Full wwPDB X-ray Structure Validation Report (i)

Jan 2, 2024 – 06:35 pm GMT

PDB ID	:	5E7K
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA and cognate tRNALys in the A-site
Authors	:	Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on	:	2015-10-12
Resolution	:	3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
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:

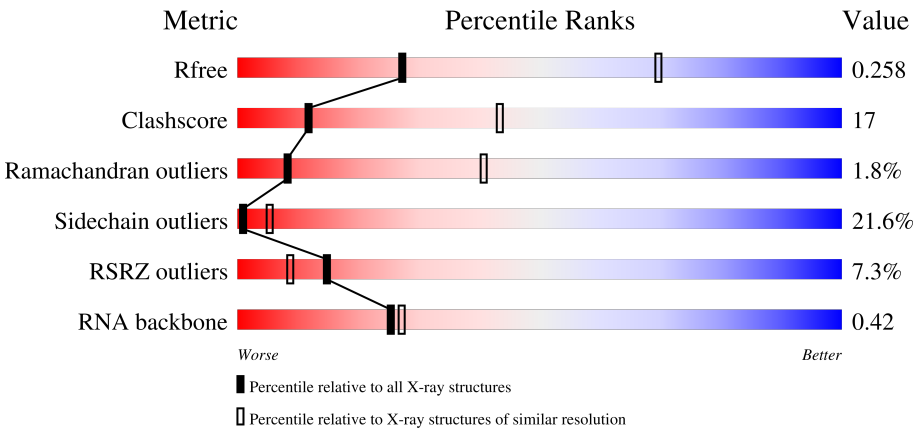
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	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 3.20 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1133 (3.20-3.20)
Clashscore	141614	1253 (3.20-3.20)
Ramachandran outliers	138981	1234 (3.20-3.20)
Sidechain outliers	138945	1233 (3.20-3.20)
RSRZ outliers	127900	1095 (3.20-3.20)
RNA backbone	3102	1010 (3.50-2.90)

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	34% 44% 17% • •
1	1G	1522	36% 43% 18% • •
2	12	256	9% 38% 35% 8% • 18%
2	1E	256	11% 34% 41% 15% 10%

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Mol	Chain	Length	Quality of chain
3	22	239	20% 40% 36% 5% • 18%
3	2E	239	15% 46% 33% 7% 14%
4	32	209	22% 35% 53% 11%
4	3E	209	13% 47% 40% 11% ••
5	42	162	6% 49% 35% 7% 9%
5	4E	162	6% 48% 38% 7% 8%
6	52	101	21% 55% 36% 9%
6	5E	101	11% 50% 41% 8% •
7	62	156	44% 41% • 12%
7	6E	156	.% 58% 31% 9% •
8	72	138	3% 57% 33% 9% •
8	7E	138	.% 41% 47% 12%
9	82	128	2% 36% 45% 12% • 5%
9	8E	128	45% 47% 7% •
10	1A	105	2% 38% 30% 9% 24%
10	1I	105	7% 45% 34% 8% 13%
11	2A	129	10% 48% 31% 9% 12%
11	2I	129	4% 34% 39% 13% 14%
12	3A	132	21% 42% 36% 13% • 8%
12	3I	132	12% 56% 30% 6% • 8%
13	4A	126	9% 35% 40% 13% 12%
13	4I	126	3% 46% 38% 10% • 6%
14	5A	61	36% 43% 46% 7% • •
14	5I	61	48% 36% 15% •
15	6A	89	2% 46% 46% 7% •

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Mol	Chain	Length	Quality of chain
15	6I	89	47% 42% 9% •
16	7A	88	2% 47% 38% 11% 5%
16	7I	88	8% 30% 53% 11% 6%
17	8A	105	3% 53% 32% 9% 6%
17	8I	105	% 48% 37% 10% 5%
18	9A	88	25% 36% 30% 10% 24%
18	9I	88	19% 34% 32% 10% • 23%
19	AA	93	15% 28% 31% 8% 33%
19	AI	93	6% 38% 40% 9% • 13%
20	BA	106	% 54% 32% 6% • 7%
20	BI	106	% 36% 45% 10% 8%
21	1B	27	19% 33% 48% 19%
21	1F	27	52% 33% 15%
22	1K	75	% 21% 49% 20% • 5%
23	2K	77	35% 31% 25% 9%
23	2L	77	32% 42% 21% 5%
24	3K	76	% 16% 47% 32% 5%
25	4K	27	4% 22% 22% 26% 30%
25	4L	27	26% 15% 26% 33%
26	14	2917	% 32% 41% 21% • •
26	1H	2917	27% 40% 24% 6% •
27	16	122	% 44% 33% 16% 7%
27	1J	122	31% 43% 23% •
28	71	229	15% 24% 26% 8% 42%
28	79	229	15% 7% • 75%

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Mol	Chain	Length	Quality of chain
29	11	276	50% 33% 11%
29	19	276	4% 49% 39% 11%
30	21	206	17% 47% 38% 11%
30	29	206	18% 44% 38% 16%
31	31	210	10% 47% 40% 9%
31	39	210	16% 42% 43% 11%
32	41	182	21% 38% 47% 13%
32	49	182	23% 48% 41% 10%
33	51	180	5% 44% 36% 12% 5%
33	59	180	4% 13% 22% 6% 59%
34	61	148	24% 45% 41% 10%
34	69	148	29% 45% 41% 10%
35	15	140	40% 57% 30% 11%
35	58	140	4% 50% 39% 9%
36	25	122	56% 38% 7%
36	68	122	2% 54% 38% 8%
37	35	150	5% 39% 43% 15%
37	78	150	2% 37% 39% 19%
38	45	141	49% 43% 40% 13%
38	88	141	22% 52% 36% 9%
39	55	118	% 44% 50% 5%
39	98	118	8% 42% 46% 11%
40	65	112	4% 35% 46% 16%
40	A8	112	58% 41% 46% 12%
41	75	146	2% 49% 33% 10% 9%

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Mol	Chain	Length	Quality of chain
41	B8	146	%, 42%, 37%, 11%, 9%
42	85	118	28%, 49%, 41%, 7%
42	C8	118	3%, 56%, 28%, 12%
43	95	101	68%, 40%, 43%, 12%, 5%
43	D8	101	6%, 46%, 33%, 18%
44	A5	113	2%, 58%, 32%, 9%
44	E8	113	4%, 57%, 31%, 12%
45	B5	96	14%, 53%, 28%, 17%
45	F8	96	10%, 53%, 40%, 6%
46	C5	110	8%, 28%, 46%, 17%, 5%
46	G8	110	47%, 30%, 16%, 5%
47	D5	206	28%, 23%, 32%, 8%, 36%
47	H8	206	32%, 37%, 33%, 12%, 17%
48	E5	85	5%, 53%, 29%, 8%, 9%
48	I8	85	4%, 47%, 36%, 6%, 11%
49	F5	98	2%, 47%, 38%, 11%
49	J8	98	2%, 47%, 36%, 10%
50	G5	72	6%, 35%, 39%, 12%, 6%, 8%
50	K8	72	3%, 43%, 36%, 11%, 6%
51	H5	60	43%, 55%, 40%
51	L8	60	5%, 52%, 33%, 12%
52	M8	71	44%, 20%, 37%, 8%, 34%
53	J5	60	55%, 32%, 7%, 7%
53	N8	60	12%, 38%, 32%, 10%, 20%
54	L5	49	4%, 57%, 37%

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Mol	Chain	Length	Quality of chain
54	P8	49	55% 37%
55	M5	65	43% 43% 11%
55	Q8	65	37% 45% 15%
56	1L	76	20% 30% 36% 21% 9%
57	3L	76	24% 45% 25% 7%

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
58	MG	13	1603	-	-	-	X
58	MG	13	1630	-	-	-	X
58	MG	13	1641	-	-	-	X
58	MG	13	1644	-	-	-	X
58	MG	13	1653	-	-	-	X
58	MG	13	1659	-	-	-	X
58	MG	13	1672	-	-	-	X
58	MG	13	1689	-	-	-	X
58	MG	13	1694	-	-	-	X
58	MG	13	1695	-	-	-	X
58	MG	13	1704	-	-	-	X
58	MG	14	3017	-	-	-	X
58	MG	14	3018	-	-	-	X
58	MG	14	3019	-	-	-	X
58	MG	14	3029	-	-	-	X
58	MG	14	3034	-	-	-	X
58	MG	14	3037	-	-	-	X
58	MG	14	3052	-	-	-	X
58	MG	14	3068	-	-	-	X
58	MG	14	3073	-	-	-	X
58	MG	14	3080	-	-	-	X
58	MG	14	3085	-	-	-	X
58	MG	14	3089	-	-	-	X
58	MG	14	3108	-	-	-	X
58	MG	14	3117	-	-	-	X
58	MG	14	3129	-	-	-	X
58	MG	14	3144	-	-	-	X
58	MG	14	3150	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	14	3153	-	-	-	X
58	MG	14	3155	-	-	-	X
58	MG	14	3181	-	-	-	X
58	MG	14	3182	-	-	-	X
58	MG	14	3183	-	-	-	X
58	MG	14	3185	-	-	-	X
58	MG	14	3186	-	-	-	X
58	MG	14	3187	-	-	-	X
58	MG	14	3188	-	-	-	X
58	MG	14	3190	-	-	-	X
58	MG	14	3191	-	-	-	X
58	MG	14	3227	-	-	-	X
58	MG	14	3229	-	-	-	X
58	MG	14	3234	-	-	-	X
58	MG	14	3243	-	-	-	X
58	MG	14	3250	-	-	-	X
58	MG	14	3251	-	-	-	X
58	MG	14	3257	-	-	-	X
58	MG	14	3259	-	-	-	X
58	MG	14	3260	-	-	-	X
58	MG	14	3261	-	-	-	X
58	MG	14	3264	-	-	-	X
58	MG	14	3265	-	-	-	X
58	MG	14	3268	-	-	-	X
58	MG	14	3269	-	-	-	X
58	MG	14	3280	-	-	-	X
58	MG	14	3282	-	-	-	X
58	MG	14	3288	-	-	-	X
58	MG	14	3293	-	-	-	X
58	MG	14	3297	-	-	-	X
58	MG	14	3302	-	-	-	X
58	MG	14	3304	-	-	-	X
58	MG	14	3308	-	-	-	X
58	MG	14	3313	-	-	-	X
58	MG	1G	1603	-	-	-	X
58	MG	1G	1604	-	-	-	X
58	MG	1G	1649	-	-	-	X
58	MG	1G	1666	-	-	-	X
58	MG	1G	1672	-	-	-	X
58	MG	1H	3016	-	-	-	X
58	MG	1H	3024	-	-	-	X
58	MG	1H	3031	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	1H	3032	-	-	-	X
58	MG	1H	3033	-	-	-	X
58	MG	1H	3035	-	-	-	X
58	MG	1H	3036	-	-	-	X
58	MG	1H	3043	-	-	-	X
58	MG	1H	3087	-	-	-	X
58	MG	1H	3122	-	-	-	X
58	MG	1H	3142	-	-	-	X
58	MG	1H	3154	-	-	-	X
58	MG	1H	3167	-	-	-	X
58	MG	1H	3171	-	-	-	X
58	MG	1H	3175	-	-	-	X
58	MG	1H	3180	-	-	-	X
58	MG	1H	3197	-	-	-	X
58	MG	1H	3201	-	-	-	X
58	MG	1H	3207	-	-	-	X
58	MG	1H	3224	-	-	-	X
58	MG	1H	3228	-	-	-	X
58	MG	1H	3254	-	-	-	X
58	MG	1H	3268	-	-	-	X
58	MG	1H	3278	-	-	-	X
58	MG	1H	3279	-	-	-	X
58	MG	1H	3282	-	-	-	X
58	MG	1H	3284	-	-	-	X
58	MG	1H	3285	-	-	-	X
58	MG	1H	3288	-	-	-	X
58	MG	1H	3301	-	-	-	X
58	MG	1H	3309	-	-	-	X
58	MG	1H	3315	-	-	-	X
58	MG	1H	3324	-	-	-	X
58	MG	1H	3327	-	-	-	X
58	MG	1H	3328	-	-	-	X
58	MG	1H	3331	-	-	-	X
58	MG	1H	3342	-	-	-	X
58	MG	29	302	-	-	-	X
58	MG	2K	102	-	-	-	X
58	MG	2K	103	-	-	-	X
58	MG	2L	102	-	-	-	X
58	MG	E5	101	-	-	-	X
59	SF4	32	301	-	-	X	-

2 Entry composition (i)

There are 61 unique types of molecules in this entry. The entry contains 294444 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 rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	13	1496	32157	14313	5960	10388	1496	0	0	0
1	1G	1507	32391	14418	6004	10463	1506	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
13	1542	G	-	expression tag	GB 55771382
13	1543	C	-	expression tag	GB 55771382
13	1544	U	-	expression tag	GB 55771382
1G	1542	G	-	expression tag	GB 55771382
1G	1543	C	-	expression tag	GB 55771382
1G	1544	U	-	expression tag	GB 55771382

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	1E	231	1874	1199	334	336	5	0	0	0
2	12	210	1721	1100	309	308	4	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	196	1541	975	298	267	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	3E	207	1698	1064	338	289	7	0	0	0
4	32	208	1702	1066	339	290	7	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	4E	149	1142	722	216	200	4	0	0	0
5	42	148	1134	718	215	197	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	100	837	528	154	152	3	0	0	0
6	52	101	842	531	155	153	3	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	7E	138	1115	705	215	192	3	0	0	0
8	72	137	1107	700	214	191	2	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
9	8E	126	1000	634	196	170	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
9	82	121	953	605	186	162	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	91	734	459	144	130	1	0	0	0
			Total	C	N	O				
10	1A	80	646	403	129	114		0	0	0

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	5I	60	491	312	104	71	4	0	0	0
			Total	C	N	O	S			
14	5A	59	486	309	103	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	87	729	457	146	124	2	0	0	0
15	6A	88	733	459	147	125	2	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
18	9I	68	549	352	105	92	0	0	0
18	9A	67	544	349	104	91	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
19	AI	81	654	417	122	113	2	0	0	0
19	AA	62	481	306	85	88	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	BI	97	746	461	157	126	2	0	0	0
20	BA	99	762	470	162	128	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	23	199	122	48	29	0	0	0
21	1B	22	188	116	44	28	0	0	0

- Molecule 22 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	P	S			
22	1K	71	1520	681	264	503	71	1	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1K	?	-	G	deletion	GB 836716955

- Molecule 23 is a RNA chain called tRNAfMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	P	S			
23	2K	77	1646	735	297	536	77	1	0	0	0
23	2L	77	1646	735	297	536	77	1	0	0	0

- Molecule 24 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
24	3K	76	1611	721	281	534	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	19	419	188	89	123	19	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
25	4L	18	397	178	84	117	18	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
26	1H	2833	61028	27159	11418	19618	2833	0	0	0
			Total	C	N	O	P			
26	14	2861	61630	27429	11535	19806	2860	0	0	0

There are 14 discrepancies between the modelled and reference sequences:

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	71	133	1033	651	194	187	1	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
28	79	57	456	283	91	82	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	21	203	1558	985	298	269	6	0	0	0
			Total	C	N	O	S			
30	29	204	1563	988	299	270	6	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
32	41	179	1457	931	265	257	4	0	0	0
			Total	C	N	O	S			
32	49	179	1458	931	266	257	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
33	51	171	1312	832	246	233	1	0	0	0
			Total	C	N	O				
33	59	73	568	356	116	96		0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
34	61	146	1136	726	201	208	1	0	0	0
34	69	145	1131	723	200	207	1	0	0	0

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	88	141	1113	709	210	187	7	0	0	0
38	45	138	1099	702	208	183	6	0	0	0

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	E8	112	890	560	175	153	2	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	A5	113	899	566	177	154	2	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	G8	105	796	513	150	128	5	0	0	0
			Total	C	N	O	S			
46	C5	104	794	510	152	127	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	H8	171	1373	876	247	247	3	0	0	0
			Total	C	N	O	S			
47	D5	132	1074	691	193	188	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
48	I8	76	606	376	128	101	1	0	0	0
			Total	C	N	O	S			
48	E5	77	608	375	129	103	1	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
50	K8	68	568	352	115	100	1	0	0	0
50	G5	66	558	346	113	98	1	0	0	0

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	M8	47	366	234	61	66	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	N8	48	369	229	75	60	5	0	0	0
53	J5	56	434	272	87	70	5	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	47	401	246	99	54	2	0	0	0
54	L5	47	401	246	99	54	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	64	516	331	102	81	2	0	0	0

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

- Molecule 56 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	P	S			
56	1L	73	1563	700	271	518	73	1	0	0	0

- Molecule 57 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
57	3L	76	1612	722	281	534	75	0	0	0

- Molecule 58 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
58	13	132	132	132	0	0
58	1E	1	1	1	0	0
58	5E	1	1	1	0	0
58	1K	1	1	1	0	0
58	2K	3	3	3	0	0
58	3K	1	1	1	0	0
58	1H	467	467	467	0	0
58	16	9	9	9	0	0
58	21	2	2	2	0	0
58	41	1	1	1	0	0
58	78	1	1	1	0	0
58	88	1	1	1	0	0

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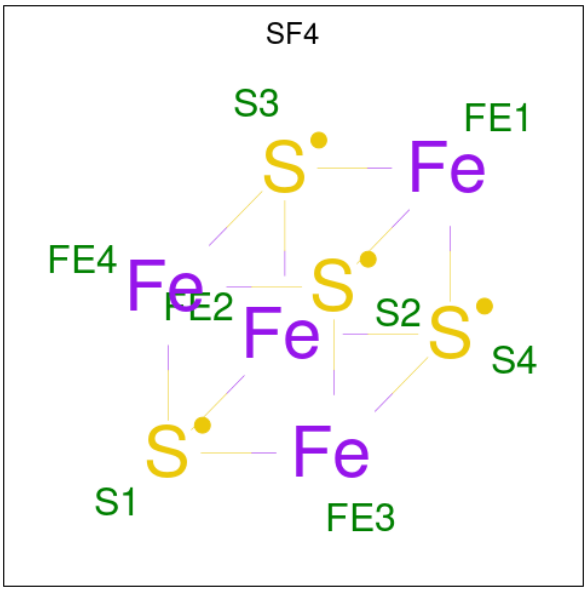
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
58	98	1	1	1	0	0
58	I8	3	3	3	0	0
58	J8	1	1	1	0	0
58	L8	1	1	1	0	0
58	P8	1	1	1	0	0
58	Q8	1	1	1	0	0
58	1G	90	90	90	0	0
58	6A	1	1	1	0	0
58	2L	2	2	2	0	0
58	14	399	399	399	0	0
58	1J	5	5	5	0	0
58	29	4	4	4	0	0
58	39	1	1	1	0	0
58	25	1	1	1	0	0
58	35	3	3	3	0	0
58	45	2	2	2	0	0
58	55	1	1	1	0	0
58	E5	1	1	1	0	0

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



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

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

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

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	13	126	Total O 126 126	0	0
61	3I	2	Total O 2 2	0	0
61	5I	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1K	8	Total O 8 8	0	0
61	3K	1	Total O 1 1	0	0
61	4K	2	Total O 2 2	0	0
61	1H	629	Total O 629 629	0	0
61	16	29	Total O 29 29	0	0
61	11	7	Total O 7 7	0	0
61	21	4	Total O 4 4	0	0
61	31	9	Total O 9 9	0	0
61	58	2	Total O 2 2	0	0
61	78	7	Total O 7 7	0	0
61	88	1	Total O 1 1	0	0
61	B8	1	Total O 1 1	0	0
61	E8	2	Total O 2 2	0	0
61	F8	1	Total O 1 1	0	0
61	G8	1	Total O 1 1	0	0
61	I8	3	Total O 3 3	0	0
61	L8	2	Total O 2 2	0	0
61	1G	78	Total O 78 78	0	0
61	32	1	Total O 1 1	0	0
61	5A	2	Total O 2 2	0	0
61	14	417	Total O 417 417	0	0

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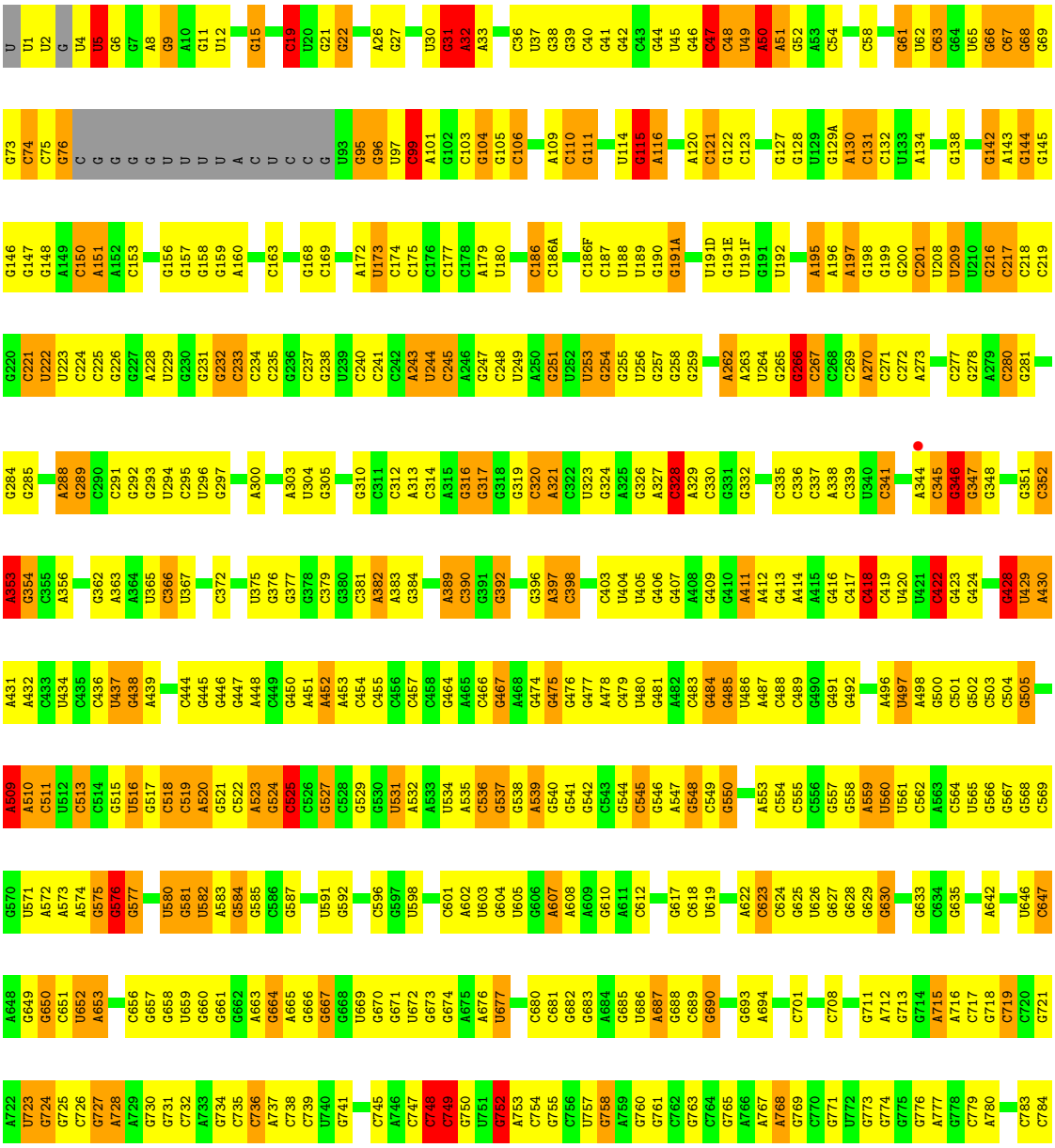
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1J	6	Total O 6 6	0	0
61	19	8	Total O 8 8	0	0
61	29	2	Total O 2 2	0	0
61	39	5	Total O 5 5	0	0
61	35	1	Total O 1 1	0	0
61	55	1	Total O 1 1	0	0
61	A5	1	Total O 1 1	0	0
61	H5	2	Total O 2 2	0	0

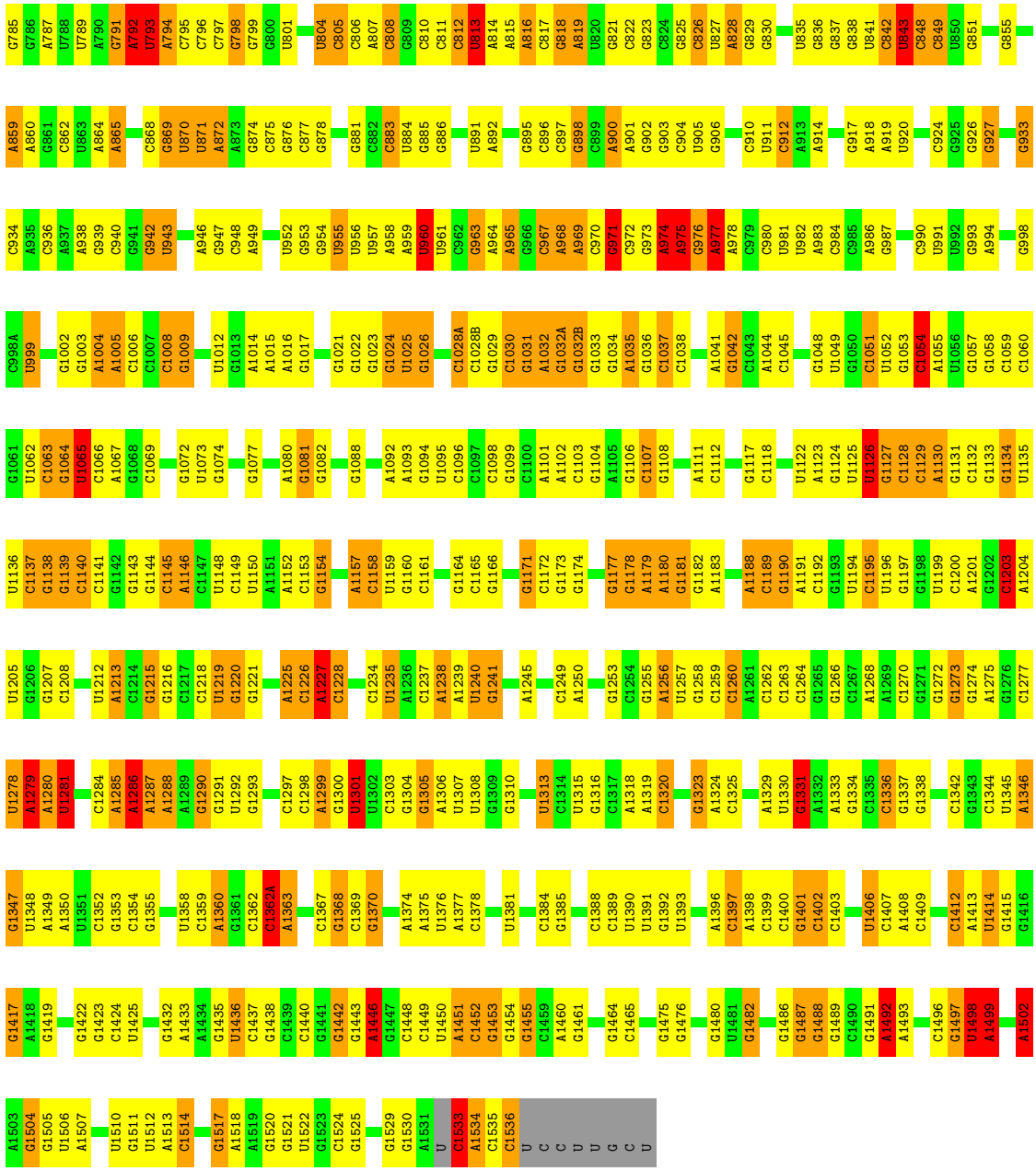
3 Residue-property plots (i)

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 rRNA

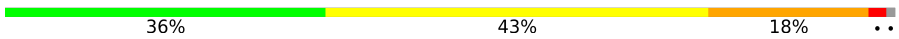
Chain 13: 34% 44% 17%

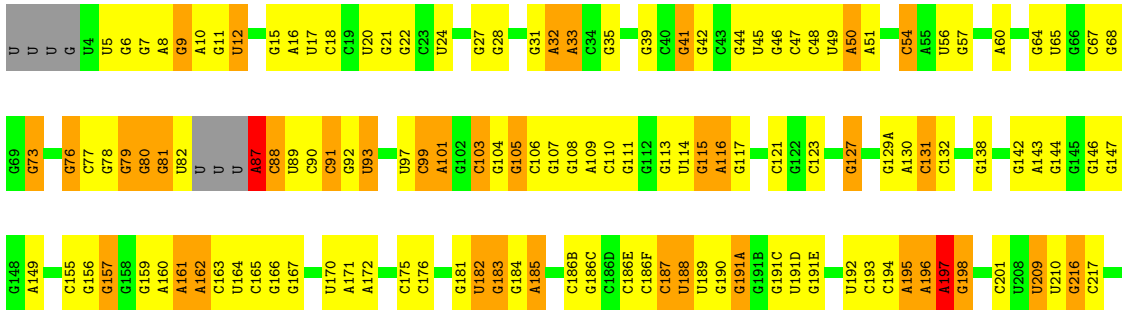




• Molecule 1: 16S rRNA

Chain 1G:





C1267 A1268 A1269 C1270 G1271 G1272 G1273 G1274 A1275 G1276 C1277 U1278 A1279 A1280 U1281 C1282 G1283 C1284 A1285 A1286 A1287 A1288 A1289 G1290 G1291 U1292 G1293 G1294 G1295
C1200 A1201 G1202 C1203 A1204 U1205 G1206 G1207 C1208 C1209 C1210 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 G1220 G1221 G1222 C1223 G1224 A1225 C1226 A1227 C1228
U1135 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 G1164
G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1069 U1070 C1071 G1072 U1073 C1076 G1077 A1080 G1081 G1084 U1085 A1092 A1093 G1094 U1095 C1096
U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 A1014 A1015 A1016 G1017 U1020 U1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1028A C1028B G1029 C1030 G1031 A1032 G1032A G1032B G1033 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 G1047 G1048 U1049 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060
C1100 A1101 A1102 C1103 G1104 A1105 G1106 C1107 G1108 C1109 A1110 A1111 C1112 C1113 C1114 C1118 C1119 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 C1132 G1133 G1134
C1237 A1238 A1239 U1240 G1241 C1242 C1243 C1244 A1245 C1246 U1247 A1248 C1249 A1250 A1251 A1252 G1253 C1254 G1255 A1256 U1257 G1258 C1259 C1320 C1321 C1322 G1323 A1324 C1325 C1326 C1327
C1298 A1299 G1300 U1301 U1302 C1303 G1304 G1305 A1306 U1307 U1308 G1309 G1310 G1311 G1312 U1313 C1314 U1315 G1316 C1317 A1318 A1319
G933 C934 A935 C936 A937 A938 G942 G945 A946 G947 C948 A949 U950 G953 G954 U955 U956 U957 A958 A959 U960 U961 C962 G963 A964 G965 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 U991 U992 G993 A994 C995 A996 U997 U998 C998A
U851 G852 G853 G854 G855 C856 C857 G858 A859 A860 G861 C862 U863 A864 A865 C868 G869 A872 A873 G874 C875 C879 C882 G885 G886 G887 A892 C893 G894 G895 C896 C904 U905 G906 A907 A908 A909 A913 A914 A915 G916 U920 U921 G922 A923 C924 G925 G926 G927 C932
A768 G769 C770 G771 U772 G775 G776 A777 A780 A781 A782 C783 C784 A787 G791 A792 U793 A794 G800 U801 A802 G803 U804 C805 C806 A807 C808 C811 C812 U813 A814 A815 A816 C817 G818 A819 U820 G821 C826 U827 A828 G829 C834 U835 G836 G837 G838 U841 C842 U843 C848
G674 A675 A676 U677 C681 G682 G683 A684 G685 U686 A687 G688 C689 G690 G691 U692 G693 A694 C701 A702 A706 C707 C708 G718 C719 C720 U723 G724 G725 C726 G731 C735 C736 C739 U740 G741 C748 C749 G750 U751 G752 A753 C754 G755 C756 C757 G758 A759 G765
C600 C601 A602 U603 G604 U605 G606 A607 A608 A609 G610 C613 A614 C615 G616 G617 C618 U619 C620 A621 G625 U626 G627 G628 G629 G630 G631 A632 G633 C634 G635 C643 G644 C645 U646 C647 A648 G649 G650 C651 U652 A653 G654 A655 G660 G661 G664 A665 G666 G667 G668 U669 G670 G673
A532 A533 U534 A535 C536 G537 G538 A539 G540 G541 G542 G546 A547 G548 G549 G550 U551 U552 C555 A559 U560 U561 C562 A563 C564 U565 G566 G570 U571 A572 A573 A574 G575 G576 G577 U580 G581 U582 A583 G584 G585 C586 G587 G588 C589 C590 U591 G592 G593 G594 G595 C596 G597 U598 C599
G377 G384 U387 G388 A389 C390 G391 G392 A393 G394 C395 G396 A397 C398 C401 U404 U405 G406 A407 A408 G409 G410 A411 A412 G413 A414 A415 G416 U420 U421 C422 G423 G424 G425 G426 U427 G428 U429 A430 A431 A432 C433 U434 U437 G438 A439 A440 C442 C443 C444 G445 G446 G447 A448
C449 G450 A451 A452 A453 C454 C455 C456 C457 C458 G464 A465 C466 G467 A468 G474 G475 G484 G485 U486 A487 C488 C489 G490 G491 G492 A496 U497 C501 G502 C503 C504 G505 G506 C507 C508 A509 A510 C511 U512 C513 C514 G515 U516 G517 C518 C519 A520 G521 C522 A523 G527 C528 G529 G530 U531
G297 A298 G299 A300 G301 G309 G310 C311 C312 G316 G317 A321 G324 A325 G326 A327 C328 A329 G332 G333 C334 C335 C336 C337 A344 C345 G346 G347 G350 G351 C352 A353 G354 C355 A356 U359 A360 G361 G362 A363 A364 U365 C366 U367 C370 G371 C372 A373 A374 U375 G376
G220 C221 U222 U223 C224 C225 G226 G227 A228 U229 G230 C235 G236 C237 C240 C241 C242 A243 U244 C245 A246 G247 A250 G251 U252 U253 G254 G255 U256 G257 G258 U261 A262 A263 U264 G265 G266 C267 C271 C272 G276 C277 C280 G281 U287 A288 G289 C290 C291 C295 U296

C1328 A1329 U1330 G1331 A1332 A1333 G1334 C1335 C1336 G1337 G1338 C1342 G1343 C1344 U1345 A1346 G1347 U1348 A1349 A1350 U1351 C1352 G1353 C1354 G1355 G1356 A1357 U1358 C1359 A1360 G1361 C1362 C1362A A1363 G1368 C1369 G1370 G1371 U1372 G1373 A1374 A1375 U1376 G1379 U1380 U1381 C1389 U1390 U1391 G1392 C1395 A1396 C1397 A1398 C1399

C1400 G1401 C1402 C1403 C1404 G1405 U1406 C1411 C1412 A1413 U1414 G1415 G1416 G1417 A1418 G1419 G1423 C1424 U1425 C1426 C1430 C1431 G1432 A1433 A1434 G1435 U1436 C1437 G1438 G1442 G1443 A1446 G1447 C1448 C1449 U1450 A1451 C1452 G1453 C1459 A1460 C1466 G1467 A1468 G1469 U1472 A1473 C1478 C1479 G1480 A1483

G1486 G1487 G1488 G1489 C1490 G1491 A1492 A1493 G1494 U1495 U1498 A1499 A1502 A1503 G1504 G1505 U1506 A1507 G1511 U1512 A1513 C1514 C1515 G1516 G1517 A1518 A1519 G1520 G1521 U1522 G1525 G1526 G1529 G1530 A1531 U1532 C1533 A1534 C1535 C1536 U C C U U G C U

- Molecule 2: 30S ribosomal protein S2

Chain 1E: 11% 34% 41% 15% 10%

MET PRO VAL GLU I5 T6 V7 K8 E9 L10 L11 E12 A13 G14 V15 H16 F17 G18 H19 E20 R21 K22 R23 W24 N25 P26 K27 F28 I32 Y33 A34 E35 R36 I39 H40 I41 I42 D43 L44 Q45 K46 T47 M48 E49 E50 L51 E52 F55 I58 E59 D60 L61 A62 M63 R64 G65

G66 T67 I68 L69 F70 V71 G72 T73 K74 LYS GLN ALA GLN D79 I80 V81 R82 M83 E84 A85 E86 R87 A88 G89 M90 P91 Y92 V93 N94 Q95 R96 W97 G100 M101 L102 T103 N104 F105 K106 T107 I108 S109 Q110 R111 R114 L115 L118 L121 F122 A123 S124 I127 E128 E129 R130

E134 Q135 V136 K139 L142 E143 R144 L145 Y148 L149 F152 R153 L154 L155 K156 R157 L158 P159 D160 A161 I162 F163 V164 V165 D166 P167 T168 K169 I172 E176 A177 R178 K179 L180 F181 I182 P183 V184 I185 A186 L187 A188 D189 T190 D191 S192 D193 P194 D195 L196 V197 D198 Y199

I200 I201 N204 D205 D206 A207 I208 R209 S210 I211 Q212 L213 I214 L215 S216 R217 A218 V219 D220 L221 I222 I223 Q224 A225 R226 G227 V230 E231 Y236 A237 L238 V239 GLN GLU ALA GLU ALA THR GLU THR PRO GLU GLY GLU SER GLU VAL GLU ALA

- Molecule 2: 30S ribosomal protein S2

Chain 12: 9% 38% 35% 8% • 18%

MET PRO VAL GLU ILE THR VAL LYS GLU L10 L11 E12 H16 F17 G18 H19 E20 R21 K22 R23 W24 N25 P26 K27 F28 A29 R30 Y33 N37 G38 I39 H40 I41 I42 M48 E49 E50 L51 E52 R53 T54 F57 I58 E59 A62 MET ARG GLY GLY THR ILE LEU F70 V71

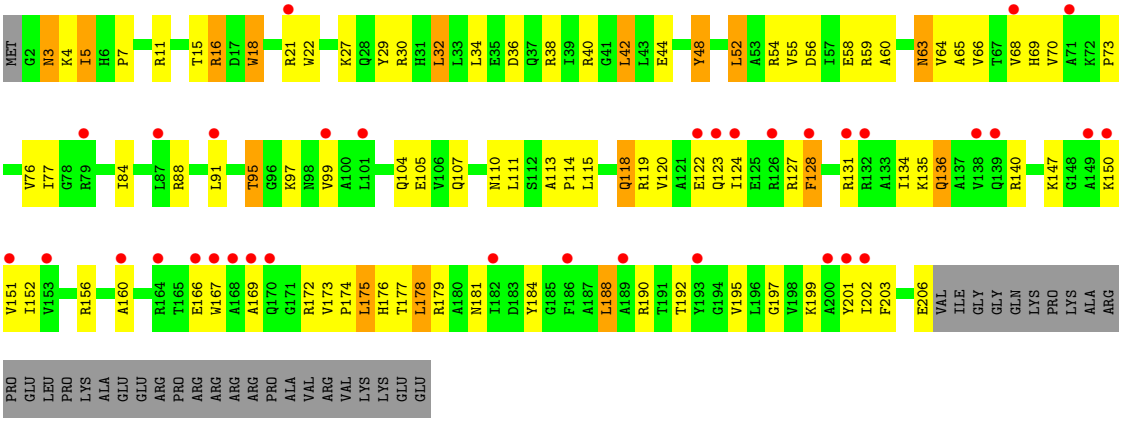
G72 T73 K74 K75 Q76 A77 Q78 D79 I80 V81 R82 M83 E84 A88 P91 Y92 V93 N94 Q95 R96 W97 L98 M101 L102 F105 I108 R111 V112 H113 R114 L115 L118 E119 P125 E126 I127 E128 E129 R130 P131 K132 K133 E134 Q135 V136 R137 L138 K139 H140 E141 R144

K147 Y148 L149 S150 G151 F152 R153 L154 L155 L158 P159 D160 A161 I162 F163 V164 V165 D166 K169 E170 A171 I172 A173 V174 R175 E176 K179 L180 F181 I182 I185 A186 L187 A188 D189 T190 D191 S192 D193 P194 D195 L196 V197 D198 Y199 I200 I201 P202 G203 N204 D205 D206 A207 I208 R209

S210 I211 Q212 L213 I214 L215 S216 R217 A218 V219 D220 L221 I222 I223 Q224 A225 R226 GLY GLY VAL VAL GLU PRO SER PRO SER TYR ALA LEU VAL GLN GLU ALA GLU ALA THR GLU THR PRO GLU GLY GLU SER GLU VAL GLU ALA

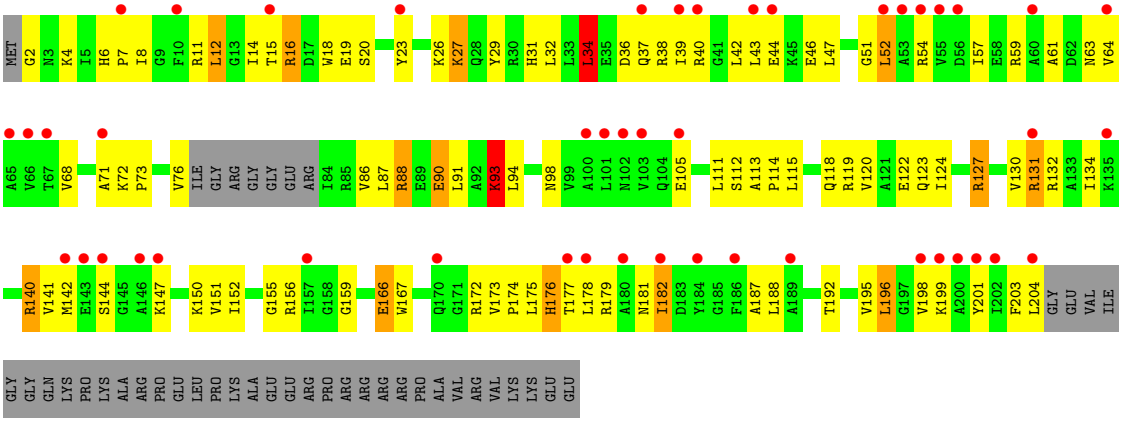
- Molecule 3: 30S ribosomal protein S3

Chain 2E: 15% 46% 33% 7% 14%



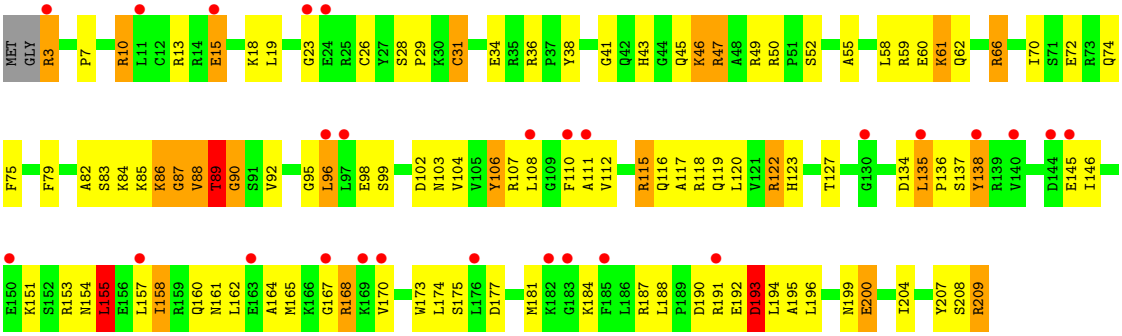
- Molecule 3: 30S ribosomal protein S3

Chain 22:



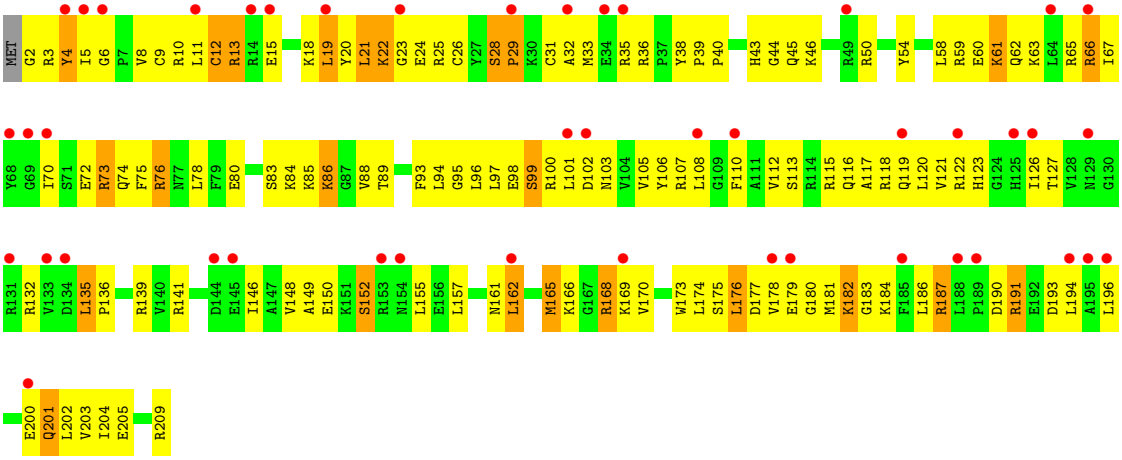
- Molecule 4: 30S ribosomal protein S4

Chain 3E:



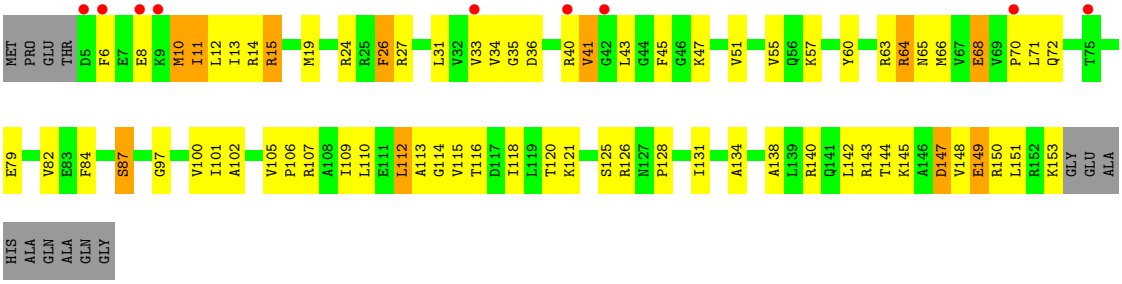
- Molecule 4: 30S ribosomal protein S4

Chain 32:



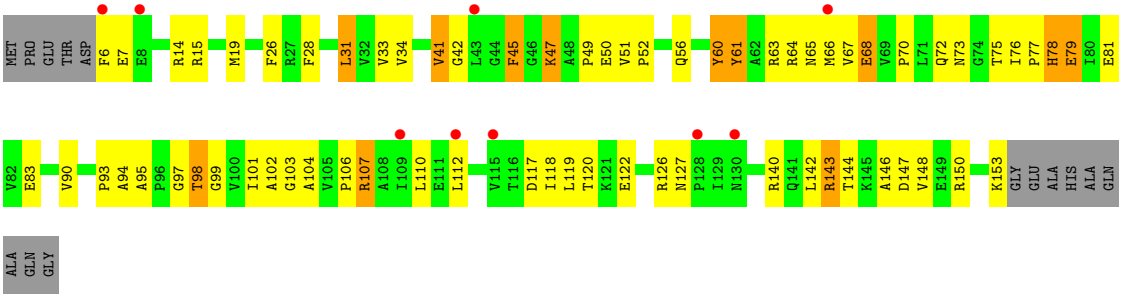
- Molecule 5: 30S ribosomal protein S5

Chain 4E:



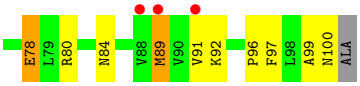
- Molecule 5: 30S ribosomal protein S5

Chain 42:



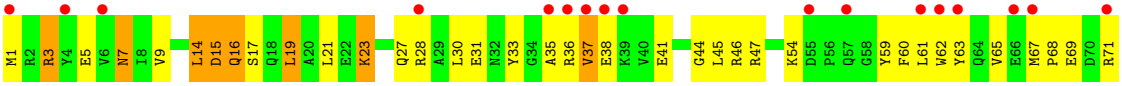
- Molecule 6: 30S ribosomal protein S6

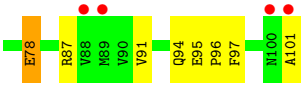
Chain 5E:



• Molecule 6: 30S ribosomal protein S6

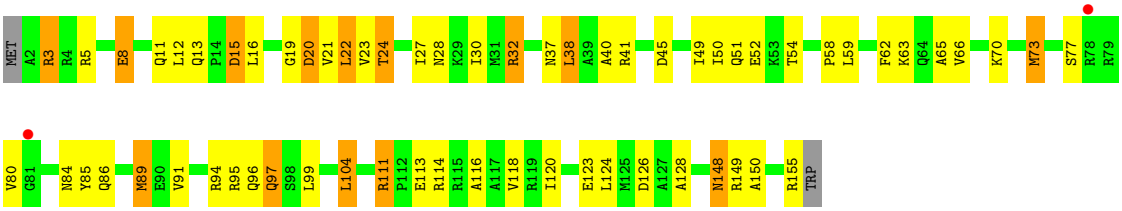
Chain 52:





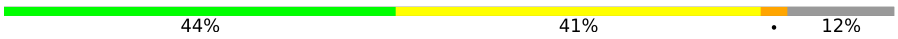
• Molecule 7: 30S ribosomal protein S7

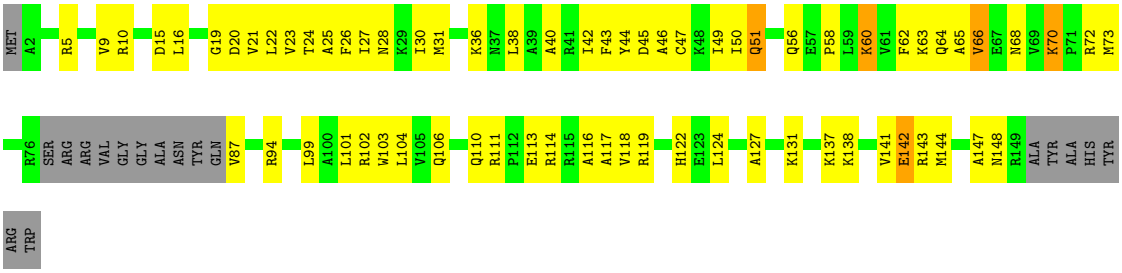
Chain 6E:



• Molecule 7: 30S ribosomal protein S7

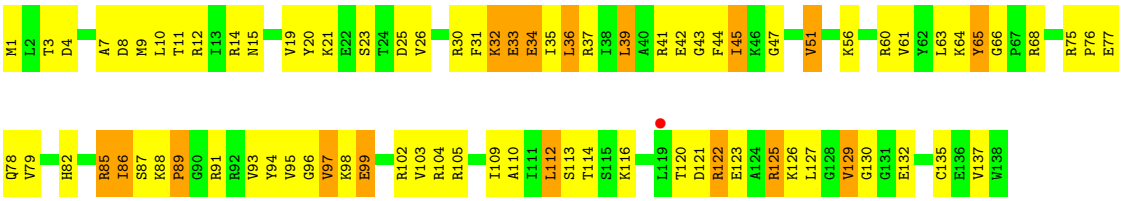
Chain 62:





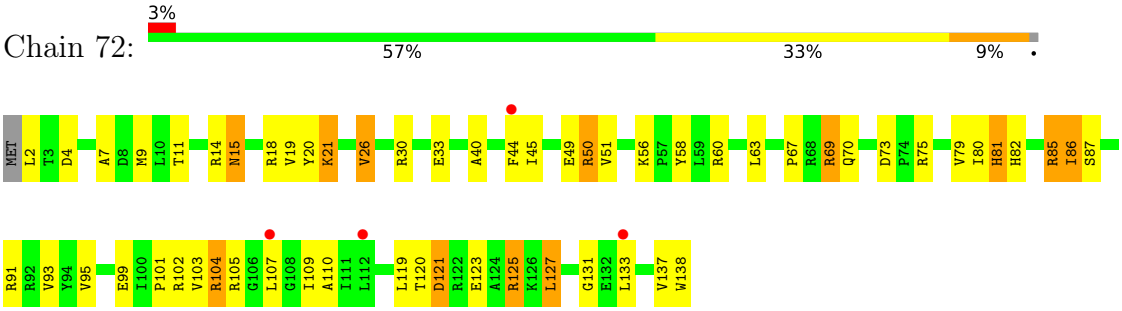
• Molecule 8: 30S ribosomal protein S8

Chain 7E:



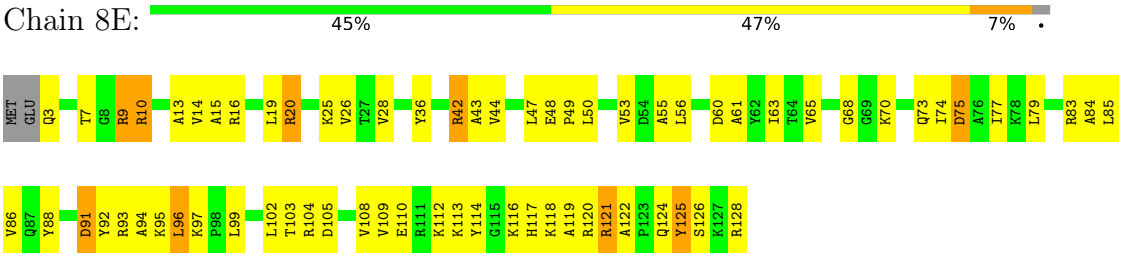
• Molecule 8: 30S ribosomal protein S8

Chain 72:



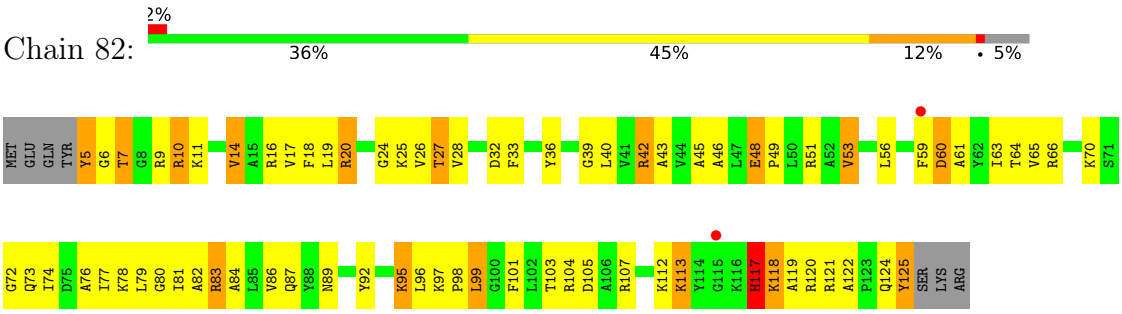
- Molecule 9: 30S ribosomal protein S9

Chain 8E:



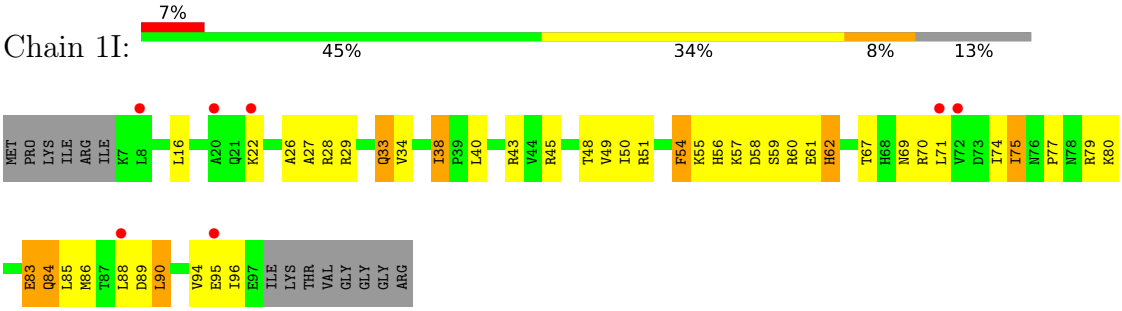
- Molecule 9: 30S ribosomal protein S9

Chain 82:



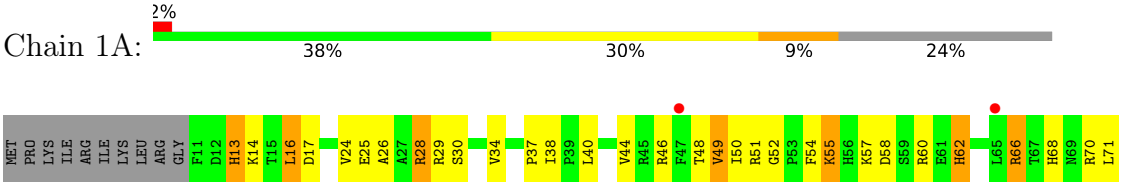
- Molecule 10: 30S ribosomal protein S10

Chain 1I:



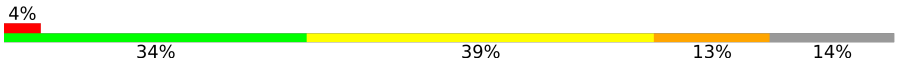
- Molecule 10: 30S ribosomal protein S10

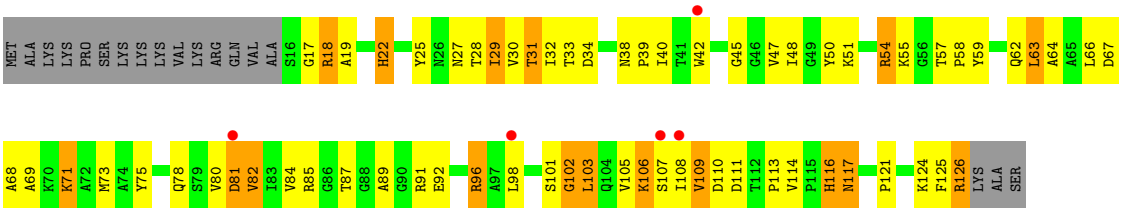
Chain 1A:



• Molecule 11: 30S ribosomal protein S11

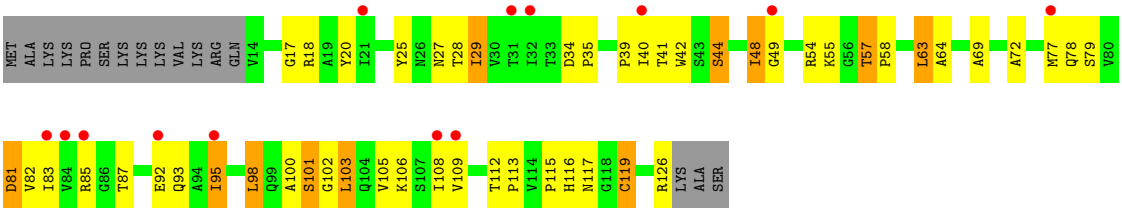
Chain 2I:





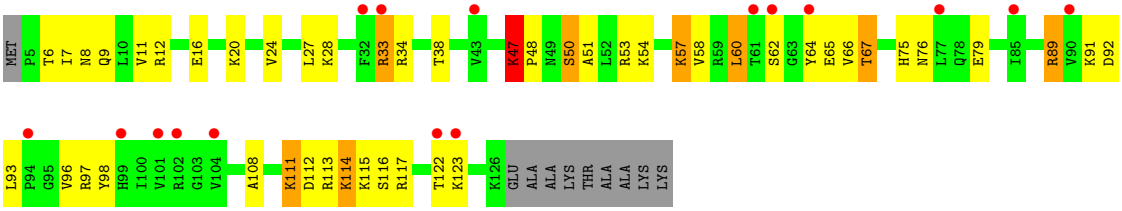
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



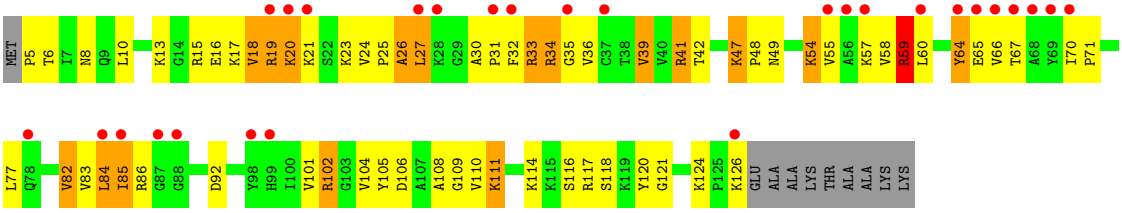
• Molecule 12: 30S ribosomal protein S12

Chain 3I:



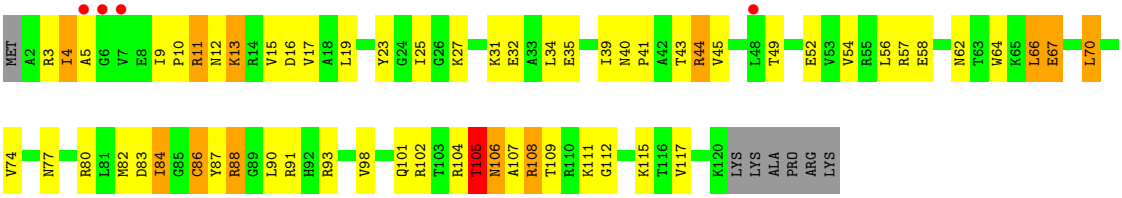
• Molecule 12: 30S ribosomal protein S12

Chain 3A:



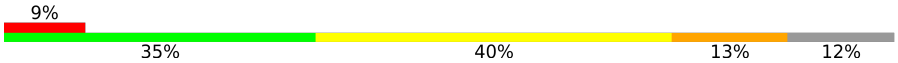
• Molecule 13: 30S ribosomal protein S13

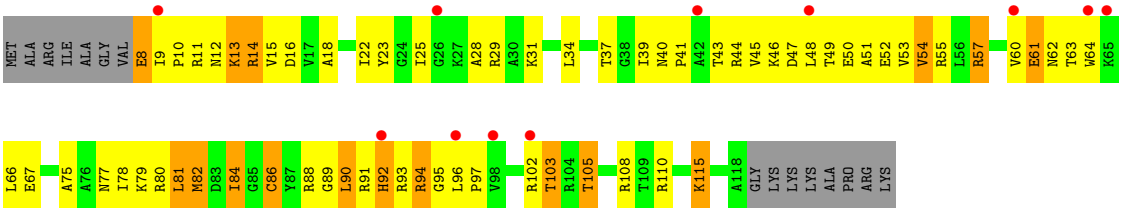
Chain 4I:



• Molecule 13: 30S ribosomal protein S13

Chain 4A:



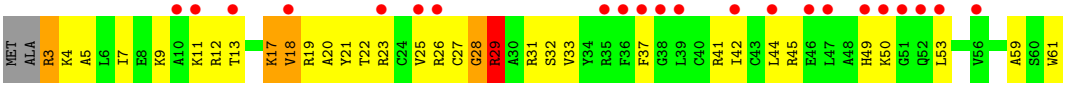


• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:

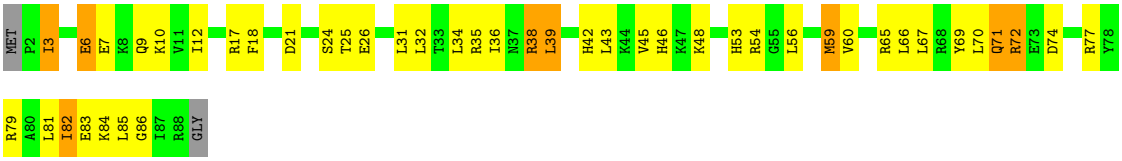
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



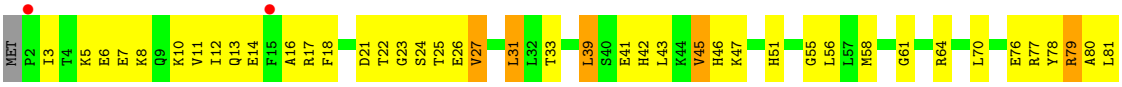
• Molecule 15: 30S ribosomal protein S15

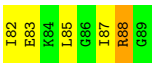
Chain 6I:



• Molecule 15: 30S ribosomal protein S15

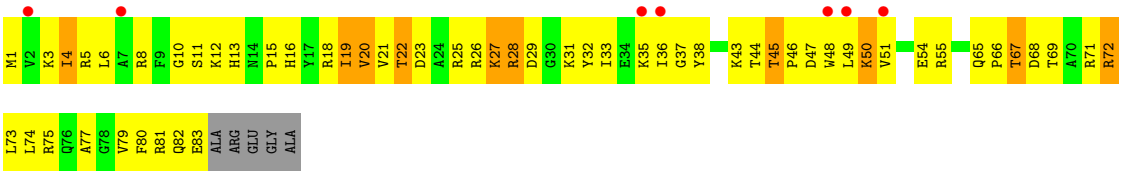
Chain 6A:





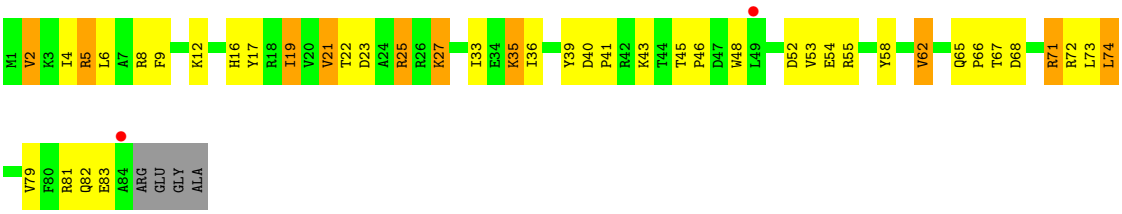
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



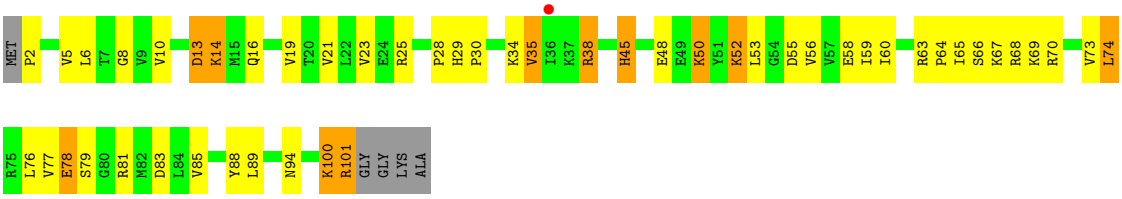
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



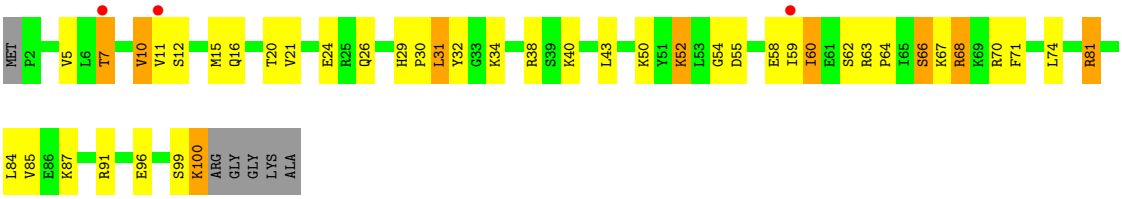
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



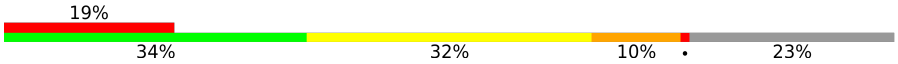
• Molecule 17: 30S ribosomal protein S17

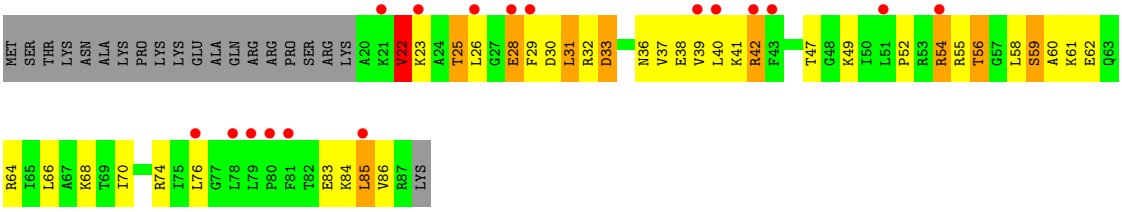
Chain 8A:



• Molecule 18: 30S ribosomal protein S18

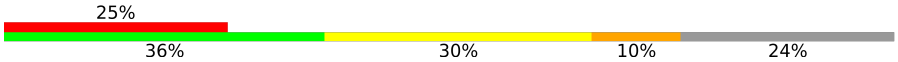
Chain 9I:

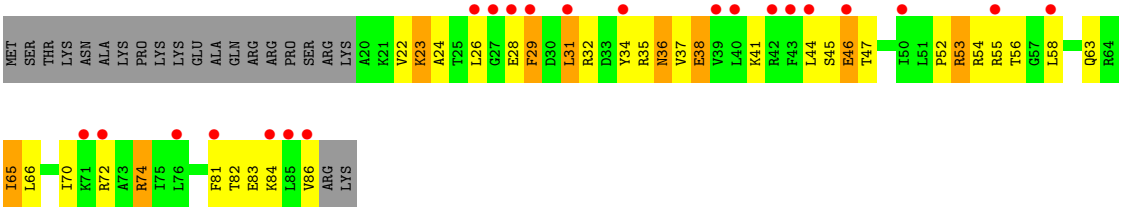




- Molecule 18: 30S ribosomal protein S18

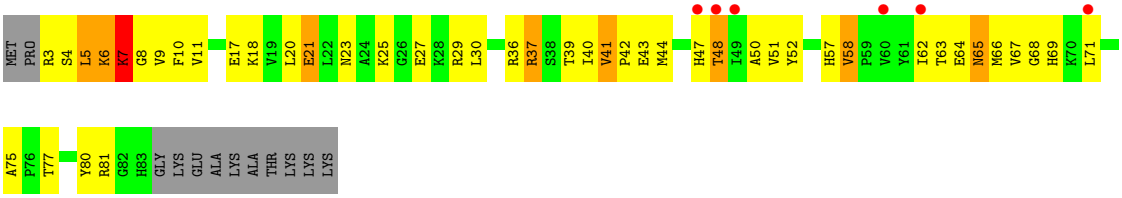
Chain 9A:





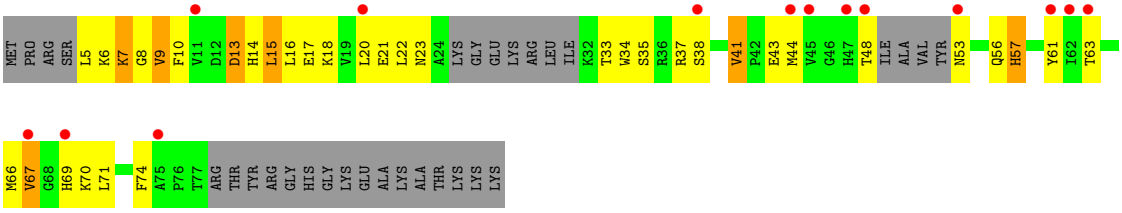
- Molecule 19: 30S ribosomal protein S19

Chain AI:



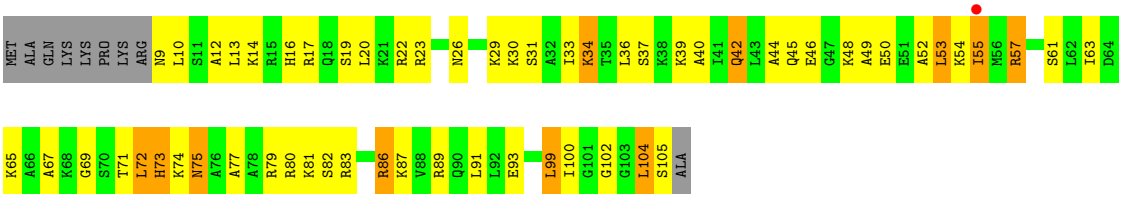
- Molecule 19: 30S ribosomal protein S19

Chain AA:



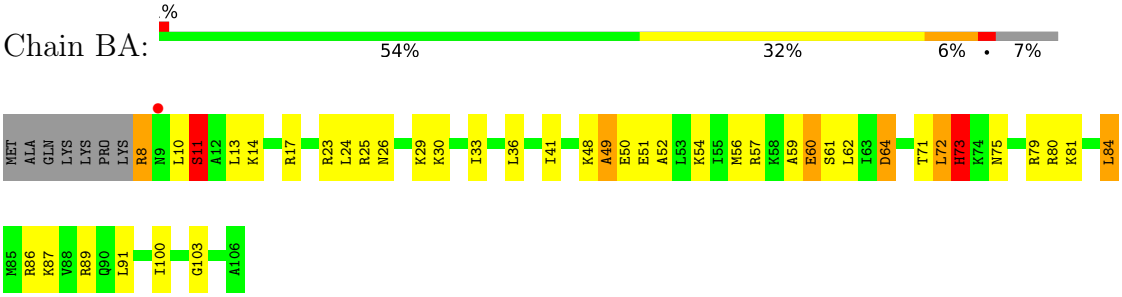
- Molecule 20: 30S ribosomal protein S20

Chain BI:



• Molecule 20: 30S ribosomal protein S20

Chain BA:



• Molecule 21: 30S ribosomal protein Thx

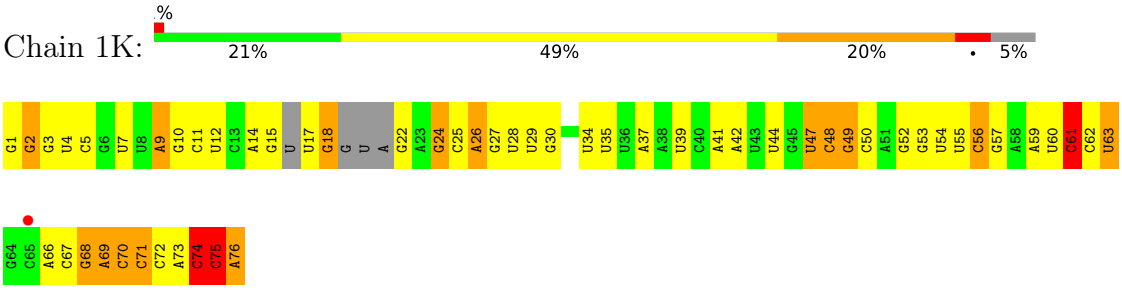
Chain 1F:

• Molecule 21: 30S ribosomal protein Thx

Chain 1B:

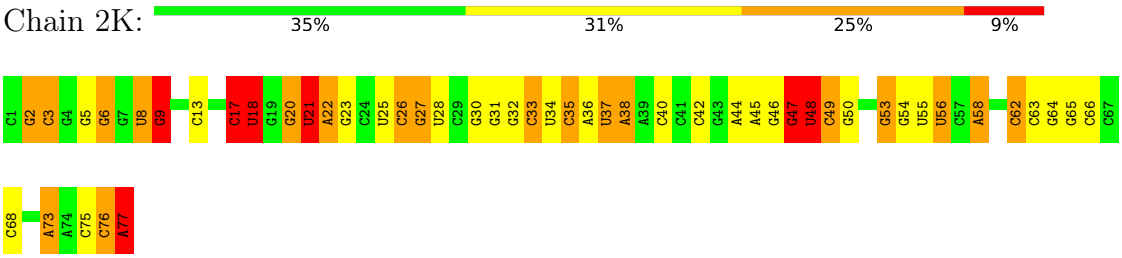
• Molecule 22: tRNALys

Chain 1K:



• Molecule 23: tRNAfMet

Chain 2K:



• Molecule 23: tRNAfMet

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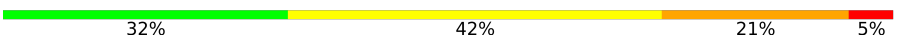

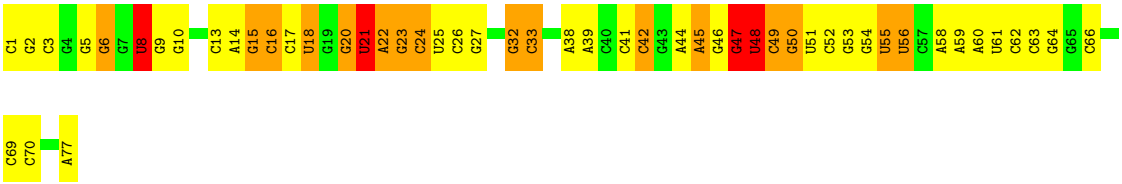

• Molecule 24: tRNALys

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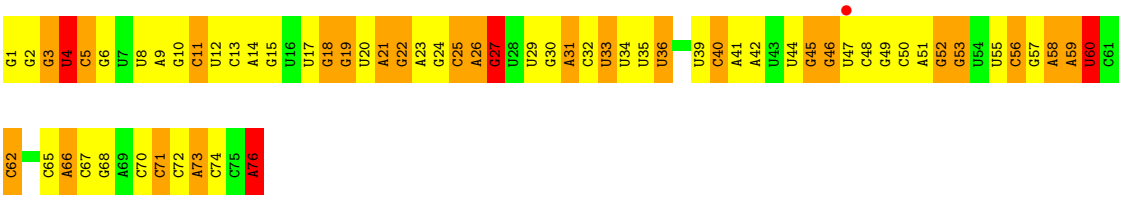
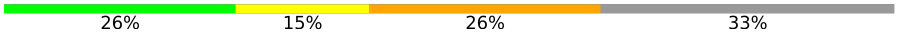


• Molecule 25: mRNA

Chain 4K:

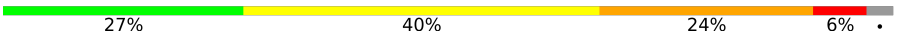
• Molecule 25: mRNA

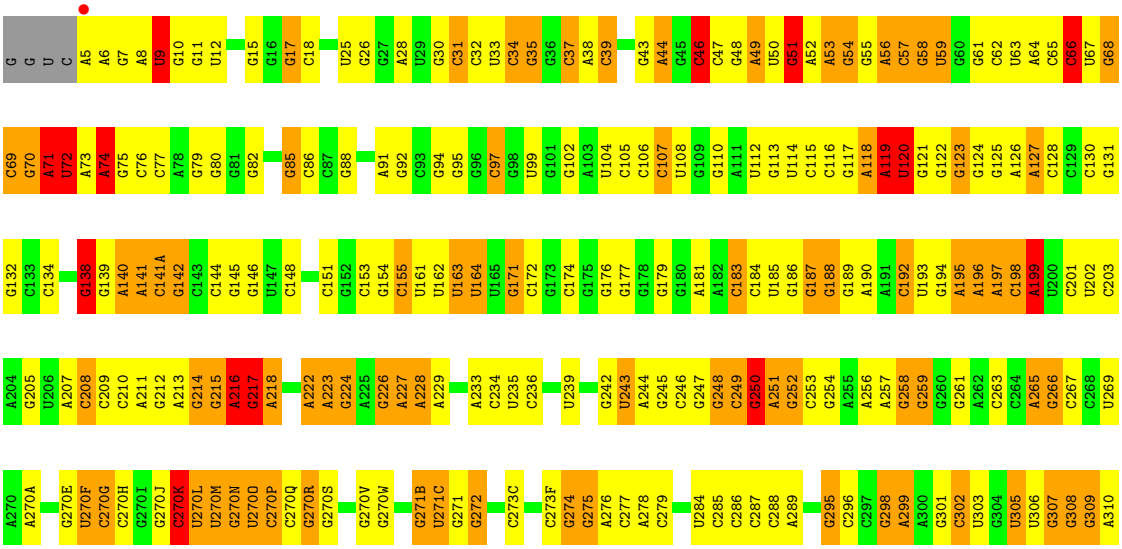
Chain 4L:

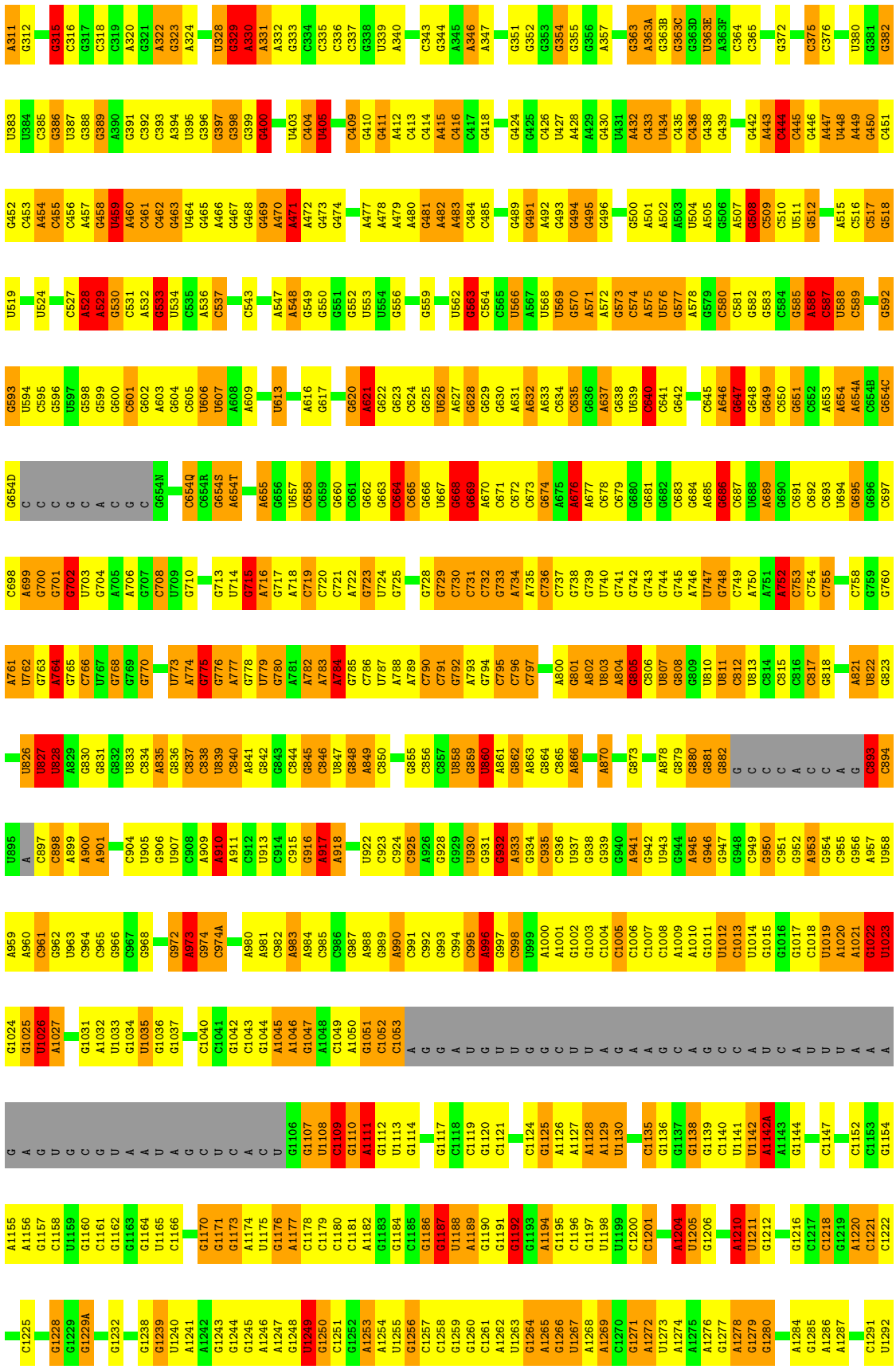


• Molecule 26: 23S rRNA

Chain 1H:



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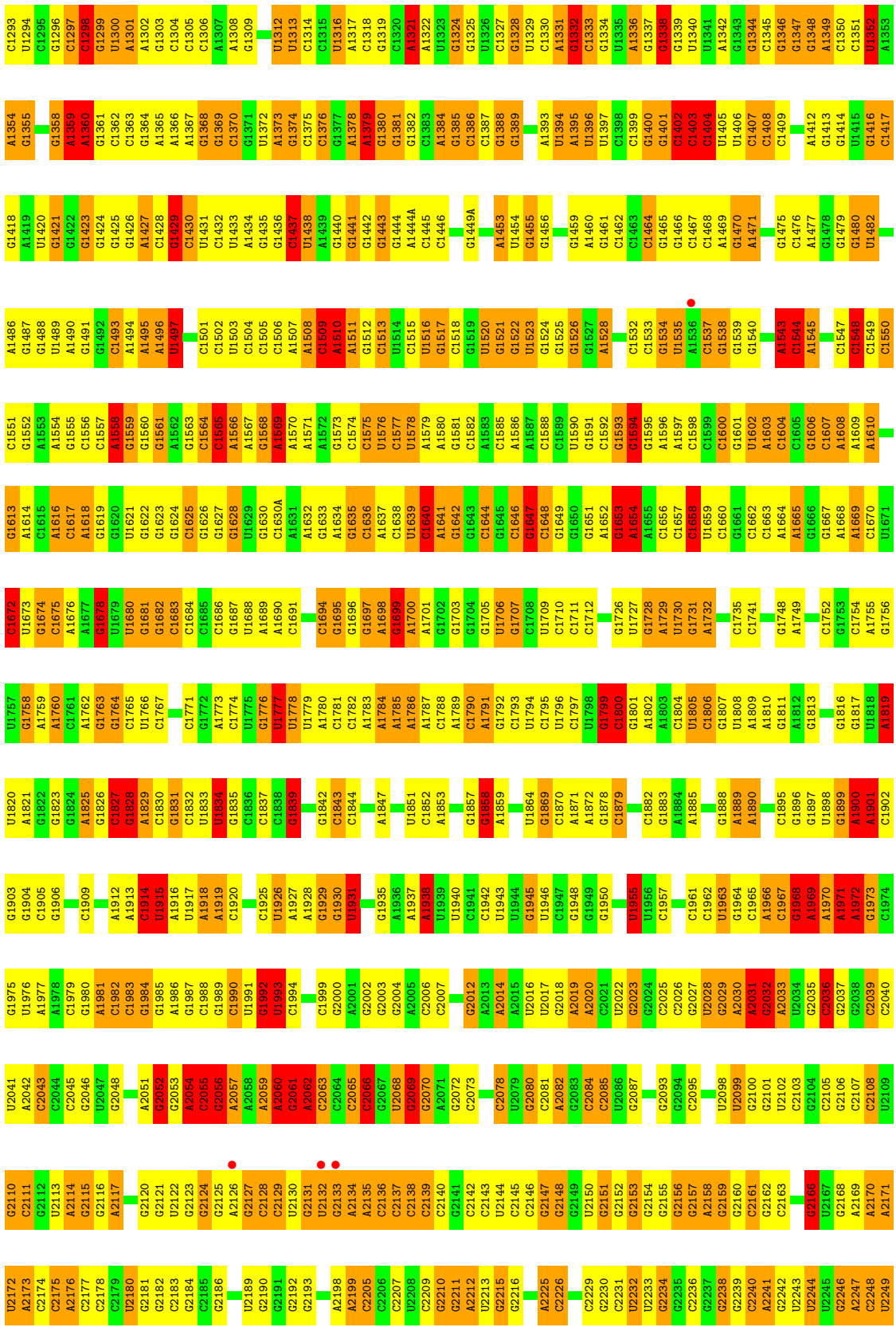
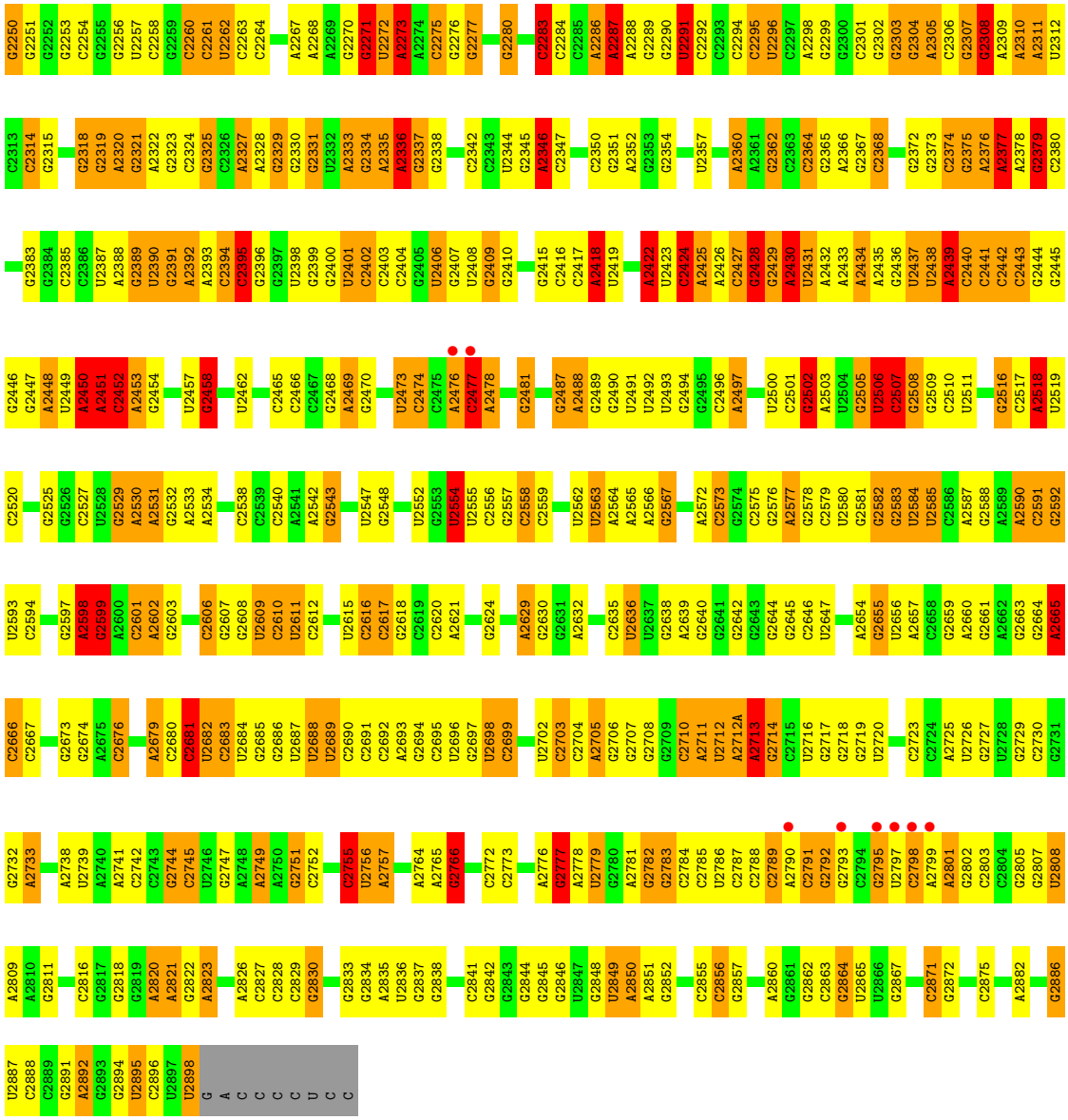
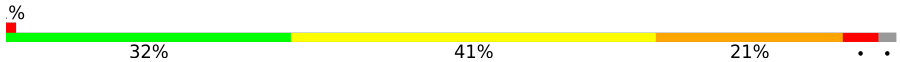
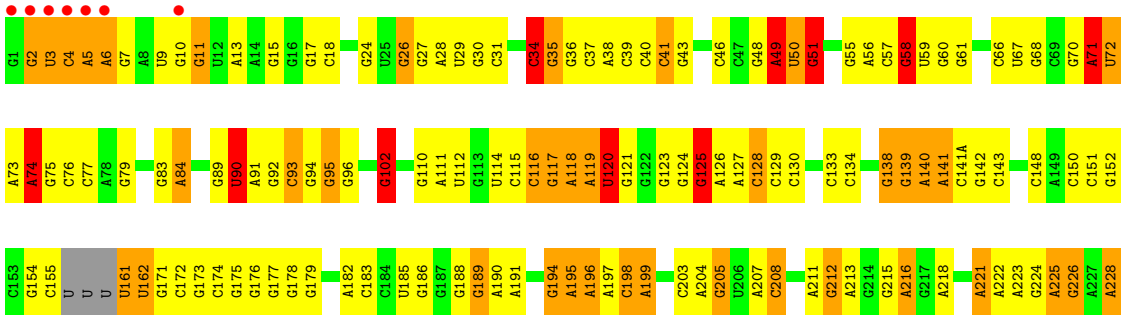


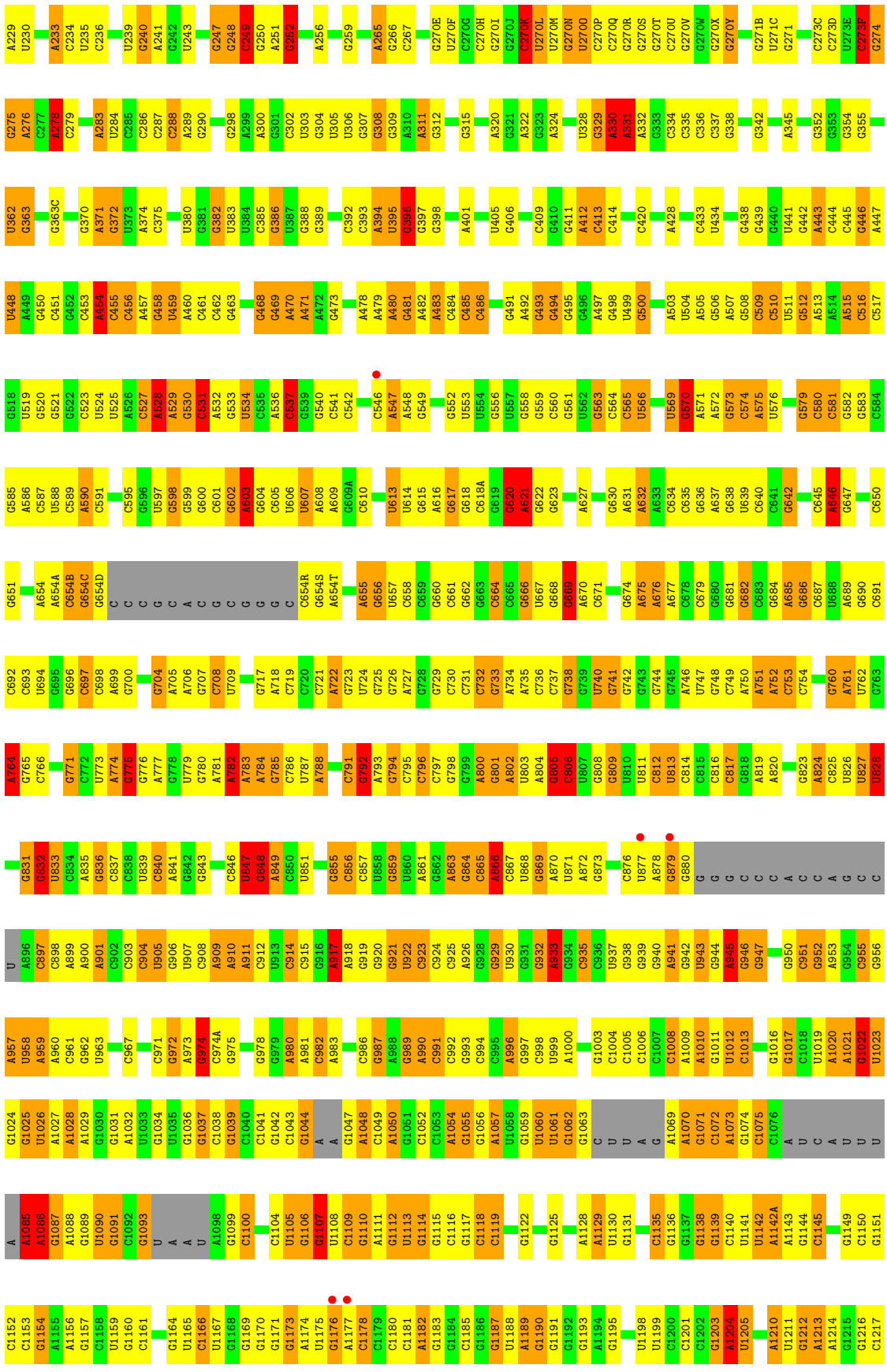


- Molecule 26: 23S rRNA

Chain 14:



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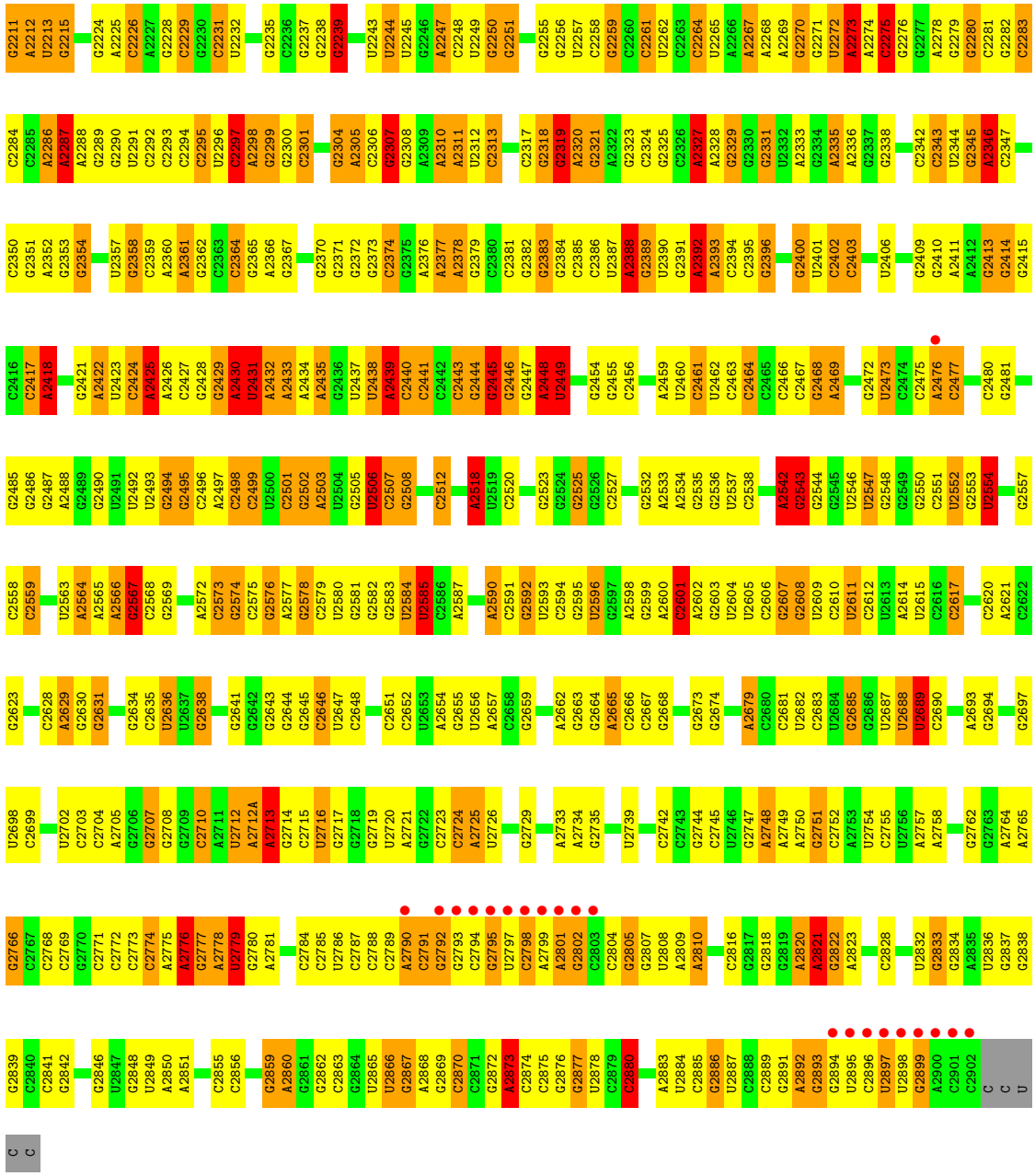
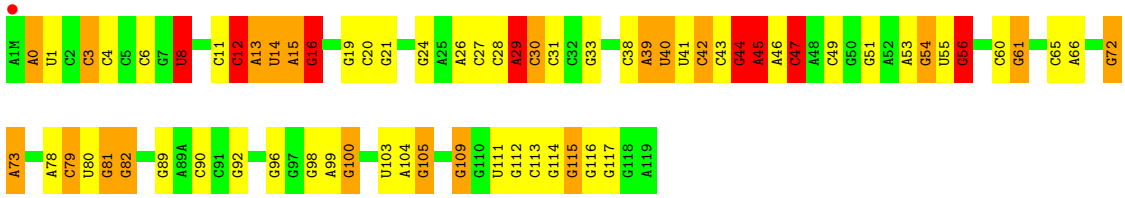


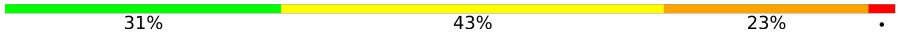
• Molecule 27: 5S rRNA

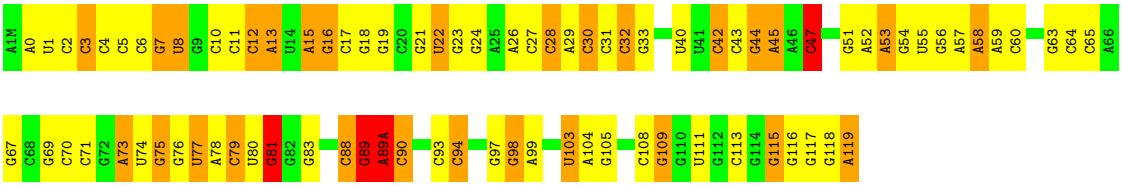
Chain 16:



• Molecule 27: 5S rRNA

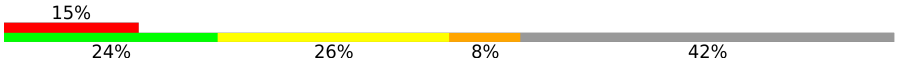
Chain 1J:

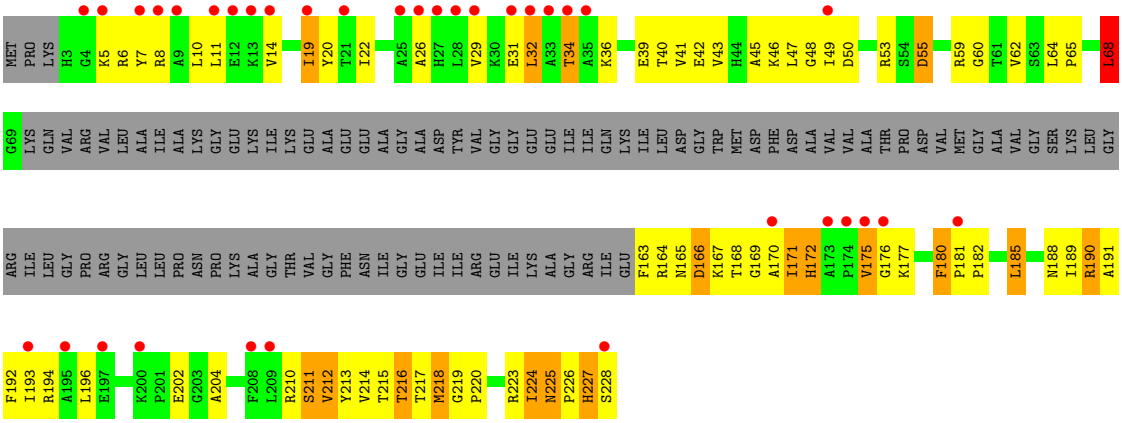




- Molecule 28: 50S ribosomal protein L1

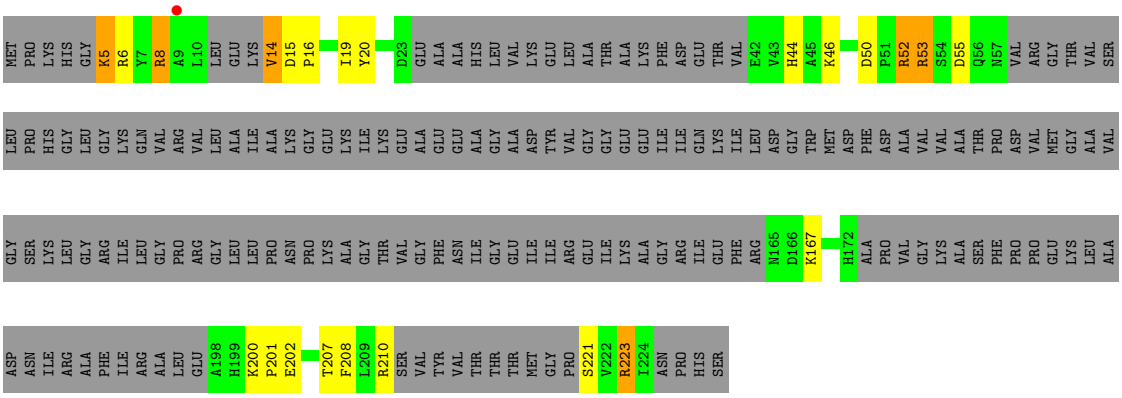
Chain 71:





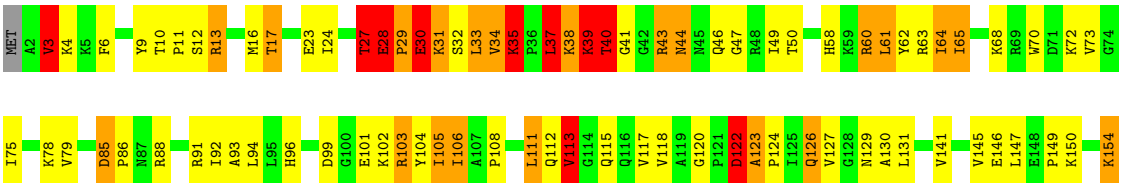
- Molecule 28: 50S ribosomal protein L1

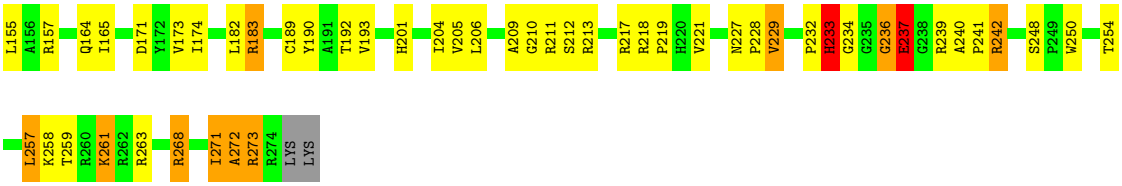
Chain 79:



- Molecule 29: 50S ribosomal protein L2

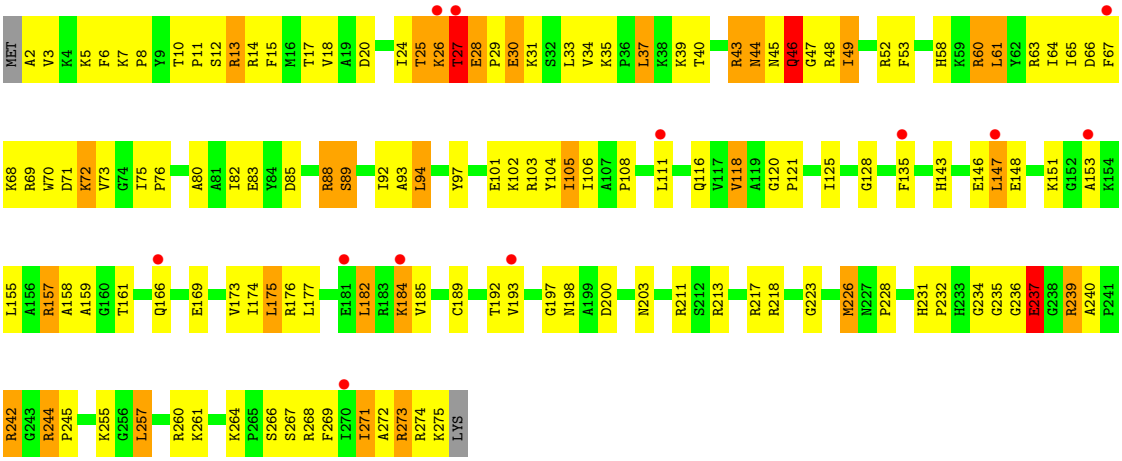
Chain 11:





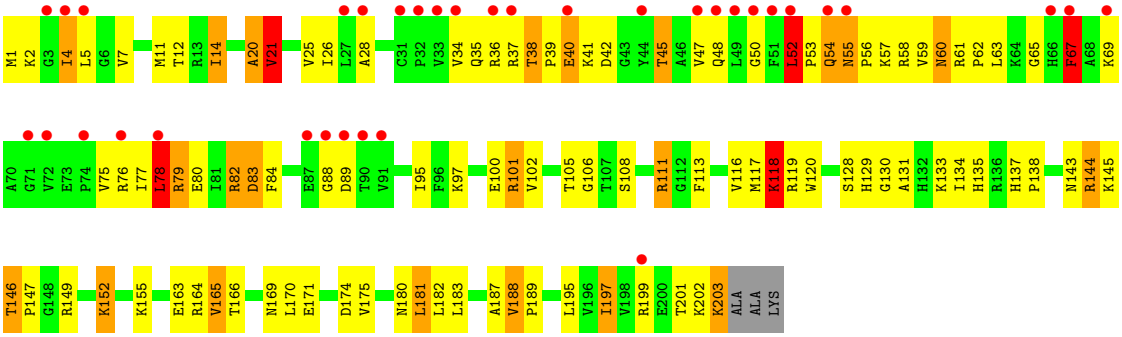
• Molecule 29: 50S ribosomal protein L2

Chain 19:



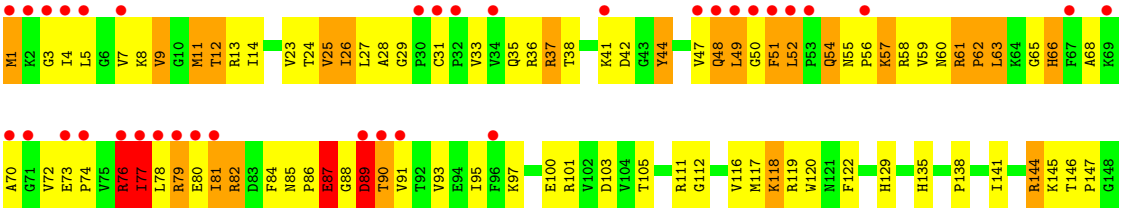
• Molecule 30: 50S ribosomal protein L3

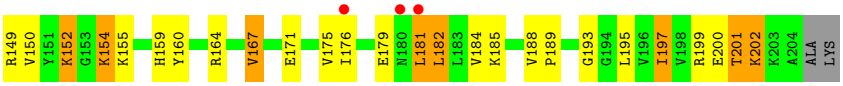
Chain 21:



• Molecule 30: 50S ribosomal protein L3

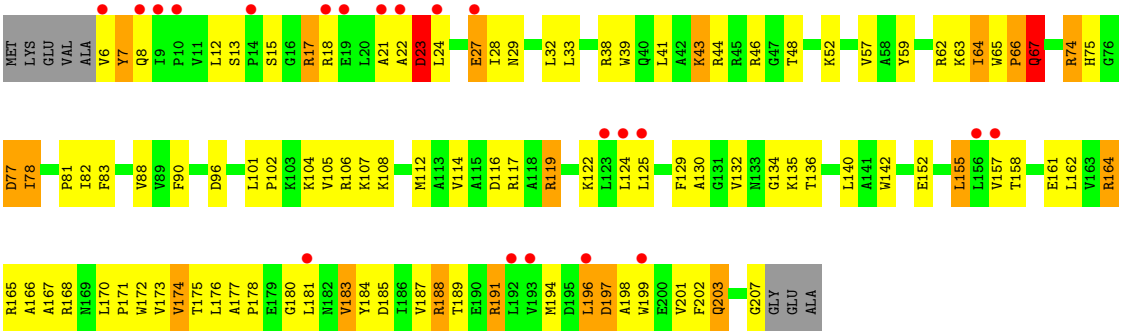
Chain 29:





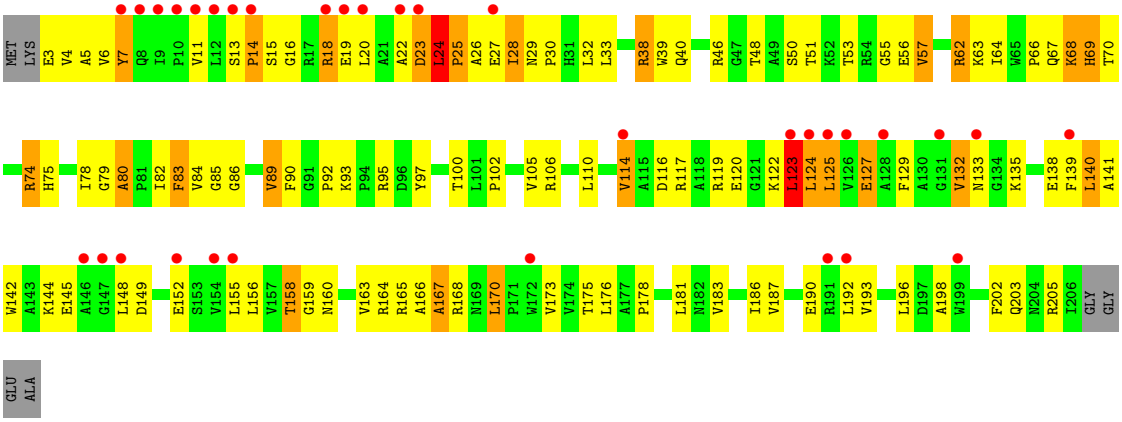
• Molecule 31: 50S ribosomal protein L4

Chain 31:



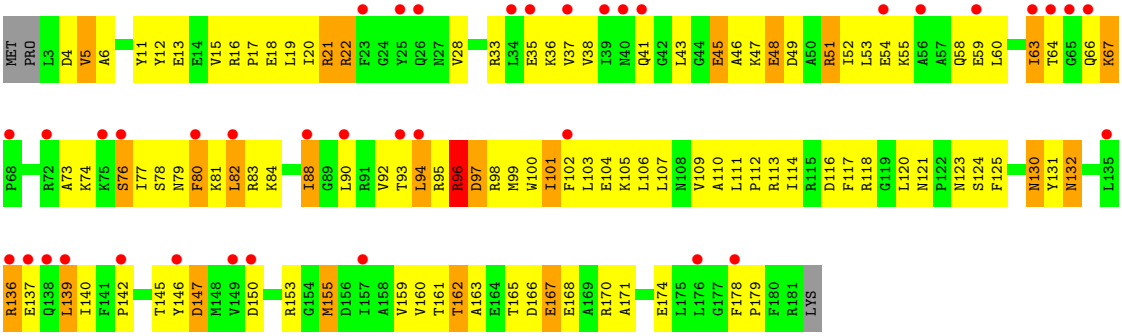
• Molecule 31: 50S ribosomal protein L4

Chain 39:



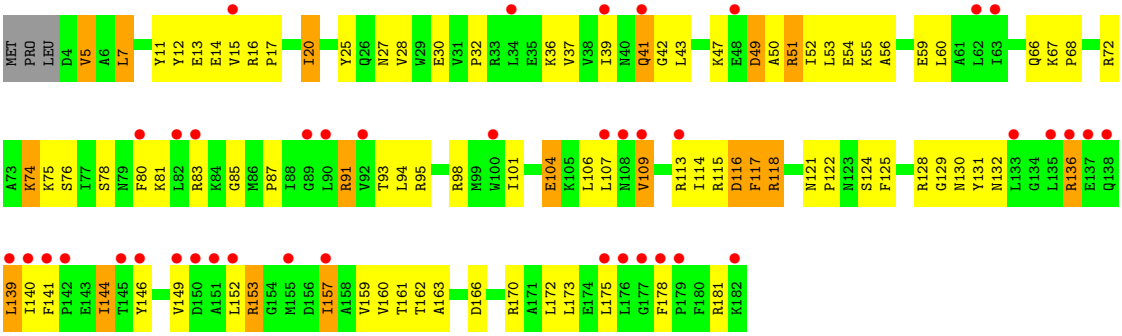
• Molecule 32: 50S ribosomal protein L5

Chain 41:



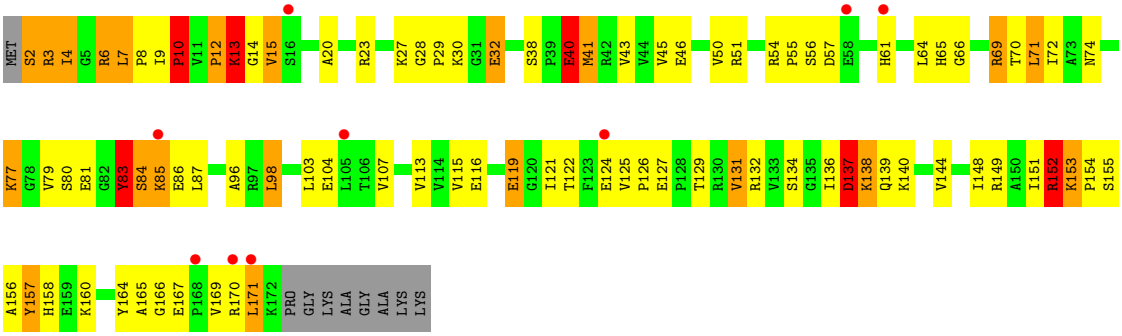
• Molecule 32: 50S ribosomal protein L5

Chain 49:



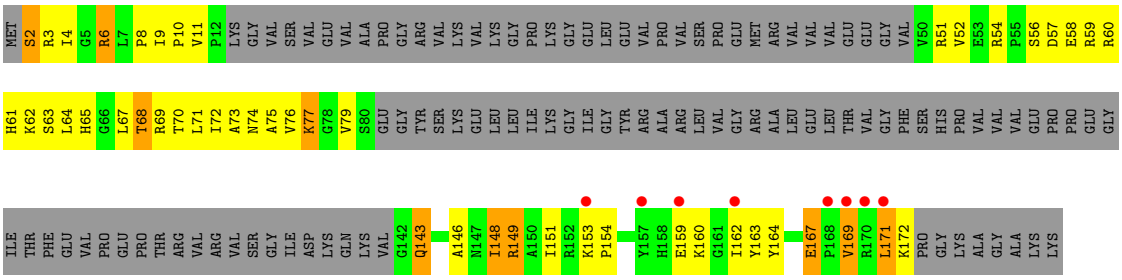
- Molecule 33: 50S ribosomal protein L6

Chain 51:



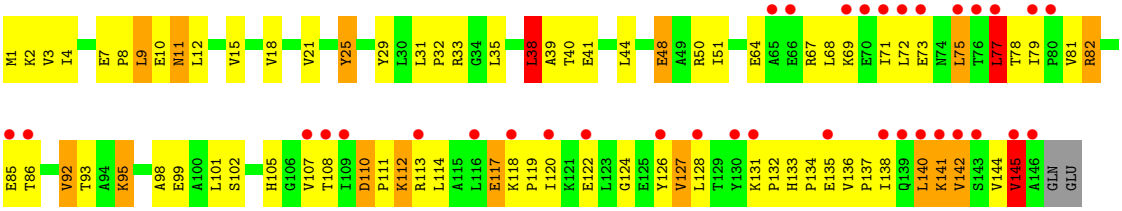
- Molecule 33: 50S ribosomal protein L6

Chain 59:



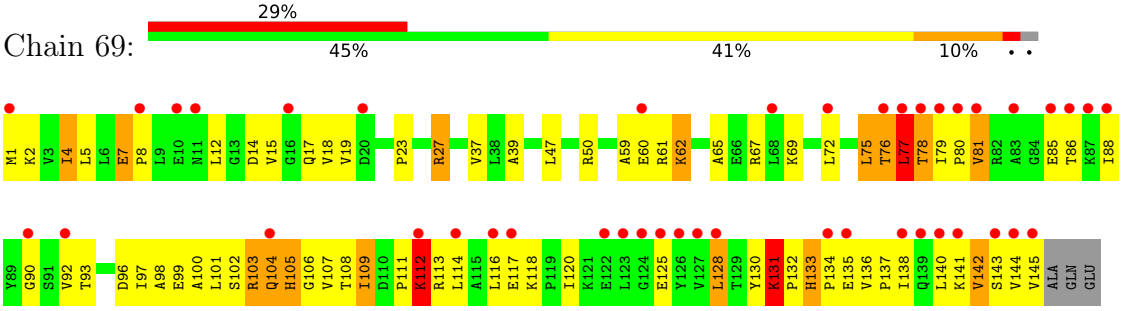
- Molecule 34: 50S ribosomal protein L9

Chain 61:



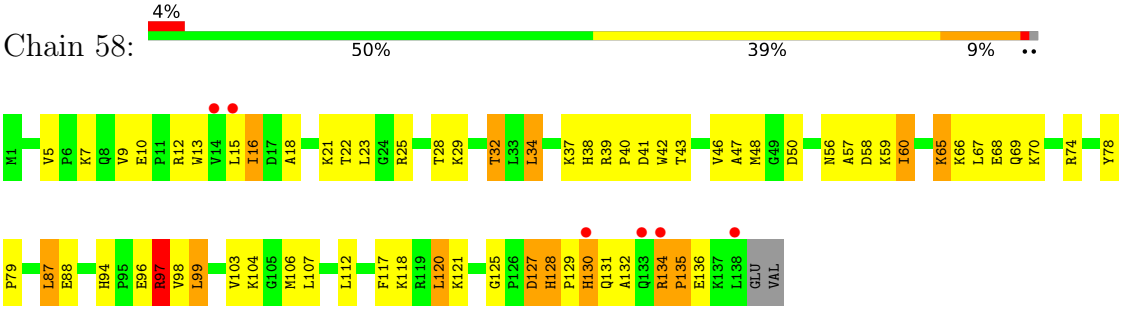
- Molecule 34: 50S ribosomal protein L9

Chain 69:



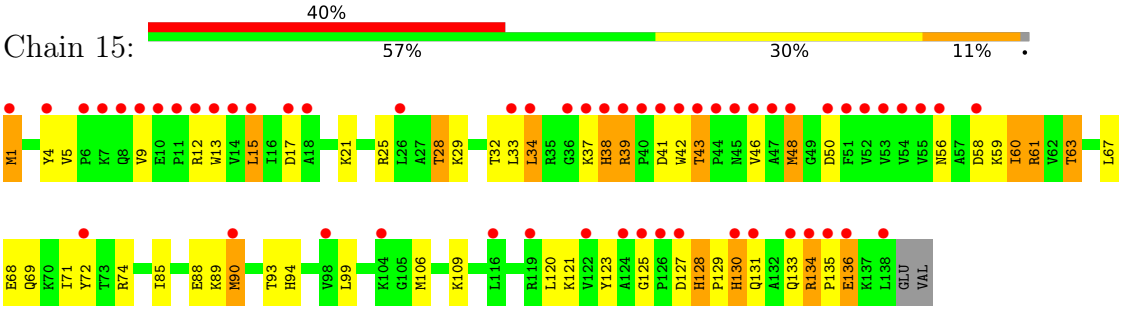
- Molecule 35: 50S ribosomal protein L13

Chain 58:



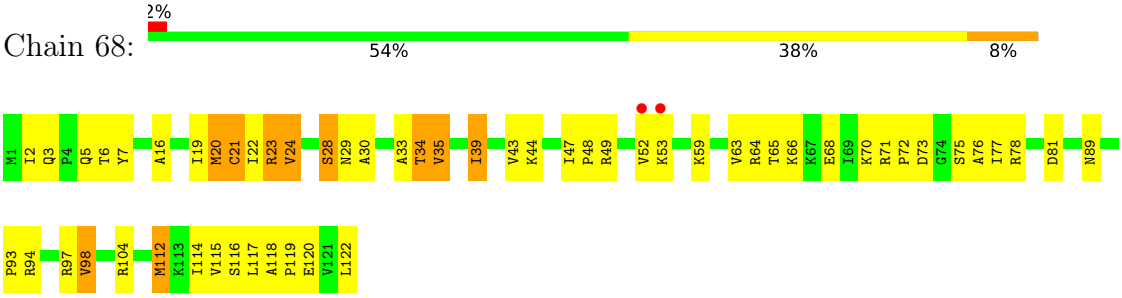
- Molecule 35: 50S ribosomal protein L13

Chain 15:



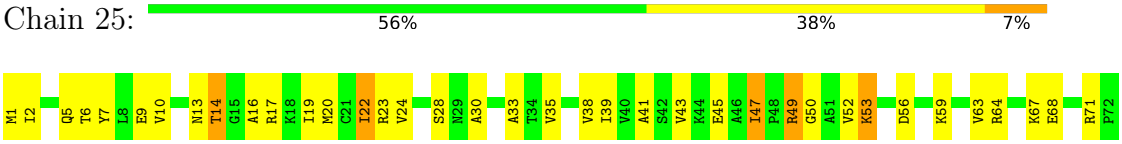
- Molecule 36: 50S ribosomal protein L14

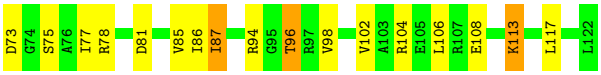
Chain 68:



- Molecule 36: 50S ribosomal protein L14

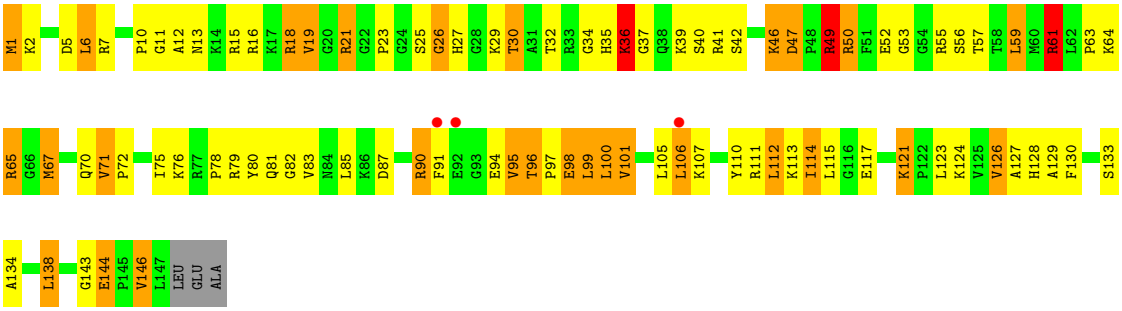
Chain 25:





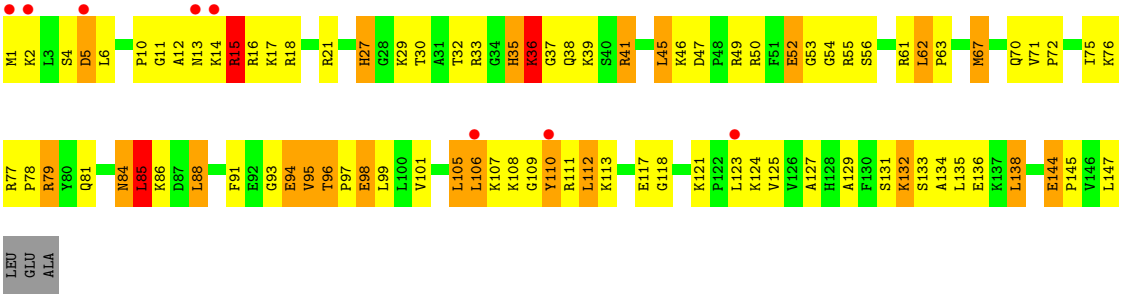
• Molecule 37: 50S ribosomal protein L15

Chain 78:



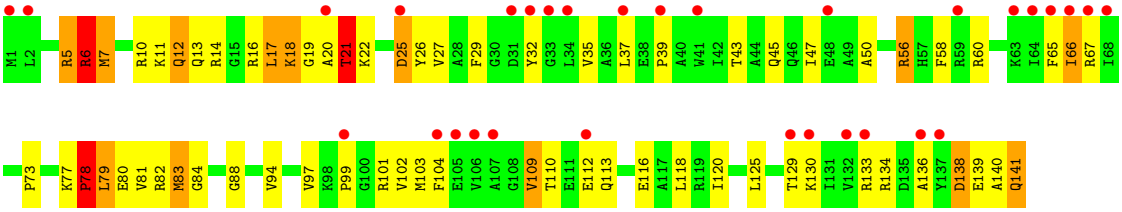
• Molecule 37: 50S ribosomal protein L15

Chain 35:



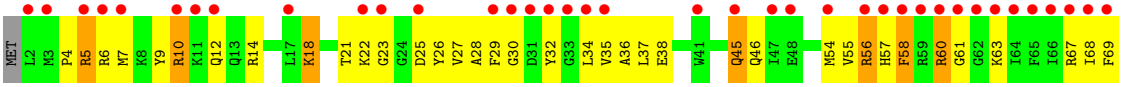
• Molecule 38: 50S ribosomal protein L16

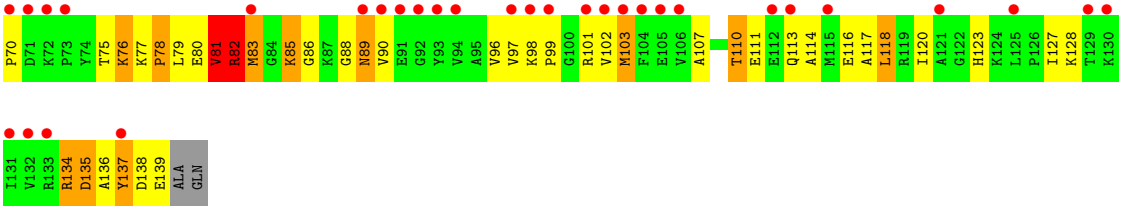
Chain 88:



• Molecule 38: 50S ribosomal protein L16

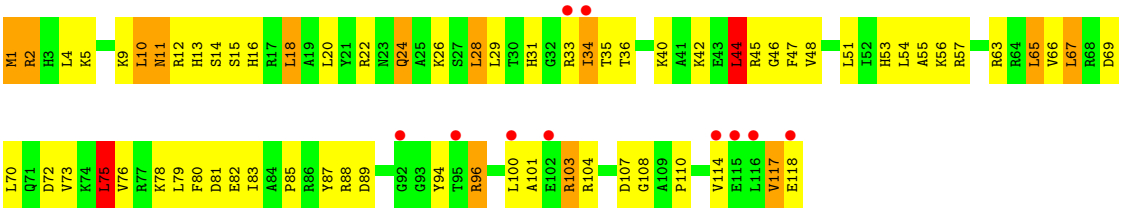
Chain 45:





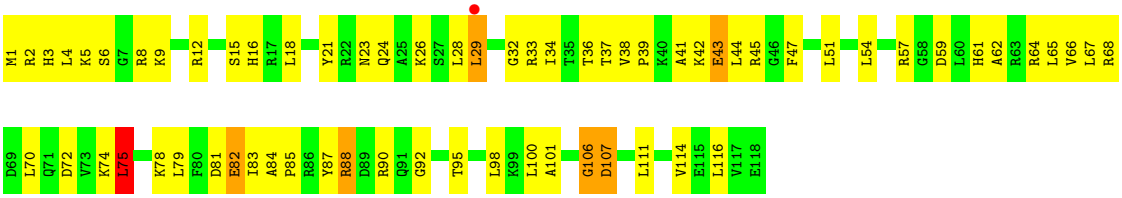
• Molecule 39: 50S ribosomal protein L17

Chain 98:



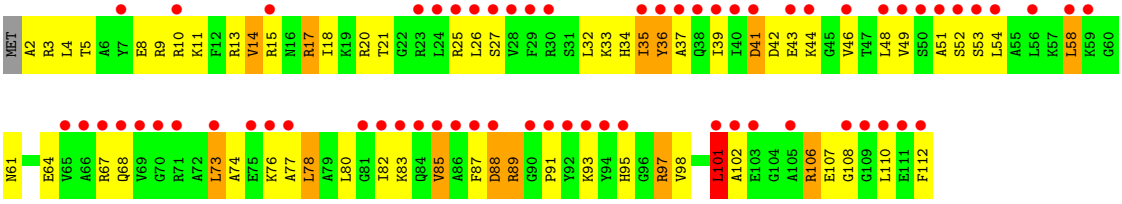
• Molecule 39: 50S ribosomal protein L17

Chain 55:



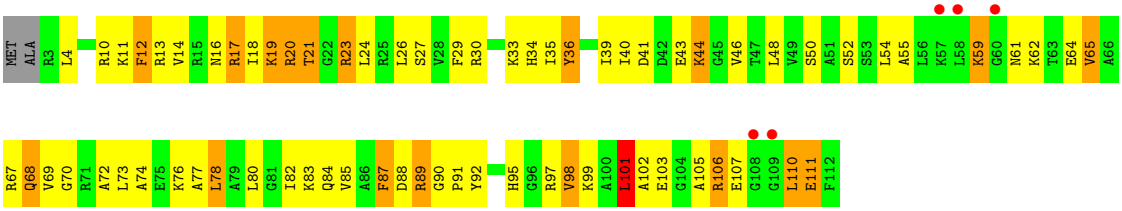
• Molecule 40: 50S ribosomal protein L18

Chain A8:



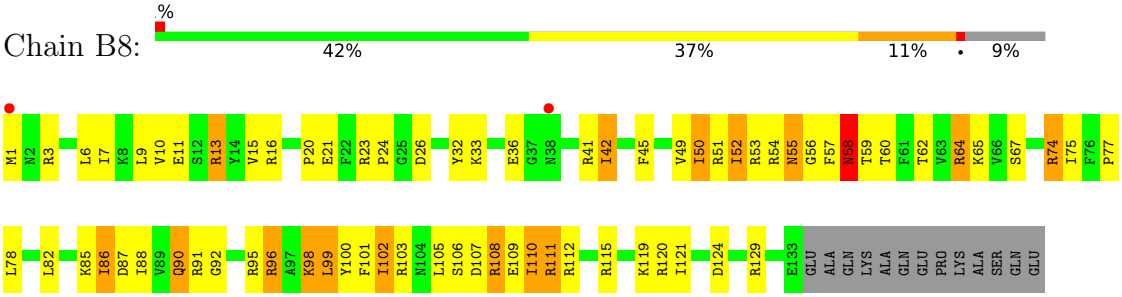
• Molecule 40: 50S ribosomal protein L18

Chain 65:



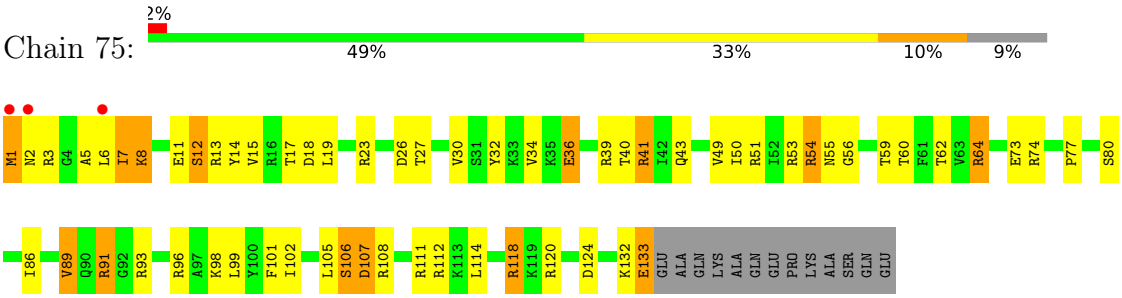
• Molecule 41: 50S ribosomal protein L19

Chain B8:



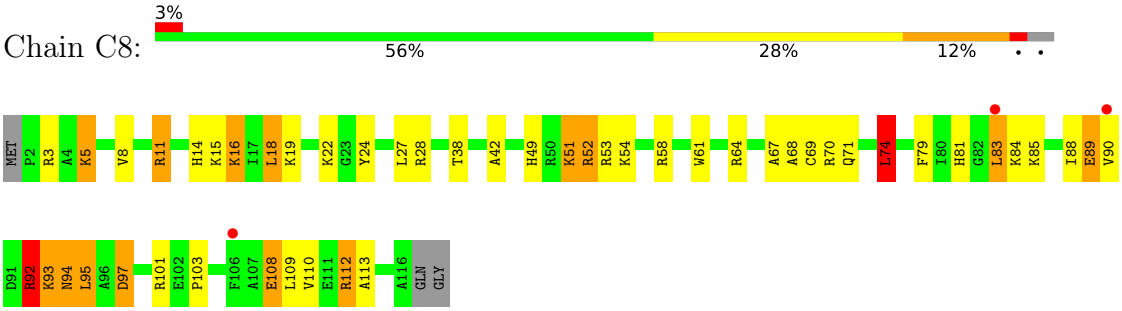
• Molecule 41: 50S ribosomal protein L19

Chain 75:



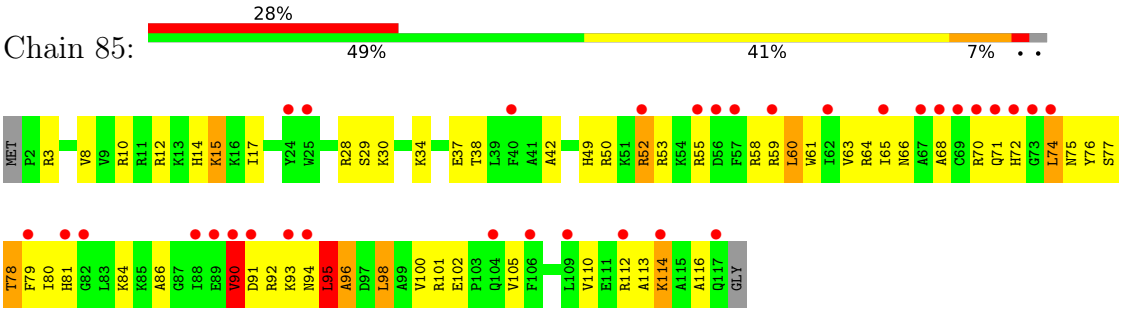
• Molecule 42: 50S ribosomal protein L20

Chain C8:



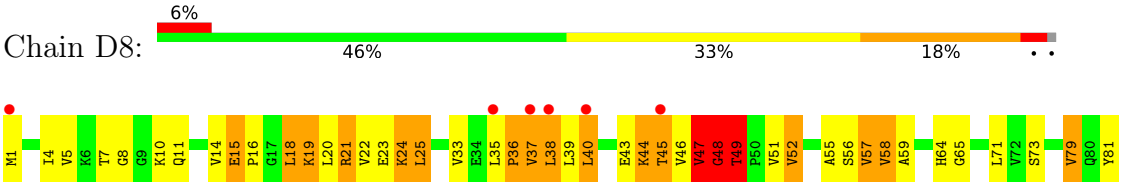
• Molecule 42: 50S ribosomal protein L20

Chain 85:



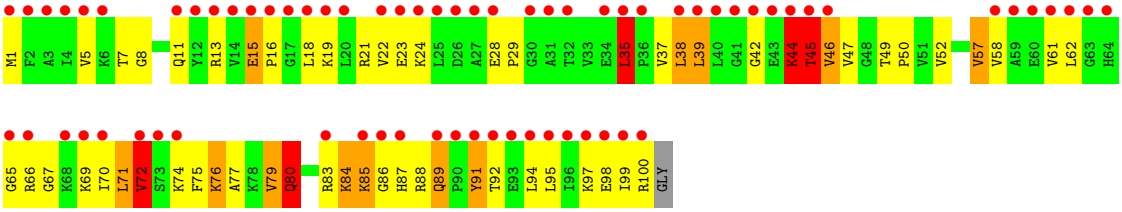
• Molecule 43: 50S ribosomal protein L21

Chain D8:



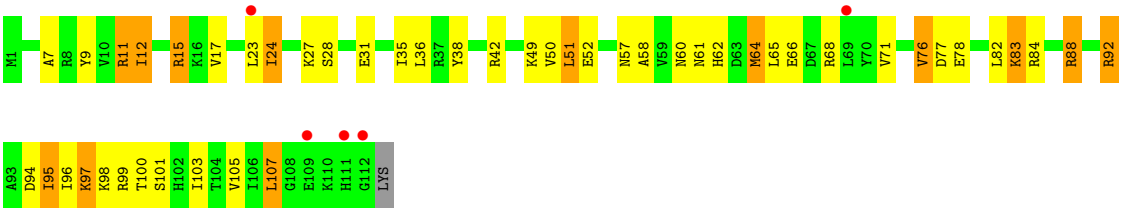
• Molecule 43: 50S ribosomal protein L21

Chain 95:



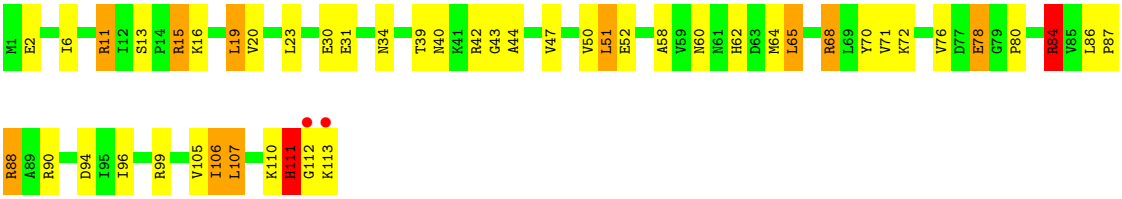
• Molecule 44: 50S ribosomal protein L22

Chain E8:



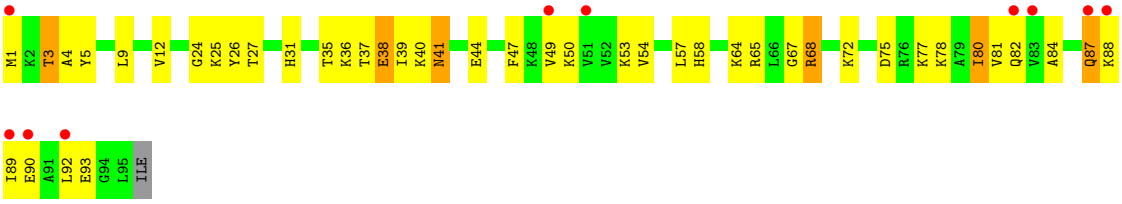
• Molecule 44: 50S ribosomal protein L22

Chain A5:



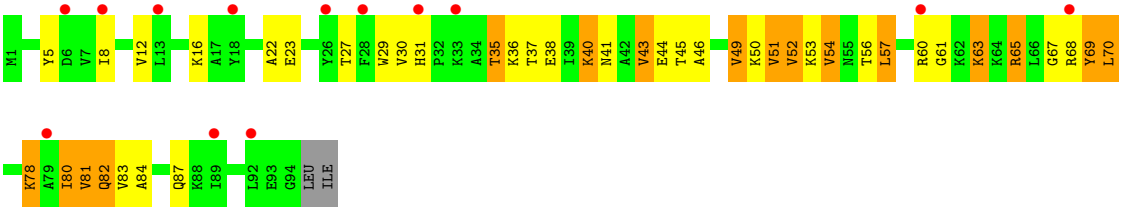
• Molecule 45: 50S ribosomal protein L23

Chain F8:



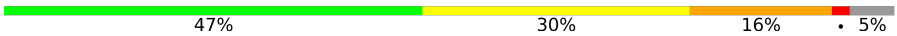
• Molecule 45: 50S ribosomal protein L23

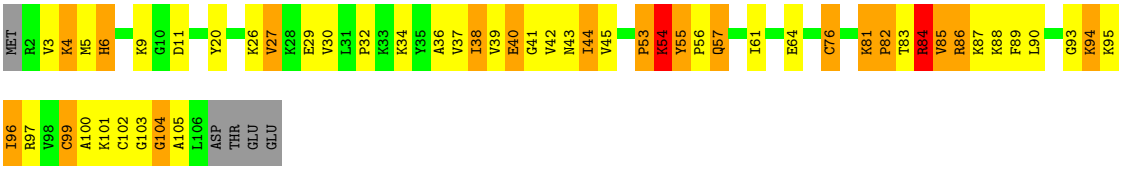
Chain B5:



• Molecule 46: 50S ribosomal protein L24

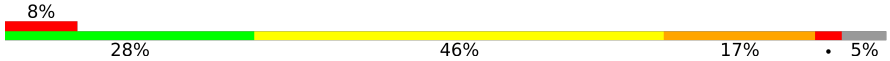
Chain G8:

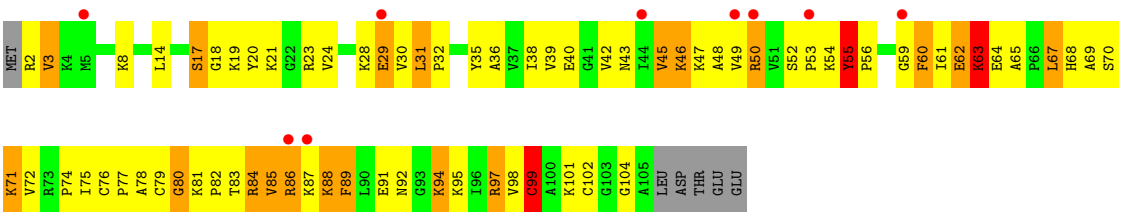




• Molecule 46: 50S ribosomal protein L24

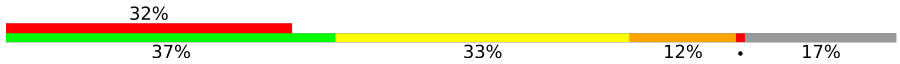
Chain C5:

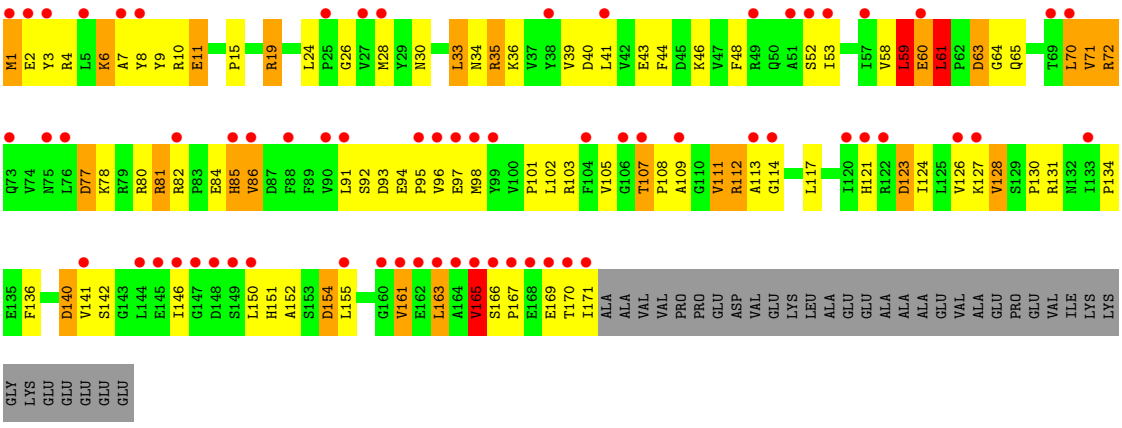




• Molecule 47: 50S ribosomal protein L25

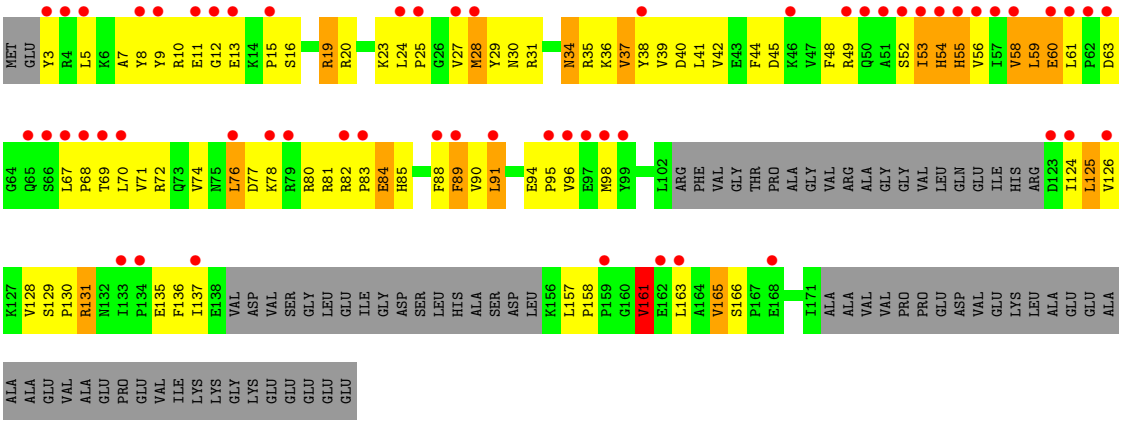
Chain H8:





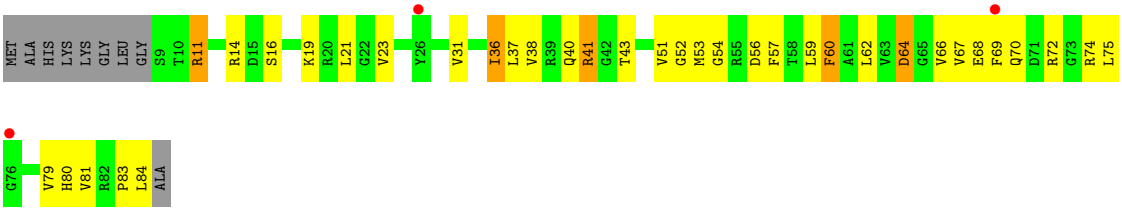
• Molecule 47: 50S ribosomal protein L25

Chain D5:



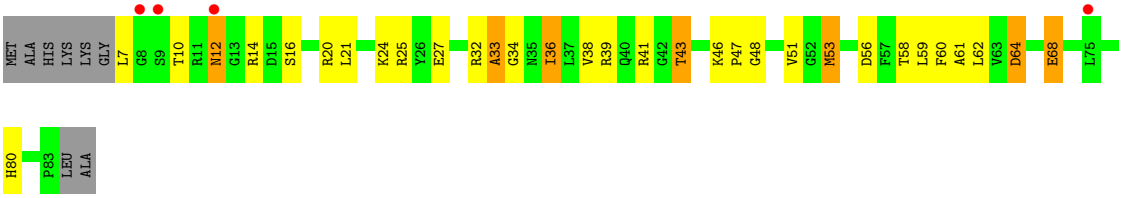
- Molecule 48: 50S ribosomal protein L27

Chain I8:



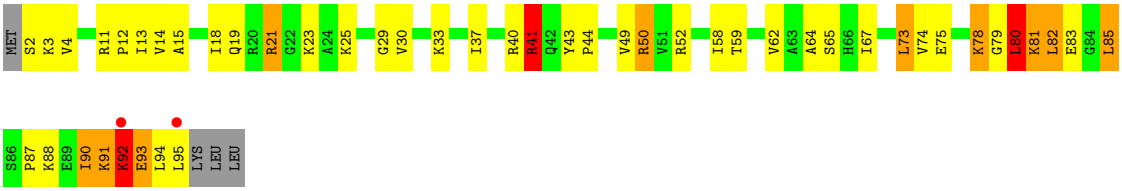
- Molecule 48: 50S ribosomal protein L27

Chain E5:



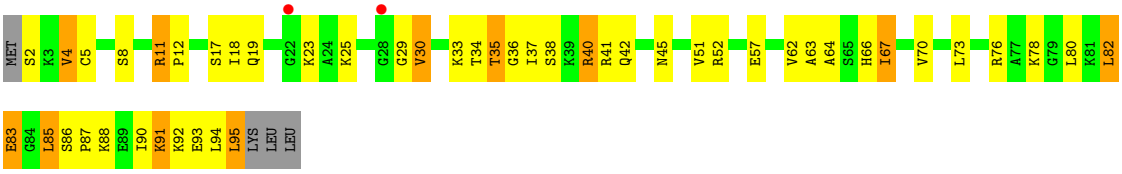
- Molecule 49: 50S ribosomal protein L28

Chain J8:



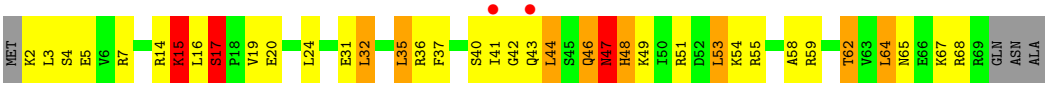
- Molecule 49: 50S ribosomal protein L28

Chain F5:



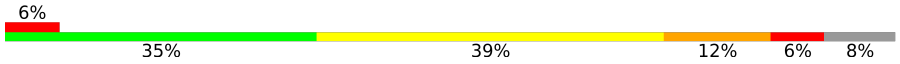
- Molecule 50: 50S ribosomal protein L29

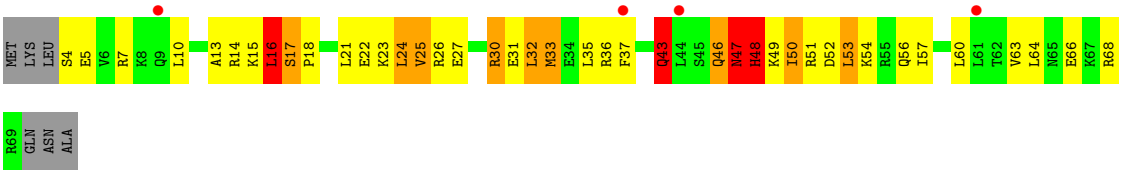
Chain K8:



- Molecule 50: 50S ribosomal protein L29

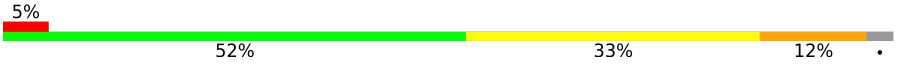
Chain G5:

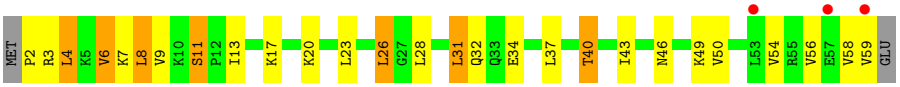




- Molecule 51: 50S ribosomal protein L30

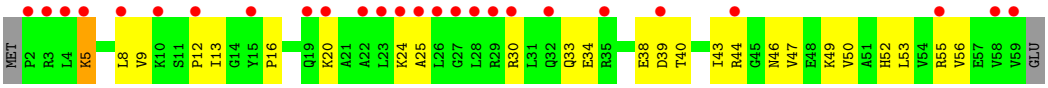
Chain L8:





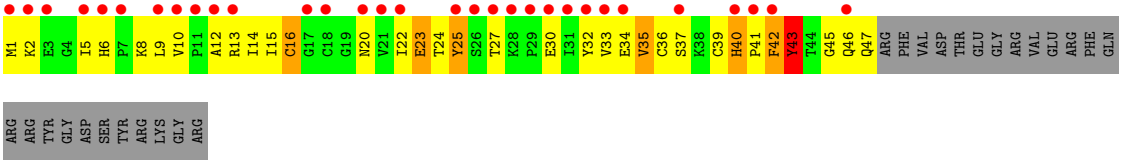
- Molecule 51: 50S ribosomal protein L30

Chain H5:



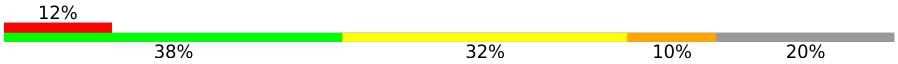
- Molecule 52: 50S ribosomal protein L31

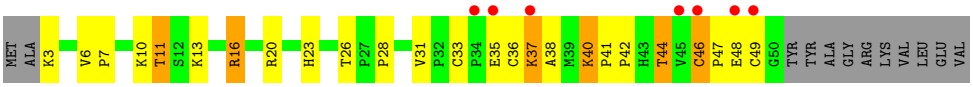
Chain M8:



- Molecule 53: 50S ribosomal protein L32

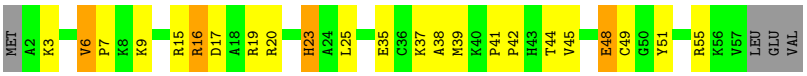
Chain N8:





- Molecule 53: 50S ribosomal protein L32

Chain J5:

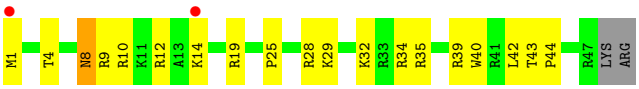


- Molecule 54: 50S ribosomal protein L34

Chain P8:

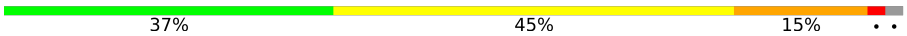
- Molecule 54: 50S ribosomal protein L34

Chain L5:



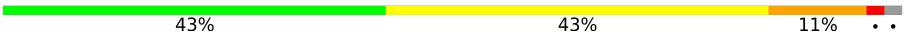
- Molecule 55: 50S ribosomal protein L35

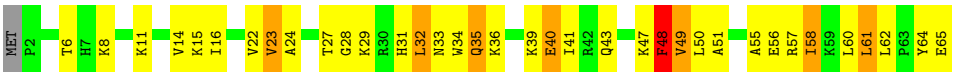
Chain Q8:



- Molecule 55: 50S ribosomal protein L35

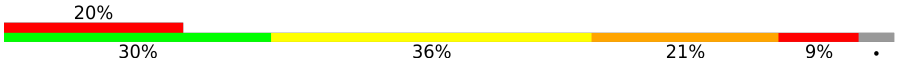
Chain M5:

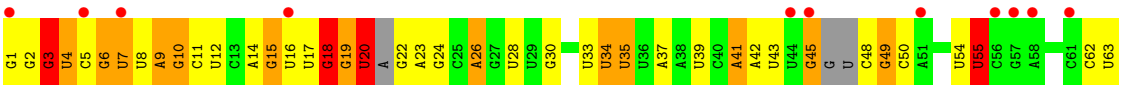


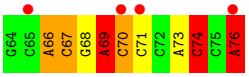


- Molecule 56: tRNALys

Chain 1L:

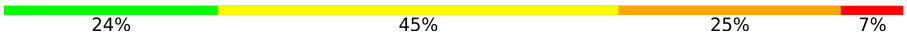


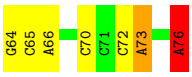




- Molecule 57: tRNALys

Chain 3L:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.50Å 450.10Å 621.60Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	173.72 – 3.20 173.72 – 3.20	Depositor EDS
% Data completeness (in resolution range)	100.0 (173.72-3.20) 93.8 (173.72-3.20)	Depositor EDS
R_{merge}	0.38	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.81 (at 3.19Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.191 , 0.258 0.192 , 0.258	Depositor DCC
R_{free} test set	2000 reflections (0.21%)	wwPDB-VP
Wilson B-factor (Å^2)	92.5	Xtriage
Anisotropy	0.339	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 77.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	294444	wwPDB-VP
Average B, all atoms (Å^2)	107.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% 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: 4SU, G7M, PSU, SF4, U8U, 5MU, T6A, MG, ZN, OMC

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	0.75	5/35994 (0.0%)	1.39	368/56171 (0.7%)
1	1G	0.64	1/36258 (0.0%)	1.26	191/56589 (0.3%)
2	12	0.44	0/1752	0.74	1/2360 (0.0%)
2	1E	0.46	0/1908	0.74	4/2573 (0.2%)
3	22	0.40	0/1564	0.64	1/2109 (0.0%)
3	2E	0.49	0/1629	0.67	0/2195
4	32	0.48	0/1732	0.74	1/2318 (0.0%)
4	3E	0.52	0/1728	0.74	1/2313 (0.0%)
5	42	0.45	0/1150	0.69	0/1548
5	4E	0.53	0/1158	0.71	0/1559
6	52	0.51	0/855	0.68	0/1154
6	5E	0.57	0/850	0.72	0/1147
7	62	0.43	0/1122	0.65	0/1500
7	6E	0.43	0/1259	0.59	0/1686
8	72	0.41	0/1127	0.65	0/1517
8	7E	0.47	0/1135	0.74	1/1527 (0.1%)
9	82	0.42	0/971	0.71	0/1304
9	8E	0.44	0/1019	0.66	0/1367
10	1A	0.42	0/658	0.60	0/885
10	1I	0.51	0/747	0.75	1/1006 (0.1%)
11	2A	0.45	0/850	0.63	0/1150
11	2I	0.49	0/838	0.69	0/1133
12	3A	0.55	0/972	0.83	2/1301 (0.2%)
12	3I	0.72	0/972	0.87	0/1301
13	4A	0.42	0/903	0.72	1/1211 (0.1%)
13	4I	0.53	0/952	0.73	0/1277
14	5A	0.47	0/495	0.72	1/657 (0.2%)
14	5I	0.62	0/500	0.75	0/664
15	6A	0.44	0/744	0.59	0/992
15	6I	0.52	0/740	0.71	0/987
16	7A	0.49	0/721	0.74	0/970
16	7I	0.47	0/716	0.73	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.45	0/836	0.64	0/1117
17	8I	0.52	0/847	0.70	0/1131
18	9A	0.46	0/549	0.70	0/732
18	9I	0.53	0/554	0.77	0/739
19	AA	0.44	0/490	0.70	0/662
19	AI	0.53	0/668	0.79	0/899
20	BA	0.43	0/764	0.73	0/1007
20	BI	0.43	0/748	0.65	1/986 (0.1%)
21	1B	0.47	0/192	0.70	0/252
21	1F	0.52	0/203	0.68	0/266
22	1K	0.66	0/1565	1.29	14/2429 (0.6%)
23	2K	0.84	1/1721 (0.1%)	1.50	32/2682 (1.2%)
23	2L	0.66	1/1721 (0.1%)	1.24	10/2682 (0.4%)
24	3K	0.67	0/1799	1.31	17/2801 (0.6%)
25	4K	0.91	0/473	1.34	1/737 (0.1%)
25	4L	0.67	0/448	1.13	0/698
26	14	0.90	57/69023 (0.1%)	1.59	1407/107740 (1.3%)
26	1H	1.06	113/68351 (0.2%)	1.80	2304/106700 (2.2%)
27	16	0.84	0/2928	1.55	47/4568 (1.0%)
27	1J	0.70	0/2928	1.36	28/4568 (0.6%)
28	71	0.46	0/1055	0.72	1/1425 (0.1%)
28	79	0.43	0/459	0.90	3/608 (0.5%)
29	11	0.82	2/2170 (0.1%)	1.01	7/2926 (0.2%)
29	19	0.71	1/2175 (0.0%)	0.93	3/2933 (0.1%)
30	21	0.67	0/1591	0.96	2/2146 (0.1%)
30	29	0.63	0/1596	0.92	2/2153 (0.1%)
31	31	0.73	1/1620 (0.1%)	0.91	1/2194 (0.0%)
31	39	0.62	0/1637	0.90	3/2218 (0.1%)
32	41	0.52	0/1481	0.78	1/1994 (0.1%)
32	49	0.43	0/1482	0.68	0/1994
33	51	0.68	0/1337	1.00	9/1809 (0.5%)
33	59	0.46	0/577	0.88	2/776 (0.3%)
34	61	0.52	0/1151	0.80	2/1558 (0.1%)
34	69	0.46	0/1146	0.77	3/1551 (0.2%)
35	15	0.46	0/1131	0.68	0/1525
35	58	0.60	0/1131	0.82	0/1525
36	25	0.58	0/942	0.74	0/1269
36	68	0.67	0/942	0.81	0/1269
37	35	0.61	0/1139	0.98	2/1514 (0.1%)
37	78	0.70	0/1139	1.12	8/1514 (0.5%)
38	45	0.69	0/1120	0.97	4/1498 (0.3%)
38	88	0.78	0/1134	0.98	2/1519 (0.1%)
39	55	0.64	0/981	0.85	1/1312 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	98	0.56	0/981	0.85	1/1312 (0.1%)
40	65	0.51	0/886	0.86	3/1180 (0.3%)
40	A8	0.63	0/891	0.85	1/1187 (0.1%)
41	75	0.56	0/1123	0.72	0/1500
41	B8	0.66	0/1123	0.82	0/1500
42	85	0.59	0/977	0.75	1/1301 (0.1%)
42	C8	0.67	0/968	0.82	1/1289 (0.1%)
43	95	0.70	0/785	0.87	1/1052 (0.1%)
43	D8	0.58	0/785	0.90	4/1052 (0.4%)
44	A5	0.62	0/910	0.84	1/1220 (0.1%)
44	E8	0.66	0/901	0.87	0/1209
45	B5	0.68	0/749	0.79	0/1007
45	F8	0.76	0/757	0.87	0/1017
46	C5	0.63	0/807	0.93	2/1076 (0.2%)
46	G8	0.82	1/809 (0.1%)	1.08	4/1080 (0.4%)
47	D5	0.51	0/1098	0.73	0/1487
47	H8	0.53	0/1403	0.81	1/1901 (0.1%)
48	E5	0.57	0/616	0.84	0/821
48	I8	0.76	0/614	0.94	0/819
49	F5	0.66	0/744	0.88	1/989 (0.1%)
49	J8	0.73	0/744	0.93	4/989 (0.4%)
50	G5	0.59	0/560	0.82	2/741 (0.3%)
50	K8	0.72	0/570	0.97	0/755
51	H5	0.49	0/464	0.66	0/623
51	L8	0.63	0/464	0.84	0/623
52	M8	0.53	0/375	0.95	2/507 (0.4%)
53	J5	0.61	0/448	0.81	0/606
53	N8	0.69	1/381 (0.3%)	0.86	0/516
54	L5	0.69	0/409	0.89	0/540
54	P8	0.85	0/409	1.07	2/540 (0.4%)
55	M5	0.75	0/524	1.00	3/691 (0.4%)
55	Q8	0.79	0/524	1.17	4/691 (0.6%)
56	1L	0.61	1/1613 (0.1%)	1.18	11/2504 (0.4%)
57	3L	0.65	0/1733	1.28	14/2699 (0.5%)
All	All	0.81	185/317108 (0.1%)	1.41	4553/475084 (1.0%)

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
1	13	1	0

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	4
2	1E	0	4
3	22	0	2
4	32	0	1
4	3E	0	1
9	82	0	1
9	8E	0	1
10	1I	0	1
11	2A	0	1
11	2I	0	1
12	3I	0	1
13	4A	0	2
13	4I	0	3
14	5A	0	1
18	9I	0	1
19	AI	0	2
20	BA	0	2
28	71	0	3
29	11	0	4
29	19	0	4
30	21	0	5
30	29	0	5
31	31	0	4
31	39	0	7
32	41	0	1
32	49	0	1
33	51	0	6
34	61	0	4
34	69	0	2
37	35	0	3
37	78	0	5
38	45	0	6
38	88	0	1
39	55	0	1
39	98	0	1
40	65	0	1
41	75	0	1
41	B8	0	1
42	85	0	4
42	C8	0	2
43	95	0	2
43	D8	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
44	A5	0	2
45	B5	0	1
45	F8	0	2
46	C5	0	3
46	G8	0	7
47	D5	0	2
47	H8	0	4
49	J8	0	2
50	G5	0	4
50	K8	0	3
52	M8	0	2
55	M5	0	2
55	Q8	0	1
All	All	1	141

All (185) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	774	A	N9-C4	-11.99	1.30	1.37
26	1H	2430	A	N9-C4	-11.47	1.30	1.37
26	1H	783	A	N3-C4	-11.40	1.28	1.34
26	14	2430	A	N9-C4	-10.71	1.31	1.37
26	14	528	A	N9-C4	-10.24	1.31	1.37
26	14	774	A	N9-C4	-10.23	1.31	1.37
26	14	783	A	N9-C4	-10.20	1.31	1.37
26	1H	1614	A	N9-C4	-9.66	1.32	1.37
26	1H	783	A	N7-C5	-9.63	1.33	1.39
26	1H	676	A	N9-C4	-9.57	1.32	1.37
26	1H	74	A	N9-C4	-9.21	1.32	1.37
26	1H	1698	A	N3-C4	-9.07	1.29	1.34
26	1H	472	A	N3-C4	-8.57	1.29	1.34
26	1H	2476	A	N9-C4	8.44	1.43	1.37
26	14	783	A	N3-C4	-8.32	1.29	1.34
26	1H	783	A	N9-C4	-8.23	1.32	1.37
26	1H	265	A	N9-C4	-8.03	1.33	1.37
26	1H	1142(A)	A	N9-C4	-8.00	1.33	1.37
26	14	1678	G	N9-C4	-7.91	1.31	1.38
26	1H	71	A	N9-C4	-7.84	1.33	1.37
26	1H	57	C	N3-C4	-7.82	1.28	1.33
26	14	783	A	N7-C5	-7.78	1.34	1.39
26	1H	1698	A	N9-C4	-7.77	1.33	1.37
26	1H	676	A	N9-C8	7.71	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	1786	A	N9-C4	-7.64	1.33	1.37
26	1H	1786	A	C5-C6	-7.54	1.34	1.41
26	1H	783	A	C5-C6	-7.47	1.34	1.41
26	14	945	A	C5-C6	-7.46	1.34	1.41
26	14	2287	A	N9-C4	-7.38	1.33	1.37
26	1H	2287	A	N9-C4	-7.36	1.33	1.37
26	14	783	A	C5-C6	-7.31	1.34	1.41
26	1H	774	A	C5-C6	-7.26	1.34	1.41
26	14	2873	A	N7-C5	-7.24	1.34	1.39
26	1H	2346	A	N7-C5	-7.20	1.34	1.39
26	1H	676	A	C5-C4	7.16	1.43	1.38
26	1H	138	G	N9-C8	7.16	1.42	1.37
26	14	1950	G	C2-N3	7.12	1.38	1.32
26	1H	2062	A	N7-C5	7.08	1.43	1.39
26	1H	1780	A	N3-C4	-7.00	1.30	1.34
26	14	2518	A	C5-C6	-6.99	1.34	1.41
26	1H	1899	G	N3-C4	-6.92	1.30	1.35
26	1H	2062	A	N3-C4	6.89	1.39	1.34
26	1H	197	A	N3-C4	-6.88	1.30	1.34
26	1H	71	A	C5-C6	-6.86	1.34	1.41
26	1H	1899	G	N9-C4	-6.84	1.32	1.38
26	14	786	C	N3-C4	-6.80	1.29	1.33
26	14	2725	A	N9-C4	-6.79	1.33	1.37
26	1H	693	C	N3-C4	-6.74	1.29	1.33
26	1H	679	C	N1-C6	-6.73	1.33	1.37
26	1H	2442	C	N1-C6	-6.71	1.33	1.37
26	1H	576	U	N3-C4	-6.68	1.32	1.38
26	1H	945	A	C5-C6	-6.64	1.35	1.41
26	1H	2062	A	C5-C6	6.52	1.47	1.41
26	1H	528	A	N9-C4	-6.50	1.33	1.37
26	1H	1966	A	N9-C4	-6.42	1.34	1.37
26	1H	1786	A	N7-C5	-6.39	1.35	1.39
26	1H	1354	A	N3-C4	-6.31	1.31	1.34
26	14	2518	A	N9-C4	-6.28	1.34	1.37
26	1H	698	C	N1-C6	-6.24	1.33	1.37
26	1H	2032	G	N7-C5	-6.22	1.35	1.39
26	1H	838	C	N1-C6	-6.22	1.33	1.37
26	1H	780	G	N9-C4	-6.20	1.32	1.38
26	14	766	C	N1-C6	-6.19	1.33	1.37
26	1H	805	G	N7-C5	-6.17	1.35	1.39
26	14	580	C	N3-C4	-6.16	1.29	1.33
26	14	1676	A	N3-C4	-6.14	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	775	G	N9-C8	-6.11	1.33	1.37
26	1H	966	G	C6-N1	-6.05	1.35	1.39
26	14	1332	G	C5-C4	6.04	1.42	1.38
26	1H	2563	U	C2-N3	-6.04	1.33	1.37
26	14	2430	A	N3-C4	-6.01	1.31	1.34
26	1H	775	G	N7-C5	-6.00	1.35	1.39
26	14	2441	C	N3-C4	-5.98	1.29	1.33
26	1H	138	G	C6-N1	5.96	1.43	1.39
29	19	30	GLU	CG-CD	5.96	1.60	1.51
26	14	1698	A	N7-C5	-5.95	1.35	1.39
26	14	751	A	N9-C4	-5.94	1.34	1.37
1	13	792	A	N9-C4	-5.92	1.34	1.37
23	2K	75	C	N3-C4	-5.91	1.29	1.33
26	14	1142(A)	A	N3-C4	-5.90	1.31	1.34
26	1H	592	G	N3-C4	-5.87	1.31	1.35
26	14	766	C	N3-C4	-5.85	1.29	1.33
26	14	2518	A	N7-C5	-5.83	1.35	1.39
46	G8	84	ARG	CG-CD	5.82	1.66	1.51
26	1H	2062	A	N9-C4	5.80	1.41	1.37
26	1H	1950	G	N9-C8	5.79	1.42	1.37
26	1H	777	A	N3-C4	-5.79	1.31	1.34
26	14	788	A	N9-C4	5.76	1.41	1.37
26	1H	1624	G	C5-C4	-5.75	1.34	1.38
26	1H	945	A	N9-C4	-5.75	1.34	1.37
29	11	30	GLU	CG-CD	5.73	1.60	1.51
26	1H	2346	A	N3-C4	-5.71	1.31	1.34
26	1H	845	G	C2-N3	5.71	1.37	1.32
26	1H	2254	C	N1-C2	-5.70	1.34	1.40
26	14	1788	C	N1-C6	-5.69	1.33	1.37
26	1H	2490	G	C5-C6	-5.68	1.36	1.42
26	1H	1624	G	N3-C4	-5.68	1.31	1.35
26	1H	939	G	N3-C4	-5.67	1.31	1.35
26	1H	599	G	N9-C8	-5.66	1.33	1.37
26	1H	1278	A	N7-C5	-5.66	1.35	1.39
26	1H	1792	G	C6-N1	-5.64	1.35	1.39
26	14	74	A	N9-C4	-5.61	1.34	1.37
26	1H	122	G	N9-C4	-5.59	1.33	1.38
1	13	792	A	N3-C4	-5.59	1.31	1.34
26	14	2506	U	N1-C2	5.59	1.43	1.38
26	1H	2751	G	N3-C4	-5.59	1.31	1.35
26	1H	860	U	N1-C2	5.57	1.43	1.38
26	14	216	A	N9-C4	-5.55	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	251	A	C6-N1	-5.54	1.31	1.35
26	1H	1678	G	N9-C8	5.54	1.41	1.37
26	14	1786	A	N3-C4	-5.53	1.31	1.34
26	14	1605	C	N1-C6	-5.53	1.33	1.37
26	1H	471	A	N9-C4	-5.53	1.34	1.37
26	14	2025	C	N1-C6	-5.51	1.33	1.37
26	14	90	U	N1-C2	5.51	1.43	1.38
26	1H	1678	G	N9-C4	-5.50	1.33	1.38
26	1H	678	C	N3-C4	-5.49	1.30	1.33
26	1H	966	G	N1-C2	-5.48	1.33	1.37
26	1H	1786	A	N9-C4	-5.48	1.34	1.37
26	14	1950	G	C5-C6	5.48	1.47	1.42
1	13	1227	A	N9-C4	-5.45	1.34	1.37
26	1H	1354	A	N9-C4	-5.44	1.34	1.37
26	1H	2248	C	N3-C4	-5.44	1.30	1.33
26	1H	202	U	C4-O4	-5.44	1.19	1.23
1	13	428	G	N9-C4	-5.44	1.33	1.38
56	1L	76	A	N9-C4	5.42	1.41	1.37
26	14	664	C	N1-C6	-5.41	1.33	1.37
26	14	2243	U	N3-C4	-5.41	1.33	1.38
26	1H	265	A	N3-C4	-5.40	1.31	1.34
26	1H	2506	U	N1-C2	5.40	1.43	1.38
26	1H	2575	C	N3-C4	-5.39	1.30	1.33
26	1H	2713	A	N9-C4	-5.39	1.34	1.37
26	1H	127	A	C5-C6	-5.38	1.36	1.41
26	14	974(A)	C	C4-C5	5.38	1.47	1.43
26	1H	1927	A	N7-C5	-5.35	1.36	1.39
26	1H	212	G	N7-C5	-5.35	1.36	1.39
26	1H	2453	A	N7-C5	-5.31	1.36	1.39
26	1H	663	G	N9-C8	-5.30	1.34	1.37
26	14	1021	A	N9-C4	-5.30	1.34	1.37
26	14	733	G	N9-C8	-5.29	1.34	1.37
26	1H	2053	G	C5-C6	-5.27	1.37	1.42
26	1H	2452	C	N1-C6	-5.27	1.33	1.37
26	14	1899	G	N3-C4	-5.26	1.31	1.35
26	14	1899	G	N9-C4	-5.25	1.33	1.38
31	31	57	VAL	CB-CG1	-5.24	1.41	1.52
26	14	1204	A	N9-C4	-5.24	1.34	1.37
26	1H	2392	A	N7-C5	-5.24	1.36	1.39
26	1H	1332	G	C5-C4	5.23	1.42	1.38
26	14	2542	A	N7-C5	5.23	1.42	1.39
1	13	539	A	N3-C4	-5.23	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1786	A	N1-C2	5.22	1.39	1.34
26	1H	2246	G	N9-C8	-5.21	1.34	1.37
26	14	1616	A	N9-C4	-5.19	1.34	1.37
29	11	122	ASP	CB-CG	5.19	1.62	1.51
26	1H	1308	A	N3-C4	-5.19	1.31	1.34
26	1H	2713	A	C5-C4	5.18	1.42	1.38
26	14	2713	A	C5-C4	5.18	1.42	1.38
26	1H	138	G	C5-C4	5.17	1.42	1.38
26	1H	1977	A	C6-N1	-5.17	1.31	1.35
23	2L	77	A	N9-C4	-5.16	1.34	1.37
26	1H	73	A	C5-C4	-5.16	1.35	1.38
26	1H	1349	A	N9-C8	5.15	1.41	1.37
26	1H	2392	A	N9-C4	-5.15	1.34	1.37
53	N8	6	VAL	CB-CG1	-5.14	1.42	1.52
26	1H	2377	A	N9-C4	-5.14	1.34	1.37
26	1H	2068	U	C2-N3	-5.14	1.34	1.37
26	14	2377	A	N9-C4	-5.14	1.34	1.37
26	14	2076	U	N1-C2	-5.13	1.33	1.38
26	14	646	A	N9-C4	5.12	1.41	1.37
26	1H	71	A	C6-N6	-5.11	1.29	1.33
26	14	1784	A	C6-N1	-5.11	1.31	1.35
26	1H	1623	G	C6-N1	-5.10	1.35	1.39
26	14	2873	A	C5-C6	-5.10	1.36	1.41
26	14	74	A	N3-C4	-5.10	1.31	1.34
1	1G	1473	A	N9-C4	-5.08	1.34	1.37
26	14	2346	A	N3-C4	-5.07	1.31	1.34
26	1H	1632	A	C5-C6	-5.07	1.36	1.41
26	1H	216	A	N9-C4	-5.06	1.34	1.37
26	1H	2053	G	C5-C4	-5.06	1.34	1.38
26	1H	1331	A	N3-C4	-5.05	1.31	1.34
26	1H	1784	A	C6-N1	-5.04	1.32	1.35
26	1H	2230	G	N3-C4	-5.04	1.31	1.35
26	1H	621	A	N9-C4	-5.04	1.34	1.37
26	1H	621	A	C5-C4	5.04	1.42	1.38
26	14	471	A	N9-C4	-5.03	1.34	1.37

All (4553) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N3-C4-N9	-19.34	114.40	126.00
26	1H	783	A	C8-N9-C4	-17.08	98.97	105.80
26	14	2518	A	N1-C6-N6	17.07	128.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	676	A	C2-N3-C4	-16.88	102.16	110.60
26	14	774	A	C2-N3-C4	-16.75	102.23	110.60
26	1H	1829	A	O5'-P-OP1	-16.50	90.85	105.70
26	1H	774	A	C2-N3-C4	-16.22	102.49	110.60
26	1H	783	A	N7-C8-N9	16.11	121.85	113.80
26	14	1332	G	C6-C5-N7	-16.08	120.75	130.40
26	1H	945	A	N1-C6-N6	16.00	128.20	118.60
26	1H	783	A	C5-N7-C8	-15.90	95.95	103.90
26	1H	71	A	C2-N3-C4	-15.51	102.84	110.60
26	1H	2490	G	C4-C5-N7	15.51	117.00	110.80
26	1H	1786	A	C2-N3-C4	-15.43	102.88	110.60
26	1H	1786	A	N1-C6-N6	15.29	127.77	118.60
26	14	945	A	N1-C6-N6	15.11	127.67	118.60
26	14	1332	G	N1-C6-O6	14.97	128.88	119.90
26	14	2053	G	N1-C6-O6	14.86	128.81	119.90
26	1H	945	A	C6-C5-N7	-14.84	121.91	132.30
26	1H	586	A	O5'-P-OP2	-14.43	92.71	105.70
26	14	783	A	C2-N3-C4	-14.41	103.39	110.60
26	1H	2490	G	C6-C5-N7	-14.33	121.80	130.40
26	14	528	A	C2-N3-C4	-14.30	103.45	110.60
26	1H	1786	A	C6-C5-N7	-14.28	122.31	132.30
26	14	1786	A	C5-N7-C8	-14.28	96.76	103.90
26	14	783	A	C5-N7-C8	-14.19	96.80	103.90
26	14	1786	A	N7-C8-N9	14.05	120.83	113.80
26	14	1332	G	C2-N3-C4	-13.95	104.92	111.90
26	1H	2287	A	C2-N3-C4	-13.92	103.64	110.60
26	14	783	A	N1-C6-N6	13.72	126.83	118.60
26	1H	783	A	C6-C5-N7	-13.62	122.76	132.30
26	1H	2346	A	N1-C2-N3	13.59	136.10	129.30
26	1H	2490	G	C5-N7-C8	-13.43	97.58	104.30
26	14	1332	G	C5-N7-C8	-13.40	97.60	104.30
26	14	1899	G	N3-C4-N9	-13.38	117.97	126.00
26	1H	1618	A	O5'-P-OP2	-13.37	93.67	105.70
26	1H	2598	A	O5'-P-OP1	-13.21	93.81	105.70
26	1H	74	A	C2-N3-C4	-13.20	104.00	110.60
26	1H	1899	G	N3-C4-C5	13.15	135.18	128.60
26	14	1332	G	C4-C5-N7	13.14	116.06	110.80
26	1H	1776	G	O5'-P-OP2	-13.05	93.96	105.70
26	1H	1899	G	N3-C2-N2	-13.04	110.77	119.90
26	14	2518	A	C6-C5-N7	-13.03	123.18	132.30
26	1H	576	U	N3-C2-O2	-13.03	113.08	122.20
26	1H	774	A	N3-C4-C5	12.99	135.89	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	917	A	O5'-P-OP1	-12.91	94.08	105.70
26	1H	1376	C	O5'-P-OP1	-12.88	94.11	105.70
26	1H	1332	G	C5-N7-C8	-12.87	97.86	104.30
26	1H	1336	A	N1-C6-N6	-12.83	110.90	118.60
26	14	945	A	C6-C5-N7	-12.78	123.35	132.30
26	1H	1698	A	C2-N3-C4	-12.74	104.23	110.60
26	14	530	G	C6-C5-N7	-12.73	122.76	130.40
26	1H	1394	U	O5'-P-OP1	-12.69	94.28	105.70
26	1H	1786	A	C5-N7-C8	-12.56	97.62	103.90
26	1H	1899	G	N9-C4-C5	12.53	110.41	105.40
26	1H	140	A	N7-C8-N9	12.47	120.04	113.80
26	14	74	A	C2-N3-C4	-12.39	104.40	110.60
26	1H	74	A	C5-N7-C8	-12.37	97.71	103.90
26	14	2518	A	C5-N7-C8	-12.30	97.75	103.90
1	13	792	A	C2-N3-C4	-12.26	104.47	110.60
26	1H	2581	G	O5'-P-OP1	-12.26	94.67	105.70
26	14	2873	A	C6-C5-N7	-12.25	123.72	132.30
26	1H	576	U	C5-C4-O4	12.24	133.24	125.90
26	1H	676	A	N3-C4-C5	12.19	135.34	126.80
26	1H	1332	G	C2-N3-C4	-12.17	105.81	111.90
26	1H	945	A	C5-N7-C8	-12.13	97.84	103.90
26	1H	1678	G	N3-C4-C5	12.08	134.64	128.60
26	14	835	A	O5'-P-OP2	-12.08	94.83	105.70
26	14	1786	A	C2-N3-C4	-12.04	104.58	110.60
26	1H	138	G	C5-N7-C8	-12.00	98.30	104.30
26	14	1332	G	N7-C8-N9	11.98	119.09	113.10
26	14	2873	A	N1-C6-N6	11.96	125.77	118.60
26	1H	1496	A	N1-C6-N6	11.89	125.73	118.60
26	1H	1204	A	O4'-C1'-N9	11.87	117.69	108.20
26	1H	1332	G	C4-C5-N7	11.85	115.54	110.80
26	1H	676	A	C5-N7-C8	-11.85	97.98	103.90
24	3K	76	A	N1-C6-N6	11.82	125.69	118.60
26	14	2430	A	C2-N3-C4	-11.81	104.70	110.60
26	1H	679	C	C6-N1-C2	11.77	125.01	120.30
26	1H	1899	G	C2-N3-C4	-11.73	106.03	111.90
26	1H	945	A	C2-N3-C4	-11.73	104.74	110.60
26	1H	2699	C	C6-N1-C2	11.65	124.96	120.30
26	14	1678	G	N3-C4-C5	11.64	134.42	128.60
26	1H	1496	A	C5-N7-C8	-11.60	98.10	103.90
26	1H	774	A	N1-C6-N6	11.56	125.53	118.60
26	1H	1950	G	N7-C8-N9	11.55	118.88	113.10
26	1H	1271	G	O5'-P-OP2	-11.55	95.30	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2607	G	O5'-P-OP2	-11.55	95.31	105.70
26	1H	974	G	O5'-P-OP2	-11.54	95.32	105.70
1	1G	1322	C	N1-C2-O2	11.50	125.80	118.90
26	1H	621	A	C2-N3-C4	-11.46	104.87	110.60
26	1H	917	A	C2-N3-C4	-11.39	104.90	110.60
26	1H	576	U	N1-C2-N3	11.38	121.73	114.90
26	1H	140	A	C5-N7-C8	-11.38	98.21	103.90
26	1H	530	G	N1-C6-O6	-11.37	113.08	119.90
26	1H	2430	A	C2-N3-C4	-11.34	104.93	110.60
26	14	2873	A	N7-C8-N9	11.34	119.47	113.80
26	14	783	A	C6-C5-N7	-11.28	124.41	132.30
26	14	945	A	C4-C5-N7	11.27	116.33	110.70
26	1H	2346	A	C6-C5-N7	-11.26	124.42	132.30
26	1H	676	A	N3-C4-N9	-11.23	118.42	127.40
26	14	2518	A	C4-C5-N7	11.21	116.30	110.70
26	1H	966	G	N1-C6-O6	-11.20	113.18	119.90
26	1H	1786	A	C4-C5-N7	11.16	116.28	110.70
26	1H	2681	C	C6-N1-C2	-11.15	115.84	120.30
26	14	1899	G	C2-N3-C4	-11.14	106.33	111.90
26	1H	1950	G	C5-N7-C8	-11.06	98.77	104.30
26	14	783	A	C4-C5-N7	11.04	116.22	110.70
26	1H	138	G	N7-C8-N9	11.01	118.60	113.10
26	1H	138	G	C4-C5-N7	10.98	115.19	110.80
26	1H	141	A	N1-C6-N6	10.93	125.16	118.60
26	14	1602	U	O5'-P-OP2	10.93	123.81	110.70
26	1H	2330	G	N1-C6-O6	10.93	126.46	119.90
26	1H	2490	G	N7-C8-N9	10.91	118.56	113.10
26	1H	1950	G	C8-N9-C4	-10.87	102.05	106.40
26	1H	1332	G	N7-C8-N9	10.84	118.52	113.10
26	1H	2688	U	C5-C4-O4	10.83	132.40	125.90
26	1H	945	A	C4-C5-N7	10.81	116.11	110.70
26	1H	1496	A	N7-C8-N9	10.80	119.20	113.80
26	14	2079	U	O5'-P-OP1	-10.80	95.98	105.70
26	14	774	A	N3-C4-C5	10.79	134.35	126.80
26	14	783	A	N7-C8-N9	10.76	119.18	113.80
26	1H	140	A	C8-N9-C4	-10.73	101.51	105.80
26	1H	1678	G	C5-N7-C8	-10.73	98.94	104.30
26	1H	783	A	N1-C6-N6	10.71	125.03	118.60
26	14	1786	A	C8-N9-C4	-10.66	101.53	105.80
26	1H	783	A	C2-N3-C4	-10.64	105.28	110.60
26	1H	1786	A	N7-C8-N9	10.63	119.12	113.80
26	1H	1678	G	C2-N3-C4	-10.60	106.60	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2518	A	C2-N3-C4	-10.60	105.30	110.60
26	1H	2392	A	C5-N7-C8	-10.59	98.60	103.90
26	14	2779	U	N3-C2-O2	-10.55	114.81	122.20
26	1H	783	A	C4-C5-N7	10.53	115.96	110.70
26	1H	2346	A	C2-N3-C4	-10.52	105.34	110.60
26	1H	1614	A	C5-N7-C8	-10.52	98.64	103.90
26	1H	774	A	C5-N7-C8	-10.51	98.65	103.90
26	1H	2713	A	C5-N7-C8	-10.49	98.66	103.90
26	1H	2417	C	O5'-P-OP2	-10.48	96.27	105.70
26	14	1678	G	N3-C4-N9	-10.47	119.72	126.00
26	1H	698	C	C6-N1-C2	10.47	124.49	120.30
26	14	2873	A	C5-N7-C8	-10.47	98.66	103.90
26	1H	2053	G	C5-C6-O6	-10.42	122.35	128.60
26	1H	1678	G	N1-C6-O6	10.40	126.14	119.90
26	1H	74	A	N1-C6-N6	10.39	124.83	118.60
26	1H	2346	A	C4-C5-C6	10.38	122.19	117.00
26	1H	46	C	O5'-P-OP1	-10.36	96.37	105.70
26	14	1899	G	N3-C4-C5	10.34	133.77	128.60
26	14	2443	C	O5'-P-OP1	-10.30	96.43	105.70
26	14	530	G	C4-C5-N7	10.29	114.92	110.80
26	14	1616	A	C5-N7-C8	-10.29	98.76	103.90
26	1H	729	G	C8-N9-C4	-10.28	102.29	106.40
26	1H	966	G	C5-C6-O6	10.27	134.76	128.60
26	1H	2508	G	N1-C6-O6	10.27	126.06	119.90
26	14	330	A	C2-N3-C4	-10.22	105.49	110.60
26	1H	621	A	C5-N7-C8	-10.21	98.79	103.90
26	1H	2554	U	O5'-P-OP2	-10.21	96.51	105.70
26	1H	2430	A	N3-C4-C5	10.20	133.94	126.80
26	1H	1496	A	C4-C5-N7	10.19	115.79	110.70
26	1H	195	A	O5'-P-OP2	-10.16	96.56	105.70
26	1H	1678	G	N3-C4-N9	-10.16	119.91	126.00
26	14	2030	A	O5'-P-OP2	-10.15	96.57	105.70
26	1H	2346	A	O4'-C1'-N9	10.13	116.31	108.20
26	1H	447	A	O5'-P-OP1	-10.13	96.58	105.70
26	1H	689	A	O5'-P-OP2	-10.10	96.61	105.70
26	1H	46	C	C6-N1-C2	-10.10	116.26	120.30
26	1H	609	A	N1-C6-N6	10.09	124.66	118.60
26	1H	71	A	C5-N7-C8	-10.09	98.86	103.90
26	14	1678	G	C5-N7-C8	-10.09	99.26	104.30
26	1H	681	G	C8-N9-C4	10.06	110.42	106.40
26	1H	2430	A	N3-C4-N9	-10.06	119.35	127.40
26	14	621	A	C2-N3-C4	-10.04	105.58	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1790	C	C5-C4-N4	10.04	127.22	120.20
26	1H	391	G	N1-C6-O6	10.02	125.91	119.90
26	1H	1784	A	N1-C6-N6	-10.01	112.60	118.60
26	1H	107	C	C6-N1-C2	10.00	124.30	120.30
26	1H	945	A	C4-C5-C6	9.96	121.98	117.00
26	1H	1021	A	N7-C8-N9	9.96	118.78	113.80
26	1H	1332	G	C6-C5-N7	-9.96	124.42	130.40
26	1H	2346	A	N7-C8-N9	9.96	118.78	113.80
1	13	1279	A	C8-N9-C4	-9.94	101.83	105.80
26	1H	2598	A	O5'-P-OP2	9.93	122.61	110.70
1	1G	254	G	O5'-P-OP1	-9.93	96.77	105.70
26	14	1332	G	C4-N9-C1'	9.93	139.40	126.50
1	13	1493	A	O5'-P-OP1	-9.88	96.81	105.70
26	1H	1210	A	N1-C6-N6	9.88	124.53	118.60
26	1H	2346	A	N1-C6-N6	9.85	124.51	118.60
26	1H	613	U	N3-C2-O2	-9.85	115.31	122.20
26	1H	2755	C	C6-N1-C2	-9.80	116.38	120.30
26	14	2554	U	O5'-P-OP1	-9.80	96.88	105.70
26	14	2042	A	O5'-P-OP2	-9.79	96.89	105.70
26	1H	74	A	N7-C8-N9	9.77	118.68	113.80
26	1H	202	U	C5-C4-O4	-9.77	120.04	125.90
26	14	528	A	N3-C4-C5	9.75	133.62	126.80
26	1H	1616	A	C5-N7-C8	-9.74	99.03	103.90
26	14	2076	U	O5'-P-OP2	-9.73	96.94	105.70
26	1H	2447	G	O5'-P-OP1	-9.73	96.94	105.70
26	1H	1309	G	O5'-P-OP2	-9.71	96.96	105.70
26	1H	71	A	N1-C2-N3	9.71	134.15	129.30
26	1H	774	A	O5'-P-OP2	-9.70	96.97	105.70
26	14	802	A	O5'-P-OP2	-9.70	96.97	105.70
55	Q8	52	LYS	N-CA-C	-9.70	84.81	111.00
26	1H	1807	G	N1-C6-O6	9.69	125.71	119.90
26	1H	839	U	O5'-P-OP2	-9.68	96.98	105.70
26	1H	1786	A	N1-C2-N3	9.67	134.14	129.30
26	1H	2330	G	C5-C6-O6	-9.66	122.81	128.60
26	1H	1678	G	C4-C5-N7	9.66	114.66	110.80
28	79	53	ARG	NE-CZ-NH1	-9.65	115.47	120.30
26	14	2249	U	C6-N1-C2	-9.65	115.21	121.00
26	1H	179	G	N1-C6-O6	9.63	125.68	119.90
26	1H	774	A	N3-C4-N9	-9.63	119.70	127.40
26	1H	1698	A	N1-C2-N3	9.61	134.10	129.30
26	14	2443	C	O5'-P-OP2	9.61	122.23	110.70
26	14	1406	U	C5-C6-N1	9.60	127.50	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1698	A	C6-C5-N7	-9.60	125.58	132.30
26	14	2873	A	C2-N3-C4	-9.55	105.82	110.60
26	1H	1437	C	C6-N1-C2	-9.54	116.48	120.30
26	14	2287	A	C2-N3-C4	-9.54	105.83	110.60
26	1H	265	A	C2-N3-C4	-9.54	105.83	110.60
26	14	2430	A	N3-C4-C5	9.53	133.47	126.80
26	1H	140	A	N1-C6-N6	9.53	124.32	118.60
26	1H	2584	U	N3-C2-O2	-9.50	115.55	122.20
26	1H	593	G	O5'-P-OP2	-9.50	97.15	105.70
26	1H	613	U	C5-C4-O4	9.50	131.60	125.90
27	1J	30	C	C6-N1-C2	-9.49	116.51	120.30
26	14	74	A	C5-C6-N1	-9.48	112.96	117.70
26	1H	2506	U	N1-C2-O2	9.48	129.44	122.80
26	14	1790	C	C2-N1-C1'	-9.48	108.37	118.80
26	14	793	A	O5'-P-OP2	-9.48	97.17	105.70
26	1H	2476	A	C8-N9-C4	-9.47	102.01	105.80
26	1H	2392	A	N1-C6-N6	9.47	124.28	118.60
26	1H	858	U	O5'-P-OP2	-9.45	97.19	105.70
26	1H	1528	A	N7-C8-N9	9.45	118.53	113.80
26	1H	2688	U	N3-C2-O2	-9.45	115.59	122.20
26	1H	203	C	C5-C4-N4	-9.44	113.59	120.20
1	13	690	G	C6-C5-N7	-9.44	124.74	130.40
26	1H	2689	U	C5-C4-O4	9.44	131.56	125.90
26	1H	984	A	O5'-P-OP2	-9.42	97.22	105.70
26	1H	140	A	C6-C5-N7	-9.41	125.71	132.30
26	14	1698	A	N1-C6-N6	9.41	124.25	118.60
26	1H	1632	A	N1-C6-N6	9.40	124.24	118.60
26	1H	2250	G	N9-C4-C5	9.40	109.16	105.40
26	14	1332	G	N1-C2-N3	9.40	129.54	123.90
26	1H	801	G	O5'-P-OP2	-9.39	97.25	105.70
26	14	945	A	N9-C4-C5	-9.39	102.05	105.80
26	1H	828	U	C5-C4-O4	9.38	131.53	125.90
26	1H	530	G	C5-C6-O6	9.37	134.22	128.60
26	1H	1931	U	N3-C2-O2	-9.37	115.64	122.20
26	1H	828	U	N3-C4-O4	-9.37	112.84	119.40
46	G8	81	LYS	C-N-CD	-9.36	100.01	120.60
26	1H	1698	A	C5-N7-C8	-9.35	99.23	103.90
26	1H	805	G	O5'-P-OP1	-9.34	97.29	105.70
26	14	530	G	N1-C6-O6	9.34	125.50	119.90
26	14	1616	A	C2-N3-C4	-9.34	105.93	110.60
26	14	307	G	N1-C6-O6	9.34	125.50	119.90
26	14	774	A	N3-C4-N9	-9.34	119.93	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1L	74	C	N1-C2-O2	9.33	124.50	118.90
26	1H	2681	C	N3-C2-O2	-9.32	115.38	121.90
26	1H	1528	A	C8-N9-C4	-9.31	102.08	105.80
26	14	676	A	C2-N3-C4	-9.30	105.95	110.60
26	1H	31	C	O5'-P-OP1	-9.30	97.33	105.70
26	14	1496	A	N7-C8-N9	9.29	118.44	113.80
26	1H	678	C	C5-C6-N1	-9.29	116.36	121.00
26	1H	2036	C	O5'-P-OP2	-9.26	97.36	105.70
26	1H	945	A	N1-C2-N3	9.26	133.93	129.30
26	1H	945	A	N7-C8-N9	9.26	118.43	113.80
26	1H	330	A	N1-C2-N3	9.25	133.93	129.30
26	1H	788	A	N1-C6-N6	9.25	124.15	118.60
26	1H	2708	G	O5'-P-OP2	-9.24	97.38	105.70
26	14	71	A	C5-N7-C8	-9.23	99.28	103.90
26	14	1790	C	N3-C4-N4	-9.23	111.54	118.00
26	1H	99	U	C2-N1-C1'	9.22	128.76	117.70
26	1H	676	A	O4'-C1'-N9	9.22	115.57	108.20
26	14	4	C	C2-N1-C1'	9.20	128.91	118.80
26	1H	1614	A	N1-C6-N6	9.19	124.11	118.60
26	1H	141	A	C5-N7-C8	-9.19	99.31	103.90
26	1H	774	A	C4-C5-N7	9.19	115.29	110.70
1	1G	1322	C	N3-C2-O2	-9.19	115.47	121.90
26	14	528	A	N3-C4-N9	-9.18	120.05	127.40
26	14	828	U	C5-C4-O4	9.18	131.41	125.90
26	14	945	A	C2-N3-C4	-9.18	106.01	110.60
26	14	2386	C	C6-N1-C2	9.18	123.97	120.30
26	1H	1984	G	O5'-P-OP2	-9.18	97.44	105.70
26	1H	830	G	C8-N9-C4	-9.17	102.73	106.40
26	1H	945	A	C5-C6-N6	-9.17	116.37	123.70
26	1H	2392	A	C4-C5-N7	9.16	115.28	110.70
26	1H	2490	G	N1-C6-O6	9.16	125.40	119.90
26	1H	2392	A	C2-N3-C4	-9.16	106.02	110.60
26	14	733	G	N3-C4-N9	9.15	131.49	126.00
26	14	2518	A	N7-C8-N9	9.14	118.37	113.80
26	14	1796	U	O5'-P-OP1	-9.12	97.49	105.70
26	1H	1253	A	N1-C6-N6	9.11	124.07	118.60
26	1H	676	A	N7-C8-N9	9.10	118.35	113.80
26	1H	2506	U	N3-C2-O2	-9.10	115.83	122.20
1	13	1301	U	C2-N1-C1'	9.09	128.60	117.70
24	3K	76	A	C6-C5-N7	-9.09	125.94	132.30
26	1H	2055	C	N3-C4-C5	-9.09	118.27	121.90
26	1H	245	G	N1-C6-O6	9.08	125.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	528	A	C2-N3-C4	-9.07	106.07	110.60
26	14	684	G	C8-N9-C4	-9.06	102.77	106.40
26	1H	105	C	C6-N1-C2	-9.03	116.69	120.30
1	13	49	U	P-O3'-C3'	9.02	130.53	119.70
26	1H	2490	G	C5-C6-O6	-9.02	123.19	128.60
26	14	805	G	O5'-P-OP1	-9.02	97.58	105.70
26	1H	138	G	C5-C6-O6	-9.02	123.19	128.60
26	1H	71	A	C4-C5-N7	9.01	115.20	110.70
26	1H	773	U	N1-C2-O2	-9.01	116.50	122.80
26	1H	783	A	N1-C2-N3	9.01	133.80	129.30
26	1H	120	U	C4-C5-C6	8.99	125.10	119.70
26	14	2873	A	N1-C2-N3	8.99	133.79	129.30
26	1H	2392	A	N7-C8-N9	8.98	118.29	113.80
26	14	2250	G	O5'-P-OP1	-8.98	97.62	105.70
26	1H	1962	C	C6-N1-C2	-8.97	116.71	120.30
26	1H	2346	A	C8-N9-C4	-8.95	102.22	105.80
26	14	2713	A	C5-N7-C8	-8.95	99.42	103.90
26	1H	1623	G	N1-C6-O6	-8.94	114.53	119.90
26	14	1812	A	O5'-P-OP2	-8.94	97.65	105.70
26	1H	1807	G	C5-C6-O6	-8.93	123.24	128.60
26	1H	508	G	C6-C5-N7	-8.93	125.05	130.40
26	1H	1982	C	O5'-P-OP2	-8.93	97.67	105.70
26	14	2387	U	C5-C6-N1	-8.93	118.24	122.70
1	13	1279	A	N7-C8-N9	8.92	118.26	113.80
26	1H	2712	U	C2-N3-C4	-8.91	121.66	127.00
26	1H	330	A	C2-N3-C4	-8.90	106.15	110.60
26	14	1142	U	C2-N1-C1'	8.88	128.36	117.70
26	1H	508	G	C8-N9-C1'	-8.88	115.45	127.00
26	14	676	A	C5-N7-C8	-8.88	99.46	103.90
1	13	5	U	C2-N1-C1'	8.87	128.35	117.70
26	1H	1827	C	C6-N1-C2	-8.87	116.75	120.30
26	14	1431	U	C5-C6-N1	8.87	127.14	122.70
26	14	1801	G	C5-C6-O6	-8.87	123.28	128.60
26	1H	183	C	N1-C2-O2	8.87	124.22	118.90
26	1H	270(O)	U	C2-N1-C1'	8.87	128.34	117.70
26	1H	1366	A	O5'-P-OP1	8.87	121.34	110.70
26	1H	2053	G	N1-C6-O6	8.86	125.21	119.90
26	1H	461	C	N1-C2-O2	-8.85	113.59	118.90
26	14	495	G	O5'-P-OP1	-8.85	97.73	105.70
26	14	1932	A	O5'-P-OP1	-8.85	97.73	105.70
26	14	2430	A	N3-C4-N9	-8.85	120.32	127.40
26	1H	1021	A	C8-N9-C4	-8.84	102.26	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	945	A	C5-N7-C8	-8.84	99.48	103.90
57	3L	76	A	C5-N7-C8	-8.83	99.48	103.90
26	14	2447	G	C4-C5-N7	-8.83	107.27	110.80
26	14	2053	G	C6-C5-N7	-8.82	125.11	130.40
26	1H	1786	A	C4-C5-C6	8.81	121.41	117.00
26	14	2518	A	O4'-C1'-N9	-8.81	101.15	108.20
26	14	2873	A	C4-C5-C6	8.81	121.41	117.00
26	14	1332	G	C8-N9-C1'	-8.80	115.56	127.00
26	1H	74	A	C6-C5-N7	-8.79	126.14	132.30
26	14	2053	G	C5-C6-N1	-8.79	107.10	111.50
1	1G	117	G	N1-C6-O6	8.77	125.16	119.90
26	1H	245	G	C6-C5-N7	-8.77	125.14	130.40
26	1H	2392	A	C5-C6-N1	-8.77	113.31	117.70
13	4A	95	GLY	N-CA-C	8.76	135.00	113.10
1	13	1489	G	C8-N9-C4	8.76	109.90	106.40
26	1H	1366	A	N1-C6-N6	8.75	123.85	118.60
26	1H	1394	U	O5'-P-OP2	8.74	121.19	110.70
26	14	675	A	C8-N9-C4	8.73	109.29	105.80
26	1H	2311	A	C2-N3-C4	-8.73	106.24	110.60
26	1H	845	G	OP1-P-O3'	8.72	124.38	105.20
26	14	1618	A	C8-N9-C4	-8.72	102.31	105.80
26	1H	837	C	O5'-P-OP1	-8.71	97.86	105.70
26	1H	2256	G	O5'-P-OP2	-8.70	97.87	105.70
1	13	843	U	C2-N1-C1'	8.70	128.14	117.70
26	1H	796	C	C6-N1-C2	8.70	123.78	120.30
26	14	1783	A	C8-N9-C4	-8.69	102.32	105.80
1	13	328	C	N1-C2-O2	8.68	124.11	118.90
24	3K	76	A	C5-N7-C8	-8.68	99.56	103.90
26	1H	676	A	C5-C6-N1	-8.65	113.37	117.70
1	13	792	A	N1-C2-N3	8.64	133.62	129.30
26	1H	788	A	N9-C4-C5	-8.64	102.34	105.80
26	14	575	A	N1-C6-N6	8.64	123.78	118.60
26	1H	211	A	N1-C6-N6	8.63	123.78	118.60
26	1H	1255	U	N3-C4-O4	8.63	125.44	119.40
26	14	2392	A	C2-N3-C4	-8.63	106.29	110.60
57	3L	76	A	N7-C8-N9	8.62	118.11	113.80
26	1H	1021	A	C5-N7-C8	-8.61	99.59	103.90
26	14	1783	A	N9-C4-C5	8.62	109.25	105.80
26	1H	2508	G	C5-C6-O6	-8.61	123.43	128.60
26	1H	508	G	C4-C5-N7	8.60	114.24	110.80
26	1H	1616	A	N7-C8-N9	8.60	118.10	113.80
26	1H	784	A	N1-C6-N6	-8.60	113.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1496	A	C6-C5-N7	-8.59	126.28	132.30
26	14	2598	A	O5'-P-OP1	-8.59	97.97	105.70
26	1H	2429	G	N3-C2-N2	-8.59	113.89	119.90
26	14	774	A	C5-N7-C8	-8.57	99.61	103.90
26	14	2301	C	C6-N1-C2	-8.56	116.87	120.30
57	3L	76	A	N1-C6-N6	8.56	123.74	118.60
26	14	1204	A	C2-N3-C4	-8.56	106.32	110.60
26	1H	580	C	C6-N1-C2	-8.55	116.88	120.30
26	1H	2404	C	O5'-P-OP1	-8.55	98.00	105.70
26	1H	148	C	C5-C6-N1	-8.55	116.73	121.00
26	1H	74	A	C4-C5-N7	8.54	114.97	110.70
26	14	1786	A	C4-C5-N7	8.54	114.97	110.70
26	1H	783	A	C4-C5-C6	8.53	121.27	117.00
26	1H	1825	A	O5'-P-OP2	-8.53	98.02	105.70
26	14	1658	C	C6-N1-C2	-8.52	116.89	120.30
26	14	1780	A	N1-C6-N6	-8.52	113.49	118.60
1	13	892	A	C2-N3-C4	-8.51	106.35	110.60
26	1H	138	G	C8-N9-C4	-8.49	103.00	106.40
22	1K	76	A	N7-C8-N9	8.49	118.04	113.80
26	1H	259	G	N1-C6-O6	8.49	124.99	119.90
26	1H	1255	U	N1-C2-O2	-8.49	116.86	122.80
26	1H	2681	C	P-O3'-C3'	8.48	129.88	119.70
26	14	1382	G	C4-C5-N7	8.48	114.19	110.80
26	14	216	A	C8-N9-C4	8.47	109.19	105.80
26	1H	491	G	O5'-P-OP1	-8.47	98.08	105.70
26	1H	915	C	N1-C2-O2	8.47	123.98	118.90
26	1H	835	A	O5'-P-OP2	-8.46	98.09	105.70
26	1H	2062	A	C8-N9-C4	8.46	109.18	105.80
26	14	1304	C	N1-C2-O2	8.46	123.97	118.90
26	14	1605	C	N1-C2-O2	-8.45	113.83	118.90
26	1H	2030	A	C5-C6-N6	-8.44	116.95	123.70
26	14	1332	G	C5-C6-N1	-8.43	107.28	111.50
26	14	2725	A	C2-N3-C4	-8.43	106.39	110.60
26	1H	140	A	C4-C5-N7	8.42	114.91	110.70
26	14	2880	C	C6-N1-C2	-8.42	116.93	120.30
1	13	1533	C	C2-N1-C1'	8.42	128.06	118.80
26	1H	621	A	N1-C6-N6	8.42	123.65	118.60
26	1H	917	A	N1-C2-N3	8.40	133.50	129.30
28	79	53	ARG	NE-CZ-NH2	8.40	124.50	120.30
26	1H	265	A	C5-N7-C8	-8.40	99.70	103.90
26	1H	391	G	C6-C5-N7	-8.38	125.37	130.40
26	1H	576	U	N3-C4-O4	-8.38	113.53	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1190	G	O5'-P-OP1	-8.38	98.16	105.70
26	1H	202	U	N3-C4-C5	8.37	119.62	114.60
26	1H	1786	A	N9-C4-C5	-8.37	102.45	105.80
26	14	1790	C	C6-N1-C1'	8.37	130.84	120.80
1	13	656	C	C5-C6-N1	8.36	125.18	121.00
26	1H	537	C	O5'-P-OP1	8.37	120.74	110.70
26	1H	1972	A	N1-C6-N6	8.36	123.61	118.60
1	1G	1487	G	C5-C6-O6	-8.36	123.59	128.60
26	14	2712	U	C5-C6-N1	-8.36	118.52	122.70
26	1H	2346	A	C4-N9-C1'	8.35	141.33	126.30
26	14	2213	U	C2-N1-C1'	8.35	127.72	117.70
26	14	2346	A	N1-C2-N3	8.35	133.47	129.30
12	3A	27	LEU	CA-CB-CG	8.34	134.49	115.30
26	14	2873	A	C4-C5-N7	8.34	114.87	110.70
1	13	328	C	C2-N1-C1'	8.33	127.97	118.80
26	1H	2352	A	O5'-P-OP1	-8.33	98.20	105.70
1	13	428	G	N3-C4-N9	-8.33	121.00	126.00
26	14	2437	U	C5-C4-O4	8.33	130.90	125.90
26	1H	2287	A	N1-C2-N3	8.32	133.46	129.30
37	78	61	ARG	NE-CZ-NH1	8.32	124.46	120.30
26	1H	1142(A)	A	C2-N3-C4	-8.31	106.44	110.60
26	1H	678	C	C6-N1-C2	8.31	123.62	120.30
26	14	1908	C	C6-N1-C2	-8.31	116.98	120.30
38	45	82	ARG	N-CA-C	8.31	133.43	111.00
26	1H	2036	C	C6-N1-C2	-8.30	116.98	120.30
26	14	675	A	N9-C4-C5	-8.30	102.48	105.80
26	14	774	A	N1-C6-N6	8.30	123.58	118.60
24	3K	76	A	C4-C5-N7	8.29	114.84	110.70
26	14	34	C	N1-C2-O2	8.29	123.87	118.90
26	14	2387	U	N3-C4-O4	-8.28	113.60	119.40
26	1H	138	G	O4'-C1'-N9	8.28	114.82	108.20
26	14	733	G	N3-C4-C5	-8.28	124.46	128.60
26	1H	141	A	C4-C5-N7	8.27	114.83	110.70
26	14	729	G	N1-C2-N2	8.27	123.64	116.20
55	M5	48	PHE	C-N-CA	8.27	142.38	121.70
26	1H	333	G	O5'-P-OP2	-8.26	98.26	105.70
26	1H	1632	A	C4-C5-N7	8.26	114.83	110.70
26	14	621	A	C5-C6-N1	-8.24	113.58	117.70
26	1H	1225	C	C6-N1-C2	8.24	123.59	120.30
1	13	623	C	C5-C6-N1	8.22	125.11	121.00
26	1H	271(B)	G	N3-C4-C5	-8.21	124.50	128.60
1	1G	1301	U	C2-N1-C1'	8.21	127.55	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1279	G	N1-C6-O6	-8.21	114.98	119.90
26	1H	845	G	P-O3'-C3'	8.20	129.54	119.70
26	14	774	A	C5-C6-N1	-8.20	113.60	117.70
26	1H	196	A	O4'-C1'-N9	8.19	114.75	108.20
26	1H	2713	A	N7-C8-N9	8.19	117.90	113.80
1	13	910	C	C6-N1-C2	8.19	123.58	120.30
26	1H	477	A	O5'-P-OP2	-8.19	98.33	105.70
26	1H	508	G	C4-N9-C1'	8.19	137.15	126.50
26	1H	1614	A	O5'-P-OP1	-8.19	98.33	105.70
26	1H	2392	A	C6-C5-N7	-8.19	126.57	132.30
26	1H	2406	U	O5'-P-OP1	-8.19	98.33	105.70
1	13	974	A	C5-N7-C8	-8.19	99.81	103.90
26	1H	2713	A	C2-N3-C4	-8.18	106.51	110.60
26	14	468	G	O5'-P-OP2	8.17	120.51	110.70
26	1H	2250	G	C8-N9-C4	-8.17	103.13	106.40
26	1H	49	A	O5'-P-OP2	-8.17	98.35	105.70
26	14	694	U	O5'-P-OP2	-8.17	98.35	105.70
26	1H	2374	C	C5-C6-N1	-8.16	116.92	121.00
26	1H	1950	G	C4-C5-N7	8.16	114.06	110.80
26	14	1393	A	O5'-P-OP2	-8.15	98.36	105.70
26	1H	74	A	C5-C6-N1	-8.15	113.62	117.70
26	1H	1899	G	C5-C6-O6	8.15	133.49	128.60
26	1H	2234	G	O5'-P-OP2	-8.15	98.36	105.70
26	14	694	U	N3-C2-O2	-8.14	116.50	122.20
26	1H	99	U	N3-C2-O2	-8.14	116.50	122.20
26	1H	621	A	C4-C5-N7	8.13	114.76	110.70
26	1H	2712	U	C2-N1-C1'	8.13	127.45	117.70
26	1H	1903	G	C5-C6-O6	8.12	133.47	128.60
26	1H	737	C	N1-C2-O2	-8.11	114.03	118.90
26	14	2272	U	N3-C2-O2	-8.11	116.53	122.20
26	1H	1210	A	C6-C5-N7	-8.10	126.63	132.30
26	14	828	U	N1-C2-O2	8.09	128.47	122.80
26	1H	1604	C	N1-C2-O2	-8.09	114.05	118.90
26	14	388	G	N3-C4-N9	-8.09	121.14	126.00
26	1H	2503	A	N1-C2-N3	-8.09	125.25	129.30
26	14	1899	G	N3-C2-N2	-8.09	114.24	119.90
1	13	690	G	C4-N9-C1'	8.09	137.01	126.50
23	2K	27	G	N1-C6-O6	8.09	124.75	119.90
26	14	828	U	N3-C2-O2	-8.09	116.54	122.20
26	1H	508	G	N9-C4-C5	-8.08	102.17	105.40
26	1H	2713	A	N1-C6-N6	8.08	123.45	118.60
26	1H	846	C	O5'-P-OP2	-8.08	98.43	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	575	A	C8-N9-C4	8.07	109.03	105.80
26	1H	679	C	C5-C6-N1	-8.07	116.96	121.00
26	1H	2857	G	O5'-P-OP1	-8.07	98.44	105.70
26	1H	51	G	O5'-P-OP1	-8.06	98.44	105.70
26	14	265	A	C2-N3-C4	-8.06	106.57	110.60
26	14	1496	A	C8-N9-C4	-8.06	102.58	105.80
26	14	2592	G	O5'-P-OP2	-8.05	98.46	105.70
26	1H	787	U	O5'-P-OP1	8.05	120.36	110.70
26	14	1616	A	N7-C8-N9	8.05	117.82	113.80
26	14	729	G	C2-N3-C4	8.04	115.92	111.90
26	14	806	C	O5'-P-OP1	-8.04	98.46	105.70
26	1H	827	U	O5'-P-OP1	8.03	120.34	110.70
26	1H	1453	A	N1-C6-N6	8.03	123.42	118.60
26	14	1142	U	N1-C2-O2	8.03	128.42	122.80
26	14	2518	A	N9-C4-C5	-8.03	102.59	105.80
26	14	530	G	N7-C8-N9	8.02	117.11	113.10
26	1H	1699	G	O5'-P-OP1	-8.02	98.48	105.70
26	14	128	C	C6-N1-C2	-8.02	117.09	120.30
26	1H	2689	U	N3-C4-O4	-8.01	113.79	119.40
26	1H	1022	G	N9-C4-C5	8.00	108.60	105.40
26	1H	1293	C	O5'-P-OP2	8.00	120.30	110.70
26	14	2873	A	C8-N9-C4	-8.00	102.60	105.80
26	1H	1767	C	O5'-P-OP1	-8.00	98.50	105.70
26	1H	2688	U	N1-C2-N3	8.00	119.70	114.90
26	14	1678	G	C2-N3-C4	-8.00	107.90	111.90
26	14	783	A	C8-N9-C4	-7.99	102.60	105.80
26	1H	71	A	N1-C6-N6	7.99	123.39	118.60
26	1H	1900	A	O5'-P-OP1	7.99	120.28	110.70
26	14	2430	A	N1-C6-N6	7.99	123.39	118.60
26	1H	1598	C	OP1-P-O3'	7.98	122.76	105.20
26	14	733	G	C8-N9-C1'	-7.98	116.62	127.00
26	1H	243	U	O5'-P-OP2	-7.98	98.52	105.70
26	1H	613	U	N3-C4-O4	-7.98	113.82	119.40
26	1H	936	C	C6-N1-C2	7.97	123.49	120.30
26	14	1276	A	N9-C4-C5	-7.97	102.61	105.80
26	1H	2713	A	C4-C5-N7	7.97	114.68	110.70
26	14	471	A	C2-N3-C4	-7.97	106.62	110.60
26	1H	2751	G	C5-C6-O6	7.96	133.38	128.60
26	1H	1697	G	C5-C6-O6	-7.96	123.82	128.60
26	14	1332	G	N9-C4-C5	-7.96	102.22	105.40
26	1H	1314	C	C2-N1-C1'	7.96	127.55	118.80
1	1G	1260	C	C6-N1-C2	-7.96	117.12	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	468	G	N1-C6-O6	7.96	124.67	119.90
26	1H	445	C	C6-N1-C2	-7.95	117.12	120.30
26	14	530	G	C5-N7-C8	-7.95	100.33	104.30
26	14	1332	G	C5-C6-O6	-7.95	123.83	128.60
26	1H	2346	A	C5-N7-C8	-7.95	99.93	103.90
26	1H	270(L)	U	C5-C6-N1	7.94	126.67	122.70
1	13	974	A	O4'-C1'-N9	7.93	114.55	108.20
23	2K	18	U	C2-N1-C1'	7.93	127.22	117.70
26	14	1780	A	O5'-P-OP2	-7.93	98.56	105.70
1	13	808	C	O5'-P-OP1	-7.93	98.56	105.70
26	1H	2755	C	C5-C6-N1	7.93	124.97	121.00
26	14	512	G	O4'-C1'-N9	7.93	114.54	108.20
1	1G	1139	G	N3-C4-C5	7.92	132.56	128.60
1	13	1446	A	O4'-C1'-N9	7.92	114.54	108.20
26	1H	768	G	O5'-P-OP2	-7.92	98.58	105.70
26	1H	2375	G	C8-N9-C4	7.91	109.56	106.40
26	1H	1129	A	O5'-P-OP2	-7.91	98.58	105.70
26	1H	668	G	O5'-P-OP2	-7.90	98.59	105.70
26	1H	678	C	N3-C4-C5	7.90	125.06	121.90
26	1H	1950	G	O4'-C1'-N9	7.90	114.52	108.20
26	14	2518	A	C5-C6-N6	-7.90	117.38	123.70
1	13	1517	G	O5'-P-OP2	-7.89	98.60	105.70
26	14	690	G	C8-N9-C4	7.89	109.56	106.40
1	13	690	G	O4'-C1'-N9	7.88	114.50	108.20
26	1H	1393	A	O5'-P-OP2	-7.88	98.61	105.70
26	1H	2205	C	O5'-P-OP2	-7.87	98.61	105.70
26	1H	1653	G	P-O3'-C3'	7.87	129.14	119.70
26	1H	1758	G	N3-C2-N2	-7.87	114.39	119.90
27	16	6	C	N1-C2-O2	-7.87	114.18	118.90
26	14	2249	U	N3-C2-O2	-7.87	116.69	122.20
26	1H	1603	A	C8-N9-C4	-7.87	102.65	105.80
26	1H	528	A	N3-C4-C5	7.86	132.30	126.80
26	14	1936	A	O4'-C1'-N9	7.85	114.48	108.20
26	1H	1931	U	N1-C2-N3	7.85	119.61	114.90
26	1H	464	U	O5'-P-OP1	-7.85	98.64	105.70
26	14	783	A	C5-C6-N1	-7.85	113.78	117.70
26	14	2518	A	C5-C6-N1	-7.84	113.78	117.70
26	1H	2681	C	C2-N1-C1'	7.84	127.42	118.80
1	13	428	G	N3-C4-C5	7.84	132.52	128.60
26	14	189	G	C5-C6-O6	-7.84	123.90	128.60
1	13	974	A	N7-C8-N9	7.84	117.72	113.80
26	1H	189	G	N1-C6-O6	7.83	124.60	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	773	U	N1-C2-N3	7.83	119.60	114.90
26	1H	1355	G	N1-C6-O6	-7.83	115.20	119.90
26	1H	1955	U	N3-C2-O2	-7.83	116.72	122.20
26	1H	2441	C	N3-C4-N4	-7.83	112.52	118.00
26	14	1614	A	C2-N3-C4	-7.83	106.69	110.60
1	13	816	A	N1-C6-N6	-7.83	113.90	118.60
26	1H	279	C	C6-N1-C2	-7.82	117.17	120.30
26	1H	1614	A	C4-C5-N7	7.82	114.61	110.70
26	14	71	A	N1-C6-N6	7.82	123.29	118.60
26	14	117	G	O5'-P-OP1	7.82	120.08	110.70
26	14	752	A	N1-C2-N3	7.81	133.21	129.30
26	14	1336	A	O5'-P-OP2	-7.81	98.67	105.70
26	1H	1253	A	N9-C4-C5	-7.81	102.68	105.80
26	1H	1899	G	C8-N9-C4	-7.80	103.28	106.40
26	1H	1336	A	N9-C4-C5	7.79	108.92	105.80
26	1H	1204	A	C2-N3-C4	-7.79	106.70	110.60
26	1H	1408	C	N1-C2-O2	-7.78	114.23	118.90
26	1H	736	C	O5'-P-OP1	-7.77	98.70	105.70
1	1G	1395	C	O5'-P-OP1	-7.77	98.70	105.70
26	1H	190	A	N1-C6-N6	7.77	123.26	118.60
1	13	963	G	N3-C4-N9	7.77	130.66	126.00
26	14	2287	A	C8-N9-C4	7.77	108.91	105.80
26	1H	2607	G	C6-C5-N7	-7.76	125.74	130.40
1	1G	690	G	C5-N7-C8	-7.76	100.42	104.30
1	13	715	A	O5'-P-OP2	-7.76	98.71	105.70
1	13	690	G	N7-C8-N9	7.76	116.98	113.10
26	1H	2565	A	O5'-P-OP1	-7.76	98.72	105.70
26	1H	1528	A	C5-N7-C8	-7.76	100.02	103.90
26	14	2060	A	O4'-C1'-N9	7.76	114.41	108.20
1	13	5	U	N1-C2-O2	7.76	128.23	122.80
26	1H	930	U	C5-C4-O4	7.75	130.55	125.90
26	1H	678	C	C2-N3-C4	-7.75	116.03	119.90
26	1H	1819	A	C5-C6-N6	-7.75	117.50	123.70
26	1H	2442	C	C5-C4-N4	-7.75	114.78	120.20
26	1H	1616	A	C4-C5-N7	7.74	114.57	110.70
26	1H	1839	G	N3-C2-N2	7.73	125.31	119.90
26	1H	467	G	O5'-P-OP2	-7.73	98.74	105.70
26	14	2392	A	C5-C6-N1	-7.73	113.83	117.70
26	1H	1759	A	O5'-P-OP1	-7.73	98.74	105.70
26	14	1544	C	C2-N1-C1'	7.73	127.30	118.80
26	1H	698	C	C5-C6-N1	-7.73	117.14	121.00
26	1H	2246	G	OP1-P-O3'	7.73	122.20	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	59	171	LEU	CA-CB-CG	7.73	133.07	115.30
1	13	1533	C	N1-C2-O2	7.72	123.53	118.90
26	14	929	G	N1-C6-O6	7.72	124.53	119.90
26	14	2335	A	O4'-C1'-N9	7.72	114.38	108.20
26	14	1796	U	O5'-P-OP2	7.72	119.96	110.70
26	1H	141	A	N7-C8-N9	7.71	117.66	113.80
1	1G	1281	U	C5-C6-N1	7.71	126.56	122.70
26	1H	1558	A	C2-N3-C4	-7.71	106.75	110.60
26	14	140	A	C5-N7-C8	-7.71	100.05	103.90
26	14	1659	U	O5'-P-OP2	-7.71	98.77	105.70
26	14	2439	A	N1-C6-N6	7.70	123.22	118.60
26	1H	201	C	C6-N1-C2	7.70	123.38	120.30
26	1H	1806	C	OP1-P-OP2	7.70	131.15	119.60
26	14	307	G	C5-C6-O6	-7.69	123.98	128.60
26	14	1382	G	N3-C4-C5	7.69	132.44	128.60
26	1H	2288	A	N1-C6-N6	7.68	123.21	118.60
26	14	312	G	O5'-P-OP1	-7.68	98.79	105.70
26	1H	1298	C	C5-C6-N1	7.68	124.84	121.00
26	1H	1780	A	N9-C4-C5	7.68	108.87	105.80
23	2K	77	A	C5-N7-C8	-7.68	100.06	103.90
26	14	733	G	C4-N9-C1'	7.67	136.48	126.50
26	14	2502	G	C5-C6-N1	7.67	115.34	111.50
26	1H	2330	G	C6-C5-N7	-7.67	125.80	130.40
26	14	945	A	C5-C6-N6	-7.67	117.56	123.70
26	1H	681	G	N9-C4-C5	-7.67	102.33	105.40
26	14	1564	C	N3-C4-N4	-7.67	112.63	118.00
26	1H	1694	C	P-O3'-C3'	7.67	128.90	119.70
26	1H	576	U	C6-N1-C2	-7.66	116.40	121.00
26	14	49	A	P-O3'-C3'	7.66	128.89	119.70
1	13	687	A	P-O3'-C3'	7.66	128.89	119.70
26	1H	203	C	N1-C2-O2	-7.66	114.31	118.90
26	1H	1899	G	N1-C2-N3	7.66	128.49	123.90
26	1H	1961	C	O5'-P-OP1	-7.65	98.81	105.70
26	1H	146	G	N9-C4-C5	-7.65	102.34	105.40
26	1H	446	G	N1-C6-O6	7.63	124.48	119.90
26	1H	2502	G	C8-N9-C4	-7.63	103.35	106.40
26	1H	2066	C	C6-N1-C2	-7.63	117.25	120.30
1	13	765	G	C8-N9-C1'	-7.62	117.09	127.00
26	1H	1313	U	C5-C6-N1	7.62	126.51	122.70
1	1G	690	G	C4-C5-N7	7.62	113.85	110.80
26	1H	606	U	O5'-P-OP2	-7.62	98.84	105.70
26	14	2346	A	N1-C6-N6	7.62	123.17	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1786	A	C6-C5-N7	-7.62	126.97	132.30
26	1H	141	A	C6-C5-N7	-7.61	126.97	132.30
26	1H	1654	A	O5'-P-OP1	-7.61	98.85	105.70
26	14	1307	A	O5'-P-OP1	-7.61	98.85	105.70
26	14	1786	A	N9-C1'-C2'	7.61	123.89	114.00
26	1H	2275	C	N1-C2-O2	-7.59	114.35	118.90
26	14	1616	A	C4-C5-N7	7.59	114.50	110.70
26	1H	691	C	N1-C2-O2	-7.59	114.35	118.90
26	14	2598	A	OP2-P-O3'	7.59	121.89	105.20
26	1H	2246	G	N3-C4-N9	7.58	130.55	126.00
26	1H	99	U	N1-C2-O2	7.58	128.10	122.80
26	1H	2438	U	O5'-P-OP2	-7.57	98.89	105.70
26	1H	1513	C	C5-C6-N1	7.57	124.78	121.00
26	1H	1698	A	C6-C5-N7	-7.56	127.01	132.30
26	1H	1942	C	C4-C5-C6	-7.56	113.62	117.40
1	13	428	G	C2-N3-C4	-7.55	108.12	111.90
26	1H	736	C	O5'-P-OP2	7.55	119.76	110.70
26	14	1204	A	O4'-C1'-N9	7.55	114.24	108.20
26	1H	2062	A	C2-N3-C4	7.55	114.38	110.60
26	1H	2458	G	N3-C2-N2	-7.55	114.61	119.90
26	14	1942	C	C6-N1-C2	-7.55	117.28	120.30
26	14	1570	A	N1-C6-N6	7.54	123.12	118.60
26	14	2053	G	C5-C6-O6	-7.54	124.08	128.60
26	14	528	A	C4-N9-C1'	-7.54	112.73	126.30
26	1H	1955	U	N1-C2-N3	7.54	119.42	114.90
26	1H	1992	G	C5-C6-N1	7.54	115.27	111.50
26	14	71	A	N7-C8-N9	7.54	117.57	113.80
26	1H	226	G	O4'-C1'-N9	7.53	114.23	108.20
26	1H	2507	C	C6-N1-C2	-7.53	117.29	120.30
26	1H	2053	G	C4-C5-N7	7.53	113.81	110.80
26	14	468	G	OP1-P-OP2	-7.53	108.30	119.60
26	1H	1564	C	N3-C2-O2	-7.53	116.63	121.90
26	14	2051	A	C8-N9-C4	-7.53	102.79	105.80
26	1H	640	C	C6-N1-C2	-7.52	117.29	120.30
26	14	2327	A	N1-C6-N6	-7.52	114.09	118.60
26	14	1496	A	C5-N7-C8	-7.52	100.14	103.90
26	1H	2577	A	N9-C4-C5	7.51	108.81	105.80
26	14	2301	C	C5-C6-N1	7.51	124.76	121.00
26	1H	140	A	OP2-P-O3'	7.51	121.73	105.20
26	14	1827	C	C6-N1-C2	-7.51	117.30	120.30
26	14	2249	U	C5-C6-N1	7.51	126.45	122.70
26	1H	1636	C	N3-C4-C5	-7.51	118.90	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	685	A	O4'-C1'-N9	7.51	114.20	108.20
26	1H	1914	C	C5-C4-N4	7.50	125.45	120.20
26	1H	1204	A	N1-C2-N3	7.50	133.05	129.30
26	1H	1616	A	N1-C6-N6	7.50	123.10	118.60
26	14	1798	U	O5'-P-OP2	-7.50	98.95	105.70
26	1H	245	G	C5-C6-O6	-7.50	124.10	128.60
26	1H	2238	G	O5'-P-OP2	-7.48	98.97	105.70
26	1H	1658	C	N1-C2-O2	-7.48	114.41	118.90
26	14	211	A	N1-C6-N6	7.48	123.09	118.60
33	51	153	LYS	C-N-CD	-7.47	104.16	120.60
26	1H	1300	U	N1-C2-N3	7.47	119.38	114.90
26	1H	2430	A	C5-N7-C8	-7.47	100.17	103.90
26	1H	140	A	C5-C6-N6	-7.47	117.73	123.70
26	1H	464	U	C5-C6-N1	-7.47	118.97	122.70
26	1H	1394	U	C5-C6-N1	7.46	126.43	122.70
26	1H	1776	G	C4-C5-N7	7.46	113.78	110.80
26	1H	1614	A	C2-N3-C4	-7.46	106.87	110.60
26	1H	2030	A	N1-C6-N6	7.46	123.07	118.60
26	1H	57	C	N3-C4-N4	-7.45	112.78	118.00
26	14	148	C	C6-N1-C2	7.45	123.28	120.30
26	1H	203	C	N3-C4-N4	7.45	123.22	118.00
27	1J	89	G	O5'-P-OP1	-7.45	99.00	105.70
26	14	783	A	N3-C4-C5	7.44	132.01	126.80
26	14	2023	G	O5'-P-OP2	-7.44	99.00	105.70
26	1H	1363	C	C5-C6-N1	-7.44	117.28	121.00
27	16	100	G	N3-C4-N9	7.44	130.46	126.00
1	13	1128	C	C6-N1-C2	-7.43	117.33	120.30
26	1H	1993	U	O5'-P-OP1	-7.43	99.01	105.70
26	14	2335	A	N1-C6-N6	-7.43	114.14	118.60
26	1H	1914	C	N3-C2-O2	-7.43	116.70	121.90
26	14	800	A	O5'-P-OP1	-7.42	99.02	105.70
27	1J	81	G	C4-C5-N7	7.42	113.77	110.80
26	1H	1900	A	O5'-P-OP2	-7.42	99.02	105.70
26	1H	2477	C	N3-C2-O2	-7.42	116.71	121.90
46	G8	81	LYS	C-N-CA	7.42	153.17	122.00
26	1H	512	G	O4'-C1'-N9	7.42	114.13	108.20
26	14	1899	G	C8-N9-C1'	7.42	136.64	127.00
26	14	741	G	O5'-P-OP1	-7.41	99.03	105.70
26	14	1950	G	C4-N9-C1'	7.41	136.13	126.50
26	14	691	C	C6-N1-C2	7.41	123.26	120.30
26	1H	1253	A	C5-C6-N6	-7.40	117.78	123.70
1	1G	449	C	N3-C2-O2	-7.40	116.72	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	860	U	C4-C5-C6	7.40	124.14	119.70
26	14	2275	C	C6-N1-C2	-7.39	117.34	120.30
26	1H	202	U	C6-N1-C1'	-7.39	110.85	121.20
26	1H	263	C	N1-C2-O2	7.39	123.34	118.90
26	1H	1399	C	C6-N1-C2	-7.39	117.34	120.30
1	1G	1301	U	N1-C2-O2	7.39	127.97	122.80
26	1H	1786	A	C5-C6-N6	-7.38	117.79	123.70
26	14	1780	A	N9-C4-C5	7.38	108.75	105.80
26	14	1266	G	C8-N9-C4	7.38	109.35	106.40
26	1H	587	C	C2-N1-C1'	7.37	126.91	118.80
26	14	2374	C	C6-N1-C2	7.37	123.25	120.30
26	14	2346	A	C6-C5-N7	-7.36	127.14	132.30
26	1H	670	A	C8-N9-C4	7.36	108.74	105.80
26	1H	1401	G	C8-N9-C4	-7.36	103.46	106.40
26	1H	2331	G	N1-C2-N2	-7.36	109.58	116.20
54	P8	39	ARG	NE-CZ-NH2	-7.36	116.62	120.30
26	14	140	A	N7-C8-N9	7.36	117.48	113.80
26	1H	424	G	N1-C6-O6	7.36	124.31	119.90
26	14	2581	G	N1-C2-N3	7.36	128.31	123.90
26	1H	1021	A	C2-N3-C4	-7.35	106.92	110.60
26	14	2307	G	C4-N9-C1'	7.35	136.06	126.50
26	1H	1819	A	N1-C6-N6	7.35	123.01	118.60
26	1H	1899	G	OP2-P-O3'	7.34	121.36	105.20
26	1H	510	C	O5'-P-OP2	-7.34	99.09	105.70
26	14	2713	A	N7-C8-N9	7.34	117.47	113.80
26	1H	2577	A	N1-C6-N6	-7.34	114.20	118.60
26	14	1790	C	OP1-P-O3'	7.34	121.34	105.20
26	1H	740	U	O5'-P-OP1	7.34	119.50	110.70
26	1H	777	A	N1-C2-N3	7.34	132.97	129.30
26	14	590	A	N1-C6-N6	-7.34	114.20	118.60
26	1H	141	A	C5-C6-N6	-7.33	117.83	123.70
26	1H	270(K)	C	C6-N1-C2	-7.33	117.37	120.30
1	13	1407	C	O5'-P-OP2	-7.33	99.10	105.70
26	1H	2488	A	N1-C6-N6	7.33	123.00	118.60
26	14	1373	A	C8-N9-C4	7.33	108.73	105.80
26	14	2237	G	N1-C6-O6	-7.33	115.50	119.90
1	13	1492	A	O5'-P-OP1	7.33	119.50	110.70
1	13	1502	A	C2-N3-C4	-7.33	106.94	110.60
26	1H	744	G	N1-C6-O6	-7.33	115.50	119.90
26	14	2503	A	N1-C2-N3	-7.33	125.64	129.30
26	14	2873	A	O5'-P-OP1	-7.32	99.11	105.70
26	14	494	G	N1-C6-O6	7.32	124.29	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1255	U	N3-C4-C5	-7.32	110.21	114.60
26	14	388	G	N9-C4-C5	7.32	108.33	105.40
1	13	1354	C	C6-N1-C2	-7.32	117.37	120.30
26	1H	599	G	C8-N9-C4	7.31	109.33	106.40
26	14	676	A	N7-C8-N9	7.31	117.46	113.80
26	1H	1938	A	O4'-C1'-N9	7.31	114.05	108.20
26	14	1332	G	C4-C5-C6	7.31	123.19	118.80
26	1H	838	C	C4-C5-C6	7.31	121.05	117.40
26	1H	2242	G	C4-C5-N7	-7.31	107.88	110.80
26	1H	2329	G	C8-N9-C4	7.31	109.32	106.40
26	14	1142(A)	A	N1-C2-N3	7.31	132.95	129.30
26	1H	1334	G	C6-C5-N7	-7.30	126.02	130.40
26	14	1742	C	C2-N1-C1'	7.30	126.83	118.80
26	1H	528	A	N3-C4-N9	-7.30	121.56	127.40
26	1H	1496	A	C5-C6-N6	-7.30	117.86	123.70
26	1H	1366	A	N9-C4-C5	-7.30	102.88	105.80
26	1H	2518	A	C5-N7-C8	-7.30	100.25	103.90
26	1H	508	G	N3-C4-N9	7.29	130.38	126.00
26	1H	1914	C	N3-C4-N4	-7.29	112.90	118.00
26	1H	2084	C	C5-C6-N1	-7.29	117.36	121.00
1	13	1158	C	N1-C2-O2	7.29	123.27	118.90
26	1H	2073	C	OP2-P-O3'	7.29	121.23	105.20
26	1H	2712	U	O4'-C1'-N1	7.29	114.03	108.20
22	1K	76	A	O4'-C1'-N9	7.28	114.02	108.20
26	14	1780	A	O5'-P-OP1	7.28	119.44	110.70
26	1H	284	U	O5'-P-OP1	-7.28	99.15	105.70
26	14	943	U	O5'-P-OP1	-7.28	99.15	105.70
26	1H	1026	U	O4'-C1'-N1	7.28	114.02	108.20
1	1G	812	C	P-O3'-C3'	7.28	128.43	119.70
26	1H	2506	U	C2-N1-C1'	7.27	126.43	117.70
26	1H	216	A	O5'-P-OP1	-7.27	99.16	105.70
40	65	110	LEU	CA-CB-CG	7.27	132.03	115.30
1	13	967	C	N1-C2-O2	-7.27	114.54	118.90
26	1H	1642	G	O5'-P-OP1	-7.27	99.16	105.70
1	13	1228	C	C6-N1-C2	-7.27	117.39	120.30
1	13	509	A	P-O3'-C3'	7.27	128.42	119.70
26	14	2000	G	O5'-P-OP1	7.27	119.42	110.70
26	1H	1430	C	OP1-P-O3'	7.27	121.19	105.20
26	1H	1831	G	C8-N9-C4	-7.27	103.49	106.40
26	1H	917	A	C5-C6-N1	-7.26	114.07	117.70
26	14	801	G	N1-C6-O6	-7.26	115.54	119.90
26	1H	693	C	C5-C6-N1	-7.25	117.37	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	252	G	O5'-P-OP2	-7.25	99.17	105.70
26	14	621	A	C5-N7-C8	-7.25	100.27	103.90
26	14	2053	G	C4-C5-C6	7.25	123.15	118.80
26	14	621	A	N7-C8-N9	7.25	117.43	113.80
26	1H	247	G	C8-N9-C4	7.25	109.30	106.40
1	13	748	C	C6-N1-C2	-7.25	117.40	120.30
26	1H	239	U	N3-C4-O4	-7.25	114.33	119.40
27	16	30	C	C6-N1-C2	-7.25	117.40	120.30
26	14	265	A	N1-C6-N6	7.25	122.95	118.60
26	1H	2465	C	C5-C6-N1	-7.25	117.38	121.00
26	1H	1309	G	O5'-P-OP1	7.25	119.39	110.70
26	1H	1314	C	C6-N1-C2	-7.24	117.40	120.30
26	14	2542	A	C8-N9-C4	7.24	108.70	105.80
1	13	898	G	O5'-P-OP1	-7.24	99.18	105.70
1	13	963	G	N1-C2-N2	-7.24	109.68	116.20
26	1H	681	G	N3-C2-N2	7.24	124.97	119.90
26	14	2473	U	C2-N1-C1'	7.24	126.39	117.70
26	1H	2422	A	N1-C6-N6	-7.24	114.26	118.60
26	1H	2490	G	C4-N9-C1'	7.23	135.90	126.50
26	1H	2311	A	N1-C2-N3	7.23	132.91	129.30
26	1H	2439	A	N1-C6-N6	7.23	122.94	118.60
26	1H	126	A	N1-C6-N6	-7.23	114.26	118.60
26	1H	1004	C	N3-C4-C5	-7.23	119.01	121.90
26	14	189	G	N1-C6-O6	7.23	124.23	119.90
26	1H	2712	U	C6-N1-C1'	-7.22	111.09	121.20
26	1H	2060	A	P-O3'-C3'	7.22	128.36	119.70
1	1G	690	G	N3-C4-C5	7.22	132.21	128.60
26	1H	1210	A	C4-C5-N7	7.22	114.31	110.70
26	1H	1778	U	OP2-P-O3'	7.21	121.06	105.20
26	1H	1764	G	C4-C5-N7	-7.21	107.92	110.80
26	14	2567	G	C8-N9-C4	7.21	109.28	106.40
57	3L	76	A	C6-C5-N7	-7.20	127.26	132.30
26	14	1190	G	O5'-P-OP1	-7.20	99.22	105.70
1	1G	1449	C	C2-N1-C1'	7.20	126.72	118.80
26	1H	2012	G	O5'-P-OP1	-7.20	99.22	105.70
26	14	2554	U	O5'-P-OP2	7.20	119.34	110.70
26	1H	1366	A	C8-N9-C4	7.20	108.68	105.80
46	C5	80	GLY	N-CA-C	7.20	131.09	113.10
57	3L	1	G	C2-N3-C4	7.20	115.50	111.90
38	45	78	PRO	N-CA-C	7.19	130.80	112.10
26	14	199	A	N1-C6-N6	-7.18	114.29	118.60
26	1H	1350	C	C6-N1-C2	7.18	123.17	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	78	49	ARG	NE-CZ-NH1	7.18	123.89	120.30
26	14	34	C	N3-C2-O2	-7.18	116.87	121.90
26	14	1318	C	O5'-P-OP2	7.18	119.31	110.70
26	14	2295	C	C6-N1-C2	-7.18	117.43	120.30
26	1H	2502	G	O5'-P-OP1	-7.18	99.24	105.70
26	14	372	G	O4'-C1'-N9	7.18	113.94	108.20
26	1H	1006	C	O5'-P-OP1	-7.17	99.24	105.70
26	14	446	G	N9-C4-C5	-7.17	102.53	105.40
26	1H	2697	G	OP1-P-OP2	7.17	130.36	119.60
26	1H	388	G	O5'-P-OP2	-7.17	99.25	105.70
26	14	2307	G	O4'-C1'-N9	7.17	113.94	108.20
26	14	2377	A	C8-N9-C4	7.17	108.67	105.80
26	14	1700	A	O5'-P-OP2	7.17	119.30	110.70
26	1H	187	G	C8-N9-C1'	-7.17	117.68	127.00
26	14	1382	G	C5-C6-O6	-7.17	124.30	128.60
26	1H	1790	C	N3-C4-C5	7.16	124.77	121.90
26	1H	669	G	N3-C2-N2	-7.16	114.89	119.90
26	1H	686	G	C5-C6-O6	-7.16	124.31	128.60
26	14	1408	C	N1-C2-O2	-7.16	114.61	118.90
26	14	2392	A	N7-C8-N9	7.15	117.38	113.80
26	14	265	A	C5-N7-C8	-7.15	100.32	103.90
26	1H	2610	C	O5'-P-OP1	-7.15	99.27	105.70
26	1H	1255	U	N3-C2-O2	7.15	127.20	122.20
26	14	307	G	C4-C5-N7	7.14	113.66	110.80
26	14	929	G	C6-C5-N7	-7.14	126.11	130.40
1	13	585	G	O5'-P-OP2	-7.14	99.27	105.70
26	1H	2440	C	C2-N3-C4	7.14	123.47	119.90
26	14	1899	G	N9-C4-C5	7.14	108.26	105.40
1	1G	974	A	O4'-C1'-N9	7.14	113.91	108.20
26	14	1409	C	O5'-P-OP2	-7.14	99.28	105.70
26	14	236	C	C6-N1-C2	7.13	123.15	120.30
26	14	684	G	N9-C4-C5	7.13	108.25	105.40
26	1H	537	C	O5'-P-OP2	-7.13	99.28	105.70
26	1H	1354	A	O5'-P-OP2	-7.13	99.28	105.70
26	1H	265	A	N7-C8-N9	7.13	117.36	113.80
26	1H	117	G	N3-C4-N9	7.13	130.28	126.00
26	1H	1781	C	C6-N1-C2	7.13	123.15	120.30
26	14	2323	G	C8-N9-C4	7.12	109.25	106.40
26	14	134	C	C6-N1-C2	7.12	123.15	120.30
1	13	1227	A	C5-N7-C8	-7.12	100.34	103.90
26	14	74	A	N1-C2-N3	7.12	132.86	129.30
1	13	580	U	C5-C6-N1	-7.11	119.14	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1698	A	N1-C6-N6	7.11	122.87	118.60
26	1H	1785	A	OP2-P-O3'	7.11	120.85	105.20
1	13	1301	U	C6-N1-C1'	-7.11	111.25	121.20
26	1H	630	G	N3-C4-C5	7.11	132.15	128.60
26	1H	860	U	N3-C2-O2	-7.11	117.22	122.20
27	16	8	U	O5'-P-OP1	7.11	119.23	110.70
26	14	2774	C	C6-N1-C2	7.11	123.14	120.30
1	13	523	A	N1-C6-N6	7.11	122.86	118.60
26	1H	1660	C	N3-C4-C5	7.10	124.74	121.90
26	14	71	A	C4-C5-N7	7.10	114.25	110.70
26	14	2494	G	O5'-P-OP1	-7.10	99.31	105.70
26	1H	1623	G	C5-C6-O6	7.10	132.86	128.60
26	14	687	C	O5'-P-OP1	-7.10	99.31	105.70
26	14	2446	G	OP2-P-O3'	7.10	120.81	105.20
32	41	94	LEU	CA-CB-CG	7.10	131.62	115.30
26	1H	1003	G	O5'-P-OP1	-7.09	99.31	105.70
26	1H	1992	G	P-O3'-C3'	7.09	128.21	119.70
26	1H	2291	U	C5-C4-O4	7.09	130.16	125.90
1	1G	1198	G	O5'-P-OP1	-7.09	99.32	105.70
26	1H	247	G	N9-C4-C5	-7.09	102.56	105.40
26	1H	1158	C	C5-C6-N1	-7.09	117.45	121.00
26	1H	1678	G	N7-C8-N9	7.09	116.64	113.10
26	14	1645	G	N3-C4-C5	-7.09	125.06	128.60
26	1H	57	C	C5-C4-N4	7.09	125.16	120.20
26	14	671	C	C2-N3-C4	-7.08	116.36	119.90
26	1H	1788	C	N3-C4-C5	-7.08	119.07	121.90
26	1H	2287	A	N3-C4-C5	7.08	131.76	126.80
26	14	1682	G	O5'-P-OP2	-7.08	99.33	105.70
26	14	2042	A	C8-N9-C4	7.08	108.63	105.80
26	14	1786	A	C5-C6-N1	-7.08	114.16	117.70
26	1H	1644	C	C6-N1-C2	-7.08	117.47	120.30
26	14	1321	A	C8-N9-C4	7.08	108.63	105.80
22	1K	76	A	C8-N9-C4	-7.08	102.97	105.80
24	3K	76	A	C5-C6-N6	-7.08	118.04	123.70
26	1H	2004	G	O5'-P-OP2	-7.08	99.33	105.70
26	14	1627	G	C5-C6-N1	-7.08	107.96	111.50
26	1H	120	U	N3-C2-O2	-7.07	117.25	122.20
1	13	677	U	OP1-P-O3'	7.07	120.75	105.20
26	14	140	A	C4-C5-N7	7.07	114.23	110.70
26	14	1276	A	N1-C6-N6	7.07	122.84	118.60
26	14	2498	C	O5'-P-OP1	7.07	119.19	110.70
26	14	4	C	C6-N1-C1'	-7.07	112.32	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1791	A	OP1-P-OP2	-7.06	109.00	119.60
26	1H	1752	C	C6-N1-C2	7.06	123.12	120.30
26	1H	146	G	C4-C5-N7	7.06	113.62	110.80
26	1H	693	C	C4-C5-C6	7.06	120.93	117.40
26	1H	2062	A	N7-C8-N9	-7.06	110.27	113.80
26	1H	120	U	C5-C4-O4	7.06	130.13	125.90
26	1H	179	G	C5-C6-O6	-7.05	124.37	128.60
26	1H	2234	G	O5'-P-OP1	7.05	119.17	110.70
1	1G	253	U	O5'-P-OP1	-7.05	99.35	105.70
26	14	1629	U	N3-C2-O2	7.05	127.14	122.20
26	1H	1633	G	OP2-P-O3'	7.05	120.71	105.20
26	14	788	A	N1-C6-N6	7.05	122.83	118.60
1	1G	1227	A	C2-N3-C4	7.04	114.12	110.60
26	14	2518	A	C4-C5-C6	7.04	120.52	117.00
26	1H	1695	G	C4-N9-C1'	7.04	135.65	126.50
26	1H	391	G	C5-C6-N1	-7.04	107.98	111.50
26	1H	925	C	O5'-P-OP2	-7.04	99.37	105.70
26	1H	1755	A	C8-N9-C4	-7.04	102.98	105.80
26	1H	1496	A	C8-N9-C4	-7.03	102.99	105.80
26	1H	271(B)	G	C8-N9-C4	-7.03	103.59	106.40
26	1H	945	A	N9-C4-C5	-7.03	102.99	105.80
26	1H	1249	U	N3-C2-O2	7.03	127.12	122.20
26	1H	2704	C	C6-N1-C2	7.03	123.11	120.30
26	1H	504	U	C2-N1-C1'	7.03	126.13	117.70
26	14	528	A	N1-C2-N3	7.03	132.81	129.30
26	1H	1697	G	C6-C5-N7	-7.03	126.19	130.40
26	14	1443	G	N1-C6-O6	7.03	124.11	119.90
26	1H	856	C	O5'-P-OP1	-7.02	99.38	105.70
57	3L	76	A	C4-C5-N7	7.02	114.21	110.70
1	1G	1354	C	C5-C6-N1	7.02	124.51	121.00
1	13	1227	A	C2-N3-C4	-7.02	107.09	110.60
26	1H	775	G	N3-C2-N2	7.01	124.81	119.90
26	1H	1614	A	N7-C8-N9	7.01	117.31	113.80
26	1H	1210	A	C5-N7-C8	-7.01	100.39	103.90
26	1H	140	A	O4'-C1'-N9	7.01	113.81	108.20
26	1H	826	U	N1-C2-O2	-7.01	117.89	122.80
1	1G	337	C	C5-C6-N1	7.01	124.50	121.00
26	1H	1660	C	N3-C4-N4	-7.01	113.09	118.00
26	1H	2070	G	O5'-P-OP2	-7.01	99.39	105.70
26	14	1614	A	N1-C6-N6	7.01	122.81	118.60
26	14	2032	G	C5-C6-O6	-7.01	124.40	128.60
26	1H	1563	G	C5-C6-O6	7.00	132.80	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1427	A	N1-C6-N6	-7.00	114.40	118.60
26	14	1640	C	N1-C2-O2	7.00	123.10	118.90
26	1H	1968	G	C5-C6-O6	-7.00	124.40	128.60
26	1H	2699	C	N3-C4-C5	7.00	124.70	121.90
26	14	1154	G	C5-C6-O6	-7.00	124.40	128.60
26	1H	982	C	C6-N1-C2	-7.00	117.50	120.30
26	1H	1649	G	N3-C4-C5	-7.00	125.10	128.60
27	16	29	A	C8-N9-C4	-7.00	103.00	105.80
26	14	2477	C	C2-N1-C1'	7.00	126.50	118.80
26	14	2567	G	N7-C8-N9	-7.00	109.60	113.10
1	13	582	U	N3-C2-O2	-7.00	117.30	122.20
26	1H	681	G	N1-C2-N2	-7.00	109.90	116.20
26	1H	945	A	O4'-C1'-N9	7.00	113.80	108.20
1	13	901	A	N1-C6-N6	6.99	122.80	118.60
26	1H	2559	C	C6-N1-C2	-6.99	117.50	120.30
26	1H	1513	C	C6-N1-C2	-6.99	117.50	120.30
26	1H	2437	U	N3-C2-O2	-6.99	117.31	122.20
26	1H	382	G	C8-N9-C4	6.99	109.19	106.40
26	1H	189	G	C5-C6-O6	-6.99	124.41	128.60
26	1H	1404	C	O5'-P-OP2	-6.99	99.41	105.70
26	1H	1758	G	N1-C2-N2	6.99	122.49	116.20
26	1H	217	G	O5'-P-OP1	-6.98	99.41	105.70
26	1H	693	C	C5-C4-N4	6.98	125.09	120.20
26	14	684	G	N3-C4-C5	-6.98	125.11	128.60
26	1H	812	C	N1-C2-O2	-6.98	114.71	118.90
26	1H	1368	G	N3-C4-C5	-6.98	125.11	128.60
26	1H	1634	A	O5'-P-OP2	-6.98	99.42	105.70
26	1H	2655	G	O4'-C1'-N9	6.98	113.78	108.20
26	1H	1915	U	N3-C2-O2	-6.98	117.32	122.20
26	1H	2374	C	C6-N1-C2	6.98	123.09	120.30
1	13	1195	C	C6-N1-C2	-6.97	117.51	120.30
26	1H	2584	U	N1-C2-N3	6.97	119.08	114.90
26	1H	752	A	P-O3'-C3'	6.97	128.07	119.70
26	1H	1403	C	O5'-P-OP2	-6.97	99.42	105.70
57	3L	5	C	C6-N1-C2	-6.97	117.51	120.30
26	14	380	U	OP1-P-OP2	6.97	130.06	119.60
26	14	1645	G	N3-C4-N9	6.97	130.18	126.00
26	14	2392	A	C8-N9-C4	-6.97	103.01	105.80
26	1H	815	C	C6-N1-C2	6.97	123.09	120.30
26	1H	263	C	N3-C2-O2	-6.96	117.02	121.90
26	14	1698	A	C4-C5-C6	6.96	120.48	117.00
26	1H	1829	A	N1-C6-N6	-6.96	114.42	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	508	G	N1-C6-O6	6.96	124.08	119.90
1	1G	360	A	C8-N9-C4	6.96	108.58	105.80
26	1H	271(B)	G	P-O3'-C3'	6.96	128.05	119.70
26	1H	1938	A	N1-C6-N6	6.96	122.78	118.60
26	1H	127	A	C5-C6-N6	-6.96	118.14	123.70
26	1H	1544	C	C6-N1-C2	6.96	123.08	120.30
26	1H	1528	A	C6-C5-N7	-6.96	127.43	132.30
26	14	603	A	O4'-C1'-N9	6.96	113.76	108.20
26	1H	787	U	N1-C2-N3	6.95	119.07	114.90
26	1H	2261	C	C5-C6-N1	6.95	124.47	121.00
26	14	1543	A	O5'-P-OP1	6.95	119.04	110.70
26	14	2279	G	N1-C6-O6	-6.95	115.73	119.90
1	13	1498	U	O4'-C1'-N1	-6.95	102.64	108.20
26	1H	945	A	C4-N9-C1'	6.95	138.81	126.30
26	1H	2389	G	OP1-P-O3'	6.95	120.48	105.20
26	1H	1427	A	N9-C4-C5	6.95	108.58	105.80
1	1G	224	C	C6-N1-C2	6.94	123.08	120.30
26	14	510	C	O5'-P-OP2	-6.94	99.45	105.70
26	1H	2751	G	C8-N9-C4	-6.94	103.62	106.40
1	1G	1487	G	N1-C6-O6	6.94	124.06	119.90
26	14	863	A	C8-N9-C4	-6.94	103.03	105.80
26	14	2295	C	C5-C6-N1	6.94	124.47	121.00
26	14	2053	G	N3-C2-N2	-6.94	115.05	119.90
10	1I	84	GLN	CA-CB-CG	6.93	128.65	113.40
26	1H	860	U	C5-C6-N1	-6.93	119.23	122.70
1	1G	653	A	O4'-C1'-N9	6.93	113.75	108.20
26	14	2438	U	O5'-P-OP2	-6.93	99.46	105.70
27	16	6	C	N3-C4-N4	6.93	122.85	118.00
26	1H	1918	A	N9-C4-C5	-6.93	103.03	105.80
26	1H	917	A	N1-C6-N6	6.92	122.75	118.60
26	14	675	A	N1-C6-N6	6.92	122.75	118.60
26	1H	1627	G	O5'-P-OP2	-6.92	99.47	105.70
26	1H	2390	U	O5'-P-OP1	-6.92	99.47	105.70
26	1H	122	G	OP1-P-OP2	6.92	129.98	119.60
26	14	974(A)	C	C5-C4-N4	6.92	125.04	120.20
26	1H	383	U	O4'-C1'-N1	6.92	113.73	108.20
26	1H	989	G	C5-C6-O6	-6.92	124.45	128.60
26	1H	2565	A	N1-C2-N3	-6.92	125.84	129.30
26	14	1678	G	O5'-P-OP1	-6.92	99.47	105.70
1	13	353	A	C8-N9-C4	-6.91	103.03	105.80
26	14	1678	G	C4-C5-N7	6.91	113.57	110.80
26	1H	1843	C	C6-N1-C2	6.91	123.06	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1597	A	O4'-C1'-N9	6.91	113.73	108.20
26	1H	528	A	C5-C6-N1	-6.91	114.25	117.70
26	1H	1564	C	N1-C2-O2	6.91	123.05	118.90
26	1H	1808	U	N3-C2-O2	6.91	127.04	122.20
26	14	1992	G	P-O3'-C3'	6.91	127.99	119.70
27	1J	89	G	O5'-P-OP2	-6.91	99.48	105.70
26	1H	2453	A	C8-N9-C4	-6.91	103.04	105.80
26	14	670	A	C8-N9-C4	6.91	108.56	105.80
26	1H	1284	A	O5'-P-OP2	-6.90	99.49	105.70
26	1H	1313	U	C6-N1-C2	-6.90	116.86	121.00
1	13	1301	U	C5-C6-N1	6.90	126.15	122.70
26	1H	1827	C	C5-C6-N1	6.90	124.45	121.00
24	3K	76	A	N7-C8-N9	6.90	117.25	113.80
26	1H	1600	C	O5'-P-OP2	-6.90	99.49	105.70
26	14	2275	C	P-O3'-C3'	6.89	127.97	119.70
26	1H	391	G	C2-N3-C4	-6.89	108.45	111.90
26	1H	198	C	N3-C4-C5	6.89	124.66	121.90
26	1H	329	G	O5'-P-OP2	-6.89	99.50	105.70
26	14	2346	A	N7-C8-N9	6.89	117.25	113.80
26	1H	1632	A	C5-N7-C8	-6.89	100.46	103.90
1	13	1502	A	C5-N7-C8	-6.89	100.46	103.90
26	1H	448	U	C5-C6-N1	-6.89	119.26	122.70
26	1H	1656	C	C2-N3-C4	6.89	123.34	119.90
26	14	2092	U	C5-C4-O4	6.89	130.03	125.90
26	1H	628	G	N1-C6-O6	-6.88	115.77	119.90
26	1H	2508	G	N3-C2-N2	-6.88	115.08	119.90
26	1H	830	G	N7-C8-N9	6.88	116.54	113.10
1	13	765	G	C4-N9-C1'	6.88	135.44	126.50
1	13	792	A	N1-C6-N6	6.88	122.73	118.60
26	1H	54	G	O5'-P-OP1	-6.88	99.51	105.70
26	1H	1784	A	C5-C6-N6	6.88	129.20	123.70
26	1H	2273	A	C2-N3-C4	6.88	114.04	110.60
26	1H	2392	A	C8-N9-C4	-6.87	103.05	105.80
26	1H	400	G	N1-C6-O6	6.87	124.02	119.90
26	1H	2286	A	C4-N9-C1'	6.87	138.67	126.30
26	14	2264	C	O5'-P-OP2	6.87	118.94	110.70
26	1H	122	G	C2-N3-C4	-6.87	108.47	111.90
26	14	585	G	C4-N9-C1'	6.87	135.43	126.50
26	1H	695	G	C5-C6-O6	6.86	132.72	128.60
26	1H	2286	A	N1-C6-N6	6.86	122.72	118.60
26	14	748	G	C4-N9-C1'	-6.86	117.58	126.50
26	1H	755	C	N3-C4-C5	-6.86	119.16	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1395	A	C8-N9-C4	6.86	108.54	105.80
26	1H	1697	G	C4-C5-N7	6.86	113.54	110.80
26	14	1314	C	C2-N1-C1'	6.86	126.35	118.80
26	1H	391	G	C8-N9-C1'	-6.86	118.08	127.00
26	1H	1613	G	N1-C6-O6	-6.86	115.78	119.90
26	1H	1201	C	N3-C2-O2	6.86	126.70	121.90
26	1H	2346	A	C5-C6-N1	-6.86	114.27	117.70
1	1G	841	U	C5-C6-N1	6.86	126.13	122.70
26	14	2390	U	O5'-P-OP1	-6.86	99.53	105.70
1	13	1331	G	C8-N9-C4	-6.85	103.66	106.40
26	14	630	G	C8-N9-C4	6.85	109.14	106.40
26	14	2454	G	O5'-P-OP2	-6.85	99.53	105.70
1	1G	60	A	C8-N9-C4	6.85	108.54	105.80
26	14	952	G	OP1-P-OP2	-6.85	109.33	119.60
26	14	1899	G	N1-C2-N3	6.85	128.01	123.90
26	1H	1147	C	C6-N1-C2	6.84	123.04	120.30
26	1H	1528	A	O4'-C1'-N9	6.84	113.68	108.20
26	14	748	G	C8-N9-C1'	6.84	135.90	127.00
26	1H	1780	A	C5-C6-N6	6.84	129.17	123.70
26	1H	2006	C	C6-N1-C2	6.84	123.04	120.30
1	1G	968	A	N1-C6-N6	6.84	122.70	118.60
26	14	252	G	N1-C6-O6	-6.84	115.80	119.90
26	1H	1336	A	C5-C6-N6	6.83	129.17	123.70
26	1H	990	A	C8-N9-C4	-6.83	103.07	105.80
26	1H	1927	A	C8-N9-C4	-6.83	103.07	105.80
1	13	525	C	C5-C6-N1	6.83	124.42	121.00
26	1H	2387	U	OP2-P-O3'	6.83	120.23	105.20
26	1H	1022	G	C4-C5-N7	-6.83	108.07	110.80
26	1H	192	C	N1-C2-O2	-6.83	114.80	118.90
22	1K	76	A	C5-N7-C8	-6.83	100.49	103.90
26	1H	2244	U	OP1-P-OP2	-6.83	109.36	119.60
26	1H	2490	G	C8-N9-C4	-6.82	103.67	106.40
26	1H	2506	U	P-O3'-C3'	6.82	127.89	119.70
27	1J	60	C	C6-N1-C2	-6.82	117.57	120.30
26	1H	120	U	C5-C6-N1	-6.82	119.29	122.70
26	1H	123	G	C5-C6-O6	-6.82	124.51	128.60
26	1H	1394	U	C2-N3-C4	6.82	131.09	127.00
1	13	537	G	O5'-P-OP1	-6.82	99.56	105.70
26	1H	621	A	N7-C8-N9	6.82	117.21	113.80
26	1H	2688	U	C6-N1-C2	-6.82	116.91	121.00
26	14	1283	G	N3-C4-C5	-6.82	125.19	128.60
26	1H	2490	G	O4'-C1'-N9	6.81	113.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2573	C	C2-N1-C1'	6.81	126.29	118.80
1	1G	587	G	N1-C6-O6	6.81	123.99	119.90
1	1G	1259	C	C6-N1-C2	-6.81	117.58	120.30
26	1H	1594	G	N7-C8-N9	6.81	116.50	113.10
26	1H	2054	A	OP2-P-O3'	6.81	120.18	105.20
26	14	1559	G	N1-C6-O6	6.81	123.99	119.90
1	13	765	G	N3-C4-N9	6.81	130.08	126.00
26	1H	2437	U	C6-N1-C2	-6.81	116.92	121.00
26	1H	729	G	N7-C8-N9	6.80	116.50	113.10
29	11	37	LEU	CA-CB-CG	-6.80	99.65	115.30
26	14	2477	C	N1-C2-O2	6.80	122.98	118.90
26	1H	676	A	C4-C5-N7	6.80	114.10	110.70
26	1H	676	A	OP1-P-OP2	6.80	129.80	119.60
26	1H	1332	G	N1-C6-O6	6.80	123.98	119.90
26	1H	1647	G	N1-C6-O6	-6.80	115.82	119.90
26	1H	409	C	C6-N1-C2	6.80	123.02	120.30
26	14	71	A	C6-C5-N7	-6.79	127.54	132.30
26	1H	44	A	N7-C8-N9	6.79	117.20	113.80
26	1H	954	G	N3-C2-N2	-6.79	115.14	119.90
26	14	58	G	C6-C5-N7	-6.79	126.32	130.40
26	14	2048	G	C8-N9-C4	-6.79	103.68	106.40
26	1H	1347	G	OP1-P-O3'	6.79	120.14	105.20
34	69	77	LEU	CA-CB-CG	6.79	130.92	115.30
22	1K	35	U	O5'-P-OP1	-6.79	99.59	105.70
26	1H	265	A	C5-C6-N1	-6.79	114.31	117.70
26	1H	1942	C	C5-C6-N1	6.79	124.39	121.00
26	1H	2689	U	N1-C2-N3	6.79	118.97	114.90
26	14	744	G	C8-N9-C4	6.79	109.11	106.40
26	1H	2699	C	C2-N1-C1'	-6.78	111.34	118.80
26	14	575	A	C5-C6-N6	-6.78	118.27	123.70
26	1H	1563	G	N1-C6-O6	-6.78	115.83	119.90
26	14	2032	G	N1-C6-O6	6.78	123.97	119.90
26	14	1912	A	O5'-P-OP1	-6.77	99.60	105.70
1	13	328	C	N3-C2-O2	-6.77	117.16	121.90
26	14	211	A	C5-C6-N6	-6.77	118.29	123.70
26	1H	142	G	C4-N9-C1'	-6.76	117.70	126.50
26	1H	2238	G	OP1-P-OP2	6.76	129.75	119.60
26	1H	664	C	O5'-P-OP2	-6.76	99.61	105.70
26	1H	127	A	N1-C6-N6	6.76	122.66	118.60
26	1H	866	A	N9-C4-C5	-6.76	103.10	105.80
26	14	127	A	OP1-P-O3'	6.76	120.08	105.20
26	1H	694	U	N3-C2-O2	-6.76	117.47	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	856	C	N1-C2-O2	-6.76	114.84	118.90
26	1H	2261	C	C6-N1-C2	-6.76	117.60	120.30
26	1H	2330	G	C2-N3-C4	-6.76	108.52	111.90
1	1G	110	C	C6-N1-C2	6.76	123.00	120.30
26	1H	1899	G	C6-C5-N7	6.76	134.45	130.40
26	14	458	G	O5'-P-OP2	-6.76	99.62	105.70
57	3L	63	U	C6-N1-C2	-6.75	116.95	121.00
26	14	2346	A	C4-C5-C6	6.75	120.38	117.00
27	16	100	G	C8-N9-C1'	-6.74	118.23	127.00
26	14	733	G	C4-C5-C6	6.74	122.85	118.80
26	14	2248	C	N3-C2-O2	-6.74	117.18	121.90
26	14	265	A	C6-C5-N7	-6.74	127.58	132.30
26	1H	797	C	C5-C6-N1	-6.74	117.63	121.00
26	14	855	G	C8-N9-C4	-6.74	103.70	106.40
26	1H	246	C	C5-C6-N1	-6.74	117.63	121.00
26	1H	2751	G	N1-C6-O6	-6.74	115.86	119.90
26	14	575	A	O5'-P-OP1	-6.74	99.64	105.70
26	14	179	G	N1-C6-O6	6.74	123.94	119.90
26	1H	2601	C	N3-C2-O2	-6.74	117.19	121.90
26	1H	1022	G	P-O3'-C3'	6.73	127.78	119.70
26	1H	2829	C	O5'-P-OP2	6.73	118.78	110.70
26	1H	468	G	C5-C6-O6	-6.73	124.56	128.60
26	14	1684	C	O5'-P-OP2	-6.73	99.64	105.70
26	1H	1359	A	N1-C2-N3	6.73	132.66	129.30
26	1H	2442	C	C2-N3-C4	-6.73	116.54	119.90
2	1E	155	LEU	CA-CB-CG	-6.73	99.83	115.30
26	1H	2062	A	C5-N7-C8	6.72	107.26	103.90
26	1H	2603	G	OP1-P-O3'	6.72	120.00	105.20
26	1H	784	A	O4'-C1'-N9	6.72	113.58	108.20
26	1H	1695	G	N3-C4-N9	6.72	130.03	126.00
26	1H	2028	U	C6-N1-C2	-6.72	116.97	121.00
26	14	2001	A	N1-C6-N6	6.72	122.63	118.60
26	14	2072	G	C4-C5-N7	6.72	113.49	110.80
26	1H	48	G	OP2-P-O3'	6.72	119.98	105.20
26	1H	1395	A	O4'-C1'-N9	6.72	113.58	108.20
1	1G	1281	U	C2-N1-C1'	6.72	125.76	117.70
26	1H	259	G	C5-C6-O6	-6.72	124.57	128.60
26	1H	599	G	N7-C8-N9	-6.72	109.74	113.10
26	1H	693	C	C2-N1-C1'	-6.72	111.41	118.80
26	1H	2681	C	C2'-C3'-O3'	6.72	124.45	113.70
26	14	409	C	C6-N1-C2	6.72	122.99	120.30
26	14	1142	U	C6-N1-C1'	-6.72	111.80	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2433	A	N1-C2-N3	6.71	132.66	129.30
1	13	897	C	C6-N1-C2	6.71	122.98	120.30
1	13	623	C	C6-N1-C2	-6.71	117.62	120.30
26	1H	395	U	N1-C2-O2	6.71	127.50	122.80
26	1H	266	G	O5'-P-OP2	-6.71	99.66	105.70
26	1H	1109	C	N1-C2-O2	6.71	122.92	118.90
26	1H	2442	C	N3-C4-N4	6.71	122.69	118.00
26	14	190	A	C8-N9-C4	6.71	108.48	105.80
26	1H	1204	A	C6-C5-N7	-6.70	127.61	132.30
26	14	530	G	C4-N9-C1'	6.70	135.22	126.50
26	14	530	G	C5-C6-O6	-6.70	124.58	128.60
26	14	2584	U	N3-C2-O2	-6.70	117.51	122.20
1	13	745	C	C6-N1-C2	-6.70	117.62	120.30
26	14	775	G	N3-C4-N9	6.70	130.02	126.00
26	1H	1328	G	O5'-P-OP2	-6.70	99.67	105.70
26	1H	1981	A	N1-C6-N6	-6.70	114.58	118.60
26	14	922	U	O5'-P-OP1	-6.70	99.67	105.70
1	13	862	C	C6-N1-C2	6.70	122.98	120.30
26	1H	609	A	N9-C4-C5	-6.70	103.12	105.80
26	1H	2232	U	C5-C4-O4	6.70	129.92	125.90
24	3K	71	C	C6-N1-C2	-6.69	117.62	120.30
22	1K	61	C	C2-N1-C1'	6.69	126.16	118.80
26	1H	630	G	C8-N9-C4	6.69	109.08	106.40
26	14	1678	G	N7-C8-N9	6.69	116.45	113.10
26	14	2503	A	C2-N3-C4	6.69	113.95	110.60
26	1H	1799	G	N3-C4-N9	6.69	130.01	126.00
1	1G	1354	C	C6-N1-C2	-6.69	117.62	120.30
26	14	727	A	O5'-P-OP1	-6.69	99.68	105.70
26	1H	270(O)	U	C6-N1-C1'	-6.69	111.84	121.20
26	14	2499	C	C2-N1-C1'	6.69	126.16	118.80
26	14	2607	G	O5'-P-OP1	6.69	118.73	110.70
26	1H	2286	A	C6-C5-N7	-6.69	127.62	132.30
1	13	656	C	C6-N1-C2	-6.68	117.63	120.30
26	1H	71	A	C6-C5-N7	-6.68	127.62	132.30
26	1H	1764	G	N9-C4-C5	6.68	108.07	105.40
26	14	1564	C	N3-C2-O2	-6.68	117.22	121.90
1	13	690	G	C5-N7-C8	-6.68	100.96	104.30
26	14	783	A	N1-C2-N3	6.68	132.64	129.30
26	1H	689	A	C2-N3-C4	-6.68	107.26	110.60
26	1H	1940	U	C5-C4-O4	-6.68	121.89	125.90
26	14	2464	C	C6-N1-C2	6.68	122.97	120.30
1	13	963	G	C8-N9-C1'	-6.68	118.32	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1336	A	C6-N1-C2	-6.67	114.59	118.60
1	13	892	A	N1-C2-N3	6.67	132.63	129.30
26	1H	658	C	O5'-P-OP2	-6.67	99.69	105.70
57	3L	1	G	N3-C4-C5	-6.67	125.27	128.60
26	14	2495	G	O5'-P-OP2	-6.67	99.70	105.70
26	1H	99	U	C6-N1-C1'	-6.67	111.86	121.20
26	1H	307	G	N3-C4-C5	-6.67	125.27	128.60
26	14	1571	A	C5-C6-N6	-6.67	118.37	123.70
26	1H	657	U	O5'-P-OP2	-6.67	99.70	105.70
26	14	1616	A	C6-C5-N7	-6.67	127.64	132.30
1	13	797	C	N1-C2-O2	-6.66	114.90	118.90
26	1H	1333	C	C5-C6-N1	6.66	124.33	121.00
26	1H	1559	G	N3-C4-C5	6.66	131.93	128.60
26	14	2331	G	C8-N9-C4	6.66	109.07	106.40
26	1H	195	A	N1-C6-N6	6.66	122.60	118.60
26	1H	2303	G	OP1-P-O3'	6.66	119.86	105.20
26	1H	847	U	C5-C6-N1	-6.66	119.37	122.70
26	1H	1653	G	N3-C4-N9	6.66	130.00	126.00
26	1H	2490	G	C2-N3-C4	-6.66	108.57	111.90
26	1H	1792	G	N1-C6-O6	-6.66	115.91	119.90
26	1H	1789	A	C5-C6-N1	6.66	121.03	117.70
26	14	2261	C	O5'-P-OP1	6.66	118.69	110.70
26	14	2433	A	N1-C2-N3	6.65	132.63	129.30
26	14	71	A	C2-N3-C4	-6.65	107.27	110.60
26	14	585	G	C8-N9-C1'	-6.65	118.35	127.00
26	14	190	A	N9-C4-C5	-6.65	103.14	105.80
26	14	775	G	N3-C4-C5	-6.65	125.28	128.60
26	14	2430	A	C5-N7-C8	-6.65	100.57	103.90
26	1H	576	U	C4-C5-C6	6.65	123.69	119.70
26	1H	1366	A	O5'-P-OP2	-6.65	99.72	105.70
26	14	531	C	N3-C4-C5	-6.65	119.24	121.90
26	1H	2665	A	C2-N3-C4	-6.65	107.28	110.60
26	14	71	A	P-O3'-C3'	6.65	127.68	119.70
26	14	76	C	C6-N1-C2	-6.65	117.64	120.30
1	13	1158	C	C2-N1-C1'	6.65	126.11	118.80
23	2K	6	G	C8-N9-C4	6.65	109.06	106.40
26	1H	2477	C	N1-C2-O2	6.65	122.89	118.90
26	14	746	A	O5'-P-OP1	-6.65	99.72	105.70
26	1H	445	C	N3-C2-O2	-6.64	117.25	121.90
26	1H	1266	G	C8-N9-C4	6.64	109.06	106.40
26	1H	2329	G	N7-C8-N9	-6.64	109.78	113.10
26	1H	1313	U	C2-N1-C1'	6.64	125.67	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	454	A	O5'-P-OP2	-6.64	99.72	105.70
26	1H	621	A	N3-C4-C5	6.64	131.45	126.80
26	1H	1053	C	C6-N1-C2	-6.64	117.64	120.30
26	14	774	A	N1-C2-N3	6.64	132.62	129.30
26	14	1644	C	N1-C2-O2	6.63	122.88	118.90
26	14	827	U	N1-C2-O2	-6.63	118.16	122.80
26	1H	410	G	N1-C6-O6	6.63	123.88	119.90
26	1H	1303	G	C5-C6-O6	6.63	132.58	128.60
26	14	1914	C	C6-N1-C2	-6.63	117.65	120.30
56	1L	18	G	OP1-P-O3'	6.63	119.78	105.20
26	1H	258	G	N3-C2-N2	6.63	124.54	119.90
26	1H	2401	U	C5-C6-N1	6.63	126.01	122.70
26	14	1614	A	C5-C6-N1	-6.63	114.39	117.70
26	1H	1804	C	O5'-P-OP1	6.62	118.65	110.70
26	1H	2469	A	C5-N7-C8	-6.62	100.59	103.90
1	13	5	U	N3-C2-O2	-6.62	117.56	122.20
26	1H	2275	C	N3-C2-O2	6.62	126.54	121.90
26	14	2507	C	C6-N1-C2	-6.62	117.65	120.30
26	1H	2250	G	C5-C6-O6	6.62	132.57	128.60
26	14	945	A	C4-C5-C6	6.62	120.31	117.00
26	1H	1644	C	N1-C2-O2	6.62	122.87	118.90
1	13	582	U	N1-C2-O2	6.62	127.43	122.80
26	1H	146	G	N1-C6-O6	6.62	123.87	119.90
1	13	19	C	C6-N1-C2	-6.61	117.66	120.30
26	1H	107	C	C5-C4-N4	-6.61	115.57	120.20
26	14	2596	U	N1-C2-N3	6.61	118.87	114.90
26	14	2776	A	P-O3'-C3'	6.61	127.64	119.70
26	1H	655	A	N7-C8-N9	6.61	117.11	113.80
26	14	2051	A	N7-C8-N9	6.61	117.11	113.80
26	14	1225	C	C6-N1-C2	6.61	122.94	120.30
1	1G	1469	G	N1-C6-O6	6.61	123.86	119.90
26	1H	663	G	C4-C5-C6	6.60	122.76	118.80
26	1H	702	G	C5-C6-N1	-6.60	108.20	111.50
26	1H	909	A	O5'-P-OP2	-6.60	99.76	105.70
26	1H	1426	G	N1-C6-O6	-6.60	115.94	119.90
26	1H	2502	G	N9-C4-C5	6.60	108.04	105.40
26	14	690	G	N7-C8-N9	-6.60	109.80	113.10
26	1H	2409	G	C4-C5-N7	6.59	113.44	110.80
26	14	84	A	C8-N9-C4	6.59	108.44	105.80
26	14	784	A	C5-C6-N1	-6.59	114.40	117.70
26	1H	2246	G	N3-C4-C5	-6.59	125.30	128.60
33	51	3	ARG	NE-CZ-NH2	6.59	123.59	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1431	C	C6-N1-C2	-6.59	117.66	120.30
26	14	679	C	N1-C2-O2	-6.59	114.94	118.90
26	1H	1162	G	C8-N9-C4	-6.59	103.76	106.40
26	1H	1905	C	OP1-P-OP2	-6.59	109.72	119.60
26	1H	1992	G	N3-C4-C5	-6.59	125.31	128.60
26	1H	1427	A	C6-N1-C2	-6.59	114.65	118.60
26	1H	2581	G	N1-C2-N2	-6.59	110.27	116.20
1	1G	1502	A	N7-C8-N9	6.59	117.09	113.80
26	14	2585	U	C2-N1-C1'	6.59	125.60	117.70
26	1H	811	U	O5'-P-OP1	-6.58	99.77	105.70
26	1H	930	U	N3-C4-O4	-6.58	114.79	119.40
26	1H	2751	G	N7-C8-N9	6.58	116.39	113.10
26	1H	691	C	N3-C2-O2	6.58	126.51	121.90
26	1H	2439	A	OP1-P-O3'	6.58	119.68	105.20
26	14	746	A	O5'-P-OP2	6.58	118.60	110.70
26	14	694	U	O5'-P-OP1	6.58	118.60	110.70
1	13	789	U	N3-C2-O2	-6.58	117.60	122.20
26	1H	1354	A	C2-N3-C4	-6.58	107.31	110.60
26	1H	1698	A	C4-C5-N7	6.58	113.99	110.70
29	11	39	LYS	N-CA-C	6.58	128.75	111.00
26	14	528	A	C8-N9-C1'	6.58	139.54	127.70
26	14	1506	C	C6-N1-C2	-6.58	117.67	120.30
1	13	219	C	C6-N1-C2	-6.57	117.67	120.30
1	1G	209	U	N3-C2-O2	-6.57	117.60	122.20
29	19	44	ASN	C-N-CA	6.57	138.13	121.70
1	13	1301	U	C5-C4-O4	-6.57	121.96	125.90
34	61	38	LEU	CA-CB-CG	6.57	130.41	115.30
26	14	2359	C	N3-C4-N4	-6.57	113.40	118.00
26	14	1610	A	OP1-P-O3'	6.57	119.64	105.20
26	1H	2418	A	C2-N3-C4	6.56	113.88	110.60
1	13	690	G	C4-C5-N7	6.56	113.42	110.80
26	1H	1624	G	N7-C8-N9	-6.56	109.82	113.10
1	1G	266	G	P-O3'-C3'	6.56	127.57	119.70
26	14	935	C	C6-N1-C2	6.56	122.92	120.30
26	14	1142(A)	A	C2-N3-C4	-6.56	107.32	110.60
26	1H	1332	G	N1-C2-N3	6.56	127.83	123.90
26	14	801	G	C6-C5-N7	6.56	134.34	130.40
26	14	1021	A	C2-N3-C4	-6.56	107.32	110.60
26	1H	1594	G	C8-N9-C4	-6.56	103.78	106.40
26	1H	74	A	N3-C4-C5	6.55	131.38	126.80
26	1H	2690	C	O5'-P-OP1	-6.55	99.81	105.70
27	16	79	C	C6-N1-C2	-6.55	117.68	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1994	C	O5'-P-OP2	-6.55	99.81	105.70
26	1H	585	G	O5'-P-OP1	-6.55	99.81	105.70
26	14	980	A	O5'-P-OP2	-6.55	99.81	105.70
26	1H	254	G	C5-C6-O6	-6.55	124.67	128.60
1	1G	812	C	C6-N1-C2	-6.55	117.68	120.30
26	14	1239	G	N1-C6-O6	6.55	123.83	119.90
26	14	1804	C	C6-N1-C2	-6.55	117.68	120.30
1	13	816	A	N9-C4-C5	6.54	108.42	105.80
26	1H	750	A	OP2-P-O3'	6.54	119.60	105.20
26	1H	1142(A)	A	N3-C4-C5	6.54	131.38	126.80
26	1H	1786	A	C5-C6-N1	-6.54	114.43	117.70
26	14	1086	A	O4'-C1'-N9	6.54	113.44	108.20
26	14	1189	A	OP1-P-OP2	-6.54	109.79	119.60
26	1H	780	G	OP2-P-O3'	6.54	119.59	105.20
26	1H	2430	A	C8-N9-C1'	6.54	139.47	127.70
47	H8	61	LEU	CA-CB-CG	6.54	130.34	115.30
26	14	1950	G	N1-C6-O6	-6.54	115.97	119.90
26	14	2388	A	O4'-C1'-N9	6.54	113.43	108.20
26	1H	395	U	N3-C2-O2	-6.54	117.62	122.20
1	13	328	C	C6-N1-C1'	-6.54	112.96	120.80
26	1H	865	C	C4-C5-C6	-6.53	114.13	117.40
1	13	1498	U	C5-C4-O4	-6.53	121.98	125.90
26	1H	774	A	C5-C6-N1	-6.53	114.44	117.70
26	14	1544	C	O4'-C1'-N1	6.53	113.42	108.20
26	14	1571	A	N1-C6-N6	6.53	122.52	118.60
26	14	811	U	C5-C4-O4	6.53	129.82	125.90
26	1H	1786	A	C4-N9-C1'	6.53	138.05	126.30
23	2K	27	G	C5-C6-O6	-6.53	124.69	128.60
26	1H	146	G	C5-C6-O6	-6.53	124.69	128.60
26	1H	1916	A	C8-N9-C4	-6.53	103.19	105.80
26	14	2605	U	N3-C4-O4	-6.52	114.83	119.40
26	14	2477	C	C6-N1-C2	-6.52	117.69	120.30
26	1H	1670	C	C4-C5-C6	6.52	120.66	117.40
26	1H	2609	U	O5'-P-OP2	-6.52	99.83	105.70
26	14	1904	G	C4-C5-N7	-6.52	108.19	110.80
1	13	768	A	O5'-P-OP2	-6.51	99.84	105.70
26	1H	1363	C	N3-C4-N4	-6.51	113.44	118.00
26	14	24	G	C2-N3-C4	-6.51	108.64	111.90
26	14	693	C	OP2-P-O3'	6.51	119.52	105.20
26	14	2229	C	C6-N1-C2	6.51	122.90	120.30
26	1H	966	G	N3-C2-N2	6.51	124.45	119.90
26	1H	955	C	O5'-P-OP2	-6.50	99.85	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	224	G	O5'-P-OP2	-6.50	99.85	105.70
26	1H	1321	A	C8-N9-C4	6.50	108.40	105.80
1	1G	1260	C	C5-C6-N1	6.50	124.25	121.00
26	14	486	C	N3-C4-N4	6.50	122.55	118.00
26	14	1984	G	C8-N9-C4	6.50	109.00	106.40
1	13	1158	C	C6-N1-C2	-6.50	117.70	120.30
1	13	1355	G	C8-N9-C4	-6.50	103.80	106.40
26	1H	202	U	C2-N1-C1'	6.50	125.50	117.70
26	1H	208	C	C6-N1-C2	6.50	122.90	120.30
26	1H	598	G	OP1-P-OP2	6.50	129.34	119.60
1	1G	666	G	C6-C5-N7	-6.50	126.50	130.40
26	1H	458	G	N9-C4-C5	6.49	108.00	105.40
26	1H	1210	A	N7-C8-N9	6.49	117.05	113.80
26	14	1327	C	N1-C2-O2	-6.49	115.00	118.90
26	14	1658	C	N3-C4-C5	-6.49	119.30	121.90
26	1H	71	A	N3-C4-C5	6.49	131.34	126.80
26	1H	1616	A	OP1-P-O3'	6.49	119.48	105.20
26	14	307	G	C6-C5-N7	-6.49	126.50	130.40
26	1H	1698	A	N7-C8-N9	6.49	117.05	113.80
26	1H	383	U	C2-N1-C1'	-6.49	109.91	117.70
26	14	1602	U	C5-C4-O4	6.49	129.79	125.90
26	1H	270(L)	U	C6-N1-C2	-6.48	117.11	121.00
26	1H	791	C	C6-N1-C2	6.48	122.89	120.30
26	1H	2417	C	O5'-P-OP1	6.48	118.48	110.70
26	1H	784	A	N9-C4-C5	6.48	108.39	105.80
26	14	871	U	O5'-P-OP2	6.48	118.48	110.70
26	1H	793	A	C5-C6-N6	-6.47	118.52	123.70
26	1H	1294	U	O5'-P-OP1	-6.47	99.87	105.70
26	14	840	C	C6-N1-C2	6.47	122.89	120.30
26	14	2281	C	C2-N1-C1'	6.47	125.92	118.80
26	14	2346	A	O4'-C1'-N9	6.47	113.38	108.20
26	1H	1654	A	C8-N9-C4	-6.47	103.21	105.80
26	14	1698	A	C4-C5-N7	6.47	113.93	110.70
26	1H	2250	G	C2-N3-C4	6.47	115.13	111.90
26	14	2446	G	O5'-P-OP2	-6.47	99.88	105.70
26	1H	391	G	C4-N9-C1'	6.46	134.91	126.50
26	1H	1890	A	N1-C6-N6	-6.46	114.72	118.60
26	1H	2042	A	O5'-P-OP2	-6.46	99.88	105.70
26	1H	1142(A)	A	N3-C4-N9	-6.46	122.23	127.40
1	1G	610	G	O5'-P-OP2	-6.46	99.89	105.70
26	1H	2620	C	N1-C2-O2	-6.46	115.02	118.90
26	14	2707	G	C5-C6-N1	6.46	114.73	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	741	G	O5'-P-OP2	6.46	118.45	110.70
26	14	2235	G	N3-C4-N9	6.46	129.88	126.00
1	13	550	G	N1-C6-O6	-6.46	116.03	119.90
1	13	974	A	C4-C5-N7	6.46	113.93	110.70
26	1H	668	G	OP1-P-O3'	6.46	119.40	105.20
26	14	1695	G	C4-N9-C1'	6.46	134.90	126.50
1	13	418	C	C6-N1-C2	-6.45	117.72	120.30
26	14	497	A	O5'-P-OP2	-6.45	99.89	105.70
26	1H	2502	G	OP2-P-O3'	6.45	119.39	105.20
26	14	330	A	N1-C6-N6	6.45	122.47	118.60
26	14	1334	G	O5'-P-OP2	6.45	118.44	110.70
26	1H	1678	G	C5-C6-O6	-6.45	124.73	128.60
26	14	1695	G	C6-C5-N7	-6.45	126.53	130.40
26	14	2392	A	C5-N7-C8	-6.45	100.68	103.90
26	14	2755	C	C6-N1-C2	-6.45	117.72	120.30
26	14	2578	G	C8-N9-C4	6.45	108.98	106.40
1	13	5	U	C6-N1-C1'	-6.45	112.18	121.20
26	1H	2591	C	N3-C4-N4	6.45	122.51	118.00
26	1H	1573	G	N9-C4-C5	-6.44	102.82	105.40
26	1H	1632	A	N9-C4-C5	-6.44	103.22	105.80
26	1H	2085	C	C6-N1-C2	6.44	122.88	120.30
26	14	1544	C	C6-N1-C1'	-6.44	113.07	120.80
26	1H	1013	C	N3-C2-O2	6.44	126.41	121.90
33	51	10	PRO	N-CA-C	6.44	128.84	112.10
26	14	2030	A	OP1-P-OP2	6.44	129.26	119.60
26	1H	398	G	C6-C5-N7	-6.44	126.54	130.40
26	1H	681	G	N7-C8-N9	-6.44	109.88	113.10
26	1H	2430	A	N1-C6-N6	6.44	122.46	118.60
26	14	736	C	O5'-P-OP1	-6.44	99.91	105.70
26	14	2426	A	N7-C8-N9	6.44	117.02	113.80
26	1H	2527	C	C6-N1-C2	-6.44	117.73	120.30
1	13	32	A	C8-N9-C4	-6.43	103.23	105.80
26	1H	1120	G	N1-C6-O6	6.43	123.76	119.90
26	1H	2436	G	O5'-P-OP2	-6.43	99.91	105.70
26	1H	73	A	C5-C6-N1	6.43	120.92	117.70
26	1H	860	U	C2-N1-C1'	6.43	125.42	117.70
26	14	2000	G	OP2-P-O3'	6.43	119.34	105.20
26	1H	246	C	C6-N1-C2	6.43	122.87	120.30
26	1H	672	C	O5'-P-OP1	6.43	118.41	110.70
26	1H	1480	G	N7-C8-N9	6.42	116.31	113.10
26	14	1407	C	C4-C5-C6	-6.42	114.19	117.40
26	14	729	G	N3-C2-N2	-6.42	115.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2443	C	C6-N1-C2	-6.42	117.73	120.30
42	85	95	LEU	CA-CB-CG	-6.42	100.54	115.30
26	1H	973	A	C2-N3-C4	-6.42	107.39	110.60
26	1H	1013	C	N1-C2-O2	-6.42	115.05	118.90
26	14	2508	G	C5-C6-O6	-6.42	124.75	128.60
26	14	1653	G	O5'-P-OP2	-6.42	99.93	105.70
26	14	2213	U	C5-C6-N1	6.41	125.91	122.70
26	14	1407	C	C5-C6-N1	6.41	124.21	121.00
26	14	1271	G	N3-C4-N9	6.41	129.85	126.00
26	14	1323	U	N1-C2-O2	-6.41	118.31	122.80
1	13	897	C	C5-C6-N1	-6.41	117.80	121.00
23	2K	18	U	N1-C2-O2	6.41	127.28	122.80
26	1H	635	C	C6-N1-C2	-6.41	117.74	120.30
26	14	1831	G	C2-N3-C4	-6.41	108.70	111.90
26	14	1985	G	N1-C6-O6	6.41	123.74	119.90
26	1H	2621	A	C8-N9-C4	6.40	108.36	105.80
26	14	2592	G	N3-C4-C5	-6.40	125.40	128.60
26	1H	2469	A	N1-C6-N6	6.40	122.44	118.60
1	1G	197	A	P-O3'-C3'	6.40	127.38	119.70
1	1G	690	G	O4'-C1'-N9	6.40	113.32	108.20
26	14	140	A	N1-C6-N6	6.40	122.44	118.60
26	14	388	G	C8-N9-C4	-6.40	103.84	106.40
26	14	1564	C	C5-C4-N4	6.40	124.68	120.20
26	14	2587	A	O5'-P-OP1	-6.40	99.94	105.70
1	13	789	U	C5-C4-O4	6.40	129.74	125.90
26	1H	2585	U	N3-C4-O4	-6.40	114.92	119.40
1	13	115	G	C8-N9-C4	-6.40	103.84	106.40
26	1H	245	G	C4-C5-N7	6.40	113.36	110.80
26	1H	1427	A	C8-N9-C4	-6.39	103.24	105.80
26	1H	2028	U	N3-C4-C5	-6.39	110.76	114.60
26	1H	2054	A	C4-C5-N7	6.39	113.90	110.70
23	2L	77	A	N1-C6-N6	6.39	122.44	118.60
1	13	977	A	N1-C6-N6	-6.39	114.76	118.60
26	1H	1940	U	N3-C4-O4	6.39	123.87	119.40
26	1H	776	G	OP1-P-OP2	6.39	129.18	119.60
26	1H	812	C	C6-N1-C2	-6.39	117.75	120.30
26	1H	2260	C	OP2-P-O3'	6.39	119.25	105.20
26	14	1427	A	N9-C4-C5	6.39	108.35	105.80
26	14	48	G	C8-N9-C4	-6.38	103.85	106.40
26	1H	698	C	C4-C5-C6	6.38	120.59	117.40
26	14	1801	G	N1-C6-O6	6.38	123.73	119.90
26	1H	2351	G	N3-C4-N9	6.38	129.83	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2447	G	C4-N9-C1'	-6.38	118.21	126.50
1	1G	450	G	N3-C4-C5	6.38	131.79	128.60
26	14	537	C	C5-C6-N1	6.38	124.19	121.00
23	2K	77	A	C4-C5-N7	6.38	113.89	110.70
26	1H	1308	A	N9-C4-C5	6.38	108.35	105.80
26	14	90	U	N1-C2-O2	6.38	127.26	122.80
57	3L	58	A	P-O3'-C3'	6.38	127.35	119.70
26	1H	2226	C	N3-C4-C5	6.37	124.45	121.90
26	1H	2827	C	N1-C2-O2	-6.37	115.08	118.90
37	78	49	ARG	NE-CZ-NH2	-6.37	117.11	120.30
1	1G	337	C	C6-N1-C2	-6.37	117.75	120.30
26	14	2502	G	C6-N1-C2	-6.37	121.28	125.10
26	14	1620	G	OP1-P-OP2	-6.37	110.04	119.60
26	1H	52	A	O5'-P-OP2	-6.37	99.97	105.70
26	1H	613	U	N1-C2-N3	6.37	118.72	114.90
26	1H	1575	C	C5-C6-N1	6.37	124.18	121.00
26	1H	2338	G	O5'-P-OP1	-6.37	99.97	105.70
26	14	2286	A	N7-C8-N9	6.37	116.98	113.80
1	13	422	C	C2-N1-C1'	6.36	125.80	118.80
23	2K	25	U	C5-C4-O4	6.36	129.72	125.90
26	1H	782	A	N1-C2-N3	6.36	132.48	129.30
26	1H	1672	C	O5'-P-OP1	-6.36	99.97	105.70
26	1H	1786	A	OP1-P-O3'	6.36	119.20	105.20
26	1H	2226	C	C6-N1-C2	6.36	122.84	120.30
26	14	1594	G	C8-N9-C4	-6.36	103.86	106.40
26	1H	72	U	N3-C4-O4	6.36	123.85	119.40
26	14	1950	G	N3-C2-N2	6.36	124.35	119.90
26	1H	945	A	C8-N9-C1'	-6.36	116.25	127.70
26	14	2011	U	N3-C2-O2	6.36	126.65	122.20
26	14	982	C	C5-C6-N1	6.36	124.18	121.00
26	1H	775	G	N3-C4-N9	6.36	129.81	126.00
1	1G	1488	G	C8-N9-C4	6.36	108.94	106.40
24	3K	36	U	OP1-P-O3'	6.35	119.18	105.20
26	1H	788	A	OP2-P-O3'	6.35	119.18	105.20
26	1H	1971	A	O5'-P-OP2	-6.35	99.98	105.70
26	1H	2443	C	O5'-P-OP1	-6.35	99.98	105.70
26	14	808	G	OP1-P-OP2	6.35	129.13	119.60
26	14	817	C	C5-C6-N1	6.35	124.17	121.00
26	1H	863	A	O5'-P-OP2	-6.35	99.99	105.70
26	14	1904	G	C5-C6-O6	6.35	132.41	128.60
26	14	2873	A	C4-N9-C1'	6.35	137.73	126.30
26	1H	222	A	P-O3'-C3'	6.35	127.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2476	A	N3-C4-C5	-6.35	122.36	126.80
26	1H	2573	C	N3-C4-N4	6.35	122.44	118.00
26	1H	1636	C	N1-C2-O2	-6.35	115.09	118.90
26	14	2247	A	N1-C6-N6	-6.35	114.79	118.60
27	1J	103	U	C5-C6-N1	-6.35	119.53	122.70
1	13	974	A	N1-C6-N6	6.34	122.41	118.60
26	1H	382	G	N9-C4-C5	-6.34	102.86	105.40
26	1H	1632	A	C5-C6-N6	-6.34	118.62	123.70
26	14	1025	G	N3-C4-C5	6.34	131.77	128.60
26	14	1655	A	N1-C6-N6	6.34	122.41	118.60
26	1H	1649	G	N3-C4-N9	6.34	129.81	126.00
26	14	945	A	O4'-C1'-N9	6.34	113.27	108.20
26	14	1618	A	N7-C8-N9	6.34	116.97	113.80
26	1H	1022	G	N3-C2-N2	-6.34	115.46	119.90
26	1H	742	G	C4-C5-N7	-6.34	108.27	110.80
26	14	1287	A	N1-C6-N6	-6.34	114.80	118.60
1	13	115	G	P-O3'-C3'	6.33	127.30	119.70
26	1H	1950	G	N3-C4-N9	-6.33	122.20	126.00
26	1H	1607	C	O5'-P-OP1	-6.33	100.00	105.70
26	1H	1616	A	C6-C5-N7	-6.33	127.87	132.30
26	1H	1809	A	C5-C6-N6	-6.33	118.64	123.70
26	14	675	A	C5-C6-N6	-6.33	118.64	123.70
1	13	1498	U	C2-N1-C1'	6.33	125.29	117.70
26	1H	127	A	N9-C4-C5	-6.33	103.27	105.80
26	1H	446	G	N9-C4-C5	-6.33	102.87	105.40
26	1H	729	G	C4-N9-C1'	6.33	134.73	126.50
26	14	1304	C	N3-C2-O2	-6.33	117.47	121.90
1	13	1502	A	C4-C5-N7	6.32	113.86	110.70
26	1H	2530	A	O5'-P-OP2	-6.32	100.01	105.70
26	14	804	A	C8-N9-C4	6.32	108.33	105.80
26	14	388	G	N3-C2-N2	-6.32	115.47	119.90
26	14	2432	A	N1-C6-N6	6.32	122.39	118.60
26	1H	808	G	O5'-P-OP2	-6.32	100.01	105.70
26	14	2502	G	N9-C4-C5	6.32	107.93	105.40
26	14	2822	G	N1-C6-O6	6.32	123.69	119.90
26	14	1640	C	N3-C2-O2	-6.32	117.48	121.90
27	16	81	G	C6-C5-N7	-6.32	126.61	130.40
1	1G	1157	A	P-O3'-C3'	6.32	127.28	119.70
26	14	1901	A	C2-N3-C4	6.32	113.76	110.60
26	1H	700	G	N1-C6-O6	6.31	123.69	119.90
26	1H	935	C	O5'-P-OP2	6.31	118.27	110.70
26	14	558	G	C8-N9-C4	6.31	108.92	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	239	U	C2-N1-C1'	-6.31	110.13	117.70
26	1H	1142(A)	A	C5-C6-N1	-6.31	114.55	117.70
26	1H	1314	C	N3-C2-O2	-6.30	117.49	121.90
26	1H	1779	U	O5'-P-OP2	-6.30	100.03	105.70
26	1H	2478	A	O5'-P-OP1	-6.30	100.03	105.70
26	14	1950	G	C5-C6-O6	6.30	132.38	128.60
26	1H	664	C	C6-N1-C2	6.30	122.82	120.30
26	1H	2519	U	N1-C2-O2	-6.30	118.39	122.80
26	1H	2581	G	N3-C2-N2	6.30	124.31	119.90
26	1H	1955	U	O4'-C1'-N1	6.30	113.24	108.20
26	1H	974(A)	C	N3-C2-O2	-6.30	117.49	121.90
26	14	1327	C	C2-N1-C1'	-6.30	111.87	118.80
22	1K	74	C	N1-C2-O2	6.30	122.68	118.90
26	1H	670	A	N9-C4-C5	-6.30	103.28	105.80
26	1H	1695	G	C8-N9-C1'	-6.30	118.82	127.00
26	14	2880	C	N3-C4-C5	-6.30	119.38	121.90
26	1H	62	C	C6-N1-C2	6.29	122.82	120.30
26	1H	2439	A	O5'-P-OP2	-6.29	100.03	105.70
26	14	1328	G	N3-C4-N9	6.29	129.78	126.00
26	1H	609	A	C5-C6-N6	-6.29	118.67	123.70
33	51	6	ARG	N-CA-C	-6.29	94.01	111.00
26	14	2873	A	C5-C6-N1	-6.29	114.55	117.70
26	1H	594	U	C6-N1-C2	6.29	124.78	121.00
26	14	1629	U	N1-C2-O2	-6.29	118.40	122.80
1	13	577	G	C8-N9-C4	6.29	108.92	106.40
26	1H	1204	A	C4-N9-C1'	6.29	137.62	126.30
26	1H	599	G	C5-N7-C8	6.29	107.44	104.30
26	1H	776	G	N3-C2-N2	-6.29	115.50	119.90
26	1H	405	U	N1-C2-O2	6.28	127.20	122.80
55	Q8	52	LYS	C-N-CD	-6.28	106.78	120.60
26	14	621	A	N1-C6-N6	6.28	122.37	118.60
1	13	773	G	O5'-P-OP2	-6.28	100.05	105.70
26	1H	2665	A	C6-C5-N7	-6.28	127.90	132.30
33	51	3	ARG	CG-CD-NE	6.28	124.99	111.80
26	14	1378	A	C8-N9-C4	6.28	108.31	105.80
26	1H	755	C	C6-N1-C2	-6.28	117.79	120.30
23	2K	73	A	C8-N9-C4	6.28	108.31	105.80
23	2L	48	U	P-O3'-C3'	6.28	127.23	119.70
26	1H	148	C	C2-N3-C4	-6.27	116.76	119.90
26	1H	2782	G	N1-C6-O6	6.27	123.66	119.90
1	13	1107	C	N3-C4-C5	-6.27	119.39	121.90
26	1H	68	G	C8-N9-C4	-6.27	103.89	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1187	G	O5'-P-OP2	-6.27	100.06	105.70
1	1G	1517	G	O5'-P-OP2	-6.27	100.06	105.70
26	14	2439	A	P-O3'-C3'	6.27	127.22	119.70
26	1H	245	G	C4-N9-C1'	6.27	134.65	126.50
26	1H	2751	G	C5-N7-C8	-6.27	101.17	104.30
26	1H	731	C	N3-C4-N4	6.26	122.39	118.00
26	1H	1304	C	N3-C4-C5	6.26	124.41	121.90
26	14	1386	C	C6-N1-C2	-6.26	117.79	120.30
26	14	2386	C	C5-C6-N1	-6.26	117.87	121.00
26	1H	411	G	N3-C4-C5	-6.26	125.47	128.60
26	1H	1201	C	N1-C2-O2	-6.26	115.14	118.90
26	1H	2054	A	C5-N7-C8	-6.26	100.77	103.90
26	1H	2336	A	C2-N3-C4	6.26	113.73	110.60
26	1H	735	A	C8-N9-C4	6.26	108.30	105.80
2	1E	14	GLY	N-CA-C	6.26	128.75	113.10
26	1H	2573	C	C6-N1-C2	-6.26	117.80	120.30
26	1H	983	A	C8-N9-C4	6.26	108.30	105.80
26	1H	1297	C	C6-N1-C2	-6.26	117.80	120.30
26	1H	2346	A	C8-N9-C1'	-6.26	116.44	127.70
26	14	1404	C	O5'-P-OP1	-6.26	100.07	105.70
26	1H	1198	U	N3-C4-O4	-6.25	115.02	119.40
26	14	2011	U	O5'-P-OP1	-6.25	100.07	105.70
26	1H	209	C	C5-C6-N1	-6.25	117.88	121.00
26	1H	270(O)	U	C5-C6-N1	6.25	125.83	122.70
26	14	120	U	OP1-P-OP2	-6.25	110.22	119.60
26	1H	2618	G	C8-N9-C4	-6.25	103.90	106.40
26	1H	1338	G	C2-N3-C4	6.25	115.02	111.90
26	1H	1614	A	C6-C5-N7	-6.25	127.93	132.30
26	1H	1990	C	C6-N1-C2	-6.25	117.80	120.30
29	19	271	ILE	N-CA-C	6.25	127.87	111.00
26	1H	44	A	C8-N9-C4	-6.25	103.30	105.80
26	1H	1614	A	O4'-C1'-N9	6.25	113.20	108.20
27	16	81	G	C4-C5-N7	6.25	113.30	110.80
1	1G	817	C	O5'-P-OP2	-6.25	100.08	105.70
26	14	1320	C	N3-C4-C5	-6.25	119.40	121.90
26	1H	1648	C	C2-N1-C1'	-6.25	111.93	118.80
26	14	2024	G	N1-C6-O6	6.25	123.65	119.90
1	13	41	G	C8-N9-C4	6.24	108.90	106.40
26	1H	279	C	C5-C6-N1	6.24	124.12	121.00
26	1H	308	G	C4-N9-C1'	6.24	134.62	126.50
26	1H	1623	G	N1-C2-N2	-6.24	110.58	116.20
26	1H	2377	A	N1-C6-N6	6.24	122.35	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2698	U	O5'-P-OP2	-6.24	100.08	105.70
26	14	4	C	C5-C6-N1	6.24	124.12	121.00
26	14	4	C	N1-C2-O2	6.24	122.64	118.90
26	14	212	G	O5'-P-OP2	-6.24	100.08	105.70
26	14	1406	U	C4-C5-C6	-6.24	115.96	119.70
26	1H	822	U	N1-C2-N3	6.24	118.64	114.90
26	14	2078	C	OP1-P-O3'	6.24	118.93	105.20
26	1H	403	U	N1-C2-O2	6.24	127.17	122.80
1	1G	1502	A	C8-N9-C4	-6.24	103.31	105.80
26	14	2593	U	C5-C4-O4	6.24	129.64	125.90
26	1H	188	G	OP1-P-OP2	6.23	128.95	119.60
26	1H	2430	A	C4-N9-C1'	-6.23	115.08	126.30
54	P8	23	ARG	NE-CZ-NH1	6.23	123.42	120.30
26	14	1404	C	N1-C2-O2	6.23	122.64	118.90
24	3K	76	A	C2-N3-C4	-6.23	107.48	110.60
26	1H	695	G	N1-C6-O6	-6.23	116.16	119.90
26	14	863	A	O5'-P-OP2	-6.23	100.09	105.70
26	14	1827	C	N3-C2-O2	-6.23	117.54	121.90
26	1H	121	G	C5-C6-N1	6.23	114.61	111.50
26	1H	2311	A	C5-N7-C8	-6.23	100.79	103.90
26	14	396	G	C8-N9-C4	-6.23	103.91	106.40
26	1H	732	C	C4-C5-C6	6.22	120.51	117.40
26	1H	1267	U	OP2-P-O3'	6.22	118.89	105.20
26	14	48	G	N9-C4-C5	6.22	107.89	105.40
26	1H	1204	A	C4-C5-C6	6.22	120.11	117.00
26	14	114	U	C2-N1-C1'	6.22	125.16	117.70
26	14	2210	G	C4-N9-C1'	6.22	134.59	126.50
26	1H	1905	C	C6-N1-C2	-6.22	117.81	120.30
1	1G	1127	G	O5'-P-OP1	-6.22	100.11	105.70
26	14	682	G	O5'-P-OP1	6.22	118.16	110.70
26	14	2297	C	O5'-P-OP1	-6.22	100.11	105.70
26	14	90	U	N3-C2-O2	-6.21	117.85	122.20
26	1H	906	G	C5-C6-O6	-6.21	124.87	128.60
26	14	1296	G	OP2-P-O3'	6.21	118.87	105.20
26	1H	849	A	C8-N9-C4	6.21	108.28	105.80
26	1H	1395	A	N7-C8-N9	-6.21	110.69	113.80
26	1H	2676	C	C6-N1-C2	6.21	122.78	120.30
26	14	574	C	N3-C4-N4	-6.21	113.65	118.00
8	7E	112	LEU	CA-CB-CG	6.21	129.58	115.30
26	1H	524	U	N3-C2-O2	-6.21	117.85	122.20
26	1H	1251	C	N1-C2-O2	6.21	122.62	118.90
26	1H	2708	G	C8-N9-C1'	-6.21	118.93	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	71	A	N1-C2-N3	6.21	132.41	129.30
1	13	897	C	N1-C2-O2	-6.21	115.18	118.90
27	16	98	G	C6-C5-N7	-6.21	126.68	130.40
1	1G	812	C	N3-C4-C5	-6.21	119.42	121.90
26	1H	434	U	O5'-P-OP2	-6.21	100.11	105.70
26	1H	946	G	O5'-P-OP1	-6.21	100.11	105.70
26	1H	1973	G	C8-N9-C4	-6.21	103.92	106.40
27	16	47	C	C6-N1-C2	6.20	122.78	120.30
26	1H	307	G	N3-C4-N9	6.20	129.72	126.00
1	13	67	C	C6-N1-C2	-6.20	117.82	120.30
26	1H	676	A	C8-N9-C4	-6.20	103.32	105.80
26	1H	764	A	N1-C6-N6	6.20	122.32	118.60
26	14	130	C	C6-N1-C2	6.20	122.78	120.30
26	14	267	C	N3-C2-O2	-6.20	117.56	121.90
26	14	684	G	N1-C6-O6	-6.20	116.18	119.90
26	14	1818	U	O5'-P-OP2	-6.20	100.12	105.70
26	1H	1555	G	C4-N9-C1'	6.20	134.56	126.50
26	1H	1653	G	N3-C4-C5	-6.20	125.50	128.60
26	1H	2447	G	C8-N9-C1'	6.20	135.06	127.00
26	14	2713	A	N1-C6-N6	6.20	122.32	118.60
26	1H	697	C	N1-C2-O2	-6.20	115.18	118.90
26	1H	2241	A	N1-C2-N3	6.20	132.40	129.30
26	1H	2516	G	O5'-P-OP2	-6.20	100.12	105.70
26	14	2279	G	C5-C6-O6	6.20	132.32	128.60
24	3K	60	U	C5-C6-N1	6.19	125.80	122.70
26	14	2087	G	N9-C4-C5	-6.19	102.92	105.40
26	1H	1817	G	C5-C6-O6	6.19	132.31	128.60
26	1H	1298	C	C6-N1-C2	-6.19	117.82	120.30
26	1H	71	A	O4'-C1'-N9	-6.19	103.25	108.20
26	1H	1777	U	OP2-P-O3'	6.19	118.81	105.20
12	3A	59	ARG	NE-CZ-NH1	6.19	123.39	120.30
26	14	2287	A	N3-C4-C5	6.19	131.13	126.80
1	13	31	G	P-O3'-C3'	6.18	127.12	119.70
26	14	676	A	O4'-C1'-N9	6.18	113.15	108.20
26	14	1658	C	N3-C4-N4	6.18	122.33	118.00
26	14	1992	G	N3-C4-C5	-6.18	125.51	128.60
26	1H	2007	C	O5'-P-OP2	-6.18	100.14	105.70
26	1H	2469	A	C4-C5-N7	6.18	113.79	110.70
49	J8	85	LEU	CA-CB-CG	-6.18	101.08	115.30
26	14	24	G	N3-C4-C5	6.18	131.69	128.60
26	14	1950	G	N3-C4-C5	-6.18	125.51	128.60
26	14	1187	G	N1-C6-O6	6.18	123.61	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	3E	87	GLY	N-CA-C	6.18	128.54	113.10
26	1H	658	C	O5'-P-OP1	6.18	118.11	110.70
26	1H	2286	A	C4-C5-C6	6.18	120.09	117.00
26	14	982	C	C6-N1-C2	-6.18	117.83	120.30
26	14	2307	G	N7-C8-N9	6.18	116.19	113.10
26	1H	28	A	C2-N3-C4	6.17	113.69	110.60
26	1H	71	A	C5-C6-N6	-6.17	118.76	123.70
26	1H	1197	G	OP2-P-O3'	6.17	118.78	105.20
26	1H	1437	C	N3-C2-O2	-6.17	117.58	121.90
26	1H	2319	G	N9-C4-C5	-6.17	102.93	105.40
26	1H	433	C	OP2-P-O3'	6.17	118.77	105.20
26	1H	410	G	O5'-P-OP1	-6.17	100.15	105.70
26	14	1258	C	OP2-P-O3'	6.17	118.77	105.20
26	1H	1125	G	N7-C8-N9	-6.17	110.02	113.10
26	1H	1359	A	N1-C6-N6	6.17	122.30	118.60
26	14	2387	U	N3-C4-C5	6.17	118.30	114.60
26	1H	966	G	N1-C2-N2	-6.16	110.65	116.20
26	1H	1344	G	C4-C5-N7	6.16	113.27	110.80
26	14	602	G	C4-N9-C1'	6.16	134.51	126.50
1	1G	197	A	N7-C8-N9	6.16	116.88	113.80
26	1H	789	A	O5'-P-OP1	-6.16	100.16	105.70
26	1H	845	G	N1-C2-N2	-6.16	110.66	116.20
26	1H	2712	U	C5-C4-O4	-6.16	122.20	125.90
33	59	153	LYS	C-N-CD	6.16	141.34	128.40
26	1H	508	G	N9-C1'-C2'	6.16	122.01	114.00
26	1H	1569	A	O4'-C1'-N9	6.16	113.13	108.20
26	14	1928	A	C8-N9-C4	6.16	108.26	105.80
26	1H	127	A	C4-C5-N7	6.16	113.78	110.70
1	13	690	G	C8-N9-C1'	-6.16	119.00	127.00
1	13	826	C	C6-N1-C2	-6.16	117.84	120.30
26	14	2449	U	C5-C4-O4	-6.16	122.21	125.90
26	1H	974(A)	C	N3-C4-C5	-6.15	119.44	121.90
26	1H	839	U	OP1-P-OP2	6.15	128.83	119.60
26	14	2818	G	C5-C6-O6	-6.15	124.91	128.60
1	13	516	U	C6-N1-C2	-6.15	117.31	121.00
26	1H	911	A	N1-C6-N6	6.15	122.29	118.60
1	1G	1322	C	C2-N1-C1'	6.15	125.56	118.80
26	14	2319	G	N1-C6-O6	-6.15	116.21	119.90
1	13	1096	C	C6-N1-C2	-6.15	117.84	120.30
1	1G	1449	C	C6-N1-C1'	-6.15	113.42	120.80
23	2K	6	G	N9-C4-C5	-6.14	102.94	105.40
26	1H	982	C	C5-C6-N1	6.14	124.07	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2271	G	N3-C4-N9	6.14	129.69	126.00
26	14	2362	G	C8-N9-C4	6.14	108.86	106.40
26	1H	1147	C	C5-C6-N1	-6.14	117.93	121.00
26	1H	1259	G	C8-N9-C4	6.14	108.86	106.40
26	1H	1279	G	N1-C6-O6	-6.14	116.21	119.90
26	1H	2250	G	N1-C6-O6	-6.14	116.21	119.90
26	1H	2424	C	C2-N3-C4	6.14	122.97	119.90
26	1H	134	C	N3-C2-O2	-6.14	117.60	121.90
26	1H	1393	A	OP1-P-O3'	6.14	118.71	105.20
26	1H	1555	G	O5'-P-OP1	-6.14	100.17	105.70
26	14	1352	U	O5'-P-OP2	-6.14	100.17	105.70
26	1H	330	A	C5-N7-C8	-6.14	100.83	103.90
26	1H	462	C	OP1-P-OP2	6.14	128.81	119.60
26	14	102	G	O4'-C1'-N9	6.14	113.11	108.20
26	14	2576	G	C8-N9-C4	6.14	108.86	106.40
26	14	2689	U	P-O3'-C3'	6.14	127.07	119.70
26	1H	1568	G	N1-C6-O6	6.14	123.58	119.90
26	1H	2427	C	N1-C2-O2	-6.14	115.22	118.90
1	1G	1301	U	C6-N1-C1'	-6.14	112.61	121.20
26	14	267	C	N1-C2-O2	6.14	122.58	118.90
26	1H	2419	U	OP1-P-O3'	6.13	118.69	105.20
26	1H	763	G	OP2-P-O3'	6.13	118.69	105.20
1	1G	117	G	C5-C6-O6	-6.13	124.92	128.60
26	1H	187	G	C4-N9-C1'	6.13	134.47	126.50
26	1H	2439	A	O4'-C1'-N9	-6.13	103.30	108.20
26	14	2688	U	N3-C2-O2	-6.13	117.91	122.20
1	13	520	A	N1-C2-N3	6.13	132.36	129.30
1	13	575	G	N3-C4-N9	-6.13	122.33	126.00
1	13	690	G	C8-N9-C4	-6.13	103.95	106.40
26	14	1700	A	O5'-P-OP1	-6.13	100.19	105.70
26	14	1972	A	OP2-P-O3'	6.13	118.68	105.20
26	14	2542	A	N7-C8-N9	-6.13	110.74	113.80
26	1H	2012	G	C8-N9-C4	6.12	108.85	106.40
26	1H	2488	A	C6-C5-N7	-6.12	128.01	132.30
26	14	125	G	N9-C4-C5	-6.12	102.95	105.40
26	1H	1423	G	N3-C2-N2	6.12	124.19	119.90
26	14	947	G	N3-C2-N2	-6.12	115.61	119.90
26	14	1818	U	OP1-P-O3'	6.12	118.67	105.20
26	1H	2330	G	C8-N9-C4	6.12	108.85	106.40
26	14	1289	C	O5'-P-OP1	-6.12	100.19	105.70
26	14	2078	C	O5'-P-OP2	6.12	118.05	110.70
26	1H	2699	C	C5-C6-N1	-6.12	117.94	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2346	A	C2-N3-C4	-6.12	107.54	110.60
26	1H	805	G	OP1-P-O3'	6.12	118.66	105.20
26	1H	1308	A	N1-C2-N3	6.12	132.36	129.30
26	1H	2019	A	N1-C6-N6	6.12	122.27	118.60
26	14	1616	A	C5-C6-N1	-6.12	114.64	117.70
26	14	2617	C	C6-N1-C2	6.12	122.75	120.30
26	1H	683	C	N3-C4-C5	6.12	124.35	121.90
26	1H	848	G	C8-N9-C1'	-6.12	119.05	127.00
26	14	2607	G	C6-C5-N7	-6.12	126.73	130.40
1	13	576	G	N1-C6-O6	6.12	123.57	119.90
1	13	1414	U	OP2-P-O3'	6.12	118.66	105.20
26	1H	211	A	OP2-P-O3'	6.12	118.66	105.20
26	1H	1899	G	C5-C6-N1	-6.12	108.44	111.50
1	13	575	G	O5'-P-OP2	-6.11	100.20	105.70
26	1H	203	C	N3-C2-O2	6.11	126.18	121.90
26	1H	2577	A	C5-C6-N6	6.11	128.59	123.70
1	1G	555	C	C6-N1-C2	-6.11	117.86	120.30
26	14	570	G	C8-N9-C4	-6.11	103.95	106.40
26	1H	48	G	N1-C6-O6	-6.11	116.23	119.90
26	14	974(A)	C	N3-C2-O2	-6.11	117.62	121.90
26	14	1757	U	C2-N1-C1'	-6.11	110.37	117.70
26	14	2313	C	C6-N1-C2	-6.11	117.86	120.30
1	13	956	U	C6-N1-C2	-6.11	117.33	121.00
26	1H	2681	C	N1-C2-O2	6.11	122.56	118.90
26	14	265	A	C4-C5-N7	6.11	113.75	110.70
26	14	1309	G	N1-C6-O6	6.11	123.56	119.90
1	13	974	A	C6-C5-N7	-6.11	128.03	132.30
26	1H	974(A)	C	N1-C2-O2	6.11	122.56	118.90
26	1H	2330	G	N9-C4-C5	-6.11	102.96	105.40
26	1H	2453	A	N9-C4-C5	6.11	108.24	105.80
26	14	1772	G	O5'-P-OP2	-6.11	100.20	105.70
26	1H	1695	G	C6-C5-N7	-6.10	126.74	130.40
26	14	1347	G	OP1-P-O3'	6.10	118.62	105.20
26	1H	1285	G	C5-C6-O6	-6.10	124.94	128.60
26	1H	1647	G	C4-C5-N7	-6.10	108.36	110.80
26	1H	1767	C	C2-N3-C4	-6.10	116.85	119.90
1	1G	449	C	C6-N1-C2	-6.10	117.86	120.30
26	14	1805	U	O5'-P-OP1	-6.10	100.21	105.70
1	13	36	C	C6-N1-C2	-6.10	117.86	120.30
26	1H	1937	A	C4-C5-C6	6.10	120.05	117.00
26	1H	1157	G	N1-C6-O6	6.09	123.56	119.90
26	1H	2429	G	OP2-P-O3'	6.09	118.61	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	69	C	C6-N1-C2	-6.09	117.86	120.30
1	13	1203	C	C6-N1-C2	-6.09	117.86	120.30
1	13	437	U	C2-N1-C1'	6.09	125.01	117.70
26	1H	1313	U	N3-C4-C5	-6.09	110.95	114.60
26	14	558	G	N7-C8-N9	-6.09	110.06	113.10
26	1H	961	C	OP1-P-O3'	6.09	118.59	105.20
26	1H	1333	C	C6-N1-C2	-6.09	117.86	120.30
26	14	2279	G	N3-C2-N2	6.09	124.16	119.90
26	14	2430	A	C5-C6-N1	-6.08	114.66	117.70
26	14	792	G	O4'-C1'-N9	-6.08	103.33	108.20
26	1H	247	G	C4-C5-N7	6.08	113.23	110.80
26	1H	1691	C	C6-N1-C2	-6.08	117.87	120.30
26	1H	2555	U	N1-C2-N3	6.08	118.55	114.90
26	14	1302	A	OP1-P-OP2	6.08	128.72	119.60
26	1H	1374	G	N1-C6-O6	6.08	123.55	119.90
26	1H	2607	G	N3-C2-N2	6.08	124.15	119.90
1	13	1498	U	P-O3'-C3'	6.07	126.99	119.70
26	1H	410	G	N3-C2-N2	-6.07	115.65	119.90
26	1H	1158	C	C2-N3-C4	-6.07	116.86	119.90
26	1H	1858	G	N1-C6-O6	6.07	123.54	119.90
26	1H	2345	G	C8-N9-C4	-6.07	103.97	106.40
26	14	2243	U	OP1-P-OP2	6.07	128.71	119.60
26	14	1385	G	O4'-C1'-N9	6.07	113.06	108.20
26	14	2256	G	O5'-P-OP2	-6.07	100.24	105.70
1	1G	913	A	P-O3'-C3'	6.07	126.98	119.70
1	13	1096	C	C5-C6-N1	6.07	124.03	121.00
26	1H	126	A	C5-C6-N6	6.07	128.55	123.70
26	1H	738	G	N7-C8-N9	6.07	116.13	113.10
26	1H	569	U	C6-N1-C2	6.07	124.64	121.00
26	1H	915	C	N3-C2-O2	-6.07	117.65	121.90
26	1H	2599	G	C5-N7-C8	6.07	107.33	104.30
26	14	1616	A	N1-C6-N6	6.07	122.24	118.60
26	14	1742	C	C5-C6-N1	6.07	124.03	121.00
26	1H	2286	A	N7-C8-N9	6.06	116.83	113.80
26	1H	249	C	C6-N1-C2	-6.06	117.88	120.30
26	1H	2575	C	C5-C6-N1	-6.06	117.97	121.00
26	14	1698	A	C2-N3-C4	-6.06	107.57	110.60
26	14	1801	G	C4-C5-N7	6.06	113.22	110.80
26	14	2590	A	C8-N9-C4	6.06	108.22	105.80
1	13	776	G	O5'-P-OP1	-6.06	100.25	105.70
26	14	1831	G	N1-C6-O6	6.06	123.54	119.90
26	1H	49	A	C5-N7-C8	6.06	106.93	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1573	G	C8-N9-C4	6.06	108.82	106.40
26	14	1446	C	C6-N1-C2	-6.06	117.88	120.30
55	M5	48	PHE	CA-C-N	6.06	130.53	117.20
26	1H	1344	G	N1-C6-O6	6.06	123.53	119.90
26	14	856	C	C6-N1-C2	-6.06	117.88	120.30
26	14	1784	A	N1-C6-N6	-6.06	114.97	118.60
26	1H	1993	U	OP2-P-O3'	6.06	118.52	105.20
1	13	1502	A	N1-C6-N6	6.05	122.23	118.60
1	13	1533	C	C6-N1-C1'	-6.05	113.53	120.80
26	1H	1174	A	N9-C1'-C2'	-6.05	105.34	112.00
26	1H	669	G	N9-C4-C5	6.05	107.82	105.40
1	13	760	G	N1-C6-O6	6.05	123.53	119.90
26	1H	245	G	C8-N9-C1'	-6.05	119.13	127.00
26	1H	247	G	N3-C2-N2	6.05	124.14	119.90
26	1H	693	C	O5'-P-OP2	-6.05	100.25	105.70
26	14	2023	G	N1-C6-O6	6.05	123.53	119.90
26	14	2713	A	C4-C5-N7	6.05	113.72	110.70
26	1H	1304	C	O5'-P-OP1	6.05	117.96	110.70
26	1H	2587	A	C2-N3-C4	-6.05	107.58	110.60
43	D8	40	LEU	CA-CB-CG	6.05	129.21	115.30
26	14	265	A	N7-C8-N9	6.05	116.83	113.80
26	1H	223	A	O5'-P-OP2	-6.05	100.26	105.70
26	1H	698	C	OP1-P-OP2	6.05	128.67	119.60
26	1H	1899	G	C4-C5-N7	-6.05	108.38	110.80
26	14	1366	A	O5'-P-OP2	-6.05	100.26	105.70
1	13	865	A	N1-C6-N6	6.04	122.23	118.60
26	1H	732	C	C6-N1-C2	-6.04	117.88	120.30
26	1H	2587	A	N1-C2-N3	6.04	132.32	129.30
26	1H	2242	G	C5-C6-O6	6.04	132.23	128.60
26	1H	764	A	C2-N3-C4	-6.04	107.58	110.60
26	1H	848	G	C8-N9-C4	6.04	108.82	106.40
26	1H	1369	G	N3-C4-C5	-6.04	125.58	128.60
26	14	677	A	C8-N9-C4	-6.04	103.38	105.80
26	14	1783	A	C5-C6-N6	6.04	128.53	123.70
26	1H	130	C	C6-N1-C2	6.04	122.72	120.30
26	1H	183	C	N3-C2-O2	-6.04	117.67	121.90
26	1H	1501	C	O5'-P-OP2	6.04	117.94	110.70
26	1H	2028	U	N3-C4-O4	6.04	123.63	119.40
26	14	226	G	N1-C6-O6	6.04	123.52	119.90
34	61	77	LEU	CA-CB-CG	6.04	129.18	115.30
1	13	727	G	O5'-P-OP1	-6.03	100.27	105.70
1	13	910	C	N3-C4-C5	6.03	124.31	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1227	A	N1-C6-N6	6.03	122.22	118.60
26	1H	865	C	OP1-P-OP2	-6.03	110.56	119.60
26	1H	2477	C	C6-N1-C2	-6.03	117.89	120.30
26	1H	59	U	C6-N1-C2	-6.03	117.38	121.00
24	3K	12	U	C5-C6-N1	6.03	125.71	122.70
1	1G	687	A	P-O3'-C3'	6.03	126.93	119.70
1	13	1408	A	C8-N9-C4	-6.03	103.39	105.80
26	1H	1658	C	N3-C4-N4	6.03	122.22	118.00
26	1H	2540	C	C6-N1-C2	6.03	122.71	120.30
26	14	41	C	C6-N1-C2	6.03	122.71	120.30
26	14	380	U	O5'-P-OP2	-6.03	100.28	105.70
26	14	833	U	N1-C2-O2	-6.03	118.58	122.80
1	13	254	G	O5'-P-OP1	-6.02	100.28	105.70
26	1H	210	C	C6-N1-C2	6.02	122.71	120.30
26	1H	1327	C	N3-C4-C5	-6.02	119.49	121.90
26	1H	1332	G	N3-C4-C5	6.02	131.61	128.60
26	14	1657	C	N3-C4-C5	6.02	124.31	121.90
26	14	1938	A	N1-C6-N6	6.02	122.21	118.60
26	1H	333	G	C4-N9-C1'	6.02	134.33	126.50
26	1H	743	G	O5'-P-OP1	-6.02	100.28	105.70
26	14	2251	G	C8-N9-C1'	-6.02	119.18	127.00
1	13	896	C	C6-N1-C2	6.02	122.71	120.30
1	13	1489	G	N7-C8-N9	-6.02	110.09	113.10
26	1H	1644	C	C5-C6-N1	6.02	124.01	121.00
26	1H	2450	A	C5-C6-N6	6.02	128.51	123.70
26	1H	2590	A	C2-N3-C4	-6.02	107.59	110.60
26	1H	1109	C	N3-C2-O2	-6.01	117.69	121.90
26	1H	1654	A	C5-C6-N6	6.01	128.51	123.70
26	1H	1698	A	C5-C6-N1	-6.01	114.69	117.70
26	1H	2607	G	C4-C5-N7	6.01	113.21	110.80
26	14	188	G	N9-C4-C5	-6.01	102.99	105.40
1	13	577	G	N9-C4-C5	-6.01	103.00	105.40
26	1H	2275	C	OP1-P-O3'	6.01	118.42	105.20
26	1H	2304	G	O5'-P-OP1	-6.01	100.29	105.70
1	13	1525	G	OP1-P-OP2	-6.01	110.59	119.60
26	1H	119	A	N1-C6-N6	-6.01	114.99	118.60
26	1H	764	A	OP1-P-OP2	-6.01	110.59	119.60
26	1H	1817	G	N1-C6-O6	-6.01	116.29	119.90
26	1H	1927	A	N3-C4-C5	-6.01	122.59	126.80
26	14	1520	U	C5-C4-O4	6.01	129.51	125.90
26	14	2779	U	N1-C2-O2	6.01	127.01	122.80
26	1H	1962	C	N3-C4-C5	-6.01	119.50	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2503	A	C2-N3-C4	6.01	113.60	110.60
1	13	509	A	C8-N9-C4	-6.01	103.40	105.80
1	13	584	G	N1-C6-O6	-6.00	116.30	119.90
26	1H	2689	U	C5-C6-N1	-6.00	119.70	122.70
26	14	866	A	N9-C4-C5	-6.00	103.40	105.80
26	1H	1510	A	C2-N3-C4	6.00	113.60	110.60
26	1H	2287	A	N3-C4-N9	-6.00	122.60	127.40
26	14	1791	A	O5'-P-OP2	6.00	117.90	110.70
26	1H	453	C	C2-N1-C1'	-6.00	112.20	118.80
26	14	911	A	C8-N9-C4	-6.00	103.40	105.80
26	14	2447	G	P-O3'-C3'	6.00	126.90	119.70
26	1H	1616	A	C8-N9-C4	-6.00	103.40	105.80
26	14	1904	G	N1-C6-O6	-6.00	116.30	119.90
26	14	2866	U	O5'-P-OP2	-6.00	100.30	105.70
27	1J	60	C	C5-C6-N1	6.00	124.00	121.00
26	1H	2394	C	O5'-P-OP2	-6.00	100.31	105.70
1	1G	1438	G	C8-N9-C4	5.99	108.80	106.40
26	14	792	G	N3-C4-N9	5.99	129.60	126.00
26	14	1992	G	C8-N9-C4	-5.99	104.00	106.40
26	14	2593	U	N3-C2-O2	-5.99	118.00	122.20
26	1H	1210	A	C5-C6-N6	-5.99	118.91	123.70
26	1H	1299	G	O5'-P-OP2	5.99	117.89	110.70
26	1H	1616	A	C5-C6-N6	-5.99	118.91	123.70
26	14	2447	G	N9-C4-C5	5.99	107.80	105.40
26	1H	596	G	O5'-P-OP2	5.99	117.89	110.70
26	1H	1502	C	C6-N1-C2	-5.99	117.90	120.30
26	1H	1567	A	OP1-P-O3'	5.99	118.38	105.20
26	1H	2441	C	N1-C2-O2	5.99	122.49	118.90
26	14	1374	G	N3-C4-N9	5.99	129.59	126.00
1	13	253	U	O5'-P-OP2	5.99	117.89	110.70
26	1H	126	A	C4-C5-N7	-5.99	107.71	110.70
26	1H	2368	C	C6-N1-C2	-5.99	117.91	120.30
57	3L	76	A	O4'-C1'-N9	5.99	112.99	108.20
26	14	2273	A	O5'-P-OP2	-5.99	100.31	105.70
26	14	1277	G	C8-N9-C4	5.99	108.79	106.40
26	14	138	G	C8-N9-C4	-5.98	104.01	106.40
26	14	866	A	C8-N9-C1'	-5.98	116.93	127.70
26	14	1313	U	N1-C2-O2	-5.98	118.61	122.80
26	1H	265	A	O4'-C1'-N9	5.98	112.99	108.20
26	1H	469	G	N1-C6-O6	-5.98	116.31	119.90
26	1H	1607	C	OP1-P-OP2	5.98	128.57	119.60
26	14	2713	A	C2-N3-C4	-5.98	107.61	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	569	U	C5-C6-N1	-5.98	119.71	122.70
26	14	602	G	C6-C5-N7	-5.98	126.81	130.40
26	1H	391	G	C4-C5-C6	5.98	122.39	118.80
26	1H	2712	U	N3-C4-C5	5.98	118.19	114.60
26	14	288	C	C2-N1-C1'	5.98	125.38	118.80
26	1H	2429	G	N9-C4-C5	5.98	107.79	105.40
26	14	1313	U	O5'-P-OP2	-5.98	100.32	105.70
26	14	2012	G	C6-C5-N7	-5.98	126.81	130.40
1	13	748	C	C5-C6-N1	5.97	123.99	121.00
26	1H	2465	C	C2-N3-C4	-5.97	116.91	119.90
26	14	141	A	C5-N7-C8	-5.97	100.91	103.90
26	14	1154	G	N1-C6-O6	5.97	123.48	119.90
26	1H	648	G	N3-C2-N2	-5.97	115.72	119.90
1	13	428	G	N3-C2-N2	-5.97	115.72	119.90
26	1H	1654	A	N1-C6-N6	-5.97	115.02	118.60
26	14	485	C	C6-N1-C2	-5.97	117.91	120.30
26	1H	1809	A	N1-C6-N6	5.97	122.18	118.60
26	1H	1972	A	C5-C6-N6	-5.97	118.92	123.70
26	14	1976	U	N1-C2-O2	-5.97	118.62	122.80
26	1H	918	A	C8-N9-C4	-5.97	103.41	105.80
26	14	747	U	N3-C2-O2	5.97	126.38	122.20
26	14	921	G	C8-N9-C4	-5.97	104.01	106.40
26	1H	777	A	OP2-P-O3'	5.96	118.32	105.20
43	D8	94	LEU	CA-CB-CG	5.96	129.02	115.30
26	1H	117	G	C5-C6-O6	-5.96	125.02	128.60
27	16	41	U	C5-C6-N1	-5.96	119.72	122.70
1	1G	925	G	N1-C6-O6	5.96	123.48	119.90
1	13	1227	A	N7-C8-N9	5.96	116.78	113.80
26	1H	793	A	N1-C6-N6	5.96	122.17	118.60
27	16	115	G	C5-N7-C8	-5.96	101.32	104.30
26	14	704	G	N1-C6-O6	5.96	123.47	119.90
26	14	2543	G	C8-N9-C4	5.96	108.78	106.40
26	14	1598	C	O5'-P-OP2	5.96	117.85	110.70
1	13	758	G	N1-C6-O6	5.96	123.47	119.90
1	13	843	U	N1-C2-O2	5.95	126.97	122.80
1	13	1260	C	C6-N1-C2	-5.95	117.92	120.30
1	13	1402	C	C4-C5-C6	5.95	120.38	117.40
26	1H	1403	C	N1-C2-O2	5.95	122.47	118.90
26	14	1257	C	N3-C4-C5	-5.95	119.52	121.90
26	1H	2830	G	C8-N9-C4	-5.95	104.02	106.40
26	14	669	G	C2-N3-C4	5.95	114.88	111.90
26	1H	1905	C	OP1-P-O3'	5.95	118.29	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2827	C	N3-C2-O2	5.95	126.06	121.90
26	14	974	G	N9-C4-C5	5.95	107.78	105.40
26	14	1775	U	N3-C4-O4	-5.95	115.23	119.40
26	1H	1566	A	C8-N9-C4	-5.95	103.42	105.80
26	14	1204	A	C5-C6-N1	-5.95	114.72	117.70
26	1H	1021	A	C5-C6-N1	-5.95	114.73	117.70
26	1H	125	G	N3-C2-N2	5.95	124.06	119.90
26	1H	2558	C	N3-C4-C5	5.95	124.28	121.90
26	1H	2590	A	OP1-P-O3'	5.95	118.28	105.20
26	1H	439	G	O5'-P-OP2	5.94	117.83	110.70
26	1H	699	A	N1-C6-N6	5.94	122.17	118.60
1	13	1491	G	OP2-P-O3'	5.94	118.27	105.20
26	1H	773	U	N1-C2-N3	5.94	118.47	114.90
26	1H	2288	A	N9-C4-C5	-5.94	103.42	105.80
26	14	782	A	C6-N1-C2	-5.94	115.03	118.60
26	1H	2286	A	C8-N9-C1'	-5.94	117.01	127.70
26	1H	2422	A	N9-C4-C5	5.94	108.18	105.80
26	14	1698	A	C5-N7-C8	-5.94	100.93	103.90
26	14	2441	C	N3-C2-O2	-5.94	117.74	121.90
26	14	1327	C	N3-C2-O2	5.94	126.06	121.90
1	13	1065	U	P-O3'-C3'	5.94	126.83	119.70
26	1H	1403	C	C6-N1-C2	-5.94	117.92	120.30
26	14	1908	C	N3-C4-C5	-5.94	119.53	121.90
1	13	32	A	N7-C8-N9	5.94	116.77	113.80
26	1H	746	A	C6-N1-C2	-5.94	115.04	118.60
26	1H	2688	U	C4-C5-C6	5.94	123.26	119.70
26	14	2502	G	C2-N3-C4	5.94	114.87	111.90
26	1H	815	C	O5'-P-OP1	5.93	117.82	110.70
42	C8	74	LEU	CA-CB-CG	5.93	128.95	115.30
26	14	1727	U	C5-C4-O4	5.93	129.46	125.90
26	14	2023	G	C4-C5-N7	5.93	113.17	110.80
1	13	970	C	C6-N1-C2	-5.93	117.93	120.30
26	1H	49	A	N7-C8-N9	-5.93	110.83	113.80
26	1H	1624	G	C8-N9-C4	5.93	108.77	106.40
26	1H	1764	G	C5-C6-O6	5.93	132.16	128.60
26	1H	2254	C	N1-C2-O2	-5.93	115.34	118.90
26	1H	122	G	C8-N9-C4	5.93	108.77	106.40
49	J8	41	ARG	NE-CZ-NH1	5.93	123.27	120.30
1	1G	690	G	C2-N3-C4	-5.93	108.94	111.90
26	14	559	G	C5-C6-N1	-5.93	108.53	111.50
26	14	1778	U	O5'-P-OP1	-5.93	100.36	105.70
26	1H	337	C	C6-N1-C2	5.93	122.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2428	G	P-O3'-C3'	5.93	126.81	119.70
1	13	765	G	N3-C4-C5	-5.93	125.64	128.60
1	13	1512	U	O5'-P-OP2	-5.93	100.37	105.70
26	1H	424	G	C5-C6-O6	-5.93	125.05	128.60
26	1H	1368	G	C4-N9-C1'	5.93	134.21	126.50
1	13	903	G	O5'-P-OP2	-5.92	100.37	105.70
26	1H	1837	C	C6-N1-C2	-5.92	117.93	120.30
26	1H	1879	C	C6-N1-C2	-5.92	117.93	120.30
26	1H	1950	G	N3-C4-C5	5.92	131.56	128.60
26	1H	2465	C	C6-N1-C2	5.92	122.67	120.30
1	1G	117	G	C6-C5-N7	-5.92	126.85	130.40
56	1L	3	G	OP1-P-O3'	5.92	118.22	105.20
1	13	1128	C	N3-C2-O2	-5.92	117.76	121.90
56	1L	74	C	C2-N1-C1'	5.92	125.31	118.80
1	13	1455	G	N3-C4-C5	5.92	131.56	128.60
26	14	774	A	C4-C5-N7	5.92	113.66	110.70
26	14	2237	G	N1-C2-N2	-5.92	110.87	116.20
26	14	2725	A	N3-C4-C5	5.92	130.94	126.80
1	13	111	G	N3-C4-C5	5.92	131.56	128.60
26	1H	2441	C	C5-C4-N4	5.92	124.34	120.20
1	1G	585	G	N3-C4-C5	-5.92	125.64	128.60
1	1G	1206	G	C6-C5-N7	-5.92	126.85	130.40
26	14	1899	G	C4-N9-C1'	-5.92	118.81	126.50
1	13	1279	A	C4-N9-C1'	5.91	136.95	126.30
26	1H	728	G	O5'-P-OP2	-5.91	100.38	105.70
26	14	2755	C	C2-N1-C1'	5.91	125.30	118.80
26	1H	609	A	C4-C5-N7	5.91	113.66	110.70
26	1H	630	G	C2-N3-C4	-5.91	108.94	111.90
26	1H	2713	A	N3-C4-C5	5.91	130.94	126.80
1	13	752	G	N1-C6-O6	5.91	123.45	119.90
1	13	760	G	C6-C5-N7	-5.91	126.85	130.40
26	1H	1990	C	N3-C4-C5	-5.91	119.54	121.90
49	J8	80	LEU	CA-CB-CG	5.91	128.89	115.30
26	1H	585	G	OP2-P-O3'	5.91	118.20	105.20
1	1G	1028	C	C5-C6-N1	5.91	123.95	121.00
26	14	2424	C	O5'-P-OP1	-5.91	100.38	105.70
1	13	761	G	N3-C4-N9	5.91	129.54	126.00
26	1H	2318	G	O4'-C1'-N9	5.91	112.92	108.20
26	14	733	G	C6-C5-N7	-5.91	126.86	130.40
26	1H	2377	A	C2-N3-C4	-5.90	107.65	110.60
1	13	728	A	C8-N9-C4	-5.90	103.44	105.80
26	1H	788	A	C5-C6-N1	-5.90	114.75	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1142	U	O5'-P-OP1	5.90	117.78	110.70
26	1H	1626	G	O5'-P-OP2	5.90	117.78	110.70
1	13	366	C	O5'-P-OP1	-5.90	100.39	105.70
22	1K	61	C	N1-C2-O2	5.90	122.44	118.90
26	1H	1274	A	C8-N9-C4	-5.90	103.44	105.80
26	1H	641	C	O5'-P-OP1	-5.90	100.39	105.70
1	1G	748	C	P-O3'-C3'	5.90	126.78	119.70
26	14	2012	G	C4-C5-N7	5.90	113.16	110.80
26	1H	686	G	C6-C5-N7	-5.89	126.86	130.40
26	1H	1394	U	C6-N1-C2	-5.89	117.46	121.00
26	1H	1678	G	C6-C5-N7	-5.89	126.86	130.40
26	14	2012	G	N1-C6-O6	5.89	123.44	119.90
26	1H	2507	C	N3-C2-O2	-5.89	117.78	121.90
26	14	809	G	OP1-P-O3'	5.89	118.17	105.20
26	14	2346	A	C4-N9-C1'	5.89	136.91	126.30
1	13	749	C	C2-N1-C1'	5.89	125.28	118.80
26	1H	145	G	N7-C8-N9	-5.89	110.16	113.10
26	1H	941	A	OP1-P-OP2	-5.89	110.77	119.60
26	1H	1331	A	N9-C4-C5	5.89	108.16	105.80
26	1H	2639	A	C2-N3-C4	-5.89	107.66	110.60
26	14	1386	C	N3-C4-C5	-5.89	119.54	121.90
26	14	2030	A	N1-C6-N6	5.89	122.13	118.60
26	14	2523	G	N1-C6-O6	5.89	123.43	119.90
31	39	68	LYS	C-N-CA	-5.89	106.97	121.70
1	13	1524	C	N3-C4-C5	5.89	124.25	121.90
26	1H	1192	G	O5'-P-OP2	-5.89	100.40	105.70
26	14	130	C	N3-C4-C5	5.89	124.25	121.90
1	13	437	U	C6-N1-C2	-5.89	117.47	121.00
26	1H	461	C	C4-C5-C6	5.89	120.34	117.40
26	14	802	A	C6-N1-C2	-5.89	115.07	118.60
26	1H	2688	U	N3-C4-O4	-5.88	115.28	119.40
1	1G	518	C	O5'-P-OP1	5.88	117.76	110.70
34	69	12	LEU	CB-CG-CD1	5.88	121.00	111.00
27	16	49	C	C5-C6-N1	5.88	123.94	121.00
26	1H	464	U	O5'-P-OP2	5.88	117.76	110.70
26	1H	802	A	OP2-P-O3'	5.88	118.14	105.20
26	14	74	A	C6-C5-N7	-5.88	128.18	132.30
26	14	330	A	C4-C5-N7	5.88	113.64	110.70
26	14	461	C	C6-N1-C2	-5.88	117.95	120.30
26	1H	859	G	N3-C4-C5	5.88	131.54	128.60
26	1H	1918	A	C4-C5-N7	5.88	113.64	110.70
26	1H	2199	A	C8-N9-C4	-5.88	103.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2822	G	N9-C4-C5	-5.88	103.05	105.40
29	11	85	ASP	C-N-CD	5.88	140.75	128.40
26	14	866	A	C4-N9-C1'	5.88	136.88	126.30
26	14	1280	G	O5'-P-OP2	5.88	117.75	110.70
26	14	1313	U	N3-C4-O4	5.88	123.52	119.40
26	1H	1776	G	C5-C6-O6	-5.88	125.07	128.60
26	14	1187	G	N7-C8-N9	5.88	116.04	113.10
26	14	529	A	C6-C5-N7	-5.88	128.19	132.30
26	14	2439	A	C6-C5-N7	-5.88	128.19	132.30
23	2K	18	U	C6-N1-C1'	-5.87	112.98	121.20
26	1H	404	C	P-O3'-C3'	5.87	126.75	119.70
26	1H	699	A	N1-C2-N3	-5.87	126.36	129.30
26	1H	1332	G	C8-N9-C4	-5.87	104.05	106.40
1	1G	1181	G	N3-C4-N9	5.87	129.52	126.00
26	14	1656	C	N1-C2-O2	-5.87	115.38	118.90
26	14	1822	G	O5'-P-OP2	5.87	117.75	110.70
26	14	2828	C	N1-C2-O2	-5.87	115.38	118.90
26	1H	793	A	O5'-P-OP2	-5.87	100.42	105.70
26	1H	2607	G	N1-C2-N2	-5.87	110.92	116.20
26	14	2598	A	C8-N9-C4	5.87	108.15	105.80
26	1H	1784	A	O4'-C1'-N9	-5.87	103.50	108.20
26	1H	2368	C	N1-C2-O2	5.87	122.42	118.90
26	1H	1480	G	C8-N9-C4	-5.87	104.05	106.40
26	14	2477	C	N3-C2-O2	-5.87	117.79	121.90
26	1H	1558	A	P-O3'-C3'	5.87	126.74	119.70
26	1H	2676	C	N3-C4-C5	5.87	124.25	121.90
26	14	530	G	C4-C5-C6	5.87	122.32	118.80
26	14	1681	G	C4-C5-N7	5.87	113.15	110.80
23	2K	21	U	C2-N1-C1'	5.87	124.74	117.70
26	1H	667	U	N3-C4-O4	5.87	123.51	119.40
26	14	585	G	C6-C5-N7	-5.87	126.88	130.40
26	14	2502	G	OP2-P-O3'	5.87	118.10	105.20
26	1H	1654	A	N9-C4-C5	5.86	108.14	105.80
26	14	252	G	C2-N3-C4	5.86	114.83	111.90
26	14	1742	C	C6-N1-C2	-5.86	117.95	120.30
26	1H	1348	G	O5'-P-OP1	-5.86	100.42	105.70
26	1H	141	A	O5'-P-OP2	-5.86	100.43	105.70
26	1H	729	G	OP2-P-O3'	5.86	118.09	105.20
26	1H	1464	C	C6-N1-C2	-5.86	117.96	120.30
26	1H	1603	A	OP1-P-O3'	5.86	118.09	105.20
26	1H	1793	C	OP2-P-O3'	5.86	118.09	105.20
26	1H	1918	A	C8-N9-C4	5.86	108.14	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	123	G	N1-C6-O6	5.86	123.41	119.90
26	1H	947	G	N3-C4-C5	5.86	131.53	128.60
26	14	945	A	C5-C6-N1	-5.86	114.77	117.70
26	14	1187	G	C8-N9-C4	-5.86	104.06	106.40
25	4K	18	G	P-O3'-C3'	5.86	126.73	119.70
26	1H	117	G	C4-C5-N7	5.86	113.14	110.80
1	1G	666	G	N1-C6-O6	5.86	123.41	119.90
26	14	764	A	C2-N3-C4	5.86	113.53	110.60
26	14	2378	A	C8-N9-C4	5.86	108.14	105.80
26	1H	1495	A	OP1-P-O3'	5.85	118.08	105.20
26	1H	2525	G	N1-C6-O6	5.85	123.41	119.90
26	1H	394	A	N1-C6-N6	-5.85	115.09	118.60
26	14	2581	G	C8-N9-C4	-5.85	104.06	106.40
26	1H	693	C	C6-N1-C1'	5.85	127.82	120.80
26	1H	1904	G	OP2-P-O3'	5.85	118.07	105.20
26	14	2638	G	C5-C6-O6	5.85	132.11	128.60
26	1H	862	G	N3-C4-C5	-5.85	125.67	128.60
26	1H	1502	C	C5-C6-N1	5.85	123.92	121.00
26	14	912	C	C6-N1-C2	-5.85	117.96	120.30
26	14	2447	G	OP1-P-OP2	-5.85	110.83	119.60
26	1H	254	G	N1-C6-O6	5.85	123.41	119.90
26	14	278	A	OP1-P-O3'	5.85	118.06	105.20
26	14	1616	A	O4'-C1'-N9	5.85	112.88	108.20
26	1H	1160	G	C8-N9-C4	-5.85	104.06	106.40
1	13	792	A	O4'-C1'-N9	5.84	112.88	108.20
26	1H	82	G	OP1-P-O3'	5.84	118.06	105.20
26	14	803	U	O5'-P-OP1	5.84	117.71	110.70
26	14	2283	C	N1-C2-O2	-5.84	115.39	118.90
26	1H	1928	A	N1-C2-N3	-5.84	126.38	129.30
26	14	761	A	N1-C6-N6	-5.84	115.09	118.60
26	14	2251	G	C4-N9-C1'	5.84	134.09	126.50
26	14	2573	C	N3-C4-N4	5.84	122.09	118.00
26	1H	628	G	C4-C5-N7	-5.84	108.47	110.80
26	1H	672	C	O5'-P-OP2	-5.84	100.45	105.70
26	1H	860	U	C6-N1-C1'	-5.84	113.03	121.20
26	14	1342	A	N1-C2-N3	5.84	132.22	129.30
26	14	2418	A	N1-C6-N6	5.84	122.10	118.60
1	13	1205	U	N1-C2-N3	5.83	118.40	114.90
26	1H	2039	C	C6-N1-C2	-5.83	117.97	120.30
26	1H	2416	C	O5'-P-OP2	-5.83	100.45	105.70
26	14	247	G	C8-N9-C4	5.83	108.73	106.40
26	14	676	A	C4-C5-N7	5.83	113.62	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	32	A	N1-C2-N3	5.83	132.22	129.30
26	1H	318	C	OP1-P-O3'	5.83	118.03	105.20
26	1H	2059	A	C2-N3-C4	-5.83	107.68	110.60
1	13	1452	C	O4'-C1'-N1	5.83	112.86	108.20
26	1H	74	A	O4'-C1'-N9	-5.83	103.54	108.20
26	1H	1189	A	OP1-P-O3'	5.83	118.02	105.20
26	1H	1760	A	C8-N9-C4	-5.83	103.47	105.80
26	14	2547	U	O5'-P-OP2	-5.83	100.46	105.70
26	1H	893	C	P-O3'-C3'	5.82	126.69	119.70
27	16	103	U	O5'-P-OP1	5.82	117.69	110.70
1	1G	1071	C	N1-C2-O2	5.82	122.39	118.90
26	14	775	G	N1-C2-N2	-5.82	110.96	116.20
26	14	2425	A	O4'-C1'-N9	5.82	112.86	108.20
1	13	1525	G	C8-N9-C4	5.82	108.73	106.40
26	14	621	A	C8-N9-C4	-5.82	103.47	105.80
26	14	871	U	C5-C6-N1	5.82	125.61	122.70
26	1H	495	G	N1-C6-O6	5.82	123.39	119.90
26	1H	775	G	N1-C2-N2	-5.82	110.97	116.20
26	1H	1351	C	N1-C2-O2	-5.82	115.41	118.90
26	1H	1443	G	N1-C6-O6	5.82	123.39	119.90
26	14	2243	U	O5'-P-OP1	-5.82	100.46	105.70
26	1H	1555	G	N3-C4-C5	-5.82	125.69	128.60
26	14	1166	C	C6-N1-C2	-5.82	117.97	120.30
26	14	1409	C	OP1-P-OP2	5.82	128.32	119.60
26	14	2239	G	N3-C2-N2	5.82	123.97	119.90
26	1H	695	G	N3-C2-N2	5.81	123.97	119.90
26	1H	2501	C	C5-C6-N1	-5.81	118.09	121.00
26	14	1257	C	N1-C2-O2	-5.81	115.41	118.90
26	14	2023	G	C6-C5-N7	-5.81	126.91	130.40
26	14	2430	A	O5'-P-OP1	-5.81	100.47	105.70
26	1H	99	U	O4'-C1'-N1	5.81	112.85	108.20
26	1H	1593	G	OP1-P-O3'	5.81	117.98	105.20
26	1H	2082	A	O5'-P-OP2	-5.81	100.47	105.70
26	1H	2429	G	N3-C4-N9	-5.81	122.51	126.00
26	1H	211	A	N9-C4-C5	-5.81	103.48	105.80
26	14	684	G	C2-N3-C4	5.81	114.80	111.90
26	14	2245	U	OP1-P-OP2	-5.81	110.89	119.60
26	1H	444	C	O5'-P-OP1	5.81	117.67	110.70
26	1H	1690	A	O5'-P-OP1	-5.81	100.47	105.70
26	1H	2686	G	N3-C4-C5	-5.81	125.70	128.60
26	1H	2844	G	C6-C5-N7	-5.81	126.92	130.40
26	14	1819	A	O5'-P-OP1	-5.81	100.47	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	39	80	ALA	C-N-CD	5.81	140.59	128.40
1	13	1407	C	C5-C6-N1	5.80	123.90	121.00
26	1H	762	U	C2-N1-C1'	5.80	124.67	117.70
26	1H	1969	A	O5'-P-OP2	5.80	117.67	110.70
26	1H	250	G	C8-N9-C4	-5.80	104.08	106.40
26	1H	910	A	C5-C6-N1	-5.80	114.80	117.70
26	1H	1564	C	N3-C4-N4	-5.80	113.94	118.00
26	14	2056	G	C4-N9-C1'	5.80	134.04	126.50
26	1H	2392	A	N3-C4-C5	5.80	130.86	126.80
26	14	1443	G	C6-C5-N7	-5.80	126.92	130.40
26	1H	933	A	O5'-P-OP2	-5.80	100.48	105.70
26	14	1304	C	N3-C4-N4	-5.80	113.94	118.00
26	14	2387	U	C6-N1-C2	5.80	124.48	121.00
26	14	2565	A	N9-C4-C5	-5.80	103.48	105.80
26	1H	1674	G	O4'-C1'-N9	-5.80	103.56	108.20
26	1H	601	C	N3-C4-C5	5.79	124.22	121.90
26	14	1642	G	C5-C6-N1	5.79	114.40	111.50
1	1G	335	C	N1-C2-O2	5.79	122.38	118.90
26	1H	452	G	C2-N3-C4	5.79	114.80	111.90
26	1H	2061	G	OP1-P-O3'	5.79	117.94	105.20
26	14	1216	G	C5-C6-N1	-5.79	108.61	111.50
1	1G	561	U	OP1-P-O3'	5.79	117.94	105.20
26	1H	1834	U	C2-N1-C1'	5.79	124.64	117.70
26	14	602	G	C8-N9-C1'	-5.79	119.48	127.00
26	1H	706	A	O5'-P-OP1	-5.79	100.49	105.70
1	13	509	A	C2'-C3'-O3'	5.78	122.95	113.70
26	1H	750	A	OP1-P-O3'	-5.78	92.48	105.20
26	14	537	C	C6-N1-C2	-5.78	117.99	120.30
26	14	2387	U	N3-C2-O2	-5.78	118.15	122.20
26	1H	2395	C	C5-C4-N4	-5.78	116.15	120.20
1	1G	894	G	N1-C6-O6	5.78	123.37	119.90
1	13	1407	C	C2-N3-C4	5.78	122.79	119.90
26	1H	1625	C	N1-C2-O2	5.78	122.37	118.90
33	51	153	LYS	C-N-CA	5.78	146.28	122.00
1	1G	1487	G	N3-C2-N2	-5.78	115.85	119.90
26	14	1602	U	N3-C4-C5	-5.78	111.13	114.60
26	14	2237	G	N3-C2-N2	5.78	123.95	119.90
26	14	288	C	N1-C2-O2	5.78	122.37	118.90
26	1H	148	C	C6-N1-C2	5.78	122.61	120.30
26	14	1618	A	N1-C6-N6	-5.78	115.13	118.60
26	1H	259	G	N9-C4-C5	-5.78	103.09	105.40
26	1H	640	C	OP1-P-O3'	5.78	117.91	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1363	C	OP2-P-O3'	5.78	117.91	105.20
26	1H	1607	C	N1-C2-O2	5.77	122.36	118.90
26	14	182	A	N1-C6-N6	5.77	122.06	118.60
26	1H	184	C	C5-C4-N4	5.77	124.24	120.20
26	1H	684	G	N3-C4-C5	-5.77	125.71	128.60
26	1H	1402	C	OP2-P-O3'	5.77	117.90	105.20
26	1H	1807	G	C6-C5-N7	-5.77	126.94	130.40
26	14	1323	U	N3-C2-O2	5.77	126.24	122.20
26	14	1964	G	C5-C6-O6	5.77	132.06	128.60
1	13	896	C	C5-C6-N1	-5.77	118.11	121.00
26	1H	141(A)	C	OP2-P-O3'	5.77	117.89	105.20
26	1H	566	U	C6-N1-C2	5.77	124.46	121.00
26	1H	928	G	C5-C6-O6	-5.77	125.14	128.60
26	1H	1125	G	C6-C5-N7	5.77	133.86	130.40
26	1H	1125	G	C8-N9-C4	5.77	108.71	106.40
26	1H	1912	A	P-O3'-C3'	5.77	126.62	119.70
26	1H	746	A	N1-C2-N3	5.77	132.18	129.30
26	1H	841	A	N1-C6-N6	5.77	122.06	118.60
26	14	2279	G	N1-C2-N2	-5.77	111.01	116.20
26	14	2593	U	N1-C2-O2	5.77	126.84	122.80
26	1H	838	C	C5-C6-N1	-5.76	118.12	121.00
26	1H	2448	A	C5-N7-C8	-5.76	101.02	103.90
1	1G	301	G	N1-C6-O6	5.76	123.36	119.90
26	14	2267	A	OP1-P-OP2	5.76	128.25	119.60
26	1H	1274	A	N7-C8-N9	5.76	116.68	113.80
26	1H	676	A	N1-C2-N3	5.76	132.18	129.30
26	1H	859	G	C8-N9-C4	5.76	108.70	106.40
26	1H	1697	G	N9-C4-C5	-5.76	103.09	105.40
26	1H	1852	C	N1-C2-O2	-5.76	115.44	118.90
1	1G	1270	C	C6-N1-C2	-5.76	118.00	120.30
26	1H	49	A	N3-C4-N9	5.76	132.01	127.40
26	1H	461	C	N3-C4-C5	-5.76	119.60	121.90
26	1H	1366	A	C5-C6-N6	-5.76	119.09	123.70
26	14	190	A	N1-C6-N6	5.76	122.06	118.60
26	14	1978	A	OP2-P-O3'	5.76	117.87	105.20
26	1H	834	C	N3-C4-N4	5.76	122.03	118.00
1	13	562	C	O5'-P-OP2	-5.76	100.52	105.70
26	1H	1918	A	N1-C6-N6	5.76	122.05	118.60
26	1H	2476	A	N7-C8-N9	5.76	116.68	113.80
26	1H	2525	G	N1-C2-N2	5.76	121.38	116.20
26	1H	791	C	OP2-P-O3'	5.75	117.86	105.20
26	1H	1901	A	C2-N3-C4	5.75	113.48	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	248	G	N3-C4-C5	-5.75	125.72	128.60
26	1H	1674	G	C4-N9-C1'	5.75	133.98	126.50
26	1H	2711	A	OP1-P-O3'	5.75	117.86	105.20
27	16	111	U	C5-C4-O4	5.75	129.35	125.90
46	G8	84	ARG	N-CA-C	-5.75	95.46	111.00
26	14	252	G	C4-C5-N7	-5.75	108.50	110.80
26	14	1336	A	C5-C6-N1	5.75	120.58	117.70
23	2K	58	A	O5'-P-OP2	5.75	117.60	110.70
26	1H	1157	G	C8-N9-C1'	-5.75	119.53	127.00
1	1G	511	C	O4'-C1'-N1	5.75	112.80	108.20
26	14	2065	C	C6-N1-C2	-5.75	118.00	120.30
26	1H	598	G	O5'-P-OP2	-5.75	100.53	105.70
26	1H	1053	C	N1-C2-O2	5.75	122.35	118.90
26	1H	1300	U	C6-N1-C2	-5.75	117.55	121.00
26	1H	2422	A	C5-C6-N6	5.75	128.30	123.70
26	14	1022	G	P-O3'-C3'	5.75	126.60	119.70
26	1H	146	G	C8-N9-C4	5.74	108.70	106.40
26	1H	458	G	C4-C5-N7	-5.74	108.50	110.80
26	1H	1937	A	O5'-P-OP1	5.74	117.59	110.70
1	1G	690	G	N1-C6-O6	5.74	123.35	119.90
26	14	783	A	N3-C4-N9	-5.74	122.81	127.40
26	14	1574	C	C6-N1-C2	-5.74	118.00	120.30
26	14	2598	A	N9-C4-C5	-5.74	103.50	105.80
26	14	1704	G	N1-C6-O6	5.74	123.34	119.90
1	13	1205	U	N1-C2-O2	-5.74	118.78	122.80
26	14	788	A	C6-C5-N7	-5.74	128.28	132.30
26	14	1022	G	N9-C4-C5	5.74	107.69	105.40
26	14	1314	C	C6-N1-C1'	-5.74	113.92	120.80
26	14	1950	G	N7-C8-N9	5.74	115.97	113.10
1	1G	1270	C	C5-C6-N1	5.74	123.87	121.00
26	14	74	A	N1-C6-N6	5.74	122.04	118.60
26	14	79	G	C5-C6-O6	-5.74	125.16	128.60
26	14	2346	A	C5-N7-C8	-5.74	101.03	103.90
1	13	749	C	N1-C2-O2	5.73	122.34	118.90
26	14	195	A	C2-N3-C4	-5.73	107.73	110.60
26	14	447	A	O4'-C1'-N9	-5.73	103.61	108.20
26	1H	845	G	C5-N7-C8	-5.73	101.43	104.30
1	1G	328	C	C2-N1-C1'	5.73	125.11	118.80
26	1H	1497	U	OP1-P-O3'	5.73	117.81	105.20
26	14	1656	C	C6-N1-C2	-5.73	118.01	120.30
26	1H	700	G	N3-C2-N2	-5.73	115.89	119.90
1	13	509	A	C6-N1-C2	-5.73	115.16	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1140	C	C6-N1-C2	-5.73	118.01	120.30
26	1H	788	A	C8-N9-C4	5.73	108.09	105.80
26	1H	1967	C	N3-C2-O2	-5.73	117.89	121.90
26	1H	2283	C	N1-C2-O2	-5.73	115.46	118.90
26	14	929	G	N7-C8-N9	5.73	115.96	113.10
26	14	792	G	N3-C2-N2	5.73	123.91	119.90
26	14	2056	G	N3-C4-N9	5.73	129.44	126.00
26	14	2818	G	C8-N9-C4	5.73	108.69	106.40
26	1H	445	C	N3-C4-C5	-5.72	119.61	121.90
26	1H	1216	G	C8-N9-C4	-5.72	104.11	106.40
26	1H	1786	A	C8-N9-C1'	-5.72	117.40	127.70
26	1H	2333	A	C2-N3-C4	5.72	113.46	110.60
26	14	786	C	N3-C4-N4	-5.72	113.99	118.00
26	14	1569	A	O4'-C1'-N9	5.72	112.78	108.20
26	14	2239	G	N3-C4-N9	5.72	129.43	126.00
26	1H	308	G	N3-C4-N9	5.72	129.43	126.00
26	1H	1022	G	C6-N1-C2	-5.72	121.67	125.10
27	16	49	C	N3-C4-N4	5.72	122.00	118.00
26	14	198	C	C6-N1-C2	-5.72	118.01	120.30
26	14	2587	A	N1-C6-N6	5.72	122.03	118.60
1	13	900	A	N1-C6-N6	5.72	122.03	118.60
26	1H	847	U	C2-N3-C4	-5.72	123.57	127.00
26	1H	1229(A)	G	O5'-P-OP2	-5.72	100.55	105.70
26	14	951	C	OP1-P-O3'	5.72	117.78	105.20
26	14	1373	A	N7-C8-N9	-5.72	110.94	113.80
26	14	1786	A	N1-C2-N3	5.72	132.16	129.30
1	13	1158	C	N3-C2-O2	-5.72	117.90	121.90
26	1H	761	A	O5'-P-OP2	-5.72	100.55	105.70
27	16	96	G	C2-N3-C4	5.72	114.76	111.90
29	11	39	LYS	C-N-CA	5.72	135.99	121.70
26	1H	758	C	N3-C4-C5	5.72	124.19	121.90
26	1H	845	G	N3-C2-N2	5.72	123.90	119.90
26	1H	58	G	C8-N9-C4	-5.71	104.11	106.40
26	14	2387	U	C2-N3-C4	-5.71	123.57	127.00
26	1H	1272	A	O4'-C1'-N9	5.71	112.77	108.20
26	1H	749	C	N3-C2-O2	-5.71	117.90	121.90
26	1H	1278	A	N1-C6-N6	5.71	122.03	118.60
26	1H	2276	G	N3-C4-N9	5.71	129.43	126.00
26	1H	2019	A	N7-C8-N9	5.71	116.66	113.80
26	1H	449	A	OP1-P-OP2	-5.71	111.04	119.60
26	1H	1035	U	C5-C4-O4	5.71	129.32	125.90
23	2K	17	C	C2-N1-C1'	5.71	125.08	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2246	G	C5-N7-C8	5.71	107.15	104.30
26	14	1599	C	N3-C4-C5	-5.71	119.62	121.90
26	1H	1336	A	C6-C5-N7	5.71	136.29	132.30
1	13	1103	C	O5'-P-OP2	-5.70	100.57	105.70
26	1H	400	G	C5-C6-O6	-5.70	125.18	128.60
26	1H	1800	C	N3-C4-C5	-5.70	119.62	121.90
27	16	45	A	N7-C8-N9	5.70	116.65	113.80
26	14	188	G	C8-N9-C4	5.70	108.68	106.40
26	1H	566	U	OP1-P-O3'	5.70	117.74	105.20
26	1H	2508	G	C5-N7-C8	-5.70	101.45	104.30
27	16	24	G	N3-C4-C5	-5.70	125.75	128.60
1	1G	123	C	O5'-P-OP2	-5.70	100.57	105.70
1	13	1281	U	N1-C2-O2	5.70	126.79	122.80
26	1H	142	G	N3-C4-C5	5.70	131.45	128.60
26	14	2444	G	C5-C6-O6	5.70	132.02	128.60
26	1H	2242	G	C6-C5-N7	5.70	133.82	130.40
27	1J	8	U	O5'-P-OP2	-5.70	100.57	105.70
23	2K	17	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	73	A	C2-N3-C4	5.70	113.45	110.60
26	1H	593	G	OP1-P-OP2	5.70	128.14	119.60
26	1H	2555	U	N1-C2-O2	-5.70	118.81	122.80
26	1H	2592	G	O5'-P-OP2	-5.70	100.57	105.70
26	14	216	A	N9-C4-C5	-5.70	103.52	105.80
26	14	801	G	C4-N9-C1'	-5.70	119.10	126.50
26	1H	2056	G	N3-C4-C5	-5.69	125.75	128.60
26	14	534	U	O5'-P-OP2	-5.69	100.58	105.70
26	14	801	G	C8-N9-C1'	5.69	134.40	127.00
26	1H	601	C	N1-C2-O2	5.69	122.31	118.90
26	1H	674	G	C8-N9-C4	5.69	108.68	106.40
26	1H	1649	G	C4-N9-C1'	5.69	133.90	126.50
26	1H	2330	G	C4-C5-N7	5.69	113.08	110.80
26	14	836	G	OP1-P-OP2	-5.69	111.07	119.60
26	14	2490	G	N1-C6-O6	-5.69	116.49	119.90
26	1H	1521	G	C8-N9-C4	-5.69	104.12	106.40
26	1H	2026	C	C4-C5-C6	5.69	120.24	117.40
26	14	198	C	C5-C6-N1	5.69	123.84	121.00
26	1H	195	A	O5'-P-OP1	5.69	117.52	110.70
26	1H	949	C	N3-C2-O2	5.69	125.88	121.90
26	1H	966	G	O5'-P-OP2	-5.69	100.58	105.70
26	14	967	C	O5'-P-OP2	-5.69	100.58	105.70
26	1H	1579	A	C8-N9-C4	-5.69	103.53	105.80
26	1H	1632	A	C6-C5-N7	-5.68	128.32	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2000	G	O5'-P-OP1	5.68	117.52	110.70
26	1H	2639	A	C5-N7-C8	-5.68	101.06	103.90
26	1H	2032	G	C5-N7-C8	5.68	107.14	104.30
26	1H	2508	G	C6-C5-N7	-5.68	126.99	130.40
23	2L	77	A	C8-N9-C4	5.68	108.07	105.80
1	13	955	U	C5-C6-N1	5.68	125.54	122.70
26	1H	1602	U	O5'-P-OP2	5.68	117.52	110.70
26	1H	2611	U	N3-C4-C5	5.68	118.01	114.60
26	14	330	A	C5-N7-C8	-5.68	101.06	103.90
26	14	771	G	OP1-P-O3'	5.68	117.70	105.20
26	1H	950	G	N3-C4-C5	-5.68	125.76	128.60
26	1H	1210	A	C8-N9-C4	-5.68	103.53	105.80
26	14	784	A	C5-C6-N6	5.68	128.24	123.70
26	1H	669	G	N1-C2-N2	5.68	121.31	116.20
39	98	75	LEU	CA-CB-CG	5.68	128.36	115.30
26	1H	1192	G	N1-C6-O6	5.68	123.31	119.90
1	13	1417	G	N3-C4-N9	5.67	129.40	126.00
23	2K	25	U	N3-C2-O2	-5.67	118.23	122.20
26	1H	382	G	C5-C6-O6	-5.67	125.19	128.60
26	1H	865	C	N3-C4-C5	5.67	124.17	121.90
26	1H	464	U	N1-C2-N3	5.67	118.30	114.90
26	14	2033	A	C5-C6-N1	5.67	120.54	117.70
26	1H	333	G	C8-N9-C1'	-5.67	119.63	127.00
26	1H	1427	A	N1-C2-N3	5.67	132.14	129.30
26	1H	2392	A	O5'-P-OP2	5.67	117.51	110.70
26	1H	2506	U	C5-C4-O4	5.67	129.30	125.90
26	14	764	A	C8-N9-C4	-5.67	103.53	105.80
26	14	2447	G	C8-N9-C1'	5.67	134.37	127.00
1	13	1502	A	C6-C5-N7	-5.67	128.33	132.30
26	14	1644	C	O5'-P-OP2	-5.67	100.60	105.70
1	13	1051	C	C6-N1-C2	-5.67	118.03	120.30
26	1H	270(K)	C	C5-C6-N1	5.67	123.83	121.00
26	1H	1125	G	N1-C6-O6	-5.67	116.50	119.90
26	1H	1421	G	N1-C6-O6	5.67	123.30	119.90
26	1H	1790	C	P-O3'-C3'	5.67	126.50	119.70
26	1H	2277	G	N1-C6-O6	-5.67	116.50	119.90
26	1H	2398	U	C5-C4-O4	5.67	129.30	125.90
26	14	1318	C	O5'-P-OP1	-5.67	100.60	105.70
26	1H	985	C	N3-C4-N4	-5.67	114.03	118.00
26	1H	1253	A	C8-N9-C4	5.67	108.07	105.80
26	14	1992	G	C2'-C3'-O3'	5.67	122.77	113.70
26	1H	97	C	N1-C2-O2	5.66	122.30	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	796	C	O5'-P-OP2	-5.66	100.60	105.70
26	1H	1839	G	C8-N9-C1'	-5.66	119.64	127.00
26	14	2249	U	N3-C4-C5	-5.66	111.20	114.60
26	14	1780	A	C5-C6-N6	5.66	128.23	123.70
1	13	895	G	N3-C4-N9	-5.66	122.60	126.00
1	13	1126	U	N3-C2-O2	-5.66	118.24	122.20
26	1H	459	U	OP2-P-O3'	5.66	117.65	105.20
26	1H	863	A	O5'-P-OP1	5.66	117.49	110.70
26	1H	1301	A	O5'-P-OP1	-5.66	100.61	105.70
26	1H	2577	A	C8-N9-C4	-5.66	103.53	105.80
14	5A	28	GLY	N-CA-C	5.66	127.25	113.10
26	1H	996	A	C8-N9-C4	5.66	108.06	105.80
26	1H	1780	A	N3-C4-N9	-5.66	122.87	127.40
26	14	1786	A	N3-C4-C5	5.66	130.76	126.80
26	1H	179	G	C2-N3-C4	-5.66	109.07	111.90
26	1H	1121	C	N3-C4-C5	5.66	124.16	121.90
26	1H	2082	A	O5'-P-OP1	5.66	117.49	110.70
1	13	1504	G	O5'-P-OP1	-5.66	100.61	105.70
26	1H	474	G	N3-C4-N9	-5.66	122.61	126.00
26	1H	1781	C	O5'-P-OP1	-5.66	100.61	105.70
26	1H	1931	U	C5-C4-O4	5.66	129.29	125.90
26	1H	1979	C	C6-N1-C2	-5.65	118.04	120.30
26	1H	309	G	N3-C4-C5	-5.65	125.77	128.60
26	1H	1931	U	C4-C5-C6	5.65	123.09	119.70
26	14	1276	A	OP1-P-OP2	-5.65	111.12	119.60
26	14	2359	C	C5-C4-N4	5.65	124.16	120.20
38	45	81	VAL	N-CA-C	5.65	126.26	111.00
1	13	281	G	N3-C4-N9	5.65	129.39	126.00
1	13	328	C	O5'-P-OP1	-5.65	100.61	105.70
26	1H	572	A	C8-N9-C4	-5.65	103.54	105.80
26	1H	982	C	OP1-P-O3'	5.65	117.63	105.20
26	1H	1354	A	N1-C2-N3	5.65	132.12	129.30
26	1H	1600	C	OP1-P-O3'	5.65	117.63	105.20
1	1G	99	C	C6-N1-C2	-5.65	118.04	120.30
26	14	2235	G	C5-C6-O6	-5.65	125.21	128.60
24	3K	27	G	N3-C4-C5	-5.65	125.78	128.60
26	1H	328	U	N3-C4-C5	-5.65	111.21	114.60
26	14	204	A	N1-C6-N6	5.65	121.99	118.60
26	14	694	U	OP1-P-OP2	-5.65	111.13	119.60
26	14	804	A	N7-C8-N9	-5.65	110.98	113.80
26	14	2456	C	C6-N1-C2	-5.65	118.04	120.30
1	13	1533	C	N3-C2-O2	-5.65	117.95	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1019	U	C5-C4-O4	5.65	129.29	125.90
29	11	257	LEU	CA-CB-CG	5.65	128.29	115.30
26	14	331	A	OP1-P-OP2	5.65	128.07	119.60
26	14	876	C	N1-C2-O2	5.65	122.29	118.90
26	14	273(F)	C	C2-N1-C1'	5.65	125.01	118.80
26	1H	2439	A	C5-N7-C8	-5.64	101.08	103.90
26	1H	2503	A	N1-C6-N6	5.64	121.99	118.60
26	14	2502	G	C8-N9-C4	-5.64	104.14	106.40
1	1G	932	C	N1-C2-O2	5.64	122.28	118.90
26	14	1972	A	C2-N3-C4	5.64	113.42	110.60
26	1H	296	C	C5-C6-N1	-5.64	118.18	121.00
26	1H	2060	A	OP1-P-O3'	-5.64	92.79	105.20
26	14	923	C	O5'-P-OP1	-5.64	100.62	105.70
26	1H	578	A	OP2-P-O3'	5.64	117.61	105.20
26	1H	2029	G	O5'-P-OP1	-5.64	100.62	105.70
26	14	580	C	C6-N1-C2	-5.64	118.04	120.30
26	14	744	G	C2-N3-C4	-5.64	109.08	111.90
26	14	1329	U	O5'-P-OP1	-5.64	100.62	105.70
2	1E	187	LEU	CA-CB-CG	5.64	128.26	115.30
26	1H	1528	A	C4-C5-N7	5.64	113.52	110.70
26	1H	1694	C	OP2-P-O3'	5.64	117.60	105.20
26	1H	1916	A	N1-C2-N3	5.64	132.12	129.30
26	1H	2247	A	N1-C2-N3	5.64	132.12	129.30
26	14	565	C	C6-N1-C2	5.64	122.55	120.30
1	13	690	G	N1-C6-O6	5.63	123.28	119.90
26	1H	179	G	N3-C2-N2	-5.63	115.96	119.90
26	1H	466	A	N1-C6-N6	5.63	121.98	118.60
26	1H	528	A	C5-N7-C8	-5.63	101.08	103.90
1	1G	1314	C	C6-N1-C2	-5.63	118.05	120.30
26	14	1178	C	N1-C2-O2	5.63	122.28	118.90
26	14	1823	G	C5-N7-C8	-5.63	101.48	104.30
26	1H	74	A	N1-C2-N3	5.63	132.12	129.30
26	1H	1613	G	N3-C2-N2	5.63	123.84	119.90
26	1H	524	U	N1-C2-O2	5.63	126.74	122.80
26	1H	670	A	O5'-P-OP1	5.63	117.46	110.70
26	1H	1828	G	OP1-P-OP2	-5.63	111.15	119.60
26	1H	1950	G	O5'-P-OP1	-5.63	100.63	105.70
26	14	2490	G	C8-N9-C4	-5.63	104.15	106.40
26	1H	822	U	N3-C2-O2	-5.63	118.26	122.20
26	14	2427	C	N1-C2-O2	-5.63	115.52	118.90
26	1H	1594	G	C4-N9-C1'	5.63	133.82	126.50
1	13	437	U	N3-C2-O2	-5.63	118.26	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	974	G	N1-C6-O6	-5.63	116.52	119.90
26	14	1950	G	C8-N9-C1'	-5.63	119.69	127.00
26	14	2213	U	C6-N1-C1'	-5.63	113.32	121.20
26	14	2275	C	C5-C6-N1	5.63	123.81	121.00
26	14	2755	C	C5-C6-N1	5.63	123.81	121.00
26	14	2778	A	O5'-P-OP2	-5.63	100.64	105.70
26	1H	2319	G	C4-C5-N7	5.62	113.05	110.80
26	14	2307	G	C8-N9-C1'	-5.62	119.69	127.00
26	1H	1614	A	N3-C4-C5	5.62	130.74	126.80
26	1H	1625	C	N3-C2-O2	-5.62	117.96	121.90
26	1H	1905	C	C5-C6-N1	5.62	123.81	121.00
37	78	23	PRO	C-N-CA	-5.62	110.49	122.30
26	14	2772	C	N3-C2-O2	-5.62	117.96	121.90
1	13	891	U	OP2-P-O3'	5.62	117.57	105.20
26	14	140	A	C8-N9-C4	-5.62	103.55	105.80
26	14	2710	C	N1-C2-O2	-5.62	115.53	118.90
26	1H	208	C	N3-C4-C5	5.62	124.15	121.90
26	1H	1972	A	C6-C5-N7	-5.62	128.37	132.30
26	1H	2441	C	N3-C2-O2	-5.62	117.97	121.90
26	14	1786	A	C4-N9-C1'	5.62	136.42	126.30
26	1H	44	A	C5-N7-C8	-5.62	101.09	103.90
26	1H	1948	G	N7-C8-N9	5.62	115.91	113.10
1	1G	894	G	C4-C5-N7	5.62	113.05	110.80
23	2L	15	G	C5-C6-O6	5.62	131.97	128.60
1	13	1499	A	C8-N9-C4	5.62	108.05	105.80
26	1H	17	G	N3-C4-C5	-5.62	125.79	128.60
26	1H	777	A	C6-N1-C2	-5.62	115.23	118.60
26	1H	1858	G	C5-C6-N1	-5.62	108.69	111.50
26	14	2822	G	O5'-P-OP2	-5.62	100.64	105.70
26	1H	1142(A)	A	C5-N7-C8	-5.61	101.09	103.90
29	11	272	ALA	N-CA-C	5.61	126.16	111.00
33	51	4	ILE	N-CA-C	-5.61	95.84	111.00
26	14	1955	U	C2-N3-C4	-5.61	123.63	127.00
26	14	2275	C	C5'-C4'-O4'	-5.61	102.36	109.10
26	1H	1780	A	N1-C6-N6	-5.61	115.23	118.60
1	1G	1502	A	C5-N7-C8	-5.61	101.09	103.90
26	14	1312	U	O5'-P-OP1	-5.61	100.65	105.70
26	1H	265	A	N3-C4-C5	5.61	130.72	126.80
26	1H	1023	U	O5'-P-OP1	-5.61	100.65	105.70
26	14	315	G	O5'-P-OP2	-5.61	100.65	105.70
1	13	575	G	C4-N9-C1'	-5.61	119.21	126.50
1	13	1504	G	N3-C4-C5	5.61	131.40	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1972	A	N3-C4-N9	5.61	131.88	127.40
26	1H	2234	G	C8-N9-C4	5.61	108.64	106.40
1	1G	1404	C	C6-N1-C2	-5.61	118.06	120.30
26	14	933	A	C5-N7-C8	-5.61	101.10	103.90
26	14	2072	G	N9-C4-C5	-5.61	103.16	105.40
26	1H	732	C	N1-C2-N3	5.60	123.12	119.20
26	14	729	G	C5-C6-O6	-5.60	125.24	128.60
26	14	2039	C	N3-C2-O2	-5.60	117.98	121.90
40	65	73	LEU	CA-CB-CG	5.60	128.19	115.30
1	13	1518	A	C4-C5-N7	-5.60	107.90	110.70
26	1H	961	C	N3-C2-O2	-5.60	117.98	121.90
26	1H	2439	A	C4-C5-N7	5.60	113.50	110.70
49	F5	36	GLY	N-CA-C	5.60	127.10	113.10
55	M5	61	LEU	CA-CB-CG	5.60	128.19	115.30
26	14	383	U	O5'-P-OP2	5.60	117.42	110.70
26	14	642	G	C8-N9-C4	-5.60	104.16	106.40
26	1H	305	U	C6-N1-C2	-5.60	117.64	121.00
26	1H	655	A	C8-N9-C4	-5.60	103.56	105.80
26	1H	723	G	O5'-P-OP2	-5.60	100.66	105.70
26	1H	1040	C	N1-C2-O2	5.60	122.26	118.90
26	14	2715	C	O5'-P-OP1	5.60	117.42	110.70
26	1H	141(A)	C	OP1-P-O3'	-5.60	92.89	105.20
26	1H	941	A	OP2-P-O3'	5.60	117.51	105.20
26	1H	1246	A	N1-C6-N6	-5.60	115.24	118.60
26	1H	2409	G	C5-C6-O6	-5.60	125.24	128.60
26	14	2345	G	N9-C4-C5	5.60	107.64	105.40
26	14	2358	G	N3-C2-N2	-5.60	115.98	119.90
27	1J	47	C	OP1-P-O3'	5.60	117.52	105.20
26	14	705	A	N1-C6-N6	5.60	121.96	118.60
1	13	963	G	N9-C4-C5	-5.59	103.16	105.40
26	1H	1032	A	C8-N9-C4	5.59	108.04	105.80
26	1H	1334	G	C4-N9-C1'	5.59	133.77	126.50
26	1H	1697	G	N3-C4-N9	5.59	129.36	126.00
26	1H	2060	A	OP2-P-O3'	5.59	117.51	105.20
1	1G	1139	G	C8-N9-C4	5.59	108.64	106.40
23	2K	23	G	N3-C4-C5	5.59	131.40	128.60
26	1H	51	G	O4'-C1'-N9	-5.59	103.73	108.20
26	1H	733	G	O5'-P-OP2	-5.59	100.67	105.70
26	1H	1758	G	P-O3'-C3'	5.59	126.41	119.70
26	1H	2283	C	N3-C2-O2	5.59	125.81	121.90
26	1H	2665	A	N1-C6-N6	5.59	121.95	118.60
26	14	1827	C	N1-C2-O2	5.59	122.25	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	75	C	N1-C2-O2	5.59	122.25	118.90
26	14	836	G	N1-C2-N3	-5.59	120.55	123.90
26	14	469	G	C5-C6-N1	5.59	114.29	111.50
26	14	1619	G	O5'-P-OP2	-5.59	100.67	105.70
26	1H	1561	G	OP1-P-O3'	5.59	117.49	105.20
26	1H	2518	A	N7-C8-N9	5.59	116.59	113.80
27	16	14	U	OP1-P-OP2	5.59	127.98	119.60
26	14	676	A	N1-C2-N3	5.59	132.09	129.30
26	1H	1331	A	N1-C2-N3	5.58	132.09	129.30
26	1H	1340	U	O4'-C1'-N1	5.58	112.67	108.20
26	1H	2078	C	O5'-P-OP2	5.58	117.40	110.70
26	1H	126	A	N9-C4-C5	5.58	108.03	105.80
26	1H	1938	A	OP1-P-OP2	5.58	127.97	119.60
26	1H	2036	C	OP2-P-O3'	5.58	117.48	105.20
1	1G	1259	C	C5-C6-N1	5.58	123.79	121.00
1	13	804	U	O5'-P-OP2	-5.58	100.68	105.70
1	13	1498	U	C6-N1-C1'	-5.58	113.39	121.20
24	3K	5	C	C6-N1-C2	-5.58	118.07	120.30
24	3K	76	A	N9-C4-C5	-5.58	103.57	105.80
26	1H	1565	C	O4'-C1'-N1	5.58	112.67	108.20
26	1H	1938	A	C5-C6-N6	-5.58	119.23	123.70
26	1H	2713	A	C6-C5-N7	-5.58	128.39	132.30
1	1G	317	G	N1-C6-O6	5.58	123.25	119.90
26	14	523	C	C5-C6-N1	5.58	123.79	121.00
26	14	2030	A	C5-C6-N6	-5.58	119.23	123.70
26	1H	391	G	N1-C2-N3	5.58	127.25	123.90
26	14	1762	A	C6-N1-C2	5.58	121.95	118.60
26	14	1934	C	N1-C2-O2	5.58	122.25	118.90
26	14	2610	C	C6-N1-C2	5.58	122.53	120.30
1	13	963	G	C4-N9-C1'	5.58	133.75	126.50
26	1H	1186	G	C2-N3-C4	5.58	114.69	111.90
26	1H	1758	G	OP2-P-O3'	5.58	117.47	105.20
26	1H	1972	A	C4-C5-C6	5.58	119.79	117.00
26	1H	508	G	C3'-C2'-C1'	-5.58	97.04	101.50
26	1H	1360	A	N1-C6-N6	5.58	121.94	118.60
26	14	794	G	C4-C5-N7	-5.58	108.57	110.80
26	14	2601	C	C6-N1-C2	-5.58	118.07	120.30
26	1H	398	G	N1-C6-O6	5.57	123.24	119.90
26	1H	1188	U	OP2-P-O3'	5.57	117.46	105.20
26	1H	1255	U	C4-C5-C6	5.57	123.04	119.70
1	1G	245	C	N1-C2-O2	-5.57	115.56	118.90
23	2L	21	U	N3-C2-O2	-5.57	118.30	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	119	A	C4-C5-N7	-5.57	107.91	110.70
26	1H	409	C	N3-C2-O2	5.57	125.80	121.90
26	14	2585	U	OP1-P-O3'	5.57	117.46	105.20
1	13	971	G	O5'-P-OP1	5.57	117.38	110.70
26	1H	570	G	C8-N9-C4	-5.57	104.17	106.40
26	1H	863	A	OP2-P-O3'	5.57	117.46	105.20
26	1H	864	G	C4-C5-N7	5.57	113.03	110.80
26	1H	1446	C	C6-N1-C2	-5.57	118.07	120.30
26	1H	1489	U	C5-C4-O4	5.57	129.24	125.90
26	1H	2525	G	C5-C6-O6	-5.57	125.26	128.60
26	1H	633	A	O5'-P-OP2	5.57	117.38	110.70
26	1H	693	C	N3-C4-N4	-5.57	114.10	118.00
26	1H	2331	G	N3-C2-N2	5.57	123.80	119.90
1	1G	352	C	C6-N1-C2	-5.57	118.07	120.30
26	14	2430	A	C4-N9-C1'	-5.57	116.28	126.30
26	1H	844	C	N1-C2-O2	-5.57	115.56	118.90
26	1H	2827	C	C5-C4-N4	-5.57	116.30	120.20
27	16	29	A	N7-C8-N9	5.57	116.58	113.80
26	14	2327	A	N9-C4-C5	5.57	108.03	105.80
26	14	2623	G	N3-C4-C5	-5.57	125.82	128.60
26	1H	117	G	C6-C5-N7	-5.57	127.06	130.40
26	1H	1120	G	C5-C6-O6	-5.57	125.26	128.60
26	14	2346	A	C8-N9-C4	-5.57	103.57	105.80
26	1H	2253	G	O5'-P-OP2	-5.56	100.69	105.70
1	13	723	U	C5-C6-N1	5.56	125.48	122.70
23	2K	18	U	N3-C2-O2	-5.56	118.31	122.20
26	1H	2567	G	C5-C6-O6	-5.56	125.26	128.60
26	14	933	A	N7-C8-N9	5.56	116.58	113.80
26	14	2447	G	C5-N7-C8	5.56	107.08	104.30
1	1G	529	G	N1-C6-O6	5.56	123.24	119.90
26	14	828	U	N3-C4-O4	-5.56	115.51	119.40
26	14	1471	A	C8-N9-C4	-5.56	103.58	105.80
26	14	1800	C	OP1-P-O3'	5.56	117.43	105.20
26	14	1950	G	C8-N9-C4	-5.56	104.18	106.40
26	14	2239	G	N9-C4-C5	-5.56	103.18	105.40
26	1H	2247	A	C2-N3-C4	-5.56	107.82	110.60
26	1H	2270	G	C5-C6-O6	-5.56	125.27	128.60
26	1H	2375	G	N9-C4-C5	-5.56	103.18	105.40
26	14	1129	A	O5'-P-OP2	-5.56	100.70	105.70
26	14	2324	C	C6-N1-C2	5.56	122.52	120.30
26	14	579	G	N3-C2-N2	-5.56	116.01	119.90
26	14	1600	C	O5'-P-OP2	-5.56	100.70	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	187	C	C5-C6-N1	5.55	123.78	121.00
26	14	1026	U	C5-C6-N1	5.55	125.48	122.70
26	14	2779	U	N3-C4-O4	-5.55	115.51	119.40
26	1H	2606	C	O5'-P-OP1	-5.55	100.70	105.70
1	1G	1404	C	C5-C6-N1	5.55	123.78	121.00
26	14	737	C	N1-C2-O2	-5.55	115.57	118.90
26	14	1807	G	N1-C6-O6	5.55	123.23	119.90
26	1H	187	G	C6-C5-N7	-5.55	127.07	130.40
26	1H	1198	U	C2-N3-C4	-5.55	123.67	127.00
26	1H	1204	A	C8-N9-C1'	-5.55	117.71	127.70
26	1H	1574	C	C5-C6-N1	-5.55	118.23	121.00
26	1H	1776	G	N1-C6-O6	5.55	123.23	119.90
26	14	273(F)	C	C6-N1-C2	-5.55	118.08	120.30
26	14	945	A	C4-N9-C1'	5.55	136.29	126.30
26	1H	51	G	OP2-P-O3'	5.55	117.40	105.20
26	1H	256	A	C2-N3-C4	-5.55	107.83	110.60
26	1H	795	C	C4-C5-C6	5.55	120.17	117.40
26	1H	2490	G	N9-C4-C5	-5.55	103.18	105.40
1	1G	1529	G	C8-N9-C4	-5.55	104.18	106.40
26	1H	1249	U	N1-C2-O2	-5.54	118.92	122.80
26	1H	2450	A	N1-C2-N3	5.54	132.07	129.30
29	19	235	GLY	N-CA-C	5.54	126.96	113.10
1	13	99	C	C5-C6-N1	5.54	123.77	121.00
26	1H	2442	C	OP1-P-O3'	5.54	117.40	105.20
26	14	1783	A	N1-C6-N6	-5.54	115.27	118.60
26	14	1926	U	N1-C2-N3	5.54	118.23	114.90
1	13	130	A	C5-C6-N6	-5.54	119.27	123.70
20	BI	99	LEU	CA-CB-CG	5.54	128.04	115.30
26	1H	509	C	OP2-P-O3'	5.54	117.39	105.20
26	1H	686	G	C4-C5-N7	5.54	113.02	110.80
26	1H	1204	A	C5-C6-N1	-5.54	114.93	117.70
26	14	950	G	N3-C4-C5	-5.54	125.83	128.60
26	1H	949	C	C6-N1-C2	5.54	122.52	120.30
26	1H	2199	A	O5'-P-OP1	-5.54	100.71	105.70
27	16	45	A	C8-N9-C4	-5.54	103.58	105.80
1	1G	28	G	C8-N9-C4	-5.54	104.18	106.40
27	1J	117	G	N3-C4-C5	5.54	131.37	128.60
26	1H	2062	A	N1-C6-N6	-5.54	115.28	118.60
26	1H	2440	C	N3-C4-C5	-5.54	119.68	121.90
52	M8	39	CYS	N-CA-C	-5.54	96.05	111.00
1	1G	800	G	O5'-P-OP2	-5.54	100.72	105.70
26	14	2584	U	OP1-P-OP2	-5.54	111.29	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1623	G	N1-C2-N3	5.54	127.22	123.90
26	1H	2607	G	N3-C4-N9	5.54	129.32	126.00
26	1H	2618	G	N9-C4-C5	5.54	107.61	105.40
1	1G	353	A	OP2-P-O3'	5.54	117.38	105.20
1	1G	1028	C	C6-N1-C2	-5.54	118.08	120.30
26	14	939	G	N1-C6-O6	5.54	123.22	119.90
26	1H	2311	A	N7-C8-N9	5.54	116.57	113.80
1	1G	970	C	C5-C6-N1	5.54	123.77	121.00
23	2L	24	C	C6-N1-C2	-5.54	118.09	120.30
26	1H	70	G	OP1-P-OP2	-5.53	111.30	119.60
26	1H	1426	G	N9-C4-C5	5.53	107.61	105.40
26	1H	2399	G	C5-N7-C8	5.53	107.07	104.30
1	1G	817	C	C6-N1-C2	5.53	122.51	120.30
26	14	1933	G	C6-C5-N7	-5.53	127.08	130.40
26	1H	835	A	O5'-P-OP1	5.53	117.34	110.70
26	1H	2509	G	O5'-P-OP1	-5.53	100.72	105.70
26	14	1688	U	O5'-P-OP2	-5.53	100.72	105.70
26	1H	528	A	C6-N1-C2	5.53	121.92	118.60
26	1H	2451	A	N1-C6-N6	-5.53	115.28	118.60
1	1G	771	G	C5-C6-O6	5.53	131.92	128.60
1	1G	1374	A	O4'-C1'-N9	5.53	112.62	108.20
26	14	537	C	C2-N1-C1'	5.53	124.88	118.80
26	14	848	G	N3-C4-N9	5.53	129.32	126.00
26	14	2435	A	C8-N9-C4	-5.53	103.59	105.80
1	13	793	U	N1-C2-O2	-5.53	118.93	122.80
1	13	1313	U	C5-C6-N1	5.53	125.46	122.70
26	1H	122	G	N3-C4-C5	5.53	131.36	128.60
26	1H	737	C	C2-N1-C1'	-5.53	112.72	118.80
26	1H	1403	C	N3-C2-O2	-5.53	118.03	121.90
26	1H	2374	C	C2-N3-C4	-5.53	117.14	119.90
1	13	346	G	C4-N9-C1'	5.52	133.68	126.50
26	1H	474	G	C8-N9-C4	-5.52	104.19	106.40
56	1L	3	G	P-O3'-C3'	5.52	126.33	119.70
26	14	413	C	C6-N1-C2	-5.52	118.09	120.30
26	14	866	A	N1-C6-N6	5.52	121.91	118.60
26	14	1696	G	O5'-P-OP2	-5.52	100.73	105.70
1	13	971	G	O5'-P-OP2	-5.52	100.73	105.70
26	1H	245	G	N9-C4-C5	-5.52	103.19	105.40
26	1H	2437	U	OP2-P-O3'	5.52	117.35	105.20
1	1G	945	G	N1-C6-O6	5.52	123.21	119.90
26	14	835	A	O5'-P-OP1	5.52	117.33	110.70
26	14	2688	U	C5-C4-O4	5.52	129.21	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1204	A	N1-C6-N6	5.52	121.91	118.60
1	1G	690	G	N3-C4-N9	-5.52	122.69	126.00
26	14	761	A	C8-N9-C4	5.52	108.01	105.80
26	1H	187	G	N3-C4-N9	5.52	129.31	126.00
26	1H	1969	A	O5'-P-OP1	-5.52	100.73	105.70
55	Q8	46	ARG	C-N-CA	5.52	135.50	121.70
1	13	791	G	C5-C6-O6	-5.52	125.29	128.60
26	1H	1968	G	C2-N3-C4	5.52	114.66	111.90
26	14	133	C	C6-N1-C2	5.52	122.51	120.30
26	1H	1644	C	C2-N1-C1'	5.52	124.87	118.80
26	14	2772	C	N1-C2-O2	5.52	122.21	118.90
27	1J	98	G	N9-C4-C5	-5.52	103.19	105.40
1	13	1107	C	C6-N1-C2	-5.51	118.09	120.30
26	1H	775	G	C6-C5-N7	-5.51	127.09	130.40
26	1H	1378	A	O5'-P-OP1	-5.51	100.74	105.70
26	14	1342	A	N1-C6-N6	5.51	121.91	118.60
27	1J	44	G	C4-N9-C1'	-5.51	119.33	126.50
26	1H	2448	A	C5-C6-N6	-5.51	119.29	123.70
26	14	1967	C	O5'-P-OP2	-5.51	100.74	105.70
26	14	2286	A	C8-N9-C4	-5.51	103.59	105.80
26	14	2590	A	O5'-P-OP2	5.51	117.31	110.70
1	13	810	C	O5'-P-OP1	-5.51	100.74	105.70
26	1H	245	G	N3-C4-N9	5.51	129.31	126.00
1	1G	1356	G	C8-N9-C4	-5.51	104.20	106.40
26	14	2501	C	C2-N1-C1'	-5.51	112.74	118.80
1	13	791	G	OP2-P-O3'	5.51	117.32	105.20
1	13	1279	A	C6-C5-N7	-5.51	128.44	132.30
26	1H	860	U	N1-C2-O2	5.51	126.66	122.80
26	1H	1568	G	N3-C4-C5	5.51	131.35	128.60
26	1H	1899	G	O4'-C1'-N9	5.51	112.61	108.20
26	14	453	C	C6-N1-C2	5.51	122.50	120.30
26	14	1304	C	N3-C4-C5	5.51	124.10	121.90
1	13	967	C	N3-C2-O2	5.51	125.76	121.90
1	13	1360	A	O4'-C1'-N9	5.51	112.61	108.20
26	1H	691	C	O5'-P-OP1	5.51	117.31	110.70
26	1H	2261	C	OP1-P-OP2	-5.51	111.34	119.60
26	14	2281	C	C6-N1-C1'	-5.51	114.19	120.80
1	13	783	C	C6-N1-C2	5.51	122.50	120.30
1	13	1482	G	O5'-P-OP2	-5.51	100.74	105.70
26	1H	145	G	C8-N9-C4	5.51	108.60	106.40
26	1H	2429	G	N1-C2-N2	5.51	121.16	116.20
3	22	34	LEU	CA-CB-CG	5.51	127.97	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	516	C	C5-C4-N4	-5.51	116.34	120.20
26	1H	1937	A	C5-C6-N1	-5.50	114.95	117.70
26	14	1355	G	N3-C4-C5	-5.50	125.85	128.60
26	14	2525	G	C5-C6-O6	5.50	131.90	128.60
26	14	2594	C	N3-C4-N4	5.50	121.85	118.00
1	13	1400	C	C5-C4-N4	-5.50	116.35	120.20
26	1H	1232	G	C5-C6-O6	-5.50	125.30	128.60
26	1H	1414	G	C8-N9-C4	-5.50	104.20	106.40
26	1H	2500	U	OP2-P-O3'	5.50	117.31	105.20
26	14	393	C	N3-C2-O2	-5.50	118.05	121.90
26	14	849	A	OP1-P-O3'	5.50	117.31	105.20
26	14	1784	A	OP1-P-O3'	5.50	117.31	105.20
26	1H	2665	A	C5-N7-C8	-5.50	101.15	103.90
1	1G	209	U	N1-C2-O2	5.50	126.65	122.80
26	14	1289	C	C6-N1-C2	-5.50	118.10	120.30
1	13	843	U	C5-C6-N1	5.50	125.45	122.70
26	1H	2373	G	C8-N9-C1'	-5.50	119.85	127.00
26	14	446	G	C4-C5-N7	5.50	113.00	110.80
26	14	585	G	C4-C5-C6	5.50	122.10	118.80
26	14	2547	U	OP2-P-O3'	5.50	117.30	105.20
26	1H	1621	U	N1-C2-O2	-5.50	118.95	122.80
1	1G	366	C	C6-N1-C2	5.50	122.50	120.30
26	14	692	C	C5-C4-N4	-5.50	116.35	120.20
26	14	1313	U	C5-C6-N1	5.50	125.45	122.70
26	14	1698	A	N1-C2-N3	5.50	132.05	129.30
26	14	2870	C	C6-N1-C2	-5.50	118.10	120.30
1	13	758	G	N3-C2-N2	-5.50	116.05	119.90
26	1H	932	G	N9-C4-C5	5.50	107.60	105.40
26	1H	939	G	N1-C2-N2	-5.50	111.25	116.20
26	1H	1623	G	N3-C4-C5	-5.50	125.85	128.60
26	14	1955	U	N3-C2-O2	-5.50	118.35	122.20
26	14	2581	G	N3-C4-C5	-5.50	125.85	128.60
1	13	545	C	N3-C4-N4	-5.50	114.15	118.00
1	1G	701	C	N1-C2-O2	5.50	122.20	118.90
26	1H	691	C	C5-C4-N4	-5.49	116.35	120.20
26	1H	2039	C	C5-C6-N1	5.49	123.75	121.00
26	1H	2827	C	N3-C4-N4	5.49	121.85	118.00
2	12	187	LEU	CA-CB-CG	5.49	127.93	115.30
26	1H	445	C	N1-C2-N3	5.49	123.04	119.20
26	1H	775	G	N9-C4-C5	-5.49	103.20	105.40
26	1H	1663	C	OP1-P-O3'	5.49	117.28	105.20
23	2L	77	A	N9-C4-C5	-5.49	103.60	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	9	U	C2-N1-C1'	5.49	124.29	117.70
26	14	705	A	C5-C6-N6	-5.49	119.31	123.70
26	14	1382	G	N9-C4-C5	-5.49	103.20	105.40
26	1H	589	C	O5'-P-OP2	-5.49	100.76	105.70
26	1H	738	G	O5'-P-OP1	5.49	117.29	110.70
26	1H	1528	A	N1-C6-N6	5.49	121.89	118.60
27	16	100	G	C4-N9-C1'	5.49	133.63	126.50
1	1G	281	G	N3-C4-N9	5.49	129.29	126.00
1	1G	1486	G	C8-N9-C4	5.49	108.59	106.40
26	14	2841	C	N1-C2-O2	-5.49	115.61	118.90
26	14	800	A	OP1-P-OP2	5.49	127.83	119.60
26	1H	566	U	N1-C2-N3	-5.49	111.61	114.90
26	14	2023	G	C5-C6-O6	-5.49	125.31	128.60
1	13	1492	A	O5'-P-OP2	-5.48	100.76	105.70
1	13	1496	C	C5-C6-N1	-5.48	118.26	121.00
26	1H	141(A)	C	C5-C6-N1	5.48	123.74	121.00
26	1H	430	G	N1-C6-O6	5.48	123.19	119.90
26	1H	2375	G	N7-C8-N9	-5.48	110.36	113.10
26	14	2346	A	N9-C1'-C2'	5.48	121.13	114.00
1	13	795	C	O5'-P-OP2	-5.48	100.77	105.70
26	1H	1839	G	N9-C4-C5	-5.48	103.21	105.40
26	1H	2581	G	C4-N9-C1'	5.48	133.63	126.50
26	14	2377	A	N3-C4-C5	5.48	130.64	126.80
26	1H	210	C	N3-C4-C5	5.48	124.09	121.90
57	3L	63	U	C5-C6-N1	5.48	125.44	122.70
26	14	1248	G	OP1-P-OP2	-5.48	111.38	119.60
1	13	238	G	C8-N9-C4	5.48	108.59	106.40
26	1H	2699	C	C2-N3-C4	-5.48	117.16	119.90
26	14	1359	A	C8-N9-C4	5.48	107.99	105.80
26	14	2073	C	N1-C2-O2	-5.48	115.61	118.90
26	14	2387	U	N1-C2-O2	5.48	126.64	122.80
26	14	2512	C	C6-N1-C2	5.48	122.49	120.30
26	14	1187	G	C5-C6-N1	-5.48	108.76	111.50
26	14	1318	C	C5-C6-N1	5.48	123.74	121.00
26	14	2512	C	N3-C4-C5	5.48	124.09	121.90
26	1H	1700	A	O5'-P-OP2	-5.48	100.77	105.70
1	1G	1502	A	C6-C5-N7	-5.48	128.47	132.30
26	14	1802	A	C6-N1-C2	-5.48	115.31	118.60
1	13	865	A	C5-N7-C8	-5.47	101.16	103.90
26	14	1259	G	OP1-P-OP2	-5.47	111.39	119.60
26	14	1835	G	C4-N9-C1'	5.47	133.62	126.50
26	14	2237	G	C5-C6-O6	5.47	131.88	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	548	G	O5'-P-OP2	-5.47	100.78	105.70
26	1H	332	A	OP2-P-O3'	5.47	117.24	105.20
26	1H	1278	A	C5-C6-N6	-5.47	119.32	123.70
26	1H	1429	G	N1-C6-O6	-5.47	116.62	119.90
26	1H	2025	C	C6-N1-C2	-5.47	118.11	120.30
26	14	2424	C	OP2-P-O3'	5.47	117.24	105.20
26	1H	1470	G	O5'-P-OP1	-5.47	100.78	105.70
26	1H	1579	A	N7-C8-N9	5.47	116.53	113.80
26	1H	2581	G	C5-C6-O6	5.47	131.88	128.60
56	1L	69	A	P-O3'-C3'	5.47	126.26	119.70
26	1H	47	C	C6-N1-C2	-5.47	118.11	120.30
26	1H	1189	A	O5'-P-OP1	-5.47	100.78	105.70
26	1H	1950	G	C6-C5-N7	-5.47	127.12	130.40
26	1H	2377	A	C4-C5-N7	5.47	113.43	110.70
1	13	1144	G	N3-C4-N9	-5.47	122.72	126.00
26	1H	9	U	C5-C6-N1	5.47	125.43	122.70
26	1H	46	C	O5'-P-OP2	5.47	117.26	110.70
26	1H	395	U	C2-N1-C1'	5.47	124.26	117.70
26	1H	648	G	C4-C5-N7	-5.47	108.61	110.80
26	1H	1521	G	N7-C8-N9	5.47	115.83	113.10
26	14	48	G	C5-C6-O6	5.47	131.88	128.60
26	14	58	G	C4-N9-C1'	5.47	133.61	126.50
26	14	2502	G	N1-C6-O6	-5.47	116.62	119.90
1	13	1488	G	C6-C5-N7	-5.46	127.12	130.40
26	1H	308	G	C8-N9-C1'	-5.46	119.90	127.00
26	1H	461	C	O5'-P-OP1	-5.46	100.78	105.70
4	32	135	LEU	CA-CB-CG	5.46	127.87	115.30
26	14	1386	C	O5'-P-OP1	-5.46	100.78	105.70
26	14	1704	G	C5-C6-O6	-5.46	125.32	128.60
26	1H	2418	A	OP1-P-OP2	-5.46	111.41	119.60
26	1H	2449	U	O5'-P-OP1	-5.46	100.78	105.70
26	1H	124	G	C5-C6-N1	5.46	114.23	111.50
26	1H	211	A	C5-C6-N6	-5.46	119.33	123.70
26	1H	446	G	C5-C6-O6	-5.46	125.32	128.60
26	1H	796	C	C5-C6-N1	-5.46	118.27	121.00
26	1H	1831	G	N7-C8-N9	5.46	115.83	113.10
26	1H	1943	U	OP1-P-OP2	5.46	127.79	119.60
26	14	992	C	N1-C2-O2	5.46	122.18	118.90
26	14	1698	A	C5-C6-N6	-5.46	119.33	123.70
26	14	2779	U	N1-C2-N3	5.46	118.18	114.90
1	13	422	C	C5-C6-N1	5.46	123.73	121.00
1	13	1219	U	C6-N1-C2	-5.46	117.72	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1280	G	OP1-P-OP2	-5.46	111.41	119.60
26	1H	1429	G	C5-C6-O6	5.46	131.88	128.60
26	1H	1776	G	C5-N7-C8	-5.46	101.57	104.30
26	1H	2236	C	O5'-P-OP1	-5.46	100.79	105.70
27	16	44	G	C8-N9-C1'	5.46	134.10	127.00
56	1L	74	C	N3-C2-O2	-5.46	118.08	121.90
26	14	211	A	N9-C4-C5	-5.46	103.62	105.80
26	14	2048	G	N7-C8-N9	5.46	115.83	113.10
26	1H	728	G	C8-N9-C4	5.46	108.58	106.40
26	1H	1555	G	N3-C4-N9	5.46	129.27	126.00
26	1H	2488	A	C4-C5-C6	5.46	119.73	117.00
27	16	81	G	C2-N3-C4	-5.46	109.17	111.90
26	14	945	A	C8-N9-C1'	-5.46	117.88	127.70
26	14	2573	C	C2-N1-C1'	5.46	124.80	118.80
26	1H	271(B)	G	C4-N9-C1'	5.46	133.59	126.50
26	1H	2406	U	O4'-C1'-N1	-5.46	103.84	108.20
1	13	965	A	N1-C6-N6	5.45	121.87	118.60
26	1H	684	G	OP1-P-OP2	5.45	127.78	119.60
27	16	44	G	C4-N9-C1'	-5.45	119.41	126.50
28	79	53	ARG	CG-CD-NE	-5.45	100.35	111.80
26	1H	108	U	N1-C2-O2	5.45	126.62	122.80
26	1H	2395	C	C6-N1-C1'	-5.45	114.26	120.80
26	14	955	C	C6-N1-C1'	5.45	127.34	120.80
26	1H	701	G	C8-N9-C4	-5.45	104.22	106.40
27	16	54	G	C5-N7-C8	-5.45	101.58	104.30
26	14	955	C	C6-N1-C2	-5.45	118.12	120.30
1	13	963	G	N1-C2-N3	5.45	127.17	123.90
22	1K	75	C	N3-C2-O2	-5.45	118.09	121.90
26	1H	795	C	C5-C6-N1	-5.45	118.28	121.00
26	1H	1021	A	N1-C6-N6	5.45	121.87	118.60
26	1H	1344	G	C5-C6-O6	-5.45	125.33	128.60
26	1H	1462	C	C6-N1-C2	-5.45	118.12	120.30
26	1H	2766	G	C4-N9-C1'	5.45	133.58	126.50
26	1H	574	C	OP1-P-OP2	5.45	127.77	119.60
26	1H	1888	G	N3-C4-N9	5.45	129.27	126.00
26	1H	624	C	C5-C6-N1	5.45	123.72	121.00
26	1H	651	G	C2-N3-C4	5.45	114.62	111.90
26	1H	677	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	1909	C	OP1-P-O3'	5.45	117.18	105.20
1	1G	12	U	N3-C2-O2	-5.45	118.39	122.20
26	14	2610	C	O5'-P-OP1	-5.45	100.80	105.70
1	13	891	U	N1-C2-O2	5.44	126.61	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1259	G	N3-C2-N2	5.44	123.71	119.90
26	14	1627	G	O5'-P-OP2	-5.44	100.80	105.70
26	14	1906	G	C8-N9-C4	-5.44	104.22	106.40
26	14	2066	C	C5-C6-N1	5.44	123.72	121.00
26	1H	1437	C	O5'-P-OP2	-5.44	100.80	105.70
26	1H	2033	A	N1-C6-N6	-5.44	115.33	118.60
26	1H	2424	C	OP1-P-OP2	5.44	127.77	119.60
1	1G	913	A	C8-N9-C4	-5.44	103.62	105.80
26	14	1775	U	C5-C6-N1	-5.44	119.98	122.70
1	13	1303	C	C2-N1-C1'	5.44	124.78	118.80
26	1H	190	A	C5-C6-N6	-5.44	119.35	123.70
26	1H	1264	G	C6-C5-N7	-5.44	127.14	130.40
26	1H	2072	G	OP1-P-O3'	5.44	117.17	105.20
26	14	1423	G	C8-N9-C4	5.44	108.58	106.40
26	14	1854	A	C8-N9-C4	-5.44	103.62	105.80
1	13	1417	G	N3-C4-C5	-5.44	125.88	128.60
26	1H	2427	C	OP2-P-O3'	5.44	117.17	105.20
1	13	1279	A	C5-N7-C8	-5.44	101.18	103.90
26	1H	973	A	O5'-P-OP2	-5.44	100.81	105.70
26	1H	1400	G	N9-C4-C5	5.44	107.58	105.40
26	14	574	C	C2-N1-C1'	-5.44	112.82	118.80
1	13	577	G	O5'-P-OP2	-5.44	100.81	105.70
26	1H	445	C	C4-C5-C6	5.44	120.12	117.40
26	1H	577	G	N1-C2-N2	-5.44	111.31	116.20
26	1H	780	G	C2-N3-C4	-5.44	109.18	111.90
27	16	40	U	C5-C4-O4	-5.44	122.64	125.90
27	16	98	G	OP1-P-OP2	5.44	127.75	119.60
26	14	632	A	O5'-P-OP2	5.44	117.22	110.70
26	1H	70	G	C8-N9-C4	-5.43	104.23	106.40
1	1G	1526	G	C5-C6-O6	-5.43	125.34	128.60
37	35	85	LEU	CA-CB-CG	5.43	127.80	115.30
1	13	1158	C	C5-C6-N1	5.43	123.72	121.00
26	1H	766	C	C5-C4-N4	-5.43	116.40	120.20
26	1H	2644	G	N3-C4-N9	-5.43	122.74	126.00
26	14	1241	A	C5-C6-N1	-5.43	114.98	117.70
26	14	1276	A	C4-C5-N7	5.43	113.42	110.70
26	14	1657	C	C5-C4-N4	-5.43	116.40	120.20
27	1J	74	U	C5-C4-O4	5.43	129.16	125.90
26	1H	2368	C	N3-C2-O2	-5.43	118.10	121.90
1	1G	950	U	C5-C6-N1	5.43	125.42	122.70
26	14	203	C	C2-N3-C4	-5.43	117.18	119.90
26	1H	787	U	C2-N3-C4	-5.43	123.74	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2783	G	C4-N9-C1'	5.43	133.56	126.50
26	14	1156	A	O4'-C1'-N9	-5.43	103.86	108.20
1	13	566	G	O5'-P-OP2	-5.43	100.81	105.70
26	1H	2295	C	C6-N1-C2	-5.43	118.13	120.30
57	3L	76	A	C5-C6-N6	-5.43	119.36	123.70
26	14	516	C	N3-C4-N4	5.43	121.80	118.00
26	14	671	C	N1-C2-N3	5.43	123.00	119.20
26	14	1283	G	OP1-P-OP2	5.43	127.74	119.60
26	1H	776	G	N9-C4-C5	5.42	107.57	105.40
26	1H	783	A	C5-C6-N6	-5.42	119.36	123.70
26	1H	813	U	OP1-P-OP2	5.42	127.74	119.60
26	1H	1443	G	N3-C2-N2	-5.42	116.10	119.90
26	14	530	G	C8-N9-C4	-5.42	104.23	106.40
26	14	2307	G	C8-N9-C4	-5.42	104.23	106.40
1	13	36	C	C5-C6-N1	5.42	123.71	121.00
26	1H	251	A	O5'-P-OP1	-5.42	100.82	105.70
26	1H	2424	C	N1-C2-O2	5.42	122.15	118.90
26	14	37	C	O5'-P-OP2	-5.42	100.82	105.70
1	13	422	C	N3-C4-N4	5.42	121.79	118.00
26	1H	500	G	C6-C5-N7	5.42	133.65	130.40
26	1H	517	C	C2-N1-C1'	5.42	124.76	118.80
26	1H	1616	A	O4'-C1'-N9	5.42	112.53	108.20
27	16	61	G	C8-N9-C4	-5.42	104.23	106.40
37	78	26	GLY	N-CA-C	-5.42	99.55	113.10
1	1G	352	C	C5-C6-N1	5.42	123.71	121.00
1	13	422	C	C6-N1-C1'	-5.42	114.30	120.80
1	13	883	C	C6-N1-C2	-5.42	118.13	120.30
23	2K	76	C	C6-N1-C2	-5.42	118.13	120.30
26	1H	649	G	O5'-P-OP2	-5.42	100.83	105.70
26	1H	734	A	OP1-P-OP2	5.42	127.72	119.60
26	1H	1695	G	N3-C4-C5	-5.42	125.89	128.60
26	14	189	G	N9-C4-C5	-5.42	103.23	105.40
26	1H	1628	G	C6-C5-N7	-5.42	127.15	130.40
26	14	1468	C	C5-C6-N1	5.42	123.71	121.00
26	14	2245	U	C5-C6-N1	5.42	125.41	122.70
37	35	45	LEU	CA-CB-CG	5.42	127.75	115.30
26	1H	1983	C	OP2-P-O3'	5.41	117.11	105.20
52	M8	39	CYS	C-N-CA	5.41	135.24	121.70
1	1G	197	A	C8-N9-C4	-5.41	103.64	105.80
26	14	1388	G	O5'-P-OP2	-5.41	100.83	105.70
26	14	1772	G	OP1-P-OP2	5.41	127.72	119.60
26	14	1779	U	O5'-P-OP2	-5.41	100.83	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2199	A	O5'-P-OP1	-5.41	100.83	105.70
26	1H	1021	A	C6-C5-N7	-5.41	128.51	132.30
26	1H	2711	A	P-O3'-C3'	5.41	126.19	119.70
1	13	1200	C	N1-C2-O2	5.41	122.15	118.90
26	1H	699	A	C5-C6-N6	-5.41	119.37	123.70
26	14	252	G	N3-C4-C5	-5.41	125.89	128.60
1	13	484	G	P-O3'-C3'	5.41	126.19	119.70
26	1H	77	C	N3-C4-N4	5.41	121.79	118.00
27	16	49	C	C5-C4-N4	-5.41	116.41	120.20
26	1H	755	C	C4-C5-C6	5.41	120.10	117.40
26	1H	2019	A	C8-N9-C4	-5.41	103.64	105.80
26	14	499	U	N1-C2-N3	5.41	118.14	114.90
26	14	2724	C	N1-C2-O2	-5.41	115.66	118.90
38	45	61	GLY	N-CA-C	5.41	126.62	113.10
1	13	130	A	N1-C6-N6	5.41	121.84	118.60
1	13	1480	G	N3-C2-N2	-5.41	116.12	119.90
26	1H	702	G	C4-C5-C6	5.41	122.04	118.80
26	1H	715	G	N1-C2-N2	-5.41	111.33	116.20
26	1H	2286	A	C8-N9-C4	-5.41	103.64	105.80
26	14	732	C	C4-C5-C6	5.41	120.10	117.40
26	1H	1786	A	N9-C1'-C2'	5.40	121.03	114.00
26	14	1342	A	C6-C5-N7	-5.40	128.52	132.30
1	13	647	C	C5-C6-N1	5.40	123.70	121.00
26	1H	692	C	C2-N3-C4	-5.40	117.20	119.90
26	1H	2262	U	C6-N1-C2	-5.40	117.76	121.00
26	14	689	A	O5'-P-OP2	-5.40	100.84	105.70
26	14	1085	A	P-O3'-C3'	5.40	126.18	119.70
26	14	1237	A	N1-C6-N6	-5.40	115.36	118.60
26	1H	389	G	C8-N9-C4	5.40	108.56	106.40
26	1H	657	U	C5-C4-O4	5.40	129.14	125.90
26	1H	1019	U	N3-C2-O2	-5.40	118.42	122.20
26	1H	1334	G	N7-C8-N9	5.40	115.80	113.10
26	14	1836	C	O5'-P-OP2	-5.40	100.84	105.70
26	14	2364	C	N3-C2-O2	-5.40	118.12	121.90
26	1H	68	G	N3-C2-N2	-5.40	116.12	119.90
26	1H	1336	A	C4-C5-N7	-5.40	108.00	110.70
26	1H	2503	A	C5-C6-N6	-5.40	119.38	123.70
26	1H	2607	G	N9-C4-C5	-5.40	103.24	105.40
29	11	60	ARG	NE-CZ-NH2	-5.40	117.60	120.30
1	13	1305	G	N1-C2-N2	-5.40	111.34	116.20
26	1H	1594	G	N3-C4-C5	-5.40	125.90	128.60
26	1H	2229	C	C5-C4-N4	-5.40	116.42	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2357	U	O5'-P-OP2	-5.40	100.84	105.70
26	14	115	C	C6-N1-C2	5.40	122.46	120.30
26	14	2041	U	N3-C4-O4	5.40	123.18	119.40
1	1G	1406	U	OP1-P-OP2	-5.39	111.51	119.60
26	14	1988	C	C5-C4-N4	-5.39	116.42	120.20
26	1H	53	A	OP1-P-O3'	5.39	117.06	105.20
26	1H	683	C	C6-N1-C2	5.39	122.46	120.30
26	1H	828	U	N1-C2-O2	5.39	126.58	122.80
26	1H	840	C	C6-N1-C2	5.39	122.46	120.30
26	1H	1316	U	O5'-P-OP2	-5.39	100.85	105.70
26	1H	1622	G	N1-C6-O6	-5.39	116.67	119.90
26	1H	2003	G	OP2-P-O3'	5.39	117.06	105.20
26	1H	2573	C	O5'-P-OP2	-5.39	100.85	105.70
26	14	783	A	C5-C6-N6	-5.39	119.39	123.70
26	14	1605	C	N3-C2-O2	5.39	125.67	121.90
1	13	233	C	C6-N1-C2	-5.39	118.14	120.30
26	1H	834	C	OP2-P-O3'	5.39	117.06	105.20
56	1L	20	U	C2-N1-C1'	5.39	124.17	117.70
26	14	621	A	C6-C5-N7	-5.39	128.53	132.30
1	13	960	U	C2-N1-C1'	5.39	124.17	117.70
26	1H	142	G	N3-C2-N2	-5.39	116.13	119.90
26	1H	463	G	N3-C2-N2	5.39	123.67	119.90
26	1H	791	C	P-O3'-C3'	5.39	126.17	119.70
26	1H	1220	A	N1-C6-N6	-5.39	115.37	118.60
26	1H	2057	A	C5-C6-N6	-5.39	119.39	123.70
26	1H	2567	G	N1-C6-O6	5.39	123.13	119.90
26	14	1886	C	C6-N1-C2	-5.39	118.14	120.30
26	1H	197	A	OP2-P-O3'	5.39	117.06	105.20
26	1H	415	A	N1-C6-N6	5.39	121.83	118.60
26	1H	845	G	C6-C5-N7	-5.39	127.17	130.40
34	69	131	LYS	C-N-CD	-5.39	108.75	120.60
26	1H	621	A	C6-C5-N7	-5.39	128.53	132.30
26	1H	1879	C	C5-C6-N1	5.39	123.69	121.00
26	1H	2199	A	OP2-P-O3'	5.39	117.05	105.20
1	1G	87	A	P-O3'-C3'	5.39	126.16	119.70
26	14	1251	C	OP1-P-OP2	5.39	127.68	119.60
26	14	2473	U	N1-C2-O2	5.39	126.57	122.80
1	13	843	U	N3-C2-O2	-5.38	118.43	122.20
1	13	900	A	C5-C6-N6	-5.38	119.39	123.70
26	1H	1274	A	C4-C5-C6	5.38	119.69	117.00
26	1H	1453	A	C8-N9-C4	5.38	107.95	105.80
23	2L	42	C	N1-C2-O2	5.38	122.13	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	667	U	N3-C4-O4	5.38	123.17	119.40
46	C5	31	LEU	CA-CB-CG	5.38	127.68	115.30
26	1H	1663	C	N3-C4-N4	5.38	121.77	118.00
26	1H	2019	A	C6-C5-N7	-5.38	128.53	132.30
26	1H	2351	G	C6-C5-N7	-5.38	127.17	130.40
26	1H	2365	G	O5'-P-OP2	-5.38	100.86	105.70
26	1H	2830	G	N7-C8-N9	5.38	115.79	113.10
43	D8	82	ARG	NE-CZ-NH1	-5.38	117.61	120.30
46	G8	84	ARG	NE-CZ-NH1	5.38	122.99	120.30
26	14	528	A	C5-C6-N1	-5.38	115.01	117.70
26	14	1356	G	O5'-P-OP1	-5.38	100.86	105.70
26	14	1651	G	C5-C6-O6	-5.38	125.37	128.60
26	14	2320	A	P-O3'-C3'	5.38	126.16	119.70
26	14	2498	C	OP1-P-OP2	-5.38	111.53	119.60
30	21	65	GLY	N-CA-C	-5.38	99.65	113.10
1	13	1235	U	C5-C6-N1	5.38	125.39	122.70
26	1H	2346	A	C4-C5-N7	5.38	113.39	110.70
26	1H	2399	G	N7-C8-N9	-5.38	110.41	113.10
26	1H	2599	G	N1-C6-O6	-5.38	116.67	119.90
1	1G	1301	U	N3-C2-O2	-5.38	118.44	122.20
26	14	398	G	N1-C6-O6	-5.38	116.67	119.90
26	14	574	C	C5-C4-N4	5.38	123.97	120.20
26	14	1154	G	C4-C5-N7	5.38	112.95	110.80
26	14	1993	U	O5'-P-OP1	-5.38	100.86	105.70
26	14	2507	C	N3-C4-C5	-5.38	119.75	121.90
1	13	961	U	N3-C4-O4	-5.38	115.64	119.40
1	13	975	A	O4'-C1'-N9	-5.38	103.90	108.20
26	1H	1653	G	C4-N9-C1'	5.38	133.49	126.50
26	1H	2336	A	C8-N9-C4	-5.38	103.65	105.80
27	16	56	G	N3-C4-N9	5.38	129.23	126.00
33	51	166	GLY	N-CA-C	5.38	126.54	113.10
26	14	1661	G	C8-N9-C4	5.38	108.55	106.40
1	13	656	C	C2-N3-C4	5.38	122.59	119.90
1	13	1329	A	N1-C6-N6	5.38	121.83	118.60
26	1H	788	A	C6-N1-C2	5.38	121.83	118.60
1	13	266	G	O4'-C1'-N9	-5.37	103.90	108.20
26	1H	804	A	C8-N9-C4	5.37	107.95	105.80
26	1H	845	G	N7-C8-N9	5.37	115.79	113.10
26	1H	947	G	N1-C6-O6	5.37	123.12	119.90
26	14	1382	G	OP2-P-O3'	5.37	117.02	105.20
26	14	1806	C	C6-N1-C2	5.37	122.45	120.30
26	1H	416	C	N3-C4-N4	-5.37	114.24	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	840	C	N3-C4-C5	5.37	124.05	121.90
26	1H	1654	A	O5'-P-OP2	5.37	117.15	110.70
26	1H	2665	A	N7-C8-N9	5.37	116.49	113.80
27	16	56	G	N3-C4-C5	-5.37	125.92	128.60
1	1G	377	G	N3-C4-C5	-5.37	125.91	128.60
26	14	2389	G	C8-N9-C4	-5.37	104.25	106.40
1	13	690	G	C5-C6-O6	-5.37	125.38	128.60
26	1H	508	G	C5-C6-O6	-5.37	125.38	128.60
26	14	273(F)	C	N1-C2-O2	5.37	122.12	118.90
26	14	1844	C	OP1-P-OP2	-5.37	111.55	119.60
26	14	2525	G	C4-C5-N7	-5.37	108.65	110.80
26	1H	2745	C	C6-N1-C2	-5.37	118.15	120.30
26	1H	250	G	OP1-P-O3'	5.37	117.00	105.20
26	1H	577	G	N3-C4-N9	5.37	129.22	126.00
26	1H	910	A	C4-C5-C6	5.37	119.68	117.00
26	1H	945	A	O5'-P-OP2	-5.36	100.87	105.70
26	1H	2036	C	C5-C6-N1	5.36	123.68	121.00
1	1G	453	A	O5'-P-OP1	-5.36	100.87	105.70
26	14	989	G	O5'-P-OP1	-5.36	100.87	105.70
26	14	1614	A	C6-C5-N7	-5.36	128.55	132.30
1	13	752	G	C6-C5-N7	-5.36	127.18	130.40
26	1H	1352	U	N3-C2-O2	5.36	125.95	122.20
26	14	138	G	N3-C4-C5	-5.36	125.92	128.60
23	2K	77	A	N1-C6-N6	5.36	121.82	118.60
26	1H	214	G	C8-N9-C4	-5.36	104.25	106.40
26	14	393	C	N3-C4-C5	-5.36	119.76	121.90
26	14	2001	A	C5-C6-N6	-5.36	119.41	123.70
26	14	2607	G	C5-C6-O6	-5.36	125.38	128.60
26	1H	1440	G	OP1-P-O3'	5.36	116.99	105.20
1	13	1054	C	N1-C2-O2	5.36	122.11	118.90
26	1H	815	C	C5-C6-N1	-5.36	118.32	121.00
26	1H	2502	G	N3-C4-C5	-5.36	125.92	128.60
26	1H	259	G	C6-C5-N7	-5.36	127.19	130.40
26	1H	568	U	C6-N1-C2	5.36	124.21	121.00
26	1H	1942	C	N3-C4-C5	5.36	124.04	121.90
55	Q8	62	LEU	C-N-CD	5.36	139.65	128.40
26	14	1319	G	C4-N9-C1'	5.36	133.46	126.50
26	14	2226	C	N1-C2-O2	5.36	122.11	118.90
26	14	2877	G	C5-C6-N1	-5.36	108.82	111.50
26	1H	120	U	N1-C2-N3	5.35	118.11	114.90
26	14	796	C	N3-C4-C5	5.35	124.04	121.90
26	1H	199	A	C2-N3-C4	5.35	113.28	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	388	G	OP1-P-OP2	5.35	127.63	119.60
26	1H	658	C	N1-C2-O2	5.35	122.11	118.90
26	1H	1304	C	C4-C5-C6	-5.35	114.72	117.40
26	1H	2489	G	C6-C5-N7	-5.35	127.19	130.40
1	1G	563	A	O4'-C1'-N9	5.35	112.48	108.20
1	13	792	A	C8-N9-C4	5.35	107.94	105.80
1	13	1498	U	N3-C4-O4	5.35	123.14	119.40
26	1H	458	G	O4'-C1'-N9	5.35	112.48	108.20
26	1H	621	A	C5-C6-N1	-5.35	115.02	117.70
26	1H	1034	G	C5-C6-O6	-5.35	125.39	128.60
26	14	676	A	C8-N9-C4	-5.35	103.66	105.80
26	14	2508	G	N1-C6-O6	5.35	123.11	119.90
26	1H	451	C	N1-C2-O2	-5.35	115.69	118.90
26	1H	2060	A	O5'-P-OP1	-5.35	100.89	105.70
26	1H	2272	U	O5'-P-OP1	5.35	117.12	110.70
1	13	904	C	N3-C2-O2	-5.35	118.16	121.90
26	1H	142	G	C8-N9-C1'	5.35	133.95	127.00
26	1H	609	A	C6-C5-N7	-5.35	128.56	132.30
26	1H	1567	A	N1-C6-N6	5.35	121.81	118.60
26	14	205	G	O4'-C1'-N9	5.35	112.48	108.20
26	14	1301	A	O4'-C1'-N9	5.35	112.48	108.20
26	14	2210	G	C8-N9-C1'	-5.35	120.05	127.00
26	1H	621	A	N1-C2-N3	5.34	131.97	129.30
26	1H	2525	G	N3-C2-N2	-5.34	116.16	119.90
26	14	463	G	OP1-P-O3'	5.34	116.96	105.20
26	14	2724	C	OP2-P-O3'	5.34	116.96	105.20
1	13	963	G	C6-C5-N7	-5.34	127.19	130.40
26	1H	1368	G	C8-N9-C4	-5.34	104.26	106.40
26	14	2595	G	O5'-P-OP1	-5.34	100.89	105.70
27	1J	3	C	N3-C4-C5	-5.34	119.76	121.90
1	13	635	G	N1-C6-O6	5.34	123.10	119.90
26	1H	71	A	N7-C8-N9	5.34	116.47	113.80
26	1H	974(A)	C	C6-N1-C2	-5.34	118.16	120.30
26	1H	1297	C	OP1-P-O3'	5.34	116.95	105.20
26	1H	2399	G	C4-C5-N7	-5.34	108.66	110.80
1	1G	670	G	O5'-P-OP1	-5.34	100.89	105.70
26	14	1342	A	O4'-C1'-N9	5.34	112.47	108.20
26	14	1377	G	N3-C4-C5	-5.34	125.93	128.60
26	1H	783	A	N9-C1'-C2'	-5.34	106.13	112.00
26	1H	1259	G	C5-C6-N1	5.34	114.17	111.50
27	16	100	G	N9-C4-C5	-5.34	103.26	105.40
26	14	569	U	C6-N1-C2	5.34	124.20	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	832	G	OP1-P-O3'	5.34	116.95	105.20
26	14	930	U	N3-C2-O2	-5.34	118.46	122.20
26	14	2072	G	C5-C6-O6	-5.34	125.40	128.60
26	1H	1128	A	OP2-P-O3'	5.34	116.94	105.20
26	1H	315	G	N3-C4-N9	-5.34	122.80	126.00
26	1H	1928	A	C2-N3-C4	5.34	113.27	110.60
26	1H	2686	G	O5'-P-OP1	-5.34	100.90	105.70
26	14	330	A	N3-C4-C5	5.34	130.53	126.80
26	14	1187	G	C5-N7-C8	-5.34	101.63	104.30
1	13	843	U	C6-N1-C1'	-5.33	113.73	121.20
26	1H	1698	A	O4'-C1'-N9	5.33	112.47	108.20
26	1H	2751	G	N1-C2-N3	5.33	127.10	123.90
27	16	105	G	C5-C6-O6	-5.33	125.40	128.60
26	14	1645	G	C4-N9-C1'	5.33	133.44	126.50
26	1H	1669	A	O4'-C1'-N9	5.33	112.47	108.20
26	1H	2741	A	C8-N9-C4	5.33	107.93	105.80
31	31	62	ARG	NE-CZ-NH2	-5.33	117.63	120.30
26	14	1254	A	N1-C2-N3	5.33	131.97	129.30
26	1H	1051	G	N7-C8-N9	5.33	115.77	113.10
26	1H	1916	A	N7-C8-N9	5.33	116.47	113.80
26	1H	1967	C	O5'-P-OP2	-5.33	100.90	105.70
30	21	52	LEU	C-N-CD	-5.33	108.87	120.60
26	14	603	A	N7-C8-N9	5.33	116.47	113.80
26	14	803	U	C5-C6-N1	-5.33	120.03	122.70
26	14	1681	G	C5-N7-C8	-5.33	101.63	104.30
26	14	2327	A	C4-C5-N7	-5.33	108.03	110.70
26	14	801	G	N3-C4-N9	-5.33	122.80	126.00
26	14	871	U	O5'-P-OP1	-5.33	100.90	105.70
26	14	1341	U	OP1-P-O3'	5.33	116.92	105.20
26	14	2821	A	C2-N3-C4	-5.33	107.94	110.60
1	13	575	G	C8-N9-C1'	5.33	133.93	127.00
26	1H	411	G	N9-C4-C5	5.33	107.53	105.40
26	1H	623	G	C5-C6-O6	-5.33	125.40	128.60
1	1G	1096	C	C6-N1-C2	-5.33	118.17	120.30
57	3L	1	G	N3-C4-N9	5.33	129.20	126.00
26	14	462	C	C2-N3-C4	-5.33	117.24	119.90
26	14	1774	C	C5-C4-N4	-5.33	116.47	120.20
26	1H	811	U	N1-C2-O2	-5.32	119.07	122.80
49	J8	79	GLY	N-CA-C	5.32	126.41	113.10
26	1H	2311	A	C6-C5-N7	-5.32	128.57	132.30
1	13	799	G	C8-N9-C4	5.32	108.53	106.40
26	1H	972	G	O5'-P-OP1	5.32	117.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	576	G	C4-N9-C1'	5.32	133.41	126.50
26	1H	110	G	C8-N9-C4	5.32	108.53	106.40
26	1H	1192	G	C6-C5-N7	-5.32	127.21	130.40
26	14	191	A	N1-C2-N3	-5.32	126.64	129.30
26	14	694	U	N1-C2-O2	5.32	126.52	122.80
26	14	2547	U	C2-N1-C1'	-5.32	111.32	117.70
27	1J	27	C	C5-C6-N1	5.32	123.66	121.00
26	1H	1382	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	1523	U	C5-C6-N1	5.32	125.36	122.70
26	14	529	A	N1-C6-N6	5.32	121.79	118.60
26	14	1107	G	C8-N9-C4	-5.32	104.27	106.40
26	1H	651	G	N1-C6-O6	-5.31	116.71	119.90
26	1H	2280	G	OP1-P-O3'	5.31	116.89	105.20
1	1G	1498	U	P-O3'-C3'	5.31	126.08	119.70
26	1H	121	G	C5-C6-O6	-5.31	125.41	128.60
26	1H	1328	G	O5'-P-OP1	5.31	117.08	110.70
26	1H	1680	U	C6-N1-C2	5.31	124.19	121.00
1	1G	392	G	C8-N9-C4	5.31	108.53	106.40
56	1L	18	G	P-O3'-C3'	5.31	126.08	119.70
26	14	248	G	C5-C6-N1	5.31	114.16	111.50
26	14	1808	U	N1-C2-N3	-5.31	111.71	114.90
1	1G	690	G	N7-C8-N9	5.31	115.75	113.10
1	1G	1119	C	C6-N1-C2	-5.31	118.17	120.30
1	1G	1139	G	N3-C4-N9	-5.31	122.81	126.00
1	13	58	C	N1-C2-O2	5.31	122.08	118.90
26	1H	192	C	N3-C2-O2	5.31	125.62	121.90
26	1H	580	C	N1-C2-N3	5.31	122.92	119.20
26	1H	773	U	C2-N3-C4	-5.31	123.81	127.00
26	1H	866	A	C8-N9-C1'	-5.31	118.14	127.70
1	1G	754	C	N1-C2-O2	5.31	122.09	118.90
26	14	49	A	OP2-P-O3'	5.31	116.88	105.20
26	14	1411	C	O5'-P-OP2	-5.31	100.92	105.70
26	1H	2234	G	N7-C8-N9	-5.31	110.45	113.10
26	1H	2239	G	C5-C6-N1	5.31	114.15	111.50
26	1H	2583	G	N1-C2-N2	-5.31	111.42	116.20
26	1H	2782	G	C6-C5-N7	-5.31	127.22	130.40
26	14	51	G	C8-N9-C4	5.31	108.52	106.40
26	14	1332	G	N1-C2-N2	-5.31	111.42	116.20
26	14	1404	C	N3-C2-O2	-5.31	118.18	121.90
26	14	2417	C	O5'-P-OP2	-5.31	100.92	105.70
26	1H	1198	U	N3-C2-O2	-5.31	118.49	122.20
26	1H	1248	G	N3-C2-N2	-5.31	116.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	236	C	N3-C4-C5	-5.30	119.78	121.90
26	1H	1917	U	C5-C4-O4	5.30	129.08	125.90
1	1G	401	C	O5'-P-OP2	-5.30	100.93	105.70
26	14	1968	G	C4-C5-N7	5.30	112.92	110.80
26	1H	265	A	C6-C5-N7	-5.30	128.59	132.30
26	1H	663	G	N3-C4-C5	-5.30	125.95	128.60
26	1H	140	A	C4-N9-C1'	5.30	135.84	126.30
26	1H	265	A	C8-N9-C4	-5.30	103.68	105.80
26	1H	630	G	N9-C4-C5	-5.30	103.28	105.40
26	1H	866	A	C4-N9-C1'	5.30	135.84	126.30
26	1H	1312	U	O5'-P-OP1	-5.30	100.93	105.70
26	14	1203	G	N3-C2-N2	5.30	123.61	119.90
26	14	1441	G	C8-N9-C4	5.30	108.52	106.40
23	2K	3	C	C6-N1-C2	-5.30	118.18	120.30
26	1H	454	A	O5'-P-OP2	-5.30	100.93	105.70
26	1H	840	C	N1-C2-O2	-5.30	115.72	118.90
26	14	486	C	C6-N1-C2	-5.30	118.18	120.30
26	14	1558	A	P-O3'-C3'	5.30	126.06	119.70
26	14	2679	A	O5'-P-OP2	-5.30	100.93	105.70
23	2K	48	U	P-O3'-C3'	5.30	126.06	119.70
26	1H	587	C	C6-N1-C1'	-5.30	114.44	120.80
27	16	44	G	P-O3'-C3'	5.30	126.06	119.70
26	14	1332	G	N9-C1'-C2'	-5.30	106.17	112.00
26	14	2610	C	C5-C6-N1	-5.30	118.35	121.00
26	14	2712	U	N3-C2-O2	-5.30	118.49	122.20
1	13	761	G	N3-C4-C5	-5.29	125.95	128.60
26	1H	125	G	N1-C2-N2	-5.29	111.44	116.20
26	1H	403	U	N3-C2-O2	-5.29	118.49	122.20
26	1H	2448	A	N1-C6-N6	5.29	121.78	118.60
26	14	848	G	C4-N9-C1'	5.29	133.38	126.50
26	14	1704	G	C4-C5-N7	5.29	112.92	110.80
26	14	2502	G	N3-C4-C5	-5.29	125.95	128.60
26	1H	676	A	C6-N1-C2	5.29	121.78	118.60
26	14	1229(A)	G	C2-N3-C4	-5.29	109.25	111.90
26	14	1599	C	C6-N1-C2	-5.29	118.18	120.30
1	13	560	U	P-O3'-C3'	5.29	126.05	119.70
26	1H	797	C	C6-N1-C2	5.29	122.42	120.30
26	1H	945	A	N9-C1'-C2'	5.29	120.88	114.00
26	1H	2351	G	C8-N9-C1'	-5.29	120.12	127.00
26	14	446	G	C5-C6-O6	-5.29	125.43	128.60
26	14	1686	C	N3-C4-N4	5.29	121.70	118.00
26	1H	2351	G	C4-N9-C1'	5.29	133.38	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	21	U	N1-C2-O2	5.29	126.50	122.80
26	14	190	A	C4-C5-N7	5.29	113.34	110.70
26	14	2244	U	C5-C6-N1	-5.29	120.06	122.70
26	1H	774	A	C4-N9-C1'	-5.29	116.78	126.30
26	1H	1346	G	N3-C2-N2	5.29	123.60	119.90
1	1G	945	G	C4-N9-C1'	5.29	133.37	126.50
26	14	664	C	N3-C2-O2	-5.29	118.20	121.90
26	1H	704	G	C8-N9-C4	-5.28	104.29	106.40
26	1H	1111	A	O5'-P-OP1	-5.28	100.94	105.70
26	1H	1558	A	N1-C2-N3	5.28	131.94	129.30
26	1H	1663	C	C5-C4-N4	-5.28	116.50	120.20
1	1G	1246	C	C6-N1-C2	-5.28	118.19	120.30
26	14	34	C	P-O3'-C3'	5.28	126.04	119.70
26	14	470	A	C4-C5-N7	5.28	113.34	110.70
26	1H	1438	U	C6-N1-C2	-5.28	117.83	121.00
1	1G	932	C	C2-N1-C1'	5.28	124.61	118.80
1	13	758	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	1294	U	OP1-P-O3'	5.28	116.82	105.20
26	1H	2592	G	C6-C5-N7	-5.28	127.23	130.40
1	1G	529	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	626	U	OP1-P-O3'	5.28	116.81	105.20
26	1H	1324	G	O4'-C1'-N9	5.28	112.42	108.20
26	1H	1319	G	N7-C8-N9	5.28	115.74	113.10
26	1H	2591	C	C6-N1-C2	-5.28	118.19	120.30
26	14	126	A	OP2-P-O3'	5.28	116.81	105.20
26	14	1955	U	C5-C6-N1	-5.28	120.06	122.70
26	14	2576	G	N9-C4-C5	-5.28	103.29	105.40
26	1H	46	C	N3-C4-C5	-5.28	119.79	121.90
26	1H	685	A	N1-C6-N6	5.28	121.77	118.60
26	1H	1778	U	P-O3'-C3'	5.28	126.03	119.70
26	1H	2426	A	N1-C2-N3	-5.28	126.66	129.30
1	1G	1227	A	N1-C6-N6	-5.28	115.43	118.60
26	14	2425	A	OP2-P-O3'	5.28	116.81	105.20
27	1J	89	G	N3-C4-N9	5.28	129.16	126.00
26	1H	530	G	N9-C4-C5	5.27	107.51	105.40
26	1H	2065	C	C6-N1-C2	-5.27	118.19	120.30
1	13	748	C	P-O3'-C3'	5.27	126.03	119.70
1	13	1359	C	O5'-P-OP1	-5.27	100.95	105.70
26	1H	256	A	C5-C6-N1	-5.27	115.06	117.70
26	1H	780	G	C5-N7-C8	-5.27	101.66	104.30
26	1H	1051	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	1697	G	N1-C6-O6	5.27	123.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1799	G	N3-C2-N2	5.27	123.59	119.90
1	1G	266	G	N3-C4-C5	-5.27	125.96	128.60
27	1J	30	C	C2-N1-C1'	5.27	124.60	118.80
26	1H	1992	G	OP2-P-O3'	5.27	116.80	105.20
27	16	12	C	O4'-C1'-N1	5.27	112.42	108.20
26	14	1969	A	N1-C6-N6	-5.27	115.44	118.60
26	1H	651	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	1204	A	N7-C8-N9	5.27	116.44	113.80
26	1H	1672	C	OP2-P-O3'	5.27	116.79	105.20
26	1H	2308	G	N1-C6-O6	5.27	123.06	119.90
26	1H	2601	C	N1-C2-O2	5.27	122.06	118.90
26	14	1914	C	N3-C2-O2	-5.27	118.21	121.90
1	13	1281	U	C2-N1-C1'	5.27	124.02	117.70
26	1H	735	A	O5'-P-OP2	-5.27	100.96	105.70
26	1H	1543	A	C5-C6-N1	-5.27	115.07	117.70
26	1H	2329	G	OP1-P-OP2	5.27	127.50	119.60
27	16	115	G	N7-C8-N9	5.27	115.73	113.10
26	14	1241	A	C2-N3-C4	-5.27	107.97	110.60
1	13	798	G	OP2-P-O3'	5.27	116.79	105.20
26	1H	1977	A	N1-C2-N3	5.27	131.93	129.30
26	14	197	A	OP2-P-O3'	5.27	116.78	105.20
1	13	1088	G	N1-C6-O6	5.26	123.06	119.90
26	1H	69	C	O5'-P-OP1	-5.26	100.96	105.70
26	1H	793	A	C6-N1-C2	-5.26	115.44	118.60
26	1H	964	C	C6-N1-C2	-5.26	118.19	120.30
26	1H	2426	A	C4-C5-C6	-5.26	114.37	117.00
56	1L	74	C	C6-N1-C1'	-5.26	114.48	120.80
26	14	740	U	OP1-P-O3'	5.26	116.78	105.20
26	14	2039	C	N1-C2-O2	5.26	122.06	118.90
26	1H	1367	A	C2-N3-C4	-5.26	107.97	110.60
26	14	2546	U	C5-C4-O4	5.26	129.06	125.90
1	13	30	U	N3-C2-O2	5.26	125.88	122.20
1	13	1290	G	C8-N9-C4	-5.26	104.30	106.40
26	1H	330	A	N7-C8-N9	5.26	116.43	113.80
26	14	190	A	N3-C4-C5	5.26	130.48	126.80
26	14	1618	A	N9-C4-C5	5.26	107.91	105.80
26	14	1815	A	OP1-P-O3'	5.26	116.78	105.20
27	1J	6	C	C6-N1-C2	5.26	122.41	120.30
26	1H	211	A	C2-N3-C4	-5.26	107.97	110.60
26	1H	586	A	N7-C8-N9	-5.26	111.17	113.80
26	1H	2624	G	O5'-P-OP2	-5.26	100.97	105.70
1	1G	335	C	N3-C2-O2	-5.26	118.22	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	266	G	P-O3'-C3'	5.26	126.01	119.70
26	1H	265	A	N3-C4-N9	-5.26	123.19	127.40
26	1H	2346	A	N9-C1'-C2'	5.26	120.83	114.00
26	14	179	G	C5-C6-O6	-5.26	125.44	128.60
1	13	901	A	C2-N3-C4	-5.26	107.97	110.60
26	1H	126	A	OP2-P-O3'	5.26	116.76	105.20
26	1H	393	C	N1-C2-O2	-5.26	115.75	118.90
26	1H	518	G	N1-C6-O6	-5.26	116.75	119.90
26	1H	1509	C	OP1-P-O3'	5.26	116.77	105.20
26	1H	2052	G	O5'-P-OP1	-5.26	100.97	105.70
26	14	1803	A	O4'-C1'-N9	5.26	112.41	108.20
26	14	2283	C	N3-C2-O2	5.26	125.58	121.90
26	14	2444	G	N1-C6-O6	-5.26	116.75	119.90
26	1H	840	C	C2-N3-C4	-5.25	117.27	119.90
26	1H	1516	U	N3-C2-O2	-5.25	118.52	122.20
26	14	788	A	C8-N9-C4	-5.25	103.70	105.80
22	1K	74	C	C2-N1-C1'	5.25	124.58	118.80
26	1H	107	C	N3-C2-O2	5.25	125.58	121.90
26	1H	1438	U	C5-C6-N1	5.25	125.33	122.70
26	1H	1453	A	N9-C4-C5	-5.25	103.70	105.80
26	1H	1678	G	C8-N9-C4	-5.25	104.30	106.40
1	1G	560	U	C2-N1-C1'	5.25	124.00	117.70
26	14	2454	G	O5'-P-OP1	5.25	117.00	110.70
26	14	2473	U	N3-C2-O2	-5.25	118.52	122.20
1	13	40	C	O5'-P-OP2	-5.25	100.97	105.70
1	13	956	U	C5-C6-N1	5.25	125.33	122.70
26	1H	699	A	C2-N3-C4	5.25	113.23	110.60
26	14	2461	C	C6-N1-C2	5.25	122.40	120.30
26	1H	115	C	C5-C4-N4	-5.25	116.53	120.20
1	1G	865	A	C8-N9-C4	-5.25	103.70	105.80
26	1H	1344	G	N9-C4-C5	-5.25	103.30	105.40
26	1H	1566	A	N9-C4-C5	5.25	107.90	105.80
1	1G	992	U	P-O3'-C3'	5.25	126.00	119.70
26	14	3	U	C2-N1-C1'	5.25	124.00	117.70
26	14	48	G	N1-C6-O6	-5.25	116.75	119.90
30	29	50	GLY	N-CA-C	5.25	126.22	113.10
1	1G	953	G	N3-C4-C5	-5.25	125.98	128.60
1	1G	1322	C	C6-N1-C1'	-5.25	114.51	120.80
26	14	2587	A	C5-C6-N6	-5.25	119.50	123.70
26	1H	189	G	C8-N9-C4	5.24	108.50	106.40
26	1H	216	A	C8-N9-C4	5.24	107.90	105.80
26	1H	1808	U	N3-C4-O4	5.24	123.07	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2708	G	C4-N9-C1'	5.24	133.32	126.50
26	14	1332	G	O4'-C1'-N9	-5.24	104.01	108.20
26	14	1594	G	N7-C8-N9	5.24	115.72	113.10
26	14	2235	G	C8-N9-C1'	-5.24	120.18	127.00
26	14	2259	G	C5-C6-O6	-5.24	125.45	128.60
26	1H	568	U	C5-C6-N1	-5.24	120.08	122.70
26	1H	715	G	N3-C2-N2	5.24	123.57	119.90
26	1H	1157	G	C4-N9-C1'	5.24	133.31	126.50
1	13	437	U	C5-C6-N1	5.24	125.32	122.70
26	1H	447	A	C8-N9-C4	-5.24	103.70	105.80
26	1H	694	U	O5'-P-OP1	5.24	116.99	110.70
26	1H	1192	G	C8-N9-C4	5.24	108.50	106.40
26	14	233	A	C8-N9-C4	5.24	107.90	105.80
26	1H	1603	A	N7-C8-N9	5.24	116.42	113.80
26	1H	1977	A	C2-N3-C4	-5.24	107.98	110.60
26	14	307	G	C5-N7-C8	-5.24	101.68	104.30
26	14	330	A	N9-C4-C5	-5.24	103.70	105.80
26	14	2382	G	N3-C4-N9	5.24	129.14	126.00
26	1H	1246	A	OP1-P-OP2	5.24	127.46	119.60
26	1H	1548	C	C6-N1-C2	-5.24	118.20	120.30
26	1H	1992	G	C6-N1-C2	-5.24	121.96	125.10
26	14	2431	U	N1-C2-O2	-5.24	119.13	122.80
1	13	952	U	O5'-P-OP1	-5.24	100.99	105.70
26	1H	2249	U	C5-C6-N1	5.24	125.32	122.70
26	14	802	A	C5-C6-N1	5.24	120.32	117.70
26	1H	1198	U	N3-C4-C5	5.23	117.74	114.60
26	1H	1888	G	N3-C4-C5	-5.23	125.98	128.60
26	1H	2026	C	OP2-P-O3'	5.23	116.71	105.20
26	1H	2250	G	C4-C5-N7	-5.23	108.71	110.80
26	1H	2434	A	C8-N9-C4	5.23	107.89	105.80
26	1H	2601	C	C6-N1-C2	-5.23	118.21	120.30
26	1H	2620	C	N3-C2-O2	5.23	125.56	121.90
38	88	26	TYR	CA-CB-CG	5.23	123.34	113.40
26	14	34	C	C2-N1-C1'	5.23	124.56	118.80
26	14	510	C	C6-N1-C2	-5.23	118.21	120.30
26	14	1266	G	N7-C8-N9	-5.23	110.48	113.10
26	14	1804	C	C5-C6-N1	5.23	123.62	121.00
26	14	2573	C	C6-N1-C1'	-5.23	114.52	120.80
1	13	520	A	C4-C5-C6	5.23	119.61	117.00
24	3K	76	A	O4'-C1'-N9	5.23	112.39	108.20
26	14	470	A	OP1-P-O3'	5.23	116.71	105.20
26	14	1142	U	N3-C2-O2	-5.23	118.54	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2029	G	O5'-P-OP1	-5.23	100.99	105.70
26	1H	333	G	O4'-C1'-N9	-5.23	104.02	108.20
26	1H	1348	G	OP1-P-O3'	5.23	116.70	105.20
26	1H	842	G	N3-C4-C5	5.23	131.21	128.60
1	1G	1243	C	OP1-P-OP2	-5.23	111.76	119.60
26	14	265	A	O4'-C1'-N9	5.23	112.38	108.20
26	14	1698	A	P-O3'-C3'	5.23	125.97	119.70
26	14	2430	A	O5'-P-OP2	5.23	116.97	110.70
26	1H	1707	G	C4-C5-N7	5.23	112.89	110.80
26	14	817	C	C2-N3-C4	5.23	122.51	119.90
1	13	523	A	C4-C5-N7	5.22	113.31	110.70
1	13	529	G	N9-C4-C5	-5.22	103.31	105.40
26	1H	120	U	N3-C4-C5	-5.22	111.47	114.60
26	14	655	A	C2-N3-C4	-5.22	107.99	110.60
26	1H	2031	A	C2-N3-C4	5.22	113.21	110.60
30	29	78	LEU	CA-CB-CG	5.22	127.31	115.30
1	13	1331	G	N7-C8-N9	5.22	115.71	113.10
26	1H	453	C	C6-N1-C1'	5.22	127.06	120.80
26	1H	1325	G	N3-C4-C5	-5.22	125.99	128.60
26	1H	708	C	O5'-P-OP2	-5.22	101.00	105.70
26	1H	1031	G	C6-N1-C2	-5.22	121.97	125.10
26	14	125	G	C6-C5-N7	-5.22	127.27	130.40
26	14	179	G	C8-N9-C4	5.22	108.49	106.40
26	14	859	G	N3-C4-N9	-5.22	122.87	126.00
1	13	1227	A	C4-C5-N7	5.21	113.31	110.70
26	1H	251	A	N1-C6-N6	-5.21	115.47	118.60
26	1H	447	A	N1-C6-N6	-5.21	115.47	118.60
26	1H	577	G	OP1-P-OP2	-5.21	111.78	119.60
26	1H	2508	G	N7-C8-N9	5.21	115.71	113.10
26	1H	2591	C	C5-C4-N4	-5.21	116.55	120.20
26	14	1276	A	C2-N3-C4	-5.21	107.99	110.60
26	14	1574	C	C5-C6-N1	5.21	123.61	121.00
26	1H	766	C	C4-C5-C6	5.21	120.01	117.40
1	13	221	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	250	G	N1-C6-O6	-5.21	116.77	119.90
26	1H	458	G	C8-N9-C1'	5.21	133.78	127.00
26	1H	569	U	C5-C6-N1	-5.21	120.09	122.70
26	1H	840	C	C2-N1-C1'	-5.21	113.07	118.80
26	1H	1967	C	OP2-P-O3'	5.21	116.66	105.20
26	1H	2308	G	C4-C5-N7	5.21	112.89	110.80
26	1H	2335	A	O4'-C1'-N9	5.21	112.37	108.20
26	14	1630(A)	C	N1-C2-O2	-5.21	115.77	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2712	U	C2-N3-C4	-5.21	123.87	127.00
1	13	320	C	C6-N1-C2	5.21	122.38	120.30
26	1H	664	C	C5-C6-N1	-5.21	118.39	121.00
26	1H	715	G	N3-C4-N9	5.21	129.12	126.00
26	1H	1606	G	O5'-P-OP2	-5.21	101.01	105.70
26	1H	1616	A	OP1-P-OP2	5.21	127.41	119.60
26	1H	2373	G	C5-C6-O6	-5.21	125.47	128.60
26	1H	2617	C	N3-C2-O2	5.21	125.55	121.90
26	14	2295	C	C2-N1-C1'	5.21	124.53	118.80
26	14	2460	U	O5'-P-OP1	-5.21	101.01	105.70
26	14	2501	C	P-O3'-C3'	5.21	125.95	119.70
26	1H	932	G	C5-C6-O6	5.21	131.72	128.60
26	1H	1248	G	C5-C6-N1	-5.21	108.90	111.50
26	1H	1550	C	N1-C2-O2	-5.21	115.78	118.90
26	1H	2686	G	OP1-P-OP2	5.21	127.41	119.60
1	1G	1227	A	C5-C6-N1	5.21	120.30	117.70
26	14	456	C	N1-C2-O2	-5.21	115.78	118.90
26	14	826	U	N1-C2-N3	5.21	118.02	114.90
26	14	1548	C	OP1-P-O3'	5.21	116.66	105.20
26	14	2445	G	OP2-P-O3'	5.21	116.65	105.20
26	1H	738	G	C5-N7-C8	-5.21	101.70	104.30
26	1H	909	A	N9-C4-C5	5.21	107.88	105.80
26	1H	144	C	C5-C6-N1	-5.20	118.40	121.00
26	1H	2466	C	OP2-P-O3'	5.20	116.65	105.20
26	1H	2616	C	C6-N1-C2	-5.20	118.22	120.30
26	14	90	U	O4'-C1'-N1	5.20	112.36	108.20
26	14	752	A	P-O3'-C3'	5.20	125.94	119.70
26	14	1145	C	C6-N1-C2	-5.20	118.22	120.30
26	14	1930	G	C4-C5-N7	-5.20	108.72	110.80
26	1H	25	U	C5-C4-O4	-5.20	122.78	125.90
26	1H	719	C	C6-N1-C2	-5.20	118.22	120.30
26	1H	1678	G	N3-C2-N2	-5.20	116.26	119.90
26	1H	1829	A	N9-C4-C5	5.20	107.88	105.80
1	1G	1412	C	N1-C2-O2	-5.20	115.78	118.90
26	14	2596	U	OP1-P-OP2	5.20	127.40	119.60
1	13	192	U	O5'-P-OP1	-5.20	101.02	105.70
1	13	901	A	C6-C5-N7	-5.20	128.66	132.30
26	1H	580	C	C4-C5-C6	5.20	120.00	117.40
26	1H	1675	C	N3-C4-N4	-5.20	114.36	118.00
26	1H	2451	A	C4-C5-C6	-5.20	114.40	117.00
1	1G	437	U	N3-C2-O2	-5.20	118.56	122.20
1	1G	450	G	N3-C4-N9	-5.20	122.88	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1449	C	N1-C2-O2	5.20	122.02	118.90
26	14	941	A	C2-N3-C4	5.20	113.20	110.60
26	14	1950	G	C2-N3-C4	5.20	114.50	111.90
26	14	2033	A	C6-N1-C2	-5.20	115.48	118.60
26	14	2584	U	N1-C2-O2	5.20	126.44	122.80
1	13	428	G	C4-N9-C1'	-5.20	119.74	126.50
26	1H	124	G	C5-C6-O6	-5.20	125.48	128.60
26	1H	491	G	C8-N9-C4	5.20	108.48	106.40
26	1H	2366	A	OP2-P-O3'	5.20	116.64	105.20
1	1G	508	C	O5'-P-OP1	-5.20	101.02	105.70
1	1G	1403	C	N3-C4-C5	5.20	123.98	121.90
26	14	139	G	O5'-P-OP2	5.20	116.94	110.70
1	13	104	G	C4-N9-C1'	-5.20	119.74	126.50
1	13	667	G	C8-N9-C4	-5.20	104.32	106.40
26	1H	1565	C	OP2-P-O3'	5.20	116.63	105.20
26	14	1135	C	C6-N1-C1'	-5.20	114.56	120.80
26	1H	1971	A	C2-N3-C4	5.19	113.20	110.60
26	1H	2407	G	O5'-P-OP1	5.19	116.93	110.70
26	14	1926	U	N3-C2-O2	-5.19	118.56	122.20
26	1H	1548	C	OP1-P-O3'	5.19	116.62	105.20
26	1H	2014	A	N1-C6-N6	5.19	121.72	118.60
26	1H	2351	G	N3-C4-C5	-5.19	126.00	128.60
1	1G	1498	U	C2-N1-C1'	5.19	123.93	117.70
26	14	194	G	C2-N3-C4	-5.19	109.30	111.90
26	14	273(F)	C	N3-C2-O2	-5.19	118.27	121.90
26	14	2766	G	C6-C5-N7	-5.19	127.28	130.40
1	13	186	C	C6-N1-C2	-5.19	118.22	120.30
26	1H	594	U	C5-C6-N1	-5.19	120.11	122.70
26	1H	1355	G	N3-C2-N2	5.19	123.53	119.90
26	1H	1804	C	OP1-P-OP2	-5.19	111.81	119.60
26	1H	2085	C	O5'-P-OP2	-5.19	101.03	105.70
26	1H	2621	A	N9-C4-C5	-5.19	103.72	105.80
26	1H	2690	C	C4-C5-C6	5.19	120.00	117.40
26	14	733	G	N1-C2-N2	-5.19	111.53	116.20
26	14	956	G	N1-C6-O6	5.19	123.01	119.90
44	A5	84	ARG	NE-CZ-NH1	-5.19	117.70	120.30
23	2K	62	C	C6-N1-C2	-5.19	118.22	120.30
26	1H	1426	G	C8-N9-C4	-5.19	104.32	106.40
1	13	912	C	N1-C2-O2	-5.19	115.79	118.90
26	1H	691	C	P-O3'-C3'	-5.19	113.48	119.70
26	1H	787	U	N1-C2-O2	-5.19	119.17	122.80
26	1H	790	C	C6-N1-C2	5.19	122.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1575	C	N1-C2-O2	5.19	122.01	118.90
26	1H	2543	G	C8-N9-C4	5.19	108.47	106.40
26	1H	2618	G	N3-C4-C5	-5.19	126.01	128.60
26	14	2435	A	N7-C8-N9	5.19	116.39	113.80
26	1H	1777	U	N3-C4-C5	-5.18	111.49	114.60
26	1H	2590	A	N1-C2-N3	5.18	131.89	129.30
1	1G	183	G	N1-C6-O6	5.18	123.01	119.90
26	14	1971	A	OP1-P-O3'	5.18	116.61	105.20
1	13	518	C	N3-C4-N4	5.18	121.63	118.00
26	1H	1767	C	N3-C2-O2	-5.18	118.27	121.90
26	14	2000	G	C8-N9-C4	5.18	108.47	106.40
26	14	1309	G	C5-C6-N1	-5.18	108.91	111.50
1	13	651	C	N3-C2-O2	-5.18	118.27	121.90
1	13	1502	A	N7-C8-N9	5.18	116.39	113.80
26	1H	113	G	N3-C4-C5	5.18	131.19	128.60
26	1H	1948	G	N3-C2-N2	5.18	123.53	119.90
1	1G	328	C	N1-C2-O2	5.18	122.01	118.90
26	14	500	G	C8-N9-C4	5.18	108.47	106.40
26	14	509	C	OP2-P-O3'	5.18	116.60	105.20
26	14	2421	G	OP1-P-O3'	5.18	116.59	105.20
22	1K	76	A	N1-C6-N6	5.18	121.71	118.60
26	1H	227	A	C8-N9-C4	-5.18	103.73	105.80
26	1H	389	G	C8-N9-C1'	-5.18	120.27	127.00
26	1H	780	G	N1-C6-O6	5.18	123.01	119.90
33	51	13	LYS	N-CA-C	5.18	124.98	111.00
26	1H	845	G	C2-N3-C4	-5.18	109.31	111.90
26	1H	954	G	C8-N9-C4	-5.18	104.33	106.40
26	1H	2717	G	OP1-P-OP2	5.18	127.36	119.60
40	A8	101	LEU	CA-CB-CG	5.18	127.21	115.30
1	1G	720	C	C6-N1-C2	-5.18	118.23	120.30
26	14	1616	A	N3-C4-C5	5.18	130.42	126.80
26	14	1893	C	C6-N1-C2	-5.18	118.23	120.30
26	14	2430	A	C8-N9-C1'	5.18	137.02	127.70
26	1H	119	A	C5-C6-N6	5.17	127.84	123.70
26	1H	302	C	N3-C2-O2	-5.17	118.28	121.90
26	1H	430	G	C5-C6-O6	-5.17	125.50	128.60
26	14	1379	A	N1-C6-N6	5.17	121.70	118.60
26	14	2053	G	N9-C4-C5	-5.17	103.33	105.40
26	1H	710	G	N1-C6-O6	5.17	123.00	119.90
26	1H	974	G	OP1-P-OP2	5.17	127.36	119.60
26	1H	1269	A	O5'-P-OP1	-5.17	101.04	105.70
26	1H	205	G	N3-C4-N9	5.17	129.10	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1617	C	O5'-P-OP1	-5.17	101.05	105.70
1	1G	784	C	C6-N1-C2	5.17	122.37	120.30
26	14	1940	U	C4-C5-C6	5.17	122.80	119.70
27	1J	81	G	N1-C6-O6	5.17	123.00	119.90
1	13	1286	A	C8-N9-C4	-5.17	103.73	105.80
26	1H	860	U	C2-N3-C4	-5.17	123.90	127.00
26	1H	729	G	N9-C4-C5	5.17	107.47	105.40
26	1H	1437	C	C2-N1-C1'	5.17	124.49	118.80
26	1H	1636	C	OP1-P-O3'	5.17	116.57	105.20
26	1H	1710	C	O5'-P-OP2	-5.17	101.05	105.70
26	1H	1764	G	N1-C6-O6	-5.17	116.80	119.90
26	1H	1823	G	N1-C2-N3	5.17	127.00	123.90
27	16	81	G	C5-N7-C8	-5.17	101.72	104.30
26	1H	1279	G	C5-C6-O6	5.17	131.70	128.60
26	1H	2073	C	N1-C2-O2	-5.17	115.80	118.90
26	14	2361	A	C2-N3-C4	-5.17	108.02	110.60
26	1H	465	G	OP2-P-O3'	5.17	116.56	105.20
26	1H	502	A	C6-N1-C2	-5.17	115.50	118.60
26	1H	1929	G	C8-N9-C4	5.17	108.47	106.40
26	14	211	A	C8-N9-C4	5.17	107.87	105.80
1	13	104	G	C8-N9-C1'	5.16	133.71	127.00
23	2K	40	C	C5-C6-N1	5.16	123.58	121.00
26	1H	73	A	C5-C6-N6	-5.16	119.57	123.70
26	1H	821	A	OP1-P-OP2	5.16	127.35	119.60
26	1H	2172	U	C2-N1-C1'	5.16	123.90	117.70
26	1H	2665	A	C4-C5-N7	5.16	113.28	110.70
26	1H	2689	U	C2-N1-C1'	-5.16	111.50	117.70
26	14	1021	A	C5-N7-C8	-5.16	101.32	103.90
27	1J	79	C	OP2-P-O3'	5.16	116.56	105.20
26	1H	112	U	N1-C2-N3	-5.16	111.80	114.90
26	14	782	A	N7-C8-N9	5.16	116.38	113.80
26	1H	693	C	OP1-P-OP2	5.16	127.34	119.60
26	1H	770	G	N3-C4-N9	-5.16	122.90	126.00
1	1G	560	U	C3'-C2'-C1'	5.16	105.63	101.50
43	95	35	LEU	CA-CB-CG	5.16	127.17	115.30
1	13	1488	G	N3-C4-N9	5.16	129.09	126.00
23	2K	27	G	C6-C5-N7	-5.16	127.31	130.40
26	1H	2712	U	N3-C2-O2	-5.16	118.59	122.20
1	1G	1535	C	N1-C2-O2	5.16	122.00	118.90
26	14	385	C	N1-C2-O2	5.16	122.00	118.90
26	14	388	G	C8-N9-C1'	5.16	133.71	127.00
26	14	1342	A	N9-C1'-C2'	5.16	120.71	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	445	C	OP1-P-O3'	5.16	116.55	105.20
26	1H	1247	A	C6-N1-C2	-5.16	115.51	118.60
1	1G	1181	G	N3-C4-C5	-5.16	126.02	128.60
26	14	1204	A	N3-C4-C5	5.16	130.41	126.80
26	14	1446	C	N1-C2-O2	5.16	121.99	118.90
26	1H	148	C	C4-C5-C6	5.16	119.98	117.40
26	1H	2056	G	O5'-P-OP2	-5.16	101.06	105.70
26	14	760	G	N3-C2-N2	-5.16	116.29	119.90
1	13	288	A	N1-C6-N6	5.15	121.69	118.60
1	13	1301	U	OP1-P-O3'	5.15	116.54	105.20
26	1H	746	A	N9-C4-C5	5.15	107.86	105.80
26	1H	1162	G	N7-C8-N9	5.15	115.68	113.10
26	1H	2428	G	C5-C6-O6	5.15	131.69	128.60
26	14	782	A	C8-N9-C4	-5.15	103.74	105.80
26	14	1506	C	C5-C6-N1	5.15	123.58	121.00
1	13	623	C	C2-N3-C4	5.15	122.48	119.90
26	1H	120	U	O5'-P-OP2	5.15	116.88	110.70
26	1H	1008	C	O5'-P-OP1	-5.15	101.06	105.70
26	1H	1157	G	C6-C5-N7	-5.15	127.31	130.40
26	1H	2287	A	C5-N7-C8	-5.15	101.32	103.90
26	14	692	C	N3-C2-O2	5.15	125.51	121.90
26	14	1938	A	C5-C6-N6	-5.15	119.58	123.70
26	14	2499	C	N3-C2-O2	-5.15	118.29	121.90
26	1H	227	A	N9-C4-C5	5.15	107.86	105.80
26	1H	1888	G	C4-N9-C1'	5.15	133.20	126.50
26	1H	2710	C	C6-N1-C2	5.15	122.36	120.30
26	14	610	C	C5-C6-N1	-5.15	118.42	121.00
26	14	972	G	C8-N9-C4	-5.15	104.34	106.40
26	14	1695	G	C8-N9-C4	-5.15	104.34	106.40
26	14	2056	G	C8-N9-C1'	-5.15	120.31	127.00
26	14	2867	G	N1-C6-O6	-5.15	116.81	119.90
26	1H	1256	G	C4-N9-C1'	5.15	133.19	126.50
1	1G	1285	A	P-O3'-C3'	5.15	125.88	119.70
26	14	1742	C	N1-C2-O2	5.15	121.99	118.90
26	14	2304	G	N3-C4-N9	-5.15	122.91	126.00
1	13	50	A	C2-N3-C4	5.15	113.17	110.60
1	13	1518	A	C5-N7-C8	5.15	106.47	103.90
26	1H	1603	A	N9-C4-C5	5.15	107.86	105.80
26	1H	2538	C	C6-N1-C2	5.15	122.36	120.30
26	14	197	A	N1-C2-N3	5.15	131.87	129.30
26	14	1142(A)	A	O4'-C1'-N9	-5.15	104.08	108.20
26	1H	298	G	C5-C6-O6	-5.15	125.51	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1430	C	N3-C4-C5	-5.15	119.84	121.90
26	1H	2052	G	OP2-P-O3'	5.15	116.52	105.20
26	1H	2446	G	C5-C6-O6	-5.15	125.51	128.60
1	1G	288	A	N1-C6-N6	5.15	121.69	118.60
26	1H	335	C	C5-C6-N1	5.14	123.57	121.00
26	1H	2070	G	C8-N9-C4	5.14	108.46	106.40
26	1H	2602	A	C2-N3-C4	5.14	113.17	110.60
27	16	19	G	N3-C4-C5	5.14	131.17	128.60
26	14	808	G	N1-C2-N2	-5.14	111.57	116.20
26	14	1332	G	OP1-P-O3'	5.14	116.52	105.20
2	1E	158	LEU	CA-CB-CG	5.14	127.13	115.30
23	2K	31	G	O5'-P-OP2	5.14	116.87	110.70
26	1H	250	G	N7-C8-N9	5.14	115.67	113.10
26	1H	517	C	N3-C4-N4	5.14	121.60	118.00
26	1H	1790	C	C5-C4-N4	-5.14	116.60	120.20
26	14	515	A	C8-N9-C4	-5.14	103.74	105.80
1	13	47	C	C4-C5-C6	5.14	119.97	117.40
1	13	518	C	C6-N1-C2	5.14	122.36	120.30
1	13	1192	C	C2-N1-C1'	5.14	124.45	118.80
26	1H	1128	A	C5-C6-N6	-5.14	119.59	123.70
26	1H	2473	U	N1-C2-O2	5.14	126.40	122.80
26	1H	2518	A	O5'-P-OP2	5.14	116.87	110.70
1	1G	1533	C	P-O3'-C3'	5.14	125.87	119.70
26	1H	272	G	C8-N9-C4	5.14	108.45	106.40
26	1H	576	U	OP1-P-OP2	5.14	127.31	119.60
26	1H	2019	A	C5-C6-N6	-5.14	119.59	123.70
1	13	865	A	N7-C8-N9	5.14	116.37	113.80
1	13	910	C	C2-N3-C4	-5.14	117.33	119.90
26	1H	965	C	C6-N1-C2	-5.14	118.25	120.30
26	14	256	A	C2-N3-C4	-5.14	108.03	110.60
26	14	1032	A	C8-N9-C4	5.14	107.86	105.80
27	1J	103	U	O5'-P-OP2	-5.14	101.08	105.70
1	13	910	C	C5-C6-N1	-5.13	118.43	121.00
26	1H	916	G	N7-C8-N9	5.13	115.67	113.10
26	1H	1992	G	C8-N9-C4	-5.13	104.35	106.40
27	16	53	A	C8-N9-C4	-5.13	103.75	105.80
37	78	65	ARG	NE-CZ-NH2	-5.13	117.73	120.30
26	14	575	A	N9-C4-C5	-5.13	103.75	105.80
26	14	1386	C	C5-C6-N1	5.13	123.57	121.00
26	14	2432	A	C5-C6-N6	-5.13	119.59	123.70
1	13	509	A	C2-N3-C4	5.13	113.17	110.60
26	1H	974(A)	C	C2-N1-C1'	5.13	124.45	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1258	C	C5-C6-N1	-5.13	118.43	121.00
26	1H	1665	A	OP1-P-O3'	5.13	116.49	105.20
50	G5	33	MET	CB-CG-SD	-5.13	97.00	112.40
26	1H	1022	G	C8-N9-C4	-5.13	104.35	106.40
26	1H	1681	G	N3-C4-C5	5.13	131.17	128.60
26	1H	1901	A	C8-N9-C4	-5.13	103.75	105.80
26	1H	2665	A	N1-C2-N3	5.13	131.87	129.30
1	1G	73	G	C5-C6-N1	-5.13	108.94	111.50
26	14	1984	G	N9-C4-C5	-5.13	103.35	105.40
26	1H	736	C	N3-C2-O2	5.13	125.49	121.90
27	1J	117	G	N3-C4-N9	-5.13	122.92	126.00
1	13	576	G	C6-C5-N7	-5.13	127.32	130.40
26	1H	983	A	N7-C8-N9	-5.13	111.23	113.80
26	1H	1516	U	OP1-P-O3'	5.13	116.48	105.20
26	1H	1699	G	O4'-C1'-N9	5.13	112.30	108.20
26	1H	2418	A	N1-C2-N3	-5.13	126.74	129.30
26	1H	2875	C	O5'-P-OP1	-5.13	101.08	105.70
26	14	1661	G	O5'-P-OP2	-5.13	101.08	105.70
1	13	830	G	N3-C4-C5	5.13	131.16	128.60
26	1H	424	G	N3-C2-N2	-5.13	116.31	119.90
26	14	270(O)	U	N1-C2-O2	5.13	126.39	122.80
26	1H	259	G	C4-C5-N7	5.12	112.85	110.80
26	14	1249	U	C5-C6-N1	-5.12	120.14	122.70
26	1H	1389	G	OP1-P-O3'	5.12	116.47	105.20
1	13	1488	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	599	G	N3-C2-N2	5.12	123.49	119.90
26	1H	647	G	C8-N9-C4	-5.12	104.35	106.40
26	1H	648	G	N3-C4-N9	-5.12	122.93	126.00
26	1H	1808	U	C5-C4-O4	-5.12	122.83	125.90
26	1H	2712	U	N1-C2-N3	5.12	117.97	114.90
26	14	945	A	N7-C8-N9	5.12	116.36	113.80
26	14	1647	G	O5'-P-OP2	5.12	116.85	110.70
26	14	2270	G	N1-C6-O6	-5.12	116.83	119.90
26	14	2688	U	C4-C5-C6	5.12	122.77	119.70
26	14	74	A	C5-N7-C8	-5.12	101.34	103.90
26	14	620	G	C8-N9-C4	-5.12	104.35	106.40
26	14	642	G	N7-C8-N9	5.12	115.66	113.10
26	1H	1381	G	OP1-P-OP2	-5.12	111.92	119.60
26	14	183	C	OP2-P-O3'	5.12	116.46	105.20
26	14	2580	U	O5'-P-OP2	5.12	116.84	110.70
26	14	2265	U	N3-C4-O4	5.12	122.98	119.40
26	14	2685	G	OP1-P-O3'	5.12	116.46	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	16	100	G	N1-C2-N2	-5.12	111.60	116.20
26	14	798	G	N1-C6-O6	-5.12	116.83	119.90
26	14	1348	G	C5-C6-O6	-5.12	125.53	128.60
26	14	1698	A	C4-N9-C1'	5.12	135.51	126.30
26	14	2239	G	C8-N9-C4	5.12	108.45	106.40
26	14	2527	C	C6-N1-C2	-5.12	118.25	120.30
26	14	2542	A	O5'-P-OP2	-5.12	101.09	105.70
26	1H	198	C	C5-C4-N4	-5.11	116.62	120.20
26	1H	664	C	OP1-P-OP2	5.11	127.27	119.60
26	1H	1256	G	C8-N9-C1'	-5.11	120.35	127.00
26	1H	1379	A	N9-C1'-C2'	5.11	120.65	114.00
1	1G	925	G	N9-C4-C5	-5.11	103.36	105.40
26	14	248	G	C6-N1-C2	-5.11	122.03	125.10
26	14	1249	U	C6-N1-C2	5.11	124.07	121.00
26	14	2448	A	C5-C6-N6	-5.11	119.61	123.70
1	13	1362(A)	C	C6-N1-C2	5.11	122.34	120.30
1	13	1406	U	OP2-P-O3'	5.11	116.44	105.20
26	1H	256	A	N9-C4-C5	-5.11	103.76	105.80
26	1H	575	A	N9-C4-C5	-5.11	103.76	105.80
26	1H	667	U	OP2-P-O3'	5.11	116.44	105.20
26	1H	681	G	N3-C4-N9	5.11	129.07	126.00
26	1H	2428	G	N1-C6-O6	-5.11	116.83	119.90
26	1H	2618	G	C4-C5-N7	-5.11	108.76	110.80
26	14	847	U	C2-N1-C1'	-5.11	111.57	117.70
26	14	2729	G	C4-C5-N7	5.11	112.84	110.80
26	1H	733	G	N3-C2-N2	5.11	123.48	119.90
26	14	1128	A	C5-C6-N1	5.11	120.25	117.70
26	1H	1476	C	C5-C6-N1	5.11	123.55	121.00
26	1H	2823	A	O5'-P-OP1	-5.11	101.10	105.70
43	D8	95	LEU	CA-CB-CG	5.11	127.05	115.30
26	14	922	U	OP1-P-O3'	5.11	116.44	105.20
26	14	2069	G	O5'-P-OP1	-5.11	101.10	105.70
1	13	1504	G	C8-N9-C4	5.11	108.44	106.40
23	2K	9	G	C2-N3-C4	5.11	114.45	111.90
26	1H	68	G	N9-C4-C5	5.11	107.44	105.40
26	1H	2487	G	C5-C6-O6	-5.11	125.54	128.60
26	1H	2520	C	N3-C2-O2	-5.11	118.33	121.90
26	14	252	G	C5-N7-C8	5.11	106.85	104.30
26	1H	105	C	N3-C2-O2	-5.10	118.33	121.90
26	1H	2500	U	N3-C2-O2	-5.10	118.63	122.20
26	14	1999	C	OP2-P-O3'	5.10	116.43	105.20
26	14	2378	A	N9-C4-C5	-5.10	103.76	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	422	C	C2-N3-C4	5.10	122.45	119.90
26	1H	858	U	OP2-P-O3'	5.10	116.42	105.20
26	1H	939	G	C5-C6-O6	5.10	131.66	128.60
26	1H	1445	C	N1-C2-O2	5.10	121.96	118.90
26	1H	1517	G	OP1-P-O3'	5.10	116.42	105.20
26	14	51	G	O5'-P-OP2	-5.10	101.11	105.70
26	14	2008	C	N1-C2-O2	-5.10	115.84	118.90
26	1H	865	C	N1-C2-N3	-5.10	115.63	119.20
26	14	2051	A	C5-N7-C8	-5.10	101.35	103.90
26	14	2430	A	N1-C2-N3	5.10	131.85	129.30
27	1J	81	G	N9-C4-C5	-5.10	103.36	105.40
26	1H	141(A)	C	N3-C4-N4	5.10	121.57	118.00
26	1H	2311	A	O4'-C1'-N9	5.10	112.28	108.20
26	14	1776	G	N3-C4-N9	5.10	129.06	126.00
1	13	497	U	N1-C2-O2	5.10	126.37	122.80
26	14	866	A	O4'-C1'-N9	-5.10	104.12	108.20
26	14	2084	C	N1-C2-O2	-5.10	115.84	118.90
26	1H	1239	G	OP2-P-O3'	5.10	116.41	105.20
26	1H	2231	C	O5'-P-OP1	5.10	116.82	110.70
26	14	932	G	N3-C4-N9	-5.10	122.94	126.00
26	1H	563	G	OP2-P-O3'	5.09	116.41	105.20
26	1H	802	A	C5-N7-C8	-5.09	101.35	103.90
26	1H	1559	G	C2-N3-C4	-5.09	109.35	111.90
26	14	791	C	P-O3'-C3'	5.09	125.81	119.70
26	14	2427	C	OP2-P-O3'	5.09	116.41	105.20
1	13	1301	U	N3-C4-O4	5.09	122.97	119.40
24	3K	71	C	O4'-C1'-N1	5.09	112.27	108.20
26	1H	410	G	O5'-P-OP2	5.09	116.81	110.70
26	1H	450	G	N7-C8-N9	5.09	115.65	113.10
26	1H	2708	G	N3-C4-N9	5.09	129.06	126.00
26	14	1286	A	N9-C4-C5	5.09	107.84	105.80
1	13	736	C	N3-C2-O2	-5.09	118.34	121.90
26	1H	430	G	C6-C5-N7	-5.09	127.35	130.40
26	1H	840	C	C5-C6-N1	-5.09	118.45	121.00
26	1H	974	G	N1-C6-O6	5.09	122.95	119.90
26	1H	2603	G	O5'-P-OP1	-5.09	101.12	105.70
26	1H	2766	G	C8-N9-C1'	-5.09	120.38	127.00
26	14	733	G	N3-C2-N2	5.09	123.46	119.90
26	1H	651	G	N3-C4-C5	-5.09	126.06	128.60
26	1H	2655	G	C8-N9-C1'	5.09	133.61	127.00
37	78	71	VAL	C-N-CD	5.09	139.09	128.40
26	14	1558	A	C2-N3-C4	-5.09	108.06	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	238	G	N7-C8-N9	-5.09	110.56	113.10
1	13	901	A	C4-C5-N7	5.09	113.24	110.70
1	13	1412	C	N3-C4-C5	5.09	123.94	121.90
26	1H	79	G	C8-N9-C4	-5.09	104.36	106.40
26	1H	275	G	C8-N9-C4	5.09	108.43	106.40
26	1H	731	C	OP1-P-O3'	5.09	116.39	105.20
26	1H	1834	U	C6-N1-C2	-5.09	117.95	121.00
26	1H	2490	G	C8-N9-C1'	-5.09	120.39	127.00
1	1G	769	G	C4-N9-C1'	5.09	133.11	126.50
26	14	1328	G	N3-C2-N2	5.09	123.46	119.90
26	14	1961	C	C2-N1-C1'	-5.09	113.20	118.80
26	1H	397	G	N3-C4-C5	5.08	131.14	128.60
1	13	905	U	N3-C4-C5	5.08	117.65	114.60
26	1H	686	G	N9-C4-C5	-5.08	103.37	105.40
26	1H	1899	G	C8-N9-C1'	5.08	133.61	127.00
26	1H	2084	C	C4-C5-C6	5.08	119.94	117.40
26	1H	2362	G	C8-N9-C4	5.08	108.43	106.40
28	71	68	LEU	CA-CB-CG	5.08	126.99	115.30
50	G5	16	LEU	N-CA-C	-5.08	97.27	111.00
26	1H	259	G	C8-N9-C4	5.08	108.43	106.40
26	1H	847	U	N1-C2-N3	5.08	117.95	114.90
26	1H	2250	G	C6-C5-N7	5.08	133.45	130.40
26	14	249	C	N1-C1'-C2'	5.08	120.61	114.00
26	14	876	C	N3-C2-O2	-5.08	118.34	121.90
26	14	917	A	C2-N3-C4	5.08	113.14	110.60
23	2K	28	U	OP2-P-O3'	5.08	116.38	105.20
26	1H	2199	A	N3-C4-C5	-5.08	123.24	126.80
26	14	1650	G	C8-N9-C4	-5.08	104.37	106.40
26	14	2299	G	C5-C6-O6	-5.08	125.55	128.60
26	1H	916	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	1325	G	C5-C6-O6	-5.08	125.55	128.60
26	14	116	C	OP2-P-O3'	5.08	116.37	105.20
26	14	213	A	C8-N9-C4	5.08	107.83	105.80
26	14	1827	C	OP1-P-O3'	5.08	116.37	105.20
26	14	2076	U	N1-C2-O2	-5.08	119.24	122.80
26	1H	66	C	C6-N1-C2	-5.08	118.27	120.30
26	14	729	G	OP2-P-O3'	5.08	116.37	105.20
26	1H	1306	C	C2-N1-C1'	-5.08	113.22	118.80
26	1H	1400	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	1658	C	C6-N1-C2	-5.08	118.27	120.30
26	14	736	C	N3-C2-O2	5.08	125.45	121.90
1	13	813	U	N3-C4-C5	5.07	117.64	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	76	A	C4-C5-N7	5.07	113.24	110.70
26	1H	533	G	N1-C2-N2	-5.07	111.63	116.20
26	1H	987	G	OP1-P-O3'	5.07	116.36	105.20
26	1H	1301	A	O4'-C1'-N9	5.07	112.26	108.20
26	1H	1425	G	OP1-P-O3'	5.07	116.36	105.20
26	1H	2379	G	N3-C4-N9	5.07	129.04	126.00
26	1H	2558	C	C2-N3-C4	-5.07	117.36	119.90
1	13	22	G	N3-C2-N2	-5.07	116.35	119.90
26	1H	655	A	C5-N7-C8	-5.07	101.36	103.90
26	14	670	A	N9-C4-C5	-5.07	103.77	105.80
26	14	1029	A	O5'-P-OP2	-5.07	101.14	105.70
26	1H	432	A	C5-C6-N6	-5.07	119.64	123.70
26	1H	529	A	N7-C8-N9	5.07	116.33	113.80
26	1H	632	A	OP1-P-OP2	-5.07	112.00	119.60
26	1H	803	U	OP2-P-O3'	5.07	116.36	105.20
26	1H	1266	G	N9-C4-C5	-5.07	103.37	105.40
26	1H	1649	G	C8-N9-C1'	-5.07	120.41	127.00
1	1G	377	G	N3-C4-N9	5.07	129.04	126.00
26	14	581	C	C6-N1-C2	-5.07	118.27	120.30
26	14	1138	G	C4-C5-N7	5.07	112.83	110.80
26	14	1394	U	N1-C2-O2	5.07	126.35	122.80
26	14	2376	A	N1-C6-N6	5.07	121.64	118.60
26	14	2466	C	OP2-P-O3'	5.07	116.36	105.20
31	39	123	LEU	CA-CB-CG	5.07	126.96	115.30
23	2K	77	A	C5-C6-N6	-5.07	119.64	123.70
26	1H	2360	A	C2-N3-C4	-5.07	108.06	110.60
40	65	101	LEU	CA-CB-CG	5.07	126.96	115.30
1	13	575	G	O4'-C1'-N9	-5.07	104.15	108.20
26	1H	77	C	C5-C4-N4	-5.07	116.65	120.20
26	1H	735	A	C2-N3-C4	-5.07	108.07	110.60
26	1H	2373	G	C6-C5-N7	-5.07	127.36	130.40
26	1H	2828	C	C6-N1-C2	5.07	122.33	120.30
1	1G	967	C	C2-N1-C1'	5.07	124.38	118.80
26	14	208	C	N3-C4-C5	5.07	123.93	121.90
26	14	855	G	N7-C8-N9	5.07	115.63	113.10
26	14	864	G	OP1-P-OP2	-5.07	112.00	119.60
26	14	1698	A	N7-C8-N9	5.07	116.33	113.80
26	14	2299	G	N1-C6-O6	5.07	122.94	119.90
26	14	2329	G	N1-C2-N2	-5.07	111.64	116.20
26	14	2707	G	N1-C6-O6	-5.07	116.86	119.90
26	1H	878	A	O4'-C1'-N9	5.07	112.25	108.20
26	1H	1306	C	O5'-P-OP2	5.07	116.78	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2199	A	N1-C6-N6	-5.07	115.56	118.60
27	16	42	C	N1-C2-O2	-5.07	115.86	118.90
26	14	1355	G	N3-C4-N9	5.07	129.04	126.00
26	14	2244	U	C4-C5-C6	5.07	122.74	119.70
1	13	1409	C	N3-C4-N4	-5.06	114.45	118.00
23	2K	5	G	N3-C4-C5	5.06	131.13	128.60
26	1H	2822	G	C6-C5-N7	-5.06	127.36	130.40
26	14	493	G	N1-C6-O6	5.06	122.94	119.90
23	2K	27	G	C4-C5-N7	5.06	112.83	110.80
24	3K	4	U	C5-C6-N1	5.06	125.23	122.70
26	1H	132	G	O5'-P-OP1	-5.06	101.14	105.70
26	1H	1408	C	N3-C4-N4	5.06	121.54	118.00
26	1H	1564	C	C6-N1-C2	-5.06	118.28	120.30
26	1H	2166	G	O4'-C1'-N9	5.06	112.25	108.20
27	16	105	G	N1-C6-O6	5.06	122.94	119.90
26	14	738	G	C4-N9-C1'	5.06	133.08	126.50
26	14	1374	G	C6-C5-N7	-5.06	127.36	130.40
26	14	1912	A	O5'-P-OP2	5.06	116.77	110.70
26	1H	1246	A	N1-C2-N3	5.06	131.83	129.30
26	1H	1293	C	OP1-P-OP2	-5.06	112.01	119.60
26	1H	1362	C	O5'-P-OP2	-5.06	101.14	105.70
26	14	307	G	N9-C4-C5	-5.06	103.38	105.40
26	14	2581	G	O4'-C1'-N9	5.06	112.25	108.20
1	13	690	G	C4-C5-C6	5.06	121.84	118.80
26	1H	209	C	N3-C4-C5	5.06	123.92	121.90
26	1H	773	U	C5-C6-N1	-5.06	120.17	122.70
26	1H	774	A	C8-N9-C1'	5.06	136.81	127.70
26	1H	2777	G	O4'-C1'-N9	-5.06	104.15	108.20
26	14	1933	G	N9-C4-C5	-5.06	103.38	105.40
26	14	2822	G	C5-C6-O6	-5.06	125.56	128.60
1	13	1305	G	C5-C6-N1	-5.06	108.97	111.50
23	2K	38	A	OP2-P-O3'	5.06	116.33	105.20
26	1H	864	G	C5-C6-N1	5.06	114.03	111.50
26	1H	1555	G	C8-N9-C1'	-5.06	120.43	127.00
26	1H	2066	C	C5-C6-N1	5.06	123.53	121.00
1	1G	266	G	O4'-C1'-N9	-5.06	104.15	108.20
26	14	826	U	N1-C2-O2	-5.06	119.26	122.80
26	14	1348	G	N1-C6-O6	5.06	122.94	119.90
1	13	886	G	C4-N9-C1'	5.06	133.07	126.50
26	1H	2391	G	O5'-P-OP1	-5.06	101.15	105.70
1	1G	33	A	C8-N9-C4	-5.06	103.78	105.80
26	14	491	G	C5-C6-O6	5.06	131.63	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1087	G	C4-N9-C1'	5.06	133.07	126.50
26	14	2439	A	C5-C6-N6	-5.06	119.66	123.70
26	14	2449	U	N3-C4-O4	5.06	122.94	119.40
26	1H	1402	C	O5'-P-OP1	-5.05	101.15	105.70
26	1H	1501	C	O5'-P-OP1	-5.05	101.15	105.70
26	1H	2716	U	O5'-P-OP2	-5.05	101.15	105.70
1	1G	550	G	C8-N9-C4	-5.05	104.38	106.40
1	1G	701	C	N3-C2-O2	-5.05	118.36	121.90
26	14	1933	G	C4-C5-N7	5.05	112.82	110.80
27	1J	55	U	N3-C4-C5	-5.05	111.57	114.60
1	13	63	C	C6-N1-C2	-5.05	118.28	120.30
1	13	569	C	C2-N1-C1'	-5.05	113.24	118.80
26	1H	49	A	C2-N3-C4	5.05	113.13	110.60
26	1H	218	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	1254	A	O5'-P-OP1	-5.05	101.15	105.70
1	1G	360	A	N9-C4-C5	-5.05	103.78	105.80
26	14	128	C	C2'-C3'-O3'	5.05	121.78	113.70
26	14	141	A	O4'-C1'-N9	5.05	112.24	108.20
26	1H	130	C	C6-N1-C1'	-5.05	114.74	120.80
26	1H	141	A	O4'-C1'-N9	5.05	112.24	108.20
26	1H	783	A	C4-N9-C1'	5.05	135.39	126.30
26	1H	1648	C	C6-N1-C1'	5.05	126.86	120.80
26	1H	1842	G	O5'-P-OP2	-5.05	101.16	105.70
1	1G	1139	G	C4-N9-C1'	-5.05	119.94	126.50
26	14	270(K)	C	C5-C6-N1	5.05	123.53	121.00
26	1H	2048	G	N1-C2-N2	5.05	120.74	116.20
26	14	1276	A	C8-N9-C4	5.05	107.82	105.80
26	1H	472	A	N1-C2-N3	5.05	131.82	129.30
26	1H	741	G	O5'-P-OP2	-5.05	101.16	105.70
26	1H	807	U	C5-C4-O4	-5.05	122.87	125.90
26	1H	1634	A	OP1-P-OP2	5.05	127.17	119.60
26	1H	2296	U	N3-C4-O4	5.05	122.93	119.40
26	1H	2387	U	C5-C6-N1	-5.05	120.18	122.70
26	1H	1445	C	C6-N1-C2	-5.04	118.28	120.30
26	14	1119	C	C2-N1-C1'	-5.04	113.25	118.80
27	1J	89(A)	A	C8-N9-C4	-5.04	103.78	105.80
26	1H	214	G	N7-C8-N9	5.04	115.62	113.10
26	1H	786	C	N3-C4-N4	-5.04	114.47	118.00
26	14	697	C	O5'-P-OP1	-5.04	101.16	105.70
26	1H	80	G	C4-C5-N7	-5.04	108.78	110.80
26	1H	201	C	O5'-P-OP2	-5.04	101.16	105.70
26	1H	1395	A	C4-N9-C1'	-5.04	117.22	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1800	C	OP1-P-O3'	5.04	116.29	105.20
38	88	17	LEU	CA-CB-CG	-5.04	103.71	115.30
26	14	1407	C	C5-C4-N4	-5.04	116.67	120.20
26	1H	898	C	N1-C2-O2	5.04	121.92	118.90
26	1H	2199	A	N7-C8-N9	5.04	116.32	113.80
26	1H	2438	U	N3-C2-O2	-5.04	118.67	122.20
26	1H	141(A)	C	C5-C4-N4	-5.04	116.67	120.20
26	1H	142	G	C5-C6-O6	-5.04	125.58	128.60
26	1H	1899	G	O3'-P-O5'	-5.04	94.43	104.00
37	78	61	ARG	NE-CZ-NH2	-5.04	117.78	120.30
26	14	613	U	C2-N1-C1'	5.04	123.75	117.70
26	14	676	A	N3-C4-C5	5.04	130.33	126.80
26	14	784	A	P-O3'-C3'	5.04	125.75	119.70
26	14	1463	C	C6-N1-C2	-5.04	118.28	120.30
26	14	2433	A	C4-C5-C6	5.04	119.52	117.00
26	1H	2267	A	OP1-P-O3'	5.04	116.28	105.20
26	14	2873	A	C5-C6-N6	-5.04	119.67	123.70
1	13	752	G	C5-C6-O6	-5.04	125.58	128.60
1	13	943	U	O5'-P-OP1	-5.04	101.17	105.70
26	1H	1238	G	N1-C6-O6	-5.04	116.88	119.90
26	1H	1349	A	C2-N3-C4	-5.04	108.08	110.60
26	1H	1564	C	C5-C4-N4	5.04	123.72	120.20
26	1H	1899	G	N1-C2-N2	5.04	120.73	116.20
1	1G	1472	U	C5-C6-N1	-5.04	120.18	122.70
1	13	924	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	663	G	C4-N9-C1'	5.03	133.04	126.50
26	1H	1914	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	2457	U	N3-C2-O2	5.03	125.72	122.20
26	1H	2554	U	N3-C4-O4	5.03	122.92	119.40
26	14	1142	U	C5-C6-N1	5.03	125.22	122.70
26	14	1779	U	O4'-C1'-N1	5.03	112.23	108.20
26	14	2429	G	O5'-P-OP1	5.03	116.74	110.70
27	1J	81	G	C6-C5-N7	-5.03	127.38	130.40
39	55	75	LEU	CA-CB-CG	5.03	126.88	115.30
26	1H	1544	C	N3-C4-C5	5.03	123.91	121.90
56	1L	69	A	OP1-P-O3'	5.03	116.27	105.20
26	14	2272	U	N1-C2-O2	5.03	126.32	122.80
1	13	895	G	N9-C4-C5	5.03	107.41	105.40
26	1H	817	C	C6-N1-C2	-5.03	118.29	120.30
26	1H	1443	G	C5-C6-N1	-5.03	108.98	111.50
26	1H	2069	G	OP2-P-O3'	5.03	116.27	105.20
26	1H	2251	G	O5'-P-OP1	-5.03	101.17	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1467	G	O5'-P-OP2	-5.03	101.17	105.70
26	14	909	A	OP2-P-O3'	5.03	116.27	105.20
26	14	2547	U	C5-C6-N1	-5.03	120.19	122.70
26	1H	632	A	O5'-P-OP2	5.03	116.73	110.70
26	14	1128	A	OP2-P-O3'	5.03	116.26	105.20
26	14	2859	G	P-O3'-C3'	5.03	125.73	119.70
1	13	1437	C	C5-C4-N4	-5.03	116.68	120.20
26	1H	620	G	O5'-P-OP2	-5.03	101.17	105.70
26	1H	1800	C	O5'-P-OP2	5.03	116.73	110.70
26	14	775	G	O4'-C1'-N9	5.03	112.22	108.20
26	14	1377	G	C8-N9-C4	-5.03	104.39	106.40
1	13	110	C	C5-C6-N1	-5.03	118.49	121.00
1	13	771	G	N3-C2-N2	-5.03	116.38	119.90
26	1H	592	G	OP2-P-O3'	5.03	116.26	105.20
26	1H	1200	C	OP1-P-OP2	-5.03	112.06	119.60
26	1H	2439	A	C6-C5-N7	-5.03	128.78	132.30
26	14	2779	U	C5-C4-O4	5.03	128.92	125.90
26	1H	194	G	C8-N9-C4	5.02	108.41	106.40
26	1H	1807	G	N9-C4-C5	-5.02	103.39	105.40
26	14	382	G	OP1-P-O3'	5.02	116.25	105.20
26	14	2559	C	O5'-P-OP1	-5.02	101.18	105.70
26	1H	474	G	N9-C4-C5	5.02	107.41	105.40
26	1H	776	G	C4-C5-N7	-5.02	108.79	110.80
26	1H	808	G	OP1-P-OP2	5.02	127.13	119.60
26	1H	2254	C	C5-C4-N4	5.02	123.72	120.20
27	16	16	G	N1-C6-O6	5.02	122.91	119.90
26	14	1313	U	C6-N1-C2	-5.02	117.99	121.00
26	14	1496	A	O4'-C1'-N9	5.02	112.22	108.20
26	1H	1368	G	N3-C4-N9	5.02	129.01	126.00
1	1G	534	U	OP2-P-O3'	5.02	116.25	105.20
26	1H	1210	A	P-O3'-C3'	5.02	125.72	119.70
26	1H	2129	C	C6-N1-C2	-5.02	118.29	120.30
26	1H	2690	C	N3-C4-C5	-5.02	119.89	121.90
26	1H	2856	C	C2-N1-C1'	5.02	124.32	118.80
1	1G	312	C	C6-N1-C2	-5.02	118.29	120.30
26	14	804	A	OP1-P-O3'	5.02	116.24	105.20
26	14	1374	G	N1-C6-O6	5.02	122.91	119.90
26	1H	1403	C	N3-C4-N4	-5.02	114.49	118.00
26	14	3	U	N1-C2-O2	5.02	126.31	122.80
26	14	566	U	C5-C4-O4	-5.02	122.89	125.90
26	14	1801	G	O5'-P-OP1	-5.02	101.18	105.70
26	14	2057	A	C8-N9-C4	5.02	107.81	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	322	A	OP2-P-O3'	5.02	116.24	105.20
26	14	932	G	N3-C4-C5	5.02	131.11	128.60
26	14	2023	G	C5-N7-C8	-5.02	101.79	104.30
26	14	2035	G	O4'-C1'-N9	5.02	112.21	108.20
26	14	2331	G	N9-C4-C5	-5.02	103.39	105.40
1	13	789	U	C4-C5-C6	5.01	122.71	119.70
26	1H	250	G	C5-C6-O6	5.01	131.61	128.60
26	1H	1274	A	C6-C5-N7	-5.01	128.79	132.30
26	1H	1602	U	O5'-P-OP1	-5.01	101.19	105.70
26	1H	1955	U	C5-C6-N1	-5.01	120.19	122.70
1	1G	1128	C	N3-C4-C5	-5.01	119.89	121.90
1	1G	1200	C	C2-N1-C1'	5.01	124.31	118.80
26	14	2265	U	O5'-P-OP1	-5.01	101.19	105.70
26	14	2402	C	C6-N1-C2	-5.01	118.29	120.30
26	14	1313	U	C2-N1-C1'	5.01	123.72	117.70
26	14	1786	A	N3-C4-N9	-5.01	123.39	127.40
1	13	1069	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	472	A	N9-C4-C5	5.01	107.80	105.80
26	1H	580	C	N3-C2-O2	-5.01	118.39	121.90
26	1H	762	U	OP1-P-O3'	5.01	116.23	105.20
26	1H	1640	C	O5'-P-OP1	5.01	116.71	110.70
26	1H	1810	A	C8-N9-C4	-5.01	103.80	105.80
26	1H	2710	C	C5-C6-N1	-5.01	118.49	121.00
1	1G	354	G	C6-C5-N7	-5.01	127.39	130.40
23	2L	77	A	C2-N3-C4	-5.01	108.09	110.60
26	14	114	U	C6-N1-C1'	-5.01	114.18	121.20
26	14	121	G	C5-N7-C8	-5.01	101.79	104.30
26	14	1633	G	C5-C6-O6	-5.01	125.59	128.60
26	1H	568	U	C2-N3-C4	-5.01	123.99	127.00
26	1H	2291	U	C6-N1-C1'	5.01	128.21	121.20
26	1H	2703	C	C6-N1-C2	-5.01	118.30	120.30
1	1G	209	U	C2-N1-C1'	5.01	123.71	117.70
27	1J	98	G	N1-C6-O6	5.01	122.91	119.90
1	13	571	U	C6-N1-C2	-5.01	118.00	121.00
1	13	1259	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	72	U	OP1-P-O3'	5.01	116.22	105.20
26	1H	2275	C	C5-C6-N1	5.01	123.50	121.00
26	1H	864	G	C8-N9-C4	-5.01	104.40	106.40
26	1H	1820	U	O5'-P-OP2	-5.01	101.19	105.70
1	1G	73	G	N1-C6-O6	5.01	122.90	119.90
26	14	2	G	C4-N9-C1'	5.01	133.01	126.50
26	14	249	C	N1-C2-O2	5.01	121.90	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1774	C	C5-C6-N1	5.01	123.50	121.00
26	14	1914	C	C2-N1-C1'	5.01	124.31	118.80
26	14	1786	A	OP1-P-O3'	5.00	116.21	105.20
26	1H	1007	C	N3-C4-C5	5.00	123.90	121.90
26	1H	1544	C	N1-C2-O2	5.00	121.90	118.90
26	1H	1653	G	C8-N9-C1'	-5.00	120.50	127.00
26	14	1827	C	C5-C6-N1	5.00	123.50	121.00
26	14	2177	C	O4'-C1'-N1	5.00	112.20	108.20
26	14	2543	G	C5-C6-O6	-5.00	125.60	128.60
26	14	2584	U	C2-N1-C1'	5.00	123.70	117.70
27	1J	30	C	C5-C6-N1	5.00	123.50	121.00
22	1K	74	C	C6-N1-C1'	-5.00	114.80	120.80
26	1H	115	C	O5'-P-OP1	-5.00	101.20	105.70
26	14	1568	G	N3-C4-C5	5.00	131.10	128.60

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	13	792	A	C1'

All (141) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	233	HIS	Peptide
29	11	236	GLY	Peptide
29	11	237	GLU	Peptide
2	12	12	GLU	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
29	19	27	THR	Peptide
29	19	28	GLU	Peptide
2	1E	12	GLU	Peptide
2	1E	15	VAL	Peptide
2	1E	169	LYS	Peptide
2	1E	9	GLU	Peptide
10	1I	75	ILE	Peptide
30	21	20	ALA	Peptide
30	21	21	VAL	Peptide

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Mol	Chain	Res	Type	Group
30	21	67	PHE	Peptide
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
3	22	86	VAL	Peptide
3	22	93	LYS	Peptide
30	29	44	TYR	Peptide
30	29	61	ARG	Peptide
30	29	76	ARG	Peptide
30	29	87	GLU	Peptide
30	29	89	ASP	Peptide
11	2A	49	GLY	Peptide
11	2I	102	GLY	Peptide
31	31	196	LEU	Peptide
31	31	22	ALA	Peptide
31	31	23	ASP	Peptide
31	31	67	GLN	Peptide
4	32	29	PRO	Peptide
37	35	110	TYR	Peptide
37	35	36	LYS	Peptide
37	35	5	ASP	Peptide
31	39	127	GLU	Peptide
31	39	14	PRO	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	69	HIS	Mainchain
31	39	89	VAL	Peptide
4	3E	193	ASP	Peptide
12	3I	47	LYS	Peptide
32	41	95	ARG	Peptide
38	45	134	ARG	Peptide
38	45	135	ASP	Peptide
38	45	137	TYR	Peptide
38	45	58	PHE	Peptide
38	45	80	GLU	Peptide
38	45	82	ARG	Peptide
32	49	13	GLU	Peptide
13	4A	92	HIS	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
13	4I	66	LEU	Peptide

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Mol	Chain	Res	Type	Group
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	2	SER	Peptide
33	51	20	ALA	Peptide
33	51	40	GLU	Peptide
39	55	106	GLY	Peptide
14	5A	27	CYS	Peptide
34	61	11	ASN	Peptide
34	61	114	LEU	Peptide
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
40	65	59	LYS	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
28	71	211	SER	Peptide
28	71	31	GLU	Peptide
28	71	39	GLU	Peptide
41	75	12	SER	Peptide
37	78	13	ASN	Peptide
37	78	18	ARG	Peptide
37	78	19	VAL	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	95	LEU	Peptide
42	85	98	LEU	Peptide
38	88	21	THR	Peptide
9	8E	110	GLU	Peptide
43	95	44	LYS	Peptide
43	95	49	THR	Peptide
39	98	44	LEU	Peptide
18	9I	33	ASP	Peptide
44	A5	111	HIS	Peptide
44	A5	43	GLY	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
45	B5	61	GLY	Peptide
41	B8	58	ASN	Peptide
20	BA	11	SER	Peptide

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Mol	Chain	Res	Type	Group
20	BA	72	LEU	Peptide
46	C5	50	ARG	Peptide
46	C5	91	GLU	Peptide
46	C5	99	CYS	Peptide
42	C8	92	ARG	Peptide
42	C8	95	LEU	Peptide
47	D5	136	PHE	Peptide
47	D5	61	LEU	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
45	F8	24	GLY	Peptide
45	F8	3	THR	Peptide
50	G5	15	LYS	Peptide
50	G5	16	LEU	Peptide
50	G5	17	SER	Peptide
50	G5	43	GLN	Peptide
46	G8	104	GLY	Peptide
46	G8	5	MET	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	84	ARG	Peptide
46	G8	94	LYS	Peptide
46	G8	99	CYS	Peptide
47	H8	117	LEU	Peptide
47	H8	165	VAL	Peptide
47	H8	59	LEU	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
49	J8	92	LYS	Peptide
50	K8	15	LYS	Peptide
50	K8	17	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
55	M5	48	PHE	Peptide
52	M8	40	HIS	Peptide
52	M8	43	TYR	Peptide
55	Q8	52	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16233	755	0
1	1G	32391	0	16353	749	0
2	12	1721	0	1758	101	0
2	1E	1874	0	1926	103	0
3	22	1541	0	1606	69	0
3	2E	1605	0	1668	58	0
4	32	1702	0	1765	110	0
4	3E	1698	0	1761	83	0
5	42	1134	0	1200	45	0
5	4E	1142	0	1204	62	0
6	52	842	0	857	30	0
6	5E	837	0	852	35	0
7	62	1110	0	1163	49	0
7	6E	1242	0	1286	44	0
8	72	1107	0	1165	39	0
8	7E	1115	0	1177	58	0
9	82	953	0	983	70	0
9	8E	1000	0	1031	58	0
10	1A	646	0	662	33	0
10	1I	734	0	761	43	0
11	2A	835	0	847	31	0
11	2I	823	0	833	49	0
12	3A	956	0	1046	56	0
12	3I	956	0	1046	33	0
13	4A	893	0	946	61	0
13	4I	942	0	997	53	0
14	5A	486	0	525	25	0
14	5I	491	0	529	26	0
15	6A	733	0	771	34	0
15	6I	729	0	768	29	0
16	7A	705	0	725	29	0
16	7I	700	0	720	47	0
17	8A	823	0	891	35	0
17	8I	834	0	904	42	0
18	9A	544	0	605	26	0
18	9I	549	0	607	36	0
19	AA	481	0	468	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	AI	654	0	675	44	0
20	BA	762	0	861	32	0
20	BI	746	0	843	49	0
21	1B	188	0	195	13	0
21	1F	199	0	208	5	0
22	1K	1520	0	778	41	0
23	2K	1646	0	843	30	0
23	2L	1646	0	843	40	0
24	3K	1611	0	817	48	0
25	4K	419	0	208	6	0
25	4L	397	0	197	12	0
26	14	61630	0	31073	1315	0
26	1H	61028	0	30763	1351	0
27	16	2617	0	1328	55	0
27	1J	2617	0	1328	65	0
28	71	1033	0	1048	77	0
28	79	456	0	460	22	0
29	11	2120	0	2197	131	0
29	19	2125	0	2199	104	0
30	21	1558	0	1624	83	0
30	29	1563	0	1629	117	0
31	31	1585	0	1632	89	0
31	39	1602	0	1649	80	0
32	41	1457	0	1514	94	0
32	49	1458	0	1516	59	0
33	51	1312	0	1384	66	0
33	59	568	0	595	48	0
34	61	1136	0	1223	57	0
34	69	1131	0	1218	48	0
35	15	1104	0	1180	38	0
35	58	1104	0	1180	54	0
36	25	932	0	996	36	0
36	68	932	0	996	42	0
37	35	1122	0	1206	77	0
37	78	1122	0	1206	94	0
38	45	1099	0	1154	79	0
38	88	1113	0	1157	51	0
39	55	967	0	1033	49	0
39	98	967	0	1033	49	0
40	65	876	0	938	65	0
40	A8	881	0	943	52	0
41	75	1109	0	1170	55	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	B8	1109	0	1170	60	0
42	85	959	0	1019	53	0
42	C8	950	0	1011	52	0
43	95	774	0	849	63	0
43	D8	774	0	849	43	0
44	A5	899	0	964	28	0
44	E8	890	0	951	25	0
45	B5	735	0	785	35	0
45	F8	743	0	794	36	0
46	C5	794	0	886	68	0
46	G8	796	0	886	45	0
47	D5	1074	0	1086	53	0
47	H8	1373	0	1402	59	0
48	E5	608	0	622	26	0
48	I8	606	0	625	30	0
49	F5	737	0	813	32	0
49	J8	737	0	813	39	0
50	G5	558	0	610	33	0
50	K8	568	0	614	36	0
51	H5	459	0	512	10	0
51	L8	459	0	512	18	0
52	M8	366	0	370	37	0
53	J5	434	0	454	22	0
53	N8	369	0	388	22	0
54	L5	401	0	436	14	0
54	P8	401	0	436	14	0
55	M5	516	0	582	28	0
55	Q8	516	0	582	34	0
56	1L	1563	0	799	42	0
57	3L	1612	0	819	41	0
58	13	132	0	0	0	0
58	14	399	0	0	0	0
58	16	9	0	0	0	0
58	1E	1	0	0	0	0
58	1G	90	0	0	0	0
58	1H	467	0	0	0	0
58	1J	5	0	0	0	0
58	1K	1	0	0	0	0
58	21	2	0	0	0	0
58	25	1	0	0	0	0
58	29	4	0	0	0	0
58	2K	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	2L	2	0	0	0	0
58	35	3	0	0	0	0
58	39	1	0	0	0	0
58	3K	1	0	0	0	0
58	41	1	0	0	0	0
58	45	2	0	0	0	0
58	55	1	0	0	0	0
58	5E	1	0	0	0	0
58	6A	1	0	0	0	0
58	78	1	0	0	0	0
58	88	1	0	0	0	0
58	98	1	0	0	0	0
58	E5	1	0	0	0	0
58	I8	3	0	0	0	0
58	J8	1	0	0	0	0
58	L8	1	0	0	0	0
58	P8	1	0	0	0	0
58	Q8	1	0	0	0	0
59	32	8	0	0	2	0
59	3E	8	0	0	1	0
60	5A	1	0	0	0	0
60	5I	1	0	0	0	0
60	C5	1	0	0	0	0
60	G8	1	0	0	0	0
61	11	7	0	0	5	0
61	13	126	0	0	21	0
61	14	417	0	0	73	0
61	16	29	0	0	6	0
61	19	8	0	0	1	0
61	1G	78	0	0	9	0
61	1H	629	0	0	101	0
61	1J	6	0	0	1	0
61	1K	8	0	0	0	0
61	21	4	0	0	2	0
61	29	2	0	0	0	0
61	31	9	0	0	0	0
61	32	1	0	0	0	0
61	35	1	0	0	0	0
61	39	5	0	0	0	0
61	3I	2	0	0	0	0
61	3K	1	0	0	0	0
61	4K	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	55	1	0	0	0	0
61	58	2	0	0	0	0
61	5A	2	0	0	0	0
61	5I	2	0	0	0	0
61	78	7	0	0	2	0
61	88	1	0	0	0	0
61	A5	1	0	0	0	0
61	B8	1	0	0	0	0
61	E8	2	0	0	0	0
61	F8	1	0	0	0	0
61	G8	1	0	0	0	0
61	H5	2	0	0	1	0
61	I8	3	0	0	1	0
61	L8	2	0	0	1	0
All	All	294444	0	196318	8229	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 17.

All (8229) 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)
46:G8:100:ALA:HB1	46:G8:101:LYS:HG2	1.34	1.09
55:M5:48:PHE:HB2	55:M5:49:VAL:HG22	1.31	1.07
26:14:161:U:H5'	26:14:171:G:H21	1.18	1.06
26:1H:2711:A:OP2	61:1H:3501:HOH:O	1.73	1.05
26:14:2002:G:N7	61:14:3505:HOH:O	1.91	1.03
26:1H:2714:G:OP2	61:1H:3501:HOH:O	1.77	1.01
26:1H:913:U:O4	61:1H:3503:HOH:O	1.78	1.01
9:82:5:TYR:HA	9:82:87:GLN:HE21	1.23	1.01
43:95:85:LYS:HD2	43:95:86:GLY:H	1.25	1.00
26:1H:450:G:OP2	61:1H:3502:HOH:O	1.78	1.00
26:14:2415:G:H4'	37:35:67:MET:H	1.26	0.99
26:1H:1496:A:H8	26:1H:1577:C:HO2'	0.99	0.98
26:1H:748:G:OP2	61:1H:3504:HOH:O	1.82	0.96
1:13:510:A:OP2	4:3E:49:ARG:NH2	1.98	0.96
26:14:1771:C:HO2'	26:14:1786:A:H8	1.11	0.95
26:14:676:A:H8	26:14:2069:G:H21	1.08	0.94
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.47	0.94
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.00	0.94
30:21:135:HIS:NE2	61:21:401:HOH:O	1.99	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:450:G:OP2	61:14:3502:HOH:O	1.85	0.94
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.01	0.93
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.50	0.93
26:14:2448:A:OP2	61:14:3501:HOH:O	1.84	0.93
26:14:1418:G:N7	61:14:3513:HOH:O	2.01	0.93
26:14:733:G:OP2	61:14:3503:HOH:O	1.86	0.93
45:F8:3:THR:O	45:F8:5:TYR:N	2.02	0.93
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.50	0.93
26:14:900:A:H2'	26:14:901:A:H8	1.34	0.93
61:14:3506:HOH:O	39:55:3:HIS:NE2	2.01	0.93
26:14:67:U:H3	26:14:74:A:H2	1.15	0.91
1:13:1003:G:H1	1:13:1037:C:H42	1.19	0.91
26:1H:2308:G:H1	26:1H:2311:A:H2	1.18	0.91
26:14:2685:G:O6	61:14:3504:HOH:O	1.87	0.91
1:1G:1347:G:N7	9:82:10:ARG:NH2	2.19	0.91
26:14:660:G:H21	37:35:12:ALA:HB2	1.34	0.91
26:1H:2502:G:OP2	61:1H:3505:HOH:O	1.87	0.91
1:13:455:C:N3	1:13:477:G:N2	2.18	0.91
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.50	0.90
26:14:2499:C:OP2	61:14:3501:HOH:O	1.90	0.90
26:14:2392:A:H2	26:14:2424:C:H42	1.16	0.90
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.54	0.89
26:1H:1050:A:H2'	26:1H:1051:G:H8	1.34	0.89
26:1H:1602:U:O4	61:1H:3506:HOH:O	1.88	0.89
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.06	0.89
43:D8:10:LYS:NZ	43:D8:23:GLU:OE1	2.05	0.89
24:3K:30:G:H1	24:3K:40:C:H42	1.20	0.89
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.55	0.89
29:11:242:ARG:O	61:11:401:HOH:O	1.91	0.89
26:1H:1479:G:N7	26:1H:1510:A:N6	2.21	0.89
26:14:833:U:O2	37:35:55:ARG:NH1	2.05	0.88
14:5A:7:ILE:HD11	14:5A:28:GLY:HA2	1.54	0.88
26:14:1225:C:H4'	43:95:85:LYS:HG2	1.54	0.88
4:32:157:LEU:O	4:32:161:ASN:ND2	2.07	0.88
26:14:2873:A:H8	39:55:6:SER:H	1.21	0.88
27:16:82:G:N7	61:16:301:HOH:O	2.06	0.88
1:1G:975:A:H4'	1:1G:976:G:H5"	1.56	0.88
26:1H:2392:A:H2	26:1H:2424:C:H42	1.22	0.88
28:71:40:THR:OG1	28:71:218:MET:SD	2.32	0.88
26:14:1632:A:N7	61:14:3518:HOH:O	2.06	0.88
26:1H:2139:C:H42	26:1H:2152:G:H22	1.20	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:35:LYS:HD3	16:7A:35:LYS:H	1.39	0.88
1:1G:1502:A:H2	1:1G:1505:G:H1	1.17	0.87
1:13:362:G:O2'	12:3I:33:ARG:NH2	2.06	0.87
26:1H:2271:G:N7	61:1H:3531:HOH:O	2.07	0.87
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.37	0.87
31:31:6:VAL:HG21	31:31:119:ARG:HB3	1.57	0.87
46:G8:94:LYS:HZ2	46:G8:95:LYS:H	1.23	0.87
26:14:2592:G:N7	61:14:3520:HOH:O	2.07	0.86
33:51:153:LYS:HB2	33:51:155:SER:H	1.39	0.86
26:14:761:A:N7	61:14:3521:HOH:O	2.07	0.86
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	1.57	0.86
36:25:14:THR:HG21	36:25:86:ILE:HG13	1.58	0.86
30:29:54:GLN:NE2	30:29:73:GLU:O	2.08	0.85
1:1G:258:G:N7	61:1G:1703:HOH:O	2.09	0.85
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.58	0.85
29:11:182:LEU:H	29:11:272:ALA:HB3	1.40	0.85
1:1G:1162:C:H42	1:1G:1174:G:H1	1.24	0.85
26:14:943:U:OP2	37:35:36:LYS:NZ	2.10	0.85
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.57	0.85
26:1H:1021:A:H62	26:1H:1141:U:H3	1.21	0.85
26:1H:2597:G:O3'	61:1H:3508:HOH:O	1.95	0.85
47:H8:111:VAL:HG12	47:H8:146:ILE:HD13	1.58	0.85
50:K8:3:LEU:HA	50:K8:5:GLU:HB2	1.59	0.85
30:29:14:ILE:HB	41:75:14:TYR:HE2	1.41	0.85
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.59	0.85
41:B8:3:ARG:HB2	41:B8:6:LEU:HB2	1.58	0.84
1:1G:1348:U:H3	1:1G:1374:A:H2	1.22	0.84
32:49:161:THR:HG22	32:49:163:ALA:H	1.40	0.84
26:1H:270(J):G:H1	26:1H:270(P):C:H42	1.24	0.84
26:1H:585:G:OP1	61:1H:3507:HOH:O	1.94	0.84
26:1H:761:A:N7	61:1H:3536:HOH:O	2.09	0.84
33:59:171:LEU:HD13	33:59:172:LYS:H	1.41	0.84
38:45:25:ASP:HB3	38:45:102:VAL:H	1.41	0.84
26:1H:563:G:OP2	61:1H:3510:HOH:O	1.95	0.84
1:13:1239:A:H62	1:13:1299:A:H62	1.24	0.84
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.60	0.84
26:14:84:A:N6	26:14:102:G:O2'	2.11	0.84
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.39	0.84
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.24	0.84
26:1H:49:A:N7	26:1H:120:U:H5	1.76	0.83
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:586:A:OP2	61:1H:3513:HOH:O	1.96	0.83
52:M8:40:HIS:HE1	52:M8:46:GLN:HA	1.41	0.83
26:1H:730:C:OP2	61:1H:3511:HOH:O	1.95	0.83
26:14:841:A:H61	26:14:937:U:H3	1.26	0.83
31:39:181:LEU:HD11	31:39:186:ILE:HD11	1.61	0.83
34:69:99:GLU:O	34:69:103:ARG:NH1	2.11	0.83
1:13:1502:A:H2	1:13:1505:G:H1	1.27	0.83
26:14:974:G:O2'	26:14:975:G:N7	2.11	0.83
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.43	0.83
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.60	0.83
26:1H:1970:A:OP2	61:1H:3509:HOH:O	1.95	0.83
32:41:112:PRO:HB3	52:M8:37:SER:H	1.44	0.83
1:13:963:G:N2	1:13:972:C:N3	2.26	0.83
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.60	0.83
29:19:43:ARG:HB3	29:19:49:ILE:HA	1.59	0.82
37:35:39:LYS:HD2	37:35:45:LEU:HD21	1.58	0.82
41:B8:3:ARG:O	41:B8:7:ILE:N	2.11	0.82
26:1H:1265:A:OP2	61:1H:3514:HOH:O	1.97	0.82
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.61	0.82
26:1H:586:A:OP2	61:1H:3512:HOH:O	1.96	0.82
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.61	0.82
1:1G:452:A:H4'	16:7A:72:ARG:HH12	1.43	0.82
57:3L:18:G:H2'	57:3L:57:G:H21	1.42	0.82
26:1H:1728:G:H3'	26:1H:1729:A:H5'	1.61	0.82
35:58:96:GLU:O	35:58:98:VAL:N	2.13	0.82
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.13	0.82
4:32:162:LEU:HA	4:32:165:MET:HB2	1.59	0.82
26:1H:2137:C:O2	26:1H:2155:G:N1	2.13	0.82
31:31:157:VAL:HB	31:31:194:MET:HG2	1.60	0.82
1:1G:862:C:H1'	1:1G:874:G:H5"	1.62	0.82
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.62	0.82
3:2E:16:ARG:HD2	3:2E:54:ARG:HH21	1.44	0.81
26:1H:620:G:H4'	26:1H:621:A:H5"	1.60	0.81
26:1H:862:G:OP2	61:1H:3516:HOH:O	1.98	0.81
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.13	0.81
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.60	0.81
27:16:15:A:H5'	27:16:16:G:C8	2.15	0.81
26:1H:1249:U:OP1	61:1H:3515:HOH:O	1.97	0.81
1:1G:838:G:N2	1:1G:848:C:N3	2.29	0.81
26:14:958:U:OP2	38:45:14:ARG:NH1	2.14	0.81
43:D8:56:SER:H	43:D8:100:ARG:HB2	1.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:187:G:N7	61:1H:3545:HOH:O	2.12	0.81
26:1H:1130:U:O2	30:21:149:ARG:NH2	2.14	0.81
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.61	0.81
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.23	0.81
26:1H:2117:A:O2'	26:1H:2147:G:N2	2.14	0.81
26:14:259:G:H21	26:14:621:A:H8	1.25	0.81
27:1J:80:U:H2'	27:1J:81:G:H21	1.43	0.81
41:75:77:PRO:HG2	41:75:80:SER:HB2	1.63	0.81
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.46	0.81
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.61	0.81
1:13:1305:G:H21	1:13:1331:G:H2'	1.46	0.81
1:13:413:G:O2'	1:13:428:G:N2	2.13	0.80
33:51:98:LEU:HD21	33:51:125:VAL:H	1.46	0.80
26:14:252:G:OP2	37:35:50:ARG:NH2	2.15	0.80
27:1J:18:G:H1	27:1J:65:C:H42	1.28	0.80
1:1G:780:A:OP2	61:1G:1701:HOH:O	1.98	0.80
26:1H:2431:U:OP2	61:1H:3518:HOH:O	1.99	0.80
28:71:68:LEU:HB2	28:71:176:GLY:HA2	1.64	0.80
1:1G:1534:A:N6	25:4L:10:G:O6	2.14	0.80
26:1H:733:G:OP2	61:1H:3517:HOH:O	1.99	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.15	0.80
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.62	0.80
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.64	0.80
18:9I:38:GLU:HA	18:9I:41:LYS:HZ2	1.46	0.80
1:1G:54:C:N4	1:1G:353:A:OP2	2.14	0.80
26:14:2497:A:O3'	61:14:3507:HOH:O	1.98	0.80
32:49:129:GLY:O	32:49:130:ASN:ND2	2.14	0.80
50:K8:32:LEU:HD11	50:K8:54:LYS:HG2	1.62	0.80
1:1G:1413:A:H61	1:1G:1487:G:H1	1.28	0.80
1:1G:1321:C:H41	1:1G:1322:C:H41	1.30	0.79
26:14:1434:A:H61	26:14:1558:A:H62	1.29	0.79
26:14:1639:U:OP1	61:14:3511:HOH:O	2.00	0.79
1:13:975:A:H4'	1:13:976:G:H5"	1.63	0.79
28:71:166:ASP:N	28:71:166:ASP:OD1	2.15	0.79
26:14:249:C:OP1	61:14:3508:HOH:O	1.99	0.79
26:14:2821:A:OP2	61:14:3506:HOH:O	1.98	0.79
26:14:1013:C:O2	26:14:1149:G:N2	2.15	0.79
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.15	0.79
26:14:1792:G:N2	26:14:1827:C:O2	2.13	0.79
14:5I:23:ARG:HH11	14:5I:30:ALA:HB2	1.48	0.79
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.46	0.79
26:14:785:G:OP2	61:14:3512:HOH:O	2.01	0.79
26:14:486:C:O2'	44:A5:60:ASN:ND2	2.16	0.79
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.63	0.79
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.47	0.79
2:12:11:LEU:HG	2:12:217:ARG:HH22	1.48	0.79
9:8E:15:ALA:HB2	9:8E:65:VAL:HG23	1.64	0.79
26:14:1633:G:O6	61:14:3510:HOH:O	2.00	0.79
40:65:41:ASP:OD2	40:65:44:LYS:NZ	2.13	0.79
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.14	0.79
24:3K:3:G:N2	24:3K:71:C:N3	2.31	0.79
26:1H:2032:G:H21	30:21:146:THR:HG23	1.46	0.79
1:1G:1535:C:H42	25:4L:9:G:H1	1.30	0.79
50:K8:15:LYS:H	50:K8:15:LYS:HZ2	1.28	0.78
22:1K:5:C:O2	22:1K:68:G:N2	2.15	0.78
26:1H:141:A:OP2	26:1H:141(A):C:N4	2.16	0.78
1:1G:630:G:H3'	1:1G:631:G:H5'	1.64	0.78
1:1G:1262:C:H42	1:1G:1273:G:H1	1.28	0.78
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.16	0.78
30:29:52:LEU:HD23	30:29:76:ARG:HD3	1.65	0.78
1:13:452:A:H62	1:13:480:U:H3	1.29	0.78
28:71:212:VAL:HB	28:71:226:PRO:HD3	1.64	0.78
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.65	0.78
8:72:69:ARG:NH1	8:72:75:ARG:O	2.16	0.78
26:14:329:G:H1	46:C5:19:LYS:HZ3	1.30	0.78
1:1G:1028:C:N3	1:1G:1033:G:N2	2.29	0.78
4:32:23:GLY:N	4:32:26:CYS:SG	2.57	0.78
49:F5:82:LEU:HD23	49:F5:83:GLU:HG2	1.65	0.78
26:14:1382:G:O6	61:14:3509:HOH:O	1.99	0.78
26:1H:676:A:H8	26:1H:2069:G:H21	1.32	0.78
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.18	0.78
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.16	0.78
43:95:69:LYS:HB2	43:95:86:GLY:HA3	1.65	0.78
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.17	0.78
26:14:273(F):C:H3'	26:14:274:G:H5"	1.65	0.78
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.65	0.78
48:E5:47:PRO:HG3	48:E5:53:MET:HG3	1.65	0.78
23:2K:6:G:H1	23:2K:68:C:H42	1.30	0.78
26:1H:943:U:OP2	37:78:36:LYS:NZ	2.17	0.78
26:1H:2572:A:C8	30:21:144:ARG:HD2	2.19	0.78
26:1H:259:G:O2'	26:1H:621:A:O2'	2.02	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:4:SER:CB	50:K8:7:ARG:H	1.97	0.78
26:14:2163:C:OP2	26:14:2165:G:N2	2.16	0.78
26:14:2270:G:OP2	61:14:3515:HOH:O	2.02	0.78
29:19:228:PRO:O	61:19:301:HOH:O	2.01	0.78
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.67	0.77
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.16	0.77
34:61:72:LEU:HD11	34:61:107:VAL:HG21	1.66	0.77
26:1H:571:A:H5'	26:1H:2030:A:H62	1.48	0.77
26:1H:2312:U:H5'	32:41:88:ILE:HD13	1.65	0.77
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.18	0.77
7:62:23:VAL:HG13	7:62:43:PHE:HE2	1.49	0.77
26:14:161:U:H5'	26:14:171:G:N2	1.98	0.77
50:G5:23:LYS:NZ	50:G5:27:GLU:OE2	2.16	0.77
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.66	0.77
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.66	0.77
26:14:1327:C:OP2	61:14:3514:HOH:O	2.01	0.77
1:13:1256:A:N6	1:13:1278:U:OP2	2.17	0.77
1:1G:1127:G:O2'	1:1G:1128:C:H5'	1.84	0.77
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.66	0.77
26:14:1022:G:H22	26:14:1142(A):A:H2	1.33	0.77
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.17	0.77
14:5I:26:ARG:NH1	14:5I:43:CYS:SG	2.58	0.77
28:71:45:ALA:HB2	28:71:212:VAL:HG23	1.65	0.77
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.13	0.77
26:14:77:C:O3'	50:G5:14:ARG:NH2	2.17	0.77
26:14:1689:A:H62	26:14:1698:A:H2	1.32	0.77
40:65:62:LYS:HA	40:65:65:VAL:HG12	1.66	0.77
26:1H:1355:G:O6	61:1H:3519:HOH:O	2.01	0.77
26:1H:2111:C:N4	26:1H:2147:G:O6	2.18	0.77
8:72:7:ALA:HB2	8:72:85:ARG:HD3	1.66	0.77
1:13:486:U:H2'	1:13:487:A:H8	1.50	0.77
32:41:46:ALA:HB2	32:41:52:ILE:HB	1.67	0.77
1:1G:826:C:O2	1:1G:874:G:N2	2.16	0.77
26:14:1678:G:H22	26:14:1989:G:H22	1.30	0.77
34:69:81:VAL:H	34:69:143:SER:HB2	1.49	0.77
36:25:104:ARG:HD2	41:75:36:GLU:HB2	1.66	0.77
2:1E:19:HIS:CE1	2:1E:206:ASP:HB2	2.20	0.76
26:1H:563:G:OP2	61:1H:3520:HOH:O	2.02	0.76
1:13:1305:G:N2	1:13:1331:G:H2'	2.00	0.76
4:3E:86:LYS:HA	4:3E:87:GLY:C	2.03	0.76
26:1H:1352:U:OP1	61:1H:3521:HOH:O	2.02	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.18	0.76
26:14:2065:C:O2	26:14:2445:G:N2	2.16	0.76
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.65	0.76
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.66	0.76
26:1H:1455:G:OP2	61:1H:3523:HOH:O	2.03	0.76
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.68	0.76
26:14:1044:G:O2'	26:14:1047:G:O2'	2.02	0.76
40:65:12:PHE:O	40:65:16:ASN:ND2	2.17	0.76
1:13:664:G:H22	1:13:741:G:H1	1.33	0.76
26:1H:1664:A:OP2	61:1H:3526:HOH:O	2.03	0.76
26:1H:2712(A):A:OP2	61:1H:3501:HOH:O	2.02	0.76
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.66	0.76
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.18	0.76
26:1H:1342:A:OP2	61:1H:3525:HOH:O	2.04	0.76
33:51:6:ARG:HD2	33:51:54:ARG:HH12	1.50	0.76
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.49	0.76
26:14:1434:A:H61	26:14:1558:A:N6	1.84	0.76
26:14:1970:A:OP2	61:14:3517:HOH:O	2.04	0.76
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.18	0.76
26:1H:1678:G:H22	26:1H:1989:G:H22	1.33	0.76
26:1H:2452:C:OP1	61:1H:3527:HOH:O	2.04	0.76
26:14:2293:C:H5"	40:65:89:ARG:HH21	1.51	0.76
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.68	0.76
26:1H:450:G:O6	61:1H:3524:HOH:O	2.03	0.76
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.04	0.76
28:71:48:GLY:HA2	28:71:210:ARG:HD2	1.66	0.76
42:C8:92:ARG:O	42:C8:94:ASN:N	2.19	0.76
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.68	0.76
26:14:2287:A:N6	26:14:2344:U:H3	1.83	0.76
8:7E:95:VAL:HG23	8:7E:99:GLU:HB2	1.67	0.76
22:1K:7:U:H3	22:1K:66:A:H61	1.32	0.76
29:19:31:LYS:HE3	29:19:33:LEU:HB3	1.68	0.76
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.19	0.76
26:1H:2169:A:N7	26:1H:2170:A:N6	2.34	0.76
1:1G:413:G:H2'	1:1G:428:G:H22	1.50	0.76
1:1G:1104:G:H4'	2:12:111:ARG:HE	1.51	0.76
26:14:2331:G:H4'	48:E5:43:THR:H	1.49	0.76
26:1H:963:U:OP1	61:1H:3522:HOH:O	2.02	0.76
33:51:6:ARG:HH21	33:51:7:LEU:HD11	1.51	0.76
1:1G:998:G:N2	1:1G:1043:C:N3	2.32	0.76
26:14:1593:G:H2'	26:14:1594:G:C8	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1942:C:OP2	26:14:1943:U:O2'	2.03	0.76
50:G5:47:ASN:O	50:G5:49:LYS:N	2.17	0.76
24:3K:71:C:O2	26:1H:1851:U:O2'	2.04	0.75
41:B8:54:ARG:HA	41:B8:59:THR:HB	1.66	0.75
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.21	0.75
26:14:1430:C:H2'	26:14:1431:U:H6	1.51	0.75
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.01	0.75
26:1H:2635:C:O2	26:1H:2783:G:N2	2.18	0.75
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.19	0.75
26:14:1812:A:O2'	29:19:45:ASN:HB2	1.85	0.75
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.03	0.75
1:13:396:G:O2'	1:13:398:C:OP1	2.03	0.75
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.15	0.75
26:1H:2636:U:OP1	30:21:79:ARG:HA	1.87	0.75
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.68	0.75
46:G8:85:VAL:O	46:G8:86:ARG:HD3	1.87	0.75
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.69	0.75
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.04	0.75
26:1H:86:C:H4'	26:1H:104:U:H1'	1.67	0.75
26:1H:583:G:N7	61:1H:3564:HOH:O	2.18	0.75
26:14:1774:C:N4	26:14:1790:C:O2	2.19	0.75
1:13:1127:G:H2'	1:13:1128:C:C2	2.21	0.75
26:1H:442:G:H1'	31:31:48:THR:HG21	1.66	0.75
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.50	0.75
55:Q8:52:LYS:O	55:Q8:54:GLU:N	2.20	0.75
2:12:49:GLU:N	2:12:49:GLU:OE1	2.20	0.75
26:1H:1466:G:N2	26:1H:1547:C:N3	2.35	0.75
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.15	0.75
41:75:108:ARG:HA	41:75:111:ARG:HG3	1.66	0.75
1:13:980:C:O2	61:13:1801:HOH:O	2.01	0.75
26:1H:1416:G:HO2'	26:1H:1417:C:H6	1.34	0.75
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.68	0.75
26:14:141:A:H8	26:14:1595:G:H21	1.32	0.75
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.20	0.75
1:13:601:C:H2'	1:13:602:A:H8	1.50	0.75
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.69	0.75
26:14:1041:C:O2	26:14:1114:G:N2	2.17	0.75
1:13:1145:C:H4'	1:13:1146:A:H5'	1.68	0.74
24:3K:33:U:H2'	24:3K:35:U:H5	1.50	0.74
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.22	0.74
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.50	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:39:ALA:HB1	34:61:44:LEU:HD13	1.66	0.74
36:68:63:VAL:HG23	36:68:64:ARG:HG2	1.69	0.74
41:B8:50:ILE:HD13	41:B8:64:ARG:HB3	1.68	0.74
47:H8:165:VAL:HG22	47:H8:167:PRO:HD3	1.68	0.74
34:69:102:SER:O	34:69:106:GLY:N	2.20	0.74
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.20	0.74
31:31:6:VAL:N	31:31:24:LEU:O	2.20	0.74
50:K8:47:ASN:O	50:K8:49:LYS:N	2.19	0.74
1:1G:857:C:H3'	1:1G:858:G:H8	1.52	0.74
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.67	0.74
23:2L:9:G:O2'	23:2L:10:G:N7	2.18	0.74
31:39:24:LEU:HD21	31:39:119:ARG:HB3	1.68	0.74
38:45:75:THR:HB	38:45:86:GLY:HA3	1.67	0.74
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.21	0.74
26:1H:1658:C:OP1	61:1H:3528:HOH:O	2.04	0.74
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.02	0.74
12:3I:113:ARG:HH21	12:3I:116:SER:HB2	1.52	0.74
24:3K:65:C:H2'	24:3K:66:A:C8	2.23	0.74
26:1H:1602:U:O4	61:1H:3525:HOH:O	2.03	0.74
27:16:42:C:O2'	32:41:67:LYS:O	2.05	0.74
1:13:253:U:OP2	17:8I:67:LYS:NZ	2.19	0.74
1:13:448:A:OP2	1:13:485:G:N2	2.15	0.74
19:AI:40:ILE:HD11	19:AI:62:ILE:HD12	1.69	0.74
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.20	0.74
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.27	0.74
1:1G:1173:G:OP1	7:62:5:ARG:NH2	2.20	0.74
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.50	0.74
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.05	0.74
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.51	0.74
26:1H:2502:G:OP2	61:1H:3529:HOH:O	2.05	0.74
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.68	0.74
33:51:30:LYS:HD2	33:51:81:GLU:H	1.52	0.74
1:1G:411:A:H62	1:1G:413:G:H21	1.33	0.74
1:1G:800:G:O6	61:1G:1702:HOH:O	2.05	0.74
26:14:1364:G:OP2	49:F5:2:SER:N	2.21	0.74
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.68	0.74
19:AI:18:LYS:O	19:AI:18:LYS:NZ	2.20	0.74
41:B8:50:ILE:HD11	41:B8:102:ILE:HD12	1.69	0.74
50:K8:15:LYS:HZ2	50:K8:15:LYS:N	1.86	0.74
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.18	0.74
26:14:2162:G:O2'	26:14:2173:A:OP1	2.05	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:454:C:N4	1:13:479:C:O2	2.20	0.74
26:1H:155:C:H42	26:1H:171:G:H1	1.35	0.74
26:14:2499:C:OP2	61:14:3516:HOH:O	2.03	0.74
31:39:116:ASP:OD2	37:35:1:MET:N	2.21	0.74
1:13:153:C:H42	1:13:168:G:H22	1.34	0.74
28:71:225:ASN:HD22	28:71:225:ASN:N	1.86	0.74
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.69	0.74
30:29:81:ILE:HG22	30:29:82:ARG:H	1.53	0.74
6:5E:97:PHE:HB2	18:9I:32:ARG:HH11	1.53	0.74
28:71:193:ILE:HD12	28:71:226:PRO:HB2	1.69	0.74
30:21:82:ARG:O	30:21:84:PHE:N	2.20	0.74
1:1G:1104:G:O2'	2:12:111:ARG:NH2	2.21	0.74
5:42:6:PHE:HB2	5:42:63:ARG:HH21	1.53	0.74
1:13:963:G:N3	10:1I:55:LYS:NZ	2.35	0.73
40:A8:11:LYS:HD3	40:A8:91:PRO:HD3	1.68	0.73
1:1G:991:U:O4	1:1G:1212:U:O2'	2.05	0.73
26:14:2415:G:H4'	37:35:67:MET:N	2.02	0.73
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.70	0.73
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.70	0.73
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.32	0.73
26:1H:2213:U:O2	49:J8:52:ARG:NH2	2.21	0.73
1:1G:673:G:H2'	1:1G:674:G:C8	2.23	0.73
4:32:168:ARG:HA	4:32:168:ARG:HH11	1.52	0.73
56:1L:2:G:N2	56:1L:71:C:N3	2.36	0.73
26:14:848:G:H2'	26:14:849:A:C8	2.23	0.73
26:14:1063:G:O6	26:14:1075:C:O2'	2.05	0.73
26:14:2547:U:O2	36:25:23:ARG:NH2	2.21	0.73
29:19:44:ASN:ND2	29:19:46:GLN:HG3	2.03	0.73
1:13:963:G:H1	1:13:972:C:H42	1.35	0.73
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.20	0.73
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.88	0.73
33:51:158:HIS:HA	33:51:170:ARG:CZ	2.18	0.73
38:45:75:THR:HA	38:45:89:ASN:HA	1.70	0.73
1:13:737:A:H2'	1:13:738:C:C6	2.24	0.73
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.20	0.73
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.29	0.73
51:L8:13:ILE:O	61:L8:201:HOH:O	2.05	0.73
26:14:1027:A:H2	26:14:2487:G:HO2'	1.34	0.73
27:1J:73:A:OP2	61:1J:301:HOH:O	2.06	0.73
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.20	0.73
46:C5:87:LYS:HG2	46:C5:88:LYS:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(V):G:N7	61:1H:3572:HOH:O	2.21	0.73
29:11:182:LEU:N	29:11:272:ALA:HB3	2.02	0.73
2:12:223:ILE:HA	2:12:224:GLN:HG2	1.71	0.73
1:13:407:G:OP1	4:3E:115:ARG:NH2	2.21	0.73
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.71	0.73
26:1H:822:U:O2'	26:1H:823:G:H5'	1.88	0.73
27:1J:104:A:OP1	47:D5:72:ARG:NH2	2.22	0.73
1:13:262:A:H2'	1:13:263:A:C8	2.23	0.73
2:1E:48:MET:HA	2:1E:51:LEU:HB2	1.70	0.73
34:69:7:GLU:HG3	34:69:8:PRO:HD2	1.69	0.73
37:78:19:VAL:HG13	37:78:21:ARG:H	1.53	0.73
26:14:329:G:H1	46:C5:19:LYS:NZ	1.86	0.73
26:14:1899:G:N2	26:14:1902:C:H41	1.86	0.73
26:1H:1189:A:OP2	61:1H:3530:HOH:O	2.07	0.73
27:16:80:U:H2'	27:16:81:G:H21	1.52	0.73
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.69	0.73
9:82:121:ARG:NH1	9:82:122:ALA:O	2.22	0.73
56:1L:8:U:O2'	56:1L:45:G:N2	2.22	0.73
26:14:792:G:OP2	61:14:3519:HOH:O	2.06	0.73
26:14:1430:C:H2'	26:14:1431:U:C6	2.24	0.73
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.53	0.73
1:13:509:A:OP2	61:13:1802:HOH:O	2.07	0.72
2:1E:7:VAL:HB	2:1E:217:ARG:HD2	1.69	0.72
5:4E:64:ARG:N	5:4E:64:ARG:HH11	1.86	0.72
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.71	0.72
26:1H:2379:G:O2'	40:A8:17:ARG:NH1	2.22	0.72
2:12:80:ILE:HD12	2:12:84:GLU:HG3	1.71	0.72
26:14:873:G:H1'	38:45:29:PHE:HE2	1.54	0.72
30:29:54:GLN:H	30:29:74:PRO:HA	1.54	0.72
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.23	0.72
51:H5:13:ILE:O	61:H5:101:HOH:O	2.07	0.72
24:3K:13:C:H2'	24:3K:14:A:H8	1.55	0.72
26:1H:1352:U:OP1	61:1H:3534:HOH:O	2.08	0.72
9:82:16:ARG:HH21	9:82:64:THR:HG21	1.54	0.72
1:13:1023:G:H3'	1:13:1024:G:H5"	1.70	0.72
1:13:1391:U:H2'	1:13:1392:G:C8	2.25	0.72
2:1E:115:LEU:HD21	2:1E:153:ARG:HD3	1.69	0.72
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.21	0.72
26:1H:780:G:H21	26:1H:783:A:N6	1.86	0.72
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.04	0.72
1:1G:589:C:H42	1:1G:650:G:H1	1.34	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.22	0.72
26:1H:548:A:N3	43:D8:21:ARG:NH2	2.38	0.72
30:29:116:VAL:HG11	30:29:138:PRO:HB3	1.72	0.72
1:13:812:C:N3	61:13:1812:HOH:O	2.23	0.72
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.21	0.72
26:14:1443:G:H1	26:14:1548:C:H42	1.37	0.72
41:75:132:LYS:HG2	41:75:133:GLU:HG3	1.72	0.72
7:6E:16:LEU:HD21	9:8E:42:ARG:HA	1.71	0.72
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.70	0.72
26:1H:2140:C:H42	26:1H:2151:G:H1	1.38	0.72
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.24	0.72
13:4A:77:ASN:HA	13:4A:80:ARG:HD3	1.71	0.72
56:1L:9:A:H3'	56:1L:10:G:C8	2.23	0.72
26:14:1676:A:OP2	61:14:3522:HOH:O	2.07	0.72
27:1J:4:C:H42	27:1J:116:G:H1	1.36	0.72
1:13:1238:A:N3	1:13:1241:G:O2'	2.22	0.72
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.18	0.72
26:1H:2287:A:C2	26:1H:2346:A:H2	2.06	0.72
26:1H:2309:A:H2'	26:1H:2310:A:O4'	1.88	0.72
11:2A:54:ARG:O	11:2A:57:THR:OG1	2.06	0.72
26:1H:2303:G:O2'	32:41:132:ASN:OD1	2.07	0.72
26:1H:2432:A:OP2	61:1H:3533:HOH:O	2.07	0.72
29:11:35:LYS:N	29:11:35:LYS:HZ2	1.88	0.72
4:32:168:ARG:NH1	4:32:169:LYS:H	1.87	0.72
26:14:597:U:H2'	26:14:598:G:C8	2.25	0.72
26:14:2823:A:OP1	30:29:159:HIS:NE2	2.23	0.72
29:11:93:ALA:HB3	29:11:105:ILE:HG22	1.70	0.71
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.25	0.71
26:14:602:G:O2'	26:14:604:G:O2'	2.03	0.71
26:14:990:A:H5'	26:14:990:A:H8	1.55	0.71
39:55:51:LEU:HD22	39:55:66:VAL:HG23	1.70	0.71
4:3E:18:LYS:NZ	4:3E:26:CYS:O	2.23	0.71
24:3K:19:G:H1'	24:3K:57:G:H21	1.54	0.71
26:1H:2795:G:N2	26:1H:2799:A:OP2	2.23	0.71
42:C8:19:LYS:HG3	42:C8:22:LYS:HE3	1.71	0.71
26:14:2439:A:H5'	26:14:2439:A:C8	2.25	0.71
40:65:50:SER:O	40:65:76:LYS:NZ	2.15	0.71
49:F5:80:LEU:HD12	49:F5:82:LEU:HB2	1.72	0.71
1:13:1306:A:H61	1:13:1331:G:H1'	1.54	0.71
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.90	0.71
50:G5:25:VAL:HG13	50:G5:60:LEU:HD23	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.04	0.71
26:1H:2287:A:H62	26:1H:2344:U:H3	1.37	0.71
56:1L:28:U:H3	56:1L:42:A:H2	1.39	0.71
1:13:1263:C:H2'	1:13:1264:C:H6	1.56	0.71
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.24	0.71
44:E8:24:ILE:HG12	44:E8:36:LEU:HD21	1.73	0.71
1:1G:800:G:N7	61:1G:1706:HOH:O	2.23	0.71
26:14:138:G:N2	45:B5:44:GLU:OE2	2.14	0.71
26:14:635:C:O2'	26:14:639:U:OP1	2.07	0.71
26:14:1141:U:OP2	35:15:63:THR:OG1	2.04	0.71
22:1K:52:G:N2	22:1K:62:C:N3	2.34	0.71
26:1H:2656:U:H3	26:1H:2665:A:H2	1.38	0.71
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.23	0.71
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.71	0.71
17:8I:13:ASP:HA	17:8I:19:VAL:HG12	1.71	0.71
26:1H:226:G:H21	26:1H:228:A:H2	1.37	0.71
26:1H:1535:U:H5"	26:1H:1537:C:N4	2.06	0.71
26:14:2115:G:H1'	26:14:2171:A:H61	1.55	0.71
46:C5:60:PHE:HD1	46:C5:60:PHE:H	1.37	0.71
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.22	0.71
26:1H:2062:A:OP1	61:1H:3532:HOH:O	2.07	0.71
1:1G:1228:C:OP1	13:4A:115:LYS:NZ	2.23	0.71
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.73	0.71
26:14:2498:C:OP2	61:14:3501:HOH:O	2.08	0.71
42:85:92:ARG:NH2	43:95:11:GLN:H	1.88	0.71
50:G5:13:ALA:HA	50:G5:16:LEU:HD23	1.73	0.71
1:13:1159:U:O4'	1:13:1182:G:N2	2.24	0.71
2:1E:43:ASP:HB3	2:1E:46:LYS:HD2	1.72	0.71
28:71:5:LYS:HA	28:71:8:ARG:HB2	1.73	0.71
1:1G:684:A:N6	61:1G:1707:HOH:O	2.23	0.71
32:49:5:VAL:HG11	32:49:101:ILE:HG22	1.71	0.71
43:95:44:LYS:O	43:95:46:VAL:N	2.21	0.71
1:13:1171:G:H2'	1:13:1172:C:H6	1.56	0.70
26:1H:747:U:O2	26:1H:2014:A:H1'	1.90	0.70
26:1H:2061:G:OP1	61:1H:3535:HOH:O	2.08	0.70
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.26	0.70
26:14:2128:C:H42	26:14:2160:G:H1	1.39	0.70
26:14:2392:A:H2	26:14:2424:C:N4	1.88	0.70
45:B5:63:LYS:H	45:B5:63:LYS:HE3	1.54	0.70
1:13:1128:C:O2'	1:13:1146:A:N1	2.24	0.70
1:1G:560:U:H5'	1:1G:566:G:N2	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:34:C:O2'	26:14:35:G:O5'	2.09	0.70
29:19:44:ASN:HB3	29:19:45:ASN:C	2.12	0.70
37:35:55:ARG:HG2	37:35:56:SER:H	1.56	0.70
26:1H:298:G:N7	46:G8:84:ARG:NH2	2.39	0.70
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.56	0.70
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.04	0.70
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.25	0.70
26:14:1225:C:O3'	43:95:85:LYS:HA	1.91	0.70
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.71	0.70
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.73	0.70
26:1H:55:G:H2'	26:1H:56:A:H8	1.56	0.70
26:1H:625:G:N7	37:78:107:LYS:NZ	2.39	0.70
26:1H:1218:C:OP2	42:C8:15:LYS:NZ	2.24	0.70
26:14:389:G:H22	37:35:72:PRO:HD3	1.56	0.70
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.73	0.70
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.24	0.70
49:J8:41:ARG:HH11	49:J8:41:ARG:HG3	1.56	0.70
13:4A:8:GLU:OE1	32:49:115:ARG:NH2	2.24	0.70
57:3L:58:A:O2'	57:3L:59:A:O5'	2.09	0.70
43:95:1:MET:HB3	43:95:42:GLY:HA3	1.73	0.70
26:1H:307:G:N7	61:1H:3581:HOH:O	2.24	0.70
26:1H:2051:A:OP2	61:1H:3538:HOH:O	2.09	0.70
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.24	0.70
7:62:27:ILE:HD12	7:62:40:ALA:HA	1.73	0.70
27:1J:18:G:N2	27:1J:65:C:N3	2.38	0.70
1:13:608:A:OP2	61:13:1804:HOH:O	2.08	0.70
2:1E:208:ILE:HG22	2:1E:211:ILE:HD11	1.74	0.70
6:5E:38:GLU:OE1	6:5E:64:GLN:NE2	2.25	0.70
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.24	0.70
39:98:24:GLN:HE22	39:98:36:THR:HG21	1.57	0.70
1:1G:490:G:P	4:32:132:ARG:HH22	2.15	0.70
4:32:95:GLY:O	4:32:99:SER:OG	2.10	0.70
26:14:1856:G:N2	26:14:1886:C:O2	2.25	0.70
26:14:2197:U:H1'	26:14:2198:A:C8	2.27	0.70
37:35:52:GLU:OE1	37:35:54:GLY:N	2.23	0.70
1:13:8:A:H62	4:3E:208:SER:HB3	1.56	0.70
3:2E:131:ARG:HH21	3:2E:135:LYS:HE3	1.57	0.70
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.24	0.70
26:1H:31:C:OP1	61:1H:3537:HOH:O	2.09	0.70
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.25	0.70
4:32:19:LEU:HD12	4:32:21:LEU:HD11	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.56	0.70
9:8E:86:VAL:HG21	9:8E:96:LEU:HD22	1.74	0.70
26:1H:1298:C:H5"	26:1H:1299:G:OP2	1.90	0.70
27:16:100:G:OP2	61:16:302:HOH:O	2.10	0.70
31:31:66:PRO:O	31:31:67:GLN:HB3	1.90	0.70
5:4E:101:ILE:O	5:4E:120:THR:OG1	2.10	0.69
26:1H:1728:G:H8	26:1H:1732:A:H62	1.38	0.69
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.74	0.69
19:AA:37:ARG:O	19:AA:70:LYS:NZ	2.25	0.69
30:29:14:ILE:HB	41:75:14:TYR:CE2	2.27	0.69
6:5E:89:MET:HG3	18:9I:76:LEU:HD21	1.74	0.69
11:2I:124:LYS:HD2	11:2I:125:PHE:HE1	1.57	0.69
26:1H:1243:G:N7	61:1H:3589:HOH:O	2.25	0.69
41:B8:56:GLY:O	41:B8:59:THR:HG23	1.91	0.69
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.74	0.69
26:14:397:G:N7	61:14:3554:HOH:O	2.24	0.69
26:14:831:G:N7	61:14:3558:HOH:O	2.26	0.69
26:14:1453:A:OP2	61:14:3523:HOH:O	2.08	0.69
26:14:2280:G:O2'	26:14:2388:A:N1	2.22	0.69
26:14:2720:U:H3	26:14:2873:A:H2	1.39	0.69
30:29:27:LEU:HG	41:75:1:MET:HG3	1.74	0.69
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.74	0.69
34:69:75:LEU:HD13	34:69:77:LEU:HD22	1.74	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.89	0.69
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.27	0.69
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.25	0.69
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.73	0.69
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.57	0.69
40:A8:48:LEU:HD22	40:A8:82:ILE:HD11	1.74	0.69
1:1G:957:U:H1'	1:1G:960:U:H5	1.57	0.69
3:22:47:LEU:O	3:22:51:GLY:N	2.25	0.69
26:14:1954:G:O2'	26:14:1956:U:O4	2.06	0.69
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.74	0.69
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.57	0.69
13:4A:78:ILE:HG23	13:4A:92:HIS:HB3	1.74	0.69
56:1L:76:A:O2'	26:14:2583:G:N2	2.25	0.69
2:1E:192:SER:OG	2:1E:193:ASP:N	2.25	0.69
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.74	0.69
26:1H:1833:U:H2'	26:1H:1834:U:H6	1.56	0.69
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.75	0.69
7:62:148:ASN:ND2	7:62:148:ASN:O	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:71:A:H2	45:B5:31:HIS:CE1	2.10	0.69
26:14:270(L):U:O2'	26:14:270(N):G:N2	2.25	0.69
26:14:2062:A:OP1	61:14:3526:HOH:O	2.11	0.69
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.19	0.69
26:1H:270(K):C:H2'	26:1H:270(N):G:H22	1.57	0.69
37:78:18:ARG:O	61:78:301:HOH:O	2.09	0.69
1:1G:420:U:O2'	1:1G:423:G:O6	2.10	0.69
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.26	0.69
4:32:100:ARG:NH1	4:32:102:ASP:OD2	2.26	0.69
45:B5:57:LEU:HD11	45:B5:78:LYS:HE2	1.75	0.69
1:13:446:G:H1	1:13:488:C:H42	1.41	0.69
1:13:501:C:H2'	1:13:502:G:H8	1.58	0.69
1:13:811:C:N3	61:13:1814:HOH:O	2.26	0.69
1:13:1315:U:HO2'	1:13:1360:A:HO2'	1.40	0.69
1:13:1455:G:H5"	20:BI:31:SER:HB2	1.74	0.69
11:2I:85:ARG:HE	11:2I:111:ASP:HB3	1.57	0.69
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.28	0.69
26:1H:731:C:OP2	61:1H:3511:HOH:O	2.09	0.69
26:1H:1036:G:N2	26:1H:1119:C:O2	2.20	0.69
26:1H:1678:G:N2	26:1H:1989:G:H22	1.91	0.69
30:21:38:THR:HG22	30:21:41:LYS:HB2	1.75	0.69
30:21:105:THR:HG1	30:21:199:ARG:HH21	1.40	0.69
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.74	0.69
13:4A:79:LYS:HA	13:4A:82:MET:HB2	1.73	0.69
26:14:760:G:OP1	61:14:3524:HOH:O	2.10	0.69
26:14:1210:A:H5'	26:14:1212:G:H5'	1.74	0.69
26:14:1997:G:OP2	61:14:3525:HOH:O	2.10	0.69
26:14:2287:A:H62	26:14:2344:U:H3	1.38	0.69
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.26	0.69
22:1K:74:C:H42	26:1H:2508:G:H5'	1.58	0.69
22:1K:76:A:H8	26:1H:2583:G:H21	1.40	0.69
26:1H:2592:G:N7	61:1H:3584:HOH:O	2.24	0.69
18:9I:59:SER:OG	18:9I:60:ALA:N	2.26	0.69
50:K8:31:GLU:HB2	50:K8:53:LEU:HD11	1.74	0.69
2:12:21:ARG:HA	2:12:39:ILE:H	1.57	0.69
3:22:26:LYS:HG3	3:22:27:LYS:HG2	1.75	0.69
8:72:44:PHE:HD2	8:72:80:ILE:HG12	1.58	0.69
11:2A:98:LEU:O	11:2A:101:SER:OG	2.08	0.69
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.58	0.69
26:14:2409:G:N7	61:14:3555:HOH:O	2.25	0.69
30:29:200:GLU:OE1	30:29:200:GLU:N	2.20	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1286:A:C8	1:13:1287:A:H4'	2.27	0.68
54:P8:27:GLY:HA2	54:P8:30:VAL:HG23	1.75	0.68
1:13:259:G:OP2	20:BI:83:ARG:NH1	2.27	0.68
1:13:524:G:H2'	1:13:525:C:C6	2.29	0.68
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.26	0.68
49:J8:87:PRO:HA	49:J8:90:ILE:HG13	1.74	0.68
50:K8:42:GLY:O	50:K8:44:LEU:N	2.26	0.68
26:14:945:A:N3	61:14:3559:HOH:O	2.26	0.68
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.75	0.68
33:59:9:ILE:O	33:59:69:ARG:NH1	2.26	0.68
36:25:13:ASN:ND2	36:25:96:THR:OG1	2.26	0.68
26:1H:943:U:OP2	37:78:36:LYS:HG3	1.93	0.68
61:1H:3934:HOH:O	37:78:26:GLY:HA2	1.93	0.68
52:M8:40:HIS:CE1	52:M8:46:GLN:HA	2.26	0.68
4:32:12:CYS:SG	4:32:18:LYS:HA	2.33	0.68
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.26	0.68
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.76	0.68
42:85:91:ASP:OD1	42:85:96:ALA:N	2.25	0.68
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.25	0.68
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.26	0.68
1:13:798:G:N7	61:13:1815:HOH:O	2.26	0.68
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.75	0.68
26:1H:818:G:OP2	61:1H:3540:HOH:O	2.10	0.68
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.29	0.68
26:1H:1701:A:OP2	61:1H:3544:HOH:O	2.12	0.68
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.25	0.68
43:D8:44:LYS:O	43:D8:46:VAL:N	2.25	0.68
10:1A:40:LEU:HD22	10:1A:71:LEU:HD13	1.76	0.68
18:9A:36:ASN:ND2	18:9A:36:ASN:O	2.27	0.68
33:59:9:ILE:HG22	33:59:52:VAL:H	1.58	0.68
2:1E:19:HIS:HE1	2:1E:206:ASP:HB2	1.57	0.68
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.75	0.68
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.08	0.68
26:1H:120:U:OP2	61:1H:3541:HOH:O	2.11	0.68
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.75	0.68
27:16:15:A:H5'	27:16:16:G:H8	1.57	0.68
37:78:21:ARG:HD2	61:78:306:HOH:O	1.93	0.68
51:L8:26:LEU:HD21	51:L8:46:ASN:HB3	1.74	0.68
26:14:2689:U:OP2	26:14:2719:G:N2	2.25	0.68
26:1H:287:C:H2'	26:1H:288:C:H6	1.58	0.68
26:1H:528:A:O2'	26:1H:529:A:H5"	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1652:A:H2'	26:1H:1653:G:H5'	1.74	0.68
39:98:56:LYS:HE3	39:98:88:ARG:HA	1.75	0.68
1:1G:1321:C:N4	1:1G:1322:C:H41	1.92	0.68
2:12:118:LEU:HD11	2:12:141:GLU:HG2	1.75	0.68
5:42:101:ILE:O	5:42:120:THR:OG1	2.12	0.68
26:14:2689:U:P	26:14:2719:G:H22	2.16	0.68
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.76	0.68
43:95:70:ILE:N	43:95:86:GLY:O	2.24	0.68
1:13:1497:G:H2'	1:13:1498:U:H5'	1.76	0.68
26:1H:760:G:OP1	61:1H:3546:HOH:O	2.12	0.68
26:1H:2789:C:H1'	26:1H:2892:A:C2	2.28	0.68
38:88:79:LEU:HD12	38:88:80:GLU:HG3	1.75	0.68
6:52:7:ASN:N	6:52:7:ASN:OD1	2.24	0.68
26:14:2787:C:O2'	30:29:61:ARG:O	2.10	0.68
3:2E:136:GLN:OE1	3:2E:140:ARG:NH1	2.26	0.68
26:1H:2176:A:OP1	28:71:7:TYR:OH	2.08	0.68
32:41:97:ASP:O	32:41:100:TRP:N	2.27	0.68
47:H8:95:PRO:HB2	47:H8:127:LYS:HE2	1.74	0.68
1:1G:1266:G:N2	1:1G:1270:C:N3	2.42	0.68
5:42:42:GLY:HA3	5:42:65:ASN:O	1.93	0.68
26:14:1174:A:H2'	26:14:1176:G:H5'	1.74	0.68
26:14:2681:C:H5	26:14:2725:A:H62	1.42	0.68
38:45:88:GLY:O	38:45:89:ASN:ND2	2.27	0.68
1:13:737:A:H2'	1:13:738:C:H6	1.58	0.68
26:1H:336:C:OP1	46:G8:83:THR:HG23	1.93	0.68
31:31:130:ALA:H	31:31:132:VAL:HG13	1.59	0.68
1:1G:532:A:N6	1:1G:1206:G:O2'	2.27	0.68
1:1G:1054:C:H6	1:1G:1196:U:HO2'	1.39	0.68
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.73	0.68
1:13:27:G:H4'	4:3E:209:ARG:HD3	1.76	0.68
13:4I:39:ILE:HD12	13:4I:56:LEU:HD22	1.75	0.68
26:1H:780:G:H21	26:1H:783:A:H62	1.41	0.68
2:12:11:LEU:HG	2:12:217:ARG:NH2	2.09	0.68
12:3A:47:LYS:HG3	12:3A:48:PRO:CD	2.24	0.68
46:C5:50:ARG:HG3	46:C5:53:PRO:HG2	1.75	0.68
1:13:353:A:H8	1:13:353:A:H5'	1.59	0.67
1:13:612:C:O2	1:13:629:G:N2	2.26	0.67
1:13:1122:U:O4	1:13:1123:A:N6	2.26	0.67
26:1H:1456:G:OP2	61:1H:3542:HOH:O	2.11	0.67
26:1H:1899:G:N2	26:1H:1902:C:C5	2.62	0.67
26:1H:2127:G:H1	26:1H:2161:C:H2'	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:65:PHE:O	38:88:66:ILE:HG13	1.94	0.67
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.27	0.67
1:1G:571:U:H3	1:1G:864:A:H61	1.40	0.67
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.92	0.67
1:1G:1221:G:OP1	1:1G:1321:C:N4	2.26	0.67
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.75	0.67
29:19:69:ARG:NH2	29:19:128:GLY:O	2.25	0.67
36:25:17:ARG:HB2	36:25:45:GLU:HG2	1.75	0.67
28:71:59:ARG:HB2	28:71:164:ARG:HD2	1.75	0.67
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.60	0.67
26:14:733:G:N7	61:14:3521:HOH:O	2.27	0.67
44:A5:65:LEU:HD13	44:A5:68:ARG:HD3	1.76	0.67
1:13:505:G:OP1	61:13:1807:HOH:O	2.12	0.67
1:13:1266:G:N2	1:13:1270:C:N3	2.42	0.67
26:1H:934:G:H2'	26:1H:935:C:H6	1.59	0.67
26:1H:1045:A:H1'	26:1H:1047:G:C5	2.28	0.67
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.59	0.67
26:1H:1534:G:N1	26:1H:1539:G:N3	2.41	0.67
26:1H:1664:A:OP2	61:1H:3543:HOH:O	2.12	0.67
26:1H:2308:G:N1	26:1H:2311:A:H2	1.89	0.67
32:41:96:ARG:HB2	32:41:96:ARG:HH11	1.59	0.67
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.60	0.67
44:E8:97:LYS:HE2	44:E8:99:ARG:NH2	2.10	0.67
50:K8:4:SER:OG	50:K8:7:ARG:N	2.27	0.67
1:1G:875:C:H1'	8:72:15:ASN:HD21	1.59	0.67
12:3A:41:ARG:HB3	12:3A:41:ARG:NH1	2.09	0.67
26:14:2469:A:H8	38:45:56:ARG:HH21	1.42	0.67
48:E5:36:ILE:HD11	48:E5:39:ARG:HG2	1.75	0.67
2:1E:100:GLY:O	2:1E:104:ASN:N	2.21	0.67
26:1H:686:G:O5'	54:P8:11:LYS:NZ	2.28	0.67
33:51:8:PRO:HG2	33:51:69:ARG:HH21	1.60	0.67
1:1G:613:C:O3'	4:32:86:LYS:NZ	2.27	0.67
44:A5:88:ARG:NH1	44:A5:94:ASP:OD2	2.23	0.67
1:13:601:C:H2'	1:13:602:A:C8	2.29	0.67
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.76	0.67
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.77	0.67
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.60	0.67
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.27	0.67
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.59	0.67
26:14:305:U:H2'	26:14:306:U:C6	2.30	0.67
26:14:1159:U:H2'	26:14:1160:G:H8	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:768:A:OP2	61:1G:1704:HOH:O	2.13	0.67
1:1G:957:U:H1'	1:1G:960:U:C5	2.29	0.67
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.75	0.67
2:1E:28:PHE:HD2	2:1E:190:THR:HG23	1.59	0.67
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.35	0.67
26:1H:2131:G:H1'	26:1H:2158:A:C6	2.30	0.67
30:21:101:ARG:HG2	30:21:169:ASN:OD1	1.95	0.67
40:A8:85:VAL:HG23	40:A8:112:PHE:HZ	1.58	0.67
11:2A:34:ASP:HB3	11:2A:40:ILE:HD11	1.77	0.67
26:14:1534:G:H3'	26:14:1535:U:H5"	1.77	0.67
26:14:2306:C:H3'	26:14:2307:G:H5"	1.75	0.67
1:1G:983:A:H61	1:1G:1222:G:H22	1.41	0.67
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.30	0.67
29:19:108:PRO:HB3	29:19:143:HIS:HE1	1.60	0.67
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.28	0.67
27:16:8:U:N3	27:16:112:G:O6	2.17	0.67
32:41:113:ARG:HE	52:M8:34:GLU:HG2	1.60	0.67
35:58:57:ALA:C	35:58:59:LYS:H	1.98	0.67
41:B8:108:ARG:HG3	41:B8:109:GLU:N	2.10	0.67
46:G8:82:PRO:HG3	46:G8:97:ARG:HD2	1.77	0.67
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.28	0.67
26:14:140:A:H8	26:14:1408:C:HO2'	1.43	0.67
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.60	0.67
38:45:25:ASP:CB	38:45:102:VAL:H	2.07	0.67
49:F5:29:GLY:O	49:F5:30:VAL:HG22	1.94	0.67
1:13:618:C:H5"	1:13:619:U:H5"	1.75	0.67
26:14:1729:A:H2'	26:14:1731:G:N2	2.10	0.67
46:C5:28:LYS:NZ	46:C5:64:GLU:OE2	2.28	0.67
1:13:610:G:O6	61:13:1803:HOH:O	2.08	0.66
1:13:671:G:H2'	1:13:672:U:H6	1.61	0.66
26:1H:1689:A:H62	26:1H:1698:A:H2	1.43	0.66
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.57	0.66
30:21:128:SER:OG	30:21:129:HIS:N	2.26	0.66
37:78:115:LEU:HA	37:78:134:ALA:HB2	1.77	0.66
2:12:144:ARG:HA	2:12:147:LYS:HE3	1.77	0.66
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.76	0.66
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.77	0.66
57:3L:9:A:H5'	57:3L:11:C:H41	1.60	0.66
26:14:1578:U:OP2	61:14:3527:HOH:O	2.13	0.66
34:69:65:ALA:O	34:69:69:LYS:N	2.28	0.66
48:E5:32:ARG:O	48:E5:34:GLY:N	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.30	0.66
1:13:576:G:O5'	61:13:1810:HOH:O	2.14	0.66
26:1H:607:U:H3	26:1H:621:A:H2	1.43	0.66
44:E8:58:ALA:HB1	44:E8:64:MET:HE2	1.77	0.66
3:22:119:ARG:HH12	3:22:140:ARG:HG2	1.59	0.66
9:82:5:TYR:HA	9:82:87:GLN:NE2	2.06	0.66
9:82:96:LEU:HG	9:82:101:PHE:HB2	1.77	0.66
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.75	0.66
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.76	0.66
42:85:100:VAL:HG12	42:85:101:ARG:HG3	1.77	0.66
26:1H:1138:G:H21	35:58:106:MET:HE3	1.59	0.66
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.59	0.66
26:1H:1607:C:O2	61:1H:3539:HOH:O	2.10	0.66
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.18	0.66
26:1H:2362:G:OP1	55:Q8:44:LYS:NZ	2.24	0.66
30:21:97:LYS:N	30:21:100:GLU:OE1	2.26	0.66
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.78	0.66
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.77	0.66
37:78:61:ARG:HH11	37:78:61:ARG:HG3	1.60	0.66
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.31	0.66
52:M8:40:HIS:ND1	52:M8:45:GLY:O	2.28	0.66
1:1G:926:G:N2	25:4L:15:A:OP2	2.28	0.66
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.24	0.66
26:14:1169:G:H1	26:14:1180:C:H42	1.41	0.66
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.77	0.66
26:1H:860:U:H5	26:1H:917:A:C2	2.14	0.66
30:21:38:THR:HG23	30:21:40:GLU:H	1.60	0.66
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.30	0.66
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.30	0.66
26:14:1378:A:O2'	26:14:1380:G:N7	2.24	0.66
49:F5:64:ALA:HA	49:F5:67:ILE:HD13	1.77	0.66
55:M5:24:ALA:N	55:M5:48:PHE:O	2.28	0.66
1:13:21:G:OP1	61:13:1808:HOH:O	2.13	0.66
1:13:504:C:OP1	61:13:1807:HOH:O	2.13	0.66
34:61:110:ASP:N	34:61:110:ASP:OD1	2.26	0.66
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.11	0.66
1:1G:1016:A:HO2'	1:1G:1217:C:HO2'	1.43	0.66
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.29	0.66
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.27	0.66
22:1K:48:C:O2'	22:1K:59:A:O4'	2.12	0.66
26:1H:392:C:OP1	61:1H:3548:HOH:O	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.30	0.66
26:1H:2287:A:H2	26:1H:2346:A:H2	1.42	0.66
27:16:72:G:OP2	61:16:303:HOH:O	2.12	0.66
34:61:31:LEU:HD21	34:61:38:LEU:HD12	1.76	0.66
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.13	0.66
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.76	0.66
1:13:871:U:OP1	61:13:1809:HOH:O	2.13	0.66
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.30	0.66
1:1G:1318:A:H1'	19:AA:37:ARG:HD2	1.76	0.66
26:14:71:A:OP2	26:14:71:A:H3'	1.94	0.66
32:49:93:THR:HG21	32:49:95:ARG:HH21	1.61	0.66
35:15:67:LEU:HG	35:15:88:GLU:HG2	1.78	0.66
1:1G:45:U:H2'	1:1G:46:G:C8	2.30	0.66
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.31	0.66
47:D5:77:ASP:OD2	47:D5:80:ARG:NH1	2.29	0.66
1:13:628:G:H2'	1:13:629:G:C8	2.29	0.66
24:3K:29:U:H2'	24:3K:30:G:H8	1.61	0.66
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.61	0.66
26:1H:1641:A:H5"	26:1H:1642:G:OP2	1.95	0.66
26:1H:2057:A:OP2	61:1H:3550:HOH:O	2.14	0.66
27:16:81:G:N2	61:16:307:HOH:O	2.28	0.66
38:88:78:PRO:O	38:88:79:LEU:HB3	1.96	0.66
50:K8:41:ILE:HD13	50:K8:44:LEU:HG	1.77	0.66
1:1G:1023:G:H5"	1:1G:1024:G:H21	1.60	0.66
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.77	0.66
2:1E:67:THR:HG21	2:1E:155:LEU:HD13	1.77	0.66
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.78	0.66
46:G8:54:LYS:HA	46:G8:56:PRO:HD3	1.78	0.66
1:1G:243:A:H4'	1:1G:244:U:H5"	1.78	0.66
26:14:676:A:H8	26:14:2069:G:N2	1.89	0.66
26:14:731:C:OP1	61:14:3532:HOH:O	2.15	0.66
26:14:1614:A:OP2	61:14:3528:HOH:O	2.13	0.66
26:14:2836:U:H2'	26:14:2837:G:C8	2.29	0.66
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.43	0.65
26:1H:176:G:O2'	26:1H:177:G:H5'	1.96	0.65
26:1H:900:A:H3'	26:1H:901:A:H8	1.60	0.65
26:1H:1990:C:OP2	61:1H:3549:HOH:O	2.14	0.65
3:22:16:ARG:HH22	3:22:181:ASN:HD22	1.43	0.65
26:14:94:G:N3	50:G5:47:ASN:ND2	2.44	0.65
26:14:780:G:OP1	29:19:218:ARG:NH2	2.29	0.65
26:14:879:G:O2'	26:14:898:C:N4	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1323:G:H2'	1:13:1324:A:C8	2.31	0.65
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.77	0.65
26:1H:2287:A:N6	26:1H:2344:U:H3	1.94	0.65
31:31:136:THR:HG22	31:31:166:ALA:O	1.96	0.65
41:B8:107:ASP:O	41:B8:110:ILE:HG23	1.96	0.65
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.27	0.65
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.29	0.65
26:14:117:G:OP1	26:14:124:G:N1	2.26	0.65
26:14:1055:G:N2	26:14:1086:A:O4'	2.29	0.65
26:14:1165:U:H2'	26:14:1166:C:C6	2.30	0.65
27:1J:15:A:H1'	27:1J:109:G:C8	2.31	0.65
51:H5:39:ASP:O	51:H5:44:ARG:NH1	2.29	0.65
1:13:403:C:OP1	4:3E:137:SER:OG	2.12	0.65
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.28	0.65
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.60	0.65
28:71:59:ARG:HG3	28:71:164:ARG:HG2	1.77	0.65
30:21:201:THR:HG22	30:21:203:LYS:H	1.60	0.65
31:31:29:ASN:H	31:31:112:MET:HE1	1.62	0.65
26:14:93:C:H5'	26:14:94:G:OP2	1.96	0.65
26:14:1164:G:H1	26:14:1185:C:H42	1.43	0.65
26:14:1416:G:O2'	26:14:1417:C:O5'	2.14	0.65
26:14:2064:C:H2'	26:14:2065:C:C6	2.31	0.65
27:1J:42:C:H2'	32:49:66:GLN:HE21	1.60	0.65
30:29:87:GLU:N	30:29:87:GLU:OE2	2.29	0.65
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.32	0.65
29:19:25:THR:OG1	29:19:26:LYS:N	2.21	0.65
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.59	0.65
1:13:316:G:OP2	1:13:351:G:O2'	2.13	0.65
1:13:1003:G:N2	1:13:1037:C:N3	2.36	0.65
24:3K:53:G:N2	24:3K:62:C:O2	2.29	0.65
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.31	0.65
26:1H:1417:C:OP2	61:1H:3552:HOH:O	2.14	0.65
26:1H:2159:G:H2'	26:1H:2160:G:O4'	1.96	0.65
30:21:77:ILE:O	30:21:79:ARG:N	2.29	0.65
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.77	0.65
11:2A:48:ILE:HG21	11:2A:63:LEU:HG	1.78	0.65
26:14:603:A:H8	26:14:604:G:H1'	1.61	0.65
26:14:796:C:H2'	26:14:797:C:C6	2.32	0.65
26:14:2462:U:H2'	26:14:2463:C:C6	2.31	0.65
26:14:2846:G:N7	61:14:3567:HOH:O	2.30	0.65
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:140:LEU:HD21	31:39:170:LEU:HD21	1.78	0.65
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.29	0.65
43:95:71:LEU:N	43:95:86:GLY:HA2	2.12	0.65
26:1H:1971:A:C4	29:11:241:PRO:HD3	2.31	0.65
26:1H:2061:G:P	61:1H:3535:HOH:O	2.55	0.65
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.61	0.65
13:4A:102:ARG:HD3	13:4A:105:THR:HG23	1.79	0.65
26:14:26:G:OP1	44:A5:80:PRO:HB3	1.97	0.65
26:14:1278:A:OP1	39:55:36:THR:HG22	1.96	0.65
26:14:1534:G:H3'	26:14:1535:U:C5'	2.26	0.65
46:C5:75:ILE:HG23	46:C5:80:GLY:HA2	1.78	0.65
26:1H:1359:A:H2	26:1H:1372:U:O4	1.80	0.65
26:1H:1899:G:N2	26:1H:1902:C:H5	1.93	0.65
1:1G:407:G:H2'	1:1G:408:A:C8	2.32	0.65
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.29	0.65
4:32:31:CYS:HB2	4:32:33:MET:O	1.96	0.65
14:5A:59:ALA:HB1	14:5A:61:TRP:HZ3	1.62	0.65
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.79	0.65
26:14:907:U:O2'	38:45:101:ARG:NH2	2.27	0.65
26:14:1106:G:H3'	26:14:1107:G:H8	1.62	0.65
26:14:2444:G:OP2	31:39:68:LYS:NZ	2.26	0.65
29:19:45:ASN:O	29:19:47:GLY:N	2.30	0.65
1:13:642:A:N3	8:7E:113:SER:OG	2.29	0.65
1:13:1139:G:H4'	1:13:1140:C:H5'	1.79	0.65
17:8I:76:LEU:HD11	17:8I:79:SER:HB2	1.78	0.65
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.79	0.65
36:68:34:THR:OG1	36:68:35:VAL:N	2.30	0.65
57:3L:63:U:H2'	57:3L:64:G:H8	1.62	0.65
26:14:89:G:H3'	26:14:90:U:H5"	1.78	0.65
36:25:24:VAL:HB	36:25:33:ALA:HB2	1.79	0.65
49:F5:52:ARG:NH2	49:F5:57:GLU:OE1	2.30	0.65
1:13:346:G:OP1	41:B8:41:ARG:NH2	2.27	0.65
26:1H:1899:G:H22	26:1H:1902:C:N4	1.95	0.65
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.29	0.65
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.27	0.65
40:65:78:LEU:HD11	40:65:107:GLU:HB3	1.78	0.65
45:B5:51:VAL:H	45:B5:83:VAL:HG23	1.62	0.65
26:1H:2232:U:OP1	49:J8:40:ARG:NH1	2.24	0.65
40:A8:34:HIS:CE1	40:A8:54:LEU:HD23	2.31	0.65
1:1G:352:C:O2'	1:1G:354:G:OP1	2.13	0.65
26:14:49:A:H4'	26:14:50:U:H5"	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.78	0.65
55:M5:22:VAL:HG12	55:M5:50:LEU:HD23	1.79	0.65
1:13:812:C:O2	61:13:1805:HOH:O	2.11	0.64
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.61	0.64
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.79	0.64
20:BI:89:ARG:HD2	20:BI:104:LEU:HD11	1.79	0.64
35:58:56:ASN:N	35:58:125:GLY:O	2.22	0.64
46:G8:55:TYR:CE1	46:G8:61:ILE:HD11	2.32	0.64
50:K8:42:GLY:C	50:K8:44:LEU:H	2.00	0.64
1:1G:448:A:P	1:1G:485:G:H22	2.20	0.64
13:4A:31:LYS:HA	13:4A:34:LEU:HD12	1.78	0.64
13:4A:53:VAL:O	13:4A:57:ARG:N	2.23	0.64
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.62	0.64
26:14:972:G:O2'	61:14:3531:HOH:O	2.14	0.64
26:14:1963:U:H5"	26:14:1963:U:O2	1.97	0.64
2:1E:121:LEU:HA	2:1E:124:SER:HB2	1.79	0.64
2:1E:198:ASP:OD1	2:1E:198:ASP:N	2.30	0.64
19:AI:41:VAL:HG21	19:AI:67:VAL:HG22	1.79	0.64
32:41:21:ARG:HH11	32:41:21:ARG:HB2	1.61	0.64
33:51:6:ARG:NH2	33:51:7:LEU:HD11	2.11	0.64
49:J8:78:LYS:O	49:J8:78:LYS:NZ	2.25	0.64
1:1G:108:G:H5'	1:1G:109:A:H5"	1.77	0.64
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.12	0.64
1:1G:1162:C:N3	1:1G:1174:G:N2	2.42	0.64
5:42:148:VAL:HG21	8:72:107:LEU:HD22	1.78	0.64
1:13:143:A:H5"	1:13:144:G:H5'	1.79	0.64
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.78	0.64
18:9I:22:VAL:O	18:9I:42:ARG:NH2	2.30	0.64
38:88:66:ILE:O	38:88:104:PHE:N	2.31	0.64
4:32:168:ARG:HD3	4:32:169:LYS:N	2.13	0.64
9:82:84:ALA:HA	9:82:87:GLN:HB2	1.80	0.64
26:14:1174:A:C2	26:14:1176:G:H4'	2.31	0.64
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.79	0.64
26:14:2689:U:H5"	26:14:2713:A:C2	2.32	0.64
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.31	0.64
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.31	0.64
34:61:144:VAL:HG22	34:61:145:VAL:HG23	1.78	0.64
37:78:138:LEU:HD12	37:78:144:GLU:HG3	1.78	0.64
13:4A:78:ILE:HD12	13:4A:92:HIS:ND1	2.12	0.64
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.61	0.64
26:14:1757:U:H3	26:14:1762:A:H2	1.42	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:51:PHE:O	30:29:74:PRO:HB2	1.97	0.64
37:35:14:LYS:O	37:35:16:ARG:N	2.31	0.64
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.78	0.64
50:G5:25:VAL:HG12	50:G5:57:ILE:HG23	1.80	0.64
1:13:153:C:N4	1:13:168:G:H22	1.95	0.64
1:13:963:G:H21	10:1I:55:LYS:NZ	1.96	0.64
5:4E:27:ARG:HH21	5:4E:47:LYS:HB3	1.61	0.64
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.80	0.64
19:AI:5:LEU:HD12	19:AI:9:VAL:H	1.62	0.64
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.33	0.64
1:1G:10:A:H2'	1:1G:11:G:H8	1.63	0.64
1:1G:837:G:H2'	1:1G:838:G:O4'	1.97	0.64
26:14:2317:C:H2'	26:14:2318:G:O4'	1.98	0.64
28:79:52:ARG:HB3	28:79:52:ARG:HH11	1.62	0.64
39:55:78:LYS:O	39:55:83:ILE:HG13	1.96	0.64
1:13:179:A:H2'	1:13:180:U:H6	1.63	0.64
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.80	0.64
19:AI:8:GLY:HA2	19:AI:10:PHE:CE1	2.32	0.64
1:1G:973:G:H3'	1:1G:974:A:H5"	1.79	0.64
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.32	0.64
17:8A:99:SER:OG	17:8A:100:LYS:N	2.31	0.64
26:14:576:U:OP1	61:14:3533:HOH:O	2.15	0.64
26:14:1778:U:H2'	26:14:1784:A:N6	2.13	0.64
26:14:2776:A:OP1	26:14:2776:A:H3'	1.98	0.64
26:14:2877:G:P	41:75:2:ASN:HD21	2.20	0.64
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.38	0.64
31:39:66:PRO:O	31:39:67:GLN:HB3	1.97	0.64
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.79	0.64
22:1K:53:G:H1	22:1K:61:C:H42	1.46	0.64
26:1H:1186:G:OP1	61:1H:3551:HOH:O	2.14	0.64
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.81	0.64
26:1H:2788:C:H5'	30:21:61:ARG:HH12	1.63	0.64
28:71:26:ALA:HB1	28:71:185:LEU:HB3	1.79	0.64
1:1G:887:G:H21	1:1G:1489:G:H4'	1.63	0.64
1:1G:1069:C:H42	1:1G:1106:G:H1	1.44	0.64
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.61	0.64
30:29:54:GLN:HA	30:29:54:GLN:HE21	1.63	0.64
31:39:51:THR:HG23	31:39:92:PRO:HG2	1.80	0.64
47:D5:94:GLU:O	47:D5:130:PRO:HD3	1.97	0.64
2:1E:219:VAL:HA	2:1E:222:ILE:HD11	1.79	0.64
5:4E:57:LYS:HA	5:4E:60:TYR:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1028(A):C:H41	1:1G:1029:G:H1'	1.63	0.64
3:22:32:LEU:HD22	3:22:59:ARG:HH12	1.63	0.64
10:1A:44:VAL:HG22	10:1A:66:ARG:HB3	1.80	0.64
26:14:925:C:H2'	26:14:926:A:H8	1.62	0.64
26:14:1678:G:H22	26:14:1989:G:N2	1.95	0.64
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.63	0.64
26:14:2065:C:H1'	26:14:2449:U:H3	1.63	0.64
26:14:2377:A:H4'	40:65:111:GLU:HG2	1.80	0.64
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.31	0.64
26:1H:2110:G:N2	26:1H:2180:U:O2	2.31	0.64
1:1G:448:A:OP2	1:1G:485:G:N2	2.28	0.64
26:14:2134:A:N6	26:14:2156:G:H2'	2.13	0.64
35:15:42:TRP:HA	35:15:48:MET:HE1	1.79	0.64
40:65:85:VAL:HG22	40:65:110:LEU:HB2	1.79	0.64
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.80	0.64
48:E5:38:VAL:HB	48:E5:59:LEU:HD12	1.80	0.64
1:13:1128:C:H5'	9:8E:16:ARG:HH22	1.63	0.64
20:BI:30:LYS:HE2	20:BI:80:ARG:HH22	1.62	0.64
23:2K:33:OMC:HM22	23:2K:34:U:H5'	1.79	0.64
26:1H:880:G:H2'	26:1H:881:G:C8	2.32	0.64
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.33	0.64
26:1H:1899:G:H22	26:1H:1902:C:H41	1.46	0.64
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.98	0.64
7:62:116:ALA:HA	7:62:119:ARG:HE	1.63	0.64
26:14:1416:G:H1	26:14:1582:C:H42	1.45	0.64
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.28	0.64
1:13:339:C:OP2	36:68:97:ARG:NH1	2.30	0.63
1:13:848:C:H2'	1:13:849:C:O4'	1.98	0.63
1:13:1062:U:H2'	1:13:1063:C:C6	2.33	0.63
3:2E:147:LYS:HB3	3:2E:203:PHE:CD2	2.33	0.63
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.31	0.63
27:16:28:C:OP1	40:A8:36:TYR:OH	2.11	0.63
35:58:129:PRO:O	35:58:134:ARG:NH1	2.31	0.63
1:1G:371:G:O2'	1:1G:373:A:N7	2.30	0.63
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.46	0.63
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.13	0.63
26:14:1899:G:N2	26:14:1902:C:N4	2.45	0.63
33:59:159:GLU:O	33:59:163:TYR:OH	2.16	0.63
54:L5:25:PRO:HA	54:L5:28:ARG:HG3	1.80	0.63
1:13:501:C:H2'	1:13:502:G:C8	2.34	0.63
1:13:1157:A:N6	1:13:1178:G:H21	1.95	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:16:ASP:HB2	13:4I:31:LYS:HE3	1.81	0.63
47:D5:45:ASP:OD1	47:D5:49:ARG:NH1	2.31	0.63
1:13:8:A:N7	4:3E:208:SER:OG	2.25	0.63
26:1H:65:C:H2'	26:1H:66:C:H6	1.63	0.63
26:1H:97:C:OP1	50:K8:2:LYS:N	2.32	0.63
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.33	0.63
28:71:55:ASP:OD1	28:71:55:ASP:N	2.29	0.63
37:78:95:VAL:HG21	37:78:123:LEU:HD13	1.79	0.63
1:1G:1095:U:P	1:1G:1108:G:H1	2.21	0.63
26:14:198:C:H5'	26:14:2244:U:OP1	1.99	0.63
26:14:674:G:O2'	31:39:74:ARG:HG3	1.98	0.63
26:14:1138:G:H21	35:15:106:MET:HE3	1.63	0.63
27:1J:89(A):A:H5'	27:1J:90:C:OP2	1.99	0.63
1:13:626:U:H2'	1:13:627:G:C8	2.33	0.63
1:13:649:G:H2'	1:13:650:G:H8	1.62	0.63
1:13:1165:C:O2	1:13:1171:G:N2	2.24	0.63
1:13:1446:A:OP1	1:13:1446:A:H4'	1.99	0.63
26:1H:330:A:HO2'	26:1H:331:A:H8	1.45	0.63
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.80	0.63
43:D8:37:VAL:HG12	43:D8:55:ALA:O	1.98	0.63
1:1G:1266:G:N2	1:1G:1269:A:OP2	2.32	0.63
7:62:42:ILE:HG23	7:62:117:ALA:HB2	1.81	0.63
57:3L:21:A:N1	57:3L:46:G:N1	2.47	0.63
43:95:35:LEU:O	43:95:37:VAL:HG22	1.98	0.63
46:C5:8:LYS:NZ	46:C5:95:LYS:HD3	2.13	0.63
55:M5:48:PHE:CB	55:M5:49:VAL:HG22	2.18	0.63
1:13:251:G:O6	1:13:271:C:N4	2.32	0.63
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.31	0.63
1:13:1260:C:H4'	1:13:1284:C:H5'	1.81	0.63
1:13:1315:U:O2'	1:13:1360:A:O2'	2.13	0.63
26:1H:778:G:O6	61:1H:3547:HOH:O	2.12	0.63
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.64	0.63
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.64	0.63
26:1H:1578:U:OP2	61:1H:3554:HOH:O	2.15	0.63
33:51:113:VAL:HG11	33:51:151:ILE:HD13	1.81	0.63
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.80	0.63
1:1G:1133:G:N2	1:1G:1141:C:O2	2.32	0.63
8:72:11:THR:O	8:72:15:ASN:HB2	1.98	0.63
12:3A:59:ARG:NH1	12:3A:65:GLU:OE1	2.31	0.63
13:4A:11:ARG:HA	13:4A:45:VAL:HB	1.81	0.63
38:45:32:TYR:HD2	38:45:114:ALA:HB3	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.31	0.63
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.80	0.63
26:1H:805:G:OP1	61:1H:3555:HOH:O	2.15	0.63
37:78:49:ARG:HG3	37:78:49:ARG:HH11	1.63	0.63
42:C8:97:ASP:OD1	42:C8:101:ARG:NH1	2.28	0.63
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.30	0.63
2:12:127:ILE:O	2:12:130:ARG:NE	2.29	0.63
26:14:780:G:H21	26:14:783:A:H62	1.45	0.63
26:14:1633:G:O6	61:14:3530:HOH:O	2.14	0.63
42:85:75:ASN:OD1	42:85:78:THR:OG1	2.15	0.63
55:M5:23:VAL:HA	55:M5:49:VAL:H	1.63	0.63
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	1.81	0.63
9:8E:125:TYR:HD1	9:8E:126:SER:N	1.97	0.63
26:1H:1047:G:N2	26:1H:1110:G:H2'	2.13	0.63
26:1H:1475:G:H1	26:1H:1518:C:H42	1.45	0.63
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.63	0.63
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.34	0.63
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.13	0.63
26:14:287:C:H2'	26:14:288:C:H6	1.63	0.63
4:3E:82:ALA:O	4:3E:86:LYS:HB3	1.98	0.63
23:2K:62:C:H2'	23:2K:63:C:H6	1.63	0.63
26:1H:588:U:H2'	26:1H:589:C:C6	2.33	0.63
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.34	0.63
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.33	0.63
11:2A:81:ASP:N	11:2A:81:ASP:OD1	2.31	0.63
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.14	0.63
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.79	0.63
42:85:91:ASP:O	42:85:92:ARG:HG2	1.98	0.63
1:13:1081:G:H2'	1:13:1082:G:H8	1.62	0.63
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.30	0.63
1:13:1533:C:H4'	1:13:1534:A:C8	2.34	0.63
3:2E:150:LYS:HE3	3:2E:152:ILE:HD11	1.81	0.63
26:1H:1416:G:O2'	26:1H:1417:C:H6	1.82	0.63
55:Q8:49:VAL:O	55:Q8:51:ALA:N	2.32	0.63
1:1G:192:U:O4'	20:BA:103:GLY:HA2	1.98	0.63
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.80	0.63
26:14:2378:A:O2'	40:65:21:THR:HG21	1.99	0.63
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.81	0.62
2:1E:136:VAL:HA	2:1E:139:LYS:HB2	1.81	0.62
26:1H:458:G:O2'	26:1H:469:G:O6	2.12	0.62
40:A8:106:ARG:C	40:A8:106:ARG:HE	2.01	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:9:TYR:HE2	47:H8:35:ARG:HH11	1.45	0.62
47:H8:102:LEU:HD21	47:H8:124:ILE:HG22	1.81	0.62
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.80	0.62
1:1G:589:C:N3	1:1G:650:G:N2	2.37	0.62
1:1G:1259:C:N4	1:1G:1260:C:O2	2.32	0.62
3:22:6:HIS:CE1	3:22:8:ILE:HB	2.34	0.62
7:62:60:LYS:HA	7:62:63:LYS:HG2	1.81	0.62
12:3A:24:VAL:O	12:3A:26:ALA:N	2.31	0.62
26:14:903:C:H2'	26:14:904:C:C6	2.34	0.62
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.32	0.62
28:79:19:ILE:HG12	28:79:223:ARG:HG3	1.81	0.62
37:35:101:VAL:HG21	37:35:108:LYS:HB2	1.80	0.62
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.31	0.62
22:1K:56:C:H5"	38:88:60:ARG:HH22	1.64	0.62
26:1H:50:U:H3'	26:1H:51:G:H5'	1.82	0.62
26:1H:1667:G:O2'	26:1H:1991:U:O4	2.14	0.62
28:71:19:ILE:HG23	28:71:223:ARG:HG2	1.81	0.62
40:A8:89:ARG:HG2	40:A8:89:ARG:O	1.98	0.62
1:1G:964:A:N3	1:1G:969:A:O2'	2.28	0.62
2:12:52:GLU:OE1	2:12:53:ARG:N	2.32	0.62
13:4A:16:ASP:HB3	13:4A:34:LEU:HD11	1.80	0.62
19:AA:41:VAL:HG23	19:AA:44:MET:HG3	1.80	0.62
26:14:30:G:O6	61:14:3529:HOH:O	2.13	0.62
26:14:646:A:H2'	26:14:647:G:O4'	1.99	0.62
26:14:2228:G:OP1	29:19:261:LYS:NZ	2.31	0.62
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.80	0.62
26:1H:2032:G:H21	30:21:146:THR:CG2	2.11	0.62
27:16:43:C:OP1	32:41:67:LYS:NZ	2.31	0.62
34:61:78:THR:HG22	34:61:141:LYS:HB2	1.80	0.62
1:1G:437:U:H5"	4:32:155:LEU:HD11	1.81	0.62
2:12:219:VAL:CG2	2:12:221:LEU:H	2.12	0.62
26:14:265:A:C8	26:14:266:G:H1'	2.34	0.62
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.32	0.62
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.63	0.62
1:13:736:C:H2'	1:13:737:A:C8	2.33	0.62
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.14	0.62
20:BI:23:ARG:HA	20:BI:26:ASN:HD22	1.63	0.62
26:1H:1434:A:H61	26:1H:1558:A:H61	1.45	0.62
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.81	0.62
29:11:201:HIS:O	29:11:204:ILE:HG13	2.00	0.62
32:41:161:THR:HG22	32:41:163:ALA:H	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:77:LEU:HD13	34:61:140:LEU:HB3	1.82	0.62
1:1G:407:G:H2'	1:1G:408:A:H8	1.63	0.62
2:12:24:TRP:HE1	2:12:26:PRO:HG3	1.63	0.62
4:32:94:LEU:HA	4:32:97:LEU:HD12	1.81	0.62
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.31	0.62
32:49:39:ILE:HG12	32:49:157:ILE:HG23	1.81	0.62
32:49:56:ALA:HA	32:49:59:GLU:HB2	1.80	0.62
50:G5:43:GLN:H	50:G5:43:GLN:CD	2.02	0.62
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.33	0.62
1:13:1238:A:H62	1:13:1301:U:H3	1.46	0.62
11:2I:48:ILE:HG21	11:2I:63:LEU:HD13	1.80	0.62
23:2K:2:G:H2'	23:2K:3:C:C6	2.35	0.62
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.33	0.62
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.33	0.62
32:41:38:VAL:HG22	32:41:93:THR:HG23	1.81	0.62
35:58:38:HIS:O	42:C8:67:ALA:HB1	1.99	0.62
46:G8:30:VAL:HG22	46:G8:37:VAL:HG12	1.82	0.62
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.80	0.62
8:72:44:PHE:HA	8:72:79:VAL:HG11	1.81	0.62
26:14:1639:U:H4'	26:14:2699:C:H4'	1.81	0.62
26:14:2346:A:C2	26:14:2383:G:C2	2.88	0.62
29:19:33:LEU:HD23	29:19:34:VAL:HG13	1.80	0.62
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.31	0.62
26:1H:882:G:H1	26:1H:894:C:H42	1.47	0.62
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.25	0.62
26:14:528:A:C2	26:14:2043:C:H4'	2.34	0.62
26:14:1027:A:C2	26:14:2488:A:H5'	2.35	0.62
26:14:1169:G:N2	26:14:1180:C:N3	2.44	0.62
35:15:56:ASN:H	35:15:125:GLY:HA3	1.63	0.62
1:13:51:A:OP2	1:13:52:G:H8	1.83	0.62
1:13:1492:A:H5"	12:3I:47:LYS:HB3	1.82	0.62
18:9I:22:VAL:HG13	18:9I:42:ARG:HH22	1.65	0.62
26:1H:1433:U:O2	26:1H:1561:G:C2	2.53	0.62
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.82	0.62
28:71:53:ARG:NH1	28:71:55:ASP:OD2	2.33	0.62
1:13:1305:G:O2'	1:13:1331:G:N2	2.32	0.62
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.34	0.62
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.00	0.62
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.81	0.62
47:H8:101:PRO:HA	47:H8:123:ASP:HB3	1.82	0.62
27:1J:3:C:H2'	27:1J:4:C:C6	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:44:G:H1'	27:1J:47:C:H42	1.64	0.62
18:9I:39:VAL:O	18:9I:42:ARG:HB2	2.00	0.62
26:1H:2142:C:H2'	26:1H:2143:C:C6	2.35	0.62
30:21:116:VAL:O	30:21:117:MET:HB3	1.98	0.62
33:51:46:GLU:OE1	33:51:51:ARG:NH2	2.33	0.62
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.13	0.62
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.82	0.62
26:14:900:A:H2'	26:14:901:A:C8	2.25	0.62
26:14:2438:U:O3'	26:14:2439:A:H3'	1.99	0.62
31:39:64:ILE:HD11	31:39:75:HIS:HB2	1.82	0.62
1:13:222:U:H2'	1:13:223:U:H6	1.64	0.62
1:13:345:C:H4'	1:13:346:G:C5	2.35	0.62
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.00	0.62
26:1H:719:C:H2'	26:1H:720:C:C6	2.35	0.62
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.65	0.62
33:51:83:TYR:O	33:51:84:SER:OG	2.18	0.62
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.81	0.62
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.31	0.62
4:32:70:ILE:HD11	4:32:75:PHE:HD2	1.65	0.62
26:14:139:G:N2	26:14:141:A:N1	2.46	0.62
26:14:1921:G:H2'	26:14:1922:G:H8	1.65	0.62
26:14:2016:U:O2	53:J5:7:PRO:HG2	1.99	0.62
26:14:2688:U:H5	26:14:2720:U:OP2	1.83	0.62
27:1J:44:G:H5"	27:1J:45:A:OP1	1.99	0.62
30:29:25:VAL:HG12	30:29:26:ILE:H	1.64	0.62
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.82	0.62
1:13:474:G:H5"	16:7I:81:ARG:HE	1.64	0.61
1:13:1015:A:H2'	1:13:1016:A:H8	1.65	0.61
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.63	0.61
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.82	0.61
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.82	0.61
26:14:6:A:N7	26:14:2899:G:N2	2.47	0.61
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.35	0.61
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.30	0.61
19:AI:21:GLU:O	19:AI:25:LYS:HB2	1.99	0.61
26:1H:1196:C:H41	37:78:16:ARG:HH12	1.46	0.61
32:41:35:GLU:OE1	32:41:36:LYS:N	2.33	0.61
1:1G:324:G:N1	1:1G:327:A:OP2	2.33	0.61
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.81	0.61
26:14:1435:G:H1	26:14:1557:C:H42	1.47	0.61
43:95:85:LYS:CD	43:95:86:GLY:H	2.07	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J5:41:PRO:O	53:J5:44:THR:OG1	2.18	0.61
1:13:323:U:H2'	1:13:324:G:O4'	1.98	0.61
12:3I:38:THR:HB	12:3I:57:LYS:HB3	1.83	0.61
17:8I:13:ASP:H	17:8I:14:LYS:NZ	1.98	0.61
1:1G:857:C:H3'	1:1G:858:G:C8	2.35	0.61
4:32:22:LYS:HD3	4:32:25:ARG:HD2	1.83	0.61
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.63	0.61
26:14:2822:G:OP2	61:14:3506:HOH:O	2.16	0.61
27:1J:104:A:H2'	27:1J:105:G:O4'	2.00	0.61
40:65:30:ARG:HG3	40:65:35:ILE:HD12	1.80	0.61
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.81	0.61
41:75:55:ASN:N	41:75:59:THR:HG22	2.15	0.61
42:85:49:HIS:HA	42:85:52:ARG:HB3	1.81	0.61
50:G5:63:VAL:O	50:G5:66:GLU:HG2	2.00	0.61
1:13:67:C:H2'	1:13:68:G:C8	2.36	0.61
1:13:200:G:N2	1:13:218:C:O2	2.33	0.61
1:13:346:G:H21	1:13:347:G:H1'	1.64	0.61
1:13:804:U:H5"	1:13:805:C:OP2	2.00	0.61
4:3E:61:LYS:NZ	4:3E:72:GLU:OE2	2.26	0.61
4:3E:95:GLY:O	4:3E:99:SER:OG	2.17	0.61
26:1H:870:A:OP1	38:88:5:ARG:NH2	2.34	0.61
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.36	0.61
35:58:130:HIS:C	35:58:134:ARG:HH22	2.03	0.61
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.33	0.61
1:1G:1311:G:N2	1:1G:1326:C:O2	2.29	0.61
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.81	0.61
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.82	0.61
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.00	0.61
26:14:1070:A:H8	26:14:1093:G:C2	2.19	0.61
26:14:1210:A:H5'	26:14:1212:G:C5'	2.30	0.61
26:14:1935:G:H1'	26:14:1964:G:N2	2.15	0.61
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.34	0.61
26:1H:34:C:O2'	26:1H:35:G:OP2	2.18	0.61
33:51:81:GLU:O	33:51:81:GLU:HG2	2.00	0.61
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.81	0.61
55:Q8:33:ASN:HA	55:Q8:36:LYS:HD2	1.82	0.61
4:32:31:CYS:C	4:32:33:MET:H	2.03	0.61
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.82	0.61
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.81	0.61
43:95:67:GLY:O	43:95:88:ARG:HD2	2.01	0.61
1:13:110:C:O2'	16:7I:25:ARG:O	2.17	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:74:LYS:HB2	2:1E:208:ILE:HG21	1.81	0.61
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.35	0.61
11:2I:62:GLN:O	11:2I:66:LEU:HG	1.99	0.61
16:7I:45:THR:HB	16:7I:47:ASP:H	1.66	0.61
22:1K:17:U:HO2'	22:1K:57:G:H1	1.47	0.61
26:1H:305:U:H2'	26:1H:306:U:C6	2.36	0.61
26:1H:654(A):A:H2	26:1H:654(T):A:N1	1.98	0.61
26:1H:861:A:N3	27:16:79:C:O2'	2.32	0.61
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.14	0.61
31:31:29:ASN:H	31:31:112:MET:CE	2.12	0.61
33:51:10:PRO:HD2	33:51:50:VAL:O	2.00	0.61
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.00	0.61
2:12:91:PRO:HG2	2:12:155:LEU:HD23	1.80	0.61
3:22:93:LYS:H	3:22:93:LYS:HD3	1.63	0.61
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.81	0.61
26:14:958:U:O2	27:1J:89(A):A:O2'	2.15	0.61
29:19:158:ALA:HB3	29:19:161:THR:HG21	1.82	0.61
30:29:51:PHE:CG	30:29:52:LEU:N	2.68	0.61
34:69:98:ALA:HA	34:69:109:ILE:HD11	1.82	0.61
43:95:85:LYS:CG	43:95:87:HIS:H	2.13	0.61
47:D5:67:LEU:HD22	47:D5:90:VAL:HG11	1.81	0.61
22:1K:57:G:OP2	38:88:60:ARG:NH2	2.33	0.61
27:16:81:G:OP2	61:16:304:HOH:O	2.16	0.61
31:31:155:LEU:HD12	31:31:174:VAL:HG22	1.82	0.61
31:31:199:TRP:HE1	31:31:203:GLN:HE22	1.48	0.61
34:61:93:THR:HA	34:61:119:PRO:HB3	1.83	0.61
55:Q8:14:VAL:HG23	55:Q8:24:ALA:HB2	1.83	0.61
18:9A:37:VAL:O	18:9A:41:LYS:N	2.28	0.61
19:AA:15:LEU:HD13	19:AA:18:LYS:HD2	1.82	0.61
56:1L:76:A:H2'	26:14:2584:U:H1'	1.81	0.61
26:14:1670:C:O2	30:29:129:HIS:NE2	2.33	0.61
41:75:99:LEU:HD22	41:75:101:PHE:HE1	1.65	0.61
5:4E:36:ASP:OD2	5:4E:40:ARG:NH2	2.32	0.61
7:6E:15:ASP:OD2	7:6E:19:GLY:N	2.34	0.61
15:6I:7:GLU:OE1	15:6I:38:ARG:NH2	2.33	0.61
26:1H:2144:U:H1'	26:1H:2148:G:N2	2.16	0.61
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.83	0.61
3:22:18:TRP:H	3:22:18:TRP:HE3	1.49	0.61
26:14:382:G:H1	26:14:392:C:H42	1.48	0.61
26:14:1226:G:H5'	43:95:85:LYS:H	1.66	0.61
40:65:74:ALA:O	40:65:78:LEU:HD12	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:130:ARG:HB3	2:1E:134:GLU:HG2	1.83	0.61
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.82	0.61
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.34	0.61
20:BI:45:GLN:HB2	20:BI:91:LEU:HD13	1.83	0.61
26:1H:662:G:OP1	37:78:15:ARG:NH1	2.34	0.61
26:1H:2135:A:O2'	26:1H:2159:G:O2'	2.11	0.61
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	1.99	0.61
29:11:17:THR:HG22	29:11:204:ILE:HA	1.82	0.61
1:1G:413:G:H2'	1:1G:428:G:N2	2.16	0.61
12:3A:60:LEU:HD21	12:3A:66:VAL:HG22	1.83	0.61
26:14:580:C:H2'	26:14:581:C:H6	1.65	0.61
26:14:2584:U:H2'	26:14:2585:U:H2'	1.83	0.61
30:29:54:GLN:NE2	30:29:54:GLN:HA	2.15	0.61
37:35:85:LEU:HA	37:35:88:LEU:HD22	1.83	0.61
1:13:1030:C:H2'	1:13:1031:G:C8	2.36	0.61
15:6I:82:ILE:O	15:6I:86:GLY:N	2.34	0.61
26:1H:409:C:OP1	61:1H:3556:HOH:O	2.16	0.61
26:1H:910:A:H62	38:88:12:GLN:HA	1.65	0.61
26:1H:1409:C:H42	26:1H:1593:G:H1	1.47	0.61
26:1H:2246:G:H2'	26:1H:2247:A:H8	1.66	0.61
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.18	0.61
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.83	0.61
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.82	0.61
26:14:498:G:H21	46:C5:47:LYS:HZ1	1.49	0.61
26:14:2275:C:H6	26:14:2275:C:H5'	1.64	0.61
26:14:2572:A:C8	30:29:144:ARG:HD2	2.36	0.61
39:55:87:TYR:HD1	39:55:90:ARG:HE	1.47	0.61
43:95:21:ARG:NH2	43:95:65:GLY:O	2.33	0.61
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.83	0.60
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.66	0.60
26:1H:2563:U:H4'	36:68:28:SER:HA	1.83	0.60
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.65	0.60
33:51:86:GLU:HG3	33:51:87:LEU:H	1.64	0.60
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.66	0.60
2:12:112:VAL:HG22	2:12:149:LEU:HD13	1.82	0.60
7:62:31:MET:HG3	7:62:36:LYS:HA	1.82	0.60
13:4A:8:GLU:HB3	32:49:115:ARG:HH21	1.66	0.60
26:14:848:G:C4	26:14:933:A:H8	2.19	0.60
26:1H:801:G:OP2	61:1H:3557:HOH:O	2.16	0.60
1:1G:99:C:H2'	1:1G:101:A:C8	2.37	0.60
1:1G:411:A:H61	1:1G:430:A:H62	1.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:547:A:OP2	4:32:2:GLY:N	2.33	0.60
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.84	0.60
3:22:172:ARG:HH12	3:22:174:PRO:HG3	1.66	0.60
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.65	0.60
26:14:71:A:H5'	26:14:71:A:C8	2.36	0.60
26:14:1019:U:H2'	26:14:1020:A:C8	2.36	0.60
26:14:1496:A:H8	26:14:1577:C:HO2'	1.44	0.60
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.01	0.60
26:1H:910:A:C5	38:88:13:GLN:HG3	2.36	0.60
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.65	0.60
26:1H:1534:G:H21	26:1H:1538:G:N2	1.99	0.60
26:1H:1805:U:O2	29:11:50:THR:HB	2.01	0.60
26:1H:2680:C:O2'	26:1H:2681:C:H5'	2.00	0.60
29:11:17:THR:HG22	29:11:205:VAL:H	1.65	0.60
42:C8:69:CYS:HB3	42:C8:74:LEU:HD13	1.83	0.60
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.00	0.60
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.01	0.60
20:BA:41:ILE:HG21	20:BA:87:LYS:HD2	1.83	0.60
23:2L:9:G:N3	23:2L:46:G:H2'	2.17	0.60
26:14:1167:U:O2	26:14:1183:G:N2	2.35	0.60
26:14:2875:C:O2	41:75:3:ARG:NH1	2.34	0.60
29:19:30:GLU:OE1	29:19:63:ARG:NE	2.27	0.60
30:29:12:THR:O	30:29:23:VAL:HG22	2.00	0.60
1:13:1104:G:OP1	2:1E:144:ARG:NH1	2.33	0.60
24:3K:6:G:N2	24:3K:67:C:O2	2.34	0.60
24:3K:25:C:H2'	24:3K:26:A:O4'	2.00	0.60
26:1H:1022:G:H4'	26:1H:1023:U:O5'	2.01	0.60
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.66	0.60
26:1H:2443:C:H2'	26:1H:2444:G:H8	1.65	0.60
29:11:27:THR:OG1	29:11:28:GLU:N	2.31	0.60
31:31:67:GLN:HG3	31:31:67:GLN:O	2.02	0.60
32:41:112:PRO:HB3	52:M8:37:SER:N	2.15	0.60
34:61:110:ASP:HB2	34:61:112:LYS:H	1.66	0.60
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.83	0.60
1:1G:827:U:H3	1:1G:872:A:H62	1.47	0.60
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.82	0.60
19:AA:14:HIS:CE1	19:AA:15:LEU:HD23	2.36	0.60
26:14:2134:A:H62	26:14:2156:G:H2'	1.66	0.60
26:14:2657:A:H62	26:14:2664:G:H21	1.49	0.60
42:85:90:VAL:HA	43:95:39:LEU:HD13	1.83	0.60
43:95:58:VAL:HG13	43:95:97:LYS:HB2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:918:A:H2'	1:13:919:A:C8	2.37	0.60
20:BI:20:LEU:O	20:BI:23:ARG:HG2	2.01	0.60
20:BI:89:ARG:CZ	20:BI:104:LEU:HD21	2.31	0.60
26:1H:322:A:H5'	26:1H:340:A:H1'	1.83	0.60
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.33	0.60
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.35	0.60
29:11:68:LYS:HB3	29:11:70:TRP:CE3	2.36	0.60
23:2L:41:C:H2'	23:2L:42:C:H6	1.67	0.60
33:59:171:LEU:CD1	33:59:172:LYS:H	2.14	0.60
37:35:95:VAL:HA	37:35:99:LEU:HD23	1.83	0.60
41:75:56:GLY:O	41:75:59:THR:HG23	2.01	0.60
1:13:505:G:N7	61:13:1821:HOH:O	2.32	0.60
1:13:584:G:O6	61:13:1806:HOH:O	2.12	0.60
1:13:954:G:H2'	1:13:955:U:C6	2.37	0.60
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.65	0.60
29:11:228:PRO:O	61:11:402:HOH:O	2.16	0.60
31:31:197:ASP:OD1	31:31:197:ASP:N	2.35	0.60
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.37	0.60
10:1A:13:HIS:HB3	10:1A:68:HIS:CE1	2.36	0.60
26:14:1786:A:C2	26:14:2606:C:H1'	2.37	0.60
29:19:242:ARG:HH11	29:19:242:ARG:H	1.47	0.60
37:35:47:ASP:OD2	37:35:50:ARG:NH1	2.35	0.60
47:D5:19:ARG:NH1	47:D5:84:GLU:O	2.35	0.60
1:13:1008:C:H2'	1:13:1009:G:O4'	2.01	0.60
9:8E:108:VAL:HG22	9:8E:109:VAL:H	1.67	0.60
26:1H:934:G:H2'	26:1H:935:C:C6	2.35	0.60
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.37	0.60
33:51:15:VAL:HG13	33:51:28:GLY:HA3	1.84	0.60
34:61:68:LEU:HA	34:61:71:ILE:HG22	1.84	0.60
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.83	0.60
10:1A:80:LYS:O	10:1A:84:GLN:NE2	2.34	0.60
26:14:1109:C:H2'	26:14:1110:G:H1'	1.84	0.60
30:29:12:THR:HG22	30:29:13:ARG:H	1.66	0.60
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.84	0.60
1:13:486:U:H2'	1:13:487:A:C8	2.36	0.60
1:13:626:U:H2'	1:13:627:G:H8	1.65	0.60
1:13:837:G:OP2	1:13:842:C:N4	2.25	0.60
26:1H:620:G:H4'	26:1H:621:A:C5'	2.32	0.60
26:1H:754:C:H2'	26:1H:755:C:H6	1.66	0.60
26:1H:2712(A):A:H5"	26:1H:2713:A:OP2	2.02	0.60
30:21:170:LEU:HD21	30:21:187:ALA:HB3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.16	0.60
17:8A:24:GLU:OE2	17:8A:26:GLN:NE2	2.31	0.60
26:14:910:A:H62	38:45:12:GLN:HA	1.65	0.60
26:14:1171:G:N2	26:14:1174:A:N1	2.48	0.60
26:14:1786:A:H2	26:14:2606:C:H1'	1.67	0.60
32:49:53:LEU:HD21	32:49:87:PRO:HB2	1.83	0.60
34:69:59:ALA:HA	34:69:62:LYS:HG2	1.84	0.60
43:95:84:LYS:HE2	43:95:85:LYS:HB2	1.83	0.60
45:B5:5:TYR:HD1	50:G5:33:MET:SD	2.24	0.60
1:13:1423:G:P	36:68:49:ARG:HH22	2.24	0.60
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.66	0.60
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.84	0.60
18:9I:22:VAL:HG13	18:9I:42:ARG:NH2	2.16	0.60
25:4K:23:A:O2'	25:4K:24:A:N7	2.28	0.60
26:1H:1113:U:OP1	33:51:2:SER:N	2.35	0.60
1:1G:404:U:P	4:32:118:ARG:HH11	2.25	0.60
7:62:113:GLU:O	7:62:119:ARG:HD3	2.02	0.60
26:14:620:G:N3	26:14:620:G:H5"	2.16	0.60
37:35:105:LEU:O	37:35:106:LEU:HB3	2.01	0.60
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.67	0.60
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.35	0.60
4:32:107:ARG:HH12	4:32:194:LEU:HD12	1.65	0.60
6:52:3:ARG:NH2	6:52:38:GLU:OE1	2.33	0.60
16:7A:21:VAL:HG22	16:7A:33:ILE:HD12	1.84	0.60
26:14:120:U:OP2	61:14:3535:HOH:O	2.16	0.60
26:14:1507:A:C4	26:14:1508:A:H1'	2.36	0.60
1:13:541:G:N7	61:13:1820:HOH:O	2.32	0.59
2:1E:36:ARG:HB3	2:1E:41:ILE:HD11	1.84	0.59
3:2E:174:PRO:HB2	3:2E:177:THR:HB	1.84	0.59
11:2I:98:LEU:O	11:2I:101:SER:OG	2.20	0.59
26:1H:646:A:H2'	26:1H:647:G:O4'	2.01	0.59
26:1H:802:A:OP1	61:1H:3559:HOH:O	2.17	0.59
26:1H:858:U:O2	26:1H:2268:A:H2'	2.02	0.59
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.66	0.59
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.84	0.59
26:14:34:C:O2'	26:14:35:G:H8	1.85	0.59
26:14:479:A:N3	26:14:481:G:H5"	2.17	0.59
26:14:2394:C:H1'	61:14:3826:HOH:O	2.01	0.59
41:75:3:ARG:HG2	41:75:6:LEU:H	1.67	0.59
46:C5:52:SER:HB2	46:C5:56:PRO:HA	1.83	0.59
1:13:437:U:H5'	4:3E:155:LEU:HD21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1015:A:H2'	1:13:1016:A:C8	2.37	0.59
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.41	0.59
26:1H:651:G:OP1	55:Q8:19:SER:OG	2.18	0.59
26:1H:719:C:H2'	26:1H:720:C:H6	1.67	0.59
26:1H:2132:U:C2	28:71:5:LYS:HD3	2.37	0.59
26:1H:2469:A:H2	26:1H:2481:G:H21	1.47	0.59
26:1H:2529:G:H5"	26:1H:2530:A:H5"	1.84	0.59
26:1H:2845:G:OP2	61:1H:3558:HOH:O	2.17	0.59
40:A8:11:LYS:HD2	40:A8:15:ARG:NH2	2.17	0.59
1:1G:401:C:O2'	1:1G:621:A:N3	2.34	0.59
1:1G:501:C:H2'	1:1G:502:G:H8	1.67	0.59
2:12:73:THR:HG21	2:12:97:TRP:H	1.67	0.59
2:12:165:VAL:HG23	2:12:166:ASP:H	1.67	0.59
9:82:6:GLY:HA3	9:82:84:ALA:HB2	1.84	0.59
56:1L:33:U:O2'	56:1L:34:U8U:N	2.28	0.59
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.35	0.59
29:19:223:GLY:HA2	29:19:226:MET:HG3	1.85	0.59
42:85:98:LEU:C	42:85:100:VAL:H	2.05	0.59
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.38	0.59
46:G8:87:LYS:HD3	46:G8:88:LYS:H	1.65	0.59
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.17	0.59
7:62:102:ARG:O	7:62:106:GLN:HG2	2.02	0.59
26:14:566:U:OP1	37:35:29:LYS:NZ	2.32	0.59
26:14:863:A:H2'	26:14:864:G:C8	2.37	0.59
26:14:1678:G:N2	26:14:1989:G:H22	2.00	0.59
26:14:2476:A:H2	26:14:2481:G:H22	1.48	0.59
1:13:1239:A:H62	1:13:1299:A:N6	1.97	0.59
1:13:1345:U:O2	1:13:1375:A:N6	2.34	0.59
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.85	0.59
23:2K:17:C:H3'	23:2K:18:U:H2'	1.84	0.59
26:1H:1577:C:H5"	61:1H:3554:HOH:O	2.01	0.59
38:88:37:LEU:HD21	38:88:130:LYS:HB2	1.84	0.59
38:88:139:GLU:OE1	38:88:141:GLN:HB3	2.02	0.59
4:32:22:LYS:HG3	59:32:301:SF4:S3	2.42	0.59
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.21	0.59
26:14:94:G:H21	50:G5:47:ASN:HD22	1.48	0.59
26:14:302:C:H2'	26:14:303:U:C6	2.37	0.59
1:13:835:U:H3	1:13:851:G:H1	1.49	0.59
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.01	0.59
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.68	0.59
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.67	0.59
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.19	0.59
26:1H:2319:G:N7	40:A8:2:ALA:HB1	2.18	0.59
39:98:12:ARG:HD3	39:98:16:HIS:CD2	2.37	0.59
1:1G:377:G:H5'	16:7A:5:ARG:HH12	1.68	0.59
1:1G:587:G:N2	1:1G:754:C:OP2	2.36	0.59
26:14:1337:G:H2'	26:14:1338:G:H8	1.67	0.59
31:39:123:LEU:O	31:39:193:VAL:HA	2.03	0.59
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.05	0.59
1:13:130:A:N3	1:13:263:A:O2'	2.34	0.59
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.02	0.59
1:13:1273:G:H3'	1:13:1274:G:H8	1.67	0.59
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.02	0.59
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.38	0.59
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.17	0.59
28:71:225:ASN:N	28:71:225:ASN:ND2	2.50	0.59
39:98:101:ALA:HA	53:N8:44:THR:HG21	1.85	0.59
51:L8:7:LYS:HE2	51:L8:32:GLN:HG3	1.83	0.59
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.38	0.59
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.38	0.59
26:14:1671:U:HO2'	26:14:1673:U:H5	1.47	0.59
26:14:2211:G:O2'	26:14:2212:A:OP1	2.20	0.59
26:14:2306:C:H2'	26:14:2307:G:H21	1.68	0.59
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.68	0.59
30:29:55:ASN:HB2	30:29:58:ARG:NH2	2.18	0.59
37:35:15:ARG:HB2	37:35:15:ARG:CZ	2.32	0.59
38:45:25:ASP:HB3	38:45:102:VAL:HB	1.84	0.59
40:65:44:LYS:HB3	40:65:46:VAL:HG12	1.84	0.59
28:71:224:ILE:C	28:71:225:ASN:HD22	2.06	0.59
43:D8:47:VAL:HG22	43:D8:48:GLY:H	1.67	0.59
1:1G:598:U:H2'	1:1G:599:C:C6	2.37	0.59
7:62:68:ASN:ND2	7:62:127:ALA:O	2.30	0.59
9:82:77:ILE:O	9:82:81:ILE:HG12	2.02	0.59
16:7A:23:ASP:OD1	16:7A:25:ARG:NH1	2.35	0.59
23:2L:10:G:N2	23:2L:27:G:H1'	2.18	0.59
26:14:847:U:OP2	61:14:3534:HOH:O	2.17	0.59
26:14:1188:U:O2'	26:14:1189:A:H5'	2.02	0.59
26:14:2031:A:N3	26:14:2455:G:O2'	2.28	0.59
26:14:2250:G:C2	38:45:82:ARG:HB3	2.37	0.59
26:14:2468:G:H5"	26:14:2476:A:N6	2.17	0.59
1:13:417:C:H2'	1:13:418:C:H6	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.35	0.59
2:1E:237:ALA:O	2:1E:239:VAL:N	2.36	0.59
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.36	0.59
26:1H:70:G:H21	26:1H:71:A:H62	1.50	0.59
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.32	0.59
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.18	0.59
1:1G:222:U:H2'	1:1G:223:U:C6	2.37	0.59
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.37	0.59
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.68	0.59
1:1G:1291:G:H4'	9:82:39:GLY:HA3	1.85	0.59
8:72:120:THR:HG23	8:72:123:GLU:H	1.68	0.59
26:14:89:G:H3'	26:14:90:U:C5'	2.33	0.59
26:14:531:C:OP1	26:14:561:G:N2	2.35	0.59
26:14:1110:G:H2'	26:14:1111:A:O4'	2.02	0.59
31:39:68:LYS:HG3	31:39:69:HIS:NE2	2.17	0.59
37:35:63:PRO:HD3	55:M5:27:THR:HG22	1.84	0.59
47:D5:15:PRO:HB2	47:D5:19:ARG:NH2	2.17	0.59
1:13:1031:G:H2'	1:13:1032:A:H5'	1.84	0.59
1:13:1396:A:H4'	1:13:1397:C:H5"	1.85	0.59
7:6E:111:ARG:NH2	7:6E:126:ASP:OD2	2.36	0.59
26:1H:234:C:H2'	26:1H:235:U:H6	1.66	0.59
26:1H:574:C:O2	30:21:145:LYS:NZ	2.35	0.59
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.37	0.59
26:1H:2117:A:HO2'	26:1H:2147:G:N2	2.00	0.59
44:E8:51:LEU:HD23	44:E8:105:VAL:HG11	1.84	0.59
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.59
2:12:19:HIS:CD2	2:12:204:ASN:HB3	2.38	0.59
26:14:273(C):C:N3	26:14:363(C):G:N2	2.47	0.59
26:14:273(C):C:H42	26:14:363(C):G:H1	1.50	0.59
42:85:65:ILE:HD11	42:85:93:LYS:HA	1.85	0.59
49:F5:92:LYS:O	49:F5:94:LEU:N	2.35	0.59
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.85	0.59
4:3E:107:ARG:HH22	4:3E:194:LEU:HD23	1.66	0.59
24:3K:30:G:N2	24:3K:40:C:N3	2.41	0.59
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.03	0.59
26:1H:1608:A:O2'	26:1H:1610:A:OP2	2.13	0.59
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.67	0.59
43:D8:85:LYS:HB2	43:D8:85:LYS:NZ	2.18	0.59
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.85	0.59
1:1G:277:C:P	17:8A:68:ARG:HH12	2.26	0.59
2:12:95:GLN:HB3	2:12:148:TYR:HD1	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:7:THR:H	9:82:83:ARG:HD3	1.67	0.59
26:14:841:A:N6	26:14:937:U:H3	2.00	0.59
26:14:2567:G:H2'	26:14:2568:C:C6	2.38	0.59
29:19:5:LYS:HG2	29:19:17:THR:HG22	1.85	0.59
32:49:114:ILE:HD13	32:49:140:ILE:HG21	1.83	0.59
32:49:144:ILE:HD12	32:49:149:VAL:HG12	1.85	0.59
1:13:411:A:C4	1:13:413:G:H1'	2.37	0.58
1:13:813:U:OP2	1:13:816:A:N6	2.36	0.58
1:13:838:G:H1	1:13:848:C:H42	1.49	0.58
1:13:1064:G:H4'	1:13:1065:U:OP1	2.03	0.58
26:1H:1443:G:H1	26:1H:1548:C:H42	1.50	0.58
26:1H:2299:G:O6	61:1H:3553:HOH:O	2.14	0.58
26:1H:2572:A:N7	30:21:144:ARG:HD2	2.18	0.58
27:16:15:A:H3'	27:16:16:G:H5'	1.85	0.58
43:D8:47:VAL:HG22	43:D8:48:GLY:N	2.18	0.58
1:1G:572:A:H5'	1:1G:573:A:OP2	2.03	0.58
1:1G:1316:G:H22	1:1G:1319:A:P	2.25	0.58
12:3A:8:ASN:OD1	17:8A:34:LYS:NZ	2.27	0.58
26:14:34:C:HO2'	26:14:35:G:P	2.26	0.58
26:14:270(F):U:H3	26:14:270(T):G:H1	1.51	0.58
26:14:1113:U:H5'	33:59:2:SER:HA	1.85	0.58
26:14:1899:G:H22	26:14:1902:C:N4	2.01	0.58
26:14:2547:U:H2'	26:14:2548:G:H8	1.68	0.58
28:79:5:LYS:HA	28:79:8:ARG:HG2	1.84	0.58
1:13:258:G:H2'	1:13:259:G:H8	1.68	0.58
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.64	0.58
28:71:49:ILE:HD12	28:71:50:ASP:H	1.68	0.58
30:21:57:LYS:HG2	30:21:59:VAL:HG12	1.85	0.58
34:61:69:LYS:O	34:61:73:GLU:HB2	2.03	0.58
1:1G:1243:C:OP1	21:1B:10:ARG:NE	2.36	0.58
3:22:11:ARG:NH2	3:22:177:THR:O	2.36	0.58
26:14:251:A:C5	26:14:252:G:H1'	2.38	0.58
26:14:2156:G:N7	26:14:2157:G:N2	2.51	0.58
26:14:2184:G:H2'	26:14:2185:C:C6	2.38	0.58
26:14:2611:U:H6	26:14:2611:U:H5'	1.67	0.58
27:1J:28:C:H2'	27:1J:29:A:H8	1.68	0.58
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.38	0.58
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.32	0.58
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.83	0.58
32:41:35:GLU:HG3	32:41:36:LYS:HB3	1.85	0.58
48:I8:11:ARG:HB2	48:I8:11:ARG:HH11	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:92:LYS:HA	49:J8:95:LEU:HD12	1.85	0.58
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.36	0.58
1:1G:594:G:H1	1:1G:645:C:H42	1.50	0.58
26:14:802:A:H4'	61:14:3765:HOH:O	2.03	0.58
28:79:201:PRO:HD2	28:79:208:PHE:CE1	2.39	0.58
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.85	0.58
47:D5:55:HIS:HE2	47:D5:135:GLU:HG2	1.67	0.58
6:5E:23:LYS:HA	6:5E:26:ILE:HD12	1.86	0.58
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.83	0.58
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.03	0.58
26:1H:70:G:H21	26:1H:71:A:N6	2.01	0.58
29:11:11:PRO:O	29:11:12:SER:OG	2.16	0.58
31:31:183:VAL:O	31:31:187:VAL:HG23	2.03	0.58
1:1G:518:C:H5"	1:1G:519:C:C6	2.38	0.58
1:1G:1037:C:H2'	1:1G:1038:C:H6	1.66	0.58
1:1G:1162:C:N4	1:1G:1174:G:H1	1.97	0.58
26:14:602:G:OP2	26:14:602:G:H8	1.86	0.58
26:14:957:A:H5'	38:45:76:LYS:HD3	1.84	0.58
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.03	0.58
35:15:42:TRP:O	42:85:64:ARG:NH2	2.35	0.58
44:A5:2:GLU:OE2	44:A5:72:LYS:HE3	2.03	0.58
10:1I:38:ILE:HG23	10:1I:71:LEU:O	2.03	0.58
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.67	0.58
26:1H:1257:C:OP1	31:31:75:HIS:HE1	1.86	0.58
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.17	0.58
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.04	0.58
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.37	0.58
1:1G:396:G:O2'	1:1G:398:C:OP1	2.15	0.58
4:32:119:GLN:HG2	4:32:123:HIS:HD2	1.68	0.58
26:14:141:A:H8	26:14:1595:G:N2	2.02	0.58
26:14:273(F):C:H3'	26:14:274:G:C5'	2.33	0.58
26:14:1599:C:H2'	26:14:1600:C:H6	1.69	0.58
26:14:2104:G:H2'	26:14:2105:C:C6	2.38	0.58
26:14:2659:G:N2	26:14:2662:A:OP2	2.37	0.58
2:1E:111:ARG:HD2	2:1E:145:LEU:HD21	1.84	0.58
26:1H:330:A:O2'	26:1H:331:A:H8	1.86	0.58
34:61:113:ARG:HB3	34:61:131:LYS:HD3	1.84	0.58
52:M8:13:ARG:HH12	52:M8:22:ILE:HG23	1.68	0.58
1:1G:584:G:H5'	17:8A:91:ARG:NH1	2.18	0.58
1:1G:920:U:H2'	1:1G:921:U:C6	2.37	0.58
2:12:30:ARG:NH2	2:12:194:PRO:HB2	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:54:THR:HA	2:12:57:PHE:HB2	1.85	0.58
9:82:117:HIS:O	9:82:118:LYS:HB2	2.04	0.58
13:4A:8:GLU:OE2	13:4A:10:PRO:HD3	2.03	0.58
26:14:731:C:H5"	61:14:3532:HOH:O	2.03	0.58
26:14:774:A:H2	26:14:787:U:HO2'	1.50	0.58
26:14:1364:G:N7	49:F5:2:SER:HB2	2.18	0.58
26:14:1826:G:H4'	29:19:242:ARG:HE	1.69	0.58
27:1J:28:C:H2'	27:1J:29:A:C8	2.38	0.58
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.36	0.58
32:49:7:LEU:HG	32:49:104:GLU:HB2	1.85	0.58
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.39	0.58
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.37	0.58
36:68:120:GLU:OE1	41:B8:67:SER:OG	2.15	0.58
1:1G:317:G:H1	1:1G:336:C:H42	1.49	0.58
6:52:15:ASP:O	6:52:19:LEU:HB2	2.02	0.58
56:1L:3:G:H4'	56:1L:4:U:OP1	2.02	0.58
56:1L:55:PSU:OP1	38:45:55:VAL:HG11	2.04	0.58
26:14:868:U:H2'	26:14:869:G:C8	2.39	0.58
32:49:114:ILE:HD11	32:49:140:ILE:HD13	1.86	0.58
1:13:718:G:H5'	11:2I:117:ASN:HB2	1.85	0.58
1:13:1028(A):C:N3	1:13:1032(A):G:N2	2.51	0.58
2:1E:158:LEU:HD13	2:1E:182:ILE:HD11	1.86	0.58
26:1H:2177:C:H5"	28:71:213:TYR:CD1	2.38	0.58
32:41:18:GLU:O	32:41:22:ARG:HB2	2.03	0.58
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.85	0.58
26:14:1292:U:H2'	26:14:1293:C:C6	2.39	0.58
26:14:2557:G:H2'	26:14:2558:C:C6	2.39	0.58
30:29:54:GLN:NE2	30:29:73:GLU:HG2	2.19	0.58
39:55:106:GLY:O	39:55:107:ASP:HB3	2.03	0.58
49:F5:40:ARG:NH2	49:F5:42:GLN:HG2	2.19	0.58
1:13:1003:G:H2'	1:13:1004:A:H4'	1.85	0.58
2:1E:212:GLN:O	2:1E:216:SER:OG	2.21	0.58
22:1K:17:U:HO2'	22:1K:57:G:N2	2.02	0.58
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.39	0.58
40:A8:10:ARG:O	40:A8:14:VAL:HG13	2.03	0.58
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.39	0.58
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.85	0.58
26:14:721:C:H2'	26:14:722:A:C8	2.39	0.58
36:25:73:ASP:OD2	41:75:32:TYR:OH	2.16	0.58
55:M5:14:VAL:HG11	55:M5:58:ILE:HD11	1.86	0.58
1:13:836:G:OP1	18:9I:61:LYS:NZ	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:20:ASP:HB3	7:6E:23:VAL:HG23	1.85	0.58
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.69	0.58
37:78:19:VAL:HG12	37:78:27:HIS:HB3	1.86	0.58
1:1G:955:U:H2'	1:1G:956:U:H6	1.68	0.58
1:1G:1483:A:H1'	26:14:1948:G:H1'	1.84	0.58
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.86	0.58
2:12:189:ASP:H	2:12:192:SER:HB2	1.69	0.58
13:4A:46:LYS:NZ	13:4A:47:ASP:OD2	2.36	0.58
26:14:1412:A:H2'	26:14:1413:G:C8	2.38	0.58
26:14:2018:G:OP1	53:J5:9:LYS:NZ	2.36	0.58
35:15:34:LEU:HD21	35:15:120:LEU:HB2	1.85	0.58
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.17	0.58
1:13:1316:G:H22	1:13:1319:A:H5'	1.68	0.57
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.84	0.57
24:3K:29:U:H2'	24:3K:30:G:C8	2.39	0.57
26:1H:270(J):G:H2'	26:1H:270(K):C:H4'	1.86	0.57
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.39	0.57
27:16:43:C:P	32:41:67:LYS:HZ1	2.26	0.57
28:71:188:ASN:HA	28:71:191:ALA:HB3	1.87	0.57
1:1G:649:G:H2'	1:1G:650:G:H8	1.69	0.57
57:3L:3:G:H1	57:3L:70:C:H42	1.52	0.57
57:3L:18:G:H21	57:3L:57:G:H2'	1.69	0.57
26:14:993:G:OP1	42:85:50:ARG:NH2	2.37	0.57
26:14:1169:G:H1	26:14:1180:C:N4	2.02	0.57
26:14:1342:A:H2	26:14:1602:U:H3	1.52	0.57
26:14:2052:G:H2'	26:14:2053:G:H8	1.69	0.57
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.52	0.57
30:29:105:THR:HG21	30:29:164:ARG:HE	1.68	0.57
41:75:5:ALA:O	41:75:8:LYS:N	2.37	0.57
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.03	0.57
5:4E:15:ARG:NE	5:4E:26:PHE:HE2	2.02	0.57
8:7E:45:ILE:HB	8:7E:47:GLY:H	1.67	0.57
16:7I:4:ILE:HD12	16:7I:66:PRO:HB3	1.86	0.57
19:AI:36:ARG:HD2	19:AI:52:TYR:O	2.04	0.57
26:1H:796:C:H2'	26:1H:797:C:C6	2.39	0.57
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.39	0.57
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.38	0.57
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.39	0.57
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.39	0.57
28:71:185:LEU:O	28:71:189:ILE:HG13	2.04	0.57
32:41:111:LEU:HD23	32:41:114:ILE:HD12	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.86	0.57
26:14:1187:G:H8	26:14:1187:G:O5'	1.87	0.57
26:14:1432:C:H2'	26:14:1433:U:O4'	2.03	0.57
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.30	0.57
26:14:2023:G:OP2	26:14:2617:C:H4'	2.04	0.57
36:25:49:ARG:HA	36:25:53:LYS:HE3	1.84	0.57
44:A5:51:LEU:HD23	44:A5:105:VAL:HG11	1.86	0.57
4:3E:162:LEU:HA	4:3E:165:MET:HB3	1.86	0.57
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.69	0.57
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.85	0.57
24:3K:76:A:H8	26:1H:2394:C:H42	1.52	0.57
26:1H:309:G:N3	26:1H:329:G:O2'	2.37	0.57
26:1H:784:A:O4'	29:11:227:ASN:ND2	2.36	0.57
42:C8:88:ILE:O	42:C8:90:VAL:N	2.37	0.57
47:H8:134:PRO:HG3	47:H8:161:VAL:HG11	1.86	0.57
52:M8:16:CYS:HB3	52:M8:36:CYS:H	1.68	0.57
52:M8:40:HIS:HA	52:M8:41:PRO:O	2.03	0.57
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.36	0.57
1:1G:1008:C:H42	1:1G:1021:G:H1	1.52	0.57
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.04	0.57
26:14:1022:G:O2'	26:14:1023:U:OP2	2.18	0.57
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.35	0.57
26:14:2293:C:H5"	40:65:89:ARG:NH2	2.19	0.57
26:14:2537:U:H2'	26:14:2538:C:C6	2.38	0.57
29:19:25:THR:HG23	29:19:82:ILE:H	1.68	0.57
47:D5:69:THR:HG22	47:D5:90:VAL:HG22	1.84	0.57
1:13:114:U:H2'	1:13:115:G:C8	2.39	0.57
2:1E:162:ILE:HD11	2:1E:182:ILE:HG21	1.86	0.57
26:1H:600:G:N2	26:1H:605:C:O3'	2.36	0.57
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.39	0.57
26:1H:1533:C:C6	26:1H:1534:G:H5"	2.39	0.57
26:1H:1682:G:OP1	26:1H:1699:G:N1	2.34	0.57
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.39	0.57
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.04	0.57
31:31:165:ARG:HA	31:31:168:ARG:HD3	1.86	0.57
39:98:13:HIS:CD2	39:98:15:SER:HB3	2.40	0.57
43:D8:98:GLU:OE1	43:D8:100:ARG:NH1	2.37	0.57
1:1G:407:G:OP1	4:32:115:ARG:NE	2.34	0.57
2:12:27:LYS:HE3	2:12:194:PRO:HD2	1.87	0.57
23:2L:24:C:H2'	23:2L:25:U:C6	2.38	0.57
57:3L:32:C:H2'	57:3L:33:U:C4	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2547:U:H2'	26:14:2548:G:C8	2.39	0.57
30:29:41:LYS:HG3	30:29:42:ASP:H	1.70	0.57
34:69:72:LEU:HD21	34:69:107:VAL:HG11	1.85	0.57
26:1H:65:C:H2'	26:1H:66:C:C6	2.39	0.57
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.51	0.57
26:1H:1361:G:O6	26:1H:1370:C:N4	2.19	0.57
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.40	0.57
26:1H:2598:A:P	61:1H:3508:HOH:O	2.61	0.57
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.18	0.57
30:21:182:LEU:HD12	30:21:183:LEU:H	1.69	0.57
32:41:132:ASN:OD1	32:41:132:ASN:N	2.36	0.57
40:A8:34:HIS:HB2	40:A8:36:TYR:CE1	2.40	0.57
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.38	0.57
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.20	0.57
6:52:9:VAL:HB	6:52:87:ARG:HB2	1.86	0.57
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.86	0.57
26:14:34:C:H1'	26:14:35:G:OP1	2.04	0.57
26:14:607:U:H3	26:14:621:A:H2	1.51	0.57
26:14:870:A:P	38:45:6:ARG:HE	2.28	0.57
26:14:987:G:O2'	26:14:1000:A:N3	2.34	0.57
26:14:2118:U:O2'	26:14:2145:C:O2	2.19	0.57
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.38	0.57
1:13:258:G:H2'	1:13:259:G:C8	2.39	0.57
1:13:452:A:OP2	16:7I:43:LYS:NZ	2.26	0.57
1:13:680:C:H2'	1:13:681:C:H6	1.69	0.57
1:13:1129:C:O2	1:13:1143:G:N2	2.38	0.57
5:4E:15:ARG:HE	5:4E:26:PHE:HE2	1.52	0.57
33:51:83:TYR:HB2	33:51:134:SER:HA	1.86	0.57
37:78:90:ARG:HG3	37:78:91:PHE:CE1	2.39	0.57
39:98:34:ILE:HG22	39:98:114:VAL:HB	1.86	0.57
2:12:180:LEU:HB2	2:12:182:ILE:HD13	1.86	0.57
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.37	0.57
9:82:9:ARG:HG2	9:82:14:VAL:HG23	1.86	0.57
28:79:5:LYS:HA	28:79:8:ARG:HB2	1.85	0.57
1:13:976:G:N2	1:13:1362(A):C:OP2	2.32	0.57
4:3E:87:GLY:HA2	4:3E:88:VAL:HG22	1.87	0.57
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.04	0.57
11:2I:50:TYR:HD2	11:2I:54:ARG:HB2	1.69	0.57
26:1H:140:A:H8	26:1H:1408:C:O2'	1.87	0.57
26:1H:1646:C:O3'	61:1H:3562:HOH:O	2.17	0.57
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:59:LYS:NZ	36:68:89:ASN:OD1	2.38	0.57
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.86	0.57
13:4A:84:ILE:HG23	19:AA:74:PHE:CE1	2.40	0.57
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.86	0.57
56:1L:74:C:H41	26:14:2508:G:H5'	1.70	0.57
57:3L:5:C:H2'	57:3L:6:G:C8	2.38	0.57
26:14:929:G:O6	61:14:3534:HOH:O	2.16	0.57
26:14:1406:U:H6	26:14:1406:U:H5"	1.69	0.57
26:14:1654:A:OP2	39:55:1:MET:N	2.37	0.57
26:14:2345:G:N3	26:14:2381:C:H2'	2.20	0.57
34:69:77:LEU:HB2	34:69:141:LYS:HE2	1.86	0.57
37:35:13:ASN:C	37:35:15:ARG:H	2.06	0.57
41:75:107:ASP:N	41:75:107:ASP:OD1	2.38	0.57
1:13:838:G:O6	1:13:848:C:N4	2.37	0.57
1:13:1510:U:H2'	1:13:1511:G:C8	2.39	0.57
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.05	0.57
26:1H:507:A:H5"	26:1H:508:G:H3'	1.86	0.57
26:1H:2301:C:H2'	26:1H:2302:G:C8	2.40	0.57
47:H8:107:THR:HG22	47:H8:108:PRO:HD3	1.87	0.57
1:1G:584:G:H5'	17:8A:91:ARG:HH12	1.68	0.57
1:1G:963:G:H21	10:1A:55:LYS:HZ2	1.53	0.57
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.40	0.57
26:14:1927:A:H2'	26:14:1928:A:C8	2.40	0.57
1:13:1165:C:N4	1:13:1166:G:O6	2.38	0.57
1:13:1213:A:O2'	1:13:1215:G:N7	2.31	0.57
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.40	0.57
26:1H:764:A:O4'	29:11:213:ARG:HG3	2.05	0.57
31:31:6:VAL:HG12	31:31:7:TYR:H	1.69	0.57
39:98:78:LYS:O	39:98:83:ILE:HG13	2.03	0.57
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.87	0.57
47:H8:11:GLU:O	47:H8:36:LYS:NZ	2.30	0.57
1:1G:187:C:H2'	1:1G:188:U:O4'	2.05	0.57
1:1G:1061:G:N2	1:1G:1195:C:O2	2.32	0.57
12:3A:39:VAL:HG12	12:3A:57:LYS:HD3	1.86	0.57
56:1L:7:U:N3	56:1L:49:G:N7	2.53	0.57
57:3L:4:U:H2'	57:3L:5:C:O4'	2.05	0.57
26:14:2151:G:H2'	26:14:2152:G:O4'	2.05	0.57
49:F5:87:PRO:HA	49:F5:90:ILE:HG23	1.86	0.57
50:G5:24:LEU:HD22	50:G5:60:LEU:HD21	1.87	0.57
1:13:911:U:OP2	12:3I:97:ARG:NH1	2.37	0.57
1:13:917:G:H2'	1:13:918:A:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.20	0.57
24:3K:3:G:H1	24:3K:70:C:H42	1.52	0.57
24:3K:11:C:N4	24:3K:24:G:H1	2.03	0.57
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.40	0.57
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.19	0.57
26:1H:2123:G:H1'	28:71:172:HIS:HB2	1.86	0.57
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.20	0.57
34:61:124:GLY:H	34:61:142:VAL:HG23	1.69	0.57
37:78:83:VAL:HG12	37:78:112:LEU:HD21	1.85	0.57
38:88:66:ILE:HD12	38:88:67:ARG:H	1.70	0.57
39:98:103:ARG:NH1	39:98:108:GLY:O	2.38	0.57
9:82:99:LEU:HB3	9:82:101:PHE:CD2	2.39	0.57
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.87	0.57
12:3A:84:LEU:HG	12:3A:105:TYR:CE2	2.39	0.57
26:14:1449(A):G:N2	26:14:1450:C:O2	2.37	0.57
26:14:1455:G:OP2	61:14:3536:HOH:O	2.17	0.57
29:19:39:LYS:O	29:19:40:THR:HG23	2.04	0.57
30:29:91:VAL:HB	30:29:95:ILE:HD11	1.86	0.57
30:29:197:ILE:HD11	30:29:199:ARG:HE	1.69	0.57
34:69:143:SER:OG	34:69:145:VAL:N	2.37	0.57
1:13:142:G:H2'	1:13:143:A:H8	1.69	0.56
1:13:221:C:H2'	1:13:222:U:H6	1.69	0.56
1:13:757:U:OP1	1:13:822:C:O2'	2.22	0.56
1:13:877:C:H5"	8:7E:88:LYS:HD3	1.86	0.56
1:13:976:G:OP1	14:5I:32:SER:N	2.35	0.56
1:13:1014:A:C2	1:13:1219:U:H1'	2.39	0.56
2:1E:20:GLU:HB2	2:1E:190:THR:HB	1.87	0.56
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.85	0.56
20:BI:57:ARG:CZ	20:BI:102:GLY:HA2	2.36	0.56
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.70	0.56
26:1H:1785:A:H2'	26:1H:1787:A:N7	2.20	0.56
40:A8:88:ASP:O	40:A8:89:ARG:HB3	2.04	0.56
41:B8:26:ASP:O	41:B8:49:VAL:HG12	2.05	0.56
50:K8:17:SER:HB3	50:K8:67:LYS:HE3	1.87	0.56
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.86	0.56
4:32:166:LYS:HA	4:32:178:VAL:HG11	1.86	0.56
25:4L:13:A:H2'	25:4L:14:A:O4'	2.04	0.56
26:14:1442:G:H2'	26:14:1443:G:C8	2.40	0.56
26:14:2019:A:N7	53:J5:9:LYS:HE3	2.19	0.56
31:39:25:PRO:C	31:39:27:GLU:H	2.07	0.56
34:69:93:THR:HB	34:69:96:ASP:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:244:U:H4'	1:13:245:C:O5'	2.05	0.56
1:13:1077:G:N2	1:13:1080:A:OP2	2.31	0.56
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.37	0.56
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.05	0.56
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.40	0.56
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.70	0.56
28:71:185:LEU:HD12	28:71:189:ILE:HD11	1.86	0.56
34:61:4:ILE:HG13	34:61:39:ALA:HB2	1.85	0.56
52:M8:13:ARG:HA	52:M8:24:THR:HG21	1.87	0.56
1:1G:22:G:H4'	1:1G:885:G:C8	2.40	0.56
6:52:68:PRO:HG2	6:52:71:ARG:HB2	1.86	0.56
23:2L:48:U:O2'	23:2L:49:C:OP2	2.18	0.56
26:14:5:A:N6	26:14:7:G:O6	2.38	0.56
26:14:579:G:H2'	26:14:580:C:C6	2.40	0.56
26:14:1582:C:HO2'	26:14:1586:A:H8	1.53	0.56
26:14:2468:G:H5"	26:14:2476:A:H61	1.68	0.56
1:13:256:U:H2'	1:13:257:G:C8	2.40	0.56
1:13:321:A:H62	1:13:328:C:H1'	1.69	0.56
1:13:1057:G:H4'	3:2E:197:GLY:H	1.69	0.56
1:13:1245:A:N6	1:13:1291:G:O6	2.38	0.56
2:1E:61:LEU:HA	2:1E:64:ARG:HG2	1.86	0.56
3:2E:16:ARG:HH11	3:2E:16:ARG:HB2	1.69	0.56
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.38	0.56
9:8E:91:ASP:OD1	9:8E:91:ASP:N	2.35	0.56
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.18	0.56
24:3K:26:A:H2'	24:3K:27:G:H5'	1.86	0.56
26:1H:1187:G:H5"	43:D8:81:TYR:CE2	2.40	0.56
26:1H:1385:G:O6	26:1H:1403:C:N4	2.38	0.56
33:51:153:LYS:HB2	33:51:155:SER:N	2.16	0.56
36:68:24:VAL:HB	36:68:33:ALA:HB2	1.85	0.56
39:98:72:ASP:O	39:98:76:VAL:HG23	2.05	0.56
47:H8:60:GLU:O	47:H8:61:LEU:HB3	2.04	0.56
1:1G:519:C:H2'	1:1G:520:A:O4'	2.05	0.56
1:1G:591:U:H2'	1:1G:592:G:C8	2.40	0.56
1:1G:653:A:H8	8:72:56:LYS:HE3	1.71	0.56
1:1G:973:G:O4'	10:1A:55:LYS:HG3	2.05	0.56
1:1G:1392:G:H21	1:1G:1502:A:H8	1.53	0.56
4:32:21:LEU:HD12	4:32:21:LEU:H	1.70	0.56
5:42:95:ALA:O	5:42:98:THR:OG1	2.22	0.56
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.36	0.56
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:12:LYS:HB3	21:1B:17:THR:O	2.06	0.56
57:3L:8:U:O2'	57:3L:48:C:O2	2.19	0.56
26:14:1028:A:N6	26:14:1125:G:H2'	2.21	0.56
26:14:1312:U:H4'	26:14:1313:U:O5'	2.06	0.56
26:14:2439:A:H5'	26:14:2439:A:H8	1.68	0.56
26:14:2880:C:O2'	39:55:90:ARG:HD3	2.05	0.56
27:1J:103:U:HO2'	47:D5:29:TYR:HH	1.53	0.56
28:79:14:VAL:N	28:79:20:TYR:HH	2.03	0.56
30:29:12:THR:C	30:29:23:VAL:HG22	2.26	0.56
30:29:54:GLN:NE2	30:29:55:ASN:OD1	2.38	0.56
34:69:135:GLU:N	34:69:135:GLU:OE1	2.34	0.56
41:75:133:GLU:N	41:75:133:GLU:OE2	2.38	0.56
42:85:92:ARG:HD2	43:95:11:GLN:OE1	2.05	0.56
1:13:74:C:H2'	1:13:96:G:H22	1.71	0.56
1:13:158:G:H2'	1:13:159:G:H8	1.71	0.56
4:3E:83:SER:HA	4:3E:86:LYS:HD2	1.86	0.56
19:AI:5:LEU:HD13	19:AI:10:PHE:CD2	2.40	0.56
20:BI:50:GLU:HG2	20:BI:100:ILE:HB	1.87	0.56
22:1K:26:A:H3'	22:1K:27:G:H8	1.71	0.56
26:1H:118:A:H5'	26:1H:119:A:H8	1.71	0.56
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.69	0.56
1:1G:87:A:H4'	1:1G:88:C:OP1	2.04	0.56
1:1G:998(A):C:H42	1:1G:1042:G:H1	1.53	0.56
1:1G:1010:G:N2	1:1G:1020:U:H1'	2.21	0.56
1:1G:1502:A:H2	1:1G:1505:G:N1	1.96	0.56
26:14:2391:G:O6	26:14:2425:A:H8	1.89	0.56
33:59:149:ARG:HB2	33:59:149:ARG:HH11	1.71	0.56
40:65:26:LEU:O	40:65:88:ASP:HB2	2.05	0.56
42:85:90:VAL:HG22	43:95:39:LEU:HB3	1.87	0.56
1:13:1128:C:H4'	9:8E:16:ARG:HH12	1.71	0.56
24:3K:45:G:H4'	24:3K:46:G:OP1	2.05	0.56
26:1H:811:U:O2'	37:78:21:ARG:HG3	2.06	0.56
26:1H:1568:G:OP2	29:11:63:ARG:NH2	2.38	0.56
29:11:17:THR:CG2	29:11:204:ILE:HA	2.35	0.56
1:1G:628:G:H2'	1:1G:629:G:C8	2.41	0.56
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.85	0.56
13:4A:60:VAL:HA	13:4A:63:THR:HG22	1.88	0.56
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.69	0.56
26:14:536:A:H2'	26:14:537:C:C6	2.40	0.56
26:14:2327:A:H2'	26:14:2328:A:C8	2.40	0.56
30:29:119:ARG:HA	30:29:160:TYR:CE2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:201:C:H42	1:13:216:G:H22	1.54	0.56
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.87	0.56
26:1H:2232:U:OP2	49:J8:40:ARG:NH2	2.37	0.56
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.70	0.56
36:68:21:CYS:HB2	36:68:39:ILE:HD12	1.87	0.56
37:78:98:GLU:O	37:78:101:VAL:HG13	2.05	0.56
49:J8:81:LYS:HD2	49:J8:81:LYS:N	2.20	0.56
6:52:15:ASP:OD1	6:52:17:SER:N	2.39	0.56
13:4A:49:THR:HB	13:4A:52:GLU:HG3	1.86	0.56
26:14:1105:U:H2'	26:14:1106:G:H4'	1.87	0.56
26:14:1914:C:H2'	26:14:1915:U:O4'	2.06	0.56
26:14:2318:G:H5'	26:14:2319:G:OP2	2.05	0.56
30:29:55:ASN:HD22	30:29:58:ARG:HD3	1.71	0.56
30:29:58:ARG:N	30:29:58:ARG:HD2	2.20	0.56
30:29:81:ILE:HG21	30:29:84:PHE:HD2	1.71	0.56
1:13:971:G:N2	1:13:1363:A:OP2	2.25	0.56
26:1H:930:U:H4'	26:1H:931:G:O5'	2.06	0.56
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.41	0.56
26:1H:1532:C:N3	26:1H:1539:G:N2	2.47	0.56
26:1H:1543:A:H8	26:1H:1545:A:OP2	1.88	0.56
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.06	0.56
27:16:3:C:H2'	27:16:4:C:C6	2.41	0.56
29:11:60:ARG:HG2	29:11:86:PRO:HG2	1.87	0.56
33:51:157:TYR:H	33:51:170:ARG:HA	1.69	0.56
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.87	0.56
42:C8:112:ARG:NH2	43:D8:45:THR:O	2.39	0.56
2:12:30:ARG:HH22	2:12:194:PRO:HB2	1.71	0.56
12:3A:34:ARG:HG3	12:3A:35:GLY:N	2.21	0.56
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.05	0.56
26:14:580:C:H2'	26:14:581:C:C6	2.40	0.56
26:14:1836:C:H2'	26:14:1837:C:H6	1.70	0.56
45:B5:36:LYS:HG3	45:B5:56:THR:HG23	1.88	0.56
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.21	0.56
1:13:554:C:H2'	1:13:555:C:H6	1.71	0.56
7:6E:62:PHE:HA	7:6E:124:LEU:HD22	1.87	0.56
26:1H:566:U:OP1	37:78:29:LYS:HD2	2.04	0.56
26:1H:602:G:N2	26:1H:655:A:C8	2.71	0.56
26:1H:2451:A:H5"	26:1H:2452:C:OP2	2.05	0.56
27:16:43:C:H5"	52:M8:1:MET:HG2	1.88	0.56
29:11:31:LYS:HB3	29:11:34:VAL:HG23	1.88	0.56
33:51:74:ASN:HA	33:51:77:LYS:HG2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:68:GLU:HB3	36:68:78:ARG:HB3	1.87	0.56
42:C8:95:LEU:HD22	43:D8:4:ILE:HD13	1.88	0.56
50:K8:4:SER:HB3	50:K8:7:ARG:H	1.70	0.56
1:1G:186(F):C:H2'	1:1G:187:C:O4'	2.04	0.56
1:1G:429:U:H3'	4:32:9:CYS:SG	2.46	0.56
1:1G:507:C:H3'	1:1G:508:C:H2'	1.87	0.56
1:1G:626:U:H2'	1:1G:627:G:H8	1.70	0.56
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.37	0.56
23:2L:50:G:H1	23:2L:66:C:H42	1.53	0.56
26:14:1921:G:H2'	26:14:1922:G:C8	2.41	0.56
31:39:25:PRO:C	31:39:27:GLU:N	2.59	0.56
31:39:67:GLN:HG3	31:39:67:GLN:O	2.04	0.56
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.88	0.56
5:4E:63:ARG:HB2	5:4E:64:ARG:NH1	2.20	0.56
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.87	0.56
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.05	0.56
24:3K:52:G:H2'	24:3K:53:G:C8	2.41	0.56
26:1H:580:C:H2'	26:1H:581:C:H6	1.71	0.56
26:1H:2298:A:H62	26:1H:2318:G:H8	1.54	0.56
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.35	0.56
27:16:73:A:C4	27:16:104:A:C2	2.94	0.56
28:71:216:THR:HB	28:71:218:MET:H	1.71	0.56
29:11:31:LYS:O	29:11:35:LYS:NZ	2.34	0.56
31:31:170:LEU:HD12	31:31:172:TRP:NE1	2.21	0.56
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.86	0.56
1:1G:81:G:N2	1:1G:88:C:N3	2.54	0.56
1:1G:1003:G:H2'	1:1G:1004:A:H5'	1.88	0.56
1:1G:1053:G:H5"	1:1G:1054:C:H3'	1.88	0.56
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.41	0.56
2:12:58:ILE:HG21	2:12:219:VAL:HG21	1.87	0.56
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.87	0.56
35:15:42:TRP:HA	35:15:48:MET:CE	2.36	0.56
23:2K:48:U:O2'	23:2K:49:C:OP2	2.21	0.56
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.73	0.56
29:11:182:LEU:O	29:11:271:ILE:HG13	2.06	0.56
35:58:67:LEU:HD23	35:58:87:LEU:HD12	1.87	0.56
52:M8:34:GLU:HG3	52:M8:35:VAL:H	1.70	0.56
1:1G:841:U:H3'	1:1G:841:U:H6	1.71	0.56
1:1G:963:G:N2	10:1A:55:LYS:HZ2	2.04	0.56
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.35	0.56
3:22:16:ARG:HH22	3:22:181:ASN:ND2	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:150:LYS:HD2	3:22:152:ILE:HD11	1.87	0.56
15:6A:24:SER:HB3	15:6A:27:VAL:HG23	1.87	0.56
26:14:1425:G:H2'	26:14:1426:G:C8	2.41	0.56
26:14:2131:G:H5"	26:14:2133:G:H4'	1.88	0.56
26:14:2475:C:H5"	26:14:2476:A:H5"	1.88	0.56
33:59:67:LEU:O	33:59:70:THR:OG1	2.19	0.56
34:69:112:LYS:HA	34:69:114:LEU:H	1.69	0.56
35:15:21:LYS:O	35:15:60:ILE:HG13	2.05	0.56
48:E5:36:ILE:HG13	48:E5:58:THR:HG23	1.88	0.56
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.05	0.56
1:13:828:A:H2'	1:13:829:G:O4'	2.05	0.55
1:13:1041:A:H2'	1:13:1042:G:O4'	2.06	0.55
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.21	0.55
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.88	0.55
23:2K:9:G:N2	23:2K:47:G7M:OP2	2.30	0.55
26:1H:957:A:N1	26:1H:2458:G:H4'	2.21	0.55
26:1H:1568:G:H5"	29:11:61:LEU:HD22	1.88	0.55
26:1H:1635:G:OP1	61:1H:3563:HOH:O	2.18	0.55
26:1H:2115:G:H4'	26:1H:2166:G:H1'	1.87	0.55
50:K8:3:LEU:CA	50:K8:5:GLU:HB2	2.32	0.55
1:1G:129(A):G:C2	1:1G:191(A):G:C8	2.94	0.55
1:1G:420:U:H1'	1:1G:424:G:N2	2.21	0.55
4:32:108:LEU:HD13	4:32:174:LEU:HD13	1.87	0.55
15:6A:33:THR:HG21	15:6A:85:LEU:HD22	1.88	0.55
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.06	0.55
26:14:764:A:O4'	29:19:213:ARG:HG3	2.05	0.55
26:14:831:G:H5"	26:14:832:G:OP2	2.06	0.55
26:14:1594:G:H2'	26:14:1595:G:H8	1.71	0.55
26:14:1785:A:H2'	26:14:1787:A:N7	2.21	0.55
26:14:2629:A:H2'	26:14:2629:A:N3	2.20	0.55
27:1J:42:C:O2'	32:49:67:LYS:O	2.16	0.55
2:1E:17:PHE:HA	2:1E:42:ILE:HB	1.87	0.55
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.53	0.55
26:1H:67:U:H3	26:1H:74:A:H2	1.55	0.55
26:1H:1277:G:H5"	39:98:40:LYS:NZ	2.21	0.55
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.40	0.55
26:1H:2636:U:OP2	30:21:79:ARG:NH1	2.38	0.55
31:31:155:LEU:HB2	31:31:189:THR:HG21	1.87	0.55
33:51:121:ILE:HG12	33:51:140:LYS:HE3	1.88	0.55
34:61:120:ILE:HG12	34:61:126:TYR:CE2	2.40	0.55
1:1G:1179:A:H4'	9:82:103:THR:HA	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:617:G:OP1	31:39:40:GLN:HG3	2.06	0.55
26:14:831:G:N2	37:35:53:GLY:O	2.39	0.55
26:14:1106:G:H3'	26:14:1107:G:C8	2.41	0.55
26:14:1288:U:C2	26:14:1327:C:O2	2.60	0.55
26:14:2461:C:H2'	26:14:2462:U:C6	2.41	0.55
26:14:2520:C:H41	26:14:2542:A:H62	1.53	0.55
37:35:127:ALA:O	37:35:147:LEU:N	2.38	0.55
43:95:5:VAL:HB	43:95:37:VAL:HB	1.87	0.55
1:13:150:C:H2'	1:13:151:A:C8	2.41	0.55
1:13:277:C:H2'	1:13:278:G:H8	1.72	0.55
1:13:1149:C:H2'	1:13:1150:U:H6	1.71	0.55
2:1E:47:THR:HG22	2:1E:51:LEU:HD12	1.87	0.55
26:1H:30:G:OP2	42:C8:5:LYS:NZ	2.39	0.55
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.07	0.55
26:1H:2139:C:H42	26:1H:2152:G:N2	1.97	0.55
26:1H:2287:A:C2	26:1H:2346:A:C2	2.93	0.55
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.41	0.55
30:21:116:VAL:HG22	30:21:120:TRP:HD1	1.72	0.55
46:G8:11:ASP:O	46:G8:26:LYS:HG3	2.06	0.55
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.06	0.55
1:1G:446:G:H1	1:1G:488:C:H42	1.53	0.55
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.86	0.55
23:2L:6:G:N2	23:2L:69:C:H1'	2.20	0.55
26:14:1022:G:N2	26:14:1142(A):A:H2	2.01	0.55
26:14:1379:A:H1'	26:14:1380:G:OP1	2.06	0.55
40:65:23:ARG:NH2	40:65:84:GLN:HB3	2.20	0.55
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.88	0.55
48:E5:64:ASP:OD1	48:E5:64:ASP:N	2.36	0.55
49:F5:91:LYS:HG3	49:F5:92:LYS:N	2.20	0.55
26:1H:6:A:O2'	35:58:129:PRO:HB3	2.06	0.55
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.42	0.55
26:1H:2787:C:H1'	30:21:62:PRO:HG3	1.88	0.55
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.39	0.55
35:58:47:ALA:HB2	35:58:112:LEU:CD1	2.35	0.55
50:K8:47:ASN:ND2	50:K8:47:ASN:H	2.04	0.55
1:1G:108:G:H5'	1:1G:109:A:C5'	2.37	0.55
1:1G:681:C:H2'	1:1G:682:G:H8	1.71	0.55
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.42	0.55
3:22:88:ARG:HA	3:22:91:LEU:HD13	1.87	0.55
11:2A:100:ALA:O	11:2A:102:GLY:N	2.39	0.55
26:14:2275:C:H5'	26:14:2275:C:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:26:LEU:HD22	40:65:87:PHE:CD1	2.41	0.55
45:B5:65:ARG:HB3	45:B5:70:LEU:HB3	1.87	0.55
49:F5:92:LYS:HA	49:F5:95:LEU:HB2	1.89	0.55
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.89	0.55
2:1E:106:LYS:O	2:1E:110:GLN:HG3	2.07	0.55
2:1E:166:ASP:C	2:1E:168:THR:H	2.10	0.55
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.06	0.55
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.07	0.55
26:1H:708:C:H42	26:1H:723:G:H1	1.53	0.55
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.42	0.55
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.71	0.55
26:1H:1535:U:H3'	26:1H:1537:C:C4	2.42	0.55
26:1H:2392:A:C8	37:78:61:ARG:HD2	2.41	0.55
26:1H:2855:C:H2'	26:1H:2856:C:C6	2.41	0.55
31:31:39:TRP:CH2	31:31:106:ARG:HD3	2.40	0.55
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.88	0.55
47:H8:151:HIS:O	47:H8:171:ILE:HG13	2.07	0.55
2:12:16:HIS:CD2	2:12:213:LEU:HD22	2.41	0.55
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.88	0.55
23:2L:63:C:H2'	23:2L:64:G:H8	1.71	0.55
57:3L:3:G:N2	57:3L:70:C:N3	2.44	0.55
26:14:923:C:H2'	26:14:924:C:C6	2.42	0.55
26:14:2250:G:OP1	26:14:2275:C:H2'	2.06	0.55
32:49:91:ARG:C	32:49:91:ARG:HE	2.09	0.55
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.88	0.55
1:13:1171:G:H2'	1:13:1172:C:C6	2.39	0.55
1:13:1228:C:OP1	13:4I:115:LYS:HD2	2.07	0.55
18:9I:37:VAL:O	18:9I:41:LYS:HB3	2.05	0.55
18:9I:47:THR:O	18:9I:83:GLU:N	2.26	0.55
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.42	0.55
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.07	0.55
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.21	0.55
33:51:125:VAL:HG22	33:51:131:VAL:HB	1.88	0.55
41:B8:51:ARG:HB2	41:B8:98:LYS:CD	2.36	0.55
52:M8:23:GLU:OE1	52:M8:24:THR:N	2.39	0.55
1:1G:138:G:H1	1:1G:225:C:H42	1.53	0.55
1:1G:406:G:H2'	1:1G:407:G:H8	1.70	0.55
2:12:80:ILE:HD13	2:12:212:GLN:HA	1.89	0.55
6:52:35:ALA:HB1	6:52:65:VAL:HG11	1.87	0.55
26:14:70:G:H21	26:14:71:A:H62	1.52	0.55
26:14:2062:A:H2	26:14:2503:A:H62	1.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2250:G:H2'	38:45:82:ARG:HG3	1.88	0.55
32:49:15:VAL:HG22	32:49:175:LEU:HB3	1.88	0.55
46:C5:52:SER:OG	46:C5:52:SER:O	2.21	0.55
1:13:452:A:H2'	1:13:453:A:C8	2.41	0.55
9:8E:10:ARG:HG3	9:8E:75:ASP:HB3	1.88	0.55
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.88	0.55
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.89	0.55
41:B8:55:ASN:N	41:B8:59:THR:HG22	2.20	0.55
46:G8:55:TYR:CZ	46:G8:61:ILE:HD11	2.42	0.55
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.72	0.55
26:14:395:U:H2'	26:14:396:G:N7	2.21	0.55
26:14:1887:C:H3'	26:14:1888:G:H5"	1.88	0.55
29:19:31:LYS:HE3	29:19:33:LEU:CB	2.36	0.55
42:85:10:ARG:HG2	42:85:14:HIS:CD2	2.41	0.55
49:F5:19:GLN:HB3	49:F5:35:THR:O	2.06	0.55
1:13:345:C:O2'	1:13:346:G:N3	2.38	0.55
1:13:1118:C:H1'	1:13:1179:A:C4	2.42	0.55
24:3K:59:A:H3'	24:3K:60:U:C6	2.42	0.55
26:1H:259:G:HO2'	26:1H:621:A:HO2'	1.46	0.55
26:1H:779:U:OP1	29:11:49:ILE:HG13	2.06	0.55
26:1H:860:U:C5	26:1H:917:A:C2	2.94	0.55
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.38	0.55
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.06	0.55
31:31:116:ASP:OD2	37:78:1:MET:HB2	2.06	0.55
32:41:11:TYR:HA	32:41:15:VAL:HB	1.89	0.55
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.40	0.55
41:B8:107:ASP:OD2	41:B8:109:GLU:HG3	2.07	0.55
1:1G:363:A:C5	12:3A:31:PRO:HD2	2.42	0.55
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.07	0.55
26:14:30:G:H2'	26:14:31:C:C6	2.41	0.55
26:14:511:U:C5	26:14:512:G:C5	2.94	0.55
26:14:1729:A:H2'	26:14:1731:G:H22	1.72	0.55
26:14:2795:G:HO2'	26:14:2798:C:H5	1.54	0.55
30:29:29:GLY:H	30:29:51:PHE:HE1	1.54	0.55
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.42	0.55
53:J5:20:ARG:HG2	53:J5:23:HIS:CD2	2.42	0.55
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.35	0.55
1:13:352:C:O2'	1:13:354:G:OP1	2.15	0.55
1:13:1030:C:H2'	1:13:1031:G:H8	1.72	0.55
15:6I:36:ILE:HA	15:6I:59:MET:HE3	1.88	0.55
18:9I:22:VAL:HG12	18:9I:56:THR:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1332:G:H21	26:1H:1610:A:H8	1.54	0.55
26:1H:2392:A:H8	37:78:61:ARG:HD2	1.72	0.55
26:1H:2882:A:OP1	39:98:96:ARG:NH1	2.39	0.55
37:78:87:ASP:O	37:78:90:ARG:HD3	2.06	0.55
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.42	0.55
1:1G:1368:G:H4'	10:1A:46:ARG:HH22	1.72	0.55
3:22:8:ILE:HG21	14:5A:50:LYS:HD2	1.89	0.55
15:6A:55:GLY:HA2	15:6A:58:MET:HG3	1.88	0.55
26:14:806:C:OP2	37:35:41:ARG:NH2	2.39	0.55
26:14:2364:C:H4'	48:E5:56:ASP:OD2	2.07	0.55
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.87	0.55
1:13:4:U:O2'	1:13:5:U:OP1	2.21	0.55
1:13:345:C:H4'	1:13:346:G:N7	2.22	0.55
1:13:345:C:N4	36:68:116:SER:O	2.21	0.55
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.72	0.55
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.46	0.55
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ3	1.72	0.55
26:1H:69:C:H2'	26:1H:70:G:H8	1.72	0.55
26:1H:784:A:C5	29:11:229:VAL:HG21	2.42	0.55
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.07	0.55
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.89	0.55
26:1H:2849:U:H5'	26:1H:2867:G:N2	2.22	0.55
27:16:11:C:H3'	27:16:12:C:C6	2.41	0.55
33:51:6:ARG:HD2	33:51:54:ARG:NH1	2.18	0.55
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.89	0.55
1:1G:162:A:O5'	1:1G:162:A:H8	1.90	0.55
3:22:6:HIS:ND1	14:5A:49:HIS:HB3	2.22	0.55
3:22:31:HIS:HA	3:22:34:LEU:HD22	1.88	0.55
56:1L:33:U:HO2'	56:1L:34:U8U:HN1	1.53	0.55
26:14:660:G:H21	37:35:12:ALA:CB	2.15	0.55
26:14:2533:A:OP1	26:14:2665:A:O2'	2.15	0.55
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.89	0.55
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.89	0.55
37:35:125:VAL:HG13	37:35:144:GLU:HB3	1.89	0.55
38:45:79:LEU:HD23	38:45:79:LEU:O	2.05	0.55
41:75:18:ASP:OD1	41:75:18:ASP:N	2.40	0.55
46:C5:48:ALA:HB1	46:C5:50:ARG:HD3	1.87	0.55
1:13:475:G:H3'	1:13:476:G:H8	1.71	0.54
2:1E:46:LYS:HA	2:1E:49:GLU:CD	2.28	0.54
24:3K:56:C:H2'	24:3K:57:G:O4'	2.07	0.54
26:1H:11:G:H21	26:1H:2802:G:H4'	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:76:C:O2'	50:K8:62:THR:HG21	2.06	0.54
26:1H:764:A:H5'	29:11:210:GLY:HA2	1.89	0.54
41:B8:90:GLN:OE1	41:B8:91:ARG:N	2.39	0.54
41:B8:100:TYR:HB3	41:B8:103:ARG:NH1	2.21	0.54
3:22:156:ARG:NH2	3:22:159:GLY:O	2.39	0.54
26:14:1027:A:H2	26:14:2487:G:O2'	1.90	0.54
26:14:1190:G:H2'	26:14:1191:G:H8	1.71	0.54
26:14:1945:G:H2'	26:14:1946:U:C6	2.43	0.54
26:14:2096:U:H3	26:14:2193:G:H1	1.55	0.54
26:14:2342:C:O2'	26:14:2374:C:H5"	2.07	0.54
27:1J:116:G:H5'	40:65:55:ALA:HB1	1.89	0.54
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.41	0.54
32:49:41:GLN:HG2	32:49:43:LEU:HD21	1.88	0.54
37:35:29:LYS:HD3	37:35:30:THR:HG23	1.88	0.54
46:C5:48:ALA:HB3	46:C5:59:GLY:HA2	1.88	0.54
47:D5:94:GLU:O	47:D5:129:SER:HA	2.07	0.54
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.89	0.54
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.42	0.54
8:7E:88:LYS:N	8:7E:91:ARG:O	2.36	0.54
26:1H:141:A:H8	26:1H:1595:G:H21	1.54	0.54
26:1H:265:A:C8	26:1H:266:G:H1'	2.41	0.54
26:1H:2590:A:OP2	29:11:237:GLU:HB3	2.06	0.54
29:11:145:VAL:HG12	29:11:146:GLU:O	2.07	0.54
34:61:33:ARG:HB3	34:61:35:LEU:CD1	2.38	0.54
35:58:57:ALA:O	35:58:59:LYS:N	2.40	0.54
37:78:52:GLU:OE1	37:78:57:THR:HA	2.07	0.54
39:98:81:ASP:O	39:98:85:PRO:HG2	2.07	0.54
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.42	0.54
1:1G:1433:A:OP2	1:1G:1467:G:N1	2.38	0.54
4:32:13:ARG:C	4:32:15:GLU:H	2.11	0.54
7:62:106:GLN:O	7:62:110:GLN:HG2	2.07	0.54
26:14:1260:G:H2'	26:14:1261:C:H6	1.72	0.54
26:14:1534:G:O2'	26:14:1537:C:N4	2.39	0.54
26:14:2294:C:P	40:65:89:ARG:HH22	2.29	0.54
31:39:68:LYS:HG3	31:39:69:HIS:CD2	2.42	0.54
33:59:9:ILE:HB	33:59:51:ARG:HA	1.89	0.54
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.88	0.54
1:13:138:G:H1	1:13:225:C:H42	1.56	0.54
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.06	0.54
2:1E:211:ILE:HA	2:1E:214:ILE:HD11	1.89	0.54
3:2E:95:THR:HB	3:2E:97:LYS:H	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:52:G:H1	22:1K:62:C:H42	1.54	0.54
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.43	0.54
29:11:70:TRP:CD1	29:11:70:TRP:C	2.81	0.54
32:41:47:LYS:HG3	32:41:48:GLU:H	1.71	0.54
35:58:96:GLU:O	35:58:98:VAL:HG12	2.06	0.54
46:G8:97:ARG:NH2	46:G8:103:GLY:O	2.40	0.54
47:H8:28:MET:O	47:H8:35:ARG:N	2.33	0.54
1:1G:972:C:OP2	10:1A:57:LYS:NZ	2.34	0.54
4:32:201:GLN:O	4:32:205:GLU:HB2	2.07	0.54
9:82:48:GLU:HA	9:82:51:ARG:HD3	1.89	0.54
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.71	0.54
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.43	0.54
26:14:751:A:H5'	44:A5:90:ARG:HA	1.89	0.54
26:14:1910:G:H1	26:14:1920:C:H42	1.56	0.54
33:59:54:ARG:HB2	33:59:65:HIS:CD2	2.43	0.54
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.88	0.54
1:13:1044:A:C5	1:13:1045:C:H1'	2.43	0.54
1:13:1126:U:H2'	1:13:1127:G:C8	2.42	0.54
3:2E:16:ARG:HD2	3:2E:54:ARG:NH2	2.19	0.54
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.22	0.54
26:1H:32:C:O2'	26:1H:33:U:H5'	2.08	0.54
26:1H:489:G:N7	44:E8:49:LYS:NZ	2.55	0.54
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.88	0.54
26:1H:2392:A:H2	26:1H:2424:C:N4	1.98	0.54
26:1H:2552:U:H2'	26:1H:2554:U:OP2	2.07	0.54
26:1H:2635:C:H5"	30:21:78:LEU:HA	1.90	0.54
29:11:12:SER:O	29:11:16:MET:HB2	2.06	0.54
29:11:33:LEU:HG	29:11:34:VAL:HG22	1.88	0.54
29:11:70:TRP:O	29:11:73:VAL:HG23	2.08	0.54
38:88:19:GLY:O	38:88:21:THR:OG1	2.21	0.54
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.89	0.54
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.22	0.54
12:3A:27:LEU:HB2	12:3A:33:ARG:HG2	1.88	0.54
26:14:228:A:H2'	26:14:230:U:O4'	2.07	0.54
26:14:897:C:C2	26:14:898:C:H5	2.26	0.54
26:14:993:G:N3	43:95:89:GLN:NE2	2.51	0.54
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.21	0.54
1:13:999:U:O2'	26:14:2137:C:H5'	2.07	0.54
1:13:1157:A:H61	1:13:1178:G:H21	1.56	0.54
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.27	0.54
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.88	0.54
26:1H:270(W):G:O6	61:1H:3561:HOH:O	2.17	0.54
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.88	0.54
17:8A:7:THR:HG23	17:8A:58:GLU:HG2	1.90	0.54
57:3L:63:U:H2'	57:3L:64:G:C8	2.41	0.54
26:14:849:A:N1	51:H5:25:ALA:HB2	2.23	0.54
26:14:1826:G:H2'	26:14:1827:C:C6	2.42	0.54
26:14:2469:A:H8	38:45:56:ARG:NH2	2.04	0.54
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.06	0.54
29:19:70:TRP:O	29:19:73:VAL:HG23	2.06	0.54
41:75:55:ASN:H	41:75:59:THR:HG22	1.73	0.54
48:E5:53:MET:HG2	48:E5:59:LEU:HD23	1.89	0.54
1:13:110:C:H2'	1:13:111:G:O4'	2.06	0.54
1:13:451:A:OP1	1:13:481:G:N1	2.38	0.54
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.08	0.54
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.90	0.54
22:1K:7:U:H3	22:1K:66:A:N6	2.02	0.54
26:1H:1018:C:H2'	26:1H:1019:U:H6	1.73	0.54
26:1H:2127:G:H1	26:1H:2161:C:C2'	2.21	0.54
27:16:11:C:H3'	27:16:12:C:H6	1.72	0.54
32:41:76:SER:HB2	32:41:84:LYS:HB2	1.89	0.54
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.07	0.54
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.89	0.54
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	1.90	0.54
47:H8:4:ARG:HB3	47:H8:58:VAL:CG2	2.37	0.54
1:1G:433:C:H2'	1:1G:434:U:H6	1.71	0.54
1:1G:1219:U:OP1	14:5A:19:ARG:NH1	2.32	0.54
14:5A:45:ARG:O	14:5A:49:HIS:HD2	1.90	0.54
56:1L:68:G:H2'	56:1L:69:A:C8	2.43	0.54
26:14:302:C:H2'	26:14:303:U:H6	1.72	0.54
26:14:994:C:OP1	42:85:53:ARG:NH2	2.41	0.54
26:14:1442:G:H2'	26:14:1443:G:H8	1.71	0.54
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.23	0.54
26:14:1581:G:H2'	26:14:1582:C:O4'	2.08	0.54
26:14:2542:A:N3	26:14:2542:A:H5"	2.23	0.54
26:14:2720:U:N3	26:14:2873:A:H2	2.05	0.54
26:14:2816:C:O2	26:14:2883:A:O2'	2.25	0.54
27:1J:42:C:N3	32:49:91:ARG:NH2	2.54	0.54
33:59:8:PRO:HG2	33:59:69:ARG:HE	1.72	0.54
38:45:32:TYR:HE2	38:45:111:GLU:HA	1.71	0.54
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:54:LEU:HD23	40:65:55:ALA:HB2	1.89	0.54
44:A5:20:VAL:HG22	44:A5:47:VAL:HG21	1.90	0.54
9:8E:10:ARG:HE	9:8E:105:ASP:CG	2.10	0.54
20:BI:49:ALA:O	20:BI:52:ALA:N	2.41	0.54
26:1H:426:C:H2'	26:1H:427:U:H6	1.73	0.54
26:1H:455:C:N3	26:1H:473:G:H5'	2.22	0.54
26:1H:671:C:OP1	37:78:42:SER:O	2.26	0.54
26:1H:761:A:OP1	61:1H:3565:HOH:O	2.19	0.54
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.42	0.54
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.08	0.54
39:98:44:LEU:O	39:98:47:PHE:N	2.38	0.54
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.89	0.54
47:H8:72:ARG:NH2	47:H8:97:GLU:O	2.40	0.54
49:J8:18:ILE:HG12	49:J8:37:ILE:HG12	1.89	0.54
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.72	0.54
4:32:18:LYS:NZ	4:32:26:CYS:O	2.27	0.54
7:62:46:ALA:HA	7:62:49:ILE:HD12	1.89	0.54
26:14:1021:A:H62	26:14:1141:U:H3	1.55	0.54
26:14:1111:A:H4'	33:59:3:ARG:NH1	2.22	0.54
26:14:1728:G:H8	26:14:1732:A:H62	1.56	0.54
26:14:2074:U:H2'	26:14:2075:U:C6	2.42	0.54
27:1J:15:A:H3'	27:1J:16:G:H5'	1.89	0.54
1:13:128:G:H5'	17:8I:2:PRO:O	2.08	0.54
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.37	0.54
13:4I:25:ILE:HD11	13:4I:66:LEU:HD11	1.88	0.54
13:4I:54:VAL:O	13:4I:58:GLU:HG2	2.08	0.54
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.35	0.54
17:8I:8:GLY:O	17:8I:21:VAL:HG13	2.08	0.54
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.06	0.54
26:1H:1279:G:H4'	39:98:31:HIS:CD2	2.42	0.54
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.21	0.54
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.17	0.54
26:1H:2656:U:N3	26:1H:2665:A:H2	2.04	0.54
28:71:22:ILE:HG13	28:71:190:ARG:HG3	1.89	0.54
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.23	0.54
1:1G:977:A:HO2'	1:1G:981:U:H3	1.55	0.54
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.43	0.54
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.23	0.54
26:14:866:A:H5"	26:14:867:C:OP2	2.07	0.54
26:14:1071:G:N2	26:14:1090:U:O5'	2.40	0.54
26:14:1109:C:H2'	26:14:1110:G:C1'	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:72:ASP:HB3	39:55:75:LEU:HB3	1.90	0.54
1:13:69:G:N2	1:13:99:C:O2	2.39	0.54
1:13:313:A:H2'	1:13:314:C:H6	1.73	0.54
1:13:963:G:H21	10:1I:55:LYS:CE	2.20	0.54
1:13:1111:A:N1	3:2E:177:THR:OG1	2.34	0.54
26:1H:2019:A:C6	26:1H:2020:A:N7	2.76	0.54
26:1H:2128:C:H5'	28:71:36:LYS:HG3	1.89	0.54
28:71:59:ARG:HG2	28:71:60:GLY:H	1.72	0.54
33:51:40:GLU:O	33:51:41:MET:HB2	2.07	0.54
37:78:130:PHE:HE1	37:78:146:VAL:HG23	1.73	0.54
46:G8:94:LYS:HA	46:G8:94:LYS:HZ3	1.73	0.54
47:H8:165:VAL:HG22	47:H8:166:SER:HA	1.89	0.54
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.40	0.54
1:1G:247:G:OP2	17:8A:100:LYS:N	2.39	0.54
1:1G:280:C:H3'	1:1G:281:G:H5'	1.90	0.54
2:12:219:VAL:HG23	2:12:222:ILE:HD12	1.90	0.54
3:22:90:GLU:O	3:22:93:LYS:NZ	2.41	0.54
56:1L:49:G:H2'	56:1L:50:C:C6	2.43	0.54
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.43	0.54
26:14:732:C:H3'	61:14:3503:HOH:O	2.08	0.54
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.38	0.54
26:14:2784:C:H2'	26:14:2785:C:C6	2.42	0.54
27:1J:116:G:H5'	40:65:55:ALA:CB	2.38	0.54
30:29:89:ASP:HB3	30:29:91:VAL:N	2.23	0.54
35:15:133:GLN:O	35:15:134:ARG:HG3	2.08	0.54
38:45:10:ARG:HE	38:45:10:ARG:C	2.11	0.54
38:45:35:VAL:HG12	38:45:36:ALA:H	1.72	0.54
38:45:45:GLN:OE1	38:45:45:GLN:N	2.41	0.54
1:13:15:G:OP1	1:13:1396:A:O2'	2.21	0.54
1:13:1299:A:H2'	1:13:1301:U:H1'	1.90	0.54
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.72	0.54
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.73	0.54
26:1H:363:G:H2'	26:1H:363(A):A:H8	1.72	0.54
26:1H:518:G:H2'	26:1H:519:U:C6	2.44	0.54
26:1H:1630:G:H2'	26:1H:1630(A):C:H6	1.72	0.54
29:11:234:GLY:N	61:11:403:HOH:O	2.41	0.54
31:31:27:GLU:CD	31:31:27:GLU:H	2.10	0.54
32:41:41:GLN:HG2	32:41:155:MET:HB3	1.90	0.54
35:58:96:GLU:HG2	35:58:97:ARG:N	2.23	0.54
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.23	0.54
50:K8:35:LEU:HD23	50:K8:53:LEU:HD12	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:690:G:H2'	1:1G:691:G:O4'	2.08	0.54
1:1G:834:C:H42	1:1G:852:G:H1	1.56	0.54
4:32:175:SER:HB2	4:32:186:LEU:HD11	1.89	0.54
6:52:45:LEU:HD12	6:52:59:TYR:HD2	1.73	0.54
8:72:56:LYS:HE2	8:72:58:TYR:HE1	1.72	0.54
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.73	0.54
56:1L:2:G:H1	56:1L:71:C:H42	1.56	0.54
26:14:55:G:H2'	26:14:56:A:H8	1.73	0.54
26:14:1329:U:H5"	26:14:1330:C:H5	1.74	0.54
26:14:2656:U:H3	26:14:2665:A:H2	1.56	0.54
26:14:2745:C:H1'	33:59:143:GLN:HG2	1.88	0.54
28:79:15:ASP:H	28:79:20:TYR:HH	1.56	0.54
29:19:182:LEU:H	29:19:272:ALA:HB3	1.73	0.54
36:25:113:LYS:H	36:25:113:LYS:HE2	1.73	0.54
38:45:26:TYR:OH	47:D5:78:LYS:HD3	2.08	0.54
1:13:232:G:H2'	1:13:233:C:H6	1.73	0.53
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.40	0.53
1:13:652:U:O4	1:13:752:G:O2'	2.17	0.53
6:5E:91:VAL:HG12	6:5E:92:LYS:O	2.07	0.53
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.08	0.53
16:7I:50:LYS:HE3	16:7I:51:VAL:H	1.72	0.53
26:1H:942:G:OP2	37:78:39:LYS:HE2	2.09	0.53
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.07	0.53
26:1H:2263:C:H2'	26:1H:2264:C:H6	1.73	0.53
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.43	0.53
1:1G:201:C:H42	1:1G:216:G:H1	1.57	0.53
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.41	0.53
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.73	0.53
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.43	0.53
2:12:218:ALA:O	2:12:219:VAL:HG22	2.07	0.53
26:14:634:C:H2'	26:14:635:C:C6	2.43	0.53
26:14:828:U:H3	26:14:2247:A:H4'	1.72	0.53
26:14:2107:C:N3	26:14:2182:G:N1	2.56	0.53
30:29:97:LYS:HG2	30:29:100:GLU:OE1	2.07	0.53
47:D5:124:ILE:HD11	47:D5:165:VAL:HG21	1.89	0.53
50:G5:43:GLN:OE1	50:G5:43:GLN:N	2.41	0.53
1:13:1127:G:H2'	1:13:1128:C:N1	2.21	0.53
1:13:1188:A:N6	61:13:1813:HOH:O	2.40	0.53
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.90	0.53
22:1K:76:A:H8	26:1H:2583:G:N2	2.06	0.53
26:1H:745:G:OP2	30:21:133:LYS:HE2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1291:C:H2'	26:1H:1292:U:C6	2.42	0.53
26:1H:1386:C:OP2	26:1H:1396:U:H5	1.92	0.53
26:1H:2107:C:O2	26:1H:2182:G:N2	2.39	0.53
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.07	0.53
47:H8:19:ARG:NH1	47:H8:84:GLU:HB2	2.23	0.53
1:1G:421:U:O4	3:22:127:ARG:NH1	2.41	0.53
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.08	0.53
26:14:1298:C:H5"	26:14:1299:G:OP2	2.08	0.53
38:45:32:TYR:CD2	38:45:114:ALA:HB3	2.42	0.53
38:45:81:VAL:HG23	38:45:82:ARG:H	1.73	0.53
3:2E:152:ILE:HG12	3:2E:167:TRP:HD1	1.74	0.53
11:2I:50:TYR:CD2	11:2I:54:ARG:HB2	2.43	0.53
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.08	0.53
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.09	0.53
26:1H:155:C:N4	26:1H:171:G:H1	2.03	0.53
26:1H:270(K):C:C4	26:1H:270(M):U:H5"	2.43	0.53
26:1H:1508:A:OP2	26:1H:1508:A:H8	1.91	0.53
26:1H:1899:G:H1	26:1H:1902:C:H41	1.57	0.53
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.44	0.53
26:1H:2846:G:N7	61:1H:3613:HOH:O	2.32	0.53
43:D8:37:VAL:HG23	43:D8:51:VAL:HG21	1.90	0.53
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.90	0.53
1:1G:666:G:H5'	1:1G:726:C:H1'	1.91	0.53
1:1G:1001:G:H2'	1:1G:1002:G:C8	2.43	0.53
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.43	0.53
26:14:1198:U:H2'	26:14:1199:U:C6	2.44	0.53
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.43	0.53
40:65:107:GLU:H	40:65:110:LEU:HD11	1.72	0.53
46:C5:87:LYS:NZ	46:C5:88:LYS:O	2.34	0.53
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.08	0.53
26:1H:301:G:C4	26:1H:302:C:C5	2.96	0.53
26:1H:1639:U:O2'	26:1H:1640:C:H5"	2.08	0.53
26:1H:2321:G:H5"	26:1H:2322:A:OP2	2.09	0.53
27:16:44:G:H1'	27:16:47:C:H42	1.74	0.53
30:21:134:ILE:O	30:21:137:HIS:HB2	2.09	0.53
37:78:124:LYS:HA	37:78:143:GLY:O	2.08	0.53
38:88:116:GLU:O	38:88:120:ILE:HG12	2.07	0.53
48:I8:14:ARG:NH1	61:I8:201:HOH:O	2.40	0.53
1:1G:546:G:OP1	4:32:73:ARG:NH1	2.41	0.53
6:52:15:ASP:OD1	6:52:16:GLN:N	2.42	0.53
26:14:2164:C:H5	26:14:2165:G:H21	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2306:C:H2'	26:14:2307:G:N2	2.23	0.53
26:14:2873:A:C8	39:55:5:LYS:HA	2.44	0.53
29:19:228:PRO:HD3	29:19:234:GLY:O	2.08	0.53
30:29:9:VAL:HG23	30:29:26:ILE:O	2.09	0.53
45:B5:29:TRP:CE3	45:B5:78:LYS:HB3	2.43	0.53
47:D5:40:ASP:OD1	47:D5:42:VAL:N	2.39	0.53
1:13:312:C:H2'	1:13:313:A:H8	1.74	0.53
1:13:445:G:H1	1:13:489:C:H42	1.57	0.53
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.90	0.53
1:13:1417:G:N2	1:13:1482:G:H2'	2.23	0.53
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.09	0.53
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.73	0.53
22:1K:3:G:N2	22:1K:71:C:H1'	2.24	0.53
26:1H:389:G:N1	37:78:71:VAL:HG12	2.24	0.53
26:1H:2450:A:C2	26:1H:2451:A:C4	2.96	0.53
30:21:105:THR:HG23	30:21:166:THR:OG1	2.08	0.53
35:58:96:GLU:C	35:58:98:VAL:H	2.09	0.53
37:78:121:LYS:HB3	37:78:121:LYS:NZ	2.23	0.53
44:E8:12:ILE:HG13	44:E8:42:ARG:HH11	1.73	0.53
45:F8:57:LEU:HD21	45:F8:78:LYS:HG3	1.89	0.53
1:1G:10:A:H2'	1:1G:11:G:C8	2.44	0.53
1:1G:977:A:H2'	1:1G:978:A:H5'	1.90	0.53
4:32:94:LEU:HD11	4:32:200:GLU:OE1	2.08	0.53
26:14:582:G:H2'	26:14:583:G:C8	2.44	0.53
26:14:1057:A:H8	26:14:1086:A:HO2'	1.57	0.53
26:14:1061:U:H4'	26:14:1071:G:H5'	1.91	0.53
26:14:1532:C:H42	26:14:1539:G:H1	1.56	0.53
26:14:2275:C:O2'	38:45:83:MET:HA	2.09	0.53
26:14:2716:U:H2'	26:14:2717:G:C8	2.44	0.53
30:29:68:ALA:C	30:29:70:ALA:H	2.11	0.53
32:49:14:GLU:O	32:49:17:PRO:HG2	2.09	0.53
38:45:57:HIS:CE1	38:45:116:GLU:HG2	2.44	0.53
38:45:85:LYS:HG2	38:45:86:GLY:H	1.74	0.53
39:55:59:ASP:OD1	39:55:62:ALA:N	2.40	0.53
41:75:3:ARG:HG2	41:75:6:LEU:HB2	1.89	0.53
41:75:27:THR:HB	41:75:89:VAL:HG22	1.90	0.53
47:D5:91:LEU:HD12	47:D5:91:LEU:H	1.73	0.53
1:13:271:C:H2'	1:13:272:C:H6	1.72	0.53
1:13:346:G:N2	1:13:347:G:N3	2.57	0.53
1:13:868:C:H2'	1:13:869:G:O4'	2.08	0.53
1:13:1318:A:H2'	1:13:1319:A:H5"	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:215:LEU:HD12	2:1E:218:ALA:HB3	1.89	0.53
4:3E:108:LEU:HD11	4:3E:174:LEU:HD22	1.89	0.53
5:4E:15:ARG:NH1	25:4K:24:A:O3'	2.41	0.53
26:1H:1373:A:OP2	26:1H:1373:A:H8	1.92	0.53
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.92	0.53
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.09	0.53
26:1H:2286:A:H4'	26:1H:2287:A:O5'	2.09	0.53
26:1H:2393:A:O2'	26:1H:2394:C:H5'	2.09	0.53
26:1H:2751:G:C1'	33:51:3:ARG:HD3	2.38	0.53
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.08	0.53
1:1G:1418:A:H2	26:14:1948:G:N3	2.06	0.53
3:22:147:LYS:HB2	3:22:203:PHE:CD2	2.44	0.53
4:32:31:CYS:HB3	4:32:33:MET:HB2	1.89	0.53
4:32:177:ASP:HB2	4:32:182:LYS:HG3	1.91	0.53
7:62:26:PHE:O	7:62:30:ILE:HG13	2.09	0.53
13:4A:61:GLU:CD	13:4A:61:GLU:H	2.04	0.53
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	1.90	0.53
21:1B:2:GLY:HA2	21:1B:10:ARG:NH1	2.24	0.53
26:14:70:G:H21	26:14:71:A:N6	2.06	0.53
26:14:597:U:H2'	26:14:598:G:H8	1.72	0.53
26:14:1450:C:H2'	26:14:1451:C:C6	2.44	0.53
27:1J:80:U:H2'	27:1J:81:G:N2	2.19	0.53
31:39:63:LYS:HE3	31:39:67:GLN:HB2	1.91	0.53
54:L5:29:LYS:HA	54:L5:32:LYS:HB3	1.91	0.53
1:13:626:U:H5"	16:7I:38:TYR:CD2	2.42	0.53
1:13:680:C:H2'	1:13:681:C:C6	2.43	0.53
1:13:967:C:O5'	1:13:967:C:H6	1.92	0.53
1:13:1292:U:H2'	1:13:1293:G:H8	1.73	0.53
2:1E:192:SER:HG	2:1E:193:ASP:H	1.56	0.53
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.41	0.53
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.91	0.53
8:7E:4:ASP:OD2	8:7E:85:ARG:NH1	2.42	0.53
8:7E:87:SER:CB	8:7E:93:VAL:H	2.21	0.53
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.38	0.53
23:2K:6:G:H1	23:2K:68:C:N4	2.04	0.53
26:1H:323:G:C8	31:31:171:PRO:HG3	2.44	0.53
26:1H:660:G:H21	37:78:12:ALA:CB	2.22	0.53
26:1H:1211:U:H4'	26:1H:1212:G:OP2	2.07	0.53
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.24	0.53
26:1H:2437:U:H2'	26:1H:2438:U:H6	1.73	0.53
26:1H:2712:U:H2'	26:1H:2714:G:H5"	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:30:GLU:CD	29:11:63:ARG:HE	2.12	0.53
32:41:67:LYS:H	32:41:67:LYS:HE2	1.74	0.53
34:61:25:TYR:O	34:61:29:TYR:N	2.38	0.53
2:12:189:ASP:HB3	2:12:203:GLY:O	2.09	0.53
2:12:219:VAL:HG23	2:12:221:LEU:H	1.72	0.53
4:32:126:ILE:HG22	4:32:127:THR:H	1.73	0.53
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.73	0.53
16:7A:40:ASP:HB3	16:7A:48:TRP:CB	2.37	0.53
26:14:997:G:H2'	26:14:998:C:H6	1.74	0.53
26:14:1285:G:N2	26:14:1329:U:OP1	2.37	0.53
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.08	0.53
1:13:130:A:O2'	1:13:131:C:O5'	2.26	0.53
26:1H:460:A:H5"	26:1H:461:C:OP2	2.09	0.53
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.09	0.53
28:71:10:LEU:HD23	28:71:32:LEU:O	2.09	0.53
28:71:68:LEU:O	28:71:177:LYS:N	2.41	0.53
32:41:16:ARG:O	32:41:20:ILE:HG13	2.09	0.53
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.09	0.53
40:A8:49:VAL:HG21	40:A8:77:ALA:HA	1.91	0.53
52:M8:37:SER:OG	52:M8:42:PHE:HB3	2.09	0.53
1:1G:198:G:OP2	1:1G:198:G:H8	1.91	0.53
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.09	0.53
2:12:40:HIS:HD2	2:12:190:THR:HG21	1.74	0.53
56:1L:11:C:H2'	56:1L:12:U:H6	1.73	0.53
26:14:1784:A:OP1	61:14:3539:HOH:O	2.19	0.53
26:14:1794:U:H2'	26:14:1795:C:H6	1.74	0.53
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.90	0.53
26:14:2494:G:H2'	26:14:2495:G:H8	1.72	0.53
26:14:2553:G:H2'	26:14:2554:U:O4'	2.08	0.53
34:69:132:PRO:HG2	34:69:134:PRO:HD2	1.89	0.53
35:15:58:ASP:OD1	35:15:58:ASP:N	2.35	0.53
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.91	0.53
50:G5:50:ILE:HD12	50:G5:51:ARG:N	2.16	0.53
1:13:748:C:H6	1:13:748:C:O5'	1.92	0.53
24:3K:5:C:O2	24:3K:68:G:N2	2.41	0.53
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.09	0.53
26:1H:639:U:O2'	26:1H:640:C:H5'	2.08	0.53
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.41	0.53
31:31:197:ASP:O	31:31:199:TRP:N	2.41	0.53
37:78:11:GLY:O	37:78:12:ALA:HB3	2.09	0.53
1:1G:446:G:H2'	1:1G:447:G:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1129:C:C4	1:1G:1139:G:N1	2.77	0.53
26:14:234:C:H2'	26:14:235:U:H6	1.73	0.53
26:14:320:A:H4'	26:14:322:A:C8	2.44	0.53
26:14:872:A:OP1	38:45:5:ARG:NH2	2.40	0.53
26:14:2064:C:H2'	26:14:2065:C:H6	1.74	0.53
29:19:80:ALA:HB3	29:19:94:LEU:HB3	1.91	0.53
29:19:121:PRO:HB3	29:19:135:PHE:CE2	2.44	0.53
30:29:11:MET:HA	30:29:24:THR:HA	1.91	0.53
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.91	0.53
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.91	0.53
5:4E:65:ASN:OD1	5:4E:140:ARG:NH2	2.27	0.53
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.42	0.53
26:1H:118:A:OP2	26:1H:119:A:H2'	2.09	0.53
26:1H:543:C:H42	26:1H:550:G:H1	1.56	0.53
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.41	0.53
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.44	0.53
54:P8:10:ARG:HG2	54:P8:14:LYS:HD3	1.90	0.53
1:1G:355:C:O2'	1:1G:388:G:N3	2.31	0.53
1:1G:946:A:O2'	1:1G:1333:A:N3	2.35	0.53
1:1G:1442:G:C6	1:1G:1446:A:N6	2.77	0.53
10:1A:26:ALA:HB1	10:1A:84:GLN:HB3	1.91	0.53
56:1L:68:G:H2'	56:1L:69:A:N7	2.24	0.53
26:14:1019:U:H2'	26:14:1020:A:H8	1.74	0.53
26:14:1666:G:O6	61:14:3537:HOH:O	2.17	0.53
26:14:2867:G:N7	41:75:23:ARG:NH1	2.57	0.53
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.91	0.53
1:13:664:G:N2	1:13:741:G:H1	2.04	0.52
1:13:1164:G:C6	1:13:1165:C:C4	2.96	0.52
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.09	0.52
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.09	0.52
7:6E:16:LEU:HD22	9:8E:44:VAL:HG22	1.90	0.52
19:AI:20:LEU:HD23	19:AI:23:ASN:HD22	1.74	0.52
26:1H:49:A:N7	26:1H:120:U:C5	2.67	0.52
26:1H:674:G:H1'	31:31:74:ARG:HD3	1.89	0.52
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.24	0.52
26:1H:1653:G:H8	26:1H:1653:G:O5'	1.92	0.52
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.44	0.52
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.44	0.52
26:1H:2473:U:H2'	26:1H:2474:C:H5'	1.90	0.52
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.24	0.52
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:54:GLU:O	55:Q8:58:ILE:HG13	2.08	0.52
1:1G:309:G:O2'	1:1G:607:A:N1	2.39	0.52
1:1G:445:G:H1	1:1G:489:C:H42	1.56	0.52
2:12:93:VAL:HG22	2:12:152:PHE:HB2	1.90	0.52
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.57	0.52
26:14:996:A:N6	26:14:1160:G:C6	2.77	0.52
26:14:1181:C:H2'	26:14:1182:A:C8	2.45	0.52
26:14:2652:C:H42	26:14:2668:G:H1	1.57	0.52
26:14:2820:A:C6	39:55:4:LEU:HD11	2.43	0.52
27:1J:93:C:H2'	27:1J:94:C:H6	1.72	0.52
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.90	0.52
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.13	0.52
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.31	0.52
26:1H:248:G:H5'	26:1H:250:G:N7	2.23	0.52
26:1H:298:G:H5"	26:1H:299:A:OP1	2.09	0.52
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.74	0.52
26:1H:2749:A:OP1	33:51:4:ILE:HG22	2.10	0.52
28:71:49:ILE:HD13	28:71:204:ALA:HB2	1.90	0.52
29:11:35:LYS:HA	29:11:64:ILE:HG22	1.91	0.52
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.91	0.52
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.10	0.52
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.09	0.52
1:1G:78:G:H1	1:1G:91:C:H42	1.57	0.52
1:1G:193:C:H2'	1:1G:194:C:H6	1.75	0.52
2:12:50:GLU:HB2	2:12:199:TYR:HB3	1.91	0.52
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.90	0.52
4:32:24:GLU:HG2	4:32:25:ARG:H	1.74	0.52
11:2A:57:THR:HG22	11:2A:58:PRO:HD2	1.90	0.52
14:5A:9:LYS:HA	14:5A:12:ARG:HD3	1.92	0.52
26:14:320:A:OP1	31:39:135:LYS:NZ	2.43	0.52
26:14:662:G:H5"	37:35:17:LYS:HG2	1.91	0.52
26:14:2147:G:H2'	26:14:2148:G:O4'	2.10	0.52
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.90	0.52
33:59:146:ALA:O	33:59:149:ARG:HG2	2.09	0.52
34:69:14:ASP:O	34:69:17:GLN:HB2	2.10	0.52
39:55:26:LYS:HE2	39:55:70:LEU:O	2.09	0.52
46:C5:52:SER:HA	46:C5:55:TYR:O	2.08	0.52
3:2E:16:ARG:HB2	3:2E:16:ARG:NH1	2.23	0.52
9:8E:53:VAL:HG13	9:8E:92:TYR:CZ	2.45	0.52
24:3K:72:C:C3'	24:3K:73:A:H5"	2.39	0.52
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:527:C:OP2	26:1H:2779:U:H5	1.92	0.52
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.09	0.52
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.42	0.52
26:1H:1683:C:H42	26:1H:1705:G:H1	1.58	0.52
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.74	0.52
28:71:192:PHE:CE2	28:71:196:LEU:HD13	2.45	0.52
35:58:128:HIS:ND1	35:58:129:PRO:O	2.34	0.52
40:A8:106:ARG:HH21	40:A8:107:GLU:HB2	1.73	0.52
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.74	0.52
2:12:155:LEU:HD22	2:12:159:PRO:HD3	1.91	0.52
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.92	0.52
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.08	0.52
20:BA:64:ASP:OD1	20:BA:64:ASP:N	2.42	0.52
26:14:1936:A:C8	26:14:1940:U:O2	2.62	0.52
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.08	0.52
27:1J:31:C:C2'	27:1J:32:C:H5'	2.40	0.52
31:39:57:VAL:HG11	31:39:79:GLY:HA3	1.91	0.52
42:85:8:VAL:O	42:85:12:ARG:HG2	2.09	0.52
43:95:85:LYS:HE3	43:95:88:ARG:H	1.73	0.52
48:E5:47:PRO:HA	48:E5:51:VAL:HG12	1.91	0.52
1:13:266:G:H5"	1:13:267:C:C5	2.44	0.52
1:13:963:G:H21	10:1I:55:LYS:HE2	1.74	0.52
1:13:1014:A:H2	1:13:1219:U:H1'	1.73	0.52
10:1I:26:ALA:C	10:1I:84:GLN:HE21	2.13	0.52
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.91	0.52
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.43	0.52
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.43	0.52
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.90	0.52
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.74	0.52
26:1H:1778:U:H2'	26:1H:1784:A:H62	1.72	0.52
33:51:86:GLU:HG3	33:51:87:LEU:N	2.25	0.52
36:68:73:ASP:OD1	41:B8:32:TYR:OH	2.22	0.52
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.91	0.52
6:52:27:GLN:O	6:52:31:GLU:HG3	2.10	0.52
18:9A:70:ILE:O	18:9A:74:ARG:HD2	2.10	0.52
26:14:1264:G:OP1	53:J5:19:ARG:NH2	2.41	0.52
26:14:2849:U:H4'	26:14:2868:A:C2	2.44	0.52
30:29:73:GLU:O	30:29:73:GLU:HG2	2.09	0.52
38:45:25:ASP:HA	38:45:67:ARG:NH1	2.24	0.52
1:13:682:G:H2'	1:13:683:G:H8	1.75	0.52
1:13:1145:C:H5"	1:13:1146:A:OP1	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.10	0.52
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.74	0.52
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.41	0.52
22:1K:41:A:H2'	22:1K:42:A:H8	1.75	0.52
24:3K:39:U:H2'	24:3K:40:C:H5"	1.92	0.52
26:1H:376:C:OP2	61:1H:3566:HOH:O	2.19	0.52
26:1H:536:A:H2'	26:1H:537:C:C6	2.45	0.52
26:1H:1607:C:H1'	61:1H:3539:HOH:O	2.07	0.52
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.10	0.52
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.10	0.52
34:61:48:GLU:HA	34:61:51:ILE:HB	1.91	0.52
47:H8:6:LYS:HE3	47:H8:8:TYR:HE1	1.74	0.52
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.10	0.52
1:1G:1112:C:C4	3:22:178:LEU:HD12	2.44	0.52
1:1G:1200:C:H5'	1:1G:1201:A:H5'	1.92	0.52
4:32:63:LYS:O	4:32:67:ILE:HG13	2.10	0.52
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.91	0.52
26:14:2210:G:H3'	26:14:2211:G:C5	2.43	0.52
27:1J:40:U:O2	27:1J:43:C:H5"	2.08	0.52
38:45:25:ASP:HB3	38:45:102:VAL:N	2.17	0.52
40:65:13:ARG:HG2	40:65:14:VAL:N	2.24	0.52
40:65:88:ASP:O	40:65:89:ARG:HB3	2.09	0.52
43:95:22:VAL:O	43:95:92:THR:N	2.34	0.52
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.91	0.52
1:13:898:G:HO2'	1:13:900:A:H62	1.56	0.52
1:13:1034:G:H2'	1:13:1034:G:N3	2.25	0.52
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.10	0.52
26:1H:773:U:H5'	29:11:47:GLY:HA3	1.91	0.52
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.74	0.52
29:11:35:LYS:HB2	29:11:63:ARG:HA	1.91	0.52
30:21:55:ASN:OD1	30:21:58:ARG:HD2	2.09	0.52
31:31:23:ASP:N	31:31:23:ASP:OD1	2.43	0.52
1:1G:546:G:P	4:32:72:GLU:HB3	2.49	0.52
1:1G:1213:A:N6	1:1G:1215:G:N3	2.57	0.52
5:42:81:GLU:HB3	5:42:90:VAL:HG22	1.92	0.52
19:AA:66:MET:N	19:AA:67:VAL:HB	2.24	0.52
57:3L:27:G:H1	57:3L:44:U:H3	1.56	0.52
26:14:832:G:H5'	37:35:45:LEU:CD1	2.40	0.52
26:14:1594:G:H2'	26:14:1595:G:C8	2.44	0.52
26:14:2068:U:N3	26:14:2430:A:C2	2.72	0.52
26:14:2082:A:H2'	26:14:2083:G:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2485:G:H5”	38:45:46:GLN:HE21	1.74	0.52
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.89	0.52
1:13:150:C:H2’	1:13:151:A:H8	1.75	0.52
5:4E:71:LEU:HD13	5:4E:114:GLY:HA3	1.92	0.52
8:7E:85:ARG:HD3	8:7E:86:ILE:O	2.10	0.52
11:2I:124:LYS:HD2	11:2I:125:PHE:CE1	2.42	0.52
26:1H:848:G:H2’	26:1H:849:A:C8	2.45	0.52
26:1H:1021:A:H2’	26:1H:1023:U:H5’	1.90	0.52
26:1H:1108:U:C2	26:1H:1109:C:H5	2.28	0.52
26:1H:1945:G:H2’	26:1H:1946:U:C6	2.45	0.52
26:1H:2171:A:H2’	26:1H:2172:U:H6	1.75	0.52
26:1H:2437:U:H2’	26:1H:2438:U:C6	2.44	0.52
26:1H:2729:G:H2’	26:1H:2730:C:C6	2.45	0.52
27:16:90:C:H5’	38:88:18:LYS:HA	1.92	0.52
28:71:10:LEU:HD21	28:71:34:THR:OG1	2.08	0.52
39:98:2:ARG:O	39:98:5:LYS:HB2	2.09	0.52
45:F8:88:LYS:HD2	45:F8:90:GLU:HG2	1.92	0.52
47:H8:77:ASP:OD2	47:H8:80:ARG:HD2	2.10	0.52
50:K8:59:ARG:O	50:K8:62:THR:HG23	2.09	0.52
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.75	0.52
1:1G:922:G:N3	1:1G:1398:A:H2	2.08	0.52
1:1G:1325:C:H2’	1:1G:1326:C:C6	2.45	0.52
2:12:77:ALA:O	2:12:81:VAL:HG23	2.10	0.52
2:12:222:ILE:HD12	2:12:222:ILE:H	1.75	0.52
3:22:11:ARG:CZ	3:22:182:ILE:HD11	2.40	0.52
25:4L:13:A:C2	25:4L:14:A:H1’	2.44	0.52
26:14:270(E):G:H2’	26:14:270(F):U:C6	2.45	0.52
26:14:394:A:H5”	26:14:395:U:OP2	2.09	0.52
26:14:1384:A:N3	26:14:1405:U:H1’	2.24	0.52
26:14:1568:G:P	29:19:63:ARG:HH12	2.32	0.52
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.91	0.52
45:B5:63:LYS:HE3	45:B5:63:LYS:N	2.24	0.52
48:E5:32:ARG:HG2	48:E5:33:ALA:H	1.74	0.52
1:13:127:G:H4’	17:8I:2:PRO:HD2	1.91	0.52
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.92	0.52
12:3I:54:LYS:HD2	12:3I:54:LYS:N	2.24	0.52
24:3K:18:G:N3	24:3K:58:A:N6	2.58	0.52
26:1H:1047:G:H21	26:1H:1110:G:H2’	1.73	0.52
26:1H:2336:A:H61	48:I8:43:THR:CG2	2.23	0.52
29:11:145:VAL:HB	29:11:155:LEU:HB2	1.92	0.52
30:21:38:THR:HG23	30:21:40:GLU:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:117:GLU:OE1	34:61:117:GLU:N	2.41	0.52
42:C8:14:HIS:O	42:C8:18:LEU:HD12	2.09	0.52
45:F8:25:LYS:HA	45:F8:81:VAL:O	2.10	0.52
47:H8:108:PRO:HB3	47:H8:111:VAL:HG22	1.90	0.52
1:1G:509:A:H5'	4:32:54:TYR:HD2	1.74	0.52
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.44	0.52
1:1G:938:A:N3	1:1G:1376:U:O2'	2.33	0.52
2:12:171:ALA:HA	2:12:174:VAL:HG23	1.90	0.52
5:42:99:GLY:O	5:42:117:ASP:HA	2.10	0.52
17:8A:66:SER:OG	17:8A:67:LYS:O	2.28	0.52
23:2L:17:C:H3'	23:2L:18:U:H2'	1.92	0.52
26:14:330:A:H2	26:14:1210:A:O2'	1.93	0.52
26:14:662:G:H5'	37:35:15:ARG:HA	1.90	0.52
26:14:848:G:H2'	26:14:849:A:H8	1.71	0.52
26:14:1449(A):G:C2	26:14:1450:C:C2	2.97	0.52
26:14:2110:G:O2'	26:14:2120:G:H5'	2.10	0.52
26:14:2159:G:N2	26:14:2160:G:H1'	2.24	0.52
26:14:2417:C:H2'	26:14:2418:A:H8	1.75	0.52
26:14:2600:A:H2'	26:14:2601:C:C6	2.45	0.52
26:14:2877:G:OP1	41:75:2:ASN:ND2	2.42	0.52
27:1J:15:A:OP2	27:1J:69:G:N2	2.36	0.52
27:1J:15:A:H5'	27:1J:16:G:H8	1.75	0.52
32:49:36:LYS:HD3	32:49:160:VAL:HG21	1.92	0.52
53:J5:45:VAL:HG22	53:J5:51:TYR:CD1	2.45	0.52
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.24	0.52
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.36	0.52
7:6E:86:GLN:HE22	24:3K:31:A:H2	1.57	0.52
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.75	0.52
23:2K:17:C:OP2	23:2K:18:U:O2'	2.26	0.52
26:1H:860:U:H5	26:1H:917:A:N1	2.07	0.52
26:1H:2209:C:O2	26:1H:2216:G:C2	2.63	0.52
26:1H:2444:G:OP1	31:31:67:GLN:NE2	2.43	0.52
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.92	0.52
45:F8:89:ILE:HG22	45:F8:92:LEU:H	1.74	0.52
1:1G:73:G:H1	1:1G:97:U:H3	1.57	0.52
1:1G:376:G:H1	1:1G:387:U:H3	1.58	0.52
1:1G:1246:C:H2'	1:1G:1247:U:O4'	2.10	0.52
9:82:60:ASP:N	9:82:60:ASP:OD1	2.42	0.52
19:AA:53:ASN:ND2	19:AA:56:GLN:O	2.43	0.52
26:14:38:A:H1'	31:39:48:THR:HB	1.90	0.52
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:71:LEU:H	43:95:86:GLY:HA2	1.72	0.52
43:95:85:LYS:HG3	43:95:87:HIS:H	1.73	0.52
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.92	0.52
1:13:266:G:N2	1:13:269:C:C5	2.79	0.52
1:13:417:C:H2'	1:13:418:C:C6	2.45	0.52
1:13:619:U:H3	4:3E:134:ASP:HB2	1.75	0.52
1:13:1002:G:O6	1:13:1038:C:N4	2.35	0.52
2:1E:55:PHE:HD1	2:1E:58:ILE:HD12	1.75	0.52
3:2E:150:LYS:HG3	3:2E:169:ALA:HB2	1.92	0.52
6:5E:97:PHE:HD2	18:9I:31:LEU:HD11	1.74	0.52
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.91	0.52
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.17	0.52
26:1H:1468:C:H2'	26:1H:1469:A:C8	2.45	0.52
27:16:100:G:OP2	61:16:305:HOH:O	2.19	0.52
29:11:126:GLN:HG2	29:11:127:VAL:N	2.24	0.52
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.91	0.52
47:H8:15:PRO:HB2	47:H8:19:ARG:HH21	1.73	0.52
49:J8:14:VAL:HG22	49:J8:41:ARG:HD2	1.90	0.52
53:N8:46:CYS:HB2	53:N8:48:GLU:O	2.10	0.52
1:1G:1262:C:N4	1:1G:1273:G:H1	2.05	0.52
11:2A:87:THR:O	11:2A:87:THR:OG1	2.23	0.52
26:14:278:A:OP2	26:14:278:A:H2'	2.10	0.52
26:14:863:A:H2'	26:14:864:G:H8	1.75	0.52
26:14:1247:A:O2'	26:14:1248:G:H5"	2.10	0.52
26:14:2250:G:N2	38:45:82:ARG:HB3	2.25	0.52
33:59:6:ARG:HB2	33:59:65:HIS:ND1	2.25	0.52
1:13:474:G:H5"	16:7I:81:ARG:NE	2.25	0.51
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.91	0.51
13:4I:15:VAL:O	13:4I:19:LEU:HD23	2.09	0.51
26:1H:2588:G:P	61:1H:3596:HOH:O	2.68	0.51
29:11:3:VAL:HG12	29:11:17:THR:HG23	1.92	0.51
32:41:98:ARG:HE	52:M8:1:MET:HE1	1.75	0.51
33:51:38:SER:OG	33:51:40:GLU:OE2	2.27	0.51
40:A8:87:PHE:CE2	40:A8:102:ALA:HB2	2.45	0.51
47:H8:15:PRO:O	47:H8:19:ARG:HB2	2.09	0.51
48:I8:31:VAL:HG11	48:I8:37:LEU:HD21	1.91	0.51
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.42	0.51
1:1G:660:G:N7	61:1G:1712:HOH:O	2.34	0.51
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.32	0.51
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.92	0.51
26:14:654(C):G:N2	26:14:654(R):C:O2'	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:813:U:H2'	26:14:814:C:C6	2.44	0.51
26:14:1050:A:C2	26:14:2751:G:H2'	2.45	0.51
26:14:2076:U:H5	26:14:2596:U:O2	1.93	0.51
26:14:2126:A:N6	26:14:2163:C:O2	2.42	0.51
26:14:2210:G:OP1	29:19:68:LYS:NZ	2.43	0.51
26:14:2392:A:C8	37:35:61:ARG:HD2	2.45	0.51
26:14:2439:A:O2'	26:14:2440:C:OP2	2.26	0.51
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.43	0.51
34:69:79:ILE:HG13	34:69:140:LEU:HD11	1.91	0.51
44:A5:86:LEU:HD12	44:A5:87:PRO:HD2	1.91	0.51
46:C5:43:ASN:HB2	46:C5:62:GLU:O	2.10	0.51
1:13:234:C:H2'	1:13:235:C:H6	1.75	0.51
1:13:491:G:H2'	1:13:492:G:H8	1.74	0.51
1:13:1028(B):C:H1'	1:13:1032:A:H62	1.75	0.51
1:13:1194:U:H2'	1:13:1195:C:C6	2.45	0.51
5:4E:41:VAL:HG22	5:4E:113:ALA:HB2	1.92	0.51
5:4E:63:ARG:HB2	5:4E:64:ARG:HH12	1.75	0.51
7:6E:23:VAL:O	7:6E:27:ILE:HG12	2.10	0.51
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.39	0.51
14:5I:4:LYS:HA	14:5I:7:ILE:HD11	1.92	0.51
26:1H:530:G:C5	26:1H:2022:U:H5"	2.45	0.51
26:1H:547:A:HO2'	26:1H:548:A:H8	1.56	0.51
31:31:164:ARG:HG2	31:31:164:ARG:HH11	1.74	0.51
34:61:128:LEU:HB2	34:61:138:ILE:HG22	1.93	0.51
40:A8:74:ALA:HB1	40:A8:108:GLY:HA3	1.92	0.51
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.92	0.51
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.91	0.51
48:I8:38:VAL:HG12	48:I8:40:GLN:HG2	1.91	0.51
48:I8:68:GLU:HG3	48:I8:80:HIS:HB2	1.90	0.51
52:M8:40:HIS:ND1	52:M8:43:TYR:O	2.43	0.51
1:1G:50:A:N1	1:1G:360:A:O2'	2.34	0.51
1:1G:474:G:H2'	1:1G:475:G:C8	2.45	0.51
1:1G:600:C:H2'	1:1G:601:C:H6	1.74	0.51
1:1G:828:A:H2'	1:1G:829:G:O4'	2.09	0.51
1:1G:980:C:H5"	1:1G:981:U:C5	2.45	0.51
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.09	0.51
26:14:960:A:C8	26:14:962:G:C8	2.99	0.51
26:14:1204:A:O2'	26:14:1205:U:OP2	2.28	0.51
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.43	0.51
26:14:2156:G:H2'	26:14:2157:G:H5'	1.91	0.51
26:14:2413:G:H21	37:35:70:GLN:HE22	1.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:7:LYS:HG2	29:19:8:PRO:HD2	1.91	0.51
37:35:79:ARG:O	37:35:110:TYR:HB3	2.09	0.51
51:H5:9:VAL:HG22	51:H5:53:LEU:O	2.10	0.51
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	1.91	0.51
1:13:147:G:H1	1:13:175:C:H42	1.58	0.51
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.43	0.51
1:13:859:A:H2'	1:13:860:A:C8	2.45	0.51
1:13:994:A:H2'	1:13:994:A:N3	2.26	0.51
1:13:1179:A:H2'	1:13:1180:A:O4'	2.09	0.51
17:8I:100:LYS:HG2	17:8I:101:ARG:HD3	1.91	0.51
26:1H:1639:U:C2'	26:1H:1640:C:H5"	2.39	0.51
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.11	0.51
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.11	0.51
30:21:182:LEU:HD12	30:21:183:LEU:N	2.25	0.51
47:H8:109:ALA:HB3	47:H8:142:SER:O	2.11	0.51
1:1G:433:C:H2'	1:1G:434:U:C6	2.45	0.51
1:1G:512:U:H3	1:1G:539:A:H61	1.58	0.51
1:1G:985:C:H2'	1:1G:986:A:C8	2.45	0.51
2:12:58:ILE:HD13	2:12:219:VAL:CG2	2.40	0.51
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	1.92	0.51
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.92	0.51
26:14:945:A:OP1	61:14:3541:HOH:O	2.19	0.51
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.29	0.51
33:59:56:SER:HB3	33:59:61:HIS:CD2	2.45	0.51
1:13:61:G:H1	1:13:106:C:H42	1.57	0.51
1:13:224:C:H2'	1:13:225:C:C6	2.45	0.51
1:13:814:A:N7	1:13:816:A:C4	2.78	0.51
1:13:1016:A:H2'	1:13:1017:G:O4'	2.10	0.51
1:13:1313:U:O4	19:AI:3:ARG:HA	2.11	0.51
5:4E:145:LYS:O	5:4E:149:GLU:HG2	2.10	0.51
10:1I:27:ALA:HB2	10:1I:85:LEU:HD21	1.93	0.51
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	1.92	0.51
22:1K:18:G:N7	26:1H:881:G:N2	2.59	0.51
26:1H:833:U:O2	37:78:55:ARG:NH2	2.42	0.51
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.09	0.51
26:1H:2162:G:H2'	26:1H:2163:C:O4'	2.10	0.51
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.75	0.51
28:71:225:ASN:HB2	28:71:228:SER:H	1.76	0.51
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.11	0.51
45:F8:50:LYS:HB3	45:F8:84:ALA:HB2	1.92	0.51
20:BA:72:LEU:HD11	20:BA:80:ARG:HH21	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:28:A:C5	26:14:29:U:C5	2.98	0.51
26:14:302:C:P	46:C5:81:LYS:HZ2	2.33	0.51
26:14:1444(A):A:HO2'	26:14:1445:C:P	2.33	0.51
26:14:2103:C:H2'	26:14:2104:G:C8	2.45	0.51
27:1J:88:C:H5"	27:1J:89:G:C6	2.46	0.51
34:69:78:THR:O	34:69:80:PRO:HD3	2.11	0.51
1:13:1137:C:H1'	1:13:1138:G:C2	2.46	0.51
1:13:1330:U:H4'	13:4I:23:TYR:HE1	1.76	0.51
2:1E:21:ARG:HB2	2:1E:39:ILE:HD13	1.93	0.51
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.91	0.51
22:1K:49:G:H8	22:1K:49:G:OP1	1.94	0.51
26:1H:695:G:OP1	26:1H:1380:G:O2'	2.28	0.51
26:1H:882:G:O6	26:1H:893:C:N4	2.44	0.51
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.41	0.51
26:1H:992:C:H2'	26:1H:993:G:H8	1.76	0.51
26:1H:1604:C:OP1	61:1H:3567:HOH:O	2.19	0.51
26:1H:1790:C:H5"	26:1H:1791:A:OP1	2.11	0.51
26:1H:2510:C:H2'	26:1H:2511:U:C6	2.46	0.51
29:11:79:VAL:HG21	29:11:111:LEU:HD13	1.91	0.51
32:41:59:GLU:O	32:41:63:ILE:HG23	2.11	0.51
37:78:37:GLY:N	37:78:40:SER:OG	2.44	0.51
41:B8:13:ARG:HB3	41:B8:13:ARG:HH11	1.75	0.51
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.07	0.51
49:J8:50:ARG:HB3	49:J8:59:THR:HG23	1.92	0.51
55:Q8:6:THR:HG23	55:Q8:64:TYR:HD2	1.75	0.51
1:1G:229:U:H2'	1:1G:230:G:C8	2.46	0.51
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.46	0.51
1:1G:1468:A:H5"	1:1G:1469:G:OP2	2.10	0.51
2:12:19:HIS:NE2	2:12:204:ASN:HB3	2.26	0.51
4:32:59:ARG:HH21	4:32:66:ARG:NH1	2.07	0.51
5:42:61:TYR:HA	5:42:64:ARG:HB2	1.93	0.51
26:14:71:A:C2	45:B5:31:HIS:CE1	2.94	0.51
26:14:587:C:O2	37:35:33:ARG:NH1	2.44	0.51
26:14:749:C:OP2	61:14:3538:HOH:O	2.19	0.51
26:14:1104:C:H2'	26:14:1105:U:C6	2.46	0.51
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.40	0.51
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.24	0.51
1:13:1025:U:H5'	1:13:1026:G:H5'	1.93	0.51
7:6E:22:LEU:HD13	7:6E:62:PHE:CE2	2.46	0.51
22:1K:76:A:C8	26:1H:2507:C:H1'	2.46	0.51
26:1H:192:C:P	61:1H:3615:HOH:O	2.67	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1000:A:N6	26:1H:1154:G:O2'	2.43	0.51
26:1H:1052:C:H2'	26:1H:1108:U:H3	1.75	0.51
29:11:32:SER:HA	29:11:35:LYS:HZ3	1.75	0.51
31:31:198:ALA:O	31:31:201:VAL:HG12	2.10	0.51
32:41:33:ARG:O	32:41:162:THR:HG23	2.11	0.51
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.46	0.51
1:1G:370:C:C2	1:1G:392:G:N2	2.79	0.51
1:1G:371:G:H1	1:1G:390:C:H42	1.59	0.51
4:32:108:LEU:HD13	4:32:174:LEU:HB3	1.92	0.51
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.93	0.51
26:14:636:G:O2'	26:14:638:G:O2'	2.22	0.51
26:14:1021:A:H8	26:14:1021:A:H3'	1.76	0.51
26:14:1069:A:H3'	26:14:1073:A:H5"	1.93	0.51
26:14:1416:G:H2'	26:14:1417:C:C6	2.45	0.51
26:14:1678:G:N2	26:14:1989:G:N2	2.56	0.51
26:14:1826:G:H2'	26:14:1827:C:H6	1.75	0.51
26:14:2734:A:H2'	26:14:2735:G:O4'	2.10	0.51
30:29:23:VAL:HA	30:29:184:VAL:O	2.10	0.51
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.93	0.51
1:13:454:C:H41	1:13:478:A:H2	1.57	0.51
1:13:1149:C:H2'	1:13:1150:U:C6	2.46	0.51
5:4E:10:MET:HE3	5:4E:13:ILE:HD13	1.93	0.51
26:1H:732:C:H3'	61:1H:3517:HOH:O	2.11	0.51
26:1H:1444:G:C2	26:1H:1548:C:N3	2.79	0.51
26:1H:2291:U:H5"	26:1H:2380:C:O2	2.11	0.51
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.41	0.51
29:11:34:VAL:C	29:11:35:LYS:HZ2	2.13	0.51
30:21:2:LYS:HD2	30:21:95:ILE:HG13	1.93	0.51
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.93	0.51
47:H8:44:PHE:HE2	47:H8:86:VAL:HG11	1.75	0.51
49:J8:93:GLU:CD	49:J8:94:LEU:H	2.12	0.51
50:K8:47:ASN:C	50:K8:49:LYS:H	2.12	0.51
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.51
26:14:141:A:OP2	26:14:141(A):C:N4	2.43	0.51
26:14:1593:G:H2'	26:14:1594:G:H8	1.72	0.51
26:14:1636:C:H2'	26:14:1637:A:C8	2.46	0.51
26:14:2006:C:O2'	26:14:2823:A:N3	2.44	0.51
26:14:2022:U:O2'	26:14:2617:C:H5'	2.10	0.51
31:39:114:VAL:HG11	31:39:202:PHE:CZ	2.44	0.51
38:45:102:VAL:O	38:45:102:VAL:HG12	2.11	0.51
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:48:PHE:O	47:D5:52:SER:HB3	2.09	0.51
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.45	0.51
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.42	0.51
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.76	0.51
26:1H:988:A:P	51:L8:11:SER:HB2	2.50	0.51
26:1H:996:A:H4'	42:C8:92:ARG:NE	2.26	0.51
26:1H:1359:A:C2	26:1H:1372:U:N3	2.77	0.51
30:21:52:LEU:O	30:21:75:VAL:HG23	2.10	0.51
34:61:1:MET:HB3	34:61:21:VAL:O	2.11	0.51
34:61:11:ASN:O	34:61:12:LEU:HB2	2.10	0.51
41:B8:51:ARG:HB2	41:B8:98:LYS:HD3	1.92	0.51
52:M8:15:ILE:HD11	52:M8:32:TYR:CE1	2.46	0.51
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.44	0.51
1:1G:1446:A:N3	41:75:118:ARG:HD2	2.26	0.51
1:1G:1446:A:C2	41:75:118:ARG:HD2	2.46	0.51
2:12:125:PRO:C	2:12:127:ILE:H	2.14	0.51
4:32:117:ALA:O	4:32:121:VAL:HG23	2.10	0.51
4:32:168:ARG:HH11	4:32:169:LYS:H	1.56	0.51
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.92	0.51
23:2L:24:C:H2'	23:2L:25:U:H6	1.76	0.51
57:3L:15:G:H2'	57:3L:59:A:N1	2.26	0.51
26:14:528:A:C2	26:14:2042:A:H2'	2.45	0.51
26:14:1190:G:OP1	37:35:32:THR:HA	2.10	0.51
26:14:2232:U:P	49:F5:40:ARG:HH22	2.33	0.51
26:14:2480:C:H2'	26:14:2481:G:H5'	1.93	0.51
31:39:7:TYR:CD1	31:39:18:ARG:HB3	2.46	0.51
37:35:132:LYS:HE3	37:35:135:LEU:HD11	1.92	0.51
1:13:339:C:OP2	36:68:97:ARG:HD3	2.11	0.51
5:4E:100:VAL:HG22	5:4E:118:ILE:HG22	1.92	0.51
8:7E:51:VAL:HG11	8:7E:60:ARG:HD2	1.93	0.51
22:1K:53:G:H1	22:1K:61:C:N4	2.07	0.51
25:4K:13:A:H2'	25:4K:14:A:O4'	2.11	0.51
26:1H:616:A:C4	31:31:180:GLY:HA2	2.46	0.51
26:1H:1680:U:O2'	26:1H:1763:G:N7	2.31	0.51
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.44	0.51
26:1H:2068:U:N3	26:1H:2430:A:C2	2.72	0.51
26:1H:2683:C:O2	36:68:70:LYS:HE3	2.10	0.51
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.93	0.51
31:31:184:TYR:O	31:31:188:ARG:HG3	2.10	0.51
41:B8:50:ILE:O	41:B8:99:LEU:HD12	2.10	0.51
48:I8:41:ARG:NE	48:I8:41:ARG:HA	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:486:U:H2'	1:1G:487:A:C8	2.45	0.51
1:1G:801:U:H2'	1:1G:802:A:H8	1.74	0.51
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.93	0.51
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.10	0.51
56:1L:5:C:H42	56:1L:68:G:H1	1.59	0.51
25:4L:13:A:N3	25:4L:14:A:H1'	2.25	0.51
26:14:259:G:O2'	26:14:621:A:O2'	2.04	0.51
26:14:1665:A:H4'	36:25:67:LYS:HB2	1.93	0.51
26:14:1796:U:H2'	26:14:1797:C:C6	2.46	0.51
26:14:2393:A:H4'	37:35:62:LEU:O	2.10	0.51
26:14:2791:C:N4	26:14:2802:G:O6	2.44	0.51
26:14:2791:C:O2'	26:14:2792:G:O5'	2.27	0.51
26:14:2791:C:HO2'	26:14:2792:G:P	2.34	0.51
32:49:116:ASP:HB3	32:49:118:ARG:HH12	1.76	0.51
34:69:92:VAL:HB	34:69:120:ILE:HB	1.92	0.51
1:13:200:G:N2	1:13:218:C:C2	2.79	0.51
1:13:264:U:O2	17:8I:64:PRO:HG2	2.12	0.51
7:6E:91:VAL:O	7:6E:96:GLN:NE2	2.40	0.51
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.76	0.51
11:2I:107:SER:O	11:2I:108:ILE:HG13	2.11	0.51
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.11	0.51
26:1H:660:G:H21	37:78:12:ALA:HB2	1.76	0.51
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.10	0.51
32:41:73:ALA:HA	32:41:88:ILE:HD11	1.93	0.51
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.46	0.51
48:I8:36:ILE:O	48:I8:36:ILE:HD13	2.11	0.51
1:1G:688:G:H2'	1:1G:689:C:H6	1.76	0.51
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.46	0.51
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.75	0.51
8:72:9:MET:HG3	8:72:26:VAL:HG21	1.93	0.51
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.11	0.51
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.93	0.51
26:14:918:A:H5"	27:1J:97:G:O2'	2.11	0.51
26:14:1204:A:C2	26:14:1241:A:N1	2.78	0.51
27:1J:115:G:H8	27:1J:115:G:OP2	1.94	0.51
43:95:15:GLU:HG3	43:95:16:PRO:HD2	1.93	0.51
1:13:46:G:H2'	1:13:366:C:C5	2.46	0.50
1:13:381:C:H2'	1:13:382:A:O4'	2.11	0.50
9:8E:50:LEU:HD22	9:8E:55:ALA:HB3	1.93	0.50
10:1I:27:ALA:HB2	10:1I:85:LEU:HD11	1.92	0.50
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:53:HIS:ND1	15:6I:53:HIS:O	2.43	0.50
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.31	0.50
26:1H:37:C:O2'	26:1H:38:A:H5'	2.12	0.50
26:1H:569:U:H5"	26:1H:821:A:C2	2.46	0.50
26:1H:585:G:H3'	61:1H:3512:HOH:O	2.11	0.50
26:1H:736:C:O5'	26:1H:736:C:H6	1.94	0.50
26:1H:2054:A:H5"	26:1H:2055:C:O5'	2.11	0.50
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.46	0.50
26:1H:2470:G:H5'	38:88:56:ARG:NH2	2.26	0.50
29:11:40:THR:HG23	29:11:41:GLY:N	2.26	0.50
35:58:12:ARG:HG2	35:58:13:TRP:N	2.26	0.50
36:68:28:SER:OG	36:68:29:ASN:N	2.43	0.50
37:78:83:VAL:CG1	37:78:112:LEU:HD21	2.41	0.50
1:1G:17:U:H2'	1:1G:18:C:C6	2.46	0.50
1:1G:104:G:H2'	1:1G:105:G:H5"	1.91	0.50
1:1G:1163:C:H2'	1:1G:1164:G:C8	2.46	0.50
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.30	0.50
26:14:123:G:O6	61:14:3542:HOH:O	2.19	0.50
26:14:247:G:H4'	26:14:386:G:C5	2.46	0.50
26:14:520:G:H2'	26:14:521:G:C8	2.46	0.50
26:14:909:A:O2'	26:14:910:A:H5"	2.11	0.50
26:14:942:G:H4'	26:14:1190:G:H5'	1.93	0.50
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.46	0.50
29:19:242:ARG:HH11	29:19:242:ARG:HG2	1.76	0.50
30:29:11:MET:SD	30:29:24:THR:HG22	2.51	0.50
30:29:167:VAL:HG11	30:29:189:PRO:HD3	1.92	0.50
51:H5:5:LYS:HD3	51:H5:34:GLU:OE2	2.11	0.50
4:3E:173:TRP:CE3	4:3E:193:ASP:HB3	2.47	0.50
5:4E:33:VAL:HG22	5:4E:43:LEU:HD12	1.93	0.50
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.38	0.50
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.94	0.50
26:1H:674:G:C1'	31:31:74:ARG:HD3	2.42	0.50
26:1H:937:U:H2'	26:1H:938:G:O4'	2.11	0.50
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.76	0.50
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.46	0.50
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.47	0.50
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.75	0.50
40:A8:33:LYS:HB3	40:A8:34:HIS:CD2	2.47	0.50
1:1G:980:C:H3'	1:1G:981:U:C6	2.46	0.50
1:1G:1157:A:C8	1:1G:1158:C:H5	2.28	0.50
1:1G:1346:A:N1	1:1G:1374:A:H5"	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:6:HIS:CD2	3:22:7:PRO:HD2	2.46	0.50
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.92	0.50
13:4A:11:ARG:HG2	13:4A:12:ASN:H	1.76	0.50
26:14:118:A:N3	26:14:178:G:H1'	2.27	0.50
26:14:140:A:C8	26:14:1408:C:O2'	2.63	0.50
26:14:223:A:O2'	26:14:420:C:O2	2.27	0.50
26:14:616:A:C8	31:39:176:LEU:HD11	2.46	0.50
26:14:920:G:H2'	26:14:921:G:C8	2.45	0.50
26:14:1180:C:H2'	26:14:1181:C:C6	2.47	0.50
32:49:173:LEU:HD22	32:49:178:PHE:CE2	2.46	0.50
34:69:4:ILE:HD11	34:69:39:ALA:HA	1.94	0.50
45:B5:51:VAL:HG13	45:B5:81:VAL:CG2	2.41	0.50
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.26	0.50
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.46	0.50
1:13:1145:C:H4'	1:13:1146:A:H8	1.75	0.50
1:13:1240:U:OP2	7:6E:116:ALA:N	2.38	0.50
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.94	0.50
8:7E:95:VAL:HG22	8:7E:96:GLY:O	2.10	0.50
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	1.93	0.50
26:1H:259:G:H21	26:1H:621:A:H8	1.59	0.50
26:1H:722:A:H2'	26:1H:723:G:C8	2.45	0.50
26:1H:1638:C:O2	26:1H:2698:U:O2'	2.23	0.50
26:1H:1899:G:N2	26:1H:1902:C:H41	2.09	0.50
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.76	0.50
29:11:41:GLY:C	29:11:43:ARG:H	2.15	0.50
31:31:198:ALA:O	31:31:201:VAL:N	2.45	0.50
41:B8:20:PRO:HG2	41:B8:86:ILE:O	2.12	0.50
1:1G:350:G:H5'	1:1G:351:G:OP2	2.11	0.50
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.11	0.50
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.76	0.50
13:4A:14:ARG:HA	13:4A:43:THR:O	2.12	0.50
26:14:448:U:C4	26:14:583:G:H1'	2.46	0.50
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.47	0.50
26:14:831:G:OP1	61:14:3544:HOH:O	2.20	0.50
26:14:839:U:H2'	26:14:840:C:C6	2.46	0.50
26:14:1010:A:N3	26:14:1153:C:H1'	2.26	0.50
26:14:2124:G:N2	26:14:2175:C:O2	2.44	0.50
26:14:2171:A:H8	26:14:2172:U:H5"	1.76	0.50
26:14:2360:A:H2'	26:14:2361:A:O4'	2.12	0.50
40:65:14:VAL:HG11	40:65:89:ARG:NH1	2.26	0.50
1:13:1497:G:C2'	1:13:1498:U:H5'	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:48:TYR:OH	3:2E:122:GLU:OE2	2.28	0.50
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.12	0.50
22:1K:41:A:H2'	22:1K:42:A:C8	2.46	0.50
26:1H:138:G:H5"	26:1H:139:G:OP2	2.11	0.50
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.11	0.50
26:1H:1652:A:C2'	26:1H:1653:G:H5'	2.41	0.50
26:1H:2287:A:H2	26:1H:2346:A:C2	2.27	0.50
40:A8:58:LEU:HD12	40:A8:68:GLN:OE1	2.11	0.50
42:C8:90:VAL:HB	43:D8:39:LEU:HB3	1.94	0.50
46:G8:34:LYS:O	46:G8:34:LYS:HG2	2.11	0.50
1:1G:166:G:H2'	1:1G:167:G:C8	2.46	0.50
1:1G:229:U:H2'	1:1G:230:G:H8	1.76	0.50
1:1G:464:G:H1'	1:1G:468:A:H61	1.76	0.50
1:1G:513:C:H2'	1:1G:514:C:H6	1.76	0.50
1:1G:564:C:O2'	8:72:91:ARG:NH1	2.36	0.50
1:1G:757:U:O2'	1:1G:879:C:O2	2.24	0.50
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.12	0.50
3:22:11:ARG:HB3	3:22:15:THR:HB	1.93	0.50
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.92	0.50
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.76	0.50
26:14:856:C:H2'	26:14:857:C:H6	1.77	0.50
26:14:1657:C:H2'	26:14:1658:C:C6	2.46	0.50
26:14:2862:G:H2'	26:14:2863:C:C6	2.46	0.50
30:29:105:THR:HG21	30:29:164:ARG:HH21	1.76	0.50
1:13:324:G:N1	1:13:327:A:OP2	2.41	0.50
1:13:1128:C:H2'	1:13:1139:G:O6	2.12	0.50
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	1.93	0.50
3:2E:147:LYS:HB3	3:2E:203:PHE:HD2	1.76	0.50
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.11	0.50
7:6E:80:VAL:HG22	7:6E:85:TYR:HE1	1.76	0.50
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.93	0.50
9:8E:114:TYR:CE2	10:1I:59:SER:HA	2.47	0.50
11:2I:124:LYS:HB2	11:2I:125:PHE:CD1	2.47	0.50
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.47	0.50
18:9I:37:VAL:HG12	18:9I:41:LYS:HE3	1.92	0.50
26:1H:71:A:OP1	26:1H:72:U:H2'	2.12	0.50
26:1H:270(J):G:H1	26:1H:270(P):C:N4	2.00	0.50
26:1H:607:U:OP1	31:31:102:PRO:HA	2.12	0.50
26:1H:768:G:N2	26:1H:1379:A:O2'	2.45	0.50
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.77	0.50
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2199:A:H3'	26:1H:2205:C:C6	2.46	0.50
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.47	0.50
26:1H:2751:G:N3	33:51:3:ARG:HD3	2.26	0.50
29:11:30:GLU:OE1	29:11:63:ARG:NE	2.29	0.50
29:11:96:HIS:NE2	29:11:102:LYS:HE2	2.27	0.50
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.93	0.50
42:C8:58:ARG:HH11	42:C8:93:LYS:NZ	2.09	0.50
46:G8:54:LYS:HE2	46:G8:55:TYR:CZ	2.46	0.50
52:M8:15:ILE:HD11	52:M8:32:TYR:CD1	2.46	0.50
1:1G:8:A:N6	4:32:209:ARG:HB2	2.26	0.50
1:1G:49:U:C2	1:1G:361:G:N2	2.80	0.50
1:1G:297:G:N2	1:1G:300:A:OP2	2.39	0.50
1:1G:359:U:H2'	1:1G:360:A:C8	2.46	0.50
1:1G:630:G:H5'	1:1G:631:G:OP2	2.11	0.50
26:14:308:G:H5"	26:14:309:G:OP2	2.11	0.50
26:14:2261:C:C5	48:E5:16:SER:HB3	2.46	0.50
26:14:2383:G:O2'	26:14:2384:G:H5'	2.11	0.50
26:14:2400:G:H2'	26:14:2401:U:H6	1.77	0.50
26:14:2576:G:O2'	26:14:2579:C:OP2	2.23	0.50
29:19:85:ASP:HB2	29:19:92:ILE:HD13	1.93	0.50
36:25:73:ASP:OD1	36:25:73:ASP:N	2.39	0.50
39:55:101:ALA:HA	53:J5:44:THR:HG21	1.94	0.50
1:13:791:G:C6	1:13:792:A:C2	3.00	0.50
8:7E:82:HIS:O	8:7E:137:VAL:HA	2.11	0.50
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.11	0.50
16:7I:35:LYS:HE2	16:7I:37:GLY:O	2.11	0.50
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.94	0.50
17:8I:59:ILE:HG22	17:8I:73:VAL:HA	1.94	0.50
22:1K:75:C:O2	26:1H:2507:C:O2'	2.27	0.50
26:1H:302:C:H2'	26:1H:303:U:C6	2.46	0.50
26:1H:311:A:C6	26:1H:328:U:C4	2.99	0.50
26:1H:994:C:OP2	42:C8:54:LYS:NZ	2.44	0.50
26:1H:1170:G:H2'	26:1H:1171:G:H5'	1.94	0.50
26:1H:1210:A:H5"	26:1H:1212:G:O4'	2.11	0.50
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.76	0.50
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.41	0.50
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.37	0.50
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.77	0.50
27:16:44:G:H1'	27:16:47:C:N4	2.26	0.50
32:41:46:ALA:HB1	32:41:49:ASP:O	2.12	0.50
37:78:82:GLY:HA2	37:78:113:LYS:O	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:115:LEU:HA	37:78:134:ALA:CB	2.41	0.50
39:98:87:TYR:HE1	39:98:117:VAL:HG12	1.75	0.50
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.42	0.50
42:C8:28:ARG:NH1	42:C8:38:THR:OG1	2.43	0.50
49:J8:15:ALA:O	49:J8:40:ARG:HG2	2.11	0.50
1:1G:601:C:H2'	1:1G:602:A:C8	2.47	0.50
1:1G:651:C:H2'	1:1G:652:U:C6	2.47	0.50
1:1G:977:A:O2'	1:1G:981:U:N3	2.44	0.50
1:1G:1113:C:H2'	1:1G:1114:C:C6	2.47	0.50
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.75	0.50
4:32:108:LEU:HA	4:32:170:VAL:HG11	1.93	0.50
18:9A:74:ARG:NH1	18:9A:81:PHE:HA	2.26	0.50
26:14:110:G:C2	26:14:111:A:C8	2.99	0.50
26:14:329:G:O6	46:C5:19:LYS:HE2	2.11	0.50
29:19:71:ASP:N	29:19:71:ASP:OD1	2.43	0.50
29:19:273:ARG:O	29:19:273:ARG:HG2	2.11	0.50
33:59:149:ARG:NH1	33:59:162:ILE:O	2.45	0.50
34:69:101:LEU:HD23	34:69:101:LEU:H	1.77	0.50
37:35:121:LYS:HG2	37:35:123:LEU:HG	1.94	0.50
38:45:98:LYS:HB3	38:45:99:PRO:HD2	1.93	0.50
1:13:351:G:H4'	1:13:352:C:OP1	2.10	0.50
1:13:477:G:H2'	1:13:478:A:C8	2.46	0.50
1:13:1273:G:H3'	1:13:1274:G:C8	2.46	0.50
1:13:1449:C:O2'	1:13:1451:A:N6	2.45	0.50
2:1E:17:PHE:HB2	2:1E:41:ILE:HG22	1.94	0.50
8:7E:8:ASP:OD2	8:7E:12:ARG:HD2	2.11	0.50
13:4I:3:ARG:NH2	13:4I:9:ILE:HD11	2.26	0.50
26:1H:265:A:H8	26:1H:266:G:H1'	1.76	0.50
26:1H:764:A:N3	29:11:213:ARG:HD3	2.26	0.50
26:1H:1322:A:N1	26:1H:1333:C:O2'	2.36	0.50
26:1H:1889:A:H2'	26:1H:1890:A:C8	2.47	0.50
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.46	0.50
32:41:150:ASP:OD1	32:41:153:ARG:NH2	2.40	0.50
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.94	0.50
38:88:35:VAL:HG13	38:88:130:LYS:HB3	1.94	0.50
39:98:14:SER:OG	39:98:15:SER:N	2.44	0.50
40:A8:101:LEU:HD12	40:A8:101:LEU:O	2.12	0.50
47:H8:30:ASN:OD1	47:H8:33:LEU:HD23	2.12	0.50
1:1G:895:G:H2'	1:1G:896:C:C6	2.47	0.50
2:12:114:ARG:HG3	2:12:118:LEU:HD12	1.93	0.50
13:4A:84:ILE:HG23	19:AA:74:PHE:HE1	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.27	0.50
26:14:29:U:H2'	26:14:30:G:C8	2.47	0.50
32:49:20:ILE:HA	32:49:25:TYR:HD2	1.77	0.50
1:13:405:U:OP2	4:3E:3:ARG:NH2	2.45	0.50
1:13:491:G:H2'	1:13:492:G:C8	2.47	0.50
1:13:1412:C:H2'	1:13:1413:A:C8	2.46	0.50
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.93	0.50
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.76	0.50
15:6I:82:ILE:HG22	15:6I:83:GLU:N	2.26	0.50
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.11	0.50
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.26	0.50
22:1K:1:G:H2'	22:1K:2:G:O4'	2.12	0.50
26:1H:770:G:OP2	61:1H:3560:HOH:O	2.17	0.50
26:1H:953:A:OP2	38:88:16:ARG:NH1	2.45	0.50
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.42	0.50
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.21	0.50
26:1H:2402:C:H5	26:1H:2415:G:H22	1.59	0.50
39:98:103:ARG:HH12	39:98:110:PRO:HD3	1.76	0.50
50:K8:37:PHE:O	50:K8:41:ILE:HG22	2.11	0.50
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.47	0.50
1:1G:1053:G:N7	1:1G:1199:U:H3'	2.26	0.50
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.80	0.50
20:BA:11:SER:HA	20:BA:13:LEU:H	1.75	0.50
26:14:55:G:H2'	26:14:56:A:C8	2.47	0.50
26:14:1059:G:H2'	26:14:1060:U:C5	2.46	0.50
26:14:2107:C:H2'	26:14:2108:C:O4'	2.11	0.50
26:14:2165:G:H3'	26:14:2166:G:H5'	1.93	0.50
26:14:2190:G:H2'	26:14:2191:G:O4'	2.12	0.50
26:14:2468:G:H3'	26:14:2476:A:N1	2.27	0.50
30:29:116:VAL:HG23	30:29:120:TRP:HB2	1.94	0.50
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.12	0.50
1:13:677:U:H3	1:13:713:G:H22	1.59	0.50
1:13:736:C:H2'	1:13:737:A:H8	1.75	0.50
1:13:1464:G:H2'	1:13:1465:C:H6	1.77	0.50
6:5E:14:LEU:HD22	6:5E:18:GLN:HB3	1.93	0.50
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.94	0.50
23:2K:20:G:C2	23:2K:58:A:N3	2.80	0.50
26:1H:127:A:H5"	26:1H:128:C:C6	2.46	0.50
26:1H:713:G:H2'	26:1H:714:U:C6	2.46	0.50
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.11	0.50
26:1H:1442:G:C2	26:1H:1550:C:O2	2.65	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1532:C:H42	26:1H:1539:G:H1	1.60	0.50
34:61:77:LEU:HD22	34:61:79:ILE:HD11	1.93	0.50
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.47	0.50
1:1G:828:A:C8	1:1G:859:A:C4	3.00	0.50
1:1G:1041:A:H5"	1:1G:1042:G:OP2	2.12	0.50
4:32:108:LEU:HD22	4:32:174:LEU:HD22	1.94	0.50
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.11	0.50
57:3L:59:A:H2'	57:3L:60:U:H5'	1.93	0.50
26:14:590:A:H2'	26:14:591:C:C6	2.47	0.50
26:14:864:G:C6	26:14:865:C:N4	2.79	0.50
26:14:1054:A:N6	26:14:1104:C:H42	2.10	0.50
26:14:1260:G:H2'	26:14:1261:C:C6	2.47	0.50
26:14:1421:G:C2	26:14:1422:G:C8	2.99	0.50
26:14:1448:G:H1'	26:14:1528:A:H62	1.77	0.50
26:14:2262:U:H4'	26:14:2328:A:C2	2.47	0.50
26:14:2271:G:N7	61:14:3576:HOH:O	2.35	0.50
26:14:2306:C:C3'	26:14:2307:G:H5"	2.42	0.50
26:14:2430:A:H8	26:14:2431:U:C5	2.28	0.50
26:14:2552:U:O5'	26:14:2552:U:H6	1.95	0.50
26:14:2698:U:H2'	26:14:2699:C:C6	2.47	0.50
30:29:54:GLN:CG	30:29:55:ASN:H	2.24	0.50
31:39:53:THR:HG22	31:39:56:GLU:CD	2.32	0.50
37:35:97:PRO:HG3	37:35:112:LEU:HD12	1.92	0.50
38:45:4:PRO:HD3	38:45:70:PRO:O	2.11	0.50
46:C5:82:PRO:HG3	46:C5:97:ARG:HE	1.77	0.50
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.93	0.50
49:F5:18:ILE:HG12	49:F5:37:ILE:HG13	1.94	0.50
1:13:622:A:C8	1:13:623:C:C6	3.00	0.49
7:6E:8:GLU:N	7:6E:8:GLU:OE2	2.45	0.49
11:2I:63:LEU:HD12	11:2I:63:LEU:H	1.77	0.49
19:AI:23:ASN:HD21	19:AI:43:GLU:HB2	1.77	0.49
26:1H:631:A:OP1	37:78:65:ARG:NH2	2.33	0.49
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.12	0.49
26:1H:1050:A:O2'	26:1H:2752:C:H1'	2.11	0.49
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.93	0.49
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.77	0.49
26:1H:2002:G:N7	61:1H:3623:HOH:O	2.33	0.49
26:1H:2175:C:O2'	28:71:219:GLY:N	2.44	0.49
26:1H:2335:A:C8	26:1H:2337:G:C5	3.00	0.49
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.12	0.49
32:41:81:LYS:NZ	32:41:81:LYS:H	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:112:PRO:CB	52:M8:37:SER:H	2.22	0.49
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.11	0.49
43:D8:16:PRO:HA	43:D8:96:ILE:HG22	1.93	0.49
1:1G:407:G:P	4:32:115:ARG:HH21	2.36	0.49
1:1G:1067:A:H1'	1:1G:1068:G:C8	2.47	0.49
9:82:24:GLY:HA2	9:82:59:PHE:C	2.32	0.49
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.12	0.49
14:5A:59:ALA:HB1	14:5A:61:TRP:CZ3	2.46	0.49
16:7A:4:ILE:HB	16:7A:66:PRO:HB3	1.92	0.49
26:14:71:A:H4'	26:14:72:U:H5"	1.92	0.49
26:14:661:C:H1'	37:35:12:ALA:HA	1.93	0.49
26:14:698:C:O2'	26:14:734:A:N6	2.45	0.49
26:14:2117:A:H2'	26:14:2118:U:C6	2.47	0.49
26:14:2250:G:C5	38:45:82:ARG:HD2	2.47	0.49
26:14:2395:C:H2'	26:14:2396:G:O4'	2.12	0.49
26:14:2400:G:H2'	26:14:2401:U:C6	2.47	0.49
26:14:2745:C:O2'	33:59:143:GLN:HA	2.12	0.49
26:14:2850:A:N7	26:14:2868:A:O2'	2.32	0.49
30:29:171:GLU:O	30:29:184:VAL:HA	2.11	0.49
35:15:61:ARG:HA	35:15:61:ARG:NH1	2.26	0.49
38:45:35:VAL:HG22	38:45:102:VAL:HG22	1.92	0.49
41:75:54:ARG:HG3	41:75:59:THR:HG21	1.93	0.49
1:13:292:G:C5	1:13:293:G:H1'	2.47	0.49
1:13:419:C:H5'	1:13:513:C:H1'	1.94	0.49
1:13:429:U:H1'	1:13:430:A:H5"	1.92	0.49
1:13:806:C:H2'	1:13:807:A:H8	1.77	0.49
1:13:872:A:C4	1:13:874:G:N7	2.80	0.49
1:13:1034:G:N2	1:13:1035:A:N7	2.50	0.49
23:2K:2:G:H2'	23:2K:3:C:H6	1.75	0.49
24:3K:76:A:H8	26:1H:2394:C:N4	2.09	0.49
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.47	0.49
26:1H:606:U:H4'	26:1H:658:C:H4'	1.95	0.49
26:1H:800:A:H8	26:1H:800:A:OP1	1.94	0.49
26:1H:2841:C:H2'	26:1H:2842:G:H8	1.77	0.49
27:16:116:G:H2'	27:16:117:G:O4'	2.12	0.49
28:71:6:ARG:HG2	28:71:34:THR:OG1	2.12	0.49
30:21:88:GLY:O	30:21:89:ASP:HB2	2.12	0.49
32:41:102:PHE:HA	32:41:105:LYS:HE2	1.94	0.49
33:51:144:VAL:O	33:51:148:ILE:HG12	2.11	0.49
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.94	0.49
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:39:LYS:HA	55:Q8:42:ARG:NH2	2.27	0.49
1:1G:114:U:H2'	1:1G:115:G:C8	2.47	0.49
1:1G:600:C:H2'	1:1G:601:C:C6	2.47	0.49
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.26	0.49
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.28	0.49
1:1G:1448:C:H2'	1:1G:1449:C:O4'	2.12	0.49
5:42:144:THR:O	5:42:148:VAL:HG23	2.12	0.49
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.48	0.49
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.94	0.49
57:3L:51:A:H62	57:3L:63:U:H3	1.60	0.49
26:14:1686:C:H2'	26:14:1687:G:O4'	2.12	0.49
26:14:1794:U:H2'	26:14:1795:C:C6	2.47	0.49
32:49:181:ARG:NH1	32:49:181:ARG:HB3	2.27	0.49
40:65:87:PHE:CZ	40:65:102:ALA:HB2	2.47	0.49
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.93	0.49
47:D5:157:LEU:HD21	47:D5:163:LEU:HD22	1.94	0.49
1:13:1240:U:O2'	7:6E:38:LEU:HG	2.11	0.49
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.48	0.49
17:8I:13:ASP:H	17:8I:14:LYS:HZ2	1.58	0.49
26:1H:339:U:O5'	26:1H:339:U:H6	1.95	0.49
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.12	0.49
40:A8:34:HIS:O	40:A8:97:ARG:NH2	2.46	0.49
45:F8:3:THR:C	45:F8:5:TYR:H	2.07	0.49
46:G8:39:VAL:O	46:G8:42:VAL:HG22	2.11	0.49
47:H8:24:LEU:HB3	47:H8:39:VAL:HG23	1.93	0.49
1:1G:80:G:O2'	1:1G:81:G:OP1	2.28	0.49
1:1G:271:C:H2'	1:1G:272:C:H6	1.77	0.49
1:1G:807:A:H2'	1:1G:808:C:C6	2.47	0.49
1:1G:909:A:OP2	12:3A:21:LYS:NZ	2.41	0.49
7:62:141:VAL:HA	7:62:142:GLU:HG2	1.94	0.49
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.13	0.49
26:14:494:G:H4'	44:A5:6:ILE:HB	1.93	0.49
26:14:588:U:H2'	26:14:589:C:C6	2.47	0.49
26:14:833:U:O4'	37:35:52:GLU:HA	2.13	0.49
26:14:879:G:N2	26:14:880:G:O6	2.45	0.49
26:14:1434:A:H2'	26:14:1435:G:C8	2.47	0.49
26:14:2378:A:H4'	40:65:23:ARG:HD2	1.94	0.49
26:14:2647:U:H2'	26:14:2648:C:C6	2.47	0.49
27:1J:18:G:H2'	27:1J:19:G:C8	2.46	0.49
30:29:36:ARG:HH21	30:29:88:GLY:HA2	1.77	0.49
31:39:23:ASP:N	31:39:23:ASP:OD1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:139:PHE:HE2	31:39:173:VAL:HG21	1.77	0.49
46:C5:88:LYS:O	46:C5:89:PHE:HB3	2.10	0.49
1:13:919:A:O2'	1:13:920:U:H5'	2.13	0.49
1:13:939:G:H2'	1:13:940:C:C6	2.46	0.49
1:13:1234:C:H2'	1:13:1235:U:C6	2.48	0.49
1:13:1453:G:OP2	1:13:1453:G:H4'	2.11	0.49
1:13:1460:A:H2'	1:13:1461:G:O4'	2.12	0.49
2:1E:71:VAL:HB	2:1E:164:VAL:HG13	1.94	0.49
8:7E:116:LYS:HG3	8:7E:129:VAL:HG11	1.94	0.49
9:8E:26:VAL:HG22	9:8E:61:ALA:HB3	1.92	0.49
12:3I:8:ASN:O	12:3I:11:VAL:N	2.44	0.49
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.47	0.49
21:1F:6:ARG:HH11	21:1F:15:ARG:NE	2.11	0.49
26:1H:994:C:H5"	26:1H:995:C:P	2.52	0.49
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.12	0.49
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.12	0.49
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.12	0.49
29:11:28:GLU:N	29:11:29:PRO:HD3	2.27	0.49
29:11:101:GLU:OE1	29:11:103:ARG:NH1	2.45	0.49
33:51:96:ALA:HB1	33:51:103:LEU:HD11	1.94	0.49
43:D8:25:LEU:HD12	43:D8:92:THR:HG21	1.94	0.49
1:1G:991:U:O2	1:1G:993:G:H8	1.95	0.49
1:1G:1076:C:H42	1:1G:1081:G:H1	1.61	0.49
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.77	0.49
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.48	0.49
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.78	0.49
5:42:33:VAL:HG13	5:42:112:LEU:HD12	1.94	0.49
9:82:5:TYR:CE2	9:82:16:ARG:HG2	2.48	0.49
15:6A:79:ARG:O	15:6A:83:GLU:HB2	2.12	0.49
17:8A:11:VAL:HG12	17:8A:85:VAL:HG23	1.95	0.49
57:3L:65:C:H2'	57:3L:66:A:H8	1.77	0.49
26:14:34:C:O2'	26:14:35:G:C8	2.65	0.49
26:14:275:G:N2	26:14:276:A:N7	2.60	0.49
26:14:686:G:N2	26:14:788:A:H61	2.10	0.49
26:14:861:A:N3	27:1J:79:C:O2'	2.46	0.49
26:14:943:U:OP2	37:35:36:LYS:HG3	2.12	0.49
26:14:1542:G:O5'	26:14:1543:A:H5"	2.12	0.49
26:14:1797:C:H4'	29:19:257:LEU:O	2.12	0.49
26:14:2297:C:H2'	26:14:2298:A:H8	1.77	0.49
41:75:99:LEU:HD22	41:75:101:PHE:CE1	2.45	0.49
46:C5:29:GLU:HG3	46:C5:30:VAL:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.12	0.49
1:13:46:G:H2'	1:13:366:C:H5	1.76	0.49
1:13:544:G:OP1	4:3E:59:ARG:NH1	2.41	0.49
2:1E:11:LEU:HG	2:1E:11:LEU:O	2.13	0.49
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	1.93	0.49
4:3E:92:VAL:HG12	4:3E:96:LEU:HD21	1.95	0.49
8:7E:66:GLY:O	8:7E:76:PRO:HB3	2.12	0.49
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.13	0.49
16:7I:79:VAL:HG12	16:7I:80:PHE:CD1	2.48	0.49
26:1H:46:C:H5"	26:1H:215:G:H8	1.77	0.49
26:1H:1001:A:C8	26:1H:1002:G:C8	3.00	0.49
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.48	0.49
28:71:43:VAL:HG13	28:71:214:VAL:HA	1.94	0.49
31:31:77:ASP:OD1	31:31:77:ASP:N	2.33	0.49
37:78:64:LYS:HA	55:Q8:13:ARG:HB3	1.94	0.49
38:88:140:ALA:HB3	38:88:141:GLN:HA	1.94	0.49
41:B8:108:ARG:HG3	41:B8:109:GLU:H	1.76	0.49
1:1G:328:C:H4'	1:1G:329:A:H5"	1.93	0.49
1:1G:425:G:O3'	4:32:45:GLN:NE2	2.45	0.49
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.28	0.49
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.09	0.49
18:9A:53:ARG:HA	18:9A:56:THR:HG1	1.78	0.49
19:AA:17:GLU:HA	19:AA:20:LEU:HD22	1.94	0.49
26:14:1436:G:O2'	26:14:1477:A:H4'	2.12	0.49
26:14:2461:C:H2'	26:14:2462:U:H6	1.75	0.49
27:1J:88:C:H1'	27:1J:89:G:OP1	2.12	0.49
29:19:89:SER:HB2	29:19:159:ALA:HB2	1.94	0.49
30:29:112:GLY:O	30:29:159:HIS:HA	2.13	0.49
34:69:7:GLU:C	34:69:15:VAL:HG22	2.32	0.49
36:25:102:VAL:HB	36:25:106:LEU:HD12	1.94	0.49
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.12	0.49
3:2E:60:ALA:N	3:2E:63:ASN:OD1	2.44	0.49
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.95	0.49
7:6E:111:ARG:HB3	7:6E:111:ARG:HH11	1.77	0.49
26:1H:270(L):U:H3'	26:1H:270(L):U:H6	1.78	0.49
26:1H:445:C:H5"	42:C8:3:ARG:HB3	1.93	0.49
26:1H:818:G:H4'	26:1H:838:C:O3'	2.11	0.49
26:1H:1535:U:OP2	26:1H:1535:U:H6	1.95	0.49
26:1H:2173:A:H8	26:1H:2173:A:OP1	1.95	0.49
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.48	0.49
26:1H:2243:U:O2'	26:1H:2244:U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:131:ALA:HB1	61:21:401:HOH:O	2.12	0.49
30:21:201:THR:HG22	30:21:202:LYS:N	2.27	0.49
34:61:127:VAL:HA	34:61:138:ILE:O	2.12	0.49
46:G8:101:LYS:C	46:G8:102:CYS:SG	2.91	0.49
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.52	0.49
1:1G:45:U:H2'	1:1G:46:G:H8	1.76	0.49
1:1G:590:C:H2'	1:1G:591:U:H6	1.77	0.49
1:1G:868:C:H2'	1:1G:869:G:O4'	2.13	0.49
1:1G:1106:G:H2'	1:1G:1107:C:H6	1.78	0.49
8:72:20:TYR:OH	8:72:75:ARG:HB3	2.13	0.49
8:72:110:ALA:O	8:72:121:ASP:N	2.45	0.49
9:82:9:ARG:O	9:82:104:ARG:HD2	2.13	0.49
11:2A:79:SER:OG	11:2A:106:LYS:HG3	2.13	0.49
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.94	0.49
26:14:990:A:H5'	26:14:990:A:C8	2.42	0.49
26:14:1543:A:H4'	26:14:1543:A:OP1	2.13	0.49
26:14:1753:G:N1	26:14:1756:G:C2	2.81	0.49
26:14:1871:A:H2'	26:14:1872:A:C8	2.47	0.49
27:1J:93:C:H2'	27:1J:94:C:C6	2.48	0.49
30:29:25:VAL:O	30:29:26:ILE:HG12	2.12	0.49
38:45:58:PHE:HB3	38:45:113:GLN:NE2	2.27	0.49
1:13:61:G:H2'	1:13:62:U:O4'	2.11	0.49
4:3E:194:LEU:HD12	4:3E:195:ALA:N	2.28	0.49
26:1H:273(C):C:H42	26:1H:363(C):G:H1	1.59	0.49
26:1H:492:A:H2'	26:1H:493:G:O4'	2.13	0.49
26:1H:511:U:C5	26:1H:512:G:C5	3.00	0.49
26:1H:511:U:H5"	26:1H:512:G:OP2	2.13	0.49
26:1H:775:G:C4	26:1H:794:G:C8	3.00	0.49
26:1H:1142(A):A:H4'	35:58:25:ARG:HH22	1.78	0.49
26:1H:1955:U:OP2	61:1H:3568:HOH:O	2.19	0.49
26:1H:2323:G:H2'	26:1H:2324:C:O4'	2.12	0.49
32:41:66:GLN:HA	52:M8:6:HIS:HE1	1.78	0.49
34:61:4:ILE:HG12	34:61:18:VAL:HG22	1.94	0.49
37:78:80:TYR:CE2	37:78:111:ARG:HD3	2.48	0.49
49:J8:80:LEU:C	49:J8:81:LYS:HD2	2.33	0.49
52:M8:37:SER:OG	52:M8:42:PHE:O	2.20	0.49
1:1G:565:U:H3'	1:1G:566:G:H2'	1.94	0.49
1:1G:957:U:O2'	1:1G:959:A:N7	2.34	0.49
1:1G:963:G:H21	10:1A:55:LYS:CE	2.25	0.49
1:1G:998(A):C:N3	1:1G:1042:G:N2	2.46	0.49
1:1G:1053:G:O2'	1:1G:1199:U:OP2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.27	0.49
11:2A:109:VAL:HG12	18:9A:86:VAL:HG13	1.93	0.49
26:14:483:A:H4'	46:C5:49:VAL:HA	1.95	0.49
26:14:520:G:H2'	26:14:521:G:H8	1.78	0.49
26:14:1022:G:N2	26:14:1142(A):A:C2	2.80	0.49
26:14:1042:G:H2'	26:14:1043:C:O4'	2.11	0.49
26:14:1107:G:H2'	26:14:1108:U:H5'	1.94	0.49
26:14:2418:A:OP1	55:M5:29:LYS:NZ	2.46	0.49
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.47	0.49
27:1J:17:C:H2'	27:1J:18:G:O4'	2.12	0.49
29:19:175:LEU:HD11	29:19:185:VAL:HG21	1.94	0.49
32:49:117:PHE:CG	32:49:117:PHE:O	2.65	0.49
33:59:64:LEU:O	33:59:68:THR:OG1	2.30	0.49
38:45:22:LYS:N	38:45:23:GLY:HA3	2.28	0.49
45:B5:67:GLY:C	45:B5:69:TYR:H	2.15	0.49
48:E5:48:GLY:HA3	48:E5:80:HIS:ND1	2.27	0.49
1:13:375:U:C4	1:13:376:G:N7	2.81	0.49
1:13:481:G:O2'	1:13:483:C:N4	2.41	0.49
1:13:1106:G:C4	1:13:1107:C:C5	3.01	0.49
4:3E:155:LEU:O	4:3E:157:LEU:N	2.46	0.49
4:3E:167:GLY:HA2	29:19:135:PHE:HZ	1.76	0.49
26:1H:142:G:O3'	45:F8:35:THR:HG21	2.13	0.49
26:1H:242:G:H5"	55:Q8:64:TYR:CE2	2.48	0.49
26:1H:860:U:C5	26:1H:917:A:H2	2.30	0.49
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.46	0.49
26:1H:1385:G:H4'	26:1H:1386:C:OP1	2.13	0.49
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.48	0.49
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.13	0.49
46:G8:34:LYS:HD3	46:G8:36:ALA:HB2	1.95	0.49
1:1G:540:G:H2'	1:1G:541:G:O4'	2.12	0.49
1:1G:1149:C:H2'	1:1G:1150:U:H6	1.78	0.49
26:14:527:C:OP2	26:14:2779:U:H5	1.96	0.49
26:14:1021:A:H3'	26:14:1021:A:C8	2.48	0.49
26:14:1115:G:C6	26:14:1116:C:C4	3.01	0.49
26:14:1161:C:H1'	43:95:8:GLY:O	2.12	0.49
26:14:2177:C:H4'	28:79:44:HIS:HB2	1.95	0.49
26:14:2212:A:H1'	26:14:2215:G:C6	2.48	0.49
26:14:2272:U:H5"	26:14:2273:A:OP1	2.13	0.49
42:85:68:ALA:O	42:85:71:GLN:HB2	2.13	0.49
42:85:110:VAL:O	42:85:113:ALA:HB3	2.13	0.49
1:13:245:C:C2	1:13:284:G:C2	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:265:G:N2	1:13:267:C:H5'	2.28	0.49
1:13:537:G:N7	61:13:1823:HOH:O	2.35	0.49
1:13:757:U:H2'	1:13:758:G:O4'	2.13	0.49
1:13:1127:G:N7	1:13:1128:C:N4	2.61	0.49
10:1I:22:LYS:NZ	10:1I:90:LEU:HB2	2.27	0.49
12:3I:76:ASN:ND2	12:3I:108:ALA:HB2	2.28	0.49
26:1H:1249:U:P	61:1H:3515:HOH:O	2.67	0.49
26:1H:2162:G:H3'	26:1H:2163:C:C6	2.48	0.49
33:51:137:ASP:OD1	33:51:138:LYS:N	2.37	0.49
38:88:20:ALA:HB1	38:88:99:PRO:HB2	1.94	0.49
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.28	0.49
1:1G:681:C:H2'	1:1G:682:G:C8	2.47	0.49
1:1G:980:C:H3'	1:1G:981:U:H6	1.76	0.49
1:1G:1104:G:H4'	2:12:111:ARG:NE	2.25	0.49
1:1G:1177:G:H8	1:1G:1177:G:OP2	1.96	0.49
5:42:94:ALA:HB2	5:42:119:LEU:HG	1.95	0.49
12:3A:32:PHE:HE1	12:3A:86:ARG:HG3	1.78	0.49
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.46	0.49
13:4A:29:ARG:HD3	13:4A:64:TRP:CZ2	2.48	0.49
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.48	0.49
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.37	0.49
26:14:864:G:H8	26:14:864:G:O5'	1.96	0.49
26:14:1112:G:H2'	26:14:1113:U:C6	2.48	0.49
26:14:1607:C:H4'	26:14:1608:A:O5'	2.13	0.49
26:14:1750:G:N3	26:14:2860:A:H2	2.11	0.49
26:14:2654:A:H8	26:14:2654:A:OP1	1.96	0.49
30:29:41:LYS:HG3	30:29:42:ASP:N	2.28	0.49
30:29:47:VAL:HG12	30:29:49:LEU:HG	1.95	0.49
33:59:54:ARG:NE	33:59:56:SER:O	2.44	0.49
46:C5:43:ASN:HB3	46:C5:64:GLU:HA	1.94	0.49
46:C5:82:PRO:CB	46:C5:97:ARG:HB3	2.42	0.49
1:13:452:A:N6	1:13:480:U:H3	2.05	0.49
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.12	0.49
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.95	0.49
26:1H:1662:C:O2'	26:1H:2687:U:OP1	2.28	0.49
31:31:28:ILE:HG22	31:31:112:MET:HE3	1.94	0.49
32:41:139:LEU:HD13	32:41:146:TYR:HD1	1.77	0.49
34:61:69:LYS:HG3	34:61:136:VAL:HB	1.95	0.49
34:61:99:GLU:O	34:61:102:SER:N	2.44	0.49
35:58:41:ASP:OD1	35:58:41:ASP:N	2.46	0.49
36:68:16:ALA:HB2	36:68:52:VAL:HG21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.87	0.49
1:1G:373:A:H2'	1:1G:374:A:H8	1.78	0.49
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.12	0.49
1:1G:1124:G:OP2	1:1G:1124:G:H8	1.96	0.49
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.13	0.49
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.48	0.49
3:22:147:LYS:HB2	3:22:203:PHE:HD2	1.78	0.49
4:32:162:LEU:HD21	4:32:181:MET:HG2	1.94	0.49
13:4A:75:ALA:HA	13:4A:78:ILE:HG12	1.95	0.49
15:6A:81:LEU:O	15:6A:85:LEU:HB2	2.13	0.49
26:14:1808:U:H5"	26:14:1809:A:OP2	2.13	0.49
26:14:2001:A:H2'	26:14:2002:G:C8	2.48	0.49
26:14:2016:U:OP1	61:14:3546:HOH:O	2.20	0.49
26:14:2312:U:OP2	32:49:74:LYS:NZ	2.43	0.49
26:14:2469:A:H2	26:14:2481:G:H21	1.61	0.49
32:49:42:GLY:O	32:49:43:LEU:HD13	2.12	0.49
36:25:63:VAL:HG11	36:25:85:VAL:HG23	1.95	0.49
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.94	0.49
40:65:27:SER:HA	40:65:88:ASP:HB2	1.94	0.49
46:C5:8:LYS:HZ3	46:C5:95:LYS:HD3	1.77	0.49
1:13:1435:G:H2'	1:13:1436:U:C6	2.48	0.48
6:5E:23:LYS:O	6:5E:27:GLN:HG3	2.13	0.48
26:1H:528:A:C2	26:1H:2043:C:H4'	2.48	0.48
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.13	0.48
26:1H:1417:C:N3	26:1H:1581:G:N2	2.53	0.48
26:1H:1442:G:H2'	26:1H:1443:G:C8	2.48	0.48
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.28	0.48
26:1H:2788:C:H5'	30:21:61:ARG:NH1	2.28	0.48
28:71:59:ARG:HA	28:71:163:PHE:O	2.11	0.48
29:11:29:PRO:HG2	29:11:30:GLU:OE2	2.13	0.48
48:I8:51:VAL:N	48:I8:62:LEU:HD12	2.28	0.48
1:1G:669:U:H2'	1:1G:670:G:C8	2.48	0.48
1:1G:1023:G:C4	1:1G:1024:G:H1'	2.48	0.48
1:1G:1031:G:N7	1:1G:1032(A):G:N2	2.61	0.48
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.78	0.48
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.31	0.48
1:1G:1321:C:H41	1:1G:1322:C:N4	2.04	0.48
3:22:131:ARG:HH21	3:22:166:GLU:HG2	1.78	0.48
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.78	0.48
16:7A:2:VAL:HA	16:7A:23:ASP:HA	1.95	0.48
56:1L:42:A:H2'	56:1L:43:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.13	0.48
57:3L:21:A:H2'	57:3L:21:A:N3	2.27	0.48
26:14:94:G:N2	50:G5:47:ASN:HD22	2.11	0.48
26:14:433:C:C4	26:14:434:U:O4	2.66	0.48
26:14:482:A:H5"	26:14:483:A:OP1	2.13	0.48
26:14:2126:A:N1	26:14:2163:C:H1'	2.28	0.48
26:14:2820:A:C5	39:55:4:LEU:HD11	2.48	0.48
27:1J:118:G:C5	27:1J:119:A:N7	2.80	0.48
34:69:81:VAL:HG12	34:69:143:SER:HB2	1.94	0.48
38:45:25:ASP:HA	38:45:67:ARG:HH12	1.76	0.48
46:C5:17:SER:HB2	46:C5:71:LYS:CE	2.43	0.48
46:C5:60:PHE:CD1	46:C5:60:PHE:N	2.81	0.48
47:D5:24:LEU:HD12	47:D5:25:PRO:O	2.13	0.48
1:13:173:U:H5"	1:13:197:A:O4'	2.13	0.48
1:13:963:G:N2	10:1I:55:LYS:NZ	2.60	0.48
1:13:1072:G:C5	1:13:1073:U:C4	3.01	0.48
19:AI:5:LEU:HD12	19:AI:9:VAL:N	2.27	0.48
23:2K:32:G:H2'	23:2K:33:OMC:H6	1.78	0.48
26:1H:287:C:H2'	26:1H:288:C:C6	2.45	0.48
26:1H:1022:G:O6	35:58:66:LYS:NZ	2.45	0.48
26:1H:1528:A:C6	26:1H:1545:A:N1	2.82	0.48
27:16:78:A:C2	27:16:99:A:C4	3.01	0.48
31:31:107:LYS:HD2	31:31:207:GLY:H	1.77	0.48
37:78:91:PHE:O	37:78:123:LEU:HD11	2.13	0.48
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.14	0.48
1:1G:166:G:H2'	1:1G:167:G:H8	1.78	0.48
1:1G:588:G:H1	1:1G:651:C:H42	1.61	0.48
1:1G:801:U:H2'	1:1G:802:A:C8	2.48	0.48
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.12	0.48
1:1G:1254:C:H42	1:1G:1283:G:H1	1.61	0.48
1:1G:1344:C:H5"	9:82:120:ARG:O	2.12	0.48
6:52:97:PHE:HD1	18:9A:31:LEU:HD21	1.78	0.48
19:AA:17:GLU:O	19:AA:20:LEU:HB2	2.13	0.48
57:3L:37:A:H2'	57:3L:38:A:C8	2.48	0.48
26:14:139:G:N2	26:14:1596:A:H4'	2.28	0.48
26:14:362:U:H5'	26:14:363:G:OP2	2.12	0.48
26:14:586:A:N1	26:14:809:G:O2'	2.40	0.48
26:14:823:G:H2'	26:14:824:A:C8	2.48	0.48
26:14:1106:G:C8	26:14:1107:G:C8	3.01	0.48
26:14:1665:A:H2'	26:14:1666:G:O4'	2.13	0.48
26:14:1788:C:H2'	26:14:1789:A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1945:G:H2'	26:14:1946:U:H6	1.78	0.48
26:14:2210:G:H5'	26:14:2211:G:C6	2.48	0.48
29:19:67:PHE:HB3	29:19:153:ALA:H	1.77	0.48
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.41	0.48
34:69:133:HIS:ND1	34:69:134:PRO:HD3	2.28	0.48
1:13:147:G:N2	1:13:175:C:N3	2.49	0.48
4:3E:13:ARG:HD2	4:3E:38:TYR:O	2.13	0.48
4:3E:70:ILE:HG23	4:3E:75:PHE:HB2	1.95	0.48
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.12	0.48
7:6E:77:SER:OG	7:6E:84:ASN:OD1	2.31	0.48
8:7E:122:ARG:O	8:7E:126:LYS:HG2	2.13	0.48
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.96	0.48
11:2I:73:MET:HE1	11:2I:102:GLY:HA3	1.95	0.48
26:1H:433:C:H2'	26:1H:434:U:C6	2.48	0.48
26:1H:493:G:H2'	26:1H:494:G:O4'	2.13	0.48
26:1H:870:A:OP1	38:88:6:ARG:NH2	2.46	0.48
26:1H:1176:G:C8	26:1H:1177:A:N6	2.81	0.48
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.43	0.48
26:1H:1665:A:N7	61:1H:3632:HOH:O	2.35	0.48
26:1H:1991:U:H2'	26:1H:1992:G:H5"	1.95	0.48
26:1H:2152:G:N2	26:1H:2153:G:O6	2.47	0.48
27:16:29:A:H5"	27:16:30:C:OP2	2.14	0.48
28:71:47:LEU:HD11	28:71:171:ILE:HB	1.95	0.48
31:31:12:LEU:HD13	31:31:124:LEU:HD11	1.95	0.48
1:1G:664:G:H22	1:1G:741:G:H1	1.61	0.48
1:1G:1015:A:H2'	1:1G:1016:A:C8	2.48	0.48
1:1G:1342:C:H1'	9:82:124:GLN:OE1	2.13	0.48
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.78	0.48
2:12:159:PRO:HB2	2:12:161:ALA:O	2.13	0.48
26:14:824:A:H1'	26:14:2358:G:N7	2.28	0.48
26:14:2877:G:H2'	26:14:2878:U:O4'	2.13	0.48
29:19:184:LYS:HG3	29:19:269:PHE:O	2.13	0.48
30:29:4:ILE:HD12	30:29:28:ALA:HB1	1.95	0.48
33:59:58:GLU:HB2	33:59:61:HIS:CD2	2.48	0.48
40:65:34:HIS:CG	40:65:54:LEU:HB2	2.48	0.48
1:13:32:A:C2	1:13:33:A:C4	3.02	0.48
1:13:191(E):G:H2'	1:13:191(F):U:C6	2.48	0.48
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.48	0.48
7:6E:66:VAL:O	7:6E:70:LYS:HG3	2.13	0.48
7:6E:77:SER:HB2	24:3K:33:U:OP1	2.13	0.48
10:1I:26:ALA:O	10:1I:84:GLN:NE2	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:109:VAL:HG11	18:9I:84:LYS:HD3	1.95	0.48
16:7I:71:ARG:HA	16:7I:74:LEU:HD12	1.95	0.48
23:2K:53:G:C6	23:2K:54:G:N7	2.81	0.48
26:1H:721:C:H2'	26:1H:722:A:H8	1.78	0.48
26:1H:754:C:H2'	26:1H:755:C:C6	2.46	0.48
26:1H:1797:C:O2'	29:11:259:THR:OG1	2.28	0.48
26:1H:1800:C:H5"	29:11:147:LEU:HD21	1.96	0.48
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.12	0.48
26:1H:2505:G:O2'	26:1H:2506:U:H5'	2.13	0.48
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.13	0.48
28:71:6:ARG:O	28:71:10:LEU:HD22	2.14	0.48
28:71:22:ILE:HG23	28:71:189:ILE:HB	1.94	0.48
35:58:60:ILE:H	35:58:60:ILE:HG12	1.43	0.48
1:1G:598:U:H2'	1:1G:599:C:H6	1.77	0.48
1:1G:1085:U:H5'	1:1G:1094:G:N2	2.28	0.48
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.48	0.48
2:12:21:ARG:HG2	2:12:22:LYS:H	1.79	0.48
2:12:223:ILE:HA	2:12:224:GLN:CG	2.42	0.48
3:22:175:LEU:H	3:22:175:LEU:HD12	1.79	0.48
6:52:19:LEU:O	6:52:23:LYS:HG2	2.14	0.48
26:14:634:C:H2'	26:14:635:C:H6	1.78	0.48
26:14:1159:U:H2'	26:14:1160:G:C8	2.46	0.48
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.45	0.48
26:14:2129:C:H3'	26:14:2130:U:C6	2.47	0.48
26:14:2319:G:C2	26:14:2320:A:N6	2.82	0.48
30:29:54:GLN:N	30:29:74:PRO:HA	2.26	0.48
31:39:32:LEU:HD23	31:39:32:LEU:O	2.13	0.48
32:49:139:LEU:HA	32:49:144:ILE:HG21	1.96	0.48
1:13:234:C:H2'	1:13:235:C:C6	2.48	0.48
1:13:726:C:C2	1:13:727:G:C8	3.02	0.48
3:2E:150:LYS:HD2	3:2E:167:TRP:HE1	1.79	0.48
5:4E:87:SER:HB3	5:4E:125:SER:O	2.14	0.48
13:4I:87:TYR:O	13:4I:90:LEU:N	2.40	0.48
26:1H:1045:A:OP1	26:1H:1046:A:H3'	2.14	0.48
26:1H:1443:G:C2	26:1H:1549:C:N3	2.82	0.48
26:1H:1551:C:C2	26:1H:1552:G:C8	3.02	0.48
26:1H:2134:A:C8	26:1H:2158:A:H2	2.32	0.48
26:1H:2820:A:C5	39:98:4:LEU:HD11	2.48	0.48
30:21:20:ALA:O	30:21:21:VAL:HG22	2.13	0.48
41:B8:105:LEU:HB3	41:B8:110:ILE:HG22	1.95	0.48
41:B8:108:ARG:HA	41:B8:111:ARG:CZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:30:VAL:O	46:G8:32:PRO:HD3	2.12	0.48
50:K8:42:GLY:C	50:K8:44:LEU:N	2.67	0.48
1:1G:455:C:O5'	1:1G:455:C:H6	1.95	0.48
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.49	0.48
2:12:16:HIS:C	2:12:17:PHE:HD1	2.17	0.48
2:12:150:SER:OG	2:12:151:GLY:N	2.46	0.48
4:32:85:LYS:HD3	4:32:86:LYS:H	1.79	0.48
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.48	0.48
9:82:46:ALA:HA	9:82:78:LYS:HB2	1.96	0.48
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.95	0.48
12:3A:84:LEU:HD12	12:3A:104:VAL:HB	1.96	0.48
20:BA:54:LYS:HA	20:BA:57:ARG:HH21	1.79	0.48
56:1L:9:A:H1'	56:1L:45:G:H1'	1.96	0.48
26:14:338:G:O6	61:14:3543:HOH:O	2.20	0.48
26:14:524:U:H2'	26:14:525:U:C6	2.48	0.48
26:14:1008:C:H4'	42:85:59:ARG:HH12	1.79	0.48
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.13	0.48
27:1J:44:G:OP1	32:49:98:ARG:NH2	2.47	0.48
46:C5:82:PRO:HA	46:C5:99:CYS:HB2	1.96	0.48
1:13:341:C:H42	1:13:348:G:H1	1.61	0.48
1:13:498:A:H4'	1:13:500:G:OP1	2.14	0.48
1:13:738:C:H2'	1:13:739:C:H6	1.78	0.48
1:13:942:G:C2	1:13:943:U:C6	3.02	0.48
1:13:1190:G:OP1	3:2E:5:ILE:HG23	2.14	0.48
1:13:1323:G:H2'	1:13:1324:A:H8	1.77	0.48
1:13:1502:A:H2	1:13:1505:G:N1	2.05	0.48
7:6E:150:ALA:HB2	11:2I:50:TYR:OH	2.12	0.48
8:7E:32:LYS:O	8:7E:36:LEU:HD12	2.13	0.48
22:1K:9:A:H5"	22:1K:47:U:C6	2.49	0.48
26:1H:880:G:O2'	26:1H:881:G:OP1	2.29	0.48
26:1H:1678:G:N2	26:1H:1989:G:N2	2.60	0.48
26:1H:2745:C:O2'	33:51:139:GLN:O	2.31	0.48
26:1H:2791:C:N4	26:1H:2792:G:O6	2.46	0.48
27:16:11:C:O5'	27:16:12:C:H5	1.97	0.48
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.13	0.48
31:31:39:TRP:O	31:31:43:LYS:HG2	2.13	0.48
37:78:121:LYS:O	37:78:123:LEU:N	2.46	0.48
38:88:12:GLN:HG2	38:88:73:PRO:HG2	1.96	0.48
39:98:10:LEU:O	39:98:12:ARG:N	2.45	0.48
51:L8:50:VAL:HG23	51:L8:54:VAL:HB	1.95	0.48
1:1G:1240:U:OP2	7:62:116:ALA:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1320:C:H2'	1:1G:1321:C:H6	1.79	0.48
1:1G:1354:C:O5'	1:1G:1354:C:H6	1.96	0.48
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.12	0.48
2:12:127:ILE:HG12	2:12:130:ARG:NE	2.29	0.48
4:32:28:SER:HB2	4:32:29:PRO:HA	1.95	0.48
8:72:44:PHE:HA	8:72:79:VAL:CG1	2.43	0.48
13:4A:15:VAL:HG12	13:4A:45:VAL:HG22	1.95	0.48
13:4A:82:MET:HE2	13:4A:93:ARG:HD2	1.95	0.48
15:6A:6:GLU:OE1	15:6A:6:GLU:N	2.45	0.48
26:14:151:C:O2'	26:14:152:G:H5'	2.14	0.48
26:14:270(M):U:H5"	26:14:270(N):G:OP1	2.13	0.48
26:14:492:A:H8	26:14:492:A:O5'	1.97	0.48
26:14:546:C:H2'	26:14:547:A:C8	2.48	0.48
26:14:856:C:N4	26:14:857:C:H41	2.12	0.48
26:14:1839:G:C8	26:14:1927:A:H1'	2.48	0.48
26:14:2257:U:O2'	26:14:2258:C:H5'	2.13	0.48
26:14:2275:C:O2	38:45:83:MET:HG3	2.14	0.48
26:14:2535:G:H2'	26:14:2536:G:H8	1.78	0.48
26:14:2779:U:H4'	26:14:2780:G:H5"	1.95	0.48
26:14:2832:U:H3'	26:14:2833:G:H8	1.78	0.48
31:39:164:ARG:O	31:39:167:ALA:HB3	2.13	0.48
37:35:94:GLU:HB2	37:35:124:LYS:HB3	1.95	0.48
1:13:42:G:O2'	1:13:622:A:N1	2.40	0.48
1:13:976:G:H5'	1:13:1358:U:O2'	2.13	0.48
4:3E:164:ALA:O	4:3E:168:ARG:NE	2.46	0.48
11:2I:69:ALA:HB1	11:2I:73:MET:HE2	1.95	0.48
13:4I:11:ARG:HG3	13:4I:12:ASN:N	2.29	0.48
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.14	0.48
26:1H:250:G:H2'	26:1H:251:A:C8	2.49	0.48
26:1H:1260:G:C6	26:1H:1261:C:C4	3.02	0.48
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.14	0.48
33:51:27:LYS:HA	33:51:32:GLU:HA	1.95	0.48
34:61:68:LEU:HA	34:61:71:ILE:CG2	2.43	0.48
35:58:127:ASP:OD1	35:58:127:ASP:N	2.45	0.48
38:88:77:LYS:HE3	38:88:84:GLY:O	2.13	0.48
40:A8:78:LEU:HD12	40:A8:108:GLY:HA2	1.96	0.48
1:1G:452:A:O2'	1:1G:453:A:O4'	2.29	0.48
1:1G:1068:G:N7	1:1G:1094:G:C8	2.82	0.48
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.48	0.48
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.13	0.48
4:32:31:CYS:CB	4:32:33:MET:H	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:173:TRP:HA	4:32:187:ARG:HG3	1.96	0.48
23:2L:52:C:H2'	23:2L:53:G:H8	1.79	0.48
57:3L:55:PSU:N3	57:3L:57:G:H3'	2.29	0.48
26:14:565:C:H4'	26:14:1253:A:C6	2.49	0.48
26:14:656:G:H2'	26:14:657:U:O4'	2.14	0.48
26:14:1358:G:O2'	26:14:1359:A:H5"	2.13	0.48
26:14:1366:A:H2'	26:14:1367:A:O4'	2.12	0.48
26:14:1538:G:H2'	26:14:1539:G:H8	1.78	0.48
26:14:1771:C:H1'	26:14:1786:A:C8	2.48	0.48
26:14:2101:G:H2'	26:14:2102:U:O4'	2.14	0.48
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.47	0.48
31:39:183:VAL:O	31:39:187:VAL:HG23	2.13	0.48
37:35:47:ASP:HB3	37:35:49:ARG:N	2.29	0.48
49:F5:87:PRO:HA	49:F5:90:ILE:CG2	2.43	0.48
50:G5:21:LEU:O	50:G5:25:VAL:HG22	2.13	0.48
51:H5:12:PRO:HB2	51:H5:20:LYS:HD3	1.95	0.48
1:13:738:C:H5"	6:5E:69:GLU:HB2	1.96	0.48
1:13:963:G:C2	10:1I:55:LYS:NZ	2.81	0.48
1:13:1128:C:H2'	1:13:1139:G:C6	2.49	0.48
1:13:1207:G:H2'	1:13:1208:C:H6	1.79	0.48
20:BI:63:ILE:HG23	20:BI:77:ALA:HB1	1.96	0.48
26:1H:626:U:O4	37:78:107:LYS:HD3	2.13	0.48
26:1H:900:A:N3	26:1H:901:A:C8	2.81	0.48
26:1H:924:C:H2'	26:1H:925:C:C6	2.48	0.48
26:1H:2145:C:C3'	26:1H:2146:C:H5'	2.44	0.48
33:51:77:LYS:HE2	33:51:138:LYS:HD2	1.95	0.48
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.95	0.48
47:H8:128:VAL:HB	47:H8:161:VAL:HG12	1.96	0.48
49:J8:12:PRO:HG3	49:J8:43:TYR:HD1	1.79	0.48
50:K8:64:LEU:HD22	50:K8:68:ARG:HD2	1.96	0.48
1:1G:41:G:H2'	1:1G:42:G:C8	2.48	0.48
1:1G:491:G:H2'	1:1G:492:G:O4'	2.14	0.48
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.95	0.48
1:1G:1198:G:H2'	1:1G:1199:U:O4'	2.13	0.48
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.13	0.48
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.13	0.48
4:32:168:ARG:HH11	4:32:168:ARG:CA	2.24	0.48
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.94	0.48
26:14:1657:C:H2'	26:14:1658:C:H6	1.78	0.48
26:14:1789:A:H2'	26:14:1790:C:O4'	2.13	0.48
26:14:2786:U:O2	30:29:62:PRO:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:11:PRO:O	29:19:12:SER:OG	2.29	0.48
41:75:8:LYS:HA	41:75:8:LYS:HZ2	1.77	0.48
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.29	0.48
1:13:690:G:H22	11:2I:55:LYS:HE2	1.79	0.48
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.14	0.48
11:2I:91:ARG:NH2	11:2I:110:ASP:OD2	2.46	0.48
14:5I:12:ARG:HG3	14:5I:12:ARG:O	2.14	0.48
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	1.96	0.48
26:1H:330:A:O2'	26:1H:331:A:C8	2.63	0.48
26:1H:1250:G:OP2	37:78:21:ARG:HD3	2.13	0.48
26:1H:2093:G:C6	26:1H:2225:A:C8	3.01	0.48
26:1H:2510:C:H2'	26:1H:2511:U:H6	1.78	0.48
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.82	0.48
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.13	0.48
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.96	0.48
2:12:21:ARG:HG2	2:12:22:LYS:N	2.29	0.48
3:22:87:LEU:HD12	3:22:88:ARG:NH2	2.29	0.48
19:AA:66:MET:HA	19:AA:67:VAL:O	2.14	0.48
56:1L:15:G:N2	56:1L:48:C:N3	2.62	0.48
23:2L:24:C:C2	23:2L:25:U:C5	3.02	0.48
26:14:259:G:N2	26:14:621:A:H8	2.03	0.48
26:14:270(L):U:HO2'	26:14:270(N):G:N2	2.11	0.48
26:14:1016:G:H2'	26:14:1017:G:C8	2.47	0.48
26:14:1751:C:O2'	26:14:1752:C:H5'	2.13	0.48
26:14:2137:C:H2'	26:14:2138:C:H6	1.79	0.48
26:14:2693:A:H2'	26:14:2694:G:H8	1.79	0.48
26:14:2878:U:O4	61:14:3545:HOH:O	2.20	0.48
29:19:267:SER:C	29:19:269:PHE:H	2.16	0.48
37:35:84:ASN:H	37:35:84:ASN:ND2	2.12	0.48
41:75:8:LYS:O	41:75:11:GLU:HB2	2.13	0.48
49:F5:73:LEU:HB3	49:F5:90:ILE:HD11	1.96	0.48
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.96	0.48
1:13:123:C:OP1	1:13:312:C:H5'	2.13	0.48
1:13:666:G:H5'	1:13:726:C:H1'	1.95	0.48
1:13:676:A:H5"	11:2I:113:PRO:HB3	1.95	0.48
24:3K:58:A:N3	24:3K:58:A:H2'	2.29	0.48
26:1H:818:G:H5'	26:1H:839:U:OP1	2.13	0.48
26:1H:1443:G:N2	26:1H:1548:C:N3	2.48	0.48
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.47	0.48
26:1H:1930:G:O2'	26:1H:1931:U:OP2	2.32	0.48
26:1H:2062:A:O2'	26:1H:2063:C:O5'	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.95	0.48
26:1H:2599:G:C8	29:11:236:GLY:HA2	2.49	0.48
26:1H:2685:G:OP2	41:B8:51:ARG:NH2	2.46	0.48
28:71:45:ALA:H	28:71:171:ILE:HG21	1.79	0.48
28:71:211:SER:HB2	28:71:223:ARG:HH12	1.79	0.48
34:61:128:LEU:O	34:61:137:PRO:HA	2.14	0.48
36:68:7:TYR:CD1	36:68:20:MET:HE3	2.49	0.48
39:98:65:LEU:HD12	39:98:65:LEU:HA	1.72	0.48
39:98:78:LYS:HE2	39:98:83:ILE:HD11	1.95	0.48
45:F8:49:VAL:HG12	45:F8:50:LYS:N	2.29	0.48
1:1G:1051:C:C4	1:1G:1052:U:C4	3.02	0.48
1:1G:1060:C:H5	3:22:2:GLY:HA3	1.79	0.48
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.13	0.48
1:1G:1136:U:H5"	1:1G:1137:C:C4	2.49	0.48
2:12:221:LEU:HD23	2:12:221:LEU:HA	1.61	0.48
4:32:88:VAL:HG13	5:42:97:GLY:HA2	1.95	0.48
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.96	0.48
5:42:106:PRO:O	5:42:110:LEU:HG	2.14	0.48
16:7A:17:TYR:HE2	16:7A:41:PRO:HG3	1.79	0.48
56:1L:69:A:H4'	56:1L:70:C:OP1	2.13	0.48
26:14:13:A:N1	26:14:525:U:H2'	2.29	0.48
26:14:607:U:OP1	31:39:102:PRO:HA	2.14	0.48
27:1J:88:C:H4'	27:1J:89:G:OP2	2.12	0.48
29:19:25:THR:CG2	29:19:82:ILE:H	2.27	0.48
31:39:158:THR:OG1	31:39:159:GLY:N	2.45	0.48
34:69:75:LEU:O	34:69:105:HIS:NE2	2.47	0.48
40:65:10:ARG:O	40:65:14:VAL:HG22	2.13	0.48
44:A5:78:GLU:OE1	44:A5:99:ARG:HD2	2.13	0.48
45:B5:67:GLY:O	45:B5:69:TYR:N	2.45	0.48
1:13:11:G:C5	1:13:12:U:C5	3.02	0.47
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.96	0.47
1:13:666:G:H5"	1:13:732:C:O2	2.14	0.47
1:13:1002:G:C6	1:13:1003:G:C4	3.02	0.47
1:13:1178:G:N2	1:13:1181:G:H8	2.12	0.47
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.48	0.47
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.47	0.47
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.78	0.47
14:5I:11:LYS:C	14:5I:13:THR:H	2.17	0.47
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.13	0.47
20:BI:63:ILE:HG21	20:BI:81:LYS:HG3	1.96	0.47
20:BI:75:ASN:N	20:BI:75:ASN:OD1	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:527:C:N4	26:1H:2777:G:O2'	2.47	0.47
26:1H:765:G:H2'	26:1H:766:C:C6	2.49	0.47
26:1H:1155:A:O2'	26:1H:1156:A:H2'	2.13	0.47
26:1H:1408:C:C2	26:1H:1595:G:N2	2.82	0.47
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.44	0.47
26:1H:2138:C:N4	26:1H:2139:C:H41	2.12	0.47
30:21:78:LEU:O	30:21:78:LEU:HD13	2.14	0.47
32:41:124:SER:HB2	32:41:131:TYR:CE2	2.48	0.47
34:61:9:LEU:O	34:61:10:GLU:HG3	2.14	0.47
35:58:66:LYS:O	35:58:70:LYS:HB3	2.13	0.47
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.96	0.47
42:C8:83:LEU:HD12	42:C8:113:ALA:HB2	1.96	0.47
49:J8:41:ARG:HH11	49:J8:41:ARG:CG	2.25	0.47
1:1G:559:A:H5"	1:1G:560:U:H3'	1.95	0.47
1:1G:625:G:H2'	1:1G:626:U:C6	2.48	0.47
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.47	0.47
2:12:53:ARG:HG2	2:12:199:TYR:CE1	2.49	0.47
2:12:80:ILE:HD11	2:12:215:LEU:HD12	1.95	0.47
3:22:93:LYS:HB2	3:22:93:LYS:HE2	1.69	0.47
10:1A:44:VAL:HG22	10:1A:66:ARG:HE	1.79	0.47
26:14:996:A:H4'	42:85:92:ARG:CZ	2.44	0.47
26:14:1116:C:H2'	26:14:1117:G:C8	2.49	0.47
26:14:2115:G:N2	26:14:2116:G:N7	2.62	0.47
26:14:2747:G:O6	26:14:2754:U:H3'	2.14	0.47
26:14:2776:A:H4'	26:14:2777:G:H5"	1.95	0.47
31:39:18:ARG:HG2	31:39:19:GLU:H	1.78	0.47
36:25:68:GLU:HA	36:25:78:ARG:HB3	1.96	0.47
40:65:35:ILE:HB	40:65:97:ARG:NH2	2.29	0.47
50:G5:17:SER:HB3	50:G5:18:PRO:CD	2.44	0.47
1:13:37:U:H2'	1:13:38:G:H8	1.77	0.47
1:13:1203:C:H2'	1:13:1204:A:O4'	2.14	0.47
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	1.95	0.47
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.14	0.47
17:8I:65:ILE:HB	17:8I:69:LYS:HB3	1.95	0.47
26:1H:635:C:O2'	26:1H:639:U:OP1	2.28	0.47
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.48	0.47
26:1H:1468:C:H2'	26:1H:1469:A:H8	1.79	0.47
26:1H:2470:G:H5'	38:88:56:ARG:HH22	1.79	0.47
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.49	0.47
34:61:9:LEU:HD21	34:61:35:LEU:HD23	1.95	0.47
47:H8:6:LYS:HE3	47:H8:8:TYR:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:L8:8:LEU:HD22	51:L8:31:LEU:HD22	1.96	0.47
52:M8:15:ILE:HD12	52:M8:16:CYS:O	2.14	0.47
1:1G:107:G:H2'	1:1G:108:G:O4'	2.13	0.47
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.79	0.47
1:1G:1459:C:H2'	1:1G:1460:A:O4'	2.14	0.47
8:72:69:ARG:HB2	8:72:69:ARG:HH11	1.79	0.47
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.15	0.47
23:2L:44:A:H2'	23:2L:45:A:C8	2.48	0.47
26:14:17:G:H2'	26:14:18:C:H6	1.79	0.47
26:14:67:U:H2'	26:14:68:G:H8	1.79	0.47
26:14:120:U:OP2	61:14:3540:HOH:O	2.19	0.47
26:14:196:A:OP2	37:35:46:LYS:NZ	2.47	0.47
26:14:234:C:H2'	26:14:235:U:C6	2.49	0.47
26:14:265:A:H8	26:14:266:G:H1'	1.80	0.47
26:14:443:A:H1'	26:14:1201:C:O4'	2.13	0.47
26:14:925:C:H2'	26:14:926:A:C8	2.48	0.47
26:14:1226:G:H5'	43:95:85:LYS:N	2.29	0.47
26:14:1570:A:H5'	29:19:37:LEU:HG	1.95	0.47
26:14:1729:A:C2	26:14:1730:U:H5	2.32	0.47
26:14:2305:A:H2'	26:14:2306:C:O4'	2.14	0.47
26:14:2611:U:O4	53:J5:3:LYS:HG3	2.14	0.47
30:29:65:GLY:O	30:29:68:ALA:HB2	2.14	0.47
37:35:93:GLY:H	37:35:123:LEU:HD22	1.78	0.47
38:45:81:VAL:O	38:45:82:ARG:NE	2.47	0.47
1:13:221:C:H2'	1:13:222:U:C6	2.48	0.47
4:3E:85:LYS:HB2	4:3E:85:LYS:HE3	1.59	0.47
14:5I:3:ARG:O	14:5I:6:LEU:N	2.47	0.47
16:7I:72:ARG:HD3	16:7I:73:LEU:HG	1.96	0.47
24:3K:19:G:H1'	24:3K:57:G:N2	2.27	0.47
26:1H:56:A:C2	26:1H:57:C:C2	3.03	0.47
26:1H:68:G:H2'	26:1H:69:C:C6	2.49	0.47
26:1H:552:G:H2'	26:1H:553:U:O4'	2.14	0.47
26:1H:628:G:H2'	26:1H:629:G:C8	2.50	0.47
26:1H:1324:G:N2	26:1H:1331:A:C4	2.81	0.47
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.14	0.47
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.15	0.47
26:1H:2375:G:N7	61:1H:3633:HOH:O	2.35	0.47
27:16:0:A:H8	27:16:0:A:OP2	1.97	0.47
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.54	0.47
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.96	0.47
37:78:94:GLU:OE2	37:78:124:LYS:HD3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:E8:28:SER:OG	44:E8:31:GLU:HG2	2.14	0.47
53:N8:37:LYS:HZ3	53:N8:38:ALA:N	2.11	0.47
1:1G:353:A:H5'	1:1G:353:A:H8	1.79	0.47
3:22:119:ARG:NH1	3:22:140:ARG:HG2	2.28	0.47
5:42:67:VAL:HG21	5:42:140:ARG:HA	1.96	0.47
12:3A:117:ARG:NH2	12:3A:124:LYS:HD2	2.29	0.47
13:4A:60:VAL:O	13:4A:63:THR:HG22	2.13	0.47
26:14:330:A:H2	26:14:1210:A:HO2'	1.63	0.47
26:14:732:C:OP2	61:14:3548:HOH:O	2.20	0.47
27:1J:13:A:H2'	27:1J:70:C:O2'	2.14	0.47
32:49:51:ARG:HG2	32:49:54:GLU:OE2	2.15	0.47
33:59:68:THR:O	33:59:71:LEU:HB2	2.14	0.47
37:35:55:ARG:HG2	37:35:56:SER:N	2.27	0.47
1:13:103:C:C2	1:13:104:G:C8	3.02	0.47
1:13:1177:G:H5'	9:8E:97:LYS:NZ	2.30	0.47
5:4E:15:ARG:NE	5:4E:26:PHE:CE2	2.80	0.47
10:1I:77:PRO:HB2	10:1I:79:ARG:NH1	2.29	0.47
22:1K:56:C:N4	26:1H:897:C:O2'	2.48	0.47
26:1H:50:U:H3'	26:1H:51:G:C5'	2.45	0.47
26:1H:686:G:H4'	26:1H:687:C:OP2	2.14	0.47
29:11:39:LYS:HG3	29:11:40:THR:H	1.79	0.47
29:11:272:ALA:HB1	29:11:273:ARG:H	1.49	0.47
30:21:1:MET:N	30:21:83:ASP:O	2.36	0.47
32:41:145:THR:C	32:41:147:ASP:H	2.17	0.47
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.14	0.47
1:1G:175:C:H4'	20:BA:25:ARG:NH1	2.29	0.47
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.78	0.47
12:3A:59:ARG:HH11	12:3A:59:ARG:CG	2.26	0.47
26:14:51:G:N3	26:14:119:A:C2	2.82	0.47
26:14:1060:U:O4'	26:14:1062:G:H5'	2.15	0.47
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.48	0.47
26:14:1488:G:C6	26:14:1489:U:N3	2.82	0.47
26:14:2142:C:H2'	26:14:2143:C:C6	2.50	0.47
26:14:2414:G:H1'	37:35:70:GLN:NE2	2.29	0.47
38:45:26:TYR:O	38:45:28:ALA:N	2.48	0.47
47:D5:28:MET:HG2	47:D5:35:ARG:O	2.13	0.47
1:13:280:C:O2	17:8I:38:ARG:HG3	2.14	0.47
1:13:319:G:H2'	1:13:320:C:O4'	2.14	0.47
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.47
8:7E:34:GLU:OE2	8:7E:37:ARG:HD3	2.14	0.47
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.13	0.47
24:3K:1:G:N3	24:3K:1:G:H2'	2.28	0.47
26:1H:950:G:C5	26:1H:951:C:C4	3.02	0.47
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.47	0.47
34:61:38:LEU:HD22	34:61:40:THR:HG23	1.95	0.47
47:H8:72:ARG:HD3	47:H8:72:ARG:HA	1.66	0.47
1:1G:518:C:H5"	1:1G:519:C:H6	1.78	0.47
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.15	0.47
1:1G:649:G:H2'	1:1G:650:G:C8	2.48	0.47
2:12:71:VAL:HG23	2:12:165:VAL:HG13	1.95	0.47
8:72:95:VAL:O	8:72:131:GLY:N	2.46	0.47
14:5A:13:THR:HB	14:5A:20:ALA:HB2	1.96	0.47
17:8A:31:LEU:HB3	17:8A:32:TYR:CD1	2.48	0.47
57:3L:31:A:H61	57:3L:39:PSU:HN3	1.63	0.47
26:14:336:C:OP1	46:C5:83:THR:HG23	2.15	0.47
26:14:2716:U:H2'	26:14:2717:G:H8	1.79	0.47
36:25:22:ILE:HB	36:25:41:ALA:HA	1.96	0.47
42:85:66:ASN:O	42:85:70:ARG:HB2	2.14	0.47
42:85:92:ARG:C	42:85:94:ASN:H	2.17	0.47
1:13:345:C:H4'	1:13:346:G:C8	2.48	0.47
1:13:604:G:H2'	1:13:605:U:O4'	2.14	0.47
1:13:884:U:H4'	1:13:885:G:H5"	1.97	0.47
1:13:1227:A:OP2	13:4I:111:LYS:HE3	2.15	0.47
3:2E:44:GLU:HA	3:2E:52:LEU:HD11	1.97	0.47
8:7E:23:SER:HA	8:7E:61:VAL:O	2.14	0.47
20:BI:82:SER:O	20:BI:86:ARG:HB2	2.14	0.47
24:3K:72:C:H3'	24:3K:73:A:H5"	1.95	0.47
26:1H:185:U:H4'	26:1H:218:A:H4'	1.97	0.47
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.50	0.47
26:1H:960:A:C8	26:1H:962:G:C8	3.02	0.47
26:1H:1355:G:P	29:11:39:LYS:HE3	2.55	0.47
26:1H:2120:G:H2'	26:1H:2121:G:C8	2.50	0.47
30:21:39:PRO:HD3	30:21:45:THR:HG23	1.97	0.47
32:41:125:PHE:CD1	32:41:131:TYR:HB2	2.50	0.47
33:51:115:VAL:HG11	33:51:148:ILE:HD11	1.96	0.47
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.30	0.47
54:P8:31:LEU:HD22	54:P8:42:LEU:HD13	1.96	0.47
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG2	1.96	0.47
1:1G:262:A:C6	1:1G:263:A:C6	3.03	0.47
1:1G:447:G:O6	1:1G:485:G:H2'	2.14	0.47
1:1G:693:G:H2'	1:1G:694:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.48	0.47
2:12:50:GLU:HA	2:12:53:ARG:HE	1.80	0.47
15:6A:42:HIS:O	15:6A:45:VAL:HG23	2.15	0.47
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.13	0.47
26:14:606:U:H4'	26:14:658:C:H4'	1.96	0.47
26:14:1047:G:N2	26:14:1110:G:N7	2.63	0.47
26:14:1473:G:H1	26:14:1520:U:H3	1.62	0.47
26:14:1488:G:N2	26:14:1502:C:C2	2.83	0.47
26:14:2065:C:H2'	26:14:2066:C:C6	2.49	0.47
26:14:2162:G:C8	26:14:2164:C:N4	2.83	0.47
26:14:2869:G:H2'	26:14:2870:C:O4'	2.14	0.47
31:39:15:SER:OG	31:39:16:GLY:N	2.48	0.47
31:39:83:PHE:C	31:39:85:GLY:H	2.18	0.47
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.96	0.47
32:49:107:LEU:HD11	32:49:178:PHE:HE1	1.80	0.47
35:15:1:MET:SD	42:85:95:LEU:HD21	2.54	0.47
38:45:57:HIS:CD2	38:45:117:ALA:HB2	2.49	0.47
46:C5:87:LYS:CG	46:C5:88:LYS:H	2.25	0.47
47:D5:44:PHE:HE2	47:D5:88:PHE:HZ	1.63	0.47
1:13:157:G:H2'	1:13:158:G:C8	2.50	0.47
1:13:265:G:O2'	17:8I:67:LYS:N	2.48	0.47
1:13:685:G:O2'	1:13:686:U:H5'	2.15	0.47
1:13:986:A:H2'	1:13:987:G:O4'	2.15	0.47
1:13:1028(A):C:H2'	1:13:1028(B):C:C5	2.50	0.47
1:13:1179:A:H4'	9:8E:103:THR:HA	1.95	0.47
7:6E:12:LEU:HD12	7:6E:13:GLN:H	1.78	0.47
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.97	0.47
12:3I:57:LYS:NZ	12:3I:67:THR:HG22	2.30	0.47
18:9I:26:LEU:HD23	18:9I:26:LEU:H	1.80	0.47
24:3K:59:A:H3'	24:3K:60:U:H6	1.79	0.47
26:1H:552:G:C6	26:1H:553:U:C4	3.02	0.47
26:1H:654(C):G:O6	26:1H:654(Q):C:N4	2.48	0.47
26:1H:673:C:H5"	31:31:81:PRO:HD2	1.97	0.47
26:1H:951:C:H2'	26:1H:952:G:H8	1.80	0.47
26:1H:1050:A:C8	26:1H:2751:G:C4	3.02	0.47
26:1H:1332:G:N2	26:1H:1610:A:N7	2.62	0.47
26:1H:1466:G:N3	26:1H:1547:C:N4	2.62	0.47
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.15	0.47
26:1H:1825:A:O2'	26:1H:1826:G:H5'	2.14	0.47
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.50	0.47
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.50	0.47
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.97	0.47
26:1H:2791:C:H42	26:1H:2805:G:H1	1.62	0.47
27:16:8:U:O3'	40:A8:25:ARG:NH2	2.48	0.47
27:16:26:A:H2'	27:16:27:C:O4'	2.15	0.47
29:11:78:LYS:HB2	29:11:78:LYS:HE3	1.51	0.47
29:11:261:LYS:NZ	29:11:263:ARG:H	2.12	0.47
32:41:166:ASP:O	32:41:170:ARG:N	2.42	0.47
36:68:71:ARG:NH2	36:68:77:ILE:HG21	2.29	0.47
36:68:76:ALA:HB3	41:B8:75:ILE:HD12	1.96	0.47
37:78:59:LEU:O	55:Q8:13:ARG:HD2	2.14	0.47
39:98:70:LEU:HD13	39:98:75:LEU:HD13	1.97	0.47
40:A8:110:LEU:HA	40:A8:110:LEU:HD23	1.59	0.47
47:H8:10:ARG:HH21	47:H8:26:GLY:H	1.61	0.47
47:H8:128:VAL:HG12	47:H8:161:VAL:HB	1.96	0.47
49:J8:49:VAL:HG21	49:J8:67:ILE:HG23	1.97	0.47
1:1G:222:U:H2'	1:1G:223:U:H6	1.79	0.47
1:1G:882:C:N4	12:3A:5:PRO:HB3	2.30	0.47
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.96	0.47
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.14	0.47
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.97	0.47
3:22:23:TYR:CE2	10:1A:95:GLU:HB2	2.49	0.47
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.96	0.47
7:62:51:GLN:HG2	7:62:56:GLN:O	2.14	0.47
9:82:16:ARG:O	9:82:63:ILE:HG23	2.14	0.47
9:82:19:LEU:HB3	9:82:59:PHE:HD2	1.80	0.47
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.43	0.47
16:7A:52:ASP:HB3	16:7A:55:ARG:HB2	1.97	0.47
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.14	0.47
17:8A:63:ARG:HG2	17:8A:64:PRO:CD	2.45	0.47
56:1L:23:A:H2'	56:1L:24:G:C8	2.49	0.47
23:2L:59:A:H2	23:2L:61:U:HO2'	1.60	0.47
26:14:57:C:H2'	26:14:58:G:O4'	2.15	0.47
26:14:96:G:H4'	50:G5:48:HIS:NE2	2.30	0.47
26:14:140:A:H8	26:14:1408:C:O2'	1.95	0.47
26:14:185:U:H4'	26:14:218:A:H4'	1.97	0.47
26:14:492:A:H2'	26:14:493:G:O4'	2.14	0.47
26:14:760:G:OP1	61:14:3547:HOH:O	2.20	0.47
26:14:1019:U:HO2'	26:14:1021:A:H2	1.63	0.47
26:14:1062:G:N2	26:14:1089:G:OP2	2.47	0.47
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1427:A:H4'	26:14:1428:C:O4'	2.15	0.47
26:14:1729:A:C6	26:14:1731:G:C6	3.02	0.47
26:14:1926:U:H2'	26:14:1928:A:OP2	2.15	0.47
26:14:2018:G:H2'	26:14:2019:A:O4'	2.14	0.47
26:14:2239:G:OP2	61:14:3549:HOH:O	2.20	0.47
26:14:2304:G:H22	26:14:2312:U:H3	1.63	0.47
26:14:2473:U:O2	26:14:2473:U:H2'	2.13	0.47
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.29	0.47
38:45:60:ARG:HE	38:45:60:ARG:HB3	1.49	0.47
39:55:47:PHE:O	39:55:51:LEU:HG	2.14	0.47
42:85:95:LEU:HD23	42:85:95:LEU:HA	1.56	0.47
45:B5:70:LEU:H	45:B5:70:LEU:HD22	1.79	0.47
46:C5:35:TYR:CE2	46:C5:69:ALA:HB3	2.50	0.47
47:D5:16:SER:O	47:D5:20:ARG:HG3	2.14	0.47
50:G5:4:SER:OG	50:G5:5:GLU:N	2.46	0.47
1:13:4:U:H3	8:7E:105:ARG:CZ	2.28	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.49	0.47
1:13:491:G:H2'	1:13:492:G:O4'	2.14	0.47
1:13:734:G:C2	1:13:735:C:C2	3.03	0.47
2:1E:16:HIS:HE2	2:1E:214:ILE:HG12	1.80	0.47
3:2E:77:ILE:HA	3:2E:84:ILE:HB	1.96	0.47
13:4I:40:ASN:HB3	13:4I:43:THR:OG1	2.15	0.47
18:9I:22:VAL:HA	18:9I:25:THR:OG1	2.15	0.47
26:1H:459:U:H2'	26:1H:460:A:C8	2.50	0.47
26:1H:668:G:O2'	26:1H:669:G:OP1	2.22	0.47
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.50	0.47
33:51:84:SER:O	33:51:85:LYS:HB2	2.14	0.47
37:78:106:LEU:O	37:78:106:LEU:HD22	2.15	0.47
41:B8:102:ILE:HG21	41:B8:110:ILE:HD13	1.97	0.47
1:1G:511:C:O2'	1:1G:534:U:H1'	2.15	0.47
1:1G:683:G:C6	1:1G:684:A:C6	3.03	0.47
7:62:36:LYS:O	7:62:40:ALA:N	2.48	0.47
7:62:99:LEU:HD22	7:62:103:TRP:CE2	2.50	0.47
56:1L:9:A:H3'	56:1L:10:G:H8	1.77	0.47
26:14:481:G:O5'	46:C5:46:LYS:NZ	2.48	0.47
26:14:777:A:O2'	29:19:48:ARG:NH2	2.48	0.47
26:14:982:C:O5'	26:14:982:C:H6	1.97	0.47
26:14:1588:C:H2'	26:14:1589:C:C6	2.50	0.47
34:69:75:LEU:HD23	34:69:76:THR:H	1.80	0.47
36:25:98:VAL:HG12	36:25:117:LEU:CB	2.44	0.47
37:35:86:LYS:HB3	37:35:118:GLY:HA3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:102:ALA:O	40:65:105:ALA:N	2.48	0.47
44:A5:50:VAL:HG22	44:A5:105:VAL:HG23	1.97	0.47
1:13:233:C:H2'	1:13:234:C:H6	1.79	0.47
1:13:392:G:H5'	16:7I:12:LYS:HD2	1.96	0.47
1:13:673:G:H2'	1:13:674:G:C8	2.50	0.47
1:13:749:C:H2'	1:13:750:G:H8	1.79	0.47
1:13:1285:A:H4'	1:13:1286:A:O5'	2.14	0.47
1:13:1292:U:C2	1:13:1293:G:C8	3.03	0.47
1:13:1346:A:C5'	9:8E:120:ARG:HH12	2.17	0.47
2:1E:67:THR:OG1	2:1E:157:ARG:NH2	2.48	0.47
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.95	0.47
4:3E:89:THR:O	4:3E:92:VAL:HG23	2.14	0.47
4:3E:106:TYR:HE1	4:3E:107:ARG:HH11	1.63	0.47
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.49	0.47
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.97	0.47
9:8E:53:VAL:HG22	9:8E:92:TYR:CD1	2.50	0.47
13:4I:84:ILE:CG2	13:4I:86:CYS:HB3	2.45	0.47
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.43	0.47
22:1K:76:A:C8	26:1H:2583:G:N2	2.73	0.47
23:2K:64:G:H2'	23:2K:65:G:H8	1.80	0.47
26:1H:1900:A:O2'	26:1H:1901:A:OP1	2.22	0.47
26:1H:2751:G:C4	33:51:3:ARG:HB3	2.49	0.47
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.50	0.47
29:11:31:LYS:HG3	29:11:33:LEU:HD23	1.97	0.47
36:68:68:GLU:CD	36:68:68:GLU:H	2.17	0.47
37:78:34:GLY:O	37:78:36:LYS:HB2	2.14	0.47
45:F8:5:TYR:O	50:K8:36:ARG:NH2	2.47	0.47
54:P8:27:GLY:HA2	54:P8:30:VAL:CG2	2.43	0.47
1:1G:410:G:H21	1:1G:432:A:H62	1.63	0.47
1:1G:522:C:H2'	1:1G:523:A:O4'	2.15	0.47
1:1G:626:U:H2'	1:1G:627:G:C8	2.50	0.47
2:12:88:ALA:HB2	2:12:218:ALA:HB1	1.97	0.47
2:12:127:ILE:HG12	2:12:130:ARG:HD3	1.97	0.47
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.30	0.47
4:32:190:ASP:OD1	4:32:191:ARG:N	2.48	0.47
5:42:103:GLY:C	5:42:106:PRO:HD2	2.36	0.47
10:1A:34:VAL:HG12	10:1A:74:ILE:HG23	1.97	0.47
21:1B:6:ARG:HD3	21:1B:15:ARG:CZ	2.44	0.47
23:2L:21:U:H2'	23:2L:21:U:OP2	2.15	0.47
23:2L:25:U:H2'	23:2L:26:C:O4'	2.15	0.47
26:14:71:A:H5'	26:14:71:A:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:801:G:OP2	31:39:55:GLY:HA2	2.15	0.47
26:14:1399:C:H2'	26:14:1400:G:C8	2.50	0.47
26:14:1891:G:C6	26:14:1892:C:C4	3.02	0.47
26:14:2443:C:H2'	26:14:2444:G:H8	1.79	0.47
27:1J:15:A:H5'	27:1J:16:G:C8	2.50	0.47
28:79:50:ASP:OD1	28:79:52:ARG:HG3	2.15	0.47
43:95:21:ARG:NH2	43:95:91:TYR:O	2.48	0.47
1:13:1438:G:OP1	20:BI:34:LYS:HE2	2.15	0.47
2:1E:180:LEU:HB2	2:1E:182:ILE:HG13	1.97	0.47
9:8E:3:GLN:HA	9:8E:20:ARG:HB3	1.97	0.47
10:1I:57:LYS:HE2	10:1I:60:ARG:HH22	1.79	0.47
26:1H:724:U:H2'	26:1H:725:G:O4'	2.15	0.47
26:1H:1971:A:C5	29:11:241:PRO:HD3	2.49	0.47
26:1H:2129:C:H5"	28:71:6:ARG:NH2	2.30	0.47
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.14	0.47
45:F8:35:THR:N	45:F8:38:GLU:OE1	2.46	0.47
47:H8:70:LEU:HB2	47:H8:91:LEU:HD11	1.96	0.47
1:1G:464:G:O6	1:1G:466:C:H4'	2.15	0.47
1:1G:509:A:O2'	1:1G:510:A:OP1	2.28	0.47
1:1G:1280:A:H5"	10:1A:40:LEU:HG	1.96	0.47
1:1G:1330:U:H4'	13:4A:23:TYR:CE1	2.49	0.47
1:1G:1451:A:OP2	1:1G:1452:C:N4	2.48	0.47
3:22:173:VAL:HG13	3:22:182:ILE:HG21	1.96	0.47
5:42:143:ARG:HD3	5:42:143:ARG:HA	1.74	0.47
8:72:19:VAL:HG21	8:72:21:LYS:NZ	2.30	0.47
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.97	0.47
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.50	0.47
57:3L:60:U:H5"	57:3L:61:C:OP2	2.14	0.47
26:14:11:G:H1'	26:14:2802:G:P	2.55	0.47
29:19:231:HIS:ND1	29:19:232:PRO:HD2	2.30	0.47
32:49:49:ASP:O	32:49:52:ILE:HG22	2.15	0.47
34:69:128:LEU:O	34:69:137:PRO:HA	2.15	0.47
42:85:29:SER:OG	42:85:30:LYS:NZ	2.37	0.47
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.97	0.46
1:13:501:C:H1'	1:13:549:C:H1'	1.96	0.46
1:13:939:G:C6	1:13:940:C:N4	2.83	0.46
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.50	0.46
11:2I:85:ARG:NE	11:2I:111:ASP:HB3	2.28	0.46
15:6I:21:ASP:OD2	15:6I:24:SER:HB2	2.15	0.46
26:1H:449:A:O2'	26:1H:450:G:H5'	2.16	0.46
26:1H:462:C:C4	26:1H:463:G:N7	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:784:A:C8	26:1H:792:G:C5	3.03	0.46
26:1H:817:C:H4'	26:1H:932:G:C5	2.50	0.46
26:1H:990:A:H1'	26:1H:1156:A:N3	2.30	0.46
26:1H:1550:C:O2'	26:1H:1551:C:H5'	2.16	0.46
26:1H:1930:G:N2	26:1H:1968:G:H2'	2.29	0.46
26:1H:2130:U:P	28:71:6:ARG:HH22	2.38	0.46
26:1H:2210:G:H3'	26:1H:2211:G:N7	2.30	0.46
26:1H:2682:U:H5"	30:21:11:MET:HB2	1.97	0.46
28:71:214:VAL:HG23	28:71:224:ILE:HG12	1.98	0.46
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.44	0.46
31:31:32:LEU:HD21	31:31:105:VAL:HG13	1.97	0.46
31:31:152:GLU:OE1	31:31:191:ARG:NE	2.46	0.46
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.97	0.46
39:98:28:LEU:HD11	39:98:114:VAL:HG12	1.97	0.46
44:E8:9:TYR:HA	44:E8:100:THR:HG23	1.97	0.46
55:Q8:7:HIS:CD2	55:Q8:61:LEU:HD13	2.49	0.46
1:1G:236:G:OP1	17:8A:40:LYS:NZ	2.48	0.46
1:1G:615:C:C2	1:1G:616:G:C8	3.03	0.46
1:1G:841:U:H3'	1:1G:841:U:C6	2.48	0.46
1:1G:1002:G:C6	1:1G:1003:G:N7	2.83	0.46
1:1G:1347:G:H22	1:1G:1374:A:P	2.37	0.46
25:4L:8:A:H3'	25:4L:9:G:H8	1.80	0.46
26:14:602:G:N2	26:14:655:A:C8	2.83	0.46
26:14:1257:C:OP1	31:39:75:HIS:HE1	1.98	0.46
26:14:2212:A:H1'	26:14:2215:G:C5	2.49	0.46
26:14:2469:A:H2	26:14:2481:G:N2	2.12	0.46
26:14:2647:U:H2'	26:14:2648:C:H6	1.79	0.46
31:39:3:GLU:O	31:39:19:GLU:HB2	2.14	0.46
32:49:78:SER:HA	32:49:81:LYS:O	2.15	0.46
39:55:8:ARG:NE	39:55:43:GLU:OE2	2.48	0.46
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.80	0.46
1:13:21:G:H2'	1:13:22:G:C8	2.50	0.46
1:13:376:G:OP2	16:7I:67:THR:HG21	2.14	0.46
1:13:828:A:N7	1:13:859:A:C8	2.84	0.46
1:13:1171:G:O2'	1:13:1172:C:H5'	2.14	0.46
2:1E:114:ARG:HE	2:1E:118:LEU:HD23	1.78	0.46
3:2E:156:ARG:HB3	3:2E:160:ALA:O	2.14	0.46
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.97	0.46
11:2I:67:ASP:O	11:2I:71:LYS:HG2	2.15	0.46
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.49	0.46
26:1H:207:A:H2'	26:1H:208:C:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:363:G:H2'	26:1H:363(A):A:C8	2.49	0.46
26:1H:752:A:OP1	54:P8:3:ARG:NH2	2.49	0.46
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.15	0.46
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.97	0.46
26:1H:2640:G:OP1	35:58:74:ARG:NH1	2.46	0.46
29:11:37:LEU:CD1	29:11:37:LEU:H	2.21	0.46
29:11:218:ARG:HB3	29:11:219:PRO:HD2	1.97	0.46
38:88:43:THR:HA	38:88:94:VAL:HG12	1.97	0.46
39:98:53:HIS:ND1	39:98:94:TYR:OH	2.44	0.46
42:C8:88:ILE:O	42:C8:90:VAL:HG13	2.16	0.46
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.97	0.46
48:I8:84:LEU:HD12	48:I8:84:LEU:HA	1.74	0.46
4:32:19:LEU:HB2	4:32:21:LEU:HD11	1.97	0.46
9:82:14:VAL:HG12	9:82:66:ARG:H	1.81	0.46
18:9A:47:THR:O	18:9A:83:GLU:N	2.45	0.46
20:BA:48:LYS:O	20:BA:50:GLU:N	2.48	0.46
26:14:601:C:O2	26:14:605:C:H4'	2.15	0.46
26:14:1204:A:H2	26:14:1241:A:N1	2.13	0.46
26:14:2052:G:H2'	26:14:2053:G:C8	2.50	0.46
26:14:2056:G:OP2	61:14:3550:HOH:O	2.21	0.46
26:14:2688:U:H2'	26:14:2719:G:N2	2.30	0.46
26:14:2749:A:O4'	33:59:63:SER:HA	2.16	0.46
27:1J:76:G:H2'	27:1J:77:U:O4'	2.15	0.46
28:79:19:ILE:HA	28:79:223:ARG:HB3	1.97	0.46
30:29:54:GLN:HG2	30:29:73:GLU:OE2	2.14	0.46
33:59:61:HIS:CD2	33:59:61:HIS:H	2.33	0.46
34:69:128:LEU:HD13	34:69:128:LEU:HA	1.68	0.46
38:45:57:HIS:NE2	38:45:116:GLU:HB3	2.31	0.46
39:55:75:LEU:O	39:55:75:LEU:HD22	2.16	0.46
42:85:98:LEU:HA	42:85:100:VAL:O	2.15	0.46
46:C5:17:SER:OG	46:C5:18:GLY:O	2.32	0.46
50:G5:31:GLU:O	50:G5:35:LEU:HD23	2.15	0.46
55:M5:48:PHE:HA	55:M5:49:VAL:HG13	1.98	0.46
1:13:1399:C:C2	1:13:1502:A:N6	2.84	0.46
2:1E:149:LEU:O	2:1E:153:ARG:N	2.48	0.46
2:1E:169:LYS:HE3	2:1E:169:LYS:HB2	1.54	0.46
4:3E:88:VAL:HG12	5:4E:97:GLY:HA3	1.97	0.46
5:4E:82:VAL:HG21	5:4E:138:ALA:HA	1.97	0.46
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.81	0.46
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.78	0.46
15:6I:6:GLU:H	15:6I:6:GLU:HG2	1.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.80	0.46
19:AI:65:ASN:OD1	19:AI:65:ASN:N	2.40	0.46
20:BI:22:ARG:O	20:BI:26:ASN:ND2	2.48	0.46
26:1H:654:A:N3	26:1H:654(A):A:H5"	2.30	0.46
26:1H:1576:U:C2	26:1H:1577:C:C5	3.03	0.46
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.16	0.46
26:1H:2516:G:C6	26:1H:2517:C:C4	3.03	0.46
26:1H:2516:G:C6	26:1H:2517:C:N4	2.84	0.46
26:1H:2666:C:H5"	26:1H:2667:C:OP2	2.15	0.46
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.51	0.46
32:41:137:GLU:HG3	32:41:140:ILE:HG23	1.96	0.46
37:78:59:LEU:O	37:78:59:LEU:HD12	2.15	0.46
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.49	0.46
42:C8:19:LYS:O	42:C8:22:LYS:HG3	2.15	0.46
43:D8:49:THR:HG23	43:D8:51:VAL:N	2.31	0.46
52:M8:22:ILE:O	52:M8:24:THR:HG23	2.15	0.46
1:1G:155:C:H2'	1:1G:156:G:C8	2.50	0.46
1:1G:197:A:H8	1:1G:198:G:N9	2.13	0.46
1:1G:430:A:H2'	1:1G:431:A:H8	1.80	0.46
1:1G:1054:C:H6	1:1G:1196:U:O2'	1.98	0.46
1:1G:1122:U:C4	1:1G:1123:A:N7	2.84	0.46
7:62:137:LYS:O	7:62:137:LYS:HD3	2.16	0.46
56:1L:42:A:O5'	56:1L:42:A:H8	1.98	0.46
23:2L:2:G:N3	23:2L:2:G:H2'	2.30	0.46
57:3L:3:G:H8	57:3L:3:G:O5'	1.98	0.46
26:14:1268:A:H2'	26:14:1269:A:O4'	2.15	0.46
26:14:1751:C:H2'	26:14:1752:C:C6	2.50	0.46
26:14:2572:A:OP1	26:14:2574:G:O2'	2.33	0.46
26:14:2734:A:C8	26:14:2735:G:C8	3.03	0.46
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.46	0.46
41:75:132:LYS:HB3	41:75:132:LYS:NZ	2.31	0.46
1:13:972:C:O3'	10:1I:57:LYS:HD3	2.15	0.46
1:13:1005:A:H1'	1:13:1036:G:N2	2.30	0.46
1:13:1153:C:H2'	1:13:1154:G:O4'	2.16	0.46
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.97	0.46
26:1H:533:G:H5'	42:C8:24:TYR:CD1	2.50	0.46
26:1H:998:C:OP2	42:C8:58:ARG:NH1	2.49	0.46
26:1H:1277:G:H5"	39:98:40:LYS:HZ3	1.81	0.46
26:1H:1696:G:C6	26:1H:1697:G:C4	3.03	0.46
26:1H:2052:G:H4'	30:21:143:ASN:O	2.14	0.46
26:1H:2065:C:H2'	26:1H:2066:C:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2174:C:O2	28:71:218:MET:HG3	2.15	0.46
26:1H:2213:U:H1'	49:J8:52:ARG:CZ	2.46	0.46
26:1H:2642:G:N2	26:1H:2773:C:C2	2.84	0.46
27:16:60:C:C2	27:16:61:G:C8	3.04	0.46
28:71:46:LYS:HB3	28:71:210:ARG:HB2	1.96	0.46
29:11:44:ASN:O	29:11:46:GLN:N	2.49	0.46
38:88:118:LEU:HA	38:88:118:LEU:HD23	1.73	0.46
41:B8:26:ASP:HB3	41:B8:120:ARG:HH22	1.81	0.46
42:C8:81:HIS:CE1	42:C8:85:LYS:HE2	2.51	0.46
44:E8:71:VAL:HA	44:E8:107:LEU:HD12	1.97	0.46
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.15	0.46
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.49	0.46
1:1G:485:G:HO2'	1:1G:486:U:H6	1.61	0.46
1:1G:736:C:OP1	18:9A:72:ARG:NH2	2.41	0.46
1:1G:942:G:N2	9:82:124:GLN:OE1	2.47	0.46
1:1G:1004:A:H1'	1:1G:1026:G:N7	2.29	0.46
1:1G:1061:G:H2'	1:1G:1062:U:C6	2.51	0.46
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.15	0.46
4:32:78:LEU:HD22	4:32:96:LEU:HB3	1.98	0.46
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.97	0.46
9:82:24:GLY:HA2	9:82:59:PHE:O	2.16	0.46
26:14:1005:C:H2'	26:14:1006:C:C6	2.51	0.46
26:14:2582:G:C2	26:14:2583:G:C8	3.04	0.46
29:19:182:LEU:N	29:19:272:ALA:HB3	2.30	0.46
35:15:4:TYR:HB2	42:85:101:ARG:HH12	1.80	0.46
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.97	0.46
37:35:71:VAL:HG12	37:35:72:PRO:HD3	1.97	0.46
42:85:112:ARG:HE	43:95:47:VAL:HG21	1.80	0.46
47:D5:77:ASP:CG	47:D5:80:ARG:HH11	2.19	0.46
50:G5:52:ASP:O	50:G5:56:GLN:HG3	2.16	0.46
1:13:116:A:H61	1:13:313:A:H1'	1.80	0.46
1:13:1134:G:C2	1:13:1135:U:H1'	2.50	0.46
1:13:1280:A:H3'	1:13:1281:U:H5'	1.97	0.46
1:13:1391:U:H2'	1:13:1392:G:H8	1.71	0.46
8:7E:114:THR:HG22	8:7E:130:GLY:O	2.15	0.46
9:8E:36:TYR:OH	9:8E:73:GLN:NE2	2.39	0.46
9:8E:108:VAL:HG22	9:8E:109:VAL:N	2.30	0.46
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.16	0.46
18:9I:54:ARG:HG3	18:9I:55:ARG:HD2	1.97	0.46
24:3K:56:C:H3'	24:3K:57:G:C8	2.50	0.46
26:1H:64:A:C2'	26:1H:65:C:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:529:A:H8	26:1H:530:G:C6	2.34	0.46
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.46	0.46
26:1H:1900:A:N1	26:1H:1970:A:C6	2.83	0.46
26:1H:2864:G:H2'	26:1H:2865:U:H6	1.79	0.46
29:11:70:TRP:CE2	29:11:150:LYS:HD3	2.51	0.46
29:11:79:VAL:O	29:11:113:VAL:HG23	2.15	0.46
31:31:155:LEU:HD12	31:31:174:VAL:CG2	2.44	0.46
32:41:113:ARG:HD3	32:41:140:ILE:O	2.16	0.46
34:61:29:TYR:O	34:61:32:PRO:HD2	2.15	0.46
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.71	0.46
55:Q8:31:HIS:O	55:Q8:36:LYS:NZ	2.48	0.46
1:1G:411:A:C5	1:1G:413:G:H1'	2.50	0.46
1:1G:438:G:H4'	4:32:123:HIS:CE1	2.51	0.46
1:1G:439:A:C8	1:1G:440:A:C8	3.04	0.46
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.14	0.46
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.15	0.46
1:1G:1163:C:H2'	1:1G:1164:G:H8	1.79	0.46
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.15	0.46
1:1G:1329:A:OP1	13:4A:28:ALA:HB3	2.15	0.46
3:22:26:LYS:HG3	3:22:27:LYS:H	1.79	0.46
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.97	0.46
20:BA:30:LYS:HE2	20:BA:30:LYS:HB3	1.76	0.46
26:14:654(C):G:H22	26:14:654(R):C:HO2'	1.58	0.46
26:14:836:G:H2'	26:14:837:C:C6	2.51	0.46
26:14:897:C:H2'	26:14:898:C:H6	1.81	0.46
26:14:1167:U:C2	26:14:1183:G:N2	2.84	0.46
26:14:1525:G:H2'	26:14:1526:G:H8	1.79	0.46
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.49	0.46
26:14:2533:A:H2'	26:14:2534:A:O4'	2.14	0.46
26:14:2807:G:H22	26:14:2892:A:H62	1.62	0.46
29:19:200:ASP:OD1	29:19:203:ASN:ND2	2.48	0.46
36:25:67:LYS:HD2	36:25:68:GLU:OE1	2.15	0.46
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.98	0.46
43:95:29:PRO:HA	43:95:61:VAL:CG1	2.45	0.46
50:G5:22:GLU:OE2	50:G5:68:ARG:NH2	2.49	0.46
1:13:68:G:C2	1:13:69:G:C8	3.03	0.46
1:13:232:G:C5	1:13:233:C:C5	3.03	0.46
1:13:927:G:N2	1:13:1391:U:H1'	2.30	0.46
1:13:1098:C:C2	1:13:1099:G:C8	3.03	0.46
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.63	0.46
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:412:A:H5"	26:1H:413:C:OP2	2.16	0.46
26:1H:435:C:C2'	26:1H:436:C:H5'	2.45	0.46
26:1H:573:G:O2'	26:1H:574:C:H3'	2.16	0.46
26:1H:1403:C:O2	26:1H:1403:C:H2'	2.15	0.46
26:1H:2629:A:O2'	26:1H:2630:G:H5"	2.16	0.46
26:1H:2811:G:OP1	30:21:60:ASN:HB2	2.15	0.46
32:41:96:ARG:H	32:41:99:MET:CE	2.28	0.46
37:78:49:ARG:HD2	55:Q8:60:LEU:HB3	1.96	0.46
37:78:49:ARG:HB2	55:Q8:61:LEU:HD21	1.98	0.46
44:E8:83:LYS:HB3	44:E8:95:ILE:HD13	1.97	0.46
1:1G:107:G:C2	1:1G:108:G:H1'	2.50	0.46
1:1G:149:A:H8	1:1G:149:A:O5'	1.99	0.46
1:1G:625:G:H2'	1:1G:626:U:H6	1.81	0.46
1:1G:735:C:H2'	1:1G:736:C:H6	1.80	0.46
1:1G:1039:C:H2'	1:1G:1040:U:C6	2.50	0.46
2:12:19:HIS:NE2	2:12:206:ASP:HB2	2.31	0.46
8:72:87:SER:HA	8:72:93:VAL:HG23	1.97	0.46
11:2A:25:TYR:HE1	11:2A:87:THR:O	1.99	0.46
15:6A:10:LYS:HA	15:6A:13:GLN:HG3	1.97	0.46
23:2L:9:G:O4'	23:2L:47:G7M:H1'	2.14	0.46
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.51	0.46
26:14:1071:G:O6	26:14:1072:C:N4	2.49	0.46
26:14:1480:G:C6	26:14:1482:U:C4	3.03	0.46
26:14:2320:A:C6	26:14:2333:A:C8	3.03	0.46
26:14:2518:A:H8	26:14:2518:A:O5'	1.99	0.46
26:14:2577:A:OP2	53:J5:3:LYS:NZ	2.43	0.46
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.98	0.46
30:29:49:LEU:HD11	30:29:81:ILE:HG12	1.98	0.46
30:29:55:ASN:HB2	30:29:58:ARG:HH21	1.79	0.46
37:35:11:GLY:C	37:35:13:ASN:H	2.19	0.46
40:65:67:ARG:NH1	40:65:67:ARG:HB2	2.30	0.46
42:85:98:LEU:CB	42:85:102:GLU:HB2	2.46	0.46
1:13:779:C:H2'	1:13:780:A:O4'	2.16	0.46
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.49	0.46
7:6E:73:MET:HG3	7:6E:89:MET:O	2.16	0.46
13:4I:9:ILE:HG22	13:4I:10:PRO:O	2.16	0.46
13:4I:32:GLU:O	13:4I:35:GLU:HG2	2.16	0.46
17:8I:76:LEU:HD12	17:8I:77:VAL:N	2.30	0.46
24:3K:58:A:O2'	24:3K:59:A:OP1	2.29	0.46
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.04	0.46
26:1H:495:G:HO2'	44:E8:62:HIS:HE2	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.98	0.46
26:1H:593:G:H1	26:1H:664:C:H42	1.63	0.46
26:1H:880:G:N1	26:1H:881:G:O6	2.49	0.46
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.16	0.46
26:1H:1170:G:C2'	26:1H:1171:G:H5'	2.46	0.46
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.80	0.46
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.16	0.46
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.31	0.46
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.50	0.46
26:1H:2261:C:C6	48:I8:16:SER:HB3	2.51	0.46
26:1H:2312:U:P	32:41:74:LYS:HD2	2.56	0.46
26:1H:2660:A:H2'	26:1H:2661:G:O4'	2.16	0.46
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.51	0.46
28:71:20:TYR:H	28:71:224:ILE:HA	1.80	0.46
29:11:232:PRO:HG2	29:11:248:SER:O	2.15	0.46
31:31:104:LYS:O	31:31:108:LYS:HG3	2.16	0.46
33:51:7:LEU:HD23	33:51:65:HIS:HE1	1.80	0.46
34:61:77:LEU:HG	34:61:101:LEU:HD13	1.97	0.46
37:78:112:LEU:HB3	37:78:127:ALA:HB1	1.97	0.46
1:1G:363:A:C6	12:3A:31:PRO:HD2	2.50	0.46
1:1G:535:A:OP1	61:1G:1705:HOH:O	2.21	0.46
2:12:172:ILE:H	2:12:172:ILE:HD12	1.80	0.46
3:22:118:GLN:HA	3:22:187:ALA:CB	2.45	0.46
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.97	0.46
8:72:101:PRO:HB2	8:72:103:VAL:HG23	1.98	0.46
9:82:45:ALA:O	9:82:48:GLU:HB2	2.15	0.46
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.81	0.46
14:5A:29:ARG:HG3	14:5A:31:ARG:O	2.14	0.46
15:6A:76:GLU:OE1	15:6A:80:ALA:HB2	2.15	0.46
18:9A:32:ARG:HD3	18:9A:65:ILE:HD13	1.98	0.46
19:AA:13:ASP:O	19:AA:16:LEU:N	2.45	0.46
23:2L:47:G7M:H3'	23:2L:48:U:C2	2.51	0.46
57:3L:56:C:H2'	57:3L:57:G:N7	2.30	0.46
26:14:412:A:H5"	26:14:413:C:OP2	2.15	0.46
26:14:547:A:H2'	26:14:548:A:C8	2.50	0.46
26:14:924:C:H2'	26:14:925:C:C6	2.51	0.46
26:14:981:A:H8	26:14:982:C:C5	2.33	0.46
26:14:1358:G:N2	26:14:1372:U:C5	2.84	0.46
26:14:1418:G:H8	26:14:1418:G:O5'	1.99	0.46
26:14:1419:A:N6	26:14:1421:G:N3	2.64	0.46
26:14:1858:G:O2'	26:14:1884:A:N6	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1926:U:O2'	26:14:1928:A:N7	2.39	0.46
26:14:2115:G:H2'	26:14:2115:G:N3	2.30	0.46
26:14:2431:U:O2'	26:14:2433:A:N7	2.46	0.46
33:59:74:ASN:HA	33:59:77:LYS:HB2	1.96	0.46
40:65:106:ARG:H	40:65:106:ARG:HG3	1.48	0.46
42:85:91:ASP:C	42:85:93:LYS:N	2.68	0.46
45:B5:35:THR:HG23	45:B5:38:GLU:HB3	1.98	0.46
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.16	0.46
1:13:953:G:N7	13:4I:104:ARG:NH2	2.61	0.46
1:13:1106:G:C5	1:13:1107:C:C5	3.04	0.46
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.30	0.46
1:13:1263:C:H2'	1:13:1264:C:C6	2.45	0.46
1:13:1305:G:H8	1:13:1305:G:OP2	1.99	0.46
2:1E:74:LYS:HB2	2:1E:208:ILE:HD13	1.96	0.46
3:2E:127:ARG:HA	3:2E:127:ARG:HD2	1.76	0.46
4:3E:47:ARG:NH1	4:3E:47:ARG:O	2.49	0.46
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.76	0.46
26:1H:8:A:H2'	26:1H:9:U:C6	2.51	0.46
26:1H:806:C:C2	26:1H:807:U:C5	3.04	0.46
26:1H:1280:G:N2	26:1H:1291:C:C2	2.83	0.46
27:16:42:C:O2'	32:41:67:LYS:HE3	2.16	0.46
28:71:29:VAL:HG21	28:71:214:VAL:HG12	1.97	0.46
28:71:218:MET:SD	28:71:218:MET:N	2.88	0.46
29:11:233:HIS:HA	61:11:403:HOH:O	2.15	0.46
32:41:110:ALA:HA	32:41:140:ILE:O	2.16	0.46
42:C8:68:ALA:O	42:C8:71:GLN:HB2	2.15	0.46
1:1G:181:G:H4'	1:1G:182:U:H5'	1.98	0.46
1:1G:186(E):C:C2	1:1G:191(C):G:N2	2.83	0.46
1:1G:422:C:O2'	1:1G:423:G:N2	2.49	0.46
3:22:131:ARG:NH2	3:22:166:GLU:HG2	2.31	0.46
6:52:60:PHE:O	6:52:61:LEU:HD12	2.16	0.46
7:62:47:CYS:HA	7:62:50:ILE:HD12	1.98	0.46
9:82:17:VAL:HG11	9:82:81:ILE:HA	1.98	0.46
10:1A:28:ARG:NH1	10:1A:34:VAL:HG22	2.31	0.46
21:1B:2:GLY:HA2	21:1B:10:ARG:HH12	1.80	0.46
57:3L:51:A:N6	57:3L:63:U:H3	2.14	0.46
26:14:531:C:C5	26:14:2035:G:C2	3.04	0.46
26:14:563:G:C6	26:14:564:C:C4	3.03	0.46
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.34	0.46
26:14:1372:U:H2'	26:14:1373:A:O4'	2.15	0.46
26:14:1999:C:H4'	26:14:2723:C:O2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:72:LYS:HB3	29:19:75:ILE:HD12	1.98	0.46
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.98	0.46
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.45	0.46
35:15:4:TYR:O	42:85:64:ARG:NH1	2.45	0.46
39:55:78:LYS:O	39:55:82:GLU:HG2	2.16	0.46
44:A5:34:ASN:ND2	53:J5:39:MET:HG3	2.31	0.46
1:13:142:G:H2'	1:13:143:A:C8	2.50	0.46
1:13:1533:C:O2'	1:13:1534:A:OP1	2.31	0.46
4:3E:117:ALA:O	4:3E:120:LEU:HB2	2.15	0.46
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.16	0.46
7:6E:148:ASN:N	7:6E:148:ASN:ND2	2.64	0.46
13:4I:88:ARG:H	13:4I:88:ARG:HG3	1.53	0.46
22:1K:26:A:H62	22:1K:44:U:H3	1.64	0.46
24:3K:3:G:H2'	24:3K:4:U:O4'	2.15	0.46
26:1H:216:A:H2'	26:1H:217:G:H8	1.79	0.46
26:1H:827:U:H5'	26:1H:828:U:O5'	2.15	0.46
26:1H:1512:G:C5	26:1H:1513:C:C4	3.04	0.46
26:1H:1647:G:P	26:1H:1647:G:H3'	2.56	0.46
26:1H:2018:G:H2'	26:1H:2019:A:C8	2.51	0.46
26:1H:2688:U:O2	26:1H:2688:U:H3'	2.16	0.46
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.15	0.46
27:16:40:U:H2'	52:M8:2:LYS:HE3	1.98	0.46
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.63	0.46
33:51:12:PRO:HG2	33:51:13:LYS:HG2	1.96	0.46
35:58:13:TRP:O	35:58:135:PRO:HD2	2.15	0.46
42:C8:108:GLU:HG3	43:D8:44:LYS:NZ	2.31	0.46
50:K8:4:SER:CB	50:K8:7:ARG:HG2	2.45	0.46
52:M8:9:LEU:HD12	52:M8:27:THR:N	2.31	0.46
1:1G:111:G:H8	1:1G:111:G:O5'	1.98	0.46
7:62:15:ASP:O	7:62:19:GLY:HA2	2.16	0.46
9:82:27:THR:OG1	9:82:32:ASP:HA	2.16	0.46
12:3A:6:THR:O	12:3A:10:LEU:HD12	2.16	0.46
26:14:311:A:C6	26:14:328:U:C4	3.04	0.46
26:14:2351:G:O6	55:M5:39:LYS:HG3	2.16	0.46
26:14:2550:G:C5	26:14:2551:C:C5	3.03	0.46
29:19:58:HIS:O	29:19:60:ARG:HD2	2.16	0.46
30:29:150:VAL:HG13	30:29:154:LYS:HD2	1.98	0.46
31:39:3:GLU:HA	31:39:24:LEU:HD12	1.98	0.46
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.97	0.46
38:45:86:GLY:O	38:45:88:GLY:N	2.49	0.46
39:55:45:ARG:HA	39:55:95:THR:HG21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:80:LEU:HA	40:65:80:LEU:HD23	1.69	0.46
46:C5:87:LYS:HG2	46:C5:88:LYS:N	2.28	0.46
47:D5:59:LEU:HB3	47:D5:60:GLU:H	1.46	0.46
1:13:45:U:H2'	1:13:46:G:C8	2.51	0.46
1:13:187:C:H2'	1:13:188:U:O4'	2.16	0.46
1:13:752:G:H4'	15:6I:69:TYR:OH	2.16	0.46
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.31	0.46
2:1E:220:ASP:O	2:1E:224:GLN:HB2	2.16	0.46
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.98	0.46
18:9I:52:PRO:O	18:9I:56:THR:HG23	2.15	0.46
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.50	0.46
26:1H:459:U:H2'	26:1H:460:A:H8	1.80	0.46
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.16	0.46
26:1H:1689:A:C6	26:1H:1700:A:C2	3.04	0.46
26:1H:1689:A:N6	26:1H:1698:A:H2	2.10	0.46
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.16	0.46
26:1H:2776:A:H4'	26:1H:2777:G:H5"	1.97	0.46
28:71:47:LEU:HB2	28:71:169:GLY:O	2.16	0.46
29:11:75:ILE:HD13	29:11:99:ASP:OD2	2.16	0.46
29:11:105:ILE:HA	29:11:105:ILE:HD13	1.65	0.46
31:31:41:LEU:HA	31:31:44:ARG:HD3	1.98	0.46
35:58:68:GLU:HG3	35:58:69:GLN:N	2.31	0.46
37:78:130:PHE:CE1	37:78:146:VAL:HG23	2.51	0.46
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.16	0.46
2:12:144:ARG:O	2:12:147:LYS:HB3	2.16	0.46
3:22:61:ALA:C	3:22:63:ASN:H	2.18	0.46
7:62:111:ARG:CZ	7:62:122:HIS:HB3	2.46	0.46
17:8A:21:VAL:HG11	17:8A:59:ILE:HG13	1.98	0.46
20:BA:87:LYS:HE3	20:BA:87:LYS:HB2	1.75	0.46
26:14:1153:C:OP1	42:85:93:LYS:NZ	2.49	0.46
26:14:1716:U:H2'	26:14:1717:G:H8	1.80	0.46
26:14:2197:U:H1'	26:14:2198:A:H8	1.78	0.46
26:14:2461:C:C2	26:14:2462:U:C5	3.04	0.46
30:29:81:ILE:HG22	30:29:82:ARG:N	2.27	0.46
33:59:60:ARG:O	33:59:63:SER:OG	2.33	0.46
34:69:88:ILE:HG22	34:69:90:GLY:N	2.30	0.46
35:15:121:LYS:HB3	35:15:123:TYR:HE1	1.80	0.46
36:25:71:ARG:NH2	36:25:77:ILE:HG21	2.31	0.46
37:35:138:LEU:HD12	37:35:144:GLU:HG3	1.97	0.46
47:D5:39:VAL:HG21	47:D5:44:PHE:CD2	2.51	0.46
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.26	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:724:G:H2'	1:13:725:G:H8	1.81	0.45
1:13:808:C:P	15:6I:48:LYS:HZ1	2.40	0.45
1:13:1028(A):C:H2'	1:13:1028(B):C:H5	1.80	0.45
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.84	0.45
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.98	0.45
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.15	0.45
16:7I:80:PHE:O	16:7I:82:GLN:HG3	2.16	0.45
22:1K:66:A:N7	22:1K:67:C:C2	2.85	0.45
26:1H:163:U:P	26:1H:164:U:H5"	2.56	0.45
26:1H:634:C:H2'	26:1H:635:C:C6	2.51	0.45
26:1H:1638:C:H4'	26:1H:2710:C:O2	2.16	0.45
26:1H:1676:A:C2	26:1H:1993:U:H5'	2.51	0.45
26:1H:1728:G:O6	26:1H:1730:U:H5"	2.15	0.45
26:1H:2130:U:OP2	28:71:6:ARG:CZ	2.64	0.45
26:1H:2427:C:H5"	26:1H:2428:G:OP1	2.16	0.45
27:16:11:C:OP2	27:16:12:C:N4	2.33	0.45
28:71:180:PHE:N	28:71:180:PHE:CD1	2.84	0.45
29:11:146:GLU:HB2	29:11:189:CYS:CB	2.34	0.45
31:31:6:VAL:HG12	31:31:7:TYR:N	2.30	0.45
31:31:64:ILE:HG23	31:31:64:ILE:HD12	1.67	0.45
33:51:14:GLY:O	33:51:29:PRO:HD3	2.16	0.45
35:58:15:LEU:C	35:58:16:ILE:HG12	2.35	0.45
45:F8:49:VAL:HG13	45:F8:87:GLN:HG2	1.98	0.45
47:H8:28:MET:HB2	47:H8:35:ARG:HB3	1.97	0.45
1:1G:580:U:H2'	1:1G:581:G:O4'	2.16	0.45
1:1G:652:U:H2'	1:1G:653:A:H5"	1.97	0.45
1:1G:654:G:H3'	1:1G:655:A:H8	1.81	0.45
1:1G:855:G:N2	1:1G:856:C:O2	2.48	0.45
1:1G:1129:C:N4	1:1G:1139:G:H22	2.14	0.45
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.17	0.45
4:32:23:GLY:HA3	4:32:113:SER:HB3	1.99	0.45
56:1L:9:A:H3'	56:1L:10:G:N7	2.30	0.45
26:14:681:G:H2'	26:14:682:G:O4'	2.16	0.45
26:14:1388:G:O2'	26:14:1389:G:H5'	2.15	0.45
26:14:1818:U:H2'	29:19:157:ARG:HG3	1.97	0.45
26:14:1997:G:P	61:14:3525:HOH:O	2.72	0.45
31:39:39:TRP:CH2	31:39:106:ARG:HD3	2.51	0.45
37:35:78:PRO:HA	37:35:110:TYR:CE1	2.51	0.45
41:75:91:ARG:HD3	41:75:120:ARG:HB3	1.97	0.45
46:C5:59:GLY:O	46:C5:61:ILE:HG13	2.16	0.45
51:H5:46:ASN:O	51:H5:50:VAL:HG22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:454:C:H3'	1:13:455:C:C6	2.51	0.45
1:13:625:G:H2'	1:13:626:U:H6	1.80	0.45
1:13:728:A:C5	15:6I:54:ARG:HD2	2.51	0.45
1:13:1207:G:H2'	1:13:1208:C:C6	2.51	0.45
1:13:1376:U:H2'	1:13:1377:A:C8	2.51	0.45
1:13:1388:C:H2'	1:13:1389:C:H6	1.80	0.45
3:2E:55:VAL:HG22	3:2E:68:VAL:HG22	1.98	0.45
3:2E:123:GLN:O	3:2E:128:PHE:HB2	2.16	0.45
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.48	0.45
26:1H:69:C:H2'	26:1H:70:G:C8	2.51	0.45
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.52	0.45
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.51	0.45
26:1H:1267:U:O2'	26:1H:1268:A:H5'	2.16	0.45
26:1H:2394:C:H2'	26:1H:2395:C:C6	2.48	0.45
26:1H:2547:U:H2'	26:1H:2548:G:C8	2.51	0.45
26:1H:2725:A:C4	26:1H:2727:G:C8	3.04	0.45
28:71:45:ALA:HA	28:71:212:VAL:HA	1.98	0.45
29:11:85:ASP:HB2	29:11:92:ILE:HG12	1.98	0.45
32:41:80:PHE:O	32:41:82:LEU:HB2	2.16	0.45
48:I8:69:PHE:CE1	48:I8:79:VAL:HG22	2.52	0.45
53:N8:40:LYS:HG3	53:N8:47:PRO:HD2	1.98	0.45
1:1G:46:G:O2'	1:1G:365:U:H1'	2.16	0.45
1:1G:160:A:H1'	1:1G:344:A:C5	2.51	0.45
1:1G:181:G:O2'	1:1G:183:G:O6	2.32	0.45
1:1G:1029:G:N2	1:1G:1032:A:OP2	2.49	0.45
1:1G:1309:G:O3'	13:4A:77:ASN:ND2	2.50	0.45
4:32:26:CYS:HA	4:32:31:CYS:HG	1.81	0.45
6:52:14:LEU:HD21	6:52:19:LEU:HG	1.98	0.45
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.81	0.45
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.46	0.45
13:4A:97:PRO:N	13:4A:110:ARG:HG2	2.31	0.45
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.17	0.45
16:7A:74:LEU:HD13	16:7A:74:LEU:HA	1.68	0.45
19:AA:33:THR:OG1	19:AA:34:TRP:N	2.49	0.45
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.46	0.45
26:14:270(R):G:H2'	26:14:270(S):G:C8	2.51	0.45
26:14:642:G:H21	26:14:646:A:H2	1.63	0.45
26:14:706:A:H2'	26:14:707:G:O4'	2.16	0.45
26:14:735:A:N7	26:14:761:A:H2	2.14	0.45
26:14:1188:U:C2'	26:14:1189:A:H5'	2.46	0.45
26:14:1885:A:H3'	26:14:1886:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2776:A:H4'	26:14:2777:G:C5'	2.46	0.45
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.45	0.45
30:29:52:LEU:HD13	30:29:52:LEU:HA	1.81	0.45
31:39:132:VAL:HG22	31:39:133:ASN:H	1.79	0.45
35:15:72:TYR:CD2	35:15:90:MET:HG3	2.51	0.45
38:45:38:GLU:HG3	38:45:127:ILE:CG2	2.46	0.45
45:B5:80:ILE:HD13	45:B5:80:ILE:O	2.15	0.45
46:C5:74:PRO:O	46:C5:82:PRO:HD2	2.14	0.45
46:C5:82:PRO:HB2	46:C5:83:THR:O	2.15	0.45
47:D5:31:ARG:HE	47:D5:31:ARG:HB2	1.60	0.45
1:13:859:A:H2'	1:13:860:A:H8	1.81	0.45
1:13:1048:G:OP1	14:5I:4:LYS:HB2	2.17	0.45
1:13:1277:C:O2'	1:13:1279:A:H1'	2.16	0.45
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.47	0.45
2:1E:111:ARG:HA	2:1E:111:ARG:HD3	1.75	0.45
10:1I:28:ARG:HB3	10:1I:28:ARG:CZ	2.46	0.45
13:4I:82:MET:C	13:4I:84:ILE:H	2.19	0.45
17:8I:56:VAL:HB	17:8I:78:GLU:H	1.81	0.45
22:1K:14:A:C5	22:1K:22:G:C2	3.04	0.45
26:1H:7:G:H2'	26:1H:8:A:O4'	2.16	0.45
26:1H:140:A:C8	26:1H:1408:C:O2'	2.65	0.45
26:1H:198:C:C2'	26:1H:199:A:H5"	2.46	0.45
26:1H:234:C:H2'	26:1H:235:U:C6	2.49	0.45
26:1H:270(L):U:H2'	34:61:50:ARG:HD2	1.97	0.45
26:1H:396:G:O3'	49:J8:44:PRO:HA	2.17	0.45
26:1H:613:U:H5'	26:1H:616:A:N6	2.31	0.45
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.15	0.45
26:1H:1344:G:H5'	26:1H:1384:A:N1	2.31	0.45
26:1H:1487:G:H2'	26:1H:1488:G:H8	1.81	0.45
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.15	0.45
26:1H:1765:C:H2'	26:1H:1766:U:H6	1.81	0.45
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.98	0.45
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.52	0.45
27:16:44:G:O2'	27:16:45:A:O5'	2.33	0.45
27:16:54:G:H2'	27:16:55:U:H6	1.81	0.45
29:11:108:PRO:HD2	29:11:111:LEU:HG	1.99	0.45
32:41:51:ARG:H	32:41:51:ARG:HG3	1.41	0.45
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.51	0.45
34:61:40:THR:O	34:61:44:LEU:HB2	2.16	0.45
45:F8:35:THR:HG22	45:F8:38:GLU:OE1	2.16	0.45
1:1G:56:U:H2'	1:1G:57:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:604:G:H2'	1:1G:605:U:O4'	2.16	0.45
1:1G:1108:G:H5'	3:22:176:HIS:ND1	2.31	0.45
1:1G:1238:A:OP1	1:1G:1335:C:O2'	2.32	0.45
1:1G:1258:G:O2'	1:1G:1259:C:H5'	2.16	0.45
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.17	0.45
3:22:6:HIS:HB3	14:5A:49:HIS:ND1	2.31	0.45
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.99	0.45
56:1L:6:G:O2'	56:1L:7:U:OP1	2.32	0.45
26:14:17:G:H2'	26:14:18:C:C6	2.51	0.45
26:14:675:A:OP1	31:39:63:LYS:HE2	2.16	0.45
26:14:794:G:H2'	26:14:795:C:C6	2.50	0.45
26:14:872:A:P	38:45:5:ARG:HH22	2.39	0.45
26:14:1525:G:H2'	26:14:1526:G:C8	2.51	0.45
26:14:1991:U:H2'	26:14:1992:G:H5"	1.97	0.45
26:14:2127:G:H2'	26:14:2128:C:O4'	2.15	0.45
29:19:26:LYS:HE2	29:19:26:LYS:HA	1.98	0.45
31:39:4:VAL:HG13	31:39:19:GLU:OE2	2.16	0.45
37:35:131:SER:HB3	37:35:134:ALA:HB2	1.98	0.45
41:75:106:SER:C	41:75:107:ASP:OD1	2.55	0.45
43:95:22:VAL:HG22	43:95:23:GLU:H	1.82	0.45
43:95:77:ALA:O	43:95:79:VAL:HG22	2.16	0.45
47:D5:59:LEU:HD12	47:D5:69:THR:HG21	1.97	0.45
49:F5:80:LEU:HD13	49:F5:80:LEU:HA	1.66	0.45
49:F5:87:PRO:O	49:F5:88:LYS:C	2.53	0.45
1:13:689:C:OP1	11:2I:27:ASN:ND2	2.47	0.45
1:13:918:A:H2'	1:13:919:A:H8	1.78	0.45
1:13:1053:G:N7	1:13:1199:U:H3'	2.32	0.45
1:13:1137:C:H1'	1:13:1138:G:N1	2.31	0.45
1:13:1218:C:H2'	1:13:1219:U:C6	2.51	0.45
2:1E:72:GLY:HA2	2:1E:165:VAL:HG22	1.98	0.45
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.45	0.45
3:2E:73:PRO:HA	3:2E:76:VAL:HG22	1.97	0.45
5:4E:145:LYS:O	5:4E:148:VAL:HB	2.15	0.45
9:8E:70:LYS:O	9:8E:73:GLN:HB2	2.16	0.45
18:9I:40:LEU:HD23	18:9I:40:LEU:HA	1.74	0.45
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.17	0.45
26:1H:397:G:H2'	26:1H:398:G:H8	1.80	0.45
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.33	0.45
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.81	0.45
26:1H:1464:C:O2'	26:1H:1528:A:H8	2.00	0.45
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2027:G:C5	26:1H:2028:U:C5	3.04	0.45
26:1H:2061:G:H3'	61:1H:3535:HOH:O	2.16	0.45
26:1H:2145:C:H3'	26:1H:2146:C:H5'	1.98	0.45
29:11:149:PRO:O	29:11:150:LYS:HB2	2.17	0.45
30:21:35:GLN:HG2	30:21:36:ARG:N	2.31	0.45
32:41:46:ALA:HB2	32:41:52:ILE:CB	2.41	0.45
32:41:171:ALA:O	32:41:174:GLU:HB2	2.17	0.45
34:61:64:GLU:O	34:61:67:ARG:N	2.50	0.45
35:58:68:GLU:HG3	35:58:69:GLN:H	1.81	0.45
37:78:114:ILE:HG12	37:78:130:PHE:CD2	2.52	0.45
46:G8:88:LYS:HD3	46:G8:88:LYS:HA	1.60	0.45
1:1G:332:G:C2	1:1G:333:G:C8	3.05	0.45
1:1G:1055:A:C2	1:1G:1056:U:H1'	2.51	0.45
1:1G:1516:G:H2'	1:1G:1518:A:OP2	2.16	0.45
3:22:111:LEU:HD11	3:22:144:SER:O	2.16	0.45
4:32:32:ALA:HA	4:32:35:ARG:HB3	1.99	0.45
9:82:20:ARG:HG3	9:82:60:ASP:HB2	1.98	0.45
13:4A:8:GLU:HB3	32:49:115:ARG:NH2	2.32	0.45
26:14:90:U:HO2'	26:14:91:A:H8	1.60	0.45
26:14:111:A:C2	26:14:112:U:C2	3.04	0.45
26:14:265:A:H1'	26:14:266:G:O4'	2.16	0.45
26:14:456:C:C2	45:B5:69:TYR:HE2	2.35	0.45
26:14:478:A:N1	26:14:500:G:H4'	2.31	0.45
26:14:813:U:C2	26:14:1195:G:N2	2.85	0.45
26:14:951:C:H2'	26:14:952:G:H8	1.82	0.45
26:14:957:A:N6	26:14:2459:A:C8	2.84	0.45
26:14:1019:U:H3	26:14:1142(A):A:H62	1.64	0.45
26:14:1278:A:O2'	39:55:34:ILE:HD11	2.17	0.45
26:14:1331:A:H2'	26:14:1333:C:C5	2.51	0.45
26:14:1408:C:O2	26:14:1595:G:N2	2.49	0.45
26:14:1708:C:O2'	26:14:1709:U:H5'	2.16	0.45
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.49	0.45
43:95:37:VAL:HG21	43:95:57:VAL:HG13	1.98	0.45
43:95:71:LEU:H	43:95:86:GLY:CA	2.29	0.45
43:95:71:LEU:O	43:95:72:VAL:HG12	2.16	0.45
1:13:591:U:H2'	1:13:592:G:C8	2.52	0.45
1:13:657:G:N2	1:13:749:C:O2	2.25	0.45
1:13:963:G:H1	1:13:972:C:N4	2.11	0.45
1:13:1137:C:O2'	1:13:1138:G:O5'	2.34	0.45
1:13:1299:A:C2'	1:13:1301:U:H1'	2.45	0.45
1:13:1333:A:H2'	1:13:1334:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.31	0.45
14:5I:21:TYR:HE1	14:5I:23:ARG:NE	2.15	0.45
14:5I:43:CYS:HA	14:5I:46:GLU:HB2	1.99	0.45
24:3K:21:A:H2'	24:3K:22:G:H8	1.81	0.45
26:1H:602:G:O2'	26:1H:604:G:O2'	2.10	0.45
26:1H:1296:G:H2'	26:1H:1297:C:H6	1.82	0.45
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.39	0.45
26:1H:1578:U:H5	61:1H:3999:HOH:O	1.98	0.45
26:1H:1635:G:C2	26:1H:1636:C:C2	3.05	0.45
26:1H:1897:G:H2'	26:1H:1898:U:O4'	2.16	0.45
26:1H:2311:A:O2'	32:41:88:ILE:HG21	2.17	0.45
26:1H:2680:C:OP2	30:21:111:ARG:NH2	2.47	0.45
27:16:0:A:H2'	27:16:1:U:C6	2.51	0.45
32:41:96:ARG:O	32:41:97:ASP:HB2	2.16	0.45
37:78:37:GLY:O	37:78:40:SER:N	2.48	0.45
37:78:100:LEU:HA	37:78:100:LEU:HD13	1.62	0.45
39:98:5:LYS:HB2	39:98:5:LYS:HE3	1.68	0.45
45:F8:12:VAL:HG13	45:F8:27:THR:O	2.16	0.45
49:J8:58:ILE:HG12	49:J8:87:PRO:HD3	1.98	0.45
51:L8:31:LEU:HB3	51:L8:32:GLN:OE1	2.16	0.45
1:1G:552:U:H1'	12:3A:32:PHE:CE1	2.51	0.45
1:1G:653:A:C8	8:72:56:LYS:HE3	2.52	0.45
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.52	0.45
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.16	0.45
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.82	0.45
4:32:31:CYS:C	4:32:33:MET:N	2.69	0.45
7:62:60:LYS:HG2	7:62:63:LYS:HE3	1.99	0.45
17:8A:10:VAL:HG22	17:8A:55:ASP:O	2.15	0.45
20:BA:57:ARG:HA	20:BA:60:GLU:HB2	1.99	0.45
56:1L:18:G:O2'	56:1L:19:G:H5'	2.16	0.45
56:1L:68:G:H2'	56:1L:69:A:C5	2.51	0.45
26:14:66:C:H2'	26:14:67:U:H6	1.80	0.45
26:14:221:A:N1	26:14:265:A:O2'	2.44	0.45
26:14:445:C:O2'	26:14:446:G:H5'	2.16	0.45
26:14:955:C:OP1	38:45:85:LYS:NZ	2.48	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.15	0.45
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.51	0.45
26:14:2591:C:OP1	29:19:239:ARG:HG3	2.17	0.45
26:14:2884:U:H2'	26:14:2885:C:O4'	2.17	0.45
26:14:2892:A:C5	26:14:2893:G:H1'	2.52	0.45
27:1J:21:G:H2'	27:1J:22:U:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:26:ILE:HD12	30:29:26:ILE:HG23	1.70	0.45
41:75:8:LYS:HA	41:75:8:LYS:NZ	2.31	0.45
41:75:26:ASP:O	41:75:49:VAL:HG22	2.17	0.45
1:13:383:A:C5	1:13:384:G:H1'	2.52	0.45
1:13:509:A:H5"	4:3E:55:ALA:HB2	1.98	0.45
1:13:843:U:H5"	1:13:848:C:C5	2.52	0.45
1:13:1412:C:H42	1:13:1488:G:H1	1.64	0.45
2:1E:127:ILE:HD11	2:1E:139:LYS:NZ	2.32	0.45
3:2E:131:ARG:HA	3:2E:134:ILE:HD12	1.99	0.45
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.81	0.45
8:7E:10:LEU:HD23	8:7E:10:LEU:N	2.32	0.45
11:2I:38:ASN:HA	11:2I:39:PRO:HD3	1.82	0.45
13:4I:13:LYS:HA	13:4I:13:LYS:HZ2	1.81	0.45
23:2K:17:C:H5'	23:2K:62:C:OP1	2.16	0.45
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.16	0.45
26:1H:775:G:C5	26:1H:794:G:C8	3.04	0.45
26:1H:839:U:H2'	26:1H:840:C:C6	2.51	0.45
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.80	0.45
26:1H:1171:G:H3'	26:1H:1173:G:C5'	2.47	0.45
26:1H:1358:G:N2	26:1H:1372:U:C5	2.85	0.45
26:1H:2336:A:H61	48:I8:43:THR:HG21	1.81	0.45
26:1H:2663:G:C2	26:1H:2664:G:H1'	2.51	0.45
28:71:22:ILE:HD13	28:71:189:ILE:HG22	1.97	0.45
30:21:105:THR:HB	30:21:197:ILE:HG23	1.99	0.45
31:31:108:LYS:O	31:31:112:MET:HG3	2.17	0.45
31:31:129:PHE:HB2	31:31:132:VAL:HG13	1.99	0.45
32:41:106:LEU:HD12	32:41:110:ALA:HB3	1.97	0.45
34:61:10:GLU:O	34:61:11:ASN:HB2	2.17	0.45
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.52	0.45
45:F8:41:ASN:N	45:F8:41:ASN:OD1	2.49	0.45
49:J8:21:ARG:HE	49:J8:21:ARG:HB3	1.40	0.45
51:L8:6:VAL:HG12	51:L8:56:VAL:HG22	1.97	0.45
55:Q8:4:MET:HB2	55:Q8:4:MET:HE3	1.56	0.45
55:Q8:41:ILE:O	55:Q8:41:ILE:HG13	2.16	0.45
1:1G:113:G:O4'	1:1G:354:G:H4'	2.16	0.45
1:1G:397:A:H3'	1:1G:397:A:N3	2.32	0.45
1:1G:582:U:H5"	15:6A:64:ARG:NH1	2.31	0.45
1:1G:1316:G:N2	1:1G:1319:A:OP2	2.42	0.45
2:12:98:LEU:O	2:12:101:MET:HG2	2.17	0.45
8:72:81:HIS:HB2	8:72:138:TRP:HE3	1.82	0.45
10:1A:28:ARG:HH12	10:1A:34:VAL:HG22	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:96:LEU:CD2	13:4A:97:PRO:HD2	2.47	0.45
25:4L:11:U:H2'	25:4L:12:A:H5"	1.98	0.45
26:14:59:U:O2'	26:14:73:A:H2'	2.16	0.45
26:14:330:A:HO2'	26:14:331:A:H8	1.61	0.45
26:14:718:A:H3'	26:14:719:C:H6	1.82	0.45
26:14:1149:G:H2'	26:14:1150:C:C6	2.52	0.45
26:14:1328:G:H2'	26:14:1330:C:C4	2.52	0.45
31:39:141:ALA:HA	31:39:144:LYS:HB2	1.99	0.45
40:65:68:GLN:O	40:65:72:ALA:N	2.42	0.45
43:95:76:LYS:HD2	43:95:80:GLN:O	2.16	0.45
47:D5:98:MET:O	47:D5:125:LEU:HA	2.17	0.45
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.82	0.45
1:13:134:A:H61	16:7I:25:ARG:NH1	2.14	0.45
1:13:718:G:C4	11:2I:116:HIS:CD2	3.05	0.45
4:3E:157:LEU:HD12	4:3E:161:ASN:ND2	2.32	0.45
5:4E:128:PRO:HA	5:4E:131:ILE:HB	1.98	0.45
5:4E:143:ARG:HB3	5:4E:147:ASP:HB2	1.98	0.45
6:5E:23:LYS:HB2	6:5E:23:LYS:NZ	2.32	0.45
8:7E:11:THR:HG23	8:7E:14:ARG:HH12	1.81	0.45
19:AI:41:VAL:CG1	19:AI:67:VAL:HA	2.47	0.45
24:3K:57:G:O5'	24:3K:57:G:H8	1.99	0.45
26:1H:91:A:H2'	26:1H:92:G:O4'	2.16	0.45
26:1H:389:G:H1	37:78:71:VAL:HG12	1.81	0.45
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.52	0.45
26:1H:1380:G:N2	26:1H:1570:A:C2	2.85	0.45
26:1H:1409:C:N4	26:1H:1593:G:H1	2.14	0.45
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.82	0.45
26:1H:2199:A:C4	26:1H:2205:C:C6	3.05	0.45
26:1H:2496:C:C2'	26:1H:2497:A:H5'	2.47	0.45
26:1H:2845:G:H5"	41:B8:55:ASN:HA	1.98	0.45
29:11:122:ASP:CG	29:11:123:ALA:H	2.20	0.45
30:21:78:LEU:O	30:21:79:ARG:HB2	2.16	0.45
32:41:6:ALA:HB3	32:41:104:GLU:OE2	2.17	0.45
33:51:124:GLU:HG2	33:51:126:PRO:HD3	1.98	0.45
37:78:46:LYS:O	37:78:47:ASP:HB3	2.16	0.45
43:D8:85:LYS:HB2	43:D8:85:LYS:HZ3	1.82	0.45
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	1.98	0.45
1:1G:263:A:H2'	1:1G:264:U:C6	2.52	0.45
1:1G:411:A:H61	1:1G:430:A:N6	2.15	0.45
1:1G:791:G:O6	1:1G:792:A:N6	2.48	0.45
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.51	0.45
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.99	0.45
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	1.99	0.45
14:5A:11:LYS:O	14:5A:13:THR:HG23	2.17	0.45
57:3L:30:G:C4	57:3L:31:A:C8	3.05	0.45
26:14:41:C:H2'	26:14:43:G:H8	1.82	0.45
26:14:1356:G:H2'	26:14:1357:U:O4'	2.16	0.45
26:14:2173:A:O2'	26:14:2174:C:OP1	2.32	0.45
29:19:53:PHE:C	29:19:218:ARG:HB2	2.37	0.45
30:29:51:PHE:CE2	30:29:52:LEU:HD22	2.52	0.45
31:39:168:ARG:HG3	31:39:175:THR:HG21	1.98	0.45
31:39:178:PRO:HB3	31:39:198:ALA:HB1	1.99	0.45
32:49:140:ILE:HG13	32:49:141:PHE:N	2.32	0.45
36:25:7:TYR:CE1	36:25:20:MET:HG3	2.51	0.45
38:45:34:LEU:HB2	38:45:118:LEU:HD13	1.98	0.45
44:A5:72:LYS:HG2	44:A5:106:ILE:HD11	1.98	0.45
47:D5:44:PHE:HE2	47:D5:88:PHE:CZ	2.34	0.45
1:13:38:G:C2	1:13:397:A:C2	3.05	0.45
1:13:186(A):C:N3	20:BI:105:SER:HB3	2.31	0.45
1:13:965:A:C2	1:13:969:A:C2	3.05	0.45
1:13:1058:G:C6	1:13:1059:C:N3	2.85	0.45
1:13:1148:U:H2'	1:13:1149:C:O4'	2.17	0.45
2:1E:91:PRO:HG3	2:1E:154:LEU:HB2	1.98	0.45
6:5E:4:TYR:HA	6:5E:91:VAL:O	2.17	0.45
6:5E:89:MET:HG3	18:9I:76:LEU:CD2	2.43	0.45
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.81	0.45
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.16	0.45
26:1H:576:U:O2	26:1H:576:U:O5'	2.35	0.45
26:1H:1018:C:O2'	26:1H:1019:U:H5'	2.16	0.45
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.46	0.45
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.47	0.45
26:1H:1568:G:P	29:11:63:ARG:HH12	2.40	0.45
26:1H:2732:G:H3'	26:1H:2733:A:O4'	2.17	0.45
26:1H:2744:G:C8	26:1H:2755:C:C6	3.05	0.45
28:71:180:PHE:HA	28:71:181:PRO:HD3	1.67	0.45
32:41:55:LYS:NZ	32:41:59:GLU:OE2	2.38	0.45
32:41:77:ILE:HG22	32:41:82:LEU:HD12	1.99	0.45
34:61:33:ARG:O	34:61:35:LEU:HD12	2.17	0.45
36:68:64:ARG:NH1	36:68:81:ASP:OD1	2.50	0.45
38:88:39:PRO:HA	38:88:97:VAL:O	2.17	0.45
45:F8:47:PHE:O	45:F8:49:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:771:G:H2'	1:1G:772:U:C6	2.52	0.45
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.52	0.45
2:12:185:ILE:HG23	2:12:199:TYR:O	2.17	0.45
3:22:42:LEU:O	3:22:46:GLU:HG2	2.17	0.45
9:82:95:LYS:HB3	9:82:95:LYS:NZ	2.32	0.45
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.17	0.45
26:14:300:A:H2'	26:14:334:C:H1'	1.99	0.45
26:14:389:G:H1	37:35:71:VAL:HG12	1.82	0.45
26:14:608:A:H2'	26:14:609:A:O4'	2.17	0.45
26:14:669:G:N3	26:14:669:G:H2'	2.31	0.45
26:14:873:G:H1'	38:45:29:PHE:CE2	2.44	0.45
26:14:1011:G:OP2	42:85:66:ASN:ND2	2.48	0.45
26:14:1138:G:C4	26:14:1139:G:H1'	2.51	0.45
26:14:1217:C:OP1	42:85:15:LYS:HE3	2.17	0.45
26:14:1838:C:N4	26:14:1898:U:H2'	2.32	0.45
26:14:2029:G:H2'	26:14:2031:A:OP1	2.17	0.45
26:14:2092:U:H5	26:14:2226:C:OP2	2.00	0.45
26:14:2850:A:C2	26:14:2851:A:C4	3.04	0.45
32:49:59:GLU:CD	32:49:153:ARG:HH21	2.20	0.45
36:25:50:GLY:H	36:25:53:LYS:HE3	1.82	0.45
37:35:96:THR:OG1	37:35:97:PRO:O	2.34	0.45
37:35:144:GLU:HA	37:35:145:PRO:HD3	1.72	0.45
46:C5:40:GLU:N	46:C5:40:GLU:OE2	2.50	0.45
48:E5:24:LYS:O	48:E5:25:ARG:HD3	2.17	0.45
49:F5:12:PRO:HB2	49:F5:41:ARG:HH21	1.82	0.45
1:13:33:A:H8	1:13:33:A:O5'	1.99	0.45
1:13:603:U:H2'	1:13:604:G:C8	2.51	0.45
1:13:625:G:H2'	1:13:626:U:C6	2.52	0.45
1:13:990:C:N4	1:13:991:U:O4	2.49	0.45
2:1E:59:GLU:HB2	2:1E:221:LEU:HD21	1.99	0.45
4:3E:79:PHE:O	4:3E:83:SER:OG	2.32	0.45
22:1K:28:U:C4	22:1K:29:U:C4	3.05	0.45
24:3K:72:C:H2'	24:3K:73:A:H5"	1.98	0.45
26:1H:580:C:H2'	26:1H:581:C:C6	2.50	0.45
26:1H:1264:G:H5'	53:N8:11:THR:HG23	1.99	0.45
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.51	0.45
26:1H:1668:A:OP1	36:68:5:GLN:HG3	2.16	0.45
26:1H:2661:G:OP2	26:1H:2661:G:H8	2.00	0.45
30:21:47:VAL:O	30:21:80:GLU:HA	2.16	0.45
30:21:75:VAL:C	30:21:76:ARG:HD2	2.38	0.45
31:31:27:GLU:OE1	31:31:27:GLU:N	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:46:ARG:HA	31:31:46:ARG:HD2	1.77	0.45
35:58:104:LYS:HB2	35:58:117:PHE:CE1	2.52	0.45
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.17	0.45
50:K8:64:LEU:HD21	50:K8:68:ARG:NH1	2.32	0.45
52:M8:40:HIS:CE1	52:M8:43:TYR:O	2.69	0.45
1:1G:1346:A:C6	7:62:10:ARG:NH1	2.84	0.45
13:4A:31:LYS:O	13:4A:34:LEU:HB2	2.16	0.45
18:9A:53:ARG:HD2	18:9A:63:GLN:HB2	1.99	0.45
21:1B:8:THR:HG21	21:1B:10:ARG:NH2	2.32	0.45
26:14:519:U:H2'	26:14:520:G:C8	2.52	0.45
26:14:843:G:H1	26:14:935:C:H42	1.65	0.45
26:14:851:U:OP1	51:H5:49:LYS:HE2	2.17	0.45
26:14:1087:G:N3	26:14:1087:G:H2'	2.32	0.45
26:14:1849:G:H2'	26:14:1850:G:H8	1.82	0.45
26:14:2577:A:H2'	26:14:2614:A:N6	2.32	0.45
26:14:2655:G:N2	26:14:2665:A:OP2	2.50	0.45
26:14:2873:A:H8	39:55:6:SER:N	2.02	0.45
26:14:2897:U:H3'	26:14:2898:U:C6	2.52	0.45
30:29:55:ASN:O	30:29:57:LYS:NZ	2.49	0.45
33:59:154:PRO:HB3	33:59:162:ILE:O	2.17	0.45
38:45:35:VAL:HG12	38:45:36:ALA:N	2.32	0.45
38:45:117:ALA:HA	38:45:120:ILE:HB	1.99	0.45
43:95:98:GLU:HG2	43:95:100:ARG:HG2	1.98	0.45
46:C5:82:PRO:HB3	46:C5:97:ARG:HB3	1.98	0.45
50:G5:32:LEU:HD12	50:G5:32:LEU:O	2.17	0.45
1:13:19:C:OP1	5:4E:125:SER:OG	2.33	0.45
1:13:232:G:H2'	1:13:233:C:C6	2.51	0.45
1:13:243:A:H4'	1:13:244:U:H5"	1.99	0.45
1:13:1212:U:H4'	1:13:1213:A:C8	2.51	0.45
4:3E:192:GLU:N	4:3E:192:GLU:OE1	2.50	0.45
26:1H:7:G:H1	26:1H:2896:C:H42	1.65	0.45
26:1H:642:G:H21	26:1H:646:A:H2	1.64	0.45
26:1H:686:G:N7	54:P8:5:TRP:CH2	2.85	0.45
26:1H:731:C:C2	26:1H:732:C:C5	3.05	0.45
26:1H:991:C:H2'	26:1H:992:C:H6	1.82	0.45
26:1H:2127:G:N1	26:1H:2161:C:H2'	2.29	0.45
26:1H:2674:G:H4'	36:68:30:ALA:HB2	1.99	0.45
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.52	0.45
38:88:11:LYS:NZ	38:88:88:GLY:O	2.49	0.45
39:98:42:LYS:HA	39:98:45:ARG:HD2	1.98	0.45
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:78:G:H1	1:1G:91:C:N4	2.15	0.45
1:1G:452:A:C4'	16:7A:72:ARG:HH12	2.23	0.45
1:1G:922:G:H1'	5:42:19:MET:HB3	1.98	0.45
2:12:59:GLU:OE2	2:12:221:LEU:HD13	2.16	0.45
12:3A:86:ARG:HB2	12:3A:101:VAL:CG2	2.46	0.45
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.98	0.45
20:BA:8:ARG:HG2	20:BA:8:ARG:O	2.17	0.45
57:3L:76:A:C8	26:14:2394:C:N4	2.85	0.45
26:14:337:C:H2'	26:14:338:G:O4'	2.18	0.45
26:14:666:G:H5"	37:35:47:ASP:O	2.16	0.45
26:14:741:G:H2'	26:14:742:G:C8	2.52	0.45
26:14:774:A:H2	26:14:787:U:O2'	1.99	0.45
26:14:1557:C:H5"	26:14:1558:A:OP2	2.17	0.45
26:14:1833:U:O2	26:14:1969:A:H2	1.99	0.45
26:14:2134:A:C5	26:14:2158:A:H8	2.35	0.45
26:14:2273:A:H2'	26:14:2274:A:C8	2.52	0.45
26:14:2417:C:H2'	26:14:2418:A:C8	2.51	0.45
26:14:2498:C:P	61:14:3507:HOH:O	2.72	0.45
26:14:2771:C:H4'	30:29:202:LYS:HD3	1.98	0.45
29:19:73:VAL:HG13	29:19:120:GLY:HA3	1.98	0.45
29:19:159:ALA:HB1	29:19:198:ASN:O	2.16	0.45
33:59:3:ARG:HB3	33:59:4:ILE:H	1.29	0.45
34:69:77:LEU:HG	34:69:78:THR:OG1	2.17	0.45
41:75:5:ALA:O	41:75:8:LYS:HB2	2.17	0.45
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.69	0.45
1:13:114:U:O2'	1:13:115:G:H5'	2.17	0.44
1:13:156:G:H2'	1:13:157:G:C8	2.53	0.44
1:13:363:A:N7	12:3I:33:ARG:NH2	2.65	0.44
1:13:739:C:O2'	15:6I:42:HIS:ND1	2.40	0.44
1:13:859:A:H2'	1:13:860:A:O4'	2.16	0.44
1:13:947:G:C6	1:13:948:C:C4	3.05	0.44
1:13:1053:G:O5'	1:13:1054:C:H3'	2.18	0.44
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.82	0.44
2:1E:145:LEU:HD23	2:1E:145:LEU:HA	1.79	0.44
4:3E:108:LEU:HB3	4:3E:110:PHE:CE1	2.52	0.44
8:7E:15:ASN:O	8:7E:19:VAL:HG23	2.17	0.44
16:7I:21:VAL:O	16:7I:33:ILE:N	2.45	0.44
24:3K:35:U:H2'	24:3K:36:U:H6	1.82	0.44
26:1H:43:G:H1'	26:1H:438:G:N2	2.32	0.44
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.47	0.44
26:1H:764:A:H5'	29:11:210:GLY:CA	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:783:A:C8	26:1H:783:A:H3'	2.52	0.44
26:1H:1044:G:O2'	26:1H:1111:A:N6	2.33	0.44
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.99	0.44
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.18	0.44
26:1H:1819:A:O4'	26:1H:1821:A:C4	2.69	0.44
26:1H:2084:C:H2'	26:1H:2085:C:H6	1.82	0.44
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.52	0.44
26:1H:2705:A:H2'	26:1H:2706:G:O4'	2.17	0.44
26:1H:2851:A:H2'	26:1H:2852:G:O4'	2.17	0.44
38:88:66:ILE:CD1	38:88:67:ARG:H	2.30	0.44
41:B8:6:LEU:HD23	41:B8:9:LEU:HD12	1.98	0.44
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.26	0.44
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.17	0.44
1:1G:15:G:H2'	1:1G:16:A:O4'	2.17	0.44
1:1G:78:G:H2'	1:1G:79:G:O4'	2.17	0.44
1:1G:165:C:H2'	1:1G:166:G:C8	2.52	0.44
1:1G:570:G:H1'	1:1G:820:U:C4	2.52	0.44
1:1G:601:C:H2'	1:1G:602:A:H8	1.82	0.44
1:1G:975:A:C4'	1:1G:976:G:H5"	2.38	0.44
1:1G:995:C:O2'	1:1G:996:A:H5'	2.17	0.44
1:1G:1294:G:H2'	1:1G:1295:G:H8	1.81	0.44
1:1G:1299:A:C6	1:1G:1301:U:C2	3.05	0.44
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.99	0.44
2:12:16:HIS:HD2	2:12:213:LEU:HD22	1.80	0.44
3:22:47:LEU:HB2	3:22:52:LEU:HD13	1.99	0.44
5:42:41:VAL:O	5:42:67:VAL:HG12	2.18	0.44
12:3A:59:ARG:HH11	12:3A:59:ARG:HG3	1.82	0.44
19:AA:15:LEU:HD11	19:AA:33:THR:HB	1.99	0.44
23:2L:1:C:O2	48:E5:7:LEU:N	2.50	0.44
26:14:303:U:H2'	26:14:304:G:C8	2.52	0.44
26:14:753:C:H2'	26:14:754:C:H6	1.82	0.44
26:14:839:U:H2'	26:14:840:C:H6	1.82	0.44
26:14:1106:G:H5'	26:14:1107:G:OP2	2.17	0.44
26:14:1225:C:H4'	43:95:85:LYS:CG	2.36	0.44
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.52	0.44
26:14:1542:G:O6	26:14:1543:A:N6	2.49	0.44
26:14:1688:U:H1'	26:14:1701:A:C6	2.52	0.44
26:14:1824:G:OP1	29:19:52:ARG:NH1	2.50	0.44
26:14:2299:G:C6	26:14:2318:G:H8	2.35	0.44
26:14:2757:A:N1	33:59:67:LEU:HD22	2.32	0.44
26:14:2774:C:H2'	26:14:2775:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2788:C:O2'	26:14:2809:A:N3	2.43	0.44
26:14:2886:G:H2'	26:14:2887:U:H6	1.81	0.44
32:49:124:SER:HB2	32:49:131:TYR:HE1	1.81	0.44
40:65:36:TYR:HA	40:65:52:SER:HB3	1.98	0.44
46:C5:87:LYS:CB	46:C5:94:LYS:HA	2.47	0.44
47:D5:25:PRO:O	47:D5:85:HIS:HA	2.17	0.44
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.50	0.44
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.50	0.44
1:13:646:U:H2'	1:13:647:C:C6	2.51	0.44
1:13:725:G:O2'	1:13:726:C:H5'	2.17	0.44
1:13:837:G:P	1:13:842:C:H42	2.35	0.44
1:13:994:A:N7	1:13:1216:G:H4'	2.32	0.44
1:13:1002:G:C2	1:13:1003:G:H1'	2.52	0.44
11:2I:84:VAL:HG13	11:2I:110:ASP:HA	1.98	0.44
19:AI:5:LEU:HB2	19:AI:8:GLY:HA3	1.99	0.44
21:1F:6:ARG:HH11	21:1F:15:ARG:CZ	2.30	0.44
23:2K:37:U:H2'	23:2K:38:A:O4'	2.17	0.44
26:1H:768:G:O2'	26:1H:1379:A:N6	2.47	0.44
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.98	0.44
26:1H:1416:G:O2'	26:1H:1417:C:P	2.75	0.44
26:1H:1475:G:H1	26:1H:1518:C:N4	2.12	0.44
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.51	0.44
26:1H:2329:G:H21	48:I8:41:ARG:HG3	1.82	0.44
26:1H:2659:G:N2	26:1H:2661:G:H5"	2.32	0.44
26:1H:2886:G:H2'	26:1H:2887:U:C6	2.53	0.44
31:31:17:ARG:O	31:31:17:ARG:HD3	2.17	0.44
32:41:109:VAL:HG11	32:41:142:PRO:HD3	1.98	0.44
40:A8:35:ILE:HD11	40:A8:101:LEU:HD23	1.98	0.44
1:1G:6:G:P	4:32:84:LYS:HD3	2.57	0.44
1:1G:105:G:C5	1:1G:106:C:C4	3.05	0.44
1:1G:236:G:H2'	1:1G:237:C:O4'	2.16	0.44
1:1G:255:G:H1'	17:8A:16:GLN:OE1	2.17	0.44
1:1G:587:G:N2	1:1G:755:G:C5	2.85	0.44
1:1G:963:G:HO2'	10:1A:54:PHE:HZ	1.63	0.44
1:1G:999:U:H2'	1:1G:1000:A:H8	1.81	0.44
1:1G:1136:U:H5"	1:1G:1137:C:C5	2.53	0.44
2:12:96:ARG:O	2:12:98:LEU:HD12	2.16	0.44
13:4A:81:LEU:HD21	13:4A:88:ARG:HE	1.82	0.44
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.65	0.44
23:2L:62:C:H2'	23:2L:63:C:H6	1.82	0.44
57:3L:61:C:O2'	28:79:52:ARG:NH2	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:389:G:N1	37:35:71:VAL:HG12	2.31	0.44
26:14:573:G:O2'	26:14:574:C:H3'	2.17	0.44
26:14:600:G:H5'	31:39:32:LEU:HD12	1.98	0.44
26:14:699:A:H2'	26:14:700:G:O4'	2.16	0.44
26:14:1012:U:C5	35:15:28:THR:HG21	2.52	0.44
26:14:1037:G:H2'	26:14:1037:G:N3	2.32	0.44
26:14:1291:C:H2'	26:14:1292:U:C6	2.52	0.44
26:14:2038:G:H2'	26:14:2039:C:O4'	2.17	0.44
26:14:2469:A:OP1	26:14:2469:A:H4'	2.17	0.44
26:14:2635:C:OP1	30:29:77:ILE:HB	2.16	0.44
26:14:2886:G:H2'	26:14:2887:U:C6	2.52	0.44
32:49:50:ALA:O	32:49:54:GLU:HG3	2.17	0.44
32:49:146:TYR:O	32:49:149:VAL:HG22	2.16	0.44
39:55:34:ILE:HG22	39:55:114:VAL:HB	1.98	0.44
40:65:61:ASN:O	40:65:65:VAL:HB	2.16	0.44
41:75:12:SER:HB3	41:75:15:VAL:HG13	1.99	0.44
42:85:50:ARG:HH22	43:95:72:VAL:HG23	1.82	0.44
43:95:35:LEU:HG	43:95:37:VAL:HG11	1.99	0.44
1:13:31:G:H2'	1:13:48:C:N4	2.32	0.44
1:13:297:G:H4'	1:13:557:G:H4'	1.99	0.44
1:13:540:G:H2'	1:13:541:G:O4'	2.17	0.44
1:13:792:A:H4'	1:13:793:U:O5'	2.17	0.44
1:13:977:A:H1'	1:13:982:U:O4	2.18	0.44
1:13:1499:A:H1'	1:13:1520:G:O5'	2.18	0.44
3:2E:120:VAL:O	3:2E:124:ILE:HG13	2.17	0.44
4:3E:36:ARG:HB3	4:3E:38:TYR:CZ	2.53	0.44
11:2I:85:ARG:HE	11:2I:111:ASP:CB	2.27	0.44
13:4I:27:LYS:O	13:4I:31:LYS:HD2	2.17	0.44
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.52	0.44
26:1H:312:G:H5'	26:1H:331:A:O2'	2.18	0.44
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.48	0.44
26:1H:836:G:H2'	26:1H:837:C:C6	2.52	0.44
26:1H:1170:G:N2	26:1H:1180:C:C2	2.85	0.44
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.81	0.44
26:1H:2020:A:C2	26:1H:2022:U:O4'	2.70	0.44
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.53	0.44
26:1H:2430:A:H8	26:1H:2431:U:C5	2.35	0.44
26:1H:2462:U:H1'	26:1H:2491:U:O4	2.18	0.44
33:51:119:GLU:OE2	33:51:119:GLU:HA	2.16	0.44
35:58:22:THR:OG1	35:58:23:LEU:N	2.49	0.44
36:68:19:ILE:HG22	36:68:43:VAL:HG22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.78	0.44
45:F8:58:HIS:HA	45:F8:77:LYS:HA	1.99	0.44
47:H8:63:ASP:OD1	47:H8:65:GLN:NE2	2.47	0.44
1:1G:147:G:H1	1:1G:175:C:H42	1.65	0.44
1:1G:195:A:N7	1:1G:196:A:C6	2.85	0.44
1:1G:414:A:H2'	1:1G:415:A:H8	1.82	0.44
1:1G:416:G:O5'	1:1G:416:G:H8	2.00	0.44
1:1G:596:C:H2'	1:1G:597:G:C8	2.52	0.44
1:1G:707:C:H2'	1:1G:708:C:C6	2.53	0.44
1:1G:979:C:O2	14:5A:19:ARG:HG2	2.18	0.44
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.53	0.44
1:1G:1191:A:OP1	3:22:4:LYS:HG3	2.18	0.44
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.52	0.44
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.17	0.44
3:22:140:ARG:O	3:22:144:SER:HB2	2.17	0.44
11:2A:95:ILE:H	11:2A:95:ILE:HG12	1.62	0.44
26:14:270(E):G:C6	26:14:270(F):U:C4	3.05	0.44
26:14:480:A:OP2	46:C5:46:LYS:HE2	2.17	0.44
26:14:631:A:H2'	26:14:632:A:O4'	2.17	0.44
26:14:708:C:H42	26:14:723:G:H1	1.65	0.44
26:14:761:A:C8	61:14:3590:HOH:O	2.57	0.44
26:14:1055:G:N3	26:14:1055:G:H2'	2.30	0.44
26:14:1519:G:C6	26:14:1520:U:C4	3.06	0.44
26:14:2647:U:H3	26:14:2673:G:H1	1.64	0.44
26:14:2795:G:H2'	26:14:2795:G:N3	2.32	0.44
27:1J:23:G:C2	27:1J:24:G:O6	2.71	0.44
30:29:7:VAL:HG12	30:29:8:LYS:H	1.82	0.44
40:65:103:GLU:O	40:65:106:ARG:NE	2.44	0.44
43:95:19:LYS:HG2	43:95:95:LEU:HD23	1.98	0.44
44:A5:30:GLU:HG3	44:A5:31:GLU:N	2.33	0.44
1:13:50:A:H1'	1:13:52:G:C8	2.53	0.44
1:13:129(A):G:H4'	1:13:130:A:H5"	1.98	0.44
1:13:291:C:O2	1:13:310:G:C2	2.71	0.44
1:13:300:A:H1'	1:13:565:U:O2	2.18	0.44
1:13:511:C:OP2	4:3E:49:ARG:NH1	2.50	0.44
1:13:519:C:H2'	1:13:520:A:C8	2.52	0.44
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.32	0.44
2:1E:11:LEU:HA	2:1E:13:ALA:HB3	1.99	0.44
2:1E:16:HIS:NE2	2:1E:214:ILE:HG12	2.31	0.44
5:4E:131:ILE:HD13	5:4E:131:ILE:HA	1.80	0.44
9:8E:19:LEU:HD12	9:8E:84:ALA:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:60:VAL:HG11	26:1H:715:G:H5'	1.98	0.44
23:2K:48:U:OP2	23:2K:48:U:H6	2.01	0.44
24:3K:41:A:H2'	24:3K:42:A:H8	1.82	0.44
26:1H:37:C:H2'	26:1H:38:A:C8	2.53	0.44
26:1H:287:C:H42	26:1H:354:G:H1	1.65	0.44
26:1H:386:G:H4'	26:1H:387:U:OP2	2.17	0.44
26:1H:527:C:H4'	26:1H:528:A:O5'	2.17	0.44
26:1H:729:G:O6	29:11:209:ALA:N	2.47	0.44
26:1H:1191:G:C2'	26:1H:1192:G:H5'	2.48	0.44
26:1H:1568:G:OP1	29:11:61:LEU:N	2.45	0.44
26:1H:1805:U:H5"	29:11:250:TRP:CD2	2.52	0.44
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.82	0.44
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.17	0.44
26:1H:1957:C:O2'	26:1H:1984:G:N2	2.49	0.44
26:1H:2180:U:H2'	26:1H:2181:G:C8	2.52	0.44
26:1H:2294:C:C4	26:1H:2295:C:C5	3.06	0.44
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.17	0.44
26:1H:2841:C:H2'	26:1H:2842:G:C8	2.52	0.44
27:16:13:A:O2'	27:16:14:U:H3'	2.18	0.44
31:31:74:ARG:O	31:31:75:HIS:CD2	2.71	0.44
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.52	0.44
32:41:117:PHE:HE1	32:41:120:LEU:HD23	1.82	0.44
40:A8:26:LEU:HD12	40:A8:39:ILE:HD11	2.00	0.44
47:H8:103:ARG:HG3	47:H8:136:PHE:CD1	2.53	0.44
49:J8:50:ARG:HA	49:J8:59:THR:HA	1.98	0.44
1:1G:411:A:N6	1:1G:430:A:H62	2.14	0.44
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.32	0.44
1:1G:1533:C:H4'	1:1G:1534:A:OP2	2.16	0.44
2:12:137:ARG:HG3	2:12:138:LEU:HD23	1.99	0.44
11:2A:18:ARG:NH2	11:2A:35:PRO:O	2.50	0.44
20:BA:29:LYS:O	20:BA:33:ILE:HG13	2.17	0.44
26:14:28:A:O2'	26:14:583:G:H5'	2.18	0.44
26:14:724:U:H2'	26:14:725:G:O4'	2.17	0.44
26:14:997:G:H2'	26:14:998:C:C6	2.52	0.44
26:14:2165:G:H5"	26:14:2166:G:OP2	2.17	0.44
26:14:2298:A:C2	26:14:2299:G:H1'	2.53	0.44
26:14:2762:G:OP2	61:14:3551:HOH:O	2.21	0.44
26:14:2789:C:H2'	26:14:2790:A:C1'	2.47	0.44
30:29:181:LEU:HD12	30:29:181:LEU:HA	1.80	0.44
32:49:27:ASN:HB3	32:49:30:GLU:HG3	2.00	0.44
32:49:122:PRO:HB3	32:49:170:ARG:HH12	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.33	0.44
47:D5:3:TYR:O	47:D5:58:VAL:HG23	2.18	0.44
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.32	0.44
1:13:222:U:C2	1:13:223:U:C5	3.05	0.44
1:13:296:U:H2'	1:13:297:G:C8	2.52	0.44
1:13:437:U:C5'	4:3E:155:LEU:HD21	2.48	0.44
1:13:515:G:C5	1:13:516:U:C5	3.05	0.44
1:13:545:C:H2'	1:13:546:G:O4'	2.17	0.44
1:13:1098:C:H2'	1:13:1099:G:H8	1.82	0.44
1:13:1448:C:H42	1:13:1455:G:H1	1.64	0.44
3:2E:22:TRP:CH2	3:2E:32:LEU:HB3	2.52	0.44
5:4E:10:MET:CE	5:4E:13:ILE:HD13	2.47	0.44
16:7I:22:THR:HG23	16:7I:23:ASP:O	2.17	0.44
22:1K:9:A:N1	22:1K:22:G:C5	2.85	0.44
26:1H:57:C:H2'	26:1H:58:G:O4'	2.18	0.44
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.18	0.44
26:1H:183:C:N4	26:1H:213:A:H61	2.16	0.44
26:1H:1022:G:N2	26:1H:1023:U:O4	2.45	0.44
26:1H:1337:G:C4	26:1H:1338:G:C8	3.05	0.44
26:1H:1352:U:O2	26:1H:1570:A:H2	2.01	0.44
26:1H:1591:G:O2'	26:1H:1592:C:H5'	2.17	0.44
26:1H:1711:C:H2'	26:1H:1712:C:H6	1.82	0.44
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.47	0.44
26:1H:2470:G:H8	26:1H:2470:G:O5'	2.01	0.44
27:16:15:A:H1'	27:16:109:G:C4	2.53	0.44
29:11:29:PRO:HB2	29:11:30:GLU:CA	2.42	0.44
31:31:122:LYS:HB3	31:31:191:ARG:HB3	1.99	0.44
33:51:86:GLU:OE2	33:51:165:ALA:HB2	2.18	0.44
41:B8:33:LYS:HG3	41:B8:82:LEU:O	2.17	0.44
49:J8:23:LYS:HG2	49:J8:29:GLY:HA3	1.98	0.44
53:N8:20:ARG:HG2	53:N8:23:HIS:ND1	2.31	0.44
55:Q8:49:VAL:O	55:Q8:50:LEU:C	2.56	0.44
1:1G:408:A:H2'	1:1G:409:G:O4'	2.17	0.44
1:1G:963:G:H21	10:1A:55:LYS:NZ	2.15	0.44
1:1G:1153:C:N3	1:1G:1154:G:C5	2.85	0.44
1:1G:1479:C:H2'	1:1G:1480:G:C8	2.52	0.44
3:22:12:LEU:HD23	3:22:12:LEU:HA	1.83	0.44
13:4A:40:ASN:HA	13:4A:41:PRO:HD2	1.83	0.44
13:4A:90:LEU:HD22	13:4A:90:LEU:HA	1.77	0.44
16:7A:45:THR:OG1	16:7A:46:PRO:HD2	2.18	0.44
26:14:1019:U:O2'	26:14:1021:A:C2	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1790:C:H2'	26:14:1791:A:C5	2.53	0.44
26:14:2187:G:H2'	26:14:2188:C:O4'	2.17	0.44
26:14:2261:C:H1'	26:14:2388:A:N3	2.33	0.44
26:14:2855:C:H2'	26:14:2856:C:H6	1.82	0.44
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.43	0.44
31:39:124:LEU:HB3	31:39:193:VAL:HG23	1.99	0.44
33:59:159:GLU:HB3	33:59:160:LYS:H	1.52	0.44
1:13:397:A:H5"	1:13:397:A:N3	2.33	0.44
1:13:1118:C:P	9:8E:104:ARG:HH11	2.40	0.44
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	2.00	0.44
7:6E:12:LEU:HD21	7:6E:24:THR:HB	1.99	0.44
8:7E:51:VAL:HG21	8:7E:60:ARG:NH1	2.33	0.44
11:2I:31:THR:HA	11:2I:42:TRP:HA	2.00	0.44
11:2I:92:GLU:O	11:2I:96:ARG:HB2	2.17	0.44
12:3I:28:LYS:HE3	12:3I:64:TYR:CZ	2.53	0.44
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	1.99	0.44
19:AI:30:LEU:HD13	19:AI:48:THR:HB	2.00	0.44
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.18	0.44
20:BI:40:ALA:O	20:BI:44:ALA:N	2.51	0.44
23:2K:26:C:H2'	23:2K:27:G:O4'	2.17	0.44
26:1H:495:G:HO2'	44:E8:62:HIS:CE1	2.36	0.44
26:1H:721:C:H2'	26:1H:722:A:C8	2.53	0.44
26:1H:801:G:OP2	61:1H:3570:HOH:O	2.21	0.44
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.17	0.44
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.51	0.44
26:1H:1654:A:H1'	26:1H:2823:A:H5'	2.00	0.44
26:1H:2122:U:H2'	26:1H:2123:G:C8	2.52	0.44
26:1H:2418:A:OP2	55:Q8:29:LYS:NZ	2.47	0.44
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.52	0.44
26:1H:2598:A:H8	26:1H:2598:A:H3'	1.82	0.44
32:41:79:ASN:N	32:41:79:ASN:HD22	2.16	0.44
36:68:116:SER:OG	36:68:117:LEU:N	2.49	0.44
40:A8:36:TYR:HB3	40:A8:52:SER:HB3	2.00	0.44
42:C8:108:GLU:O	42:C8:112:ARG:HG2	2.17	0.44
49:J8:73:LEU:HD23	49:J8:73:LEU:HA	1.89	0.44
51:L8:7:LYS:HB2	51:L8:34:GLU:HG2	2.00	0.44
1:1G:828:A:C2	1:1G:829:G:H1'	2.53	0.44
1:1G:1118:C:H5"	9:82:104:ARG:HB2	1.99	0.44
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.41	0.44
2:12:97:TRP:HH2	2:12:176:GLU:CD	2.21	0.44
4:32:22:LYS:HB2	4:32:26:CYS:SG	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1L:1:G:H2'	56:1L:1:G:N3	2.32	0.44
56:1L:19:G:H4'	56:1L:20:U:OP2	2.17	0.44
23:2L:63:C:H2'	23:2L:64:G:C8	2.51	0.44
26:14:1171:G:O2'	26:14:1173:G:OP2	2.36	0.44
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.50	0.44
26:14:1357:U:H2'	26:14:1358:G:O4'	2.18	0.44
26:14:1551:C:N4	26:14:1552:G:C6	2.86	0.44
26:14:1814:G:H2'	26:14:1815:A:C8	2.53	0.44
26:14:2180:U:H2'	26:14:2181:G:O4'	2.17	0.44
26:14:2290:G:H2'	26:14:2291:U:O4'	2.17	0.44
26:14:2298:A:H1'	26:14:2321:G:N2	2.32	0.44
26:14:2364:C:H2'	26:14:2365:G:O4'	2.18	0.44
26:14:2557:G:H2'	26:14:2558:C:H6	1.81	0.44
26:14:2851:A:O2'	39:55:64:ARG:NH2	2.51	0.44
27:1J:3:C:H1'	27:1J:118:G:N2	2.32	0.44
30:29:63:LEU:HD13	30:29:63:LEU:HA	1.64	0.44
35:15:29:LYS:O	35:15:33:LEU:HB2	2.17	0.44
37:35:79:ARG:HD3	37:35:110:TYR:HD2	1.82	0.44
43:95:21:ARG:HH21	43:95:91:TYR:C	2.21	0.44
55:M5:11:LYS:HE3	55:M5:65:GLU:OE2	2.18	0.44
1:13:4:U:O2'	1:13:4:U:O2	2.35	0.44
1:13:416:G:C5	1:13:417:C:C4	3.05	0.44
1:13:825:G:C2	1:13:826:C:C2	3.06	0.44
1:13:1182:G:H4'	1:13:1183:A:H5"	2.00	0.44
13:4I:3:ARG:HD2	52:M8:34:GLU:OE1	2.17	0.44
24:3K:11:C:H42	24:3K:24:G:H1	1.63	0.44
26:1H:97:C:H5"	50:K8:2:LYS:N	2.32	0.44
26:1H:515:A:H1'	26:1H:581:C:H1'	2.00	0.44
26:1H:1346:G:C4	26:1H:1347:G:C8	3.06	0.44
26:1H:1400:G:H2'	26:1H:1401:G:H8	1.82	0.44
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.18	0.44
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.18	0.44
26:1H:1776:G:H2'	26:1H:1776:G:N3	2.32	0.44
26:1H:2250:G:C5	38:88:83:MET:HB3	2.52	0.44
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.33	0.44
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.33	0.44
29:11:24:ILE:HD11	29:11:91:ARG:HD2	2.00	0.44
30:21:60:ASN:OD1	30:21:62:PRO:HD2	2.17	0.44
32:41:165:THR:OG1	32:41:167:GLU:HG2	2.18	0.44
34:61:8:PRO:HD3	34:61:15:VAL:HG22	2.00	0.44
37:78:76:LYS:HA	37:78:76:LYS:HD2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:101:VAL:HG12	37:78:106:LEU:HD12	2.00	0.44
39:98:20:LEU:HD12	39:98:20:LEU:HA	1.68	0.44
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.47	0.44
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.50	0.44
46:G8:44:ILE:H	46:G8:44:ILE:HG13	1.70	0.44
1:1G:138:G:C2	1:1G:226:G:C2	3.05	0.44
1:1G:456:C:N4	1:1G:457:C:H41	2.16	0.44
1:1G:892:A:C2	1:1G:907:A:C4	3.06	0.44
1:1G:1039:C:H2'	1:1G:1040:U:C5	2.53	0.44
4:32:78:LEU:HD21	4:32:139:ARG:HH12	1.82	0.44
5:42:34:VAL:O	5:42:41:VAL:HG12	2.17	0.44
5:42:104:ALA:HA	5:42:107:ARG:HH21	1.83	0.44
7:62:10:ARG:HD3	7:62:10:ARG:HA	1.64	0.44
8:72:67:PRO:HG2	8:72:69:ARG:HD2	1.99	0.44
9:82:7:THR:OG1	9:82:83:ARG:NH1	2.50	0.44
19:AA:66:MET:HB3	19:AA:69:HIS:CE1	2.53	0.44
20:BA:100:ILE:HD12	20:BA:100:ILE:HA	1.86	0.44
25:4L:13:A:C4	25:4L:14:A:H1'	2.53	0.44
26:14:10:G:O2'	26:14:2801:A:OP1	2.19	0.44
26:14:49:A:H5"	26:14:51:G:O4'	2.18	0.44
26:14:540:G:C6	26:14:541:C:C4	3.06	0.44
26:14:1109:C:H2'	26:14:1110:G:O4'	2.18	0.44
26:14:1359:A:H62	26:14:1372:U:H3	1.65	0.44
26:14:1461:G:H2'	26:14:1462:C:C6	2.52	0.44
26:14:1572:A:H2'	26:14:1573:G:O4'	2.18	0.44
26:14:1599:C:C5	26:14:1600:C:H5	2.36	0.44
26:14:2031:A:C6	26:14:2498:C:H1'	2.53	0.44
26:14:2157:G:O2'	26:14:2158:A:N7	2.49	0.44
26:14:2291:U:O2'	26:14:2374:C:O2	2.35	0.44
26:14:2620:C:H2'	26:14:2621:A:O4'	2.18	0.44
26:14:2708:G:H5'	39:55:68:ARG:HG3	2.00	0.44
26:14:2768:C:O2'	35:15:89:LYS:HE2	2.17	0.44
40:65:95:HIS:N	40:65:99:LYS:HB2	2.33	0.44
47:D5:23:LYS:HB3	47:D5:38:TYR:CD1	2.52	0.44
55:M5:58:ILE:O	55:M5:62:LEU:HD12	2.17	0.44
1:13:9:G:OP2	5:4E:121:LYS:HE3	2.18	0.44
1:13:223:U:H2'	1:13:224:C:C6	2.53	0.44
1:13:397:A:N7	1:13:548:G:C8	2.86	0.44
1:13:444:C:H2'	1:13:445:G:O4'	2.17	0.44
1:13:818:G:O2'	1:13:819:A:H5'	2.18	0.44
1:13:1064:G:H1'	1:13:1190:G:H21	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1399:C:C2	1:13:1401:G:C5	3.06	0.44
1:13:1442:G:O6	1:13:1446:A:C5	2.71	0.44
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.53	0.44
2:1E:67:THR:CG2	2:1E:155:LEU:HD13	2.47	0.44
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.99	0.44
6:5E:19:LEU:O	6:5E:23:LYS:NZ	2.49	0.44
9:8E:9:ARG:HG3	9:8E:104:ARG:NH1	2.32	0.44
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	2.00	0.44
20:BI:36:LEU:HD13	20:BI:39:LYS:HD3	1.98	0.44
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	2.00	0.44
26:1H:71:A:H4'	26:1H:72:U:H5"	1.99	0.44
26:1H:195:A:H61	26:1H:198:C:H3'	1.83	0.44
26:1H:489:G:H2'	26:1H:491:G:O4'	2.18	0.44
26:1H:731:C:H2'	26:1H:732:C:H6	1.83	0.44
26:1H:733:G:N7	61:1H:3638:HOH:O	2.37	0.44
26:1H:794:G:H2'	26:1H:795:C:C6	2.53	0.44
26:1H:1436:G:H1	26:1H:1556:C:H42	1.66	0.44
26:1H:1479:G:H5"	26:1H:1560:G:H4'	2.00	0.44
26:1H:1672:C:H5"	26:1H:1673:U:OP2	2.18	0.44
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.17	0.44
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.33	0.44
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.52	0.44
26:1H:2469:A:N6	26:1H:2481:G:O2'	2.49	0.44
29:11:34:VAL:O	29:11:35:LYS:HB3	2.18	0.44
30:21:55:ASN:ND2	30:21:75:VAL:HG22	2.33	0.44
30:21:117:MET:O	30:21:118:LYS:HB3	2.18	0.44
36:68:118:ALA:HA	36:68:119:PRO:HD2	1.92	0.44
40:A8:83:LYS:HE3	40:A8:83:LYS:HB3	1.80	0.44
45:F8:57:LEU:CD2	45:F8:78:LYS:HG3	2.47	0.44
47:H8:40:ASP:HB3	47:H8:43:GLU:HB2	1.99	0.44
49:J8:91:LYS:HG2	49:J8:92:LYS:HE2	2.00	0.44
55:Q8:16:ILE:HD13	55:Q8:59:LYS:CG	2.48	0.44
1:1G:363:A:N7	12:3A:30:ALA:HB1	2.33	0.44
1:1G:690:G:C6	1:1G:691:G:C6	3.06	0.44
1:1G:985:C:H2'	1:1G:986:A:H8	1.83	0.44
1:1G:1417:G:H8	1:1G:1417:G:O5'	2.00	0.44
2:12:59:GLU:CG	2:12:221:LEU:HB3	2.47	0.44
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.98	0.44
18:9A:56:THR:HB	18:9A:58:LEU:CD1	2.48	0.44
20:BA:14:LYS:HA	20:BA:17:ARG:NE	2.33	0.44
56:1L:14:A:C5	56:1L:22:G:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:15:G:H21	23:2L:22:A:H1'	1.83	0.44
26:14:456:C:C2	45:B5:69:TYR:CE2	3.06	0.44
26:14:459:U:H2'	26:14:460:A:H8	1.83	0.44
26:14:484:C:H2'	26:14:485:C:H6	1.82	0.44
26:14:519:U:H2'	26:14:520:G:H8	1.83	0.44
26:14:563:G:H5'	26:14:572:A:H4'	1.99	0.44
26:14:571:A:H5'	26:14:2030:A:N7	2.32	0.44
26:14:1340:U:H4'	26:14:1341:U:OP2	2.17	0.44
26:14:1408:C:C2	26:14:1595:G:N2	2.85	0.44
26:14:1614:A:H2	61:14:3763:HOH:O	2.00	0.44
26:14:1727:U:H3	26:14:1733:G:H1	1.66	0.44
26:14:2300:G:H2'	26:14:2301:C:O4'	2.18	0.44
26:14:2403:C:N3	26:14:2415:G:C2	2.86	0.44
30:29:33:VAL:HG21	30:29:88:GLY:HA2	1.99	0.44
30:29:57:LYS:HA	30:29:57:LYS:HD3	1.65	0.44
43:95:28:GLU:CD	43:95:29:PRO:HD2	2.38	0.44
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.18	0.44
46:C5:62:GLU:H	46:C5:62:GLU:HG3	1.53	0.44
55:M5:32:LEU:HD12	55:M5:32:LEU:HA	1.61	0.44
55:M5:33:ASN:O	55:M5:34:TRP:C	2.56	0.44
1:13:248:C:H2'	1:13:249:U:H6	1.82	0.44
1:13:767:A:H2'	1:13:768:A:O4'	2.18	0.44
1:13:838:G:H1	1:13:848:C:N4	2.15	0.44
1:13:968:A:H4'	1:13:969:A:OP2	2.18	0.44
1:13:1190:G:H5"	3:2E:176:HIS:NE2	2.32	0.44
1:13:1298:C:H2'	7:6E:114:ARG:NH2	2.33	0.44
6:5E:97:PHE:HB2	18:9I:32:ARG:NH1	2.26	0.44
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.18	0.44
10:1I:34:VAL:HG12	10:1I:74:ILE:HD11	2.00	0.44
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.16	0.44
26:1H:185:U:H2'	26:1H:186:G:C8	2.53	0.44
26:1H:479:A:H4'	26:1H:480:A:OP1	2.18	0.44
26:1H:699:A:H2'	26:1H:700:G:O4'	2.18	0.44
26:1H:924:C:H2'	26:1H:925:C:H6	1.83	0.44
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.33	0.44
26:1H:1616:A:O2'	61:1H:3571:HOH:O	2.21	0.44
26:1H:1638:C:H5"	26:1H:2710:C:O2'	2.18	0.44
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.82	0.44
26:1H:1833:U:C4	26:1H:1834:U:C5	3.06	0.44
26:1H:2296:U:P	40:A8:9:ARG:HH22	2.38	0.44
26:1H:2773:C:H5"	30:21:164:ARG:HG2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2801:A:H2'	26:1H:2802:G:O4'	2.18	0.44
29:11:37:LEU:HD12	29:11:37:LEU:O	2.17	0.44
29:11:39:LYS:CG	29:11:40:THR:H	2.31	0.44
30:21:54:GLN:C	30:21:55:ASN:HD22	2.19	0.44
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.53	0.44
33:51:107:VAL:HB	33:51:152:ARG:HG2	2.00	0.44
35:58:65:LYS:HB3	35:58:69:GLN:HG3	2.00	0.44
35:58:107:LEU:HA	35:58:107:LEU:HD23	1.70	0.44
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.48	0.44
44:E8:92:ARG:NH2	44:E8:94:ASP:OD1	2.49	0.44
51:L8:4:LEU:H	51:L8:4:LEU:HD12	1.82	0.44
52:M8:40:HIS:CG	52:M8:43:TYR:O	2.71	0.44
54:P8:35:ARG:NH1	54:P8:42:LEU:HD11	2.33	0.44
1:1G:250:A:H4'	1:1G:251:G:O5'	2.18	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.18	0.44
11:2A:20:TYR:CE1	11:2A:83:ILE:HD12	2.52	0.44
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.99	0.44
19:AA:56:GLN:HG2	19:AA:57:HIS:H	1.83	0.44
26:14:71:A:H2	45:B5:31:HIS:HE1	1.62	0.44
26:14:569:U:C4	26:14:570:G:C6	3.06	0.44
26:14:717:G:H2'	26:14:718:A:O4'	2.17	0.44
27:1J:52:A:H62	40:65:33:LYS:HG3	1.83	0.44
30:29:120:TRP:CG	30:29:155:LYS:HB3	2.53	0.44
33:59:59:ARG:HD3	33:59:62:LYS:HD2	2.00	0.44
33:59:148:ILE:O	33:59:151:ILE:HG12	2.18	0.44
37:35:132:LYS:HA	37:35:132:LYS:HD2	1.81	0.44
38:45:114:ALA:O	38:45:118:LEU:HB2	2.18	0.44
40:65:59:LYS:HZ3	40:65:61:ASN:HA	1.82	0.44
42:85:61:TRP:HB3	42:85:93:LYS:O	2.17	0.44
44:A5:112:GLY:C	44:A5:113:LYS:HD3	2.38	0.44
55:M5:34:TRP:CG	55:M5:35:GLN:N	2.86	0.44
1:13:784:C:H2'	1:13:785:G:C8	2.52	0.43
1:13:1171:G:H8	1:13:1171:G:O5'	2.01	0.43
1:13:1191:A:H5"	3:2E:4:LYS:HE2	1.99	0.43
19:AI:63:THR:OG1	19:AI:66:MET:HG3	2.17	0.43
20:BI:29:LYS:O	20:BI:33:ILE:HG12	2.18	0.43
26:1H:601:C:O2	26:1H:605:C:H4'	2.17	0.43
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.82	0.43
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.78	0.43
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.53	0.43
26:1H:2056:G:C2	26:1H:2057:A:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:41:VAL:HB	28:71:175:VAL:HG21	2.00	0.43
29:11:236:GLY:O	29:11:237:GLU:O	2.36	0.43
31:31:63:LYS:NZ	31:31:75:HIS:O	2.43	0.43
32:41:117:PHE:HZ	32:41:179:PRO:HG2	1.83	0.43
33:51:6:ARG:HB2	33:51:7:LEU:HG	1.99	0.43
36:68:22:ILE:HD13	36:68:22:ILE:HG21	1.69	0.43
40:A8:76:LYS:HB3	40:A8:76:LYS:HE2	1.55	0.43
41:B8:45:PHE:CZ	41:B8:65:LYS:HG2	2.53	0.43
44:E8:12:ILE:HD13	44:E8:17:VAL:HB	2.00	0.43
44:E8:88:ARG:NH1	44:E8:94:ASP:OD2	2.51	0.43
46:G8:104:GLY:H	46:G8:105:ALA:HB3	1.83	0.43
47:H8:150:LEU:HG	47:H8:154:ASP:HB2	1.98	0.43
1:1G:414:A:H2'	1:1G:415:A:C8	2.53	0.43
1:1G:552:U:H4'	12:3A:86:ARG:HG2	2.00	0.43
1:1G:1061:G:H2'	1:1G:1062:U:H6	1.83	0.43
1:1G:1207:G:H2'	1:1G:1208:C:H6	1.82	0.43
1:1G:1494:G:C2	1:1G:1495:U:C5	3.05	0.43
5:42:146:ALA:HB1	5:42:150:ARG:NH2	2.33	0.43
6:52:1:MET:HA	6:52:68:PRO:HA	1.99	0.43
8:72:123:GLU:O	8:72:127:LEU:HB2	2.18	0.43
57:3L:3:G:H2'	57:3L:4:U:O4'	2.18	0.43
26:14:686:G:H21	26:14:788:A:H61	1.64	0.43
26:14:848:G:C4	26:14:933:A:C8	3.04	0.43
26:14:908:C:OP2	38:45:22:LYS:HD3	2.18	0.43
26:14:1484:G:H2'	26:14:1485:G:H8	1.82	0.43
26:14:2536:G:C6	26:14:2537:U:C4	3.06	0.43
26:14:2724:C:OP1	30:29:118:LYS:HE3	2.18	0.43
26:14:2748:A:C4	26:14:2749:A:C8	3.06	0.43
26:14:2768:C:H4'	35:15:89:LYS:NZ	2.32	0.43
26:14:2789:C:H2'	26:14:2790:A:O4'	2.17	0.43
29:19:94:LEU:HD23	29:19:94:LEU:HA	1.85	0.43
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.53	0.43
33:59:77:LYS:N	33:59:77:LYS:HD2	2.33	0.43
35:15:28:THR:HG22	35:15:29:LYS:N	2.32	0.43
38:45:135:ASP:O	38:45:137:TYR:HD1	2.01	0.43
46:C5:42:VAL:O	46:C5:64:GLU:HA	2.18	0.43
47:D5:165:VAL:HG12	47:D5:166:SER:N	2.33	0.43
55:M5:50:LEU:HB3	55:M5:51:ALA:H	1.65	0.43
1:13:303:A:C5	1:13:304:U:C5	3.06	0.43
1:13:738:C:H2'	1:13:739:C:C6	2.53	0.43
1:13:958:A:C6	1:13:959:A:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1051:C:H2'	1:13:1052:U:C6	2.53	0.43
1:13:1272:G:C6	1:13:1273:G:C5	3.06	0.43
1:13:1507:A:OP2	25:4K:12:A:H2	2.01	0.43
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.19	0.43
4:3E:207:TYR:O	4:3E:209:ARG:HG2	2.18	0.43
8:7E:30:ARG:O	8:7E:34:GLU:HB2	2.18	0.43
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.31	0.43
20:BI:49:ALA:HB3	20:BI:99:LEU:HD22	2.00	0.43
26:1H:375:C:H2'	26:1H:376:C:C6	2.52	0.43
26:1H:783:A:C8	26:1H:783:A:C3'	3.01	0.43
26:1H:916:G:C2'	26:1H:917:A:H5"	2.48	0.43
26:1H:931:G:C4	26:1H:933:A:C8	3.07	0.43
26:1H:1049:C:N3	26:1H:2751:G:O6	2.51	0.43
26:1H:1262:A:C6	26:1H:1263:U:C4	3.07	0.43
26:1H:1372:U:O2'	26:1H:1373:A:H5'	2.18	0.43
26:1H:1435:G:H2'	26:1H:1436:G:C8	2.53	0.43
26:1H:1543:A:H1'	26:1H:1544:C:H5"	2.00	0.43
26:1H:2045:C:H2'	26:1H:2046:G:O4'	2.18	0.43
26:1H:2081:C:O2'	26:1H:2082:A:H5'	2.17	0.43
26:1H:2342:C:O2	26:1H:2374:C:H4'	2.18	0.43
29:11:31:LYS:HB3	29:11:34:VAL:CG2	2.48	0.43
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.53	0.43
31:31:129:PHE:O	31:31:130:ALA:HB3	2.18	0.43
31:31:136:THR:HA	31:31:166:ALA:O	2.18	0.43
33:51:155:SER:OG	33:51:158:HIS:HB2	2.18	0.43
34:61:75:LEU:HD23	34:61:105:HIS:HB3	2.00	0.43
37:78:35:HIS:HB3	37:78:36:LYS:H	1.49	0.43
37:78:47:ASP:OD1	37:78:49:ARG:HG3	2.18	0.43
40:A8:51:ALA:HB3	40:A8:73:LEU:HG	2.00	0.43
41:B8:7:ILE:O	41:B8:10:VAL:N	2.50	0.43
41:B8:90:GLN:OE1	41:B8:121:ILE:HD11	2.18	0.43
47:H8:163:LEU:HD13	47:H8:167:PRO:HA	2.00	0.43
1:1G:626:U:C2	1:1G:627:G:C8	3.06	0.43
1:1G:834:C:C4	1:1G:835:U:C4	3.06	0.43
1:1G:1100:C:H2'	1:1G:1102:A:O5'	2.18	0.43
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.53	0.43
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.52	0.43
2:12:58:ILE:HD13	2:12:219:VAL:HG21	2.00	0.43
4:32:19:LEU:HB2	4:32:21:LEU:CD1	2.48	0.43
6:52:7:ASN:ND2	18:9A:34:TYR:HE1	2.16	0.43
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.48	0.43
26:14:6:A:N3	26:14:6:A:H2'	2.34	0.43
26:14:225:A:N6	26:14:226:G:C2	2.87	0.43
26:14:780:G:C2	26:14:782:A:C2	3.05	0.43
26:14:997:G:O2'	26:14:998:C:H5'	2.19	0.43
26:14:1287:A:C5	26:14:1288:U:C4	3.06	0.43
26:14:1441:G:H2'	26:14:1442:G:C8	2.53	0.43
26:14:1475:G:C2	26:14:1519:G:C2	3.06	0.43
26:14:1484:G:H2'	26:14:1485:G:C8	2.54	0.43
26:14:1885:A:H5'	26:14:1886:C:OP2	2.18	0.43
26:14:2009:G:N3	39:55:107:ASP:HA	2.33	0.43
26:14:2533:A:O5'	26:14:2533:A:H8	2.01	0.43
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.99	0.43
32:49:109:VAL:O	32:49:113:ARG:HG3	2.18	0.43
34:69:72:LEU:HD21	34:69:107:VAL:HG21	2.00	0.43
50:G5:47:ASN:N	50:G5:47:ASN:OD1	2.49	0.43
1:13:224:C:H2'	1:13:225:C:H6	1.82	0.43
1:13:964:A:N3	1:13:969:A:O2'	2.42	0.43
1:13:1129:C:C2	1:13:1139:G:C6	3.06	0.43
1:13:1308:U:H5"	13:4I:98:VAL:HG22	2.01	0.43
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.18	0.43
1:13:1396:A:H2	5:4E:19:MET:HG3	1.83	0.43
1:13:1442:G:O6	1:13:1446:A:C6	2.71	0.43
14:5I:11:LYS:H	14:5I:11:LYS:HG2	1.52	0.43
26:1H:10:G:N2	26:1H:11:G:C4	2.86	0.43
26:1H:265:A:H1'	26:1H:266:G:O4'	2.19	0.43
26:1H:628:G:H2'	26:1H:629:G:H8	1.81	0.43
26:1H:807:U:C2	26:1H:808:G:C8	3.06	0.43
26:1H:1019:U:N3	26:1H:1020:A:N7	2.67	0.43
26:1H:1465:G:H2'	26:1H:1466:G:H8	1.84	0.43
26:1H:1600:C:H2'	26:1H:1601:G:C8	2.53	0.43
26:1H:1931:U:H5	26:1H:1969:A:N7	2.16	0.43
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.53	0.43
26:1H:2772:C:H2'	26:1H:2773:C:H6	1.83	0.43
29:11:171:ASP:OD1	29:11:171:ASP:N	2.51	0.43
30:21:52:LEU:HA	30:21:53:PRO:HD3	1.72	0.43
31:31:63:LYS:HG2	31:31:65:TRP:O	2.18	0.43
33:51:152:ARG:HA	33:51:152:ARG:HD3	1.67	0.43
35:58:18:ALA:HA	35:58:21:LYS:HG3	2.00	0.43
39:98:88:ARG:NH2	39:98:89:ASP:OD1	2.50	0.43
43:D8:46:VAL:HG21	43:D8:52:VAL:HG21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:15:LYS:N	50:K8:15:LYS:NZ	2.63	0.43
1:1G:775:G:H2'	1:1G:776:G:O4'	2.17	0.43
4:32:59:ARG:HH21	4:32:66:ARG:HH12	1.65	0.43
4:32:127:THR:HG21	4:32:149:ALA:HB2	2.00	0.43
5:42:78:HIS:ND1	8:72:107:LEU:HD12	2.33	0.43
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.67	0.43
26:14:370:G:H4'	26:14:371:A:OP2	2.18	0.43
26:14:636:G:HO2'	26:14:638:G:HO2'	1.59	0.43
26:14:696:G:H2'	26:14:697:C:H6	1.83	0.43
26:14:1138:G:H21	35:15:106:MET:CE	2.31	0.43
26:14:1507:A:N3	26:14:1508:A:H1'	2.34	0.43
26:14:1849:G:H2'	26:14:1850:G:C8	2.54	0.43
26:14:2177:C:OP1	28:79:221:SER:OG	2.31	0.43
26:14:2590:A:OP2	29:19:237:GLU:HB3	2.17	0.43
26:14:2601:C:H2'	26:14:2603:G:C8	2.53	0.43
26:14:2607:G:H2'	26:14:2608:G:O4'	2.18	0.43
26:14:2643:G:H2'	26:14:2644:G:O4'	2.18	0.43
28:79:15:ASP:N	28:79:20:TYR:OH	2.45	0.43
31:39:78:ILE:C	31:39:80:ALA:H	2.21	0.43
33:59:148:ILE:H	33:59:148:ILE:HG12	1.53	0.43
38:45:69:PHE:HA	38:45:70:PRO:HD2	1.73	0.43
39:55:57:ARG:HB3	39:55:59:ASP:OD2	2.17	0.43
47:D5:91:LEU:HB3	47:D5:96:VAL:HG21	2.01	0.43
1:13:335:C:O2'	1:13:1433:A:N3	2.48	0.43
1:13:1004:A:C2	1:13:1024:G:H2'	2.53	0.43
1:13:1234:C:O2'	1:13:1235:U:H5'	2.19	0.43
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.23	0.43
1:13:1255:G:OP1	10:1I:45:ARG:NH2	2.51	0.43
2:1E:11:LEU:C	2:1E:13:ALA:N	2.72	0.43
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.51	0.43
6:5E:35:ALA:HA	6:5E:67:MET:HB3	2.00	0.43
8:7E:97:VAL:HG12	8:7E:98:LYS:NZ	2.33	0.43
8:7E:103:VAL:HG21	8:7E:110:ALA:HB2	2.00	0.43
9:8E:9:ARG:HB3	9:8E:14:VAL:HG13	2.00	0.43
13:4I:11:ARG:HG3	13:4I:12:ASN:H	1.84	0.43
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.52	0.43
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.18	0.43
17:8I:81:ARG:NH1	17:8I:83:ASP:OD2	2.51	0.43
23:2K:26:C:H5"	23:2K:27:G:OP2	2.19	0.43
26:1H:5:A:N6	26:1H:2898:U:C4	2.87	0.43
26:1H:581:C:H2'	26:1H:582:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:826:U:H2'	26:1H:828:U:O4'	2.19	0.43
26:1H:873:G:H1'	38:88:29:PHE:HE2	1.84	0.43
26:1H:1051:G:C6	26:1H:1052:C:H1'	2.54	0.43
26:1H:1436:G:H1'	26:1H:1477:A:O2'	2.18	0.43
26:1H:2059:A:H5"	26:1H:2060:A:OP2	2.18	0.43
26:1H:2121:G:O2'	28:71:167:LYS:HG2	2.18	0.43
26:1H:2290:G:H2'	26:1H:2291:U:O4'	2.18	0.43
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.99	0.43
27:16:15:A:H1'	27:16:109:G:N9	2.33	0.43
30:21:169:ASN:OD1	30:21:201:THR:HG21	2.18	0.43
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.33	0.43
35:58:32:THR:HG22	35:58:37:LYS:HD3	1.98	0.43
37:78:113:LYS:HA	37:78:129:ALA:O	2.18	0.43
38:88:56:ARG:HD2	38:88:56:ARG:HA	1.77	0.43
38:88:138:ASP:OD1	38:88:138:ASP:N	2.51	0.43
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.54	0.43
40:A8:85:VAL:HG23	40:A8:112:PHE:CZ	2.47	0.43
42:C8:15:LYS:HE2	42:C8:15:LYS:HB3	1.85	0.43
43:D8:58:VAL:HG23	43:D8:98:GLU:HG3	2.00	0.43
46:G8:96:ILE:HD12	46:G8:101:LYS:NZ	2.33	0.43
47:H8:60:GLU:HA	47:H8:65:GLN:O	2.18	0.43
50:K8:14:ARG:HB3	50:K8:15:LYS:HZ3	1.83	0.43
1:1G:673:G:H5"	6:52:87:ARG:CZ	2.48	0.43
1:1G:983:A:N6	1:1G:1222:G:H22	2.13	0.43
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.53	0.43
1:1G:1307:U:O5'	1:1G:1307:U:H6	2.01	0.43
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.52	0.43
1:1G:1430:C:H2'	1:1G:1431:C:H6	1.83	0.43
6:52:91:VAL:HG11	18:9A:72:ARG:NH1	2.34	0.43
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.58	0.43
26:14:438:G:H2'	26:14:439:G:H8	1.84	0.43
26:14:455:C:N3	26:14:473:G:H5'	2.33	0.43
26:14:528:A:H2	26:14:2043:C:H4'	1.81	0.43
26:14:832:G:H5'	37:35:45:LEU:HD11	1.99	0.43
26:14:867:C:C5	26:14:868:U:C4	3.06	0.43
26:14:868:U:C4	26:14:869:G:N7	2.86	0.43
26:14:1152:C:H5"	42:85:80:ILE:CG2	2.49	0.43
26:14:1747:G:H5"	26:14:1748:G:OP2	2.17	0.43
26:14:2493:U:C4	26:14:2494:G:C8	3.07	0.43
26:14:2558:C:H2'	26:14:2559:C:O4'	2.18	0.43
26:14:2773:C:H5"	30:29:164:ARG:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:70:C:H2'	27:1J:71:C:H6	1.84	0.43
29:19:31:LYS:HE2	29:19:102:LYS:HD2	2.00	0.43
29:19:76:PRO:HA	29:19:118:VAL:HG23	2.00	0.43
30:29:81:ILE:HG21	30:29:84:PHE:CD2	2.52	0.43
38:45:30:GLY:CA	38:45:107:ALA:HB2	2.48	0.43
39:55:21:TYR:HB3	39:55:47:PHE:CD2	2.53	0.43
39:55:24:GLN:HE22	39:55:36:THR:HG21	1.83	0.43
39:55:85:PRO:O	39:55:88:ARG:HB3	2.19	0.43
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.54	0.43
40:65:106:ARG:NH1	40:65:106:ARG:O	2.50	0.43
43:95:24:LYS:HA	43:95:92:THR:OG1	2.18	0.43
47:D5:29:TYR:HB3	47:D5:34:ASN:HB2	1.99	0.43
1:13:191(E):G:H2'	1:13:191(F):U:H6	1.82	0.43
1:13:200:G:H1	1:13:217:C:H42	1.66	0.43
1:13:452:A:H1'	16:7I:72:ARG:NH1	2.34	0.43
1:13:517:G:N3	1:13:531:U:H5'	2.33	0.43
1:13:670:G:C6	1:13:671:G:C5	3.07	0.43
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.16	0.43
1:13:1118:C:H1'	1:13:1179:A:C5	2.53	0.43
1:13:1349:A:OP1	9:8E:121:ARG:HB2	2.19	0.43
1:13:1384:C:H2'	1:13:1385:G:H8	1.82	0.43
1:13:1432:G:OP1	41:B8:107:ASP:HB2	2.19	0.43
2:1E:21:ARG:C	2:1E:23:ARG:H	2.22	0.43
2:1E:97:TRP:HH2	2:1E:176:GLU:CD	2.21	0.43
2:1E:219:VAL:O	2:1E:223:ILE:HG13	2.18	0.43
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.80	0.43
6:5E:14:LEU:HD11	6:5E:84:ASN:ND2	2.33	0.43
11:2I:96:ARG:HE	11:2I:96:ARG:HB3	1.66	0.43
12:3I:89:ARG:HD2	12:3I:91:LYS:HA	2.01	0.43
24:3K:49:G:H1'	24:3K:66:A:C2	2.53	0.43
26:1H:53:A:H2'	26:1H:54:G:O4'	2.19	0.43
26:1H:295:G:C6	26:1H:344:G:N1	2.86	0.43
26:1H:1138:G:H21	35:58:106:MET:CE	2.28	0.43
26:1H:1705:G:H2'	26:1H:1706:U:H5'	2.00	0.43
26:1H:2260:C:O2'	26:1H:2261:C:H5'	2.18	0.43
27:16:15:A:H1'	27:16:109:G:C8	2.53	0.43
28:71:225:ASN:HB3	28:71:227:HIS:CD2	2.54	0.43
33:51:41:MET:HE2	33:51:55:PRO:HD3	1.99	0.43
33:51:164:TYR:HB2	33:51:165:ALA:H	1.65	0.43
35:58:132:ALA:O	35:58:134:ARG:NH2	2.51	0.43
36:68:66:LYS:HE3	36:68:66:LYS:HB3	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:E8:7:ALA:HB2	44:E8:50:VAL:HG22	2.00	0.43
55:Q8:50:LEU:HD11	55:Q8:58:ILE:HD12	1.99	0.43
1:1G:127:G:OP1	1:1G:635:G:H1'	2.18	0.43
1:1G:157:G:H1	1:1G:164:U:H3	1.65	0.43
1:1G:287:U:H2'	1:1G:288:A:C8	2.53	0.43
1:1G:616:G:C2	1:1G:617:G:N7	2.87	0.43
1:1G:1072:G:C6	1:1G:1073:U:N3	2.86	0.43
1:1G:1153:C:P	10:1A:13:HIS:HE1	2.41	0.43
1:1G:1224:G:N2	1:1G:1322:C:H4'	2.33	0.43
3:22:93:LYS:H	3:22:93:LYS:CD	2.31	0.43
7:62:15:ASP:HB3	7:62:20:ASP:H	1.82	0.43
7:62:38:LEU:O	7:62:42:ILE:HG13	2.18	0.43
9:82:26:VAL:HG13	9:82:61:ALA:O	2.18	0.43
26:14:39:C:O2	31:39:46:ARG:NH2	2.49	0.43
26:14:141:A:C8	26:14:1595:G:N2	2.72	0.43
26:14:207:A:H2'	26:14:208:C:O4'	2.18	0.43
26:14:259:G:HO2'	26:14:621:A:HO2'	1.50	0.43
26:14:534:U:H5'	42:85:42:ALA:HB1	2.00	0.43
26:14:540:G:H2'	26:14:541:C:C6	2.53	0.43
26:14:1118:C:H2'	26:14:1119:C:C6	2.54	0.43
26:14:1203:G:OP2	26:14:1204:A:H2'	2.18	0.43
26:14:1213:A:H2'	26:14:1214:A:C8	2.53	0.43
26:14:1260:G:C5	26:14:1261:C:C5	3.07	0.43
26:14:1793:C:H2'	26:14:1794:U:C6	2.53	0.43
26:14:1951:U:O2	26:14:1954:G:H8	2.01	0.43
26:14:2176:A:O2'	26:14:2177:C:H5'	2.19	0.43
26:14:2346:A:H5'	26:14:2383:G:H1'	2.01	0.43
26:14:2370:G:H2'	26:14:2371:G:O4'	2.19	0.43
26:14:2563:U:H1'	26:14:2566:A:N6	2.33	0.43
27:1J:53:A:H2'	27:1J:54:G:O4'	2.17	0.43
30:29:26:ILE:HB	30:29:182:LEU:HB3	2.01	0.43
32:49:11:TYR:HE2	32:49:16:ARG:HH21	1.66	0.43
40:65:70:GLY:O	40:65:105:ALA:HA	2.19	0.43
48:E5:60:PHE:N	48:E5:60:PHE:CD1	2.86	0.43
50:G5:63:VAL:HA	50:G5:66:GLU:OE1	2.19	0.43
53:J5:41:PRO:HA	53:J5:42:PRO:HD3	1.92	0.43
55:M5:23:VAL:HA	55:M5:49:VAL:N	2.32	0.43
1:13:66:G:O4'	1:13:173:U:C4	2.71	0.43
1:13:228:A:H2'	1:13:229:U:O4'	2.19	0.43
1:13:474:G:H2'	1:13:475:G:O4'	2.18	0.43
1:13:582:U:O2'	17:8I:94:ASN:ND2	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:663:A:H5'	1:13:836:G:OP1	2.18	0.43
2:1E:28:PHE:HD1	2:1E:194:PRO:HD3	1.83	0.43
3:2E:151:VAL:HA	3:2E:199:LYS:O	2.19	0.43
4:3E:108:LEU:HB3	4:3E:110:PHE:HE1	1.84	0.43
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.48	0.43
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.49	0.43
11:2I:59:TYR:O	11:2I:62:GLN:HB3	2.18	0.43
12:3I:111:LYS:O	12:3I:112:ASP:HB2	2.18	0.43
22:1K:9:A:H5"	22:1K:47:U:H6	1.82	0.43
26:1H:270(N):G:N3	34:61:50:ARG:NH2	2.66	0.43
26:1H:496:G:O5'	44:E8:62:HIS:HE1	2.02	0.43
26:1H:713:G:H2'	26:1H:714:U:H6	1.84	0.43
26:1H:717:G:H2'	26:1H:718:A:O4'	2.18	0.43
26:1H:774:A:HO2'	26:1H:775:G:H8	1.64	0.43
26:1H:956:G:OP2	38:88:14:ARG:NH2	2.51	0.43
26:1H:1049:C:H1'	26:1H:1113:U:O2'	2.17	0.43
26:1H:2136:C:N4	26:1H:2156:G:N3	2.66	0.43
26:1H:2138:C:H2'	26:1H:2139:C:H6	1.83	0.43
27:16:12:C:H6	27:16:12:C:OP2	2.01	0.43
28:71:182:PRO:HA	28:71:185:LEU:HB2	2.00	0.43
31:31:101:LEU:HA	31:31:101:LEU:HD23	1.59	0.43
31:31:108:LYS:HE2	31:31:108:LYS:HB3	1.87	0.43
37:78:95:VAL:HA	37:78:99:LEU:HD23	2.00	0.43
37:78:97:PRO:HD3	37:78:126:VAL:O	2.17	0.43
37:78:112:LEU:HA	37:78:112:LEU:HD23	1.55	0.43
38:88:25:ASP:HA	38:88:102:VAL:HG23	2.00	0.43
47:H8:70:LEU:HD11	47:H8:98:MET:HE3	2.00	0.43
55:Q8:50:LEU:HD13	55:Q8:50:LEU:O	2.18	0.43
1:1G:317:G:H1	1:1G:336:C:N4	2.15	0.43
1:1G:1001:G:H2'	1:1G:1002:G:H8	1.84	0.43
1:1G:1206:G:H2'	1:1G:1207:G:H8	1.84	0.43
1:1G:1317:C:O2	19:AA:37:ARG:NH1	2.51	0.43
5:42:26:PHE:N	5:42:26:PHE:CD1	2.87	0.43
18:9A:45:SER:OG	18:9A:46:GLU:N	2.52	0.43
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.18	0.43
23:2L:32:G:C5	23:2L:33:OMC:C5	3.06	0.43
26:14:194:G:H2'	26:14:195:A:O4'	2.18	0.43
26:14:642:G:H3'	26:14:642:G:C8	2.54	0.43
26:14:2132:U:H1'	28:79:5:LYS:N	2.32	0.43
26:14:2464:C:H42	26:14:2486:G:H1	1.67	0.43
29:19:2:ALA:HB3	29:19:20:ASP:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:31:CYS:HB3	30:29:49:LEU:HB2	2.00	0.43
31:39:22:ALA:O	31:39:24:LEU:N	2.52	0.43
32:49:136:ARG:H	32:49:136:ARG:HG3	1.58	0.43
35:15:15:LEU:HD23	35:15:134:ARG:HB2	2.01	0.43
40:65:92:TYR:HB2	40:65:98:VAL:HG11	2.01	0.43
46:C5:68:HIS:HB3	46:C5:71:LYS:HG2	2.00	0.43
50:G5:33:MET:O	50:G5:37:PHE:HD1	2.01	0.43
1:13:222:U:H2'	1:13:223:U:C6	2.49	0.43
1:13:323:U:H4'	20:BI:22:ARG:HB3	2.01	0.43
1:13:345:C:H5'	41:B8:41:ARG:CZ	2.48	0.43
1:13:411:A:C5	1:13:413:G:H1'	2.54	0.43
1:13:522:C:H2'	1:13:523:A:O4'	2.19	0.43
1:13:693:G:H2'	1:13:694:A:C8	2.53	0.43
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.51	0.43
1:13:1266:G:N2	1:13:1270:C:C4	2.87	0.43
12:3I:111:LYS:HD3	12:3I:111:LYS:HA	1.71	0.43
26:1H:689:A:N3	26:1H:779:U:O2'	2.47	0.43
26:1H:722:A:C2	26:1H:723:G:C4	3.07	0.43
26:1H:1381:G:H1'	26:1H:1571:A:N1	2.33	0.43
26:1H:2850:A:H3'	26:1H:2851:A:C8	2.53	0.43
34:61:144:VAL:HG22	34:61:145:VAL:CG2	2.46	0.43
39:98:63:ARG:HA	39:98:80:PHE:CZ	2.54	0.43
45:F8:37:THR:O	45:F8:40:LYS:HB3	2.18	0.43
47:H8:6:LYS:NZ	47:H8:43:GLU:OE1	2.34	0.43
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	2.01	0.43
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.34	0.43
1:1G:67:C:H2'	1:1G:68:G:C8	2.53	0.43
1:1G:757:U:H2'	1:1G:758:G:O4'	2.18	0.43
1:1G:1047:G:H1	1:1G:1210:C:H42	1.66	0.43
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.19	0.43
2:12:50:GLU:H	2:12:50:GLU:CD	2.22	0.43
2:12:187:LEU:HD21	2:12:204:ASN:N	2.33	0.43
4:32:177:ASP:O	4:32:180:GLY:N	2.37	0.43
6:52:37:VAL:HG21	6:52:63:TYR:HD2	1.83	0.43
7:62:51:GLN:O	7:62:51:GLN:NE2	2.52	0.43
9:82:97:LYS:HB3	9:82:98:PRO:HD3	2.01	0.43
14:5A:22:THR:HB	14:5A:33:VAL:HG21	2.01	0.43
19:AA:57:HIS:CD2	19:AA:57:HIS:N	2.86	0.43
56:1L:33:U:C2	56:1L:35:U:OP2	2.72	0.43
23:2L:23:G:H2'	23:2L:24:C:H6	1.83	0.43
57:3L:15:G:C2	57:3L:59:A:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:374:A:C2	26:14:401:A:C4	3.06	0.43
26:14:639:U:H2'	26:14:640:C:C6	2.53	0.43
26:14:971:C:H2'	26:14:972:G:H5'	2.01	0.43
26:14:1115:G:C5	26:14:1116:C:C4	3.07	0.43
26:14:1778:U:H2'	26:14:1784:A:H62	1.82	0.43
26:14:1972:A:H2'	26:14:1973:G:H8	1.82	0.43
26:14:2171:A:C8	26:14:2172:U:H5"	2.54	0.43
26:14:2720:U:C2	26:14:2721:A:C8	3.07	0.43
26:14:2832:U:H3'	26:14:2833:G:C8	2.54	0.43
27:1J:57:A:H2'	27:1J:58:A:O4'	2.19	0.43
29:19:66:ASP:HB3	29:19:105:ILE:HD12	1.99	0.43
30:29:56:PRO:HD2	30:29:58:ARG:CZ	2.48	0.43
31:39:14:PRO:O	31:39:15:SER:C	2.56	0.43
33:59:11:VAL:HG22	33:59:69:ARG:HH12	1.83	0.43
33:59:163:TYR:CE1	33:59:169:VAL:HG22	2.54	0.43
34:69:100:ALA:O	34:69:104:GLN:HB2	2.19	0.43
40:65:78:LEU:HD11	40:65:107:GLU:CB	2.45	0.43
41:75:3:ARG:HE	41:75:6:LEU:HB2	1.84	0.43
43:95:35:LEU:HD23	43:95:35:LEU:H	1.84	0.43
53:J5:38:ALA:HB3	53:J5:48:GLU:HG3	1.99	0.43
1:13:62:U:O2'	1:13:379:C:O2	2.37	0.43
1:13:957:U:N3	1:13:960:U:OP2	2.49	0.43
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.99	0.43
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.34	0.43
10:1I:80:LYS:NZ	10:1I:84:GLN:HB2	2.34	0.43
26:1H:185:U:H2'	26:1H:186:G:H8	1.83	0.43
26:1H:470:A:H2'	26:1H:471:A:O4'	2.18	0.43
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.19	0.43
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.19	0.43
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.54	0.43
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.19	0.43
26:1H:2156:G:H2'	26:1H:2157:G:H21	1.84	0.43
30:21:120:TRP:CD2	30:21:155:LYS:HG2	2.53	0.43
33:51:4:ILE:O	33:51:6:ARG:HG3	2.18	0.43
47:H8:140:ASP:N	47:H8:140:ASP:OD1	2.51	0.43
1:1G:32:A:H2'	1:1G:33:A:C8	2.54	0.43
1:1G:76:G:H1	1:1G:93:U:H3	1.67	0.43
1:1G:103:C:OP2	20:BA:14:LYS:HD3	2.19	0.43
1:1G:300:A:H8	1:1G:300:A:O5'	2.02	0.43
1:1G:406:G:H5'	4:32:5:ILE:HD12	2.01	0.43
1:1G:1129:C:H5	1:1G:1141:C:N4	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1301:U:O2	1:1G:1301:U:H2'	2.18	0.43
2:12:208:ILE:HA	2:12:211:ILE:HD12	2.01	0.43
4:32:112:VAL:HG12	4:32:116:GLN:CD	2.39	0.43
7:62:21:VAL:O	7:62:24:THR:HB	2.17	0.43
9:82:5:TYR:CG	9:82:6:GLY:N	2.87	0.43
9:82:14:VAL:O	9:82:65:VAL:HG23	2.18	0.43
9:82:27:THR:HG1	9:82:32:ASP:HA	1.84	0.43
9:82:51:ARG:HA	9:82:56:LEU:HB3	2.01	0.43
9:82:70:LYS:O	9:82:74:ILE:HG13	2.19	0.43
10:1A:16:LEU:HD13	10:1A:94:VAL:HG11	2.00	0.43
13:4A:54:VAL:HA	13:4A:57:ARG:HG2	2.00	0.43
14:5A:41:ARG:HG3	14:5A:42:ILE:N	2.32	0.43
19:AA:15:LEU:HD22	19:AA:18:LYS:HE3	1.99	0.43
23:2L:38:A:H2'	23:2L:39:A:O4'	2.18	0.43
26:14:27:G:C4	26:14:512:G:N2	2.87	0.43
26:14:34:C:O2	26:14:34:C:H2'	2.19	0.43
26:14:90:U:O2'	26:14:91:A:H8	2.01	0.43
26:14:480:A:H2'	26:14:480:A:N3	2.32	0.43
26:14:590:A:OP1	31:39:95:ARG:NH1	2.52	0.43
26:14:635:C:H2'	26:14:636:G:O4'	2.18	0.43
26:14:944:G:H5"	26:14:945:A:O5'	2.18	0.43
26:14:997:G:OP1	42:85:93:LYS:HD2	2.19	0.43
26:14:2446:G:C2	26:14:2501:C:C5	3.07	0.43
26:14:2688:U:C5	26:14:2720:U:OP2	2.68	0.43
26:14:2704:C:H2'	26:14:2705:A:O4'	2.19	0.43
27:1J:63:G:H2'	27:1J:64:C:C6	2.54	0.43
30:29:176:ILE:HB	30:29:181:LEU:HB2	2.00	0.43
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.84	0.43
34:69:102:SER:HA	34:69:107:VAL:O	2.19	0.43
36:25:47:ILE:O	36:25:53:LYS:HD2	2.18	0.43
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.99	0.43
1:13:450:G:C8	1:13:481:G:O6	2.71	0.43
1:13:475:G:C4	1:13:476:G:C8	3.07	0.43
1:13:658:G:H2'	1:13:659:U:C6	2.53	0.43
1:13:730:G:C5	1:13:731:G:H1'	2.54	0.43
1:13:906:G:O5'	1:13:906:G:H8	2.01	0.43
1:13:1074:G:N3	1:13:1102:A:C2	2.87	0.43
4:3E:191:ARG:NE	4:3E:200:GLU:OE1	2.52	0.43
7:6E:95:ARG:NH1	7:6E:99:LEU:HD11	2.34	0.43
26:1H:647:G:H8	26:1H:647:G:OP2	2.01	0.43
26:1H:701:G:C2'	26:1H:702:G:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.54	0.43
26:1H:1417:C:H42	26:1H:1581:G:H1	1.67	0.43
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.53	0.43
26:1H:2080:G:H5"	26:1H:2080:G:H8	1.84	0.43
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.19	0.43
28:71:42:GLU:H	28:71:216:THR:HA	1.84	0.43
29:11:261:LYS:HZ2	29:11:263:ARG:H	1.65	0.43
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.19	0.43
37:78:123:LEU:HD23	37:78:123:LEU:HA	1.75	0.43
40:A8:36:TYR:N	40:A8:36:TYR:HD1	2.16	0.43
1:1G:373:A:N3	1:1G:374:A:C8	2.86	0.43
1:1G:428:G:C5	1:1G:430:A:C6	3.07	0.43
1:1G:450:G:O5'	1:1G:450:G:H8	2.01	0.43
1:1G:513:C:H2'	1:1G:514:C:C6	2.54	0.43
1:1G:707:C:H2'	1:1G:708:C:H6	1.82	0.43
1:1G:1058:G:H2'	1:1G:1059:C:C6	2.53	0.43
1:1G:1245:A:H2'	1:1G:1246:C:C6	2.54	0.43
2:12:213:LEU:HG	2:12:214:ILE:N	2.33	0.43
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.01	0.43
6:52:16:GLN:H	6:52:16:GLN:HG2	1.57	0.43
6:52:101:ALA:O	18:9A:28:GLU:HB2	2.19	0.43
8:72:81:HIS:HB2	8:72:138:TRP:CE3	2.54	0.43
9:82:112:LYS:NZ	9:82:113:LYS:O	2.48	0.43
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.70	0.43
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.19	0.43
26:14:972:G:H3'	26:14:973:A:H2'	2.00	0.43
26:14:1023:U:OP2	26:14:1024:G:N7	2.52	0.43
26:14:2292:C:H2'	26:14:2293:C:C6	2.53	0.43
26:14:2697:G:H2'	26:14:2698:U:O4'	2.19	0.43
27:1J:98:G:H8	27:1J:98:G:O5'	2.02	0.43
29:19:31:LYS:HG3	29:19:33:LEU:HB3	2.00	0.43
29:19:147:LEU:HD22	29:19:147:LEU:HA	1.92	0.43
30:29:181:LEU:HD11	41:75:7:ILE:HD13	2.00	0.43
33:59:9:ILE:HB	33:59:10:PRO:HD2	2.01	0.43
34:69:113:ARG:O	34:69:131:LYS:NZ	2.48	0.43
37:35:112:LEU:HD23	37:35:112:LEU:HA	1.77	0.43
47:D5:37:VAL:HG23	47:D5:38:TYR:N	2.34	0.43
1:13:147:G:C2	1:13:148:G:C5	3.06	0.43
1:13:671:G:C4	1:13:672:U:C6	3.07	0.43
1:13:827:U:C5	1:13:870:U:C4	3.06	0.43
1:13:1032(A):G:H2'	1:13:1032(B):G:N7	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1112:C:N3	3:2E:178:LEU:HB2	2.33	0.43
1:13:1397:C:OP2	5:4E:24:ARG:NH2	2.52	0.43
3:2E:42:LEU:HA	3:2E:42:LEU:HD13	1.73	0.43
4:3E:31:CYS:HB2	59:3E:301:SF4:S3	2.58	0.43
5:4E:6:PHE:HD2	5:4E:63:ARG:NH1	2.17	0.43
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	2.01	0.43
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.40	0.43
7:6E:95:ARG:HH12	7:6E:99:LEU:HD21	1.83	0.43
15:6I:32:LEU:HD23	15:6I:32:LEU:HA	1.87	0.43
16:7I:33:ILE:H	16:7I:33:ILE:HG13	1.70	0.43
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	2.00	0.43
22:1K:62:C:H2'	22:1K:63:U:O4'	2.19	0.43
26:1H:1480:G:N1	26:1H:1482:U:O2	2.52	0.43
26:1H:2107:C:H5"	26:1H:2108:C:P	2.59	0.43
26:1H:2135:A:C5'	26:1H:2159:G:H21	2.32	0.43
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.84	0.43
28:71:64:LEU:HD22	28:71:65:PRO:HD2	2.01	0.43
29:11:16:MET:CE	29:11:211:ARG:HD2	2.49	0.43
30:21:52:LEU:HA	30:21:52:LEU:HD12	1.55	0.43
31:31:78:ILE:H	31:31:78:ILE:HG23	1.60	0.43
32:41:130:ASN:HB3	32:41:160:VAL:HA	2.01	0.43
32:41:137:GLU:HB2	32:41:139:LEU:HD23	2.01	0.43
37:78:101:VAL:HA	37:78:105:LEU:O	2.19	0.43
38:88:5:ARG:H	38:88:5:ARG:HG3	1.62	0.43
44:E8:9:TYR:HA	44:E8:100:THR:CG2	2.49	0.43
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	2.01	0.43
49:J8:91:LYS:HZ3	49:J8:91:LYS:HA	1.83	0.43
1:1G:184:G:C2'	1:1G:185:A:H5'	2.49	0.43
1:1G:228:A:H4'	16:7A:62:VAL:HG11	2.01	0.43
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.52	0.43
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.19	0.43
1:1G:1032:A:H3'	1:1G:1032(A):G:C5'	2.48	0.43
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.84	0.43
1:1G:1225:A:H5"	1:1G:1226:C:OP2	2.19	0.43
2:12:28:PHE:CZ	2:12:189:ASP:HA	2.54	0.43
2:12:127:ILE:HG12	2:12:130:ARG:CD	2.49	0.43
3:22:19:GLU:O	3:22:57:ILE:N	2.50	0.43
5:42:68:GLU:OE2	5:42:70:PRO:HG3	2.19	0.43
7:62:141:VAL:CA	7:62:142:GLU:HG2	2.49	0.43
23:2L:15:G:N2	23:2L:22:A:H1'	2.34	0.43
26:14:1003:G:N2	26:14:1153:C:C2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1551:C:C4	26:14:1552:G:C5	3.07	0.43
26:14:1830:C:O5'	26:14:1830:C:H6	2.02	0.43
26:14:2443:C:H2'	26:14:2444:G:C8	2.54	0.43
26:14:2628:C:H1'	26:14:2781:A:H2'	2.00	0.43
26:14:2842:G:C4	26:14:2876:G:N2	2.87	0.43
31:39:95:ARG:HG3	31:39:97:TYR:CE1	2.54	0.43
34:69:128:LEU:O	34:69:138:ILE:N	2.43	0.43
39:55:38:VAL:O	39:55:41:ALA:HB3	2.19	0.43
39:55:54:LEU:HD12	39:55:54:LEU:HA	1.87	0.43
42:85:86:ALA:HB2	42:85:116:ALA:HB2	2.00	0.43
1:13:105:G:H2'	1:13:106:C:C6	2.54	0.42
1:13:292:G:N7	1:13:293:G:H1'	2.34	0.42
1:13:502:G:C6	1:13:503:C:C4	3.07	0.42
1:13:667:G:OP1	1:13:732:C:O2'	2.32	0.42
1:13:671:G:H2'	1:13:672:U:C6	2.48	0.42
1:13:948:C:O2'	1:13:949:A:H5'	2.19	0.42
1:13:1346:A:O3'	1:13:1347:G:H4'	2.19	0.42
1:13:1414:U:H2'	1:13:1415:G:H8	1.84	0.42
3:2E:175:LEU:HD21	3:2E:201:TYR:CE1	2.54	0.42
3:2E:188:LEU:HD11	3:2E:195:VAL:HG13	2.01	0.42
4:3E:104:VAL:O	4:3E:107:ARG:N	2.52	0.42
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.54	0.42
11:2I:106:LYS:HE3	11:2I:106:LYS:HB2	1.76	0.42
23:2K:45:A:H2'	23:2K:46:G:O4'	2.19	0.42
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.40	0.42
26:1H:270(R):G:H2'	26:1H:270(S):G:H8	1.81	0.42
26:1H:639:U:H2'	26:1H:640:C:C6	2.54	0.42
26:1H:1266:G:O5'	44:E8:15:ARG:NH2	2.52	0.42
26:1H:1372:U:C2'	26:1H:1373:A:H5'	2.49	0.42
26:1H:1387:C:C2	26:1H:1388:G:C8	3.07	0.42
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.54	0.42
26:1H:2133:G:H2'	26:1H:2157:G:N2	2.34	0.42
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.54	0.42
26:1H:2598:A:H3'	26:1H:2598:A:C8	2.53	0.42
27:16:31:C:N4	40:A8:32:LEU:HD23	2.34	0.42
29:11:72:LYS:HG2	29:11:103:ARG:NH2	2.33	0.42
32:41:63:ILE:HG13	32:41:64:THR:N	2.34	0.42
32:41:125:PHE:CE1	32:41:131:TYR:HB2	2.53	0.42
33:51:71:LEU:HD12	33:51:71:LEU:HA	1.83	0.42
35:58:57:ALA:C	35:58:59:LYS:N	2.68	0.42
36:68:23:ARG:HG3	36:68:24:VAL:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:96:THR:C	37:78:98:GLU:H	2.22	0.42
46:G8:4:LYS:HD3	46:G8:4:LYS:HA	1.75	0.42
53:N8:36:CYS:HB2	53:N8:49:CYS:SG	2.59	0.42
55:Q8:7:HIS:HB3	55:Q8:61:LEU:HB3	2.01	0.42
1:1G:115:G:H1'	1:1G:116:A:N7	2.34	0.42
1:1G:192:U:C1'	20:BA:103:GLY:HA2	2.49	0.42
1:1G:224:C:H2'	1:1G:225:C:C6	2.54	0.42
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.18	0.42
1:1G:516:U:O2'	1:1G:519:C:N3	2.52	0.42
1:1G:803:G:C5	1:1G:804:U:C4	3.06	0.42
1:1G:1084:G:C6	1:1G:1085:U:C4	3.07	0.42
1:1G:1320:C:OP1	19:AA:70:LYS:HE3	2.19	0.42
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.19	0.42
3:22:6:HIS:HD2	3:22:7:PRO:HD2	1.84	0.42
12:3A:85:ILE:HD12	12:3A:85:ILE:HA	1.65	0.42
13:4A:78:ILE:CG2	13:4A:92:HIS:HB3	2.46	0.42
20:BA:26:ASN:HA	20:BA:71:THR:HG23	2.01	0.42
26:14:185:U:H2'	26:14:186:G:O4'	2.19	0.42
26:14:483:A:C4	46:C5:60:PHE:HZ	2.36	0.42
26:14:515:A:H2'	26:14:516:C:H5'	2.01	0.42
26:14:1709:U:H2'	26:14:1710:C:C6	2.54	0.42
26:14:1769:G:O2'	26:14:1958:C:OP1	2.30	0.42
26:14:2178:C:H5'	28:79:46:LYS:HE2	2.01	0.42
27:1J:1:U:H2'	27:1J:2:C:C6	2.54	0.42
30:29:37:ARG:HD2	30:29:80:GLU:OE2	2.19	0.42
32:49:27:ASN:OD1	32:49:28:VAL:N	2.50	0.42
34:69:23:PRO:O	34:69:27:ARG:HG2	2.19	0.42
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.78	0.42
1:13:464:G:H2'	1:13:467:G:O6	2.19	0.42
1:13:946:A:H2'	1:13:947:G:C8	2.54	0.42
1:13:983:A:H1'	1:13:1049:U:O2	2.19	0.42
1:13:1177:G:H5'	9:8E:97:LYS:HZ1	1.84	0.42
4:3E:155:LEU:HB3	4:3E:158:ILE:HG13	2.01	0.42
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	2.00	0.42
10:1I:33:GLN:O	10:1I:74:ILE:HG12	2.19	0.42
13:4I:3:ARG:CZ	13:4I:9:ILE:HD11	2.49	0.42
15:6I:45:VAL:HG12	15:6I:46:HIS:HD2	1.83	0.42
17:8I:101:ARG:CZ	17:8I:101:ARG:HB2	2.49	0.42
23:2K:65:G:C2	23:2K:66:C:C2	3.07	0.42
26:1H:38:A:H2'	26:1H:39:C:C6	2.54	0.42
26:1H:192:C:OP1	61:1H:3573:HOH:O	2.21	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:363(E):U:OP2	26:1H:363(E):U:H6	2.02	0.42
26:1H:1166:C:O2	26:1H:1184:G:C2	2.72	0.42
26:1H:1711:C:H2'	26:1H:1712:C:O4'	2.19	0.42
26:1H:1965:C:H3'	26:1H:1966:A:H2'	2.00	0.42
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.19	0.42
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.54	0.42
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.31	0.42
28:71:193:ILE:HD13	28:71:194:ARG:CZ	2.49	0.42
31:31:59:TYR:CD1	31:31:78:ILE:HD11	2.54	0.42
31:31:170:LEU:HB2	31:31:173:VAL:HB	2.00	0.42
32:41:12:TYR:HA	32:41:16:ARG:HD3	2.01	0.42
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.49	0.42
46:G8:42:VAL:HG23	46:G8:43:ASN:H	1.84	0.42
50:K8:47:ASN:O	50:K8:49:LYS:HG3	2.19	0.42
53:N8:20:ARG:HG2	53:N8:23:HIS:CE1	2.54	0.42
1:1G:520:A:N1	1:1G:536:C:H1'	2.33	0.42
1:1G:980:C:H5'	1:1G:981:U:OP2	2.19	0.42
1:1G:983:A:H2	1:1G:984:C:C6	2.38	0.42
1:1G:1157:A:N9	1:1G:1158:C:H5	2.17	0.42
1:1G:1423:G:OP1	36:25:49:ARG:NH2	2.52	0.42
2:12:132:LYS:HD2	2:12:135:GLN:NE2	2.34	0.42
5:42:70:PRO:O	5:42:77:PRO:HD3	2.19	0.42
7:62:45:ASP:O	7:62:49:ILE:HG13	2.19	0.42
8:72:4:ASP:OD2	8:72:85:ARG:NE	2.49	0.42
8:72:103:VAL:HG21	8:72:110:ALA:HB2	2.00	0.42
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	2.01	0.42
16:7A:17:TYR:CE2	16:7A:41:PRO:HG3	2.54	0.42
56:1L:3:G:H2'	56:1L:3:G:OP2	2.19	0.42
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.54	0.42
26:14:441:U:H2'	26:14:442:G:C8	2.54	0.42
26:14:1346:G:H2'	26:14:1347:G:H8	1.84	0.42
26:14:1399:C:H2'	26:14:1400:G:H8	1.85	0.42
26:14:1424:G:H2'	26:14:1425:G:C8	2.54	0.42
26:14:1569:A:H2'	26:14:1570:A:C8	2.54	0.42
26:14:1638:C:H5"	26:14:2710:C:O2'	2.19	0.42
26:14:1774:C:O5'	26:14:1774:C:H6	2.01	0.42
26:14:2295:C:OP1	40:65:10:ARG:HD3	2.18	0.42
26:14:2310:A:H5'	26:14:2311:A:OP2	2.18	0.42
26:14:2331:G:O2'	48:E5:43:THR:HB	2.18	0.42
26:14:2572:A:N7	30:29:145:LYS:HB2	2.34	0.42
26:14:2636:U:H4'	30:29:80:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2641:G:P	35:15:74:ARG:HH21	2.42	0.42
26:14:2645:G:H3'	26:14:2646:C:H5'	2.01	0.42
26:14:2687:U:C4	26:14:2688:U:C5	3.07	0.42
26:14:2805:G:H2'	26:14:2807:G:O4'	2.19	0.42
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.63	0.42
39:55:12:ARG:HB3	39:55:16:HIS:HB3	2.01	0.42
43:95:24:LYS:HE2	43:95:24:LYS:HB3	1.92	0.42
1:13:255:G:C6	1:13:256:U:C4	3.06	0.42
1:13:575:G:H4'	1:13:576:G:H5"	2.01	0.42
1:13:659:U:H2'	1:13:660:G:C8	2.53	0.42
1:13:664:G:P	18:9I:64:ARG:HH21	2.43	0.42
1:13:711:G:H2'	1:13:712:A:H8	1.84	0.42
1:13:1080:A:H5'	5:4E:14:ARG:NH2	2.35	0.42
1:13:1330:U:H4'	13:4I:23:TYR:CE1	2.52	0.42
1:13:1536:C:H42	25:4K:9:G:H22	1.67	0.42
2:1E:16:HIS:HE1	2:1E:213:LEU:HD12	1.84	0.42
8:7E:51:VAL:HG21	8:7E:60:ARG:HH11	1.83	0.42
10:1I:83:GLU:HG2	10:1I:84:GLN:H	1.84	0.42
12:3I:28:LYS:HE3	12:3I:64:TYR:CE1	2.54	0.42
22:1K:18:G:C5	22:1K:57:G:N2	2.87	0.42
26:1H:315:G:C6	26:1H:316:C:C4	3.07	0.42
26:1H:354:G:H2'	26:1H:355:G:C8	2.54	0.42
26:1H:805:G:H4'	26:1H:806:C:OP2	2.20	0.42
26:1H:1042:G:C6	26:1H:1043:C:C4	3.07	0.42
26:1H:1423:G:C6	26:1H:1424:G:N7	2.87	0.42
26:1H:1435:G:H2'	26:1H:1436:G:H8	1.84	0.42
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.19	0.42
26:1H:2391:G:O6	26:1H:2425:A:H8	2.02	0.42
26:1H:2408:U:O5'	26:1H:2408:U:H6	2.03	0.42
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.53	0.42
29:11:118:VAL:HG11	29:11:124:PRO:HD2	2.01	0.42
30:21:164:ARG:HH11	30:21:164:ARG:HD3	1.71	0.42
31:31:8:GLN:OE1	31:31:21:ALA:HB2	2.18	0.42
31:31:161:GLU:O	31:31:165:ARG:HG2	2.20	0.42
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.48	0.42
51:L8:7:LYS:HD2	51:L8:34:GLU:OE2	2.19	0.42
53:N8:46:CYS:HA	53:N8:47:PRO:HD2	1.81	0.42
1:1G:171:A:H2'	1:1G:172:A:C8	2.54	0.42
1:1G:590:C:OP1	8:72:30:ARG:N	2.44	0.42
1:1G:751:U:H2'	1:1G:752:G:O4'	2.19	0.42
1:1G:967:C:H2'	1:1G:968:A:N7	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1127:G:H2'	1:1G:1127:G:N3	2.34	0.42
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.55	0.42
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.19	0.42
4:32:93:PHE:O	4:32:96:LEU:HB2	2.20	0.42
4:32:119:GLN:HG2	4:32:123:HIS:CD2	2.50	0.42
13:4A:78:ILE:O	13:4A:82:MET:N	2.52	0.42
57:3L:58:A:N7	57:3L:61:C:C4	2.87	0.42
26:14:150:C:H2'	26:14:151:C:C6	2.55	0.42
26:14:856:C:C6	26:14:857:C:H5	2.37	0.42
26:14:1059:G:H2'	26:14:1060:U:C4	2.54	0.42
26:14:1226:G:P	43:95:85:LYS:HA	2.59	0.42
26:14:1803:A:H2	26:14:1822:G:N3	2.18	0.42
26:14:2132:U:H3	28:79:6:ARG:HE	1.66	0.42
26:14:2512:C:H4'	30:29:122:PHE:CE2	2.54	0.42
26:14:2848:G:H1'	26:14:2867:G:N2	2.35	0.42
29:19:67:PHE:HE1	29:19:106:ILE:HD11	1.83	0.42
35:15:5:VAL:HG23	35:15:43:THR:HG21	2.01	0.42
38:45:54:MET:O	38:45:57:HIS:N	2.47	0.42
39:55:70:LEU:HA	39:55:70:LEU:HD23	1.86	0.42
49:F5:92:LYS:O	49:F5:93:GLU:C	2.56	0.42
55:M5:8:LYS:HA	55:M5:8:LYS:HD3	1.71	0.42
1:13:404:U:H5'	4:3E:122:ARG:HD2	2.00	0.42
1:13:567:G:H2'	1:13:568:G:O4'	2.19	0.42
1:13:754:C:OP1	15:6I:72:ARG:NH2	2.51	0.42
1:13:1128:C:C5	1:13:1139:G:C2	3.06	0.42
8:7E:20:TYR:HE1	8:7E:78:GLN:NE2	2.17	0.42
10:1I:33:GLN:OE1	10:1I:74:ILE:HG23	2.20	0.42
11:2I:124:LYS:HB2	11:2I:125:PHE:HD1	1.83	0.42
13:4I:34:LEU:HD13	13:4I:41:PRO:HB3	2.01	0.42
22:1K:26:A:H5'	22:1K:27:G:OP2	2.20	0.42
26:1H:94:G:H2'	26:1H:95:G:O4'	2.19	0.42
26:1H:1021:A:C8	26:1H:1021:A:C3'	3.02	0.42
26:1H:1047:G:C2	26:1H:1110:G:C8	3.07	0.42
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.55	0.42
26:1H:1359:A:N3	26:1H:1359:A:O4'	2.52	0.42
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.55	0.42
26:1H:2159:G:C5	26:1H:2160:G:C8	3.08	0.42
26:1H:2415:G:O4'	37:78:67:MET:HG3	2.19	0.42
26:1H:2477:C:H6	26:1H:2529:G:O6	2.02	0.42
30:21:181:LEU:HA	30:21:181:LEU:HD13	1.71	0.42
35:58:12:ARG:HB3	35:58:50:ASP:OD1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:18:LEU:HD23	39:98:18:LEU:HA	1.79	0.42
41:B8:51:ARG:HB2	41:B8:98:LYS:HD2	2.00	0.42
42:C8:92:ARG:HH21	43:D8:10:LYS:HG2	1.84	0.42
48:I8:64:ASP:N	48:I8:64:ASP:OD1	2.53	0.42
52:M8:15:ILE:O	52:M8:33:VAL:HB	2.19	0.42
55:Q8:9:GLY:O	55:Q8:13:ARG:HG2	2.17	0.42
1:1G:20:U:H2'	1:1G:21:G:O4'	2.19	0.42
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.54	0.42
1:1G:142:G:H2'	1:1G:143:A:H8	1.84	0.42
1:1G:161:A:N6	1:1G:162:A:N1	2.67	0.42
1:1G:685:G:H5'	11:2A:39:PRO:O	2.18	0.42
1:1G:718:G:H5'	11:2A:117:ASN:CG	2.40	0.42
1:1G:894:G:C6	1:1G:895:G:C5	3.08	0.42
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.85	0.42
2:12:158:LEU:HA	2:12:159:PRO:HD2	1.83	0.42
4:32:120:LEU:HD23	4:32:120:LEU:HA	1.81	0.42
4:32:126:ILE:HG22	4:32:127:THR:N	2.35	0.42
9:82:79:LEU:HD23	9:82:101:PHE:O	2.20	0.42
12:3A:54:LYS:N	12:3A:54:LYS:HE3	2.34	0.42
15:6A:10:LYS:H	15:6A:10:LYS:HG2	1.56	0.42
56:1L:66:A:H2'	56:1L:66:A:N3	2.33	0.42
26:14:26:G:C6	26:14:27:G:N1	2.87	0.42
26:14:162:U:H4'	26:14:171:G:O4'	2.19	0.42
26:14:527:C:N4	26:14:2779:U:OP2	2.52	0.42
26:14:775:G:C5	26:14:794:G:C8	3.07	0.42
26:14:814:C:OP1	43:95:83:ARG:N	2.34	0.42
26:14:911:A:C5	38:45:9:TYR:CD2	3.08	0.42
26:14:1022:G:C6	26:14:1140:C:C4	3.08	0.42
26:14:1154:G:O5'	26:14:1154:G:H8	2.02	0.42
26:14:1464:C:C2	26:14:1465:G:C8	3.08	0.42
26:14:1784:A:H4'	26:14:1785:A:O5'	2.19	0.42
26:14:2081:C:O2'	26:14:2082:A:H5'	2.20	0.42
26:14:2295:C:N3	26:14:2296:U:H5	2.17	0.42
26:14:2603:G:C6	26:14:2604:U:C4	3.07	0.42
32:49:37:VAL:O	32:49:94:LEU:HB2	2.19	0.42
36:25:59:LYS:HB3	36:25:87:ILE:HG22	2.02	0.42
37:35:50:ARG:HD3	55:M5:61:LEU:HD11	2.00	0.42
41:75:54:ARG:HG3	41:75:59:THR:CG2	2.49	0.42
43:95:44:LYS:HG3	43:95:45:THR:OG1	2.19	0.42
1:13:51:A:OP2	1:13:52:G:C8	2.69	0.42
1:13:715:A:H2'	1:13:716:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:963:G:H21	10:1I:55:LYS:HZ1	1.68	0.42
1:13:1225:A:H2'	1:13:1225:A:N3	2.34	0.42
1:13:1536:C:N4	25:4K:9:G:H22	2.17	0.42
2:1E:8:LYS:H	2:1E:8:LYS:HZ3	1.67	0.42
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.49	0.42
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.90	0.42
11:2I:32:ILE:HD12	11:2I:68:ALA:O	2.20	0.42
13:4I:82:MET:O	13:4I:83:ASP:HB2	2.19	0.42
17:8I:29:HIS:N	17:8I:34:LYS:O	2.49	0.42
26:1H:346:A:H5"	26:1H:347:A:OP2	2.19	0.42
26:1H:442:G:C4	26:1H:444:C:C5	3.07	0.42
26:1H:581:C:H2'	26:1H:582:G:H8	1.84	0.42
26:1H:592:G:N3	55:Q8:4:MET:CE	2.83	0.42
26:1H:665:C:H2'	26:1H:666:G:C8	2.55	0.42
26:1H:1156:A:N7	42:C8:51:LYS:HG2	2.35	0.42
26:1H:1204:A:C2	26:1H:1241:A:N1	2.87	0.42
26:1H:1575:C:H2'	26:1H:1576:U:O4'	2.20	0.42
26:1H:1711:C:H2'	26:1H:1712:C:C6	2.55	0.42
26:1H:2821:A:HO2'	26:1H:2826:A:H2	1.66	0.42
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.52	0.42
26:1H:2895:U:H2'	26:1H:2896:C:H6	1.84	0.42
29:11:120:GLY:HA2	29:11:190:TYR:OH	2.20	0.42
31:31:164:ARG:HG3	31:31:175:THR:HB	2.01	0.42
32:41:37:VAL:HG22	32:41:159:VAL:HG13	2.02	0.42
40:A8:5:THR:OG1	40:A8:8:GLU:HG2	2.19	0.42
46:G8:57:GLN:H	46:G8:57:GLN:HG3	1.56	0.42
47:H8:4:ARG:HB3	47:H8:58:VAL:HG22	2.01	0.42
51:L8:2:PRO:HB2	51:L8:3:ARG:H	1.56	0.42
1:1G:27:G:H8	1:1G:27:G:O5'	2.01	0.42
1:1G:834:C:N4	1:1G:852:G:H1	2.16	0.42
1:1G:1372:U:OP1	9:82:72:GLY:N	2.51	0.42
3:22:120:VAL:HA	3:22:123:GLN:HB3	2.01	0.42
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	2.00	0.42
57:3L:2:G:H2'	57:3L:3:G:C8	2.55	0.42
57:3L:76:A:H8	26:14:2394:C:N4	2.18	0.42
26:14:581:C:H2'	26:14:582:G:H8	1.85	0.42
26:14:774:A:C2	26:14:787:U:O2'	2.73	0.42
26:14:921:G:C6	26:14:922:U:C4	3.07	0.42
26:14:1012:U:O4	35:15:25:ARG:HA	2.20	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.19	0.42
26:14:1507:A:O2'	26:14:1510:A:N1	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1728:G:H5"	26:14:1728:G:N3	2.34	0.42
31:39:16:GLY:O	31:39:18:ARG:N	2.52	0.42
31:39:62:ARG:HH11	31:39:62:ARG:CG	2.32	0.42
31:39:120:GLU:HG3	31:39:122:LYS:HG2	2.01	0.42
35:15:15:LEU:HB3	35:15:136:GLU:HA	2.00	0.42
38:45:136:ALA:HB1	38:45:138:ASP:OD2	2.18	0.42
39:55:57:ARG:NE	39:55:59:ASP:OD2	2.24	0.42
43:95:35:LEU:C	43:95:37:VAL:HG13	2.39	0.42
55:M5:23:VAL:HA	55:M5:48:PHE:O	2.20	0.42
1:13:76:G:O4'	1:13:95:G:N1	2.36	0.42
1:13:158:G:C2	1:13:159:G:C8	3.08	0.42
1:13:284:G:H2'	1:13:285:G:C8	2.54	0.42
1:13:294:U:O4	1:13:295:C:N4	2.52	0.42
1:13:554:C:H2'	1:13:555:C:C6	2.52	0.42
2:1E:196:LEU:HD23	2:1E:196:LEU:HA	1.83	0.42
9:8E:116:LYS:HE3	9:8E:122:ALA:HB2	2.02	0.42
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.83	0.42
19:AI:23:ASN:ND2	19:AI:43:GLU:HB2	2.34	0.42
20:BI:42:GLN:O	20:BI:46:GLU:N	2.53	0.42
23:2K:21:U:C2'	23:2K:22:A:H5'	2.50	0.42
24:3K:71:C:H1'	26:1H:1851:U:H1'	2.02	0.42
26:1H:289:A:H61	26:1H:351:G:H1'	1.85	0.42
26:1H:482:A:H5"	26:1H:483:A:OP1	2.19	0.42
26:1H:562:U:O4	26:1H:2036:C:H1'	2.19	0.42
26:1H:730:C:H3'	61:1H:3511:HOH:O	2.19	0.42
26:1H:870:A:H5"	38:88:6:ARG:HB3	2.01	0.42
26:1H:1042:G:H1	26:1H:1113:U:H3	1.67	0.42
26:1H:1239:G:H8	26:1H:1239:G:O5'	2.02	0.42
26:1H:1265:A:H8	26:1H:1265:A:OP1	2.02	0.42
26:1H:1521:G:H8	26:1H:1521:G:H5"	1.84	0.42
26:1H:2070:G:C2	26:1H:2442:C:C2	3.08	0.42
26:1H:2261:C:C5	48:I8:16:SER:HB3	2.54	0.42
33:51:13:LYS:HE2	33:51:13:LYS:HB3	1.64	0.42
33:51:87:LEU:HD23	33:51:87:LEU:HA	1.66	0.42
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	2.01	0.42
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.19	0.42
41:B8:111:ARG:O	41:B8:112:ARG:HB3	2.19	0.42
45:F8:92:LEU:HD23	45:F8:92:LEU:HA	1.82	0.42
48:I8:60:PHE:CD1	48:I8:60:PHE:N	2.87	0.42
53:N8:41:PRO:HA	53:N8:42:PRO:HD3	1.90	0.42
1:1G:669:U:H2'	1:1G:670:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:826:C:H2'	1:1G:827:U:C6	2.54	0.42
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.20	0.42
4:32:148:VAL:HG12	4:32:152:SER:CB	2.48	0.42
4:32:170:VAL:HB	4:32:176:LEU:HD11	2.02	0.42
5:42:51:VAL:HG23	5:42:52:PRO:CD	2.50	0.42
6:52:41:GLU:HG3	6:52:62:TRP:CE3	2.55	0.42
12:3A:41:ARG:O	12:3A:55:VAL:HG12	2.19	0.42
18:9A:56:THR:HB	18:9A:58:LEU:HD13	2.02	0.42
23:2L:8:4SU:C2	23:2L:14:A:H62	2.27	0.42
57:3L:48:C:H5"	57:3L:59:A:H4'	2.00	0.42
26:14:397:G:O2'	26:14:2231:C:H1'	2.19	0.42
26:14:510:C:H2'	26:14:511:U:O4'	2.19	0.42
26:14:552:G:H2'	26:14:553:U:O4'	2.19	0.42
26:14:873:G:N2	26:14:905:U:O2	2.52	0.42
26:14:940:G:N3	26:14:1191:G:H4'	2.34	0.42
26:14:959:A:C6	26:14:960:A:C2	3.08	0.42
26:14:1142(A):A:C5	26:14:1144:G:C5	3.07	0.42
26:14:2127:G:C6	26:14:2128:C:C4	3.07	0.42
26:14:2353:G:H2'	26:14:2354:G:O4'	2.19	0.42
29:19:49:ILE:O	29:19:49:ILE:HG12	2.18	0.42
29:19:69:ARG:HD3	29:19:105:ILE:HD11	2.00	0.42
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.50	0.42
31:39:38:ARG:HE	31:39:38:ARG:HB3	1.74	0.42
36:25:113:LYS:H	36:25:113:LYS:CE	2.32	0.42
38:45:37:LEU:HB2	38:45:128:LYS:O	2.20	0.42
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	2.02	0.42
1:13:11:G:C6	1:13:12:U:C4	3.07	0.42
1:13:109:A:H5'	1:13:110:C:H5	1.85	0.42
1:13:437:U:O2	1:13:437:U:H2'	2.19	0.42
1:13:488:C:O2'	1:13:489:C:H5'	2.20	0.42
1:13:1127:G:C5	1:13:1128:C:N4	2.88	0.42
3:2E:34:LEU:HD22	3:2E:38:ARG:NH1	2.35	0.42
3:2E:118:GLN:H	3:2E:118:GLN:HG2	1.63	0.42
4:3E:31:CYS:SG	4:3E:34:GLU:HG2	2.59	0.42
11:2I:121:PRO:HG2	11:2I:126:ARG:HG2	2.02	0.42
12:3I:6:THR:N	12:3I:9:GLN:OE1	2.52	0.42
16:7I:27:LYS:H	16:7I:27:LYS:HG2	1.64	0.42
20:BI:14:LYS:HG3	20:BI:17:ARG:HE	1.85	0.42
26:1H:271(C):U:C4	26:1H:272:G:OP1	2.73	0.42
26:1H:479:A:N3	26:1H:481:G:H5"	2.34	0.42
26:1H:674:G:O2'	31:31:74:ARG:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1012:U:O4	35:58:25:ARG:HA	2.20	0.42
26:1H:1843:C:O5'	26:1H:1843:C:H6	2.01	0.42
26:1H:2062:A:HO2'	26:1H:2063:C:C5'	2.33	0.42
26:1H:2212:A:O2'	26:1H:2215:G:C8	2.64	0.42
26:1H:2376:A:C2	26:1H:2377:A:H1'	2.55	0.42
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.54	0.42
26:1H:2638:G:P	30:21:82:ARG:NH2	2.93	0.42
26:1H:2863:C:H2'	26:1H:2864:G:C8	2.55	0.42
30:21:108:SER:OG	30:21:163:GLU:HG2	2.19	0.42
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.32	0.42
38:88:17:LEU:HD23	38:88:17:LEU:HA	1.44	0.42
41:B8:13:ARG:HB3	41:B8:13:ARG:NH1	2.34	0.42
51:L8:40:THR:HG23	51:L8:43:ILE:HG13	2.02	0.42
1:1G:105:G:C6	1:1G:106:C:C4	3.07	0.42
1:1G:464:G:H8	1:1G:464:G:O5'	2.03	0.42
1:1G:485:G:O2'	1:1G:486:U:H6	2.03	0.42
3:22:130:VAL:O	3:22:134:ILE:HG12	2.20	0.42
4:32:61:LYS:HA	4:32:203:VAL:HG22	2.01	0.42
4:32:63:LYS:HE3	4:32:63:LYS:HB2	1.63	0.42
4:32:76:ARG:NH2	4:32:80:GLU:OE1	2.44	0.42
5:42:28:PHE:O	5:42:47:LYS:HA	2.20	0.42
5:42:93:PRO:O	8:72:105:ARG:NH1	2.53	0.42
26:14:95:G:H4'	50:G5:46:GLN:HB2	2.02	0.42
26:14:595:C:H6	26:14:595:C:H5"	1.84	0.42
26:14:734:A:O2'	26:14:1635:G:H5'	2.20	0.42
26:14:1685:C:H2'	26:14:1686:C:C6	2.54	0.42
26:14:1858:G:H2'	26:14:1883:G:H22	1.84	0.42
26:14:2366:A:H2'	26:14:2367:G:O4'	2.20	0.42
26:14:2494:G:O2'	26:14:2495:G:H5'	2.20	0.42
26:14:2662:A:H8	26:14:2662:A:O5'	2.02	0.42
29:19:72:LYS:HE3	29:19:101:GLU:OE2	2.20	0.42
32:49:98:ARG:O	32:49:101:ILE:HG13	2.19	0.42
35:15:13:TRP:O	35:15:135:PRO:HD2	2.19	0.42
43:95:79:VAL:HG23	43:95:80:GLN:H	1.85	0.42
46:C5:46:LYS:HA	46:C5:46:LYS:HD2	1.85	0.42
46:C5:87:LYS:NZ	46:C5:89:PHE:HB3	2.35	0.42
1:13:120:A:H2'	1:13:121:C:H4'	2.00	0.42
1:13:232:G:C4	1:13:233:C:C5	3.08	0.42
1:13:266:G:O2'	17:8I:67:LYS:HB3	2.20	0.42
1:13:317:G:H1	1:13:336:C:N4	2.18	0.42
1:13:323:U:H5'	20:BI:23:ARG:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:807:A:H2'	1:13:808:C:C6	2.54	0.42
1:13:1033:G:OP2	1:13:1033:G:H8	2.03	0.42
1:13:1402:C:H2'	1:13:1403:C:O4'	2.20	0.42
2:1E:91:PRO:HA	2:1E:154:LEU:HD12	2.01	0.42
2:1E:176:GLU:O	2:1E:180:LEU:HG	2.20	0.42
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	2.01	0.42
3:2E:173:VAL:HG12	3:2E:175:LEU:HD12	2.01	0.42
4:3E:194:LEU:HG	4:3E:196:LEU:HD23	2.01	0.42
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.20	0.42
11:2I:125:PHE:CD1	11:2I:125:PHE:N	2.87	0.42
13:4I:70:LEU:O	13:4I:74:VAL:HG23	2.19	0.42
19:AI:4:SER:O	19:AI:5:LEU:HD23	2.20	0.42
22:1K:14:A:N6	22:1K:22:G:C5	2.88	0.42
26:1H:270(A):A:N3	26:1H:365:C:O2'	2.42	0.42
26:1H:307:G:N2	26:1H:310:A:O5'	2.50	0.42
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.50	0.42
26:1H:1613:G:C6	26:1H:1619:G:O6	2.72	0.42
26:1H:1813:G:H1'	29:11:50:THR:OG1	2.19	0.42
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.50	0.42
26:1H:2645:G:H3'	26:1H:2646:C:H5'	2.01	0.42
26:1H:2657:A:O2'	33:51:160:LYS:NZ	2.40	0.42
26:1H:2684:U:C4	26:1H:2685:G:N7	2.87	0.42
27:16:42:C:O2	32:41:92:VAL:HA	2.20	0.42
31:31:64:ILE:HG22	31:31:65:TRP:CD1	2.54	0.42
32:41:51:ARG:O	32:41:54:GLU:HG2	2.20	0.42
35:58:28:THR:HG22	35:58:29:LYS:N	2.34	0.42
37:78:111:ARG:HG2	37:78:128:HIS:CD2	2.54	0.42
38:88:47:ILE:O	38:88:50:ALA:N	2.53	0.42
41:B8:3:ARG:O	41:B8:6:LEU:N	2.52	0.42
1:1G:628:G:N2	1:1G:629:G:C2	2.87	0.42
1:1G:652:U:C4	1:1G:752:G:N3	2.88	0.42
1:1G:654:G:H2'	1:1G:655:A:O4'	2.19	0.42
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.55	0.42
2:12:119:GLU:OE2	2:12:153:ARG:NH1	2.52	0.42
4:32:100:ARG:HG2	4:32:136:PRO:O	2.19	0.42
5:42:41:VAL:O	5:42:67:VAL:N	2.53	0.42
5:42:76:ILE:HG23	5:42:77:PRO:HD2	2.02	0.42
7:62:28:ASN:OD1	7:62:36:LYS:NZ	2.53	0.42
9:82:73:GLN:O	9:82:76:ALA:N	2.51	0.42
14:5A:3:ARG:HA	14:5A:4:LYS:HA	1.84	0.42
16:7A:39:TYR:CD2	16:7A:41:PRO:HD3	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:20:G:C2	23:2L:58:A:N3	2.88	0.42
23:2L:69:C:H2'	23:2L:70:C:C6	2.54	0.42
57:3L:25:C:C4	57:3L:26:A:C8	3.07	0.42
26:14:224:G:N7	26:14:420:C:H4'	2.35	0.42
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.19	0.42
26:14:1152:C:H4'	42:85:77:SER:HA	2.02	0.42
26:14:1392:A:N6	26:14:1393:A:N6	2.68	0.42
26:14:1728:G:C2	26:14:1730:U:OP2	2.72	0.42
26:14:1757:U:O2	26:14:1762:A:N1	2.53	0.42
26:14:2631:G:O2'	26:14:2810:A:N1	2.45	0.42
26:14:2839:G:H21	39:55:92:GLY:HA2	1.85	0.42
29:19:72:LYS:HD3	29:19:97:TYR:CE2	2.55	0.42
34:69:79:ILE:O	34:69:143:SER:HA	2.20	0.42
35:15:39:ARG:NH1	35:15:41:ASP:HB3	2.35	0.42
37:35:36:LYS:HB3	37:35:37:GLY:H	1.55	0.42
39:55:100:LEU:HD12	39:55:111:LEU:HB2	2.02	0.42
41:75:51:ARG:HG3	41:75:98:LYS:HD2	2.01	0.42
1:13:1:U:C2	1:13:630:G:H1'	2.55	0.42
1:13:195:A:C5	1:13:196:A:N1	2.87	0.42
1:13:254:G:N2	1:13:272:C:O2	2.41	0.42
1:13:445:G:H1	1:13:489:C:N4	2.17	0.42
1:13:627:G:H2'	1:13:628:G:C8	2.55	0.42
1:13:711:G:O2'	1:13:712:A:H5'	2.20	0.42
1:13:724:G:O2'	1:13:725:G:H5'	2.20	0.42
1:13:792:A:O2'	1:13:794:A:N7	2.49	0.42
17:8I:5:VAL:HA	17:8I:59:ILE:O	2.19	0.42
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.20	0.42
23:2K:65:G:H2'	23:2K:66:C:O4'	2.19	0.42
26:1H:153:C:H2'	26:1H:154:G:C8	2.55	0.42
26:1H:719:C:C2	26:1H:720:C:C5	3.08	0.42
26:1H:981:A:H1'	26:1H:2037:G:O4'	2.19	0.42
26:1H:1107:G:N2	26:1H:1108:U:C2	2.88	0.42
26:1H:1443:G:H1	26:1H:1548:C:N4	2.16	0.42
26:1H:1528:A:C2	26:1H:1543:A:N1	2.88	0.42
26:1H:1569:A:H5'	29:11:61:LEU:HD21	2.02	0.42
26:1H:1853:A:O2'	26:1H:2234:G:H5'	2.19	0.42
26:1H:1930:G:O2'	26:1H:1931:U:P	2.78	0.42
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.85	0.42
26:1H:2543:G:C1'	26:1H:2766:G:H5'	2.49	0.42
27:16:113:C:H2'	27:16:114:G:O4'	2.19	0.42
29:11:30:GLU:HG3	29:11:63:ARG:CZ	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:105:THR:HG22	30:21:106:GLY:H	1.83	0.42
32:41:112:PRO:HA	52:M8:37:SER:HB2	2.00	0.42
40:A8:41:ASP:OD2	40:A8:44:LYS:HB2	2.20	0.42
41:B8:42:ILE:HD12	41:B8:42:ILE:H	1.84	0.42
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.84	0.42
43:D8:36:PRO:HA	43:D8:37:VAL:HA	1.74	0.42
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.50	0.42
1:1G:547:A:H4'	1:1G:548:G:O5'	2.19	0.42
1:1G:864:A:H2'	1:1G:865:A:C8	2.54	0.42
1:1G:1157:A:H1'	1:1G:1158:C:OP2	2.20	0.42
12:3A:18:VAL:O	12:3A:19:ARG:HB2	2.20	0.42
12:3A:82:VAL:HG23	12:3A:106:ASP:OD2	2.20	0.42
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.75	0.42
57:3L:22:G:C2	57:3L:23:A:N7	2.88	0.42
26:14:1198:U:H2'	26:14:1199:U:H6	1.84	0.42
26:14:1514:U:C2'	26:14:1515:C:H5'	2.49	0.42
26:14:1858:G:H2'	26:14:1883:G:N2	2.35	0.42
26:14:2037:G:H2'	26:14:2038:G:C8	2.55	0.42
26:14:2145:C:C2	26:14:2147:G:N2	2.88	0.42
26:14:2262:U:H4'	26:14:2328:A:H2	1.82	0.42
26:14:2897:U:H5'	26:14:2898:U:OP2	2.19	0.42
30:29:171:GLU:HB3	30:29:185:LYS:HG3	2.02	0.42
31:39:25:PRO:HB2	31:39:27:GLU:O	2.20	0.42
33:59:58:GLU:HB2	33:59:61:HIS:HD2	1.83	0.42
35:15:38:HIS:HE2	35:15:50:ASP:CG	2.23	0.42
37:35:11:GLY:O	37:35:12:ALA:HB3	2.19	0.42
39:55:2:ARG:HG3	39:55:2:ARG:O	2.19	0.42
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.02	0.42
44:A5:110:LYS:NZ	44:A5:111:HIS:HB3	2.35	0.42
49:F5:90:ILE:HD13	49:F5:90:ILE:HG21	1.76	0.42
1:13:132:C:H6	1:13:132:C:O5'	2.03	0.42
1:13:243:A:H5"	1:13:244:U:H3'	2.02	0.42
1:13:416:G:C6	1:13:417:C:C4	3.08	0.42
1:13:653:A:C8	8:7E:56:LYS:HG2	2.55	0.42
1:13:719:C:H1'	18:9I:49:LYS:HG2	2.01	0.42
1:13:736:C:C2	1:13:737:A:N7	2.88	0.42
1:13:974:A:OP1	14:5I:31:ARG:HD3	2.20	0.42
1:13:1401:G:H5"	1:13:1402:C:OP2	2.19	0.42
5:4E:63:ARG:HA	5:4E:66:MET:CE	2.50	0.42
5:4E:149:GLU:HG2	5:4E:149:GLU:H	1.68	0.42
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	2.01	0.42
10:1I:16:LEU:HD23	10:1I:94:VAL:HG13	2.02	0.42
12:3I:60:LEU:HA	12:3I:60:LEU:HD13	1.85	0.42
14:5I:37:PHE:CE2	14:5I:53:LEU:HD13	2.55	0.42
20:BI:49:ALA:HB3	20:BI:99:LEU:HB2	2.02	0.42
21:1F:2:GLY:O	21:1F:4:GLY:N	2.53	0.42
26:1H:216:A:H2'	26:1H:217:G:C8	2.54	0.42
26:1H:248:G:C2	26:1H:2431:U:H4'	2.54	0.42
26:1H:459:U:H5"	54:P8:40:TRP:CE2	2.55	0.42
26:1H:588:U:H1'	31:31:90:PHE:CD1	2.55	0.42
26:1H:1477:A:C2	26:1H:1517:G:C2	3.08	0.42
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.19	0.42
26:1H:1864:U:H2'	26:1H:1869:G:H5"	2.01	0.42
26:1H:2106:G:C6	26:1H:2184:G:C2	3.08	0.42
26:1H:2124:G:N2	28:71:217:THR:HG23	2.35	0.42
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.19	0.42
26:1H:2747:G:C2	26:1H:2756:U:C5	3.08	0.42
29:11:30:GLU:HB3	29:11:104:TYR:OH	2.20	0.42
29:11:38:LYS:H	29:11:38:LYS:NZ	2.17	0.42
32:41:109:VAL:O	32:41:113:ARG:HG3	2.19	0.42
39:98:11:ASN:N	39:98:11:ASN:OD1	2.53	0.42
40:A8:88:ASP:O	40:A8:89:ARG:CB	2.68	0.42
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	2.02	0.42
47:H8:70:LEU:HD11	47:H8:98:MET:CE	2.50	0.42
47:H8:98:MET:HE3	47:H8:98:MET:HB2	1.93	0.42
50:K8:32:LEU:HD23	50:K8:32:LEU:HA	1.83	0.42
1:1G:222:U:C2	1:1G:223:U:C5	3.08	0.42
1:1G:587:G:H8	1:1G:587:G:O5'	2.03	0.42
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.35	0.42
1:1G:858:G:H8	1:1G:858:G:OP2	2.03	0.42
1:1G:1080:A:OP1	5:42:14:ARG:NH2	2.53	0.42
1:1G:1169:A:H2'	1:1G:1170:A:C8	2.55	0.42
1:1G:1511:G:H8	1:1G:1511:G:O5'	2.03	0.42
2:12:201:ILE:HA	2:12:202:PRO:HD2	1.89	0.42
3:22:38:ARG:HB2	3:22:42:LEU:HD23	2.02	0.42
3:22:43:LEU:HD11	3:22:68:VAL:HG21	2.02	0.42
4:32:26:CYS:HA	59:32:301:SF4:S2	2.60	0.42
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.35	0.42
8:72:14:ARG:O	8:72:18:ARG:HG2	2.19	0.42
15:6A:5:LYS:HE3	15:6A:5:LYS:HB2	1.63	0.42
21:1B:8:THR:OG1	21:1B:9:ARG:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1L:26:A:H4'	56:1L:26:A:OP1	2.19	0.42
57:3L:52:G:H3'	57:3L:53:G:H8	1.84	0.42
26:14:270(U):C:C2	26:14:270(V):G:C8	3.08	0.42
26:14:270(X):G:C6	26:14:270(Y):G:N1	2.88	0.42
26:14:991:C:O2	26:14:1164:G:C2	2.73	0.42
26:14:1091:G:H1	26:14:1100:C:H1'	1.84	0.42
26:14:1311:G:N2	45:B5:60:ARG:HH21	2.18	0.42
26:14:1459:G:H2'	26:14:1461:G:OP2	2.19	0.42
26:14:1895:C:C2	26:14:1896:G:C8	3.08	0.42
26:14:2053:G:N2	26:14:2054:A:C4	2.88	0.42
26:14:2716:U:O2'	26:14:2717:G:H5'	2.19	0.42
26:14:2875:C:O2'	41:75:5:ALA:HB3	2.20	0.42
28:79:200:LYS:HE3	28:79:208:PHE:HB2	2.02	0.42
30:29:9:VAL:HG12	41:75:8:LYS:HE2	2.01	0.42
30:29:179:GLU:HB2	30:29:181:LEU:HD22	2.02	0.42
31:39:83:PHE:O	31:39:85:GLY:N	2.48	0.42
35:15:21:LYS:O	35:15:61:ARG:N	2.53	0.42
36:25:22:ILE:HD13	36:25:22:ILE:HA	1.46	0.42
39:55:37:THR:HB	39:55:39:PRO:HD2	2.02	0.42
42:85:74:LEU:HD13	42:85:79:PHE:HB2	2.01	0.42
43:95:38:LEU:HD12	43:95:57:VAL:HG12	2.01	0.42
45:B5:5:TYR:CE2	50:G5:30:ARG:HB2	2.55	0.42
47:D5:95:PRO:HA	47:D5:128:VAL:O	2.20	0.42
47:D5:157:LEU:HD12	47:D5:161:VAL:C	2.40	0.42
49:F5:5:CYS:SG	49:F5:8:SER:OG	2.61	0.42
1:13:37:U:O2'	1:13:500:G:H4'	2.20	0.41
1:13:270:A:C5	1:13:271:C:C4	3.07	0.41
1:13:420:U:H2'	1:13:422:C:H5	1.85	0.41
1:13:509:A:H3'	61:13:1825:HOH:O	2.20	0.41
1:13:539:A:OP1	12:3I:114:LYS:HE2	2.20	0.41
1:13:576:G:P	61:13:1810:HOH:O	2.76	0.41
1:13:954:G:H2'	1:13:955:U:H6	1.84	0.41
1:13:1310:G:H5'	13:4I:77:ASN:ND2	2.35	0.41
1:13:1453:G:H2'	20:BI:39:LYS:NZ	2.35	0.41
1:13:1513:A:H2'	1:13:1514:C:C6	2.55	0.41
2:1E:86:GLU:C	2:1E:89:GLY:H	2.24	0.41
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.20	0.41
8:7E:39:LEU:O	8:7E:44:PHE:N	2.47	0.41
12:3I:50:SER:O	12:3I:51:ALA:HB2	2.19	0.41
12:3I:75:HIS:ND1	12:3I:75:HIS:O	2.52	0.41
12:3I:122:THR:HG22	12:3I:123:LYS:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:52:LYS:O	17:8I:55:ASP:HB2	2.20	0.41
19:AI:41:VAL:H	19:AI:44:MET:HG3	1.84	0.41
26:1H:55:G:C2	26:1H:116:C:C2	3.08	0.41
26:1H:155:C:H5'	26:1H:161:U:OP2	2.19	0.41
26:1H:176:G:C2'	26:1H:177:G:H5'	2.49	0.41
26:1H:973:A:O4'	26:1H:1188:U:C6	2.72	0.41
26:1H:1005:C:O2'	35:58:28:THR:HG21	2.19	0.41
26:1H:1045:A:C8	26:1H:1047:G:C2	3.07	0.41
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.49	0.41
26:1H:1522:G:C8	26:1H:1523:U:C6	3.08	0.41
26:1H:1857:G:C6	26:1H:1858:G:N1	2.88	0.41
26:1H:2615:U:H2'	26:1H:2616:C:H6	1.85	0.41
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.20	0.41
26:1H:2886:G:N2	26:1H:2887:U:C2	2.88	0.41
34:61:18:VAL:HG21	34:61:44:LEU:HD11	2.02	0.41
34:61:112:LYS:HG2	34:61:112:LYS:H	1.65	0.41
39:98:51:LEU:HD23	39:98:51:LEU:HA	1.94	0.41
41:B8:105:LEU:O	41:B8:107:ASP:OD1	2.38	0.41
42:C8:49:HIS:HA	42:C8:52:ARG:HG2	2.02	0.41
43:D8:38:LEU:HD23	43:D8:57:VAL:HG12	2.02	0.41
47:H8:151:HIS:HA	47:H8:170:THR:HA	2.02	0.41
48:I8:54:GLY:O	48:I8:57:PHE:N	2.48	0.41
49:J8:82:LEU:H	49:J8:82:LEU:HD22	1.85	0.41
54:P8:24:THR:O	54:P8:27:GLY:N	2.50	0.41
1:1G:186(B):C:O2'	1:1G:186(C):G:H5'	2.20	0.41
1:1G:652:U:C5	1:1G:752:G:C2	3.08	0.41
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.19	0.41
1:1G:1071:C:H5"	5:42:49:PRO:HG3	2.02	0.41
2:12:24:TRP:C	2:12:24:TRP:CD1	2.93	0.41
2:12:129:GLU:HB3	2:12:130:ARG:H	1.54	0.41
4:32:65:ARG:HD2	4:32:72:GLU:HA	2.02	0.41
7:62:46:ALA:O	7:62:50:ILE:HG13	2.20	0.41
9:82:7:THR:O	9:82:80:GLY:HA2	2.20	0.41
10:1A:26:ALA:HB1	10:1A:84:GLN:HG2	2.02	0.41
12:3A:20:LYS:HE3	12:3A:20:LYS:HB3	1.93	0.41
13:4A:80:ARG:HH21	19:AA:66:MET:HG3	1.85	0.41
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.49	0.41
23:2L:5:G:H2'	23:2L:6:G:O4'	2.20	0.41
25:4L:10:G:H8	25:4L:10:G:OP2	2.03	0.41
26:14:1043:C:O2	26:14:1112:G:N2	2.33	0.41
26:14:1406:U:H6	26:14:1406:U:C5'	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1429:G:N3	26:14:1568:G:C2	2.88	0.41
26:14:2472:G:C4	26:14:2475:C:N4	2.88	0.41
26:14:2475:C:H3'	26:14:2476:A:H5"	2.02	0.41
27:1J:15:A:H1'	27:1J:109:G:N9	2.34	0.41
29:19:177:LEU:HD23	29:19:177:LEU:HA	1.80	0.41
30:29:58:ARG:HD2	30:29:58:ARG:H	1.85	0.41
33:59:149:ARG:HH22	33:59:154:PRO:HB2	1.84	0.41
36:25:14:THR:HG22	36:25:16:ALA:H	1.85	0.41
42:85:81:HIS:O	42:85:84:LYS:HB3	2.20	0.41
42:85:98:LEU:C	42:85:100:VAL:N	2.72	0.41
43:95:29:PRO:HA	43:95:61:VAL:HG11	2.00	0.41
1:13:31:G:N2	1:13:47:C:O5'	2.53	0.41
1:13:197:A:H4'	1:13:198:G:O5'	2.19	0.41
1:13:346:G:N3	1:13:346:G:H2'	2.36	0.41
1:13:911:U:H2'	1:13:912:C:C6	2.55	0.41
1:13:1348:U:H3	1:13:1374:A:H2	1.64	0.41
1:13:1392:G:C5	1:13:1393:U:C5	3.08	0.41
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.19	0.41
10:1I:83:GLU:O	10:1I:86:MET:N	2.49	0.41
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.51	0.41
20:BI:89:ARG:NH2	20:BI:104:LEU:HD21	2.35	0.41
26:1H:139:G:N3	26:1H:141:A:N1	2.68	0.41
26:1H:343:C:O2'	26:1H:344:G:H5'	2.20	0.41
26:1H:435:C:H2'	26:1H:436:C:H5'	2.01	0.41
26:1H:484:C:H2'	26:1H:485:C:C6	2.55	0.41
26:1H:674:G:P	61:1H:3654:HOH:O	2.78	0.41
26:1H:753:C:O2'	26:1H:754:C:H5'	2.20	0.41
26:1H:1176:G:H3'	26:1H:1177:A:C5	2.55	0.41
26:1H:2159:G:C2	26:1H:2160:G:H1'	2.54	0.41
32:41:51:ARG:NH1	32:41:51:ARG:HB2	2.35	0.41
35:58:94:HIS:HB3	35:58:97:ARG:HG3	2.01	0.41
37:78:15:ARG:HB3	37:78:16:ARG:H	1.56	0.41
37:78:36:LYS:HB3	37:78:37:GLY:H	1.54	0.41
39:98:28:LEU:HD23	39:98:28:LEU:HA	1.76	0.41
39:98:48:VAL:O	39:98:51:LEU:N	2.53	0.41
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.35	0.41
42:C8:81:HIS:NE2	42:C8:85:LYS:HE2	2.34	0.41
42:C8:101:ARG:O	42:C8:103:PRO:HD3	2.20	0.41
43:D8:18:LEU:HD22	43:D8:19:LYS:N	2.35	0.41
43:D8:49:THR:HG23	43:D8:51:VAL:H	1.85	0.41
45:F8:67:GLY:O	45:F8:68:ARG:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:31:GLU:O	50:K8:35:LEU:HB2	2.20	0.41
1:1G:266:G:H2'	1:1G:266:G:N3	2.35	0.41
1:1G:643:C:H2'	1:1G:644:G:C8	2.54	0.41
1:1G:1036:G:N7	1:1G:1037:C:C2	2.88	0.41
1:1G:1447:G:C6	1:1G:1460:A:C2	3.08	0.41
2:12:48:MET:H	2:12:48:MET:HG2	1.71	0.41
3:22:37:GLN:O	3:22:40:ARG:N	2.53	0.41
3:22:72:LYS:HA	3:22:73:PRO:HD3	1.79	0.41
12:3A:102:ARG:HE	12:3A:102:ARG:HB3	1.49	0.41
16:7A:68:ASP:HA	16:7A:71:ARG:HB3	2.02	0.41
26:14:142:G:H2'	26:14:143:C:H6	1.84	0.41
26:14:946:G:H2'	26:14:947:G:C8	2.54	0.41
26:14:962:G:C2	26:14:963:U:C2	3.08	0.41
26:14:1331:A:O2'	26:14:1332:G:C8	2.73	0.41
26:14:2197:U:C5	26:14:2224:G:C6	3.09	0.41
26:14:2629:A:H3'	26:14:2629:A:OP2	2.20	0.41
26:14:2865:U:C4	26:14:2866:U:C4	3.08	0.41
30:29:25:VAL:HG21	41:75:8:LYS:NZ	2.35	0.41
33:59:146:ALA:O	33:59:149:ARG:N	2.46	0.41
35:15:109:LYS:HD3	35:15:109:LYS:HA	1.56	0.41
37:35:107:LYS:O	37:35:109:GLY:N	2.50	0.41
40:65:18:ILE:O	40:65:20:ARG:N	2.53	0.41
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.49	0.41
47:D5:52:SER:C	47:D5:54:HIS:H	2.24	0.41
1:13:158:G:N3	1:13:159:G:C8	2.89	0.41
1:13:436:C:C4	1:13:437:U:C5	3.08	0.41
1:13:607:A:C2	16:7I:31:LYS:HE2	2.55	0.41
1:13:872:A:C8	1:13:874:G:C8	3.08	0.41
1:13:1189:C:H5"	1:13:1190:G:OP2	2.20	0.41
1:13:1237:C:H3'	1:13:1336:C:H41	1.85	0.41
1:13:1263:C:O2'	1:13:1264:C:H5'	2.20	0.41
1:13:1324:A:O4'	1:13:1362:C:H4'	2.20	0.41
6:5E:61:LEU:HD23	6:5E:63:TYR:CE2	2.55	0.41
16:7I:43:LYS:HA	16:7I:48:TRP:CB	2.49	0.41
26:1H:55:G:N2	26:1H:116:C:C2	2.88	0.41
26:1H:426:C:H2'	26:1H:427:U:C6	2.54	0.41
26:1H:638:G:C5	26:1H:651:G:C2	3.08	0.41
26:1H:1705:G:C6	26:1H:1706:U:C4	3.08	0.41
26:1H:1754:C:OP1	41:B8:96:ARG:NH1	2.52	0.41
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.20	0.41
26:1H:2582:G:C2	26:1H:2583:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2886:G:O2'	53:N8:31:VAL:HG23	2.19	0.41
27:16:20:C:H2'	27:16:21:G:O4'	2.21	0.41
29:11:16:MET:HE2	29:11:211:ARG:HD2	2.03	0.41
29:11:35:LYS:HB2	29:11:62:TYR:O	2.19	0.41
29:11:268:ARG:O	29:11:268:ARG:HG3	2.19	0.41
32:41:43:LEU:HD23	32:41:53:LEU:HD12	2.01	0.41
35:58:37:LYS:HE2	35:58:37:LYS:HB3	1.87	0.41
38:88:32:TYR:HD1	38:88:133:ARG:HA	1.86	0.41
38:88:136:ALA:HB1	47:H8:52:SER:HB2	2.01	0.41
42:C8:109:LEU:HD21	43:D8:47:VAL:HG21	2.02	0.41
45:F8:80:ILE:HG13	45:F8:80:ILE:O	2.20	0.41
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.85	0.41
47:H8:111:VAL:O	47:H8:111:VAL:HG23	2.19	0.41
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.58	0.41
50:K8:4:SER:HA	50:K8:5:GLU:HB2	2.02	0.41
1:1G:6:G:OP2	4:32:84:LYS:HD3	2.20	0.41
1:1G:115:G:H4'	1:1G:116:A:O5'	2.19	0.41
1:1G:146:G:H2'	1:1G:147:G:H8	1.85	0.41
1:1G:229:U:O2'	16:7A:23:ASP:HB2	2.20	0.41
1:1G:781:A:C3'	1:1G:782:A:H5'	2.51	0.41
1:1G:807:A:C5	1:1G:808:C:C4	3.08	0.41
1:1G:854:G:C2	1:1G:855:G:C8	3.08	0.41
1:1G:861:G:H2'	1:1G:862:C:C6	2.55	0.41
1:1G:999:U:H2'	1:1G:1000:A:C8	2.55	0.41
1:1G:1111:A:H2'	1:1G:1112:C:O4'	2.20	0.41
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.20	0.41
1:1G:1314:C:H2'	1:1G:1315:U:C6	2.56	0.41
1:1G:1325:C:P	21:1B:15:ARG:HH21	2.42	0.41
2:12:149:LEU:HD23	2:12:149:LEU:HA	1.71	0.41
9:82:49:PRO:HG3	9:82:82:ALA:HB2	2.01	0.41
11:2A:69:ALA:O	11:2A:72:ALA:N	2.54	0.41
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.20	0.41
56:1L:33:U:H2'	56:1L:35:U:OP2	2.21	0.41
56:1L:41:A:H2'	56:1L:42:A:C8	2.55	0.41
26:14:761:A:C5	61:14:3521:HOH:O	2.64	0.41
26:14:918:A:N3	27:1J:80:U:H4'	2.35	0.41
26:14:1038:C:H2'	26:14:1039:G:O4'	2.20	0.41
26:14:1210:A:H5"	26:14:1211:U:H3'	2.02	0.41
26:14:1473:G:C6	26:14:1474:C:C4	3.08	0.41
26:14:1829:A:N3	29:19:15:PHE:HE2	2.19	0.41
26:14:2100:G:C5	26:14:2190:G:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2542:A:C8	26:14:2544:G:O6	2.74	0.41
26:14:2821:A:H2'	26:14:2822:G:O4'	2.20	0.41
27:1J:11:C:OP2	27:1J:12:C:N4	2.43	0.41
27:1J:42:C:N4	27:1J:43:C:C4	2.88	0.41
29:19:27:THR:HG22	29:19:29:PRO:O	2.21	0.41
33:59:72:ILE:HB	33:59:76:VAL:HG23	2.02	0.41
34:69:97:ILE:O	34:69:101:LEU:HD23	2.20	0.41
36:25:43:VAL:HG23	36:25:56:ASP:O	2.21	0.41
1:13:240:C:H2'	1:13:241:C:C6	2.55	0.41
1:13:272:C:C2	1:13:273:A:C8	3.08	0.41
1:13:558:G:H5"	1:13:559:A:OP2	2.20	0.41
1:13:748:C:O5'	1:13:748:C:C6	2.72	0.41
1:13:865:A:O5'	1:13:865:A:H8	2.04	0.41
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.20	0.41
1:13:1092:A:C6	1:13:1093:A:C6	3.08	0.41
1:13:1292:U:C4	1:13:1293:G:N7	2.88	0.41
2:1E:130:ARG:HB3	2:1E:134:GLU:CG	2.49	0.41
10:1I:26:ALA:HA	10:1I:29:ARG:NE	2.36	0.41
10:1I:50:ILE:HD11	10:1I:57:LYS:HD2	2.03	0.41
15:6I:85:LEU:HD23	15:6I:85:LEU:HA	1.87	0.41
16:7I:28:ARG:HG3	16:7I:29:ASP:N	2.35	0.41
19:AI:5:LEU:HD13	19:AI:10:PHE:CE2	2.55	0.41
26:1H:34:C:O2'	26:1H:35:G:P	2.78	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.55	0.41
26:1H:836:G:C5	26:1H:837:C:C4	3.09	0.41
26:1H:873:G:C2	26:1H:905:U:O2	2.73	0.41
26:1H:880:G:C2	26:1H:881:G:O6	2.73	0.41
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.07	0.41
26:1H:1364:G:N7	49:J8:2:SER:OG	2.42	0.41
26:1H:1368:G:C2	26:1H:1369:G:C8	3.08	0.41
26:1H:1819:A:O4'	26:1H:1821:A:C5	2.74	0.41
26:1H:2263:C:H2'	26:1H:2264:C:C6	2.54	0.41
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.20	0.41
27:16:12:C:O2	48:I8:74:ARG:NH1	2.40	0.41
28:71:7:TYR:CE2	28:71:220:PRO:HG3	2.56	0.41
28:71:212:VAL:CB	28:71:226:PRO:HD3	2.44	0.41
28:71:215:THR:HG23	28:71:220:PRO:O	2.20	0.41
30:21:152:LYS:HG2	35:58:78:TYR:CE1	2.55	0.41
32:41:33:ARG:HB2	32:41:162:THR:HG21	2.01	0.41
37:78:85:LEU:HA	37:78:85:LEU:HD23	1.81	0.41
37:78:113:LYS:HD2	37:78:129:ALA:HB1	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:55:TYR:N	46:G8:56:PRO:HD3	2.35	0.41
46:G8:97:ARG:HG2	46:G8:102:CYS:HB2	2.03	0.41
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.21	0.41
1:1G:198:G:C6	1:1G:220:G:C2	3.08	0.41
1:1G:765:G:N2	1:1G:813:U:OP2	2.53	0.41
1:1G:875:C:H1'	8:72:15:ASN:ND2	2.32	0.41
2:12:193:ASP:OD1	2:12:193:ASP:N	2.50	0.41
3:22:71:ALA:HB2	3:22:115:LEU:CD1	2.51	0.41
5:42:102:ALA:HB3	5:42:107:ARG:HB2	2.02	0.41
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.19	0.41
6:52:95:GLU:HA	6:52:96:PRO:HD3	1.92	0.41
8:72:49:GLU:HG2	8:72:50:ARG:O	2.19	0.41
9:82:16:ARG:HH22	9:82:66:ARG:HH21	1.68	0.41
15:6A:18:PHE:O	15:6A:21:ASP:HB2	2.19	0.41
56:1L:66:A:N6	56:1L:67:C:N3	2.68	0.41
57:3L:76:A:H61	26:14:2422:A:H5"	1.85	0.41
26:14:451:C:H41	26:14:454:A:H5'	1.85	0.41
26:14:471:A:H8	26:14:471:A:O5'	2.03	0.41
26:14:817:C:O2'	26:14:839:U:OP1	2.19	0.41
26:14:1048:A:N6	26:14:1112:G:O2'	2.37	0.41
26:14:1337:G:H2'	26:14:1338:G:C8	2.50	0.41
26:14:2114:A:H5'	26:14:2115:G:OP2	2.20	0.41
26:14:2439:A:H8	26:14:2439:A:C5'	2.33	0.41
26:14:2599:G:OP2	29:19:236:GLY:N	2.54	0.41
26:14:2615:U:C2	53:J5:7:PRO:HA	2.56	0.41
26:14:2682:U:O2'	30:29:13:ARG:HG2	2.20	0.41
28:79:52:ARG:C	28:79:53:ARG:HG2	2.39	0.41
30:29:141:ILE:HD12	30:29:150:VAL:HG21	2.02	0.41
30:29:147:PRO:HB2	30:29:149:ARG:CG	2.49	0.41
38:45:18:LYS:HA	38:45:18:LYS:HD2	1.61	0.41
53:J5:45:VAL:HG22	53:J5:51:TYR:HD1	1.83	0.41
54:L5:8:ASN:C	54:L5:8:ASN:OD1	2.58	0.41
1:13:109:A:H5'	1:13:110:C:C5	2.56	0.41
1:13:187:C:O2	1:13:191(A):G:C6	2.74	0.41
1:13:353:A:H5'	1:13:353:A:C8	2.46	0.41
1:13:546:G:P	4:3E:72:GLU:HB3	2.61	0.41
1:13:582:U:H2'	1:13:583:A:C8	2.56	0.41
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.55	0.41
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	2.01	0.41
2:1E:189:ASP:HB3	2:1E:205:ASP:H	1.86	0.41
3:2E:21:ARG:NH2	3:2E:56:ASP:HB3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:119:ARG:HD3	3:2E:140:ARG:NH2	2.34	0.41
22:1K:76:A:O2'	26:1H:2585:U:O4	2.31	0.41
26:1H:273(F):C:H3'	26:1H:274:G:H5"	2.02	0.41
26:1H:910:A:N1	26:1H:2277:G:H1'	2.36	0.41
26:1H:1853:A:N1	26:1H:2087:G:H1'	2.35	0.41
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.34	0.41
26:1H:2124:G:O2'	28:71:42:GLU:OE1	2.22	0.41
28:71:166:ASP:CG	28:71:170:ALA:H	2.23	0.41
30:21:14:ILE:HD12	30:21:14:ILE:HA	1.66	0.41
30:21:111:ARG:HA	39:98:1:MET:HE3	2.02	0.41
32:41:120:LEU:HB3	32:41:131:TYR:OH	2.19	0.41
32:41:121:ASN:OD1	32:41:123:ASN:N	2.49	0.41
32:41:130:ASN:HB3	32:41:159:VAL:O	2.20	0.41
32:41:139:LEU:HD13	32:41:146:TYR:CD1	2.55	0.41
40:A8:11:LYS:O	40:A8:15:ARG:HB2	2.21	0.41
42:C8:88:ILE:C	42:C8:90:VAL:H	2.24	0.41
46:G8:6:HIS:ND1	46:G8:6:HIS:N	2.69	0.41
52:M8:9:LEU:HD12	52:M8:27:THR:H	1.85	0.41
1:1G:164:U:H2'	1:1G:165:C:C6	2.55	0.41
1:1G:904:C:C4	1:1G:905:U:C5	3.09	0.41
1:1G:1126:U:C4	1:1G:1281:U:O4'	2.73	0.41
1:1G:1425:U:H2'	1:1G:1426:C:C6	2.55	0.41
4:32:39:PRO:O	4:32:44:GLY:HA3	2.21	0.41
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.20	0.41
5:42:103:GLY:O	5:42:106:PRO:HD2	2.21	0.41
9:82:86:VAL:HA	9:82:89:ASN:O	2.20	0.41
15:6A:7:GLU:O	15:6A:11:VAL:HG23	2.19	0.41
17:8A:10:VAL:HG23	17:8A:54:GLY:N	2.35	0.41
19:AA:41:VAL:HB	19:AA:43:GLU:OE2	2.19	0.41
23:2L:26:C:H2'	23:2L:27:G:C8	2.56	0.41
26:14:30:G:C5	26:14:31:C:C4	3.08	0.41
26:14:239:U:H2'	26:14:240:G:O4'	2.20	0.41
26:14:618:G:H2'	26:14:618(A):C:O4'	2.20	0.41
26:14:1319:G:C6	26:14:1320:C:N4	2.88	0.41
26:14:1485:G:H2'	26:14:1486:A:C8	2.55	0.41
26:14:2663:G:H3'	26:14:2664:G:H8	1.85	0.41
26:14:2786:U:H5"	30:29:66:HIS:CG	2.56	0.41
27:1J:111:U:O2	27:1J:111:U:H2'	2.20	0.41
29:19:184:LYS:HD3	29:19:269:PHE:HD1	1.85	0.41
30:29:35:GLN:O	30:29:48:GLN:HB2	2.21	0.41
31:39:148:LEU:HA	31:39:148:LEU:HD23	1.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:5:LEU:HD11	34:69:19:VAL:HG11	2.01	0.41
35:15:39:ARG:H	35:15:39:ARG:HG2	1.66	0.41
35:15:127:ASP:N	35:15:127:ASP:OD1	2.53	0.41
37:35:113:LYS:HA	37:35:129:ALA:O	2.20	0.41
38:45:68:ILE:CG2	38:45:103:MET:HB3	2.50	0.41
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.49	0.41
41:75:114:LEU:HD23	41:75:114:LEU:HA	1.81	0.41
44:A5:88:ARG:HA	44:A5:88:ARG:HD2	1.80	0.41
45:B5:43:VAL:HA	45:B5:46:ALA:HB3	2.03	0.41
46:C5:21:LYS:NZ	46:C5:21:LYS:HB3	2.35	0.41
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.85	0.41
1:13:253:U:P	17:8I:67:LYS:HZ3	2.40	0.41
1:13:277:C:H2'	1:13:278:G:C8	2.54	0.41
1:13:345:C:O2'	1:13:346:G:C4	2.71	0.41
1:13:376:G:O3'	16:7I:5:ARG:HD2	2.21	0.41
1:13:1424:C:H2'	1:13:1425:U:O4'	2.21	0.41
2:1E:51:LEU:O	2:1E:55:PHE:HB2	2.20	0.41
2:1E:114:ARG:O	2:1E:118:LEU:N	2.50	0.41
3:2E:178:LEU:HD12	3:2E:178:LEU:HA	1.76	0.41
6:5E:55:ASP:HA	6:5E:56:PRO:HD2	1.87	0.41
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	2.01	0.41
8:7E:11:THR:HG23	8:7E:14:ARG:NH1	2.35	0.41
9:8E:93:ARG:HG2	9:8E:102:LEU:HD11	2.02	0.41
24:3K:22:G:N3	24:3K:22:G:H2'	2.35	0.41
24:3K:65:C:H2'	24:3K:66:A:H8	1.83	0.41
24:3K:76:A:H5"	49:J8:30:VAL:HG11	2.03	0.41
26:1H:285:C:H2'	26:1H:286:C:C6	2.55	0.41
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.56	0.41
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.20	0.41
26:1H:1790:C:O5'	26:1H:1790:C:H6	2.03	0.41
26:1H:1985:G:C2	26:1H:1986:A:C8	3.09	0.41
26:1H:2100:G:H2'	26:1H:2101:G:C8	2.56	0.41
26:1H:2389:G:H5"	26:1H:2390:U:H5'	2.01	0.41
26:1H:2496:C:OP2	38:88:82:ARG:HG2	2.20	0.41
26:1H:2729:G:H1'	30:21:187:ALA:HB2	2.02	0.41
26:1H:2830:G:C8	26:1H:2830:G:H5"	2.55	0.41
27:16:29:A:C2	27:16:56:G:C2	3.09	0.41
29:11:35:LYS:HB3	29:11:35:LYS:HE3	1.46	0.41
35:58:99:LEU:HD23	35:58:99:LEU:HA	1.84	0.41
37:78:15:ARG:HD3	37:78:15:ARG:HA	1.73	0.41
41:B8:24:PRO:HD3	41:B8:52:ILE:HD13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:9:LYS:HA	46:G8:27:VAL:CG2	2.51	0.41
1:1G:160:A:H2'	1:1G:161:A:O4'	2.20	0.41
1:1G:512:U:H2'	1:1G:513:C:C6	2.55	0.41
1:1G:855:G:C2	1:1G:856:C:C2	3.08	0.41
1:1G:1026:G:H2'	1:1G:1027:C:H5'	2.01	0.41
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.50	0.41
1:1G:1276:G:H2'	1:1G:1277:C:C6	2.56	0.41
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.55	0.41
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.84	0.41
2:12:127:ILE:O	2:12:130:ARG:HB3	2.20	0.41
6:52:30:LEU:HD23	6:52:30:LEU:HA	1.88	0.41
7:62:27:ILE:HA	7:62:30:ILE:HD12	2.03	0.41
26:14:35:G:H2'	26:14:36:G:O4'	2.20	0.41
26:14:91:A:H2'	26:14:92:G:H8	1.85	0.41
26:14:141:A:C8	26:14:1408:C:H1'	2.55	0.41
26:14:820:A:N3	26:14:943:U:H4'	2.35	0.41
26:14:1788:C:C2	26:14:1789:A:C8	3.08	0.41
26:14:2065:C:H1'	26:14:2449:U:N3	2.31	0.41
26:14:2117:A:C4	26:14:2118:U:H5	2.38	0.41
26:14:2286:A:H8	26:14:2287:A:N6	2.19	0.41
26:14:2543:G:H2'	26:14:2544:G:C8	2.56	0.41
26:14:2666:C:O5'	26:14:2666:C:H6	2.03	0.41
30:29:152:LYS:HE2	30:29:152:LYS:HB3	1.69	0.41
38:45:110:THR:HG23	38:45:113:GLN:OE1	2.21	0.41
40:65:54:LEU:HD23	40:65:55:ALA:N	2.35	0.41
47:D5:67:LEU:HA	47:D5:68:PRO:HD3	1.95	0.41
55:M5:15:LYS:HG2	55:M5:16:ILE:N	2.36	0.41
1:13:209:U:H4'	1:13:216:G:N2	2.36	0.41
1:13:527:G:O2'	1:13:535:A:N1	2.42	0.41
1:13:536:C:H2'	1:13:537:G:C8	2.55	0.41
1:13:823:G:C2	1:13:878:G:C2	3.09	0.41
1:13:939:G:H1	1:13:1344:C:H42	1.68	0.41
1:13:1173:G:H2'	1:13:1174:G:O4'	2.20	0.41
1:13:1369:C:H2'	1:13:1370:G:C8	2.56	0.41
1:13:1486:G:C6	1:13:1487:G:C6	3.08	0.41
2:1E:11:LEU:HA	2:1E:11:LEU:HD12	1.87	0.41
3:2E:56:ASP:OD1	3:2E:69:HIS:NE2	2.53	0.41
4:3E:86:LYS:HA	4:3E:88:VAL:N	2.36	0.41
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.93	0.41
6:5E:33:TYR:CD2	6:5E:75:LEU:HD23	2.56	0.41
6:5E:78:GLU:O	6:5E:78:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:9:MET:O	8:7E:12:ARG:N	2.53	0.41
17:8I:88:TYR:CD1	17:8I:88:TYR:C	2.94	0.41
19:AI:81:ARG:HE	19:AI:81:ARG:HB2	1.74	0.41
22:1K:24:G:OP2	22:1K:24:G:H8	2.03	0.41
26:1H:396:G:C8	49:J8:13:ILE:HD11	2.56	0.41
26:1H:654:A:C4	26:1H:654(A):A:C8	3.08	0.41
26:1H:831:G:N2	37:78:53:GLY:O	2.54	0.41
26:1H:1988:C:H2'	26:1H:1989:G:O4'	2.21	0.41
26:1H:2032:G:N2	30:21:146:THR:HG23	2.24	0.41
26:1H:2240:C:O2'	26:1H:2241:A:H5'	2.20	0.41
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.20	0.41
31:31:176:LEU:HD21	31:31:180:GLY:O	2.21	0.41
32:41:88:ILE:O	32:41:88:ILE:HG22	2.19	0.41
32:41:101:ILE:HD13	32:41:102:PHE:N	2.36	0.41
33:51:139:GLN:HG3	33:51:140:LYS:N	2.36	0.41
36:68:112:MET:HA	36:68:115:VAL:HG13	2.03	0.41
37:78:59:LEU:HD21	55:Q8:10:ALA:HB2	2.02	0.41
38:88:140:ALA:HB3	38:88:141:GLN:CA	2.51	0.41
39:98:44:LEU:O	39:98:45:ARG:C	2.59	0.41
50:K8:3:LEU:CB	50:K8:5:GLU:HB2	2.50	0.41
52:M8:40:HIS:ND1	52:M8:45:GLY:C	2.74	0.41
1:1G:109:A:C6	1:1G:326:G:C6	3.09	0.41
1:1G:216:G:O2'	1:1G:217:C:O4'	2.30	0.41
1:1G:228:A:C4'	16:7A:62:VAL:HG11	2.50	0.41
1:1G:509:A:C8	1:1G:509:A:H3'	2.56	0.41
1:1G:994:A:C4	14:5A:5:ALA:HB2	2.55	0.41
1:1G:996:A:H2'	1:1G:997:U:O4'	2.20	0.41
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.53	0.41
1:1G:1321:C:C5	1:1G:1322:C:C5	3.07	0.41
1:1G:1415:G:C6	1:1G:1486:G:C6	3.08	0.41
5:42:72:GLN:O	5:42:75:THR:HG22	2.20	0.41
7:62:66:VAL:O	7:62:70:LYS:HD2	2.21	0.41
10:1A:46:ARG:NH2	14:5A:61:TRP:CZ2	2.89	0.41
26:14:141:A:H1'	26:14:1408:C:O4'	2.20	0.41
26:14:283:A:H4'	26:14:284:U:OP2	2.21	0.41
26:14:286:C:H2'	26:14:287:C:C6	2.56	0.41
26:14:311:A:C8	26:14:332:A:N7	2.89	0.41
26:14:565:C:H2'	26:14:566:U:O4'	2.20	0.41
26:14:599:G:C2	26:14:600:G:C5	3.08	0.41
26:14:1047:G:H2'	26:14:1047:G:N3	2.36	0.41
26:14:2657:A:H62	26:14:2664:G:N2	2.17	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:5:C:H42	27:1J:115:G:H1	1.69	0.41
27:1J:10:C:C4	27:1J:11:C:C5	3.08	0.41
29:19:273:ARG:O	29:19:275:LYS:N	2.53	0.41
30:29:57:LYS:HZ3	30:29:57:LYS:HG2	1.45	0.41
40:65:48:LEU:HD23	40:65:82:ILE:HD11	2.02	0.41
45:B5:52:VAL:HG12	45:B5:82:GLN:HG3	2.01	0.41
46:C5:67:LEU:HA	46:C5:67:LEU:HD12	1.68	0.41
47:D5:82:ARG:HA	47:D5:83:PRO:HD3	1.78	0.41
51:H5:43:ILE:O	51:H5:47:VAL:HG23	2.21	0.41
53:J5:37:LYS:HA	53:J5:37:LYS:HD2	1.86	0.41
1:13:237:C:O3'	17:8I:25:ARG:NH2	2.53	0.41
1:13:574:A:N3	1:13:883:C:H1'	2.36	0.41
1:13:591:U:H2'	1:13:592:G:H8	1.86	0.41
1:13:767:A:H8	1:13:767:A:O5'	2.03	0.41
2:1E:8:LYS:HZ3	2:1E:9:GLU:N	2.19	0.41
2:1E:163:PHE:CE2	2:1E:215:LEU:HD13	2.55	0.41
11:2I:18:ARG:HA	11:2I:81:ASP:H	1.85	0.41
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.21	0.41
16:7I:28:ARG:HG3	16:7I:29:ASP:OD1	2.21	0.41
19:AI:47:HIS:O	19:AI:62:ILE:HG12	2.20	0.41
23:2K:3:C:O2	23:2K:3:C:H2'	2.21	0.41
26:1H:151:C:C2	26:1H:176:G:N2	2.89	0.41
26:1H:193:U:H5	61:1H:3615:HOH:O	2.02	0.41
26:1H:649:G:C6	26:1H:650:C:C4	3.08	0.41
26:1H:1963:U:H6	26:1H:1963:U:OP1	2.04	0.41
26:1H:2138:C:H2'	26:1H:2139:C:C6	2.55	0.41
26:1H:2303:G:O2'	26:1H:2304:G:H5'	2.21	0.41
26:1H:2532:G:O2'	26:1H:2657:A:N1	2.53	0.41
26:1H:2837:G:C6	26:1H:2838:G:N7	2.89	0.41
28:71:19:ILE:HG22	28:71:225:ASN:ND2	2.35	0.41
30:21:55:ASN:HB3	30:21:58:ARG:HG3	2.03	0.41
30:21:67:PHE:O	30:21:69:LYS:N	2.51	0.41
31:31:125:LEU:HD21	31:31:199:TRP:CE3	2.56	0.41
32:41:45:GLU:H	32:41:45:GLU:HG2	1.60	0.41
32:41:98:ARG:HE	52:M8:1:MET:CE	2.33	0.41
37:78:29:LYS:HG2	37:78:30:THR:N	2.36	0.41
39:98:22:ARG:HG2	39:98:69:ASP:HB3	2.03	0.41
40:A8:83:LYS:NZ	40:A8:110:LEU:HD21	2.36	0.41
44:E8:38:TYR:OH	53:N8:47:PRO:HG3	2.21	0.41
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.21	0.41
1:1G:104:G:C2	1:1G:105:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:310:G:OP2	16:7A:27:LYS:HD3	2.20	0.41
1:1G:758:G:O2'	1:1G:759:A:H5'	2.21	0.41
1:1G:1076:C:N4	1:1G:1081:G:H1	2.19	0.41
1:1G:1504:G:OP1	1:1G:1507:A:H4'	2.21	0.41
2:12:91:PRO:HG3	2:12:154:LEU:HB2	2.03	0.41
2:12:108:ILE:HA	2:12:108:ILE:HD13	1.87	0.41
2:12:211:ILE:O	2:12:214:ILE:N	2.54	0.41
12:3A:30:ALA:HB2	12:3A:33:ARG:NH1	2.35	0.41
17:8A:63:ARG:HA	17:8A:64:PRO:HD3	1.95	0.41
19:AA:66:MET:H	19:AA:67:VAL:HB	1.85	0.41
21:1B:2:GLY:O	21:1B:4:GLY:N	2.54	0.41
26:14:302:C:C5'	46:C5:81:LYS:HZ2	2.33	0.41
26:14:362:U:H6	26:14:362:U:H2'	1.73	0.41
26:14:723:G:H2'	26:14:724:U:O4'	2.21	0.41
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.53	0.41
26:14:1606:G:H5"	26:14:1607:C:OP1	2.21	0.41
26:14:2028:U:H2'	26:14:2029:G:O4'	2.20	0.41
26:14:2115:G:N2	26:14:2172:U:O4	2.54	0.41
26:14:2313:C:H4'	32:49:91:ARG:HG3	2.02	0.41
26:14:2328:A:H2'	26:14:2329:G:O4'	2.21	0.41
26:14:2651:C:H2'	26:14:2652:C:H6	1.85	0.41
27:1J:78:A:C2	27:1J:99:A:C4	3.08	0.41
27:1J:83:G:H4'	51:H5:52:HIS:CG	2.56	0.41
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.35	0.41
29:19:34:VAL:O	29:19:35:LYS:HB3	2.21	0.41
29:19:70:TRP:CD1	29:19:70:TRP:C	2.94	0.41
30:29:31:CYS:O	30:29:90:THR:HA	2.21	0.41
30:29:81:ILE:HD12	30:29:81:ILE:HG23	1.86	0.41
30:29:97:LYS:O	30:29:100:GLU:HG3	2.21	0.41
33:59:146:ALA:HB2	33:59:164:TYR:OH	2.20	0.41
34:69:143:SER:O	34:69:144:VAL:HG22	2.21	0.41
37:35:84:ASN:HB2	37:35:86:LYS:HG2	2.02	0.41
38:45:68:ILE:HD13	38:45:103:MET:HE3	2.02	0.41
39:55:59:ASP:OD1	39:55:61:HIS:HB3	2.20	0.41
42:85:60:LEU:O	42:85:63:VAL:HG12	2.21	0.41
1:13:9:G:C2	1:13:26:A:C6	3.09	0.41
1:13:51:A:N3	1:13:116:A:H1'	2.36	0.41
1:13:109:A:C6	1:13:326:G:C6	3.09	0.41
1:13:146:G:C2	1:13:177:C:N3	2.89	0.41
1:13:288:A:H2'	1:13:289:G:H4'	2.03	0.41
1:13:409:G:N2	1:13:434:U:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:431:A:H2'	1:13:432:A:O4'	2.21	0.41
1:13:447:G:H8	1:13:447:G:O5'	2.03	0.41
1:13:575:G:C4	1:13:881:G:C2	3.09	0.41
1:13:652:U:O2'	1:13:653:A:O5'	2.38	0.41
1:13:682:G:H1	1:13:708:C:N4	2.19	0.41
1:13:827:U:H5	1:13:870:U:C5	2.38	0.41
1:13:933:G:OP2	7:6E:3:ARG:HB2	2.20	0.41
1:13:1164:G:C5	1:13:1165:C:C5	3.08	0.41
1:13:1304:G:C5	1:13:1305:G:C6	3.09	0.41
1:13:1324:A:C5	1:13:1325:C:C5	3.08	0.41
1:13:1384:C:H2'	1:13:1385:G:C8	2.56	0.41
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.56	0.41
6:5E:24:GLU:O	6:5E:27:GLN:N	2.54	0.41
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	2.02	0.41
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	2.01	0.41
10:1I:28:ARG:HD3	10:1I:34:VAL:HG22	2.03	0.41
13:4I:34:LEU:HD13	13:4I:41:PRO:HA	2.02	0.41
16:7I:55:ARG:HE	16:7I:55:ARG:HB3	1.58	0.41
17:8I:48:GLU:O	17:8I:50:LYS:HD3	2.21	0.41
20:BI:71:THR:CG2	20:BI:72:LEU:H	2.27	0.41
23:2K:48:U:H1'	23:2K:49:C:O5'	2.20	0.41
26:1H:274:G:N2	26:1H:276:A:H61	2.19	0.41
26:1H:322:A:C5	26:1H:340:A:C2	3.09	0.41
26:1H:389:G:H22	37:78:72:PRO:HD3	1.85	0.41
26:1H:405:U:O2	26:1H:405:U:H2'	2.21	0.41
26:1H:414:C:H4'	26:1H:1879:C:O2	2.20	0.41
26:1H:686:G:H22	54:P8:16:HIS:CE1	2.39	0.41
26:1H:803:U:C4	26:1H:804:A:N7	2.89	0.41
26:1H:922:U:H2'	26:1H:923:C:C6	2.55	0.41
26:1H:1176:G:OP1	26:1H:1176:G:H4'	2.19	0.41
26:1H:1386:C:OP2	26:1H:1396:U:C5	2.72	0.41
26:1H:1394:U:H3'	26:1H:1394:U:H6	1.86	0.41
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.35	0.41
26:1H:1592:C:H2'	26:1H:1593:G:C8	2.56	0.41
26:1H:1705:G:O2'	26:1H:1706:U:H5'	2.21	0.41
26:1H:1748:G:C2	26:1H:1749:A:C4	3.09	0.41
26:1H:1839:G:C8	26:1H:1839:G:H5"	2.56	0.41
26:1H:1986:A:C2	26:1H:1987:G:C4	3.09	0.41
26:1H:2178:C:OP1	28:71:46:LYS:HB2	2.21	0.41
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.21	0.41
26:1H:2302:G:O2'	26:1H:2303:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2640:G:H5"	35:58:74:ARG:NH1	2.35	0.41
27:16:38:C:H2'	27:16:39:A:O4'	2.21	0.41
27:16:44:G:O2'	27:16:45:A:P	2.79	0.41
27:16:44:G:HO2'	27:16:45:A:P	2.42	0.41
27:16:46:A:H2'	27:16:47:C:C6	2.55	0.41
29:11:17:THR:HG22	29:11:205:VAL:N	2.34	0.41
29:11:273:ARG:HD2	29:11:273:ARG:O	2.21	0.41
31:31:172:TRP:CE3	31:31:173:VAL:HG23	2.56	0.41
32:41:96:ARG:H	32:41:99:MET:HE3	1.85	0.41
32:41:125:PHE:HB3	32:41:166:ASP:OD2	2.21	0.41
33:51:32:GLU:H	33:51:32:GLU:HG3	1.70	0.41
34:61:128:LEU:O	34:61:138:ILE:N	2.43	0.41
35:58:56:ASN:C	35:58:57:ALA:O	2.59	0.41
37:78:114:ILE:O	37:78:114:ILE:HG13	2.21	0.41
38:88:20:ALA:HB2	38:88:99:PRO:HD2	2.03	0.41
39:98:12:ARG:HG2	39:98:16:HIS:CG	2.56	0.41
40:A8:53:SER:HA	40:A8:58:LEU:HD21	2.03	0.41
41:B8:99:LEU:HB3	41:B8:101:PHE:CE1	2.56	0.41
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.54	0.41
45:F8:9:LEU:O	50:K8:36:ARG:NE	2.47	0.41
47:H8:1:MET:HE3	47:H8:3:TYR:CE2	2.56	0.41
47:H8:7:ALA:C	47:H8:8:TYR:CD1	2.94	0.41
55:Q8:23:VAL:HA	55:Q8:48:PHE:O	2.21	0.41
1:1G:11:G:H2'	1:1G:12:U:H6	1.86	0.41
1:1G:131:C:H2'	1:1G:132:C:C6	2.56	0.41
1:1G:394:G:H2'	1:1G:395:C:H6	1.86	0.41
1:1G:422:C:HO2'	1:1G:423:G:N2	2.18	0.41
1:1G:501:C:H1'	1:1G:549:C:H1'	2.03	0.41
1:1G:608:A:H2'	1:1G:609:A:O4'	2.21	0.41
1:1G:647:C:H2'	1:1G:648:A:O4'	2.21	0.41
1:1G:1160:G:H1	1:1G:1176:A:H61	1.69	0.41
1:1G:1238:A:H62	1:1G:1301:U:H3	1.68	0.41
1:1G:1306:A:C6	1:1G:1307:U:C2	3.08	0.41
1:1G:1389:C:H2'	1:1G:1390:U:O4'	2.21	0.41
2:12:39:ILE:HG22	2:12:39:ILE:O	2.21	0.41
4:32:4:TYR:CE2	4:32:11:LEU:HD21	2.55	0.41
9:82:99:LEU:HB3	9:82:101:PHE:HD2	1.84	0.41
10:1A:34:VAL:HG12	10:1A:74:ILE:HA	2.03	0.41
12:3A:27:LEU:HB2	12:3A:33:ARG:CG	2.51	0.41
13:4A:78:ILE:HD12	13:4A:92:HIS:CE1	2.56	0.41
15:6A:27:VAL:O	15:6A:31:LEU:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:31:LEU:HD12	15:6A:31:LEU:HA	1.89	0.41
15:6A:43:LEU:HD23	15:6A:43:LEU:HA	1.84	0.41
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.36	0.41
19:AA:14:HIS:ND1	19:AA:15:LEU:HD23	2.35	0.41
20:BA:64:ASP:OD1	20:BA:81:LYS:HE3	2.20	0.41
23:2L:16:C:H5"	23:2L:17:C:C5	2.55	0.41
26:14:139:G:N3	26:14:141:A:N1	2.69	0.41
26:14:189:G:H8	26:14:189:G:O5'	2.04	0.41
26:14:336:C:H1'	46:C5:70:SER:HB2	2.01	0.41
26:14:506:G:O3'	26:14:507:A:H8	2.04	0.41
26:14:812:C:H5"	26:14:1250:G:O2'	2.20	0.41
26:14:1004:C:H1'	26:14:1010:A:C4	2.56	0.41
26:14:1019:U:O2'	26:14:1021:A:H2	2.03	0.41
26:14:1043:C:O5'	26:14:1043:C:H6	2.04	0.41
26:14:1057:A:H8	26:14:1086:A:O2'	2.04	0.41
26:14:1331:A:HO2'	26:14:1332:G:H8	1.65	0.41
26:14:1505:C:H2'	26:14:1506:C:C6	2.56	0.41
26:14:1894:C:N4	26:14:1895:C:H41	2.18	0.41
26:14:1930:G:N2	26:14:1968:G:H2'	2.36	0.41
26:14:2178:C:H4'	28:79:46:LYS:HG3	2.03	0.41
26:14:2394:C:H2'	26:14:2395:C:H6	1.85	0.41
26:14:2563:U:H4'	36:25:28:SER:HA	2.03	0.41
26:14:2564:A:C2	26:14:2647:U:H4'	2.56	0.41
26:14:2564:A:OP1	26:14:2648:C:O2'	2.38	0.41
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.54	0.41
26:14:2723:C:O5'	26:14:2723:C:H6	2.04	0.41
26:14:2748:A:H2'	26:14:2749:A:H8	1.85	0.41
27:1J:22:U:H5'	27:1J:23:G:OP2	2.20	0.41
29:19:83:GLU:HB2	29:19:92:ILE:HG13	2.01	0.41
29:19:264:LYS:HE2	29:19:266:SER:HB3	2.02	0.41
30:29:1:MET:SD	30:29:200:GLU:HG3	2.61	0.41
31:39:117:ARG:HA	31:39:117:ARG:HD3	1.92	0.41
32:49:121:ASN:HA	32:49:122:PRO:HD2	1.73	0.41
34:69:109:ILE:HB	34:69:130:TYR:CZ	2.56	0.41
34:69:112:LYS:H	34:69:112:LYS:HG2	1.74	0.41
34:69:118:LYS:HE3	34:69:118:LYS:HB2	1.67	0.41
38:45:18:LYS:H	38:45:98:LYS:NZ	2.19	0.41
39:55:84:ALA:HB3	39:55:85:PRO:HD3	2.03	0.41
40:65:14:VAL:HG21	40:65:90:GLY:O	2.19	0.41
40:65:29:PHE:CD1	40:65:30:ARG:N	2.89	0.41
40:65:67:ARG:HB2	40:65:67:ARG:CZ	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:110:VAL:O	42:85:114:LYS:HG2	2.21	0.41
47:D5:137:ILE:HD12	47:D5:137:ILE:HA	1.89	0.41
54:L5:34:ARG:NH1	54:L5:39:ARG:HG3	2.36	0.41
1:13:179:A:H2'	1:13:180:U:C6	2.49	0.41
1:13:272:C:H2'	1:13:273:A:C8	2.56	0.41
1:13:535:A:H5"	61:13:1836:HOH:O	2.21	0.41
1:13:717:C:H5"	1:13:717:C:H6	1.86	0.41
1:13:1389:C:H2'	1:13:1390:U:O4'	2.21	0.41
2:1E:27:LYS:HB3	2:1E:27:LYS:HE2	1.80	0.41
2:1E:149:LEU:HA	2:1E:149:LEU:HD23	1.85	0.41
4:3E:23:GLY:HA2	4:3E:112:VAL:HG22	2.03	0.41
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.94	0.41
5:4E:105:VAL:HB	5:4E:106:PRO:HD3	2.03	0.41
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	2.01	0.41
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.21	0.41
12:3I:53:ARG:HG3	12:3I:53:ARG:NH1	2.30	0.41
17:8I:6:LEU:HD22	17:8I:23:VAL:HG11	2.02	0.41
22:1K:12:U:O2	22:1K:24:G:N2	2.54	0.41
23:2K:56:PSU:O4	23:2K:58:A:C8	2.74	0.41
26:1H:106:C:H2'	26:1H:107:C:H6	1.85	0.41
26:1H:120:U:P	61:1H:3541:HOH:O	2.77	0.41
26:1H:257:A:H2'	26:1H:258:G:H5'	2.03	0.41
26:1H:289:A:N6	26:1H:351:G:H1'	2.35	0.41
26:1H:469:G:O6	54:P8:37:LYS:HE2	2.21	0.41
26:1H:654(S):G:HO2'	26:1H:654(T):A:P	2.44	0.41
26:1H:1263:U:H1'	53:N8:10:LYS:HG3	2.03	0.41
26:1H:1368:G:N2	26:1H:1369:G:C4	2.89	0.41
26:1H:1407:C:C2	26:1H:1596:A:C2	3.09	0.41
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.20	0.41
26:1H:1844:C:H5"	29:11:258:LYS:HG3	2.03	0.41
26:1H:1975:G:C6	26:1H:1976:U:N3	2.89	0.41
27:16:99:A:C6	27:16:100:G:C5	3.09	0.41
28:71:11:LEU:O	28:71:14:VAL:HG22	2.21	0.41
29:11:106:ILE:O	29:11:108:PRO:HD3	2.21	0.41
29:11:154:LYS:HB3	29:11:154:LYS:HE3	1.84	0.41
30:21:188:VAL:HA	30:21:189:PRO:HD3	1.85	0.41
31:31:24:LEU:HD21	31:31:114:VAL:HG12	2.03	0.41
31:31:116:ASP:O	31:31:119:ARG:HD3	2.21	0.41
34:61:77:LEU:H	34:61:77:LEU:HD12	1.85	0.41
36:68:71:ARG:HA	36:68:72:PRO:HD3	1.84	0.41
39:98:26:LYS:HE2	39:98:70:LEU:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:102:ILE:O	41:B8:105:LEU:N	2.41	0.41
42:C8:79:PHE:CE1	42:C8:83:LEU:HD13	2.56	0.41
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	2.03	0.41
48:I8:52:GLY:O	48:I8:59:LEU:HA	2.21	0.41
1:1G:159:G:H21	1:1G:162:A:H62	1.69	0.41
1:1G:739:C:HO2'	15:6A:42:HIS:CE1	2.32	0.41
1:1G:968:A:H8	1:1G:968:A:O5'	2.03	0.41
1:1G:1306:A:H2'	1:1G:1307:U:C6	2.55	0.41
1:1G:1312:G:C2'	1:1G:1313:U:H5'	2.51	0.41
3:22:73:PRO:O	3:22:76:VAL:HG22	2.21	0.41
4:32:166:LYS:HE2	4:32:179:GLU:HB2	2.02	0.41
6:52:44:GLY:HA2	6:52:59:TYR:CE2	2.56	0.41
10:1A:30:SER:HB3	10:1A:81:THR:HG22	2.03	0.41
11:2A:98:LEU:HA	11:2A:101:SER:HB3	2.03	0.41
13:4A:54:VAL:HA	13:4A:57:ARG:CG	2.51	0.41
19:AA:6:LYS:HA	19:AA:7:LYS:HA	1.84	0.41
19:AA:16:LEU:O	19:AA:20:LEU:HD13	2.21	0.41
20:BA:24:LEU:HD13	20:BA:24:LEU:HA	1.70	0.41
20:BA:59:ALA:HB3	20:BA:84:LEU:HD11	2.02	0.41
26:14:28:A:C2	26:14:513:A:C8	3.09	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
26:14:372:G:H5'	49:F5:66:HIS:NE2	2.36	0.41
26:14:541:C:H2'	26:14:542:C:C6	2.56	0.41
26:14:864:G:C2'	26:14:865:C:H5'	2.51	0.41
26:14:910:A:H2	26:14:2264:C:O2	2.04	0.41
26:14:1011:G:H1	26:14:1150:C:H42	1.69	0.41
26:14:1441:G:H2'	26:14:1442:G:H8	1.86	0.41
26:14:1973:G:H2'	26:14:1974:C:C6	2.55	0.41
26:14:2176:A:O2'	28:79:44:HIS:ND1	2.45	0.41
26:14:2271:G:H5"	48:E5:20:ARG:NE	2.36	0.41
30:29:105:THR:CG2	30:29:164:ARG:HE	2.31	0.41
31:39:89:VAL:HG12	31:39:90:PHE:H	1.85	0.41
31:39:156:LEU:HD21	31:39:163:VAL:HG12	2.03	0.41
34:69:81:VAL:HG12	34:69:143:SER:CB	2.51	0.41
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.56	0.41
45:B5:63:LYS:H	45:B5:63:LYS:CE	2.28	0.41
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.21	0.41
46:C5:45:VAL:HG12	46:C5:60:PHE:HD2	1.86	0.41
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.85	0.40
1:13:451:A:N6	1:13:481:G:H5'	2.36	0.40
1:13:657:G:C2	1:13:658:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1521:G:H2'	1:13:1522:U:C6	2.56	0.40
3:2E:7:PRO:HG2	3:2E:184:TYR:CD2	2.56	0.40
3:2E:91:LEU:O	3:2E:95:THR:OG1	2.36	0.40
5:4E:147:ASP:HA	5:4E:150:ARG:NH1	2.35	0.40
6:5E:45:LEU:HD21	6:5E:57:GLN:OE1	2.21	0.40
8:7E:12:ARG:HD2	8:7E:12:ARG:HH11	1.76	0.40
8:7E:43:GLY:O	8:7E:64:LYS:NZ	2.43	0.40
8:7E:127:LEU:HD23	8:7E:127:LEU:N	2.36	0.40
10:1I:45:ARG:HH11	14:5I:36:PHE:HE2	1.68	0.40
13:4I:3:ARG:CB	13:4I:9:ILE:HG12	2.51	0.40
13:4I:34:LEU:HD23	13:4I:39:ILE:HB	2.02	0.40
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.42	0.40
24:3K:72:C:C2'	24:3K:73:A:H5"	2.51	0.40
26:1H:55:G:N3	26:1H:56:A:C8	2.89	0.40
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.86	0.40
26:1H:274:G:N3	26:1H:276:A:N1	2.68	0.40
26:1H:714:U:O2	26:1H:716:A:C8	2.73	0.40
26:1H:988:A:H3'	51:L8:11:SER:OG	2.21	0.40
26:1H:1332:G:H8	26:1H:1332:G:H2'	1.78	0.40
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.85	0.40
26:1H:1523:U:C2	26:1H:1524:G:C8	3.08	0.40
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.56	0.40
26:1H:2248:C:C5	26:1H:2249:U:C4	3.09	0.40
26:1H:2287:A:N3	26:1H:2289:G:C8	2.88	0.40
29:11:61:LEU:HD13	29:11:61:LEU:HA	1.83	0.40
29:11:123:ALA:HA	29:11:124:PRO:HD2	1.83	0.40
29:11:263:ARG:HH11	29:11:263:ARG:HG3	1.84	0.40
31:31:177:ALA:HB1	31:31:178:PRO:HD2	2.02	0.40
33:51:6:ARG:HH11	33:51:54:ARG:HH22	1.67	0.40
34:61:95:LYS:HB3	34:61:95:LYS:HE3	1.46	0.40
38:88:21:THR:HB	38:88:22:LYS:HB2	2.02	0.40
39:98:45:ARG:HB3	39:98:46:GLY:H	1.66	0.40
45:F8:89:ILE:O	45:F8:93:GLU:HG2	2.21	0.40
48:I8:21:LEU:HD23	48:I8:21:LEU:HA	1.72	0.40
55:Q8:7:HIS:CG	55:Q8:61:LEU:HD13	2.56	0.40
1:1G:227:G:H2'	1:1G:228:A:O4'	2.20	0.40
1:1G:291:C:H42	1:1G:309:G:H1	1.69	0.40
1:1G:575:G:O2'	1:1G:821:G:H5'	2.20	0.40
1:1G:872:A:C4	1:1G:874:G:N7	2.89	0.40
1:1G:1038:C:C5	1:1G:1039:C:C4	3.09	0.40
17:8A:50:LYS:HA	17:8A:50:LYS:HD2	1.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1L:23:A:H2'	56:1L:24:G:H8	1.85	0.40
23:2L:3:C:H5'	26:14:2255:G:O2'	2.21	0.40
26:14:221:A:C4	26:14:266:G:N7	2.89	0.40
26:14:516:C:H6	26:14:516:C:O5'	2.04	0.40
26:14:780:G:H21	26:14:783:A:N6	2.17	0.40
26:14:866:A:C6	26:14:914:C:C5	3.09	0.40
26:14:1085:A:H4'	26:14:1086:A:OP1	2.21	0.40
26:14:1141:U:P	35:15:25:ARG:HH21	2.44	0.40
26:14:1651:G:H2'	26:14:1652:A:O4'	2.21	0.40
26:14:1805:U:H2'	26:14:1806:C:H6	1.86	0.40
26:14:1948:G:C2'	26:14:1949:G:H5'	2.51	0.40
26:14:2058:A:N7	61:14:3583:HOH:O	2.37	0.40
26:14:2106:G:C2	26:14:2184:G:C2	3.10	0.40
27:1J:75:G:O3'	47:D5:10:ARG:NH1	2.46	0.40
28:79:5:LYS:CA	28:79:8:ARG:HG2	2.51	0.40
33:59:3:ARG:O	33:59:6:ARG:NE	2.54	0.40
33:59:11:VAL:HG13	33:59:69:ARG:HH12	1.85	0.40
37:35:27:HIS:HB3	37:35:32:THR:CG2	2.51	0.40
40:65:19:LYS:HE2	40:65:19:LYS:HB2	1.92	0.40
43:95:58:VAL:HG12	43:95:98:GLU:HB2	2.03	0.40
43:95:94:LEU:HA	43:95:94:LEU:HD23	1.73	0.40
45:B5:50:LYS:HA	45:B5:50:LYS:HD2	1.85	0.40
45:B5:84:ALA:O	45:B5:87:GLN:HB2	2.22	0.40
46:C5:8:LYS:HZ1	46:C5:95:LYS:HD3	1.85	0.40
47:D5:19:ARG:HH11	47:D5:84:GLU:HB2	1.86	0.40
54:L5:10:ARG:O	54:L5:14:LYS:HG3	2.21	0.40
1:13:389:A:H2'	1:13:390:C:C5'	2.50	0.40
1:13:581:G:C2	1:13:582:U:C5	3.10	0.40
1:13:627:G:H2'	1:13:628:G:H8	1.87	0.40
1:13:1081:G:H2'	1:13:1082:G:C8	2.48	0.40
2:1E:21:ARG:O	2:1E:23:ARG:N	2.54	0.40
5:4E:26:PHE:N	5:4E:26:PHE:HD1	2.18	0.40
5:4E:64:ARG:HD2	5:4E:64:ARG:H	1.86	0.40
6:5E:99:ALA:HB3	18:9I:29:PHE:CE1	2.55	0.40
11:2I:54:ARG:HA	11:2I:57:THR:HG23	2.03	0.40
13:4I:31:LYS:HD2	13:4I:31:LYS:H	1.86	0.40
13:4I:84:ILE:HG23	13:4I:86:CYS:HB3	2.03	0.40
26:1H:270(M):U:OP1	26:1H:270(N):G:N2	2.54	0.40
26:1H:285:C:H2'	26:1H:286:C:H6	1.85	0.40
26:1H:389:G:H8	26:1H:389:G:O5'	2.04	0.40
26:1H:432:A:C5	26:1H:433:C:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:760:G:H5"	61:1H:3776:HOH:O	2.20	0.40
26:1H:1047:G:H2'	26:1H:1110:G:C6	2.56	0.40
26:1H:1276:A:C2	26:1H:1277:G:C5	3.10	0.40
29:11:65:ILE:HG21	29:11:65:ILE:HD13	1.69	0.40
29:11:174:ILE:HD12	29:11:174:ILE:N	2.35	0.40
29:11:206:LEU:HA	29:11:211:ARG:HD3	2.03	0.40
31:31:32:LEU:HD22	31:31:32:LEU:HA	1.81	0.40
31:31:185:ASP:HA	31:31:188:ARG:CD	2.45	0.40
32:41:103:LEU:CD2	32:41:178:PHE:HZ	2.34	0.40
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.49	0.40
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.54	0.40
40:A8:18:ILE:CD1	40:A8:88:ASP:HA	2.50	0.40
42:C8:110:VAL:O	42:C8:113:ALA:HB3	2.22	0.40
49:J8:83:GLU:C	49:J8:85:LEU:H	2.24	0.40
1:1G:444:C:H2'	1:1G:445:G:C8	2.56	0.40
1:1G:676:A:H1'	11:2A:115:PRO:HB3	2.03	0.40
1:1G:739:C:O2'	15:6A:42:HIS:ND1	2.38	0.40
1:1G:814:A:N7	1:1G:816:A:C4	2.89	0.40
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.21	0.40
1:1G:1207:G:C6	1:1G:1208:C:C4	3.10	0.40
1:1G:1264:C:O5'	1:1G:1264:C:H6	2.04	0.40
3:22:14:ILE:HG12	3:22:15:THR:H	1.86	0.40
4:32:39:PRO:HA	4:32:40:PRO:HD3	1.90	0.40
4:32:58:LEU:HD13	4:32:62:GLN:HG3	2.03	0.40
9:82:16:ARG:NH2	9:82:66:ARG:HH21	2.19	0.40
9:82:42:ARG:HE	9:82:42:ARG:HB2	1.32	0.40
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.20	0.40
13:4A:84:ILE:O	13:4A:84:ILE:HG22	2.21	0.40
18:9A:29:PHE:HD1	18:9A:29:PHE:H	1.69	0.40
23:2L:51:U:O5'	23:2L:51:U:H6	2.04	0.40
25:4L:7:G:H2'	25:4L:8:A:O4'	2.22	0.40
26:14:1144:G:C6	26:14:1145:C:N4	2.89	0.40
26:14:1153:C:N4	26:14:1154:G:N1	2.68	0.40
26:14:1332:G:N2	26:14:1609:A:H2'	2.35	0.40
26:14:2077:A:H2'	26:14:2078:C:H6	1.86	0.40
26:14:2228:G:C6	26:14:2229:C:C4	3.09	0.40
26:14:2352:A:C2	48:E5:33:ALA:HB1	2.56	0.40
26:14:2795:G:O2'	26:14:2798:C:N4	2.46	0.40
29:19:8:PRO:HB3	29:19:14:ARG:HB3	2.03	0.40
31:39:93:LYS:HA	31:39:93:LYS:HD2	1.85	0.40
33:59:8:PRO:O	33:59:52:VAL:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:81:VAL:H	34:69:143:SER:CB	2.25	0.40
34:69:144:VAL:O	34:69:144:VAL:HG23	2.21	0.40
43:95:46:VAL:HG23	43:95:52:VAL:HG11	2.02	0.40
46:C5:54:LYS:C	46:C5:55:TYR:CG	2.93	0.40
47:D5:52:SER:O	47:D5:53:ILE:HG12	2.20	0.40
1:13:201:C:N4	1:13:216:G:H22	2.19	0.40
1:13:271:C:H2'	1:13:272:C:C6	2.54	0.40
1:13:457:C:C2	1:13:476:G:N2	2.89	0.40
1:13:980:C:H2'	1:13:981:U:O4'	2.20	0.40
1:13:1219:U:H2'	1:13:1220:G:O4'	2.22	0.40
10:1I:54:PHE:HB3	10:1I:55:LYS:H	1.68	0.40
16:7I:36:ILE:O	16:7I:36:ILE:HG13	2.20	0.40
22:1K:69:A:HO2'	22:1K:70:C:H6	1.65	0.40
26:1H:106:C:H2'	26:1H:107:C:C6	2.57	0.40
26:1H:252:G:O2'	26:1H:253:C:H5'	2.21	0.40
26:1H:270(M):U:C2'	26:1H:270(N):G:H5"	2.52	0.40
26:1H:456:C:H3'	45:F8:68:ARG:NH2	2.35	0.40
26:1H:654(S):G:H2'	26:1H:654(S):G:OP2	2.21	0.40
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.21	0.40
26:1H:1496:A:O3'	26:1H:1497:U:H6	2.04	0.40
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.21	0.40
26:1H:1797:C:H4'	29:11:257:LEU:O	2.21	0.40
32:41:11:TYR:CE2	32:41:16:ARG:HD2	2.56	0.40
36:68:122:LEU:HD23	36:68:122:LEU:HA	1.86	0.40
43:D8:33:VAL:O	43:D8:58:VAL:HA	2.21	0.40
45:F8:68:ARG:HG2	45:F8:68:ARG:O	2.21	0.40
47:H8:93:ASP:HA	47:H8:130:PRO:HG2	2.03	0.40
48:I8:36:ILE:HD13	48:I8:36:ILE:C	2.42	0.40
49:J8:73:LEU:HD13	49:J8:90:ILE:HB	2.04	0.40
1:1G:625:G:C6	1:1G:626:U:C4	3.09	0.40
1:1G:802:A:H3'	1:1G:803:G:H8	1.87	0.40
1:1G:947:G:C6	1:1G:948:C:C4	3.10	0.40
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	2.03	0.40
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.57	0.40
3:22:36:ASP:HA	3:22:39:ILE:CD1	2.51	0.40
3:22:150:LYS:HE3	3:22:201:TYR:CD1	2.56	0.40
3:22:151:VAL:HA	3:22:199:LYS:O	2.22	0.40
4:32:15:GLU:OE1	4:32:59:ARG:NE	2.49	0.40
4:32:105:VAL:HG13	4:32:110:PHE:HB2	2.03	0.40
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.21	0.40
56:1L:7:U:O2'	56:1L:8:U:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:3L:72:C:H3'	57:3L:73:A:H5"	2.03	0.40
25:4L:9:G:H2'	25:4L:10:G:C8	2.56	0.40
26:14:241:A:H5'	26:14:243:U:O4'	2.22	0.40
26:14:414:C:H4'	26:14:1879:C:O2	2.21	0.40
26:14:669:G:N3	26:14:669:G:C2'	2.84	0.40
26:14:800:A:H8	26:14:800:A:OP1	2.04	0.40
26:14:805:G:H4'	37:35:38:GLN:HB2	2.02	0.40
26:14:901:A:H2'	26:14:901:A:N3	2.37	0.40
26:14:986:C:C2'	26:14:987:G:H5'	2.51	0.40
26:14:1003:G:O2'	26:14:1010:A:N1	2.35	0.40
26:14:1419:A:N7	26:14:1421:G:C6	2.90	0.40
26:14:2506:U:H4'	26:14:2507:C:OP1	2.21	0.40
29:19:147:LEU:HD23	29:19:155:LEU:HD13	2.04	0.40
30:29:7:VAL:HG12	30:29:193:GLY:HA2	2.04	0.40
30:29:79:ARG:N	30:29:79:ARG:HD2	2.36	0.40
37:35:30:THR:HG21	37:35:35:HIS:H	1.87	0.40
37:35:52:GLU:CD	37:35:52:GLU:H	2.25	0.40
37:35:76:LYS:NZ	37:35:76:LYS:HB3	2.36	0.40
38:45:135:ASP:HB2	47:D5:81:ARG:HH22	1.85	0.40
40:65:35:ILE:HG12	40:65:101:LEU:HD23	2.02	0.40
41:75:50:ILE:HD13	41:75:50:ILE:HA	1.75	0.40
42:85:76:TYR:CE2	42:85:80:ILE:HG13	2.56	0.40
43:95:37:VAL:CG2	43:95:57:VAL:HG13	2.51	0.40
47:D5:55:HIS:ND1	47:D5:56:VAL:HG12	2.37	0.40
1:13:316:G:C2'	1:13:317:G:H5'	2.51	0.40
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.52	0.40
1:13:454:C:H3'	1:13:455:C:H6	1.87	0.40
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.56	0.40
1:13:652:U:HO2'	1:13:653:A:P	2.44	0.40
1:13:1127:G:H1'	1:13:1148:U:H3	1.86	0.40
1:13:1358:U:OP1	14:5I:35:ARG:HB2	2.22	0.40
6:5E:16:GLN:HG2	6:5E:17:SER:H	1.87	0.40
11:2I:33:THR:HG22	11:2I:39:PRO:HA	2.04	0.40
15:6I:81:LEU:O	15:6I:85:LEU:HB2	2.21	0.40
17:8I:13:ASP:OD2	17:8I:53:LEU:HD13	2.21	0.40
19:AI:6:LYS:HE2	19:AI:6:LYS:HB3	1.59	0.40
20:BI:46:GLU:HB3	20:BI:48:LYS:HZ3	1.86	0.40
20:BI:53:LEU:HG	20:BI:102:GLY:HA3	2.03	0.40
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.05	0.40
26:1H:270(L):U:H3'	26:1H:270(L):U:C6	2.57	0.40
26:1H:399:G:H2'	26:1H:400:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:613:U:O2	26:1H:613:U:O4'	2.38	0.40
26:1H:850:C:O3'	51:L8:49:LYS:HE2	2.21	0.40
26:1H:2296:U:O2	26:1H:2333:A:N3	2.55	0.40
28:71:22:ILE:CD1	28:71:189:ILE:HG22	2.52	0.40
29:11:35:LYS:NZ	29:11:35:LYS:HB3	2.27	0.40
29:11:233:HIS:HB3	61:11:406:HOH:O	2.20	0.40
33:51:69:ARG:HG3	33:51:70:THR:N	2.36	0.40
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.36	0.40
38:88:66:ILE:CG1	38:88:67:ARG:H	2.35	0.40
47:H8:26:GLY:HA2	47:H8:85:HIS:CD2	2.57	0.40
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.37	0.40
53:N8:36:CYS:SG	53:N8:37:LYS:N	2.94	0.40
1:1G:998:G:N2	1:1G:1043:C:C2	2.90	0.40
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.55	0.40
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.86	0.40
2:12:130:ARG:HB3	2:12:130:ARG:HE	1.53	0.40
2:12:189:ASP:OD1	2:12:189:ASP:N	2.54	0.40
12:3A:102:ARG:HB3	12:3A:108:ALA:O	2.21	0.40
15:6A:79:ARG:HA	15:6A:82:ILE:HG12	2.03	0.40
23:2L:59:A:H4'	23:2L:60:A:OP1	2.22	0.40
26:14:176:G:O2'	26:14:177:G:H5'	2.21	0.40
26:14:270(K):C:H2'	26:14:270(L):U:H2'	2.02	0.40
26:14:273(C):C:N4	26:14:363(C):G:H1	2.17	0.40
26:14:329:G:P	46:C5:71:LYS:HE3	2.61	0.40
26:14:870:A:OP1	38:45:6:ARG:NE	2.36	0.40
26:14:993:G:C6	26:14:994:C:N4	2.90	0.40
26:14:1342:A:C2	26:14:1397:U:C2	3.09	0.40
26:14:1411:C:H2'	26:14:1412:A:C8	2.56	0.40
26:14:1636:C:O2	26:14:1760:A:H2	2.04	0.40
26:14:1654:A:H1'	26:14:2823:A:H5'	2.04	0.40
26:14:1688:U:O2	26:14:1700:A:H5'	2.21	0.40
26:14:2321:G:N3	26:14:2321:G:H2'	2.36	0.40
26:14:2532:G:O2'	26:14:2657:A:N1	2.54	0.40
30:29:37:ARG:HA	30:29:41:LYS:HE3	2.03	0.40
31:39:6:VAL:HB	31:39:124:LEU:HA	2.03	0.40
31:39:135:LYS:HB3	31:39:138:GLU:HG3	2.03	0.40
45:B5:49:VAL:HG12	45:B5:87:GLN:HG2	2.03	0.40
49:F5:4:VAL:HG11	49:F5:11:ARG:NH2	2.35	0.40
49:F5:85:LEU:CA	49:F5:87:PRO:HD2	2.49	0.40
49:F5:87:PRO:O	49:F5:91:LYS:N	2.50	0.40
55:M5:28:GLY:O	55:M5:36:LYS:NZ	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:197:A:N3	1:13:198:G:H1'	2.36	0.40
1:13:337:C:H2'	1:13:338:A:C8	2.56	0.40
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.36	0.40
1:13:575:G:C5	1:13:881:G:C2	3.09	0.40
1:13:669:U:H2'	1:13:670:G:C8	2.57	0.40
1:13:1250:A:C2	1:13:1370:G:H1'	2.57	0.40
1:13:1287:A:H2'	1:13:1288:A:C8	2.57	0.40
1:13:1342:C:O2'	9:8E:124:GLN:HG3	2.22	0.40
1:13:1440:C:O2'	1:13:1442:G:N2	2.55	0.40
4:3E:43:HIS:ND1	4:3E:46:LYS:HE3	2.36	0.40
7:6E:22:LEU:HD23	7:6E:22:LEU:HA	1.90	0.40
11:2I:109:VAL:HA	18:9I:85:LEU:O	2.21	0.40
11:2I:109:VAL:HG12	18:9I:84:LYS:HB2	2.03	0.40
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.21	0.40
14:5I:24:CYS:HB2	14:5I:40:CYS:HB3	2.04	0.40
23:2K:17:C:H4'	23:2K:18:U:OP2	2.21	0.40
23:2K:35:C:H5"	23:2K:36:A:OP2	2.21	0.40
23:2K:76:C:H3'	23:2K:77:A:H3'	2.04	0.40
26:1H:17:G:H2'	26:1H:18:C:C6	2.57	0.40
26:1H:67:U:H1'	26:1H:88:G:N2	2.37	0.40
26:1H:588:U:C2	31:31:90:PHE:CE1	3.10	0.40
26:1H:1014:U:O2'	26:1H:1015:G:H5'	2.22	0.40
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.56	0.40
26:1H:1465:G:C5	26:1H:1466:G:N7	2.90	0.40
26:1H:1534:G:O2'	26:1H:1535:U:O4'	2.34	0.40
26:1H:2135:A:N6	26:1H:2136:C:C2	2.89	0.40
26:1H:2378:A:C5	26:1H:2379:G:H1'	2.56	0.40
27:16:3:C:H2'	27:16:4:C:H6	1.86	0.40
28:71:46:LYS:C	28:71:47:LEU:HD23	2.42	0.40
29:11:30:GLU:HG3	29:11:63:ARG:NH2	2.37	0.40
29:11:130:ALA:C	29:11:131:LEU:HD12	2.41	0.40
31:31:64:ILE:HD13	31:31:64:ILE:HA	1.66	0.40
32:41:41:GLN:HB3	32:41:43:LEU:HD13	2.04	0.40
33:51:74:ASN:O	33:51:77:LYS:HG3	2.22	0.40
35:58:103:VAL:O	35:58:106:MET:N	2.47	0.40
37:78:79:ARG:HD2	37:78:110:TYR:CE1	2.57	0.40
49:J8:85:LEU:HD12	49:J8:88:LYS:HB2	2.02	0.40
51:L8:17:LYS:O	51:L8:20:LYS:N	2.54	0.40
1:1G:35:G:C2	1:1G:550:G:N3	2.90	0.40
1:1G:76:G:C6	1:1G:77:C:C4	3.09	0.40
1:1G:391:G:C6	1:1G:392:G:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:535:A:H5"	61:1G:1705:HOH:O	2.22	0.40
1:1G:620:C:H2'	1:1G:621:A:O4'	2.21	0.40
1:1G:1077:G:N1	1:1G:1081:G:C6	2.89	0.40
1:1G:1177:G:O2'	1:1G:1178:G:C8	2.73	0.40
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.20	0.40
1:1G:1300:G:C6	1:1G:1334:G:C5	3.09	0.40
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.56	0.40
3:22:172:ARG:HB3	3:22:172:ARG:NH1	2.37	0.40
4:32:4:TYR:HD1	4:32:6:GLY:H	1.68	0.40
4:32:8:VAL:HG22	4:32:115:ARG:HH12	1.87	0.40
4:32:200:GLU:O	4:32:204:ILE:HG23	2.22	0.40
7:62:25:ALA:O	7:62:28:ASN:N	2.54	0.40
7:62:51:GLN:CG	7:62:58:PRO:HD3	2.52	0.40
9:82:10:ARG:HA	9:82:104:ARG:NH1	2.37	0.40
9:82:53:VAL:HG11	9:82:92:TYR:CE1	2.57	0.40
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.53	0.40
13:4A:84:ILE:C	13:4A:86:CYS:H	2.25	0.40
17:8A:11:VAL:HG23	17:8A:20:THR:HB	2.04	0.40
17:8A:29:HIS:HA	17:8A:30:PRO:HD2	1.83	0.40
17:8A:43:LEU:HD12	17:8A:68:ARG:HG2	2.03	0.40
18:9A:38:GLU:H	18:9A:38:GLU:CD	2.25	0.40
56:1L:73:A:N3	56:1L:73:A:H5"	2.37	0.40
57:3L:18:G:H2'	57:3L:57:G:N2	2.23	0.40
26:14:39:C:H2'	26:14:40:C:C6	2.56	0.40
26:14:116:C:H2'	26:14:117:G:O4'	2.21	0.40
26:14:438:G:H2'	26:14:439:G:C8	2.56	0.40
26:14:468:G:C2	26:14:469:G:H1'	2.56	0.40
26:14:704:G:O2'	26:14:726:G:N1	2.46	0.40
26:14:861:A:H1'	26:14:917:A:N6	2.37	0.40
26:14:972:G:OP2	26:14:973:A:O2'	2.29	0.40
26:14:1339:G:H21	26:14:1603:A:H1'	1.87	0.40
26:14:1341:U:O4	45:B5:16:LYS:NZ	2.34	0.40
26:14:1488:G:C2	26:14:1502:C:C2	3.09	0.40
26:14:2019:A:C5	26:14:2020:A:C8	3.09	0.40
26:14:2115:G:N2	26:14:2172:U:H3	2.20	0.40
26:14:2185:C:H2'	26:14:2186:G:H8	1.86	0.40
26:14:2439:A:HO2'	26:14:2440:C:P	2.44	0.40
28:79:15:ASP:HA	28:79:16:PRO:HD2	1.88	0.40
31:39:7:TYR:HA	31:39:124:LEU:O	2.20	0.40
31:39:24:LEU:HD22	31:39:25:PRO:HD3	2.03	0.40
32:49:52:ILE:HA	32:49:55:LYS:HE3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:97:ILE:O	34:69:100:ALA:HB3	2.22	0.40
36:25:75:SER:OG	41:75:74:ARG:NH2	2.54	0.40
38:45:25:ASP:HB3	38:45:102:VAL:CB	2.50	0.40
38:45:97:VAL:HG21	38:45:103:MET:HE3	2.02	0.40
40:65:77:ALA:O	40:65:80:LEU:N	2.50	0.40
45:B5:36:LYS:HG3	45:B5:56:THR:CG2	2.52	0.40
46:C5:3:VAL:HG11	46:C5:32:PRO:O	2.21	0.40
46:C5:17:SER:HB2	46:C5:71:LYS:HE2	2.03	0.40
46:C5:77:PRO:O	46:C5:78:ALA:HB3	2.22	0.40
47:D5:131:ARG:H	47:D5:131:ARG:HG2	1.60	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	12	206/256 (80%)	168 (82%)	31 (15%)	7 (3%)	3 24
2	1E	227/256 (89%)	185 (82%)	39 (17%)	3 (1%)	12 47
3	22	192/239 (80%)	169 (88%)	22 (12%)	1 (0%)	29 67
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100 100
4	32	206/209 (99%)	183 (89%)	22 (11%)	1 (0%)	29 67
4	3E	205/209 (98%)	188 (92%)	14 (7%)	3 (2%)	10 44
5	42	146/162 (90%)	136 (93%)	9 (6%)	1 (1%)	22 61
5	4E	147/162 (91%)	139 (95%)	7 (5%)	1 (1%)	22 61
6	52	99/101 (98%)	95 (96%)	4 (4%)	0	100 100
6	5E	98/101 (97%)	91 (93%)	7 (7%)	0	100 100
7	62	134/156 (86%)	123 (92%)	10 (8%)	1 (1%)	22 61
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	72	135/138 (98%)	125 (93%)	9 (7%)	1 (1%)	22	61
8	7E	136/138 (99%)	126 (93%)	9 (7%)	1 (1%)	22	61
9	82	119/128 (93%)	107 (90%)	11 (9%)	1 (1%)	19	58
9	8E	124/128 (97%)	104 (84%)	19 (15%)	1 (1%)	19	58
10	1A	76/105 (72%)	70 (92%)	6 (8%)	0	100	100
10	1I	89/105 (85%)	83 (93%)	6 (7%)	0	100	100
11	2A	111/129 (86%)	102 (92%)	7 (6%)	2 (2%)	8	41
11	2I	109/129 (84%)	98 (90%)	10 (9%)	1 (1%)	17	56
12	3A	120/132 (91%)	102 (85%)	13 (11%)	5 (4%)	3	20
12	3I	120/132 (91%)	106 (88%)	13 (11%)	1 (1%)	19	58
13	4A	109/126 (86%)	95 (87%)	13 (12%)	1 (1%)	17	56
13	4I	117/126 (93%)	97 (83%)	19 (16%)	1 (1%)	17	56
14	5A	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	8	41
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3	24
15	6A	86/89 (97%)	76 (88%)	10 (12%)	0	100	100
15	6I	85/89 (96%)	80 (94%)	5 (6%)	0	100	100
16	7A	82/88 (93%)	74 (90%)	8 (10%)	0	100	100
16	7I	81/88 (92%)	78 (96%)	3 (4%)	0	100	100
17	8A	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
17	8I	98/105 (93%)	91 (93%)	7 (7%)	0	100	100
18	9A	65/88 (74%)	62 (95%)	2 (3%)	1 (2%)	10	44
18	9I	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	10	44
19	AA	56/93 (60%)	49 (88%)	5 (9%)	2 (4%)	3	23
19	AI	79/93 (85%)	67 (85%)	10 (13%)	2 (2%)	5	32
20	BA	97/106 (92%)	80 (82%)	15 (16%)	2 (2%)	7	37
20	BI	95/106 (90%)	80 (84%)	15 (16%)	0	100	100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100	100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
28	71	129/229 (56%)	119 (92%)	10 (8%)	0	100	100
28	79	45/229 (20%)	41 (91%)	4 (9%)	0	100	100
29	11	271/276 (98%)	243 (90%)	17 (6%)	11 (4%)	3	21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	19	272/276 (99%)	241 (89%)	25 (9%)	6 (2%)	6	35
30	21	201/206 (98%)	157 (78%)	36 (18%)	8 (4%)	3	21
30	29	202/206 (98%)	157 (78%)	37 (18%)	8 (4%)	3	21
31	31	200/210 (95%)	175 (88%)	25 (12%)	0	100	100
31	39	202/210 (96%)	157 (78%)	36 (18%)	9 (4%)	2	18
32	41	177/182 (97%)	155 (88%)	19 (11%)	3 (2%)	9	42
32	49	177/182 (97%)	153 (86%)	22 (12%)	2 (1%)	14	51
33	51	169/180 (94%)	135 (80%)	24 (14%)	10 (6%)	1	12
33	59	67/180 (37%)	50 (75%)	14 (21%)	3 (4%)	2	18
34	61	144/148 (97%)	122 (85%)	20 (14%)	2 (1%)	11	46
34	69	143/148 (97%)	116 (81%)	26 (18%)	1 (1%)	22	61
35	15	136/140 (97%)	119 (88%)	16 (12%)	1 (1%)	22	61
35	58	136/140 (97%)	114 (84%)	19 (14%)	3 (2%)	6	35
36	25	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
36	68	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
37	35	145/150 (97%)	114 (79%)	29 (20%)	2 (1%)	11	46
37	78	145/150 (97%)	115 (79%)	25 (17%)	5 (3%)	3	24
38	45	136/141 (96%)	112 (82%)	21 (15%)	3 (2%)	6	35
38	88	139/141 (99%)	114 (82%)	20 (14%)	5 (4%)	3	23
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	17	56
39	98	116/118 (98%)	101 (87%)	14 (12%)	1 (1%)	17	56
40	65	108/112 (96%)	86 (80%)	20 (18%)	2 (2%)	8	39
40	A8	109/112 (97%)	92 (84%)	14 (13%)	3 (3%)	5	29
41	75	131/146 (90%)	119 (91%)	12 (9%)	0	100	100
41	B8	131/146 (90%)	119 (91%)	12 (9%)	0	100	100
42	85	114/118 (97%)	101 (89%)	11 (10%)	2 (2%)	8	41
42	C8	113/118 (96%)	104 (92%)	6 (5%)	3 (3%)	5	30
43	95	98/101 (97%)	77 (79%)	14 (14%)	7 (7%)	1	8
43	D8	98/101 (97%)	87 (89%)	6 (6%)	5 (5%)	2	15
44	A5	111/113 (98%)	106 (96%)	4 (4%)	1 (1%)	17	56
44	E8	110/113 (97%)	101 (92%)	9 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	B5	92/96 (96%)	85 (92%)	4 (4%)	3 (3%)	4	25
45	F8	93/96 (97%)	85 (91%)	7 (8%)	1 (1%)	14	51
46	C5	102/110 (93%)	75 (74%)	17 (17%)	10 (10%)	0	3
46	G8	103/110 (94%)	86 (84%)	13 (13%)	4 (4%)	3	22
47	D5	126/206 (61%)	100 (79%)	21 (17%)	5 (4%)	3	21
47	H8	169/206 (82%)	136 (80%)	25 (15%)	8 (5%)	2	17
48	E5	75/85 (88%)	66 (88%)	8 (11%)	1 (1%)	12	47
48	I8	74/85 (87%)	68 (92%)	6 (8%)	0	100	100
49	F5	92/98 (94%)	85 (92%)	6 (6%)	1 (1%)	14	51
49	J8	92/98 (94%)	83 (90%)	8 (9%)	1 (1%)	14	51
50	G5	64/72 (89%)	59 (92%)	3 (5%)	2 (3%)	4	26
50	K8	66/72 (92%)	58 (88%)	5 (8%)	3 (4%)	2	18
51	H5	56/60 (93%)	53 (95%)	3 (5%)	0	100	100
51	L8	56/60 (93%)	51 (91%)	5 (9%)	0	100	100
52	M8	45/71 (63%)	29 (64%)	15 (33%)	1 (2%)	6	35
53	J5	54/60 (90%)	50 (93%)	4 (7%)	0	100	100
53	N8	46/60 (77%)	43 (94%)	3 (6%)	0	100	100
54	L5	45/49 (92%)	43 (96%)	2 (4%)	0	100	100
54	P8	45/49 (92%)	39 (87%)	6 (13%)	0	100	100
55	M5	62/65 (95%)	52 (84%)	8 (13%)	2 (3%)	4	26
55	Q8	62/65 (95%)	50 (81%)	9 (14%)	3 (5%)	2	17
All	All	10973/12333 (89%)	9576 (87%)	1201 (11%)	196 (2%)	8	41

All (196) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
14	5I	13	THR
18	9I	22	VAL
29	11	28	GLU
29	11	40	THR
29	11	237	GLU
30	21	83	ASP
45	F8	4	ALA
46	G8	81	LYS
47	H8	165	VAL

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Mol	Chain	Res	Type
50	K8	48	HIS
55	Q8	52	LYS
55	Q8	53	PRO
2	12	219	VAL
9	82	118	LYS
20	BA	73	HIS
29	19	273	ARG
30	29	25	VAL
31	39	28	ILE
31	39	84	VAL
38	45	27	VAL
39	55	107	ASP
43	95	44	LYS
43	95	45	THR
47	D5	53	ILE
48	E5	33	ALA
49	F5	30	VAL
50	G5	48	HIS
55	M5	49	VAL
2	1E	10	LEU
4	3E	90	GLY
8	7E	86	ILE
12	3I	48	PRO
29	11	273	ARG
30	21	78	LEU
33	51	10	PRO
33	51	157	TYR
37	78	25	SER
38	88	6	ARG
38	88	66	ILE
38	88	134	ARG
42	C8	89	GLU
46	G8	54	LYS
47	H8	60	GLU
11	2A	48	ILE
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
14	5A	29	ARG
19	AA	9	VAL
20	BA	49	ALA
29	19	46	GLN

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Mol	Chain	Res	Type
29	19	237	GLU
30	29	59	VAL
30	29	81	ILE
31	39	124	LEU
31	39	132	VAL
37	35	15	ARG
42	85	96	ALA
43	95	80	GLN
46	C5	29	GLU
2	1E	238	LEU
14	5I	14	PRO
30	21	118	LYS
33	51	84	SER
38	88	7	MET
39	98	11	ASN
42	C8	93	LYS
43	D8	45	THR
43	D8	48	GLY
30	29	51	PHE
31	39	26	ALA
31	39	149	ASP
31	39	167	ALA
38	45	78	PRO
46	C5	17	SER
46	C5	99	CYS
47	D5	161	VAL
4	3E	89	THR
29	11	3	VAL
29	11	122	ASP
30	21	56	PRO
30	21	60	ASN
32	41	97	ASP
33	51	137	ASP
33	51	138	LYS
33	51	154	PRO
33	51	169	VAL
34	61	145	VAL
35	58	128	HIS
35	58	135	PRO
37	78	6	LEU
40	A8	3	ARG
43	D8	38	LEU

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Mol	Chain	Res	Type
47	H8	6	LYS
47	H8	81	ARG
49	J8	93	GLU
52	M8	5	ILE
55	Q8	35	GLN
2	12	220	ASP
12	3A	19	ARG
29	19	274	ARG
30	29	9	VAL
31	39	25	PRO
32	49	47	LYS
33	59	73	ALA
34	69	111	PRO
37	35	35	HIS
40	65	87	PHE
40	65	111	GLU
44	A5	44	ALA
45	B5	22	ALA
46	C5	63	LYS
50	G5	47	ASN
55	M5	35	GLN
2	1E	237	ALA
4	3E	155	LEU
19	AI	7	LYS
19	AI	41	VAL
29	11	27	THR
30	21	55	ASN
32	41	5	VAL
32	41	96	ARG
33	51	83	TYR
33	51	85	LYS
34	61	133	HIS
35	58	97	ARG
40	A8	13	ARG
40	A8	88	ASP
42	C8	92	ARG
43	D8	49	THR
46	G8	76	CYS
47	H8	59	LEU
50	K8	43	GLN
50	K8	47	ASN
3	22	93	LYS

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Mol	Chain	Res	Type
5	42	60	TYR
7	62	147	ALA
30	29	26	ILE
35	15	128	HIS
45	B5	68	ARG
46	C5	20	TYR
46	C5	92	ASN
46	C5	94	LYS
9	8E	94	ALA
29	11	123	ALA
47	H8	61	LEU
2	12	49	GLU
8	72	73	ASP
12	3A	47	LYS
13	4A	84	ILE
30	29	77	ILE
43	95	71	LEU
47	D5	60	GLU
29	11	29	PRO
2	12	39	ILE
2	12	71	VAL
2	12	223	ILE
29	19	3	VAL
31	39	24	LEU
38	45	81	VAL
42	85	90	VAL
43	95	72	VAL
46	C5	85	VAL
11	2I	82	VAL
30	21	21	VAL
33	51	12	PRO
37	78	95	VAL
43	D8	47	VAL
47	H8	53	ILE
19	AA	67	VAL
32	49	5	VAL
45	B5	51	VAL
47	D5	165	VAL
29	11	35	LYS
29	11	240	ALA
37	78	7	ARG
38	88	78	PRO

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Mol	Chain	Res	Type
46	G8	53	PRO
47	H8	141	VAL
4	32	28	SER
18	9A	52	PRO
33	59	169	VAL
5	4E	115	VAL
37	78	47	ASP
2	12	81	VAL
12	3A	25	PRO
30	29	62	PRO
33	59	167	GLU
43	95	50	PRO
43	95	99	ILE
46	C5	3	VAL
46	C5	55	TYR
47	D5	158	PRO
13	4I	4	ILE
30	21	52	LEU
29	19	240	ALA

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	182/220 (83%)	154 (85%)	28 (15%)	2 13
2	1E	200/220 (91%)	143 (72%)	57 (28%)	0 1
3	22	154/188 (82%)	123 (80%)	31 (20%)	1 6
3	2E	159/188 (85%)	124 (78%)	35 (22%)	1 5
4	32	180/181 (99%)	143 (79%)	37 (21%)	1 6
4	3E	180/181 (99%)	137 (76%)	43 (24%)	0 3
5	42	114/123 (93%)	91 (80%)	23 (20%)	1 6
5	4E	115/123 (94%)	98 (85%)	17 (15%)	3 14
6	52	90/90 (100%)	72 (80%)	18 (20%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	5E	90/90 (100%)	73 (81%)	17 (19%)	1	8
7	62	114/127 (90%)	95 (83%)	19 (17%)	2	10
7	6E	125/127 (98%)	101 (81%)	24 (19%)	1	8
8	72	118/119 (99%)	98 (83%)	20 (17%)	2	10
8	7E	119/119 (100%)	93 (78%)	26 (22%)	1	5
9	82	92/99 (93%)	71 (77%)	21 (23%)	1	4
9	8E	97/99 (98%)	77 (79%)	20 (21%)	1	6
10	1A	71/92 (77%)	51 (72%)	20 (28%)	0	1
10	1I	81/92 (88%)	65 (80%)	16 (20%)	1	7
11	2A	85/99 (86%)	70 (82%)	15 (18%)	2	9
11	2I	84/99 (85%)	61 (73%)	23 (27%)	0	1
12	3A	103/109 (94%)	81 (79%)	22 (21%)	1	5
12	3I	103/109 (94%)	87 (84%)	16 (16%)	2	12
13	4A	91/101 (90%)	70 (77%)	21 (23%)	1	3
13	4I	94/101 (93%)	75 (80%)	19 (20%)	1	6
14	5A	49/50 (98%)	41 (84%)	8 (16%)	2	11
14	5I	49/50 (98%)	38 (78%)	11 (22%)	1	4
15	6A	79/80 (99%)	67 (85%)	12 (15%)	3	13
15	6I	79/80 (99%)	62 (78%)	17 (22%)	1	5
16	7A	72/74 (97%)	52 (72%)	20 (28%)	0	1
16	7I	72/74 (97%)	51 (71%)	21 (29%)	0	1
17	8A	94/97 (97%)	79 (84%)	15 (16%)	2	11
17	8I	95/97 (98%)	79 (83%)	16 (17%)	2	10
18	9A	58/77 (75%)	42 (72%)	16 (28%)	0	1
18	9I	58/77 (75%)	44 (76%)	14 (24%)	0	3
19	AA	52/80 (65%)	40 (77%)	12 (23%)	1	3
19	AI	71/80 (89%)	58 (82%)	13 (18%)	1	8
20	BA	76/82 (93%)	63 (83%)	13 (17%)	2	10
20	BI	75/82 (92%)	59 (79%)	16 (21%)	1	5
21	1B	17/22 (77%)	16 (94%)	1 (6%)	19	54
21	1F	18/22 (82%)	17 (94%)	1 (6%)	21	57

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
28	71	109/181 (60%)	87 (80%)	22 (20%)	1	6
28	79	48/181 (26%)	38 (79%)	10 (21%)	1	6
29	11	214/218 (98%)	161 (75%)	53 (25%)	0	2
29	19	214/218 (98%)	169 (79%)	45 (21%)	1	6
30	21	165/166 (99%)	128 (78%)	37 (22%)	1	4
30	29	165/166 (99%)	126 (76%)	39 (24%)	1	3
31	31	161/166 (97%)	126 (78%)	35 (22%)	1	5
31	39	163/166 (98%)	130 (80%)	33 (20%)	1	6
32	41	153/156 (98%)	121 (79%)	32 (21%)	1	6
32	49	153/156 (98%)	125 (82%)	28 (18%)	1	8
33	51	142/148 (96%)	109 (77%)	33 (23%)	1	3
33	59	59/148 (40%)	50 (85%)	9 (15%)	2	13
34	61	122/124 (98%)	95 (78%)	27 (22%)	1	4
34	69	122/124 (98%)	88 (72%)	34 (28%)	0	1
35	15	117/119 (98%)	87 (74%)	30 (26%)	0	2
35	58	117/119 (98%)	90 (77%)	27 (23%)	1	3
36	25	100/100 (100%)	82 (82%)	18 (18%)	1	9
36	68	100/100 (100%)	85 (85%)	15 (15%)	3	14
37	35	114/116 (98%)	78 (68%)	36 (32%)	0	0
37	78	114/116 (98%)	80 (70%)	34 (30%)	0	1
38	45	109/111 (98%)	89 (82%)	20 (18%)	1	8
38	88	109/111 (98%)	87 (80%)	22 (20%)	1	6
39	55	101/101 (100%)	83 (82%)	18 (18%)	2	9
39	98	101/101 (100%)	76 (75%)	25 (25%)	0	2
40	65	87/88 (99%)	64 (74%)	23 (26%)	0	2
40	A8	87/88 (99%)	67 (77%)	20 (23%)	1	3
41	75	117/127 (92%)	91 (78%)	26 (22%)	1	4
41	B8	117/127 (92%)	87 (74%)	30 (26%)	0	2
42	85	93/94 (99%)	83 (89%)	10 (11%)	6	27
42	C8	92/94 (98%)	76 (83%)	16 (17%)	2	10
43	95	82/82 (100%)	61 (74%)	21 (26%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	D8	82/82 (100%)	59 (72%)	23 (28%)	0	1
44	A5	92/92 (100%)	73 (79%)	19 (21%)	1	6
44	E8	91/92 (99%)	65 (71%)	26 (29%)	0	1
45	B5	74/78 (95%)	52 (70%)	22 (30%)	0	1
45	F8	75/78 (96%)	64 (85%)	11 (15%)	3	14
46	C5	85/91 (93%)	60 (71%)	25 (29%)	0	1
46	G8	85/91 (93%)	70 (82%)	15 (18%)	2	9
47	D5	118/179 (66%)	93 (79%)	25 (21%)	1	5
47	H8	152/179 (85%)	113 (74%)	39 (26%)	0	2
48	E5	61/67 (91%)	53 (87%)	8 (13%)	4	19
48	I8	61/67 (91%)	51 (84%)	10 (16%)	2	11
49	F5	79/83 (95%)	61 (77%)	18 (23%)	1	4
49	J8	79/83 (95%)	60 (76%)	19 (24%)	0	3
50	G5	62/67 (92%)	47 (76%)	15 (24%)	0	2
50	K8	62/67 (92%)	44 (71%)	18 (29%)	0	1
51	H5	50/52 (96%)	40 (80%)	10 (20%)	1	6
51	L8	50/52 (96%)	38 (76%)	12 (24%)	0	3
52	M8	42/63 (67%)	31 (74%)	11 (26%)	0	2
53	J5	48/52 (92%)	39 (81%)	9 (19%)	1	8
53	N8	43/52 (83%)	34 (79%)	9 (21%)	1	6
54	L5	38/42 (90%)	33 (87%)	5 (13%)	4	19
54	P8	38/42 (90%)	34 (90%)	4 (10%)	7	28
55	M5	54/55 (98%)	44 (82%)	10 (18%)	1	8
55	Q8	54/55 (98%)	39 (72%)	15 (28%)	0	1
All	All	9277/10193 (91%)	7277 (78%)	2000 (22%)	1	5

All (2000) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	10	LEU
2	1E	17	PHE
2	1E	21	ARG
2	1E	23	ARG

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Mol	Chain	Res	Type
2	1E	24	TRP
2	1E	28	PHE
2	1E	32	ILE
2	1E	35	GLU
2	1E	41	ILE
2	1E	49	GLU
2	1E	51	LEU
2	1E	52	GLU
2	1E	55	PHE
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	79	ASP
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	93	VAL
2	1E	95	GLN
2	1E	96	ARG
2	1E	108	ILE
2	1E	111	ARG
2	1E	115	LEU
2	1E	118	LEU
2	1E	122	PHE
2	1E	129	GLU
2	1E	143	GLU
2	1E	144	ARG
2	1E	155	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	163	PHE
2	1E	172	ILE
2	1E	178	ARG
2	1E	184	VAL
2	1E	185	ILE
2	1E	190	THR
2	1E	195	ASP
2	1E	197	VAL
2	1E	198	ASP
2	1E	200	ILE
2	1E	208	ILE
2	1E	209	ARG

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Mol	Chain	Res	Type
2	1E	210	SER
2	1E	212	GLN
2	1E	214	ILE
2	1E	217	ARG
2	1E	222	ILE
2	1E	224	GLN
2	1E	226	ARG
2	1E	230	VAL
2	1E	231	GLU
2	1E	236	TYR
3	2E	3	ASN
3	2E	5	ILE
3	2E	16	ARG
3	2E	18	TRP
3	2E	27	LYS
3	2E	29	TYR
3	2E	30	ARG
3	2E	32	LEU
3	2E	36	ASP
3	2E	42	LEU
3	2E	48	TYR
3	2E	52	LEU
3	2E	63	ASN
3	2E	70	VAL
3	2E	88	ARG
3	2E	95	THR
3	2E	104	GLN
3	2E	105	GLU
3	2E	107	GLN
3	2E	110	ASN
3	2E	111	LEU
3	2E	115	LEU
3	2E	118	GLN
3	2E	128	PHE
3	2E	136	GLN
3	2E	166	GLU
3	2E	172	ARG
3	2E	175	LEU
3	2E	178	LEU
3	2E	179	ARG
3	2E	188	LEU
3	2E	190	ARG

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Mol	Chain	Res	Type
3	2E	192	THR
3	2E	202	ILE
3	2E	206	GLU
4	3E	3	ARG
4	3E	10	ARG
4	3E	15	GLU
4	3E	19	LEU
4	3E	28	SER
4	3E	31	CYS
4	3E	45	GLN
4	3E	46	LYS
4	3E	47	ARG
4	3E	50	ARG
4	3E	52	SER
4	3E	58	LEU
4	3E	61	LYS
4	3E	66	ARG
4	3E	84	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	89	THR
4	3E	96	LEU
4	3E	106	TYR
4	3E	115	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	138	TYR
4	3E	145	GLU
4	3E	146	ILE
4	3E	151	LYS
4	3E	154	ASN
4	3E	155	LEU
4	3E	158	ILE
4	3E	160	GLN
4	3E	168	ARG
4	3E	170	VAL
4	3E	175	SER
4	3E	177	ASP
4	3E	184	LYS
4	3E	187	ARG
4	3E	188	LEU

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Mol	Chain	Res	Type
4	3E	190	ASP
4	3E	193	ASP
4	3E	200	GLU
4	3E	209	ARG
5	4E	10	MET
5	4E	11	ILE
5	4E	12	LEU
5	4E	15	ARG
5	4E	26	PHE
5	4E	41	VAL
5	4E	64	ARG
5	4E	68	GLU
5	4E	72	GLN
5	4E	79	GLU
5	4E	87	SER
5	4E	107	ARG
5	4E	112	LEU
5	4E	116	THR
5	4E	147	ASP
5	4E	149	GLU
5	4E	153	LYS
6	5E	15	ASP
6	5E	16	GLN
6	5E	19	LEU
6	5E	25	ILE
6	5E	31	GLU
6	5E	32	ASN
6	5E	36	ARG
6	5E	40	VAL
6	5E	43	LEU
6	5E	47	ARG
6	5E	55	ASP
6	5E	64	GLN
6	5E	70	ASP
6	5E	75	LEU
6	5E	78	GLU
6	5E	80	ARG
6	5E	89	MET
7	6E	3	ARG
7	6E	5	ARG
7	6E	8	GLU
7	6E	11	GLN

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Mol	Chain	Res	Type
7	6E	15	ASP
7	6E	20	ASP
7	6E	21	VAL
7	6E	22	LEU
7	6E	24	THR
7	6E	32	ARG
7	6E	38	LEU
7	6E	52	GLU
7	6E	54	THR
7	6E	59	LEU
7	6E	63	LYS
7	6E	73	MET
7	6E	89	MET
7	6E	97	GLN
7	6E	104	LEU
7	6E	111	ARG
7	6E	118	VAL
7	6E	148	ASN
7	6E	149	ARG
7	6E	155	ARG
8	7E	1	MET
8	7E	3	THR
8	7E	25	ASP
8	7E	26	VAL
8	7E	31	PHE
8	7E	32	LYS
8	7E	33	GLU
8	7E	34	GLU
8	7E	35	ILE
8	7E	36	LEU
8	7E	39	LEU
8	7E	45	ILE
8	7E	51	VAL
8	7E	63	LEU
8	7E	65	TYR
8	7E	68	ARG
8	7E	85	ARG
8	7E	89	PRO
8	7E	97	VAL
8	7E	99	GLU
8	7E	102	ARG
8	7E	104	ARG

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Mol	Chain	Res	Type
8	7E	112	LEU
8	7E	122	ARG
8	7E	125	ARG
8	7E	129	VAL
9	8E	7	THR
9	8E	9	ARG
9	8E	10	ARG
9	8E	20	ARG
9	8E	42	ARG
9	8E	47	LEU
9	8E	56	LEU
9	8E	75	ASP
9	8E	77	ILE
9	8E	79	LEU
9	8E	83	ARG
9	8E	88	TYR
9	8E	91	ASP
9	8E	95	LYS
9	8E	96	LEU
9	8E	99	LEU
9	8E	113	LYS
9	8E	117	HIS
9	8E	121	ARG
9	8E	125	TYR
10	1I	33	GLN
10	1I	38	ILE
10	1I	43	ARG
10	1I	54	PHE
10	1I	58	ASP
10	1I	61	GLU
10	1I	62	HIS
10	1I	67	THR
10	1I	70	ARG
10	1I	75	ILE
10	1I	83	GLU
10	1I	88	LEU
10	1I	89	ASP
10	1I	90	LEU
10	1I	95	GLU
10	1I	96	ILE
11	2I	18	ARG
11	2I	22	HIS

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Mol	Chain	Res	Type
11	2I	25	TYR
11	2I	29	ILE
11	2I	30	VAL
11	2I	31	THR
11	2I	47	VAL
11	2I	51	LYS
11	2I	54	ARG
11	2I	63	LEU
11	2I	71	LYS
11	2I	75	TYR
11	2I	81	ASP
11	2I	87	THR
11	2I	96	ARG
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	117	ASN
11	2I	126	ARG
12	3I	7	ILE
12	3I	16	GLU
12	3I	20	LYS
12	3I	33	ARG
12	3I	34	ARG
12	3I	47	LYS
12	3I	50	SER
12	3I	57	LYS
12	3I	60	LEU
12	3I	62	SER
12	3I	67	THR
12	3I	79	GLU
12	3I	89	ARG
12	3I	111	LYS
12	3I	114	LYS
12	3I	115	LYS
13	4I	11	ARG
13	4I	13	LYS
13	4I	17	VAL
13	4I	44	ARG
13	4I	45	VAL

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Mol	Chain	Res	Type
13	4I	57	ARG
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	84	ILE
13	4I	86	CYS
13	4I	88	ARG
13	4I	93	ARG
13	4I	102	ARG
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	109	THR
13	4I	117	VAL
14	5I	6	LEU
14	5I	7	ILE
14	5I	8	GLU
14	5I	22	THR
14	5I	23	ARG
14	5I	26	ARG
14	5I	29	ARG
14	5I	31	ARG
14	5I	33	VAL
14	5I	41	ARG
14	5I	46	GLU
15	6I	3	ILE
15	6I	6	GLU
15	6I	10	LYS
15	6I	17	ARG
15	6I	26	GLU
15	6I	31	LEU
15	6I	35	ARG
15	6I	38	ARG
15	6I	39	LEU
15	6I	59	MET
15	6I	65	ARG
15	6I	66	LEU
15	6I	71	GLN
15	6I	72	ARG
15	6I	79	ARG
15	6I	82	ILE
15	6I	84	LYS

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Mol	Chain	Res	Type
16	7I	1	MET
16	7I	4	ILE
16	7I	6	LEU
16	7I	8	ARG
16	7I	11	SER
16	7I	18	ARG
16	7I	19	ILE
16	7I	20	VAL
16	7I	22	THR
16	7I	26	ARG
16	7I	27	LYS
16	7I	28	ARG
16	7I	44	THR
16	7I	45	THR
16	7I	50	LYS
16	7I	54	GLU
16	7I	65	GLN
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	83	GLU
17	8I	13	ASP
17	8I	14	LYS
17	8I	35	VAL
17	8I	38	ARG
17	8I	45	HIS
17	8I	50	LYS
17	8I	52	LYS
17	8I	60	ILE
17	8I	63	ARG
17	8I	68	ARG
17	8I	74	LEU
17	8I	78	GLU
17	8I	85	VAL
17	8I	89	LEU
17	8I	100	LYS
17	8I	101	ARG
18	9I	22	VAL
18	9I	23	LYS
18	9I	25	THR
18	9I	28	GLU
18	9I	31	LEU

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Mol	Chain	Res	Type
18	9I	33	ASP
18	9I	36	ASN
18	9I	42	ARG
18	9I	54	ARG
18	9I	56	THR
18	9I	59	SER
18	9I	68	LYS
18	9I	85	LEU
18	9I	86	VAL
19	AI	5	LEU
19	AI	7	LYS
19	AI	11	VAL
19	AI	17	GLU
19	AI	21	GLU
19	AI	27	GLU
19	AI	29	ARG
19	AI	37	ARG
19	AI	48	THR
19	AI	58	VAL
19	AI	64	GLU
19	AI	65	ASN
19	AI	71	LEU
20	BI	9	ASN
20	BI	13	LEU
20	BI	34	LYS
20	BI	37	SER
20	BI	42	GLN
20	BI	53	LEU
20	BI	54	LYS
20	BI	55	ILE
20	BI	57	ARG
20	BI	72	LEU
20	BI	73	HIS
20	BI	75	ASN
20	BI	86	ARG
20	BI	87	LYS
20	BI	93	GLU
20	BI	104	LEU
21	1F	10	ARG
28	71	19	ILE
28	71	32	LEU
28	71	34	THR

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Mol	Chain	Res	Type
28	71	55	ASP
28	71	62	VAL
28	71	68	LEU
28	71	165	ASN
28	71	166	ASP
28	71	168	THR
28	71	171	ILE
28	71	172	HIS
28	71	175	VAL
28	71	180	PHE
28	71	185	LEU
28	71	190	ARG
28	71	202	GLU
28	71	212	VAL
28	71	216	THR
28	71	218	MET
28	71	224	ILE
28	71	225	ASN
28	71	227	HIS
29	11	3	VAL
29	11	4	LYS
29	11	6	PHE
29	11	13	ARG
29	11	17	THR
29	11	23	GLU
29	11	27	THR
29	11	28	GLU
29	11	30	GLU
29	11	31	LYS
29	11	33	LEU
29	11	34	VAL
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	39	LYS
29	11	40	THR
29	11	43	ARG
29	11	44	ASN
29	11	58	HIS
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE

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Mol	Chain	Res	Type
29	11	94	LEU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	111	LEU
29	11	112	GLN
29	11	113	VAL
29	11	115	GLN
29	11	117	VAL
29	11	126	GLN
29	11	141	VAL
29	11	154	LYS
29	11	157	ARG
29	11	164	GLN
29	11	165	ILE
29	11	173	VAL
29	11	183	ARG
29	11	192	THR
29	11	193	VAL
29	11	212	SER
29	11	217	ARG
29	11	221	VAL
29	11	229	VAL
29	11	233	HIS
29	11	239	ARG
29	11	242	ARG
29	11	254	THR
29	11	261	LYS
29	11	268	ARG
29	11	271	ILE
30	21	4	ILE
30	21	5	LEU
30	21	7	VAL
30	21	12	THR
30	21	14	ILE
30	21	25	VAL
30	21	26	ILE
30	21	34	VAL
30	21	38	THR
30	21	40	GLU
30	21	42	ASP
30	21	45	THR

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Mol	Chain	Res	Type
30	21	48	GLN
30	21	54	GLN
30	21	63	LEU
30	21	67	PHE
30	21	78	LEU
30	21	79	ARG
30	21	101	ARG
30	21	102	VAL
30	21	111	ARG
30	21	113	PHE
30	21	118	LYS
30	21	119	ARG
30	21	138	PRO
30	21	144	ARG
30	21	146	THR
30	21	152	LYS
30	21	165	VAL
30	21	171	GLU
30	21	175	VAL
30	21	180	ASN
30	21	181	LEU
30	21	188	VAL
30	21	195	LEU
30	21	197	ILE
30	21	203	LYS
31	31	7	TYR
31	31	13	SER
31	31	15	SER
31	31	17	ARG
31	31	18	ARG
31	31	23	ASP
31	31	27	GLU
31	31	33	LEU
31	31	38	ARG
31	31	43	LYS
31	31	52	LYS
31	31	64	ILE
31	31	66	PRO
31	31	67	GLN
31	31	74	ARG
31	31	77	ASP
31	31	78	ILE

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Mol	Chain	Res	Type
31	31	82	ILE
31	31	88	VAL
31	31	96	ASP
31	31	117	ARG
31	31	119	ARG
31	31	140	LEU
31	31	155	LEU
31	31	158	THR
31	31	162	LEU
31	31	164	ARG
31	31	174	VAL
31	31	181	LEU
31	31	183	VAL
31	31	188	ARG
31	31	191	ARG
31	31	196	LEU
31	31	197	ASP
31	31	203	GLN
32	41	4	ASP
32	41	13	GLU
32	41	19	LEU
32	41	21	ARG
32	41	22	ARG
32	41	28	VAL
32	41	45	GLU
32	41	48	GLU
32	41	51	ARG
32	41	58	GLN
32	41	60	LEU
32	41	63	ILE
32	41	67	LYS
32	41	76	SER
32	41	78	SER
32	41	80	PHE
32	41	82	LEU
32	41	88	ILE
32	41	90	LEU
32	41	94	LEU
32	41	96	ARG
32	41	101	ILE
32	41	116	ASP
32	41	118	ARG

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Mol	Chain	Res	Type
32	41	130	ASN
32	41	132	ASN
32	41	136	ARG
32	41	139	LEU
32	41	147	ASP
32	41	155	MET
32	41	162	THR
32	41	167	GLU
33	51	7	LEU
33	51	9	ILE
33	51	13	LYS
33	51	15	VAL
33	51	23	ARG
33	51	32	GLU
33	51	40	GLU
33	51	41	MET
33	51	43	VAL
33	51	45	VAL
33	51	57	ASP
33	51	64	LEU
33	51	69	ARG
33	51	71	LEU
33	51	72	ILE
33	51	77	LYS
33	51	79	VAL
33	51	80	SER
33	51	83	TYR
33	51	98	LEU
33	51	104	GLU
33	51	116	GLU
33	51	119	GLU
33	51	122	THR
33	51	127	GLU
33	51	129	THR
33	51	131	VAL
33	51	132	ARG
33	51	136	ILE
33	51	149	ARG
33	51	152	ARG
33	51	167	GLU
33	51	171	LEU
34	61	2	LYS

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Mol	Chain	Res	Type
34	61	7	GLU
34	61	9	LEU
34	61	25	TYR
34	61	38	LEU
34	61	41	GLU
34	61	48	GLU
34	61	75	LEU
34	61	77	LEU
34	61	81	VAL
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	92	VAL
34	61	95	LYS
34	61	108	THR
34	61	110	ASP
34	61	112	LYS
34	61	117	GLU
34	61	118	LYS
34	61	122	GLU
34	61	127	VAL
34	61	135	GLU
34	61	140	LEU
34	61	141	LYS
34	61	142	VAL
34	61	145	VAL
35	58	5	VAL
35	58	7	LYS
35	58	9	VAL
35	58	10	GLU
35	58	16	ILE
35	58	32	THR
35	58	34	LEU
35	58	42	TRP
35	58	43	THR
35	58	46	VAL
35	58	48	MET
35	58	58	ASP
35	58	60	ILE
35	58	65	LYS
35	58	79	PRO
35	58	87	LEU

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Mol	Chain	Res	Type
35	58	88	GLU
35	58	97	ARG
35	58	99	LEU
35	58	118	LYS
35	58	120	LEU
35	58	121	LYS
35	58	127	ASP
35	58	130	HIS
35	58	131	GLN
35	58	134	ARG
35	58	136	GLU
36	68	3	GLN
36	68	20	MET
36	68	21	CYS
36	68	23	ARG
36	68	24	VAL
36	68	28	SER
36	68	34	THR
36	68	35	VAL
36	68	39	ILE
36	68	47	ILE
36	68	53	LYS
36	68	65	THR
36	68	94	ARG
36	68	98	VAL
36	68	112	MET
37	78	1	MET
37	78	2	LYS
37	78	5	ASP
37	78	6	LEU
37	78	10	PRO
37	78	21	ARG
37	78	30	THR
37	78	32	THR
37	78	36	LYS
37	78	41	ARG
37	78	46	LYS
37	78	49	ARG
37	78	50	ARG
37	78	56	SER
37	78	59	LEU
37	78	61	ARG

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Mol	Chain	Res	Type
37	78	67	MET
37	78	75	ILE
37	78	81	GLN
37	78	90	ARG
37	78	96	THR
37	78	98	GLU
37	78	99	LEU
37	78	100	LEU
37	78	101	VAL
37	78	106	LEU
37	78	112	LEU
37	78	114	ILE
37	78	121	LYS
37	78	126	VAL
37	78	133	SER
37	78	138	LEU
37	78	144	GLU
37	78	146	VAL
38	88	5	ARG
38	88	6	ARG
38	88	7	MET
38	88	10	ARG
38	88	12	GLN
38	88	18	LYS
38	88	21	THR
38	88	25	ASP
38	88	27	VAL
38	88	45	GLN
38	88	56	ARG
38	88	58	PHE
38	88	78	PRO
38	88	79	LEU
38	88	83	MET
38	88	103	MET
38	88	109	VAL
38	88	110	THR
38	88	112	GLU
38	88	129	THR
38	88	138	ASP
38	88	141	GLN
39	98	1	MET
39	98	2	ARG

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Mol	Chain	Res	Type
39	98	9	LYS
39	98	10	LEU
39	98	18	LEU
39	98	24	GLN
39	98	28	LEU
39	98	29	LEU
39	98	33	ARG
39	98	34	ILE
39	98	35	THR
39	98	44	LEU
39	98	54	LEU
39	98	57	ARG
39	98	65	LEU
39	98	67	LEU
39	98	73	VAL
39	98	75	LEU
39	98	79	LEU
39	98	82	GLU
39	98	96	ARG
39	98	100	LEU
39	98	103	ARG
39	98	117	VAL
39	98	118	GLU
40	A8	4	LEU
40	A8	14	VAL
40	A8	17	ARG
40	A8	20	ARG
40	A8	35	ILE
40	A8	36	TYR
40	A8	41	ASP
40	A8	46	VAL
40	A8	58	LEU
40	A8	61	ASN
40	A8	64	GLU
40	A8	73	LEU
40	A8	78	LEU
40	A8	80	LEU
40	A8	85	VAL
40	A8	89	ARG
40	A8	97	ARG
40	A8	98	VAL
40	A8	101	LEU

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Mol	Chain	Res	Type
40	A8	106	ARG
41	B8	1	MET
41	B8	11	GLU
41	B8	13	ARG
41	B8	15	VAL
41	B8	16	ARG
41	B8	21	GLU
41	B8	42	ILE
41	B8	50	ILE
41	B8	52	ILE
41	B8	55	ASN
41	B8	58	ASN
41	B8	62	THR
41	B8	64	ARG
41	B8	74	ARG
41	B8	85	LYS
41	B8	86	ILE
41	B8	87	ASP
41	B8	88	ILE
41	B8	90	GLN
41	B8	96	ARG
41	B8	98	LYS
41	B8	99	LEU
41	B8	102	ILE
41	B8	106	SER
41	B8	108	ARG
41	B8	110	ILE
41	B8	111	ARG
41	B8	115	ARG
41	B8	124	ASP
41	B8	129	ARG
42	C8	5	LYS
42	C8	11	ARG
42	C8	16	LYS
42	C8	18	LEU
42	C8	27	LEU
42	C8	51	LYS
42	C8	52	ARG
42	C8	70	ARG
42	C8	74	LEU
42	C8	83	LEU
42	C8	84	LYS

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Mol	Chain	Res	Type
42	C8	89	GLU
42	C8	94	ASN
42	C8	97	ASP
42	C8	108	GLU
42	C8	112	ARG
43	D8	5	VAL
43	D8	7	THR
43	D8	15	GLU
43	D8	18	LEU
43	D8	19	LYS
43	D8	20	LEU
43	D8	21	ARG
43	D8	22	VAL
43	D8	24	LYS
43	D8	25	LEU
43	D8	37	VAL
43	D8	40	LEU
43	D8	47	VAL
43	D8	49	THR
43	D8	52	VAL
43	D8	57	VAL
43	D8	58	VAL
43	D8	64	HIS
43	D8	71	LEU
43	D8	73	SER
43	D8	79	VAL
43	D8	85	LYS
43	D8	94	LEU
44	E8	11	ARG
44	E8	12	ILE
44	E8	15	ARG
44	E8	23	LEU
44	E8	24	ILE
44	E8	51	LEU
44	E8	52	GLU
44	E8	60	ASN
44	E8	64	MET
44	E8	65	LEU
44	E8	66	GLU
44	E8	68	ARG
44	E8	76	VAL
44	E8	77	ASP

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Mol	Chain	Res	Type
44	E8	78	GLU
44	E8	82	LEU
44	E8	83	LYS
44	E8	84	ARG
44	E8	88	ARG
44	E8	92	ARG
44	E8	95	ILE
44	E8	96	ILE
44	E8	97	LYS
44	E8	101	SER
44	E8	103	ILE
44	E8	107	LEU
45	F8	1	MET
45	F8	38	GLU
45	F8	41	ASN
45	F8	53	LYS
45	F8	65	ARG
45	F8	68	ARG
45	F8	72	LYS
45	F8	75	ASP
45	F8	80	ILE
45	F8	82	GLN
45	F8	87	GLN
46	G8	3	VAL
46	G8	4	LYS
46	G8	6	HIS
46	G8	27	VAL
46	G8	38	ILE
46	G8	40	GLU
46	G8	44	ILE
46	G8	45	VAL
46	G8	54	LYS
46	G8	55	TYR
46	G8	57	GLN
46	G8	82	PRO
46	G8	85	VAL
46	G8	86	ARG
46	G8	96	ILE
47	H8	1	MET
47	H8	2	GLU
47	H8	11	GLU
47	H8	19	ARG

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Mol	Chain	Res	Type
47	H8	33	LEU
47	H8	34	ASN
47	H8	35	ARG
47	H8	41	LEU
47	H8	46	LYS
47	H8	59	LEU
47	H8	61	LEU
47	H8	70	LEU
47	H8	71	VAL
47	H8	72	ARG
47	H8	77	ASP
47	H8	78	LYS
47	H8	81	ARG
47	H8	82	ARG
47	H8	85	HIS
47	H8	86	VAL
47	H8	92	SER
47	H8	94	GLU
47	H8	96	VAL
47	H8	105	VAL
47	H8	107	THR
47	H8	111	VAL
47	H8	112	ARG
47	H8	121	HIS
47	H8	123	ASP
47	H8	126	VAL
47	H8	128	VAL
47	H8	131	ARG
47	H8	140	ASP
47	H8	154	ASP
47	H8	155	LEU
47	H8	161	VAL
47	H8	163	LEU
47	H8	165	VAL
47	H8	169	GLU
48	I8	11	ARG
48	I8	36	ILE
48	I8	41	ARG
48	I8	53	MET
48	I8	60	PHE
48	I8	64	ASP
48	I8	66	VAL

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Mol	Chain	Res	Type
48	I8	67	VAL
48	I8	70	GLN
48	I8	81	VAL
49	J8	4	VAL
49	J8	11	ARG
49	J8	19	GLN
49	J8	21	ARG
49	J8	25	LYS
49	J8	33	LYS
49	J8	41	ARG
49	J8	50	ARG
49	J8	62	VAL
49	J8	65	SER
49	J8	73	LEU
49	J8	74	VAL
49	J8	78	LYS
49	J8	80	LEU
49	J8	81	LYS
49	J8	82	LEU
49	J8	90	ILE
49	J8	91	LYS
49	J8	92	LYS
50	K8	15	LYS
50	K8	16	LEU
50	K8	17	SER
50	K8	19	VAL
50	K8	20	GLU
50	K8	24	LEU
50	K8	32	LEU
50	K8	35	LEU
50	K8	40	SER
50	K8	44	LEU
50	K8	46	GLN
50	K8	47	ASN
50	K8	48	HIS
50	K8	51	ARG
50	K8	53	LEU
50	K8	62	THR
50	K8	64	LEU
50	K8	65	ASN
51	L8	4	LEU
51	L8	6	VAL

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Mol	Chain	Res	Type
51	L8	8	LEU
51	L8	9	VAL
51	L8	11	SER
51	L8	23	LEU
51	L8	26	LEU
51	L8	31	LEU
51	L8	37	LEU
51	L8	40	THR
51	L8	58	VAL
51	L8	59	VAL
52	M8	8	LYS
52	M8	10	VAL
52	M8	16	CYS
52	M8	20	ASN
52	M8	23	GLU
52	M8	25	TYR
52	M8	30	GLU
52	M8	35	VAL
52	M8	42	PHE
52	M8	43	TYR
52	M8	47	GLN
53	N8	3	LYS
53	N8	11	THR
53	N8	16	ARG
53	N8	26	THR
53	N8	35	GLU
53	N8	37	LYS
53	N8	40	LYS
53	N8	44	THR
53	N8	46	CYS
54	P8	4	THR
54	P8	8	ASN
54	P8	14	LYS
54	P8	23	ARG
55	Q8	4	MET
55	Q8	8	LYS
55	Q8	14	VAL
55	Q8	17	THR
55	Q8	30	ARG
55	Q8	32	LEU
55	Q8	34	TRP
55	Q8	35	GLN

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Mol	Chain	Res	Type
55	Q8	41	ILE
55	Q8	46	ARG
55	Q8	47	LYS
55	Q8	49	VAL
55	Q8	50	LEU
55	Q8	59	LYS
55	Q8	62	LEU
2	12	19	HIS
2	12	22	LYS
2	12	24	TRP
2	12	42	ILE
2	12	52	GLU
2	12	53	ARG
2	12	54	THR
2	12	74	LYS
2	12	80	ILE
2	12	83	MET
2	12	84	GLU
2	12	108	ILE
2	12	126	GLU
2	12	127	ILE
2	12	129	GLU
2	12	130	ARG
2	12	139	LYS
2	12	158	LEU
2	12	172	ILE
2	12	179	LYS
2	12	187	LEU
2	12	191	ASP
2	12	196	LEU
2	12	200	ILE
2	12	209	ARG
2	12	211	ILE
2	12	212	GLN
2	12	220	ASP
3	22	12	LEU
3	22	16	ARG
3	22	27	LYS
3	22	29	TYR
3	22	34	LEU
3	22	52	LEU
3	22	54	ARG

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Mol	Chain	Res	Type
3	22	88	ARG
3	22	90	GLU
3	22	93	LYS
3	22	94	LEU
3	22	105	GLU
3	22	122	GLU
3	22	124	ILE
3	22	127	ARG
3	22	131	ARG
3	22	132	ARG
3	22	140	ARG
3	22	141	VAL
3	22	142	MET
3	22	166	GLU
3	22	167	TRP
3	22	176	HIS
3	22	179	ARG
3	22	182	ILE
3	22	188	LEU
3	22	192	THR
3	22	195	VAL
3	22	196	LEU
3	22	198	VAL
3	22	204	LEU
4	32	3	ARG
4	32	4	TYR
4	32	12	CYS
4	32	13	ARG
4	32	19	LEU
4	32	21	LEU
4	32	22	LYS
4	32	38	TYR
4	32	50	ARG
4	32	61	LYS
4	32	66	ARG
4	32	73	ARG
4	32	74	GLN
4	32	76	ARG
4	32	83	SER
4	32	86	LYS
4	32	89	THR
4	32	99	SER

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Mol	Chain	Res	Type
4	32	101	LEU
4	32	106	TYR
4	32	122	ARG
4	32	135	LEU
4	32	141	ARG
4	32	146	ILE
4	32	150	GLU
4	32	152	SER
4	32	162	LEU
4	32	165	MET
4	32	168	ARG
4	32	176	LEU
4	32	182	LYS
4	32	184	LYS
4	32	187	ARG
4	32	191	ARG
4	32	193	ASP
4	32	196	LEU
4	32	201	GLN
5	42	7	GLU
5	42	15	ARG
5	42	31	LEU
5	42	41	VAL
5	42	45	PHE
5	42	47	LYS
5	42	50	GLU
5	42	56	GLN
5	42	61	TYR
5	42	66	MET
5	42	68	GLU
5	42	73	ASN
5	42	78	HIS
5	42	79	GLU
5	42	83	GLU
5	42	98	THR
5	42	107	ARG
5	42	118	ILE
5	42	126	ARG
5	42	127	ASN
5	42	143	ARG
5	42	147	ASP
5	42	153	LYS

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Mol	Chain	Res	Type
6	52	3	ARG
6	52	5	GLU
6	52	7	ASN
6	52	14	LEU
6	52	15	ASP
6	52	16	GLN
6	52	19	LEU
6	52	21	LEU
6	52	23	LYS
6	52	28	ARG
6	52	36	ARG
6	52	37	VAL
6	52	46	ARG
6	52	47	ARG
6	52	54	LYS
6	52	69	GLU
6	52	78	GLU
6	52	94	GLN
7	62	9	VAL
7	62	16	LEU
7	62	51	GLN
7	62	60	LYS
7	62	64	GLN
7	62	66	VAL
7	62	70	LYS
7	62	72	ARG
7	62	73	MET
7	62	87	VAL
7	62	94	ARG
7	62	101	LEU
7	62	104	LEU
7	62	118	VAL
7	62	131	LYS
7	62	138	LYS
7	62	142	GLU
7	62	143	ARG
7	62	144	MET
8	72	2	LEU
8	72	15	ASN
8	72	21	LYS
8	72	26	VAL
8	72	33	GLU

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Mol	Chain	Res	Type
8	72	50	ARG
8	72	63	LEU
8	72	69	ARG
8	72	70	GLN
8	72	81	HIS
8	72	82	HIS
8	72	85	ARG
8	72	86	ILE
8	72	99	GLU
8	72	102	ARG
8	72	104	ARG
8	72	119	LEU
8	72	121	ASP
8	72	125	ARG
8	72	127	LEU
9	82	5	TYR
9	82	7	THR
9	82	10	ARG
9	82	14	VAL
9	82	18	PHE
9	82	20	ARG
9	82	25	LYS
9	82	27	THR
9	82	33	PHE
9	82	36	TYR
9	82	40	LEU
9	82	42	ARG
9	82	48	GLU
9	82	53	VAL
9	82	60	ASP
9	82	83	ARG
9	82	95	LYS
9	82	99	LEU
9	82	113	LYS
9	82	117	HIS
9	82	125	TYR
10	1A	13	HIS
10	1A	14	LYS
10	1A	16	LEU
10	1A	17	ASP
10	1A	24	VAL
10	1A	25	GLU

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Mol	Chain	Res	Type
10	1A	28	ARG
10	1A	29	ARG
10	1A	38	ILE
10	1A	49	VAL
10	1A	55	LYS
10	1A	58	ASP
10	1A	62	HIS
10	1A	66	ARG
10	1A	70	ARG
10	1A	73	ASP
10	1A	79	ARG
10	1A	80	LYS
10	1A	84	GLN
10	1A	92	THR
11	2A	29	ILE
11	2A	44	SER
11	2A	57	THR
11	2A	63	LEU
11	2A	78	GLN
11	2A	81	ASP
11	2A	92	GLU
11	2A	93	GLN
11	2A	95	ILE
11	2A	98	LEU
11	2A	103	LEU
11	2A	105	VAL
11	2A	116	HIS
11	2A	119	CYS
11	2A	126	ARG
12	3A	13	LYS
12	3A	16	GLU
12	3A	17	LYS
12	3A	20	LYS
12	3A	23	LYS
12	3A	33	ARG
12	3A	34	ARG
12	3A	36	VAL
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	54	LYS
12	3A	59	ARG

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Mol	Chain	Res	Type
12	3A	64	TYR
12	3A	82	VAL
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	102	ARG
12	3A	111	LYS
12	3A	118	SER
12	3A	126	LYS
13	4A	8	GLU
13	4A	9	ILE
13	4A	13	LYS
13	4A	14	ARG
13	4A	39	ILE
13	4A	48	LEU
13	4A	54	VAL
13	4A	57	ARG
13	4A	61	GLU
13	4A	62	ASN
13	4A	66	LEU
13	4A	81	LEU
13	4A	82	MET
13	4A	86	CYS
13	4A	90	LEU
13	4A	91	ARG
13	4A	94	ARG
13	4A	103	THR
13	4A	105	THR
13	4A	108	ARG
13	4A	115	LYS
14	5A	3	ARG
14	5A	17	LYS
14	5A	18	VAL
14	5A	25	VAL
14	5A	26	ARG
14	5A	29	ARG
14	5A	32	SER
14	5A	44	LEU
15	6A	3	ILE
15	6A	14	GLU
15	6A	17	ARG
15	6A	22	THR

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Mol	Chain	Res	Type
15	6A	27	VAL
15	6A	31	LEU
15	6A	39	LEU
15	6A	41	GLU
15	6A	45	VAL
15	6A	47	LYS
15	6A	79	ARG
15	6A	88	ARG
16	7A	2	VAL
16	7A	5	ARG
16	7A	6	LEU
16	7A	8	ARG
16	7A	19	ILE
16	7A	21	VAL
16	7A	25	ARG
16	7A	27	LYS
16	7A	35	LYS
16	7A	43	LYS
16	7A	53	VAL
16	7A	54	GLU
16	7A	62	VAL
16	7A	65	GLN
16	7A	67	THR
16	7A	71	ARG
16	7A	74	LEU
16	7A	81	ARG
16	7A	82	GLN
16	7A	83	GLU
17	8A	7	THR
17	8A	10	VAL
17	8A	12	SER
17	8A	15	MET
17	8A	31	LEU
17	8A	38	ARG
17	8A	52	LYS
17	8A	60	ILE
17	8A	62	SER
17	8A	66	SER
17	8A	68	ARG
17	8A	74	LEU
17	8A	81	ARG
17	8A	96	GLU

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Mol	Chain	Res	Type
17	8A	100	LYS
18	9A	23	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	31	LEU
18	9A	35	ARG
18	9A	36	ASN
18	9A	38	GLU
18	9A	44	LEU
18	9A	46	GLU
18	9A	53	ARG
18	9A	54	ARG
18	9A	55	ARG
18	9A	65	ILE
18	9A	74	ARG
18	9A	82	THR
18	9A	84	LYS
19	AA	7	LYS
19	AA	13	ASP
19	AA	15	LEU
19	AA	21	GLU
19	AA	22	LEU
19	AA	23	ASN
19	AA	35	SER
19	AA	38	SER
19	AA	41	VAL
19	AA	48	THR
19	AA	57	HIS
19	AA	71	LEU
20	BA	8	ARG
20	BA	10	LEU
20	BA	11	SER
20	BA	23	ARG
20	BA	36	LEU
20	BA	56	MET
20	BA	60	GLU
20	BA	61	SER
20	BA	62	LEU
20	BA	64	ASP
20	BA	73	HIS
20	BA	75	ASN
20	BA	84	LEU

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Mol	Chain	Res	Type
21	1B	14	TRP
28	79	5	LYS
28	79	8	ARG
28	79	14	VAL
28	79	52	ARG
28	79	55	ASP
28	79	167	LYS
28	79	202	GLU
28	79	207	THR
28	79	210	ARG
28	79	223	ARG
29	19	13	ARG
29	19	24	ILE
29	19	25	THR
29	19	26	LYS
29	19	27	THR
29	19	28	GLU
29	19	37	LEU
29	19	43	ARG
29	19	46	GLN
29	19	49	ILE
29	19	60	ARG
29	19	61	LEU
29	19	64	ILE
29	19	65	ILE
29	19	72	LYS
29	19	88	ARG
29	19	89	SER
29	19	94	LEU
29	19	103	ARG
29	19	105	ILE
29	19	111	LEU
29	19	116	GLN
29	19	118	VAL
29	19	125	ILE
29	19	147	LEU
29	19	157	ARG
29	19	169	GLU
29	19	173	VAL
29	19	175	LEU
29	19	176	ARG
29	19	182	LEU

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Mol	Chain	Res	Type
29	19	184	LYS
29	19	192	THR
29	19	193	VAL
29	19	211	ARG
29	19	217	ARG
29	19	226	MET
29	19	239	ARG
29	19	242	ARG
29	19	244	ARG
29	19	255	LYS
29	19	257	LEU
29	19	260	ARG
29	19	268	ARG
29	19	271	ILE
30	29	1	MET
30	29	5	LEU
30	29	11	MET
30	29	12	THR
30	29	37	ARG
30	29	38	THR
30	29	44	TYR
30	29	48	GLN
30	29	49	LEU
30	29	52	LEU
30	29	54	GLN
30	29	57	LYS
30	29	63	LEU
30	29	66	HIS
30	29	72	VAL
30	29	76	ARG
30	29	77	ILE
30	29	79	ARG
30	29	82	ARG
30	29	87	GLU
30	29	89	ASP
30	29	90	THR
30	29	93	VAL
30	29	111	ARG
30	29	117	MET
30	29	118	LYS
30	29	135	HIS
30	29	144	ARG

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Mol	Chain	Res	Type
30	29	146	THR
30	29	152	LYS
30	29	154	LYS
30	29	167	VAL
30	29	175	VAL
30	29	181	LEU
30	29	182	LEU
30	29	188	VAL
30	29	197	ILE
30	29	201	THR
30	29	202	LYS
31	39	7	TYR
31	39	11	VAL
31	39	13	SER
31	39	18	ARG
31	39	23	ASP
31	39	24	LEU
31	39	28	ILE
31	39	33	LEU
31	39	38	ARG
31	39	50	SER
31	39	57	VAL
31	39	62	ARG
31	39	70	THR
31	39	74	ARG
31	39	82	ILE
31	39	83	PHE
31	39	100	THR
31	39	110	LEU
31	39	114	VAL
31	39	123	LEU
31	39	125	LEU
31	39	127	GLU
31	39	140	LEU
31	39	145	GLU
31	39	152	GLU
31	39	158	THR
31	39	165	ARG
31	39	170	LEU
31	39	190	GLU
31	39	192	LEU
31	39	196	LEU

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Mol	Chain	Res	Type
31	39	203	GLN
31	39	205	ARG
32	49	7	LEU
32	49	12	TYR
32	49	20	ILE
32	49	41	GLN
32	49	49	ASP
32	49	51	ARG
32	49	74	LYS
32	49	75	LYS
32	49	76	SER
32	49	80	PHE
32	49	83	ARG
32	49	91	ARG
32	49	104	GLU
32	49	106	LEU
32	49	109	VAL
32	49	116	ASP
32	49	117	PHE
32	49	118	ARG
32	49	128	ARG
32	49	132	ASN
32	49	136	ARG
32	49	139	LEU
32	49	144	ILE
32	49	152	LEU
32	49	153	ARG
32	49	157	ILE
32	49	159	VAL
32	49	162	THR
33	59	2	SER
33	59	6	ARG
33	59	68	THR
33	59	77	LYS
33	59	79	VAL
33	59	143	GLN
33	59	148	ILE
33	59	149	ARG
33	59	167	GLU
34	69	1	MET
34	69	2	LYS
34	69	4	ILE

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Mol	Chain	Res	Type
34	69	7	GLU
34	69	18	VAL
34	69	27	ARG
34	69	37	VAL
34	69	47	LEU
34	69	50	ARG
34	69	60	GLU
34	69	61	ARG
34	69	62	LYS
34	69	67	ARG
34	69	75	LEU
34	69	76	THR
34	69	77	LEU
34	69	78	THR
34	69	81	VAL
34	69	85	GLU
34	69	86	THR
34	69	103	ARG
34	69	104	GLN
34	69	105	HIS
34	69	108	THR
34	69	109	ILE
34	69	112	LYS
34	69	116	LEU
34	69	117	GLU
34	69	125	GLU
34	69	128	LEU
34	69	131	LYS
34	69	133	HIS
34	69	136	VAL
34	69	142	VAL
35	15	1	MET
35	15	9	VAL
35	15	12	ARG
35	15	15	LEU
35	15	17	ASP
35	15	28	THR
35	15	32	THR
35	15	34	LEU
35	15	37	LYS
35	15	38	HIS
35	15	39	ARG

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Mol	Chain	Res	Type
35	15	43	THR
35	15	46	VAL
35	15	48	MET
35	15	59	LYS
35	15	60	ILE
35	15	61	ARG
35	15	63	THR
35	15	68	GLU
35	15	69	GLN
35	15	71	ILE
35	15	85	ILE
35	15	90	MET
35	15	93	THR
35	15	94	HIS
35	15	99	LEU
35	15	130	HIS
35	15	131	GLN
35	15	134	ARG
35	15	136	GLU
36	25	1	MET
36	25	5	GLN
36	25	9	GLU
36	25	10	VAL
36	25	14	THR
36	25	19	ILE
36	25	22	ILE
36	25	35	VAL
36	25	38	VAL
36	25	47	ILE
36	25	49	ARG
36	25	52	VAL
36	25	53	LYS
36	25	87	ILE
36	25	94	ARG
36	25	96	THR
36	25	108	GLU
36	25	113	LYS
37	35	2	LYS
37	35	4	SER
37	35	5	ASP
37	35	6	LEU
37	35	10	PRO

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Mol	Chain	Res	Type
37	35	15	ARG
37	35	18	ARG
37	35	21	ARG
37	35	27	HIS
37	35	36	LYS
37	35	41	ARG
37	35	52	GLU
37	35	62	LEU
37	35	67	MET
37	35	75	ILE
37	35	77	ARG
37	35	79	ARG
37	35	81	GLN
37	35	84	ASN
37	35	85	LEU
37	35	88	LEU
37	35	91	PHE
37	35	94	GLU
37	35	95	VAL
37	35	96	THR
37	35	98	GLU
37	35	105	LEU
37	35	106	LEU
37	35	111	ARG
37	35	112	LEU
37	35	117	GLU
37	35	132	LYS
37	35	133	SER
37	35	136	GLU
37	35	138	LEU
37	35	144	GLU
38	45	5	ARG
38	45	7	MET
38	45	10	ARG
38	45	18	LYS
38	45	45	GLN
38	45	56	ARG
38	45	60	ARG
38	45	63	LYS
38	45	76	LYS
38	45	77	LYS
38	45	83	MET

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Mol	Chain	Res	Type
38	45	85	LYS
38	45	89	ASN
38	45	90	VAL
38	45	96	VAL
38	45	103	MET
38	45	110	THR
38	45	118	LEU
38	45	134	ARG
38	45	139	GLU
39	55	9	LYS
39	55	15	SER
39	55	18	LEU
39	55	23	ASN
39	55	28	LEU
39	55	29	LEU
39	55	33	ARG
39	55	43	GLU
39	55	44	LEU
39	55	65	LEU
39	55	67	LEU
39	55	74	LYS
39	55	75	LEU
39	55	79	LEU
39	55	81	ASP
39	55	82	GLU
39	55	88	ARG
39	55	98	LEU
40	65	4	LEU
40	65	12	PHE
40	65	17	ARG
40	65	19	LYS
40	65	20	ARG
40	65	21	THR
40	65	23	ARG
40	65	24	LEU
40	65	36	TYR
40	65	39	ILE
40	65	40	ILE
40	65	43	GLU
40	65	44	LYS
40	65	64	GLU
40	65	65	VAL

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Mol	Chain	Res	Type
40	65	68	GLN
40	65	69	VAL
40	65	78	LEU
40	65	83	LYS
40	65	89	ARG
40	65	98	VAL
40	65	101	LEU
40	65	106	ARG
41	75	1	MET
41	75	7	ILE
41	75	8	LYS
41	75	13	ARG
41	75	17	THR
41	75	19	LEU
41	75	30	VAL
41	75	34	VAL
41	75	36	GLU
41	75	39	ARG
41	75	40	THR
41	75	41	ARG
41	75	54	ARG
41	75	60	THR
41	75	62	THR
41	75	64	ARG
41	75	86	ILE
41	75	89	VAL
41	75	91	ARG
41	75	93	ARG
41	75	105	LEU
41	75	106	SER
41	75	107	ASP
41	75	112	ARG
41	75	118	ARG
41	75	133	GLU
42	85	3	ARG
42	85	15	LYS
42	85	17	ILE
42	85	52	ARG
42	85	55	ARG
42	85	60	LEU
42	85	74	LEU
42	85	78	THR

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Mol	Chain	Res	Type
42	85	105	VAL
42	85	114	LYS
43	95	13	ARG
43	95	15	GLU
43	95	18	LEU
43	95	35	LEU
43	95	38	LEU
43	95	39	LEU
43	95	45	THR
43	95	46	VAL
43	95	57	VAL
43	95	62	LEU
43	95	66	ARG
43	95	72	VAL
43	95	74	LYS
43	95	75	PHE
43	95	76	LYS
43	95	79	VAL
43	95	80	GLN
43	95	84	LYS
43	95	85	LYS
43	95	89	GLN
43	95	91	TYR
44	A5	11	ARG
44	A5	15	ARG
44	A5	19	LEU
44	A5	23	LEU
44	A5	39	THR
44	A5	40	ASN
44	A5	51	LEU
44	A5	52	GLU
44	A5	65	LEU
44	A5	68	ARG
44	A5	70	TYR
44	A5	76	VAL
44	A5	78	GLU
44	A5	84	ARG
44	A5	88	ARG
44	A5	96	ILE
44	A5	106	ILE
44	A5	107	LEU
44	A5	111	HIS

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Mol	Chain	Res	Type
45	B5	12	VAL
45	B5	23	GLU
45	B5	27	THR
45	B5	30	VAL
45	B5	35	THR
45	B5	37	THR
45	B5	40	LYS
45	B5	43	VAL
45	B5	45	THR
45	B5	49	VAL
45	B5	52	VAL
45	B5	53	LYS
45	B5	54	VAL
45	B5	57	LEU
45	B5	63	LYS
45	B5	65	ARG
45	B5	69	TYR
45	B5	70	LEU
45	B5	78	LYS
45	B5	80	ILE
45	B5	81	VAL
45	B5	82	GLN
46	C5	2	ARG
46	C5	23	ARG
46	C5	24	VAL
46	C5	31	LEU
46	C5	38	ILE
46	C5	45	VAL
46	C5	46	LYS
46	C5	55	TYR
46	C5	60	PHE
46	C5	62	GLU
46	C5	63	LYS
46	C5	67	LEU
46	C5	71	LYS
46	C5	72	VAL
46	C5	76	CYS
46	C5	79	CYS
46	C5	84	ARG
46	C5	85	VAL
46	C5	86	ARG
46	C5	88	LYS

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Mol	Chain	Res	Type
46	C5	89	PHE
46	C5	97	ARG
46	C5	98	VAL
46	C5	101	LYS
46	C5	102	CYS
47	D5	5	LEU
47	D5	9	TYR
47	D5	13	GLU
47	D5	19	ARG
47	D5	27	VAL
47	D5	28	MET
47	D5	34	ASN
47	D5	36	LYS
47	D5	37	VAL
47	D5	41	LEU
47	D5	54	HIS
47	D5	55	HIS
47	D5	58	VAL
47	D5	59	LEU
47	D5	63	ASP
47	D5	70	LEU
47	D5	74	VAL
47	D5	76	LEU
47	D5	84	GLU
47	D5	89	PHE
47	D5	91	LEU
47	D5	125	LEU
47	D5	126	VAL
47	D5	131	ARG
47	D5	161	VAL
48	E5	10	THR
48	E5	12	ASN
48	E5	36	ILE
48	E5	43	THR
48	E5	46	LYS
48	E5	53	MET
48	E5	64	ASP
48	E5	68	GLU
49	F5	4	VAL
49	F5	11	ARG
49	F5	17	SER
49	F5	23	LYS

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Mol	Chain	Res	Type
49	F5	25	LYS
49	F5	34	THR
49	F5	35	THR
49	F5	38	SER
49	F5	40	ARG
49	F5	51	VAL
49	F5	67	ILE
49	F5	76	ARG
49	F5	78	LYS
49	F5	82	LEU
49	F5	83	GLU
49	F5	85	LEU
49	F5	91	LYS
49	F5	95	LEU
50	G5	7	ARG
50	G5	10	LEU
50	G5	16	LEU
50	G5	24	LEU
50	G5	25	VAL
50	G5	26	ARG
50	G5	30	ARG
50	G5	32	LEU
50	G5	43	GLN
50	G5	46	GLN
50	G5	47	ASN
50	G5	48	HIS
50	G5	50	ILE
50	G5	53	LEU
50	G5	54	LYS
51	H5	5	LYS
51	H5	8	LEU
51	H5	16	PRO
51	H5	24	LYS
51	H5	30	ARG
51	H5	33	GLN
51	H5	38	GLU
51	H5	40	THR
51	H5	55	ARG
51	H5	56	VAL
53	J5	6	VAL
53	J5	15	ARG
53	J5	16	ARG

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Mol	Chain	Res	Type
53	J5	23	HIS
53	J5	25	LEU
53	J5	35	GLU
53	J5	48	GLU
53	J5	49	CYS
53	J5	55	ARG
54	L5	1	MET
54	L5	4	THR
54	L5	8	ASN
54	L5	9	ARG
54	L5	43	THR
55	M5	6	THR
55	M5	23	VAL
55	M5	31	HIS
55	M5	32	LEU
55	M5	41	ILE
55	M5	56	GLU
55	M5	57	ARG
55	M5	58	ILE
55	M5	60	LEU
55	M5	64	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (25) such sidechains are listed below:

Mol	Chain	Res	Type
7	6E	86	GLN
19	AI	23	ASN
28	71	56	GLN
28	71	225	ASN
31	31	75	HIS
50	K8	48	HIS
52	M8	40	HIS
3	22	181	ASN
4	32	123	HIS
4	32	125	HIS
7	62	51	GLN
8	72	15	ASN
9	82	87	GLN
10	1A	13	HIS
10	1A	84	GLN
12	3A	49	ASN
14	5A	49	HIS

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Mol	Chain	Res	Type
18	9A	36	ASN
19	AA	57	HIS
33	59	61	HIS
33	59	65	HIS
37	35	70	GLN
38	45	89	ASN
41	75	2	ASN
44	A5	60	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	361 (24%)	29 (1%)
1	1G	1506/1522 (98%)	367 (24%)	27 (1%)
22	1K	67/75 (89%)	27 (40%)	2 (2%)
23	2K	76/77 (98%)	22 (28%)	1 (1%)
23	2L	76/77 (98%)	14 (18%)	2 (2%)
24	3K	75/76 (98%)	42 (56%)	4 (5%)
25	4K	18/27 (66%)	12 (66%)	2 (11%)
25	4L	17/27 (62%)	9 (52%)	0
26	14	2853/2917 (97%)	731 (25%)	38 (1%)
26	1H	2829/2917 (96%)	722 (25%)	50 (1%)
27	16	121/122 (99%)	24 (19%)	1 (0%)
27	1J	121/122 (99%)	35 (28%)	1 (0%)
56	1L	69/76 (90%)	27 (39%)	4 (5%)
57	3L	75/76 (98%)	35 (46%)	1 (1%)
All	All	9396/9633 (97%)	2428 (25%)	162 (1%)

All (2428) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	9	G
1	13	15	G
1	13	19	C
1	13	32	A
1	13	39	G
1	13	44	G
1	13	47	C

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Mol	Chain	Res	Type
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	63	C
1	13	65	U
1	13	66	G
1	13	68	G
1	13	73	G
1	13	74	C
1	13	75	C
1	13	76	G
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	106	C
1	13	116	A
1	13	121	C
1	13	122	G
1	13	131	C
1	13	142	G
1	13	144	G
1	13	145	G
1	13	150	C
1	13	151	A
1	13	160	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(F)	C
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

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Mol	Chain	Res	Type
1	13	201	C
1	13	208	U
1	13	209	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	226	G
1	13	231	G
1	13	232	G
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	270	A
1	13	280	C
1	13	289	G
1	13	305	G
1	13	316	G
1	13	317	G
1	13	321	A
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	341	C
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	365	U
1	13	367	U
1	13	372	C
1	13	382	A
1	13	390	C

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Mol	Chain	Res	Type
1	13	392	G
1	13	397	A
1	13	398	C
1	13	406	G
1	13	411	A
1	13	412	A
1	13	414	A
1	13	418	C
1	13	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	438	G
1	13	439	A
1	13	452	A
1	13	466	C
1	13	467	G
1	13	475	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	519	C
1	13	521	G
1	13	524	G
1	13	525	C
1	13	527	G
1	13	531	U
1	13	532	A
1	13	534	U
1	13	536	C
1	13	547	A
1	13	550	G
1	13	559	A
1	13	561	U
1	13	564	C

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Mol	Chain	Res	Type
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	581	G
1	13	587	G
1	13	596	C
1	13	607	A
1	13	617	G
1	13	630	G
1	13	633	G
1	13	650	G
1	13	652	U
1	13	653	A
1	13	661	G
1	13	664	G
1	13	665	A
1	13	687	A
1	13	688	G
1	13	701	C
1	13	719	C
1	13	721	G
1	13	723	U
1	13	724	G
1	13	747	C
1	13	749	C
1	13	752	G
1	13	753	A
1	13	755	G
1	13	763	G
1	13	769	G
1	13	774	G
1	13	777	A
1	13	787	A
1	13	793	U
1	13	794	A
1	13	796	C
1	13	801	U
1	13	805	C
1	13	812	C
1	13	813	U
1	13	815	A

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Mol	Chain	Res	Type
1	13	817	C
1	13	818	G
1	13	819	A
1	13	821	G
1	13	828	A
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	849	C
1	13	855	G
1	13	859	A
1	13	864	A
1	13	869	G
1	13	870	U
1	13	871	U
1	13	872	A
1	13	876	G
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	933	G
1	13	934	C
1	13	936	C
1	13	938	A
1	13	942	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	978	A
1	13	984	C
1	13	993	G
1	13	998	G
1	13	999	U
1	13	1004	A
1	13	1005	A

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Mol	Chain	Res	Type
1	13	1006	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1021	G
1	13	1022	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028(A)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032	A
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1037	C
1	13	1042	G
1	13	1054	C
1	13	1055	A
1	13	1063	C
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1067	A
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1108	G
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	1132	C
1	13	1133	G
1	13	1134	G
1	13	1136	U

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Mol	Chain	Res	Type
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1141	C
1	13	1145	C
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1160	G
1	13	1161	C
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1179	A
1	13	1180	A
1	13	1181	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1203	C
1	13	1213	A
1	13	1215	G
1	13	1220	G
1	13	1225	A
1	13	1226	C
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1262	C
1	13	1268	A
1	13	1273	G
1	13	1275	A

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Mol	Chain	Res	Type
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1286	A
1	13	1287	A
1	13	1288	A
1	13	1290	G
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1320	C
1	13	1323	G
1	13	1331	G
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1352	C
1	13	1353	G
1	13	1362(A)	C
1	13	1363	A
1	13	1368	G
1	13	1370	G
1	13	1378	C
1	13	1381	U
1	13	1398	A
1	13	1401	G
1	13	1406	U
1	13	1419	G
1	13	1436	U
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1475	G

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Mol	Chain	Res	Type
1	13	1476	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1506	U
1	13	1514	C
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
1	13	1536	C
22	1K	2	G
22	1K	4	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	15	G
22	1K	18	G
22	1K	24	G
22	1K	25	C
22	1K	26	A
22	1K	30	G
22	1K	47	U
22	1K	48	C
22	1K	49	G
22	1K	50	C
22	1K	56	C
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	71	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C

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Mol	Chain	Res	Type
23	2K	2	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C
23	2K	17	C
23	2K	18	U
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	26	C
23	2K	30	G
23	2K	35	C
23	2K	37	U
23	2K	42	C
23	2K	44	A
23	2K	47	G7M
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	53	G
23	2K	73	A
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	15	G
24	3K	17	U
24	3K	18	G
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	22	G
24	3K	23	A
24	3K	25	C
24	3K	26	A
24	3K	27	G
24	3K	31	A
24	3K	32	C

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Mol	Chain	Res	Type
24	3K	33	U
24	3K	34	U
24	3K	40	C
24	3K	44	U
24	3K	45	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	50	C
24	3K	51	A
24	3K	52	G
24	3K	53	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	A
24	3K	60	U
24	3K	62	C
24	3K	66	A
24	3K	73	A
24	3K	74	C
24	3K	76	A
25	4K	7	G
25	4K	9	G
25	4K	10	G
25	4K	11	U
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	15	A
25	4K	19	A
25	4K	22	A
25	4K	23	A
25	4K	24	A
26	1H	9	U
26	1H	12	U
26	1H	15	G
26	1H	26	G
26	1H	34	C
26	1H	35	G
26	1H	37	C
26	1H	39	C

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Mol	Chain	Res	Type
26	1H	44	A
26	1H	46	C
26	1H	51	G
26	1H	56	A
26	1H	59	U
26	1H	61	G
26	1H	63	U
26	1H	66	C
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	102	G
26	1H	114	U
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	131	G
26	1H	138	G
26	1H	155	C
26	1H	162	U
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	172	C
26	1H	174	C
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	217	G
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	227	A
26	1H	228	A

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Mol	Chain	Res	Type
26	1H	229	A
26	1H	233	A
26	1H	243	U
26	1H	244	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	267	C
26	1H	269	U
26	1H	270(F)	U
26	1H	270(G)	C
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(Q)	C
26	1H	270(R)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	315	G
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	346	A
26	1H	352	G
26	1H	354	G
26	1H	357	A
26	1H	363	G
26	1H	363(A)	A
26	1H	363(C)	G

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Mol	Chain	Res	Type
26	1H	363(E)	U
26	1H	364	C
26	1H	372	G
26	1H	375	C
26	1H	380	U
26	1H	382	G
26	1H	385	C
26	1H	386	G
26	1H	400	G
26	1H	404	C
26	1H	405	U
26	1H	411	G
26	1H	415	A
26	1H	416	C
26	1H	418	G
26	1H	428	A
26	1H	436	C
26	1H	443	A
26	1H	444	C
26	1H	447	A
26	1H	448	U
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	460	A
26	1H	470	A
26	1H	471	A
26	1H	478	A
26	1H	481	G
26	1H	482	A
26	1H	483	A
26	1H	494	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	528	A
26	1H	529	A
26	1H	531	C
26	1H	532	A
26	1H	533	G

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Mol	Chain	Res	Type
26	1H	548	A
26	1H	549	G
26	1H	556	G
26	1H	559	G
26	1H	563	G
26	1H	564	C
26	1H	570	G
26	1H	571	A
26	1H	573	G
26	1H	575	A
26	1H	586	A
26	1H	588	U
26	1H	595	C
26	1H	603	A
26	1H	607	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	640	C
26	1H	645	C
26	1H	646	A
26	1H	647	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(C)	G
26	1H	654(D)	G
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	665	C
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	702	G
26	1H	703	U
26	1H	715	G
26	1H	716	A
26	1H	730	C

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Mol	Chain	Res	Type
26	1H	739	G
26	1H	747	U
26	1H	748	G
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	764	A
26	1H	775	G
26	1H	776	G
26	1H	777	A
26	1H	779	U
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	805	G
26	1H	810	U
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	835	A
26	1H	845	G
26	1H	846	C
26	1H	855	G
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	870	A
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	894	C
26	1H	898	C
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	904	C
26	1H	910	A
26	1H	917	A

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Mol	Chain	Res	Type
26	1H	918	A
26	1H	932	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	972	G
26	1H	973	A
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	997	G
26	1H	998	C
26	1H	1005	C
26	1H	1010	A
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1017	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	1037	G
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1052	C
26	1H	1053	C
26	1H	1107	G
26	1H	1108	U
26	1H	1109	C

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Mol	Chain	Res	Type
26	1H	1110	G
26	1H	1111	A
26	1H	1112	G
26	1H	1117	G
26	1H	1126	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1152	C
26	1H	1170	G
26	1H	1171	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	1187	G
26	1H	1192	G
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1228	G
26	1H	1229(A)	G
26	1H	1244	G
26	1H	1245	G
26	1H	1249	U
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G

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Mol	Chain	Res	Type
26	1H	1265	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1287	A
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A
26	1H	1305	C
26	1H	1321	A
26	1H	1329	U
26	1H	1332	G
26	1H	1338	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1352	U
26	1H	1358	G
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1370	C
26	1H	1373	A
26	1H	1374	G
26	1H	1379	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1388	G
26	1H	1395	A
26	1H	1396	U
26	1H	1397	U
26	1H	1403	C
26	1H	1404	C
26	1H	1407	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A

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Mol	Chain	Res	Type
26	1H	1428	C
26	1H	1429	G
26	1H	1437	C
26	1H	1441	G
26	1H	1444(A)	A
26	1H	1449(A)	G
26	1H	1455	G
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1482	U
26	1H	1490	A
26	1H	1493	C
26	1H	1494	A
26	1H	1495	A
26	1H	1497	U
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1520	U
26	1H	1522	G
26	1H	1526	G
26	1H	1534	G
26	1H	1535	U
26	1H	1537	C
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1565	C
26	1H	1566	A
26	1H	1569	A
26	1H	1576	U

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Mol	Chain	Res	Type
26	1H	1577	C
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1594	G
26	1H	1606	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1618	A
26	1H	1625	C
26	1H	1628	G
26	1H	1635	G
26	1H	1639	U
26	1H	1640	C
26	1H	1641	A
26	1H	1644	C
26	1H	1646	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1658	C
26	1H	1672	C
26	1H	1674	G
26	1H	1678	G
26	1H	1682	G
26	1H	1683	C
26	1H	1684	C
26	1H	1695	G
26	1H	1699	G
26	1H	1703	G
26	1H	1706	U
26	1H	1707	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1732	A
26	1H	1735	C

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Mol	Chain	Res	Type
26	1H	1741	C
26	1H	1756	G
26	1H	1758	G
26	1H	1760	A
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1774	C
26	1H	1777	U
26	1H	1782	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1805	U
26	1H	1806	C
26	1H	1811	G
26	1H	1816	G
26	1H	1819	A
26	1H	1827	C
26	1H	1828	G
26	1H	1829	A
26	1H	1830	C
26	1H	1834	U
26	1H	1835	G
26	1H	1839	G
26	1H	1847	A
26	1H	1858	G
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1882	C
26	1H	1889	A
26	1H	1895	C
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C

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Mol	Chain	Res	Type
26	1H	1915	U
26	1H	1919	A
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1963	U
26	1H	1967	C
26	1H	1968	G
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1981	A
26	1H	1982	C
26	1H	1983	C
26	1H	1993	U
26	1H	1994	C
26	1H	1999	C
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2036	C
26	1H	2039	C
26	1H	2043	C
26	1H	2052	G
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2066	C
26	1H	2069	G
26	1H	2078	C
26	1H	2080	G

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Mol	Chain	Res	Type
26	1H	2095	C
26	1H	2099	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2124	G
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2137	C
26	1H	2138	C
26	1H	2139	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	2153	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2159	G
26	1H	2161	C
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2180	U
26	1H	2186	G

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Mol	Chain	Res	Type
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2193	G
26	1H	2198	A
26	1H	2207	C
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2240	C
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2280	G
26	1H	2283	C
26	1H	2287	A
26	1H	2291	U
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
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	2337	G
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2354	G
26	1H	2360	A
26	1H	2364	C
26	1H	2372	G
26	1H	2376	A
26	1H	2377	A

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Mol	Chain	Res	Type
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2395	C
26	1H	2396	G
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2418	A
26	1H	2422	A
26	1H	2423	U
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	2434	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2445	G
26	1H	2448	A
26	1H	2450	A
26	1H	2451	A
26	1H	2452	C
26	1H	2458	G
26	1H	2468	G
26	1H	2474	C
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2481	G
26	1H	2487	G
26	1H	2494	G
26	1H	2497	A
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C

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Mol	Chain	Res	Type
26	1H	2518	A
26	1H	2529	G
26	1H	2531	A
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2582	G
26	1H	2599	G
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U
26	1H	2610	C
26	1H	2611	U
26	1H	2612	C
26	1H	2629	A
26	1H	2632	A
26	1H	2636	U
26	1H	2654	A
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2676	C
26	1H	2679	A
26	1H	2681	C
26	1H	2682	U
26	1H	2683	C
26	1H	2689	U
26	1H	2691	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	2723	C
26	1H	2726	U
26	1H	2733	A
26	1H	2738	A

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Mol	Chain	Res	Type
26	1H	2739	U
26	1H	2742	C
26	1H	2744	G
26	1H	2749	A
26	1H	2755	C
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2792	G
26	1H	2793	G
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2816	C
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2848	G
26	1H	2849	U
26	1H	2850	A
26	1H	2864	G
26	1H	2871	C
26	1H	2872	G
26	1H	2886	G
26	1H	2892	A
26	1H	2894	G
26	1H	2895	U
26	1H	2898	U

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Mol	Chain	Res	Type
27	16	0	A
27	16	3	C
27	16	8	U
27	16	12	C
27	16	13	A
27	16	15	A
27	16	16	G
27	16	29	A
27	16	33	G
27	16	39	A
27	16	45	A
27	16	47	C
27	16	51	G
27	16	56	G
27	16	65	C
27	16	66	A
27	16	72	G
27	16	73	A
27	16	82	G
27	16	89	G
27	16	92	G
27	16	105	G
27	16	109	G
27	16	115	G
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	24	U
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	41	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	76	G
1	1G	79	G
1	1G	81	G

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Mol	Chain	Res	Type
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	93	U
1	1G	101	A
1	1G	103	C
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	144	G
1	1G	157	G
1	1G	161	A
1	1G	162	A
1	1G	163	C
1	1G	170	U
1	1G	182	U
1	1G	185	A
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	209	U
1	1G	210	U
1	1G	216	G
1	1G	240	C
1	1G	242	C
1	1G	247	G
1	1G	251	G
1	1G	256	U
1	1G	266	G
1	1G	267	C

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Mol	Chain	Res	Type
1	1G	281	G
1	1G	289	G
1	1G	295	C
1	1G	298	A
1	1G	316	G
1	1G	321	A
1	1G	324	G
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	363	A
1	1G	365	U
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	384	G
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	433	C
1	1G	439	A
1	1G	442	C
1	1G	452	A
1	1G	455	C

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Mol	Chain	Res	Type
1	1G	456	C
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	505	G
1	1G	508	C
1	1G	510	A
1	1G	511	C
1	1G	512	U
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	536	C
1	1G	547	A
1	1G	559	A
1	1G	560	U
1	1G	561	U
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	599	C
1	1G	607	A
1	1G	619	U
1	1G	630	G
1	1G	631	G
1	1G	633	G
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	677	U

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Mol	Chain	Res	Type
1	1G	687	A
1	1G	688	G
1	1G	701	C
1	1G	702	A
1	1G	706	A
1	1G	707	C
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	735	C
1	1G	749	C
1	1G	755	G
1	1G	759	A
1	1G	769	G
1	1G	777	A
1	1G	782	A
1	1G	783	C
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	805	C
1	1G	811	C
1	1G	813	U
1	1G	816	A
1	1G	817	C
1	1G	818	G
1	1G	821	G
1	1G	828	A
1	1G	837	G
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	851	G
1	1G	858	G
1	1G	859	A
1	1G	874	G
1	1G	885	G
1	1G	914	A
1	1G	916	G
1	1G	923	A
1	1G	925	G

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Mol	Chain	Res	Type
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	937	A
1	1G	942	G
1	1G	947	G
1	1G	948	C
1	1G	953	G
1	1G	960	U
1	1G	961	U
1	1G	966	G
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	982	U
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	996	A
1	1G	1001	G
1	1G	1002	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1016	A
1	1G	1017	G
1	1G	1021	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1028	C
1	1G	1028(A)	C
1	1G	1028(B)	C
1	1G	1029	G

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Mol	Chain	Res	Type
1	1G	1030	C
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1036	G
1	1G	1037	C
1	1G	1040	U
1	1G	1042	G
1	1G	1050	G
1	1G	1053	G
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1073	U
1	1G	1081	G
1	1G	1084	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1101	A
1	1G	1113	C
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1133	G
1	1G	1135	U
1	1G	1138	G
1	1G	1139	G
1	1G	1140	C
1	1G	1141	C
1	1G	1144	G
1	1G	1146	A
1	1G	1147	C
1	1G	1154	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	1171	G
1	1G	1172	C
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1184	G
1	1G	1188	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1203	C
1	1G	1204	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1218	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1243	C
1	1G	1250	A
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1268	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1282	C
1	1G	1286	A
1	1G	1287	A
1	1G	1289	A
1	1G	1293	G

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Mol	Chain	Res	Type
1	1G	1294	G
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1313	U
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	1338	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1358	U
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1370	G
1	1G	1379	G
1	1G	1381	U
1	1G	1391	U
1	1G	1392	G
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1400	C
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1449	C
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1467	G
1	1G	1478	C
1	1G	1492	A
1	1G	1494	G

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Mol	Chain	Res	Type
1	1G	1499	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1517	G
1	1G	1520	G
1	1G	1525	G
1	1G	1529	G
1	1G	1530	G
1	1G	1531	A
1	1G	1532	U
1	1G	1533	C
1	1G	1534	A
56	1L	3	G
56	1L	4	U
56	1L	6	G
56	1L	7	U
56	1L	9	A
56	1L	10	G
56	1L	15	G
56	1L	16	U
56	1L	17	U
56	1L	18	G
56	1L	19	G
56	1L	20	U
56	1L	26	A
56	1L	30	G
56	1L	35	U
56	1L	41	A
56	1L	45	G
56	1L	49	G
56	1L	55	PSU
56	1L	62	C
56	1L	63	U
56	1L	66	A
56	1L	67	C
56	1L	69	A
56	1L	70	C
56	1L	74	C
56	1L	76	A
23	2L	6	G
23	2L	8	4SU

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Mol	Chain	Res	Type
23	2L	13	C
23	2L	16	C
23	2L	18	U
23	2L	21	U
23	2L	22	A
23	2L	23	G
23	2L	32	G
23	2L	45	A
23	2L	47	G7M
23	2L	48	U
23	2L	49	C
23	2L	50	G
57	3L	2	G
57	3L	5	C
57	3L	7	U
57	3L	9	A
57	3L	13	C
57	3L	16	U
57	3L	17	U
57	3L	18	G
57	3L	19	G
57	3L	20	U
57	3L	21	A
57	3L	22	G
57	3L	23	A
57	3L	25	C
57	3L	26	A
57	3L	31	A
57	3L	33	U
57	3L	36	U
57	3L	39	PSU
57	3L	40	C
57	3L	42	A
57	3L	43	U
57	3L	44	U
57	3L	45	G
57	3L	46	G
57	3L	47	U
57	3L	48	C
57	3L	56	C
57	3L	57	G
57	3L	58	A

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Mol	Chain	Res	Type
57	3L	59	A
57	3L	61	C
57	3L	63	U
57	3L	73	A
57	3L	76	A
25	4L	8	A
25	4L	9	G
25	4L	10	G
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	15	A
25	4L	22	A
25	4L	23	A
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	6	A
26	14	9	U
26	14	11	G
26	14	15	G
26	14	26	G
26	14	35	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	51	G
26	14	58	G
26	14	60	G
26	14	61	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	83	G
26	14	90	U
26	14	93	C
26	14	95	G
26	14	102	G
26	14	118	A
26	14	119	A

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Mol	Chain	Res	Type
26	14	120	U
26	14	125	G
26	14	129	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	172	C
26	14	173	G
26	14	174	C
26	14	175	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	212	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	228	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	270(K)	C
26	14	270(L)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(Y)	G
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	278	A

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Mol	Chain	Res	Type
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	298	G
26	14	308	G
26	14	311	A
26	14	324	A
26	14	329	G
26	14	330	A
26	14	331	A
26	14	335	C
26	14	342	G
26	14	345	A
26	14	352	G
26	14	354	G
26	14	355	G
26	14	362	U
26	14	363	G
26	14	371	A
26	14	375	C
26	14	386	G
26	14	394	A
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	428	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	454	A
26	14	455	C
26	14	457	A
26	14	459	U
26	14	470	A
26	14	480	A
26	14	481	G
26	14	483	A
26	14	504	U

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Mol	Chain	Res	Type
26	14	505	A
26	14	508	G
26	14	509	C
26	14	527	C
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	560	C
26	14	563	G
26	14	570	G
26	14	573	G
26	14	575	A
26	14	598	G
26	14	603	A
26	14	607	U
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	623	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(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G

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Mol	Chain	Res	Type
26	14	654(T)	A
26	14	656	G
26	14	664	C
26	14	666	G
26	14	668	G
26	14	669	G
26	14	685	A
26	14	686	G
26	14	708	C
26	14	709	U
26	14	722	A
26	14	730	C
26	14	738	G
26	14	740	U
26	14	750	A
26	14	752	A
26	14	753	C
26	14	762	U
26	14	764	A
26	14	765	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	781	A
26	14	782	A
26	14	784	A
26	14	785	G
26	14	792	G
26	14	805	G
26	14	806	C
26	14	812	C
26	14	813	U
26	14	816	C
26	14	819	A
26	14	824	A
26	14	825	C
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	846	C

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Mol	Chain	Res	Type
26	14	847	U
26	14	848	G
26	14	855	G
26	14	859	G
26	14	865	C
26	14	866	A
26	14	869	G
26	14	877	U
26	14	878	A
26	14	879	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	905	U
26	14	906	G
26	14	910	A
26	14	914	C
26	14	915	C
26	14	917	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	953	A
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	974	G
26	14	978	G
26	14	980	A
26	14	983	A
26	14	987	G
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	999	U

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Mol	Chain	Res	Type
26	14	1008	C
26	14	1009	A
26	14	1010	A
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	1031	G
26	14	1034	G
26	14	1036	G
26	14	1037	G
26	14	1039	G
26	14	1044	G
26	14	1048	A
26	14	1049	C
26	14	1050	A
26	14	1052	C
26	14	1054	A
26	14	1055	G
26	14	1056	G
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1074	G
26	14	1075	C
26	14	1086	A
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1099	G
26	14	1100	C

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Mol	Chain	Res	Type
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1109	C
26	14	1110	G
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1118	C
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1131	G
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142	U
26	14	1143	A
26	14	1151	G
26	14	1157	G
26	14	1170	G
26	14	1173	G
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1182	A
26	14	1193	G
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1229(A)	G
26	14	1237	A
26	14	1247	A
26	14	1248	G
26	14	1250	G
26	14	1253	A
26	14	1256	G
26	14	1271	G
26	14	1272	A

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Mol	Chain	Res	Type
26	14	1275	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1304	C
26	14	1307	A
26	14	1313	U
26	14	1319	G
26	14	1320	C
26	14	1325	G
26	14	1329	U
26	14	1332	G
26	14	1345	C
26	14	1348	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	1380	G
26	14	1385	G
26	14	1386	C
26	14	1390	U
26	14	1396	U
26	14	1406	U
26	14	1407	C
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1421	G
26	14	1425	G
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G

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Mol	Chain	Res	Type
26	14	1451	C
26	14	1453	A
26	14	1454	U
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1474	C
26	14	1475	G
26	14	1493	C
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1522	G
26	14	1523	U
26	14	1528	A
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1540	G
26	14	1543	A
26	14	1554	A
26	14	1555	G
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1562	A
26	14	1566	A
26	14	1569	A
26	14	1577	C
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1593	G
26	14	1595	G
26	14	1608	A
26	14	1609	A
26	14	1610	A

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Mol	Chain	Res	Type
26	14	1614	A
26	14	1616	A
26	14	1617	C
26	14	1619	G
26	14	1635	G
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1669	A
26	14	1671	U
26	14	1672	C
26	14	1674	G
26	14	1691	C
26	14	1696	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1718	G
26	14	1725	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1735	C
26	14	1742	C
26	14	1743	G
26	14	1747	G
26	14	1756	G
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1777	U
26	14	1780	A
26	14	1781	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1803	A
26	14	1808	U
26	14	1812	A
26	14	1816	G
26	14	1829	A

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Mol	Chain	Res	Type
26	14	1836	C
26	14	1839	G
26	14	1842	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1871	A
26	14	1872	A
26	14	1878	G
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1895	C
26	14	1896	G
26	14	1900	A
26	14	1906	G
26	14	1909	C
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1949	G
26	14	1951	U
26	14	1952	A
26	14	1955	U
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1976	U
26	14	1983	C
26	14	1991	U
26	14	1993	U
26	14	1995	U
26	14	2005	A
26	14	2019	A
26	14	2023	G
26	14	2031	A
26	14	2032	G

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Mol	Chain	Res	Type
26	14	2033	A
26	14	2043	C
26	14	2049	G
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2066	C
26	14	2067	G
26	14	2069	G
26	14	2074	U
26	14	2077	A
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2118	U
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2125	G
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2130	U
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2139	C
26	14	2140	C
26	14	2144	U
26	14	2145	C

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Mol	Chain	Res	Type
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2158	A
26	14	2159	G
26	14	2160	G
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2176	A
26	14	2177	C
26	14	2188	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2207	C
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2231	C
26	14	2238	G
26	14	2239	G
26	14	2251	G
26	14	2259	G
26	14	2267	A
26	14	2268	A
26	14	2269	A
26	14	2273	A
26	14	2275	C
26	14	2276	G

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Mol	Chain	Res	Type
26	14	2278	A
26	14	2280	G
26	14	2282	G
26	14	2283	C
26	14	2284	C
26	14	2287	A
26	14	2288	A
26	14	2289	G
26	14	2297	C
26	14	2298	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2318	G
26	14	2319	G
26	14	2321	G
26	14	2325	G
26	14	2327	A
26	14	2336	A
26	14	2338	G
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2393	A
26	14	2396	G
26	14	2400	G
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2410	G
26	14	2411	A
26	14	2413	G

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Mol	Chain	Res	Type
26	14	2414	G
26	14	2418	A
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2445	G
26	14	2448	A
26	14	2449	U
26	14	2468	G
26	14	2469	A
26	14	2476	A
26	14	2477	C
26	14	2492	U
26	14	2496	C
26	14	2502	G
26	14	2505	G
26	14	2506	U
26	14	2518	A
26	14	2525	G
26	14	2542	A
26	14	2543	G
26	14	2552	U
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2574	G
26	14	2575	C
26	14	2578	G
26	14	2585	U
26	14	2601	C
26	14	2602	A

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Mol	Chain	Res	Type
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2630	G
26	14	2631	G
26	14	2634	G
26	14	2636	U
26	14	2646	C
26	14	2665	A
26	14	2667	C
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2716	U
26	14	2726	U
26	14	2733	A
26	14	2739	U
26	14	2742	C
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2758	A
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G

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Mol	Chain	Res	Type
26	14	2794	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2804	C
26	14	2805	G
26	14	2808	U
26	14	2810	A
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2838	G
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2874	C
26	14	2880	C
26	14	2886	G
26	14	2889	C
26	14	2891	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
26	14	2896	C
26	14	2897	U
26	14	2899	G
27	1J	0	A
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	22	U
27	1J	26	A
27	1J	28	C
27	1J	30	C

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Mol	Chain	Res	Type
27	1J	32	C
27	1J	33	G
27	1J	42	C
27	1J	45	A
27	1J	47	C
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	59	A
27	1J	67	G
27	1J	73	A
27	1J	75	G
27	1J	77	U
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	94	C
27	1J	108	C
27	1J	109	G
27	1J	113	C
27	1J	115	G
27	1J	119	A

All (162) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A
1	13	115	G
1	13	244	U
1	13	266	G
1	13	389	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

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Mol	Chain	Res	Type
1	13	687	A
1	13	748	C
1	13	792	A
1	13	793	U
1	13	871	U
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1129	C
1	13	1137	C
1	13	1285	A
1	13	1397	C
1	13	1452	C
1	13	1498	U
1	13	1533	C
22	1K	48	C
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	18	G
24	3K	45	G
24	3K	58	A
25	4K	14	A
25	4K	18	G
26	1H	162	U
26	1H	196	A
26	1H	222	A
26	1H	249	C
26	1H	271(B)	G
26	1H	404	C
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	653	A
26	1H	668	G
26	1H	752	A
26	1H	845	G
26	1H	880	G
26	1H	893	C
26	1H	974	G
26	1H	1022	G
26	1H	1026	U

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Mol	Chain	Res	Type
26	1H	1107	G
26	1H	1210	A
26	1H	1286	A
26	1H	1378	A
26	1H	1396	U
26	1H	1402	C
26	1H	1416	G
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1653	G
26	1H	1694	C
26	1H	1699	G
26	1H	1799	G
26	1H	1900	A
26	1H	1980	G
26	1H	1992	G
26	1H	2035	G
26	1H	2060	A
26	1H	2210	G
26	1H	2225	A
26	1H	2275	C
26	1H	2428	G
26	1H	2439	A
26	1H	2448	A
26	1H	2476	A
26	1H	2598	A
26	1H	2611	U
26	1H	2681	C
26	1H	2756	U
27	16	44	G
1	1G	64	G
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	197	A
1	1G	250	A
1	1G	266	G
1	1G	345	C

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Mol	Chain	Res	Type
1	1G	412	A
1	1G	413	G
1	1G	485	G
1	1G	509	A
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	812	C
1	1G	816	A
1	1G	913	A
1	1G	992	U
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1498	U
1	1G	1533	C
56	1L	3	G
56	1L	6	G
56	1L	18	G
56	1L	69	A
23	2L	20	G
23	2L	48	U
57	3L	58	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	128	C
26	14	155	C
26	14	278	A
26	14	503	A
26	14	528	A
26	14	685	A
26	14	752	A
26	14	764	A
26	14	791	C
26	14	1022	G
26	14	1085	A
26	14	1210	A
26	14	1379	A
26	14	1396	U

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Mol	Chain	Res	Type
26	14	1416	G
26	14	1420	U
26	14	1444(A)	A
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1992	G
26	14	2048	G
26	14	2173	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	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2791	C
26	14	2859	G
27	1J	88	C

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

23 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	$\#\|Z\| > 2$
57	PSU	3L	39	57	18,21,22	1.24	1 (5%)	22,30,33	1.46	4 (18%)
56	T6A	1L	37	56	27,34,35	2.48	6 (22%)	29,49,52	2.37	8 (27%)
57	5MU	3L	54	57	19,22,23	4.05	6 (31%)	28,32,35	2.95	10 (35%)
22	T6A	1K	37	22	27,34,35	2.37	7 (25%)	29,49,52	1.98	5 (17%)
56	U8U	1L	34	25,56	19,24,25	2.68	7 (36%)	23,34,37	0.94	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	PSU	1L	55	56	18,21,22	1.09	1 (5%)	22,30,33	1.60	4 (18%)
22	PSU	1K	39	22	18,21,22	1.05	1 (5%)	22,30,33	1.63	4 (18%)
23	4SU	2K	8	23	18,21,22	1.82	4 (22%)	26,30,33	2.30	5 (19%)
23	5MU	2K	55	23	19,22,23	3.79	5 (26%)	28,32,35	3.53	9 (32%)
23	G7M	2L	47	23	20,26,27	4.82	5 (25%)	17,39,42	1.15	1 (5%)
56	PSU	1L	39	56	18,21,22	1.14	1 (5%)	22,30,33	1.57	3 (13%)
23	OMC	2L	33	23	19,22,23	1.71	3 (15%)	26,31,34	1.06	3 (11%)
57	PSU	3L	55	57	18,21,22	1.20	1 (5%)	22,30,33	1.73	5 (22%)
22	U8U	1K	34	22,25	19,24,25	2.42	6 (31%)	23,34,37	0.91	1 (4%)
23	PSU	2K	56	23	18,21,22	1.21	2 (11%)	22,30,33	1.91	3 (13%)
23	5MU	2L	55	23	19,22,23	3.80	5 (26%)	28,32,35	3.40	8 (28%)
22	5MU	1K	54	22	19,22,23	3.69	5 (26%)	28,32,35	3.13	6 (21%)
23	G7M	2K	47	23	20,26,27	4.75	6 (30%)	17,39,42	1.09	1 (5%)
23	OMC	2K	33	23	19,22,23	1.72	4 (21%)	26,31,34	0.95	2 (7%)
56	5MU	1L	54	56	19,22,23	3.84	5 (26%)	28,32,35	3.25	8 (28%)
22	PSU	1K	55	22	18,21,22	1.08	1 (5%)	22,30,33	1.56	4 (18%)
23	PSU	2L	56	23	18,21,22	1.28	1 (5%)	22,30,33	1.73	4 (18%)
23	4SU	2L	8	23	18,21,22	1.76	3 (16%)	26,30,33	2.66	4 (15%)

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
57	PSU	3L	39	57	-	2/7/25/26	0/2/2/2
56	T6A	1L	37	56	-	5/19/41/42	0/3/3/3
57	5MU	3L	54	57	-	0/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	4/19/41/42	0/3/3/3
56	U8U	1L	34	25,56	-	2/9/28/29	0/2/2/2
56	PSU	1L	55	56	-	2/7/25/26	0/2/2/2
22	PSU	1K	39	22	-	1/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
23	G7M	2L	47	23	-	2/3/25/26	0/3/3/3
56	PSU	1L	39	56	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	PSU	3L	55	57	-	4/7/25/26	0/2/2/2
22	U8U	1K	34	22,25	-	2/9/28/29	0/2/2/2
23	PSU	2K	56	23	-	2/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2
23	G7M	2K	47	23	-	3/3/25/26	0/3/3/3
23	OMC	2K	33	23	-	1/9/27/28	0/2/2/2
56	5MU	1L	54	56	-	0/7/25/26	0/2/2/2
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2

All (86) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	G7M	C8-N7	17.70	1.65	1.33
23	2K	47	G7M	C8-N7	17.48	1.65	1.33
57	3L	54	5MU	C2-N1	12.59	1.58	1.38
56	1L	54	5MU	C2-N1	12.47	1.58	1.38
23	2L	55	5MU	C2-N1	12.19	1.58	1.38
23	2K	55	5MU	C2-N1	11.90	1.57	1.38
22	1K	54	5MU	C2-N1	11.63	1.57	1.38
23	2L	47	G7M	C8-N9	7.76	1.47	1.33
23	2K	47	G7M	C8-N9	7.72	1.47	1.33
56	1L	37	T6A	C6-N6	7.44	1.49	1.36
23	2L	47	G7M	C5-C4	-7.39	1.24	1.39
23	2K	47	G7M	C5-C4	-7.14	1.24	1.39
56	1L	37	T6A	C10-N11	6.53	1.49	1.35
23	2L	55	5MU	C4-N3	-6.40	1.27	1.38
23	2K	55	5MU	C4-N3	-6.37	1.27	1.38
57	3L	54	5MU	C2-N3	6.35	1.49	1.38
22	1K	37	T6A	C6-N6	6.28	1.47	1.36
56	1L	54	5MU	C4-N3	-6.21	1.27	1.38
57	3L	54	5MU	C6-N1	6.14	1.48	1.38
22	1K	37	T6A	C10-N11	5.99	1.48	1.35
22	1K	54	5MU	C4-N3	-5.90	1.27	1.38
57	3L	54	5MU	C4-N3	-5.87	1.27	1.38
57	3L	54	5MU	C4-C5	5.73	1.54	1.44
56	1L	37	T6A	C10-N6	5.73	1.49	1.37
22	1K	54	5MU	C2-N3	5.62	1.48	1.38
23	2K	55	5MU	C2-N3	5.58	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	1L	54	5MU	C2-N3	5.57	1.47	1.38
56	1L	34	U8U	C2-S2	-5.52	1.59	1.67
22	1K	37	T6A	C10-N6	5.52	1.49	1.37
23	2L	55	5MU	C2-N3	5.48	1.47	1.38
22	1K	54	5MU	C6-N1	5.41	1.47	1.38
56	1L	34	U8U	C6-C5	5.41	1.50	1.34
22	1K	34	U8U	C2-S2	-5.37	1.59	1.67
23	2K	8	4SU	C5-C4	5.36	1.49	1.42
23	2K	55	5MU	C6-N1	5.35	1.47	1.38
56	1L	34	U8U	C2-N3	5.29	1.49	1.37
56	1L	54	5MU	C6-N1	5.27	1.47	1.38
23	2L	8	4SU	C5-C4	5.21	1.49	1.42
23	2K	55	5MU	C4-C5	5.19	1.53	1.44
23	2L	55	5MU	C4-C5	5.03	1.53	1.44
23	2L	55	5MU	C6-N1	4.99	1.46	1.38
22	1K	34	U8U	C6-C5	4.97	1.48	1.34
56	1L	54	5MU	C4-C5	4.79	1.52	1.44
22	1K	54	5MU	C4-C5	4.78	1.52	1.44
22	1K	34	U8U	C2-N3	4.73	1.48	1.37
23	2L	33	OMC	C2-N3	4.70	1.45	1.36
56	1L	34	U8U	C6-N1	4.65	1.46	1.38
23	2L	47	G7M	C4-N3	4.56	1.48	1.37
23	2K	33	OMC	C2-N3	4.34	1.45	1.36
23	2L	56	PSU	C6-C5	4.22	1.40	1.35
23	2K	47	G7M	C4-N3	4.20	1.47	1.37
57	3L	39	PSU	C6-C5	4.17	1.40	1.35
23	2L	33	OMC	C4-N4	4.13	1.43	1.33
23	2K	33	OMC	C4-N4	4.11	1.43	1.33
57	3L	55	PSU	C6-C5	4.03	1.40	1.35
56	1L	39	PSU	C6-C5	3.85	1.39	1.35
23	2K	8	4SU	C2-N1	3.78	1.44	1.38
22	1K	34	U8U	C6-N1	3.74	1.44	1.38
23	2L	8	4SU	C2-N1	3.64	1.44	1.38
56	1L	34	U8U	C4-N3	3.62	1.45	1.38
22	1K	55	PSU	C6-C5	3.51	1.39	1.35
23	2K	56	PSU	C6-C5	3.48	1.39	1.35
23	2K	33	OMC	C5-C4	3.39	1.50	1.42
56	1L	55	PSU	C6-C5	3.36	1.39	1.35
22	1K	34	U8U	C4-N3	3.25	1.44	1.38
22	1K	39	PSU	C6-C5	3.20	1.39	1.35
23	2K	47	G7M	C2-N2	3.13	1.41	1.34
23	2L	33	OMC	C5-C4	3.13	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	37	T6A	C6-N1	-3.05	1.29	1.34
23	2L	47	G7M	C2-N2	2.95	1.41	1.34
23	2L	8	4SU	C6-N1	2.76	1.44	1.38
56	1L	34	U8U	C4-C5	2.71	1.51	1.45
22	1K	37	T6A	C5-C4	-2.69	1.33	1.40
23	2K	8	4SU	C6-N1	2.56	1.44	1.38
56	1L	37	T6A	C5-C4	-2.39	1.34	1.40
22	1K	37	T6A	ODB-C13	-2.27	1.23	1.30
56	1L	37	T6A	ODB-C13	-2.25	1.23	1.30
57	3L	54	5MU	C6-C5	2.20	1.38	1.34
23	2K	56	PSU	C4-C5	-2.17	1.38	1.44
56	1L	37	T6A	C2-N3	2.16	1.35	1.32
23	2K	8	4SU	C4-N3	2.16	1.39	1.37
22	1K	34	U8U	C4-C5	2.09	1.49	1.45
23	2K	47	G7M	C6-N1	-2.06	1.34	1.37
23	2K	33	OMC	C6-N1	2.06	1.42	1.38
56	1L	34	U8U	O4-C4	-2.04	1.19	1.23
22	1K	37	T6A	ODA-C13	2.01	1.28	1.22

All (103) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C4-N3	11.30	124.95	115.31
22	1K	54	5MU	C5-C4-N3	10.92	124.63	115.31
23	2L	55	5MU	C5-C4-N3	10.89	124.61	115.31
56	1L	54	5MU	C5-C4-N3	10.30	124.10	115.31
57	3L	54	5MU	C5-C4-N3	8.97	122.97	115.31
23	2L	8	4SU	C4-N3-C2	-8.87	118.72	127.34
23	2L	8	4SU	C5-C4-N3	7.90	122.01	114.69
23	2K	55	5MU	C5-C6-N1	-7.69	115.43	123.34
23	2L	55	5MU	C5-C6-N1	-7.34	115.79	123.34
23	2K	8	4SU	C4-N3-C2	-7.25	120.30	127.34
23	2K	55	5MU	C4-N3-C2	-7.09	118.18	127.35
23	2L	55	5MU	C4-N3-C2	-6.76	118.60	127.35
56	1L	54	5MU	C4-N3-C2	-6.46	118.99	127.35
23	2L	55	5MU	C6-C5-C4	6.31	123.31	118.03
23	2K	55	5MU	C6-C5-C4	6.26	123.26	118.03
22	1K	54	5MU	C5-C6-N1	-5.95	117.21	123.34
22	1K	54	5MU	C4-N3-C2	-5.86	119.77	127.35
56	1L	54	5MU	C6-C5-C4	5.84	122.91	118.03
56	1L	54	5MU	C5-C6-N1	-5.65	117.52	123.34
56	1L	37	T6A	N6-C10-N11	5.53	121.49	113.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	3L	54	5MU	C4-N3-C2	-5.46	120.28	127.35
56	1L	37	T6A	N3-C2-N1	-5.41	120.22	128.68
22	1K	37	T6A	N3-C2-N1	-5.32	120.36	128.68
22	1K	54	5MU	O4-C4-C5	-5.31	118.74	124.90
57	3L	54	5MU	C6-C5-C4	5.29	122.45	118.03
22	1K	37	T6A	N6-C10-N11	5.28	121.14	113.76
23	2K	56	PSU	C4-N3-C2	-5.06	119.05	126.34
22	1K	37	T6A	C2-N1-C6	4.93	120.82	116.59
23	2L	55	5MU	C5M-C5-C6	-4.93	116.27	122.85
56	1L	37	T6A	C2-N1-C6	4.92	120.81	116.59
56	1L	54	5MU	C5M-C5-C6	-4.85	116.37	122.85
57	3L	54	5MU	C5-C6-N1	-4.78	118.42	123.34
56	1L	54	5MU	O4-C4-C5	-4.75	119.39	124.90
23	2K	8	4SU	C5-C4-N3	4.75	119.09	114.69
23	2K	55	5MU	O4-C4-C5	-4.74	119.41	124.90
23	2K	56	PSU	N1-C2-N3	4.74	120.50	115.13
57	3L	54	5MU	C5M-C5-C6	-4.67	116.61	122.85
23	2K	55	5MU	C5M-C5-C6	-4.65	116.64	122.85
23	2L	56	PSU	C4-N3-C2	-4.45	119.92	126.34
23	2L	55	5MU	O4-C4-C5	-4.44	119.75	124.90
57	3L	55	PSU	C4-N3-C2	-4.44	119.94	126.34
23	2K	8	4SU	C5-C4-S4	-4.44	118.75	124.47
22	1K	54	5MU	C6-C5-C4	4.43	121.74	118.03
22	1K	39	PSU	C4-N3-C2	-4.31	120.13	126.34
57	3L	55	PSU	N1-C2-N3	4.30	120.00	115.13
56	1L	55	PSU	C4-N3-C2	-4.29	120.16	126.34
23	2L	56	PSU	N1-C2-N3	4.26	119.96	115.13
57	3L	54	5MU	C6-N1-C2	-4.19	117.05	121.30
56	1L	37	T6A	C13-C12-N11	-4.17	101.18	110.28
56	1L	39	PSU	C4-N3-C2	-4.12	120.41	126.34
22	1K	54	5MU	C5M-C5-C6	-4.04	117.45	122.85
23	2L	8	4SU	C5-C4-S4	-3.96	119.37	124.47
23	2K	8	4SU	N3-C2-N1	3.91	120.08	114.89
22	1K	39	PSU	N1-C2-N3	3.86	119.50	115.13
56	1L	39	PSU	N1-C2-N3	3.84	119.49	115.13
56	1L	37	T6A	C12-N11-C10	3.84	128.33	121.94
56	1L	37	T6A	O10-C10-N6	-3.83	117.15	123.62
57	3L	39	PSU	C4-N3-C2	-3.72	120.98	126.34
23	2L	8	4SU	N3-C2-N1	3.63	119.70	114.89
57	3L	39	PSU	N1-C2-N3	3.55	119.16	115.13
56	1L	55	PSU	N1-C2-N3	3.55	119.15	115.13
57	3L	54	5MU	O4-C4-C5	-3.47	120.88	124.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	55	PSU	O2-C2-N1	-3.46	118.98	122.79
22	1K	55	PSU	C4-N3-C2	-3.43	121.39	126.34
56	1L	54	5MU	C6-N1-C2	-3.38	117.87	121.30
23	2K	8	4SU	C1'-N1-C2	3.22	123.39	117.57
22	1K	55	PSU	N1-C2-N3	3.18	118.73	115.13
22	1K	37	T6A	O10-C10-N6	-3.04	118.47	123.62
56	1L	37	T6A	C14-C12-N11	2.97	119.34	111.72
57	3L	54	5MU	N3-C2-N1	2.96	118.82	114.89
23	2L	47	G7M	C2-N1-C6	-2.88	119.80	125.10
56	1L	54	5MU	N3-C2-N1	2.79	118.60	114.89
23	2K	55	5MU	O2-C2-N1	-2.71	119.18	122.79
56	1L	37	T6A	C1'-N9-C4	-2.71	121.88	126.64
23	2K	56	PSU	C6-N1-C2	-2.63	120.00	122.68
56	1L	34	U8U	C5-C4-N3	2.62	118.65	114.97
23	2K	47	G7M	C2-N1-C6	-2.59	120.33	125.10
56	1L	39	PSU	O2-C2-N1	-2.59	119.94	122.79
22	1K	34	U8U	C5-C4-N3	2.52	118.51	114.97
22	1K	39	PSU	O2-C2-N1	-2.50	120.03	122.79
23	2L	33	OMC	N4-C4-N3	2.50	122.36	117.97
23	2K	55	5MU	N3-C2-N1	2.48	118.18	114.89
22	1K	37	T6A	N6-C6-N1	2.46	122.02	118.72
57	3L	39	PSU	O2-C2-N1	-2.40	120.15	122.79
57	3L	54	5MU	O2-C2-N1	-2.37	119.64	122.79
23	2L	56	PSU	O2-C2-N1	-2.36	120.19	122.79
23	2L	55	5MU	O4-C4-N3	-2.34	115.64	120.12
23	2K	55	5MU	O4-C4-N3	-2.33	115.64	120.12
22	1K	55	PSU	C6-N1-C2	-2.31	120.32	122.68
57	3L	39	PSU	C6-N1-C2	-2.29	120.34	122.68
23	2L	55	5MU	N3-C2-N1	2.26	117.90	114.89
23	2L	33	OMC	C1'-N1-C2	2.21	123.36	118.42
56	1L	55	PSU	C6-C5-C4	2.18	119.72	118.20
57	3L	55	PSU	C6-N1-C2	-2.16	120.47	122.68
23	2L	56	PSU	C6-N1-C2	-2.16	120.48	122.68
23	2K	33	OMC	C1'-N1-C2	2.15	123.23	118.42
23	2L	33	OMC	C5-C4-N4	-2.14	117.21	120.57
23	2K	33	OMC	N4-C4-N3	2.13	121.70	117.97
57	3L	55	PSU	O2-C2-N1	-2.12	120.46	122.79
56	1L	55	PSU	O4'-C1'-C2'	2.12	108.13	105.14
57	3L	54	5MU	O4-C4-N3	-2.07	116.15	120.12
57	3L	55	PSU	O4'-C1'-C2'	2.06	108.05	105.14
22	1K	39	PSU	C6-N1-C2	-2.02	120.61	122.68

There are no chirality outliers.

All (30) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	C13-C12-C14-C15
56	1L	37	T6A	C13-C12-C14-C15
57	3L	55	PSU	C2'-C1'-C5-C4
56	1L	34	U8U	O4'-C4'-C5'-O5'
57	3L	39	PSU	C3'-C4'-C5'-O5'
23	2K	56	PSU	O4'-C4'-C5'-O5'
57	3L	39	PSU	O4'-C4'-C5'-O5'
22	1K	34	U8U	C3'-C4'-C5'-O5'
22	1K	37	T6A	N11-C12-C14-O14
56	1L	37	T6A	C14-C12-N11-C10
56	1L	34	U8U	C3'-C4'-C5'-O5'
22	1K	34	U8U	O4'-C4'-C5'-O5'
23	2K	47	G7M	O4'-C4'-C5'-O5'
23	2K	47	G7M	C3'-C4'-C5'-O5'
56	1L	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	N11-C12-C14-C15
23	2L	47	G7M	O4'-C4'-C5'-O5'
23	2K	47	G7M	C4'-C5'-O5'-P
23	2K	56	PSU	C3'-C4'-C5'-O5'
22	1K	39	PSU	O4'-C1'-C5-C4
56	1L	55	PSU	O4'-C1'-C5-C4
57	3L	55	PSU	O4'-C1'-C5-C4
56	1L	37	T6A	N11-C12-C14-O14
23	2L	47	G7M	C4'-C5'-O5'-P
56	1L	55	PSU	O4'-C1'-C5-C6
57	3L	55	PSU	O4'-C1'-C5-C6
56	1L	37	T6A	N11-C12-C14-C15
23	2K	33	OMC	C3'-C2'-O2'-CM2
57	3L	55	PSU	C4'-C5'-O5'-P

There are no ring outliers.

12 monomers are involved in 16 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	3L	39	PSU	1	0
56	1L	34	U8U	2	0
56	1L	55	PSU	1	0
23	2L	47	G7M	2	0
23	2L	33	OMC	1	0
57	3L	55	PSU	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2K	56	PSU	1	0
23	2L	55	5MU	1	0
23	2K	47	G7M	1	0
23	2K	33	OMC	2	0
23	2L	56	PSU	1	0
23	2L	8	4SU	2	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1144 ligands modelled in this entry, 1142 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	SF4	32	301	-	0,12,12	-	-	-		
59	SF4	3E	301	4	0,12,12	-	-	-		

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	SF4	32	301	-	-	-	0/6/5/5
59	SF4	3E	301	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	32	301	SF4	2	0
59	3E	301	SF4	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

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	1496/1522 (98%)	-0.66	1 (0%)	95	95	62, 109, 164, 193	0
1	1G	1507/1522 (99%)	-0.64	2 (0%)	95	95	80, 127, 170, 197	0
2	12	210/256 (82%)	0.46	23 (10%)	5	3	127, 152, 162, 177	0
2	1E	231/256 (90%)	0.62	29 (12%)	3	2	117, 141, 159, 166	0
3	22	196/239 (82%)	1.21	47 (23%)	0	0	129, 143, 156, 164	0
3	2E	205/239 (85%)	0.92	35 (17%)	1	1	94, 114, 136, 145	0
4	32	208/209 (99%)	1.20	45 (21%)	0	1	108, 128, 145, 152	0
4	3E	207/209 (99%)	0.82	27 (13%)	3	2	92, 114, 134, 139	0
5	42	148/162 (91%)	0.60	9 (6%)	21	12	114, 129, 143, 152	0
5	4E	149/162 (91%)	0.53	9 (6%)	21	12	89, 108, 124, 140	0
6	52	101/101 (100%)	1.28	21 (20%)	1	1	95, 111, 129, 137	0
6	5E	100/101 (99%)	0.77	11 (11%)	5	3	87, 107, 126, 136	0
7	62	138/156 (88%)	-0.42	0	100	100	121, 134, 144, 148	0
7	6E	154/156 (98%)	-0.23	2 (1%)	77	65	109, 125, 148, 166	0
8	72	137/138 (99%)	0.07	4 (2%)	51	36	111, 133, 142, 145	0
8	7E	138/138 (100%)	-0.05	1 (0%)	87	81	97, 117, 128, 138	0
9	82	121/128 (94%)	-0.34	2 (1%)	70	57	117, 149, 158, 163	0
9	8E	126/128 (98%)	-0.44	0	100	100	96, 135, 152, 157	0
10	1A	80/105 (76%)	0.04	2 (2%)	57	43	129, 146, 156, 161	0
10	1I	91/105 (86%)	0.47	7 (7%)	13	7	87, 128, 159, 165	0
11	2A	113/129 (87%)	0.76	13 (11%)	4	3	94, 117, 130, 138	0
11	2I	111/129 (86%)	0.35	5 (4%)	33	21	85, 113, 127, 142	0
12	3A	122/132 (92%)	1.10	28 (22%)	0	0	89, 107, 130, 146	0
12	3I	122/132 (92%)	1.08	16 (13%)	3	2	73, 82, 106, 137	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
13	4A	111/126 (88%)	0.72	11 (9%)	7	4	125, 145, 156, 160	0
13	4I	119/126 (94%)	0.18	4 (3%)	45	29	93, 123, 136, 147	0
14	5A	59/61 (96%)	1.75	22 (37%)	0	0	134, 143, 153, 154	0
14	5I	60/61 (98%)	-0.16	0	100	100	92, 103, 118, 131	0
15	6A	88/89 (98%)	0.30	2 (2%)	60	47	96, 119, 135, 139	0
15	6I	87/89 (97%)	-0.07	0	100	100	88, 104, 122, 127	0
16	7A	84/88 (95%)	0.19	2 (2%)	59	44	102, 117, 135, 152	0
16	7I	83/88 (94%)	0.53	7 (8%)	11	6	110, 119, 143, 150	0
17	8A	99/105 (94%)	0.19	3 (3%)	50	34	105, 120, 132, 133	0
17	8I	100/105 (95%)	0.32	1 (1%)	82	72	98, 114, 124, 126	0
18	9A	67/88 (76%)	1.36	22 (32%)	0	0	106, 121, 135, 142	0
18	9I	68/88 (77%)	1.17	17 (25%)	0	0	94, 109, 133, 136	0
19	AA	62/93 (66%)	1.29	14 (22%)	0	0	134, 149, 156, 158	0
19	AI	81/93 (87%)	0.54	6 (7%)	14	8	102, 122, 138, 151	0
20	BA	99/106 (93%)	-0.19	1 (1%)	82	72	100, 118, 141, 152	0
20	BI	97/106 (91%)	-0.10	1 (1%)	82	72	112, 125, 148, 157	0
21	1B	22/27 (81%)	1.15	5 (22%)	0	0	129, 137, 145, 148	0
21	1F	23/27 (85%)	-0.33	0	100	100	94, 112, 118, 122	0
22	1K	66/75 (88%)	0.07	1 (1%)	73	61	85, 153, 177, 183	0
23	2K	72/77 (93%)	-0.44	0	100	100	77, 104, 132, 146	0
23	2L	72/77 (93%)	-0.30	0	100	100	85, 122, 151, 162	0
24	3K	76/76 (100%)	-0.28	1 (1%)	77	65	79, 178, 191, 196	0
25	4K	19/27 (70%)	-0.20	1 (5%)	26	14	79, 152, 184, 184	0
25	4L	18/27 (66%)	0.10	0	100	100	101, 161, 187, 187	0
26	14	2861/2917 (98%)	-0.36	35 (1%)	79	67	55, 92, 180, 204	0
26	1H	2833/2917 (97%)	-0.42	13 (0%)	91	86	49, 79, 168, 203	0
27	16	122/122 (100%)	-0.12	1 (0%)	86	78	74, 98, 119, 179	0
27	1J	122/122 (100%)	-0.73	0	100	100	93, 125, 145, 177	0
28	71	133/229 (58%)	1.28	35 (26%)	0	0	143, 174, 185, 189	0
28	79	57/229 (24%)	-0.24	1 (1%)	68	55	140, 165, 176, 179	0
29	11	273/276 (98%)	-0.20	0	100	100	48, 71, 89, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
29	19	274/276 (99%)	0.53	12 (4%)	34	21	58, 82, 101, 117	0
30	21	203/206 (98%)	0.81	35 (17%)	1	1	55, 93, 139, 153	0
30	29	204/206 (99%)	0.63	38 (18%)	1	1	60, 99, 134, 144	0
31	31	202/210 (96%)	0.39	21 (10%)	6	4	54, 84, 118, 142	0
31	39	204/210 (97%)	0.79	33 (16%)	1	1	62, 111, 151, 168	0
32	41	179/182 (98%)	1.18	39 (21%)	0	0	85, 107, 140, 156	0
32	49	179/182 (98%)	0.97	41 (22%)	0	0	122, 139, 155, 171	0
33	51	171/180 (95%)	0.46	9 (5%)	26	14	89, 110, 127, 139	0
33	59	73/180 (40%)	0.25	8 (10%)	5	3	136, 154, 165, 177	0
34	61	146/148 (98%)	1.08	35 (23%)	0	0	83, 130, 143, 150	0
34	69	145/148 (97%)	1.35	43 (29%)	0	0	93, 129, 147, 152	0
35	15	138/140 (98%)	1.92	56 (40%)	0	0	86, 114, 139, 155	0
35	58	138/140 (98%)	0.27	6 (4%)	35	22	68, 97, 130, 145	0
36	25	122/122 (100%)	0.04	0	100	100	77, 94, 114, 120	0
36	68	122/122 (100%)	0.03	2 (1%)	72	59	64, 81, 99, 104	0
37	35	147/150 (98%)	0.31	8 (5%)	25	14	65, 111, 138, 144	0
37	78	147/150 (98%)	0.05	3 (2%)	65	51	53, 88, 113, 120	0
38	45	138/141 (97%)	2.27	69 (50%)	0	0	78, 108, 128, 142	0
38	88	141/141 (100%)	1.23	31 (21%)	0	0	63, 83, 108, 129	0
39	55	118/118 (100%)	-0.03	1 (0%)	86	78	69, 86, 108, 127	0
39	98	118/118 (100%)	0.49	10 (8%)	10	6	67, 90, 109, 122	0
40	65	110/112 (98%)	0.34	5 (4%)	33	21	92, 117, 135, 142	0
40	A8	111/112 (99%)	2.42	65 (58%)	0	0	71, 93, 115, 123	0
41	75	133/146 (91%)	-0.35	3 (2%)	60	47	87, 101, 129, 141	0
41	B8	133/146 (91%)	-0.43	2 (1%)	73	61	78, 98, 133, 149	0
42	85	116/118 (98%)	1.37	33 (28%)	0	0	73, 100, 132, 138	0
42	C8	115/118 (97%)	-0.16	3 (2%)	56	40	59, 86, 114, 118	0
43	95	100/101 (99%)	2.98	69 (69%)	0	0	69, 121, 139, 153	0
43	D8	100/101 (99%)	0.14	6 (6%)	21	12	62, 106, 126, 144	0
44	A5	113/113 (100%)	0.01	2 (1%)	68	55	68, 82, 112, 158	0
44	E8	112/113 (99%)	0.36	5 (4%)	33	21	63, 79, 106, 147	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
45	B5	94/96 (97%)	0.94	13 (13%)	2	2	77, 91, 118, 128	0
45	F8	95/96 (98%)	0.67	10 (10%)	6	3	60, 76, 104, 118	0
46	C5	104/110 (94%)	0.44	9 (8%)	10	5	91, 122, 149, 154	0
46	G8	105/110 (95%)	-0.23	0	100	100	75, 101, 131, 139	0
47	D5	132/206 (64%)	1.81	58 (43%)	0	0	115, 135, 150, 158	0
47	H8	171/206 (83%)	1.74	66 (38%)	0	0	90, 122, 167, 172	0
48	E5	77/85 (90%)	0.12	4 (5%)	27	15	72, 94, 111, 131	0
48	I8	76/85 (89%)	0.49	3 (3%)	39	25	61, 75, 90, 102	0
49	F5	94/98 (95%)	0.15	2 (2%)	63	49	67, 88, 121, 136	0
49	J8	94/98 (95%)	0.10	2 (2%)	63	49	62, 77, 120, 122	0
50	G5	66/72 (91%)	0.52	4 (6%)	21	12	87, 108, 126, 145	0
50	K8	68/72 (94%)	0.15	2 (2%)	51	36	68, 84, 102, 124	0
51	H5	58/60 (96%)	1.89	26 (44%)	0	0	81, 106, 128, 135	0
51	L8	58/60 (96%)	0.37	3 (5%)	27	15	63, 85, 115, 127	0
52	M8	47/71 (66%)	2.74	31 (65%)	0	0	109, 143, 158, 163	0
53	J5	56/60 (93%)	-0.11	0	100	100	66, 86, 141, 148	0
53	N8	48/60 (80%)	0.41	7 (14%)	2	1	56, 84, 140, 142	0
54	L5	47/49 (95%)	0.14	2 (4%)	35	22	58, 66, 85, 91	0
54	P8	47/49 (95%)	-0.44	0	100	100	52, 57, 77, 88	0
55	M5	64/65 (98%)	0.14	0	100	100	76, 85, 101, 117	0
55	Q8	64/65 (98%)	0.15	0	100	100	61, 71, 88, 99	0
56	1L	68/76 (89%)	1.09	15 (22%)	0	0	118, 173, 181, 188	0
57	3L	73/76 (96%)	-0.60	0	100	100	87, 172, 185, 190	0
All	All	20602/21966 (93%)	0.11	1495 (7%)	15	9	48, 107, 162, 204	0

All (1495) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
26	14	2899	G	12.6
26	14	2901	C	10.8
26	14	2799	A	10.4
26	14	2902	C	9.9
43	95	45	THR	9.5
26	14	4	C	9.5

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Mol	Chain	Res	Type	RSRZ
27	16	1(M)	A	9.3
43	95	1	MET	9.2
26	14	2897	U	9.1
26	14	2900	A	8.7
26	14	2898	U	8.6
43	95	12	TYR	8.5
41	75	1	MET	8.5
26	14	2795	G	7.8
43	95	91	TYR	7.7
38	45	91	GLU	7.5
32	49	138	GLN	7.4
12	3A	64	TYR	7.3
38	45	103	MET	7.3
26	14	5	A	7.3
52	M8	3	GLU	7.3
34	61	65	ALA	7.2
52	M8	31	ILE	7.1
31	39	12	LEU	7.1
47	D5	68	PRO	7.0
30	21	89	ASP	6.9
38	45	104	PHE	6.9
26	14	2801	A	6.8
40	A8	112	PHE	6.8
14	5A	39	LEU	6.7
6	5E	46	ARG	6.7
41	B8	1	MET	6.6
14	5A	37	PHE	6.4
43	95	15	GLU	6.3
43	95	40	LEU	6.3
34	69	125	GLU	6.2
38	45	105	GLU	6.2
14	5A	38	GLY	6.2
26	14	3	U	6.2
30	21	67	PHE	6.2
26	14	2	G	6.1
38	45	25	ASP	6.0
47	H8	147	GLY	5.9
43	95	93	GLU	5.8
37	35	1	MET	5.8
40	A8	27	SER	5.8
3	22	53	ALA	5.7
40	A8	37	ALA	5.7

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Mol	Chain	Res	Type	RSRZ
43	95	36	PRO	5.7
6	52	38	GLU	5.7
38	45	56	ARG	5.7
35	15	51	PHE	5.6
35	15	48	MET	5.6
26	14	2896	C	5.6
38	45	68	ILE	5.6
43	95	94	LEU	5.6
30	29	69	LYS	5.6
47	H8	148	ASP	5.6
38	45	33	GLY	5.6
35	15	134	ARG	5.6
42	85	72	HIS	5.6
35	15	1	MET	5.6
52	M8	13	ARG	5.5
35	15	9	VAL	5.5
43	95	16	PRO	5.5
4	32	108	LEU	5.5
38	45	93	TYR	5.5
15	6A	2	PRO	5.5
3	2E	166	GLU	5.5
26	1H	2476	A	5.5
34	61	107	VAL	5.5
26	14	1	G	5.5
34	61	116	LEU	5.4
52	M8	41	PRO	5.4
32	49	139	LEU	5.4
45	B5	92	LEU	5.4
34	69	85	GLU	5.4
28	71	9	ALA	5.3
32	49	155	MET	5.3
52	M8	5	ILE	5.3
52	M8	30	GLU	5.3
3	2E	193	TYR	5.3
28	71	27	HIS	5.3
38	45	92	GLY	5.3
34	69	72	LEU	5.3
30	21	88	GLY	5.2
40	65	108	GLY	5.2
40	A8	111	GLU	5.2
35	15	41	ASP	5.2
32	49	177	GLY	5.2

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Mol	Chain	Res	Type	RSRZ
12	3A	28	LYS	5.2
43	95	26	ASP	5.1
47	H8	149	SER	5.1
3	22	146	ALA	5.1
35	15	43	THR	5.1
38	45	65	PHE	5.1
35	15	12	ARG	5.1
42	85	69	CYS	5.1
40	A8	36	TYR	5.1
43	95	63	GLY	5.1
40	A8	68	GLN	5.1
43	95	97	LYS	5.0
30	29	78	LEU	5.0
30	21	90	THR	5.0
31	39	10	PRO	5.0
35	15	131	GLN	5.0
32	49	142	PRO	5.0
34	69	144	VAL	5.0
26	1H	2798	C	5.0
32	41	137	GLU	5.0
26	14	2797	U	5.0
38	45	102	VAL	4.9
43	D8	37	VAL	4.9
40	A8	52	SER	4.9
34	61	146	ALA	4.9
31	39	22	ALA	4.9
26	1H	2799	A	4.9
32	49	137	GLU	4.9
43	95	64	HIS	4.9
47	D5	70	LEU	4.9
26	14	2802	G	4.9
38	88	104	PHE	4.9
35	15	136	GLU	4.9
32	49	146	TYR	4.9
34	69	76	THR	4.8
47	H8	1	MET	4.8
28	71	11	LEU	4.8
40	A8	43	GLU	4.8
2	12	37	ASN	4.8
12	3A	68	ALA	4.8
2	12	102	LEU	4.8
35	15	13	TRP	4.8

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Mol	Chain	Res	Type	RSRZ
30	29	49	LEU	4.8
34	69	123	LEU	4.8
52	M8	11	PRO	4.8
31	31	6	VAL	4.8
42	85	74	LEU	4.8
14	5A	36	PHE	4.7
34	69	86	THR	4.7
40	A8	48	LEU	4.7
26	14	2794	C	4.7
26	14	2798	C	4.7
47	H8	166	SER	4.7
28	71	29	VAL	4.7
43	95	3	ALA	4.7
34	69	88	ILE	4.7
40	A8	28	VAL	4.7
40	A8	49	VAL	4.7
52	M8	34	GLU	4.7
43	95	5	VAL	4.6
32	49	34	LEU	4.6
6	5E	57	GLN	4.6
43	95	92	THR	4.6
38	45	34	LEU	4.6
12	3I	64	TYR	4.6
3	22	101	LEU	4.6
38	45	69	PHE	4.5
34	61	113	ARG	4.5
34	61	70	GLU	4.5
34	61	72	LEU	4.5
4	32	70	ILE	4.5
32	41	88	ILE	4.5
51	H5	2	PRO	4.5
28	71	8	ARG	4.5
42	85	56	ASP	4.5
47	D5	69	THR	4.4
2	12	197	VAL	4.4
38	88	33	GLY	4.4
43	95	27	ALA	4.4
4	32	5	ILE	4.4
31	39	9	ILE	4.4
14	5A	51	GLY	4.4
43	95	96	ILE	4.4
31	39	199	TRP	4.4

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Mol	Chain	Res	Type	RSRZ
30	29	4	ILE	4.4
44	E8	111	HIS	4.4
31	39	8	GLN	4.4
19	AA	44	MET	4.3
35	15	44	PRO	4.3
30	29	77	ILE	4.3
34	69	138	ILE	4.3
43	95	61	VAL	4.3
30	21	55	ASN	4.3
3	22	198	VAL	4.3
32	49	39	ILE	4.3
38	45	6	ARG	4.3
28	71	35	ALA	4.3
30	21	91	VAL	4.3
35	15	15	LEU	4.3
49	F5	28	GLY	4.3
47	D5	54	HIS	4.3
43	95	39	LEU	4.3
43	95	42	GLY	4.3
47	H8	70	LEU	4.3
30	29	73	GLU	4.2
52	M8	25	TYR	4.2
35	15	11	PRO	4.2
47	H8	113	ALA	4.2
10	1A	65	LEU	4.2
47	D5	5	LEU	4.2
40	A8	87	PHE	4.2
31	39	11	VAL	4.2
18	9A	43	PHE	4.2
38	45	32	TYR	4.2
38	45	66	ILE	4.2
43	95	99	ILE	4.2
2	12	62	ALA	4.2
33	51	171	LEU	4.2
38	88	32	TYR	4.2
35	15	8	GLN	4.2
34	69	78	THR	4.2
47	D5	83	PRO	4.2
28	71	176	GLY	4.2
38	45	64	ILE	4.2
4	3E	110	PHE	4.2
43	95	65	GLY	4.2

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Mol	Chain	Res	Type	RSRZ
43	95	35	LEU	4.1
38	45	130	LYS	4.1
51	H5	28	LEU	4.1
3	22	102	ASN	4.1
4	32	68	TYR	4.1
30	21	66	HIS	4.1
32	49	140	ILE	4.1
45	B5	26	TYR	4.1
47	D5	126	VAL	4.1
35	15	50	ASP	4.1
30	29	2	LYS	4.1
18	9I	40	LEU	4.1
4	32	110	PHE	4.1
30	21	32	PRO	4.1
35	15	133	GLN	4.1
47	H8	146	ILE	4.1
42	85	59	ARG	4.0
38	45	61	GLY	4.0
40	A8	109	GLY	4.0
19	AA	62	ILE	4.0
3	22	60	ALA	4.0
47	H8	88	PHE	4.0
43	95	44	LYS	4.0
26	14	546	C	4.0
42	85	117	GLN	4.0
43	95	2	PHE	4.0
42	85	67	ALA	4.0
6	52	89	MET	4.0
32	41	146	TYR	4.0
56	1L	71	C	4.0
38	45	59	ARG	4.0
30	21	72	VAL	4.0
40	A8	101	LEU	4.0
43	95	38	LEU	4.0
43	95	95	LEU	4.0
34	61	109	ILE	4.0
52	M8	28	LYS	3.9
12	3A	69	TYR	3.9
19	AI	71	LEU	3.9
34	69	114	LEU	3.9
38	88	105	GLU	3.9
35	15	46	VAL	3.9

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Mol	Chain	Res	Type	RSRZ
3	2E	200	ALA	3.9
2	1E	152	PHE	3.9
3	2E	167	TRP	3.9
31	39	128	ALA	3.9
35	58	133	GLN	3.9
43	D8	45	THR	3.9
12	3A	20	LYS	3.9
40	A8	102	ALA	3.9
40	A8	105	ALA	3.9
18	9I	26	LEU	3.9
52	M8	2	LYS	3.9
40	A8	35	ILE	3.9
43	95	60	GLU	3.9
30	21	5	LEU	3.9
40	A8	29	PHE	3.8
6	52	37	VAL	3.8
4	32	185	PHE	3.8
43	95	34	GLU	3.8
43	95	11	GLN	3.8
12	3A	32	PHE	3.8
43	95	17	GLY	3.8
43	95	90	PRO	3.8
35	15	39	ARG	3.8
43	95	4	ILE	3.8
47	D5	56	VAL	3.8
47	D5	67	LEU	3.8
38	45	133	ARG	3.8
50	G5	44	LEU	3.8
38	45	90	VAL	3.8
32	41	41	GLN	3.8
47	H8	168	GLU	3.8
32	49	89	GLY	3.8
2	1E	96	ARG	3.8
43	95	18	LEU	3.8
34	69	80	PRO	3.7
51	H5	26	LEU	3.7
30	29	90	THR	3.7
18	9I	42	ARG	3.7
6	52	61	LEU	3.7
30	29	71	GLY	3.7
47	H8	104	PHE	3.7
14	5A	26	ARG	3.7

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Mol	Chain	Res	Type	RSRZ
4	3E	144	ASP	3.7
31	39	7	TYR	3.7
4	32	69	GLY	3.7
28	71	5	LYS	3.7
32	41	135	LEU	3.7
47	D5	91	LEU	3.7
47	D5	159	PRO	3.7
6	52	36	ARG	3.7
43	95	14	VAL	3.7
47	H8	51	ALA	3.7
32	41	23	PHE	3.7
33	59	153	LYS	3.7
34	69	141	LYS	3.7
47	H8	121	HIS	3.7
30	21	33	VAL	3.7
31	39	14	PRO	3.7
4	3E	145	GLU	3.7
32	49	145	THR	3.7
4	32	34	GLU	3.7
43	95	41	GLY	3.6
40	A8	24	LEU	3.6
34	61	130	TYR	3.6
47	D5	55	HIS	3.6
2	12	39	ILE	3.6
30	29	96	PHE	3.6
32	49	108	ASN	3.6
34	61	75	LEU	3.6
32	41	178	PHE	3.6
47	H8	7	ALA	3.6
19	AA	63	THR	3.6
28	71	34	THR	3.6
6	52	66	GLU	3.6
43	95	28	GLU	3.6
51	H5	30	ARG	3.6
52	M8	20	ASN	3.6
38	45	7	MET	3.6
47	D5	88	PHE	3.6
30	21	49	LEU	3.6
3	22	7	PRO	3.6
47	H8	114	GLY	3.6
28	71	25	ALA	3.6
38	45	67	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
35	15	37	LYS	3.6
19	AI	60	VAL	3.6
30	21	4	ILE	3.6
52	M8	12	ALA	3.6
41	75	2	ASN	3.6
4	32	153	ARG	3.6
38	45	112	GLU	3.6
40	A8	41	ASP	3.6
47	H8	171	ILE	3.6
28	71	28	LEU	3.6
31	39	147	GLY	3.6
42	85	73	GLY	3.6
26	14	2793	G	3.6
30	21	34	VAL	3.6
35	15	127	ASP	3.5
43	95	24	LYS	3.5
38	45	60	ARG	3.5
40	A8	26	LEU	3.5
42	85	68	ALA	3.5
26	1H	1536	A	3.5
12	3A	65	GLU	3.5
30	21	50	GLY	3.5
2	1E	148	TYR	3.5
30	29	56	PRO	3.5
35	15	135	PRO	3.5
40	A8	7	TYR	3.5
4	32	131	ARG	3.5
47	D5	46	LYS	3.5
4	3E	111	ALA	3.5
32	41	150	ASP	3.5
3	22	144	SER	3.5
31	31	9	ILE	3.5
30	29	3	GLY	3.5
34	69	126	TYR	3.5
47	D5	9	TYR	3.5
18	9A	42	ARG	3.5
40	A8	38	GLN	3.5
31	31	27	GLU	3.5
34	61	131	LYS	3.5
51	H5	58	VAL	3.5
40	A8	58	LEU	3.5
35	15	126	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
45	B5	89	ILE	3.5
52	M8	22	ILE	3.5
3	2E	168	ALA	3.5
51	H5	35	ARG	3.5
30	29	70	ALA	3.5
31	39	172	TRP	3.4
30	21	69	LYS	3.4
43	95	20	LEU	3.4
46	C5	59	GLY	3.4
34	61	128	LEU	3.4
52	M8	42	PHE	3.4
3	22	103	VAL	3.4
30	29	32	PRO	3.4
31	31	24	LEU	3.4
53	N8	34	PRO	3.4
47	D5	51	ALA	3.4
30	29	48	GLN	3.4
42	85	106	PHE	3.4
46	C5	29	GLU	3.4
47	D5	49	ARG	3.4
35	15	47	ALA	3.4
12	3A	84	LEU	3.4
47	D5	163	LEU	3.4
33	59	169	VAL	3.4
35	15	55	VAL	3.4
56	1L	44	U	3.4
28	71	208	PHE	3.4
40	A8	108	GLY	3.4
26	1H	2790	A	3.4
31	39	152	GLU	3.4
32	49	179	PRO	3.4
37	35	13	ASN	3.4
6	52	4	TYR	3.4
30	21	51	PHE	3.4
11	2A	108	ILE	3.4
38	45	63	LYS	3.4
52	M8	32	TYR	3.4
13	4A	26	GLY	3.4
46	C5	86	ARG	3.4
3	22	55	VAL	3.4
35	15	53	VAL	3.4
47	D5	65	GLN	3.4

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Mol	Chain	Res	Type	RSRZ
3	22	147	LYS	3.4
5	42	6	PHE	3.3
13	4A	102	ARG	3.3
32	41	94	LEU	3.3
15	6A	15	PHE	3.3
4	3E	23	GLY	3.3
31	39	148	LEU	3.3
14	5A	11	LYS	3.3
38	88	59	ARG	3.3
34	69	87	LYS	3.3
47	H8	53	ILE	3.3
32	49	178	PHE	3.3
4	32	195	ALA	3.3
3	22	143	GLU	3.3
38	88	64	ILE	3.3
4	32	29	PRO	3.3
14	5A	52	GLN	3.3
35	15	14	VAL	3.3
11	2A	40	ILE	3.3
34	61	126	TYR	3.3
3	22	204	LEU	3.3
43	95	85	LYS	3.3
12	3I	33	ARG	3.3
12	3A	27	LEU	3.3
31	39	191	ARG	3.3
32	49	135	LEU	3.3
45	F8	83	VAL	3.3
47	H8	96	VAL	3.3
28	71	19	ILE	3.3
34	61	85	GLU	3.3
44	A5	113	LYS	3.3
30	29	76	ARG	3.3
12	3I	122	THR	3.3
30	29	74	PRO	3.3
35	15	42	TRP	3.3
42	85	91	ASP	3.3
37	35	106	LEU	3.3
3	22	135	LYS	3.3
32	49	63	ILE	3.3
3	2E	201	TYR	3.3
38	88	1	MET	3.3
31	39	125	LEU	3.3

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Mol	Chain	Res	Type	RSRZ
35	58	15	LEU	3.3
30	21	48	GLN	3.2
3	22	180	ALA	3.2
16	7I	7	ALA	3.2
32	41	64	THR	3.2
2	1E	156	LYS	3.2
47	H8	127	LYS	3.2
35	15	10	GLU	3.2
47	H8	164	ALA	3.2
38	45	22	LYS	3.2
28	71	14	VAL	3.2
43	95	58	VAL	3.2
47	H8	165	VAL	3.2
34	61	80	PRO	3.2
47	H8	133	ILE	3.2
45	B5	79	ALA	3.2
6	52	55	ASP	3.2
9	82	115	GLY	3.2
28	71	13	LYS	3.2
40	A8	23	ARG	3.2
18	9I	39	VAL	3.2
3	2E	122	GLU	3.2
13	4I	6	GLY	3.2
34	69	139	GLN	3.2
6	52	35	ALA	3.2
38	45	132	VAL	3.2
47	H8	99	TYR	3.2
12	3I	62	SER	3.2
3	22	44	GLU	3.2
3	22	170	GLN	3.2
29	19	153	ALA	3.2
47	H8	25	PRO	3.2
35	15	58	ASP	3.2
26	1H	2133	G	3.2
4	32	133	VAL	3.2
32	49	80	PHE	3.2
26	14	6	A	3.2
47	D5	27	VAL	3.2
38	88	68	ILE	3.2
38	88	136	ALA	3.2
50	K8	43	GLN	3.2
3	22	201	TYR	3.2

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Mol	Chain	Res	Type	RSRZ
13	4A	9	ILE	3.2
43	95	73	SER	3.2
47	D5	24	LEU	3.2
6	52	6	VAL	3.2
19	AA	67	VAL	3.2
21	1B	6	ARG	3.2
34	61	66	GLU	3.2
14	5A	50	LYS	3.2
30	29	176	ILE	3.2
10	1I	95	GLU	3.2
38	88	130	LYS	3.2
47	H8	98	MET	3.2
43	95	100	ARG	3.2
45	F8	90	GLU	3.2
40	A8	82	ILE	3.1
19	AA	45	VAL	3.1
35	15	54	VAL	3.1
4	3E	138	TYR	3.1
3	2E	189	ALA	3.1
32	41	138	GLN	3.1
32	49	150	ASP	3.1
32	41	63	ILE	3.1
49	J8	92	LYS	3.1
11	2I	107	SER	3.1
19	AA	69	HIS	3.1
40	A8	95	HIS	3.1
8	72	44	PHE	3.1
3	22	189	ALA	3.1
6	52	39	LYS	3.1
18	9A	46	GLU	3.1
31	31	19	GLU	3.1
3	22	100	ALA	3.1
32	49	141	PHE	3.1
35	15	45	ASN	3.1
12	3A	19	ARG	3.1
31	31	123	LEU	3.1
34	69	140	LEU	3.1
2	1E	71	VAL	3.1
5	4E	33	VAL	3.1
47	D5	28	MET	3.1
14	5A	44	LEU	3.1
37	78	106	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
3	2E	170	GLN	3.1
47	D5	50	GLN	3.1
18	9I	28	GLU	3.1
6	52	101	ALA	3.1
30	29	52	LEU	3.1
22	1K	65	C	3.1
42	85	71	GLN	3.1
43	95	86	GLY	3.1
30	21	31	CYS	3.1
30	21	74	PRO	3.1
35	15	138	LEU	3.1
56	1L	57	G	3.1
12	3A	67	THR	3.1
43	95	70	ILE	3.1
34	69	127	VAL	3.1
3	2E	128	PHE	3.1
32	41	65	GLY	3.1
42	85	104	GLN	3.1
40	A8	54	LEU	3.1
34	69	124	GLY	3.0
47	H8	38	TYR	3.0
2	1E	101	MET	3.0
18	9A	26	LEU	3.0
35	15	72	TYR	3.0
47	H8	167	PRO	3.0
26	1H	2797	U	3.0
42	85	90	VAL	3.0
56	1L	16	U	3.0
42	85	57	PHE	3.0
32	49	157	ILE	3.0
4	32	154	ASN	3.0
6	5E	47	ARG	3.0
38	45	5	ARG	3.0
4	32	23	GLY	3.0
6	5E	63	TYR	3.0
31	39	27	GLU	3.0
26	1H	5	A	3.0
54	L5	1	MET	3.0
35	15	36	GLY	3.0
38	45	23	GLY	3.0
43	95	13	ARG	3.0
40	A8	84	GLN	3.0

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Mol	Chain	Res	Type	RSRZ
21	1B	2	GLY	3.0
28	71	4	GLY	3.0
38	45	129	THR	3.0
43	95	25	LEU	3.0
26	14	10	G	3.0
11	2I	81	ASP	3.0
38	88	25	ASP	3.0
28	71	31	GLU	3.0
38	45	30	GLY	3.0
12	3I	61	THR	3.0
52	M8	9	LEU	3.0
26	14	2895	U	3.0
4	32	32	ALA	3.0
40	A8	94	TYR	3.0
32	41	66	GLN	3.0
32	49	182	LYS	3.0
52	M8	29	PRO	3.0
2	12	155	LEU	3.0
35	15	116	LEU	3.0
18	9I	43	PHE	3.0
18	9A	81	PHE	3.0
51	H5	19	GLN	3.0
2	1E	66	GLY	3.0
38	45	48	GLU	3.0
4	32	14	ARG	3.0
4	32	64	LEU	3.0
31	39	192	LEU	3.0
26	14	1177	A	3.0
26	1H	2132	U	2.9
47	H8	90	VAL	2.9
12	3A	87	GLY	2.9
30	29	5	LEU	2.9
33	59	171	LEU	2.9
18	9A	29	PHE	2.9
38	45	10	ARG	2.9
2	1E	80	ILE	2.9
38	45	70	PRO	2.9
40	A8	76	LYS	2.9
3	22	43	LEU	2.9
4	32	4	TYR	2.9
14	5A	25	VAL	2.9
32	49	62	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
40	A8	86	ALA	2.9
4	32	134	ASP	2.9
32	41	75	LYS	2.9
35	15	122	VAL	2.9
36	68	52	VAL	2.9
40	A8	92	TYR	2.9
31	31	199	TRP	2.9
10	1I	22	LYS	2.9
4	32	11	LEU	2.9
4	3E	3	ARG	2.9
4	3E	150	GLU	2.9
2	1E	208	ILE	2.9
14	5A	23	ARG	2.9
33	51	16	SER	2.9
47	H8	109	ALA	2.9
47	D5	12	GLY	2.9
3	2E	151	VAL	2.9
40	A8	25	ARG	2.9
31	39	13	SER	2.9
4	32	19	LEU	2.9
47	D5	96	VAL	2.9
47	D5	124	ILE	2.9
47	H8	8	TYR	2.9
52	M8	40	HIS	2.9
34	61	145	VAL	2.9
12	3I	99	HIS	2.9
18	9I	80	PRO	2.9
1	1G	1029	G	2.9
16	7A	49	LEU	2.9
40	A8	93	LYS	2.9
51	L8	59	VAL	2.9
2	12	152	PHE	2.9
35	15	119	ARG	2.9
33	51	168	PRO	2.9
43	95	87	HIS	2.9
4	32	126	ILE	2.9
32	41	82	LEU	2.9
2	12	33	TYR	2.9
26	1H	2795	G	2.9
32	41	25	TYR	2.9
40	A8	103	GLU	2.9
34	69	134	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
18	9A	39	VAL	2.8
30	29	79	ARG	2.8
56	1L	65	C	2.8
3	22	199	LYS	2.8
12	3A	21	LYS	2.8
35	15	17	ASP	2.8
34	61	140	LEU	2.8
40	A8	73	LEU	2.8
56	1L	76	A	2.8
2	1E	105	PHE	2.8
47	H8	69	THR	2.8
32	41	90	LEU	2.8
47	H8	155	LEU	2.8
12	3A	31	PRO	2.8
13	4A	98	VAL	2.8
47	D5	133	ILE	2.8
38	88	63	LYS	2.8
34	69	83	ALA	2.8
47	H8	73	GLN	2.8
51	H5	22	ALA	2.8
53	N8	46	CYS	2.8
40	A8	91	PRO	2.8
38	45	113	GLN	2.8
18	9A	31	LEU	2.8
4	3E	140	VAL	2.8
34	61	79	ILE	2.8
45	B5	33	LYS	2.8
35	15	38	HIS	2.8
47	H8	60	GLU	2.8
4	3E	169	LYS	2.8
4	3E	176	LEU	2.8
7	6E	81	GLY	2.8
3	2E	202	ILE	2.8
46	C5	44	ILE	2.8
4	3E	24	GLU	2.8
6	5E	55	ASP	2.8
26	14	1509	C	2.8
30	21	76	ARG	2.8
38	88	107	ALA	2.8
40	A8	66	ALA	2.8
42	85	25	TRP	2.8
47	H8	122	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
40	A8	53	SER	2.8
47	D5	66	SER	2.8
28	71	197	GLU	2.8
25	4K	24	A	2.8
3	2E	153	VAL	2.8
11	2A	109	VAL	2.8
38	45	106	VAL	2.8
42	C8	90	VAL	2.8
38	45	47	ILE	2.8
50	K8	41	ILE	2.8
4	3E	15	GLU	2.8
56	1L	61	C	2.8
8	72	133	LEU	2.8
4	3E	183	GLY	2.8
35	58	14	VAL	2.8
12	3I	85	ILE	2.8
12	3A	85	ILE	2.8
43	95	19	LYS	2.8
2	1E	62	ALA	2.8
2	12	29	ALA	2.8
18	9I	79	LEU	2.8
28	71	195	ALA	2.8
31	39	23	ASP	2.8
32	41	142	PRO	2.8
35	58	130	HIS	2.8
38	45	101	ARG	2.8
26	1H	2477	C	2.8
34	61	122	GLU	2.7
41	75	6	LEU	2.7
3	2E	169	ALA	2.7
4	32	35	ARG	2.7
31	31	22	ALA	2.7
52	M8	26	SER	2.7
30	29	91	VAL	2.7
32	41	68	PRO	2.7
32	49	176	LEU	2.7
51	H5	29	ARG	2.7
6	5E	6	VAL	2.7
35	15	98	VAL	2.7
40	A8	85	VAL	2.7
47	H8	141	VAL	2.7
3	22	56	ASP	2.7

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Mol	Chain	Res	Type	RSRZ
52	M8	27	THR	2.7
38	88	41	TRP	2.7
2	1E	158	LEU	2.7
8	72	112	LEU	2.7
18	9A	40	LEU	2.7
33	51	170	ARG	2.7
39	98	33	ARG	2.7
40	A8	30	ARG	2.7
44	E8	69	LEU	2.7
3	2E	71	ALA	2.7
28	71	175	VAL	2.7
4	32	15	GLU	2.7
32	49	48	GLU	2.7
34	69	122	GLU	2.7
42	85	62	ILE	2.7
52	M8	6	HIS	2.7
18	9I	85	LEU	2.7
32	41	136	ARG	2.7
35	15	90	MET	2.7
43	D8	1	MET	2.7
2	12	163	PHE	2.7
3	2E	186	PHE	2.7
12	3I	32	PHE	2.7
2	1E	211	ILE	2.7
51	H5	32	GLN	2.7
2	12	115	LEU	2.7
4	32	194	LEU	2.7
34	61	108	THR	2.7
35	15	26	LEU	2.7
47	H8	5	LEU	2.7
30	29	50	GLY	2.7
52	M8	10	VAL	2.7
30	21	199	ARG	2.7
43	95	62	LEU	2.7
5	42	130	ASN	2.7
40	65	60	GLY	2.7
11	2A	84	VAL	2.7
40	A8	46	VAL	2.7
3	2E	182	ILE	2.7
5	42	8	GLU	2.7
29	19	181	GLU	2.7
31	39	18	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
47	H8	49	ARG	2.7
31	39	124	LEU	2.7
43	95	32	THR	2.7
46	C5	49	VAL	2.7
47	D5	82	ARG	2.7
40	65	58	LEU	2.7
12	3I	101	VAL	2.7
14	5A	35	ARG	2.7
56	1L	45	G	2.7
47	H8	2	GLU	2.7
11	2A	21	ILE	2.7
32	41	157	ILE	2.7
18	9A	76	LEU	2.7
4	3E	185	PHE	2.7
53	N8	37	LYS	2.7
52	M8	7	PRO	2.7
18	9A	34	TYR	2.7
18	9A	85	LEU	2.7
38	45	11	LYS	2.7
30	21	40	GLU	2.7
28	71	33	ALA	2.7
18	9I	29	PHE	2.7
18	9A	27	GLY	2.7
43	95	23	GLU	2.7
43	95	59	ALA	2.7
16	7I	48	TRP	2.6
12	3A	56	ALA	2.6
31	31	21	ALA	2.6
34	61	138	ILE	2.6
17	8A	11	VAL	2.6
51	H5	5	LYS	2.6
52	M8	1	MET	2.6
28	71	209	LEU	2.6
19	AA	38	SER	2.6
4	32	200	GLU	2.6
14	5A	56	VAL	2.6
29	19	26	LYS	2.6
31	31	157	VAL	2.6
33	51	85	LYS	2.6
34	61	139	GLN	2.6
43	95	89	GLN	2.6
45	F8	51	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
2	1E	188	ALA	2.6
35	15	40	PRO	2.6
19	AA	47	HIS	2.6
35	15	130	HIS	2.6
47	H8	85	HIS	2.6
3	2E	150	LYS	2.6
43	95	66	ARG	2.6
47	H8	160	GLY	2.6
40	A8	40	ILE	2.6
4	3E	130	GLY	2.6
12	3A	35	GLY	2.6
30	29	34	VAL	2.6
47	H8	162	GLU	2.6
45	F8	87	GLN	2.6
47	D5	76	LEU	2.6
56	1L	70	C	2.6
6	52	62	TRP	2.6
11	2A	92	GLU	2.6
32	49	92	VAL	2.6
6	52	67	MET	2.6
38	45	41	TRP	2.6
56	1L	1	G	2.6
48	E5	9	SER	2.6
26	14	2790	A	2.6
31	31	156	LEU	2.6
47	D5	53	ILE	2.6
28	71	21	THR	2.6
37	78	91	PHE	2.6
51	H5	44	ARG	2.6
4	32	179	GLU	2.6
40	A8	81	GLY	2.6
11	2A	95	ILE	2.6
47	H8	150	LEU	2.6
52	M8	46	GLN	2.6
26	14	2894	G	2.6
32	41	72	ARG	2.6
11	2A	31	THR	2.6
30	29	7	VAL	2.6
42	85	114	LYS	2.6
4	32	101	LEU	2.6
38	45	73	PRO	2.6
42	85	82	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
44	A5	112	GLY	2.6
32	41	39	ILE	2.6
33	59	170	ARG	2.6
12	3A	78	GLN	2.6
35	15	4	TYR	2.6
44	E8	109	GLU	2.6
51	H5	39	ASP	2.6
6	52	100	ASN	2.6
34	69	81	VAL	2.6
34	69	92	VAL	2.6
43	95	46	VAL	2.6
14	5A	47	LEU	2.6
10	1A	47	PHE	2.6
26	14	2803	C	2.6
47	D5	52	SER	2.6
47	H8	82	ARG	2.6
5	42	43	LEU	2.6
12	3I	77	LEU	2.6
18	9I	76	LEU	2.6
29	19	135	PHE	2.5
16	7A	84	ALA	2.5
18	9A	84	LYS	2.5
30	21	54	GLN	2.5
40	A8	59	LYS	2.5
40	A8	71	ARG	2.5
17	8A	59	ILE	2.5
34	61	120	ILE	2.5
38	45	29	PHE	2.5
45	B5	8	ILE	2.5
28	71	12	GLU	2.5
38	45	45	GLN	2.5
3	22	10	PHE	2.5
3	22	15	THR	2.5
38	88	48	GLU	2.5
47	D5	60	GLU	2.5
34	69	90	GLY	2.5
30	21	78	LEU	2.5
34	61	69	LYS	2.5
45	B5	13	LEU	2.5
32	41	76	SER	2.5
3	22	71	ALA	2.5
28	71	7	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
38	45	57	HIS	2.5
29	19	27	THR	2.5
38	88	106	VAL	2.5
40	A8	69	VAL	2.5
10	1I	71	LEU	2.5
34	61	141	LYS	2.5
34	61	143	SER	2.5
42	85	70	ARG	2.5
28	71	181	PRO	2.5
38	88	31	ASP	2.5
47	D5	63	ASP	2.5
4	32	119	GLN	2.5
32	49	109	VAL	2.5
40	A8	51	ALA	2.5
29	19	147	LEU	2.5
43	95	83	ARG	2.5
47	D5	4	ARG	2.5
2	12	108	ILE	2.5
3	22	142	MET	2.5
38	88	66	ILE	2.5
39	98	95	THR	2.5
42	C8	106	PHE	2.5
47	D5	89	PHE	2.5
34	61	135	GLU	2.5
2	1E	230	VAL	2.5
2	12	196	LEU	2.5
10	1I	8	LEU	2.5
39	98	116	LEU	2.5
48	E5	8	GLY	2.5
49	J8	95	LEU	2.5
42	85	81	HIS	2.5
3	2E	99	VAL	2.5
3	2E	164	ARG	2.5
6	5E	48	LEU	2.5
32	49	90	LEU	2.5
51	H5	25	ALA	2.5
28	71	228	SER	2.5
38	88	67	ARG	2.5
26	14	1176	G	2.5
30	29	47	VAL	2.5
40	A8	110	LEU	2.5
45	F8	92	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
51	H5	4	LEU	2.5
51	H5	59	VAL	2.5
2	12	105	PHE	2.5
5	4E	6	PHE	2.5
18	9I	21	LYS	2.5
38	45	72	LYS	2.5
38	45	99	PRO	2.5
43	95	74	LYS	2.5
2	1E	68	ILE	2.5
3	22	39	ILE	2.5
4	32	196	LEU	2.5
28	71	26	ALA	2.5
31	31	124	LEU	2.5
35	15	7	LYS	2.5
30	29	51	PHE	2.5
30	29	53	PRO	2.5
2	12	198	ASP	2.5
34	69	79	ILE	2.5
40	A8	65	VAL	2.4
3	22	182	ILE	2.4
39	98	118	GLU	2.4
45	F8	89	ILE	2.4
47	H8	145	GLU	2.4
47	H8	52	SER	2.4
26	14	2792	G	2.4
34	69	145	VAL	2.4
39	98	100	LEU	2.4
47	D5	38	TYR	2.4
30	21	37	ARG	2.4
34	61	86	THR	2.4
18	9A	28	GLU	2.4
46	C5	53	PRO	2.4
47	H8	97	GLU	2.4
47	D5	57	ILE	2.4
46	C5	5	MET	2.4
4	3E	108	LEU	2.4
4	3E	167	GLY	2.4
34	69	128	LEU	2.4
52	M8	33	VAL	2.4
18	9I	23	LYS	2.4
28	71	193	ILE	2.4
31	39	19	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
47	D5	168	GLU	2.4
53	N8	35	GLU	2.4
51	H5	12	PRO	2.4
5	42	66	MET	2.4
4	3E	170	VAL	2.4
12	3A	60	LEU	2.4
30	29	1	MET	2.4
40	A8	70	GLY	2.4
2	1E	163	PHE	2.4
4	3E	182	LYS	2.4
32	41	35	GLU	2.4
47	D5	11	GLU	2.4
29	19	166	GLN	2.4
34	61	76	THR	2.4
47	H8	170	THR	2.4
11	2I	98	LEU	2.4
12	3A	37	CYS	2.4
14	5A	53	LEU	2.4
18	9A	72	ARG	2.4
32	41	139	LEU	2.4
35	15	52	VAL	2.4
35	15	125	GLY	2.4
43	D8	35	LEU	2.4
45	B5	60	ARG	2.4
49	F5	22	GLY	2.4
51	H5	27	GLY	2.4
2	1E	70	PHE	2.4
30	29	41	LYS	2.4
31	39	146	ALA	2.4
38	88	137	TYR	2.4
28	71	174	PRO	2.4
47	H8	95	PRO	2.4
47	H8	126	VAL	2.4
47	H8	163	LEU	2.4
39	98	92	GLY	2.4
2	1E	157	ARG	2.4
3	22	40	ARG	2.4
32	49	136	ARG	2.4
42	85	112	ARG	2.4
4	32	178	VAL	2.4
32	41	34	LEU	2.4
38	45	83	MET	2.4

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Mol	Chain	Res	Type	RSRZ
51	H5	23	LEU	2.4
47	H8	107	THR	2.4
53	N8	45	VAL	2.4
19	AI	47	HIS	2.4
21	1B	13	ILE	2.4
2	12	112	VAL	2.4
31	31	8	GLN	2.4
32	41	37	VAL	2.4
26	14	879	G	2.4
3	22	67	THR	2.4
34	69	11	ASN	2.4
18	9I	78	LEU	2.4
32	41	176	LEU	2.4
52	M8	18	CYS	2.4
48	E5	12	ASN	2.4
3	22	65	ALA	2.4
38	45	137	TYR	2.4
51	L8	53	LEU	2.4
38	45	35	VAL	2.4
3	22	131	ARG	2.4
40	A8	10	ARG	2.4
47	D5	95	PRO	2.4
26	1H	2126	A	2.4
32	41	93	THR	2.4
34	61	71	ILE	2.4
2	12	193	ASP	2.4
4	3E	97	LEU	2.4
4	32	188	LEU	2.4
16	7I	49	LEU	2.4
19	AA	20	LEU	2.4
6	5E	88	VAL	2.4
38	45	94	VAL	2.4
40	65	109	GLY	2.4
3	2E	79	ARG	2.4
3	22	184	TYR	2.4
38	88	20	ALA	2.4
47	D5	15	PRO	2.4
28	71	49	ILE	2.4
47	H8	76	LEU	2.4
38	88	65	PHE	2.3
38	88	133	ARG	2.3
38	45	58	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
5	4E	8	GLU	2.3
2	1E	187	LEU	2.3
3	22	202	ILE	2.3
31	31	10	PRO	2.3
8	7E	119	LEU	2.3
31	39	155	LEU	2.3
43	D8	40	LEU	2.3
30	21	47	VAL	2.3
33	51	61	HIS	2.3
47	H8	86	VAL	2.3
47	D5	58	VAL	2.3
30	29	67	PHE	2.3
38	45	31	ASP	2.3
30	21	87	GLU	2.3
33	59	159	GLU	2.3
39	98	115	GLU	2.3
18	9A	55	ARG	2.3
35	15	6	PRO	2.3
39	55	29	LEU	2.3
47	D5	62	PRO	2.3
29	19	67	PHE	2.3
32	41	149	VAL	2.3
38	45	89	ASN	2.3
42	85	94	ASN	2.3
43	95	72	VAL	2.3
12	3A	126	LYS	2.3
47	D5	98	MET	2.3
3	2E	124	ILE	2.3
29	19	270	ILE	2.3
38	45	121	ALA	2.3
51	H5	3	ARG	2.3
4	32	169	LYS	2.3
42	85	93	LYS	2.3
56	1L	7	U	2.3
13	4A	64	TRP	2.3
3	2E	160	ALA	2.3
6	52	63	TYR	2.3
13	4I	48	LEU	2.3
3	2E	68	VAL	2.3
12	3I	123	LYS	2.3
19	AA	75	ALA	2.3
33	59	162	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
40	A8	77	ALA	2.3
47	H8	144	LEU	2.3
47	D5	8	TYR	2.3
56	1L	5	C	2.3
56	1L	56	C	2.3
29	19	184	LYS	2.3
30	29	80	GLU	2.3
3	2E	126	ARG	2.3
4	3E	11	LEU	2.3
3	22	64	VAL	2.3
42	85	55	ARG	2.3
51	L8	57	GLU	2.3
14	5A	49	HIS	2.3
2	1E	102	LEU	2.3
12	3A	57	LYS	2.3
30	29	180	ASN	2.3
43	95	69	LYS	2.3
51	H5	20	LYS	2.3
14	5A	10	ALA	2.3
35	15	124	ALA	2.3
40	A8	39	ILE	2.3
14	5A	18	VAL	2.3
40	A8	90	GLY	2.3
33	51	58	GLU	2.3
47	D5	25	PRO	2.3
6	52	1	MET	2.3
17	8I	36	ILE	2.3
26	1H	2793	G	2.3
35	15	56	ASN	2.3
47	D5	61	LEU	2.3
2	1E	227	GLY	2.3
45	B5	68	ARG	2.3
52	M8	17	GLY	2.3
3	22	105	GLU	2.3
38	88	99	PRO	2.3
47	H8	169	GLU	2.3
47	D5	97	GLU	2.3
30	29	181	LEU	2.3
34	61	77	LEU	2.3
43	D8	38	LEU	2.3
12	3I	102	ARG	2.3
31	39	126	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
37	35	110	TYR	2.3
30	21	3	GLY	2.3
1	13	344	A	2.3
3	22	178	LEU	2.3
3	22	23	TYR	2.3
3	22	54	ARG	2.3
19	AI	49	ILE	2.3
3	22	200	ALA	2.3
1	1G	1536	C	2.3
6	52	88	VAL	2.3
31	31	18	ARG	2.3
38	45	97	VAL	2.3
2	12	133	LYS	2.3
45	F8	88	LYS	2.3
47	H8	106	GLY	2.3
14	5A	46	GLU	2.3
38	45	71	ASP	2.3
3	2E	101	LEU	2.3
5	42	128	PRO	2.3
13	4A	48	LEU	2.3
34	69	77	LEU	2.3
43	95	30	GLY	2.3
53	N8	49	CYS	2.3
40	A8	88	ASP	2.3
3	22	52	LEU	2.3
31	39	20	LEU	2.3
32	49	113	ARG	2.3
40	A8	56	LEU	2.3
51	H5	55	ARG	2.3
11	2A	83	ILE	2.3
32	49	41	GLN	2.3
34	69	112	LYS	2.3
47	D5	162	GLU	2.2
3	2E	91	LEU	2.2
26	14	877	U	2.2
40	65	57	LYS	2.2
10	1I	20	ALA	2.2
34	69	60	GLU	2.2
5	4E	5	ASP	2.2
28	71	200	LYS	2.2
47	H8	41	LEU	2.2
32	41	40	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
19	AI	62	ILE	2.2
10	1I	72	VAL	2.2
12	3A	66	VAL	2.2
45	B5	28	PHE	2.2
3	2E	139	GLN	2.2
30	21	28	ALA	2.2
34	61	73	GLU	2.2
38	45	12	GLN	2.2
34	69	143	SER	2.2
47	D5	79	ARG	2.2
13	4A	96	LEU	2.2
32	49	152	LEU	2.2
11	2I	108	ILE	2.2
20	BI	55	ILE	2.2
31	39	139	PHE	2.2
47	D5	137	ILE	2.2
12	3I	43	VAL	2.2
47	D5	134	PRO	2.2
32	49	83	ARG	2.2
37	78	92	GLU	2.2
40	A8	15	ARG	2.2
40	A8	67	ARG	2.2
51	H5	10	LYS	2.2
11	2A	32	ILE	2.2
12	3I	90	VAL	2.2
18	9A	50	ILE	2.2
30	29	81	ILE	2.2
52	M8	21	VAL	2.2
12	3A	98	TYR	2.2
16	7I	35	LYS	2.2
17	8A	7	THR	2.2
42	85	89	GLU	2.2
48	I8	26	TYR	2.2
30	29	31	CYS	2.2
18	9I	51	LEU	2.2
35	15	34	LEU	2.2
3	22	186	PHE	2.2
45	F8	1	MET	2.2
47	H8	28	MET	2.2
50	G5	37	PHE	2.2
31	31	193	VAL	2.2
5	4E	9	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
43	95	98	GLU	2.2
19	AI	48	THR	2.2
31	39	133	ASN	2.2
45	B5	18	TYR	2.2
32	41	26	GLN	2.2
32	49	82	LEU	2.2
5	42	109	ILE	2.2
32	41	102	PHE	2.2
39	98	34	ILE	2.2
42	85	40	PHE	2.2
43	95	6	LYS	2.2
47	H8	27	VAL	2.2
47	D5	78	LYS	2.2
4	32	102	ASP	2.2
6	5E	89	MET	2.2
11	2A	85	ARG	2.2
40	A8	50	SER	2.2
43	95	43	GLU	2.2
32	49	107	LEU	2.2
34	69	8	PRO	2.2
50	G5	61	LEU	2.2
43	95	68	LYS	2.2
12	3A	55	VAL	2.2
4	32	6	GLY	2.2
31	39	131	GLY	2.2
3	2E	87	LEU	2.2
18	9A	58	LEU	2.2
21	1B	22	ARG	2.2
31	31	196	LEU	2.2
30	29	30	PRO	2.2
2	12	41	ILE	2.2
4	32	125	HIS	2.2
31	39	154	VAL	2.2
32	49	15	VAL	2.2
45	F8	49	VAL	2.2
3	2E	149	ALA	2.2
4	3E	135	LEU	2.2
32	41	56	ALA	2.2
34	61	118	LYS	2.2
35	15	33	LEU	2.2
37	35	123	LEU	2.2
26	14	2476	A	2.2

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Mol	Chain	Res	Type	RSRZ
50	G5	9	GLN	2.2
42	85	79	PHE	2.2
3	22	157	ILE	2.2
4	3E	163	GLU	2.2
4	32	145	GLU	2.2
14	5A	42	ILE	2.2
2	1E	88	ALA	2.2
13	4A	42	ALA	2.2
30	21	44	TYR	2.2
37	35	14	LYS	2.2
38	45	2	LEU	2.2
29	19	193	VAL	2.2
34	69	135	GLU	2.2
38	45	131	ILE	2.2
51	H5	24	LYS	2.2
43	95	31	ALA	2.1
47	D5	3	TYR	2.1
32	41	80	PHE	2.1
7	6E	78	ARG	2.1
12	3A	70	ILE	2.1
16	7I	2	VAL	2.1
18	9A	86	VAL	2.1
30	21	36	ARG	2.1
31	39	114	VAL	2.1
34	69	1	MET	2.1
47	H8	120	ILE	2.1
2	1E	67	THR	2.1
3	22	177	THR	2.1
47	H8	75	ASN	2.1
26	14	1536	A	2.1
35	15	18	ALA	2.1
48	I8	69	PHE	2.1
2	1E	159	PRO	2.1
3	22	66	VAL	2.1
31	31	14	PRO	2.1
30	21	71	GLY	2.1
30	29	89	ASP	2.1
42	85	109	LEU	2.1
32	49	151	ALA	2.1
41	B8	38	ASN	2.1
6	52	57	GLN	2.1
33	51	124	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
5	4E	42	GLY	2.1
31	31	125	LEU	2.1
31	39	123	LEU	2.1
34	69	116	LEU	2.1
35	58	138	LEU	2.1
9	82	59	PHE	2.1
37	35	2	LYS	2.1
46	C5	50	ARG	2.1
13	4I	7	VAL	2.1
39	98	102	GLU	2.1
42	85	65	ILE	2.1
42	85	88	ILE	2.1
48	I8	76	GLY	2.1
3	2E	21	ARG	2.1
4	32	49	ARG	2.1
13	4A	65	LYS	2.1
19	AA	61	TYR	2.1
4	32	129	ASN	2.1
2	12	101	MET	2.1
10	1I	88	LEU	2.1
32	49	175	LEU	2.1
40	A8	83	LYS	2.1
52	M8	37	SER	2.1
54	L5	14	LYS	2.1
18	9I	81	PHE	2.1
13	4I	5	ALA	2.1
37	35	5	ASP	2.1
47	D5	123	ASP	2.1
40	A8	75	GLU	2.1
47	D5	13	GLU	2.1
38	45	17	LEU	2.1
38	45	62	GLY	2.1
3	2E	132	ARG	2.1
6	52	28	ARG	2.1
42	C8	83	LEU	2.1
51	H5	8	LEU	2.1
28	71	170	ALA	2.1
34	69	117	GLU	2.1
56	1L	58	A	2.1
3	2E	123	GLN	2.1
4	3E	191	ARG	2.1
4	32	162	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
34	69	68	LEU	2.1
4	32	189	PRO	2.1
5	4E	70	PRO	2.1
2	1E	160	ASP	2.1
5	42	115	VAL	2.1
32	49	149	VAL	2.1
35	15	104	LYS	2.1
39	98	114	VAL	2.1
12	3A	88	GLY	2.1
21	1B	14	TRP	2.1
40	A8	44	LYS	2.1
19	AA	53	ASN	2.1
24	3K	47	U	2.1
38	45	3	MET	2.1
38	45	125	LEU	2.1
33	59	168	PRO	2.1
38	88	39	PRO	2.1
51	H5	15	TYR	2.1
5	4E	40	ARG	2.1
18	9A	71	LYS	2.1
19	AA	11	VAL	2.1
38	88	132	VAL	2.1
43	95	22	VAL	2.1
29	19	111	LEU	2.1
48	E5	75	LEU	2.1
3	22	37	GLN	2.1
4	32	122	ARG	2.1
32	41	54	GLU	2.1
47	D5	99	TYR	2.1
42	85	52	ARG	2.1
53	N8	48	GLU	2.1
47	H8	57	ILE	2.1
2	1E	61	LEU	2.1
4	32	144	ASP	2.1
31	31	181	LEU	2.1
32	49	133	LEU	2.1
38	88	2	LEU	2.1
13	4A	92	HIS	2.1
38	88	129	THR	2.1
3	2E	138	VAL	2.1
6	5E	9	VAL	2.1
34	61	142	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
28	71	32	LEU	2.1
38	88	37	LEU	2.1
38	45	54	MET	2.1
45	F8	82	GLN	2.0
4	32	66	ARG	2.0
38	88	112	GLU	2.0
2	1E	214	ILE	2.0
4	3E	157	LEU	2.0
38	88	34	LEU	2.0
34	69	20	ASP	2.0
38	45	115	MET	2.0
28	79	9	ALA	2.0
47	H8	161	VAL	2.0
5	4E	75	THR	2.0
14	5A	13	THR	2.0
44	E8	112	GLY	2.0
12	3A	99	HIS	2.0
32	41	59	GLU	2.0
32	49	100	TRP	2.0
34	69	10	GLU	2.0
45	B5	31	HIS	2.0
12	3I	104	VAL	2.0
4	3E	96	LEU	2.0
8	72	107	LEU	2.0
30	21	52	LEU	2.0
31	31	192	LEU	2.0
44	E8	23	LEU	2.0
47	H8	91	LEU	2.0
20	BA	9	ASN	2.0
6	5E	91	VAL	2.0
42	85	24	TYR	2.0
5	42	112	LEU	2.0
6	52	71	ARG	2.0
33	51	105	LEU	2.0
56	1L	51	A	2.0
19	AA	48	THR	2.0
2	12	160	ASP	2.0
2	12	164	VAL	2.0
11	2I	42	TRP	2.0
16	7I	51	VAL	2.0
36	68	53	LYS	2.0
45	B5	6	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
46	C5	87	LYS	2.0
2	1E	149	LEU	2.0
2	12	118	LEU	2.0
3	2E	131	ARG	2.0
16	7I	36	ILE	2.0
28	71	173	ALA	2.0
30	21	27	LEU	2.0
11	2A	49	GLY	2.0
34	69	16	GLY	2.0
12	3I	94	PRO	2.0
11	2A	77	MET	2.0
34	69	104	GLN	2.0
38	45	98	LYS	2.0
13	4A	60	VAL	2.0
18	9I	54	ARG	2.0
18	9A	44	LEU	2.0
33	59	157	TYR	2.0
35	58	134	ARG	2.0
47	H8	3	TYR	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. 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
57	PSU	3L	55	20/21	0.83	0.08	166,169,175,175	0
57	5MU	3L	54	21/22	0.87	0.09	162,169,172,173	0
56	PSU	1L	55	20/21	0.87	0.30	134,150,156,159	0
56	PSU	1L	39	20/21	0.88	0.18	105,127,133,134	0
23	PSU	2L	56	20/21	0.88	0.12	116,129,133,137	0
22	PSU	1K	55	20/21	0.90	0.17	109,120,133,134	0
57	PSU	3L	39	20/21	0.91	0.13	153,162,166,168	0
23	4SU	2L	8	20/21	0.91	0.17	112,125,130,135	0
56	U8U	1L	34	23/24	0.91	0.18	110,126,134,138	0
23	4SU	2K	8	20/21	0.92	0.17	93,98,102,106	0
56	T6A	1L	37	32/33	0.93	0.18	102,120,127,130	0
23	G7M	2L	47	24/25	0.93	0.12	129,137,150,151	0
22	5MU	1K	54	21/22	0.94	0.22	114,122,134,142	0
23	G7M	2K	47	24/25	0.94	0.12	104,115,129,135	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	PSU	2K	56	20/21	0.94	0.14	104,113,121,127	0
23	5MU	2L	55	21/22	0.94	0.13	128,133,141,143	0
22	PSU	1K	39	20/21	0.95	0.15	79,98,105,108	0
56	5MU	1L	54	21/22	0.95	0.25	138,147,154,155	0
22	T6A	1K	37	32/33	0.96	0.16	76,86,103,106	0
23	OMC	2L	33	21/22	0.96	0.15	109,114,117,125	0
22	U8U	1K	34	23/24	0.96	0.15	78,88,93,105	0
23	5MU	2K	55	21/22	0.96	0.12	112,118,125,127	0
23	OMC	2K	33	21/22	0.97	0.14	82,87,92,96	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
58	MG	13	1698	1/1	0.08	0.21	138,138,138,138	0
58	MG	13	1699	1/1	0.28	0.31	94,94,94,94	0
58	MG	14	3282	1/1	0.32	0.42	109,109,109,109	0
58	MG	14	3303	1/1	0.32	0.18	106,106,106,106	0
58	MG	13	1603	1/1	0.33	0.47	92,92,92,92	0
58	MG	1H	3016	1/1	0.34	0.56	75,75,75,75	0
58	MG	1H	3297	1/1	0.39	0.24	99,99,99,99	0
58	MG	14	3258	1/1	0.41	0.38	92,92,92,92	0
58	MG	14	3311	1/1	0.42	0.36	100,100,100,100	0
58	MG	1H	3219	1/1	0.43	0.37	103,103,103,103	0
58	MG	1G	1638	1/1	0.44	0.30	93,93,93,93	0
58	MG	14	3108	1/1	0.46	0.73	92,92,92,92	0
58	MG	1H	3283	1/1	0.48	0.24	92,92,92,92	0
58	MG	13	1697	1/1	0.49	0.22	92,92,92,92	0
58	MG	1H	3152	1/1	0.51	0.34	100,100,100,100	0
58	MG	14	3224	1/1	0.51	0.38	90,90,90,90	0
58	MG	1G	1664	1/1	0.51	0.30	100,100,100,100	0
58	MG	2K	102	1/1	0.52	0.69	94,94,94,94	0
58	MG	13	1700	1/1	0.52	0.33	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3034	1/1	0.52	0.97	88,88,88,88	0
58	MG	39	301	1/1	0.52	0.21	96,96,96,96	0
58	MG	14	3399	1/1	0.53	0.28	107,107,107,107	0
58	MG	13	1672	1/1	0.54	0.45	109,109,109,109	0
58	MG	1H	3249	1/1	0.54	0.37	80,80,80,80	0
58	MG	13	1653	1/1	0.54	0.41	72,72,72,72	0
58	MG	13	1696	1/1	0.55	0.32	92,92,92,92	0
58	MG	1H	3171	1/1	0.56	0.43	83,83,83,83	0
58	MG	14	3037	1/1	0.56	0.46	106,106,106,106	0
58	MG	1H	3309	1/1	0.56	0.51	90,90,90,90	0
58	MG	1H	3036	1/1	0.56	0.74	100,100,100,100	0
58	MG	1H	3284	1/1	0.56	0.48	81,81,81,81	0
58	MG	14	3294	1/1	0.57	0.26	87,87,87,87	0
58	MG	14	3304	1/1	0.58	0.71	92,92,92,92	0
58	MG	13	1688	1/1	0.58	0.34	101,101,101,101	0
58	MG	1H	3035	1/1	0.59	0.45	83,83,83,83	0
58	MG	1H	3279	1/1	0.59	0.49	67,67,67,67	0
58	MG	25	201	1/1	0.59	0.34	102,102,102,102	0
58	MG	14	3316	1/1	0.60	0.35	122,122,122,122	0
58	MG	1H	3336	1/1	0.60	0.24	104,104,104,104	0
58	MG	14	3283	1/1	0.60	0.32	69,69,69,69	0
58	MG	14	3184	1/1	0.60	0.24	98,98,98,98	0
58	MG	14	3197	1/1	0.61	0.34	116,116,116,116	0
58	MG	14	3180	1/1	0.61	0.30	88,88,88,88	0
58	MG	14	3229	1/1	0.61	0.76	88,88,88,88	0
58	MG	1H	3164	1/1	0.61	0.21	64,64,64,64	0
58	MG	14	3185	1/1	0.61	0.51	82,82,82,82	0
58	MG	14	3190	1/1	0.61	0.58	86,86,86,86	0
58	MG	14	3191	1/1	0.61	0.58	96,96,96,96	0
58	MG	1H	3264	1/1	0.62	0.18	76,76,76,76	0
58	MG	1H	3278	1/1	0.62	0.48	95,95,95,95	0
58	MG	14	3017	1/1	0.62	0.51	90,90,90,90	0
58	MG	1H	3024	1/1	0.62	0.69	82,82,82,82	0
58	MG	1H	3331	1/1	0.62	0.62	73,73,73,73	0
58	MG	13	1605	1/1	0.62	0.24	76,76,76,76	0
58	MG	14	3129	1/1	0.62	0.69	73,73,73,73	0
58	MG	14	3140	1/1	0.62	0.33	82,82,82,82	0
58	MG	1G	1603	1/1	0.62	0.59	102,102,102,102	0
58	MG	1G	1635	1/1	0.63	0.28	107,107,107,107	0
58	MG	14	3269	1/1	0.63	0.50	88,88,88,88	0
58	MG	1H	3160	1/1	0.63	0.28	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1646	1/1	0.63	0.24	100,100,100,100	0
58	MG	14	3068	1/1	0.63	0.65	100,100,100,100	0
58	MG	1G	1616	1/1	0.63	0.31	87,87,87,87	0
58	MG	14	3302	1/1	0.64	0.46	66,66,66,66	0
58	MG	14	3085	1/1	0.64	0.47	67,67,67,67	0
58	MG	14	3089	1/1	0.64	0.88	79,79,79,79	0
58	MG	13	1630	1/1	0.64	0.48	80,80,80,80	0
58	MG	1H	3285	1/1	0.65	0.47	68,68,68,68	0
58	MG	14	3261	1/1	0.65	0.49	77,77,77,77	0
58	MG	14	3026	1/1	0.66	0.34	89,89,89,89	0
58	MG	1J	203	1/1	0.66	0.23	103,103,103,103	0
58	MG	14	3153	1/1	0.66	0.44	89,89,89,89	0
58	MG	1E	301	1/1	0.66	0.20	106,106,106,106	0
58	MG	1H	3194	1/1	0.67	0.40	84,84,84,84	0
58	MG	1H	3207	1/1	0.67	0.48	84,84,84,84	0
58	MG	14	3264	1/1	0.67	0.57	85,85,85,85	0
58	MG	1H	3167	1/1	0.67	0.54	93,93,93,93	0
58	MG	14	3275	1/1	0.67	0.37	91,91,91,91	0
58	MG	14	3277	1/1	0.67	0.34	85,85,85,85	0
58	MG	35	202	1/1	0.67	0.24	87,87,87,87	0
58	MG	14	3262	1/1	0.68	0.34	96,96,96,96	0
58	MG	1H	3122	1/1	0.68	0.63	79,79,79,79	0
58	MG	14	3135	1/1	0.68	0.24	95,95,95,95	0
58	MG	13	1695	1/1	0.68	0.43	83,83,83,83	0
58	MG	14	3392	1/1	0.68	0.06	128,128,128,128	0
58	MG	1H	3292	1/1	0.68	0.30	77,77,77,77	0
58	MG	14	3227	1/1	0.68	0.44	76,76,76,76	0
58	MG	2L	102	1/1	0.68	0.64	83,83,83,83	0
58	MG	1H	3253	1/1	0.68	0.37	66,66,66,66	0
58	MG	1H	3254	1/1	0.68	0.57	99,99,99,99	0
58	MG	1H	3459	1/1	0.69	0.06	106,106,106,106	0
58	MG	13	1632	1/1	0.69	0.40	107,107,107,107	0
58	MG	1H	3293	1/1	0.69	0.35	84,84,84,84	0
58	MG	14	3308	1/1	0.69	0.70	106,106,106,106	0
58	MG	14	3186	1/1	0.69	0.45	82,82,82,82	0
58	MG	1H	3079	1/1	0.69	0.38	79,79,79,79	0
58	MG	1H	3277	1/1	0.70	0.32	68,68,68,68	0
58	MG	1H	3314	1/1	0.70	0.30	85,85,85,85	0
58	MG	1H	3178	1/1	0.70	0.38	71,71,71,71	0
58	MG	1G	1648	1/1	0.70	0.32	117,117,117,117	0
58	MG	1G	1649	1/1	0.70	0.41	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1646	1/1	0.70	0.29	75,75,75,75	0
58	MG	1H	3301	1/1	0.70	0.44	84,84,84,84	0
58	MG	1H	3305	1/1	0.70	0.39	67,67,67,67	0
58	MG	1H	3306	1/1	0.70	0.31	91,91,91,91	0
58	MG	14	3030	1/1	0.70	0.39	86,86,86,86	0
58	MG	14	3257	1/1	0.70	1.14	86,86,86,86	0
58	MG	1H	3315	1/1	0.71	0.53	76,76,76,76	0
58	MG	1H	3328	1/1	0.71	0.58	80,80,80,80	0
58	MG	1H	3302	1/1	0.71	0.22	92,92,92,92	0
58	MG	13	1705	1/1	0.71	0.35	90,90,90,90	0
58	MG	14	3313	1/1	0.71	0.49	92,92,92,92	0
58	MG	13	1728	1/1	0.71	0.11	118,118,118,118	0
58	MG	16	204	1/1	0.71	0.32	73,73,73,73	0
58	MG	14	3255	1/1	0.71	0.25	78,78,78,78	0
58	MG	1H	3251	1/1	0.71	0.39	71,71,71,71	0
58	MG	1H	3217	1/1	0.71	0.34	71,71,71,71	0
58	MG	14	3295	1/1	0.71	0.20	85,85,85,85	0
58	MG	14	3259	1/1	0.71	0.75	98,98,98,98	0
58	MG	14	3231	1/1	0.72	0.34	86,86,86,86	0
58	MG	13	1656	1/1	0.72	0.15	103,103,103,103	0
58	MG	13	1659	1/1	0.72	0.62	97,97,97,97	0
58	MG	1J	201	1/1	0.72	0.30	94,94,94,94	0
58	MG	1H	3224	1/1	0.72	0.58	73,73,73,73	0
58	MG	1H	3368	1/1	0.72	0.24	74,74,74,74	0
58	MG	1H	3324	1/1	0.72	0.57	89,89,89,89	0
58	MG	14	3058	1/1	0.72	0.18	84,84,84,84	0
58	MG	E5	101	1/1	0.72	0.47	89,89,89,89	0
58	MG	1H	3139	1/1	0.73	0.36	71,71,71,71	0
58	MG	13	1641	1/1	0.73	0.44	93,93,93,93	0
58	MG	1H	3101	1/1	0.73	0.26	59,59,59,59	0
58	MG	1H	3180	1/1	0.73	0.43	75,75,75,75	0
58	MG	1H	3032	1/1	0.73	0.49	79,79,79,79	0
58	MG	14	3234	1/1	0.73	0.89	70,70,70,70	0
58	MG	14	3155	1/1	0.73	0.71	64,64,64,64	0
58	MG	14	3251	1/1	0.74	0.50	69,69,69,69	0
58	MG	1H	3288	1/1	0.74	0.87	93,93,93,93	0
58	MG	14	3194	1/1	0.74	0.34	81,81,81,81	0
58	MG	14	3019	1/1	0.74	0.67	90,90,90,90	0
58	MG	14	3181	1/1	0.74	0.41	89,89,89,89	0
58	MG	14	3260	1/1	0.74	0.78	72,72,72,72	0
58	MG	14	3300	1/1	0.74	0.24	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	29	301	1/1	0.74	0.34	77,77,77,77	0
58	MG	13	1689	1/1	0.74	0.52	107,107,107,107	0
58	MG	1H	3222	1/1	0.74	0.33	98,98,98,98	0
58	MG	14	3143	1/1	0.74	0.30	102,102,102,102	0
58	MG	1H	3342	1/1	0.74	0.63	92,92,92,92	0
58	MG	1H	3031	1/1	0.75	0.53	76,76,76,76	0
58	MG	1H	3080	1/1	0.75	0.21	65,65,65,65	0
58	MG	I8	101	1/1	0.75	0.32	73,73,73,73	0
58	MG	14	3144	1/1	0.75	0.41	71,71,71,71	0
58	MG	2K	103	1/1	0.75	0.42	114,114,114,114	0
58	MG	1H	3228	1/1	0.75	0.45	83,83,83,83	0
58	MG	14	3250	1/1	0.75	0.41	78,78,78,78	0
58	MG	1H	3457	1/1	0.75	0.06	141,141,141,141	0
58	MG	1H	3313	1/1	0.76	0.26	98,98,98,98	0
58	MG	14	3147	1/1	0.76	0.23	95,95,95,95	0
58	MG	14	3310	1/1	0.76	0.23	114,114,114,114	0
58	MG	14	3052	1/1	0.76	0.50	113,113,113,113	0
58	MG	1H	3199	1/1	0.76	0.25	69,69,69,69	0
58	MG	1H	3247	1/1	0.76	0.21	81,81,81,81	0
58	MG	1G	1666	1/1	0.76	0.50	84,84,84,84	0
58	MG	1H	3154	1/1	0.76	0.54	84,84,84,84	0
58	MG	13	1681	1/1	0.76	0.19	116,116,116,116	0
58	MG	14	3288	1/1	0.76	0.74	86,86,86,86	0
58	MG	13	1662	1/1	0.76	0.36	118,118,118,118	0
58	MG	14	3188	1/1	0.76	0.56	88,88,88,88	0
58	MG	1H	3043	1/1	0.76	0.76	81,81,81,81	0
58	MG	1H	3197	1/1	0.76	0.63	80,80,80,80	0
58	MG	35	203	1/1	0.76	0.24	75,75,75,75	0
58	MG	1H	3291	1/1	0.76	0.31	73,73,73,73	0
58	MG	14	3291	1/1	0.77	0.35	87,87,87,87	0
58	MG	14	3293	1/1	0.77	0.51	91,91,91,91	0
58	MG	14	3345	1/1	0.77	0.10	90,90,90,90	0
58	MG	1G	1672	1/1	0.77	0.43	99,99,99,99	0
58	MG	14	3268	1/1	0.77	0.41	94,94,94,94	0
58	MG	1H	3087	1/1	0.77	0.57	70,70,70,70	0
58	MG	14	3301	1/1	0.77	0.21	109,109,109,109	0
58	MG	14	3117	1/1	0.77	0.44	81,81,81,81	0
58	MG	29	302	1/1	0.77	0.45	65,65,65,65	0
58	MG	1H	3296	1/1	0.77	0.22	57,57,57,57	0
58	MG	1H	3136	1/1	0.77	0.34	49,49,49,49	0
58	MG	13	1621	1/1	0.77	0.21	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3142	1/1	0.77	0.45	68,68,68,68	0
58	MG	14	3290	1/1	0.77	0.22	92,92,92,92	0
58	MG	14	3306	1/1	0.78	0.29	88,88,88,88	0
58	MG	1G	1643	1/1	0.78	0.24	132,132,132,132	0
58	MG	1H	3263	1/1	0.78	0.25	76,76,76,76	0
58	MG	1H	3439	1/1	0.78	0.07	99,99,99,99	0
58	MG	13	1644	1/1	0.78	0.43	96,96,96,96	0
58	MG	1H	3271	1/1	0.78	0.39	76,76,76,76	0
58	MG	14	3247	1/1	0.78	0.28	67,67,67,67	0
58	MG	14	3073	1/1	0.78	1.32	83,83,83,83	0
58	MG	14	3183	1/1	0.78	0.77	79,79,79,79	0
58	MG	1H	3327	1/1	0.78	0.79	82,82,82,82	0
58	MG	1H	3175	1/1	0.78	0.53	65,65,65,65	0
58	MG	1H	3022	1/1	0.78	0.39	62,62,62,62	0
58	MG	1G	1604	1/1	0.78	0.44	87,87,87,87	0
58	MG	1H	3201	1/1	0.78	0.69	92,92,92,92	0
58	MG	13	1706	1/1	0.78	0.39	109,109,109,109	0
58	MG	35	201	1/1	0.78	0.26	74,74,74,74	0
58	MG	14	3029	1/1	0.78	0.72	78,78,78,78	0
58	MG	1H	3364	1/1	0.78	0.10	98,98,98,98	0
58	MG	14	3265	1/1	0.78	0.52	98,98,98,98	0
58	MG	13	1694	1/1	0.79	0.55	64,64,64,64	0
58	MG	14	3018	1/1	0.79	0.61	72,72,72,72	0
58	MG	14	3353	1/1	0.79	0.09	118,118,118,118	0
58	MG	1G	1606	1/1	0.79	0.22	88,88,88,88	0
58	MG	14	3243	1/1	0.79	0.47	81,81,81,81	0
58	MG	1H	3414	1/1	0.79	0.19	80,80,80,80	0
58	MG	1G	1618	1/1	0.79	0.33	109,109,109,109	0
58	MG	16	209	1/1	0.79	0.10	100,100,100,100	0
58	MG	14	3252	1/1	0.79	0.39	84,84,84,84	0
58	MG	14	3253	1/1	0.79	0.26	94,94,94,94	0
58	MG	14	3280	1/1	0.79	0.91	86,86,86,86	0
58	MG	1H	3045	1/1	0.79	0.33	82,82,82,82	0
58	MG	1G	1680	1/1	0.79	0.06	140,140,140,140	0
58	MG	14	3182	1/1	0.79	0.74	75,75,75,75	0
58	MG	1H	3083	1/1	0.79	0.33	67,67,67,67	0
58	MG	14	3023	1/1	0.80	0.29	83,83,83,83	0
58	MG	13	1675	1/1	0.80	0.30	73,73,73,73	0
58	MG	1H	3268	1/1	0.80	0.42	85,85,85,85	0
58	MG	14	3221	1/1	0.80	0.20	69,69,69,69	0
58	MG	1H	3196	1/1	0.80	0.44	83,83,83,83	0
58	MG	1H	3033	1/1	0.80	0.58	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3150	1/1	0.80	0.40	87,87,87,87	0
58	MG	1H	3021	1/1	0.80	0.30	83,83,83,83	0
58	MG	1H	3298	1/1	0.80	0.35	74,74,74,74	0
58	MG	14	3179	1/1	0.80	0.24	60,60,60,60	0
58	MG	14	3391	1/1	0.80	0.13	104,104,104,104	0
58	MG	1G	1667	1/1	0.80	0.28	109,109,109,109	0
58	MG	1H	3173	1/1	0.80	0.47	84,84,84,84	0
58	MG	1G	1678	1/1	0.80	0.06	128,128,128,128	0
58	MG	14	3080	1/1	0.80	0.46	82,82,82,82	0
58	MG	1J	204	1/1	0.80	0.27	101,101,101,101	0
58	MG	14	3292	1/1	0.80	0.14	113,113,113,113	0
58	MG	1H	3282	1/1	0.80	0.60	88,88,88,88	0
58	MG	1H	3205	1/1	0.80	0.19	81,81,81,81	0
58	MG	13	1704	1/1	0.80	0.41	82,82,82,82	0
58	MG	14	3297	1/1	0.80	0.69	70,70,70,70	0
58	MG	14	3187	1/1	0.80	0.45	80,80,80,80	0
58	MG	13	1678	1/1	0.80	0.27	93,93,93,93	0
58	MG	13	1679	1/1	0.80	0.28	100,100,100,100	0
58	MG	1G	1663	1/1	0.81	0.10	94,94,94,94	0
58	MG	1H	3307	1/1	0.81	0.52	94,94,94,94	0
58	MG	98	201	1/1	0.81	0.41	72,72,72,72	0
58	MG	1H	3337	1/1	0.81	0.22	89,89,89,89	0
58	MG	P8	101	1/1	0.81	0.58	77,77,77,77	0
58	MG	13	1637	1/1	0.81	0.38	56,56,56,56	0
58	MG	1G	1679	1/1	0.81	0.11	119,119,119,119	0
58	MG	13	1670	1/1	0.81	0.19	97,97,97,97	0
58	MG	1G	1686	1/1	0.81	0.08	125,125,125,125	0
58	MG	1H	3179	1/1	0.81	0.35	83,83,83,83	0
58	MG	1H	3097	1/1	0.81	0.44	71,71,71,71	0
58	MG	14	3271	1/1	0.81	0.21	81,81,81,81	0
58	MG	1H	3246	1/1	0.81	0.23	54,54,54,54	0
58	MG	1H	3441	1/1	0.81	0.13	89,89,89,89	0
58	MG	14	3395	1/1	0.81	0.10	103,103,103,103	0
58	MG	14	3146	1/1	0.81	0.43	57,57,57,57	0
58	MG	14	3228	1/1	0.81	0.17	101,101,101,101	0
58	MG	13	1661	1/1	0.81	0.48	103,103,103,103	0
58	MG	1H	3209	1/1	0.81	0.42	90,90,90,90	0
58	MG	16	203	1/1	0.81	0.14	90,90,90,90	0
58	MG	1H	3019	1/1	0.81	0.49	92,92,92,92	0
58	MG	14	3245	1/1	0.81	0.47	77,77,77,77	0
58	MG	14	3170	1/1	0.81	0.37	83,83,83,83	0
58	MG	14	3177	1/1	0.81	0.46	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	16	205	1/1	0.81	0.11	81,81,81,81	0
58	MG	1G	1657	1/1	0.81	0.36	92,92,92,92	0
58	MG	1G	1659	1/1	0.81	0.18	142,142,142,142	0
58	MG	14	3109	1/1	0.82	0.38	73,73,73,73	0
58	MG	1G	1636	1/1	0.82	0.32	101,101,101,101	0
58	MG	14	3125	1/1	0.82	0.75	72,72,72,72	0
58	MG	1G	1668	1/1	0.82	0.36	116,116,116,116	0
58	MG	3K	101	1/1	0.82	0.34	162,162,162,162	0
58	MG	13	1682	1/1	0.82	0.45	88,88,88,88	0
58	MG	1H	3151	1/1	0.82	0.20	55,55,55,55	0
58	MG	14	3393	1/1	0.82	0.06	127,127,127,127	0
58	MG	1H	3128	1/1	0.82	0.22	62,62,62,62	0
58	MG	1G	1684	1/1	0.82	0.11	109,109,109,109	0
58	MG	14	3193	1/1	0.82	0.40	77,77,77,77	0
58	MG	1J	202	1/1	0.82	0.27	95,95,95,95	0
58	MG	14	3059	1/1	0.82	0.32	86,86,86,86	0
58	MG	14	3060	1/1	0.82	0.23	73,73,73,73	0
58	MG	13	1685	1/1	0.82	0.24	121,121,121,121	0
58	MG	14	3222	1/1	0.82	0.23	97,97,97,97	0
58	MG	1H	3413	1/1	0.82	0.08	102,102,102,102	0
58	MG	14	3074	1/1	0.82	0.81	79,79,79,79	0
58	MG	1G	1615	1/1	0.82	0.23	125,125,125,125	0
58	MG	1H	3280	1/1	0.82	0.33	77,77,77,77	0
58	MG	1H	3438	1/1	0.82	0.11	83,83,83,83	0
58	MG	78	201	1/1	0.82	0.36	70,70,70,70	0
58	MG	1H	3287	1/1	0.83	0.29	104,104,104,104	0
58	MG	1H	3018	1/1	0.83	0.55	71,71,71,71	0
58	MG	1G	1609	1/1	0.83	0.18	94,94,94,94	0
58	MG	13	1715	1/1	0.83	0.10	109,109,109,109	0
58	MG	1H	3190	1/1	0.83	0.32	73,73,73,73	0
58	MG	1H	3159	1/1	0.83	0.42	67,67,67,67	0
58	MG	1G	1620	1/1	0.83	0.31	82,82,82,82	0
58	MG	14	3107	1/1	0.83	0.51	77,77,77,77	0
58	MG	1G	1630	1/1	0.83	0.41	103,103,103,103	0
58	MG	6A	101	1/1	0.83	0.26	93,93,93,93	0
58	MG	13	1650	1/1	0.83	0.30	94,94,94,94	0
58	MG	14	3012	1/1	0.83	0.81	80,80,80,80	0
58	MG	13	1604	1/1	0.83	0.27	87,87,87,87	0
58	MG	13	1634	1/1	0.83	1.02	93,93,93,93	0
58	MG	14	3201	1/1	0.83	0.27	59,59,59,59	0
58	MG	1H	3335	1/1	0.83	0.68	74,74,74,74	0
58	MG	14	3273	1/1	0.83	0.46	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3022	1/1	0.83	0.38	64,64,64,64	0
58	MG	1H	3137	1/1	0.83	0.61	88,88,88,88	0
58	MG	13	1668	1/1	0.83	0.09	90,90,90,90	0
58	MG	21	302	1/1	0.83	0.33	77,77,77,77	0
58	MG	1G	1650	1/1	0.83	0.30	114,114,114,114	0
58	MG	14	3230	1/1	0.83	0.41	64,64,64,64	0
58	MG	1H	3338	1/1	0.83	0.37	65,65,65,65	0
58	MG	1H	3341	1/1	0.83	0.21	79,79,79,79	0
58	MG	14	3236	1/1	0.83	0.51	89,89,89,89	0
58	MG	14	3238	1/1	0.83	0.33	99,99,99,99	0
58	MG	13	1669	1/1	0.83	0.30	68,68,68,68	0
58	MG	13	1708	1/1	0.83	0.13	89,89,89,89	0
58	MG	1H	3262	1/1	0.83	0.37	94,94,94,94	0
58	MG	1H	3184	1/1	0.84	0.26	82,82,82,82	0
58	MG	14	3248	1/1	0.84	0.21	79,79,79,79	0
58	MG	1H	3233	1/1	0.84	0.59	62,62,62,62	0
58	MG	1H	3187	1/1	0.84	0.25	69,69,69,69	0
58	MG	1H	3316	1/1	0.84	0.88	92,92,92,92	0
58	MG	1H	3089	1/1	0.84	0.44	59,59,59,59	0
58	MG	14	3021	1/1	0.84	0.45	52,52,52,52	0
58	MG	14	3278	1/1	0.84	0.34	75,75,75,75	0
58	MG	14	3256	1/1	0.84	0.54	83,83,83,83	0
58	MG	5E	201	1/1	0.84	0.26	89,89,89,89	0
58	MG	14	3067	1/1	0.84	0.31	87,87,87,87	0
58	MG	29	304	1/1	0.84	0.22	81,81,81,81	0
58	MG	1H	3125	1/1	0.84	0.50	69,69,69,69	0
58	MG	14	3237	1/1	0.84	0.37	83,83,83,83	0
58	MG	1H	3308	1/1	0.84	0.51	90,90,90,90	0
58	MG	14	3027	1/1	0.84	0.39	96,96,96,96	0
58	MG	1H	3226	1/1	0.84	0.38	85,85,85,85	0
58	MG	14	3363	1/1	0.84	0.19	72,72,72,72	0
58	MG	1G	1633	1/1	0.85	0.31	98,98,98,98	0
58	MG	1H	3252	1/1	0.85	0.50	66,66,66,66	0
58	MG	1H	3071	1/1	0.85	0.38	61,61,61,61	0
58	MG	1G	1637	1/1	0.85	0.55	87,87,87,87	0
58	MG	41	201	1/1	0.85	0.07	78,78,78,78	0
58	MG	14	3061	1/1	0.85	0.12	81,81,81,81	0
58	MG	14	3205	1/1	0.85	0.34	96,96,96,96	0
58	MG	1H	3322	1/1	0.85	0.65	81,81,81,81	0
58	MG	1H	3108	1/1	0.85	0.33	74,74,74,74	0
58	MG	1H	3072	1/1	0.85	0.30	77,77,77,77	0
58	MG	1H	3422	1/1	0.85	0.16	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3227	1/1	0.85	0.68	85,85,85,85	0
58	MG	13	1703	1/1	0.85	0.78	77,77,77,77	0
58	MG	1H	3332	1/1	0.85	0.32	74,74,74,74	0
58	MG	1H	3096	1/1	0.85	0.33	60,60,60,60	0
58	MG	1H	3193	1/1	0.85	0.50	73,73,73,73	0
58	MG	14	3266	1/1	0.85	0.53	85,85,85,85	0
58	MG	1G	1665	1/1	0.85	0.26	113,113,113,113	0
58	MG	1H	3463	1/1	0.85	0.08	112,112,112,112	0
58	MG	1H	3213	1/1	0.85	0.38	74,74,74,74	0
58	MG	14	3309	1/1	0.85	0.44	110,110,110,110	0
58	MG	1H	3130	1/1	0.85	0.32	74,74,74,74	0
58	MG	1H	3020	1/1	0.85	0.32	66,66,66,66	0
58	MG	1H	3290	1/1	0.86	0.22	70,70,70,70	0
58	MG	1G	1619	1/1	0.86	0.21	101,101,101,101	0
58	MG	1H	3321	1/1	0.86	0.25	67,67,67,67	0
58	MG	1H	3157	1/1	0.86	0.47	73,73,73,73	0
58	MG	13	1692	1/1	0.86	0.16	122,122,122,122	0
58	MG	1G	1634	1/1	0.86	0.29	112,112,112,112	0
58	MG	13	1606	1/1	0.86	0.46	94,94,94,94	0
58	MG	1H	3141	1/1	0.86	0.40	61,61,61,61	0
58	MG	14	3013	1/1	0.86	0.23	78,78,78,78	0
58	MG	14	3199	1/1	0.86	0.50	69,69,69,69	0
58	MG	14	3118	1/1	0.86	0.45	69,69,69,69	0
58	MG	1H	3329	1/1	0.86	0.77	81,81,81,81	0
58	MG	1H	3203	1/1	0.86	0.37	79,79,79,79	0
58	MG	1G	1641	1/1	0.86	0.34	113,113,113,113	0
58	MG	1H	3276	1/1	0.86	0.68	75,75,75,75	0
58	MG	1H	3185	1/1	0.86	0.40	95,95,95,95	0
58	MG	1H	3234	1/1	0.86	0.08	66,66,66,66	0
58	MG	1H	3303	1/1	0.86	0.77	78,78,78,78	0
58	MG	1H	3242	1/1	0.86	0.36	52,52,52,52	0
58	MG	1G	1654	1/1	0.86	0.53	83,83,83,83	0
58	MG	1H	3340	1/1	0.86	0.50	78,78,78,78	0
58	MG	1H	3206	1/1	0.86	0.35	77,77,77,77	0
58	MG	14	3163	1/1	0.86	0.27	90,90,90,90	0
58	MG	1H	3126	1/1	0.86	0.23	58,58,58,58	0
58	MG	1H	3188	1/1	0.86	0.38	73,73,73,73	0
58	MG	13	1647	1/1	0.86	0.23	89,89,89,89	0
58	MG	1H	3216	1/1	0.86	0.40	67,67,67,67	0
58	MG	13	1707	1/1	0.86	0.15	76,76,76,76	0
58	MG	1H	3015	1/1	0.86	0.27	63,63,63,63	0
58	MG	14	3296	1/1	0.86	0.41	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1671	1/1	0.86	0.38	88,88,88,88	0
58	MG	55	201	1/1	0.86	0.30	74,74,74,74	0
58	MG	1H	3426	1/1	0.86	0.13	58,58,58,58	0
58	MG	1H	3452	1/1	0.87	0.13	104,104,104,104	0
58	MG	14	3263	1/1	0.87	0.24	75,75,75,75	0
58	MG	14	3169	1/1	0.87	0.40	58,58,58,58	0
58	MG	1H	3168	1/1	0.87	0.38	69,69,69,69	0
58	MG	14	3084	1/1	0.87	0.56	80,80,80,80	0
58	MG	1G	1662	1/1	0.87	0.68	72,72,72,72	0
58	MG	13	1686	1/1	0.87	0.50	76,76,76,76	0
58	MG	1H	3156	1/1	0.87	0.31	67,67,67,67	0
58	MG	14	3272	1/1	0.87	0.38	76,76,76,76	0
58	MG	16	202	1/1	0.87	0.25	64,64,64,64	0
58	MG	14	3274	1/1	0.87	0.15	76,76,76,76	0
58	MG	13	1680	1/1	0.87	0.28	96,96,96,96	0
58	MG	1H	3176	1/1	0.87	0.46	76,76,76,76	0
58	MG	1H	3158	1/1	0.87	0.49	74,74,74,74	0
58	MG	1H	3066	1/1	0.87	0.33	59,59,59,59	0
58	MG	14	3281	1/1	0.87	0.38	86,86,86,86	0
58	MG	14	3246	1/1	0.87	0.22	69,69,69,69	0
58	MG	1H	3281	1/1	0.87	0.20	88,88,88,88	0
58	MG	14	3284	1/1	0.87	0.78	78,78,78,78	0
58	MG	14	3131	1/1	0.87	0.33	95,95,95,95	0
58	MG	1H	3376	1/1	0.87	0.23	76,76,76,76	0
58	MG	1J	205	1/1	0.87	0.09	101,101,101,101	0
58	MG	1H	3326	1/1	0.87	0.56	83,83,83,83	0
58	MG	13	1639	1/1	0.87	0.56	82,82,82,82	0
58	MG	1H	3182	1/1	0.87	0.20	78,78,78,78	0
58	MG	1H	3258	1/1	0.87	0.27	59,59,59,59	0
58	MG	1H	3135	1/1	0.87	0.12	65,65,65,65	0
58	MG	1K	101	1/1	0.87	0.09	145,145,145,145	0
58	MG	1H	3186	1/1	0.87	0.34	75,75,75,75	0
58	MG	14	3211	1/1	0.87	0.37	91,91,91,91	0
58	MG	14	3154	1/1	0.87	0.25	69,69,69,69	0
58	MG	1H	3445	1/1	0.87	0.07	110,110,110,110	0
58	MG	13	1608	1/1	0.88	0.75	90,90,90,90	0
58	MG	13	1624	1/1	0.88	0.23	103,103,103,103	0
58	MG	1H	3286	1/1	0.88	0.32	94,94,94,94	0
58	MG	I8	102	1/1	0.88	0.24	70,70,70,70	0
58	MG	14	3286	1/1	0.88	0.38	80,80,80,80	0
58	MG	14	3364	1/1	0.88	0.16	85,85,85,85	0
58	MG	14	3386	1/1	0.88	0.16	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3100	1/1	0.88	0.38	76,76,76,76	0
58	MG	L8	101	1/1	0.88	0.62	84,84,84,84	0
58	MG	1H	3140	1/1	0.88	0.27	58,58,58,58	0
58	MG	Q8	101	1/1	0.88	0.33	70,70,70,70	0
58	MG	1G	1677	1/1	0.88	0.12	96,96,96,96	0
58	MG	14	3032	1/1	0.88	0.45	75,75,75,75	0
58	MG	14	3232	1/1	0.88	0.21	81,81,81,81	0
58	MG	1H	3041	1/1	0.88	0.22	76,76,76,76	0
58	MG	1H	3467	1/1	0.88	0.10	84,84,84,84	0
58	MG	14	3299	1/1	0.88	0.20	98,98,98,98	0
58	MG	13	1677	1/1	0.88	0.16	104,104,104,104	0
58	MG	14	3055	1/1	0.88	0.10	81,81,81,81	0
58	MG	1H	3333	1/1	0.88	0.34	100,100,100,100	0
58	MG	1G	1613	1/1	0.88	0.21	98,98,98,98	0
58	MG	1H	3320	1/1	0.88	0.46	77,77,77,77	0
58	MG	1H	3170	1/1	0.88	0.46	65,65,65,65	0
58	MG	1H	3269	1/1	0.88	0.32	65,65,65,65	0
58	MG	1H	3323	1/1	0.88	0.45	80,80,80,80	0
58	MG	1H	3144	1/1	0.88	0.40	77,77,77,77	0
58	MG	1G	1628	1/1	0.88	0.44	95,95,95,95	0
58	MG	1G	1689	1/1	0.89	0.17	121,121,121,121	0
58	MG	14	3126	1/1	0.89	0.39	67,67,67,67	0
58	MG	13	1652	1/1	0.89	0.24	99,99,99,99	0
58	MG	1H	3334	1/1	0.89	0.30	76,76,76,76	0
58	MG	14	3244	1/1	0.89	0.59	70,70,70,70	0
58	MG	14	3007	1/1	0.89	0.48	54,54,54,54	0
58	MG	14	3324	1/1	0.89	0.06	99,99,99,99	0
58	MG	1G	1631	1/1	0.89	0.25	96,96,96,96	0
58	MG	1H	3388	1/1	0.89	0.07	77,77,77,77	0
58	MG	13	1691	1/1	0.89	0.48	90,90,90,90	0
58	MG	1H	3325	1/1	0.89	0.44	71,71,71,71	0
58	MG	14	3195	1/1	0.89	0.37	68,68,68,68	0
58	MG	14	3285	1/1	0.89	0.25	68,68,68,68	0
58	MG	1H	3417	1/1	0.89	0.22	94,94,94,94	0
58	MG	14	3287	1/1	0.89	0.22	82,82,82,82	0
58	MG	1H	3419	1/1	0.89	0.06	101,101,101,101	0
58	MG	1H	3131	1/1	0.89	0.56	73,73,73,73	0
58	MG	14	3203	1/1	0.89	0.34	56,56,56,56	0
58	MG	1H	3232	1/1	0.89	0.17	52,52,52,52	0
58	MG	14	3024	1/1	0.89	0.57	77,77,77,77	0
58	MG	14	3220	1/1	0.89	0.43	76,76,76,76	0
58	MG	14	3160	1/1	0.89	0.37	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3042	1/1	0.89	0.85	90,90,90,90	0
58	MG	14	3090	1/1	0.89	0.29	74,74,74,74	0
58	MG	1H	3221	1/1	0.89	0.40	89,89,89,89	0
58	MG	14	3104	1/1	0.89	0.65	86,86,86,86	0
58	MG	1G	1647	1/1	0.89	0.80	83,83,83,83	0
58	MG	13	1687	1/1	0.89	0.27	99,99,99,99	0
58	MG	1H	3353	1/1	0.89	0.16	57,57,57,57	0
58	MG	13	1620	1/1	0.89	0.28	73,73,73,73	0
58	MG	1G	1622	1/1	0.89	1.19	92,92,92,92	0
58	MG	14	3307	1/1	0.89	0.48	101,101,101,101	0
58	MG	13	1655	1/1	0.90	0.46	87,87,87,87	0
58	MG	1H	3034	1/1	0.90	0.45	80,80,80,80	0
58	MG	1H	3446	1/1	0.90	0.09	84,84,84,84	0
58	MG	14	3033	1/1	0.90	0.26	77,77,77,77	0
58	MG	14	3149	1/1	0.90	0.54	73,73,73,73	0
58	MG	1H	3238	1/1	0.90	0.14	65,65,65,65	0
58	MG	14	3035	1/1	0.90	0.22	93,93,93,93	0
58	MG	13	1651	1/1	0.90	0.41	88,88,88,88	0
58	MG	14	3049	1/1	0.90	0.21	70,70,70,70	0
58	MG	14	3157	1/1	0.90	0.25	57,57,57,57	0
58	MG	1H	3155	1/1	0.90	0.34	74,74,74,74	0
58	MG	1H	3003	1/1	0.90	0.26	64,64,64,64	0
58	MG	14	3165	1/1	0.90	0.51	77,77,77,77	0
58	MG	14	3168	1/1	0.90	0.53	106,106,106,106	0
58	MG	1H	3464	1/1	0.90	0.14	107,107,107,107	0
58	MG	14	3249	1/1	0.90	0.24	80,80,80,80	0
58	MG	1H	3039	1/1	0.90	0.32	68,68,68,68	0
58	MG	14	3172	1/1	0.90	0.70	70,70,70,70	0
58	MG	14	3176	1/1	0.90	0.47	79,79,79,79	0
58	MG	1H	3085	1/1	0.90	0.42	63,63,63,63	0
58	MG	1H	3215	1/1	0.90	0.28	63,63,63,63	0
58	MG	14	3312	1/1	0.90	0.54	80,80,80,80	0
58	MG	1H	3132	1/1	0.90	0.65	85,85,85,85	0
58	MG	1H	3318	1/1	0.90	0.42	79,79,79,79	0
58	MG	16	207	1/1	0.90	0.07	80,80,80,80	0
58	MG	14	3325	1/1	0.90	0.14	63,63,63,63	0
58	MG	14	3333	1/1	0.90	0.17	74,74,74,74	0
58	MG	1H	3362	1/1	0.90	0.11	53,53,53,53	0
58	MG	1G	1687	1/1	0.90	0.06	139,139,139,139	0
58	MG	1H	3319	1/1	0.90	0.52	110,110,110,110	0
58	MG	1H	3009	1/1	0.90	0.27	62,62,62,62	0
58	MG	14	3378	1/1	0.90	0.07	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1639	1/1	0.90	0.51	74,74,74,74	0
58	MG	14	3389	1/1	0.90	0.09	102,102,102,102	0
58	MG	1G	1640	1/1	0.90	0.48	87,87,87,87	0
58	MG	14	3096	1/1	0.90	0.34	73,73,73,73	0
58	MG	1H	3088	1/1	0.90	0.34	68,68,68,68	0
58	MG	13	1702	1/1	0.90	0.27	98,98,98,98	0
58	MG	1H	3027	1/1	0.90	0.32	81,81,81,81	0
58	MG	13	1631	1/1	0.90	0.37	93,93,93,93	0
58	MG	1H	3267	1/1	0.90	0.49	73,73,73,73	0
58	MG	14	3111	1/1	0.90	0.14	81,81,81,81	0
58	MG	14	3200	1/1	0.90	0.46	74,74,74,74	0
58	MG	14	3115	1/1	0.90	0.40	80,80,80,80	0
58	MG	1H	3063	1/1	0.90	0.13	78,78,78,78	0
58	MG	14	3204	1/1	0.90	0.19	77,77,77,77	0
58	MG	13	1629	1/1	0.90	0.39	96,96,96,96	0
58	MG	1H	3119	1/1	0.90	0.20	69,69,69,69	0
58	MG	14	3212	1/1	0.90	0.39	70,70,70,70	0
58	MG	1H	3272	1/1	0.90	0.18	64,64,64,64	0
58	MG	14	3025	1/1	0.90	0.62	84,84,84,84	0
58	MG	1H	3200	1/1	0.90	0.49	81,81,81,81	0
58	MG	45	201	1/1	0.90	0.16	108,108,108,108	0
58	MG	1G	1661	1/1	0.90	0.23	123,123,123,123	0
58	MG	14	3028	1/1	0.90	0.25	69,69,69,69	0
58	MG	1H	3460	1/1	0.91	0.09	104,104,104,104	0
58	MG	14	3305	1/1	0.91	0.49	75,75,75,75	0
58	MG	1H	3047	1/1	0.91	0.32	47,47,47,47	0
58	MG	1G	1614	1/1	0.91	0.30	107,107,107,107	0
58	MG	1H	3002	1/1	0.91	0.25	38,38,38,38	0
58	MG	1H	3367	1/1	0.91	0.09	71,71,71,71	0
58	MG	13	1654	1/1	0.91	0.38	74,74,74,74	0
58	MG	14	3215	1/1	0.91	0.22	72,72,72,72	0
58	MG	14	3217	1/1	0.91	0.43	83,83,83,83	0
58	MG	1H	3095	1/1	0.91	0.33	65,65,65,65	0
58	MG	1H	3220	1/1	0.91	0.27	82,82,82,82	0
58	MG	1H	3004	1/1	0.91	0.32	57,57,57,57	0
58	MG	14	3223	1/1	0.91	0.35	86,86,86,86	0
58	MG	14	3099	1/1	0.91	0.56	87,87,87,87	0
58	MG	13	1710	1/1	0.91	0.09	97,97,97,97	0
58	MG	14	3352	1/1	0.91	0.07	97,97,97,97	0
58	MG	14	3171	1/1	0.91	0.32	99,99,99,99	0
58	MG	1H	3100	1/1	0.91	0.24	61,61,61,61	0
58	MG	1H	3418	1/1	0.91	0.08	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3365	1/1	0.91	0.05	94,94,94,94	0
58	MG	13	1657	1/1	0.91	0.28	103,103,103,103	0
58	MG	14	3384	1/1	0.91	0.14	83,83,83,83	0
58	MG	14	3279	1/1	0.91	0.09	104,104,104,104	0
58	MG	14	3178	1/1	0.91	0.50	84,84,84,84	0
58	MG	1G	1670	1/1	0.91	0.43	86,86,86,86	0
58	MG	1H	3104	1/1	0.91	0.58	69,69,69,69	0
58	MG	14	3031	1/1	0.91	0.42	68,68,68,68	0
58	MG	1H	3204	1/1	0.91	0.42	69,69,69,69	0
58	MG	14	3397	1/1	0.91	0.50	73,73,73,73	0
58	MG	14	3239	1/1	0.91	0.17	80,80,80,80	0
58	MG	14	3241	1/1	0.91	0.35	56,56,56,56	0
58	MG	14	3242	1/1	0.91	0.52	67,67,67,67	0
58	MG	1G	1674	1/1	0.91	0.44	102,102,102,102	0
58	MG	14	3122	1/1	0.91	0.28	88,88,88,88	0
58	MG	1H	3265	1/1	0.91	0.40	78,78,78,78	0
58	MG	13	1720	1/1	0.91	0.10	90,90,90,90	0
58	MG	J8	101	1/1	0.91	0.19	66,66,66,66	0
58	MG	1H	3162	1/1	0.91	0.39	88,88,88,88	0
58	MG	1H	3118	1/1	0.91	0.84	77,77,77,77	0
58	MG	1H	3270	1/1	0.91	0.86	80,80,80,80	0
58	MG	1G	1602	1/1	0.91	0.42	79,79,79,79	0
58	MG	1G	1645	1/1	0.91	0.52	74,74,74,74	0
58	MG	13	1627	1/1	0.91	0.55	69,69,69,69	0
58	MG	1H	3294	1/1	0.91	0.34	57,57,57,57	0
58	MG	14	3148	1/1	0.91	0.31	77,77,77,77	0
58	MG	13	1731	1/1	0.91	0.14	84,84,84,84	0
60	ZN	G8	201	1/1	0.91	0.11	149,149,149,149	0
58	MG	14	3056	1/1	0.92	0.34	55,55,55,55	0
58	MG	1H	3038	1/1	0.92	0.34	92,92,92,92	0
58	MG	1H	3304	1/1	0.92	0.33	86,86,86,86	0
58	MG	1G	1681	1/1	0.92	0.10	78,78,78,78	0
58	MG	13	1625	1/1	0.92	0.33	86,86,86,86	0
58	MG	13	1626	1/1	0.92	0.37	69,69,69,69	0
58	MG	14	3314	1/1	0.92	0.32	94,94,94,94	0
58	MG	14	3267	1/1	0.92	0.25	92,92,92,92	0
58	MG	13	1636	1/1	0.92	0.28	64,64,64,64	0
58	MG	1H	3198	1/1	0.92	0.43	69,69,69,69	0
58	MG	1H	3177	1/1	0.92	0.23	74,74,74,74	0
58	MG	14	3340	1/1	0.92	0.09	79,79,79,79	0
58	MG	14	3343	1/1	0.92	0.08	82,82,82,82	0
58	MG	14	3076	1/1	0.92	0.34	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3347	1/1	0.92	0.06	108,108,108,108	0
58	MG	1H	3078	1/1	0.92	0.51	67,67,67,67	0
58	MG	13	1623	1/1	0.92	0.23	108,108,108,108	0
58	MG	14	3355	1/1	0.92	0.10	102,102,102,102	0
58	MG	14	3362	1/1	0.92	0.12	77,77,77,77	0
58	MG	1H	3044	1/1	0.92	0.27	82,82,82,82	0
58	MG	14	3086	1/1	0.92	0.43	83,83,83,83	0
58	MG	1H	3161	1/1	0.92	0.30	84,84,84,84	0
58	MG	14	3374	1/1	0.92	0.07	76,76,76,76	0
58	MG	14	3175	1/1	0.92	0.16	92,92,92,92	0
58	MG	14	3381	1/1	0.92	0.14	81,81,81,81	0
58	MG	14	3233	1/1	0.92	0.15	86,86,86,86	0
58	MG	1H	3317	1/1	0.92	0.38	68,68,68,68	0
58	MG	1G	1653	1/1	0.92	0.15	97,97,97,97	0
58	MG	13	1729	1/1	0.92	0.07	113,113,113,113	0
58	MG	1G	1655	1/1	0.92	0.25	100,100,100,100	0
58	MG	1G	1656	1/1	0.92	0.41	78,78,78,78	0
58	MG	14	3394	1/1	0.92	0.05	109,109,109,109	0
58	MG	14	3240	1/1	0.92	0.21	83,83,83,83	0
58	MG	1H	3149	1/1	0.92	0.34	60,60,60,60	0
58	MG	1H	3355	1/1	0.92	0.20	48,48,48,48	0
58	MG	1H	3166	1/1	0.92	0.27	71,71,71,71	0
58	MG	1H	3150	1/1	0.92	0.23	72,72,72,72	0
58	MG	16	201	1/1	0.92	0.11	85,85,85,85	0
58	MG	1H	3239	1/1	0.92	0.21	75,75,75,75	0
58	MG	1H	3028	1/1	0.92	0.28	68,68,68,68	0
58	MG	14	3119	1/1	0.92	0.37	62,62,62,62	0
58	MG	1H	3371	1/1	0.92	0.12	59,59,59,59	0
58	MG	1G	1629	1/1	0.92	0.63	104,104,104,104	0
58	MG	1H	3273	1/1	0.92	0.22	68,68,68,68	0
58	MG	1H	3387	1/1	0.92	0.07	80,80,80,80	0
58	MG	1G	1632	1/1	0.92	0.43	75,75,75,75	0
58	MG	1H	3244	1/1	0.92	0.28	62,62,62,62	0
58	MG	1G	1673	1/1	0.92	0.33	93,93,93,93	0
58	MG	14	3047	1/1	0.92	0.18	74,74,74,74	0
58	MG	45	202	1/1	0.92	0.41	72,72,72,72	0
58	MG	1H	3392	1/1	0.92	0.11	68,68,68,68	0
58	MG	1H	3214	1/1	0.92	0.63	76,76,76,76	0
58	MG	1H	3105	1/1	0.92	0.33	66,66,66,66	0
58	MG	1G	1688	1/1	0.93	0.07	138,138,138,138	0
58	MG	13	1660	1/1	0.93	0.24	103,103,103,103	0
58	MG	1H	3070	1/1	0.93	0.47	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1644	1/1	0.93	0.67	92,92,92,92	0
58	MG	1H	3395	1/1	0.93	0.07	77,77,77,77	0
58	MG	1H	3407	1/1	0.93	0.12	116,116,116,116	0
58	MG	1H	3410	1/1	0.93	0.10	58,58,58,58	0
58	MG	13	1645	1/1	0.93	0.42	64,64,64,64	0
58	MG	13	1693	1/1	0.93	0.21	55,55,55,55	0
58	MG	14	3105	1/1	0.93	0.31	67,67,67,67	0
58	MG	14	3106	1/1	0.93	0.40	61,61,61,61	0
58	MG	1H	3225	1/1	0.93	0.35	78,78,78,78	0
58	MG	1G	1651	1/1	0.93	0.20	104,104,104,104	0
58	MG	1H	3107	1/1	0.93	0.28	71,71,71,71	0
58	MG	14	3326	1/1	0.93	0.09	90,90,90,90	0
58	MG	1H	3040	1/1	0.93	0.44	70,70,70,70	0
58	MG	1H	3111	1/1	0.93	0.53	74,74,74,74	0
58	MG	1H	3172	1/1	0.93	0.41	87,87,87,87	0
58	MG	1H	3145	1/1	0.93	0.14	73,73,73,73	0
58	MG	1G	1658	1/1	0.93	0.23	92,92,92,92	0
58	MG	1H	3116	1/1	0.93	0.44	55,55,55,55	0
58	MG	1G	1660	1/1	0.93	0.45	85,85,85,85	0
58	MG	1H	3274	1/1	0.93	0.18	59,59,59,59	0
58	MG	13	1713	1/1	0.93	0.05	101,101,101,101	0
58	MG	1H	3012	1/1	0.93	0.80	83,83,83,83	0
58	MG	1H	3447	1/1	0.93	0.04	86,86,86,86	0
58	MG	13	1607	1/1	0.93	0.19	116,116,116,116	0
58	MG	14	3208	1/1	0.93	0.15	91,91,91,91	0
58	MG	14	3141	1/1	0.93	0.21	93,93,93,93	0
58	MG	14	3142	1/1	0.93	0.41	76,76,76,76	0
58	MG	14	3383	1/1	0.93	0.12	86,86,86,86	0
58	MG	1H	3456	1/1	0.93	0.07	97,97,97,97	0
58	MG	14	3276	1/1	0.93	0.37	92,92,92,92	0
58	MG	14	3387	1/1	0.93	0.10	96,96,96,96	0
58	MG	14	3216	1/1	0.93	0.31	77,77,77,77	0
58	MG	1H	3243	1/1	0.93	0.50	65,65,65,65	0
58	MG	14	3219	1/1	0.93	0.31	48,48,48,48	0
58	MG	1H	3311	1/1	0.93	0.29	75,75,75,75	0
58	MG	13	1665	1/1	0.93	0.09	82,82,82,82	0
58	MG	1H	3343	1/1	0.93	0.15	54,54,54,54	0
58	MG	14	3396	1/1	0.93	0.06	108,108,108,108	0
58	MG	14	3054	1/1	0.93	0.37	70,70,70,70	0
58	MG	13	1724	1/1	0.93	0.09	102,102,102,102	0
58	MG	14	3225	1/1	0.93	0.41	82,82,82,82	0
58	MG	1H	3466	1/1	0.93	0.30	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3211	1/1	0.93	0.24	83,83,83,83	0
58	MG	1G	1676	1/1	0.93	0.11	90,90,90,90	0
58	MG	14	3289	1/1	0.93	0.76	83,83,83,83	0
58	MG	14	3156	1/1	0.93	0.61	63,63,63,63	0
58	MG	1H	3127	1/1	0.93	0.14	59,59,59,59	0
58	MG	13	1725	1/1	0.93	0.08	94,94,94,94	0
58	MG	14	3162	1/1	0.93	0.54	70,70,70,70	0
58	MG	1H	3050	1/1	0.93	0.39	60,60,60,60	0
58	MG	14	3164	1/1	0.93	0.79	74,74,74,74	0
58	MG	1H	3056	1/1	0.93	0.50	56,56,56,56	0
58	MG	14	3166	1/1	0.93	0.21	60,60,60,60	0
58	MG	1H	3370	1/1	0.93	0.16	71,71,71,71	0
58	MG	13	1726	1/1	0.93	0.05	126,126,126,126	0
58	MG	1H	3064	1/1	0.93	0.32	65,65,65,65	0
58	MG	14	3077	1/1	0.93	0.45	68,68,68,68	0
58	MG	1H	3261	1/1	0.93	0.19	69,69,69,69	0
58	MG	1G	1624	1/1	0.94	0.62	65,65,65,65	0
58	MG	1G	1626	1/1	0.94	0.29	82,82,82,82	0
58	MG	14	3112	1/1	0.94	0.48	65,65,65,65	0
58	MG	14	3114	1/1	0.94	0.42	58,58,58,58	0
58	MG	1H	3098	1/1	0.94	0.24	53,53,53,53	0
58	MG	1H	3065	1/1	0.94	0.35	61,61,61,61	0
58	MG	14	3002	1/1	0.94	0.37	57,57,57,57	0
58	MG	14	3003	1/1	0.94	0.24	62,62,62,62	0
58	MG	13	1712	1/1	0.94	0.12	83,83,83,83	0
58	MG	1H	3443	1/1	0.94	0.19	76,76,76,76	0
58	MG	13	1663	1/1	0.94	0.26	82,82,82,82	0
58	MG	14	3014	1/1	0.94	0.47	57,57,57,57	0
58	MG	1H	3208	1/1	0.94	0.51	88,88,88,88	0
58	MG	14	3132	1/1	0.94	0.27	68,68,68,68	0
58	MG	1H	3023	1/1	0.94	0.46	56,56,56,56	0
58	MG	14	3136	1/1	0.94	0.17	62,62,62,62	0
58	MG	1H	3449	1/1	0.94	0.12	106,106,106,106	0
58	MG	14	3020	1/1	0.94	0.47	75,75,75,75	0
58	MG	1H	3451	1/1	0.94	0.13	114,114,114,114	0
58	MG	1H	3106	1/1	0.94	0.41	63,63,63,63	0
58	MG	13	1664	1/1	0.94	0.12	89,89,89,89	0
58	MG	1H	3073	1/1	0.94	0.50	81,81,81,81	0
58	MG	1H	3458	1/1	0.94	0.07	73,73,73,73	0
58	MG	14	3315	1/1	0.94	1.07	93,93,93,93	0
58	MG	1H	3299	1/1	0.94	0.17	74,74,74,74	0
58	MG	14	3322	1/1	0.94	0.22	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3323	1/1	0.94	0.14	64,64,64,64	0
58	MG	1H	3300	1/1	0.94	0.42	87,87,87,87	0
58	MG	1H	3461	1/1	0.94	0.04	92,92,92,92	0
58	MG	14	3151	1/1	0.94	0.77	79,79,79,79	0
58	MG	1H	3110	1/1	0.94	0.51	55,55,55,55	0
58	MG	1H	3146	1/1	0.94	0.39	72,72,72,72	0
58	MG	13	1719	1/1	0.94	0.13	71,71,71,71	0
58	MG	1H	3266	1/1	0.94	0.25	81,81,81,81	0
58	MG	1H	3181	1/1	0.94	0.25	61,61,61,61	0
58	MG	14	3348	1/1	0.94	0.17	70,70,70,70	0
58	MG	14	3350	1/1	0.94	0.11	85,85,85,85	0
58	MG	14	3159	1/1	0.94	0.47	63,63,63,63	0
58	MG	1H	3361	1/1	0.94	0.13	63,63,63,63	0
58	MG	1H	3112	1/1	0.94	0.41	56,56,56,56	0
58	MG	1G	1652	1/1	0.94	0.54	71,71,71,71	0
58	MG	1H	3115	1/1	0.94	0.26	43,43,43,43	0
58	MG	1H	3014	1/1	0.94	0.33	70,70,70,70	0
58	MG	1H	3117	1/1	0.94	0.23	48,48,48,48	0
58	MG	14	3053	1/1	0.94	0.23	61,61,61,61	0
58	MG	13	1640	1/1	0.94	0.35	74,74,74,74	0
58	MG	13	1676	1/1	0.94	0.51	76,76,76,76	0
58	MG	1H	3189	1/1	0.94	0.57	67,67,67,67	0
58	MG	14	3057	1/1	0.94	0.27	101,101,101,101	0
58	MG	14	3385	1/1	0.94	0.07	116,116,116,116	0
58	MG	1H	3379	1/1	0.94	0.11	73,73,73,73	0
58	MG	1H	3381	1/1	0.94	0.14	63,63,63,63	0
58	MG	1H	3275	1/1	0.94	0.37	75,75,75,75	0
58	MG	14	3390	1/1	0.94	0.10	89,89,89,89	0
58	MG	1H	3017	1/1	0.94	0.44	71,71,71,71	0
58	MG	14	3063	1/1	0.94	0.28	58,58,58,58	0
58	MG	1H	3229	1/1	0.94	0.27	48,48,48,48	0
58	MG	1H	3393	1/1	0.94	0.20	54,54,54,54	0
58	MG	14	3069	1/1	0.94	0.38	70,70,70,70	0
58	MG	1H	3123	1/1	0.94	0.39	69,69,69,69	0
58	MG	13	1683	1/1	0.94	0.23	94,94,94,94	0
58	MG	1H	3055	1/1	0.94	0.34	49,49,49,49	0
58	MG	13	1619	1/1	0.94	0.13	91,91,91,91	0
58	MG	1H	3091	1/1	0.94	0.46	65,65,65,65	0
58	MG	14	3082	1/1	0.94	0.47	61,61,61,61	0
58	MG	14	3189	1/1	0.94	0.33	82,82,82,82	0
58	MG	1H	3415	1/1	0.94	0.06	73,73,73,73	0
58	MG	1G	1607	1/1	0.94	0.34	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3240	1/1	0.94	0.30	74,74,74,74	0
58	MG	1G	1611	1/1	0.94	0.38	104,104,104,104	0
58	MG	1G	1612	1/1	0.94	0.36	81,81,81,81	0
58	MG	1H	3061	1/1	0.94	0.30	48,48,48,48	0
58	MG	14	3198	1/1	0.94	0.18	107,107,107,107	0
58	MG	1H	3165	1/1	0.94	0.52	78,78,78,78	0
58	MG	1H	3420	1/1	0.94	0.06	92,92,92,92	0
58	MG	1H	3421	1/1	0.94	0.06	64,64,64,64	0
58	MG	13	1601	1/1	0.94	0.34	68,68,68,68	0
58	MG	1H	3037	1/1	0.94	0.46	121,121,121,121	0
58	MG	1H	3431	1/1	0.94	0.13	70,70,70,70	0
58	MG	1H	3436	1/1	0.94	0.17	73,73,73,73	0
58	MG	1H	3455	1/1	0.95	0.08	59,59,59,59	0
58	MG	13	1616	1/1	0.95	0.04	88,88,88,88	0
58	MG	1H	3223	1/1	0.95	0.52	78,78,78,78	0
58	MG	14	3016	1/1	0.95	0.40	61,61,61,61	0
58	MG	1H	3250	1/1	0.95	0.27	74,74,74,74	0
58	MG	14	3336	1/1	0.95	0.17	62,62,62,62	0
58	MG	14	3338	1/1	0.95	0.23	60,60,60,60	0
58	MG	1H	3048	1/1	0.95	0.30	56,56,56,56	0
58	MG	1H	3113	1/1	0.95	0.44	51,51,51,51	0
58	MG	1H	3394	1/1	0.95	0.20	53,53,53,53	0
58	MG	14	3346	1/1	0.95	0.09	85,85,85,85	0
58	MG	1H	3153	1/1	0.95	0.20	62,62,62,62	0
58	MG	1H	3049	1/1	0.95	0.50	52,52,52,52	0
58	MG	1H	3256	1/1	0.95	0.17	61,61,61,61	0
58	MG	14	3351	1/1	0.95	0.12	85,85,85,85	0
58	MG	14	3087	1/1	0.95	0.35	40,40,40,40	0
58	MG	1H	3310	1/1	0.95	0.17	75,75,75,75	0
58	MG	14	3158	1/1	0.95	0.42	75,75,75,75	0
58	MG	14	3358	1/1	0.95	0.09	91,91,91,91	0
58	MG	13	1628	1/1	0.95	0.41	65,65,65,65	0
58	MG	14	3094	1/1	0.95	0.64	60,60,60,60	0
58	MG	14	3095	1/1	0.95	0.41	71,71,71,71	0
58	MG	13	1671	1/1	0.95	0.31	87,87,87,87	0
58	MG	14	3371	1/1	0.95	0.12	53,53,53,53	0
58	MG	1H	3230	1/1	0.95	0.41	43,43,43,43	0
58	MG	1H	3192	1/1	0.95	0.23	80,80,80,80	0
58	MG	14	3380	1/1	0.95	0.10	96,96,96,96	0
58	MG	1H	3005	1/1	0.95	0.34	54,54,54,54	0
58	MG	1H	3345	1/1	0.95	0.18	61,61,61,61	0
58	MG	16	208	1/1	0.95	0.16	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3346	1/1	0.95	0.14	45,45,45,45	0
58	MG	1H	3058	1/1	0.95	0.43	46,46,46,46	0
58	MG	1G	1675	1/1	0.95	0.33	91,91,91,91	0
58	MG	14	3388	1/1	0.95	0.10	68,68,68,68	0
58	MG	14	3173	1/1	0.95	0.30	66,66,66,66	0
58	MG	14	3174	1/1	0.95	0.27	101,101,101,101	0
58	MG	14	3110	1/1	0.95	0.37	57,57,57,57	0
58	MG	1H	3235	1/1	0.95	0.16	53,53,53,53	0
58	MG	1H	3428	1/1	0.95	0.19	51,51,51,51	0
58	MG	1H	3357	1/1	0.95	0.23	71,71,71,71	0
58	MG	1H	3432	1/1	0.95	0.11	50,50,50,50	0
58	MG	14	3051	1/1	0.95	0.11	81,81,81,81	0
58	MG	1H	3236	1/1	0.95	0.18	99,99,99,99	0
58	MG	1H	3237	1/1	0.95	0.28	84,84,84,84	0
58	MG	14	3121	1/1	0.95	0.48	78,78,78,78	0
58	MG	1H	3007	1/1	0.95	0.34	54,54,54,54	0
58	MG	14	3124	1/1	0.95	0.40	54,54,54,54	0
58	MG	1H	3084	1/1	0.95	0.20	94,94,94,94	0
58	MG	13	1633	1/1	0.95	0.63	62,62,62,62	0
58	MG	1H	3444	1/1	0.95	0.16	69,69,69,69	0
58	MG	1H	3218	1/1	0.95	0.25	56,56,56,56	0
58	MG	1H	3011	1/1	0.95	0.38	51,51,51,51	0
58	MG	14	3133	1/1	0.95	0.19	107,107,107,107	0
58	MG	14	3134	1/1	0.95	0.28	74,74,74,74	0
58	MG	1H	3375	1/1	0.95	0.29	60,60,60,60	0
58	MG	13	1673	1/1	0.95	0.53	70,70,70,70	0
58	MG	14	3137	1/1	0.95	0.09	57,57,57,57	0
58	MG	1H	3377	1/1	0.95	0.13	70,70,70,70	0
58	MG	14	3066	1/1	0.95	0.41	62,62,62,62	0
58	MG	14	3317	1/1	0.95	0.70	89,89,89,89	0
58	MG	14	3319	1/1	0.95	0.10	59,59,59,59	0
58	MG	13	1643	1/1	0.95	0.11	99,99,99,99	0
60	ZN	C5	201	1/1	0.95	0.07	165,165,165,165	0
58	MG	1H	3183	1/1	0.96	0.52	67,67,67,67	0
58	MG	1G	1617	1/1	0.96	0.14	135,135,135,135	0
58	MG	1H	3121	1/1	0.96	0.38	62,62,62,62	0
58	MG	1H	3090	1/1	0.96	0.36	71,71,71,71	0
58	MG	13	1714	1/1	0.96	0.10	73,73,73,73	0
58	MG	13	1658	1/1	0.96	0.24	83,83,83,83	0
58	MG	14	3078	1/1	0.96	0.38	64,64,64,64	0
58	MG	1G	1683	1/1	0.96	0.13	89,89,89,89	0
58	MG	14	3321	1/1	0.96	0.09	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2K	101	1/1	0.96	0.36	68,68,68,68	0
58	MG	14	3083	1/1	0.96	0.63	72,72,72,72	0
58	MG	14	3167	1/1	0.96	0.29	87,87,87,87	0
58	MG	1G	1625	1/1	0.96	0.32	93,93,93,93	0
58	MG	13	1666	1/1	0.96	0.13	78,78,78,78	0
58	MG	14	3328	1/1	0.96	0.06	74,74,74,74	0
58	MG	14	3330	1/1	0.96	0.14	77,77,77,77	0
58	MG	1G	1627	1/1	0.96	0.22	94,94,94,94	0
58	MG	13	1615	1/1	0.96	0.40	77,77,77,77	0
58	MG	1H	3454	1/1	0.96	0.07	96,96,96,96	0
58	MG	1H	3260	1/1	0.96	0.37	72,72,72,72	0
58	MG	14	3093	1/1	0.96	0.42	42,42,42,42	0
58	MG	1H	3382	1/1	0.96	0.06	77,77,77,77	0
58	MG	1H	3129	1/1	0.96	0.52	85,85,85,85	0
58	MG	1H	3067	1/1	0.96	0.32	55,55,55,55	0
58	MG	14	3008	1/1	0.96	0.36	65,65,65,65	0
58	MG	14	3349	1/1	0.96	0.15	83,83,83,83	0
58	MG	1H	3389	1/1	0.96	0.10	38,38,38,38	0
58	MG	14	3101	1/1	0.96	0.43	64,64,64,64	0
58	MG	1H	3391	1/1	0.96	0.09	61,61,61,61	0
58	MG	1H	3295	1/1	0.96	0.46	93,93,93,93	0
58	MG	14	3015	1/1	0.96	0.44	49,49,49,49	0
58	MG	13	1722	1/1	0.96	0.08	103,103,103,103	0
58	MG	14	3360	1/1	0.96	0.06	83,83,83,83	0
58	MG	13	1723	1/1	0.96	0.10	87,87,87,87	0
58	MG	13	1610	1/1	0.96	0.25	80,80,80,80	0
58	MG	1H	3397	1/1	0.96	0.07	71,71,71,71	0
58	MG	1H	3399	1/1	0.96	0.15	62,62,62,62	0
58	MG	14	3366	1/1	0.96	0.04	86,86,86,86	0
58	MG	14	3368	1/1	0.96	0.21	62,62,62,62	0
58	MG	14	3369	1/1	0.96	0.12	59,59,59,59	0
58	MG	1H	3405	1/1	0.96	0.09	63,63,63,63	0
58	MG	1H	3406	1/1	0.96	0.07	76,76,76,76	0
58	MG	14	3376	1/1	0.96	0.07	94,94,94,94	0
58	MG	14	3377	1/1	0.96	0.20	52,52,52,52	0
58	MG	13	1618	1/1	0.96	0.36	80,80,80,80	0
58	MG	1H	3025	1/1	0.96	0.40	64,64,64,64	0
58	MG	1H	3412	1/1	0.96	0.10	78,78,78,78	0
58	MG	14	3382	1/1	0.96	0.07	87,87,87,87	0
58	MG	1H	3231	1/1	0.96	0.20	58,58,58,58	0
58	MG	14	3120	1/1	0.96	0.38	82,82,82,82	0
58	MG	1H	3046	1/1	0.96	0.32	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	21	301	1/1	0.96	0.38	54,54,54,54	0
58	MG	14	3123	1/1	0.96	0.30	64,64,64,64	0
58	MG	13	1649	1/1	0.96	0.37	72,72,72,72	0
58	MG	1H	3081	1/1	0.96	0.39	87,87,87,87	0
58	MG	1H	3082	1/1	0.96	0.26	78,78,78,78	0
58	MG	1H	3174	1/1	0.96	0.36	88,88,88,88	0
58	MG	14	3206	1/1	0.96	0.09	80,80,80,80	0
58	MG	13	1727	1/1	0.96	0.08	112,112,112,112	0
58	MG	14	3209	1/1	0.96	0.24	66,66,66,66	0
58	MG	1H	3114	1/1	0.96	0.54	74,74,74,74	0
58	MG	I8	103	1/1	0.96	0.04	73,73,73,73	0
58	MG	14	3213	1/1	0.96	0.36	64,64,64,64	0
58	MG	14	3214	1/1	0.96	0.34	88,88,88,88	0
58	MG	13	1690	1/1	0.96	0.13	74,74,74,74	0
58	MG	14	3039	1/1	0.96	0.23	50,50,50,50	0
58	MG	1H	3423	1/1	0.96	0.10	66,66,66,66	0
58	MG	13	1711	1/1	0.96	0.11	97,97,97,97	0
58	MG	13	1730	1/1	0.96	0.17	86,86,86,86	0
58	MG	1H	3429	1/1	0.96	0.12	71,71,71,71	0
58	MG	1H	3430	1/1	0.96	0.17	49,49,49,49	0
58	MG	1H	3354	1/1	0.96	0.13	49,49,49,49	0
58	MG	1G	1605	1/1	0.96	0.38	101,101,101,101	0
58	MG	1H	3312	1/1	0.96	0.24	67,67,67,67	0
58	MG	1H	3433	1/1	0.96	0.17	87,87,87,87	0
58	MG	1H	3434	1/1	0.96	0.08	51,51,51,51	0
58	MG	1G	1610	1/1	0.96	0.31	98,98,98,98	0
58	MG	1H	3212	1/1	0.96	0.43	76,76,76,76	0
58	MG	13	1612	1/1	0.96	0.33	63,63,63,63	0
58	MG	13	1614	1/1	0.96	0.20	78,78,78,78	0
58	MG	1H	3120	1/1	0.96	0.34	74,74,74,74	0
58	MG	1H	3442	1/1	0.96	0.08	69,69,69,69	0
58	MG	14	3235	1/1	0.96	0.66	72,72,72,72	0
58	MG	14	3038	1/1	0.97	0.33	71,71,71,71	0
58	MG	13	1701	1/1	0.97	0.14	114,114,114,114	0
58	MG	1G	1601	1/1	0.97	0.29	91,91,91,91	0
58	MG	14	3226	1/1	0.97	0.41	73,73,73,73	0
58	MG	13	1613	1/1	0.97	0.22	81,81,81,81	0
58	MG	1H	3257	1/1	0.97	0.30	70,70,70,70	0
58	MG	1H	3195	1/1	0.97	0.50	62,62,62,62	0
58	MG	1H	3259	1/1	0.97	0.48	79,79,79,79	0
58	MG	1H	3057	1/1	0.97	0.41	66,66,66,66	0
58	MG	14	3318	1/1	0.97	0.24	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1684	1/1	0.97	0.14	128,128,128,128	0
58	MG	1H	3440	1/1	0.97	0.05	58,58,58,58	0
58	MG	1H	3380	1/1	0.97	0.11	59,59,59,59	0
58	MG	13	1667	1/1	0.97	0.47	71,71,71,71	0
58	MG	1H	3086	1/1	0.97	0.37	70,70,70,70	0
58	MG	1H	3384	1/1	0.97	0.06	58,58,58,58	0
58	MG	14	3152	1/1	0.97	0.33	92,92,92,92	0
58	MG	1H	3062	1/1	0.97	0.20	64,64,64,64	0
58	MG	14	3062	1/1	0.97	0.17	68,68,68,68	0
58	MG	14	3332	1/1	0.97	0.10	53,53,53,53	0
58	MG	1H	3330	1/1	0.97	0.34	102,102,102,102	0
58	MG	14	3334	1/1	0.97	0.05	64,64,64,64	0
58	MG	14	3335	1/1	0.97	0.09	61,61,61,61	0
58	MG	14	3064	1/1	0.97	0.19	78,78,78,78	0
58	MG	14	3065	1/1	0.97	0.32	67,67,67,67	0
58	MG	13	1717	1/1	0.97	0.08	92,92,92,92	0
58	MG	14	3341	1/1	0.97	0.08	68,68,68,68	0
58	MG	1H	3448	1/1	0.97	0.08	82,82,82,82	0
58	MG	14	3344	1/1	0.97	0.15	81,81,81,81	0
58	MG	1H	3202	1/1	0.97	0.82	70,70,70,70	0
58	MG	14	3161	1/1	0.97	0.52	70,70,70,70	0
58	MG	1H	3450	1/1	0.97	0.10	54,54,54,54	0
58	MG	14	3070	1/1	0.97	0.51	60,60,60,60	0
58	MG	14	3072	1/1	0.97	0.22	45,45,45,45	0
58	MG	13	1718	1/1	0.97	0.04	83,83,83,83	0
58	MG	1G	1621	1/1	0.97	0.12	92,92,92,92	0
58	MG	14	3075	1/1	0.97	0.29	68,68,68,68	0
58	MG	14	3254	1/1	0.97	0.19	111,111,111,111	0
58	MG	1G	1682	1/1	0.97	0.13	97,97,97,97	0
58	MG	1H	3148	1/1	0.97	0.24	50,50,50,50	0
58	MG	14	3359	1/1	0.97	0.06	79,79,79,79	0
58	MG	13	1732	1/1	0.97	0.20	65,65,65,65	0
58	MG	1G	1685	1/1	0.97	0.09	87,87,87,87	0
58	MG	1H	3010	1/1	0.97	0.36	63,63,63,63	0
58	MG	1H	3396	1/1	0.97	0.10	78,78,78,78	0
58	MG	1H	3026	1/1	0.97	0.47	56,56,56,56	0
58	MG	1H	3398	1/1	0.97	0.16	66,66,66,66	0
58	MG	14	3367	1/1	0.97	0.09	65,65,65,65	0
58	MG	1G	1690	1/1	0.97	0.16	93,93,93,93	0
58	MG	1H	3068	1/1	0.97	0.28	86,86,86,86	0
58	MG	14	3370	1/1	0.97	0.10	64,64,64,64	0
58	MG	14	3088	1/1	0.97	0.45	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3401	1/1	0.97	0.18	69,69,69,69	0
58	MG	14	3001	1/1	0.97	0.16	46,46,46,46	0
58	MG	1H	3403	1/1	0.97	0.14	76,76,76,76	0
58	MG	1H	3462	1/1	0.97	0.04	97,97,97,97	0
58	MG	14	3379	1/1	0.97	0.12	60,60,60,60	0
58	MG	14	3270	1/1	0.97	0.30	63,63,63,63	0
58	MG	14	3004	1/1	0.97	0.37	67,67,67,67	0
58	MG	14	3005	1/1	0.97	0.45	48,48,48,48	0
58	MG	14	3098	1/1	0.97	0.17	93,93,93,93	0
58	MG	14	3006	1/1	0.97	0.63	56,56,56,56	0
58	MG	1H	3404	1/1	0.97	0.13	48,48,48,48	0
58	MG	1H	3069	1/1	0.97	0.42	90,90,90,90	0
58	MG	14	3103	1/1	0.97	0.28	51,51,51,51	0
58	MG	1H	3465	1/1	0.97	0.15	71,71,71,71	0
58	MG	1H	3210	1/1	0.97	0.47	71,71,71,71	0
58	MG	14	3192	1/1	0.97	0.51	63,63,63,63	0
58	MG	13	1622	1/1	0.97	0.37	74,74,74,74	0
58	MG	1H	3408	1/1	0.97	0.12	82,82,82,82	0
58	MG	1H	3409	1/1	0.97	0.07	85,85,85,85	0
58	MG	14	3196	1/1	0.97	0.55	75,75,75,75	0
58	MG	13	1635	1/1	0.97	0.52	74,74,74,74	0
58	MG	1H	3030	1/1	0.97	0.22	67,67,67,67	0
58	MG	1G	1642	1/1	0.97	0.48	91,91,91,91	0
58	MG	14	3398	1/1	0.97	0.07	108,108,108,108	0
58	MG	1H	3103	1/1	0.97	0.28	54,54,54,54	0
58	MG	16	206	1/1	0.97	0.05	73,73,73,73	0
58	MG	1H	3347	1/1	0.97	0.28	51,51,51,51	0
58	MG	14	3116	1/1	0.97	0.20	64,64,64,64	0
58	MG	1H	3350	1/1	0.97	0.12	48,48,48,48	0
58	MG	1H	3416	1/1	0.97	0.08	69,69,69,69	0
58	MG	1H	3245	1/1	0.97	0.70	62,62,62,62	0
58	MG	13	1648	1/1	0.97	0.50	95,95,95,95	0
58	MG	14	3210	1/1	0.97	0.17	80,80,80,80	0
58	MG	1H	3075	1/1	0.97	0.48	43,43,43,43	0
58	MG	1H	3356	1/1	0.97	0.17	42,42,42,42	0
58	MG	88	201	1/1	0.97	0.21	81,81,81,81	0
58	MG	13	1642	1/1	0.97	0.27	74,74,74,74	0
58	MG	1H	3358	1/1	0.97	0.14	45,45,45,45	0
58	MG	1H	3359	1/1	0.97	0.12	59,59,59,59	0
58	MG	13	1609	1/1	0.97	0.37	75,75,75,75	0
58	MG	1H	3133	1/1	0.97	0.34	71,71,71,71	0
58	MG	1H	3163	1/1	0.97	0.35	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3036	1/1	0.97	0.74	96,96,96,96	0
58	MG	13	1617	1/1	0.97	0.24	83,83,83,83	0
58	MG	1H	3077	1/1	0.98	0.23	60,60,60,60	0
58	MG	14	3337	1/1	0.98	0.06	66,66,66,66	0
58	MG	1H	3008	1/1	0.98	0.26	81,81,81,81	0
58	MG	1H	3385	1/1	0.98	0.20	47,47,47,47	0
58	MG	1H	3386	1/1	0.98	0.11	57,57,57,57	0
58	MG	14	3342	1/1	0.98	0.07	80,80,80,80	0
58	MG	1H	3001	1/1	0.98	0.32	43,43,43,43	0
58	MG	13	1716	1/1	0.98	0.07	76,76,76,76	0
58	MG	1H	3344	1/1	0.98	0.13	58,58,58,58	0
58	MG	1H	3437	1/1	0.98	0.09	58,58,58,58	0
58	MG	14	3127	1/1	0.98	0.27	69,69,69,69	0
58	MG	1H	3390	1/1	0.98	0.09	50,50,50,50	0
58	MG	14	3130	1/1	0.98	0.53	86,86,86,86	0
58	MG	1H	3289	1/1	0.98	0.17	49,49,49,49	0
58	MG	1H	3029	1/1	0.98	0.35	42,42,42,42	0
58	MG	14	3202	1/1	0.98	0.31	63,63,63,63	0
58	MG	1H	3143	1/1	0.98	0.14	56,56,56,56	0
58	MG	1H	3348	1/1	0.98	0.19	50,50,50,50	0
58	MG	14	3356	1/1	0.98	0.17	58,58,58,58	0
58	MG	1H	3349	1/1	0.98	0.18	64,64,64,64	0
58	MG	1H	3102	1/1	0.98	0.39	35,35,35,35	0
58	MG	14	3207	1/1	0.98	0.37	80,80,80,80	0
58	MG	14	3361	1/1	0.98	0.15	64,64,64,64	0
58	MG	1H	3191	1/1	0.98	0.50	90,90,90,90	0
58	MG	14	3139	1/1	0.98	0.34	99,99,99,99	0
58	MG	14	3009	1/1	0.98	0.46	52,52,52,52	0
58	MG	14	3010	1/1	0.98	0.48	41,41,41,41	0
58	MG	14	3071	1/1	0.98	0.58	68,68,68,68	0
58	MG	14	3011	1/1	0.98	0.59	48,48,48,48	0
58	MG	13	1721	1/1	0.98	0.12	66,66,66,66	0
58	MG	14	3145	1/1	0.98	0.32	65,65,65,65	0
58	MG	1H	3241	1/1	0.98	0.35	66,66,66,66	0
58	MG	1H	3400	1/1	0.98	0.11	72,72,72,72	0
58	MG	14	3372	1/1	0.98	0.09	70,70,70,70	0
58	MG	14	3373	1/1	0.98	0.19	61,61,61,61	0
58	MG	14	3218	1/1	0.98	0.56	62,62,62,62	0
58	MG	14	3375	1/1	0.98	0.07	97,97,97,97	0
58	MG	1H	3169	1/1	0.98	0.21	85,85,85,85	0
58	MG	1H	3402	1/1	0.98	0.15	51,51,51,51	0
58	MG	1H	3051	1/1	0.98	0.35	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3079	1/1	0.98	0.46	70,70,70,70	0
58	MG	1H	3124	1/1	0.98	0.36	46,46,46,46	0
58	MG	14	3081	1/1	0.98	0.32	76,76,76,76	0
58	MG	1H	3453	1/1	0.98	0.10	84,84,84,84	0
58	MG	1H	3052	1/1	0.98	0.33	53,53,53,53	0
58	MG	1H	3360	1/1	0.98	0.10	61,61,61,61	0
58	MG	13	1602	1/1	0.98	0.28	86,86,86,86	0
58	MG	1H	3013	1/1	0.98	0.29	82,82,82,82	0
58	MG	13	1674	1/1	0.98	0.09	91,91,91,91	0
58	MG	1H	3365	1/1	0.98	0.14	74,74,74,74	0
58	MG	1H	3366	1/1	0.98	0.14	76,76,76,76	0
58	MG	1H	3109	1/1	0.98	0.30	47,47,47,47	0
58	MG	14	3092	1/1	0.98	0.32	76,76,76,76	0
58	MG	1G	1669	1/1	0.98	0.36	107,107,107,107	0
58	MG	1H	3006	1/1	0.98	0.36	46,46,46,46	0
58	MG	1H	3369	1/1	0.98	0.18	49,49,49,49	0
58	MG	1H	3060	1/1	0.98	0.40	61,61,61,61	0
58	MG	1H	3074	1/1	0.98	0.29	64,64,64,64	0
58	MG	1H	3373	1/1	0.98	0.12	51,51,51,51	0
58	MG	1H	3374	1/1	0.98	0.16	53,53,53,53	0
58	MG	13	1611	1/1	0.98	0.24	72,72,72,72	0
58	MG	14	3102	1/1	0.98	0.26	61,61,61,61	0
58	MG	1H	3255	1/1	0.98	0.39	73,73,73,73	0
58	MG	1H	3134	1/1	0.98	0.08	69,69,69,69	0
58	MG	1H	3093	1/1	0.98	0.36	72,72,72,72	0
58	MG	1H	3424	1/1	0.98	0.10	48,48,48,48	0
58	MG	14	3040	1/1	0.98	0.35	59,59,59,59	0
58	MG	14	3041	1/1	0.98	0.35	54,54,54,54	0
58	MG	29	303	1/1	0.98	0.40	52,52,52,52	0
58	MG	14	3043	1/1	0.98	0.38	57,57,57,57	0
58	MG	14	3044	1/1	0.98	0.51	64,64,64,64	0
58	MG	14	3046	1/1	0.98	0.28	66,66,66,66	0
58	MG	1H	3425	1/1	0.98	0.12	63,63,63,63	0
58	MG	14	3327	1/1	0.98	0.16	59,59,59,59	0
58	MG	14	3113	1/1	0.98	0.41	73,73,73,73	0
58	MG	14	3048	1/1	0.98	0.29	90,90,90,90	0
58	MG	14	3331	1/1	0.98	0.14	63,63,63,63	0
58	MG	1H	3076	1/1	0.98	0.41	65,65,65,65	0
58	MG	14	3050	1/1	0.98	0.51	59,59,59,59	0
59	SF4	3E	301	8/8	0.98	0.17	86,99,103,105	0
58	MG	1H	3427	1/1	0.98	0.07	72,72,72,72	0
60	ZN	5A	101	1/1	0.98	0.08	142,142,142,142	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3339	1/1	0.98	0.43	48,48,48,48	0
58	MG	14	3354	1/1	0.99	0.10	70,70,70,70	0
58	MG	1H	3054	1/1	0.99	0.24	52,52,52,52	0
58	MG	1H	3059	1/1	0.99	0.24	49,49,49,49	0
58	MG	14	3357	1/1	0.99	0.22	76,76,76,76	0
58	MG	1H	3372	1/1	0.99	0.11	62,62,62,62	0
58	MG	13	1638	1/1	0.99	0.26	59,59,59,59	0
58	MG	14	3128	1/1	0.99	0.45	58,58,58,58	0
58	MG	1H	3147	1/1	0.99	0.31	64,64,64,64	0
58	MG	14	3298	1/1	0.99	0.90	64,64,64,64	0
58	MG	14	3329	1/1	0.99	0.17	56,56,56,56	0
58	MG	1H	3248	1/1	0.99	0.50	74,74,74,74	0
58	MG	1H	3138	1/1	0.99	0.41	58,58,58,58	0
58	MG	1H	3411	1/1	0.99	0.12	69,69,69,69	0
58	MG	13	1709	1/1	0.99	0.07	92,92,92,92	0
58	MG	1H	3378	1/1	0.99	0.16	53,53,53,53	0
58	MG	1H	3363	1/1	0.99	0.06	68,68,68,68	0
58	MG	1H	3099	1/1	0.99	0.20	55,55,55,55	0
58	MG	1H	3351	1/1	0.99	0.08	46,46,46,46	0
58	MG	14	3138	1/1	0.99	0.32	45,45,45,45	0
58	MG	14	3339	1/1	0.99	0.11	82,82,82,82	0
58	MG	1G	1623	1/1	0.99	0.50	62,62,62,62	0
58	MG	1H	3435	1/1	0.99	0.13	56,56,56,56	0
58	MG	1H	3352	1/1	0.99	0.12	61,61,61,61	0
58	MG	1H	3383	1/1	0.99	0.17	60,60,60,60	0
58	MG	1H	3092	1/1	0.99	0.26	49,49,49,49	0
58	MG	14	3042	1/1	0.99	0.54	70,70,70,70	0
58	MG	14	3091	1/1	0.99	0.43	86,86,86,86	0
58	MG	1H	3053	1/1	0.99	0.34	50,50,50,50	0
58	MG	2L	101	1/1	0.99	0.56	73,73,73,73	0
58	MG	14	3045	1/1	0.99	0.33	58,58,58,58	0
58	MG	1G	1608	1/1	0.99	0.18	89,89,89,89	0
59	SF4	32	301	8/8	0.99	0.15	115,123,133,136	0
60	ZN	5I	101	1/1	0.99	0.13	102,102,102,102	0
58	MG	1H	3094	1/1	0.99	0.37	64,64,64,64	0
58	MG	14	3320	1/1	0.99	0.18	64,64,64,64	0
58	MG	14	3097	1/1	0.99	0.22	65,65,65,65	0

6.5 Other polymers (i)

There are no such residues in this entry.