12	3A	77	LEU	2.6
2	1E	76	GLN	2.6
47	E5	72	ARG	2.6
4	32	17	VAL	2.6
31	49	179	PRO	2.6
26	1H	1095	A	2.6
2	1E	96	ARG	2.6
19	AA	62	ILE	2.6
20	BA	41	ILE	2.6
3	2E	71	ALA	2.6
12	3A	35	GLY	2.6
32	59	50	VAL	2.6
4	32	19	LEU	2.6
5	42	43	LEU	2.6
1	1G	1032	A	2.6
46	D5	164	ALA	2.6
11	2I	14	VAL	2.6
12	3A	34	ARG	2.6
19	AI	62	ILE	2.6
34	15	48	MET	2.6
39	65	35	ILE	2.6
39	65	57	LYS	2.5
32	59	18	GLU	2.5
36	78	118	GLY	2.5
35	68	122	LEU	2.5
46	D5	57	ILE	2.5
36	35	94	GLU	2.5
2	1E	27	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
32	59	168	PRO	2.5
37	45	89	ASN	2.5
4	3E	167	GLY	2.5
33	69	144	VAL	2.5
46	D5	110	GLY	2.5
33	69	2	LYS	2.5
2	12	68	ILE	2.5
4	3E	102	ASP	2.5
12	3A	71	PRO	2.5
36	78	110	TYR	2.5
4	3E	90	GLY	2.5
8	7E	66	GLY	2.5
9	82	115	GLY	2.5
51	I5	17	GLY	2.5
18	9A	58	LEU	2.5
46	H8	5	LEU	2.5
29	21	171	GLU	2.5
2	1E	165	VAL	2.5
2	12	197	VAL	2.5
31	49	93	THR	2.5
33	61	107	VAL	2.5
38	98	29	LEU	2.5
10	1I	98	ILE	2.5
36	35	119	GLU	2.5
19	AA	80	TYR	2.5
29	29	52	LEU	2.5
53	K5	47	THR	2.5
3	22	186	PHE	2.5
26	14	884	C	2.5
2	12	62	ALA	2.5
3	22	60	ALA	2.5
11	2I	81	ASP	2.5
26	1H	654(L)	G	2.5
44	F8	26	TYR	2.5
2	1E	14	GLY	2.5
30	39	11	VAL	2.5
31	49	70	VAL	2.5
32	59	96	ALA	2.5
39	65	85	VAL	2.5
51	I5	25	TYR	2.5
46	D5	50	GLN	2.5
5	42	6	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
3	2E	76	VAL	2.5
3	22	188	LEU	2.5
14	5A	56	VAL	2.5
18	9I	22	VAL	2.5
53	K5	44	ARG	2.5
29	29	182	LEU	2.5
2	1E	28	PHE	2.5
12	3A	100	ILE	2.5
30	39	19	GLU	2.5
4	3E	111	ALA	2.5
32	51	87	LEU	2.5
33	61	146	ALA	2.5
39	65	24	LEU	2.5
46	D5	70	LEU	2.5
46	H8	25	PRO	2.5
48	F5	60	PHE	2.5
11	2A	86	GLY	2.5
3	2E	200	ALA	2.5
29	29	49	LEU	2.5
26	14	883	G	2.5
46	D5	93	ASP	2.5
31	41	137	GLU	2.5
26	1H	2803	C	2.4
4	32	162	LEU	2.4
37	88	86	GLY	2.4
42	95	18	LEU	2.4
6	52	35	ALA	2.4
48	F5	71	TYR	2.4
34	58	51	PHE	2.4
15	6I	87	ILE	2.4
2	12	229	VAL	2.4
10	1I	94	VAL	2.4
29	21	7	VAL	2.4
3	2E	201	TYR	2.4
53	K5	43	CYS	2.4
11	2A	67	ASP	2.4
5	4E	40	ARG	2.4
6	52	36	ARG	2.4
11	2A	96	ARG	2.4
30	39	27	GLU	2.4
22	1L	50	U	2.4
50	H5	5	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
53	K5	27	LYS	2.4
5	4E	34	VAL	2.4
5	4E	74	GLY	2.4
8	72	133	LEU	2.4
36	35	100	LEU	2.4
42	D8	42	GLY	2.4
42	D8	2	PHE	2.4
3	22	202	ILE	2.4
11	2A	82	VAL	2.4
46	D5	165	VAL	2.4
49	G5	60	LEU	2.4
5	4E	81	GLU	2.4
32	59	89	ILE	2.4
44	F8	87	GLN	2.4
3	2E	66	VAL	2.4
10	1I	72	VAL	2.4
10	1A	101	VAL	2.4
33	69	9	LEU	2.4
42	D8	95	LEU	2.4
11	2A	60	ALA	2.4
12	3A	120	TYR	2.4
30	39	199	TRP	2.4
42	95	15	GLU	2.4
55	M5	40	GLU	2.4
2	12	230	VAL	2.4
6	52	100	ASN	2.4
9	82	127	LYS	2.4
34	58	130	HIS	2.4
32	59	95	ARG	2.4
47	E5	9	SER	2.4
6	52	37	VAL	2.4
10	1I	65	LEU	2.4
31	49	19	LEU	2.4
46	D5	59	LEU	2.4
37	88	1	MET	2.4
51	I5	19	GLY	2.4
29	29	74	PRO	2.4
8	7E	4	ASP	2.4
2	1E	15	VAL	2.4
26	14	654(E)	C	2.4
18	9I	43	PHE	2.4
37	45	83	MET	2.4

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Mol	Chain	Res	Type	RSRZ
3	2E	88	ARG	2.4
29	29	60	ASN	2.4
16	7A	33	ILE	2.4
2	1E	115	LEU	2.4
4	32	108	LEU	2.4
12	3A	101	VAL	2.4
31	49	38	VAL	2.4
50	L8	56	VAL	2.4
37	45	80	GLU	2.4
38	55	102	GLU	2.4
8	72	86	ILE	2.4
28	19	5	LYS	2.4
46	D5	38	TYR	2.4
2	12	115	LEU	2.4
19	AA	12	ASP	2.4
30	39	125	LEU	2.4
30	39	181	LEU	2.4
3	22	148	GLY	2.4
14	5I	51	GLY	2.4
29	29	75	VAL	2.4
18	9I	18	ARG	2.4
37	45	60	ARG	2.4
46	D5	131	ARG	2.4
30	39	10	PRO	2.4
33	61	126	TYR	2.4
51	M8	16	CYS	2.4
30	31	133	ASN	2.4
29	21	49	LEU	2.4
32	59	88	LEU	2.4
5	42	14	ARG	2.3
31	41	180	PHE	2.3
45	C5	2	ARG	2.3
34	15	1	MET	2.3
32	59	112	PRO	2.3
50	H5	2	PRO	2.3
18	9I	78	LEU	2.3
42	95	94	LEU	2.3
29	29	50	GLY	2.3
48	F5	70	VAL	2.3
5	42	8	GLU	2.3
22	1L	7	A	2.3
2	1E	222	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
8	72	65	TYR	2.3
7	6E	16	LEU	2.3
33	69	114	LEU	2.3
46	H8	70	LEU	2.3
31	49	80	PHE	2.3
32	59	24	VAL	2.3
7	62	156	TRP	2.3
22	1K	10	G	2.3
51	I5	6	HIS	2.3
2	12	4	GLU	2.3
31	49	150	ASP	2.3
32	51	9	ILE	2.3
33	69	6	LEU	2.3
34	58	15	LEU	2.3
37	45	34	LEU	2.3
10	1I	22	LYS	2.3
13	4A	26	GLY	2.3
4	3E	3	ARG	2.3
11	2A	75	TYR	2.3
26	14	889	C	2.3
32	59	170	ARG	2.3
32	51	17	VAL	2.3
42	95	101	GLY	2.3
4	3E	191	ARG	2.3
31	49	132	ASN	2.3
3	22	149	ALA	2.3
4	3E	96	LEU	2.3
30	39	23	ASP	2.3
5	42	133	TYR	2.3
11	2I	68	ALA	2.3
11	2I	108	ILE	2.3
53	O8	10	LEU	2.3
32	59	52	VAL	2.3
3	22	140	ARG	2.3
18	9A	31	LEU	2.3
29	29	195	LEU	2.3
42	D8	3	ALA	2.3
11	2A	84	VAL	2.3
32	51	123	PHE	2.3
8	7E	136	GLU	2.3
30	39	14	PRO	2.3
12	3A	46	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
45	C5	34	LYS	2.3
18	9A	44	LEU	2.3
5	4E	100	VAL	2.3
5	42	62	ALA	2.3
31	41	80	PHE	2.3
31	49	158	ALA	2.3
33	61	86	THR	2.3
46	H8	116	VAL	2.3
2	1E	130	ARG	2.3
31	49	118	ARG	2.3
36	35	90	ARG	2.3
10	1A	65	LEU	2.3
26	14	1509	C	2.3
2	1E	197	VAL	2.3
6	5E	55	ASP	2.3
18	9A	55	ARG	2.3
31	49	72	ARG	2.3
37	45	10	ARG	2.3
39	A8	112	PHE	2.3
48	F5	28	GLY	2.3
3	22	199	LYS	2.3
26	1H	887	A	2.3
2	1E	42	ILE	2.3
46	D5	118	GLN	2.3
31	41	23	PHE	2.3
35	25	84	ALA	2.3
41	C8	106	PHE	2.3
31	49	36	LYS	2.3
48	F5	91	LYS	2.3
33	69	14	ASP	2.3
1	1G	1033	G	2.3
29	21	5	LEU	2.3
4	32	47	ARG	2.3
15	6I	60	VAL	2.3
30	39	26	ALA	2.3
47	E5	76	GLY	2.3
2	12	160	ASP	2.3
11	2A	54	ARG	2.3
11	2I	30	VAL	2.3
36	35	95	VAL	2.3
41	85	106	PHE	2.3
2	12	90	MET	2.2

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Mol	Chain	Res	Type	RSRZ
30	39	12	LEU	2.2
32	59	51	ARG	2.2
39	65	58	LEU	2.2
31	41	88	ILE	2.2
3	2E	78	GLY	2.2
42	D8	56	SER	2.2
11	2A	63	LEU	2.2
22	1K	15	G	2.2
4	32	70	ILE	2.2
48	J8	51	VAL	2.2
18	9A	46	GLU	2.2
22	1K	2	C	2.2
32	51	104	GLU	2.2
3	2E	72	LYS	2.2
31	41	100	TRP	2.2
12	3A	27	LEU	2.2
33	61	123	LEU	2.2
3	22	102	ASN	2.2
11	2A	30	VAL	2.2
31	49	2	PRO	2.2
39	65	5	THR	2.2
12	3I	33	ARG	2.2
19	AI	29	ARG	2.2
26	14	1176	G	2.2
34	15	136	GLU	2.2
51	M8	23	GLU	2.2
42	D8	94	LEU	2.2
4	3E	134	ASP	2.2
4	32	161	ASN	2.2
7	62	149	ARG	2.2
3	22	180	ALA	2.2
19	AI	59	PRO	2.2
34	15	12	ARG	2.2
29	21	48	GLN	2.2
19	AA	30	LEU	2.2
4	32	110	PHE	2.2
11	2A	32	ILE	2.2
29	29	176	ILE	2.2
31	49	23	PHE	2.2
2	1E	129	GLU	2.2
18	9A	57	GLY	2.2
18	9A	76	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
29	29	72	VAL	2.2
47	E5	55	ARG	2.2
5	4E	35	GLY	2.2
22	1K	11	C	2.2
27	1J	88	C	2.2
11	2A	98	LEU	2.2
46	H8	155	LEU	2.2
53	O8	11	LEU	2.2
31	49	100	TRP	2.2
31	49	105	LYS	2.2
53	K5	28	ARG	2.2
18	9I	50	ILE	2.2
41	85	90	VAL	2.2
9	82	88	TYR	2.2
20	BA	106	ALA	2.2
29	21	187	ALA	2.2
45	C5	48	ALA	2.2
36	35	81	GLN	2.2
47	I8	7	LEU	2.2
44	B5	3	THR	2.2
5	4E	89	ILE	2.2
37	45	68	ILE	2.2
41	85	62	ILE	2.2
45	G8	39	VAL	2.2
51	I5	23	GLU	2.2
33	69	83	ALA	2.2
18	9I	32	ARG	2.2
29	21	32	PRO	2.2
5	42	115	VAL	2.2
8	7E	83	ILE	2.2
10	1A	72	VAL	2.2
17	8I	10	VAL	2.2
19	AI	60	VAL	2.2
26	1H	654(G)	C	2.2
26	14	654(F)	C	2.2
46	D5	53	ILE	2.2
46	D5	94	GLU	2.2
50	H5	34	GLU	2.2
5	4E	97	GLY	2.2
26	14	2793	G	2.2
36	78	107	LYS	2.2
48	J8	80	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
11	2I	110	ASP	2.2
36	35	122	PRO	2.2
4	3E	140	VAL	2.2
10	1A	6	ILE	2.2
11	2A	114	VAL	2.2
18	9A	62	GLU	2.2
11	2A	18	ARG	2.2
7	62	16	LEU	2.2
14	5A	59	ALA	2.2
32	51	103	LEU	2.2
52	J5	58	LEU	2.2
37	88	104	PHE	2.2
41	C8	117	GLN	2.2
2	1E	93	VAL	2.2
11	2I	31	THR	2.2
31	49	40	ASN	2.2
32	59	129	THR	2.2
39	65	109	GLY	2.2
18	9I	44	LEU	2.1
29	21	27	LEU	2.1
34	15	116	LEU	2.1
10	1A	59	SER	2.1
2	12	214	ILE	2.1
18	9I	80	PRO	2.1
46	D5	137	ILE	2.1
3	22	197	GLY	2.1
4	3E	2	GLY	2.1
24	3L	44	G	2.1
27	16	1(M)	A	2.1
42	95	38	LEU	2.1
46	H8	144	LEU	2.1
51	M8	12	ALA	2.1
11	2I	29	ILE	2.1
32	59	40	GLU	2.1
12	3A	93	LEU	2.1
36	78	135	LEU	2.1
22	1K	46	G	2.1
26	1H	654(P)	G	2.1
31	41	178	PHE	2.1
41	85	89	GLU	2.1
48	F5	69	LYS	2.1
12	3A	72	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
18	9I	17	SER	2.1
24	3L	45	U	2.1
2	12	88	ALA	2.1
17	8I	101	ARG	2.1
19	AI	28	LYS	2.1
50	L8	3	ARG	2.1
48	J8	90	ILE	2.1
26	14	882	G	2.1
31	49	87	PRO	2.1
51	I5	4	GLY	2.1
11	2A	19	ALA	2.1
31	49	10	LYS	2.1
10	1A	100	THR	2.1
32	51	18	GLU	2.1
37	45	64	ILE	2.1
41	85	110	VAL	2.1
8	7E	133	LEU	2.1
36	78	112	LEU	2.1
4	3E	185	PHE	2.1
2	1E	40	HIS	2.1
2	12	112	VAL	2.1
12	3A	99	HIS	2.1
32	59	111	HIS	2.1
17	8I	36	ILE	2.1
31	49	88	ILE	2.1
40	75	50	ILE	2.1
53	O8	30	THR	2.1
7	6E	155	ARG	2.1
11	2A	70	LYS	2.1
51	M8	59	PHE	2.1
32	59	124	GLU	2.1
3	22	101	LEU	2.1
36	78	138	LEU	2.1
2	1E	202	PRO	2.1
13	4A	97	PRO	2.1
34	15	44	PRO	2.1
31	49	73	ALA	2.1
46	D5	135	GLU	2.1
8	7E	25	ASP	2.1
19	AA	45	VAL	2.1
32	59	26	VAL	2.1
4	3E	21	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
22	1K	50	U	2.1
24	3K	16	U	2.1
38	55	70	LEU	2.1
3	2E	184	TYR	2.1
26	14	885	C	2.1
11	2A	71	LYS	2.1
17	8A	11	VAL	2.1
51	I5	8	LYS	2.1
31	41	63	ILE	2.1
4	3E	196	LEU	2.1
34	15	41	ASP	2.1
52	N8	54	GLY	2.1
11	2I	125	PHE	2.1
12	3A	67	THR	2.1
8	72	61	VAL	2.1
11	2A	94	ALA	2.1
31	41	146	TYR	2.1
11	2A	109	VAL	2.1
38	55	101	ALA	2.1
8	7E	2	LEU	2.1
26	1H	1534	G	2.1
32	59	105	LEU	2.1
33	61	116	LEU	2.1
36	78	130	PHE	2.1
32	59	159	GLU	2.1
44	B5	68	ARG	2.1
4	32	64	LEU	2.1
38	98	92	GLY	2.1
26	14	893	C	2.1
49	G5	43	GLN	2.0
51	I5	53	GLU	2.0
4	32	48	ALA	2.0
32	51	128	PRO	2.0
34	58	53	VAL	2.0
11	2I	95	ILE	2.0
33	69	79	ILE	2.0
46	D5	160	GLY	2.0
17	8I	50	LYS	2.0
45	C5	33	LYS	2.0
9	82	93	ARG	2.0
46	D5	88	PHE	2.0
30	39	113	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
30	39	128	ALA	2.0
4	3E	97	LEU	2.0
19	AI	49	ILE	2.0
14	5A	55	GLY	2.0
51	M8	64	GLY	2.0
55	Q8	21	LYS	2.0
5	42	28	PHE	2.0
30	39	205	ARG	2.0
2	12	231	GLU	2.0
3	2E	60	ALA	2.0
11	2I	61	ALA	2.0
15	6I	27	VAL	2.0
30	39	97	TYR	2.0
33	61	120	ILE	2.0
43	E8	74	ALA	2.0
3	22	190	ARG	2.0
18	9A	27	GLY	2.0
7	62	77	SER	2.0
22	1K	44	G	2.0
22	1L	63	G	2.0
39	A8	49	VAL	2.0
42	95	47	VAL	2.0
11	2I	65	ALA	2.0
3	2E	59	ARG	2.0
11	2A	17	GLY	2.0
2	12	37	ASN	2.0
26	1H	277	C	2.0
51	M8	3	GLU	2.0
4	32	68	TYR	2.0
16	7A	59	TRP	2.0
36	35	105	LEU	2.0
46	H8	149	SER	2.0
46	H8	153	SER	2.0
13	4I	4	ILE	2.0
32	59	123	PHE	2.0
9	82	26	VAL	2.0
13	4A	60	VAL	2.0
53	O8	28	ARG	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	PSU	1L	39	20/21	0.86	0.20	113,140,153,154	0
23	4SU	2L	8	20/21	0.88	0.20	124,129,135,138	0
23	PSU	2L	56	20/21	0.90	0.11	121,128,134,135	0
22	PSU	1L	32	20/21	0.91	0.16	139,147,158,158	0
22	PSU	1K	32	20/21	0.92	0.12	112,119,129,131	0
23	PSU	2K	56	20/21	0.93	0.10	97,104,114,116	0
22	PSU	1K	39	20/21	0.93	0.15	90,106,111,114	0
22	MIA	1L	37	29/30	0.93	0.16	121,132,138,150	0
22	MIA	1K	37	29/30	0.94	0.18	88,98,114,119	0
23	4SU	2K	8	20/21	0.94	0.15	86,95,103,110	0
23	7MG	2K	47	24/25	0.95	0.11	97,107,122,130	0
23	OMC	2L	33	21/22	0.95	0.14	105,111,114,116	0
23	5MU	2L	55	21/22	0.95	0.11	126,131,137,141	0
23	5MU	2K	55	21/22	0.95	0.12	99,108,119,128	0
23	OMC	2K	33	21/22	0.97	0.16	79,84,93,100	0
23	7MG	2L	47	24/25	0.97	0.11	130,140,145,148	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	6A	101	1/1	0.15	0.33	126,126,126,126	0
56	MG	14	3218	1/1	0.17	0.51	82,82,82,82	0
56	MG	13	1704	1/1	0.30	1.41	95,95,95,95	0
56	MG	13	1702	1/1	0.36	0.14	112,112,112,112	0
56	MG	13	1616	1/1	0.36	0.36	98,98,98,98	0
56	MG	75	201	1/1	0.37	0.34	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1669	1/1	0.40	0.65	103,103,103,103	0
56	MG	1H	3327	1/1	0.40	0.44	110,110,110,110	0
56	MG	1H	3279	1/1	0.41	0.48	100,100,100,100	0
56	MG	13	1732	1/1	0.43	0.11	132,132,132,132	0
56	MG	14	3197	1/1	0.43	0.42	94,94,94,94	0
56	MG	1G	1641	1/1	0.44	0.17	121,121,121,121	0
56	MG	1H	3182	1/1	0.44	0.67	82,82,82,82	0
56	MG	1H	3324	1/1	0.46	0.17	93,93,93,93	0
56	MG	13	1680	1/1	0.48	0.81	97,97,97,97	0
56	MG	1H	3059	1/1	0.49	0.71	63,63,63,63	0
56	MG	1G	1624	1/1	0.49	0.55	85,85,85,85	0
56	MG	1H	3294	1/1	0.51	0.24	122,122,122,122	0
56	MG	1H	3127	1/1	0.52	0.43	84,84,84,84	0
56	MG	1H	3328	1/1	0.52	0.34	86,86,86,86	0
56	MG	14	3219	1/1	0.52	1.15	89,89,89,89	0
56	MG	1H	3290	1/1	0.52	0.61	94,94,94,94	0
56	MG	29	302	1/1	0.53	0.51	85,85,85,85	0
56	MG	13	1708	1/1	0.53	0.14	116,116,116,116	0
56	MG	14	3240	1/1	0.54	1.67	103,103,103,103	0
56	MG	14	3255	1/1	0.54	0.67	94,94,94,94	0
56	MG	2L	102	1/1	0.54	0.74	103,103,103,103	0
56	MG	13	1710	1/1	0.54	0.13	125,125,125,125	0
56	MG	14	3114	1/1	0.55	0.48	72,72,72,72	0
56	MG	13	1705	1/1	0.56	0.24	138,138,138,138	0
56	MG	1H	3332	1/1	0.56	0.34	138,138,138,138	0
56	MG	1G	1620	1/1	0.56	0.36	111,111,111,111	0
56	MG	14	3235	1/1	0.56	0.25	76,76,76,76	0
56	MG	1H	3223	1/1	0.57	0.25	69,69,69,69	0
56	MG	14	3258	1/1	0.57	0.28	90,90,90,90	0
56	MG	13	1685	1/1	0.58	0.32	123,123,123,123	0
56	MG	13	1619	1/1	0.58	0.22	82,82,82,82	0
56	MG	1G	1685	1/1	0.59	0.17	139,139,139,139	0
56	MG	14	3109	1/1	0.59	0.84	85,85,85,85	0
56	MG	13	1648	1/1	0.60	0.47	89,89,89,89	0
56	MG	1H	3297	1/1	0.60	0.21	80,80,80,80	0
56	MG	14	3249	1/1	0.60	0.32	69,69,69,69	0
56	MG	1H	3300	1/1	0.60	0.26	90,90,90,90	0
56	MG	1G	1674	1/1	0.60	0.10	94,94,94,94	0
56	MG	1G	1612	1/1	0.60	0.18	94,94,94,94	0
56	MG	1H	3230	1/1	0.60	0.45	66,66,66,66	0
56	MG	14	3037	1/1	0.61	0.38	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	16	209	1/1	0.62	0.26	90,90,90,90	0
56	MG	1G	1678	1/1	0.62	0.22	114,114,114,114	0
56	MG	14	3096	1/1	0.62	0.66	78,78,78,78	0
56	MG	1G	1651	1/1	0.62	0.14	102,102,102,102	0
56	MG	1H	3312	1/1	0.62	0.26	82,82,82,82	0
56	MG	1H	3285	1/1	0.63	0.50	89,89,89,89	0
56	MG	1G	1619	1/1	0.64	0.21	130,130,130,130	0
56	MG	1G	1670	1/1	0.65	0.43	98,98,98,98	0
56	MG	14	3119	1/1	0.65	0.54	88,88,88,88	0
56	MG	1H	3267	1/1	0.65	0.25	84,84,84,84	0
56	MG	1H	3333	1/1	0.65	0.60	99,99,99,99	0
57	ZN	C5	202	1/1	0.65	0.12	181,181,181,181	0
56	MG	13	1668	1/1	0.66	0.26	111,111,111,111	0
56	MG	14	3204	1/1	0.66	0.26	126,126,126,126	0
56	MG	1H	3291	1/1	0.66	0.36	71,71,71,71	0
57	ZN	G8	201	1/1	0.66	0.46	188,188,188,188	0
56	MG	13	1701	1/1	0.66	0.42	103,103,103,103	0
56	MG	13	1695	1/1	0.67	0.12	88,88,88,88	0
56	MG	1G	1677	1/1	0.67	0.45	106,106,106,106	0
56	MG	13	1696	1/1	0.67	0.23	137,137,137,137	0
56	MG	1H	3493	1/1	0.67	0.09	113,113,113,113	0
56	MG	1H	3184	1/1	0.67	0.48	94,94,94,94	0
56	MG	1G	1655	1/1	0.67	0.22	124,124,124,124	0
56	MG	1H	3296	1/1	0.67	0.68	81,81,81,81	0
56	MG	1H	3120	1/1	0.67	0.18	68,68,68,68	0
56	MG	14	3192	1/1	0.68	0.58	85,85,85,85	0
56	MG	1H	3148	1/1	0.68	0.38	47,47,47,47	0
56	MG	1H	3304	1/1	0.68	0.28	79,79,79,79	0
56	MG	1H	3216	1/1	0.68	0.58	68,68,68,68	0
56	MG	13	1743	1/1	0.68	0.05	156,156,156,156	0
56	MG	1G	1656	1/1	0.68	0.37	102,102,102,102	0
56	MG	1H	3473	1/1	0.68	0.11	92,92,92,92	0
56	MG	3E	302	1/1	0.69	0.08	125,125,125,125	0
56	MG	1H	3377	1/1	0.69	0.06	100,100,100,100	0
56	MG	13	1671	1/1	0.69	0.27	110,110,110,110	0
56	MG	14	3199	1/1	0.69	1.10	84,84,84,84	0
56	MG	13	1689	1/1	0.69	0.38	97,97,97,97	0
56	MG	1H	3225	1/1	0.69	0.34	79,79,79,79	0
56	MG	78	202	1/1	0.69	0.32	78,78,78,78	0
56	MG	1G	1654	1/1	0.69	0.56	86,86,86,86	0
56	MG	1H	3203	1/1	0.70	0.29	76,76,76,76	0
56	MG	1H	3259	1/1	0.70	0.54	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3106	1/1	0.70	0.20	78,78,78,78	0
56	MG	1H	3292	1/1	0.70	0.72	79,79,79,79	0
56	MG	1G	1684	1/1	0.70	0.15	113,113,113,113	0
56	MG	C5	201	1/1	0.70	0.21	102,102,102,102	0
56	MG	1H	3227	1/1	0.70	0.55	93,93,93,93	0
56	MG	1H	3282	1/1	0.70	0.46	68,68,68,68	0
56	MG	14	3067	1/1	0.71	0.69	84,84,84,84	0
56	MG	14	3082	1/1	0.71	0.37	97,97,97,97	0
56	MG	1G	1636	1/1	0.71	0.31	94,94,94,94	0
56	MG	AI	101	1/1	0.71	0.15	119,119,119,119	0
56	MG	13	1646	1/1	0.71	0.26	100,100,100,100	0
56	MG	14	3257	1/1	0.71	0.52	99,99,99,99	0
56	MG	13	1694	1/1	0.71	0.50	95,95,95,95	0
56	MG	1H	3318	1/1	0.71	0.18	86,86,86,86	0
56	MG	13	1636	1/1	0.71	0.14	93,93,93,93	0
56	MG	1G	1622	1/1	0.71	0.34	90,90,90,90	0
56	MG	14	3036	1/1	0.71	0.59	68,68,68,68	0
56	MG	13	1709	1/1	0.71	0.27	127,127,127,127	0
56	MG	1G	1648	1/1	0.72	0.21	115,115,115,115	0
56	MG	1H	3431	1/1	0.72	0.07	117,117,117,117	0
56	MG	13	1674	1/1	0.72	0.43	95,95,95,95	0
56	MG	1G	1682	1/1	0.72	0.66	102,102,102,102	0
56	MG	1H	3019	1/1	0.72	0.17	71,71,71,71	0
56	MG	3E	301	1/1	0.72	0.19	128,128,128,128	0
56	MG	1H	3244	1/1	0.72	0.22	89,89,89,89	0
56	MG	13	1677	1/1	0.72	0.34	109,109,109,109	0
56	MG	14	3245	1/1	0.72	0.40	84,84,84,84	0
56	MG	14	3128	1/1	0.73	0.83	98,98,98,98	0
56	MG	14	3181	1/1	0.73	0.96	86,86,86,86	0
56	MG	14	3189	1/1	0.73	0.86	86,86,86,86	0
56	MG	1H	3264	1/1	0.73	0.30	76,76,76,76	0
56	MG	1H	3183	1/1	0.73	0.21	76,76,76,76	0
56	MG	13	1681	1/1	0.73	0.57	83,83,83,83	0
56	MG	14	3328	1/1	0.73	0.15	98,98,98,98	0
56	MG	14	3361	1/1	0.73	0.07	115,115,115,115	0
56	MG	1J	206	1/1	0.73	0.28	91,91,91,91	0
56	MG	14	3201	1/1	0.73	0.52	86,86,86,86	0
56	MG	4A	201	1/1	0.73	0.40	115,115,115,115	0
56	MG	13	1712	1/1	0.73	0.29	114,114,114,114	0
56	MG	1H	3226	1/1	0.73	0.51	97,97,97,97	0
56	MG	11	304	1/1	0.73	0.70	68,68,68,68	0
56	MG	1H	3489	1/1	0.74	0.14	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1680	1/1	0.74	1.13	107,107,107,107	0
56	MG	14	3193	1/1	0.74	0.44	74,74,74,74	0
56	MG	14	3252	1/1	0.74	0.53	117,117,117,117	0
56	MG	14	3253	1/1	0.74	0.47	86,86,86,86	0
56	MG	1H	3248	1/1	0.74	0.15	81,81,81,81	0
56	MG	1H	3286	1/1	0.74	0.70	91,91,91,91	0
56	MG	1H	3397	1/1	0.74	0.10	96,96,96,96	0
56	MG	1H	3176	1/1	0.74	0.65	90,90,90,90	0
56	MG	14	3336	1/1	0.74	0.09	123,123,123,123	0
56	MG	14	3208	1/1	0.74	0.37	94,94,94,94	0
56	MG	14	3371	1/1	0.74	0.08	108,108,108,108	0
56	MG	14	3215	1/1	0.74	0.43	111,111,111,111	0
56	MG	14	3217	1/1	0.74	0.30	88,88,88,88	0
56	MG	1G	1639	1/1	0.74	0.39	99,99,99,99	0
56	MG	J8	102	1/1	0.74	0.31	66,66,66,66	0
56	MG	1H	3124	1/1	0.74	0.32	89,89,89,89	0
56	MG	14	3239	1/1	0.74	0.26	88,88,88,88	0
56	MG	1H	3095	1/1	0.75	0.32	78,78,78,78	0
56	MG	1G	1628	1/1	0.75	0.47	76,76,76,76	0
56	MG	1H	3205	1/1	0.75	0.42	80,80,80,80	0
56	MG	14	3148	1/1	0.75	0.46	75,75,75,75	0
56	MG	13	1610	1/1	0.75	0.40	72,72,72,72	0
56	MG	1H	3186	1/1	0.75	0.50	89,89,89,89	0
56	MG	1H	3198	1/1	0.75	0.32	71,71,71,71	0
56	MG	1H	3255	1/1	0.75	0.33	68,68,68,68	0
56	MG	14	3196	1/1	0.75	0.27	91,91,91,91	0
56	MG	14	3228	1/1	0.75	0.06	192,192,192,192	0
56	MG	1H	3335	1/1	0.76	0.41	97,97,97,97	0
56	MG	1G	1653	1/1	0.76	0.32	91,91,91,91	0
56	MG	16	203	1/1	0.76	0.10	91,91,91,91	0
56	MG	14	3154	1/1	0.76	0.14	79,79,79,79	0
56	MG	14	3171	1/1	0.76	0.90	91,91,91,91	0
56	MG	1H	3268	1/1	0.76	1.00	80,80,80,80	0
56	MG	1H	3067	1/1	0.76	0.41	74,74,74,74	0
56	MG	1G	1658	1/1	0.76	0.32	96,96,96,96	0
56	MG	14	3028	1/1	0.76	0.36	81,81,81,81	0
56	MG	14	3117	1/1	0.76	0.44	84,84,84,84	0
56	MG	14	3110	1/1	0.77	0.51	88,88,88,88	0
56	MG	14	3113	1/1	0.77	0.62	96,96,96,96	0
56	MG	1H	3179	1/1	0.77	0.27	59,59,59,59	0
56	MG	14	3116	1/1	0.77	0.18	77,77,77,77	0
56	MG	1H	3275	1/1	0.77	0.23	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	16	205	1/1	0.77	0.45	88,88,88,88	0
56	MG	16	206	1/1	0.77	0.29	76,76,76,76	0
56	MG	14	3360	1/1	0.77	0.28	112,112,112,112	0
56	MG	1G	1668	1/1	0.77	0.23	116,116,116,116	0
56	MG	13	1699	1/1	0.77	0.24	98,98,98,98	0
56	MG	13	1665	1/1	0.77	0.40	86,86,86,86	0
56	MG	1H	3047	1/1	0.77	0.25	71,71,71,71	0
56	MG	13	1737	1/1	0.77	0.05	122,122,122,122	0
56	MG	1H	3287	1/1	0.77	0.17	85,85,85,85	0
56	MG	1G	1652	1/1	0.77	0.62	86,86,86,86	0
56	MG	1H	3491	1/1	0.77	0.05	121,121,121,121	0
56	MG	1G	1607	1/1	0.78	0.29	92,92,92,92	0
56	MG	1H	3243	1/1	0.78	0.62	88,88,88,88	0
56	MG	1H	3281	1/1	0.78	0.30	60,60,60,60	0
56	MG	14	3214	1/1	0.78	0.73	81,81,81,81	0
56	MG	13	1688	1/1	0.78	0.15	102,102,102,102	0
56	MG	13	1678	1/1	0.78	0.19	110,110,110,110	0
56	MG	13	1683	1/1	0.78	0.31	78,78,78,78	0
56	MG	1H	3199	1/1	0.78	0.47	86,86,86,86	0
56	MG	13	1623	1/1	0.78	0.42	85,85,85,85	0
56	MG	1H	3266	1/1	0.78	0.47	75,75,75,75	0
56	MG	1G	1640	1/1	0.78	0.20	99,99,99,99	0
56	MG	1H	3090	1/1	0.78	0.33	66,66,66,66	0
56	MG	1H	3232	1/1	0.78	0.15	90,90,90,90	0
56	MG	1H	3269	1/1	0.78	0.40	99,99,99,99	0
56	MG	1H	3236	1/1	0.78	0.41	78,78,78,78	0
56	MG	P8	101	1/1	0.79	0.40	70,70,70,70	0
56	MG	1H	3247	1/1	0.79	0.38	65,65,65,65	0
56	MG	13	1741	1/1	0.79	0.04	138,138,138,138	0
56	MG	1H	3386	1/1	0.79	0.12	58,58,58,58	0
56	MG	14	3167	1/1	0.79	0.41	71,71,71,71	0
56	MG	1H	3252	1/1	0.79	0.38	83,83,83,83	0
56	MG	13	1711	1/1	0.79	0.16	109,109,109,109	0
56	MG	1H	3301	1/1	0.79	0.54	84,84,84,84	0
56	MG	1H	3293	1/1	0.79	0.51	82,82,82,82	0
56	MG	1H	3307	1/1	0.79	0.46	80,80,80,80	0
56	MG	14	3195	1/1	0.79	0.99	96,96,96,96	0
56	MG	1H	3028	1/1	0.80	0.24	77,77,77,77	0
56	MG	13	1640	1/1	0.80	0.10	95,95,95,95	0
56	MG	1H	3284	1/1	0.80	0.08	190,190,190,190	0
56	MG	13	1746	1/1	0.80	0.06	127,127,127,127	0
56	MG	14	3334	1/1	0.80	0.09	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3274	1/1	0.80	0.47	87,87,87,87	0
56	MG	16	207	1/1	0.80	0.36	87,87,87,87	0
56	MG	1H	3428	1/1	0.80	0.16	100,100,100,100	0
56	MG	13	1670	1/1	0.80	0.40	92,92,92,92	0
56	MG	1H	3289	1/1	0.80	0.45	77,77,77,77	0
56	MG	1G	1662	1/1	0.80	0.35	100,100,100,100	0
56	MG	1G	1664	1/1	0.80	0.51	88,88,88,88	0
56	MG	88	202	1/1	0.80	0.38	69,69,69,69	0
56	MG	14	3203	1/1	0.80	0.92	111,111,111,111	0
56	MG	1H	3121	1/1	0.80	0.61	88,88,88,88	0
56	MG	14	3243	1/1	0.81	0.87	81,81,81,81	0
56	MG	1H	3174	1/1	0.81	0.19	78,78,78,78	0
56	MG	1H	3508	1/1	0.81	0.08	96,96,96,96	0
56	MG	Q8	101	1/1	0.81	0.21	53,53,53,53	0
56	MG	1H	3380	1/1	0.81	0.07	82,82,82,82	0
56	MG	13	1682	1/1	0.81	0.50	92,92,92,92	0
56	MG	2K	101	1/1	0.81	0.34	86,86,86,86	0
56	MG	1H	3330	1/1	0.81	0.40	94,94,94,94	0
56	MG	1H	3331	1/1	0.81	0.73	74,74,74,74	0
56	MG	14	3209	1/1	0.81	0.13	71,71,71,71	0
56	MG	14	3093	1/1	0.81	0.47	63,63,63,63	0
56	MG	14	3175	1/1	0.81	0.12	88,88,88,88	0
56	MG	13	1687	1/1	0.81	0.90	79,79,79,79	0
56	MG	14	3367	1/1	0.81	0.17	92,92,92,92	0
56	MG	14	3182	1/1	0.81	0.32	152,152,152,152	0
56	MG	14	3188	1/1	0.81	0.24	83,83,83,83	0
56	MG	13	1667	1/1	0.81	0.64	87,87,87,87	0
56	MG	14	3190	1/1	0.81	0.44	77,77,77,77	0
56	MG	85	201	1/1	0.81	0.62	87,87,87,87	0
56	MG	13	1707	1/1	0.81	0.11	104,104,104,104	0
56	MG	1G	1661	1/1	0.81	1.07	87,87,87,87	0
56	MG	14	3241	1/1	0.81	0.60	90,90,90,90	0
56	MG	1G	1627	1/1	0.82	0.74	77,77,77,77	0
56	MG	14	3123	1/1	0.82	0.35	82,82,82,82	0
56	MG	1H	3295	1/1	0.82	0.24	94,94,94,94	0
56	MG	14	3132	1/1	0.82	0.26	75,75,75,75	0
56	MG	1H	3470	1/1	0.82	0.08	98,98,98,98	0
56	MG	1G	1665	1/1	0.82	0.59	104,104,104,104	0
56	MG	1H	3108	1/1	0.82	0.37	58,58,58,58	0
56	MG	1H	3202	1/1	0.82	0.22	80,80,80,80	0
56	MG	14	3068	1/1	0.82	0.31	73,73,73,73	0
56	MG	13	1742	1/1	0.82	0.07	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1639	1/1	0.82	0.33	98,98,98,98	0
56	MG	1H	3214	1/1	0.82	0.26	79,79,79,79	0
56	MG	14	3104	1/1	0.82	0.59	86,86,86,86	0
56	MG	13	1649	1/1	0.82	0.37	79,79,79,79	0
56	MG	1G	1613	1/1	0.82	1.03	87,87,87,87	0
56	MG	13	1679	1/1	0.82	0.18	95,95,95,95	0
56	MG	1H	3135	1/1	0.82	0.48	68,68,68,68	0
56	MG	1H	3138	1/1	0.82	0.46	69,69,69,69	0
56	MG	13	1657	1/1	0.82	0.06	87,87,87,87	0
56	MG	1G	1630	1/1	0.83	0.62	76,76,76,76	0
56	MG	1G	1701	1/1	0.83	0.09	128,128,128,128	0
56	MG	1H	3118	1/1	0.83	0.34	93,93,93,93	0
56	MG	1H	3105	1/1	0.83	0.75	68,68,68,68	0
56	MG	14	3118	1/1	0.83	0.46	92,92,92,92	0
56	MG	1H	3499	1/1	0.83	0.12	77,77,77,77	0
56	MG	1H	3022	1/1	0.83	0.52	78,78,78,78	0
56	MG	1H	3270	1/1	0.83	0.36	106,106,106,106	0
56	MG	1H	3404	1/1	0.83	0.09	86,86,86,86	0
56	MG	14	3282	1/1	0.83	0.08	92,92,92,92	0
56	MG	14	3312	1/1	0.83	0.08	97,97,97,97	0
56	MG	14	3142	1/1	0.83	0.65	73,73,73,73	0
56	MG	14	3330	1/1	0.83	0.05	104,104,104,104	0
56	MG	14	3052	1/1	0.83	0.78	74,74,74,74	0
56	MG	1G	1673	1/1	0.83	0.38	138,138,138,138	0
56	MG	14	3358	1/1	0.83	0.07	117,117,117,117	0
56	MG	14	3160	1/1	0.83	0.58	88,88,88,88	0
56	MG	1H	3143	1/1	0.83	0.27	68,68,68,68	0
56	MG	1H	3082	1/1	0.83	0.53	64,64,64,64	0
56	MG	1H	3466	1/1	0.83	0.07	106,106,106,106	0
56	MG	14	3385	1/1	0.83	0.23	113,113,113,113	0
56	MG	1H	3165	1/1	0.83	0.30	68,68,68,68	0
56	MG	1G	1681	1/1	0.83	0.32	106,106,106,106	0
56	MG	14	3231	1/1	0.83	0.41	77,77,77,77	0
56	MG	14	3232	1/1	0.83	0.98	109,109,109,109	0
56	MG	14	3187	1/1	0.83	0.71	62,62,62,62	0
56	MG	1H	3170	1/1	0.83	0.49	86,86,86,86	0
56	MG	1H	3218	1/1	0.83	0.40	76,76,76,76	0
56	MG	1G	1699	1/1	0.84	0.11	122,122,122,122	0
56	MG	14	3212	1/1	0.84	0.41	90,90,90,90	0
56	MG	1G	1642	1/1	0.84	0.48	110,110,110,110	0
56	MG	1H	3122	1/1	0.84	0.50	78,78,78,78	0
56	MG	14	3216	1/1	0.84	0.55	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	41	302	1/1	0.84	0.20	94,94,94,94	0
56	MG	1H	3026	1/1	0.84	0.51	85,85,85,85	0
56	MG	1H	3149	1/1	0.84	0.37	77,77,77,77	0
56	MG	14	3226	1/1	0.84	0.36	83,83,83,83	0
56	MG	98	201	1/1	0.84	0.51	99,99,99,99	0
56	MG	13	1622	1/1	0.84	0.44	85,85,85,85	0
56	MG	14	3122	1/1	0.84	0.30	81,81,81,81	0
56	MG	1H	3133	1/1	0.84	0.26	61,61,61,61	0
56	MG	1H	3068	1/1	0.84	0.29	67,67,67,67	0
56	MG	14	3130	1/1	0.84	0.39	75,75,75,75	0
56	MG	1J	204	1/1	0.84	0.70	100,100,100,100	0
56	MG	1G	1659	1/1	0.84	0.32	110,110,110,110	0
56	MG	1H	3242	1/1	0.84	0.41	86,86,86,86	0
56	MG	13	1615	1/1	0.84	0.31	103,103,103,103	0
56	MG	11	302	1/1	0.84	0.26	82,82,82,82	0
56	MG	14	3099	1/1	0.84	0.30	68,68,68,68	0
56	MG	1G	1697	1/1	0.84	0.10	108,108,108,108	0
56	MG	14	3254	1/1	0.84	0.57	81,81,81,81	0
56	MG	1H	3123	1/1	0.85	0.67	73,73,73,73	0
56	MG	14	3103	1/1	0.85	0.14	52,52,52,52	0
56	MG	1H	3233	1/1	0.85	1.00	75,75,75,75	0
56	MG	1H	3083	1/1	0.85	0.31	55,55,55,55	0
56	MG	14	3324	1/1	0.85	0.10	107,107,107,107	0
56	MG	1H	3263	1/1	0.85	0.40	82,82,82,82	0
56	MG	14	3329	1/1	0.85	0.08	89,89,89,89	0
56	MG	1H	3313	1/1	0.85	0.78	80,80,80,80	0
56	MG	13	1749	1/1	0.85	0.07	101,101,101,101	0
56	MG	1G	1666	1/1	0.85	0.46	94,94,94,94	0
56	MG	14	3340	1/1	0.85	0.10	83,83,83,83	0
56	MG	L8	101	1/1	0.85	0.26	72,72,72,72	0
56	MG	14	3024	1/1	0.85	0.12	79,79,79,79	0
56	MG	1H	3265	1/1	0.85	0.55	92,92,92,92	0
56	MG	14	3365	1/1	0.85	0.15	87,87,87,87	0
56	MG	14	3194	1/1	0.85	0.06	140,140,140,140	0
56	MG	1H	3529	1/1	0.85	0.12	55,55,55,55	0
56	MG	14	3378	1/1	0.85	0.11	92,92,92,92	0
56	MG	1G	1605	1/1	0.85	0.19	101,101,101,101	0
56	MG	13	1609	1/1	0.85	0.28	94,94,94,94	0
56	MG	1H	3204	1/1	0.85	0.53	76,76,76,76	0
56	MG	2K	102	1/1	0.85	0.61	76,76,76,76	0
56	MG	14	3071	1/1	0.85	0.21	88,88,88,88	0
56	MG	1H	3461	1/1	0.85	0.09	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3206	1/1	0.85	0.33	90,90,90,90	0
56	MG	13	1700	1/1	0.85	0.16	100,100,100,100	0
56	MG	1H	3469	1/1	0.85	0.09	96,96,96,96	0
56	MG	1H	3490	1/1	0.86	0.12	92,92,92,92	0
56	MG	1H	3234	1/1	0.86	0.23	74,74,74,74	0
56	MG	13	1676	1/1	0.86	0.10	104,104,104,104	0
56	MG	1H	3240	1/1	0.86	0.58	77,77,77,77	0
56	MG	14	3321	1/1	0.86	0.13	97,97,97,97	0
56	MG	1H	3188	1/1	0.86	0.17	62,62,62,62	0
56	MG	1H	3087	1/1	0.86	0.22	72,72,72,72	0
56	MG	1H	3070	1/1	0.86	0.54	74,74,74,74	0
56	MG	1H	3094	1/1	0.86	0.33	76,76,76,76	0
56	MG	14	3173	1/1	0.86	0.53	82,82,82,82	0
56	MG	14	3100	1/1	0.86	0.31	70,70,70,70	0
56	MG	14	3177	1/1	0.86	0.40	80,80,80,80	0
56	MG	14	3341	1/1	0.86	0.06	103,103,103,103	0
56	MG	14	3178	1/1	0.86	0.18	95,95,95,95	0
56	MG	14	3359	1/1	0.86	0.09	97,97,97,97	0
56	MG	1H	3075	1/1	0.86	0.30	53,53,53,53	0
56	MG	1H	3323	1/1	0.86	0.37	87,87,87,87	0
56	MG	14	3363	1/1	0.86	0.17	96,96,96,96	0
56	MG	1H	3273	1/1	0.86	0.42	97,97,97,97	0
56	MG	1H	3450	1/1	0.86	0.10	119,119,119,119	0
56	MG	1H	3325	1/1	0.86	0.36	64,64,64,64	0
56	MG	1H	3079	1/1	0.86	0.23	52,52,52,52	0
56	MG	13	1684	1/1	0.86	1.20	95,95,95,95	0
56	MG	1H	3329	1/1	0.86	0.24	99,99,99,99	0
56	MG	1H	3151	1/1	0.86	0.23	71,71,71,71	0
56	MG	1J	207	1/1	0.86	0.20	109,109,109,109	0
56	MG	1H	3260	1/1	0.86	0.46	82,82,82,82	0
56	MG	1G	1671	1/1	0.86	0.37	96,96,96,96	0
56	MG	14	3038	1/1	0.86	0.26	74,74,74,74	0
56	MG	14	3124	1/1	0.86	0.36	81,81,81,81	0
56	MG	14	3200	1/1	0.86	0.17	82,82,82,82	0
56	MG	14	3041	1/1	0.86	0.69	76,76,76,76	0
56	MG	1H	3072	1/1	0.87	0.23	46,46,46,46	0
56	MG	14	3244	1/1	0.87	0.14	80,80,80,80	0
56	MG	41	301	1/1	0.87	0.09	77,77,77,77	0
56	MG	13	1656	1/1	0.87	0.23	83,83,83,83	0
56	MG	1G	1644	1/1	0.87	0.50	74,74,74,74	0
56	MG	14	3191	1/1	0.87	0.23	94,94,94,94	0
56	MG	1H	3245	1/1	0.87	0.27	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3099	1/1	0.87	0.21	64,64,64,64	0
56	MG	1G	1687	1/1	0.87	0.05	121,121,121,121	0
56	MG	1G	1693	1/1	0.87	0.10	125,125,125,125	0
56	MG	1H	3048	1/1	0.87	0.32	84,84,84,84	0
56	MG	1K	102	1/1	0.87	0.51	93,93,93,93	0
56	MG	1H	3299	1/1	0.87	0.47	93,93,93,93	0
56	MG	1H	3132	1/1	0.87	0.70	74,74,74,74	0
56	MG	1H	3175	1/1	0.87	0.52	92,92,92,92	0
56	MG	13	1654	1/1	0.87	0.16	105,105,105,105	0
56	MG	14	3022	1/1	0.87	0.39	61,61,61,61	0
56	MG	14	3126	1/1	0.87	0.37	71,71,71,71	0
56	MG	14	3207	1/1	0.87	0.40	93,93,93,93	0
56	MG	1H	3378	1/1	0.87	0.09	83,83,83,83	0
56	MG	1H	3527	1/1	0.87	0.10	69,69,69,69	0
56	MG	14	3030	1/1	0.87	0.07	74,74,74,74	0
56	MG	14	3141	1/1	0.87	0.48	84,84,84,84	0
56	MG	1H	3116	1/1	0.87	0.13	61,61,61,61	0
56	MG	1H	3308	1/1	0.87	0.56	81,81,81,81	0
56	MG	16	204	1/1	0.87	0.42	86,86,86,86	0
56	MG	14	3156	1/1	0.87	0.23	80,80,80,80	0
56	MG	1H	3235	1/1	0.87	0.57	82,82,82,82	0
56	MG	14	3220	1/1	0.87	0.16	77,77,77,77	0
56	MG	14	3224	1/1	0.87	0.38	90,90,90,90	0
56	MG	14	3384	1/1	0.87	0.07	110,110,110,110	0
56	MG	13	1713	1/1	0.87	0.12	77,77,77,77	0
56	MG	1G	1625	1/1	0.87	0.67	82,82,82,82	0
56	MG	14	3229	1/1	0.87	0.31	82,82,82,82	0
56	MG	1H	3239	1/1	0.87	0.29	84,84,84,84	0
56	MG	1H	3215	1/1	0.87	0.65	71,71,71,71	0
56	MG	14	3234	1/1	0.87	0.64	80,80,80,80	0
56	MG	11	301	1/1	0.87	0.40	48,48,48,48	0
56	MG	14	3086	1/1	0.87	0.25	53,53,53,53	0
56	MG	1H	3037	1/1	0.87	0.34	64,64,64,64	0
56	MG	11	303	1/1	0.87	0.66	75,75,75,75	0
56	MG	14	3108	1/1	0.88	0.43	64,64,64,64	0
56	MG	1G	1667	1/1	0.88	0.29	97,97,97,97	0
56	MG	1H	3039	1/1	0.88	0.46	70,70,70,70	0
56	MG	1H	3298	1/1	0.88	0.51	73,73,73,73	0
56	MG	1H	3159	1/1	0.88	0.20	65,65,65,65	0
56	MG	1H	3076	1/1	0.88	0.41	75,75,75,75	0
56	MG	14	3031	1/1	0.88	0.20	73,73,73,73	0
56	MG	14	3331	1/1	0.88	0.10	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1643	1/1	0.88	0.38	79,79,79,79	0
56	MG	1H	3212	1/1	0.88	0.68	92,92,92,92	0
56	MG	1H	3137	1/1	0.88	0.20	67,67,67,67	0
56	MG	1G	1608	1/1	0.88	0.18	90,90,90,90	0
56	MG	13	1675	1/1	0.88	0.22	92,92,92,92	0
56	MG	1H	3189	1/1	0.88	0.29	77,77,77,77	0
56	MG	1G	1616	1/1	0.88	0.33	79,79,79,79	0
56	MG	1H	3334	1/1	0.88	0.20	77,77,77,77	0
56	MG	1H	3311	1/1	0.88	0.19	70,70,70,70	0
56	MG	14	3084	1/1	0.88	0.29	56,56,56,56	0
56	MG	1H	3197	1/1	0.88	0.26	68,68,68,68	0
56	MG	1H	3276	1/1	0.88	0.33	81,81,81,81	0
56	MG	14	3372	1/1	0.88	0.15	88,88,88,88	0
56	MG	14	3152	1/1	0.88	0.18	61,61,61,61	0
56	MG	13	1740	1/1	0.88	0.13	91,91,91,91	0
56	MG	1H	3496	1/1	0.88	0.12	59,59,59,59	0
56	MG	1J	203	1/1	0.88	0.20	79,79,79,79	0
56	MG	1H	3098	1/1	0.88	0.38	74,74,74,74	0
56	MG	1J	205	1/1	0.88	0.35	98,98,98,98	0
56	MG	13	1706	1/1	0.88	0.07	108,108,108,108	0
56	MG	14	3168	1/1	0.88	0.38	74,74,74,74	0
56	MG	14	3169	1/1	0.88	0.53	81,81,81,81	0
56	MG	14	3256	1/1	0.88	0.33	75,75,75,75	0
56	MG	14	3211	1/1	0.88	0.70	82,82,82,82	0
56	MG	1H	3510	1/1	0.88	0.12	99,99,99,99	0
56	MG	14	3274	1/1	0.88	0.09	99,99,99,99	0
56	MG	14	3276	1/1	0.88	0.15	64,64,64,64	0
56	MG	78	201	1/1	0.89	0.24	70,70,70,70	0
56	MG	14	3251	1/1	0.89	0.16	102,102,102,102	0
56	MG	1H	3229	1/1	0.89	0.54	112,112,112,112	0
56	MG	13	1750	1/1	0.89	0.09	97,97,97,97	0
56	MG	1H	3231	1/1	0.89	0.20	63,63,63,63	0
56	MG	14	3112	1/1	0.89	0.87	90,90,90,90	0
56	MG	1H	3093	1/1	0.89	0.74	61,61,61,61	0
56	MG	13	1650	1/1	0.89	0.37	98,98,98,98	0
56	MG	14	3115	1/1	0.89	0.38	86,86,86,86	0
56	MG	1H	3337	1/1	0.89	0.09	56,56,56,56	0
56	MG	1H	3344	1/1	0.89	0.11	48,48,48,48	0
56	MG	14	3279	1/1	0.89	0.04	95,95,95,95	0
56	MG	13	1686	1/1	0.89	0.22	106,106,106,106	0
56	MG	1H	3509	1/1	0.89	0.09	82,82,82,82	0
56	MG	14	3120	1/1	0.89	0.48	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3207	1/1	0.89	0.35	79,79,79,79	0
56	MG	1H	3522	1/1	0.89	0.12	99,99,99,99	0
56	MG	1H	3096	1/1	0.89	0.33	70,70,70,70	0
56	MG	14	3032	1/1	0.89	0.35	60,60,60,60	0
56	MG	1H	3144	1/1	0.89	0.25	78,78,78,78	0
56	MG	1G	1618	1/1	0.89	0.28	85,85,85,85	0
56	MG	14	3335	1/1	0.89	0.05	91,91,91,91	0
56	MG	14	3210	1/1	0.89	0.49	88,88,88,88	0
56	MG	14	3131	1/1	0.89	0.58	93,93,93,93	0
56	MG	1H	3315	1/1	0.89	0.24	77,77,77,77	0
56	MG	14	3133	1/1	0.89	0.50	82,82,82,82	0
56	MG	1H	3023	1/1	0.89	0.27	57,57,57,57	0
56	MG	14	3049	1/1	0.89	0.35	71,71,71,71	0
56	MG	1H	3406	1/1	0.89	0.15	86,86,86,86	0
56	MG	14	3149	1/1	0.89	0.51	89,89,89,89	0
56	MG	1H	3427	1/1	0.89	0.13	78,78,78,78	0
56	MG	13	1632	1/1	0.89	0.41	77,77,77,77	0
56	MG	13	1613	1/1	0.89	0.21	83,83,83,83	0
56	MG	16	210	1/1	0.89	0.28	97,97,97,97	0
56	MG	14	3164	1/1	0.89	0.20	74,74,74,74	0
56	MG	14	3380	1/1	0.89	0.12	58,58,58,58	0
56	MG	1H	3156	1/1	0.89	0.40	78,78,78,78	0
56	MG	13	1641	1/1	0.89	0.25	90,90,90,90	0
56	MG	14	3092	1/1	0.89	0.39	68,68,68,68	0
56	MG	1H	3464	1/1	0.89	0.07	111,111,111,111	0
56	MG	14	3094	1/1	0.89	0.19	82,82,82,82	0
56	MG	14	3236	1/1	0.89	0.40	89,89,89,89	0
56	MG	1H	3129	1/1	0.89	0.24	77,77,77,77	0
56	MG	14	3097	1/1	0.89	0.56	80,80,80,80	0
56	MG	14	3098	1/1	0.89	0.38	53,53,53,53	0
56	MG	21	302	1/1	0.89	0.20	73,73,73,73	0
56	MG	1H	3107	1/1	0.89	0.18	84,84,84,84	0
56	MG	1H	3278	1/1	0.89	0.34	82,82,82,82	0
56	MG	14	3246	1/1	0.89	0.30	98,98,98,98	0
56	MG	1G	1700	1/1	0.90	0.05	126,126,126,126	0
56	MG	13	1724	1/1	0.90	0.14	102,102,102,102	0
56	MG	1H	3412	1/1	0.90	0.10	101,101,101,101	0
56	MG	1H	3200	1/1	0.90	0.17	98,98,98,98	0
56	MG	1H	3237	1/1	0.90	0.32	62,62,62,62	0
56	MG	13	1725	1/1	0.90	0.14	90,90,90,90	0
56	MG	1H	3441	1/1	0.90	0.05	82,82,82,82	0
56	MG	31	301	1/1	0.90	0.29	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3305	1/1	0.90	0.14	112,112,112,112	0
56	MG	1H	3314	1/1	0.90	0.17	110,110,110,110	0
56	MG	14	3316	1/1	0.90	0.10	82,82,82,82	0
56	MG	1H	3150	1/1	0.90	0.20	52,52,52,52	0
56	MG	1H	3110	1/1	0.90	0.40	64,64,64,64	0
56	MG	1H	3320	1/1	0.90	0.30	86,86,86,86	0
56	MG	1H	3467	1/1	0.90	0.04	86,86,86,86	0
56	MG	1H	3321	1/1	0.90	0.17	72,72,72,72	0
56	MG	I8	101	1/1	0.90	0.05	88,88,88,88	0
56	MG	13	1727	1/1	0.90	0.13	117,117,117,117	0
56	MG	13	1660	1/1	0.90	0.15	108,108,108,108	0
56	MG	1H	3006	1/1	0.90	0.43	55,55,55,55	0
56	MG	1H	3213	1/1	0.90	0.69	86,86,86,86	0
56	MG	14	3069	1/1	0.90	0.44	63,63,63,63	0
56	MG	13	1662	1/1	0.90	0.40	113,113,113,113	0
56	MG	13	1738	1/1	0.90	0.08	113,113,113,113	0
56	MG	1H	3253	1/1	0.90	0.49	64,64,64,64	0
56	MG	13	1664	1/1	0.90	0.38	71,71,71,71	0
56	MG	14	3090	1/1	0.90	0.24	90,90,90,90	0
56	MG	13	1635	1/1	0.90	0.57	73,73,73,73	0
56	MG	13	1693	1/1	0.90	0.40	109,109,109,109	0
56	MG	13	1617	1/1	0.90	0.42	70,70,70,70	0
56	MG	1H	3516	1/1	0.90	0.06	100,100,100,100	0
56	MG	1H	3520	1/1	0.90	0.07	109,109,109,109	0
56	MG	13	1745	1/1	0.90	0.05	119,119,119,119	0
56	MG	14	3237	1/1	0.90	0.47	78,78,78,78	0
56	MG	13	1651	1/1	0.90	0.45	73,73,73,73	0
56	MG	1J	202	1/1	0.90	0.27	81,81,81,81	0
56	MG	14	3180	1/1	0.90	0.59	93,93,93,93	0
56	MG	13	1645	1/1	0.90	0.46	83,83,83,83	0
56	MG	13	1638	1/1	0.90	0.62	107,107,107,107	0
56	MG	1H	3102	1/1	0.90	0.42	75,75,75,75	0
56	MG	1H	3190	1/1	0.90	0.43	88,88,88,88	0
56	MG	1G	1690	1/1	0.90	0.08	90,90,90,90	0
56	MG	49	301	1/1	0.90	0.10	116,116,116,116	0
56	MG	13	1634	1/1	0.90	0.28	80,80,80,80	0
56	MG	14	3111	1/1	0.90	0.31	86,86,86,86	0
56	MG	1G	1696	1/1	0.90	0.05	98,98,98,98	0
56	MG	1H	3271	1/1	0.90	0.46	90,90,90,90	0
56	MG	13	1658	1/1	0.90	0.39	92,92,92,92	0
56	MG	1H	3158	1/1	0.91	0.37	55,55,55,55	0
56	MG	13	1644	1/1	0.91	0.49	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3176	1/1	0.91	0.24	71,71,71,71	0
56	MG	1H	3164	1/1	0.91	0.26	70,70,70,70	0
56	MG	1H	3038	1/1	0.91	0.26	76,76,76,76	0
56	MG	1G	1609	1/1	0.91	0.23	101,101,101,101	0
56	MG	1H	3507	1/1	0.91	0.04	94,94,94,94	0
56	MG	1H	3130	1/1	0.91	0.49	82,82,82,82	0
56	MG	14	3186	1/1	0.91	0.27	86,86,86,86	0
56	MG	13	1607	1/1	0.91	0.36	78,78,78,78	0
56	MG	1H	3360	1/1	0.91	0.04	105,105,105,105	0
56	MG	14	3260	1/1	0.91	0.15	62,62,62,62	0
56	MG	14	3266	1/1	0.91	0.06	69,69,69,69	0
56	MG	14	3102	1/1	0.91	0.76	76,76,76,76	0
56	MG	13	1612	1/1	0.91	0.26	70,70,70,70	0
56	MG	1H	3134	1/1	0.91	0.51	90,90,90,90	0
56	MG	1H	3178	1/1	0.91	0.31	68,68,68,68	0
56	MG	14	3289	1/1	0.91	0.17	77,77,77,77	0
56	MG	1H	3310	1/1	0.91	0.30	82,82,82,82	0
56	MG	1H	3528	1/1	0.91	0.09	77,77,77,77	0
56	MG	14	3313	1/1	0.91	0.07	81,81,81,81	0
56	MG	1H	3013	1/1	0.91	0.30	53,53,53,53	0
56	MG	16	202	1/1	0.91	0.41	66,66,66,66	0
56	MG	1H	3136	1/1	0.91	0.29	66,66,66,66	0
56	MG	1G	1635	1/1	0.91	0.33	96,96,96,96	0
56	MG	1H	3109	1/1	0.91	0.48	93,93,93,93	0
56	MG	1H	3221	1/1	0.91	0.43	92,92,92,92	0
56	MG	1G	1703	1/1	0.91	0.07	124,124,124,124	0
56	MG	1H	3414	1/1	0.91	0.09	80,80,80,80	0
56	MG	1H	3419	1/1	0.91	0.11	53,53,53,53	0
56	MG	16	208	1/1	0.91	0.13	70,70,70,70	0
56	MG	14	3007	1/1	0.91	0.34	54,54,54,54	0
56	MG	1H	3283	1/1	0.91	0.26	67,67,67,67	0
56	MG	14	3023	1/1	0.91	0.38	66,66,66,66	0
56	MG	1H	3317	1/1	0.91	0.37	66,66,66,66	0
56	MG	1G	1645	1/1	0.91	0.32	92,92,92,92	0
56	MG	1H	3430	1/1	0.91	0.11	71,71,71,71	0
56	MG	1H	3249	1/1	0.91	0.47	89,89,89,89	0
56	MG	1H	3433	1/1	0.91	0.17	77,77,77,77	0
56	MG	1H	3319	1/1	0.91	0.17	76,76,76,76	0
56	MG	14	3134	1/1	0.91	0.35	88,88,88,88	0
56	MG	14	3136	1/1	0.91	0.25	60,60,60,60	0
56	MG	14	3373	1/1	0.91	0.04	125,125,125,125	0
56	MG	1H	3443	1/1	0.91	0.12	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3058	1/1	0.91	0.73	69,69,69,69	0
56	MG	14	3382	1/1	0.91	0.06	85,85,85,85	0
56	MG	14	3144	1/1	0.91	0.17	72,72,72,72	0
56	MG	1H	3224	1/1	0.91	0.55	89,89,89,89	0
56	MG	14	3387	1/1	0.91	0.43	74,74,74,74	0
56	MG	13	1618	1/1	0.91	0.70	71,71,71,71	0
56	MG	1H	3257	1/1	0.91	0.41	82,82,82,82	0
56	MG	13	1697	1/1	0.91	0.51	75,75,75,75	0
56	MG	14	3233	1/1	0.91	0.49	112,112,112,112	0
56	MG	13	1715	1/1	0.91	0.09	116,116,116,116	0
56	MG	13	1628	1/1	0.91	0.39	77,77,77,77	0
56	MG	1J	208	1/1	0.91	0.05	109,109,109,109	0
56	MG	1H	3097	1/1	0.91	0.38	41,41,41,41	0
56	MG	14	3165	1/1	0.91	0.38	81,81,81,81	0
56	MG	14	3076	1/1	0.91	0.30	79,79,79,79	0
56	MG	1H	3478	1/1	0.91	0.07	111,111,111,111	0
56	MG	1H	3027	1/1	0.91	0.56	64,64,64,64	0
56	MG	14	3170	1/1	0.91	0.46	88,88,88,88	0
56	MG	13	1692	1/1	0.91	0.09	114,114,114,114	0
56	MG	1H	3503	1/1	0.92	0.07	115,115,115,115	0
56	MG	1G	1675	1/1	0.92	0.57	96,96,96,96	0
56	MG	1G	1676	1/1	0.92	0.15	157,157,157,157	0
56	MG	1H	3211	1/1	0.92	0.13	88,88,88,88	0
56	MG	1H	3241	1/1	0.92	0.42	70,70,70,70	0
56	MG	13	1748	1/1	0.92	0.06	156,156,156,156	0
56	MG	14	3184	1/1	0.92	0.35	53,53,53,53	0
56	MG	13	1606	1/1	0.92	0.32	80,80,80,80	0
56	MG	14	3259	1/1	0.92	0.18	67,67,67,67	0
56	MG	1H	3052	1/1	0.92	0.50	52,52,52,52	0
56	MG	14	3261	1/1	0.92	0.14	54,54,54,54	0
56	MG	1H	3280	1/1	0.92	0.25	80,80,80,80	0
56	MG	13	1672	1/1	0.92	0.24	118,118,118,118	0
56	MG	1G	1686	1/1	0.92	0.21	84,84,84,84	0
56	MG	1H	3114	1/1	0.92	0.12	59,59,59,59	0
56	MG	1G	1626	1/1	0.92	0.48	78,78,78,78	0
56	MG	14	3287	1/1	0.92	0.08	99,99,99,99	0
56	MG	1H	3316	1/1	0.92	0.55	64,64,64,64	0
56	MG	14	3294	1/1	0.92	0.10	69,69,69,69	0
56	MG	14	3295	1/1	0.92	0.09	87,87,87,87	0
56	MG	14	3297	1/1	0.92	0.10	107,107,107,107	0
56	MG	1H	3115	1/1	0.92	0.24	59,59,59,59	0
56	MG	1G	1629	1/1	0.92	0.39	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1655	1/1	0.92	0.37	80,80,80,80	0
56	MG	1H	3222	1/1	0.92	0.41	77,77,77,77	0
56	MG	14	3317	1/1	0.92	0.10	89,89,89,89	0
56	MG	1H	3025	1/1	0.92	0.18	86,86,86,86	0
56	MG	1G	1637	1/1	0.92	0.26	124,124,124,124	0
56	MG	14	3326	1/1	0.92	0.05	110,110,110,110	0
56	MG	13	1726	1/1	0.92	0.10	91,91,91,91	0
56	MG	1H	3256	1/1	0.92	0.90	74,74,74,74	0
56	MG	13	1690	1/1	0.92	0.15	96,96,96,96	0
56	MG	13	1744	1/1	0.92	0.05	144,144,144,144	0
56	MG	14	3018	1/1	0.92	0.27	68,68,68,68	0
56	MG	14	3020	1/1	0.92	0.20	72,72,72,72	0
56	MG	1H	3445	1/1	0.92	0.10	91,91,91,91	0
56	MG	13	1642	1/1	0.92	0.24	89,89,89,89	0
56	MG	1H	3451	1/1	0.92	0.07	94,94,94,94	0
56	MG	14	3349	1/1	0.92	0.07	110,110,110,110	0
56	MG	1H	3455	1/1	0.92	0.08	111,111,111,111	0
56	MG	1G	1650	1/1	0.92	0.28	111,111,111,111	0
56	MG	1H	3457	1/1	0.92	0.08	91,91,91,91	0
56	MG	14	3135	1/1	0.92	0.20	54,54,54,54	0
56	MG	1H	3195	1/1	0.92	0.18	68,68,68,68	0
56	MG	1H	3462	1/1	0.92	0.09	81,81,81,81	0
56	MG	1H	3152	1/1	0.92	0.40	53,53,53,53	0
56	MG	1H	3101	1/1	0.92	0.27	80,80,80,80	0
56	MG	14	3223	1/1	0.92	0.60	86,86,86,86	0
56	MG	13	1633	1/1	0.92	0.53	73,73,73,73	0
56	MG	14	3375	1/1	0.92	0.10	61,61,61,61	0
56	MG	1H	3468	1/1	0.92	0.04	109,109,109,109	0
56	MG	14	3227	1/1	0.92	0.28	103,103,103,103	0
56	MG	14	3151	1/1	0.92	0.53	52,52,52,52	0
56	MG	1H	3103	1/1	0.92	0.33	76,76,76,76	0
56	MG	14	3230	1/1	0.92	0.17	103,103,103,103	0
56	MG	14	3053	1/1	0.92	0.35	55,55,55,55	0
56	MG	1H	3161	1/1	0.92	0.33	66,66,66,66	0
56	MG	14	3157	1/1	0.92	0.24	107,107,107,107	0
56	MG	13	1747	1/1	0.92	0.09	140,140,140,140	0
56	MG	14	3162	1/1	0.92	0.35	60,60,60,60	0
56	MG	1H	3131	1/1	0.92	0.45	79,79,79,79	0
56	MG	1H	3483	1/1	0.92	0.06	117,117,117,117	0
56	MG	14	3166	1/1	0.92	0.18	112,112,112,112	0
56	MG	1H	3041	1/1	0.92	0.29	57,57,57,57	0
56	MG	1H	3172	1/1	0.92	0.51	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	35	201	1/1	0.92	0.39	76,76,76,76	0
56	MG	1H	3305	1/1	0.92	0.27	87,87,87,87	0
56	MG	1H	3492	1/1	0.92	0.11	108,108,108,108	0
56	MG	1H	3363	1/1	0.92	0.08	89,89,89,89	0
56	MG	1H	3364	1/1	0.92	0.09	70,70,70,70	0
56	MG	1H	3367	1/1	0.92	0.06	83,83,83,83	0
56	MG	1H	3480	1/1	0.93	0.05	122,122,122,122	0
56	MG	14	3268	1/1	0.93	0.11	64,64,64,64	0
56	MG	14	3269	1/1	0.93	0.15	90,90,90,90	0
56	MG	14	3271	1/1	0.93	0.24	63,63,63,63	0
56	MG	1H	3089	1/1	0.93	0.16	44,44,44,44	0
56	MG	14	3021	1/1	0.93	0.31	80,80,80,80	0
56	MG	14	3121	1/1	0.93	0.78	79,79,79,79	0
56	MG	88	201	1/1	0.93	0.26	79,79,79,79	0
56	MG	1H	3054	1/1	0.93	0.22	53,53,53,53	0
56	MG	13	1716	1/1	0.93	0.05	89,89,89,89	0
56	MG	C8	201	1/1	0.93	0.17	74,74,74,74	0
56	MG	1H	3169	1/1	0.93	0.15	74,74,74,74	0
56	MG	1H	3390	1/1	0.93	0.12	55,55,55,55	0
56	MG	13	1721	1/1	0.93	0.07	94,94,94,94	0
56	MG	1H	3494	1/1	0.93	0.06	95,95,95,95	0
56	MG	1H	3495	1/1	0.93	0.07	53,53,53,53	0
56	MG	1H	3206	1/1	0.93	0.16	77,77,77,77	0
56	MG	1H	3066	1/1	0.93	0.17	62,62,62,62	0
56	MG	14	3046	1/1	0.93	0.30	65,65,65,65	0
56	MG	14	3322	1/1	0.93	0.06	101,101,101,101	0
56	MG	14	3138	1/1	0.93	0.16	57,57,57,57	0
56	MG	14	3325	1/1	0.93	0.05	103,103,103,103	0
56	MG	1H	3035	1/1	0.93	0.25	86,86,86,86	0
56	MG	14	3213	1/1	0.93	0.55	93,93,93,93	0
56	MG	1H	3142	1/1	0.93	0.23	101,101,101,101	0
56	MG	14	3143	1/1	0.93	0.75	70,70,70,70	0
56	MG	13	1625	1/1	0.93	0.41	61,61,61,61	0
56	MG	14	3146	1/1	0.93	0.34	105,105,105,105	0
56	MG	13	1626	1/1	0.93	0.17	65,65,65,65	0
56	MG	13	1666	1/1	0.93	0.06	99,99,99,99	0
56	MG	14	3339	1/1	0.93	0.09	85,85,85,85	0
56	MG	14	3150	1/1	0.93	0.25	64,64,64,64	0
56	MG	1H	3180	1/1	0.93	0.36	67,67,67,67	0
56	MG	14	3348	1/1	0.93	0.05	97,97,97,97	0
56	MG	1H	3250	1/1	0.93	0.25	90,90,90,90	0
56	MG	14	3356	1/1	0.93	0.09	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3075	1/1	0.93	0.43	61,61,61,61	0
56	MG	14	3155	1/1	0.93	0.19	82,82,82,82	0
56	MG	13	1673	1/1	0.93	0.49	83,83,83,83	0
56	MG	14	3081	1/1	0.93	0.46	71,71,71,71	0
56	MG	1H	3435	1/1	0.93	0.08	95,95,95,95	0
56	MG	14	3161	1/1	0.93	0.57	70,70,70,70	0
56	MG	1H	3219	1/1	0.93	1.20	82,82,82,82	0
56	MG	1H	3442	1/1	0.93	0.08	100,100,100,100	0
56	MG	1H	3254	1/1	0.93	0.23	84,84,84,84	0
56	MG	1H	3042	1/1	0.93	0.32	53,53,53,53	0
56	MG	5E	201	1/1	0.93	0.23	93,93,93,93	0
56	MG	14	3377	1/1	0.93	0.10	52,52,52,52	0
56	MG	1H	3185	1/1	0.93	0.79	68,68,68,68	0
56	MG	13	1608	1/1	0.93	0.18	75,75,75,75	0
56	MG	1G	1633	1/1	0.93	0.33	92,92,92,92	0
56	MG	14	3383	1/1	0.93	0.13	93,93,93,93	0
56	MG	1H	3153	1/1	0.93	0.55	57,57,57,57	0
56	MG	14	3242	1/1	0.93	0.52	78,78,78,78	0
56	MG	14	3172	1/1	0.93	0.14	93,93,93,93	0
56	MG	1H	3261	1/1	0.93	0.22	58,58,58,58	0
56	MG	1G	1692	1/1	0.93	0.07	111,111,111,111	0
56	MG	1H	3154	1/1	0.93	0.15	66,66,66,66	0
56	MG	1G	1695	1/1	0.93	0.04	103,103,103,103	0
56	MG	1H	3155	1/1	0.93	0.68	72,72,72,72	0
56	MG	1H	3193	1/1	0.93	0.41	67,67,67,67	0
56	MG	1H	3051	1/1	0.93	0.35	72,72,72,72	0
56	MG	1H	3350	1/1	0.93	0.13	43,43,43,43	0
56	MG	1H	3196	1/1	0.93	0.17	90,90,90,90	0
56	MG	1H	3157	1/1	0.93	0.39	65,65,65,65	0
56	MG	1H	3086	1/1	0.93	0.47	67,67,67,67	0
56	MG	1G	1647	1/1	0.93	0.31	102,102,102,102	0
56	MG	1H	3475	1/1	0.93	0.08	77,77,77,77	0
56	MG	F5	101	1/1	0.93	0.47	74,74,74,74	0
56	MG	13	1663	1/1	0.93	0.19	82,82,82,82	0
56	MG	14	3009	1/1	0.93	0.44	63,63,63,63	0
56	MG	14	3139	1/1	0.94	0.67	69,69,69,69	0
56	MG	14	3292	1/1	0.94	0.08	90,90,90,90	0
56	MG	1G	1631	1/1	0.94	0.34	89,89,89,89	0
56	MG	16	211	1/1	0.94	0.07	84,84,84,84	0
56	MG	14	3074	1/1	0.94	0.49	63,63,63,63	0
56	MG	14	3299	1/1	0.94	0.08	82,82,82,82	0
56	MG	1H	3036	1/1	0.94	0.28	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3145	1/1	0.94	0.24	90,90,90,90	0
56	MG	1H	3238	1/1	0.94	0.18	71,71,71,71	0
56	MG	1H	3417	1/1	0.94	0.13	65,65,65,65	0
56	MG	1G	1638	1/1	0.94	0.11	154,154,154,154	0
56	MG	14	3318	1/1	0.94	0.17	63,63,63,63	0
56	MG	1H	3309	1/1	0.94	0.19	87,87,87,87	0
56	MG	1H	3487	1/1	0.94	0.09	101,101,101,101	0
56	MG	14	3087	1/1	0.94	0.09	59,59,59,59	0
56	MG	14	3153	1/1	0.94	0.15	60,60,60,60	0
56	MG	1H	3420	1/1	0.94	0.09	65,65,65,65	0
56	MG	14	3327	1/1	0.94	0.10	120,120,120,120	0
56	MG	13	1728	1/1	0.94	0.09	95,95,95,95	0
56	MG	14	3221	1/1	0.94	0.46	88,88,88,88	0
56	MG	1H	3078	1/1	0.94	0.18	60,60,60,60	0
56	MG	1H	3220	1/1	0.94	0.12	61,61,61,61	0
56	MG	14	3333	1/1	0.94	0.09	91,91,91,91	0
56	MG	14	3095	1/1	0.94	0.31	72,72,72,72	0
56	MG	1H	3145	1/1	0.94	0.28	49,49,49,49	0
56	MG	13	1691	1/1	0.94	0.26	101,101,101,101	0
56	MG	14	3337	1/1	0.94	0.06	83,83,83,83	0
56	MG	13	1611	1/1	0.94	0.26	70,70,70,70	0
56	MG	1H	3439	1/1	0.94	0.08	76,76,76,76	0
56	MG	1H	3351	1/1	0.94	0.15	50,50,50,50	0
56	MG	1H	3359	1/1	0.94	0.06	102,102,102,102	0
56	MG	1H	3062	1/1	0.94	0.23	35,35,35,35	0
56	MG	14	3353	1/1	0.94	0.05	99,99,99,99	0
56	MG	1H	3444	1/1	0.94	0.04	97,97,97,97	0
56	MG	1H	3084	1/1	0.94	0.19	66,66,66,66	0
56	MG	14	3015	1/1	0.94	0.28	69,69,69,69	0
56	MG	1H	3085	1/1	0.94	0.43	74,74,74,74	0
56	MG	14	3238	1/1	0.94	0.33	77,77,77,77	0
56	MG	14	3362	1/1	0.94	0.06	78,78,78,78	0
56	MG	1H	3514	1/1	0.94	0.14	51,51,51,51	0
56	MG	1H	3063	1/1	0.94	0.46	47,47,47,47	0
56	MG	14	3366	1/1	0.94	0.15	83,83,83,83	0
56	MG	1H	3453	1/1	0.94	0.06	91,91,91,91	0
56	MG	1H	3374	1/1	0.94	0.09	63,63,63,63	0
56	MG	1G	1610	1/1	0.94	0.09	98,98,98,98	0
56	MG	1H	3524	1/1	0.94	0.32	49,49,49,49	0
56	MG	1H	3456	1/1	0.94	0.05	111,111,111,111	0
56	MG	1H	3375	1/1	0.94	0.07	75,75,75,75	0
56	MG	13	1653	1/1	0.94	0.25	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3379	1/1	0.94	0.09	60,60,60,60	0
56	MG	14	3034	1/1	0.94	0.26	64,64,64,64	0
56	MG	16	201	1/1	0.94	0.13	96,96,96,96	0
56	MG	13	1614	1/1	0.94	0.29	97,97,97,97	0
56	MG	1H	3379	1/1	0.94	0.05	79,79,79,79	0
56	MG	1H	3465	1/1	0.94	0.12	95,95,95,95	0
56	MG	1H	3020	1/1	0.94	0.36	56,56,56,56	0
56	MG	1J	201	1/1	0.94	0.16	114,114,114,114	0
56	MG	1H	3091	1/1	0.94	0.17	43,43,43,43	0
56	MG	14	3129	1/1	0.94	0.44	76,76,76,76	0
56	MG	14	3051	1/1	0.94	0.72	71,71,71,71	0
56	MG	1H	3069	1/1	0.94	0.36	45,45,45,45	0
56	MG	1H	3031	1/1	0.94	0.25	63,63,63,63	0
56	MG	14	3055	1/1	0.94	0.32	60,60,60,60	0
56	MG	14	3198	1/1	0.94	0.06	82,82,82,82	0
56	MG	1J	209	1/1	0.94	0.07	94,94,94,94	0
56	MG	14	3061	1/1	0.94	0.45	71,71,71,71	0
56	MG	14	3063	1/1	0.94	0.27	62,62,62,62	0
56	MG	1H	3021	1/1	0.94	0.21	58,58,58,58	0
56	MG	14	3202	1/1	0.94	0.10	115,115,115,115	0
56	MG	14	3137	1/1	0.94	0.36	53,53,53,53	0
56	MG	14	3280	1/1	0.94	0.09	88,88,88,88	0
56	MG	1H	3117	1/1	0.94	0.56	63,63,63,63	0
56	MG	14	3283	1/1	0.94	0.13	57,57,57,57	0
57	ZN	5A	101	1/1	0.94	0.12	160,160,160,160	0
56	MG	14	3205	1/1	0.94	0.34	91,91,91,91	0
56	MG	14	3272	1/1	0.95	0.12	59,59,59,59	0
56	MG	1H	3139	1/1	0.95	0.20	65,65,65,65	0
56	MG	I8	102	1/1	0.95	0.07	67,67,67,67	0
56	MG	14	3278	1/1	0.95	0.10	84,84,84,84	0
56	MG	1H	3074	1/1	0.95	0.37	65,65,65,65	0
56	MG	1H	3486	1/1	0.95	0.09	61,61,61,61	0
56	MG	1G	1679	1/1	0.95	0.44	105,105,105,105	0
56	MG	13	1723	1/1	0.95	0.12	105,105,105,105	0
56	MG	14	3285	1/1	0.95	0.12	57,57,57,57	0
56	MG	1H	3388	1/1	0.95	0.15	63,63,63,63	0
56	MG	14	3288	1/1	0.95	0.19	62,62,62,62	0
56	MG	1H	3277	1/1	0.95	0.47	84,84,84,84	0
56	MG	1H	3210	1/1	0.95	0.17	95,95,95,95	0
56	MG	1H	3400	1/1	0.95	0.12	68,68,68,68	0
56	MG	1H	3402	1/1	0.95	0.16	49,49,49,49	0
56	MG	14	3105	1/1	0.95	0.51	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3119	1/1	0.95	1.25	86,86,86,86	0
56	MG	1G	1611	1/1	0.95	0.60	91,91,91,91	0
56	MG	14	3307	1/1	0.95	0.09	70,70,70,70	0
56	MG	14	3311	1/1	0.95	0.07	82,82,82,82	0
56	MG	1G	1691	1/1	0.95	0.05	119,119,119,119	0
56	MG	1H	3405	1/1	0.95	0.11	75,75,75,75	0
56	MG	14	3315	1/1	0.95	0.13	71,71,71,71	0
56	MG	2K	103	1/1	0.95	0.32	59,59,59,59	0
56	MG	1H	3146	1/1	0.95	0.20	42,42,42,42	0
56	MG	1H	3500	1/1	0.95	0.07	80,80,80,80	0
56	MG	13	1698	1/1	0.95	0.47	90,90,90,90	0
56	MG	1H	3504	1/1	0.95	0.05	75,75,75,75	0
56	MG	1H	3505	1/1	0.95	0.07	78,78,78,78	0
56	MG	1H	3246	1/1	0.95	0.47	88,88,88,88	0
56	MG	1G	1702	1/1	0.95	0.07	146,146,146,146	0
56	MG	1H	3322	1/1	0.95	0.17	77,77,77,77	0
56	MG	1H	3181	1/1	0.95	0.23	99,99,99,99	0
56	MG	1H	3423	1/1	0.95	0.06	93,93,93,93	0
56	MG	1H	3511	1/1	0.95	0.09	76,76,76,76	0
56	MG	1H	3512	1/1	0.95	0.15	44,44,44,44	0
56	MG	14	3125	1/1	0.95	0.25	105,105,105,105	0
56	MG	1H	3513	1/1	0.95	0.13	58,58,58,58	0
56	MG	1H	3426	1/1	0.95	0.08	53,53,53,53	0
56	MG	14	3016	1/1	0.95	0.30	68,68,68,68	0
56	MG	1H	3009	1/1	0.95	0.27	47,47,47,47	0
56	MG	14	3338	1/1	0.95	0.06	107,107,107,107	0
56	MG	1H	3518	1/1	0.95	0.13	74,74,74,74	0
56	MG	1H	3217	1/1	0.95	0.32	61,61,61,61	0
56	MG	1H	3429	1/1	0.95	0.06	74,74,74,74	0
56	MG	1H	3100	1/1	0.95	0.39	71,71,71,71	0
56	MG	1H	3288	1/1	0.95	0.14	60,60,60,60	0
56	MG	14	3351	1/1	0.95	0.03	99,99,99,99	0
56	MG	14	3026	1/1	0.95	0.28	90,90,90,90	0
56	MG	14	3222	1/1	0.95	0.35	87,87,87,87	0
56	MG	1H	3030	1/1	0.95	0.28	70,70,70,70	0
56	MG	14	3029	1/1	0.95	0.31	84,84,84,84	0
56	MG	14	3225	1/1	0.95	0.09	96,96,96,96	0
56	MG	1H	3126	1/1	0.95	0.46	88,88,88,88	0
56	MG	1H	3012	1/1	0.95	0.50	52,52,52,52	0
56	MG	1H	3128	1/1	0.95	0.14	71,71,71,71	0
56	MG	14	3364	1/1	0.95	0.14	77,77,77,77	0
56	MG	13	1652	1/1	0.95	0.07	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3014	1/1	0.95	0.42	57,57,57,57	0
56	MG	1G	1646	1/1	0.95	0.19	84,84,84,84	0
56	MG	1H	3191	1/1	0.95	0.22	59,59,59,59	0
56	MG	14	3039	1/1	0.95	0.28	79,79,79,79	0
56	MG	1H	3336	1/1	0.95	0.09	52,52,52,52	0
56	MG	14	3044	1/1	0.95	0.93	82,82,82,82	0
56	MG	13	1739	1/1	0.95	0.12	118,118,118,118	0
56	MG	1H	3338	1/1	0.95	0.14	49,49,49,49	0
56	MG	3I	201	1/1	0.95	0.24	70,70,70,70	0
56	MG	1H	3348	1/1	0.95	0.08	60,60,60,60	0
56	MG	14	3381	1/1	0.95	0.10	79,79,79,79	0
56	MG	1H	3349	1/1	0.95	0.10	70,70,70,70	0
56	MG	16	212	1/1	0.95	0.06	79,79,79,79	0
56	MG	14	3057	1/1	0.95	0.38	80,80,80,80	0
56	MG	14	3158	1/1	0.95	0.17	75,75,75,75	0
56	MG	14	3159	1/1	0.95	0.20	60,60,60,60	0
56	MG	16	213	1/1	0.95	0.10	102,102,102,102	0
56	MG	1H	3228	1/1	0.95	0.33	71,71,71,71	0
56	MG	13	1703	1/1	0.95	0.92	91,91,91,91	0
56	MG	14	3250	1/1	0.95	0.37	108,108,108,108	0
56	MG	1H	3356	1/1	0.95	0.09	67,67,67,67	0
56	MG	13	1718	1/1	0.95	0.12	88,88,88,88	0
56	MG	14	3070	1/1	0.95	0.52	59,59,59,59	0
56	MG	1G	1663	1/1	0.95	0.28	89,89,89,89	0
56	MG	1H	3163	1/1	0.95	0.45	74,74,74,74	0
56	MG	13	1659	1/1	0.95	0.12	107,107,107,107	0
56	MG	1H	3092	1/1	0.95	0.23	52,52,52,52	0
56	MG	1H	3365	1/1	0.95	0.06	91,91,91,91	0
56	MG	1H	3201	1/1	0.95	0.22	79,79,79,79	0
56	MG	1H	3044	1/1	0.95	0.39	75,75,75,75	0
56	MG	14	3174	1/1	0.95	0.27	96,96,96,96	0
56	MG	1H	3046	1/1	0.95	0.34	80,80,80,80	0
56	MG	1H	3272	1/1	0.95	0.50	71,71,71,71	0
56	MG	1H	3171	1/1	0.95	0.36	101,101,101,101	0
56	MG	1H	3479	1/1	0.95	0.11	67,67,67,67	0
56	MG	14	3066	1/1	0.96	0.52	65,65,65,65	0
56	MG	1H	3162	1/1	0.96	0.17	55,55,55,55	0
56	MG	1H	3111	1/1	0.96	0.28	100,100,100,100	0
56	MG	1H	3471	1/1	0.96	0.08	94,94,94,94	0
56	MG	1H	3113	1/1	0.96	0.33	73,73,73,73	0
56	MG	1H	3399	1/1	0.96	0.09	67,67,67,67	0
56	MG	1H	3477	1/1	0.96	0.11	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3326	1/1	0.96	0.35	94,94,94,94	0
56	MG	1H	3401	1/1	0.96	0.07	50,50,50,50	0
56	MG	14	3077	1/1	0.96	0.43	78,78,78,78	0
56	MG	14	3079	1/1	0.96	0.55	69,69,69,69	0
56	MG	14	3080	1/1	0.96	0.35	54,54,54,54	0
56	MG	13	1751	1/1	0.96	0.21	70,70,70,70	0
56	MG	1H	3403	1/1	0.96	0.20	48,48,48,48	0
56	MG	14	3293	1/1	0.96	0.12	68,68,68,68	0
56	MG	14	3183	1/1	0.96	0.45	83,83,83,83	0
56	MG	14	3083	1/1	0.96	0.42	93,93,93,93	0
56	MG	1G	1672	1/1	0.96	0.35	100,100,100,100	0
56	MG	1H	3484	1/1	0.96	0.10	89,89,89,89	0
56	MG	14	3301	1/1	0.96	0.06	81,81,81,81	0
56	MG	1H	3485	1/1	0.96	0.07	81,81,81,81	0
56	MG	14	3089	1/1	0.96	0.49	87,87,87,87	0
56	MG	14	3309	1/1	0.96	0.12	86,86,86,86	0
56	MG	E8	201	1/1	0.96	0.31	79,79,79,79	0
56	MG	1H	3166	1/1	0.96	0.43	60,60,60,60	0
56	MG	1H	3043	1/1	0.96	0.23	50,50,50,50	0
56	MG	J8	101	1/1	0.96	0.30	72,72,72,72	0
56	MG	1H	3488	1/1	0.96	0.09	102,102,102,102	0
56	MG	1H	3262	1/1	0.96	0.17	57,57,57,57	0
56	MG	1H	3409	1/1	0.96	0.05	83,83,83,83	0
56	MG	14	3319	1/1	0.96	0.05	88,88,88,88	0
56	MG	1H	3410	1/1	0.96	0.12	62,62,62,62	0
56	MG	1G	1683	1/1	0.96	0.26	123,123,123,123	0
56	MG	14	3323	1/1	0.96	0.10	96,96,96,96	0
56	MG	1G	1604	1/1	0.96	0.20	95,95,95,95	0
56	MG	13	1717	1/1	0.96	0.07	105,105,105,105	0
56	MG	1G	1606	1/1	0.96	0.28	94,94,94,94	0
56	MG	1H	3413	1/1	0.96	0.08	71,71,71,71	0
56	MG	1H	3045	1/1	0.96	0.35	75,75,75,75	0
56	MG	14	3107	1/1	0.96	0.39	76,76,76,76	0
56	MG	1H	3415	1/1	0.96	0.07	100,100,100,100	0
56	MG	13	1621	1/1	0.96	0.33	97,97,97,97	0
56	MG	1H	3498	1/1	0.96	0.09	64,64,64,64	0
56	MG	1G	1694	1/1	0.96	0.05	104,104,104,104	0
56	MG	1H	3173	1/1	0.96	0.14	79,79,79,79	0
56	MG	13	1719	1/1	0.96	0.14	64,64,64,64	0
56	MG	1G	1615	1/1	0.96	0.18	103,103,103,103	0
56	MG	1G	1698	1/1	0.96	0.08	91,91,91,91	0
56	MG	1H	3501	1/1	0.96	0.12	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3422	1/1	0.96	0.09	83,83,83,83	0
56	MG	1H	3073	1/1	0.96	0.22	53,53,53,53	0
56	MG	14	3343	1/1	0.96	0.04	100,100,100,100	0
56	MG	13	1733	1/1	0.96	0.11	101,101,101,101	0
56	MG	1H	3303	1/1	0.96	0.21	88,88,88,88	0
56	MG	1H	3177	1/1	0.96	0.23	62,62,62,62	0
56	MG	14	3352	1/1	0.96	0.08	106,106,106,106	0
56	MG	1H	3346	1/1	0.96	0.18	64,64,64,64	0
56	MG	14	3354	1/1	0.96	0.17	77,77,77,77	0
56	MG	1H	3208	1/1	0.96	0.22	71,71,71,71	0
56	MG	1H	3306	1/1	0.96	0.31	81,81,81,81	0
56	MG	14	3008	1/1	0.96	0.48	58,58,58,58	0
56	MG	1H	3209	1/1	0.96	0.42	60,60,60,60	0
56	MG	14	3011	1/1	0.96	0.56	57,57,57,57	0
56	MG	14	3014	1/1	0.96	0.17	81,81,81,81	0
56	MG	1H	3050	1/1	0.96	0.29	62,62,62,62	0
56	MG	1H	3437	1/1	0.96	0.15	82,82,82,82	0
56	MG	14	3017	1/1	0.96	0.28	85,85,85,85	0
56	MG	1H	3515	1/1	0.96	0.15	46,46,46,46	0
56	MG	1G	1632	1/1	0.96	0.24	86,86,86,86	0
56	MG	1H	3438	1/1	0.96	0.11	52,52,52,52	0
56	MG	1G	1634	1/1	0.96	0.21	110,110,110,110	0
56	MG	1H	3354	1/1	0.96	0.09	61,61,61,61	0
56	MG	13	1605	1/1	0.96	0.33	81,81,81,81	0
56	MG	14	3376	1/1	0.96	0.11	65,65,65,65	0
56	MG	1H	3521	1/1	0.96	0.13	49,49,49,49	0
56	MG	14	3140	1/1	0.96	0.28	65,65,65,65	0
56	MG	1H	3077	1/1	0.96	0.10	69,69,69,69	0
56	MG	1H	3125	1/1	0.96	0.62	77,77,77,77	0
56	MG	1H	3526	1/1	0.96	0.15	46,46,46,46	0
56	MG	1K	101	1/1	0.96	0.34	88,88,88,88	0
56	MG	1H	3053	1/1	0.96	0.27	48,48,48,48	0
56	MG	14	3033	1/1	0.96	0.27	69,69,69,69	0
56	MG	1H	3446	1/1	0.96	0.05	84,84,84,84	0
56	MG	1H	3447	1/1	0.96	0.12	81,81,81,81	0
56	MG	13	1637	1/1	0.96	0.62	59,59,59,59	0
56	MG	1H	3057	1/1	0.96	0.32	40,40,40,40	0
56	MG	1H	3368	1/1	0.96	0.06	76,76,76,76	0
56	MG	1H	3369	1/1	0.96	0.14	70,70,70,70	0
56	MG	14	3042	1/1	0.96	0.23	48,48,48,48	0
56	MG	1H	3372	1/1	0.96	0.14	65,65,65,65	0
56	MG	14	3045	1/1	0.96	0.56	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1714	1/1	0.96	0.10	62,62,62,62	0
56	MG	1H	3458	1/1	0.96	0.14	109,109,109,109	0
56	MG	13	1647	1/1	0.96	0.54	75,75,75,75	0
56	MG	1H	3040	1/1	0.96	0.23	47,47,47,47	0
56	MG	1H	3251	1/1	0.96	0.20	96,96,96,96	0
56	MG	14	3054	1/1	0.96	0.43	59,59,59,59	0
56	MG	14	3163	1/1	0.96	0.56	71,71,71,71	0
56	MG	13	1620	1/1	0.96	0.54	69,69,69,69	0
56	MG	1H	3064	1/1	0.96	0.20	45,45,45,45	0
56	MG	14	3267	1/1	0.96	0.11	67,67,67,67	0
56	MG	1H	3384	1/1	0.96	0.11	62,62,62,62	0
56	MG	1H	3192	1/1	0.96	0.36	81,81,81,81	0
56	MG	13	1729	1/1	0.97	0.08	111,111,111,111	0
56	MG	14	3127	1/1	0.97	0.34	83,83,83,83	0
56	MG	14	3303	1/1	0.97	0.07	107,107,107,107	0
56	MG	14	3304	1/1	0.97	0.08	91,91,91,91	0
56	MG	1H	3411	1/1	0.97	0.03	101,101,101,101	0
56	MG	14	3306	1/1	0.97	0.17	49,49,49,49	0
56	MG	1G	1614	1/1	0.97	0.64	78,78,78,78	0
56	MG	14	3308	1/1	0.97	0.11	68,68,68,68	0
56	MG	1H	3355	1/1	0.97	0.08	53,53,53,53	0
56	MG	14	3310	1/1	0.97	0.05	78,78,78,78	0
56	MG	1H	3525	1/1	0.97	0.10	43,43,43,43	0
56	MG	14	3047	1/1	0.97	0.30	59,59,59,59	0
56	MG	14	3048	1/1	0.97	0.40	65,65,65,65	0
56	MG	14	3314	1/1	0.97	0.08	64,64,64,64	0
56	MG	1G	1617	1/1	0.97	0.31	99,99,99,99	0
56	MG	13	1731	1/1	0.97	0.07	69,69,69,69	0
56	MG	13	1629	1/1	0.97	0.25	87,87,87,87	0
56	MG	1H	3472	1/1	0.97	0.07	61,61,61,61	0
56	MG	1G	1621	1/1	0.97	0.24	92,92,92,92	0
56	MG	14	3320	1/1	0.97	0.09	72,72,72,72	0
56	MG	13	1630	1/1	0.97	0.36	57,57,57,57	0
56	MG	1G	1623	1/1	0.97	0.37	114,114,114,114	0
56	MG	14	3059	1/1	0.97	0.27	59,59,59,59	0
56	MG	1H	3361	1/1	0.97	0.04	105,105,105,105	0
56	MG	14	3062	1/1	0.97	0.24	69,69,69,69	0
56	MG	1H	3476	1/1	0.97	0.07	65,65,65,65	0
56	MG	14	3064	1/1	0.97	0.50	68,68,68,68	0
56	MG	14	3065	1/1	0.97	0.48	49,49,49,49	0
56	MG	14	3147	1/1	0.97	0.25	95,95,95,95	0
56	MG	1H	3418	1/1	0.97	0.14	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3362	1/1	0.97	0.11	72,72,72,72	0
56	MG	14	3332	1/1	0.97	0.08	88,88,88,88	0
56	MG	1G	1688	1/1	0.97	0.12	73,73,73,73	0
56	MG	1H	3024	1/1	0.97	0.30	53,53,53,53	0
56	MG	13	1734	1/1	0.97	0.04	87,87,87,87	0
56	MG	1H	3481	1/1	0.97	0.06	79,79,79,79	0
56	MG	14	3073	1/1	0.97	0.38	58,58,58,58	0
56	MG	13	1722	1/1	0.97	0.23	94,94,94,94	0
56	MG	1H	3049	1/1	0.97	0.21	74,74,74,74	0
56	MG	1H	3001	1/1	0.97	0.42	45,45,45,45	0
56	MG	1H	3004	1/1	0.97	0.37	57,57,57,57	0
56	MG	1H	3370	1/1	0.97	0.15	51,51,51,51	0
56	MG	14	3346	1/1	0.97	0.11	80,80,80,80	0
56	MG	14	3347	1/1	0.97	0.10	75,75,75,75	0
56	MG	1H	3371	1/1	0.97	0.15	53,53,53,53	0
56	MG	1H	3187	1/1	0.97	0.40	89,89,89,89	0
56	MG	13	1643	1/1	0.97	0.36	96,96,96,96	0
56	MG	1H	3007	1/1	0.97	0.36	40,40,40,40	0
56	MG	1H	3436	1/1	0.97	0.07	79,79,79,79	0
56	MG	14	3085	1/1	0.97	0.36	77,77,77,77	0
56	MG	14	3355	1/1	0.97	0.10	97,97,97,97	0
56	MG	21	301	1/1	0.97	0.38	55,55,55,55	0
56	MG	14	3357	1/1	0.97	0.14	82,82,82,82	0
56	MG	1H	3032	1/1	0.97	0.36	46,46,46,46	0
56	MG	1H	3056	1/1	0.97	0.33	54,54,54,54	0
56	MG	1H	3008	1/1	0.97	0.31	56,56,56,56	0
56	MG	14	3091	1/1	0.97	0.28	54,54,54,54	0
56	MG	14	3002	1/1	0.97	0.37	67,67,67,67	0
56	MG	13	1631	1/1	0.97	0.27	82,82,82,82	0
56	MG	1H	3497	1/1	0.97	0.10	51,51,51,51	0
56	MG	1H	3381	1/1	0.97	0.07	46,46,46,46	0
56	MG	1H	3382	1/1	0.97	0.13	60,60,60,60	0
56	MG	14	3012	1/1	0.97	0.46	49,49,49,49	0
56	MG	14	3369	1/1	0.97	0.05	96,96,96,96	0
56	MG	14	3370	1/1	0.97	0.10	88,88,88,88	0
56	MG	1G	1649	1/1	0.97	0.16	145,145,145,145	0
56	MG	1H	3112	1/1	0.97	0.43	72,72,72,72	0
56	MG	1H	3167	1/1	0.97	0.19	62,62,62,62	0
56	MG	13	1602	1/1	0.97	0.37	68,68,68,68	0
56	MG	14	3262	1/1	0.97	0.10	88,88,88,88	0
56	MG	14	3263	1/1	0.97	0.09	60,60,60,60	0
56	MG	14	3264	1/1	0.97	0.10	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3060	1/1	0.97	0.49	48,48,48,48	0
56	MG	14	3019	1/1	0.97	0.50	56,56,56,56	0
56	MG	1H	3391	1/1	0.97	0.10	53,53,53,53	0
56	MG	1H	3506	1/1	0.97	0.06	88,88,88,88	0
56	MG	1H	3394	1/1	0.97	0.16	54,54,54,54	0
56	MG	1G	1657	1/1	0.97	0.48	87,87,87,87	0
56	MG	14	3273	1/1	0.97	0.08	53,53,53,53	0
56	MG	14	3386	1/1	0.97	0.09	51,51,51,51	0
56	MG	1H	3061	1/1	0.97	0.42	61,61,61,61	0
56	MG	14	3389	1/1	0.97	0.21	62,62,62,62	0
56	MG	14	3025	1/1	0.97	0.31	53,53,53,53	0
56	MG	14	3277	1/1	0.97	0.11	67,67,67,67	0
56	MG	1H	3339	1/1	0.97	0.11	50,50,50,50	0
56	MG	14	3027	1/1	0.97	0.25	91,91,91,91	0
56	MG	1H	3343	1/1	0.97	0.14	48,48,48,48	0
56	MG	14	3281	1/1	0.97	0.10	79,79,79,79	0
56	MG	13	1627	1/1	0.97	0.24	57,57,57,57	0
56	MG	1G	1603	1/1	0.97	0.40	83,83,83,83	0
56	MG	14	3284	1/1	0.97	0.16	49,49,49,49	0
56	MG	13	1669	1/1	0.97	0.23	142,142,142,142	0
56	MG	1H	3459	1/1	0.97	0.10	64,64,64,64	0
56	MG	1H	3347	1/1	0.97	0.16	59,59,59,59	0
56	MG	1H	3017	1/1	0.97	0.27	43,43,43,43	0
56	MG	14	3290	1/1	0.97	0.16	61,61,61,61	0
56	MG	1H	3065	1/1	0.97	0.66	51,51,51,51	0
56	MG	1H	3517	1/1	0.97	0.11	71,71,71,71	0
57	ZN	3E	303	1/1	0.97	0.39	110,110,110,110	0
56	MG	1H	3258	1/1	0.97	0.37	68,68,68,68	0
56	MG	13	1604	1/1	0.97	0.31	89,89,89,89	0
56	MG	14	3040	1/1	0.97	0.43	49,49,49,49	0
56	MG	1H	3523	1/1	0.98	0.50	37,37,37,37	0
56	MG	1H	3366	1/1	0.98	0.14	68,68,68,68	0
56	MG	14	3248	1/1	0.98	0.21	85,85,85,85	0
56	MG	13	1736	1/1	0.98	0.15	86,86,86,86	0
56	MG	1H	3088	1/1	0.98	0.24	61,61,61,61	0
56	MG	14	3179	1/1	0.98	0.29	86,86,86,86	0
56	MG	13	1730	1/1	0.98	0.10	75,75,75,75	0
56	MG	1H	3416	1/1	0.98	0.06	69,69,69,69	0
56	MG	13	1624	1/1	0.98	0.70	71,71,71,71	0
56	MG	1H	3071	1/1	0.98	0.30	51,51,51,51	0
56	MG	1H	3474	1/1	0.98	0.06	91,91,91,91	0
56	MG	14	3185	1/1	0.98	0.38	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3055	1/1	0.98	0.33	52,52,52,52	0
56	MG	1H	3373	1/1	0.98	0.07	63,63,63,63	0
56	MG	13	1601	1/1	0.98	0.26	83,83,83,83	0
56	MG	1H	3160	1/1	0.98	0.26	92,92,92,92	0
56	MG	14	3342	1/1	0.98	0.10	72,72,72,72	0
56	MG	1H	3425	1/1	0.98	0.13	67,67,67,67	0
56	MG	14	3344	1/1	0.98	0.09	85,85,85,85	0
56	MG	14	3345	1/1	0.98	0.07	72,72,72,72	0
56	MG	1H	3340	1/1	0.98	0.19	41,41,41,41	0
56	MG	1G	1689	1/1	0.98	0.16	80,80,80,80	0
56	MG	14	3265	1/1	0.98	0.11	61,61,61,61	0
56	MG	1H	3341	1/1	0.98	0.13	49,49,49,49	0
56	MG	14	3350	1/1	0.98	0.06	84,84,84,84	0
56	MG	1H	3482	1/1	0.98	0.16	66,66,66,66	0
56	MG	1H	3011	1/1	0.98	0.39	54,54,54,54	0
56	MG	14	3056	1/1	0.98	0.35	64,64,64,64	0
56	MG	14	3270	1/1	0.98	0.13	75,75,75,75	0
56	MG	13	1720	1/1	0.98	0.08	66,66,66,66	0
56	MG	14	3058	1/1	0.98	0.50	49,49,49,49	0
56	MG	1H	3345	1/1	0.98	0.10	47,47,47,47	0
56	MG	14	3060	1/1	0.98	0.36	65,65,65,65	0
56	MG	13	1603	1/1	0.98	0.36	74,74,74,74	0
56	MG	1H	3002	1/1	0.98	0.27	30,30,30,30	0
56	MG	1H	3434	1/1	0.98	0.06	72,72,72,72	0
56	MG	1H	3385	1/1	0.98	0.12	66,66,66,66	0
56	MG	1H	3140	1/1	0.98	0.34	59,59,59,59	0
56	MG	1H	3387	1/1	0.98	0.12	57,57,57,57	0
56	MG	1H	3141	1/1	0.98	0.13	53,53,53,53	0
56	MG	1H	3389	1/1	0.98	0.09	51,51,51,51	0
56	MG	1H	3440	1/1	0.98	0.10	63,63,63,63	0
56	MG	1H	3016	1/1	0.98	0.40	61,61,61,61	0
56	MG	14	3286	1/1	0.98	0.14	58,58,58,58	0
56	MG	1H	3003	1/1	0.98	0.32	63,63,63,63	0
56	MG	1H	3392	1/1	0.98	0.19	42,42,42,42	0
56	MG	14	3001	1/1	0.98	0.46	58,58,58,58	0
56	MG	14	3374	1/1	0.98	0.06	57,57,57,57	0
56	MG	1H	3393	1/1	0.98	0.16	44,44,44,44	0
56	MG	14	3003	1/1	0.98	0.39	45,45,45,45	0
56	MG	14	3004	1/1	0.98	0.31	53,53,53,53	0
56	MG	14	3078	1/1	0.98	0.23	68,68,68,68	0
56	MG	1H	3352	1/1	0.98	0.14	43,43,43,43	0
56	MG	1H	3396	1/1	0.98	0.04	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3298	1/1	0.98	0.10	59,59,59,59	0
56	MG	1H	3080	1/1	0.98	0.41	53,53,53,53	0
56	MG	14	3300	1/1	0.98	0.13	47,47,47,47	0
56	MG	1H	3502	1/1	0.98	0.10	49,49,49,49	0
56	MG	14	3302	1/1	0.98	0.11	73,73,73,73	0
56	MG	1H	3448	1/1	0.98	0.04	68,68,68,68	0
56	MG	1H	3449	1/1	0.98	0.07	66,66,66,66	0
56	MG	1H	3081	1/1	0.98	0.37	63,63,63,63	0
56	MG	1H	3018	1/1	0.98	0.23	83,83,83,83	0
56	MG	1H	3452	1/1	0.98	0.09	69,69,69,69	0
56	MG	1H	3357	1/1	0.98	0.10	52,52,52,52	0
56	MG	1G	1602	1/1	0.98	0.46	72,72,72,72	0
56	MG	1G	1660	1/1	0.98	0.07	92,92,92,92	0
56	MG	1H	3454	1/1	0.98	0.08	106,106,106,106	0
56	MG	1H	3358	1/1	0.98	0.12	65,65,65,65	0
56	MG	1H	3147	1/1	0.98	0.15	49,49,49,49	0
56	MG	1H	3033	1/1	0.98	0.28	75,75,75,75	0
56	MG	1H	3104	1/1	0.98	0.20	67,67,67,67	0
56	MG	1H	3302	1/1	0.98	0.14	81,81,81,81	0
56	MG	1H	3460	1/1	0.98	0.07	63,63,63,63	0
56	MG	1H	3407	1/1	0.98	0.08	84,84,84,84	0
56	MG	1H	3408	1/1	0.98	0.13	58,58,58,58	0
56	MG	14	3101	1/1	0.98	0.16	55,55,55,55	0
56	MG	1H	3463	1/1	0.98	0.07	82,82,82,82	0
56	MG	1H	3034	1/1	0.98	0.37	91,91,91,91	0
56	MG	13	1735	1/1	0.98	0.13	77,77,77,77	0
57	ZN	32	301	1/1	0.98	0.35	123,123,123,123	0
56	MG	1H	3005	1/1	0.98	0.43	46,46,46,46	0
56	MG	14	3106	1/1	0.98	0.55	70,70,70,70	0
56	MG	13	1661	1/1	0.99	0.15	95,95,95,95	0
56	MG	1G	1601	1/1	0.99	0.34	94,94,94,94	0
56	MG	1H	3029	1/1	0.99	0.31	65,65,65,65	0
56	MG	14	3043	1/1	0.99	0.46	57,57,57,57	0
56	MG	1H	3519	1/1	0.99	0.03	94,94,94,94	0
56	MG	2L	101	1/1	0.99	0.37	88,88,88,88	0
56	MG	1H	3010	1/1	0.99	0.27	47,47,47,47	0
56	MG	14	3291	1/1	0.99	0.14	54,54,54,54	0
56	MG	14	3072	1/1	0.99	0.21	75,75,75,75	0
56	MG	1H	3342	1/1	0.99	0.14	57,57,57,57	0
56	MG	14	3388	1/1	0.99	0.12	80,80,80,80	0
56	MG	1H	3383	1/1	0.99	0.05	48,48,48,48	0
56	MG	1H	3432	1/1	0.99	0.03	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3296	1/1	0.99	0.17	53,53,53,53	0
56	MG	14	3050	1/1	0.99	0.28	81,81,81,81	0
56	MG	1H	3015	1/1	0.99	0.16	57,57,57,57	0
56	MG	14	3005	1/1	0.99	0.46	48,48,48,48	0
56	MG	14	3006	1/1	0.99	0.56	60,60,60,60	0
56	MG	1H	3395	1/1	0.99	0.14	48,48,48,48	0
56	MG	1H	3168	1/1	0.99	0.49	84,84,84,84	0
56	MG	1H	3421	1/1	0.99	0.18	64,64,64,64	0
56	MG	29	301	1/1	0.99	0.38	49,49,49,49	0
56	MG	14	3010	1/1	0.99	0.33	58,58,58,58	0
56	MG	1H	3376	1/1	0.99	0.06	70,70,70,70	0
56	MG	14	3368	1/1	0.99	0.12	53,53,53,53	0
56	MG	14	3275	1/1	0.99	0.12	71,71,71,71	0
56	MG	14	3247	1/1	0.99	0.20	61,61,61,61	0
56	MG	1H	3398	1/1	0.99	0.13	63,63,63,63	0
56	MG	14	3035	1/1	0.99	0.47	71,71,71,71	0
56	MG	14	3013	1/1	0.99	0.28	66,66,66,66	0
57	ZN	5I	101	1/1	0.99	0.13	111,111,111,111	0
56	MG	14	3088	1/1	0.99	0.32	44,44,44,44	0
56	MG	1H	3424	1/1	0.99	0.14	49,49,49,49	0
56	MG	1H	3194	1/1	0.99	0.32	48,48,48,48	0
56	MG	1H	3353	1/1	0.99	0.15	61,61,61,61	0

6.5 Other polymers (i)

There are no such residues in this entry.