



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 6, 2024 – 10:50 pm GMT

PDB ID : 6GSJ
Title : Structure of *T. thermophilus* 70S ribosome complex with mRNA, tRNA^{fMet} and cognate tRNA^{Thr} in the A-site
Authors : Rozov, A.; Yusupov, M.; Yusupova, G.
Deposited on : 2018-06-14
Resolution : 2.96 Å (reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

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

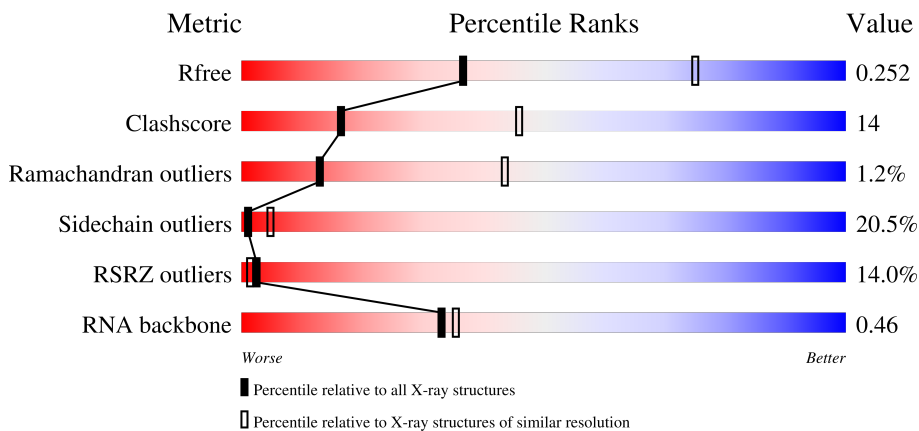
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.96 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3104 (3.00-2.92)
Clashscore	141614	3462 (3.00-2.92)
Ramachandran outliers	138981	3340 (3.00-2.92)
Sidechain outliers	138945	3343 (3.00-2.92)
RSRZ outliers	127900	2986 (3.00-2.92)
RNA backbone	3102	1065 (3.22-2.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	
1	1G	1522	
2	12	256	
2	1E	256	

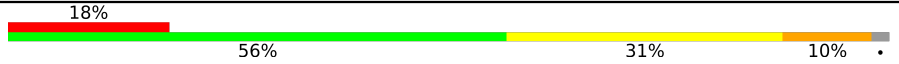
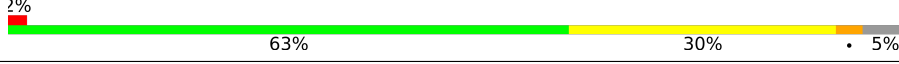
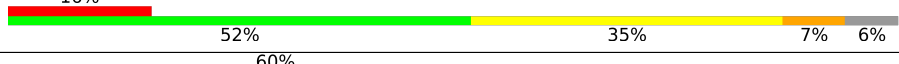


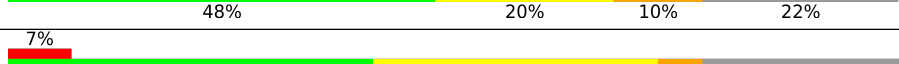
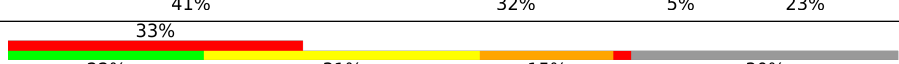
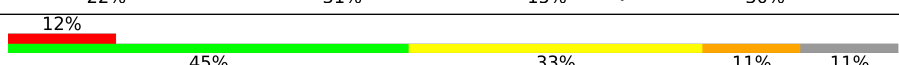
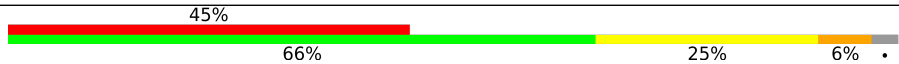

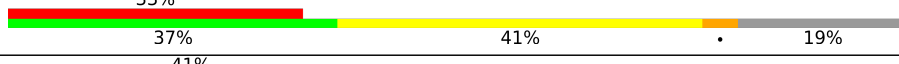

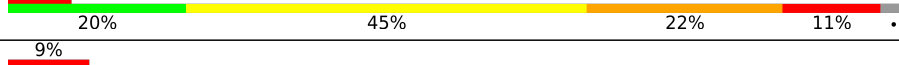

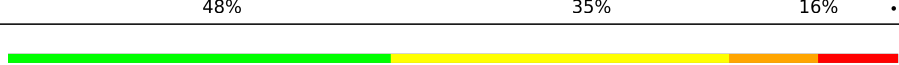
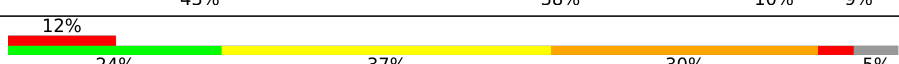
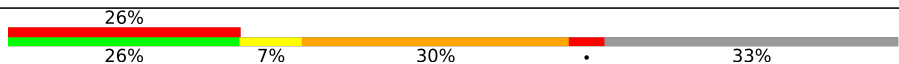
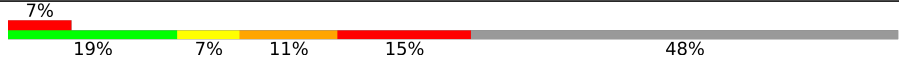
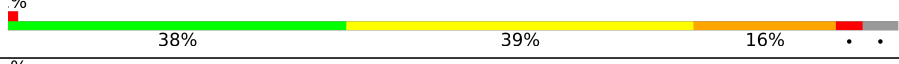






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Mol	Chain	Length	Quality of chain
3	22	239	
3	2E	239	
4	32	209	
4	3E	209	
5	42	162	
5	4E	162	
6	52	101	
6	5E	101	
7	62	156	
7	6E	156	
8	72	138	
8	7E	138	
9	82	128	
9	8E	128	
10	1A	105	
10	1I	105	
11	2A	129	
11	2I	129	
12	3A	132	
12	3I	132	
13	4A	126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

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Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
22	1L	76	
23	2K	77	
23	2L	77	
24	3K	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	
28	11	276	


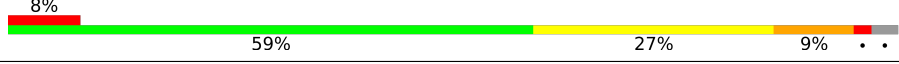
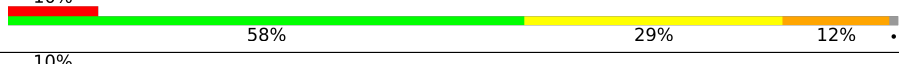


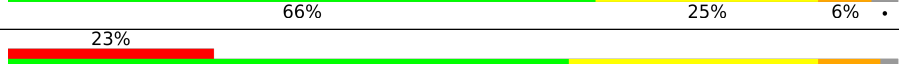
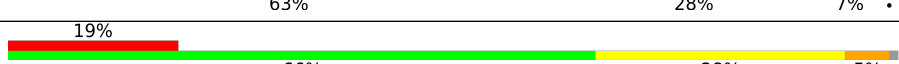
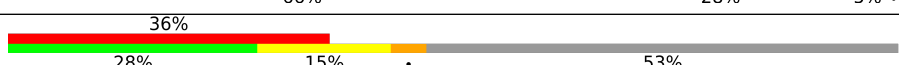
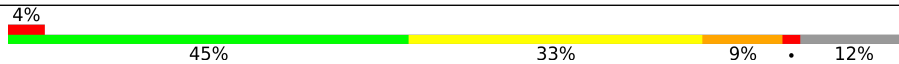
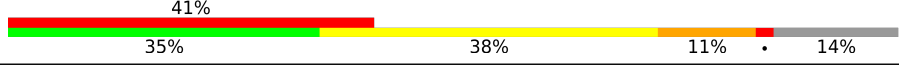
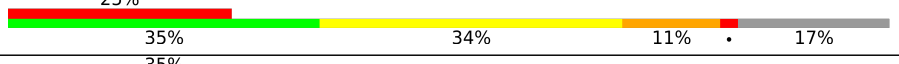
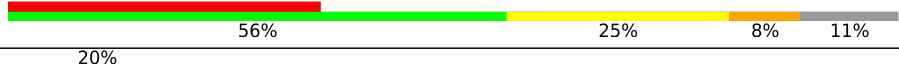


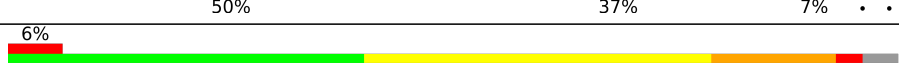
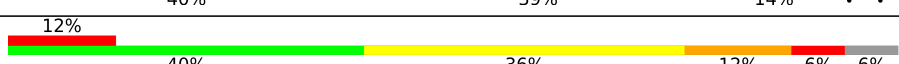


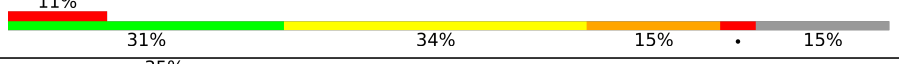
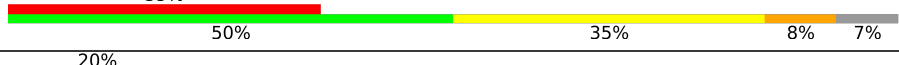





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Mol	Chain	Length	Quality of chain
28	19	276	34% 63% 28% 7%
29	21	206	20% 51% 37% 12%
29	29	206	21% 51% 35% 10%
30	31	210	19% 56% 35% 5%
30	39	210	25% 42% 42% 12%
31	41	182	12% 49% 38% 11%
31	49	182	34% 49% 37% 12%
32	51	180	3% 57% 28% 9%
32	59	180	41% 38% 42% 14% 6%
33	61	148	% 46% 39% 11%
33	69	148	2% 49% 40% 8%
34	15	140	51% 53% 34% 11%
34	58	140	29% 48% 36% 5% 11%
35	25	122	62% 62% 30% 8%
35	68	122	16% 73% 22% 5%
36	35	150	36% 45% 35% 17%
36	78	150	11% 42% 45% 8%
37	45	141	49% 50% 33% 14%
37	88	141	30% 53% 38% 9%
38	55	118	22% 49% 36% 14%
38	98	118	43% 43% 47% 9%
39	65	112	14% 34% 48% 16%
39	A8	112	19% 42% 46% 10%
40	75	146	25% 45% 40% 10%
40	B8	146	17% 41% 40% 12% 7%

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Mol	Chain	Length	Quality of chain
41	85	118	
41	C8	118	
42	95	101	
42	D8	101	
43	A5	113	
43	E8	113	
44	B5	96	
44	F8	96	
45	C5	110	
45	G8	110	
46	D5	206	
46	H8	206	
47	E5	85	
47	I8	85	
48	F5	98	
48	J8	98	
49	G5	72	
49	K8	72	
50	H5	60	
50	L8	60	
51	M8	71	
52	J5	60	
52	N8	60	
53	L5	49	
53	P8	49	

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Mol	Chain	Length	Quality of chain
54	M5	65	
54	Q8	65	
55	3L	76	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	13	1665	-	-	-	X
56	MG	13	1685	-	-	-	X
56	MG	13	1686	-	-	-	X
56	MG	13	1689	-	-	-	X
56	MG	13	1696	-	-	-	X
56	MG	13	1706	-	-	-	X
56	MG	13	1710	-	-	-	X
56	MG	13	1712	-	-	-	X
56	MG	13	1725	-	-	-	X
56	MG	13	1763	-	-	-	X
56	MG	13	1764	-	-	-	X
56	MG	14	3178	-	-	-	X
56	MG	14	3179	-	-	-	X
56	MG	14	3191	-	-	-	X
56	MG	14	3245	-	-	-	X
56	MG	14	3262	-	-	-	X
56	MG	1G	1647	-	-	-	X
56	MG	1G	1667	-	-	-	X
56	MG	1G	1722	-	-	-	X
56	MG	1H	3046	-	-	-	X
56	MG	1H	3165	-	-	-	X
56	MG	1H	3196	-	-	-	X
56	MG	1H	3205	-	-	-	X
56	MG	1H	3219	-	-	-	X
56	MG	1H	3259	-	-	-	X
56	MG	1H	3264	-	-	-	X
56	MG	1H	3300	-	-	-	X
56	MG	1H	3332	-	-	-	X
56	MG	1H	3333	-	-	-	X
56	MG	1H	3370	-	-	-	X
56	MG	21	302	-	-	-	X
56	MG	78	202	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	202	-	-	-	X

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 294252 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	13	1500	Total 32246	C 14352	N 5978	O 10416	P 1500	0	0	0
1	1G	1490	Total 32028	C 14255	N 5932	O 10351	P 1490	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	1E	231	Total 1874	C 1199	N 334	O 336	S 5	0	0	0
2	12	207	Total 1696	C 1083	N 306	O 303	S 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	Total 1605	C 1011	N 313	O 280	S 1	0	0	0
3	22	197	Total 1546	C 978	N 299	O 268	S 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	Total 1698	C 1064	N 338	O 289	S 7	0	0	0
4	32	207	Total 1698	C 1064	N 338	O 289	S 7	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	149	Total	C	N	O	S	0	0	0
			1142	722	216	200	4			
5	42	150	Total	C	N	O	S	0	0	0
			1141	719	217	201	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	100	Total	C	N	O	S	0	0	0
			837	528	154	152	3			
6	52	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	94	Total	C	N	O	S	0	0	0
			749	468	147	133	1			

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	3I	122	956	603	193	159	1	0	0	0
12	3A	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
13	4A	109	879	544	181	152	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
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	87	729	457	146	124	2	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	68	Total	C	N	O	0	0	0
			549	352	105	92			
18	9A	69	Total	C	N	O	0	0	0
			554	355	106	93			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
19	AA	65	Total	C	N	O	S	0	0	0
			510	324	92	92	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	2			
20	BA	103	Total	C	N	O	S	0	0	0
			778	481	163	132	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	1B	22	Total	C	N	O	0	0	0
			188	116	44	28			

- Molecule 22 is a RNA chain called tRNAThr.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1K	74	Total	C	N	O	P	0	0	0
			1593	712	285	522	74			
22	1L	74	Total	C	N	O	P	0	0	0
			1593	712	285	522	74			

- Molecule 23 is a RNA chain called tRNAfMet.

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

- Molecule 24 is a RNA chain called tRNAThr.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	72	Total	C	N	O	P	0	0	0
			1537	686	276	503	72			

- Molecule 25 is a RNA chain called RNA (27-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	18	Total	C	N	O	P	0	0	0
			391	176	80	117	18			
25	4L	14	Total	C	N	O	P	0	0	0
			303	137	63	89	14			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2850	Total	C	N	O	P	0	0	0
			61381	27319	11475	19737	2850			
26	14	2811	Total	C	N	O	P	0	0	0
			60561	26951	11337	19462	2811			

There are 14 discrepancies between the modelled and reference sequences:

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			
28	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	21	205	Total	C	N	O	S	0	0	0
			1556	984	297	269	6			
29	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
30	39	204	Total	C	N	O	S	0	0	0
			1602	1022	299	279	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
31	49	180	Total	C	N	O	S	0	0	0
			1459	931	266	258	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	51	174	Total	C	N	O	S	0	0	0
			1328	842	249	236	1			
32	59	169	Total	C	N	O	S	0	0	0
			1295	823	241	230	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	61	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			
33	69	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	58	125	Total	C	N	O	S	0	0	0
			995	645	183	163	4			
34	15	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	78	148	1127	701	230	193	3	0	0	0
36	35	147	1122	698	229	192	3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
37	88	141	1117	712	211	187	7	0	0	0
37	45	138	1099	702	208	183	6	0	0	0

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
39	A8	111	881	556	176	149	0	0	0
39	65	110	876	553	175	148	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
40	B8	136	1128	702	231	194	1	0	0	0
40	75	140	1164	723	238	202	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	C8	115	Total	C	N	O	S	0	0	0
			950	603	199	147	1			
41	85	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	D8	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			
42	95	100	Total	C	N	O	S	0	0	0
			770	496	140	133	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	F8	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
44	B5	94	Total	C	N	O	S	0	0	0
			735	477	133	125				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	G8	97	Total	C	N	O	S	0	0	0
			734	472	140	117	5			
45	C5	52	Total	C	N	O	S	0	0	0
			396	258	72	65	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	H8	170	Total	C	N	O	S	0	0	0
			1365	870	246	246	3			
46	D5	177	Total	C	N	O	S	0	0	0
			1411	901	253	255	2			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	J8	96	Total	C	N	O	S	0	0	0
			747	469	148	129	1			
48	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	K8	68	Total	C	N	O	S	0	0	0
			575	358	116	100	1			
49	G5	69	Total	C	N	O	S	0	0	0
			576	358	116	101	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M8	60	Total	C	N	O	S	0	0	0
			475	300	84	86	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	N8	48	Total	C	N	O	S	0	0	0
			369	229	75	60	5			
52	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	P8	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			
53	L5	48	Total	C	N	O	S	0	0	0
			406	249	100	55	2			

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

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

- Molecule 55 is a RNA chain called tRNAThr.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	3L	72	Total	C	N	O	P	0	0	0
			1538	687	276	503	72			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	13	205	Total	Mg	0	0
			205	205		
56	3E	1	Total	Mg	0	0
			1	1		
56	5E	1	Total	Mg	0	0
			1	1		
56	2I	1	Total	Mg	0	0
			1	1		
56	5I	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	8I	1	Total Mg 1 1	0	0
56	BI	2	Total Mg 2 2	0	0
56	1K	1	Total Mg 1 1	0	0
56	2K	2	Total Mg 2 2	0	0
56	1H	622	Total Mg 622 622	0	0
56	16	15	Total Mg 15 15	0	0
56	11	1	Total Mg 1 1	0	0
56	21	4	Total Mg 4 4	0	0
56	31	2	Total Mg 2 2	0	0
56	41	1	Total Mg 1 1	0	0
56	68	2	Total Mg 2 2	0	0
56	78	2	Total Mg 2 2	0	0
56	88	3	Total Mg 3 3	0	0
56	98	1	Total Mg 1 1	0	0
56	D8	1	Total Mg 1 1	0	0
56	I8	2	Total Mg 2 2	0	0
56	P8	1	Total Mg 1 1	0	0
56	Q8	1	Total Mg 1 1	0	0
56	1G	155	Total Mg 155 155	0	0
56	42	1	Total Mg 1 1	0	0
56	2A	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	4A	1	Total Mg 1 1	0	0
56	9A	1	Total Mg 1 1	0	0
56	BA	2	Total Mg 2 2	0	0
56	1B	1	Total Mg 1 1	0	0
56	2L	2	Total Mg 2 2	0	0
56	4L	1	Total Mg 1 1	0	0
56	14	435	Total Mg 435 435	0	0
56	1J	6	Total Mg 6 6	0	0
56	19	1	Total Mg 1 1	0	0
56	29	3	Total Mg 3 3	0	0
56	39	1	Total Mg 1 1	0	0
56	25	1	Total Mg 1 1	0	0
56	35	3	Total Mg 3 3	0	0
56	45	2	Total Mg 2 2	0	0
56	55	1	Total Mg 1 1	0	0
56	85	1	Total Mg 1 1	0	0
56	E5	1	Total Mg 1 1	0	0

- Molecule 57 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	3E	1	Total Fe S 8 4 4	0	0
57	32	1	Total Fe S 8 4 4	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	5I	1	Total Zn 1 1	0	0
58	5A	1	Total Zn 1 1	0	0

- Molecule 59 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	13	339	Total O 339 339	0	0
59	1E	1	Total O 1 1	0	0
59	3E	2	Total O 2 2	0	0
59	4E	2	Total O 2 2	0	0
59	6E	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	8E	2	Total O 2 2	0	0
59	1I	3	Total O 3 3	0	0
59	3I	1	Total O 1 1	0	0
59	4I	2	Total O 2 2	0	0
59	5I	1	Total O 1 1	0	0
59	6I	1	Total O 1 1	0	0
59	7I	3	Total O 3 3	0	0
59	1F	2	Total O 2 2	0	0
59	1K	1	Total O 1 1	0	0
59	4K	2	Total O 2 2	0	0
59	1H	1047	Total O 1047 1047	0	0
59	16	19	Total O 19 19	0	0
59	11	11	Total O 11 11	0	0
59	21	8	Total O 8 8	0	0
59	31	7	Total O 7 7	0	0
59	58	3	Total O 3 3	0	0
59	78	6	Total O 6 6	0	0
59	D8	1	Total O 1 1	0	0
59	E8	1	Total O 1 1	0	0
59	G8	1	Total O 1 1	0	0
59	I8	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	J8	1	Total O 1 1	0	0
59	L8	4	Total O 4 4	0	0
59	P8	1	Total O 1 1	0	0
59	Q8	2	Total O 2 2	0	0
59	1G	289	Total O 289 289	0	0
59	32	2	Total O 2 2	0	0
59	42	1	Total O 1 1	0	0
59	52	4	Total O 4 4	0	0
59	1A	1	Total O 1 1	0	0
59	7A	4	Total O 4 4	0	0
59	9A	2	Total O 2 2	0	0
59	BA	2	Total O 2 2	0	0
59	2L	6	Total O 6 6	0	0
59	4L	3	Total O 3 3	0	0
59	14	730	Total O 730 730	0	0
59	19	10	Total O 10 10	0	0
59	29	2	Total O 2 2	0	0
59	39	5	Total O 5 5	0	0
59	15	1	Total O 1 1	0	0
59	25	6	Total O 6 6	0	0
59	35	6	Total O 6 6	0	0

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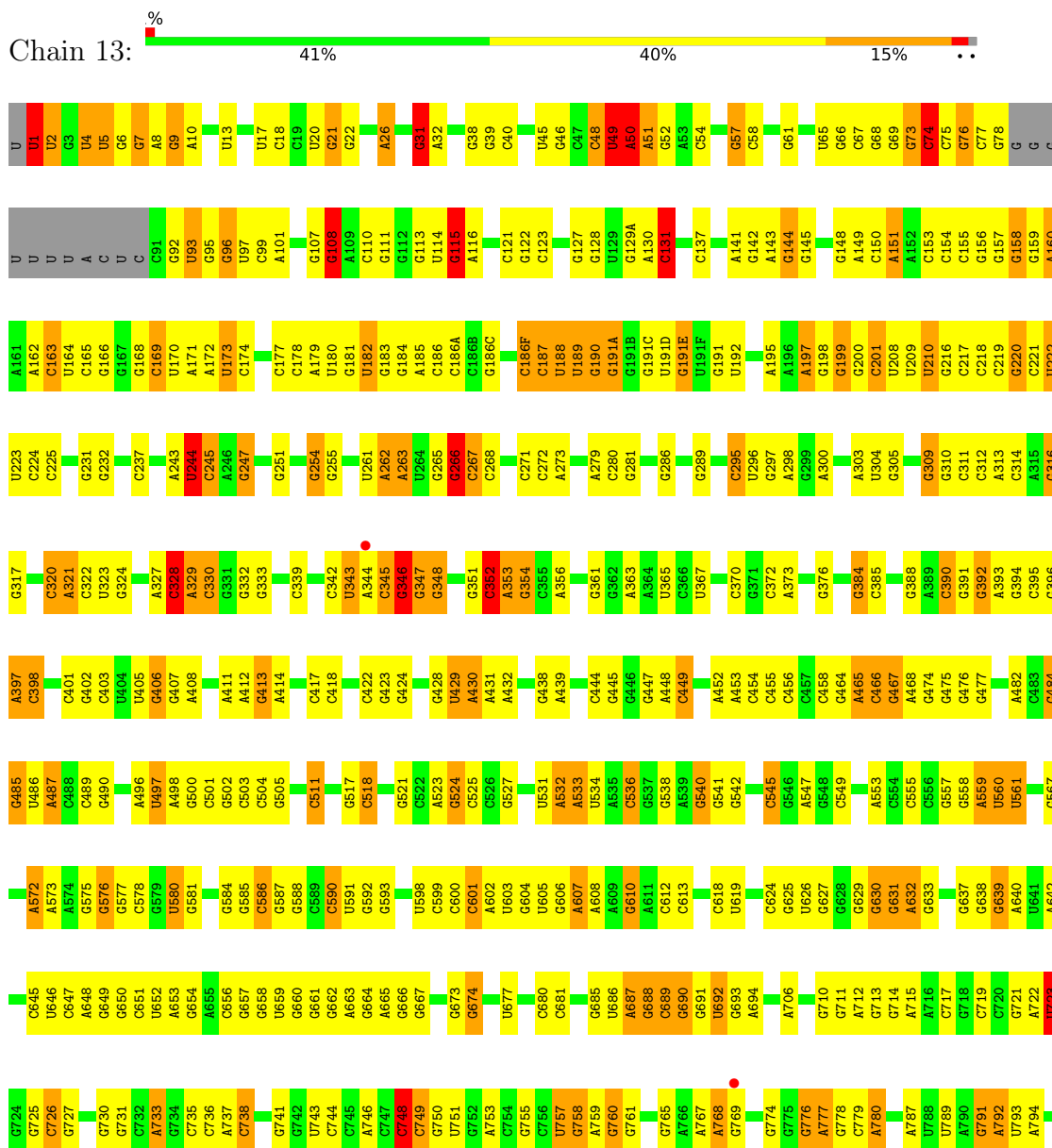
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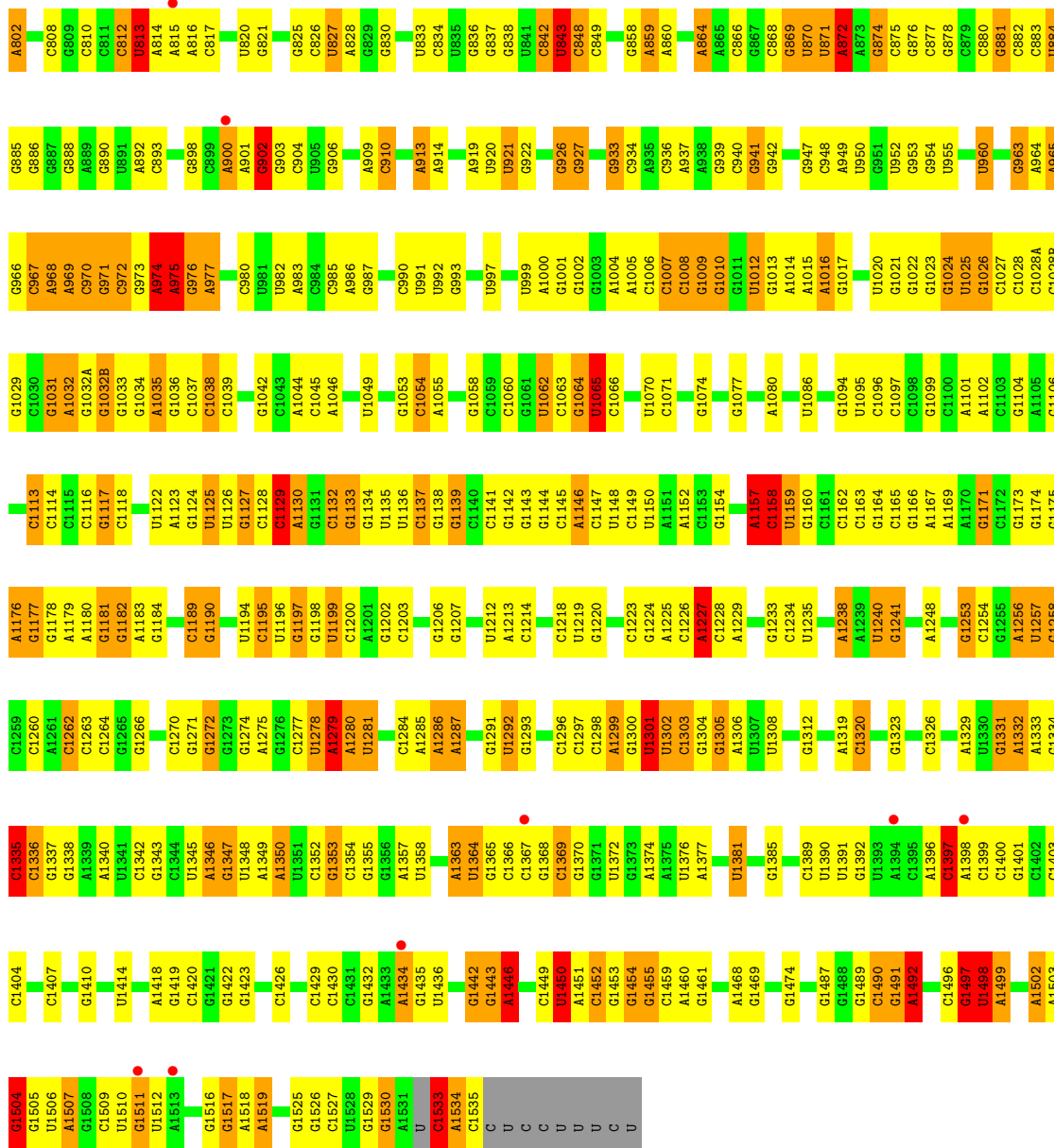
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59	95	1	Total O 1 1	0	0
59	B5	3	Total O 3 3	0	0
59	H5	3	Total O 3 3	0	0
59	M5	2	Total O 2 2	0	0

3 Residue-property plots [i](#)

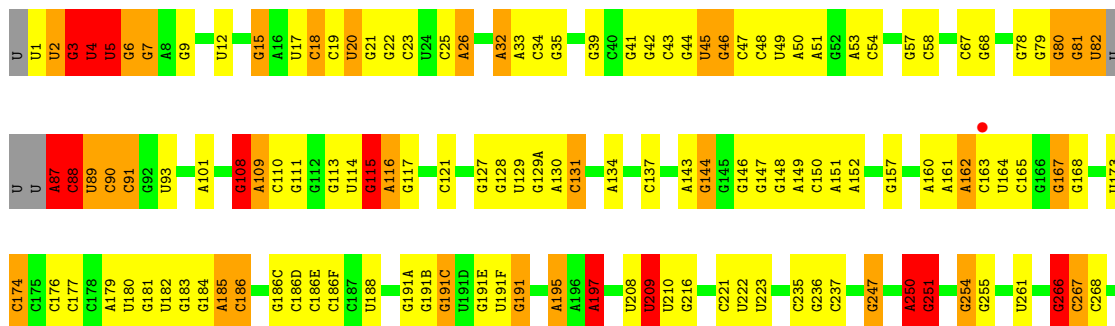
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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.

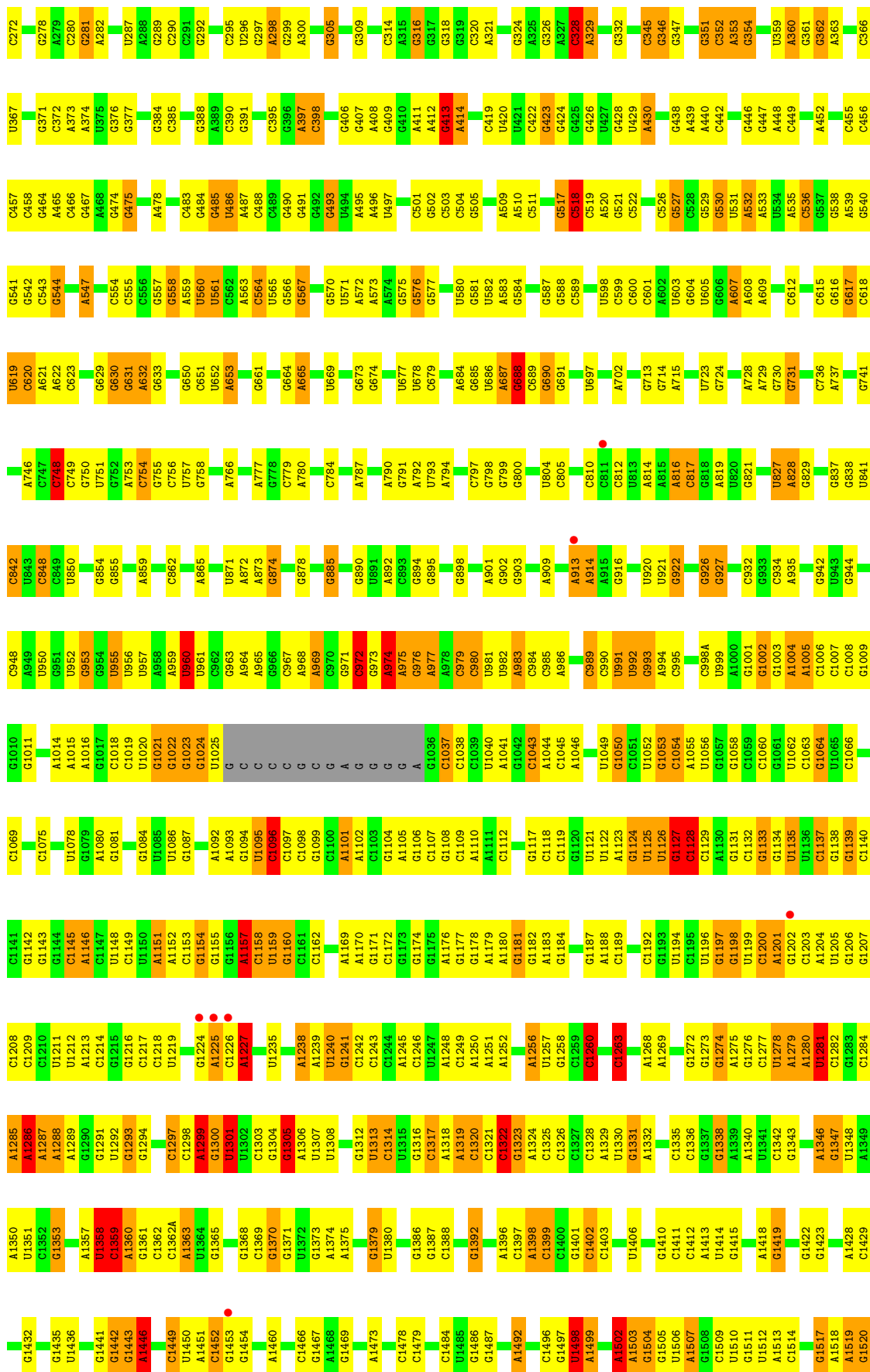
- Molecule 1: 16S ribosomal RNA





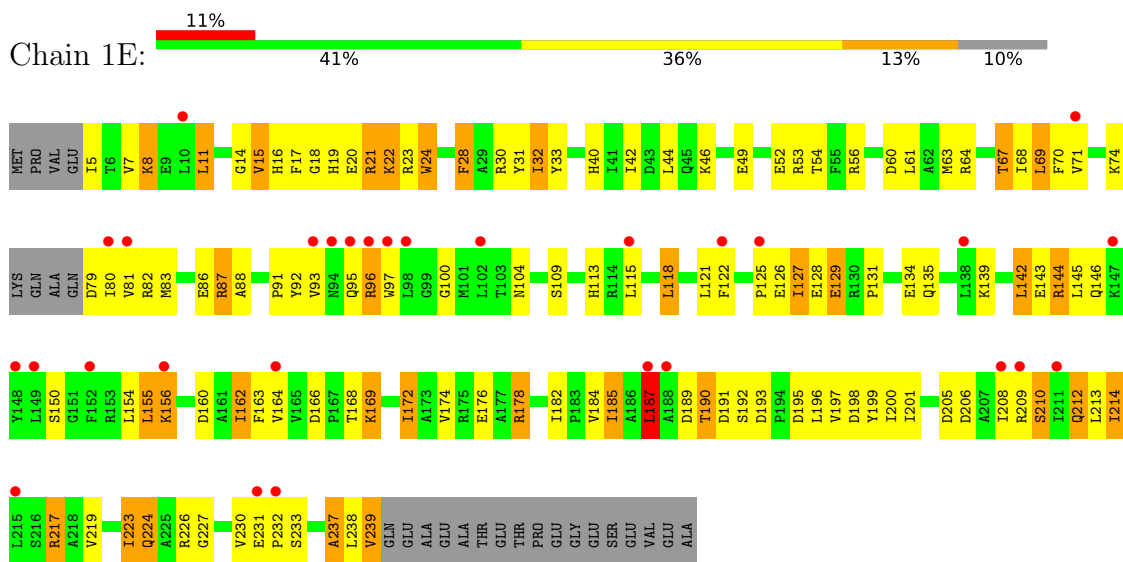
• Molecule 1: 16S ribosomal RNA



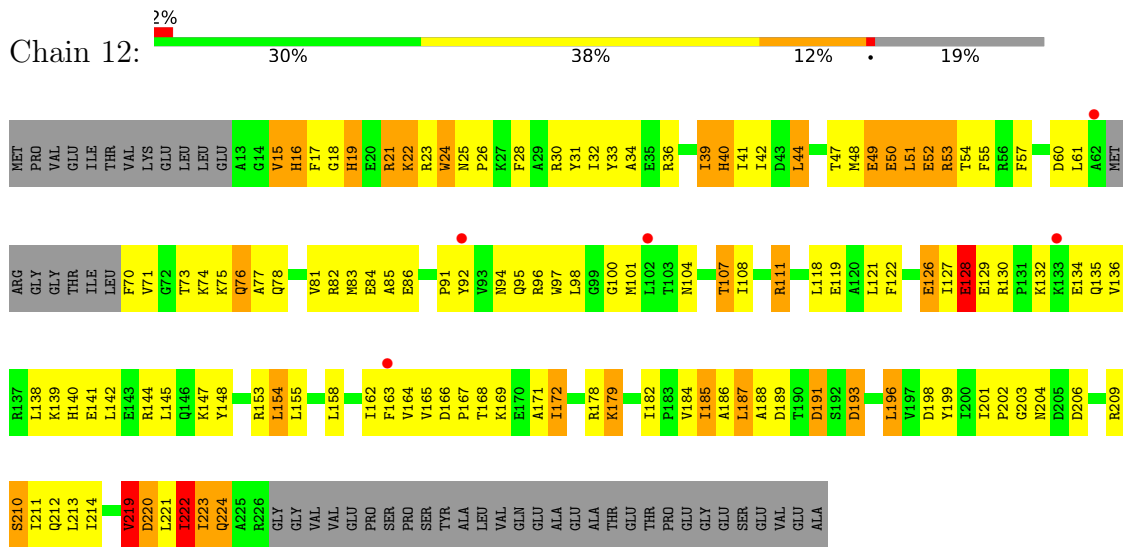




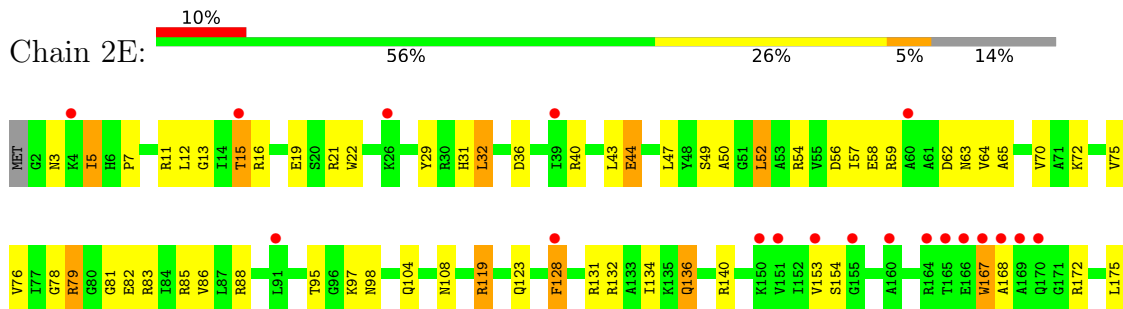
• Molecule 2: 30S ribosomal protein S2

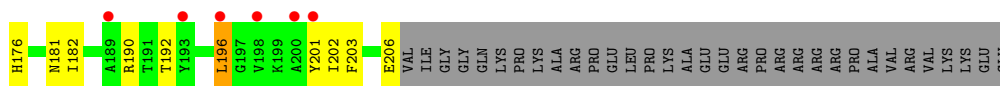


• Molecule 2: 30S ribosomal protein S2

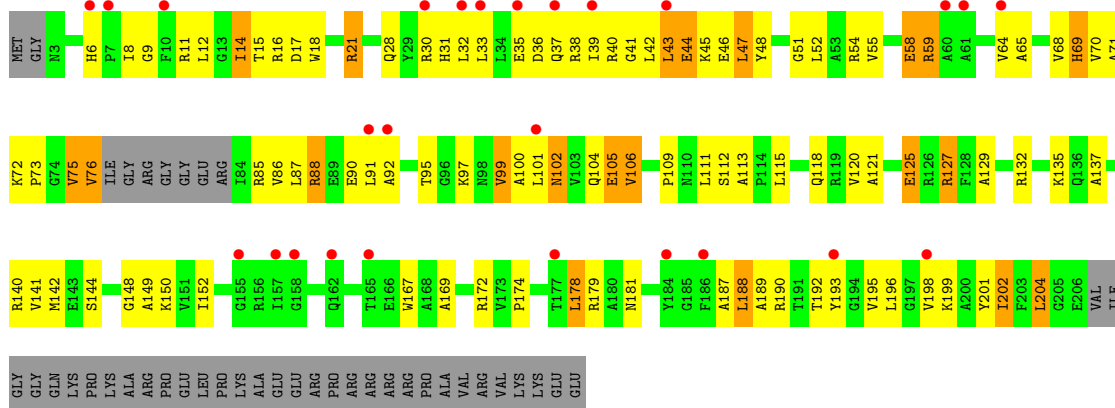


• Molecule 3: 30S ribosomal protein S3

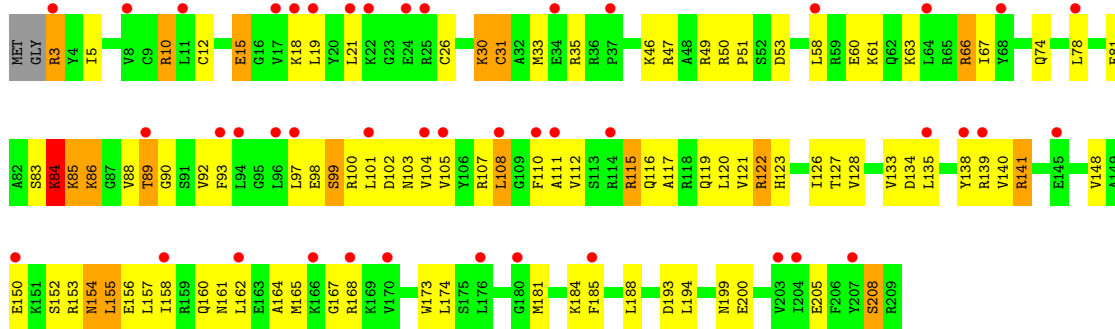




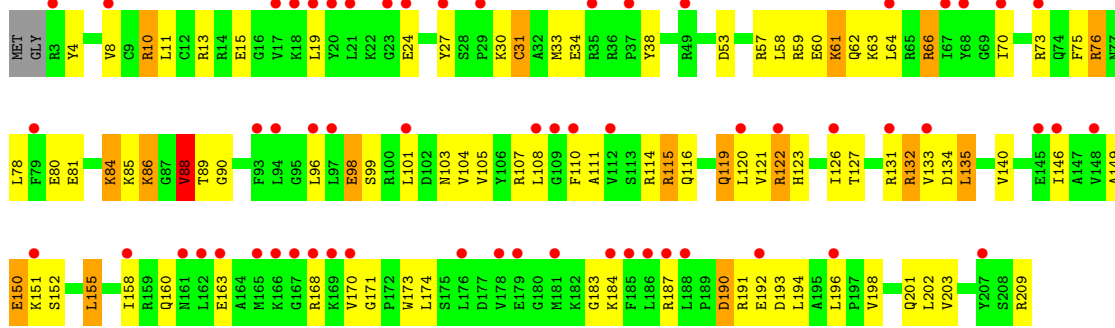
• Molecule 3: 30S ribosomal protein S3



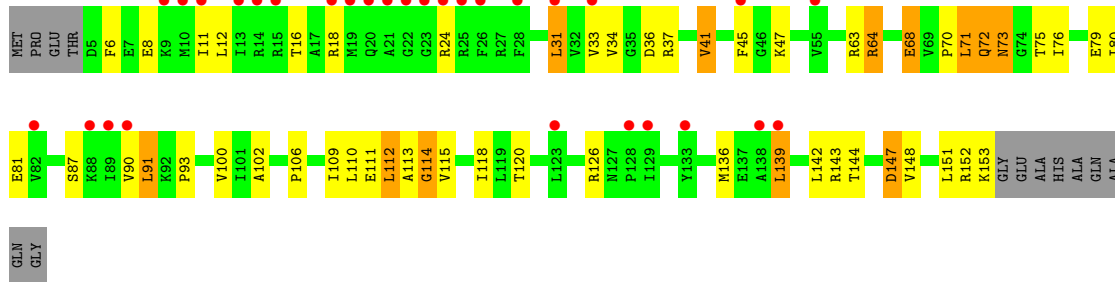
• Molecule 4: 30S ribosomal protein S4



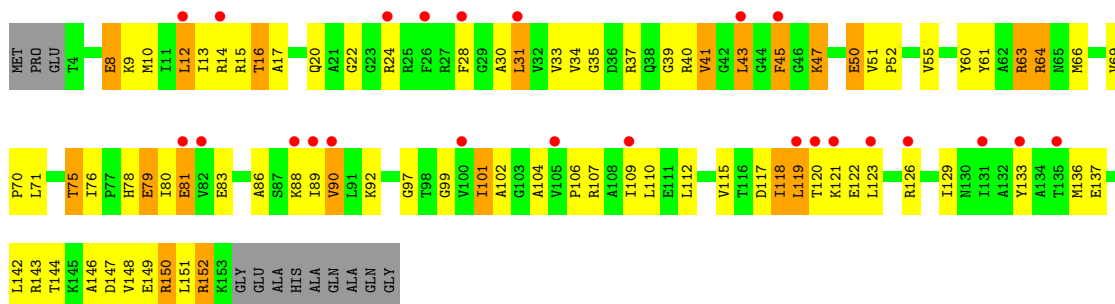
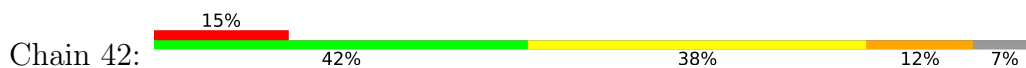
• Molecule 4: 30S ribosomal protein S4



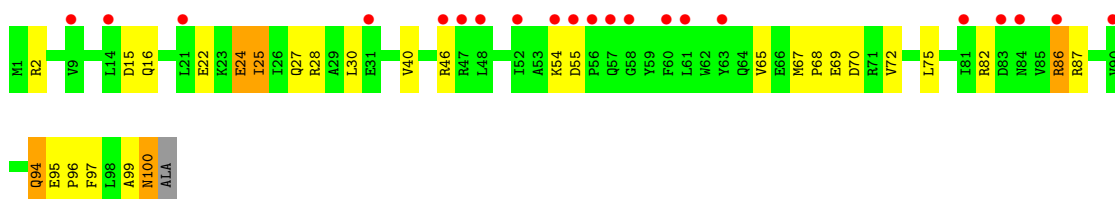
• Molecule 5: 30S ribosomal protein S5



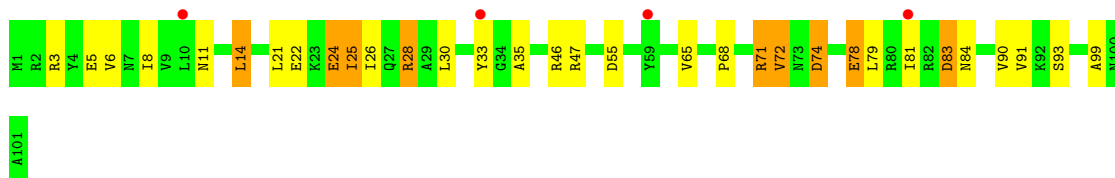
- Molecule 5: 30S ribosomal protein S5



- Molecule 6: 30S ribosomal protein S6

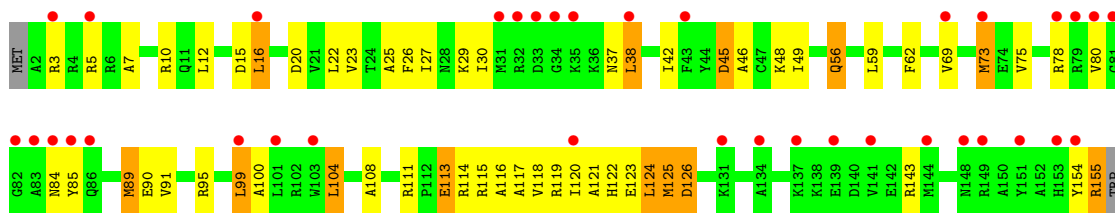


- Molecule 6: 30S ribosomal protein S6

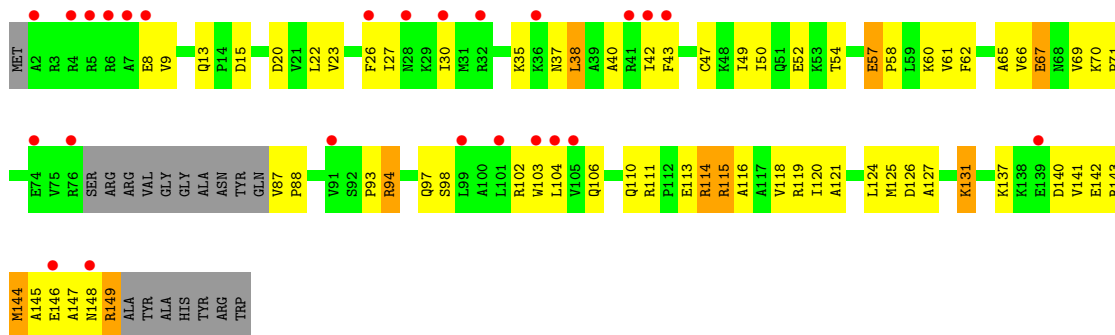


- Molecule 7: 30S ribosomal protein S7

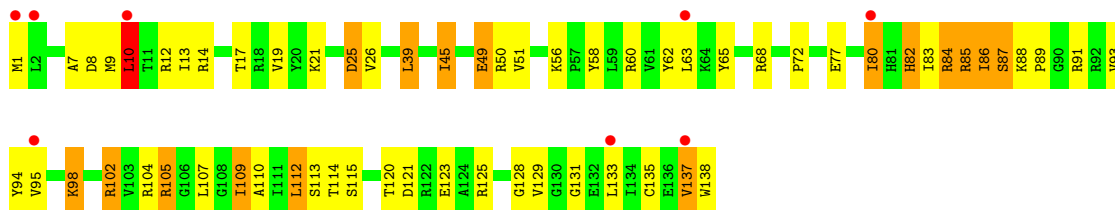




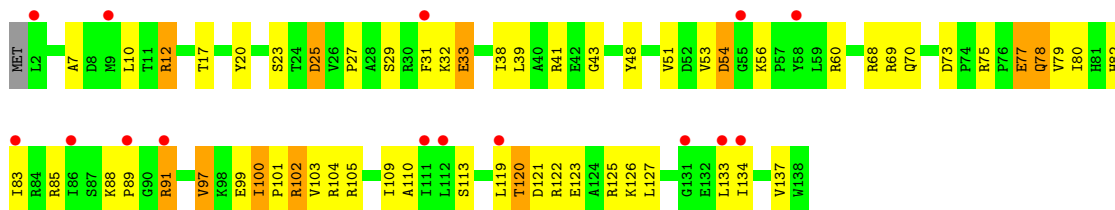
• Molecule 7: 30S ribosomal protein S7



• Molecule 8: 30S ribosomal protein S8

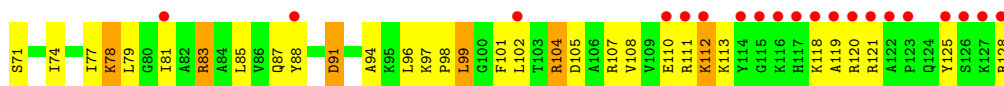


• Molecule 8: 30S ribosomal protein S8

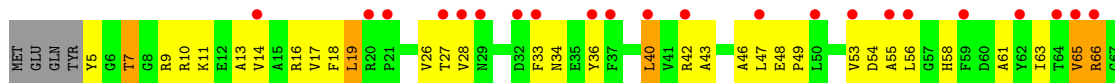
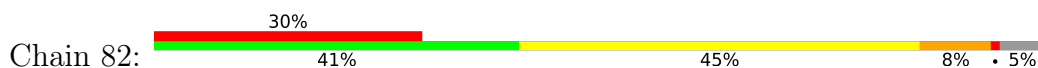


• Molecule 9: 30S ribosomal protein S9

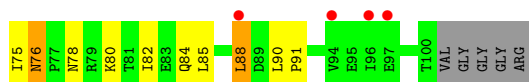
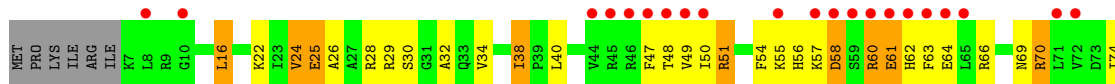




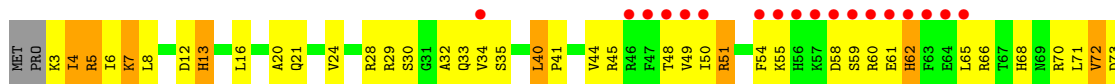
• Molecule 9: 30S ribosomal protein S9



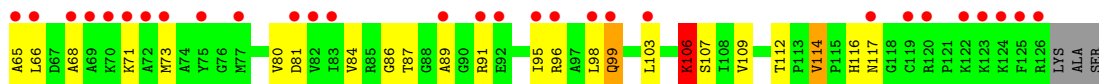
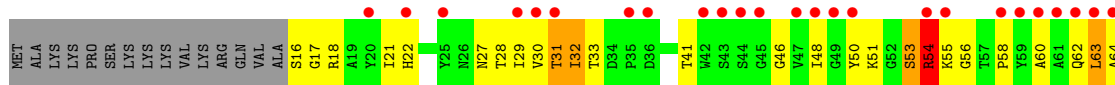
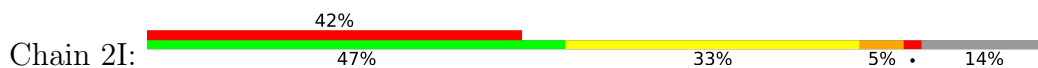
• Molecule 10: 30S ribosomal protein S10



• Molecule 10: 30S ribosomal protein S10

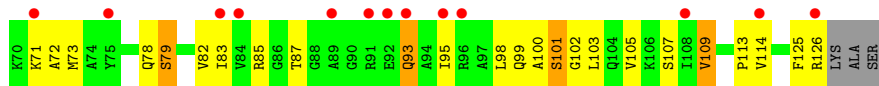


• Molecule 11: 30S ribosomal protein S11



• Molecule 11: 30S ribosomal protein S11

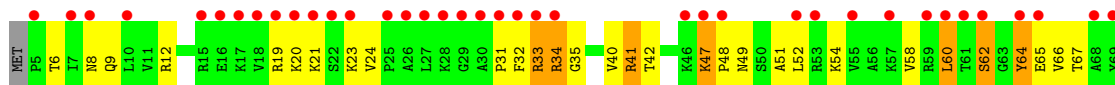
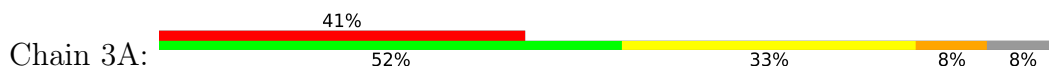




• Molecule 12: 30S ribosomal protein S12



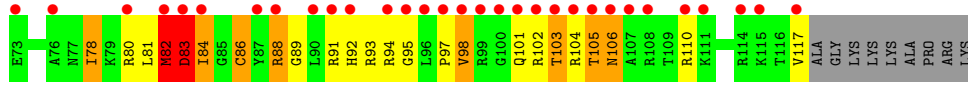
• Molecule 12: 30S ribosomal protein S12



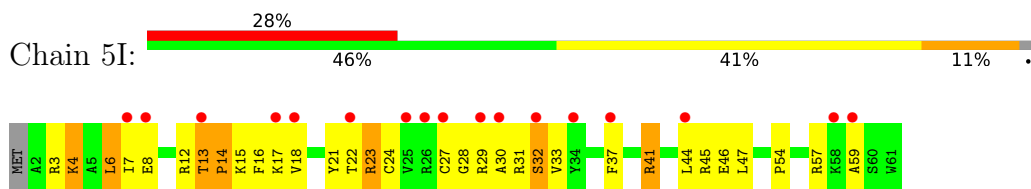
• Molecule 13: 30S ribosomal protein S13



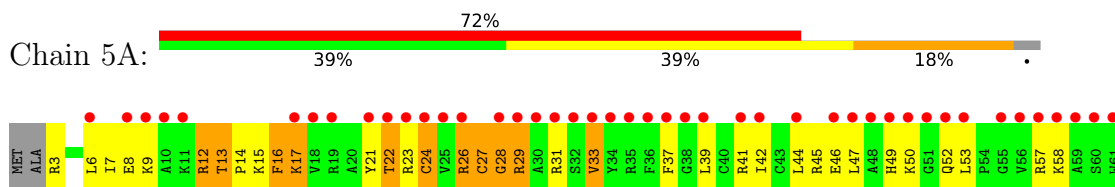
• Molecule 13: 30S ribosomal protein S13



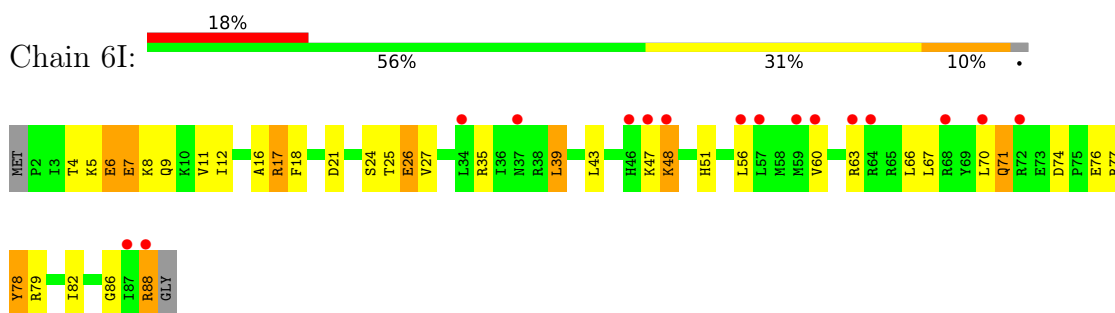
- Molecule 14: 30S ribosomal protein S14 type Z



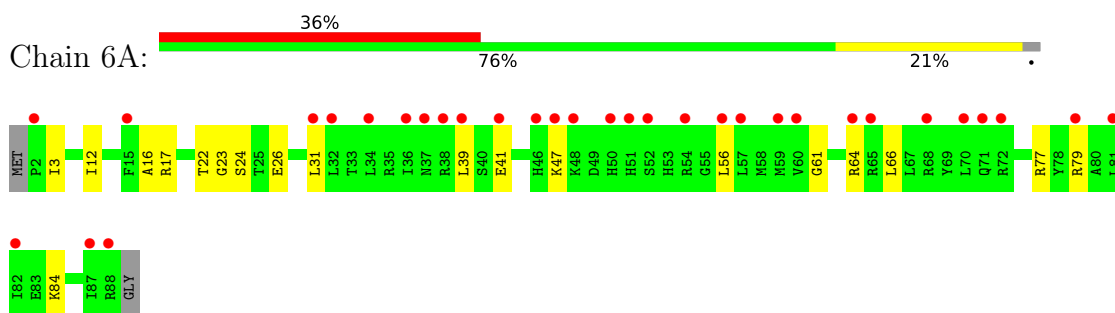
- Molecule 14: 30S ribosomal protein S14 type Z



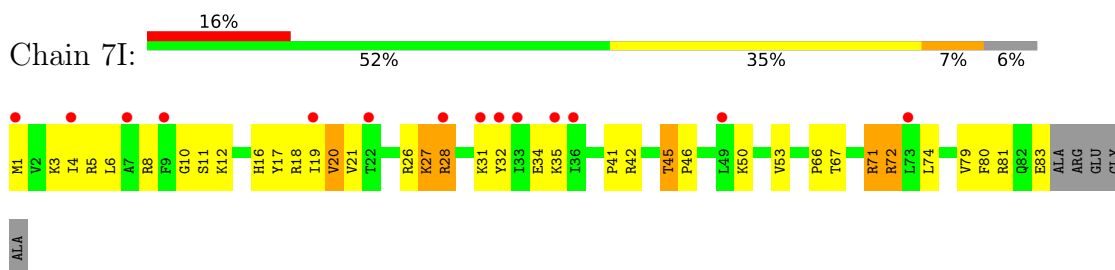
- Molecule 15: 30S ribosomal protein S15



- Molecule 15: 30S ribosomal protein S15



- Molecule 16: 30S ribosomal protein S16

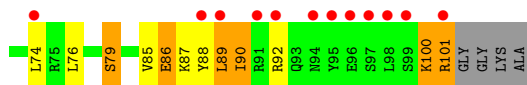
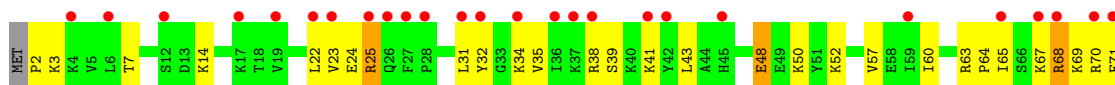


- Molecule 16: 30S ribosomal protein S16

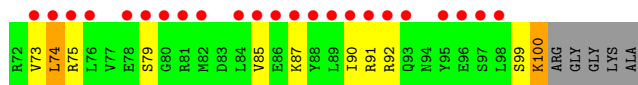
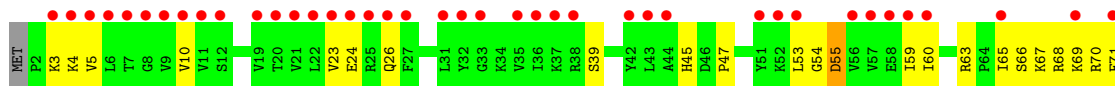




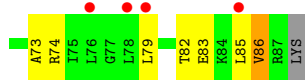
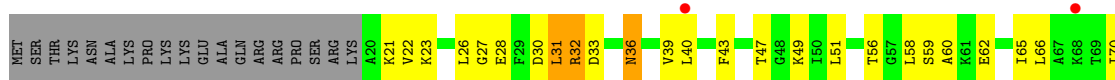
• Molecule 17: 30S ribosomal protein S17



• Molecule 17: 30S ribosomal protein S17



• Molecule 18: 30S ribosomal protein S18

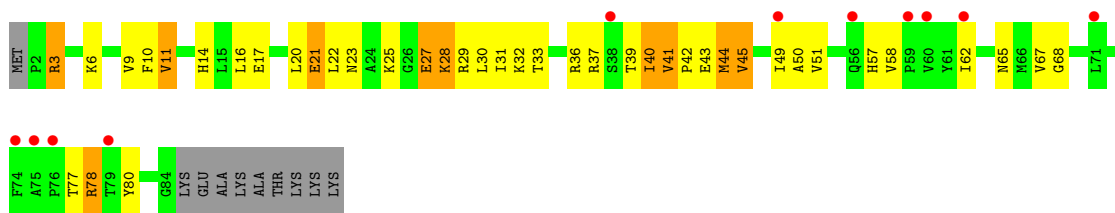


• Molecule 18: 30S ribosomal protein S18

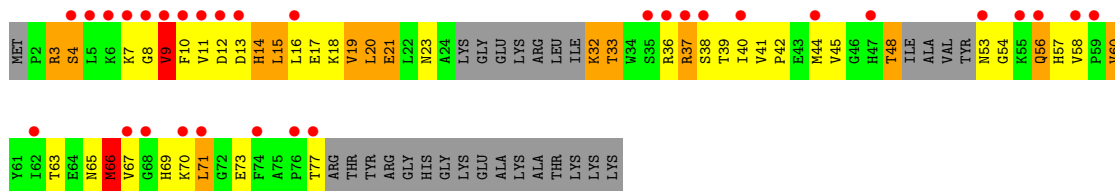
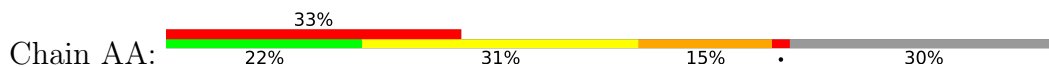


• Molecule 19: 30S ribosomal protein S19

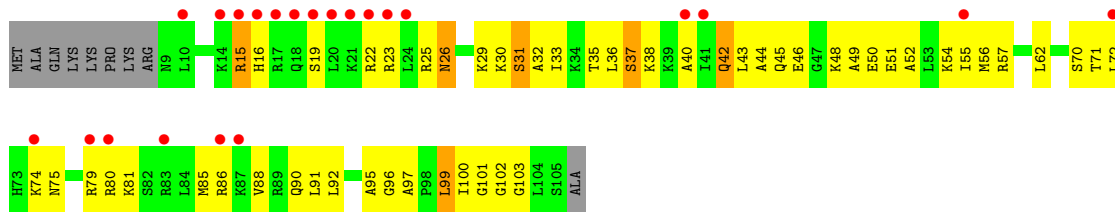




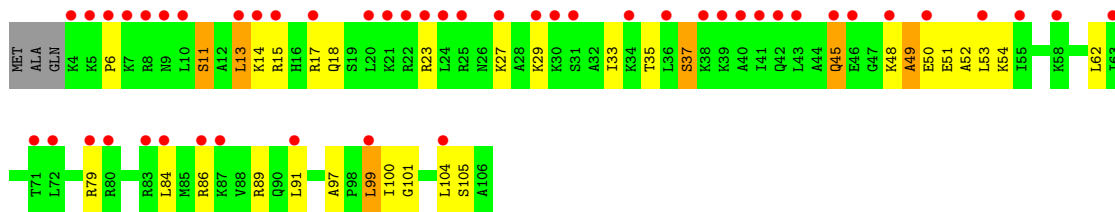
• Molecule 19: 30S ribosomal protein S19



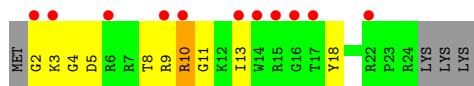
• Molecule 20: 30S ribosomal protein S20



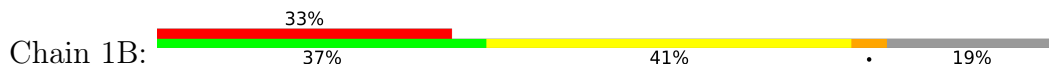
• Molecule 20: 30S ribosomal protein S20



• Molecule 21: 30S ribosomal protein Thx

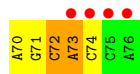
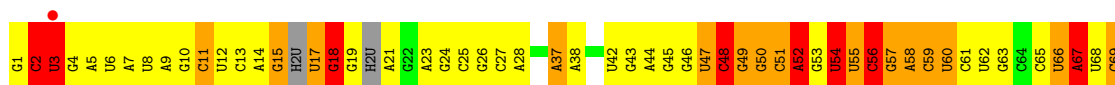
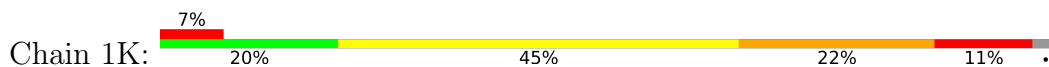


• Molecule 21: 30S ribosomal protein Thx

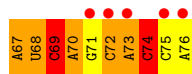
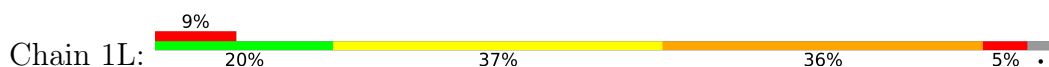




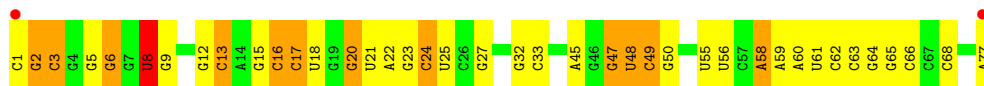
• Molecule 22: tRNAThr



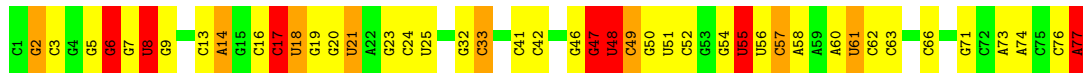
• Molecule 22: tRNAThr



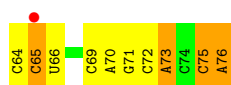
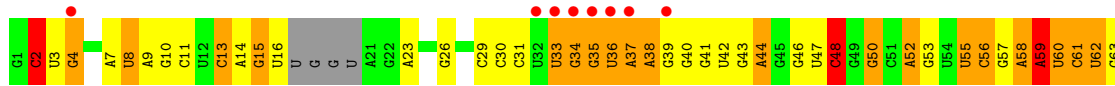
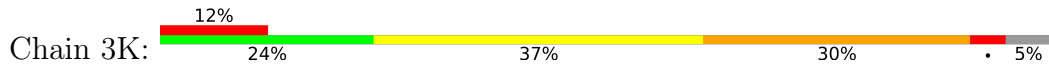
• Molecule 23: tRNAfMet



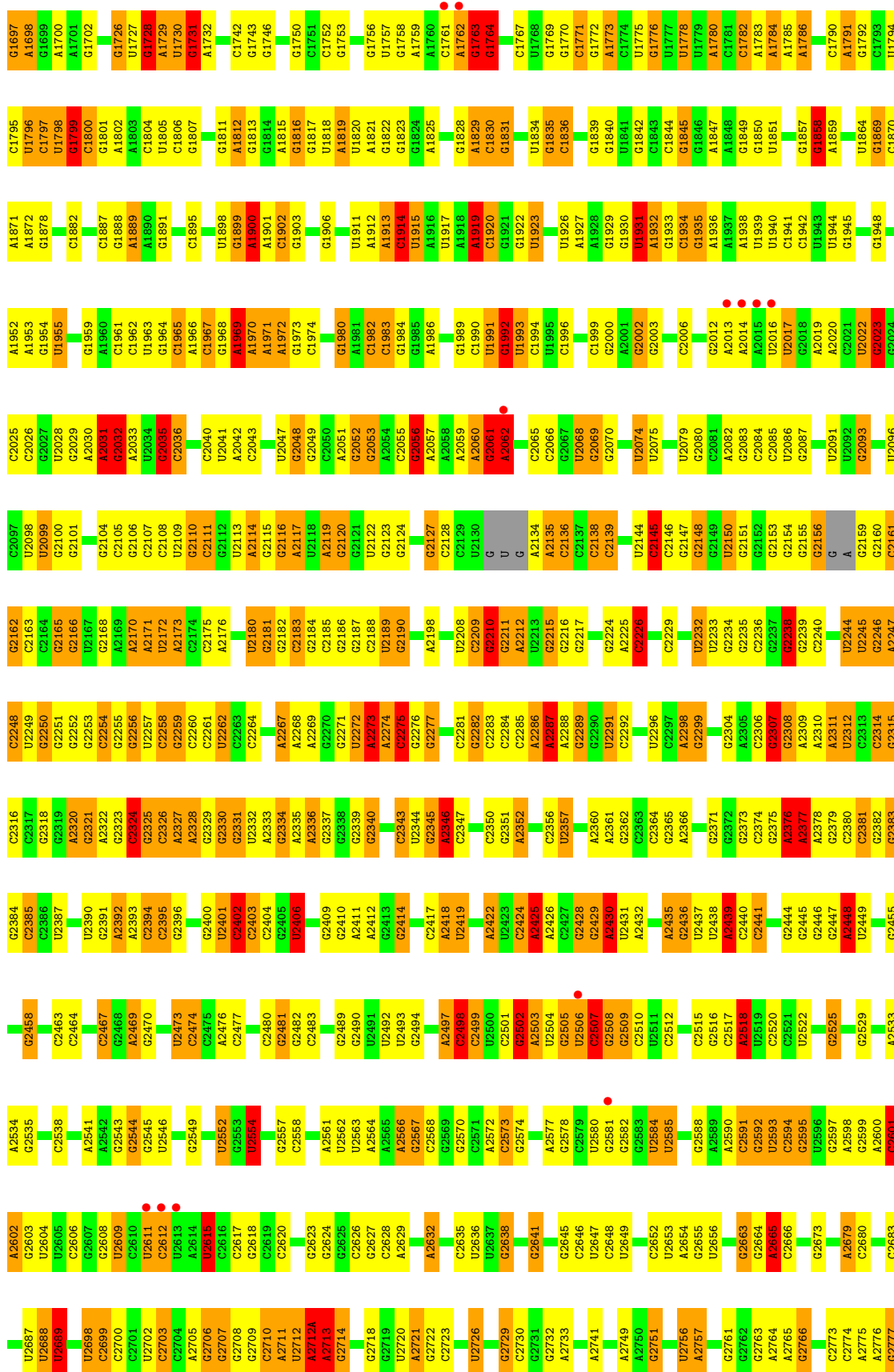
• Molecule 23: tRNAfMet

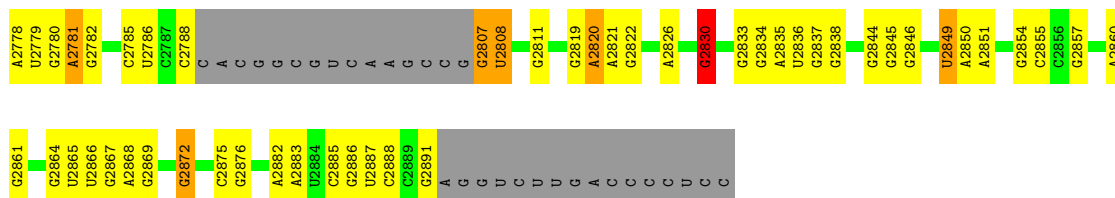


• Molecule 24: tRNAThr

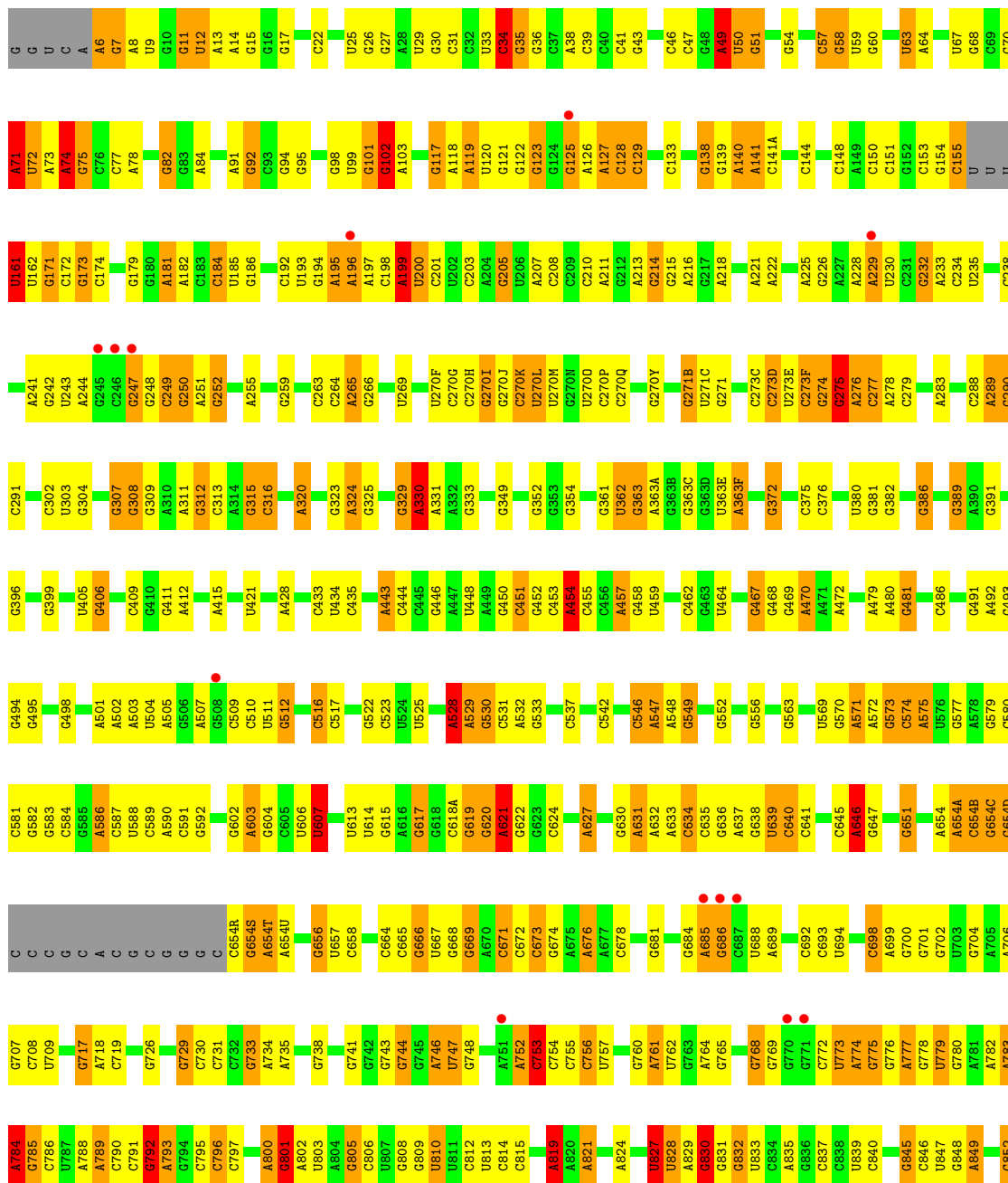


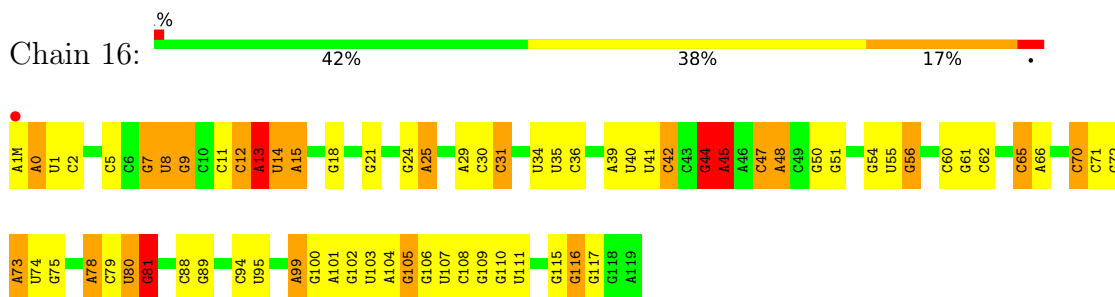
• Molecule 25: RNA (27-MER)



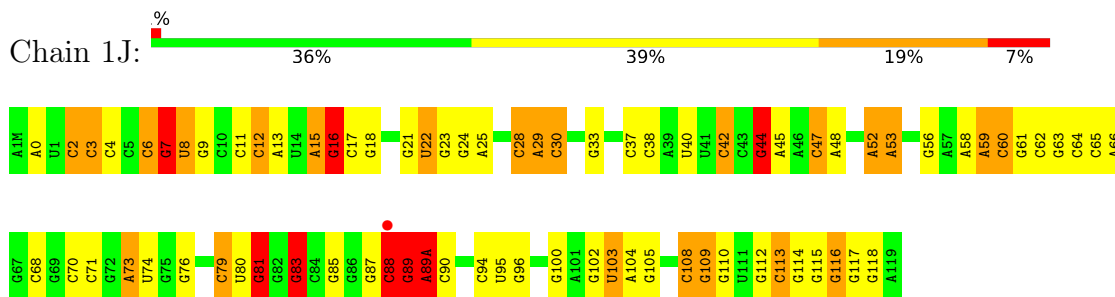


• Molecule 26: 23S ribosomal RNA

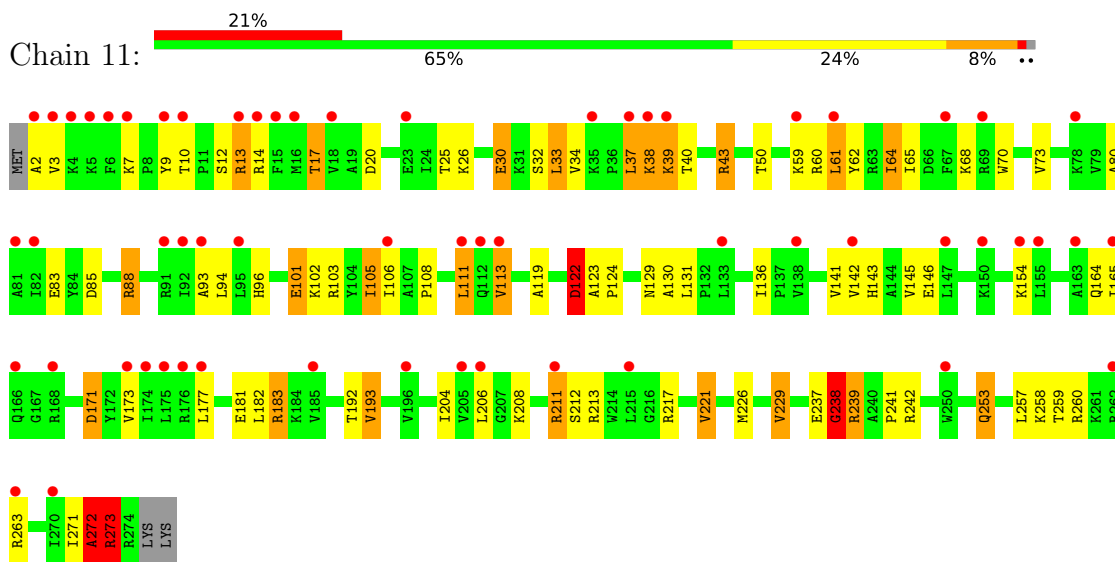




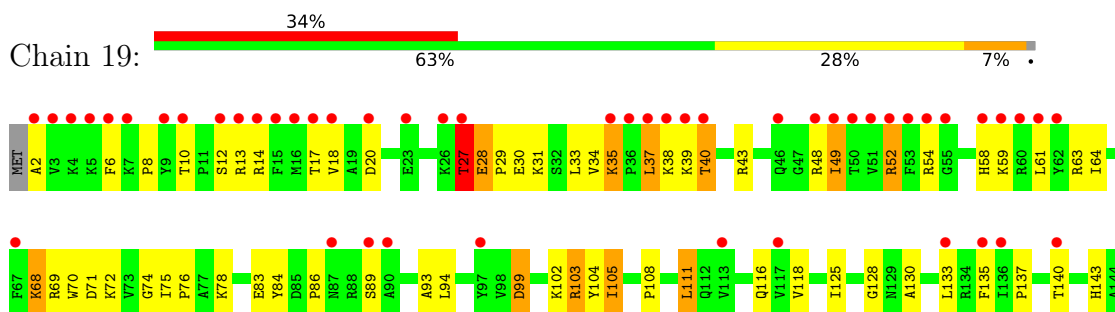
• Molecule 27: 5S ribosomal RNA

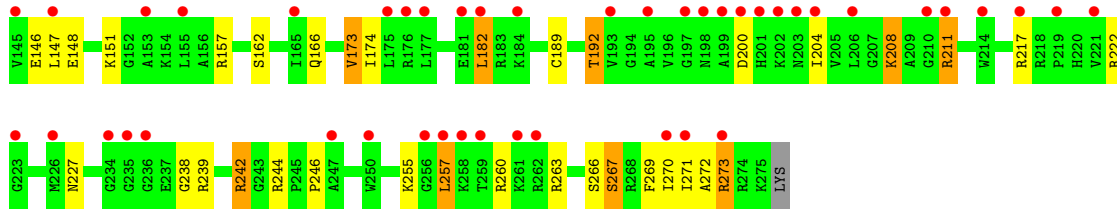


• Molecule 28: 50S ribosomal protein L2

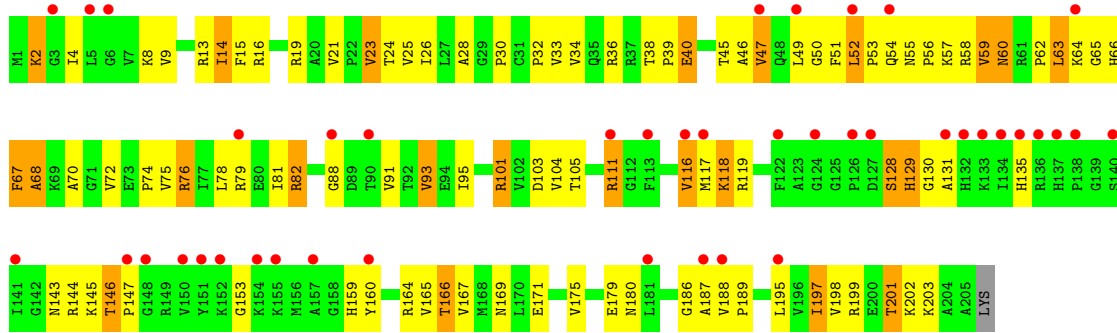


• Molecule 28: 50S ribosomal protein L2

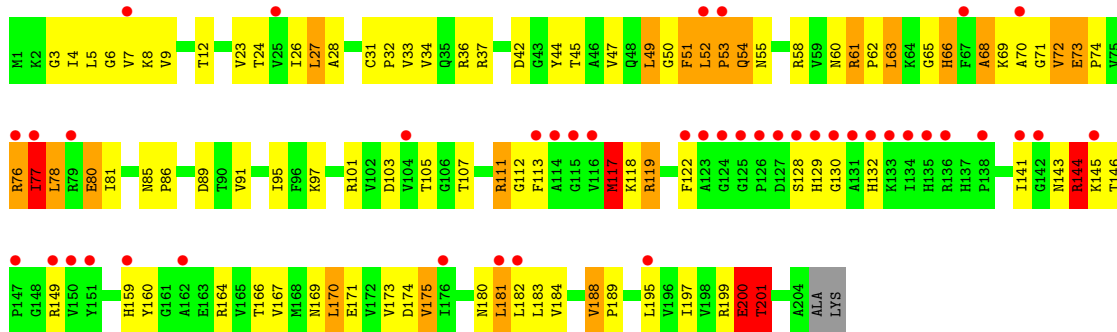




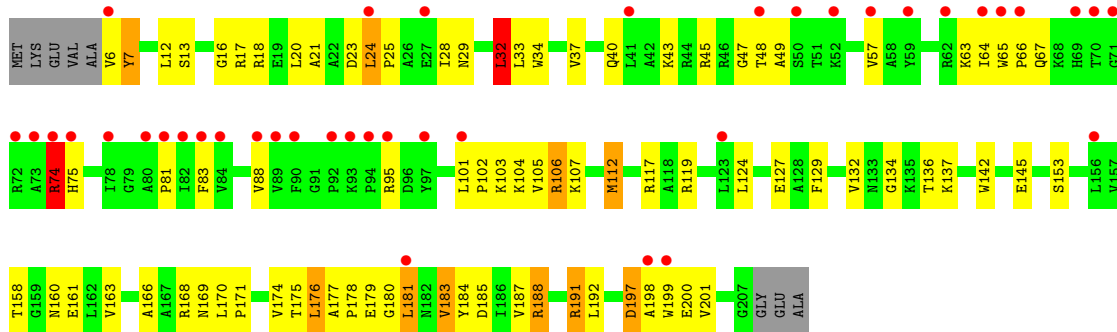
• Molecule 29: 50S ribosomal protein L3



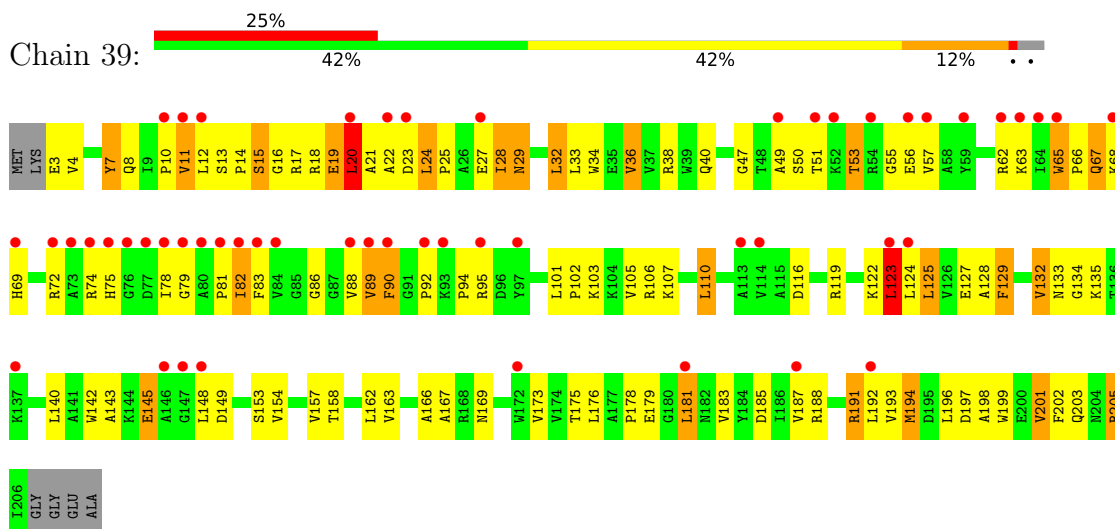
• Molecule 29: 50S ribosomal protein L3



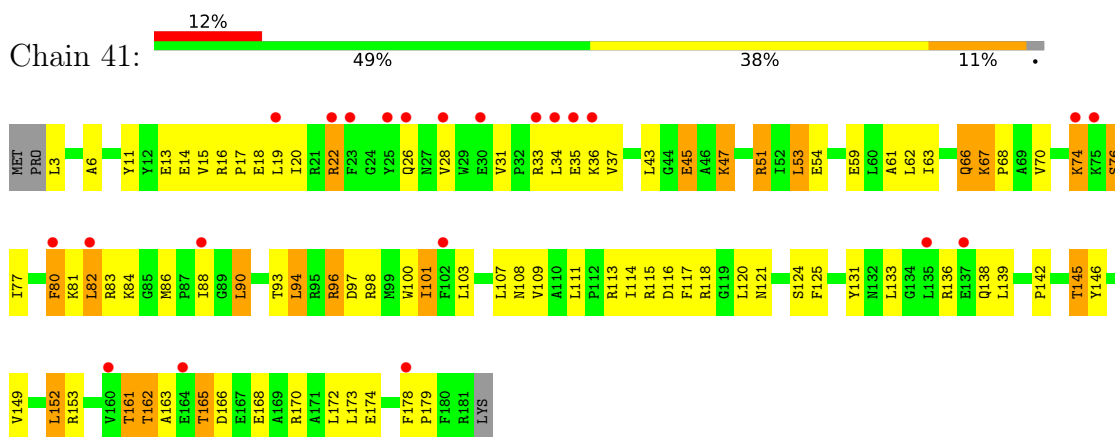
• Molecule 30: 50S ribosomal protein L4



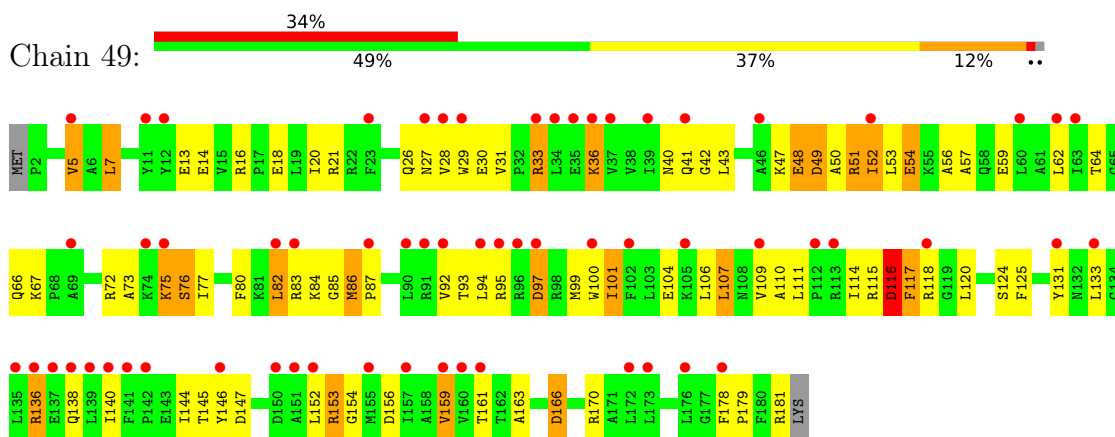
- Molecule 30: 50S ribosomal protein L4



- Molecule 31: 50S ribosomal protein L5

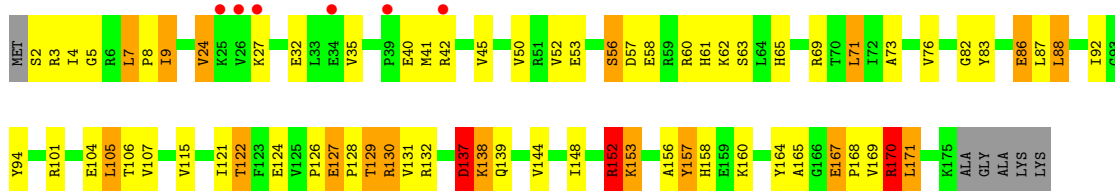


- Molecule 31: 50S ribosomal protein L5

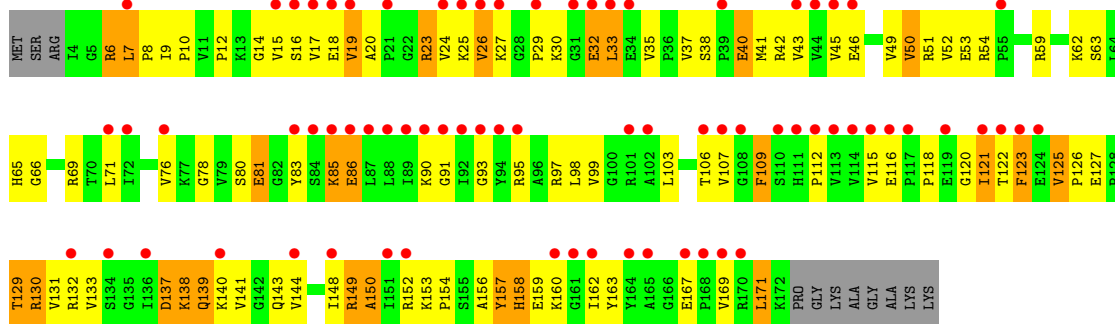
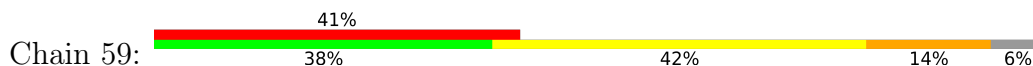


- Molecule 32: 50S ribosomal protein L6

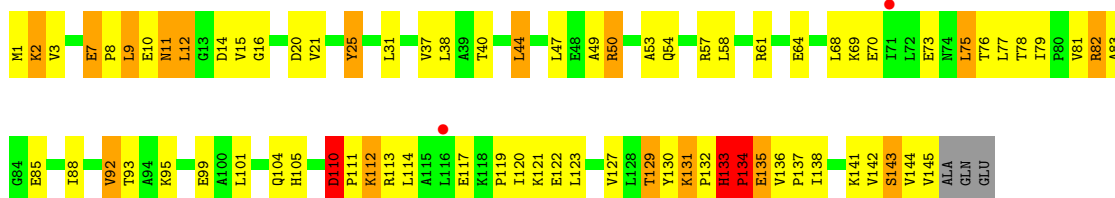




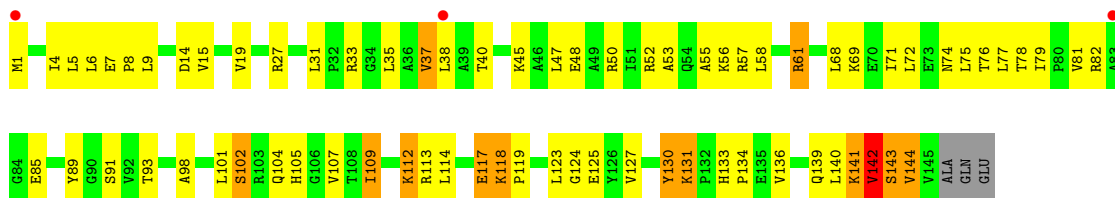
• Molecule 32: 50S ribosomal protein L6



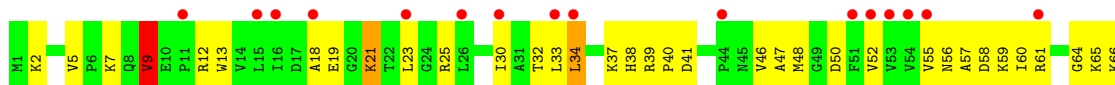
• Molecule 33: 50S ribosomal protein L9

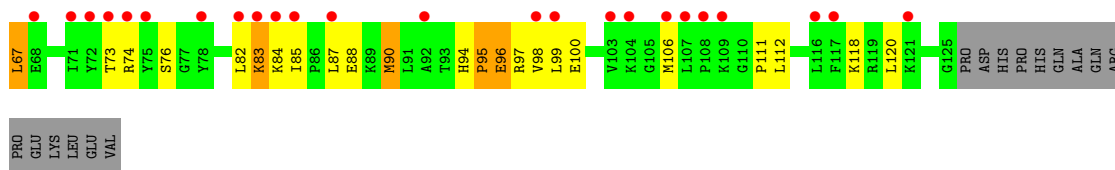


• Molecule 33: 50S ribosomal protein L9

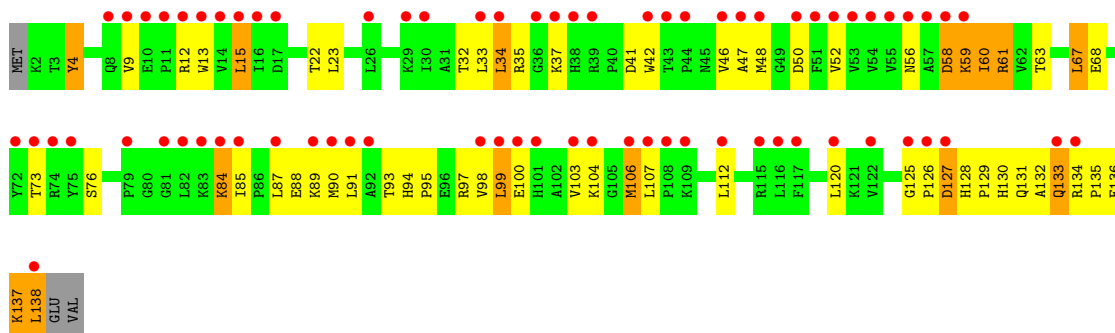


• Molecule 34: 50S ribosomal protein L13

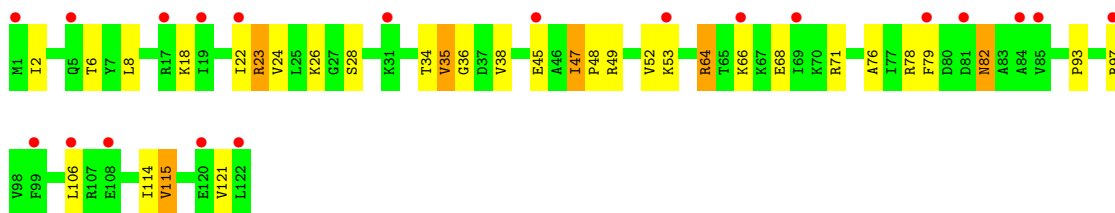
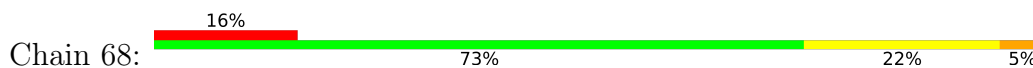




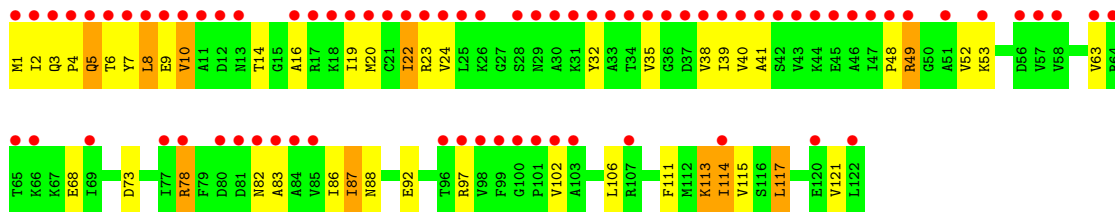
• Molecule 34: 50S ribosomal protein L13



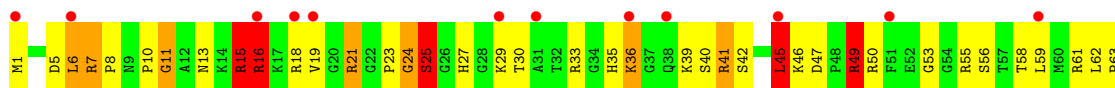
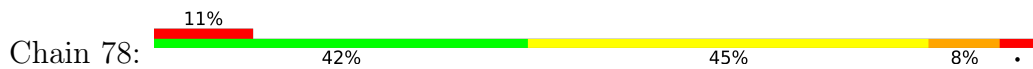
• Molecule 35: 50S ribosomal protein L14

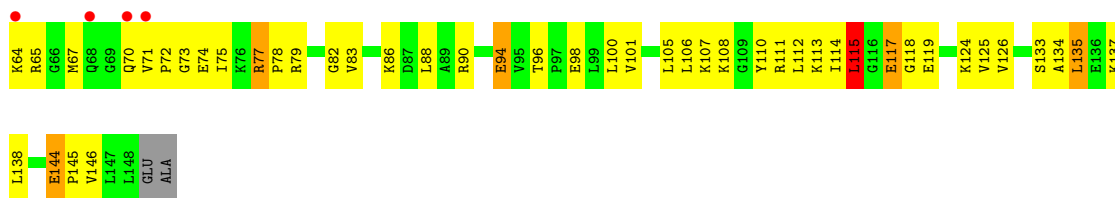


• Molecule 35: 50S ribosomal protein L14

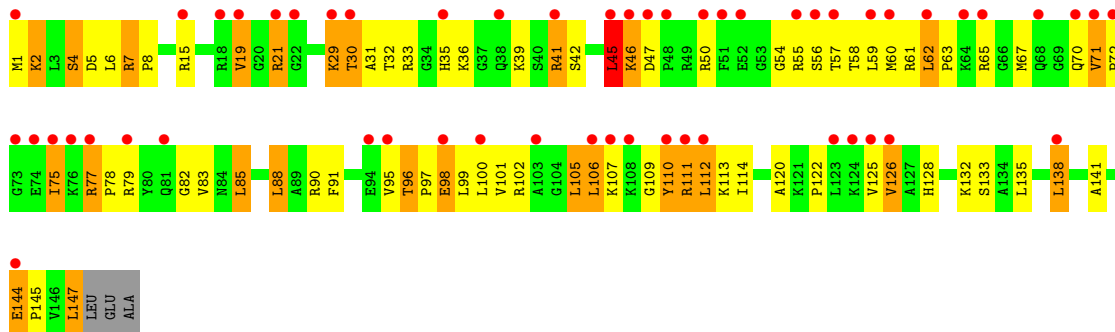


• Molecule 36: 50S ribosomal protein L15

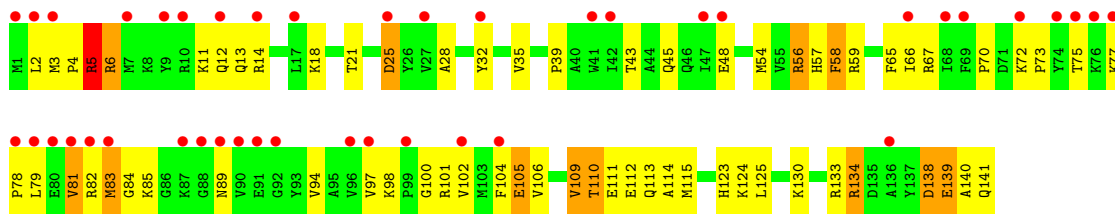




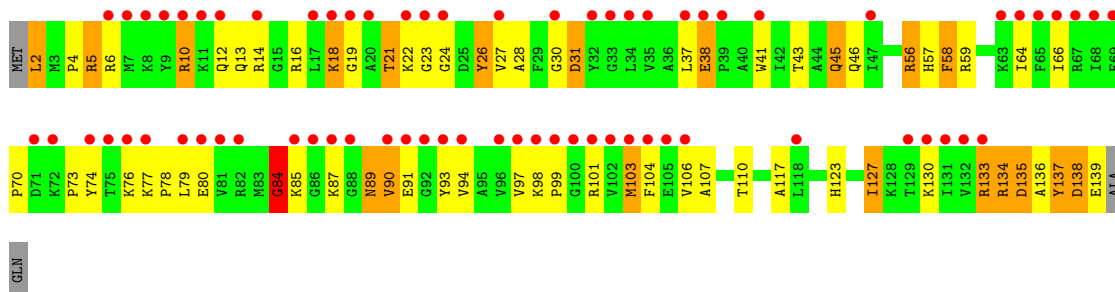
- Molecule 36: 50S ribosomal protein L15



- Molecule 37: 50S ribosomal protein L16

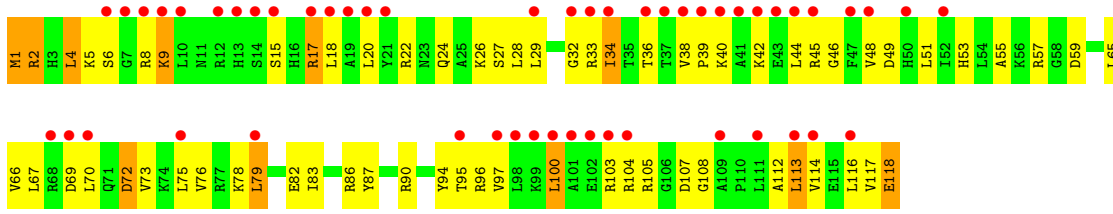


- Molecule 37: 50S ribosomal protein L16

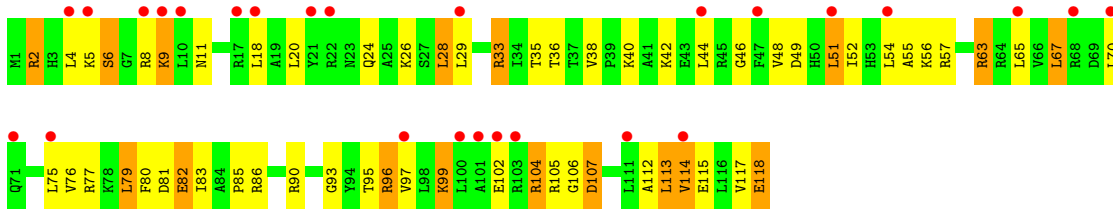


- Molecule 38: 50S ribosomal protein L17

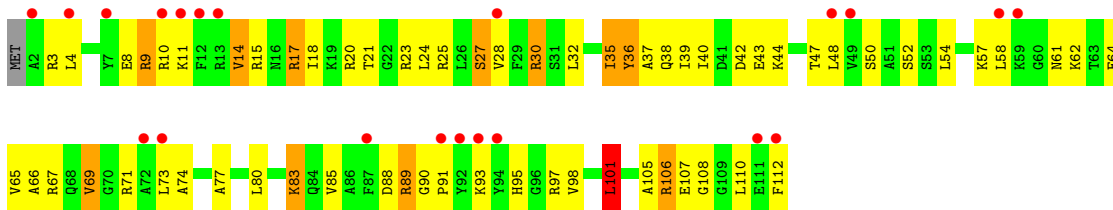
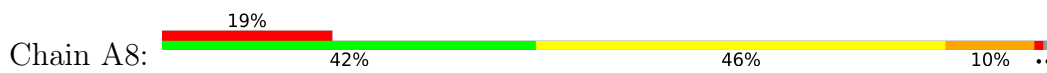




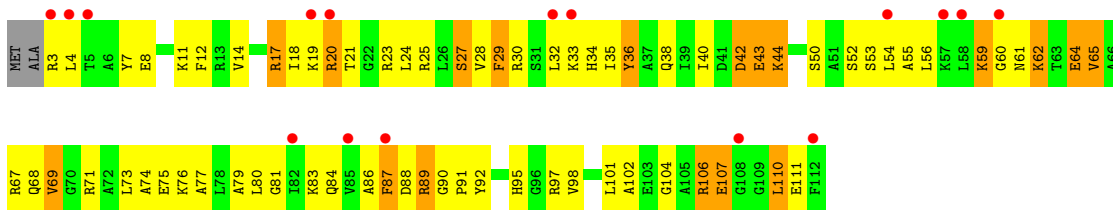
- Molecule 38: 50S ribosomal protein L17



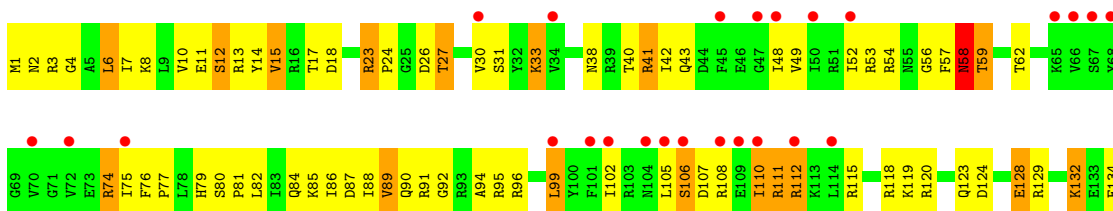
- Molecule 39: 50S ribosomal protein L18



- Molecule 39: 50S ribosomal protein L18

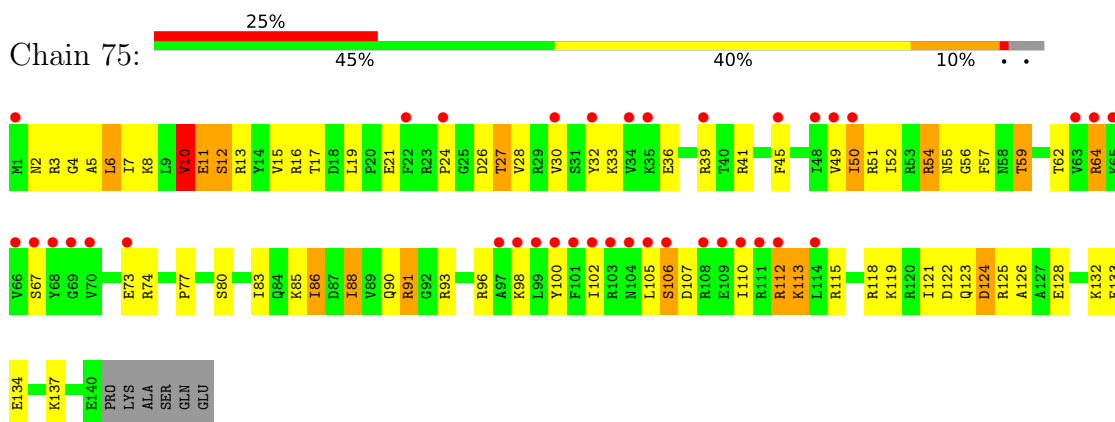


- Molecule 40: 50S ribosomal protein L19

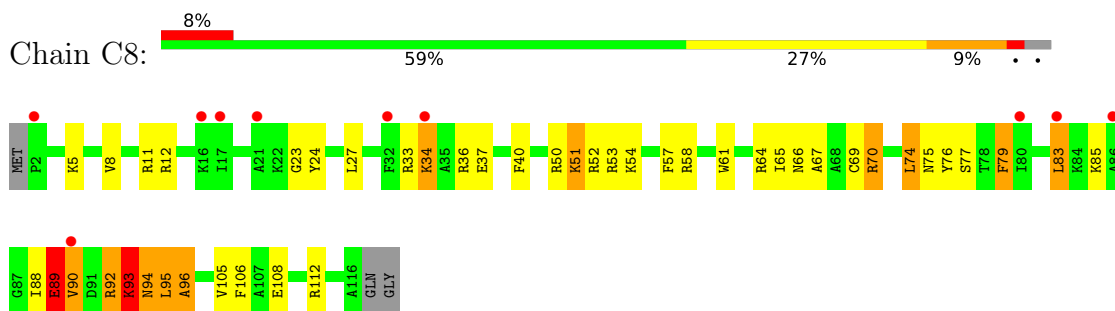


A135
Q136
LYS
ALA
GLN
GLU
PRO
LYS
LYS
ALA
SER
GLN
GLU

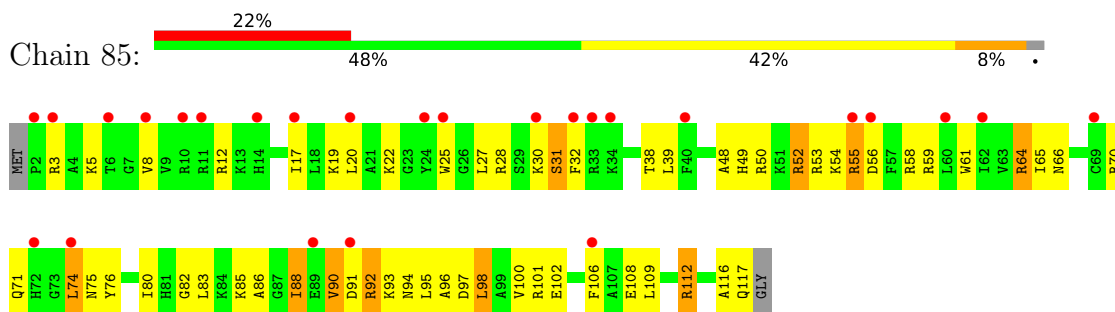
- Molecule 40: 50S ribosomal protein L19



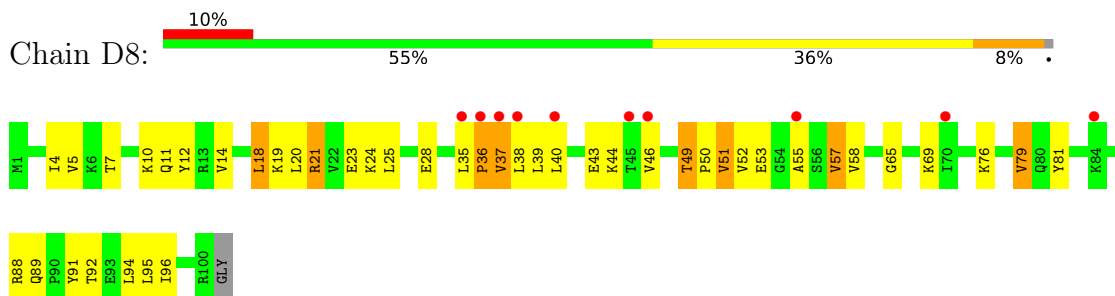
- Molecule 41: 50S ribosomal protein L20



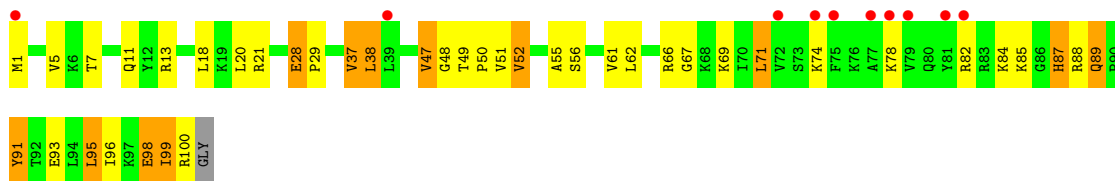
- Molecule 41: 50S ribosomal protein L20



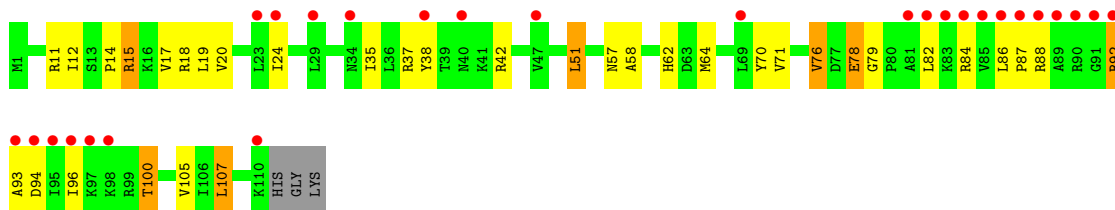
- Molecule 42: 50S ribosomal protein L21



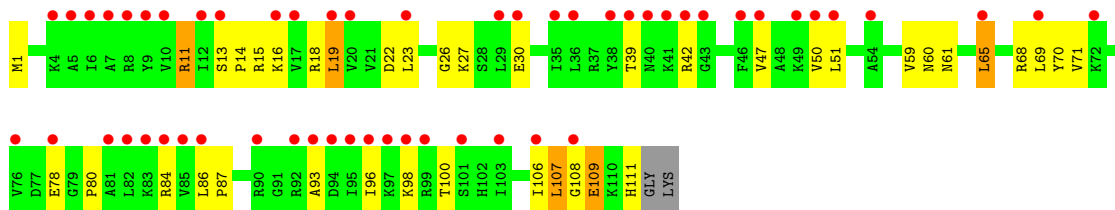
- Molecule 42: 50S ribosomal protein L21



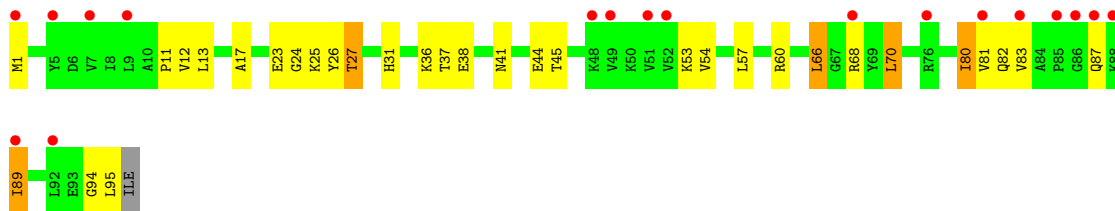
• Molecule 43: 50S ribosomal protein L22



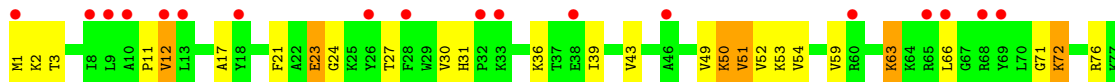
• Molecule 43: 50S ribosomal protein L22

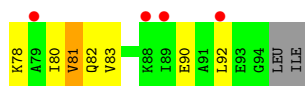


• Molecule 44: 50S ribosomal protein L23

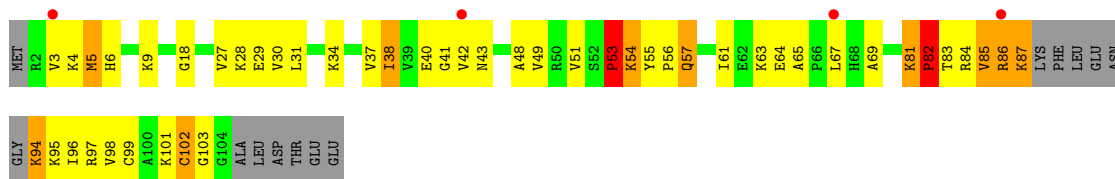


• Molecule 44: 50S ribosomal protein L23

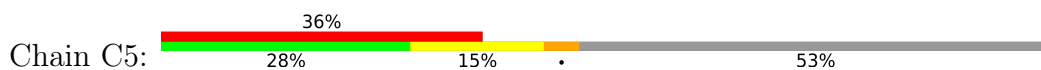




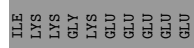
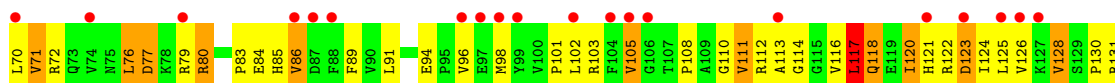
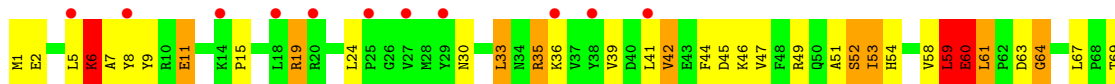
• Molecule 45: 50S ribosomal protein L24



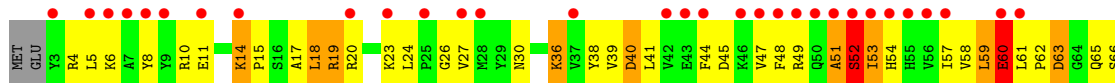
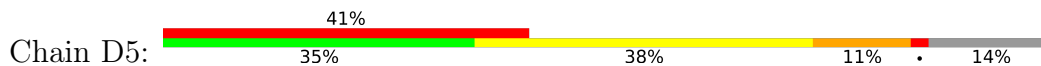
• Molecule 45: 50S ribosomal protein L24

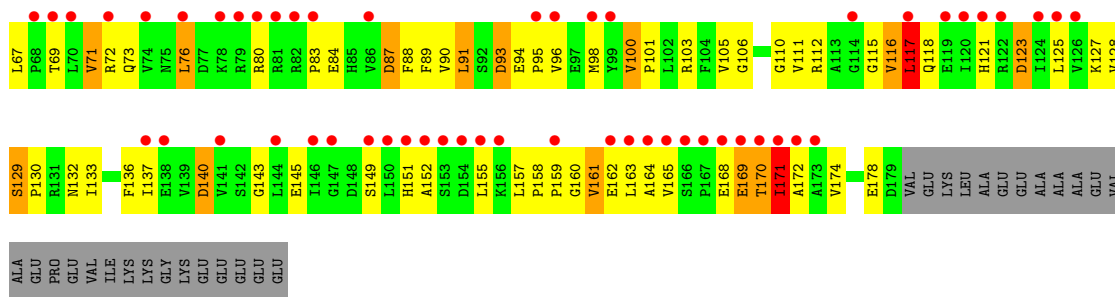


• Molecule 46: 50S ribosomal protein L25

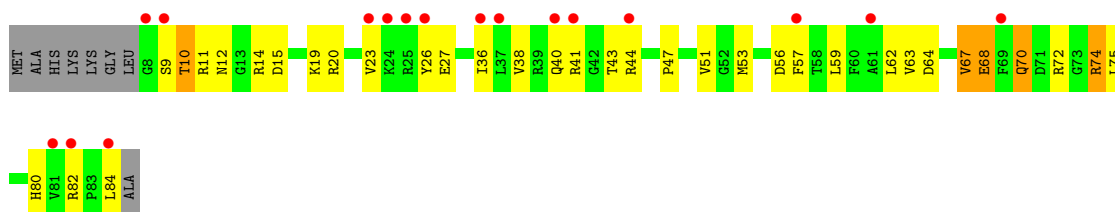


• Molecule 46: 50S ribosomal protein L25

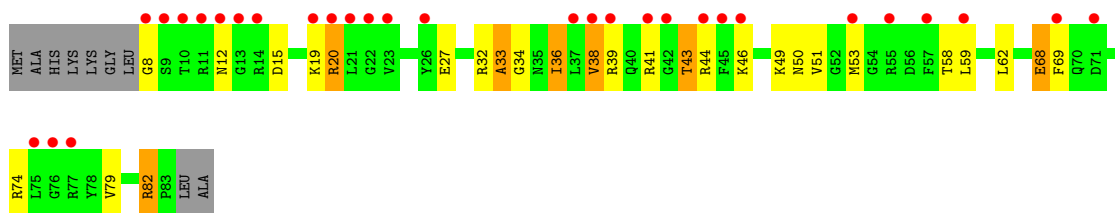




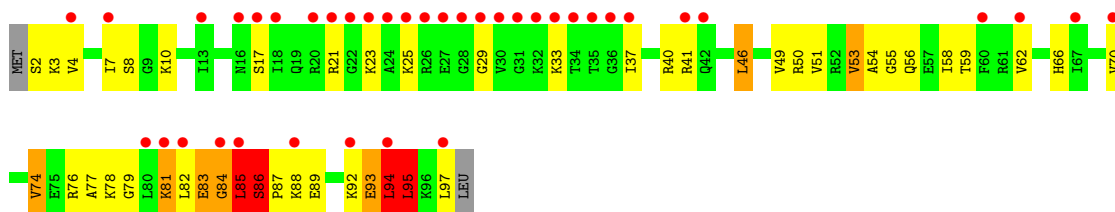
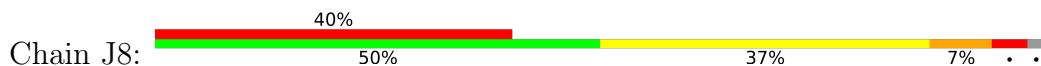
• Molecule 47: 50S ribosomal protein L27



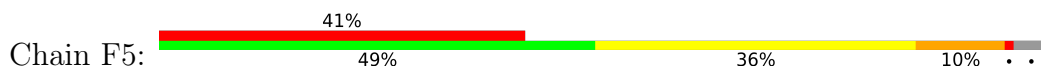
• Molecule 47: 50S ribosomal protein L27

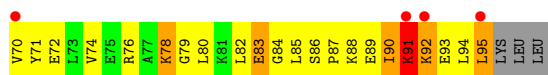


• Molecule 48: 50S ribosomal protein L28

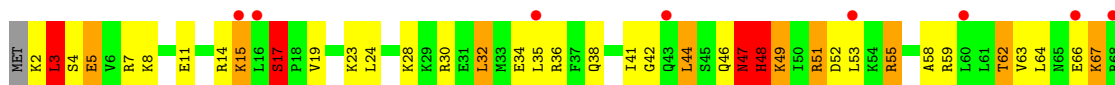


• Molecule 48: 50S ribosomal protein L28





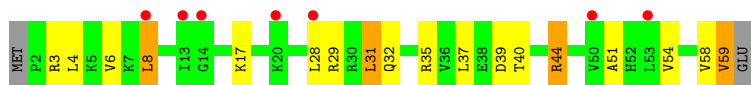
● Molecule 49: 50S ribosomal protein L29



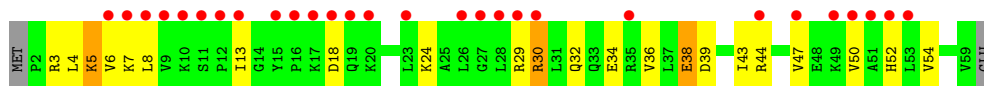
● Molecule 49: 50S ribosomal protein L29



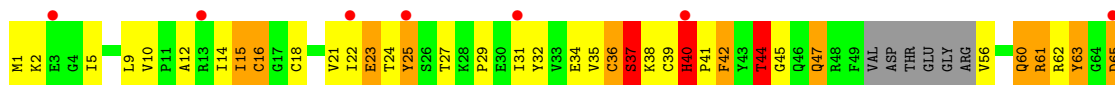
● Molecule 50: 50S ribosomal protein L30



● Molecule 50: 50S ribosomal protein L30



● Molecule 51: 50S ribosomal protein L31

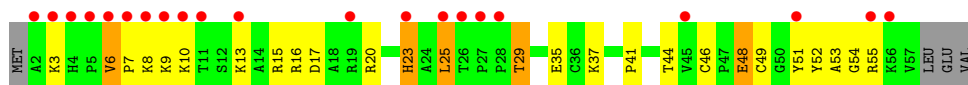


● Molecule 52: 50S ribosomal protein L32

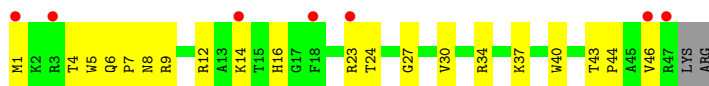




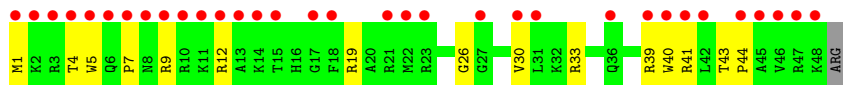
• Molecule 52: 50S ribosomal protein L32



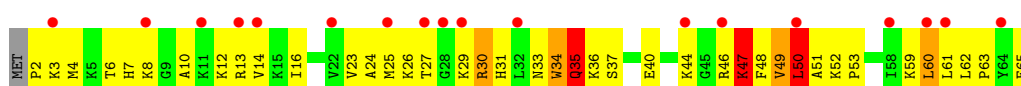
• Molecule 53: 50S ribosomal protein L34



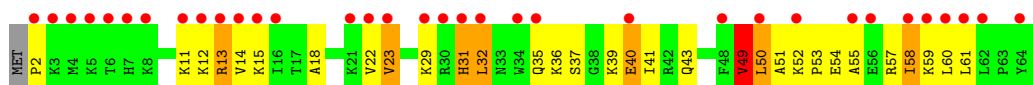
• Molecule 53: 50S ribosomal protein L34



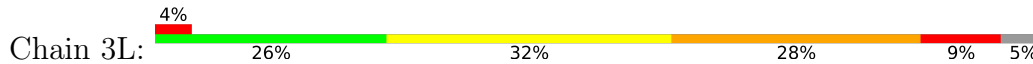
• Molecule 54: 50S ribosomal protein L35



• Molecule 54: 50S ribosomal protein L35



• Molecule 55: tRNAThr



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.41Å 449.24Å 618.40Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	224.62 – 2.96 309.20 – 2.96	Depositor EDS
% Data completeness (in resolution range)	100.0 (224.62-2.96) 94.4 (309.20-2.96)	Depositor EDS
R_{merge}	0.29	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.76 (at 2.96Å)	Xtrriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.196 , 0.252 0.196 , 0.252	Depositor DCC
R_{free} test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å ²)	82.0	Xtrriage
Anisotropy	0.292	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.26 , 59.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.30$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	294252	wwPDB-VP
Average B, all atoms (Å ²)	97.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.41% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: H2U, SF4, PSU, MG, 7MG, ZN, 5MU, AET, 4SU, 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	0.73	2/36095 (0.0%)	1.34	310/56332 (0.6%)
1	1G	0.66	4/35850 (0.0%)	1.24	189/55949 (0.3%)
2	12	0.46	0/1727	0.62	1/2326 (0.0%)
2	1E	0.42	0/1908	0.63	1/2573 (0.0%)
3	22	0.43	0/1569	0.62	1/2116 (0.0%)
3	2E	0.44	0/1629	0.62	1/2195 (0.0%)
4	32	0.45	0/1728	0.62	0/2313
4	3E	0.47	0/1728	0.65	0/2313
5	42	0.44	0/1156	0.61	0/1557
5	4E	0.45	0/1158	0.63	0/1559
6	52	0.44	0/855	0.58	0/1154
6	5E	0.46	0/850	0.61	0/1147
7	62	0.41	0/1122	0.57	0/1500
7	6E	0.44	0/1259	0.56	0/1686
8	72	0.38	0/1127	0.59	0/1517
8	7E	0.41	0/1135	0.65	1/1527 (0.1%)
9	82	0.42	0/971	0.63	0/1304
9	8E	0.44	0/1019	0.65	1/1367 (0.1%)
10	1A	0.41	0/814	0.56	0/1095
10	1I	0.45	0/762	0.66	1/1027 (0.1%)
11	2A	0.39	0/850	0.59	0/1150
11	2I	0.45	0/838	0.65	0/1133
12	3A	0.46	0/972	0.71	0/1301
12	3I	0.60	0/972	0.79	1/1301 (0.1%)
13	4A	0.43	0/889	0.66	0/1192
13	4I	0.52	0/952	0.64	0/1277
14	5A	0.45	0/495	0.66	0/657
14	5I	0.47	0/500	0.73	1/664 (0.2%)
15	6A	0.40	0/740	0.54	0/987
15	6I	0.44	0/740	0.59	0/987
16	7A	0.45	0/721	0.64	0/970
16	7I	0.44	0/716	0.67	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	8A	0.47	0/836	0.59	0/1117
17	8I	0.46	0/847	0.65	0/1131
18	9A	0.46	0/559	0.68	1/746 (0.1%)
18	9I	0.44	0/554	0.61	0/739
19	AA	0.53	0/520	0.78	0/700
19	AI	0.45	0/680	0.70	0/915
20	BA	0.39	0/781	0.58	0/1033
20	BI	0.39	0/748	0.59	0/986
21	1B	0.35	0/192	0.57	0/252
21	1F	0.41	0/203	0.63	0/266
22	1K	0.77	1/1675 (0.1%)	1.36	20/2608 (0.8%)
22	1L	0.71	0/1675	1.23	9/2608 (0.3%)
23	2K	0.77	1/1721 (0.1%)	1.37	16/2682 (0.6%)
23	2L	0.69	0/1721	1.30	10/2682 (0.4%)
24	3K	0.72	1/1716 (0.1%)	1.32	20/2668 (0.7%)
25	4K	0.88	0/440	1.28	2/684 (0.3%)
25	4L	0.84	0/341	1.57	9/529 (1.7%)
26	14	0.87	52/67828 (0.1%)	1.53	1188/105880 (1.1%)
26	1H	1.01	119/68741 (0.2%)	1.69	1859/107295 (1.7%)
27	16	0.77	0/2928	1.53	51/4568 (1.1%)
27	1J	0.73	1/2928 (0.0%)	1.44	41/4568 (0.9%)
28	11	0.63	0/2170	0.83	2/2926 (0.1%)
28	19	0.61	0/2175	0.82	2/2933 (0.1%)
29	21	0.55	0/1589	0.84	1/2145 (0.0%)
29	29	0.54	1/1596 (0.1%)	0.78	1/2153 (0.0%)
30	31	0.62	1/1620 (0.1%)	0.80	4/2194 (0.2%)
30	39	0.52	1/1637 (0.1%)	0.74	0/2218
31	41	0.50	1/1481 (0.1%)	0.73	1/1994 (0.1%)
31	49	0.45	0/1483	0.67	0/1997
32	51	0.50	0/1354	0.82	4/1833 (0.2%)
32	59	0.48	0/1320	0.70	1/1787 (0.1%)
33	61	0.44	0/1146	0.71	2/1551 (0.1%)
33	69	0.42	0/1146	0.65	0/1551
34	15	0.44	0/1123	0.66	0/1515
34	58	0.49	0/1017	0.78	2/1369 (0.1%)
35	25	0.49	0/942	0.70	1/1269 (0.1%)
35	68	0.54	0/942	0.71	0/1269
36	35	0.53	0/1139	0.86	3/1514 (0.2%)
36	78	0.58	0/1144	0.98	5/1521 (0.3%)
37	45	0.50	0/1120	0.78	0/1498
37	88	0.62	0/1138	0.85	0/1523
38	55	0.49	0/981	0.79	0/1312
38	98	0.48	0/981	0.78	1/1312 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	65	0.47	0/886	0.74	1/1180 (0.1%)
39	A8	0.54	0/891	0.83	2/1187 (0.2%)
40	75	0.51	0/1178	0.73	1/1573 (0.1%)
40	B8	0.54	0/1142	0.75	1/1526 (0.1%)
41	85	0.51	0/977	0.68	0/1301
41	C8	0.57	0/968	0.76	1/1289 (0.1%)
42	95	0.47	0/781	0.77	0/1048
42	D8	0.52	0/785	0.77	1/1052 (0.1%)
43	A5	0.53	0/897	0.73	0/1204
43	E8	0.58	0/886	0.71	0/1189
44	B5	0.57	0/749	0.71	0/1007
44	F8	0.61	0/764	0.83	1/1025 (0.1%)
45	C5	0.56	0/401	0.74	0/535
45	G8	0.60	0/745	0.84	2/993 (0.2%)
46	D5	0.45	0/1443	0.70	2/1960 (0.1%)
46	H8	0.46	0/1395	0.80	2/1890 (0.1%)
47	E5	0.54	0/611	0.76	0/814
47	I8	0.68	1/619 (0.2%)	0.82	2/825 (0.2%)
48	F5	0.58	0/744	0.82	0/989
48	J8	0.66	0/754	0.92	3/1003 (0.3%)
49	G5	0.54	0/578	0.70	0/766
49	K8	0.63	0/577	0.93	2/763 (0.3%)
50	H5	0.46	0/464	0.63	0/623
50	L8	0.55	0/464	0.69	0/623
51	M8	0.56	0/485	0.77	0/652
52	J5	0.61	0/448	0.86	1/606 (0.2%)
52	N8	0.61	0/381	0.81	0/516
53	L5	0.55	0/414	0.73	0/547
53	P8	0.72	0/409	0.87	0/540
54	M5	0.62	0/524	0.88	1/691 (0.1%)
54	Q8	0.61	0/524	0.95	1/691 (0.1%)
55	3L	0.73	0/1672	1.37	22/2600 (0.8%)
All	All	0.77	186/315281 (0.1%)	1.34	3810/472388 (0.8%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	6
2	1E	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	22	0	2
4	32	0	2
5	4E	0	1
9	82	0	1
9	8E	0	2
10	1A	0	1
11	2I	0	3
12	3A	0	1
12	3I	0	3
13	4A	0	4
13	4I	0	2
14	5A	0	3
16	7A	0	1
19	AA	0	7
20	BA	0	3
20	BI	0	1
28	11	0	4
28	19	0	2
29	21	0	6
29	29	0	6
30	31	0	3
30	39	0	5
31	49	0	2
32	51	0	4
32	59	0	2
33	61	0	5
33	69	0	3
34	58	0	2
36	35	0	3
36	78	0	5
37	45	0	5
37	88	0	2
38	98	0	1
39	65	0	1
39	A8	0	1
40	75	0	2
40	B8	0	3
41	85	0	2
41	C8	0	4
42	95	0	2
42	D8	0	2
44	B5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
45	G8	0	3
46	D5	0	6
46	H8	0	5
48	F5	0	4
48	J8	0	3
49	G5	0	4
49	K8	0	4
51	M8	0	4
54	M5	0	3
54	Q8	0	3
All	All	0	163

All (186) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	774	A	N9-C4	-13.04	1.30	1.37
26	1H	676	A	N9-C4	-11.33	1.31	1.37
26	1H	2430	A	N9-C4	-10.69	1.31	1.37
26	1H	945	A	N9-C4	-10.48	1.31	1.37
26	1H	783	A	N9-C4	-10.03	1.31	1.37
26	1H	783	A	N3-C4	-9.93	1.28	1.34
26	1H	1698	A	N3-C4	-9.48	1.29	1.34
26	1H	2346	A	N3-C4	-9.36	1.29	1.34
26	1H	774	A	C5-C6	-9.07	1.32	1.41
26	14	74	A	N9-C4	-8.99	1.32	1.37
26	14	528	A	N9-C4	-8.99	1.32	1.37
26	14	783	A	N9-C4	-8.94	1.32	1.37
26	1H	783	A	C5-C6	-8.78	1.33	1.41
26	1H	676	A	C5-C4	8.71	1.44	1.38
26	1H	621	A	N9-C4	-8.63	1.32	1.37
26	14	1786	A	N9-C4	-8.57	1.32	1.37
26	1H	1021	A	N9-C4	-8.30	1.32	1.37
26	1H	774	A	N9-C8	8.26	1.44	1.37
26	1H	2448	A	N7-C5	-8.24	1.34	1.39
26	14	676	A	N9-C4	-8.19	1.32	1.37
26	1H	71	A	N9-C4	-8.18	1.32	1.37
26	1H	676	A	N9-C8	8.11	1.44	1.37
26	1H	2430	A	C5-C6	-8.06	1.33	1.41
26	1H	1332	G	N9-C4	-8.03	1.31	1.38
26	1H	1698	A	N9-C4	-8.00	1.33	1.37
26	1H	2287	A	N9-C4	-7.99	1.33	1.37
26	14	783	A	N3-C4	-7.94	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	31	65	TRP	CB-CG	-7.92	1.35	1.50
26	1H	2062	A	N3-C4	7.77	1.39	1.34
26	14	783	A	N7-C5	-7.76	1.34	1.39
26	1H	1899	G	N9-C4	-7.68	1.31	1.38
26	1H	1616	A	C5-C6	-7.66	1.34	1.41
1	13	50	A	N9-C4	7.54	1.42	1.37
26	1H	138	G	N9-C8	7.48	1.43	1.37
26	14	2346	A	N3-C4	-7.47	1.30	1.34
26	1H	2346	A	N9-C4	-7.44	1.33	1.37
26	1H	1899	G	N9-C8	7.41	1.43	1.37
26	14	774	A	N9-C4	-7.40	1.33	1.37
1	1G	3	G	N9-C8	7.37	1.43	1.37
26	1H	71	A	C5-C6	-7.35	1.34	1.41
26	1H	1678	G	N9-C8	7.30	1.43	1.37
26	1H	2062	A	N7-C5	7.26	1.43	1.39
26	14	945	A	N3-C4	-7.17	1.30	1.34
26	1H	472	A	N3-C4	-7.13	1.30	1.34
26	1H	2430	A	N7-C5	-7.09	1.34	1.39
26	14	945	A	N9-C4	-7.06	1.33	1.37
26	1H	1786	A	N9-C4	-7.06	1.33	1.37
26	1H	1899	G	C2-N3	-7.00	1.27	1.32
26	14	676	A	N9-C8	6.90	1.43	1.37
26	14	774	A	N9-C8	6.85	1.43	1.37
26	14	786	C	N1-C6	6.81	1.41	1.37
26	1H	829	A	N9-C4	-6.79	1.33	1.37
26	14	2346	A	N9-C4	-6.78	1.33	1.37
1	13	810	C	N1-C6	-6.74	1.33	1.37
26	1H	2062	A	N9-C4	6.72	1.41	1.37
26	14	945	A	C5-C6	-6.64	1.35	1.41
26	1H	917	A	C5-C6	-6.61	1.35	1.41
26	1H	1786	A	C5-C4	6.60	1.43	1.38
26	1H	2392	A	N9-C8	6.59	1.43	1.37
26	14	783	A	C5-C6	-6.59	1.35	1.41
26	1H	783	A	N9-C8	6.56	1.43	1.37
26	14	945	A	N7-C5	-6.54	1.35	1.39
26	14	74	A	N3-C4	-6.54	1.30	1.34
31	41	66	GLN	C-N	6.52	1.49	1.34
26	1H	1678	G	N9-C4	-6.52	1.32	1.38
26	14	1786	A	N3-C4	-6.50	1.30	1.34
26	1H	1142(A)	A	N9-C4	-6.49	1.33	1.37
26	14	1605	C	N1-C6	-6.49	1.33	1.37
26	1H	265	A	N9-C4	-6.46	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2392	A	C5-C4	6.45	1.43	1.38
26	14	1698	A	C5-C6	-6.44	1.35	1.41
26	1H	2430	A	N1-C2	6.38	1.40	1.34
26	1H	945	A	N3-C4	-6.38	1.31	1.34
26	14	71	A	N9-C4	-6.38	1.34	1.37
26	14	1786	A	C5-C4	6.35	1.43	1.38
26	1H	2503	A	C5-C6	-6.33	1.35	1.41
26	14	1903	G	N9-C8	-6.30	1.33	1.37
30	39	65	TRP	CB-CG	-6.29	1.39	1.50
24	3K	76	A	N9-C4	-6.23	1.34	1.37
26	1H	2490	G	N9-C8	6.23	1.42	1.37
26	1H	74	A	N9-C4	-6.21	1.34	1.37
26	1H	471	A	N9-C4	-6.19	1.34	1.37
47	I8	68	GLU	CG-CD	6.19	1.61	1.51
26	1H	71	A	C6-N6	-6.17	1.29	1.33
26	1H	945	A	N7-C5	-6.14	1.35	1.39
26	1H	698	C	N1-C6	-6.12	1.33	1.37
26	1H	1776	G	C8-N7	-6.10	1.27	1.30
26	1H	140	A	N9-C4	-6.10	1.34	1.37
26	1H	945	A	C5-C6	-6.09	1.35	1.41
26	1H	621	A	C5-C6	-6.08	1.35	1.41
26	14	2430	A	N9-C4	-6.06	1.34	1.37
26	1H	2518	A	N9-C4	-6.06	1.34	1.37
26	1H	71	A	N9-C8	6.06	1.42	1.37
26	14	1616	A	N9-C4	-6.04	1.34	1.37
26	1H	330	A	N9-C4	-6.03	1.34	1.37
26	1H	2713	A	C5-C4	6.03	1.43	1.38
26	1H	1899	G	N3-C4	-6.03	1.31	1.35
26	14	528	A	N3-C4	-6.00	1.31	1.34
26	14	2062	A	C6-N1	6.00	1.39	1.35
26	14	2062	A	N3-C4	6.00	1.38	1.34
26	1H	1510	A	N9-C4	5.97	1.41	1.37
26	14	2287	A	N9-C4	-5.96	1.34	1.37
27	1J	89(A)	A	N9-C4	5.94	1.41	1.37
26	14	2612	C	N3-C4	5.92	1.38	1.33
26	1H	2062	A	C5-C6	5.92	1.46	1.41
26	1H	685	A	N9-C4	-5.87	1.34	1.37
26	1H	1382	G	C5-C6	-5.84	1.36	1.42
26	1H	733	G	N9-C8	-5.81	1.33	1.37
26	1H	1616	A	N9-C4	-5.81	1.34	1.37
26	1H	787	U	C2-N3	-5.80	1.33	1.37
26	1H	739	G	C5-C6	-5.77	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2248	C	N3-C4	-5.75	1.29	1.33
26	14	528	A	C5-C6	-5.74	1.35	1.41
1	1G	3	G	N1-C2	5.72	1.42	1.37
26	1H	783	A	N7-C5	-5.69	1.35	1.39
26	14	1678	G	N9-C4	-5.69	1.33	1.38
26	1H	1365	A	N3-C4	-5.68	1.31	1.34
26	14	1241	A	N9-C4	-5.64	1.34	1.37
26	1H	1614	A	N9-C4	-5.64	1.34	1.37
1	1G	3	G	C2-N3	5.59	1.37	1.32
26	1H	781	A	C5-C4	-5.59	1.34	1.38
26	1H	690	G	N9-C8	-5.57	1.33	1.37
22	1K	56	C	N1-C2	5.57	1.45	1.40
26	1H	2051	A	N7-C5	-5.57	1.35	1.39
29	29	200	GLU	CB-CG	5.52	1.62	1.52
26	1H	2688	U	N3-C4	-5.52	1.33	1.38
26	1H	1332	G	N3-C4	-5.51	1.31	1.35
26	14	1962	C	N1-C2	5.51	1.45	1.40
26	14	2252	G	N9-C8	-5.50	1.33	1.37
26	1H	676	A	N1-C2	5.48	1.39	1.34
26	1H	827	U	N3-C4	-5.47	1.33	1.38
26	1H	2252	G	N9-C8	-5.47	1.34	1.37
26	1H	2448	A	C5-C6	-5.47	1.36	1.41
26	1H	1698	A	C6-N1	-5.46	1.31	1.35
26	1H	1786	A	N3-C4	-5.46	1.31	1.34
26	1H	1332	G	N9-C8	5.42	1.41	1.37
26	14	1698	A	N7-C5	-5.41	1.36	1.39
26	14	2361	A	N9-C4	-5.40	1.34	1.37
26	1H	1678	G	C5-C4	5.37	1.42	1.38
26	1H	191	A	C6-N1	5.37	1.39	1.35
26	1H	789	A	N9-C4	-5.37	1.34	1.37
26	1H	1355	G	C6-N1	-5.37	1.35	1.39
1	1G	1358	U	N1-C2	5.36	1.43	1.38
26	14	1021	A	N9-C4	-5.35	1.34	1.37
26	1H	1815	A	N3-C4	-5.34	1.31	1.34
26	14	2062	A	N7-C5	5.33	1.42	1.39
26	1H	1202	C	N1-C6	-5.29	1.33	1.37
26	1H	729	G	C2-N3	-5.29	1.28	1.32
26	14	1785	A	N7-C5	-5.29	1.36	1.39
26	14	607	U	C2-N3	-5.29	1.34	1.37
26	14	733	G	N9-C8	-5.28	1.34	1.37
26	1H	1354	A	N9-C4	-5.27	1.34	1.37
26	1H	207	A	C5-C6	-5.25	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1187	G	C5-C4	-5.25	1.34	1.38
26	14	1303	G	C6-N1	-5.25	1.35	1.39
26	1H	1786	A	N7-C5	-5.25	1.36	1.39
26	1H	140	A	C5-C6	-5.23	1.36	1.41
26	14	746	A	N3-C4	-5.21	1.31	1.34
26	1H	2287	A	C5-C6	-5.20	1.36	1.41
26	1H	1354	A	C5-C6	-5.18	1.36	1.41
26	1H	2070	G	N9-C8	-5.18	1.34	1.37
26	1H	917	A	C2-N3	-5.17	1.28	1.33
26	1H	945	A	N1-C2	5.17	1.39	1.34
26	1H	70	G	C6-N1	-5.16	1.35	1.39
26	1H	1812	A	C6-N1	-5.16	1.31	1.35
26	1H	1782	C	N1-C6	-5.13	1.34	1.37
26	14	1786	A	C5-C6	-5.13	1.36	1.41
26	1H	1510	A	N3-C4	5.13	1.38	1.34
26	14	1660	C	N3-C4	-5.12	1.30	1.33
26	1H	943	U	N1-C6	-5.11	1.33	1.38
26	1H	461	C	N1-C6	-5.09	1.34	1.37
26	1H	1241	A	N9-C4	-5.09	1.34	1.37
26	14	1698	A	N9-C4	-5.08	1.34	1.37
23	2K	12	G	C5-C4	-5.07	1.34	1.38
26	1H	1948	G	N1-C2	-5.06	1.33	1.37
26	1H	141	A	N9-C8	5.06	1.41	1.37
26	14	621	A	N9-C4	-5.06	1.34	1.37
26	14	2503	A	N9-C4	5.05	1.40	1.37
26	1H	530	G	N9-C8	5.04	1.41	1.37
26	1H	676	A	N3-C4	-5.03	1.31	1.34
26	1H	1786	A	C5-C6	-5.03	1.36	1.41
26	1H	1332	G	N1-C2	5.03	1.41	1.37
26	1H	1621	U	N1-C6	-5.02	1.33	1.38
26	1H	1308	A	N3-C4	-5.01	1.31	1.34
26	1H	838	C	N1-C6	-5.00	1.34	1.37
26	14	1204	A	N9-C4	-5.00	1.34	1.37

All (3810) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1899	G	N3-C4-N9	-22.84	112.30	126.00
26	1H	2430	A	N1-C6-N6	20.05	130.63	118.60
26	1H	2430	A	C2-N3-C4	-19.74	100.73	110.60
26	1H	783	A	C2-N3-C4	-18.96	101.12	110.60
26	1H	676	A	C2-N3-C4	-18.87	101.17	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	774	A	C2-N3-C4	-17.42	101.89	110.60
26	1H	1678	G	C2-N3-C4	-17.30	103.25	111.90
26	1H	2287	A	C2-N3-C4	-17.22	101.99	110.60
26	1H	1899	G	N3-C4-C5	16.85	137.03	128.60
26	1H	783	A	C5-N7-C8	-16.73	95.53	103.90
26	14	783	A	C2-N3-C4	-16.56	102.32	110.60
26	14	1786	A	C5-N7-C8	-16.36	95.72	103.90
26	1H	774	A	N3-C4-C5	16.27	138.19	126.80
26	14	1962	C	N1-C2-O2	16.26	128.66	118.90
26	14	1786	A	N7-C8-N9	16.12	121.86	113.80
26	14	945	A	C2-N3-C4	-15.72	102.74	110.60
26	1H	2346	A	C2-N3-C4	-15.49	102.85	110.60
26	1H	945	A	C5-N7-C8	-15.19	96.31	103.90
26	1H	945	A	N1-C6-N6	15.08	127.65	118.60
26	1H	71	A	C2-N3-C4	-15.02	103.09	110.60
26	1H	1332	G	C2-N3-C4	-15.01	104.39	111.90
26	1H	1332	G	C5-N7-C8	-14.99	96.81	104.30
1	1G	3	G	N1-C6-O6	14.94	128.86	119.90
1	1G	3	G	C4-C5-N7	14.93	116.77	110.80
26	1H	621	A	C2-N3-C4	-14.86	103.17	110.60
26	1H	1786	A	N7-C8-N9	14.76	121.18	113.80
26	14	2357	U	O5'-P-OP2	-14.75	92.42	105.70
26	1H	1786	A	C5-N7-C8	-14.74	96.53	103.90
26	14	1786	A	C2-N3-C4	-14.51	103.35	110.60
26	1H	2430	A	C6-C5-N7	-14.40	122.22	132.30
26	14	783	A	N1-C6-N6	14.36	127.22	118.60
26	14	74	A	C2-N3-C4	-14.27	103.47	110.60
26	1H	2490	G	C5-N7-C8	-14.20	97.20	104.30
26	14	1698	A	N1-C6-N6	14.17	127.10	118.60
26	1H	945	A	C2-N3-C4	-14.14	103.53	110.60
26	1H	1678	G	N3-C4-C5	14.13	135.67	128.60
26	1H	117	G	O5'-P-OP2	-14.10	93.01	105.70
26	1H	2490	G	C4-C5-N7	14.10	116.44	110.80
26	14	1899	G	N1-C2-N2	-14.07	103.53	116.20
26	1H	1698	A	C2-N3-C4	-14.02	103.59	110.60
1	1G	3	G	C5-C6-O6	-13.94	120.24	128.60
1	1G	3	G	C6-C5-N7	-13.91	122.05	130.40
26	1H	783	A	N7-C8-N9	13.76	120.68	113.80
26	14	1698	A	C2-N3-C4	-13.69	103.76	110.60
26	1H	576	U	N3-C2-O2	-13.62	112.67	122.20
26	14	2430	A	C2-N3-C4	-13.60	103.80	110.60
26	1H	676	A	N3-C4-C5	13.59	136.31	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2430	A	C4-C5-N7	13.51	117.46	110.70
26	1H	676	A	C5-N7-C8	-13.49	97.16	103.90
26	1H	917	A	C2-N3-C4	-13.42	103.89	110.60
26	1H	1786	A	C2-N3-C4	-13.38	103.91	110.60
26	1H	774	A	N1-C6-N6	13.35	126.61	118.60
26	1H	1678	G	C5-N7-C8	-13.28	97.66	104.30
26	14	783	A	C5-N7-C8	-13.28	97.26	103.90
26	1H	1899	G	N3-C2-N2	-13.23	110.64	119.90
26	1H	1616	A	C5-N7-C8	-13.21	97.30	103.90
26	1H	1899	G	N9-C4-C5	13.16	110.67	105.40
26	1H	2346	A	N1-C2-N3	13.12	135.86	129.30
26	1H	1616	A	C4-C5-N7	13.08	117.24	110.70
26	1H	917	A	N1-C6-N6	13.03	126.42	118.60
26	1H	945	A	C6-C5-N7	-12.90	123.27	132.30
26	1H	140	A	C5-N7-C8	-12.90	97.45	103.90
26	14	528	A	C2-N3-C4	-12.80	104.20	110.60
26	1H	783	A	C8-N9-C4	-12.71	100.72	105.80
26	1H	74	A	C2-N3-C4	-12.66	104.27	110.60
26	1H	2430	A	C5-N7-C8	-12.59	97.61	103.90
26	1H	676	A	N3-C4-N9	-12.56	117.35	127.40
26	1H	2699	C	C6-N1-C2	12.54	125.31	120.30
26	1H	1382	G	C5-C6-O6	-12.52	121.09	128.60
26	14	774	A	C2-N3-C4	-12.48	104.36	110.60
26	14	1962	C	N3-C2-O2	-12.47	113.17	121.90
26	1H	774	A	C4-C5-N7	12.45	116.92	110.70
26	14	1698	A	C6-C5-N7	-12.44	123.59	132.30
26	1H	621	A	C5-N7-C8	-12.42	97.69	103.90
26	1H	945	A	C4-C5-N7	12.39	116.90	110.70
26	1H	324	A	O5 ¹ -P-OP1	-12.37	94.57	105.70
26	1H	1616	A	N1-C6-N6	12.36	126.02	118.60
26	14	2287	A	C2-N3-C4	-12.31	104.44	110.60
26	1H	2448	A	O5 ¹ -P-OP2	-12.30	94.63	105.70
26	1H	774	A	N3-C4-N9	-12.27	117.58	127.40
26	1H	252	G	O5 ¹ -P-OP2	-12.24	94.69	105.70
26	1H	49	A	O5 ¹ -P-OP2	-12.23	94.69	105.70
26	1H	1332	G	N3-C4-C5	12.21	134.70	128.60
26	14	783	A	C6-C5-N7	-12.20	123.76	132.30
26	1H	1698	A	N1-C2-N3	12.15	135.38	129.30
26	1H	71	A	C5-N7-C8	-12.15	97.83	103.90
26	14	1899	G	N3-C2-N2	12.13	128.39	119.90
26	1H	1931	U	N3-C2-O2	-12.05	113.76	122.20
27	16	13	A	O5 ¹ -P-OP2	-12.05	94.85	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1021	A	C2-N3-C4	-12.05	104.58	110.60
26	1H	1332	G	N7-C8-N9	12.00	119.10	113.10
26	1H	677	A	O5'-P-OP2	-11.98	94.92	105.70
26	14	793	A	O5'-P-OP2	-11.97	94.93	105.70
26	1H	1496	A	N7-C8-N9	11.96	119.78	113.80
26	1H	774	A	C5-N7-C8	-11.94	97.93	103.90
26	14	205	G	C8-N9-C4	11.94	111.18	106.40
26	14	774	A	N3-C4-C5	11.93	135.15	126.80
26	14	945	A	C6-C5-N7	-11.91	123.96	132.30
26	14	678	C	C6-N1-C2	11.89	125.06	120.30
26	14	2275	C	C6-N1-C2	-11.89	115.55	120.30
26	1H	2430	A	C5-C6-N1	-11.88	111.76	117.70
26	1H	860	U	C4-C5-C6	11.85	126.81	119.70
26	1H	1678	G	N3-C4-N9	-11.85	118.89	126.00
26	1H	828	U	C5-C4-O4	11.78	132.97	125.90
26	14	330	A	C2-N3-C4	-11.78	104.71	110.60
26	14	2430	A	N1-C6-N6	11.74	125.64	118.60
26	1H	1332	G	N3-C4-N9	-11.71	118.97	126.00
26	14	1678	G	C5-N7-C8	-11.71	98.45	104.30
26	14	2873	A	C5-N7-C8	-11.71	98.05	103.90
26	1H	783	A	N1-C6-N6	11.69	125.61	118.60
26	1H	783	A	C4-C5-N7	11.65	116.53	110.70
26	14	2062	A	C8-N9-C4	11.60	110.44	105.80
26	1H	2503	A	N1-C2-N3	-11.59	123.51	129.30
1	1G	3	G	N9-C4-C5	-11.58	100.77	105.40
22	1K	56	C	C6-N1-C2	-11.55	115.68	120.30
26	1H	739	G	C5-C6-O6	-11.54	121.68	128.60
24	3K	76	A	C5-N7-C8	-11.54	98.13	103.90
26	14	676	A	C5-N7-C8	-11.50	98.15	103.90
26	14	2873	A	N7-C8-N9	11.46	119.53	113.80
26	14	945	A	N1-C2-N3	11.46	135.03	129.30
26	14	1638	C	O5'-P-OP2	-11.42	95.42	105.70
26	1H	216	A	O5'-P-OP1	-11.36	95.48	105.70
26	14	2688	U	N3-C2-O2	-11.32	114.27	122.20
26	14	945	A	C5-N7-C8	-11.31	98.25	103.90
26	1H	676	A	C5-C6-N1	-11.30	112.05	117.70
26	14	917	A	O5'-P-OP1	-11.26	95.56	105.70
46	H8	59	LEU	CA-CB-CG	11.26	141.19	115.30
26	14	694	U	O5'-P-OP2	-11.22	95.61	105.70
26	14	1342	A	C2-N3-C4	-11.21	105.00	110.60
26	1H	783	A	C6-C5-N7	-11.20	124.46	132.30
26	1H	2392	A	C5-N7-C8	-11.19	98.31	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2346	A	C2-N3-C4	-11.18	105.01	110.60
26	14	1786	A	C8-N9-C4	-11.17	101.33	105.80
26	1H	2700	C	C6-N1-C2	11.15	124.76	120.30
26	14	1678	G	N7-C8-N9	11.12	118.66	113.10
26	1H	1496	A	C5-N7-C8	-11.09	98.35	103.90
26	1H	1786	A	C8-N9-C4	-11.09	101.36	105.80
26	1H	1382	G	C4-C5-N7	11.08	115.23	110.80
26	14	1249	U	O5'-P-OP1	-11.05	95.75	105.70
26	1H	917	A	C4-C5-N7	11.04	116.22	110.70
26	14	669	G	O5'-P-OP2	-11.01	95.79	105.70
26	14	783	A	C4-C5-N7	10.97	116.18	110.70
26	1H	917	A	C5-N7-C8	-10.96	98.42	103.90
26	1H	191	A	C6-N1-C2	-10.90	112.06	118.60
26	1H	576	U	C5-C4-O4	10.90	132.44	125.90
26	14	945	A	N1-C6-N6	10.90	125.14	118.60
26	1H	827	U	C5-C4-O4	10.89	132.43	125.90
26	14	2253	G	N1-C6-O6	10.88	126.43	119.90
26	14	2490	G	C4-C5-N7	10.85	115.14	110.80
26	1H	1382	G	N1-C6-O6	10.81	126.39	119.90
26	14	1899	G	C6-C5-N7	-10.81	123.91	130.40
26	1H	730	C	O5'-P-OP2	-10.79	95.99	105.70
26	14	140	A	C5-N7-C8	-10.77	98.51	103.90
26	1H	1678	G	N7-C8-N9	10.76	118.48	113.10
26	1H	71	A	C4-C5-N7	10.73	116.07	110.70
26	1H	676	A	N7-C8-N9	10.73	119.16	113.80
25	4L	12	A	O4'-C1'-N9	10.72	116.78	108.20
24	3K	76	A	N1-C6-N6	10.71	125.03	118.60
26	1H	2346	A	O4'-C1'-N9	10.70	116.76	108.20
26	1H	330	A	C2-N3-C4	-10.66	105.27	110.60
26	14	676	A	C2-N3-C4	-10.65	105.28	110.60
26	14	1284	A	O5'-P-OP2	-10.64	96.12	105.70
26	1H	1496	A	C8-N9-C4	-10.64	101.54	105.80
26	1H	621	A	N1-C6-N6	10.61	124.96	118.60
26	1H	2062	A	C2-N3-C4	10.56	115.88	110.60
26	1H	793	A	O5'-P-OP2	-10.55	96.20	105.70
26	1H	2430	A	N9-C4-C5	-10.55	101.58	105.80
26	14	1616	A	C5-N7-C8	-10.51	98.65	103.90
26	14	1899	G	C2-N3-C4	-10.50	106.65	111.90
26	14	783	A	N7-C8-N9	10.49	119.04	113.80
26	1H	140	A	N7-C8-N9	10.47	119.04	113.80
26	14	1812	A	O5'-P-OP2	-10.43	96.31	105.70
26	14	1678	G	C8-N9-C4	-10.40	102.24	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1332	G	C5-N7-C8	-10.39	99.10	104.30
26	14	1332	G	C2-N3-C4	-10.38	106.71	111.90
26	1H	138	G	C4-C5-N7	10.34	114.94	110.80
26	1H	621	A	C4-C5-N7	10.30	115.85	110.70
26	14	1786	A	C6-C5-N7	-10.29	125.10	132.30
26	14	2490	G	C5-N7-C8	-10.28	99.16	104.30
26	14	510	C	O5'-P-OP2	-10.24	96.48	105.70
26	14	1602	U	O5'-P-OP2	10.22	122.96	110.70
26	1H	2352	A	O5'-P-OP1	-10.18	96.53	105.70
26	1H	141	A	C5-N7-C8	-10.18	98.81	103.90
26	14	1332	G	N7-C8-N9	10.18	118.19	113.10
26	1H	1332	G	C4-C5-N7	10.18	114.87	110.80
26	1H	1786	A	C6-C5-N7	-10.17	125.18	132.30
26	1H	1899	G	C2-N3-C4	-10.15	106.82	111.90
26	14	71	A	C5-N7-C8	-10.15	98.83	103.90
26	14	678	C	N3-C4-C5	10.12	125.95	121.90
26	1H	946	G	O5'-P-OP1	-10.10	96.61	105.70
26	1H	2688	U	N3-C2-O2	-10.09	115.14	122.20
26	1H	138	G	C5-N7-C8	-10.08	99.26	104.30
26	1H	1428	C	O5'-P-OP1	-10.08	96.63	105.70
26	1H	1617	C	O5'-P-OP1	-10.07	96.64	105.70
26	1H	2713	A	C5-N7-C8	-10.04	98.88	103.90
26	1H	1678	G	C4-C5-N7	10.03	114.81	110.80
26	1H	2430	A	N3-C4-C5	10.02	133.81	126.80
26	14	676	A	N3-C4-C5	10.01	133.80	126.80
26	14	71	A	C2-N3-C4	-9.98	105.61	110.60
26	1H	140	A	C4-C5-N7	9.96	115.68	110.70
26	1H	2490	G	N7-C8-N9	9.96	118.08	113.10
26	1H	945	A	N7-C8-N9	9.95	118.77	113.80
26	1H	1931	U	C5-C4-O4	9.93	131.86	125.90
26	14	2282	G	O5'-P-OP1	-9.92	96.77	105.70
26	1H	827	U	N3-C2-O2	-9.91	115.26	122.20
1	1G	1322	C	C2-N1-C1'	9.90	129.69	118.80
26	14	769	G	C8-N9-C4	9.87	110.35	106.40
26	1H	530	G	N3-C4-C5	9.84	133.52	128.60
22	1K	56	C	N1-C2-O2	9.84	124.80	118.90
26	14	613	U	N3-C2-O2	-9.83	115.32	122.20
26	1H	1616	A	C6-C5-N7	-9.83	125.42	132.30
26	14	945	A	C4-C5-N7	9.82	115.61	110.70
26	1H	265	A	C2-N3-C4	-9.82	105.69	110.60
26	1H	124	G	C5-C6-O6	-9.81	122.71	128.60
26	1H	2712	U	O4'-C1'-N1	9.80	116.04	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	140	A	N7-C8-N9	9.79	118.70	113.80
26	14	2688	U	C5-C4-O4	9.78	131.77	125.90
26	1H	1616	A	C5-C6-N6	-9.78	115.88	123.70
26	1H	1698	A	C6-C5-N7	-9.78	125.45	132.30
26	1H	783	A	N3-C4-C5	9.76	133.63	126.80
26	14	2873	A	C2-N3-C4	-9.75	105.73	110.60
26	1H	1376	C	O5'-P-OP1	-9.74	96.94	105.70
26	1H	1899	G	C8-N9-C1'	9.74	139.66	127.00
26	1H	2688	U	C5-C6-N1	-9.73	117.83	122.70
26	14	1678	G	C2-N3-C4	-9.72	107.04	111.90
26	14	2700	C	C6-N1-C2	9.70	124.18	120.30
26	14	2430	A	C5-C6-N1	-9.68	112.86	117.70
26	14	1786	A	C4-C5-N7	9.67	115.54	110.70
26	1H	329	G	O5'-P-OP2	-9.66	97.00	105.70
26	1H	140	A	N1-C6-N6	9.66	124.40	118.60
26	14	1962	C	C2-N1-C1'	9.66	129.43	118.80
1	1G	117	G	N1-C6-O6	9.64	125.69	119.90
26	1H	1835	G	O5'-P-OP1	-9.64	97.03	105.70
26	1H	2688	U	C5-C4-O4	9.64	131.68	125.90
26	14	1698	A	C4-C5-N7	9.62	115.51	110.70
26	1H	744	G	O5'-P-OP2	-9.62	97.05	105.70
31	41	66	GLN	C-N-CA	-9.60	97.70	121.70
26	1H	2713	A	C2-N3-C4	-9.57	105.81	110.60
26	14	2058	A	O5'-P-OP2	-9.56	97.10	105.70
26	1H	1303	G	N1-C6-O6	-9.55	114.17	119.90
1	13	1502	A	C2-N3-C4	-9.54	105.83	110.60
1	1G	519	C	C6-N1-C2	9.53	124.11	120.30
26	14	1698	A	C5-N7-C8	-9.53	99.14	103.90
22	1K	56	C	N3-C2-O2	-9.51	115.24	121.90
26	1H	481	G	O5'-P-OP2	-9.51	97.14	105.70
26	1H	1602	U	O5'-P-OP2	9.49	122.09	110.70
1	13	1502	A	C5-N7-C8	-9.49	99.16	103.90
26	14	2689	U	C5-C4-O4	9.48	131.59	125.90
26	1H	1021	A	C5-N7-C8	-9.48	99.16	103.90
26	14	621	A	C2-N3-C4	-9.47	105.86	110.60
26	1H	783	A	N3-C4-N9	-9.44	119.85	127.40
26	1H	1611	C	C6-N1-C2	9.43	124.07	120.30
26	1H	1382	G	C6-C5-N7	-9.42	124.75	130.40
26	1H	1934	C	C6-N1-C2	9.41	124.06	120.30
26	14	1342	A	N1-C2-N3	9.41	134.00	129.30
1	13	690	G	C6-C5-N7	-9.40	124.76	130.40
1	13	328	C	N1-C2-O2	9.40	124.54	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	694	U	O5'-P-OP1	9.38	121.96	110.70
26	1H	2713	A	N7-C8-N9	9.38	118.49	113.80
26	1H	2503	A	C5-C6-N6	-9.37	116.20	123.70
26	14	786	C	N3-C4-N4	-9.37	111.44	118.00
26	14	1661	G	C8-N9-C4	9.37	110.15	106.40
26	14	2023	G	O5'-P-OP2	-9.35	97.28	105.70
26	1H	576	U	N1-C2-N3	9.34	120.51	114.90
26	1H	788	A	N1-C6-N6	9.32	124.19	118.60
26	14	453	C	C6-N1-C2	9.31	124.02	120.30
26	14	774	A	N3-C4-N9	-9.31	119.95	127.40
24	3K	76	A	C4-C5-N7	9.29	115.34	110.70
26	1H	2689	U	N3-C4-O4	-9.29	112.90	119.40
26	1H	2392	A	N7-C8-N9	9.28	118.44	113.80
26	1H	686	G	N9-C4-C5	-9.27	101.69	105.40
26	1H	199	A	C2-N3-C4	9.26	115.23	110.60
26	14	140	A	N1-C6-N6	9.26	124.16	118.60
26	1H	2502	G	O5'-P-OP1	-9.25	97.37	105.70
26	1H	530	G	C4-C5-N7	9.24	114.50	110.80
26	1H	1325	G	C5-C6-O6	-9.24	123.06	128.60
26	14	1678	G	N3-C4-N9	-9.24	120.46	126.00
1	13	585	G	O5'-P-OP2	-9.23	97.39	105.70
26	1H	193	U	C5-C6-N1	-9.23	118.08	122.70
26	1H	917	A	C6-C5-N7	-9.23	125.84	132.30
26	14	140	A	C4-C5-N7	9.23	115.31	110.70
1	1G	1322	C	N1-C2-O2	9.22	124.43	118.90
26	1H	1303	G	C5-C6-O6	9.21	134.13	128.60
26	14	2873	A	C6-C5-N7	-9.19	125.87	132.30
55	3L	76	A	C5-N7-C8	-9.16	99.32	103.90
26	1H	2503	A	N1-C6-N6	9.15	124.09	118.60
26	14	530	G	C4-C5-N7	9.14	114.45	110.80
26	14	2699	C	C6-N1-C2	9.12	123.95	120.30
26	1H	1914	C	N3-C2-O2	-9.11	115.53	121.90
26	1H	1829	A	O5'-P-OP1	-9.10	97.51	105.70
26	1H	860	U	C5-C6-N1	-9.10	118.15	122.70
26	1H	1786	A	C4-C5-N7	9.09	115.24	110.70
26	14	1496	A	N7-C8-N9	9.07	118.34	113.80
26	1H	141	A	C4-C5-N7	9.07	115.24	110.70
26	14	205	G	N9-C4-C5	-9.06	101.77	105.40
26	1H	2248	C	N3-C4-N4	-9.06	111.66	118.00
26	14	1698	A	N1-C2-N3	9.06	133.83	129.30
26	1H	839	U	O5'-P-OP2	-9.04	97.56	105.70
26	1H	111	A	N1-C6-N6	-9.04	113.18	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	676	A	O4'-C1'-N9	9.04	115.43	108.20
27	16	45	A	O5'-P-OP1	-9.03	97.57	105.70
26	1H	2311	A	C2-N3-C4	-9.03	106.08	110.60
26	1H	2507	C	C6-N1-C2	-9.03	116.69	120.30
26	1H	1602	U	N3-C4-O4	-9.03	113.08	119.40
26	1H	216	A	O5'-P-OP2	9.02	121.53	110.70
27	1J	47	C	C6-N1-C2	9.02	123.91	120.30
26	14	783	A	C5-C6-N1	-9.02	113.19	117.70
26	1H	391	G	N1-C6-O6	9.01	125.30	119.90
26	1H	1899	G	C6-C5-N7	9.00	135.80	130.40
26	14	2713	A	C5-N7-C8	-9.00	99.40	103.90
1	13	1504	G	O5'-P-OP1	-8.97	97.62	105.70
26	14	1938	A	C5-C6-N6	-8.96	116.53	123.70
26	1H	2070	G	N1-C2-N2	-8.95	108.14	116.20
26	1H	1307	A	N1-C6-N6	8.95	123.97	118.60
26	1H	205	G	C8-N9-C4	8.94	109.98	106.40
26	1H	1662	C	C6-N1-C2	8.94	123.88	120.30
26	1H	120	U	N3-C2-O2	-8.94	115.94	122.20
26	1H	1698	A	C5-N7-C8	-8.93	99.43	103.90
26	14	1776	G	N3-C4-N9	8.93	131.36	126.00
1	13	330	C	N1-C2-O2	8.92	124.25	118.90
26	1H	1899	G	C8-N9-C4	-8.92	102.83	106.40
26	14	1241	A	C2-N3-C4	-8.89	106.16	110.60
26	14	2688	U	C5-C6-N1	-8.88	118.26	122.70
27	1J	7	G	N1-C6-O6	8.88	125.23	119.90
1	13	974	A	C5-N7-C8	-8.87	99.46	103.90
26	14	207	A	C8-N9-C4	8.87	109.35	105.80
26	1H	2287	A	N1-C2-N3	8.86	133.73	129.30
26	1H	470	A	O5'-P-OP1	-8.86	97.73	105.70
26	1H	2287	A	N3-C4-C5	8.85	133.00	126.80
26	14	74	A	C5-C6-N1	-8.85	113.28	117.70
26	14	1254	A	O5'-P-OP2	-8.84	97.74	105.70
1	13	584	G	C5-C6-O6	8.84	133.91	128.60
26	1H	778	G	N1-C6-O6	-8.84	114.60	119.90
26	1H	2679	A	O5'-P-OP2	-8.83	97.75	105.70
26	14	179	G	C8-N9-C4	8.83	109.93	106.40
26	1H	2023	G	N3-C2-N2	-8.83	113.72	119.90
26	14	2438	U	O5'-P-OP2	-8.83	97.76	105.70
26	1H	598	G	O5'-P-OP2	-8.82	97.76	105.70
26	1H	2406	U	O5'-P-OP1	-8.82	97.76	105.70
26	1H	71	A	N1-C6-N6	8.82	123.89	118.60
26	1H	1528	A	C8-N9-C4	-8.80	102.28	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	74	A	N1-C2-N3	8.80	133.70	129.30
26	1H	1355	G	N1-C6-O6	-8.80	114.62	119.90
26	14	1816	G	O5'-P-OP1	-8.79	97.78	105.70
26	1H	2374	C	C5-C6-N1	-8.79	116.61	121.00
26	1H	2599	G	N1-C6-O6	-8.78	114.63	119.90
26	1H	1926	U	O5'-P-OP2	-8.77	97.81	105.70
26	1H	1948	G	N1-C6-O6	-8.77	114.64	119.90
26	14	74	A	N1-C6-N6	8.77	123.86	118.60
26	1H	1528	A	N7-C8-N9	8.77	118.18	113.80
26	14	1962	C	C6-N1-C2	-8.76	116.79	120.30
26	14	2490	G	N7-C8-N9	8.76	117.48	113.10
26	1H	1332	G	C8-N9-C4	-8.75	102.90	106.40
26	14	621	A	C5-C6-N1	-8.75	113.33	117.70
26	1H	2507	C	N3-C2-O2	-8.73	115.79	121.90
26	14	155	C	N1-C2-O2	8.73	124.14	118.90
26	14	1938	A	N1-C6-N6	8.73	123.84	118.60
26	1H	1955	U	C5-C6-N1	-8.71	118.35	122.70
26	14	1786	A	C5-C6-N1	-8.69	113.35	117.70
1	13	1432	G	C6-C5-N7	-8.68	125.19	130.40
1	13	1519	A	C5-C6-N6	8.66	130.63	123.70
26	1H	1255	U	N3-C4-O4	8.66	125.46	119.40
26	14	867	C	O5'-P-OP1	-8.65	97.91	105.70
26	14	1021	A	C2-N3-C4	-8.65	106.27	110.60
26	1H	391	G	C2-N3-C4	-8.65	107.58	111.90
26	1H	739	G	N1-C6-O6	8.65	125.09	119.90
26	1H	2448	A	N1-C6-N6	8.65	123.79	118.60
26	1H	1340	U	C5-C4-O4	-8.64	120.72	125.90
26	1H	2490	G	N3-C4-C5	8.64	132.92	128.60
26	14	1616	A	C4-C5-N7	8.62	115.01	110.70
1	13	966	G	C5-C6-O6	-8.62	123.43	128.60
26	1H	2689	U	C5-C4-O4	8.61	131.07	125.90
26	14	2490	G	C6-C5-N7	-8.61	125.23	130.40
26	1H	2507	C	N1-C2-O2	8.61	124.07	118.90
26	1H	1377	G	O5'-P-OP2	-8.61	97.95	105.70
26	14	2346	A	N1-C2-N3	8.59	133.60	129.30
27	1J	44	G	C8-N9-C4	8.59	109.83	106.40
26	14	2436	G	O5'-P-OP1	-8.57	97.98	105.70
26	1H	2626	C	N3-C4-C5	8.57	125.33	121.90
26	1H	1681	G	C5-C6-O6	-8.56	123.46	128.60
26	1H	2700	C	N3-C4-C5	8.55	125.32	121.90
26	14	2712	U	C5-C6-N1	-8.55	118.43	122.70
26	14	2253	G	C5-C6-O6	-8.54	123.47	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	523	A	N1-C6-N6	8.54	123.72	118.60
1	13	802	A	N1-C6-N6	8.54	123.72	118.60
26	1H	1624	G	N1-C6-O6	-8.54	114.78	119.90
55	3L	76	A	N1-C6-N6	8.54	123.72	118.60
26	14	991	C	O5'-P-OP1	-8.53	98.03	105.70
23	2K	6	G	C8-N9-C4	8.52	109.81	106.40
1	1G	1260	C	C5-C6-N1	8.51	125.26	121.00
26	1H	512	G	O4'-C1'-N9	8.51	115.00	108.20
26	1H	812	C	N1-C2-O2	-8.51	113.80	118.90
26	1H	1142(A)	A	C2-N3-C4	-8.50	106.35	110.60
26	1H	783	A	C5-C6-N1	-8.50	113.45	117.70
26	1H	1816	G	C2-N3-C4	8.50	116.15	111.90
26	1H	2003	G	O5'-P-OP1	-8.50	98.05	105.70
26	14	676	A	C4-C5-N7	8.50	114.95	110.70
27	16	47	C	C6-N1-C2	8.48	123.69	120.30
1	13	971	G	O5'-P-OP2	-8.47	98.08	105.70
26	1H	2330	G	C5-C6-O6	-8.47	123.52	128.60
26	1H	2688	U	N3-C4-O4	-8.46	113.47	119.40
1	13	690	G	O4'-C1'-N9	8.45	114.96	108.20
26	1H	324	A	O5'-P-OP2	8.44	120.83	110.70
1	1G	1358	U	C5-C6-N1	8.43	126.92	122.70
26	14	676	A	O4'-C1'-N9	8.43	114.94	108.20
26	14	74	A	C5-N7-C8	-8.42	99.69	103.90
1	13	1489	G	C8-N9-C4	8.41	109.77	106.40
26	1H	853	G	O5'-P-OP2	-8.41	98.13	105.70
26	1H	1786	A	C5-C6-N1	-8.41	113.49	117.70
26	14	621	A	N1-C6-N6	8.41	123.64	118.60
26	14	668	G	C8-N9-C4	8.40	109.76	106.40
26	1H	2312	U	O5'-P-OP1	-8.39	98.15	105.70
26	1H	1225	C	C6-N1-C2	8.39	123.66	120.30
26	14	632	A	O5'-P-OP2	8.39	120.77	110.70
26	1H	1379	A	C5-N7-C8	-8.39	99.71	103.90
26	1H	1332	G	N1-C2-N3	8.39	128.93	123.90
26	14	783	A	N3-C4-C5	8.39	132.67	126.80
26	1H	1919	A	O5'-P-OP1	-8.38	98.15	105.70
26	1H	621	A	C6-C5-N7	-8.38	126.43	132.30
26	14	1984	G	O5'-P-OP2	-8.38	98.16	105.70
26	14	1396	U	N3-C2-O2	-8.37	116.34	122.20
1	13	584	G	N1-C6-O6	-8.36	114.88	119.90
26	1H	930	U	N3-C4-O4	-8.35	113.56	119.40
26	1H	2253	G	N1-C6-O6	8.35	124.91	119.90
26	14	2430	A	N1-C2-N3	8.35	133.47	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2873	A	C8-N9-C4	-8.34	102.46	105.80
26	1H	621	A	N7-C8-N9	8.34	117.97	113.80
26	14	71	A	C4-C5-N7	8.34	114.87	110.70
26	1H	783	A	N1-C2-N3	8.33	133.47	129.30
26	1H	1496	A	C4-C5-N7	8.33	114.86	110.70
26	14	2713	A	N1-C6-N6	8.32	123.59	118.60
26	14	467	G	O5'-P-OP2	-8.32	98.21	105.70
26	1H	2518	A	N1-C6-N6	8.31	123.59	118.60
26	14	783	A	N1-C2-N3	8.31	133.46	129.30
26	1H	1900	A	O5'-P-OP2	-8.30	98.23	105.70
25	4L	14	A	O4'-C1'-N9	8.30	114.84	108.20
1	13	690	G	C4-C5-N7	8.29	114.12	110.80
26	1H	1899	G	N1-C2-N2	8.29	123.66	116.20
26	1H	917	A	N1-C2-N3	8.28	133.44	129.30
26	1H	774	A	C6-N1-C2	8.27	123.56	118.60
1	13	890	G	O4'-C1'-N9	8.27	114.82	108.20
26	14	1602	U	O5'-P-OP1	-8.27	98.26	105.70
26	1H	1980	G	C2-N3-C4	8.26	116.03	111.90
1	13	328	C	C2-N1-C1'	8.26	127.88	118.80
26	14	1351	C	C5-C6-N1	-8.24	116.88	121.00
26	14	1963	U	N1-C2-O2	8.24	128.57	122.80
26	1H	2392	A	C4-C5-N7	8.24	114.82	110.70
26	1H	481	G	N1-C6-O6	8.24	124.84	119.90
26	1H	840	C	C6-N1-C2	8.24	123.59	120.30
1	13	1158	C	C2-N1-C1'	8.23	127.86	118.80
26	1H	2503	A	N9-C4-C5	-8.23	102.51	105.80
26	14	1962	C	C5-C6-N1	8.23	125.11	121.00
26	1H	1379	A	N1-C6-N6	8.22	123.53	118.60
26	14	49	A	P-O3'-C3'	8.22	129.56	119.70
27	1J	7	G	C4-C5-N7	8.22	114.09	110.80
27	1J	30	C	C6-N1-C2	-8.21	117.01	120.30
48	J8	85	LEU	CA-CB-CG	8.21	134.19	115.30
26	1H	1616	A	N7-C8-N9	8.21	117.90	113.80
26	1H	2689	U	C2-N1-C1'	-8.21	107.85	117.70
26	14	380	U	O5'-P-OP2	-8.20	98.32	105.70
27	1J	60	C	C6-N1-C2	-8.20	117.02	120.30
26	14	783	A	C8-N9-C4	-8.19	102.52	105.80
26	1H	2429	G	OP1-P-OP2	-8.19	107.32	119.60
26	14	1204	A	C2-N3-C4	-8.19	106.51	110.60
26	1H	2506	U	N1-C2-O2	8.18	128.53	122.80
26	14	769	G	N7-C8-N9	-8.17	109.01	113.10
26	14	203	C	C6-N1-C2	8.17	123.57	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2873	A	C4-C5-N7	8.17	114.78	110.70
26	1H	207	A	N1-C6-N6	8.16	123.50	118.60
26	1H	1559	G	N3-C4-C5	8.16	132.68	128.60
26	1H	1825	A	O5'-P-OP2	-8.16	98.35	105.70
26	1H	528	A	C6-N1-C2	8.16	123.50	118.60
26	14	121	G	C5-C6-O6	-8.16	123.70	128.60
26	1H	1394	U	O5'-P-OP2	8.15	120.49	110.70
26	14	34	C	N1-C2-O2	8.15	123.79	118.90
1	13	1502	A	C4-C5-N7	8.15	114.77	110.70
26	14	778	G	N1-C6-O6	-8.15	115.01	119.90
1	13	1369	C	O5'-P-OP2	-8.15	98.37	105.70
26	1H	1812	A	O5'-P-OP2	-8.14	98.37	105.70
26	14	1616	A	N1-C6-N6	8.14	123.48	118.60
26	1H	729	G	C8-N9-C4	-8.13	103.15	106.40
1	13	802	A	N9-C4-C5	-8.13	102.55	105.80
26	1H	2286	A	C8-N9-C4	-8.11	102.56	105.80
1	13	792	A	C8-N9-C4	8.10	109.04	105.80
26	14	829	A	OP1-P-OP2	8.10	131.74	119.60
2	1E	187	LEU	CA-CB-CG	8.09	133.91	115.30
26	1H	1939	U	C4-C5-C6	-8.08	114.85	119.70
26	14	199	A	C2-N3-C4	8.08	114.64	110.60
26	14	1678	G	N3-C4-C5	8.08	132.64	128.60
26	1H	2584	U	N3-C2-O2	-8.08	116.55	122.20
1	1G	1322	C	C6-N1-C1'	-8.06	111.12	120.80
26	1H	120	U	C5-C6-N1	-8.06	118.67	122.70
26	1H	705	A	N1-C6-N6	8.06	123.44	118.60
26	14	613	U	C5-C4-O4	8.06	130.74	125.90
26	1H	189	G	C8-N9-C4	8.06	109.62	106.40
26	14	1303	G	N1-C6-O6	-8.05	115.07	119.90
55	3L	76	A	N7-C8-N9	8.05	117.83	113.80
1	1G	1260	C	C6-N1-C2	-8.05	117.08	120.30
26	14	362	U	N3-C2-O2	-8.05	116.56	122.20
26	1H	528	A	N3-C4-N9	-8.04	120.97	127.40
26	14	574	C	N3-C4-N4	-8.04	112.37	118.00
26	1H	74	A	C5-N7-C8	-8.04	99.88	103.90
26	1H	2779	U	C5-C4-O4	8.04	130.73	125.90
26	14	1325	G	O5'-P-OP2	8.04	120.35	110.70
26	14	1899	G	C4-C5-N7	8.04	114.02	110.80
22	1K	3	U	N1-C2-O2	8.04	128.43	122.80
26	1H	1602	U	C5-C6-N1	-8.04	118.68	122.70
26	14	676	A	N3-C4-N9	-8.03	120.98	127.40
26	14	788	A	N1-C6-N6	8.02	123.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2374	C	C6-N1-C2	8.02	123.51	120.30
27	1J	44	G	N7-C8-N9	-8.02	109.09	113.10
27	1J	6	C	C6-N1-C2	8.01	123.50	120.30
26	1H	2374	C	O5'-P-OP2	-8.01	98.49	105.70
26	14	2062	A	N9-C4-C5	-8.00	102.60	105.80
26	1H	2284	C	N1-C2-O2	-8.00	114.10	118.90
26	1H	130	C	C6-N1-C2	7.99	123.50	120.30
1	13	827	U	N3-C2-O2	-7.97	116.62	122.20
26	1H	827	U	N3-C4-O4	-7.97	113.82	119.40
26	1H	117	G	O5'-P-OP1	7.96	120.26	110.70
26	1H	133	C	C6-N1-C2	7.96	123.48	120.30
26	1H	1324	G	N3-C2-N2	-7.96	114.33	119.90
1	13	328	C	N3-C2-O2	-7.96	116.33	121.90
26	1H	51	G	O5'-P-OP1	-7.96	98.54	105.70
26	14	621	A	C5-N7-C8	-7.96	99.92	103.90
26	1H	528	A	N3-C4-C5	7.96	132.37	126.80
1	1G	690	G	C2-N3-C4	-7.95	107.92	111.90
26	1H	1776	G	N9-C4-C5	-7.95	102.22	105.40
1	1G	1127	G	O5'-P-OP1	-7.95	98.55	105.70
1	13	902	G	O5'-P-OP2	-7.94	98.55	105.70
26	1H	2554	U	O5'-P-OP1	-7.94	98.56	105.70
26	1H	127	A	O5'-P-OP2	-7.91	98.58	105.70
26	14	74	A	N3-C4-C5	7.91	132.33	126.80
26	1H	2779	U	N3-C4-O4	-7.89	113.87	119.40
26	14	530	G	C5-N7-C8	-7.89	100.36	104.30
1	13	974	A	O4'-C1'-N9	7.88	114.51	108.20
26	1H	74	A	N7-C8-N9	7.88	117.74	113.80
24	3K	76	A	N7-C8-N9	7.88	117.74	113.80
26	14	1585	C	N1-C2-O2	7.88	123.63	118.90
26	14	2689	U	N3-C4-O4	-7.86	113.89	119.40
26	1H	1900	A	O5'-P-OP1	7.86	120.14	110.70
26	14	2688	U	N3-C4-O4	-7.86	113.90	119.40
26	1H	686	G	C8-N9-C4	7.85	109.54	106.40
26	14	71	A	N1-C6-N6	7.85	123.31	118.60
45	G8	81	LYS	C-N-CD	-7.84	103.34	120.60
26	1H	1325	G	N1-C6-O6	7.84	124.61	119.90
27	1J	7	G	C5-C6-O6	-7.84	123.89	128.60
26	1H	1332	G	N3-C2-N2	-7.83	114.42	119.90
26	14	1558	A	C2-N3-C4	-7.83	106.68	110.60
26	1H	468	G	N9-C4-C5	-7.83	102.27	105.40
26	14	2430	A	C6-C5-N7	-7.83	126.82	132.30
26	1H	575	A	C8-N9-C4	7.82	108.93	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1559	G	N1-C6-O6	7.82	124.59	119.90
26	1H	2307	G	C6-C5-N7	-7.82	125.71	130.40
23	2K	27	G	N1-C6-O6	7.82	124.59	119.90
26	14	74	A	N1-C2-N3	7.82	133.21	129.30
26	1H	1496	A	N1-C6-N6	7.82	123.29	118.60
26	14	1621	U	O5'-P-OP1	-7.81	98.67	105.70
26	1H	1698	A	C4-C5-C6	7.81	120.91	117.00
26	1H	1761	C	C6-N1-C2	7.80	123.42	120.30
26	14	1698	A	C4-C5-C6	7.80	120.90	117.00
26	14	1970	A	O5'-P-OP2	-7.80	98.68	105.70
26	1H	955	C	O5'-P-OP2	-7.79	98.69	105.70
26	1H	1416	G	O5'-P-OP2	-7.79	98.69	105.70
1	1G	1200	C	N1-C2-O2	7.79	123.58	118.90
26	14	945	A	N7-C8-N9	7.79	117.69	113.80
26	1H	751	A	O5'-P-OP1	-7.79	98.69	105.70
26	1H	1899	G	C5-C6-O6	7.79	133.27	128.60
55	3L	2	C	C5-C6-N1	7.79	124.89	121.00
1	13	49	U	P-O3'-C3'	7.79	129.04	119.70
1	13	1502	A	N7-C8-N9	7.78	117.69	113.80
26	1H	774	A	C8-N9-C1'	7.78	141.70	127.70
26	14	574	C	C5-C4-N4	7.78	125.64	120.20
26	1H	210	C	C5-C6-N1	-7.77	117.11	121.00
26	14	2700	C	C5-C4-N4	-7.77	114.76	120.20
26	1H	1489	U	C5-C4-O4	7.77	130.56	125.90
26	14	1328	G	C5-C6-O6	-7.77	123.94	128.60
26	14	1776	G	N9-C4-C5	-7.76	102.29	105.40
26	14	1786	A	N1-C2-N3	7.76	133.18	129.30
26	1H	222	A	P-O3'-C3'	7.76	129.01	119.70
26	1H	1201	C	C5-C4-N4	-7.76	114.77	120.20
26	1H	2713	A	N1-C6-N6	7.76	123.26	118.60
26	14	2253	G	N3-C2-N2	-7.76	114.47	119.90
1	13	974	A	N1-C6-N6	7.76	123.25	118.60
26	14	2287	A	N1-C2-N3	7.76	133.18	129.30
26	14	2517	C	N3-C4-C5	7.76	125.00	121.90
26	1H	210	C	C6-N1-C2	7.75	123.40	120.30
26	1H	828	U	C5-C6-N1	-7.75	118.82	122.70
26	14	1616	A	N7-C8-N9	7.75	117.67	113.80
26	1H	2311	A	N1-C2-N3	7.75	133.17	129.30
26	14	2273	A	O5'-P-OP2	-7.74	98.73	105.70
26	14	1528	A	N7-C8-N9	7.74	117.67	113.80
1	13	974	A	C4-C5-N7	7.74	114.57	110.70
26	14	778	G	C5-C6-O6	7.74	133.24	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1899	G	N7-C8-N9	7.73	116.97	113.10
30	31	74	ARG	NE-CZ-NH1	7.73	124.16	120.30
22	1K	3	U	C2-N1-C1'	7.72	126.97	117.70
26	1H	774	A	C4-N9-C1'	-7.72	112.40	126.30
26	1H	2430	A	N1-C2-N3	7.71	133.16	129.30
26	1H	258	G	N1-C6-O6	-7.71	115.27	119.90
26	1H	788	A	N9-C4-C5	-7.71	102.72	105.80
26	1H	865	C	O5'-P-OP2	7.71	119.95	110.70
26	1H	621	A	N3-C4-C5	7.71	132.20	126.80
1	13	1432	G	N3-C4-N9	7.71	130.62	126.00
26	1H	2503	A	C4-C5-N7	7.71	114.55	110.70
26	1H	508	G	N7-C8-N9	7.69	116.95	113.10
26	14	620	G	O5'-P-OP2	-7.69	98.78	105.70
26	1H	600	G	C8-N9-C4	7.69	109.47	106.40
26	1H	1021	A	N7-C8-N9	7.68	117.64	113.80
26	14	1820	U	O5'-P-OP1	-7.68	98.79	105.70
26	1H	945	A	N1-C2-N3	7.67	133.14	129.30
26	1H	2084	C	C5-C6-N1	-7.67	117.16	121.00
26	1H	1962	C	C6-N1-C2	-7.66	117.23	120.30
26	1H	1382	G	N9-C4-C5	-7.66	102.34	105.40
26	1H	2318	G	O4'-C1'-N9	7.66	114.33	108.20
26	1H	1241	A	C2-N3-C4	-7.66	106.77	110.60
26	1H	966	G	N1-C6-O6	-7.65	115.31	119.90
1	13	1519	A	C5-C6-N1	-7.65	113.88	117.70
26	1H	71	A	C6-C5-N7	-7.65	126.94	132.30
26	14	2779	U	C2-N1-C1'	7.65	126.88	117.70
1	1G	5	U	N3-C2-O2	-7.64	116.85	122.20
26	1H	2357	U	O5'-P-OP2	-7.64	98.83	105.70
26	14	1496	A	C5-N7-C8	-7.63	100.08	103.90
1	13	690	G	C2-N3-C4	-7.63	108.09	111.90
26	1H	2430	A	C5-C6-N6	-7.62	117.60	123.70
1	1G	1358	U	N3-C2-O2	-7.62	116.86	122.20
26	1H	71	A	N7-C8-N9	7.62	117.61	113.80
26	14	1965	C	N3-C4-C5	7.61	124.95	121.90
26	1H	700	G	C8-N9-C4	-7.61	103.36	106.40
26	1H	74	A	C6-C5-N7	-7.61	126.98	132.30
26	1H	2439	A	N1-C6-N6	7.61	123.16	118.60
26	1H	2689	U	C5-C6-N1	-7.60	118.90	122.70
26	14	1408	C	N1-C2-O2	-7.59	114.34	118.90
1	13	1502	A	N1-C2-N3	7.59	133.09	129.30
26	1H	840	C	C5-C6-N1	-7.59	117.21	121.00
26	14	512	G	O4'-C1'-N9	7.59	114.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2712(A)	A	O5'-P-OP1	-7.59	98.87	105.70
26	1H	464	U	C5-C6-N1	-7.58	118.91	122.70
26	1H	138	G	N7-C8-N9	7.58	116.89	113.10
30	31	74	ARG	NE-CZ-NH2	-7.58	116.51	120.30
26	14	1902	C	N3-C4-C5	7.58	124.93	121.90
26	1H	1394	U	C5-C6-N1	7.58	126.49	122.70
26	1H	1673	U	C5-C6-N1	-7.57	118.91	122.70
26	1H	122	G	C5-C6-O6	-7.57	124.06	128.60
26	1H	2518	A	C5-N7-C8	-7.57	100.12	103.90
23	2K	27	G	C5-C6-O6	-7.56	124.06	128.60
1	13	963	G	N1-C2-N2	-7.56	109.40	116.20
26	14	2512	C	N3-C4-C5	7.56	124.92	121.90
1	13	1129	C	C2-N1-C1'	7.56	127.11	118.80
26	1H	2304	G	N3-C4-C5	7.56	132.38	128.60
26	14	2592	G	N3-C4-C5	-7.56	124.82	128.60
26	14	761	A	O5'-P-OP1	-7.55	98.90	105.70
26	1H	1379	A	N7-C8-N9	7.55	117.58	113.80
26	1H	781	A	C8-N9-C4	7.55	108.82	105.80
26	1H	1602	U	C5-C4-O4	7.55	130.43	125.90
1	1G	890	G	O4'-C1'-N9	7.55	114.24	108.20
26	1H	446	G	N1-C6-O6	7.54	124.43	119.90
1	1G	1502	A	C5-N7-C8	-7.54	100.13	103.90
26	14	2873	A	N1-C6-N6	7.54	123.12	118.60
26	1H	1543	A	C2-N3-C4	-7.53	106.83	110.60
26	1H	1564	C	N1-C2-O2	7.52	123.41	118.90
55	3L	76	A	C4-C5-N7	7.52	114.46	110.70
26	14	2287	A	N1-C6-N6	7.51	123.11	118.60
1	13	1517	G	O5'-P-OP2	-7.50	98.95	105.70
26	1H	735	A	C8-N9-C4	7.50	108.80	105.80
26	1H	138	G	C5-C6-O6	-7.49	124.11	128.60
27	16	100	G	C8-N9-C4	7.49	109.39	106.40
26	1H	2490	G	C2-N3-C4	-7.49	108.16	111.90
26	1H	889	C	C2-N1-C1'	7.49	127.03	118.80
26	14	2324	C	C6-N1-C2	7.49	123.29	120.30
26	14	824	A	C8-N9-C4	7.48	108.79	105.80
26	1H	2599	G	C5-C6-O6	7.48	133.09	128.60
26	14	2070	G	N1-C6-O6	-7.48	115.41	119.90
1	13	966	G	N1-C6-O6	7.48	124.39	119.90
26	1H	508	G	C6-C5-N7	-7.47	125.92	130.40
26	1H	1255	U	C5-C4-O4	-7.47	121.42	125.90
1	13	330	C	N3-C2-O2	-7.47	116.67	121.90
26	14	774	A	C4-C5-N7	7.46	114.43	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1355	G	C5-C6-O6	7.46	133.08	128.60
26	1H	805	G	C5-C6-O6	-7.46	124.13	128.60
23	2L	21	U	N3-C2-O2	-7.45	116.98	122.20
26	1H	576	U	N3-C4-O4	-7.45	114.18	119.40
26	1H	2392	A	C2-N3-C4	-7.45	106.88	110.60
26	14	1616	A	O4'-C1'-N9	7.45	114.16	108.20
1	1G	449	C	N3-C2-O2	-7.44	116.69	121.90
26	1H	774	A	C5-C6-N1	-7.44	113.98	117.70
26	1H	1817	G	N1-C6-O6	-7.44	115.44	119.90
26	1H	786	C	C5-C6-N1	-7.43	117.28	121.00
26	1H	510	C	O5'-P-OP2	-7.43	99.01	105.70
26	1H	2552	U	N1-C2-O2	-7.43	117.60	122.80
26	1H	129	C	N1-C2-O2	-7.43	114.44	118.90
26	1H	566	U	C6-N1-C2	7.43	125.46	121.00
26	14	1790	C	C6-N1-C2	7.42	123.27	120.30
26	1H	1496	A	C6-C5-N7	-7.42	127.11	132.30
26	1H	828	U	N3-C4-O4	-7.41	114.21	119.40
26	14	2250	G	O5'-P-OP1	-7.41	99.03	105.70
26	14	752	A	P-O3'-C3'	7.41	128.59	119.70
26	1H	1303	G	N1-C2-N2	-7.41	109.53	116.20
26	14	2713	A	C2-N3-C4	-7.41	106.90	110.60
1	1G	1286	A	N7-C8-N9	7.41	117.50	113.80
26	1H	1940	U	N3-C4-O4	7.40	124.58	119.40
26	1H	1806	C	O5'-P-OP2	-7.40	99.04	105.70
1	1G	413	G	O4'-C1'-N9	7.40	114.12	108.20
26	14	409	C	C6-N1-C2	7.40	123.26	120.30
26	1H	1252	G	O4'-C1'-N9	-7.39	102.28	108.20
26	1H	1528	A	O4'-C1'-N9	7.39	114.12	108.20
26	1H	2603	G	O5'-P-OP1	-7.39	99.05	105.70
26	1H	2275	C	O4'-C1'-N1	-7.38	102.30	108.20
26	1H	810	U	O5'-P-OP1	-7.38	99.06	105.70
26	14	1678	G	C4-C5-N7	7.38	113.75	110.80
26	14	827	U	O5'-P-OP2	-7.37	99.06	105.70
26	1H	2655	G	O4'-C1'-N9	7.37	114.09	108.20
26	1H	2330	G	N1-C6-O6	7.36	124.31	119.90
26	14	530	G	C6-C5-N7	-7.36	125.98	130.40
26	14	2591	C	N1-C2-O2	-7.36	114.48	118.90
26	14	2061	G	C8-N9-C4	7.36	109.34	106.40
26	1H	2070	G	N3-C2-N2	7.35	125.05	119.90
26	1H	1804	C	N1-C2-O2	7.35	123.31	118.90
1	1G	4	U	N1-C2-O2	7.35	127.94	122.80
26	14	1377	G	O5'-P-OP2	-7.35	99.09	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2287	A	N1-C6-N6	7.35	123.01	118.60
1	1G	690	G	C5-N7-C8	-7.35	100.63	104.30
1	1G	1358	U	C2-N1-C1'	7.35	126.52	117.70
26	14	2217	G	C5-C6-O6	-7.35	124.19	128.60
26	1H	678	C	N3-C4-C5	7.34	124.84	121.90
26	1H	1899	G	C4-C5-C6	-7.34	114.39	118.80
26	14	2473	U	N1-C2-O2	7.34	127.94	122.80
27	1J	44	G	C4-N9-C1'	-7.34	116.96	126.50
26	14	140	A	C6-C5-N7	-7.34	127.16	132.30
26	14	1528	A	C8-N9-C4	-7.34	102.86	105.80
26	14	1321	A	C8-N9-C4	7.34	108.73	105.80
26	1H	2028	U	O5'-P-OP1	-7.33	99.10	105.70
26	14	1597	A	O5'-P-OP2	-7.33	99.10	105.70
26	1H	676	A	C4-C5-N7	7.33	114.37	110.70
1	1G	784	C	C6-N1-C2	7.33	123.23	120.30
26	1H	140	A	C8-N9-C4	-7.33	102.87	105.80
26	1H	1698	A	N7-C8-N9	7.33	117.47	113.80
26	1H	34	C	O5'-P-OP1	-7.33	99.11	105.70
26	1H	1940	U	N1-C2-O2	-7.32	117.67	122.80
26	14	2566	A	O5'-P-OP2	-7.32	99.11	105.70
27	1J	7	G	N9-C4-C5	-7.32	102.47	105.40
26	1H	951	C	N3-C4-N4	-7.32	112.88	118.00
26	14	2542	A	C8-N9-C4	7.32	108.73	105.80
26	1H	1970	A	O5'-P-OP2	-7.31	99.12	105.70
26	1H	737	C	C6-N1-C2	7.30	123.22	120.30
26	1H	140	A	C6-C5-N7	-7.30	127.19	132.30
26	1H	827	U	N1-C2-O2	7.30	127.91	122.80
1	1G	1358	U	N1-C2-O2	7.30	127.91	122.80
1	1G	950	U	O5'-P-OP2	7.30	119.45	110.70
26	1H	594	U	C5-C6-N1	-7.29	119.06	122.70
26	14	2307	G	N7-C8-N9	7.29	116.74	113.10
26	1H	2324	C	C5-C4-N4	-7.28	115.11	120.20
48	J8	95	LEU	CA-CB-CG	7.28	132.03	115.30
1	1G	690	G	O4'-C1'-N9	7.28	114.02	108.20
26	14	1904	G	N1-C6-O6	-7.28	115.53	119.90
1	1G	1358	U	C6-N1-C2	-7.27	116.64	121.00
26	1H	129	C	C2-N3-C4	-7.27	116.27	119.90
26	1H	140	A	C2-N3-C4	-7.27	106.97	110.60
26	1H	867	C	O5'-P-OP1	-7.27	99.16	105.70
26	14	2612	C	C5-C4-N4	-7.27	115.11	120.20
26	1H	915	C	N1-C2-O2	7.26	123.26	118.90
26	1H	1192	G	O5'-P-OP2	-7.26	99.16	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1299	G	O5'-P-OP2	7.26	119.41	110.70
26	14	774	A	N1-C6-N6	7.26	122.96	118.60
26	1H	1836	C	N1-C2-O2	7.26	123.25	118.90
26	1H	2262	U	C6-N1-C2	-7.26	116.65	121.00
55	3L	11	C	C5-C6-N1	7.25	124.63	121.00
26	1H	1786	A	N1-C2-N3	7.25	132.93	129.30
26	1H	1786	A	N1-C6-N6	7.25	122.95	118.60
26	14	1351	C	C6-N1-C2	7.25	123.20	120.30
26	1H	1931	U	N1-C2-N3	7.24	119.25	114.90
26	1H	201	C	N3-C4-C5	7.24	124.80	121.90
26	14	1396	U	C2-N1-C1'	7.24	126.39	117.70
26	1H	2392	A	C8-N9-C4	-7.24	102.91	105.80
1	13	812	C	C6-N1-C2	7.24	123.19	120.30
26	14	1332	G	C8-N9-C4	-7.23	103.51	106.40
26	14	1914	C	C6-N1-C2	-7.23	117.41	120.30
26	14	2776	A	C8-N9-C4	-7.23	102.91	105.80
23	2K	61	U	O5'-P-OP2	-7.22	99.20	105.70
27	16	81	G	C4-C5-N7	7.22	113.69	110.80
26	14	2067	G	C4-C5-N7	-7.22	107.91	110.80
26	14	2490	G	O4'-C1'-N9	7.22	113.98	108.20
26	1H	750	A	OP2-P-O3'	7.22	121.08	105.20
26	14	744	G	O5'-P-OP2	-7.22	99.20	105.70
26	1H	446	G	C4-C5-N7	7.22	113.69	110.80
26	1H	2287	A	C5-C6-N1	-7.21	114.09	117.70
26	14	1404	C	O5'-P-OP2	-7.21	99.22	105.70
26	14	2873	A	N1-C2-N3	7.21	132.90	129.30
26	1H	446	G	N9-C4-C5	-7.20	102.52	105.40
1	1G	5	U	C6-N1-C2	-7.20	116.68	121.00
26	14	1786	A	N1-C6-N6	7.20	122.92	118.60
27	1J	88	C	OP2-P-O3'	7.20	121.05	105.20
26	14	774	A	C5-N7-C8	-7.20	100.30	103.90
26	1H	71	A	N1-C2-N3	7.20	132.90	129.30
26	1H	1297	C	OP2-P-O3'	-7.20	89.36	105.20
26	1H	845	G	N3-C4-C5	7.20	132.20	128.60
26	1H	1663	C	C6-N1-C2	7.20	123.18	120.30
26	1H	1314	C	C2-N1-C1'	7.19	126.71	118.80
26	1H	1598	C	OP1-P-O3'	7.19	121.03	105.20
26	1H	2615	U	O5'-P-OP2	-7.19	99.22	105.70
1	1G	1128	C	C6-N1-C2	-7.19	117.42	120.30
26	1H	2229	C	C6-N1-C2	7.19	123.18	120.30
26	1H	2699	C	N3-C4-C5	7.19	124.78	121.90
26	14	205	G	N3-C2-N2	7.19	124.93	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2598	A	O5'-P-OP1	-7.19	99.23	105.70
26	1H	1839	G	C8-N9-C4	7.18	109.27	106.40
36	78	15	ARG	C-N-CA	7.18	139.66	121.70
26	1H	2324	C	C6-N1-C2	7.18	123.17	120.30
26	1H	1616	A	O4'-C1'-N9	7.18	113.94	108.20
26	1H	621	A	N1-C2-N3	7.18	132.89	129.30
1	1G	1301	U	C2-N1-C1'	7.18	126.31	117.70
26	14	694	U	O5'-P-OP1	7.18	119.31	110.70
26	14	2779	U	N3-C2-O2	-7.17	117.18	122.20
26	1H	736	C	C6-N1-C2	7.17	123.17	120.30
26	14	1948	G	O5'-P-OP1	-7.17	99.25	105.70
26	1H	930	U	C5-C4-O4	7.17	130.20	125.90
1	1G	1096	C	C6-N1-C2	-7.17	117.43	120.30
26	1H	372	G	O4'-C1'-N9	7.17	113.93	108.20
1	1G	567	G	C2-N3-C4	-7.16	108.32	111.90
1	1G	20	U	O5'-P-OP2	-7.16	99.26	105.70
26	14	760	G	OP1-P-O3'	7.16	120.95	105.20
26	14	2503	A	C2-N3-C4	7.15	114.18	110.60
26	14	205	G	N7-C8-N9	-7.15	109.53	113.10
26	1H	845	G	P-O3'-C3'	7.14	128.27	119.70
26	1H	1625	C	N3-C2-O2	-7.14	116.90	121.90
26	1H	1807	G	C8-N9-C4	7.14	109.26	106.40
26	14	1698	A	C5-C6-N1	-7.14	114.13	117.70
26	14	2429	G	OP2-P-O3'	7.14	120.91	105.20
26	1H	391	G	C6-C5-N7	-7.13	126.12	130.40
26	14	1974	C	O5'-P-OP2	-7.13	99.28	105.70
26	1H	508	G	C4-N9-C1'	7.12	135.76	126.50
1	13	1432	G	N9-C4-C5	-7.12	102.55	105.40
1	13	1450	U	N3-C2-O2	-7.12	117.22	122.20
26	1H	655	A	N7-C8-N9	7.12	117.36	113.80
1	13	974	A	C6-C5-N7	-7.11	127.32	132.30
26	1H	781	A	N7-C8-N9	-7.11	110.24	113.80
1	1G	1446	A	O4'-C1'-N9	7.11	113.89	108.20
26	14	2598	A	C8-N9-C4	7.11	108.65	105.80
26	1H	530	G	C5-N7-C8	-7.11	100.74	104.30
26	1H	602	G	N9-C4-C5	-7.11	102.56	105.40
26	14	1304	C	N3-C4-N4	-7.11	113.02	118.00
26	14	1673	U	O5'-P-OP1	-7.11	99.30	105.70
1	1G	266	G	P-O3'-C3'	7.11	128.23	119.70
26	1H	481	G	N3-C2-N2	-7.10	114.93	119.90
26	14	808	G	N1-C2-N2	-7.10	109.81	116.20
26	14	2307	G	O4'-C1'-N9	7.10	113.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	50	A	C2-N3-C4	7.10	114.15	110.60
26	1H	1961	C	O5'-P-OP1	-7.10	99.31	105.70
26	1H	789	A	C8-N9-C4	7.10	108.64	105.80
26	1H	1764	G	N1-C6-O6	-7.10	115.64	119.90
26	14	2508	G	N3-C2-N2	-7.09	114.94	119.90
1	13	422	C	C2-N1-C1'	7.09	126.60	118.80
1	1G	197	A	C5-N7-C8	-7.09	100.36	103.90
1	13	1530	G	N3-C4-C5	7.09	132.14	128.60
26	1H	1602	U	O5'-P-OP1	-7.09	99.32	105.70
26	14	2084	C	C6-N1-C2	7.09	123.14	120.30
26	14	1963	U	C2-N1-C1'	7.08	126.20	117.70
26	14	1204	A	O4'-C1'-N9	7.08	113.87	108.20
26	1H	2741	A	C8-N9-C4	7.08	108.63	105.80
26	1H	1210	A	N7-C8-N9	7.08	117.34	113.80
26	1H	2623	G	N1-C6-O6	-7.08	115.65	119.90
26	1H	71	A	N3-C4-C5	7.08	131.75	126.80
26	14	784	A	OP1-P-O3'	7.08	120.77	105.20
26	1H	1332	G	N1-C6-O6	7.08	124.14	119.90
26	1H	936	C	C6-N1-C2	7.07	123.13	120.30
26	1H	2287	A	C5-N7-C8	-7.07	100.36	103.90
26	1H	202	U	C6-N1-C2	7.07	125.24	121.00
26	14	1639	U	N3-C4-O4	-7.07	114.45	119.40
26	1H	2438	U	C5-C6-N1	-7.07	119.17	122.70
26	14	970	C	N1-C2-O2	-7.07	114.66	118.90
26	1H	2330	G	C4-C5-N7	7.06	113.62	110.80
26	14	2607	G	N9-C4-C5	-7.06	102.58	105.40
26	1H	2713	A	C6-C5-N7	-7.05	127.36	132.30
26	1H	678	C	C2-N3-C4	-7.05	116.37	119.90
26	1H	796	C	N3-C4-N4	-7.05	113.06	118.00
26	1H	2708	G	C8-N9-C4	7.05	109.22	106.40
1	1G	46	G	C8-N9-C4	7.05	109.22	106.40
26	1H	2232	U	C5-C4-O4	7.05	130.13	125.90
26	1H	690	G	C8-N9-C4	7.05	109.22	106.40
1	1G	1286	A	C8-N9-C4	-7.05	102.98	105.80
26	14	961	C	O4'-C1'-N1	7.05	113.84	108.20
26	1H	190	A	C8-N9-C4	7.05	108.62	105.80
26	14	1616	A	C2-N3-C4	-7.05	107.08	110.60
26	14	676	A	N7-C8-N9	7.04	117.32	113.80
1	13	1519	A	N9-C4-C5	7.04	108.62	105.80
1	1G	1502	A	N1-C6-N6	7.04	122.82	118.60
26	1H	1695	G	OP1-P-OP2	7.04	130.16	119.60
26	1H	1914	C	C5-C4-N4	7.04	125.13	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	676	A	C8-N9-C4	-7.04	102.98	105.80
26	1H	468	G	C4-C5-N7	7.04	113.61	110.80
26	1H	1185	C	O5'-P-OP2	-7.04	99.37	105.70
26	1H	1678	G	C5-C6-N1	-7.04	107.98	111.50
26	1H	774	A	C4-C5-C6	-7.03	113.48	117.00
26	14	778	G	N1-C2-N2	-7.03	109.87	116.20
26	1H	933	A	O5'-P-OP2	-7.03	99.37	105.70
1	13	1214	C	C6-N1-C2	7.03	123.11	120.30
26	1H	113	G	N3-C4-N9	-7.03	121.78	126.00
26	1H	382	G	OP1-P-O3'	7.03	120.66	105.20
26	1H	528	A	C5-C6-N1	-7.03	114.19	117.70
27	16	47	C	O5'-P-OP2	-7.03	99.38	105.70
26	1H	941	A	O5'-P-OP1	-7.02	99.38	105.70
39	65	110	LEU	CA-CB-CG	7.02	131.44	115.30
1	13	758	G	N3-C4-C5	7.02	132.11	128.60
26	14	845	G	C6-C5-N7	-7.02	126.19	130.40
26	14	2688	U	C4-C5-C6	7.02	123.91	119.70
26	1H	265	A	C5-N7-C8	-7.02	100.39	103.90
27	16	44	G	P-O3'-C3'	7.02	128.12	119.70
26	14	990	A	N7-C8-N9	7.02	117.31	113.80
26	1H	195	A	P-O3'-C3'	7.01	128.12	119.70
26	1H	258	G	N3-C2-N2	7.01	124.81	119.90
26	14	528	A	C5-N7-C8	-7.01	100.39	103.90
26	14	2779	U	N1-C2-O2	7.01	127.71	122.80
26	1H	2287	A	N3-C4-N9	-7.01	121.79	127.40
26	14	2713	A	C4-C5-N7	7.01	114.20	110.70
26	14	1786	A	N9-C1'-C2'	7.01	123.11	114.00
26	1H	124	G	N1-C6-O6	7.01	124.10	119.90
26	1H	2628	C	C6-N1-C2	7.01	123.10	120.30
26	1H	966	G	C5-C6-O6	7.00	132.80	128.60
26	1H	2473	U	C2-N1-C1'	7.00	126.10	117.70
26	1H	1573	G	C8-N9-C4	7.00	109.20	106.40
26	1H	508	G	C8-N9-C4	-7.00	103.60	106.40
26	14	2473	U	C2-N1-C1'	7.00	126.10	117.70
1	13	1502	A	C6-C5-N7	-6.99	127.41	132.30
26	1H	1528	A	C5-N7-C8	-6.99	100.41	103.90
26	1H	1308	A	N1-C6-N6	-6.99	114.41	118.60
26	1H	2518	A	C4-C5-N7	6.99	114.19	110.70
26	14	2275	C	P-O3'-C3'	6.99	128.09	119.70
26	1H	1934	C	C5-C6-N1	-6.99	117.51	121.00
26	1H	2275	C	OP1-P-O3'	6.99	120.57	105.20
26	14	2256	G	O5'-P-OP2	-6.99	99.41	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1022	G	N9-C4-C5	6.98	108.19	105.40
26	1H	2326	C	C6-N1-C2	-6.98	117.51	120.30
26	14	778	G	N3-C2-N2	6.98	124.79	119.90
26	14	2163	C	C6-N1-C2	-6.98	117.51	120.30
48	J8	94	LEU	CA-CB-CG	6.98	131.34	115.30
26	1H	1678	G	C8-N9-C4	-6.97	103.61	106.40
26	14	2420	C	O5'-P-OP1	-6.97	99.42	105.70
26	1H	2311	A	C5-N7-C8	-6.97	100.41	103.90
26	1H	123	G	C8-N9-C4	6.97	109.19	106.40
26	1H	945	A	C5-C6-N1	-6.97	114.22	117.70
1	13	1450	U	N1-C2-O2	6.97	127.68	122.80
26	1H	1162	G	O5'-P-OP1	-6.97	99.43	105.70
26	1H	1962	C	C5-C6-N1	6.96	124.48	121.00
26	1H	945	A	C5-C6-N6	-6.96	118.13	123.70
1	1G	2	U	O5'-P-OP2	-6.96	99.44	105.70
26	1H	1415	U	C5-C4-O4	6.95	130.07	125.90
26	14	1899	G	N1-C2-N3	6.95	128.07	123.90
26	14	528	A	N3-C4-C5	6.95	131.66	126.80
26	14	2062	A	C4-C5-C6	-6.95	113.53	117.00
26	1H	1333	C	C5-C4-N4	-6.95	115.34	120.20
26	1H	1625	C	N1-C2-O2	6.94	123.06	118.90
26	1H	1899	G	C4-N9-C1'	-6.94	117.48	126.50
26	1H	2387	U	OP2-P-O3'	6.94	120.47	105.20
26	1H	162	U	C2-N1-C1'	6.94	126.03	117.70
26	1H	2286	A	C6-C5-N7	-6.94	127.44	132.30
26	1H	908	C	O5'-P-OP2	-6.94	99.46	105.70
26	1H	2763	G	C6-C5-N7	-6.94	126.24	130.40
1	1G	1519	A	C8-N9-C4	-6.94	103.03	105.80
26	14	575	A	O5'-P-OP2	6.94	119.02	110.70
26	1H	140	A	O4'-C1'-N9	6.93	113.75	108.20
26	1H	1610	A	N9-C4-C5	-6.93	103.03	105.80
26	1H	1931	U	C4-C5-C6	6.93	123.86	119.70
1	13	1	U	P-O3'-C3'	6.93	128.02	119.70
1	13	975	A	N1-C6-N6	6.93	122.76	118.60
26	1H	1142(A)	A	N3-C4-C5	6.93	131.65	126.80
26	14	1938	A	N9-C4-C5	-6.93	103.03	105.80
26	1H	199	A	N1-C2-N3	-6.93	125.84	129.30
26	1H	1763	G	O5'-P-OP2	-6.93	99.47	105.70
38	98	75	LEU	CA-CB-CG	6.93	131.23	115.30
26	14	1644	C	N3-C2-O2	-6.93	117.05	121.90
26	1H	422	A	C2-N3-C4	-6.92	107.14	110.60
26	14	665	C	N3-C4-C5	6.92	124.67	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2286	A	N1-C6-N6	6.92	122.75	118.60
1	13	1404	C	N3-C4-N4	-6.92	113.16	118.00
26	14	2347	C	N1-C2-O2	6.92	123.05	118.90
26	14	633	A	N1-C6-N6	6.91	122.75	118.60
26	1H	1558	A	P-O3'-C3'	6.91	127.99	119.70
26	1H	2324	C	N3-C4-C5	6.91	124.66	121.90
26	1H	2688	U	C4-C5-C6	6.91	123.84	119.70
1	1G	817	C	C6-N1-C2	6.91	123.06	120.30
55	3L	2	C	C6-N1-C2	-6.91	117.54	120.30
26	1H	1142(A)	A	C5-C6-N1	-6.90	114.25	117.70
26	1H	2612	C	O5'-P-OP2	-6.90	99.49	105.70
1	1G	1502	A	C4-C5-N7	6.90	114.15	110.70
26	1H	239	U	C5-C6-N1	-6.90	119.25	122.70
26	14	1899	G	C5-N7-C8	-6.90	100.85	104.30
26	14	1914	C	C2-N1-C1'	6.90	126.39	118.80
26	1H	74	A	C5-C6-N1	-6.90	114.25	117.70
26	1H	2417	C	O5'-P-OP2	-6.89	99.50	105.70
26	14	1965	C	C6-N1-C2	6.89	123.06	120.30
26	14	2755	C	C2-N1-C1'	6.89	126.38	118.80
26	1H	577	G	N9-C4-C5	-6.89	102.64	105.40
26	14	1307	A	C2-N3-C4	-6.89	107.15	110.60
26	1H	71	A	C5-C6-N6	-6.89	118.19	123.70
27	16	81	G	C5-N7-C8	-6.89	100.85	104.30
26	14	1142	U	C2-N1-C1'	6.89	125.97	117.70
1	1G	4	U	N3-C2-O2	-6.89	117.38	122.20
26	1H	593	G	N3-C2-N2	6.88	124.72	119.90
26	1H	120	U	C4-C5-C6	6.88	123.83	119.70
26	1H	2331	G	C4-C5-N7	6.88	113.55	110.80
26	1H	1303	G	N3-C2-N2	6.87	124.71	119.90
26	1H	1790	C	C2-N3-C4	-6.87	116.46	119.90
26	1H	2713	A	C4-C5-N7	6.87	114.14	110.70
26	14	1588	C	C6-N1-C2	-6.87	117.55	120.30
26	1H	1321	A	C8-N9-C4	6.87	108.55	105.80
26	1H	120	U	N1-C2-O2	6.86	127.60	122.80
25	4L	24	A	C8-N9-C4	-6.86	103.06	105.80
26	1H	682	G	C4-C5-N7	6.85	113.54	110.80
26	14	528	A	N1-C6-N6	6.85	122.71	118.60
1	13	687	A	P-O3'-C3'	6.85	127.92	119.70
26	1H	74	A	N1-C6-N6	6.84	122.71	118.60
26	1H	178	G	C8-N9-C4	6.84	109.14	106.40
1	1G	1043	C	C6-N1-C2	-6.84	117.56	120.30
26	14	1780	A	N1-C6-N6	-6.84	114.49	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1284	A	N1-C6-N6	6.84	122.71	118.60
26	14	641	C	O5'-P-OP2	6.84	118.91	110.70
35	25	8	LEU	CA-CB-CG	6.84	131.04	115.30
26	1H	318	C	O5'-P-OP1	-6.84	99.54	105.70
26	14	796	C	N3-C4-C5	6.84	124.64	121.90
26	14	2501	C	C2-N1-C1'	-6.84	111.28	118.80
27	1J	7	G	C6-C5-N7	-6.84	126.30	130.40
26	1H	181	A	N1-C6-N6	-6.84	114.50	118.60
26	14	945	A	C4-C5-C6	6.84	120.42	117.00
52	J5	53	ALA	CA-C-N	-6.84	102.52	116.20
22	1K	48	C	C2-N1-C1'	6.84	126.32	118.80
26	1H	1776	G	C8-N9-C4	6.84	109.14	106.40
26	14	1661	G	N9-C4-C5	-6.83	102.67	105.40
26	14	2326	C	C6-N1-C2	-6.83	117.57	120.30
26	1H	1021	A	N1-C2-N3	6.83	132.71	129.30
26	1H	1395	A	OP1-P-OP2	6.83	129.84	119.60
1	13	974	A	N7-C8-N9	6.83	117.21	113.80
26	1H	2346	A	C5-C6-N1	-6.83	114.29	117.70
26	1H	194	G	C8-N9-C4	6.82	109.13	106.40
26	1H	917	A	C5-C6-N1	-6.82	114.29	117.70
26	1H	2286	A	N7-C8-N9	6.82	117.21	113.80
26	14	498	G	C5-C6-O6	-6.82	124.51	128.60
26	14	855	G	C8-N9-C4	-6.82	103.67	106.40
1	13	1158	C	N1-C2-O2	6.81	122.99	118.90
26	1H	2331	G	N1-C6-O6	6.81	123.99	119.90
26	14	630	G	C8-N9-C4	6.81	109.12	106.40
26	14	1202	C	C6-N1-C2	6.81	123.02	120.30
26	14	2364	C	O5'-P-OP1	6.81	118.87	110.70
26	14	2501	C	C6-N1-C2	6.81	123.02	120.30
26	1H	1969	A	C8-N9-C4	6.81	108.52	105.80
26	1H	37	C	C2-N3-C4	6.80	123.30	119.90
26	1H	188	G	N1-C2-N2	-6.80	110.08	116.20
26	14	141	A	C2-N3-C4	-6.80	107.20	110.60
26	14	1612	C	C6-N1-C2	6.80	123.02	120.30
27	1J	60	C	C5-C6-N1	6.80	124.40	121.00
32	59	93	GLY	N-CA-C	6.80	130.10	113.10
26	1H	2518	A	C2-N3-C4	-6.80	107.20	110.60
26	1H	2247	A	C8-N9-C4	6.80	108.52	105.80
1	1G	197	A	N7-C8-N9	6.80	117.20	113.80
26	1H	1595	G	N3-C2-N2	-6.79	115.14	119.90
26	14	2779	U	C6-N1-C1'	-6.79	111.69	121.20
26	1H	1698	A	O4'-C1'-N9	6.79	113.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2217	G	N1-C6-O6	6.79	123.97	119.90
1	1G	1281	U	N3-C2-O2	-6.79	117.45	122.20
26	1H	121	G	N3-C4-N9	6.79	130.07	126.00
26	14	1778	U	O5'-P-OP1	-6.79	99.59	105.70
22	1K	48	C	C6-N1-C2	-6.78	117.59	120.30
1	13	352	C	C5-C6-N1	6.78	124.39	121.00
26	1H	530	G	C2-N3-C4	-6.78	108.51	111.90
26	1H	2518	A	C6-C5-N7	-6.78	127.56	132.30
1	13	888	G	C8-N9-C4	6.77	109.11	106.40
26	1H	768	G	OP1-P-OP2	6.77	129.76	119.60
26	1H	2626	C	C6-N1-C2	6.77	123.01	120.30
32	51	82	GLY	N-CA-C	6.77	130.02	113.10
26	1H	1559	G	C4-C5-N7	6.76	113.51	110.80
26	1H	2428	G	C5-N7-C8	-6.76	100.92	104.30
26	14	1543	A	O5'-P-OP1	6.76	118.82	110.70
1	13	1511	G	N1-C2-N2	-6.76	110.11	116.20
26	1H	705	A	C5-C6-N6	-6.76	118.29	123.70
26	1H	1955	U	N3-C4-O4	-6.76	114.67	119.40
1	13	1519	A	C4-C5-N7	-6.76	107.32	110.70
26	1H	1210	A	C5-N7-C8	-6.76	100.52	103.90
26	14	148	C	C6-N1-C2	6.76	123.00	120.30
26	14	830	G	C8-N9-C4	6.75	109.10	106.40
26	14	2448	A	C6-N1-C2	-6.75	114.55	118.60
26	1H	847	U	C5-C6-N1	-6.75	119.33	122.70
1	13	690	G	N1-C6-O6	6.75	123.95	119.90
26	1H	1497	U	C5-C4-O4	-6.75	121.85	125.90
26	14	2347	C	N3-C2-O2	-6.75	117.18	121.90
26	1H	2509	G	N1-C6-O6	-6.75	115.85	119.90
26	1H	16	G	O5'-P-OP2	-6.74	99.63	105.70
26	14	2324	C	N3-C4-C5	6.74	124.60	121.90
26	14	746	A	O5'-P-OP2	6.74	118.79	110.70
26	14	2542	A	N7-C8-N9	-6.74	110.43	113.80
26	14	1566	A	N1-C6-N6	6.74	122.64	118.60
26	14	2281	C	N1-C2-O2	-6.74	114.86	118.90
26	1H	1241	A	C5-N7-C8	-6.74	100.53	103.90
26	14	2390	U	O5'-P-OP1	-6.74	99.64	105.70
36	78	49	ARG	NE-CZ-NH1	6.73	123.67	120.30
26	1H	1992	G	C5-C6-N1	6.73	114.86	111.50
26	14	138	G	O5'-P-OP2	-6.73	99.64	105.70
24	3K	50	G	N3-C4-N9	6.73	130.04	126.00
26	1H	733	G	C5-N7-C8	6.73	107.67	104.30
26	1H	121	G	C5-C6-N1	6.73	114.86	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	530	G	O4'-C1'-N9	6.72	113.58	108.20
26	14	1379	A	C5-N7-C8	-6.72	100.54	103.90
1	1G	1502	A	C2-N3-C4	-6.72	107.24	110.60
26	14	806	C	O5'-P-OP1	-6.72	99.65	105.70
1	13	1354	C	C6-N1-C2	-6.72	117.61	120.30
26	14	1616	A	C6-C5-N7	-6.72	127.60	132.30
26	1H	2307	G	N1-C6-O6	6.71	123.93	119.90
26	1H	593	G	N1-C2-N2	-6.71	110.16	116.20
26	1H	2788	C	N1-C2-O2	6.71	122.93	118.90
1	1G	1502	A	C6-C5-N7	-6.71	127.60	132.30
1	13	1157	A	P-O3'-C3'	6.71	127.75	119.70
1	1G	3	G	N3-C4-N9	6.71	130.03	126.00
1	13	346	G	C4-N9-C1'	6.71	135.22	126.50
26	1H	391	G	C5-C6-N1	-6.71	108.15	111.50
26	1H	779	U	N3-C4-O4	6.71	124.09	119.40
26	1H	951	C	N1-C2-O2	6.71	122.92	118.90
26	14	1332	G	C4-C5-N7	6.71	113.48	110.80
26	1H	330	A	C5-N7-C8	-6.70	100.55	103.90
1	13	1432	G	C8-N9-C1'	-6.70	118.29	127.00
1	1G	1496	C	O5'-P-OP2	-6.70	99.67	105.70
26	14	1779	U	O5'-P-OP2	-6.70	99.67	105.70
26	1H	1365	A	C5-C6-N1	-6.70	114.35	117.70
26	1H	1617	C	O5'-P-OP2	6.70	118.74	110.70
26	14	382	G	O5'-P-OP1	-6.70	99.67	105.70
26	14	1496	A	C8-N9-C4	-6.70	103.12	105.80
26	1H	2584	U	N1-C2-O2	6.70	127.49	122.80
26	1H	226	G	O4'-C1'-N9	6.70	113.56	108.20
26	1H	779	U	C5-C4-O4	-6.69	121.88	125.90
26	1H	1318	C	O5'-P-OP1	-6.69	99.68	105.70
26	14	1971	A	N1-C2-N3	6.69	132.65	129.30
26	1H	1678	G	N1-C2-N3	6.69	127.91	123.90
26	1H	1931	U	C5-C6-N1	-6.69	119.36	122.70
1	13	1305	G	N3-C2-N2	-6.69	115.22	119.90
26	1H	1395	A	O5'-P-OP1	-6.69	99.68	105.70
1	13	1446	A	O4'-C1'-N9	6.68	113.55	108.20
26	1H	1210	A	C8-N9-C4	-6.68	103.13	105.80
26	1H	1798	U	N3-C4-C5	6.68	118.61	114.60
26	14	1653	G	O5'-P-OP2	-6.68	99.68	105.70
26	1H	655	A	C8-N9-C4	-6.68	103.13	105.80
26	1H	1681	G	C4-C5-N7	6.68	113.47	110.80
26	1H	2084	C	C2-N3-C4	-6.68	116.56	119.90
26	1H	200	U	O5'-P-OP1	-6.68	99.69	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	122	G	C6-C5-N7	-6.68	126.39	130.40
26	1H	1193	G	C8-N9-C4	6.68	109.07	106.40
26	14	2518	A	C2-N3-C4	-6.68	107.26	110.60
26	1H	449	A	OP1-P-O3'	6.67	119.88	105.20
26	1H	1365	A	C2-N3-C4	-6.67	107.26	110.60
23	2K	1	C	C6-N1-C2	-6.67	117.63	120.30
22	1K	18	G	C4-N9-C1'	6.67	135.17	126.50
26	1H	1662	C	C5-C6-N1	-6.67	117.67	121.00
26	1H	2074	U	O5'-P-OP1	-6.67	99.70	105.70
26	14	1787	A	N1-C6-N6	6.67	122.60	118.60
26	1H	2448	A	C5-C6-N6	-6.66	118.37	123.70
1	1G	530	G	C5-N7-C8	-6.66	100.97	104.30
26	14	330	A	N3-C4-C5	6.66	131.46	126.80
55	3L	48	C	N3-C2-O2	-6.66	117.24	121.90
26	14	1585	C	C2-N1-C1'	6.66	126.13	118.80
26	1H	1898	U	O5'-P-OP2	-6.66	99.71	105.70
26	14	664	C	C5-C6-N1	-6.66	117.67	121.00
26	1H	443	A	N1-C6-N6	6.65	122.59	118.60
26	1H	2085	C	O5'-P-OP2	-6.65	99.71	105.70
26	1H	2554	U	N1-C2-O2	-6.65	118.14	122.80
26	14	399	G	C8-N9-C4	6.65	109.06	106.40
26	1H	1993	U	O5'-P-OP1	-6.65	99.72	105.70
26	1H	2036	C	O5'-P-OP1	-6.65	99.72	105.70
24	3K	4	G	C8-N9-C4	-6.65	103.74	106.40
26	14	733	G	C8-N9-C1'	-6.65	118.36	127.00
26	1H	2430	A	C4-C5-C6	6.65	120.32	117.00
26	1H	2272	U	O5'-P-OP1	6.64	118.67	110.70
26	1H	889	C	C6-N1-C1'	-6.64	112.83	120.80
26	1H	1939	U	N3-C2-O2	6.64	126.85	122.20
26	1H	49	A	N7-C8-N9	-6.64	110.48	113.80
26	1H	828	U	N1-C2-N3	6.64	118.89	114.90
26	1H	676	A	N1-C6-N6	6.64	122.58	118.60
1	13	1527	C	N1-C2-O2	-6.64	114.92	118.90
26	1H	113	G	N3-C4-C5	6.64	131.92	128.60
26	1H	683	C	C5-C4-N4	-6.64	115.56	120.20
26	1H	970	C	N1-C2-O2	-6.64	114.92	118.90
26	14	1820	U	C5-C6-N1	-6.63	119.38	122.70
26	1H	501	A	O5'-P-OP2	-6.63	99.73	105.70
26	14	208	C	N3-C2-O2	6.63	126.54	121.90
27	1J	88	C	P-O3'-C3'	6.63	127.65	119.70
26	1H	1597	A	O5'-P-OP2	-6.62	99.74	105.70
26	1H	2023	G	C8-N9-C4	-6.62	103.75	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	328	C	C6-N1-C1'	-6.62	112.85	120.80
26	1H	1816	G	C8-N9-C4	-6.62	103.75	106.40
26	14	2592	G	O5'-P-OP2	-6.62	99.74	105.70
26	14	1272	A	O5'-P-OP2	-6.62	99.74	105.70
26	14	1660	C	N3-C2-O2	-6.62	117.27	121.90
26	14	265	A	C2-N3-C4	-6.62	107.29	110.60
26	1H	141	A	N1-C6-N6	6.62	122.57	118.60
26	1H	1313	U	C2-N1-C1'	6.62	125.64	117.70
26	1H	1520	U	N3-C2-O2	-6.62	117.57	122.20
26	1H	786	C	C5-C4-N4	6.61	124.83	120.20
26	1H	1642	G	O5'-P-OP1	-6.61	99.75	105.70
26	14	1379	A	N7-C8-N9	6.61	117.10	113.80
26	14	1599	C	C6-N1-C2	-6.60	117.66	120.30
26	14	2213	U	C2-N1-C1'	6.60	125.62	117.70
26	1H	2425	A	O5'-P-OP2	-6.60	99.76	105.70
1	1G	449	C	C5-C4-N4	6.60	124.82	120.20
26	14	827	U	C5-C6-N1	-6.60	119.40	122.70
22	1K	56	C	C2-N1-C1'	6.60	126.06	118.80
26	14	127	A	C5-C6-N6	-6.60	118.42	123.70
26	14	2518	A	O4'-C1'-N9	-6.60	102.92	108.20
32	51	153	LYS	C-N-CD	-6.60	106.09	120.60
26	14	2346	A	C5-C6-N1	-6.59	114.40	117.70
26	1H	1990	C	C4-C5-C6	6.59	120.69	117.40
26	1H	1404	C	OP1-P-OP2	6.59	129.48	119.60
1	1G	266	G	C8-N9-C4	-6.58	103.77	106.40
1	13	690	G	C5-N7-C8	-6.58	101.01	104.30
26	14	669	G	OP1-P-OP2	6.58	129.47	119.60
1	1G	305	G	C5-C6-O6	6.58	132.55	128.60
26	1H	1249	U	C5-C6-N1	-6.58	119.41	122.70
55	3L	48	C	N1-C2-O2	6.58	122.85	118.90
26	1H	1379	A	C8-N9-C4	-6.58	103.17	105.80
26	14	664	C	C2-N3-C4	-6.57	116.61	119.90
26	1H	1895	C	N1-C2-O2	-6.57	114.96	118.90
26	1H	2307	G	N7-C8-N9	6.57	116.39	113.10
26	14	1938	A	C4-C5-N7	6.57	113.98	110.70
26	1H	1662	C	C2-N3-C4	-6.57	116.62	119.90
26	1H	2402	C	C6-N1-C2	-6.57	117.67	120.30
26	14	784	A	O5'-P-OP2	-6.56	99.79	105.70
26	14	2275	C	C5-C6-N1	6.56	124.28	121.00
26	1H	180	G	C8-N9-C4	6.56	109.03	106.40
26	14	948	G	N1-C6-O6	6.56	123.84	119.90
26	1H	2522	U	C5-C6-N1	-6.56	119.42	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	3	U	N3-C2-O2	-6.56	117.61	122.20
26	1H	691	C	C5-C6-N1	-6.55	117.72	121.00
26	1H	1196	C	C6-N1-C2	6.55	122.92	120.30
26	1H	1817	G	N3-C2-N2	6.55	124.49	119.90
26	1H	1969	A	N7-C8-N9	-6.55	110.52	113.80
1	13	50	A	N3-C4-C5	-6.55	122.21	126.80
1	13	975	A	C5-N7-C8	-6.55	100.62	103.90
26	1H	2248	C	C5-C4-N4	6.55	124.78	120.20
26	14	829	A	O5'-P-OP1	-6.55	99.81	105.70
26	1H	813	U	OP1-P-OP2	6.54	129.41	119.60
26	1H	827	U	C5-C6-N1	-6.54	119.43	122.70
26	1H	1308	A	N9-C4-C5	6.54	108.42	105.80
26	1H	1772	G	N1-C6-O6	-6.54	115.97	119.90
26	14	613	U	N3-C4-O4	-6.54	114.82	119.40
26	1H	2503	A	C2-N3-C4	6.54	113.87	110.60
26	14	1776	G	O5'-P-OP2	-6.54	99.82	105.70
24	3K	76	A	C6-C5-N7	-6.54	127.72	132.30
26	1H	2426	A	C5-N7-C8	-6.54	100.63	103.90
26	1H	528	A	C2-N3-C4	-6.54	107.33	110.60
26	1H	1616	A	N9-C4-C5	-6.54	103.19	105.80
26	1H	1764	G	C5-C6-O6	6.54	132.52	128.60
26	1H	2307	G	C4-C5-N7	6.54	113.41	110.80
26	14	1993	U	O5'-P-OP1	-6.54	99.82	105.70
26	1H	1367	A	C2-N3-C4	-6.53	107.33	110.60
1	1G	748	C	P-O3'-C3'	6.53	127.54	119.70
27	1J	113	C	C6-N1-C2	6.53	122.91	120.30
26	1H	1662	C	N3-C4-C5	6.53	124.51	121.90
26	1H	2276	G	C4-C5-N7	-6.53	108.19	110.80
1	13	585	G	C8-N9-C4	6.53	109.01	106.40
26	1H	1022	G	C8-N9-C4	-6.53	103.79	106.40
26	1H	1822	G	O5'-P-OP2	6.53	118.53	110.70
26	1H	2623	G	C8-N9-C4	-6.53	103.79	106.40
26	1H	2382	G	O5'-P-OP1	6.53	118.53	110.70
26	14	693	C	N3-C4-N4	-6.53	113.43	118.00
26	1H	528	A	O4'-C1'-N9	-6.52	102.98	108.20
26	1H	2331	G	C2-N3-C4	-6.52	108.64	111.90
30	31	32	LEU	CA-CB-CG	6.52	130.30	115.30
26	1H	2429	G	OP2-P-O3'	6.52	119.54	105.20
26	14	808	G	N3-C2-N2	6.52	124.46	119.90
26	1H	245	G	O5'-P-OP1	-6.52	99.83	105.70
1	13	1432	G	C4-N9-C1'	6.51	134.96	126.50
26	1H	1817	G	C5-C6-O6	6.51	132.51	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2872	G	O5'-P-OP2	-6.51	99.84	105.70
26	1H	917	A	N7-C8-N9	6.51	117.06	113.80
26	14	1602	U	C5-C6-N1	-6.51	119.44	122.70
26	14	2741	A	C8-N9-C4	6.51	108.40	105.80
26	14	1349	A	N1-C6-N6	6.51	122.50	118.60
26	1H	2424	C	OP1-P-OP2	6.51	129.36	119.60
26	14	1359	A	C8-N9-C4	6.51	108.40	105.80
26	14	1989	G	N3-C2-N2	-6.51	115.35	119.90
1	13	1301	U	P-O3'-C3'	6.50	127.51	119.70
26	1H	1313	U	C5-C6-N1	6.50	125.95	122.70
26	1H	1844	C	N3-C4-N4	6.50	122.55	118.00
26	14	613	U	N1-C2-O2	6.50	127.35	122.80
1	13	1065	U	P-O3'-C3'	6.50	127.50	119.70
26	1H	1323	U	OP1-P-OP2	-6.50	109.85	119.60
26	1H	1332	G	C6-C5-N7	-6.50	126.50	130.40
26	1H	2006	C	C6-N1-C2	6.50	122.90	120.30
26	1H	311	A	N1-C6-N6	6.50	122.50	118.60
27	16	14	U	O5'-P-OP2	-6.50	99.85	105.70
26	14	1992	G	P-O3'-C3'	6.50	127.50	119.70
26	1H	1594	G	OP1-P-O3'	6.50	119.49	105.20
1	1G	197	A	N1-C6-N6	6.50	122.50	118.60
26	1H	85	G	O5'-P-OP2	-6.49	99.86	105.70
26	1H	790	C	N3-C2-O2	6.49	126.45	121.90
45	G8	81	LYS	C-N-CA	6.49	149.26	122.00
26	14	1664	A	O5'-P-OP2	-6.49	99.86	105.70
26	1H	1698	A	C5-C6-N1	-6.49	114.46	117.70
26	14	983	A	OP2-P-O3'	6.49	119.48	105.20
26	14	1325	G	C5-C6-O6	-6.49	124.71	128.60
26	14	155	C	N3-C2-O2	-6.49	117.36	121.90
26	1H	2585	U	N1-C2-O2	6.49	127.34	122.80
26	1H	446	G	C6-C5-N7	-6.48	126.51	130.40
33	61	110	ASP	C-N-CD	-6.48	106.34	120.60
1	1G	690	G	C4-C5-N7	6.48	113.39	110.80
26	1H	518	G	O5'-P-OP2	-6.48	99.87	105.70
26	14	974(A)	C	N1-C2-O2	6.48	122.79	118.90
26	14	530	G	C2-N3-C4	-6.48	108.66	111.90
26	1H	798	G	C8-N9-C4	6.48	108.99	106.40
26	1H	2439	A	N9-C4-C5	-6.48	103.21	105.80
27	16	51	G	OP2-P-O3'	6.48	119.45	105.20
26	1H	415	A	N1-C6-N6	6.47	122.48	118.60
26	14	1677	A	N1-C6-N6	6.47	122.48	118.60
26	1H	2047	U	N3-C4-C5	6.47	118.48	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1328	G	N1-C6-O6	6.47	123.78	119.90
26	14	1600	C	O5'-P-OP2	-6.47	99.88	105.70
27	1J	89	G	C4-N9-C1'	6.47	134.91	126.50
26	1H	791	C	C6-N1-C2	6.46	122.89	120.30
23	2K	6	G	N9-C4-C5	-6.46	102.82	105.40
26	1H	468	G	C8-N9-C4	6.46	108.98	106.40
1	13	1404	C	N3-C4-C5	6.46	124.48	121.90
26	14	940	G	O5'-P-OP2	-6.46	99.89	105.70
26	14	1771	C	C2-N3-C4	-6.46	116.67	119.90
26	1H	752	A	C8-N9-C4	6.46	108.38	105.80
26	1H	2401	U	O5'-P-OP1	-6.46	99.89	105.70
1	1G	5	U	P-O3'-C3'	6.46	127.45	119.70
26	14	197	A	OP2-P-O3'	6.46	119.40	105.20
26	1H	633	A	N1-C6-N6	6.46	122.47	118.60
26	1H	1284	A	OP1-P-OP2	6.45	129.28	119.60
26	14	1657	C	C6-N1-C2	-6.45	117.72	120.30
26	14	2688	U	N1-C2-N3	6.45	118.77	114.90
1	1G	687	A	P-O3'-C3'	6.45	127.44	119.70
26	1H	2258	C	C5-C4-N4	-6.45	115.69	120.20
27	16	13	A	OP1-P-OP2	6.45	129.27	119.60
1	13	1129	C	C5-C6-N1	6.45	124.22	121.00
26	1H	943	U	C5-C6-N1	-6.45	119.48	122.70
55	3L	11	C	C6-N1-C2	-6.44	117.72	120.30
26	1H	49	A	C8-N9-C4	6.44	108.38	105.80
26	1H	115	C	N1-C2-O2	-6.44	115.03	118.90
26	1H	273(A)	G	N1-C6-O6	6.44	123.77	119.90
26	14	141	A	N3-C4-C5	6.44	131.31	126.80
26	1H	270(K)	C	C6-N1-C2	-6.44	117.72	120.30
26	14	1787	A	O5'-P-OP1	-6.44	99.90	105.70
26	1H	2441	C	N3-C4-N4	-6.44	113.49	118.00
26	14	2062	A	N1-C2-N3	-6.44	126.08	129.30
26	1H	578	A	C8-N9-C4	-6.44	103.22	105.80
26	1H	1662	C	N1-C2-O2	-6.44	115.04	118.90
26	14	681	G	N9-C4-C5	-6.44	102.83	105.40
1	13	1200	C	N1-C2-O2	6.43	122.76	118.90
26	14	141	A	C5-N7-C8	-6.43	100.68	103.90
26	1H	1698	A	N1-C6-N6	6.43	122.46	118.60
1	13	266	G	C4-C5-N7	6.43	113.37	110.80
26	14	2079	U	N3-C2-O2	-6.43	117.70	122.20
26	14	2346	A	N1-C6-N6	6.43	122.46	118.60
26	1H	621	A	O4'-C1'-N9	6.42	113.34	108.20
26	1H	1773	A	C2-N3-C4	-6.42	107.39	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1607	C	OP1-P-O3'	6.42	119.33	105.20
26	14	2498	C	C6-N1-C2	6.42	122.87	120.30
1	13	690	G	C4-N9-C1'	6.42	134.84	126.50
1	1G	197	A	C6-C5-N7	-6.42	127.81	132.30
26	14	933	A	C5-N7-C8	-6.42	100.69	103.90
26	1H	1786	A	N9-C1'-C2'	6.42	122.34	114.00
28	11	111	LEU	CA-CB-CG	6.42	130.06	115.30
1	13	872	A	O4'-C1'-N9	6.41	113.33	108.20
1	13	880	C	C6-N1-C2	6.41	122.86	120.30
26	1H	690	G	N9-C4-C5	-6.41	102.83	105.40
26	14	693	C	OP2-P-O3'	6.41	119.31	105.20
26	1H	443	A	C5-C6-N6	-6.41	118.57	123.70
26	1H	1637	A	N1-C6-N6	-6.41	114.75	118.60
26	1H	2713	A	C8-N9-C4	-6.41	103.24	105.80
26	14	2612	C	N3-C4-N4	6.41	122.49	118.00
1	13	963	G	N3-C4-N9	6.41	129.84	126.00
26	1H	1365	A	C4-C5-C6	6.41	120.20	117.00
26	14	762	U	O5'-P-OP2	-6.41	99.93	105.70
26	14	821	A	O5'-P-OP2	-6.41	99.93	105.70
26	1H	800	A	OP1-P-OP2	-6.41	109.99	119.60
26	1H	860	U	OP1-P-O3'	6.40	119.29	105.20
26	1H	693	C	OP2-P-O3'	6.40	119.29	105.20
1	1G	413	G	C4-C5-N7	-6.40	108.24	110.80
26	1H	2271	G	N3-C4-N9	6.40	129.84	126.00
1	13	517	G	O5'-P-OP2	-6.40	99.94	105.70
26	1H	1835	G	O5'-P-OP2	6.40	118.38	110.70
1	13	881	G	C8-N9-C4	6.39	108.96	106.40
26	1H	2346	A	C5-N7-C8	-6.39	100.70	103.90
1	1G	530	G	N7-C8-N9	6.39	116.30	113.10
1	1G	1322	C	C5-C6-N1	6.39	124.20	121.00
1	13	1195	C	C6-N1-C2	-6.39	117.74	120.30
26	1H	74	A	O4'-C1'-N9	-6.39	103.09	108.20
26	1H	966	G	O5'-P-OP2	-6.39	99.95	105.70
26	1H	302	C	N3-C2-O2	-6.39	117.43	121.90
26	1H	1954	G	C5-C6-N1	-6.39	108.31	111.50
26	14	2394	C	O5'-P-OP2	-6.39	99.95	105.70
26	1H	48	G	OP2-P-O3'	6.39	119.26	105.20
26	1H	2281	C	C5-C4-N4	-6.39	115.73	120.20
1	13	266	G	C5-N7-C8	-6.39	101.11	104.30
26	1H	621	A	C5-C6-N1	-6.39	114.51	117.70
26	1H	639	U	C5-C4-O4	6.39	129.73	125.90
27	16	31	C	O5'-P-OP2	-6.39	99.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1332	G	N1-C2-N3	6.39	127.73	123.90
26	1H	443	A	N9-C4-C5	-6.38	103.25	105.80
26	1H	945	A	N3-C4-C5	6.38	131.27	126.80
26	14	1162	G	O5'-P-OP1	-6.38	99.95	105.70
26	14	1559	G	N1-C6-O6	6.38	123.73	119.90
1	13	892	A	C2-N3-C4	-6.38	107.41	110.60
26	1H	2598	A	C8-N9-C4	6.38	108.35	105.80
26	1H	1421	G	N1-C6-O6	6.38	123.73	119.90
26	1H	2445	G	C5-C6-O6	6.38	132.43	128.60
26	1H	2595	G	O5'-P-OP2	-6.38	99.96	105.70
26	14	140	A	C5-C6-N6	-6.38	118.60	123.70
26	14	2307	G	C4-N9-C1'	6.38	134.79	126.50
3	2E	196	LEU	CA-CB-CG	6.38	129.97	115.30
26	1H	2328	A	C2-N3-C4	-6.38	107.41	110.60
26	14	1258	C	N3-C4-C5	6.38	124.45	121.90
26	14	1314	C	N1-C2-O2	6.37	122.72	118.90
26	14	2518	A	C5-N7-C8	-6.37	100.71	103.90
26	14	1644	C	N1-C2-O2	6.37	122.72	118.90
26	1H	655	A	C5-N7-C8	-6.37	100.72	103.90
26	1H	691	C	C2-N3-C4	-6.37	116.72	119.90
26	14	2258	C	OP1-P-O3'	6.36	119.20	105.20
26	1H	1566	A	C8-N9-C4	6.36	108.34	105.80
26	1H	2253	G	C8-N9-C4	6.36	108.94	106.40
26	1H	2261	C	OP2-P-O3'	6.36	119.19	105.20
1	1G	1157	A	P-O3'-C3'	6.36	127.33	119.70
1	13	904	C	N3-C4-N4	-6.36	113.55	118.00
26	1H	772	C	N3-C2-O2	6.36	126.35	121.90
26	1H	1586	A	N1-C6-N6	6.36	122.41	118.60
26	1H	188	G	N3-C4-N9	6.35	129.81	126.00
26	1H	2245	U	OP1-P-O3'	6.35	119.18	105.20
26	1H	2286	A	C4-C5-C6	6.35	120.18	117.00
26	1H	2590	A	C8-N9-C4	6.35	108.34	105.80
26	14	916	G	O5'-P-OP1	-6.35	99.98	105.70
26	14	1528	A	C5-N7-C8	-6.35	100.72	103.90
26	1H	1125	G	C8-N9-C4	6.35	108.94	106.40
26	1H	863	A	O5'-P-OP1	6.35	118.32	110.70
44	F8	70	LEU	CA-CB-CG	6.35	129.90	115.30
26	1H	70	G	N3-C2-N2	6.35	124.34	119.90
26	1H	202	U	N1-C2-N3	-6.34	111.09	114.90
26	14	1313	U	C2-N1-C1'	6.34	125.31	117.70
26	14	1698	A	N7-C8-N9	6.34	116.97	113.80
26	14	753	C	C2-N3-C4	-6.34	116.73	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1049	C	N1-C2-O2	6.34	122.70	118.90
26	1H	1574	C	OP2-P-O3'	6.34	119.15	105.20
26	1H	1653	G	O5'-P-OP2	-6.34	99.99	105.70
26	14	22	C	N3-C4-C5	6.34	124.44	121.90
26	14	2463	C	C6-N1-C2	6.34	122.84	120.30
26	14	1210	A	C5-N7-C8	-6.34	100.73	103.90
26	1H	2022	U	N3-C2-O2	6.34	126.64	122.20
26	1H	2857	G	O5'-P-OP1	-6.34	100.00	105.70
26	14	1506	C	C6-N1-C2	-6.33	117.77	120.30
27	16	48	A	O5'-P-OP2	6.33	118.30	110.70
1	1G	1519	A	N9-C4-C5	6.33	108.33	105.80
26	1H	1200	C	O5'-P-OP1	6.33	118.29	110.70
26	1H	1445	C	C6-N1-C2	-6.33	117.77	120.30
26	1H	1992	G	P-O3'-C3'	6.33	127.30	119.70
1	1G	46	G	N9-C4-C5	-6.33	102.87	105.40
26	1H	1624	G	C5-C6-O6	6.33	132.40	128.60
26	1H	2490	G	C5-C6-O6	-6.33	124.80	128.60
1	13	567	G	O5'-P-OP1	-6.32	100.01	105.70
26	1H	1557	C	O5'-P-OP2	-6.32	100.01	105.70
26	14	845	G	C4-C5-N7	6.32	113.33	110.80
26	14	948	G	C5-C6-O6	-6.32	124.81	128.60
26	14	1241	A	N1-C2-N3	6.32	132.46	129.30
22	1K	67	A	O4'-C1'-N9	6.32	113.25	108.20
26	1H	1086	A	O4'-C1'-N9	6.32	113.25	108.20
26	1H	1959	G	N9-C4-C5	6.32	107.93	105.40
26	14	208	C	C5-C4-N4	-6.32	115.78	120.20
1	13	1203	C	C6-N1-C2	-6.32	117.77	120.30
26	14	2508	G	N9-C4-C5	6.32	107.93	105.40
26	1H	2062	A	C5-C6-N1	6.31	120.86	117.70
1	1G	530	G	C4-C5-N7	6.31	113.33	110.80
55	3L	76	A	C5-C6-N6	-6.31	118.65	123.70
26	14	785	G	O5'-P-OP1	-6.31	100.02	105.70
26	14	783	A	N3-C4-N9	-6.31	122.35	127.40
1	13	843	U	C2-N1-C1'	6.31	125.27	117.70
26	1H	2291	U	C5-C4-O4	6.31	129.69	125.90
26	14	2078	C	N3-C4-C5	-6.31	119.38	121.90
26	1H	1307	A	C5-C6-N6	-6.31	118.65	123.70
26	14	786	C	N3-C4-C5	6.31	124.42	121.90
26	1H	816	C	O5'-P-OP1	6.30	118.27	110.70
26	1H	2665	A	O4'-C1'-N9	6.30	113.24	108.20
26	14	1391	U	O5'-P-OP2	6.30	118.27	110.70
26	14	2067	G	O5'-P-OP2	6.30	118.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	232	G	N1-C6-O6	6.30	123.68	119.90
26	14	795	C	N3-C4-C5	6.30	124.42	121.90
26	1H	120	U	C2-N1-C1'	6.30	125.26	117.70
26	1H	1775	U	C5-C4-O4	6.30	129.68	125.90
26	1H	2623	G	N3-C4-C5	-6.30	125.45	128.60
26	14	2394	C	N3-C2-O2	-6.30	117.49	121.90
1	13	690	G	N1-C2-N3	6.30	127.68	123.90
26	1H	1248	G	N3-C2-N2	-6.30	115.49	119.90
22	1K	56	C	C5-C6-N1	6.30	124.15	121.00
26	1H	1525	G	O5'-P-OP2	-6.30	100.03	105.70
26	14	2024	G	N1-C6-O6	6.30	123.68	119.90
26	1H	1858	G	P-O3'-C3'	6.29	127.25	119.70
1	13	913	A	P-O3'-C3'	6.29	127.25	119.70
26	1H	1678	G	C6-C5-N7	-6.29	126.62	130.40
26	14	2779	U	O4'-C1'-N1	6.29	113.23	108.20
22	1K	18	G	N3-C4-N9	6.29	129.77	126.00
26	1H	1325	G	C4-C5-N7	6.29	113.31	110.80
26	14	998	C	N1-C2-O2	6.28	122.67	118.90
1	13	778	G	O5'-P-OP2	-6.28	100.05	105.70
26	1H	1021	A	N3-C4-C5	6.28	131.20	126.80
27	16	15	A	N1-C6-N6	6.28	122.37	118.60
26	1H	705	A	N9-C4-C5	-6.28	103.29	105.80
26	1H	829	A	OP1-P-OP2	6.28	129.02	119.60
26	14	528	A	N1-C2-N3	6.27	132.44	129.30
26	14	34	C	O4'-C1'-N1	6.27	113.22	108.20
26	14	2607	G	C8-N9-C4	6.27	108.91	106.40
26	14	681	G	C8-N9-C4	6.26	108.91	106.40
26	14	1924	C	N3-C2-O2	6.26	126.29	121.90
26	14	1142(A)	A	C2-N3-C4	-6.26	107.47	110.60
26	1H	676	A	C6-N1-C2	6.26	122.36	118.60
26	14	1827	C	OP1-P-O3'	6.26	118.97	105.20
1	13	22	G	O5'-P-OP2	-6.26	100.07	105.70
1	13	1474	G	N1-C6-O6	-6.26	116.14	119.90
22	1K	18	G	C8-N9-C1'	-6.26	118.86	127.00
1	1G	690	G	N7-C8-N9	6.26	116.23	113.10
26	14	2844	G	C8-N9-C4	6.26	108.90	106.40
26	1H	138	G	O4'-C1'-N9	6.26	113.20	108.20
26	1H	2307	G	O4'-C1'-N9	6.26	113.20	108.20
26	14	133	C	N3-C4-C5	6.26	124.40	121.90
26	14	946	G	C8-N9-C4	6.25	108.90	106.40
12	3I	86	ARG	NE-CZ-NH1	-6.25	117.17	120.30
26	14	2502	G	O5'-P-OP1	-6.25	100.07	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1963	U	N3-C2-O2	-6.25	117.83	122.20
26	14	1332	G	C6-C5-N7	-6.25	126.65	130.40
26	14	542	C	N1-C2-O2	6.25	122.65	118.90
1	1G	46	G	C5-C6-O6	-6.25	124.85	128.60
27	16	99	A	OP1-P-OP2	6.24	128.97	119.60
26	1H	836	G	C2-N3-C4	6.24	115.02	111.90
26	14	621	A	C4-C5-N7	6.24	113.82	110.70
26	14	1559	G	C6-C5-N7	-6.24	126.66	130.40
26	1H	2665	A	C2-N3-C4	-6.24	107.48	110.60
26	14	140	A	C8-N9-C4	-6.24	103.30	105.80
26	14	2055	C	C6-N1-C2	6.24	122.80	120.30
26	1H	110	G	C8-N9-C4	6.24	108.89	106.40
1	13	1410	G	C8-N9-C4	6.24	108.89	106.40
1	13	802	A	C4-C5-N7	6.23	113.82	110.70
26	14	1633	G	C5-C6-O6	-6.23	124.86	128.60
26	14	2307	G	C8-N9-C4	-6.23	103.91	106.40
26	1H	2609	U	C2-N1-C1'	-6.23	110.22	117.70
26	1H	2699	C	N3-C2-O2	6.23	126.26	121.90
26	14	1673	U	N3-C2-O2	6.23	126.56	122.20
26	14	1844	C	C5-C4-N4	-6.23	115.84	120.20
26	1H	576	U	C4-C5-C6	6.23	123.44	119.70
26	1H	838	C	C4-C5-C6	6.23	120.51	117.40
26	1H	917	A	N3-C4-C5	6.23	131.16	126.80
1	13	254	G	O5'-P-OP1	-6.23	100.09	105.70
27	1J	114	G	C8-N9-C4	6.23	108.89	106.40
26	1H	1404	C	O5'-P-OP1	-6.22	100.10	105.70
26	1H	1902	C	C4-C5-C6	6.22	120.51	117.40
26	1H	2435	A	N1-C6-N6	-6.22	114.87	118.60
1	1G	299	G	O5'-P-OP2	6.22	118.17	110.70
25	4L	24	A	N7-C8-N9	6.22	116.91	113.80
26	14	1585	C	C5-C6-N1	6.22	124.11	121.00
26	14	1308	A	N9-C4-C5	6.22	108.29	105.80
26	1H	1573	G	OP2-P-O3'	6.22	118.89	105.20
26	14	207	A	N7-C8-N9	-6.22	110.69	113.80
26	1H	913	U	O5'-P-OP2	-6.22	100.10	105.70
26	1H	2627	G	C5-C6-O6	-6.22	124.87	128.60
26	14	665	C	C6-N1-C2	6.22	122.79	120.30
26	14	1605	C	C4-C5-C6	6.22	120.51	117.40
26	1H	140	A	OP2-P-O3'	6.22	118.88	105.20
26	1H	2490	G	C6-C5-N7	-6.22	126.67	130.40
26	1H	2506	U	O5'-P-OP1	6.22	118.16	110.70
1	13	1335	C	C2-N1-C1'	-6.22	111.96	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1519	A	N1-C2-N3	6.22	132.41	129.30
26	14	2448	A	C5-C6-N6	-6.22	118.73	123.70
26	1H	2329	G	C2-N3-C4	-6.21	108.79	111.90
26	1H	37	C	C5-C4-N4	6.21	124.55	120.20
26	14	701	G	C8-N9-C4	-6.21	103.92	106.40
26	1H	1299	G	O5'-P-OP1	-6.21	100.11	105.70
26	1H	2285	C	N3-C4-N4	-6.21	113.65	118.00
26	1H	2665	A	N1-C2-N3	6.21	132.41	129.30
26	14	1287	A	C5-N7-C8	6.21	107.00	103.90
26	14	2447	G	N1-C6-O6	6.21	123.63	119.90
26	1H	235	U	O5'-P-OP2	-6.21	100.11	105.70
26	1H	514	A	O5'-P-OP2	-6.21	100.11	105.70
1	1G	697	U	C5-C6-N1	-6.21	119.60	122.70
26	1H	2620	C	C6-N1-C2	6.21	122.78	120.30
36	78	23	PRO	C-N-CA	-6.21	109.27	122.30
26	1H	648	G	C4-C5-N7	-6.20	108.32	110.80
1	1G	290	C	O5'-P-OP1	-6.20	100.12	105.70
26	14	2607	G	N3-C4-N9	6.20	129.72	126.00
26	1H	2346	A	N1-C6-N6	6.20	122.32	118.60
1	13	1498	U	P-O3'-C3'	6.20	127.14	119.70
26	1H	463	G	N9-C4-C5	-6.20	102.92	105.40
26	14	1312	U	O5'-P-OP1	-6.20	100.12	105.70
1	13	1199	U	N3-C2-O2	-6.20	117.86	122.20
26	1H	769	G	OP1-P-O3'	6.20	118.83	105.20
26	1H	1564	C	N3-C2-O2	-6.20	117.56	121.90
26	1H	2377	A	N1-C6-N6	6.20	122.32	118.60
26	14	2712	U	C2-N3-C4	-6.20	123.28	127.00
26	1H	2392	A	N3-C4-C5	6.19	131.14	126.80
1	13	952	U	N1-C2-N3	6.19	118.62	114.90
26	1H	2091	U	C5-C4-O4	6.19	129.62	125.90
1	1G	117	G	C5-C6-O6	-6.19	124.89	128.60
26	14	74	A	N3-C4-N9	-6.19	122.45	127.40
26	14	450	G	N1-C6-O6	6.19	123.62	119.90
26	14	1342	A	C6-C5-N7	-6.19	127.97	132.30
26	14	1391	U	O5'-P-OP1	-6.19	100.13	105.70
26	1H	335	C	C5-C6-N1	6.19	124.09	121.00
26	14	2596	U	N3-C2-O2	-6.19	117.87	122.20
26	1H	1128	A	O5'-P-OP1	-6.19	100.13	105.70
26	1H	1681	G	N1-C6-O6	6.19	123.61	119.90
1	1G	449	C	N3-C4-N4	-6.19	113.67	118.00
1	13	1418	A	C8-N9-C4	6.18	108.27	105.80
23	2K	5	G	C8-N9-C4	6.18	108.87	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	659	C	OP2-P-O3'	6.18	118.81	105.20
23	2L	21	U	N1-C2-O2	6.18	127.13	122.80
26	1H	1142(A)	A	N3-C4-N9	-6.18	122.45	127.40
26	1H	1798	U	N3-C4-O4	-6.18	115.07	119.40
26	1H	1858	G	N3-C4-N9	6.18	129.71	126.00
26	14	205	G	OP1-P-OP2	6.18	128.87	119.60
26	1H	1307	A	N9-C4-C5	-6.18	103.33	105.80
1	1G	4	U	O4'-C1'-N1	-6.18	103.26	108.20
1	1G	197	A	C4-C5-N7	6.18	113.79	110.70
26	1H	2023	G	N9-C4-C5	6.18	107.87	105.40
1	13	320	C	C2-N1-C1'	-6.17	112.01	118.80
26	1H	2028	U	C4-C5-C6	6.17	123.41	119.70
26	1H	2048	G	C4-C5-N7	-6.17	108.33	110.80
26	1H	791	C	OP2-P-O3'	6.17	118.78	105.20
26	1H	871	U	N3-C4-O4	6.17	123.72	119.40
26	1H	834	C	OP2-P-O3'	6.17	118.78	105.20
26	14	772	C	N3-C2-O2	6.17	126.22	121.90
1	1G	690	G	N3-C4-C5	6.17	131.68	128.60
1	13	1062	U	O5'-P-OP2	-6.17	100.15	105.70
26	1H	2253	G	C5-C6-O6	-6.17	124.90	128.60
26	1H	71	A	O4'-C1'-N9	-6.16	103.27	108.20
26	14	102	G	O4'-C1'-N9	6.16	113.13	108.20
26	14	1022	G	P-O3'-C3'	6.16	127.10	119.70
36	35	45	LEU	CA-CB-CG	6.16	129.48	115.30
26	1H	1936	A	O4'-C1'-N9	6.16	113.13	108.20
26	14	1390	U	OP1-P-O3'	6.16	118.76	105.20
26	14	1698	A	C5-C6-N6	-6.16	118.77	123.70
26	1H	786	C	C4-C5-C6	6.16	120.48	117.40
26	1H	2254	C	N1-C2-O2	-6.16	115.20	118.90
26	14	12	U	N3-C2-O2	-6.16	117.89	122.20
26	1H	1324	G	N1-C6-O6	6.16	123.59	119.90
26	1H	125	G	C5-C6-O6	-6.16	124.91	128.60
26	1H	690	G	N3-C4-N9	6.16	129.69	126.00
26	1H	772	C	O5'-P-OP1	-6.16	100.16	105.70
26	1H	2068	U	O5'-P-OP1	-6.16	100.16	105.70
26	14	1939	U	N3-C4-O4	-6.16	115.09	119.40
26	14	2607	G	N1-C2-N2	-6.16	110.66	116.20
26	14	2713	A	N7-C8-N9	6.16	116.88	113.80
26	1H	859	G	N3-C4-C5	6.15	131.68	128.60
26	1H	1728	G	C4-C5-N7	6.15	113.26	110.80
26	1H	2464	C	C6-N1-C2	6.15	122.76	120.30
1	1G	1484	C	O5'-P-OP2	-6.15	100.16	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	12	U	N1-C2-O2	6.15	127.11	122.80
26	14	49	A	OP2-P-O3'	6.15	118.73	105.20
26	14	462	C	O5'-P-OP2	-6.15	100.17	105.70
22	1K	18	G	N3-C4-C5	-6.15	125.53	128.60
26	1H	1604	C	O5'-P-OP1	-6.15	100.17	105.70
26	1H	508	G	C4-C5-N7	6.14	113.26	110.80
26	1H	1203	G	N3-C4-C5	-6.14	125.53	128.60
26	14	71	A	N7-C8-N9	6.14	116.87	113.80
26	1H	468	G	N1-C6-O6	6.14	123.58	119.90
26	14	912	C	C6-N1-C2	-6.14	117.84	120.30
26	1H	2504	U	O5'-P-OP2	-6.14	100.18	105.70
26	14	704	G	N3-C2-N2	-6.14	115.60	119.90
26	1H	1396	U	N3-C4-O4	-6.14	115.11	119.40
26	1H	122	G	C2-N3-C4	-6.13	108.83	111.90
26	1H	863	A	O5'-P-OP2	-6.13	100.18	105.70
26	1H	2371	G	C8-N9-C4	6.13	108.85	106.40
1	13	1227	A	C5-N7-C8	-6.13	100.83	103.90
26	1H	141(A)	C	OP2-P-O3'	6.13	118.69	105.20
26	14	2473	U	N3-C2-O2	-6.13	117.91	122.20
26	1H	191	A	N1-C2-N3	6.13	132.37	129.30
26	14	1696	G	O5'-P-OP2	-6.13	100.18	105.70
24	3K	76	A	C2-N3-C4	-6.13	107.53	110.60
26	1H	2032	G	N7-C8-N9	-6.13	110.03	113.10
26	1H	672	C	N3-C4-N4	6.13	122.29	118.00
26	1H	1142(A)	A	C5-N7-C8	-6.13	100.84	103.90
26	1H	2490	G	O4'-C1'-N9	6.13	113.10	108.20
40	B8	13	ARG	N-CA-C	6.13	127.54	111.00
26	14	2446	G	N1-C2-N2	-6.13	110.69	116.20
26	1H	762	U	C5-C4-O4	-6.12	122.22	125.90
26	1H	2371	G	N9-C4-C5	-6.12	102.95	105.40
26	1H	141	A	N7-C8-N9	6.12	116.86	113.80
26	1H	1544	C	N1-C2-O2	6.12	122.57	118.90
26	1H	1758	G	C5-C6-O6	-6.12	124.93	128.60
26	14	117	G	N3-C4-N9	6.12	129.68	126.00
26	14	803	U	N3-C2-O2	-6.12	117.91	122.20
26	14	2318	G	N7-C8-N9	6.12	116.16	113.10
26	1H	508	G	N3-C4-C5	-6.12	125.54	128.60
26	1H	574	C	O5'-P-OP2	-6.12	100.19	105.70
26	14	186	G	C8-N9-C4	6.12	108.85	106.40
26	1H	2541	A	O5'-P-OP1	-6.12	100.19	105.70
26	1H	2525	G	N9-C4-C5	-6.12	102.95	105.40
26	1H	2084	C	C6-N1-C2	6.12	122.75	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1407	C	N3-C2-O2	6.12	126.18	121.90
26	14	2360	A	C2-N3-C4	-6.12	107.54	110.60
1	13	966	G	C4-C5-N7	6.11	113.25	110.80
26	1H	1497	U	N3-C4-O4	6.11	123.68	119.40
55	3L	76	A	C6-C5-N7	-6.11	128.02	132.30
26	14	2401	U	C5-C6-N1	6.11	125.76	122.70
26	1H	1767	C	N1-C2-O2	6.11	122.57	118.90
26	1H	1948	G	O5'-P-OP1	-6.11	100.20	105.70
26	14	783	A	C4-C5-C6	6.11	120.06	117.00
26	14	2324	C	C2-N3-C4	-6.11	116.84	119.90
26	1H	192	C	N1-C2-O2	-6.11	115.24	118.90
1	1G	5	U	C2-N1-C1'	6.11	125.03	117.70
26	14	2049	G	O5'-P-OP1	-6.11	100.20	105.70
26	1H	967	C	N3-C4-C5	6.10	124.34	121.90
26	1H	1201	C	N3-C4-N4	6.10	122.27	118.00
1	1G	45	U	C5-C6-N1	-6.10	119.65	122.70
26	14	2066	C	OP1-P-O3'	6.10	118.62	105.20
26	1H	1602	U	N3-C2-O2	-6.10	117.93	122.20
26	1H	2726	U	C5-C6-N1	-6.10	119.65	122.70
27	16	41	U	C5-C6-N1	-6.10	119.65	122.70
26	14	2038	G	N9-C4-C5	-6.10	102.96	105.40
26	14	1899	G	C5-C6-N1	-6.10	108.45	111.50
26	14	2318	G	C6-C5-N7	-6.10	126.74	130.40
26	1H	589	C	O5'-P-OP2	-6.09	100.22	105.70
26	1H	1825	A	N1-C6-N6	-6.09	114.94	118.60
26	14	2713	A	C6-C5-N7	-6.09	128.03	132.30
26	1H	122	G	N1-C6-O6	6.09	123.56	119.90
1	1G	913	A	P-O3'-C3'	6.09	127.01	119.70
26	14	238	C	N1-C2-O2	-6.09	115.25	118.90
26	14	2508	G	C8-N9-C4	-6.09	103.96	106.40
26	1H	2023	G	N1-C2-N2	6.09	121.68	116.20
26	1H	617	G	C8-N9-C4	6.09	108.83	106.40
1	1G	25	C	O5'-P-OP2	-6.08	100.22	105.70
26	14	307	G	O5'-P-OP2	-6.08	100.22	105.70
26	1H	629	G	N3-C2-N2	6.08	124.16	119.90
26	14	621	A	N3-C4-C5	6.08	131.06	126.80
1	1G	504	C	N1-C2-O2	-6.08	115.25	118.90
26	1H	70	G	C5-C6-O6	6.08	132.25	128.60
26	1H	141	A	O5'-P-OP2	-6.08	100.23	105.70
26	14	1475	G	C8-N9-C4	-6.08	103.97	106.40
1	13	1299	A	C6-C5-N7	-6.07	128.05	132.30
26	1H	120	U	C6-N1-C1'	-6.07	112.70	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	197	A	OP2-P-O3'	6.07	118.56	105.20
26	1H	258	G	C5-C6-O6	6.07	132.24	128.60
23	2L	6	G	C8-N9-C4	6.07	108.83	106.40
26	14	2335	A	O4'-C1'-N9	6.07	113.06	108.20
26	14	2516	G	OP2-P-O3'	6.07	118.56	105.20
26	1H	1662	C	C2-N1-C1'	-6.07	112.12	118.80
26	14	2712	U	O4'-C1'-N1	6.07	113.06	108.20
1	13	575	G	O4'-C1'-N9	-6.07	103.35	108.20
26	1H	508	G	N3-C4-N9	6.07	129.64	126.00
26	1H	739	G	C8-N9-C4	6.07	108.83	106.40
26	1H	940	G	OP2-P-O3'	6.07	118.54	105.20
26	14	2392	A	C5-N7-C8	-6.06	100.87	103.90
1	13	108	G	C5-N7-C8	-6.06	101.27	104.30
26	1H	205	G	N7-C8-N9	-6.06	110.07	113.10
26	1H	847	U	C4-C5-C6	6.06	123.34	119.70
26	1H	183	C	N3-C2-O2	-6.06	117.66	121.90
26	1H	775	G	N3-C2-N2	6.06	124.14	119.90
26	1H	2467	C	O5'-P-OP1	6.06	117.97	110.70
26	14	773	U	N3-C2-O2	-6.06	117.96	122.20
26	14	2689	U	P-O3'-C3'	6.06	126.97	119.70
26	1H	1790	C	C5-C6-N1	-6.06	117.97	121.00
26	14	2073	C	N1-C2-O2	-6.06	115.27	118.90
26	14	1311	G	O5'-P-OP2	-6.05	100.25	105.70
26	14	832	G	N3-C2-N2	-6.05	115.66	119.90
26	14	1806	C	O5'-P-OP1	-6.05	100.25	105.70
26	1H	2591	C	C5-C4-N4	-6.05	115.97	120.20
1	1G	1519	A	C5-C6-N6	6.05	128.54	123.70
26	14	774	A	C6-N1-C2	6.05	122.23	118.60
36	35	46	LYS	C-N-CA	-6.05	106.59	121.70
26	14	856	C	O5'-P-OP1	-6.04	100.26	105.70
26	14	1673	U	C2-N1-C1'	-6.04	110.45	117.70
26	1H	113	G	N3-C2-N2	-6.04	115.67	119.90
26	1H	845	G	C4-N9-C1'	-6.04	118.65	126.50
26	1H	1573	G	OP1-P-O3'	-6.04	91.91	105.20
26	1H	1792	G	N1-C6-O6	-6.04	116.28	119.90
1	1G	932	C	N1-C2-O2	6.04	122.52	118.90
26	1H	330	A	N3-C4-C5	6.03	131.02	126.80
26	1H	577	G	C8-N9-C4	6.03	108.81	106.40
26	14	1145	C	C6-N1-C2	-6.03	117.89	120.30
22	1L	69	C	P-O3'-C3'	6.03	126.94	119.70
26	1H	37	C	N1-C2-O2	6.03	122.52	118.90
26	1H	1257	C	C4-C5-C6	6.03	120.41	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2689	U	C6-N1-C1'	6.03	129.64	121.20
26	14	988	A	N1-C6-N6	6.03	122.22	118.60
27	1J	103	U	C5-C6-N1	-6.03	119.69	122.70
26	1H	463	G	N3-C2-N2	6.02	124.12	119.90
26	1H	698	C	C4-C5-C6	6.02	120.41	117.40
26	14	2526	G	N3-C4-C5	6.02	131.61	128.60
1	13	966	G	N9-C4-C5	-6.02	102.99	105.40
22	1K	48	C	N1-C2-O2	6.02	122.51	118.90
26	1H	1941	C	N1-C2-O2	-6.02	115.29	118.90
26	14	2284	C	N1-C2-O2	-6.02	115.29	118.90
26	1H	1229(A)	G	C2-N3-C4	-6.02	108.89	111.90
26	14	741	G	N3-C2-N2	-6.02	115.69	119.90
26	1H	1534	G	N3-C4-N9	6.01	129.61	126.00
27	16	100	G	N7-C8-N9	-6.01	110.09	113.10
26	14	1759	A	C2-N3-C4	-6.01	107.59	110.60
26	1H	2261	C	N1-C2-O2	-6.01	115.29	118.90
26	14	656	G	N1-C6-O6	6.01	123.51	119.90
26	14	774	A	C8-N9-C1'	6.01	138.52	127.70
26	14	1241	A	O4'-C1'-N9	6.01	113.01	108.20
26	14	2250	G	OP1-P-OP2	6.01	128.62	119.60
26	14	2324	C	C5-C4-N4	-6.01	115.99	120.20
26	1H	945	A	OP2-P-O3'	6.01	118.42	105.20
26	1H	1261	C	N3-C4-C5	6.01	124.30	121.90
26	1H	1914	C	N3-C4-N4	-6.01	113.80	118.00
26	1H	2083	G	N1-C6-O6	6.01	123.50	119.90
26	14	503	A	N1-C6-N6	-6.01	115.00	118.60
1	13	572	A	N7-C8-N9	-6.00	110.80	113.80
1	13	108	G	O4'-C1'-N9	6.00	113.00	108.20
26	1H	736	C	N3-C2-O2	6.00	126.10	121.90
1	13	690	G	C5-C6-O6	-6.00	125.00	128.60
1	13	1113	C	C6-N1-C2	-6.00	117.90	120.30
1	13	1432	G	N3-C2-N2	6.00	124.10	119.90
26	1H	491	G	O5'-P-OP1	-6.00	100.30	105.70
26	14	1475	G	N7-C8-N9	6.00	116.10	113.10
26	1H	193	U	C4-C5-C6	6.00	123.30	119.70
26	1H	2262	U	N1-C2-N3	6.00	118.50	114.90
26	14	774	A	C4-C5-C6	-6.00	114.00	117.00
26	14	1202	C	C5-C6-N1	-6.00	118.00	121.00
26	14	1350	C	O5'-P-OP1	-6.00	100.30	105.70
26	1H	1506	C	N1-C2-O2	6.00	122.50	118.90
26	1H	2238	G	O5'-P-OP2	-6.00	100.30	105.70
26	14	2446	G	N3-C2-N2	6.00	124.10	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1325	G	C6-C5-N7	-5.99	126.80	130.40
26	1H	1396	U	C5-C4-O4	5.99	129.50	125.90
26	14	2067	G	C5-N7-C8	5.99	107.30	104.30
27	1J	44	G	C6-C5-N7	5.99	134.00	130.40
1	13	108	G	C4-C5-N7	5.99	113.20	110.80
26	1H	805	G	N1-C6-O6	5.99	123.50	119.90
26	1H	2035	G	O4'-C1'-N9	5.99	112.99	108.20
26	1H	2601	C	N3-C2-O2	-5.99	117.71	121.90
26	14	2075	U	N3-C2-O2	-5.99	118.01	122.20
26	1H	1601	G	OP1-P-O3'	5.99	118.37	105.20
26	1H	1623	G	N1-C6-O6	-5.99	116.31	119.90
18	9A	26	LEU	CA-CB-CG	5.99	129.07	115.30
26	1H	1775	U	O5'-P-OP2	-5.98	100.32	105.70
26	1H	2445	G	N7-C8-N9	5.98	116.09	113.10
1	1G	46	G	N1-C6-O6	5.98	123.49	119.90
26	1H	2499	C	O5'-P-OP1	5.98	117.88	110.70
26	14	2163	C	N1-C2-O2	5.98	122.49	118.90
26	14	808	G	N3-C4-N9	5.98	129.59	126.00
26	1H	1839	G	N9-C4-C5	-5.98	103.01	105.40
26	1H	2385	C	C2-N3-C4	-5.98	116.91	119.90
26	1H	1633	G	C5-C6-O6	-5.98	125.02	128.60
26	14	1385	G	O4'-C1'-N9	5.98	112.98	108.20
24	3K	50	G	N3-C4-C5	-5.97	125.61	128.60
26	1H	1210	A	C2-N3-C4	-5.97	107.61	110.60
26	1H	593	G	N9-C4-C5	-5.97	103.01	105.40
26	1H	2763	G	C4-C5-N7	5.97	113.19	110.80
26	14	1638	C	N3-C4-N4	-5.97	113.82	118.00
26	14	2875	C	C6-N1-C2	5.97	122.69	120.30
26	1H	1931	U	N1-C2-O2	5.97	126.98	122.80
26	1H	452	G	C6-C5-N7	5.97	133.98	130.40
26	1H	1440	G	C8-N9-C4	5.97	108.79	106.40
26	1H	47	C	C2-N3-C4	-5.97	116.92	119.90
26	1H	804	A	N7-C8-N9	-5.97	110.82	113.80
26	1H	2426	A	N7-C8-N9	5.97	116.78	113.80
26	1H	860	U	C2-N1-C1'	5.97	124.86	117.70
26	14	451	C	C6-N1-C2	5.97	122.69	120.30
26	14	627	A	N1-C6-N6	5.97	122.18	118.60
26	1H	858	U	O5'-P-OP2	-5.96	100.33	105.70
26	1H	1939	U	C5-C4-O4	-5.96	122.32	125.90
26	1H	2501	C	N3-C4-N4	-5.96	113.83	118.00
26	14	2067	G	O5'-P-OP1	-5.96	100.33	105.70
46	D5	59	LEU	CA-CB-CG	5.96	129.02	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3K	48	C	N3-C2-O2	-5.96	117.73	121.90
26	1H	2311	A	O4'-C1'-N9	5.96	112.97	108.20
26	1H	144	C	C5-C6-N1	-5.96	118.02	121.00
26	1H	2710	C	C6-N1-C2	5.96	122.68	120.30
26	14	184	C	C6-N1-C2	5.96	122.68	120.30
26	14	201	C	C6-N1-C2	5.96	122.68	120.30
26	14	1787	A	C5-C6-N6	-5.96	118.93	123.70
26	1H	1395	A	C8-N9-C4	5.96	108.18	105.80
26	1H	2311	A	N1-C6-N6	5.96	122.17	118.60
26	14	1698	A	N9-C4-C5	-5.96	103.42	105.80
26	1H	2394	C	O5'-P-OP2	-5.95	100.34	105.70
26	14	1308	A	C5-C6-N6	5.95	128.46	123.70
26	14	2595	G	C4-C5-C6	-5.95	115.23	118.80
26	14	2033	A	C2-N3-C4	5.95	113.58	110.60
26	1H	463	G	C8-N9-C4	5.95	108.78	106.40
26	1H	508	G	C5-N7-C8	-5.95	101.32	104.30
26	1H	861	A	C8-N9-C4	5.95	108.18	105.80
26	1H	1021	A	N3-C4-N9	-5.95	122.64	127.40
26	1H	2304	G	N3-C4-N9	-5.95	122.43	126.00
26	1H	989	G	N3-C2-N2	-5.95	115.74	119.90
26	1H	1586	A	N7-C8-N9	5.95	116.77	113.80
26	1H	1836	C	C2-N3-C4	5.95	122.87	119.90
26	14	270(Y)	G	C5-C6-O6	5.95	132.17	128.60
26	14	1283	G	O5'-P-OP2	-5.95	100.35	105.70
26	14	1332	G	N3-C4-C5	5.95	131.57	128.60
26	14	2364	C	O5'-P-OP2	-5.95	100.35	105.70
26	1H	1365	A	N1-C2-N3	5.94	132.27	129.30
26	1H	2439	A	C4-C5-N7	5.94	113.67	110.70
26	1H	265	A	N1-C6-N6	5.94	122.17	118.60
1	1G	266	G	N3-C4-C5	-5.94	125.63	128.60
23	2K	27	G	N3-C2-N2	-5.94	115.74	119.90
26	1H	481	G	C5-C6-O6	-5.94	125.04	128.60
26	1H	1759	A	N1-C6-N6	5.94	122.16	118.60
26	1H	2411	A	O5'-P-OP1	-5.94	100.36	105.70
26	14	1558	A	C5-C6-N1	-5.94	114.73	117.70
26	14	733	G	N1-C2-N2	-5.94	110.86	116.20
26	14	2688	U	N1-C2-O2	5.94	126.96	122.80
26	14	1924	C	C5-C4-N4	-5.94	116.05	120.20
26	1H	755	C	N3-C4-C5	-5.93	119.53	121.90
1	1G	266	G	C2-N3-C4	5.93	114.87	111.90
26	14	1930	G	C4-N9-C1'	-5.93	118.79	126.50
26	14	2580	U	C5-C4-O4	-5.93	122.34	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2598	A	N9-C4-C5	-5.93	103.43	105.80
26	1H	2869	G	C8-N9-C4	-5.93	104.03	106.40
39	A8	101	LEU	CA-CB-CG	5.93	128.94	115.30
1	13	1233	G	N1-C6-O6	-5.93	116.34	119.90
1	13	1519	A	C8-N9-C4	-5.93	103.43	105.80
1	1G	115	G	P-O3'-C3'	5.93	126.82	119.70
1	13	1512	U	C5-C6-N1	-5.93	119.73	122.70
1	1G	1301	U	N3-C2-O2	-5.93	118.05	122.20
26	14	1610	A	N9-C4-C5	-5.93	103.43	105.80
26	1H	827	U	O5'-P-OP2	-5.93	100.37	105.70
1	1G	413	G	C6-C5-N7	5.93	133.96	130.40
1	13	346	G	N7-C8-N9	5.92	116.06	113.10
26	1H	723	G	N9-C4-C5	-5.92	103.03	105.40
26	1H	1619	G	O5'-P-OP2	-5.92	100.37	105.70
26	1H	1959	G	OP2-P-O3'	5.92	118.23	105.20
26	14	446	G	N1-C6-O6	5.92	123.45	119.90
26	1H	2277	G	N1-C6-O6	-5.92	116.35	119.90
26	1H	1776	G	N3-C4-N9	5.92	129.55	126.00
26	1H	37	C	O5'-P-OP2	-5.92	100.37	105.70
26	1H	577	G	O5'-P-OP2	5.92	117.80	110.70
26	14	1786	A	N3-C4-C5	5.92	130.94	126.80
26	14	2256	G	N1-C2-N2	-5.92	110.88	116.20
1	13	903	G	O5'-P-OP2	-5.92	100.38	105.70
26	1H	16	G	N3-C2-N2	-5.91	115.76	119.90
49	K8	3	LEU	C-N-CA	5.91	136.48	121.70
26	14	270(K)	C	C2-N1-C1'	5.91	125.30	118.80
26	14	2061	G	N9-C4-C5	-5.91	103.03	105.40
26	1H	247	G	C8-N9-C4	5.91	108.76	106.40
26	1H	2602	A	C2-N3-C4	5.91	113.56	110.60
26	14	1299	G	O5'-P-OP2	5.91	117.79	110.70
26	14	1520	U	C5-C4-O4	5.91	129.45	125.90
26	1H	1534	G	C4-N9-C1'	5.91	134.18	126.50
26	14	1342	A	O4'-C1'-N9	5.91	112.93	108.20
26	14	1762	A	C2-N3-C4	-5.91	107.64	110.60
26	14	2386	C	C6-N1-C2	5.91	122.66	120.30
26	14	2453	A	N1-C6-N6	5.91	122.15	118.60
1	13	975	A	C4-C5-N7	5.91	113.65	110.70
26	1H	1340	U	N3-C2-O2	5.91	126.33	122.20
26	1H	758	C	O5'-P-OP2	-5.91	100.39	105.70
26	14	774	A	C4-N9-C1'	-5.91	115.67	126.30
26	1H	772	C	C6-N1-C2	5.90	122.66	120.30
22	1L	56	C	C6-N1-C2	-5.90	117.94	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1939	U	N3-C4-C5	5.90	118.14	114.60
26	14	621	A	N7-C8-N9	5.90	116.75	113.80
26	1H	1914	C	N1-C2-O2	5.90	122.44	118.90
26	1H	528	A	C8-N9-C1'	5.89	138.31	127.70
26	1H	796	C	N3-C4-C5	5.89	124.26	121.90
26	1H	858	U	N1-C2-O2	5.89	126.93	122.80
26	1H	1980	G	N3-C4-C5	-5.89	125.65	128.60
26	1H	2250	G	OP1-P-OP2	5.89	128.44	119.60
26	1H	2469	A	C2-N3-C4	-5.89	107.65	110.60
26	14	1673	U	C6-N1-C2	5.89	124.54	121.00
26	14	242	G	C4-N9-C1'	-5.89	118.84	126.50
1	13	765	G	N9-C4-C5	-5.89	103.04	105.40
24	3K	2	C	C5-C6-N1	5.89	123.94	121.00
26	1H	726	G	O4'-C1'-N9	5.89	112.91	108.20
26	14	1771	C	C5-C6-N1	-5.89	118.06	121.00
26	1H	1586	A	C6-C5-N7	-5.89	128.18	132.30
26	14	1558	A	P-O3'-C3'	5.89	126.76	119.70
1	13	518	C	N3-C4-C5	5.88	124.25	121.90
26	1H	951	C	N3-C4-C5	5.88	124.25	121.90
26	14	1924	C	N1-C2-O2	-5.88	115.37	118.90
26	14	2163	C	N3-C2-O2	-5.88	117.78	121.90
27	16	12	C	N3-C2-O2	-5.88	117.78	121.90
26	1H	238	C	C5-C6-N1	-5.88	118.06	121.00
26	1H	2244	U	N3-C2-O2	-5.88	118.08	122.20
26	1H	2807	G	N3-C4-C5	-5.88	125.66	128.60
1	1G	483	C	C6-N1-C2	5.88	122.65	120.30
26	1H	2508	G	C6-C5-N7	5.88	133.93	130.40
26	1H	829	A	C2-N3-C4	-5.88	107.66	110.60
26	1H	1698	A	C4-C5-N7	5.88	113.64	110.70
26	1H	2013	A	N1-C6-N6	-5.88	115.07	118.60
26	1H	2618	G	N9-C4-C5	5.88	107.75	105.40
1	13	601	C	C6-N1-C2	-5.88	117.95	120.30
26	1H	192	C	C5-C6-N1	-5.88	118.06	121.00
41	C8	74	LEU	CA-CB-CG	5.88	128.81	115.30
26	1H	824	A	N1-C6-N6	-5.87	115.08	118.60
26	1H	1948	G	C6-C5-N7	5.87	133.92	130.40
26	1H	2323	G	C8-N9-C4	5.87	108.75	106.40
26	1H	1948	G	C5-C6-O6	5.87	132.12	128.60
26	14	2071	A	N1-C6-N6	-5.87	115.08	118.60
1	1G	108	G	C4-C5-N7	5.87	113.15	110.80
1	13	540	G	O5'-P-OP2	-5.87	100.42	105.70
26	1H	375	C	N3-C2-O2	-5.87	117.79	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2424	C	C6-N1-C2	5.87	122.65	120.30
26	1H	1630	G	O5'-P-OP1	-5.87	100.42	105.70
26	14	2401	U	O5'-P-OP1	-5.87	100.42	105.70
26	1H	248	G	C5-N7-C8	5.86	107.23	104.30
26	1H	664	C	C6-N1-C2	5.86	122.64	120.30
26	14	2596	U	OP1-P-OP2	5.86	128.39	119.60
1	13	780	A	C2-N3-C4	-5.86	107.67	110.60
1	13	1434	A	C8-N9-C4	5.86	108.14	105.80
26	1H	99	U	N3-C2-O2	-5.86	118.10	122.20
26	1H	1882	C	C2-N1-C1'	5.86	125.25	118.80
26	1H	2269	A	C2-N3-C4	-5.86	107.67	110.60
26	1H	2458	G	N3-C2-N2	-5.86	115.80	119.90
26	14	126	A	OP2-P-O3'	5.86	118.09	105.20
26	1H	49	A	C5-N7-C8	5.86	106.83	103.90
39	A8	9	ARG	NE-CZ-NH1	-5.86	117.37	120.30
34	58	76	SER	C-N-CA	-5.86	110.00	122.30
26	1H	2544	G	C5-C6-O6	-5.86	125.09	128.60
26	14	1379	A	N1-C6-N6	5.86	122.11	118.60
26	1H	2498	C	N3-C4-C5	5.85	124.24	121.90
26	1H	2574	G	C5-C6-N1	5.85	114.43	111.50
1	1G	1200	C	C2-N1-C1'	5.85	125.24	118.80
26	14	1962	C	C6-N1-C1'	-5.85	113.78	120.80
26	1H	2351	G	C5-C6-O6	-5.85	125.09	128.60
27	16	44	G	C4-N9-C1'	-5.85	118.89	126.50
26	1H	463	G	N1-C2-N2	-5.85	110.93	116.20
26	14	82	G	C8-N9-C4	5.85	108.74	106.40
26	14	47	C	OP2-P-O3'	5.85	118.07	105.20
26	14	729	G	N1-C2-N2	5.85	121.47	116.20
1	13	1511	G	N3-C2-N2	5.85	123.99	119.90
26	1H	684	G	C8-N9-C4	-5.85	104.06	106.40
26	1H	801	G	C2-N3-C4	-5.85	108.98	111.90
26	1H	2062	A	N1-C6-N6	-5.85	115.09	118.60
26	14	1940	U	N1-C2-O2	-5.85	118.71	122.80
26	14	2873	A	O4'-C1'-N9	5.85	112.88	108.20
1	13	1404	C	C4-C5-C6	-5.84	114.48	117.40
1	13	1533	C	C2-N1-C1'	5.84	125.23	118.80
26	1H	1379	A	C6-C5-N7	-5.84	128.21	132.30
26	1H	1673	U	C6-N1-C2	5.84	124.51	121.00
26	14	791	C	C6-N1-C2	5.84	122.64	120.30
27	1J	79	C	OP2-P-O3'	5.84	118.05	105.20
26	1H	2068	U	OP1-P-O3'	5.84	118.05	105.20
25	4L	23	A	OP1-P-O3'	5.84	118.05	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	121	G	C6-C5-N7	-5.84	126.90	130.40
26	14	786	C	C2-N1-C1'	-5.84	112.38	118.80
1	13	1533	C	N1-C2-O2	5.84	122.40	118.90
26	1H	207	A	C4-C5-N7	5.84	113.62	110.70
26	1H	2145	C	C6-N1-C2	-5.84	117.97	120.30
26	14	910	A	N1-C6-N6	5.84	122.10	118.60
26	14	2592	G	N3-C4-N9	5.84	129.50	126.00
26	14	2615	U	C4-C5-C6	-5.84	116.20	119.70
26	1H	789	A	O4'-C1'-N9	-5.83	103.53	108.20
26	1H	2602	A	N1-C6-N6	-5.83	115.10	118.60
1	13	888	G	N9-C4-C5	-5.83	103.07	105.40
26	1H	2469	A	C5-N7-C8	-5.83	100.98	103.90
26	1H	2826	A	C8-N9-C4	5.83	108.13	105.80
55	3L	76	A	O4'-C1'-N9	5.83	112.87	108.20
1	13	1326	C	O5'-P-OP2	-5.83	100.45	105.70
1	13	1490	C	OP2-P-O3'	5.83	118.03	105.20
26	1H	932	G	C8-N9-C4	-5.83	104.07	106.40
26	1H	1510	A	C2-N3-C4	5.83	113.52	110.60
26	1H	1828	G	O5'-P-OP1	-5.83	100.45	105.70
26	1H	2145	C	O4'-C1'-N1	5.83	112.86	108.20
26	1H	1769	G	O5'-P-OP2	-5.83	100.45	105.70
26	14	320	A	O5'-P-OP2	-5.83	100.45	105.70
26	14	2053	G	C8-N9-C4	5.83	108.73	106.40
26	14	1516	U	N1-C2-O2	5.83	126.88	122.80
26	14	2082	A	O5'-P-OP1	5.83	117.69	110.70
26	1H	627	A	C8-N9-C4	5.83	108.13	105.80
26	1H	987	G	O5'-P-OP2	5.83	117.69	110.70
26	14	689	A	N1-C6-N6	-5.83	115.10	118.60
26	1H	602	G	N3-C4-N9	5.82	129.49	126.00
26	1H	2226	C	C6-N1-C2	5.82	122.63	120.30
26	14	141	A	C4-C5-N7	5.82	113.61	110.70
26	14	2339	G	O5'-P-OP2	-5.82	100.46	105.70
26	1H	1394	U	OP1-P-OP2	-5.82	110.87	119.60
26	1H	1778	U	OP2-P-O3'	5.82	118.01	105.20
26	1H	2276	G	O5'-P-OP1	-5.82	100.46	105.70
26	14	583	G	C2-N3-C4	-5.82	108.99	111.90
26	14	2003	G	C5-C6-O6	-5.82	125.11	128.60
26	14	2526	G	N3-C4-N9	-5.82	122.51	126.00
26	1H	1382	G	C5-N7-C8	-5.82	101.39	104.30
26	14	1787	A	C4-C5-N7	5.82	113.61	110.70
26	1H	966	G	N3-C2-N2	5.82	123.97	119.90
26	1H	1700	A	OP1-P-OP2	5.82	128.33	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1634	A	OP2-P-O3'	5.82	118.00	105.20
26	1H	2307	G	C5-N7-C8	-5.82	101.39	104.30
27	16	14	U	OP1-P-OP2	5.82	128.32	119.60
26	14	71	A	P-O3'-C3'	5.82	126.68	119.70
26	14	1681	G	N3-C4-C5	5.82	131.51	128.60
26	14	2382	G	O5'-P-OP2	-5.82	100.47	105.70
26	1H	128	C	N3-C4-C5	5.82	124.23	121.90
26	1H	575	A	O5'-P-OP1	-5.82	100.47	105.70
26	1H	1818	U	O5'-P-OP2	-5.82	100.47	105.70
26	1H	2424	C	C4-C5-C6	-5.82	114.49	117.40
1	1G	1139	G	C5-N7-C8	5.82	107.21	104.30
26	14	2818	G	C8-N9-C4	5.82	108.73	106.40
26	14	1418	G	C5-C6-O6	-5.81	125.11	128.60
26	14	2033	A	C6-N1-C2	-5.81	115.11	118.60
26	14	2430	A	C4-C5-C6	5.81	119.91	117.00
1	13	1407	C	C4-C5-C6	-5.81	114.50	117.40
26	1H	532	A	C5-N7-C8	-5.81	101.00	103.90
26	1H	1983	C	C6-N1-C2	5.81	122.62	120.30
26	1H	2395	C	O5'-P-OP1	5.81	117.67	110.70
1	1G	18	C	O5'-P-OP1	-5.81	100.47	105.70
1	1G	1520	G	O5'-P-OP2	-5.81	100.47	105.70
26	14	453	C	N3-C4-C5	5.81	124.22	121.90
26	14	1819	A	P-O3'-C3'	5.81	126.67	119.70
26	14	2217	G	C4-C5-N7	5.81	113.12	110.80
26	14	2255	G	N1-C6-O6	-5.81	116.41	119.90
26	1H	2053	G	O5'-P-OP2	-5.81	100.47	105.70
26	14	1619	G	O5'-P-OP2	-5.81	100.47	105.70
26	14	1785	A	C8-N9-C4	-5.81	103.48	105.80
1	1G	697	U	C6-N1-C2	5.81	124.48	121.00
26	14	2430	A	C5-N7-C8	-5.81	101.00	103.90
1	13	295	C	O5'-P-OP2	-5.80	100.48	105.70
26	1H	845	G	C8-N9-C1'	5.80	134.55	127.00
26	14	2377	A	C8-N9-C4	5.80	108.12	105.80
26	1H	1970	A	O4'-C1'-N9	-5.80	103.56	108.20
26	1H	1980	G	C4-C5-N7	-5.80	108.48	110.80
1	1G	413	G	C4-N9-C1'	-5.80	118.96	126.50
26	1H	1251	C	N1-C2-O2	5.80	122.38	118.90
26	14	1342	A	N1-C6-N6	5.80	122.08	118.60
26	14	1379	A	C8-N9-C4	-5.80	103.48	105.80
26	14	1437	C	C6-N1-C2	-5.80	117.98	120.30
26	1H	755	C	C4-C5-C6	5.80	120.30	117.40
26	1H	845	G	OP1-P-O3'	5.80	117.96	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	122	G	C8-N9-C4	5.80	108.72	106.40
26	1H	868	U	N3-C2-O2	-5.80	118.14	122.20
26	14	2732	G	N1-C6-O6	-5.80	116.42	119.90
26	14	2820	A	P-O3'-C3'	5.80	126.66	119.70
26	14	1681	G	C5-N7-C8	-5.79	101.40	104.30
26	1H	1799	G	P-O3'-C3'	5.79	126.65	119.70
26	1H	2258	C	N3-C4-N4	5.79	122.06	118.00
26	1H	2346	A	C6-C5-N7	-5.79	128.24	132.30
26	14	640	C	N1-C2-O2	5.79	122.38	118.90
1	1G	1198	G	O5'-P-OP1	-5.79	100.49	105.70
26	1H	1797	C	C5-C4-N4	-5.79	116.15	120.20
26	1H	2463	C	N3-C4-N4	-5.79	113.95	118.00
26	14	2446	G	N1-C6-O6	-5.79	116.43	119.90
1	13	791	G	C8-N9-C4	5.79	108.72	106.40
26	1H	1385	G	O4'-C1'-N9	5.79	112.83	108.20
26	14	786	C	OP2-P-O3'	5.79	117.94	105.20
1	13	320	C	C6-N1-C2	5.79	122.61	120.30
26	1H	47	C	C5-C4-N4	-5.79	116.15	120.20
26	1H	193	U	C2-N3-C4	-5.79	123.53	127.00
26	1H	577	G	OP1-P-OP2	-5.79	110.92	119.60
26	1H	1248	G	C5-C6-N1	-5.79	108.61	111.50
26	1H	2307	G	C4-N9-C1'	5.79	134.02	126.50
26	1H	445	C	C6-N1-C2	-5.78	117.99	120.30
26	14	1642	G	OP2-P-O3'	5.78	117.92	105.20
26	14	1819	A	N1-C6-N6	-5.78	115.13	118.60
26	14	2280	G	C5-C6-O6	-5.78	125.13	128.60
1	1G	87	A	P-O3'-C3'	5.78	126.64	119.70
1	13	834	C	O5'-P-OP2	-5.78	100.50	105.70
26	14	990	A	C5-N7-C8	-5.78	101.01	103.90
1	13	1058	G	C8-N9-C4	5.78	108.71	106.40
26	1H	129	C	C5-C4-N4	-5.78	116.16	120.20
26	1H	530	G	C4-C5-C6	-5.78	115.33	118.80
26	14	2463	C	C5-C6-N1	-5.78	118.11	121.00
26	14	2318	G	C4-N9-C1'	5.77	134.00	126.50
26	14	2446	G	OP2-P-O3'	5.77	117.90	105.20
26	1H	2329	G	N3-C4-N9	-5.77	122.54	126.00
26	14	270(K)	C	N1-C2-O2	5.77	122.36	118.90
1	13	523	A	N9-C4-C5	-5.77	103.49	105.80
24	3K	76	A	O4'-C1'-N9	5.77	112.81	108.20
26	1H	458	G	O4'-C1'-N9	5.77	112.81	108.20
26	14	2287	A	N3-C4-C5	5.77	130.84	126.80
26	14	2518	A	N1-C6-N6	5.77	122.06	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	888	G	C5-C6-O6	-5.77	125.14	128.60
26	1H	99	U	C2-N1-C1'	5.77	124.62	117.70
26	14	1673	U	C5-C6-N1	-5.77	119.82	122.70
26	1H	733	G	N7-C8-N9	-5.77	110.22	113.10
26	14	1567	A	OP1-P-O3'	5.77	117.89	105.20
26	14	1925	C	N1-C2-O2	-5.77	115.44	118.90
26	14	729	G	N3-C2-N2	-5.76	115.86	119.90
26	1H	734	A	OP1-P-OP2	5.76	128.25	119.60
26	14	733	G	N3-C4-N9	5.76	129.46	126.00
26	14	1673	U	N1-C2-O2	-5.76	118.77	122.80
1	1G	117	G	C6-C5-N7	-5.76	126.94	130.40
26	14	74	A	C4-C5-N7	5.76	113.58	110.70
26	1H	2246	G	OP1-P-O3'	5.76	117.87	105.20
26	1H	2688	U	N1-C2-O2	5.76	126.83	122.80
26	1H	302	C	N1-C2-O2	5.76	122.35	118.90
26	1H	915	C	N3-C2-O2	-5.76	117.87	121.90
26	1H	2275	C	C6-N1-C2	-5.76	118.00	120.30
26	14	195	A	N1-C6-N6	5.76	122.05	118.60
27	16	101	A	C8-N9-C4	5.75	108.10	105.80
26	1H	1258	C	OP2-P-O3'	5.75	117.86	105.20
26	1H	2393	A	N1-C2-N3	5.75	132.18	129.30
26	14	796	C	C2-N3-C4	-5.75	117.02	119.90
26	14	1396	U	N1-C2-O2	5.75	126.83	122.80
26	1H	814	C	C6-N1-C2	5.75	122.60	120.30
26	1H	869	G	N3-C2-N2	5.75	123.93	119.90
26	1H	1379	A	C4-C5-N7	5.75	113.58	110.70
26	1H	1700	A	O5'-P-OP2	-5.75	100.52	105.70
26	14	1302	A	OP1-P-OP2	5.75	128.23	119.60
9	8E	50	LEU	CA-CB-CG	5.75	128.53	115.30
42	D8	18	LEU	CA-CB-CG	5.75	128.53	115.30
1	1G	186	C	C6-N1-C2	-5.75	118.00	120.30
26	1H	606	U	O5'-P-OP2	-5.75	100.53	105.70
26	14	1300	U	O5'-P-OP1	5.75	117.60	110.70
27	1J	89	G	N3-C4-N9	5.75	129.45	126.00
1	13	738	C	C5-C6-N1	5.75	123.87	121.00
26	14	200	U	O5'-P-OP1	-5.75	100.53	105.70
26	14	735	A	C8-N9-C4	5.75	108.10	105.80
27	16	102	G	N3-C4-N9	-5.75	122.55	126.00
1	13	1397	C	O4'-C1'-N1	5.74	112.80	108.20
26	1H	250	G	C8-N9-C4	-5.74	104.10	106.40
26	1H	696	G	C8-N9-C4	5.74	108.70	106.40
26	1H	1792	G	C5-C6-O6	5.74	132.05	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2318	G	N7-C8-N9	5.74	115.97	113.10
27	16	15	A	C5-N7-C8	-5.74	101.03	103.90
1	1G	250	A	P-O3'-C3'	5.74	126.59	119.70
23	2L	21	U	C6-N1-C2	-5.74	117.55	121.00
26	14	2261	C	O5'-P-OP2	-5.74	100.53	105.70
1	13	690	G	C8-N9-C1'	-5.74	119.54	127.00
1	13	1158	C	C6-N1-C1'	-5.74	113.91	120.80
26	1H	945	A	O4'-C1'-N9	5.74	112.79	108.20
27	16	80	U	N3-C2-O2	-5.74	118.18	122.20
26	14	1666	G	N1-C6-O6	-5.74	116.46	119.90
26	14	2070	G	C5-C6-O6	5.74	132.04	128.60
26	1H	801	G	N1-C2-N3	5.74	127.34	123.90
26	14	1423	G	C8-N9-C4	5.74	108.69	106.40
26	1H	70	G	N1-C6-O6	-5.74	116.46	119.90
26	1H	1429	G	C5-C6-O6	5.74	132.04	128.60
26	14	2489	G	OP2-P-O3'	5.74	117.82	105.20
26	14	2077	A	C2-N3-C4	-5.73	107.73	110.60
26	1H	2700	C	C2-N3-C4	-5.73	117.03	119.90
27	16	44	G	C4-C5-N7	-5.73	108.51	110.80
1	1G	1200	C	N3-C2-O2	-5.73	117.89	121.90
26	1H	575	A	N9-C4-C5	-5.73	103.51	105.80
26	1H	689	A	C2-N3-C4	-5.73	107.74	110.60
26	1H	2618	G	C5-C6-O6	5.73	132.04	128.60
1	1G	360	A	C8-N9-C4	5.73	108.09	105.80
26	1H	868	U	C5-C4-O4	5.73	129.34	125.90
26	1H	2346	A	N3-C4-N9	-5.73	122.82	127.40
1	1G	1281	U	N1-C2-O2	5.73	126.81	122.80
26	14	516	C	C6-N1-C2	5.73	122.59	120.30
26	1H	616	A	OP2-P-O3'	5.72	117.80	105.20
1	13	1518	A	C5-C6-N6	5.72	128.28	123.70
26	1H	1671	U	C5-C4-O4	-5.72	122.47	125.90
26	14	1309	G	N1-C6-O6	5.72	123.33	119.90
26	14	1496	A	O4'-C1'-N9	5.72	112.78	108.20
26	14	2056	G	OP1-P-O3'	5.72	117.79	105.20
26	1H	1618	A	O5'-P-OP2	5.72	117.57	110.70
26	1H	576	U	N1-C2-O2	5.72	126.80	122.80
26	1H	735	A	N7-C8-N9	-5.72	110.94	113.80
27	16	81	G	N7-C8-N9	5.72	115.96	113.10
26	14	673	C	O5'-P-OP1	5.72	117.56	110.70
26	1H	723	G	N3-C4-N9	5.71	129.43	126.00
26	1H	2271	G	N3-C2-N2	5.71	123.90	119.90
26	1H	238	C	C4-C5-C6	5.71	120.26	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	609	A	N1-C6-N6	5.71	122.03	118.60
26	1H	803	U	O5'-P-OP1	5.71	117.55	110.70
26	1H	1786	A	OP1-P-O3'	5.71	117.77	105.20
26	1H	2084	C	O5'-P-OP1	-5.71	100.56	105.70
26	1H	2256	G	N3-C2-N2	5.71	123.90	119.90
27	16	44	G	C8-N9-C1'	5.71	134.43	127.00
26	14	210	C	C6-N1-C2	5.71	122.58	120.30
26	1H	1914	C	C6-N1-C2	-5.71	118.02	120.30
26	1H	2070	G	N1-C6-O6	-5.71	116.47	119.90
26	14	2417	C	O5'-P-OP2	-5.71	100.56	105.70
1	13	1491	G	OP2-P-O3'	5.71	117.76	105.20
26	1H	2331	G	C5-C6-O6	-5.71	125.17	128.60
26	1H	2446	G	C4-C5-N7	5.71	113.08	110.80
26	1H	2707	G	N3-C2-N2	-5.71	115.90	119.90
26	1H	774	A	O5'-P-OP2	-5.71	100.56	105.70
26	14	2517	C	O4'-C1'-N1	5.71	112.77	108.20
26	14	2072	G	OP1-P-O3'	5.71	117.75	105.20
1	13	1058	G	N9-C4-C5	-5.70	103.12	105.40
26	1H	2710	C	C5-C6-N1	-5.70	118.15	121.00
27	1J	114	G	OP1-P-OP2	5.70	128.16	119.60
26	1H	889	C	O4'-C1'-N1	5.70	112.76	108.20
24	3K	76	A	N9-C4-C5	-5.70	103.52	105.80
26	1H	844	C	N1-C2-O2	-5.70	115.48	118.90
26	1H	1500	G	O5'-P-OP2	-5.70	100.57	105.70
26	14	733	G	C6-C5-N7	-5.70	126.98	130.40
1	13	1469	G	C5-C6-N1	5.70	114.35	111.50
26	1H	443	A	C4-C5-N7	5.70	113.55	110.70
26	1H	691	C	N1-C2-O2	-5.70	115.48	118.90
26	14	381	G	C8-N9-C4	5.70	108.68	106.40
26	1H	1395	A	C2-N3-C4	-5.70	107.75	110.60
26	1H	1597	A	O4'-C1'-N9	5.70	112.76	108.20
1	1G	1338	G	N3-C4-C5	-5.69	125.75	128.60
26	14	1695	G	N3-C4-N9	5.69	129.42	126.00
26	1H	240	G	C5-C6-O6	-5.69	125.18	128.60
26	1H	2023	G	O5'-P-OP1	-5.69	100.58	105.70
26	14	1405	U	O5'-P-OP2	-5.69	100.58	105.70
26	14	1681	G	N1-C6-O6	5.69	123.32	119.90
1	13	827	U	C2-N1-C1'	5.69	124.53	117.70
1	13	1502	A	N9-C1'-C2'	5.69	121.40	114.00
26	1H	2360	A	C2-N3-C4	-5.69	107.75	110.60
26	14	726	G	O5'-P-OP1	-5.69	100.58	105.70
26	1H	1347	G	OP1-P-O3'	5.69	117.71	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1676	A	C2-N3-C4	-5.69	107.76	110.60
26	14	25	U	N3-C2-O2	5.69	126.18	122.20
26	14	668	G	C2-N3-C4	-5.69	109.06	111.90
26	1H	2441	C	C5-C6-N1	-5.69	118.16	121.00
22	1L	51	C	C5-C6-N1	5.68	123.84	121.00
26	14	733	G	N9-C4-C5	-5.68	103.13	105.40
26	14	1437	C	C2-N1-C1'	5.68	125.05	118.80
26	1H	124	G	C4-C5-N7	5.68	113.07	110.80
1	1G	665	A	O5'-P-OP2	-5.68	100.59	105.70
26	14	2029	G	N3-C4-N9	-5.68	122.59	126.00
26	1H	2552	U	N1-C2-N3	5.68	118.31	114.90
26	1H	778	G	N3-C2-N2	5.68	123.88	119.90
26	1H	966	G	N1-C2-N2	-5.68	111.09	116.20
26	1H	1340	U	C6-N1-C2	5.68	124.41	121.00
26	1H	576	U	OP2-P-O3'	5.68	117.69	105.20
26	1H	188	G	N3-C2-N2	5.68	123.87	119.90
26	1H	928	G	N1-C6-O6	5.68	123.31	119.90
26	1H	191	A	C5-C6-N1	5.67	120.54	117.70
26	1H	578	A	N9-C4-C5	5.67	108.07	105.80
26	1H	2028	U	O5'-P-OP2	5.67	117.51	110.70
26	1H	2296	U	C4-C5-C6	5.67	123.10	119.70
26	1H	2615	U	C2-N1-C1'	5.67	124.51	117.70
26	1H	632	A	O5'-P-OP2	5.67	117.50	110.70
26	1H	1022	G	N3-C2-N2	-5.67	115.93	119.90
26	14	2873	A	C5-C6-N1	-5.67	114.86	117.70
26	1H	599	G	N3-C4-N9	5.67	129.40	126.00
26	14	1919	A	N9-C4-C5	-5.67	103.53	105.80
26	1H	463	G	C2-N3-C4	-5.67	109.07	111.90
26	14	2776	A	P-O3'-C3'	5.67	126.50	119.70
40	75	6	LEU	N-CA-C	-5.67	95.70	111.00
1	13	354	G	O5'-P-OP2	-5.67	100.60	105.70
1	13	1129	C	C6-N1-C1'	-5.67	114.00	120.80
26	1H	797	C	C5-C6-N1	-5.67	118.17	121.00
26	1H	1901	A	O5'-P-OP1	-5.67	100.60	105.70
36	78	45	LEU	CB-CG-CD2	-5.67	101.37	111.00
1	1G	530	G	C6-C5-N7	-5.67	127.00	130.40
26	14	1383	C	N1-C2-O2	-5.67	115.50	118.90
26	14	860	U	O5'-P-OP1	5.67	117.50	110.70
26	1H	535	C	O5'-P-OP2	-5.66	100.60	105.70
26	1H	945	A	C4-C5-C6	5.66	119.83	117.00
26	1H	1649	G	C8-N9-C4	-5.66	104.13	106.40
26	14	2055	C	C2-N1-C1'	-5.66	112.57	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2724	C	OP2-P-O3'	5.66	117.66	105.20
26	14	2870	C	C6-N1-C2	-5.66	118.03	120.30
26	1H	2376	A	C8-N9-C4	5.66	108.06	105.80
26	14	2401	U	C2-N1-C1'	5.66	124.49	117.70
26	1H	207	A	C5-C6-N6	-5.66	119.17	123.70
26	1H	381	G	OP1-P-O3'	5.66	117.65	105.20
26	1H	1262	A	C8-N9-C4	5.66	108.06	105.80
26	14	1806	C	OP1-P-OP2	5.66	128.09	119.60
26	1H	162	U	C6-N1-C2	-5.66	117.61	121.00
26	1H	504	U	C2-N1-C1'	5.66	124.49	117.70
26	1H	2261	C	O5'-P-OP2	-5.66	100.61	105.70
26	1H	2271	G	N3-C4-C5	-5.66	125.77	128.60
26	1H	2520	C	O5'-P-OP1	5.66	117.49	110.70
1	1G	558	G	O5'-P-OP1	-5.66	100.61	105.70
1	1G	1227	A	N1-C6-N6	5.66	122.00	118.60
26	1H	74	A	C8-N9-C4	-5.66	103.54	105.80
1	13	244	U	C2-N1-C1'	5.66	124.49	117.70
26	1H	575	A	O5'-P-OP2	5.66	117.49	110.70
26	1H	1828	G	C4-C5-N7	-5.66	108.54	110.80
10	1I	16	LEU	CA-CB-CG	5.65	128.31	115.30
1	1G	1151	A	O4'-C1'-N9	5.65	112.72	108.20
1	13	266	G	N7-C8-N9	5.65	115.93	113.10
26	1H	2638	G	C8-N9-C4	5.65	108.66	106.40
55	3L	46	G	C4-N9-C1'	-5.65	119.15	126.50
26	14	2477	C	C6-N1-C2	-5.65	118.04	120.30
1	13	1489	G	N7-C8-N9	-5.65	110.28	113.10
1	1G	328	C	N1-C2-O2	5.65	122.29	118.90
26	14	2070	G	N1-C2-N2	-5.65	111.11	116.20
1	13	692	U	N3-C4-O4	-5.65	115.45	119.40
26	1H	138	G	C8-N9-C4	-5.65	104.14	106.40
1	1G	1242	C	C6-N1-C2	5.65	122.56	120.30
26	1H	1899	G	OP2-P-O3'	5.65	117.62	105.20
26	14	2374	C	C2-N3-C4	-5.65	117.08	119.90
26	1H	2830	G	N7-C8-N9	5.65	115.92	113.10
26	14	641	C	C6-N1-C2	5.65	122.56	120.30
26	1H	575	A	N1-C6-N6	5.64	121.99	118.60
27	16	99	A	N1-C6-N6	-5.64	115.21	118.60
26	14	211	A	N9-C4-C5	-5.64	103.54	105.80
26	14	391	G	N1-C6-O6	5.64	123.29	119.90
26	14	801	G	N1-C6-O6	-5.64	116.51	119.90
1	13	449	C	N3-C2-O2	-5.64	117.95	121.90
23	2K	3	C	OP1-P-OP2	5.64	128.06	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2419	U	OP1-P-OP2	-5.64	111.14	119.60
1	13	965	A	C8-N9-C4	5.64	108.06	105.80
26	1H	1305	C	C6-N1-C2	5.64	122.56	120.30
26	14	733	G	C4-N9-C1'	5.64	133.83	126.50
27	1J	103	U	C2-N1-C1'	-5.64	110.93	117.70
26	1H	2490	G	C8-N9-C4	-5.64	104.14	106.40
22	1K	48	C	N3-C2-O2	-5.64	117.95	121.90
1	1G	1305	G	N3-C2-N2	-5.64	115.95	119.90
26	1H	1340	U	N3-C4-O4	5.63	123.34	119.40
26	1H	2439	A	OP1-P-O3'	5.63	117.59	105.20
26	1H	569	U	C2-N3-C4	-5.63	123.62	127.00
26	14	33	U	O5'-P-OP1	-5.63	100.63	105.70
1	13	346	G	C6-C5-N7	-5.63	127.02	130.40
1	13	1414	U	OP2-P-O3'	5.63	117.59	105.20
1	13	689	C	N1-C2-O2	5.63	122.28	118.90
1	13	858	G	C8-N9-C4	-5.63	104.15	106.40
1	13	886	G	C5-C6-O6	5.63	131.98	128.60
26	1H	1559	G	C2-N3-C4	-5.63	109.09	111.90
26	1H	1844	C	C5-C4-N4	-5.63	116.26	120.20
1	1G	1263	C	N1-C2-O2	5.63	122.28	118.90
1	13	970	C	C5-C4-N4	-5.63	116.26	120.20
26	1H	2331	G	C6-C5-N7	-5.63	127.02	130.40
26	1H	2713	A	N1-C2-N3	5.63	132.11	129.30
26	14	1681	G	C4-C5-N7	5.63	113.05	110.80
1	13	50	A	N3-C4-N9	5.62	131.90	127.40
26	1H	804	A	C8-N9-C4	5.62	108.05	105.80
1	13	1158	C	N3-C2-O2	-5.62	117.96	121.90
1	1G	320	C	C6-N1-C2	5.62	122.55	120.30
26	14	786	C	C5-C4-N4	5.62	124.14	120.20
26	1H	36	G	O5'-P-OP2	-5.62	100.64	105.70
26	1H	140	A	C5-C6-N6	-5.62	119.20	123.70
26	1H	1697	G	N9-C4-C5	-5.62	103.15	105.40
26	14	830	G	N9-C4-C5	-5.62	103.15	105.40
26	1H	1694	C	C6-N1-C2	5.62	122.55	120.30
26	14	1902	C	C5-C4-N4	-5.62	116.27	120.20
26	1H	274	G	C8-N9-C4	-5.62	104.15	106.40
26	14	2821	A	C2-N3-C4	-5.62	107.79	110.60
27	1J	6	C	C5-C6-N1	-5.62	118.19	121.00
1	13	990	C	C6-N1-C2	-5.62	118.05	120.30
26	1H	226	G	C8-N9-C4	5.62	108.65	106.40
26	1H	756	C	C5-C6-N1	5.62	123.81	121.00
26	1H	1942	C	C4-C5-C6	-5.62	114.59	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2052	G	OP2-P-O3'	5.62	117.55	105.20
26	1H	2464	C	C5-C6-N1	-5.62	118.19	121.00
26	14	1790	C	OP1-P-O3'	5.62	117.56	105.20
26	1H	2699	C	C5-C4-N4	-5.61	116.27	120.20
26	14	229	A	O4'-C1'-N9	5.61	112.69	108.20
26	14	1610	A	C8-N9-C4	5.61	108.05	105.80
26	14	2817	G	C8-N9-C4	5.61	108.64	106.40
26	1H	2380	C	C2-N3-C4	-5.61	117.09	119.90
26	14	2492	U	O5'-P-OP2	5.61	117.43	110.70
26	1H	1203	G	O5'-P-OP2	-5.61	100.65	105.70
26	1H	1304	C	N3-C4-N4	-5.61	114.07	118.00
32	51	153	LYS	C-N-CA	5.61	145.56	122.00
26	14	121	G	N1-C6-O6	5.61	123.27	119.90
26	14	2024	G	C5-C6-O6	-5.61	125.23	128.60
1	1G	1043	C	C5-C6-N1	5.61	123.81	121.00
26	14	270(Y)	G	C5-C6-N1	-5.61	108.69	111.50
26	14	409	C	N3-C4-C5	5.61	124.14	121.90
1	13	758	G	N1-C6-O6	5.61	123.26	119.90
26	1H	193	U	N1-C2-O2	-5.61	118.88	122.80
26	1H	589	C	N3-C2-O2	-5.61	117.98	121.90
26	1H	983	A	C8-N9-C4	5.61	108.04	105.80
26	1H	2448	A	C4-C5-C6	5.61	119.80	117.00
26	14	207	A	N9-C4-C5	-5.61	103.56	105.80
26	14	528	A	C5-C6-N1	-5.61	114.90	117.70
26	1H	809	G	C5-C6-O6	-5.60	125.24	128.60
1	13	674	G	OP1-P-O3'	5.60	117.53	105.20
1	13	1157	A	C8-N9-C4	-5.60	103.56	105.80
26	1H	1308	A	C5-C6-N6	5.60	128.18	123.70
26	1H	1663	C	N3-C4-C5	5.60	124.14	121.90
26	1H	2508	G	C5-C6-N1	5.60	114.30	111.50
1	1G	366	C	C6-N1-C2	5.60	122.54	120.30
26	14	830	G	C5-C6-O6	-5.60	125.24	128.60
26	14	1791	A	OP1-P-OP2	-5.60	111.20	119.60
26	1H	1423	G	O5'-P-OP2	-5.60	100.66	105.70
26	1H	2012	G	C5-C6-O6	-5.60	125.24	128.60
26	1H	2282	G	C5-C6-O6	5.60	131.96	128.60
26	14	528	A	C4-C5-N7	5.60	113.50	110.70
26	14	1279	G	C8-N9-C4	5.60	108.64	106.40
26	14	1382	G	C5-C6-N1	5.60	114.30	111.50
36	35	65	ARG	C-N-CA	-5.60	110.55	122.30
26	1H	275	G	C5-N7-C8	5.60	107.10	104.30
26	1H	2591	C	N1-C2-O2	-5.60	115.54	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2556	C	N1-C2-O2	5.60	122.26	118.90
26	1H	201	C	C6-N1-C2	5.59	122.54	120.30
26	1H	2028	U	N3-C4-C5	-5.59	111.24	114.60
27	16	36	C	C6-N1-C2	5.59	122.54	120.30
26	14	211	A	C8-N9-C4	5.59	108.04	105.80
26	14	1142(A)	A	N1-C2-N3	5.59	132.10	129.30
26	14	1276	A	C2-N3-C4	-5.59	107.80	110.60
26	14	1780	A	N9-C4-C5	5.59	108.04	105.80
26	1H	1675	C	OP1-P-O3'	5.59	117.50	105.20
26	1H	121	G	C8-N9-C1'	-5.59	119.73	127.00
26	1H	214	G	C8-N9-C4	-5.59	104.16	106.40
26	14	453	C	N3-C4-N4	-5.59	114.09	118.00
26	14	1676	A	O5'-P-OP2	-5.59	100.67	105.70
26	14	2444	G	N3-C2-N2	-5.59	115.99	119.90
27	1J	83	G	C8-N9-C4	5.59	108.64	106.40
1	13	726	C	N1-C2-O2	5.59	122.25	118.90
26	1H	162	U	C5-C6-N1	5.59	125.49	122.70
26	1H	2070	G	C5-N7-C8	5.59	107.09	104.30
26	1H	2666	C	C6-N1-C2	-5.59	118.07	120.30
26	14	1216	G	OP1-P-O3'	5.59	117.49	105.20
1	13	352	C	C4-C5-C6	-5.58	114.61	117.40
26	1H	750	A	OP1-P-O3'	-5.58	92.92	105.20
26	1H	2598	A	OP2-P-O3'	5.58	117.48	105.20
26	1H	270(O)	U	C2-N1-C1'	5.58	124.40	117.70
27	16	5	C	C5-C4-N4	-5.58	116.29	120.20
26	14	2392	A	N7-C8-N9	5.58	116.59	113.80
26	14	1566	A	C5-C6-N6	-5.58	119.24	123.70
26	14	1348	G	O5'-P-OP2	5.58	117.39	110.70
1	13	972	C	N3-C4-N4	-5.58	114.10	118.00
26	1H	1292	U	OP1-P-O3'	5.58	117.47	105.20
26	1H	1611	C	C5-C6-N1	-5.58	118.21	121.00
30	31	95	ARG	NE-CZ-NH1	-5.58	117.51	120.30
26	1H	2056	G	OP1-P-O3'	5.57	117.46	105.20
26	1H	2070	G	C5-C6-O6	5.57	131.94	128.60
26	1H	2346	A	N3-C4-C5	5.57	130.70	126.80
26	14	1673	U	O5'-P-OP2	5.57	117.39	110.70
1	13	1279	A	N7-C8-N9	5.57	116.59	113.80
26	1H	1308	A	N1-C2-N3	5.57	132.09	129.30
26	1H	1513	C	C5-C6-N1	5.57	123.78	121.00
26	1H	1568	G	OP1-P-OP2	-5.57	111.24	119.60
26	1H	2028	U	N3-C4-O4	5.57	123.30	119.40
26	14	2755	C	C5-C6-N1	5.57	123.78	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2430	A	N3-C4-C5	5.57	130.70	126.80
26	1H	258	G	N1-C2-N2	-5.57	111.19	116.20
26	1H	2298	A	O5'-P-OP2	-5.57	100.69	105.70
26	1H	2593	U	OP2-P-O3'	5.57	117.45	105.20
26	14	71	A	N3-C4-C5	5.57	130.70	126.80
26	14	774	A	C5-C6-N1	-5.57	114.92	117.70
26	1H	376	C	N3-C2-O2	-5.57	118.00	121.90
26	1H	647	G	N3-C4-C5	-5.57	125.82	128.60
26	1H	1415	U	N3-C2-O2	-5.57	118.30	122.20
26	1H	1983	C	C2-N1-C1'	-5.57	112.68	118.80
26	14	2541	A	O5'-P-OP2	-5.57	100.69	105.70
26	14	2589	A	C8-N9-C4	5.57	108.03	105.80
26	14	2700	C	N3-C4-C5	5.57	124.13	121.90
14	5I	12	ARG	C-N-CA	5.56	135.61	121.70
26	1H	1640	C	O5'-P-OP2	-5.56	100.69	105.70
26	1H	1888	G	C4-N9-C1'	5.56	133.73	126.50
26	1H	274	G	N7-C8-N9	5.56	115.88	113.10
26	14	672	C	O5'-P-OP2	-5.56	100.69	105.70
26	14	2263	C	C6-N1-C2	-5.56	118.08	120.30
26	14	2596	U	N1-C2-N3	5.56	118.24	114.90
27	16	100	G	N9-C4-C5	-5.56	103.18	105.40
26	14	744	G	C8-N9-C4	5.56	108.62	106.40
26	14	832	G	N1-C2-N2	5.56	121.20	116.20
26	14	934	G	OP1-P-OP2	5.56	127.94	119.60
26	14	1992	G	N3-C4-C5	-5.56	125.82	128.60
26	1H	970	C	N3-C2-O2	5.56	125.79	121.90
26	1H	1915	U	N3-C2-O2	-5.56	118.31	122.20
26	1H	2515	C	O5'-P-OP1	5.56	117.37	110.70
26	14	1835	G	OP2-P-O3'	5.56	117.43	105.20
26	1H	932	G	N3-C4-C5	-5.55	125.82	128.60
26	1H	1927	A	O5'-P-OP2	-5.55	100.70	105.70
26	14	2344	U	C5-C4-O4	5.55	129.23	125.90
26	1H	2210	G	OP2-P-O3'	5.55	117.42	105.20
26	1H	2601	C	N1-C2-O2	5.55	122.23	118.90
26	14	1204	A	N3-C4-C5	5.55	130.69	126.80
26	1H	913	U	OP1-P-OP2	5.55	127.93	119.60
26	1H	2346	A	O5'-P-OP1	-5.55	100.70	105.70
1	13	584	G	C4-C5-N7	-5.55	108.58	110.80
26	1H	1268	A	C2-N3-C4	-5.55	107.83	110.60
1	1G	15	G	N3-C4-N9	5.55	129.33	126.00
26	14	71	A	C6-C5-N7	-5.55	128.42	132.30
26	14	1397	U	C5-C4-O4	5.55	129.23	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1899	G	C8-N9-C4	-5.55	104.18	106.40
26	1H	856	C	O5'-P-OP1	-5.55	100.71	105.70
1	1G	1128	C	C5-C6-N1	5.55	123.77	121.00
26	1H	1626	G	N3-C4-C5	5.55	131.37	128.60
26	1H	1935	G	C5-C6-O6	5.55	131.93	128.60
27	1J	3	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	388	G	O5'-P-OP2	-5.54	100.71	105.70
26	1H	860	U	N3-C2-O2	-5.54	118.32	122.20
26	1H	1060	U	P-O3'-C3'	5.54	126.35	119.70
26	14	1836	C	O5'-P-OP2	-5.54	100.71	105.70
26	1H	869	G	N1-C2-N2	-5.54	111.21	116.20
26	1H	1228	G	N3-C2-N2	-5.54	116.02	119.90
26	1H	1321	A	N7-C8-N9	-5.54	111.03	113.80
26	1H	1639	U	O5'-P-OP1	5.54	117.35	110.70
26	1H	2311	A	N7-C8-N9	5.54	116.57	113.80
26	1H	2501	C	C2-N1-C1'	-5.54	112.70	118.80
1	1G	972	C	O5'-P-OP2	-5.54	100.71	105.70
25	4L	12	A	N9-C1'-C2'	5.54	121.20	114.00
26	14	1563	G	OP2-P-O3'	5.54	117.39	105.20
1	13	534	U	C5-C4-O4	5.54	129.22	125.90
26	14	552	G	C8-N9-C4	5.54	108.61	106.40
26	14	1544	C	N1-C2-O2	5.54	122.22	118.90
1	13	1297	C	N1-C2-O2	5.54	122.22	118.90
26	1H	961	C	OP1-P-OP2	5.54	127.90	119.60
26	1H	1798	U	C5-C6-N1	-5.54	119.93	122.70
26	1H	678	C	C6-N1-C2	5.53	122.51	120.30
26	1H	1543	A	C5-C6-N1	-5.53	114.93	117.70
26	1H	2448	A	C6-C5-N7	-5.53	128.43	132.30
26	14	503	A	N9-C4-C5	5.53	108.01	105.80
26	14	530	G	N7-C8-N9	5.53	115.87	113.10
26	14	1936	A	OP1-P-OP2	-5.53	111.30	119.60
26	1H	786	C	N3-C4-N4	-5.53	114.13	118.00
26	1H	1970	A	C8-N9-C4	5.53	108.01	105.80
1	13	963	G	C8-N9-C1'	-5.53	119.81	127.00
24	3K	13	C	C6-N1-C2	-5.53	118.09	120.30
26	14	1982	C	C6-N1-C2	-5.53	118.09	120.30
55	3L	2	C	C2-N1-C1'	5.53	124.88	118.80
26	14	2644	G	N3-C4-N9	-5.53	122.68	126.00
26	1H	1911	U	N1-C2-O2	5.53	126.67	122.80
1	1G	1498	U	N3-C2-O2	-5.53	118.33	122.20
26	14	2619	C	C6-N1-C2	5.53	122.51	120.30
26	1H	1316	U	C5-C4-O4	5.53	129.22	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1638	C	OP2-P-O3'	5.53	117.35	105.20
26	14	208	C	O5'-P-OP2	-5.53	100.73	105.70
26	14	746	A	O4'-C1'-N9	5.53	112.62	108.20
26	14	1496	A	N1-C6-N6	5.53	121.92	118.60
26	14	2392	A	C5-C6-N1	-5.53	114.94	117.70
1	13	580	U	C5-C6-N1	-5.52	119.94	122.70
26	1H	1407	C	OP1-P-O3'	5.52	117.35	105.20
26	1H	98	G	OP1-P-OP2	5.52	127.88	119.60
26	1H	330	A	C4-C5-N7	5.52	113.46	110.70
1	1G	518	C	O5'-P-OP1	5.52	117.33	110.70
26	1H	183	C	N1-C2-O2	5.52	122.21	118.90
26	1H	686	G	C2-N3-C4	-5.52	109.14	111.90
26	1H	859	G	N3-C4-N9	-5.52	122.69	126.00
1	1G	1502	A	N7-C8-N9	5.52	116.56	113.80
26	14	855	G	N7-C8-N9	5.52	115.86	113.10
26	14	2873	A	N9-C1'-C2'	5.52	121.18	114.00
26	1H	350	U	C5-C4-O4	5.52	129.21	125.90
26	1H	941	A	C8-N9-C4	5.52	108.01	105.80
26	1H	2838	G	O5'-P-OP1	-5.52	100.73	105.70
26	14	1283	G	OP1-P-OP2	5.52	127.88	119.60
26	14	1660	C	N3-C4-N4	-5.52	114.14	118.00
26	14	2038	G	C4-C5-N7	5.52	113.01	110.80
26	1H	698	C	O5'-P-OP2	-5.52	100.74	105.70
26	1H	2288	A	N1-C6-N6	5.52	121.91	118.60
26	1H	2700	C	C5-C6-N1	-5.52	118.24	121.00
26	1H	2751	G	C4-C5-N7	5.52	113.01	110.80
26	14	1396	U	O5'-P-OP1	-5.52	100.74	105.70
26	1H	128	C	C2-N3-C4	-5.51	117.14	119.90
26	1H	729	G	N7-C8-N9	5.51	115.86	113.10
26	1H	1559	G	C5-N7-C8	-5.51	101.54	104.30
26	1H	2062	A	N1-C2-N3	-5.51	126.54	129.30
27	16	14	U	N1-C2-N3	5.51	118.21	114.90
26	14	757	U	C2-N3-C4	-5.51	123.69	127.00
26	14	769	G	C5-N7-C8	5.51	107.06	104.30
26	14	1780	A	N1-C2-N3	5.51	132.06	129.30
1	13	768	A	C6-N1-C2	-5.51	115.29	118.60
26	14	2210	G	C4-N9-C1'	5.51	133.67	126.50
26	1H	935	C	C6-N1-C2	5.51	122.50	120.30
26	1H	1816	G	N1-C2-N3	-5.51	120.59	123.90
26	14	1324	G	O5'-P-OP1	-5.51	100.74	105.70
26	14	2261	C	O5'-P-OP1	5.51	117.31	110.70
26	1H	1248	G	N3-C4-C5	5.51	131.35	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2318	G	C8-N9-C4	-5.51	104.20	106.40
26	14	1725	G	C4-N9-C1'	5.51	133.66	126.50
26	14	2512	C	C5-C4-N4	-5.51	116.34	120.20
26	1H	917	A	C5-C6-N6	-5.51	119.29	123.70
1	1G	493	G	C6-C5-N7	-5.51	127.09	130.40
26	1H	2826	A	N7-C8-N9	-5.51	111.05	113.80
26	14	529	A	N1-C6-N6	5.51	121.90	118.60
26	14	1807	G	O5'-P-OP2	-5.51	100.74	105.70
26	1H	142	G	C4-N9-C1'	-5.50	119.34	126.50
26	1H	877	U	C5-C6-N1	5.50	125.45	122.70
26	1H	1784	A	O4'-C1'-N9	-5.50	103.80	108.20
26	1H	2566	A	P-O3'-C3'	5.50	126.30	119.70
26	1H	2830	G	C8-N9-C4	-5.50	104.20	106.40
26	14	945	A	C8-N9-C4	-5.50	103.60	105.80
26	14	1302	A	N1-C6-N6	-5.50	115.30	118.60
1	13	792	A	N7-C8-N9	-5.50	111.05	113.80
1	13	1038	C	C5-C6-N1	5.50	123.75	121.00
26	14	967	C	OP1-P-O3'	5.50	117.30	105.20
26	14	2406	U	O4'-C1'-N1	-5.50	103.80	108.20
26	1H	1681	G	C8-N9-C4	5.50	108.60	106.40
26	14	242	G	C8-N9-C4	5.50	108.60	106.40
1	13	802	A	C8-N9-C4	5.50	108.00	105.80
1	13	1129	C	N1-C2-O2	5.50	122.20	118.90
26	1H	930	U	C5-C6-N1	-5.50	119.95	122.70
26	1H	1757	U	C5-C6-N1	-5.50	119.95	122.70
26	14	1782	C	C5-C4-N4	-5.50	116.35	120.20
26	14	2393	A	O5'-P-OP1	-5.50	100.75	105.70
26	1H	1802	A	C2-N3-C4	-5.50	107.85	110.60
27	16	25	A	N1-C6-N6	5.50	121.90	118.60
26	14	671	C	OP2-P-O3'	5.50	117.29	105.20
1	13	1199	U	C5-C4-O4	5.49	129.20	125.90
27	16	41	U	C5-C4-O4	5.49	129.20	125.90
26	14	1313	U	N3-C4-O4	5.49	123.25	119.40
26	1H	859	G	C8-N9-C1'	5.49	134.14	127.00
26	1H	629	G	N1-C2-N2	-5.49	111.26	116.20
26	1H	1425	G	C4-C5-N7	5.49	113.00	110.80
26	1H	2703	C	C6-N1-C2	-5.49	118.10	120.30
26	14	685	A	O4'-C1'-N9	5.49	112.59	108.20
1	13	610	G	O5'-P-OP2	-5.49	100.76	105.70
26	1H	546	C	N1-C2-O2	5.49	122.19	118.90
26	14	1332	G	N3-C4-N9	-5.49	122.71	126.00
26	14	1496	A	C6-C5-N7	-5.49	128.46	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1757	U	C2-N1-C1'	-5.49	111.11	117.70
26	14	2490	G	C4-N9-C1'	5.49	133.63	126.50
26	1H	62	C	C6-N1-C2	5.49	122.50	120.30
26	1H	1618	A	O5'-P-OP1	-5.49	100.76	105.70
25	4L	23	A	P-O3'-C3'	5.49	126.28	119.70
26	1H	273(A)	G	N9-C4-C5	-5.49	103.21	105.40
26	1H	925	C	O5'-P-OP2	-5.49	100.76	105.70
26	1H	1968	G	OP1-P-OP2	-5.49	111.37	119.60
26	1H	2316	C	C6-N1-C2	-5.48	118.11	120.30
26	14	1517	G	OP1-P-O3'	5.48	117.27	105.20
26	14	1928	A	C8-N9-C4	5.48	107.99	105.80
1	13	960	U	C2-N1-C1'	5.48	124.28	117.70
26	1H	2040	C	C6-N1-C2	5.48	122.49	120.30
26	1H	2578	G	C5-C6-N1	5.48	114.24	111.50
1	1G	5	U	OP2-P-O3'	5.48	117.26	105.20
22	1L	18	G	N3-C4-C5	-5.48	125.86	128.60
26	14	668	G	N3-C4-C5	5.48	131.34	128.60
26	14	1975	G	C8-N9-C4	5.48	108.59	106.40
26	1H	1790	C	P-O3'-C3'	5.48	126.28	119.70
26	1H	1967	C	OP2-P-O3'	5.48	117.26	105.20
26	1H	214	G	N3-C4-C5	-5.48	125.86	128.60
26	1H	1829	A	N1-C6-N6	-5.48	115.31	118.60
26	14	140	A	O4'-C1'-N9	5.48	112.58	108.20
26	1H	2377	A	C2-N3-C4	-5.48	107.86	110.60
26	1H	1944	U	O5'-P-OP1	-5.48	100.77	105.70
1	13	115	G	P-O3'-C3'	5.47	126.27	119.70
26	1H	1593	G	OP1-P-O3'	5.47	117.24	105.20
26	14	746	A	O5'-P-OP1	-5.47	100.77	105.70
26	1H	676	A	N1-C2-N3	5.47	132.04	129.30
1	13	1502	A	N1-C6-N6	5.47	121.88	118.60
26	1H	178	G	N7-C8-N9	-5.47	110.36	113.10
26	1H	2360	A	N1-C6-N6	5.47	121.88	118.60
26	1H	2597	G	C5-C6-O6	-5.47	125.32	128.60
26	14	1342	A	C5-C6-N1	-5.47	114.97	117.70
26	14	1924	C	C6-N1-C2	5.47	122.49	120.30
26	14	2742	C	C6-N1-C2	5.47	122.49	120.30
1	13	1502	A	O5'-P-OP2	-5.47	100.78	105.70
26	1H	795	C	C5-C6-N1	-5.47	118.27	121.00
26	14	1021	A	N3-C4-N9	-5.47	123.03	127.40
1	13	1385	G	C5-N7-C8	-5.47	101.57	104.30
26	1H	201	C	C2-N3-C4	-5.47	117.17	119.90
26	1H	688	U	O5'-P-OP2	-5.47	100.78	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1301	U	N1-C2-O2	5.47	126.63	122.80
26	1H	265	A	C5-C6-N1	-5.46	114.97	117.70
26	14	726	G	O4'-C1'-N9	5.46	112.57	108.20
26	1H	1227	A	N1-C2-N3	-5.46	126.57	129.30
26	14	946	G	N9-C4-C5	-5.46	103.22	105.40
26	1H	2436	G	N3-C2-N2	-5.46	116.08	119.90
1	1G	1081	G	C8-N9-C4	5.46	108.58	106.40
26	14	2629	A	P-O3'-C3'	5.46	126.25	119.70
27	1J	44	G	N3-C4-C5	5.46	131.33	128.60
26	1H	141(A)	C	OP1-P-O3'	-5.46	93.19	105.20
26	1H	1241	A	C4-C5-N7	5.46	113.43	110.70
26	1H	1681	G	N9-C4-C5	-5.46	103.22	105.40
26	1H	2091	U	N3-C2-O2	-5.46	118.38	122.20
26	1H	2318	G	O5'-P-OP2	-5.46	100.79	105.70
26	1H	2346	A	C1'-O4'-C4'	-5.46	105.53	109.90
26	14	1307	A	N1-C2-N3	5.46	132.03	129.30
26	14	1574	C	OP2-P-O3'	5.46	117.21	105.20
1	13	137	C	C6-N1-C2	5.46	122.48	120.30
26	1H	751	A	C5-C6-N6	-5.46	119.33	123.70
26	1H	2289	G	N1-C2-N2	5.46	121.11	116.20
26	1H	2375	G	C4-N9-C1'	-5.46	119.41	126.50
26	14	1259	G	OP2-P-O3'	5.46	117.20	105.20
26	1H	828	U	C4-C5-C6	5.45	122.97	119.70
26	1H	1663	C	C5-C6-N1	-5.45	118.27	121.00
26	1H	1830	C	C5-C4-N4	-5.45	116.38	120.20
26	14	1790	C	C5-C6-N1	-5.45	118.27	121.00
26	14	1899	G	C4-C5-C6	5.45	122.07	118.80
26	14	2629	A	C2-N3-C4	5.45	113.33	110.60
1	13	1403	C	O5'-P-OP2	-5.45	100.79	105.70
26	1H	729	G	N9-C4-C5	5.45	107.58	105.40
1	1G	810	C	N1-C2-O2	5.45	122.17	118.90
26	1H	1241	A	C5-C6-N1	-5.45	114.98	117.70
26	14	845	G	C5-N7-C8	-5.45	101.58	104.30
26	14	938	G	C8-N9-C4	5.45	108.58	106.40
26	14	2329	G	N3-C4-N9	5.45	129.27	126.00
26	14	2620	C	C5-C6-N1	-5.45	118.28	121.00
26	14	945	A	C5-C6-N1	-5.45	114.98	117.70
1	13	1199	U	O5'-P-OP1	-5.45	100.80	105.70
26	1H	602	G	N1-C2-N2	-5.45	111.30	116.20
26	1H	939	G	N1-C6-O6	-5.45	116.63	119.90
26	1H	1763	G	C8-N9-C4	5.45	108.58	106.40
26	1H	2080	G	C5-C6-N1	5.45	114.22	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	4L	12	A	C4-N9-C1'	5.45	136.10	126.30
26	1H	1184	G	OP2-P-O3'	5.44	117.18	105.20
1	1G	87	A	N1-C6-N6	5.44	121.87	118.60
26	1H	1596	A	OP2-P-O3'	5.44	117.17	105.20
26	1H	1931	U	N3-C4-O4	-5.44	115.59	119.40
26	1H	2048	G	C5-N7-C8	5.44	107.02	104.30
3	22	188	LEU	CA-CB-CG	5.44	127.82	115.30
26	14	1367	A	C8-N9-C4	5.44	107.98	105.80
26	14	1973	G	C5-C6-O6	5.44	131.87	128.60
26	14	2340	G	C8-N9-C4	5.44	108.58	106.40
26	1H	1303	G	N3-C4-C5	-5.44	125.88	128.60
1	13	300	A	N1-C6-N6	5.44	121.86	118.60
23	2K	45	A	N1-C6-N6	5.44	121.86	118.60
26	1H	1430	C	OP1-P-O3'	5.44	117.16	105.20
26	14	74	A	N7-C8-N9	5.44	116.52	113.80
26	14	779	U	C5-C4-O4	-5.44	122.64	125.90
26	1H	28	A	C2-N3-C4	5.44	113.32	110.60
26	1H	642	G	C5-C6-O6	5.44	131.86	128.60
26	1H	2377	A	N9-C4-C5	-5.44	103.62	105.80
26	1H	2510	C	N3-C4-N4	-5.44	114.19	118.00
26	1H	1955	U	C2-N3-C4	-5.43	123.74	127.00
26	1H	2032	G	C8-N9-C4	5.43	108.57	106.40
1	1G	495	A	N1-C6-N6	-5.43	115.34	118.60
26	1H	130	C	C5-C4-N4	-5.43	116.40	120.20
27	16	44	G	OP2-P-O3'	5.43	117.15	105.20
27	1J	85	G	C8-N9-C4	5.43	108.57	106.40
1	13	760	G	N1-C6-O6	5.43	123.16	119.90
26	1H	2028	U	C6-N1-C2	-5.43	117.74	121.00
26	14	193	U	N1-C2-O2	-5.43	119.00	122.80
26	14	464	U	C5-C6-N1	-5.43	119.98	122.70
26	14	1831	G	C4-N9-C1'	5.43	133.56	126.50
26	1H	967	C	N3-C4-N4	-5.43	114.20	118.00
1	13	1455	G	C8-N9-C4	5.43	108.57	106.40
1	13	1518	A	C5-C6-N1	-5.43	114.99	117.70
26	1H	600	G	N9-C4-C5	-5.43	103.23	105.40
26	1H	2381	C	C2-N3-C4	-5.43	117.19	119.90
26	1H	2751	G	C5-N7-C8	-5.43	101.59	104.30
27	16	103	U	C2-N1-C1'	-5.43	111.19	117.70
1	1G	110	C	C6-N1-C2	5.43	122.47	120.30
1	1G	898	G	C4-N9-C1'	-5.43	119.44	126.50
26	14	74	A	C6-C5-N7	-5.43	128.50	132.30
26	14	330	A	C4-C5-N7	5.43	113.41	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1337	G	C5-C6-O6	5.43	131.86	128.60
26	14	1660	C	N1-C2-O2	5.43	122.16	118.90
26	14	2426	A	N7-C8-N9	5.43	116.51	113.80
26	1H	1517	G	OP1-P-O3'	5.42	117.14	105.20
23	2L	21	U	C2-N1-C1'	5.42	124.21	117.70
26	14	2346	A	O4'-C1'-N9	5.42	112.54	108.20
27	1J	81	G	C4-C5-N7	5.42	112.97	110.80
1	13	813	U	N1-C2-O2	5.42	126.60	122.80
1	13	1530	G	N3-C4-N9	-5.42	122.75	126.00
26	1H	672	C	N3-C4-C5	-5.42	119.73	121.90
26	1H	915	C	O4'-C1'-N1	5.42	112.54	108.20
26	1H	1932	A	O5'-P-OP1	-5.42	100.82	105.70
26	14	330	A	N9-C4-C5	-5.42	103.63	105.80
26	14	2320	A	P-O3'-C3'	5.42	126.21	119.70
26	1H	647	G	C8-N9-C4	-5.42	104.23	106.40
26	1H	803	U	OP2-P-O3'	5.42	117.12	105.20
23	2L	77	A	C8-N9-C4	5.42	107.97	105.80
26	14	2437	U	C5-C4-O4	5.42	129.15	125.90
26	14	1585	C	C2-N3-C4	5.42	122.61	119.90
26	1H	673	C	C5-C4-N4	-5.42	116.41	120.20
26	1H	736	C	N3-C4-C5	5.42	124.07	121.90
1	13	1096	C	C6-N1-C2	-5.42	118.13	120.30
26	1H	216	A	C8-N9-C4	5.42	107.97	105.80
26	1H	371	A	O5'-P-OP2	-5.42	100.83	105.70
26	1H	404	C	P-O3'-C3'	5.41	126.19	119.70
1	1G	974	A	P-O3'-C3'	5.41	126.20	119.70
26	14	1786	A	OP1-P-O3'	5.41	117.11	105.20
26	14	849	A	OP1-P-O3'	5.41	117.11	105.20
26	1H	1728	G	C5-C6-O6	-5.41	125.35	128.60
26	1H	1836	C	C5-C4-N4	5.41	123.99	120.20
26	1H	2447	G	N1-C2-N3	5.41	127.15	123.90
26	14	1349	A	C5-C6-N6	-5.41	119.37	123.70
26	14	1933	G	C2-N3-C4	-5.41	109.19	111.90
26	14	2496	C	OP1-P-O3'	5.41	117.11	105.20
26	1H	569	U	C5-C6-N1	-5.41	120.00	122.70
26	1H	2473	U	N1-C2-O2	5.41	126.59	122.80
27	16	31	C	N1-C2-O2	5.41	122.14	118.90
26	1H	205	G	N9-C4-C5	-5.41	103.24	105.40
26	1H	1027	A	O5'-P-OP1	-5.41	100.83	105.70
1	1G	1517	G	O5'-P-OP2	-5.41	100.83	105.70
1	13	1492	A	O5'-P-OP1	5.41	117.19	110.70
24	3K	2	C	C5-C4-N4	-5.41	116.42	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	576	U	C6-N1-C2	-5.41	117.76	121.00
26	1H	686	G	C6-C5-N7	-5.41	127.16	130.40
26	1H	768	G	N1-C6-O6	-5.41	116.66	119.90
26	14	22	C	N3-C4-N4	-5.41	114.22	118.00
26	14	1688	U	C5-C6-N1	-5.41	120.00	122.70
26	14	2859	G	P-O3'-C3'	5.41	126.19	119.70
24	3K	59	A	O5'-P-OP2	5.40	117.18	110.70
26	1H	788	A	C5-C6-N6	-5.40	119.38	123.70
26	1H	1189	A	N1-C6-N6	5.40	121.84	118.60
26	1H	1823	G	N1-C6-O6	-5.40	116.66	119.90
26	1H	698	C	OP1-P-OP2	5.40	127.70	119.60
26	1H	1361	G	N1-C6-O6	-5.40	116.66	119.90
26	1H	1610	A	N1-C6-N6	5.40	121.84	118.60
1	1G	180	U	C5-C6-N1	5.40	125.40	122.70
26	14	472	A	N9-C4-C5	5.40	107.96	105.80
26	14	1932	A	O5'-P-OP1	-5.40	100.84	105.70
1	13	1	U	N1-C1'-C2'	5.40	121.02	114.00
26	1H	2332	U	OP2-P-O3'	5.40	117.07	105.20
1	1G	1473	A	C8-N9-C4	5.40	107.96	105.80
26	14	698	C	OP1-P-OP2	5.40	127.70	119.60
26	14	2510	C	N3-C4-N4	-5.40	114.22	118.00
26	1H	125	G	N1-C6-O6	5.40	123.14	119.90
26	14	453	C	C5-C6-N1	-5.40	118.30	121.00
26	14	676	A	N1-C6-N6	5.40	121.84	118.60
26	14	1787	A	C6-C5-N7	-5.40	128.52	132.30
26	1H	445	C	OP1-P-O3'	5.39	117.07	105.20
26	1H	580	C	C6-N1-C2	-5.39	118.14	120.30
26	1H	728	G	OP2-P-O3'	5.39	117.07	105.20
26	1H	2331	G	N9-C4-C5	-5.39	103.24	105.40
1	1G	810	C	C2-N1-C1'	5.39	124.73	118.80
26	1H	74	A	C4-C5-N7	5.39	113.40	110.70
26	14	203	C	N3-C4-C5	5.39	124.06	121.90
26	14	1613	G	N3-C2-N2	5.39	123.67	119.90
26	1H	569	U	N1-C2-O2	-5.39	119.03	122.80
26	1H	1394	U	C2-N3-C4	5.39	130.24	127.00
34	58	9	VAL	C-N-CA	-5.39	108.22	121.70
1	13	601	C	N3-C2-O2	-5.39	118.13	121.90
26	1H	576	U	C5-C6-N1	-5.39	120.01	122.70
26	1H	1431	U	C5-C6-N1	5.39	125.39	122.70
1	1G	109	A	N9-C4-C5	-5.39	103.64	105.80
1	1G	362	G	N3-C4-C5	5.39	131.29	128.60
22	1L	51	C	C2-N1-C1'	5.39	124.73	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	383	U	O5'-P-OP2	5.39	117.16	110.70
26	1H	458	G	N9-C4-C5	5.38	107.55	105.40
26	14	127	A	N1-C6-N6	5.38	121.83	118.60
1	13	825	G	N1-C6-O6	-5.38	116.67	119.90
26	1H	420	C	C5-C6-N1	-5.38	118.31	121.00
26	1H	743	G	C8-N9-C4	-5.38	104.25	106.40
26	14	2206	C	C6-N1-C2	5.38	122.45	120.30
1	13	872	A	C6-N1-C2	5.38	121.83	118.60
26	1H	602	G	C8-N9-C1'	-5.38	120.00	127.00
26	1H	938	G	N1-C6-O6	-5.38	116.67	119.90
46	H8	60	GLU	N-CA-C	-5.38	96.47	111.00
26	14	1779	U	C5-C4-O4	-5.38	122.67	125.90
26	1H	2287	A	C4-C5-N7	5.38	113.39	110.70
26	1H	2331	G	N3-C4-C5	5.38	131.29	128.60
26	1H	275	G	N7-C8-N9	-5.38	110.41	113.10
26	1H	835	A	O5'-P-OP2	-5.38	100.86	105.70
26	1H	1021	A	C5-C6-N1	-5.38	115.01	117.70
26	14	877	U	O4'-C1'-N1	5.38	112.50	108.20
26	14	1341	U	N1-C2-O2	-5.38	119.03	122.80
26	1H	647	G	C4-N9-C1'	5.38	133.49	126.50
26	1H	752	A	C2-N3-C4	-5.38	107.91	110.60
26	1H	1270	C	C6-N1-C2	5.38	122.45	120.30
26	1H	2706	G	C5-C6-N1	5.38	114.19	111.50
26	14	1394	U	O5'-P-OP2	5.38	117.15	110.70
26	14	1915	U	N3-C2-O2	-5.38	118.44	122.20
26	1H	679	C	N3-C4-C5	5.38	124.05	121.90
26	1H	1660	C	N3-C4-N4	-5.38	114.24	118.00
26	14	502	A	N1-C2-N3	5.38	131.99	129.30
26	14	2062	A	C4-N9-C1'	-5.38	116.62	126.30
1	13	1420	C	N3-C4-C5	5.37	124.05	121.90
26	1H	775	G	N1-C6-O6	-5.37	116.68	119.90
26	14	36	G	OP2-P-O3'	5.37	117.02	105.20
26	14	123	G	C5-C6-O6	-5.37	125.38	128.60
26	14	1812	A	N1-C2-N3	5.37	131.99	129.30
22	1K	69	C	P-O3'-C3'	5.37	126.15	119.70
26	1H	736	C	O5'-P-OP2	5.37	117.15	110.70
26	14	1975	G	N9-C4-C5	-5.37	103.25	105.40
26	14	2573	C	C2-N1-C1'	5.37	124.71	118.80
1	13	1305	G	N9-C4-C5	5.37	107.55	105.40
26	1H	686	G	N3-C4-N9	5.37	129.22	126.00
1	13	690	G	N7-C8-N9	5.37	115.78	113.10
26	1H	2209	C	N1-C2-O2	-5.37	115.68	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	859	G	N1-C6-O6	5.37	123.12	119.90
26	14	1252	G	C8-N9-C4	5.37	108.55	106.40
26	14	1525	G	OP1-P-OP2	5.37	127.65	119.60
1	13	963	G	N3-C2-N2	5.37	123.66	119.90
26	1H	697	C	N3-C4-C5	5.37	124.05	121.90
26	1H	1825	A	C5-N7-C8	5.37	106.58	103.90
26	1H	2061	G	C5-C6-O6	5.37	131.82	128.60
1	13	1266	G	N3-C4-N9	-5.37	122.78	126.00
26	1H	265	A	N3-C4-C5	5.37	130.56	126.80
26	1H	1589	C	O5'-P-OP2	5.37	117.14	110.70
26	14	1021	A	N1-C2-N3	5.37	131.98	129.30
26	14	1506	C	C5-C6-N1	5.37	123.68	121.00
1	13	1496	C	C2-N1-C1'	-5.36	112.90	118.80
26	1H	802	A	N1-C2-N3	-5.36	126.62	129.30
26	1H	1917	U	N1-C2-O2	5.36	126.56	122.80
26	14	621	A	C6-C5-N7	-5.36	128.55	132.30
26	14	1586	A	N7-C8-N9	5.36	116.48	113.80
26	1H	774	A	C5-C6-N6	-5.36	119.41	123.70
26	1H	1845	G	N9-C4-C5	5.36	107.55	105.40
26	1H	34	C	O5'-P-OP2	5.36	117.13	110.70
26	14	2286	A	C2-N3-C4	-5.36	107.92	110.60
1	13	1381	U	C2-N1-C1'	5.36	124.13	117.70
26	1H	2250	G	O5'-P-OP2	-5.36	100.88	105.70
26	14	470	A	N9-C4-C5	-5.36	103.66	105.80
26	14	1807	G	C8-N9-C4	5.36	108.54	106.40
26	14	2238	G	O4'-C1'-N9	-5.36	103.91	108.20
1	13	590	C	C6-N1-C2	-5.36	118.16	120.30
26	1H	2373	G	OP1-P-OP2	5.36	127.63	119.60
26	1H	2497	A	OP1-P-O3'	5.36	116.98	105.20
26	14	2245	U	OP1-P-O3'	5.36	116.98	105.20
26	1H	514	A	OP1-P-O3'	5.35	116.98	105.20
1	1G	1449	C	C2-N1-C1'	5.35	124.69	118.80
26	14	2394	C	N1-C2-O2	5.35	122.11	118.90
26	14	99	U	C5-C6-N1	-5.35	120.02	122.70
26	14	1142	U	C6-N1-C1'	-5.35	113.71	121.20
26	14	1348	G	C5-C6-O6	-5.35	125.39	128.60
26	1H	265	A	C6-C5-N7	-5.35	128.56	132.30
26	1H	739	G	O5'-P-OP2	-5.35	100.89	105.70
26	1H	2333	A	OP1-P-O3'	5.35	116.97	105.20
26	14	788	A	C6-C5-N7	-5.35	128.56	132.30
26	1H	697	C	C5-C4-N4	-5.35	116.46	120.20
26	1H	1142(A)	A	N1-C6-N6	5.35	121.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1698	A	C4-N9-C1'	5.35	135.92	126.30
26	1H	1844	C	N1-C2-O2	-5.35	115.69	118.90
26	1H	1911	U	N3-C2-O2	-5.35	118.46	122.20
1	1G	254	G	O5'-P-OP1	-5.35	100.89	105.70
26	1H	123	G	N1-C6-O6	5.35	123.11	119.90
26	1H	930	U	O5'-P-OP2	-5.35	100.89	105.70
1	13	131	C	N1-C2-O2	5.34	122.11	118.90
26	1H	1812	A	OP1-P-OP2	5.34	127.62	119.60
26	14	2032	G	C5-N7-C8	5.34	106.97	104.30
26	1H	1611	C	C5-C4-N4	-5.34	116.46	120.20
26	1H	2286	A	C4-N9-C1'	5.34	135.92	126.30
26	1H	947	G	N3-C2-N2	-5.34	116.16	119.90
26	1H	2441	C	N3-C2-O2	-5.34	118.16	121.90
1	1G	1518	A	O5'-P-OP1	-5.34	100.89	105.70
26	14	646	A	C8-N9-C4	-5.34	103.66	105.80
26	14	2061	G	N3-C2-N2	5.34	123.64	119.90
27	1J	89	G	C8-N9-C1'	-5.34	120.06	127.00
26	1H	270(K)	C	C5-C6-N1	5.34	123.67	121.00
26	1H	1122	G	N9-C4-C5	-5.34	103.26	105.40
26	1H	1314	C	N3-C2-O2	-5.34	118.16	121.90
26	1H	1767	C	N3-C2-O2	-5.34	118.16	121.90
26	1H	2000	G	O5'-P-OP1	5.34	117.11	110.70
1	1G	1502	A	N9-C4-C5	-5.34	103.66	105.80
26	14	117	G	C5-C6-O6	-5.34	125.40	128.60
26	14	144	C	C6-N1-C2	5.34	122.44	120.30
1	13	523	A	C2-N3-C4	-5.34	107.93	110.60
1	13	1305	G	C4-C5-N7	-5.34	108.67	110.80
26	1H	2307	G	C8-N9-C4	-5.34	104.27	106.40
33	61	110	ASP	C-N-CA	5.34	144.42	122.00
26	1H	2251	G	C4-C5-N7	-5.33	108.67	110.80
26	1H	2819	G	C8-N9-C4	5.33	108.53	106.40
1	1G	913	A	C8-N9-C4	-5.33	103.67	105.80
26	1H	395	U	N1-C2-O2	5.33	126.53	122.80
26	1H	1162	G	C4-C5-N7	-5.33	108.67	110.80
26	1H	1607	C	O5'-P-OP1	-5.33	100.90	105.70
27	16	106	G	C8-N9-C4	5.33	108.53	106.40
26	14	2699	C	N3-C4-C5	5.33	124.03	121.90
26	1H	330	A	N1-C2-N3	5.33	131.96	129.30
26	1H	1496	A	C5-C6-N6	-5.33	119.44	123.70
26	1H	1606	G	C8-N9-C4	5.33	108.53	106.40
26	1H	2517	C	N3-C4-C5	5.33	124.03	121.90
26	14	1239	G	O5'-P-OP1	-5.33	100.91	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2689	U	N1-C2-N3	5.33	118.10	114.90
54	M5	50	LEU	CA-CB-CG	-5.33	103.04	115.30
26	1H	1416	G	O4'-C1'-N9	5.33	112.46	108.20
26	1H	2712(A)	A	C4-C5-N7	5.33	113.36	110.70
26	1H	194	G	N9-C4-C5	-5.33	103.27	105.40
26	1H	1370	C	N1-C2-O2	-5.33	115.70	118.90
26	1H	2002	G	N9-C4-C5	5.33	107.53	105.40
26	14	1820	U	C6-N1-C2	5.33	124.19	121.00
26	14	1939	U	OP2-P-O3'	5.33	116.92	105.20
26	14	2791	C	OP2-P-O3'	5.33	116.92	105.20
26	14	2791	C	P-O3'-C3'	5.33	126.09	119.70
23	2K	27	G	N1-C2-N2	5.32	120.99	116.20
26	1H	60	G	OP2-P-O3'	5.32	116.91	105.20
26	1H	2082	A	C6-N1-C2	-5.32	115.41	118.60
26	14	800	A	O5'-P-OP1	-5.32	100.91	105.70
26	14	1301	A	O5'-P-OP1	-5.32	100.91	105.70
26	14	1379	A	C6-C5-N7	-5.32	128.57	132.30
1	13	872	A	N1-C2-N3	-5.32	126.64	129.30
26	1H	1785	A	OP2-P-O3'	5.32	116.91	105.20
26	1H	2332	U	N1-C2-O2	5.32	126.52	122.80
26	14	2490	G	C8-N9-C4	-5.32	104.27	106.40
26	1H	2258	C	O5'-P-OP1	-5.32	100.91	105.70
26	14	666	G	C2-N3-C4	-5.32	109.24	111.90
26	14	1902	C	C4-C5-C6	-5.32	114.74	117.40
26	1H	808	G	N1-C2-N2	-5.32	111.41	116.20
26	1H	918	A	O5'-P-OP2	5.32	117.08	110.70
26	1H	1022	G	P-O3'-C3'	5.32	126.08	119.70
26	1H	1633	G	N9-C4-C5	-5.32	103.27	105.40
26	1H	2264	C	OP1-P-O3'	5.32	116.90	105.20
27	1J	102	G	C5-C6-O6	5.32	131.79	128.60
26	1H	2343	C	C6-N1-C2	5.32	122.43	120.30
26	14	2620	C	C6-N1-C2	5.32	122.43	120.30
1	13	1518	A	C4-C5-N7	-5.31	108.04	110.70
26	1H	1996	C	C6-N1-C2	5.31	122.43	120.30
29	21	195	LEU	CA-CB-CG	5.31	127.52	115.30
1	13	1158	C	C6-N1-C2	-5.31	118.17	120.30
26	1H	512	G	C6-C5-N7	5.31	133.59	130.40
26	1H	2285	C	C5-C4-N4	5.31	123.92	120.20
26	14	1396	U	C6-N1-C1'	-5.31	113.76	121.20
26	1H	273(A)	G	C6-C5-N7	-5.31	127.21	130.40
1	13	866	C	O5'-P-OP1	-5.31	100.92	105.70
26	1H	383	U	O4'-C1'-N1	5.31	112.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	778	G	N1-C2-N2	-5.31	111.42	116.20
26	1H	788	A	OP2-P-O3'	5.31	116.88	105.20
27	1J	47	C	OP1-P-O3'	5.31	116.88	105.20
26	1H	560	C	C6-N1-C2	5.31	122.42	120.30
26	1H	602	G	C6-C5-N7	-5.31	127.22	130.40
26	1H	1204	A	O5'-P-OP2	-5.31	100.92	105.70
26	1H	2522	U	C2-N3-C4	-5.31	123.82	127.00
26	1H	2729	G	C8-N9-C4	5.31	108.52	106.40
24	3K	48	C	N1-C2-O2	5.30	122.08	118.90
26	1H	751	A	O5'-P-OP2	5.30	117.06	110.70
26	1H	807	U	OP1-P-OP2	5.30	127.56	119.60
26	1H	2253	G	N3-C2-N2	-5.30	116.19	119.90
26	14	575	A	O5'-P-OP1	-5.30	100.93	105.70
26	14	2199	A	OP2-P-O3'	5.30	116.87	105.20
23	2K	3	C	O5'-P-OP1	-5.30	100.93	105.70
26	1H	700	G	N9-C4-C5	5.30	107.52	105.40
26	1H	2506	U	C2-N1-C1'	5.30	124.06	117.70
1	1G	688	G	O5'-P-OP1	-5.30	100.93	105.70
26	14	788	A	O5'-P-OP1	-5.30	100.93	105.70
26	14	1611	C	C6-N1-C2	5.30	122.42	120.30
26	14	1784	A	O5'-P-OP2	-5.30	100.93	105.70
26	1H	513	A	C8-N9-C4	-5.30	103.68	105.80
26	14	2501	C	C5-C6-N1	-5.30	118.35	121.00
26	14	2545	G	C8-N9-C4	5.30	108.52	106.40
26	1H	1289	C	O5'-P-OP1	-5.30	100.93	105.70
26	1H	2059	A	N1-C6-N6	5.30	121.78	118.60
32	51	105	LEU	CA-CB-CG	5.30	127.48	115.30
26	14	2508	G	N1-C2-N2	5.30	120.97	116.20
25	4L	12	A	C8-N9-C1'	-5.29	118.17	127.70
26	14	756	C	C6-N1-C2	-5.29	118.18	120.30
1	13	751	U	O5'-P-OP1	-5.29	100.94	105.70
26	1H	1623	G	N3-C4-C5	-5.29	125.95	128.60
1	1G	299	G	C5-C6-O6	-5.29	125.42	128.60
26	14	1598	C	O5'-P-OP1	-5.29	100.94	105.70
26	14	1964	G	O5'-P-OP1	-5.29	100.94	105.70
26	1H	859	G	C4-N9-C1'	-5.29	119.62	126.50
26	1H	1186	G	C5-C6-N1	5.29	114.15	111.50
26	1H	1660	C	C2-N3-C4	-5.29	117.25	119.90
26	14	1964	G	N1-C6-O6	-5.29	116.73	119.90
26	1H	1197	G	C8-N9-C4	5.29	108.52	106.40
26	1H	2626	C	C2-N3-C4	-5.29	117.26	119.90
26	14	2035	G	O4'-C1'-N9	5.29	112.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	97	C	N1-C2-O2	5.29	122.07	118.90
26	14	2246	G	N3-C2-N2	-5.29	116.20	119.90
1	13	970	C	OP2-P-O3'	5.28	116.82	105.20
1	13	1517	G	C5-C6-O6	-5.28	125.43	128.60
26	1H	379	G	C8-N9-C4	5.28	108.51	106.40
26	1H	2489	G	OP2-P-O3'	5.28	116.82	105.20
26	14	789	A	C5-C6-N6	-5.28	119.47	123.70
26	14	1128	A	C8-N9-C4	5.28	107.91	105.80
26	14	161	U	C5-C6-N1	5.28	125.34	122.70
26	14	936	C	C6-N1-C2	5.28	122.41	120.30
22	1L	34	G	C4-N9-C1'	5.28	133.37	126.50
26	14	1786	A	C4-N9-C1'	5.28	135.81	126.30
26	1H	2501	C	OP1-P-OP2	-5.28	111.68	119.60
26	1H	2711	A	C8-N9-C4	5.28	107.91	105.80
26	1H	199	A	N1-C6-N6	-5.28	115.43	118.60
26	1H	123	G	C5-C6-O6	-5.27	125.44	128.60
26	1H	654(O)	G	O4'-C1'-N9	5.27	112.42	108.20
26	14	768	G	OP1-P-OP2	5.27	127.51	119.60
1	1G	109	A	C8-N9-C4	5.27	107.91	105.80
26	14	824	A	N7-C8-N9	-5.27	111.17	113.80
26	1H	955	C	OP1-P-OP2	5.27	127.50	119.60
26	1H	967	C	O5'-P-OP2	-5.27	100.96	105.70
26	1H	1333	C	C4-C5-C6	-5.27	114.77	117.40
26	1H	2274	A	OP2-P-O3'	5.27	116.80	105.20
26	14	671	C	N1-C2-O2	-5.27	115.74	118.90
26	14	791	C	OP2-P-O3'	5.27	116.79	105.20
26	14	1272	A	N1-C2-N3	-5.27	126.67	129.30
24	3K	50	G	N3-C2-N2	5.27	123.59	119.90
26	1H	144	C	C2-N3-C4	-5.27	117.27	119.90
26	1H	821	A	OP1-P-OP2	5.27	127.50	119.60
26	1H	963	U	O5'-P-OP2	5.27	117.02	110.70
26	1H	2807	G	C8-N9-C4	-5.27	104.29	106.40
26	14	852	G	O5'-P-OP2	-5.27	100.96	105.70
26	14	1256	G	C8-N9-C1'	-5.27	120.15	127.00
26	1H	1200	C	C5-C6-N1	-5.27	118.37	121.00
1	13	967	C	N3-C4-C5	5.26	124.01	121.90
26	1H	917	A	N9-C4-C5	-5.26	103.69	105.80
26	1H	1132	A	N1-C6-N6	-5.26	115.44	118.60
26	14	2880	C	C6-N1-C2	-5.26	118.19	120.30
1	13	656	C	C5-C6-N1	5.26	123.63	121.00
26	1H	126	A	OP2-P-O3'	5.26	116.78	105.20
26	1H	211	A	C8-N9-C4	5.26	107.90	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	757	U	C5-C6-N1	-5.26	120.07	122.70
1	1G	909	A	N1-C6-N6	5.26	121.76	118.60
26	1H	248	G	C4-C5-N7	-5.26	108.70	110.80
26	1H	1129	A	C5-C6-N6	-5.26	119.49	123.70
26	1H	1255	U	N3-C2-O2	5.26	125.88	122.20
26	1H	1610	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	2538	C	C2-N3-C4	-5.26	117.27	119.90
26	1H	178	G	C5-C6-N1	5.26	114.13	111.50
26	1H	222	A	OP1-P-O3'	5.26	116.77	105.20
26	1H	1297	C	OP1-P-O3'	5.26	116.76	105.20
26	1H	2284	C	N3-C2-O2	5.26	125.58	121.90
1	1G	697	U	C2-N3-C4	-5.26	123.85	127.00
26	14	915	C	C6-N1-C2	-5.26	118.20	120.30
26	14	1653	G	OP1-P-OP2	5.26	127.48	119.60
26	1H	74	A	C4-C5-C6	5.25	119.63	117.00
26	1H	1248	G	N1-C6-O6	5.25	123.05	119.90
26	1H	523	C	C6-N1-C2	-5.25	118.20	120.30
26	1H	664	C	C5-C6-N1	-5.25	118.37	121.00
47	I8	44	ARG	NE-CZ-NH1	-5.25	117.67	120.30
26	14	1394	U	OP2-P-O3'	5.25	116.76	105.20
1	13	1432	G	C4-C5-C6	5.25	121.95	118.80
26	1H	335	C	C2-N3-C4	5.25	122.53	119.90
26	1H	533	G	N3-C2-N2	-5.25	116.22	119.90
26	1H	733	G	O5'-P-OP2	-5.25	100.97	105.70
26	1H	1858	G	N3-C4-C5	-5.25	125.97	128.60
27	16	15	A	C4-C5-N7	5.25	113.33	110.70
1	1G	209	U	N3-C2-O2	-5.25	118.52	122.20
1	13	910	C	C6-N1-C2	5.25	122.40	120.30
26	1H	119	A	OP1-P-O3'	5.25	116.75	105.20
26	1H	252	G	O5'-P-OP1	5.25	117.00	110.70
26	14	1379	A	C4-C5-N7	5.25	113.33	110.70
26	1H	471	A	C5-N7-C8	-5.25	101.28	103.90
26	1H	1817	G	N1-C2-N2	-5.25	111.48	116.20
26	1H	1942	C	N3-C4-C5	5.25	124.00	121.90
26	1H	2259	G	OP1-P-OP2	-5.25	111.73	119.60
26	1H	2554	U	C5-C4-O4	-5.25	122.75	125.90
26	1H	2741	A	OP2-P-O3'	5.25	116.74	105.20
26	14	1319	G	O5'-P-OP2	-5.25	100.98	105.70
26	14	1899	G	C5-C6-O6	5.25	131.75	128.60
26	1H	1807	G	C5-C6-O6	-5.24	125.45	128.60
26	14	1372	U	N1-C2-N3	5.24	118.05	114.90
26	14	2643	G	C8-N9-C4	5.24	108.50	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	299	G	C4-C5-N7	5.24	112.90	110.80
26	14	624	C	N1-C2-O2	-5.24	115.75	118.90
26	14	1762	A	C4-C5-N7	5.24	113.32	110.70
26	14	1999	C	OP2-P-O3'	5.24	116.73	105.20
1	13	858	G	N3-C4-C5	-5.24	125.98	128.60
26	1H	138	G	N9-C1'-C2'	5.24	120.81	114.00
26	1H	1466	G	OP2-P-O3'	5.24	116.73	105.20
26	1H	2412	A	C6-N1-C2	-5.24	115.45	118.60
26	1H	263	C	N3-C2-O2	-5.24	118.23	121.90
26	1H	818	G	C8-N9-C4	5.24	108.50	106.40
55	3L	63	G	C5-C6-O6	-5.24	125.46	128.60
26	14	743	G	C8-N9-C4	5.24	108.50	106.40
1	13	758	G	C2-N3-C4	-5.24	109.28	111.90
26	1H	2585	U	N3-C2-O2	-5.24	118.53	122.20
26	14	1258	C	OP2-P-O3'	5.24	116.72	105.20
26	14	2335	A	N1-C6-N6	-5.24	115.46	118.60
1	13	1499	A	O5'-P-OP1	-5.23	100.99	105.70
26	1H	1201	C	N3-C2-O2	5.23	125.56	121.90
26	1H	1626	G	N3-C2-N2	-5.23	116.24	119.90
26	14	910	A	OP2-P-O3'	5.23	116.72	105.20
26	14	2590	A	C8-N9-C4	5.23	107.89	105.80
1	13	900	A	OP1-P-OP2	-5.23	111.75	119.60
1	13	1142	G	O4'-C1'-N9	5.23	112.39	108.20
26	1H	1021	A	C4-C5-N7	5.23	113.32	110.70
26	1H	2645	G	C5-N7-C8	-5.23	101.68	104.30
26	14	753	C	C5-C6-N1	-5.23	118.38	121.00
26	1H	790	C	N1-C2-O2	-5.23	115.76	118.90
26	1H	1599	C	N3-C2-O2	-5.23	118.24	121.90
26	14	2644	G	N3-C4-C5	5.23	131.22	128.60
27	1J	81	G	C5-N7-C8	-5.23	101.69	104.30
26	1H	1373	A	O5'-P-OP1	5.23	116.97	110.70
1	1G	953	G	N3-C4-N9	5.23	129.14	126.00
26	14	199	A	OP2-P-O3'	5.23	116.70	105.20
26	1H	2561	A	C4-C5-N7	-5.23	108.09	110.70
26	14	1992	G	C8-N9-C4	-5.23	104.31	106.40
26	14	2073	C	N3-C2-O2	5.23	125.56	121.90
26	1H	2469	A	O4'-C1'-N9	5.23	112.38	108.20
26	14	1269	A	N9-C4-C5	-5.23	103.71	105.80
1	13	827	U	C4-C5-C6	5.22	122.83	119.70
1	13	975	A	O4'-C1'-N9	-5.22	104.02	108.20
26	1H	789	A	C2-N3-C4	-5.22	107.99	110.60
26	1H	1558	A	C2-N3-C4	-5.22	107.99	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2002	G	C8-N9-C4	-5.22	104.31	106.40
26	1H	2051	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	2060	A	C5-N7-C8	-5.22	101.29	103.90
1	1G	251	G	O5'-P-OP1	-5.22	101.00	105.70
26	14	94	G	N1-C6-O6	5.22	123.03	119.90
26	14	681	G	N1-C2-N2	-5.22	111.50	116.20
1	13	545	C	N1-C2-O2	5.22	122.03	118.90
1	13	882	C	C6-N1-C2	-5.22	118.21	120.30
22	1K	2	C	P-O3'-C3'	5.22	125.97	119.70
26	1H	1649	G	N3-C4-C5	-5.22	125.99	128.60
26	1H	2592	G	O5'-P-OP2	-5.22	101.00	105.70
22	1L	2	C	N1-C2-O2	5.22	122.03	118.90
26	1H	532	A	C4-C5-N7	5.22	113.31	110.70
26	1H	2712(A)	A	N9-C4-C5	-5.22	103.71	105.80
26	14	1271	G	N9-C4-C5	-5.22	103.31	105.40
24	3K	76	A	C5-C6-N6	-5.22	119.53	123.70
26	1H	2032	G	C5-N7-C8	5.22	106.91	104.30
28	11	272	ALA	C-N-CA	5.22	134.75	121.70
55	3L	7	A	C8-N9-C4	-5.22	103.71	105.80
26	14	2328	A	O5'-P-OP2	-5.22	101.00	105.70
26	14	2565	A	O5'-P-OP2	5.22	116.96	110.70
1	13	1299	A	C4-C5-C6	5.22	119.61	117.00
26	1H	2079	U	O5'-P-OP1	-5.22	101.00	105.70
26	1H	2520	C	OP1-P-OP2	-5.22	111.78	119.60
23	2L	17	C	N1-C2-O2	5.22	122.03	118.90
26	14	1418	G	N1-C6-O6	5.22	123.03	119.90
1	13	586	C	C5-C6-N1	-5.21	118.39	121.00
26	1H	2361	A	C8-N9-C4	5.21	107.89	105.80
26	1H	2688	U	N1-C2-N3	5.21	118.03	114.90
26	14	1831	G	C8-N9-C1'	-5.21	120.22	127.00
26	14	2261	C	OP2-P-O3'	5.21	116.67	105.20
26	1H	508	G	C8-N9-C1'	-5.21	120.22	127.00
26	1H	2375	G	OP2-P-O3'	5.21	116.67	105.20
26	14	1341	U	N3-C2-O2	5.21	125.85	122.20
1	13	1489	G	OP2-P-O3'	5.21	116.66	105.20
26	1H	943	U	C4-C5-C6	5.21	122.83	119.70
26	1H	1404	C	O5'-P-OP2	-5.21	101.01	105.70
26	1H	2041	U	C6-N1-C2	5.21	124.13	121.00
26	1H	2328	A	N1-C2-N3	5.21	131.91	129.30
27	16	8	U	O5'-P-OP1	5.21	116.95	110.70
26	14	741	G	N9-C4-C5	5.21	107.48	105.40
26	14	1762	A	C5-N7-C8	-5.21	101.29	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2502	G	N3-C4-C5	-5.21	125.99	128.60
1	13	1	U	C2-N1-C1'	5.21	123.95	117.70
26	1H	598	G	OP1-P-OP2	5.21	127.42	119.60
26	1H	1780	A	C8-N9-C4	-5.21	103.72	105.80
26	14	2518	A	C4-C5-N7	5.21	113.31	110.70
1	13	757	U	C5-C6-N1	-5.21	120.10	122.70
26	1H	206	U	C5-C6-N1	-5.21	120.10	122.70
26	1H	700	G	C2-N3-C4	5.21	114.50	111.90
26	14	773	U	N1-C2-N3	5.21	118.03	114.90
1	13	391	G	N1-C6-O6	-5.21	116.78	119.90
26	1H	857	C	OP1-P-OP2	5.21	127.41	119.60
26	1H	1970	A	N9-C4-C5	-5.21	103.72	105.80
26	1H	2267	A	N1-C6-N6	-5.21	115.48	118.60
26	1H	2282	G	O5'-P-OP2	5.21	116.95	110.70
26	1H	2375	G	C8-N9-C4	5.21	108.48	106.40
26	1H	2458	G	N1-C6-O6	5.21	123.02	119.90
26	14	1129	A	O4'-C1'-N9	5.21	112.37	108.20
26	14	1297	C	N3-C4-C5	5.21	123.98	121.90
26	1H	736	C	C5-C4-N4	-5.21	116.56	120.20
1	13	827	U	C6-N1-C2	-5.20	117.88	121.00
22	1K	52	A	O4'-C1'-N9	-5.20	104.04	108.20
26	1H	1021	A	C8-N9-C4	-5.20	103.72	105.80
26	14	686	G	C4-C5-N7	5.20	112.88	110.80
26	1H	839	U	OP1-P-OP2	5.20	127.40	119.60
26	1H	1187	G	O5'-P-OP2	-5.20	101.02	105.70
26	14	315	G	O5'-P-OP2	-5.20	101.02	105.70
26	1H	794	G	C4-C5-N7	-5.20	108.72	110.80
26	1H	945	A	C8-N9-C4	-5.20	103.72	105.80
26	1H	2467	C	O5'-P-OP2	-5.20	101.02	105.70
26	1H	2494	G	C5-C6-O6	5.20	131.72	128.60
26	1H	1381	G	N3-C4-N9	-5.20	122.88	126.00
26	14	1971	A	C6-N1-C2	-5.20	115.48	118.60
26	14	929	G	C4-C5-N7	5.20	112.88	110.80
26	14	1382	G	OP2-P-O3'	5.20	116.63	105.20
26	14	2589	A	N9-C4-C5	-5.20	103.72	105.80
26	1H	265	A	C4-C5-N7	5.20	113.30	110.70
26	1H	1399	C	OP2-P-O3'	5.20	116.63	105.20
26	1H	2508	G	N1-C6-O6	-5.20	116.78	119.90
29	29	144	ARG	NE-CZ-NH1	5.20	122.90	120.30
26	1H	783	A	N9-C1'-C2'	-5.19	106.29	112.00
26	1H	1758	G	N1-C6-O6	5.19	123.02	119.90
26	14	57	C	OP2-P-O3'	5.19	116.62	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	866	A	N9-C4-C5	-5.19	103.72	105.80
26	14	2062	A	C6-N1-C2	5.19	121.72	118.60
27	1J	47	C	N3-C4-C5	5.19	123.98	121.90
26	1H	199	A	C5-C6-N1	5.19	120.30	117.70
26	14	2286	A	N1-C6-N6	5.19	121.71	118.60
26	14	2646	C	C6-N1-C2	-5.19	118.22	120.30
26	1H	1888	G	O4'-C1'-N9	5.19	112.35	108.20
1	1G	191	G	C8-N9-C4	-5.19	104.33	106.40
26	14	101	G	N7-C8-N9	5.19	115.69	113.10
26	14	123	G	N1-C6-O6	5.19	123.01	119.90
24	3K	76	A	N3-C4-C5	5.19	130.43	126.80
26	1H	2062	A	C8-N9-C4	5.19	107.88	105.80
26	14	693	C	C5-C4-N4	5.19	123.83	120.20
26	14	1919	A	C8-N9-C4	5.19	107.88	105.80
26	1H	577	G	C4-C5-N7	5.19	112.87	110.80
26	1H	2507	C	C2-N1-C1'	5.19	124.50	118.80
26	1H	528	A	C4-N9-C1'	-5.18	116.97	126.30
26	1H	552	G	C8-N9-C4	5.18	108.47	106.40
26	1H	778	G	C5-C6-O6	5.18	131.71	128.60
26	1H	1660	C	N1-C2-N3	5.18	122.83	119.20
26	1H	1796	U	O5'-P-OP2	5.18	116.92	110.70
26	1H	2505	G	C4-C5-N7	5.18	112.87	110.80
26	14	101	G	N3-C4-N9	5.18	129.11	126.00
26	14	571	A	C5-C6-N6	-5.18	119.55	123.70
26	14	1308	A	C8-N9-C4	-5.18	103.73	105.80
26	14	1382	G	C4-C5-N7	5.18	112.87	110.80
26	14	2575	C	N3-C4-C5	-5.18	119.83	121.90
26	1H	784	A	OP1-P-O3'	5.18	116.60	105.20
26	1H	2060	A	C4-C5-C6	-5.18	114.41	117.00
26	14	1142	U	N1-C2-O2	5.18	126.43	122.80
26	14	1678	G	C6-C5-N7	-5.18	127.29	130.40
26	14	2838	G	O5'-P-OP1	-5.18	101.04	105.70
1	13	309	G	N3-C2-N2	-5.18	116.27	119.90
26	1H	1752	C	C6-N1-C2	5.18	122.37	120.30
26	14	208	C	N1-C2-O2	-5.18	115.79	118.90
26	14	639	U	N3-C2-O2	-5.18	118.57	122.20
26	14	1489	U	C2-N1-C1'	-5.18	111.48	117.70
26	1H	1202	C	N1-C2-O2	-5.18	115.79	118.90
26	1H	2698	U	C5-C6-N1	-5.18	120.11	122.70
1	1G	1058	G	N3-C4-N9	5.18	129.11	126.00
26	14	1761	C	C6-N1-C2	5.18	122.37	120.30
26	14	2059	A	OP2-P-O3'	5.18	116.59	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	795	C	O5'-P-OP2	-5.18	101.04	105.70
26	1H	940	G	C5-N7-C8	5.18	106.89	104.30
1	1G	1414	U	C2-N1-C1'	-5.18	111.49	117.70
26	14	2376	A	C8-N9-C4	5.18	107.87	105.80
26	1H	843	G	O5'-P-OP2	5.17	116.91	110.70
26	1H	1300	U	O5'-P-OP2	-5.17	101.04	105.70
26	1H	1920	C	N1-C2-O2	5.17	122.00	118.90
26	1H	1940	U	N3-C2-O2	5.17	125.82	122.20
26	14	99	U	C2-N1-C1'	-5.17	111.49	117.70
26	14	399	G	N9-C4-C5	-5.17	103.33	105.40
26	14	946	G	O5'-P-OP1	-5.17	101.04	105.70
1	13	346	G	C8-N9-C4	-5.17	104.33	106.40
26	1H	113	G	N1-C2-N2	5.17	120.86	116.20
26	1H	568	U	N3-C2-O2	5.17	125.82	122.20
26	1H	1228	G	OP1-P-OP2	-5.17	111.84	119.60
26	1H	391	G	N3-C4-C5	5.17	131.19	128.60
26	1H	2291	U	C6-N1-C1'	5.17	128.44	121.20
26	1H	2424	C	N1-C2-N3	-5.17	115.58	119.20
1	1G	913	A	N1-C6-N6	-5.17	115.50	118.60
1	13	1010	G	N3-C4-C5	5.17	131.19	128.60
26	1H	1573	G	N9-C4-C5	-5.17	103.33	105.40
26	1H	2538	C	C5-C6-N1	-5.17	118.42	121.00
26	14	2457	U	N3-C2-O2	-5.17	118.58	122.20
1	13	1519	A	N1-C6-N6	-5.17	115.50	118.60
25	4K	14	A	O4'-C1'-N9	5.17	112.33	108.20
26	1H	2597	G	C5-C6-N1	5.17	114.08	111.50
26	14	2326	C	O5'-P-OP1	-5.17	101.05	105.70
26	14	2331	G	OP2-P-O3'	5.17	116.57	105.20
26	1H	1250	G	N3-C2-N2	5.17	123.52	119.90
26	1H	1825	A	O5'-P-OP1	5.17	116.90	110.70
26	1H	2635	C	C6-N1-C2	5.17	122.37	120.30
26	14	970	C	C6-N1-C1'	5.17	127.00	120.80
26	14	1437	C	N3-C2-O2	-5.17	118.28	121.90
26	1H	2082	A	N7-C8-N9	-5.17	111.22	113.80
26	14	2439	A	O4'-C1'-N9	-5.17	104.07	108.20
26	14	2510	C	C5-C6-N1	-5.17	118.42	121.00
26	14	2576	G	C2-N3-C4	5.17	114.48	111.90
1	13	422	C	O4'-C1'-N1	5.16	112.33	108.20
26	1H	116	C	C5-C6-N1	-5.16	118.42	121.00
26	1H	1633	G	C4-C5-N7	5.16	112.87	110.80
26	1H	2604	U	N1-C2-O2	5.16	126.41	122.80
26	14	761	A	OP1-P-O3'	5.16	116.56	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2233	U	N3-C4-C5	5.16	117.70	114.60
1	13	1207	G	O5'-P-OP2	-5.16	101.06	105.70
1	13	1336	C	P-O3'-C3'	5.16	125.89	119.70
26	1H	194	G	N7-C8-N9	-5.16	110.52	113.10
26	14	819	A	O5'-P-OP1	-5.16	101.06	105.70
1	13	1432	G	N1-C2-N2	-5.16	111.56	116.20
26	1H	593	G	N3-C4-N9	5.16	129.09	126.00
26	1H	1262	A	N1-C6-N6	-5.16	115.50	118.60
26	14	1605	C	OP1-P-OP2	5.16	127.34	119.60
26	14	2596	U	O5'-P-OP2	-5.16	101.06	105.70
26	1H	1891	G	OP2-P-O3'	5.16	116.55	105.20
26	1H	2394	C	OP2-P-O3'	5.16	116.55	105.20
1	13	1426	C	N3-C4-C5	-5.16	119.84	121.90
26	1H	202	U	N3-C4-C5	5.16	117.69	114.60
26	1H	1559	G	N3-C4-N9	-5.16	122.91	126.00
26	1H	1586	A	C5-N7-C8	-5.16	101.32	103.90
26	1H	2375	G	N9-C1'-C2'	-5.16	106.33	112.00
47	I8	15	ASP	CB-CG-OD1	5.16	122.94	118.30
26	14	2069	G	C8-N9-C4	5.16	108.46	106.40
27	1J	102	G	C4-C5-N7	-5.16	108.74	110.80
26	1H	2449	U	OP2-P-O3'	5.15	116.54	105.20
26	14	2610	C	N3-C4-C5	5.15	123.96	121.90
26	1H	189	G	N9-C4-C5	-5.15	103.34	105.40
26	1H	1922	G	O5'-P-OP2	-5.15	101.06	105.70
26	1H	1967	C	OP1-P-OP2	5.15	127.33	119.60
26	1H	2360	A	O5'-P-OP2	-5.15	101.06	105.70
23	2L	5	G	C8-N9-C4	5.15	108.46	106.40
1	13	305	G	C5-C6-O6	5.15	131.69	128.60
26	1H	124	G	N9-C4-C5	-5.15	103.34	105.40
26	1H	2299	G	O5'-P-OP2	5.15	116.88	110.70
26	14	504	U	O5'-P-OP1	-5.15	101.06	105.70
1	13	776	G	OP2-P-O3'	5.15	116.53	105.20
26	1H	122	G	C6-N1-C2	-5.15	122.01	125.10
26	14	1776	G	O5'-P-OP1	5.15	116.88	110.70
1	13	970	C	N3-C4-N4	5.15	121.60	118.00
26	1H	1775	U	OP1-P-O3'	5.15	116.52	105.20
26	1H	1955	U	C5-C4-O4	5.15	128.99	125.90
26	14	1497	U	C2-N1-C1'	-5.15	111.52	117.70
26	14	2492	U	O5'-P-OP1	-5.15	101.07	105.70
26	1H	1308	A	C4-C5-N7	-5.15	108.13	110.70
26	1H	1786	A	C4-C5-C6	5.15	119.57	117.00
54	Q8	47	LYS	N-CA-C	-5.15	97.11	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2387	U	OP2-P-O3'	5.15	116.52	105.20
1	13	767	A	C2-N3-C4	-5.14	108.03	110.60
26	1H	23	G	N3-C2-N2	-5.14	116.30	119.90
26	1H	265	A	N7-C8-N9	5.14	116.37	113.80
26	14	101	G	N3-C4-C5	-5.14	126.03	128.60
26	14	964	C	O5'-P-OP1	-5.14	101.07	105.70
26	14	2456	C	OP2-P-O3'	5.14	116.52	105.20
26	14	2498	C	O5'-P-OP2	-5.14	101.07	105.70
26	1H	577	G	C5-C6-O6	-5.14	125.52	128.60
26	1H	788	A	C4-C5-N7	5.14	113.27	110.70
26	1H	1770	G	OP1-P-O3'	5.14	116.52	105.20
26	14	1272	A	C6-N1-C2	5.14	121.69	118.60
26	14	1959	G	N9-C4-C5	5.14	107.46	105.40
1	13	1432	G	C4-C5-N7	5.14	112.86	110.80
26	1H	755	C	N3-C4-N4	5.14	121.60	118.00
26	1H	2371	G	N1-C6-O6	5.14	122.98	119.90
26	14	25	U	C6-N1-C2	5.14	124.08	121.00
26	14	117	G	N3-C4-C5	-5.14	126.03	128.60
26	14	252	G	N1-C6-O6	-5.14	116.82	119.90
26	1H	1382	G	OP2-P-O3'	5.14	116.50	105.20
26	14	528	A	O4'-C1'-N9	-5.14	104.09	108.20
26	14	783	A	C5-C6-N6	-5.14	119.59	123.70
26	14	2392	A	C2-N3-C4	-5.14	108.03	110.60
26	14	2584	U	C2-N1-C1'	5.14	123.86	117.70
26	1H	103	A	C8-N9-C4	5.14	107.86	105.80
26	1H	845	G	C4-C5-N7	5.14	112.86	110.80
26	1H	2061	G	O5'-P-OP2	-5.14	101.08	105.70
26	1H	2444	G	C8-N9-C4	-5.14	104.34	106.40
26	14	970	C	C2-N1-C1'	-5.14	113.15	118.80
26	14	2604	U	C6-N1-C2	5.14	124.08	121.00
1	13	743	U	C5-C6-N1	-5.13	120.13	122.70
26	1H	1506	C	C2-N1-C1'	5.13	124.45	118.80
26	1H	1555	G	O5'-P-OP1	-5.13	101.08	105.70
26	1H	2340	G	C8-N9-C4	5.13	108.45	106.40
26	1H	2393	A	C5-C6-N6	5.13	127.81	123.70
1	13	723	U	C5-C6-N1	5.13	125.27	122.70
27	1J	89	G	N3-C4-C5	-5.13	126.03	128.60
26	1H	1122	G	C4-C5-N7	5.13	112.85	110.80
26	1H	1271	G	O5'-P-OP2	-5.13	101.08	105.70
26	1H	2599	G	N3-C2-N2	5.13	123.49	119.90
26	14	2873	A	C4-N9-C1'	5.13	135.54	126.30
26	1H	1771	C	C2-N3-C4	-5.13	117.33	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1698	A	O4'-C1'-N9	5.13	112.30	108.20
26	14	2303	G	OP1-P-O3'	5.13	116.49	105.20
26	1H	1953	A	C5-C6-N1	5.13	120.27	117.70
26	14	915	C	N3-C2-O2	-5.13	118.31	121.90
26	14	1613	G	N1-C6-O6	-5.13	116.82	119.90
26	14	2062	A	N3-C4-C5	5.13	130.39	126.80
26	14	2329	G	C8-N9-C4	5.13	108.45	106.40
26	14	2430	A	C4-C5-N7	5.13	113.26	110.70
26	14	2712	U	N3-C4-O4	-5.13	115.81	119.40
26	1H	1337	G	OP1-P-O3'	5.13	116.48	105.20
26	14	380	U	N3-C2-O2	-5.13	118.61	122.20
26	14	1241	A	N1-C6-N6	5.13	121.68	118.60
26	14	2871	C	O5'-P-OP2	-5.13	101.09	105.70
1	13	40	C	O5'-P-OP2	-5.12	101.09	105.70
26	1H	546	C	N3-C2-O2	-5.12	118.31	121.90
26	1H	2351	G	N3-C4-N9	5.12	129.07	126.00
1	13	733	A	C8-N9-C4	5.12	107.85	105.80
26	1H	1202	C	C4-C5-C6	5.12	119.96	117.40
26	1H	1692	U	C5-C6-N1	-5.12	120.14	122.70
26	1H	1980	G	N9-C4-C5	5.12	107.45	105.40
23	2L	48	U	P-O3'-C3'	5.12	125.85	119.70
1	13	395	C	C6-N1-C2	5.12	122.35	120.30
26	1H	1131	G	O4'-C1'-N9	5.12	112.30	108.20
26	1H	2380	C	C5-C6-N1	-5.12	118.44	121.00
26	14	330	A	N1-C6-N6	5.12	121.67	118.60
26	14	510	C	OP1-P-OP2	5.12	127.28	119.60
26	14	676	A	C4-C5-C6	-5.12	114.44	117.00
26	14	946	G	N3-C4-C5	5.12	131.16	128.60
27	1J	52	A	OP2-P-O3'	5.12	116.47	105.20
26	1H	2638	G	N9-C4-C5	-5.12	103.35	105.40
26	14	772	C	N1-C2-O2	-5.12	115.83	118.90
26	1H	684	G	C2-N3-C4	5.12	114.46	111.90
26	1H	830	G	C4-C5-N7	-5.12	108.75	110.80
26	1H	830	G	N1-C6-O6	-5.12	116.83	119.90
26	1H	1320	C	C6-N1-C2	5.12	122.35	120.30
26	1H	1742	C	C6-N1-C2	-5.12	118.25	120.30
55	3L	46	G	C8-N9-C1'	5.12	133.65	127.00
26	14	792	G	C5-C6-N1	5.12	114.06	111.50
26	14	2392	A	C8-N9-C4	-5.12	103.75	105.80
1	13	748	C	P-O3'-C3'	5.12	125.84	119.70
26	1H	828	U	N3-C2-O2	-5.12	118.62	122.20
26	1H	1534	G	C8-N9-C1'	-5.12	120.35	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1498	U	P-O3'-C3'	5.12	125.84	119.70
26	14	330	A	N1-C2-N3	5.12	131.86	129.30
26	14	948	G	N3-C2-N2	-5.12	116.32	119.90
26	14	1328	G	N3-C2-N2	-5.12	116.32	119.90
1	13	266	G	C8-N9-C4	-5.12	104.35	106.40
26	1H	385	C	OP1-P-OP2	5.12	127.27	119.60
26	1H	1912	A	C8-N9-C4	5.12	107.85	105.80
26	1H	2455	G	N1-C2-N2	-5.12	111.60	116.20
1	1G	1322	C	C2-N3-C4	5.12	122.46	119.90
26	14	2287	A	C5-C6-N1	-5.12	115.14	117.70
1	13	572	A	C8-N9-C4	5.11	107.84	105.80
1	1G	1301	U	OP1-P-O3'	5.11	116.45	105.20
26	14	1267	U	O5'-P-OP2	-5.11	101.10	105.70
26	14	1930	G	N7-C8-N9	-5.11	110.54	113.10
26	14	1949	G	C5-N7-C8	5.11	106.86	104.30
26	1H	1731	G	N1-C6-O6	-5.11	116.83	119.90
26	14	733	G	C4-C5-C6	5.11	121.87	118.80
1	13	31	G	C8-N9-C4	-5.11	104.36	106.40
26	1H	1411	C	N3-C2-O2	-5.11	118.32	121.90
26	1H	1959	G	C8-N9-C4	-5.11	104.36	106.40
27	16	78	A	OP2-P-O3'	5.11	116.44	105.20
26	14	2584	U	C6-N1-C1'	-5.11	114.05	121.20
27	16	5	C	C6-N1-C2	5.11	122.34	120.30
1	1G	137	C	C6-N1-C2	5.11	122.34	120.30
26	14	2336	A	O4'-C1'-N9	-5.11	104.11	108.20
1	13	1137	C	O4'-C1'-N1	5.11	112.29	108.20
25	4K	11	U	C2-N1-C1'	5.11	123.83	117.70
26	1H	2509	G	C5-C6-N1	5.11	114.05	111.50
26	14	507	A	OP1-P-OP2	-5.11	111.94	119.60
26	14	586	A	O5'-P-OP1	-5.11	101.10	105.70
26	14	2374	C	N3-C4-C5	5.11	123.94	121.90
26	14	2688	U	C2-N3-C4	-5.11	123.94	127.00
27	1J	74	U	C5-C6-N1	-5.11	120.15	122.70
26	1H	85	G	O5'-P-OP1	5.11	116.83	110.70
26	1H	1203	G	N3-C4-N9	5.11	129.06	126.00
26	1H	2469	A	C4-C5-N7	5.11	113.25	110.70
26	14	1887	C	C6-N1-C2	-5.11	118.26	120.30
26	1H	2392	A	N3-C4-N9	-5.10	123.32	127.40
26	14	2464	C	C5-C6-N1	-5.10	118.45	121.00
26	1H	1666	G	C5-C6-O6	5.10	131.66	128.60
26	1H	2031	A	C2-N3-C4	5.10	113.15	110.60
27	16	50	G	OP2-P-O3'	5.10	116.42	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1585	C	C6-N1-C2	-5.10	118.26	120.30
28	19	257	LEU	CA-CB-CG	5.10	127.03	115.30
26	14	2365	G	O5'-P-OP1	5.10	116.82	110.70
26	14	2511	U	N1-C2-O2	5.10	126.37	122.80
26	1H	701	G	N9-C4-C5	5.10	107.44	105.40
26	1H	1210	A	C5-C6-N1	-5.10	115.15	117.70
26	1H	1314	C	C6-N1-C1'	-5.10	114.68	120.80
1	1G	754	C	C2-N1-C1'	5.10	124.41	118.80
1	1G	1314	C	C6-N1-C2	-5.10	118.26	120.30
26	14	1772	G	OP1-P-OP2	5.10	127.25	119.60
26	1H	2273	A	N1-C2-N3	-5.10	126.75	129.30
26	14	1376	C	O5'-P-OP1	-5.10	101.11	105.70
26	14	1395	A	C8-N9-C4	5.10	107.84	105.80
26	14	2258	C	C4-C5-C6	5.10	119.95	117.40
1	13	963	G	N1-C6-O6	-5.10	116.84	119.90
1	13	1519	A	C2-N3-C4	-5.10	108.05	110.60
26	1H	2490	G	N3-C4-N9	-5.10	122.94	126.00
26	14	2013	A	C8-N9-C4	5.10	107.84	105.80
1	13	1299	A	C2-N3-C4	-5.09	108.05	110.60
26	1H	46	C	N3-C4-N4	5.09	121.57	118.00
26	1H	121	G	N9-C4-C5	-5.09	103.36	105.40
26	1H	1835	G	C6-C5-N7	-5.09	127.34	130.40
26	1H	2473	U	C6-N1-C1'	-5.09	114.07	121.20
26	1H	2624	G	N1-C6-O6	-5.09	116.84	119.90
26	1H	2712	U	N3-C4-O4	-5.09	115.83	119.40
27	16	81	G	C8-N9-C4	-5.09	104.36	106.40
55	3L	61	C	C5-C6-N1	5.09	123.55	121.00
26	14	911	A	OP1-P-O3'	5.09	116.41	105.20
26	14	2330	G	C5-C6-O6	-5.09	125.54	128.60
26	1H	912	C	C2-N1-C1'	5.09	124.40	118.80
26	1H	2763	G	N9-C4-C5	-5.09	103.36	105.40
1	1G	117	G	N9-C4-C5	-5.09	103.36	105.40
26	14	1379	A	P-O3'-C3'	5.09	125.81	119.70
26	1H	2260	C	C6-N1-C2	5.09	122.33	120.30
27	16	70	C	N1-C2-O2	5.09	121.95	118.90
26	14	63	U	N3-C2-O2	5.09	125.76	122.20
26	14	2490	G	C5-C6-O6	-5.09	125.55	128.60
26	1H	383	U	C5-C6-N1	-5.09	120.16	122.70
1	1G	819	A	N1-C6-N6	5.09	121.65	118.60
1	1G	960	U	N1-C2-N3	5.09	117.95	114.90
1	1G	1299	A	C4-N9-C1'	5.09	135.46	126.30
26	14	1317	A	OP1-P-O3'	5.09	116.39	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	805	G	C6-C5-N7	-5.09	127.35	130.40
26	1H	861	A	N9-C4-C5	-5.09	103.77	105.80
26	1H	1888	G	N3-C4-N9	5.09	129.05	126.00
26	14	2490	G	N3-C2-N2	5.09	123.46	119.90
26	14	2331	G	C6-N1-C2	-5.08	122.05	125.10
26	14	2739	U	OP1-P-OP2	5.08	127.23	119.60
1	13	893	C	N3-C4-C5	5.08	123.93	121.90
26	1H	238	C	N1-C2-O2	-5.08	115.85	118.90
26	1H	2296	U	N3-C4-O4	5.08	122.96	119.40
1	1G	529	G	N1-C6-O6	5.08	122.95	119.90
23	2L	14	A	C4-C5-C6	5.08	119.54	117.00
26	14	2352	A	O5'-P-OP1	-5.08	101.12	105.70
1	13	833	U	C2-N1-C1'	-5.08	111.60	117.70
1	13	1497	G	O5'-P-OP2	-5.08	101.13	105.70
26	1H	836	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	1771	C	C5-C4-N4	-5.08	116.64	120.20
22	1L	74	C	N1-C2-O2	5.08	121.95	118.90
1	13	906	G	N1-C6-O6	5.08	122.95	119.90
26	1H	1786	A	N3-C4-C5	5.08	130.36	126.80
26	1H	2599	G	C8-N9-C4	5.08	108.43	106.40
26	14	2517	C	C2-N3-C4	-5.08	117.36	119.90
46	D5	117	LEU	CA-CB-CG	5.08	126.98	115.30
1	13	963	G	N1-C2-N3	5.08	126.95	123.90
23	2K	27	G	N3-C4-C5	5.08	131.14	128.60
26	1H	768	G	C4-C5-N7	-5.08	108.77	110.80
26	1H	1626	G	N3-C4-N9	-5.08	122.95	126.00
27	16	44	G	N1-C6-O6	-5.08	116.85	119.90
26	14	574	C	C2-N1-C1'	-5.08	113.21	118.80
1	13	906	G	C5-C6-O6	-5.08	125.55	128.60
26	1H	825	C	C4-C5-C6	5.08	119.94	117.40
1	1G	1392	G	C8-N9-C4	5.08	108.43	106.40
26	14	701	G	N9-C4-C5	5.08	107.43	105.40
26	14	789	A	OP1-P-OP2	-5.08	111.99	119.60
26	14	1959	G	N3-C4-N9	-5.08	122.95	126.00
26	1H	682	G	C5-C6-O6	-5.07	125.56	128.60
26	1H	694	U	O5'-P-OP2	-5.07	101.14	105.70
26	1H	1831	G	OP2-P-O3'	5.07	116.36	105.20
26	14	141(A)	C	OP2-P-O3'	5.07	116.36	105.20
26	14	208	C	OP1-P-OP2	5.07	127.21	119.60
26	14	1982	C	C5-C6-N1	5.07	123.54	121.00
26	14	2755	C	C6-N1-C1'	-5.07	114.71	120.80
26	1H	473	G	N1-C2-N2	-5.07	111.64	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2252	G	C4-C5-N7	-5.07	108.77	110.80
26	1H	1344	G	N3-C2-N2	-5.07	116.35	119.90
26	1H	1404	C	N3-C4-N4	-5.07	114.45	118.00
26	14	777	A	O5'-P-OP1	-5.07	101.14	105.70
1	13	1509	C	N1-C2-O2	-5.07	115.86	118.90
26	1H	1333	C	C5-C6-N1	5.07	123.53	121.00
26	1H	1797	C	N1-C2-O2	-5.07	115.86	118.90
1	13	31	G	P-O3'-C3'	5.07	125.78	119.70
1	13	500	G	OP2-P-O3'	5.07	116.35	105.20
1	13	871	U	P-O3'-C3'	5.07	125.78	119.70
26	1H	1141	U	O4'-C1'-N1	5.07	112.25	108.20
26	1H	1306	C	O5'-P-OP1	-5.07	101.14	105.70
26	1H	2439	A	O5'-P-OP2	-5.07	101.14	105.70
55	3L	13	C	C6-N1-C2	-5.07	118.27	120.30
26	14	1963	U	C5-C6-N1	5.07	125.23	122.70
27	1J	81	G	N7-C8-N9	5.07	115.63	113.10
26	1H	139	G	O5'-P-OP1	-5.07	101.14	105.70
26	1H	1379	A	C5-C6-N6	-5.07	119.65	123.70
26	1H	1595	G	N1-C2-N2	5.07	120.76	116.20
26	14	948	G	N1-C2-N2	5.07	120.76	116.20
26	14	2726	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	214	G	N3-C4-N9	5.06	129.04	126.00
1	13	50	A	P-O3'-C3'	5.06	125.78	119.70
26	1H	1702	G	N1-C6-O6	-5.06	116.86	119.90
26	1H	1764	G	C4-C5-N7	-5.06	108.78	110.80
26	1H	2891	G	N3-C4-C5	-5.06	126.07	128.60
26	14	1128	A	C5-C6-N1	5.06	120.23	117.70
23	2K	58	A	O5'-P-OP2	5.06	116.77	110.70
26	1H	451	C	O5'-P-OP2	-5.06	101.15	105.70
26	1H	2611	U	N3-C4-O4	-5.06	115.86	119.40
26	14	2503	A	N1-C2-N3	-5.06	126.77	129.30
1	13	452	A	C8-N9-C4	5.06	107.82	105.80
26	1H	464	U	C4-C5-C6	5.06	122.73	119.70
26	1H	1415	U	O5'-P-OP2	-5.06	101.15	105.70
22	1L	35	G	N3-C4-C5	-5.06	126.07	128.60
26	14	247	G	C8-N9-C4	5.06	108.42	106.40
26	14	1156	A	O5'-P-OP2	-5.06	101.15	105.70
26	1H	1324	G	N1-C2-N2	5.06	120.75	116.20
27	16	44	G	C6-C5-N7	5.06	133.43	130.40
26	14	469	G	C5-C6-O6	-5.06	125.57	128.60
26	1H	620	G	C5-C6-O6	-5.05	125.57	128.60
26	1H	1300	U	N1-C2-N3	5.05	117.93	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	K8	5	GLU	N-CA-C	5.05	124.64	111.00
2	12	219	VAL	C-N-CA	5.05	134.34	121.70
26	14	1632	A	C8-N9-C4	5.05	107.82	105.80
26	14	2560	C	O5'-P-OP1	-5.05	101.15	105.70
1	13	422	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	2017	U	N3-C4-O4	5.05	122.94	119.40
1	1G	1473	A	C5-C6-N6	-5.05	119.66	123.70
26	14	2474	C	N1-C2-O2	5.05	121.93	118.90
26	1H	827	U	P-O3'-C3'	-5.05	113.64	119.70
26	1H	2445	G	N1-C6-O6	-5.05	116.87	119.90
1	1G	299	G	C5-C6-N1	5.05	114.03	111.50
26	14	638	G	O5'-P-OP1	-5.05	101.15	105.70
26	14	1934	C	N1-C2-O2	5.05	121.93	118.90
1	13	1199	U	N1-C2-N3	5.05	117.93	114.90
26	1H	470	A	C5-C6-N6	-5.05	119.66	123.70
26	14	577	G	C5-C6-O6	-5.05	125.57	128.60
26	14	1613	G	N3-C4-N9	5.05	129.03	126.00
26	1H	620	G	N1-C6-O6	5.05	122.93	119.90
26	1H	809	G	C5-C6-N1	5.05	114.02	111.50
1	13	869	G	N3-C4-N9	-5.05	122.97	126.00
26	1H	1261	C	C2-N3-C4	-5.05	117.38	119.90
26	1H	2430	A	N7-C8-N9	5.05	116.32	113.80
27	16	47	C	N3-C2-O2	5.05	125.43	121.90
26	14	2595	G	C4-N9-C1'	-5.05	119.94	126.50
28	19	40	THR	N-CA-C	5.05	124.63	111.00
26	1H	123	G	N7-C8-N9	-5.04	110.58	113.10
26	14	1395	A	O5'-P-OP1	-5.04	101.16	105.70
26	14	2842	G	N1-C6-O6	5.04	122.93	119.90
1	13	108	G	C6-C5-N7	-5.04	127.37	130.40
1	13	776	G	O5'-P-OP1	-5.04	101.16	105.70
26	1H	2741	A	N7-C8-N9	-5.04	111.28	113.80
1	1G	449	C	C6-N1-C2	-5.04	118.28	120.30
26	1H	530	G	N3-C4-N9	-5.04	122.97	126.00
26	1H	2047	U	N3-C4-O4	-5.04	115.87	119.40
26	1H	2390	U	O5'-P-OP1	-5.04	101.16	105.70
26	1H	2512	C	C6-N1-C2	5.04	122.32	120.30
1	1G	1359	C	P-O3'-C3'	5.04	125.75	119.70
26	14	2005	A	C8-N9-C4	5.04	107.82	105.80
26	1H	1249	U	O5'-P-OP1	-5.04	101.16	105.70
1	13	346	G	C8-N9-C1'	-5.04	120.45	127.00
26	1H	733	G	C8-N9-C4	5.04	108.42	106.40
26	1H	2440	C	C2-N1-C1'	-5.04	113.26	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	684	G	N1-C6-O6	-5.04	116.88	119.90
26	14	1279	G	O5'-P-OP2	-5.04	101.17	105.70
26	14	2578	G	O5'-P-OP1	-5.04	101.17	105.70
23	2K	13	C	N1-C2-O2	5.04	121.92	118.90
26	1H	40	C	C5-C4-N4	-5.04	116.67	120.20
1	13	74	C	C5-C6-N1	5.04	123.52	121.00
26	1H	586	A	O5'-P-OP1	-5.04	101.17	105.70
26	1H	717	G	C5-C6-O6	-5.04	125.58	128.60
26	1H	908	C	OP2-P-O3'	5.04	116.28	105.20
27	16	116	G	OP2-P-O3'	5.04	116.28	105.20
36	78	16	ARG	N-CA-C	5.04	124.60	111.00
26	14	133	C	C6-N1-C2	5.04	122.31	120.30
26	14	784	A	P-O3'-C3'	5.04	125.74	119.70
26	14	2332	U	O5'-P-OP1	5.04	116.74	110.70
1	13	309	G	N1-C6-O6	5.03	122.92	119.90
1	13	748	C	C5-C6-N1	5.03	123.52	121.00
26	1H	248	G	C4-C5-C6	5.03	121.82	118.80
1	1G	88	C	C6-N1-C1'	5.03	126.84	120.80
26	14	316	C	N3-C4-C5	5.03	123.91	121.90
26	14	1812	A	OP1-P-OP2	5.03	127.15	119.60
26	1H	287	C	C6-N1-C2	5.03	122.31	120.30
26	1H	2424	C	N3-C4-C5	5.03	123.91	121.90
26	14	769	G	N9-C4-C5	-5.03	103.39	105.40
26	14	1333	C	N3-C4-C5	5.03	123.91	121.90
26	1H	532	A	C5-C6-N6	-5.03	119.68	123.70
26	1H	617	G	N9-C4-C5	-5.03	103.39	105.40
26	1H	1506	C	C5-C6-N1	5.03	123.52	121.00
26	1H	1804	C	N3-C2-O2	-5.03	118.38	121.90
26	1H	1842	G	N1-C6-O6	-5.03	116.88	119.90
26	14	1304	C	C5-C4-N4	5.03	123.72	120.20
26	14	2065	C	N3-C4-C5	5.03	123.91	121.90
1	13	1469	G	N1-C6-O6	-5.03	116.88	119.90
26	1H	1559	G	O5'-P-OP1	-5.03	101.17	105.70
26	1H	2183	C	C5-C6-N1	5.03	123.51	121.00
55	3L	48	C	C2-N1-C1'	5.03	124.33	118.80
26	1H	1663	C	C2-N3-C4	-5.03	117.39	119.90
26	1H	2581	G	N9-C4-C5	-5.03	103.39	105.40
1	1G	1499	A	C8-N9-C4	5.03	107.81	105.80
26	1H	1257	C	C5-C6-N1	-5.03	118.49	121.00
26	1H	1257	C	N1-C2-N3	5.03	122.72	119.20
26	1H	2093	G	C5-C6-O6	5.03	131.62	128.60
26	14	199	A	N9-C4-C5	5.03	107.81	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	690	G	N3-C4-N9	-5.02	122.99	126.00
26	14	129	C	N3-C4-C5	5.02	123.91	121.90
26	14	641	C	O5'-P-OP1	-5.02	101.18	105.70
26	14	1815	A	OP1-P-O3'	5.02	116.25	105.20
23	2K	24	C	C5-C6-N1	-5.02	118.49	121.00
26	1H	1387	C	C6-N1-C2	-5.02	118.29	120.30
26	1H	2439	A	C5-C6-N6	-5.02	119.68	123.70
26	14	654(D)	G	O4'-C1'-N9	5.02	112.22	108.20
26	14	956	G	N1-C6-O6	5.02	122.91	119.90
26	14	2392	A	C4-C5-N7	5.02	113.21	110.70
26	14	2617	C	O5'-P-OP2	-5.02	101.18	105.70
26	1H	1285	G	OP1-P-OP2	5.02	127.13	119.60
26	1H	2428	G	N7-C8-N9	5.02	115.61	113.10
26	1H	2516	G	OP2-P-O3'	5.02	116.24	105.20
1	1G	1486	G	C8-N9-C4	5.02	108.41	106.40
26	14	1818	U	O5'-P-OP2	-5.02	101.18	105.70
26	14	1831	G	N1-C2-N3	5.02	126.91	123.90
26	14	2374	C	C6-N1-C2	5.02	122.31	120.30
26	1H	111	A	C5-C6-N1	5.02	120.21	117.70
26	1H	189	G	N7-C8-N9	-5.02	110.59	113.10
26	1H	1570	A	C8-N9-C4	5.02	107.81	105.80
1	1G	974	A	OP2-P-O3'	5.02	116.24	105.20
26	14	1336	A	O5'-P-OP2	-5.02	101.18	105.70
1	13	511	C	C5-C6-N1	-5.02	118.49	121.00
1	13	689	C	OP1-P-O3'	5.02	116.23	105.20
26	1H	116	C	N1-C2-O2	-5.01	115.89	118.90
26	1H	595	C	N3-C4-N4	-5.01	114.49	118.00
26	1H	2494	G	C4-C5-N7	-5.01	108.79	110.80
26	14	101	G	C8-N9-C4	-5.01	104.39	106.40
26	14	837	C	C6-N1-C2	-5.01	118.29	120.30
27	1J	16	G	N1-C6-O6	5.01	122.91	119.90
26	1H	210	C	C2-N3-C4	-5.01	117.39	119.90
26	1H	1858	G	C5-C6-N1	5.01	114.01	111.50
1	13	57	G	N3-C4-C5	-5.01	126.09	128.60
26	1H	473	G	N1-C6-O6	-5.01	116.89	119.90
26	1H	723	G	C8-N9-C4	5.01	108.41	106.40
26	1H	2446	G	OP2-P-O3'	5.01	116.23	105.20
26	1H	2318	G	C5-N7-C8	-5.01	101.80	104.30
27	16	9	G	OP2-P-O3'	5.01	116.22	105.20
55	3L	16	U	N1-C2-O2	5.01	126.31	122.80
26	14	810	U	C5-C4-O4	-5.01	122.89	125.90
26	1H	468	G	C5-C6-O6	-5.01	125.59	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	747	U	O5'-P-OP1	-5.01	101.19	105.70
26	14	454	A	OP2-P-O3'	5.01	116.22	105.20
26	1H	126	A	OP1-P-OP2	5.01	127.11	119.60
26	1H	1497	U	C2-N1-C1'	5.01	123.71	117.70
27	16	105	G	N3-C4-C5	-5.01	126.10	128.60
1	1G	669	U	N1-C2-O2	-5.01	119.30	122.80
26	14	630	G	N7-C8-N9	-5.01	110.60	113.10
26	14	2361	A	C2-N3-C4	-5.01	108.10	110.60
26	14	2772	C	N3-C2-O2	-5.01	118.39	121.90
26	1H	2891	G	N3-C4-N9	5.00	129.00	126.00
26	14	1779	U	O4'-C1'-N1	5.00	112.20	108.20
26	14	2332	U	OP2-P-O3'	5.00	116.21	105.20
1	13	1158	C	C5-C6-N1	5.00	123.50	121.00
8	7E	10	LEU	CA-CB-CG	5.00	126.81	115.30
26	1H	444	C	C2-N3-C4	-5.00	117.40	119.90
26	1H	1834	U	N1-C2-O2	5.00	126.30	122.80
26	1H	2570	G	N3-C4-C5	5.00	131.10	128.60
1	1G	953	G	N1-C2-N2	-5.00	111.70	116.20
26	14	389	G	C4-C5-N7	5.00	112.80	110.80
26	14	2498	C	N3-C4-C5	5.00	123.90	121.90
26	14	2592	G	O5'-P-OP1	5.00	116.70	110.70
26	14	275	G	C4-N9-C1'	-5.00	120.00	126.50
26	14	330	A	C5-N7-C8	-5.00	101.40	103.90
26	14	1677	A	C5-C6-N6	-5.00	119.70	123.70
26	14	2706	G	N1-C6-O6	-5.00	116.90	119.90

There are no chirality outliers.

All (163) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	113	VAL	Peptide
28	11	122	ASP	Peptide
28	11	237	GLU	Peptide
28	11	238	GLY	Peptide
2	12	128	GLU	Peptide
2	12	15	VAL	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	222	ILE	Peptide
28	19	27	THR	Peptide
28	19	28	GLU	Peptide

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Mol	Chain	Res	Type	Group
10	1A	87	THR	Peptide
2	1E	11	LEU	Peptide
2	1E	15	VAL	Peptide
2	1E	237	ALA	Peptide
29	21	128	SER	Peptide
29	21	153	GLY	Peptide
29	21	186	GLY	Peptide
29	21	203	LYS	Peptide
29	21	56	PRO	Peptide
29	21	68	ALA	Peptide
3	22	14	ILE	Peptide
3	22	86	VAL	Peptide
29	29	117	MET	Peptide
29	29	130	GLY	Peptide
29	29	201	THR	Peptide
29	29	53	PRO	Peptide
29	29	61	ARG	Peptide
29	29	77	ILE	Peptide
11	2I	106	LYS	Peptide
11	2I	53	SER	Peptide
11	2I	54	ARG	Peptide
30	31	127	GLU	Peptide
30	31	132	VAL	Peptide
30	31	47	GLY	Peptide
4	32	88	VAL	Peptide
4	32	90	GLY	Peptide
36	35	35	HIS	Peptide
36	35	54	GLY	Peptide
36	35	70	GLN	Peptide
30	39	12	LEU	Peptide
30	39	123	LEU	Peptide
30	39	14	PRO	Peptide
30	39	20	LEU	Peptide
30	39	89	VAL	Peptide
12	3A	47	LYS	Peptide
12	3I	104	VAL	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
37	45	26	TYR	Peptide
37	45	58	PHE	Peptide
37	45	78	PRO	Peptide
37	45	84	GLY	Peptide

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Mol	Chain	Res	Type	Group
37	45	89	ASN	Peptide
31	49	116	ASP	Peptide
31	49	36	LYS	Peptide
13	4A	105	THR	Peptide
13	4A	66	LEU	Peptide
13	4A	82	MET	Peptide
13	4A	83	ASP	Peptide
5	4E	114	GLY	Peptide
13	4I	100	GLY	Peptide
13	4I	11	ARG	Peptide
32	51	137	ASP	Peptide
32	51	152	ARG	Peptide
32	51	156	ALA	Peptide
32	51	170	ARG	Peptide
34	58	56	ASN	Peptide
34	58	95	PRO	Peptide
32	59	150	ALA	Peptide
32	59	91	GLY	Peptide
14	5A	26	ARG	Peptide
14	5A	27	CYS	Peptide
14	5A	28	GLY	Peptide
33	61	11	ASN	Peptide
33	61	112	LYS	Peptide
33	61	133	HIS	Peptide
33	61	134	PRO	Peptide
33	61	82	ARG	Peptide
39	65	53	SER	Peptide
33	69	112	LYS	Peptide
33	69	142	VAL	Peptide
33	69	143	SER	Peptide
40	75	10	VAL	Peptide
40	75	12	SER	Peptide
36	78	11	GLY	Peptide
36	78	115	LEU	Peptide
36	78	24	GLY	Peptide
36	78	35	HIS	Peptide
36	78	70	GLN	Peptide
16	7A	82	GLN	Peptide
9	82	117	HIS	Peptide
41	85	90	VAL	Peptide
41	85	98	LEU	Peptide
37	88	139	GLU	Peptide

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Mol	Chain	Res	Type	Group
37	88	58	PHE	Peptide
9	8E	110	GLU	Peptide
9	8E	4	TYR	Peptide
42	95	87	HIS	Peptide
42	95	98	GLU	Peptide
38	98	8	ARG	Peptide
39	A8	106	ARG	Peptide
19	AA	11	VAL	Peptide
19	AA	13	ASP	Peptide
19	AA	3	ARG	Peptide
19	AA	32	LYS	Peptide
19	AA	66	MET	Peptide
19	AA	8	GLY	Peptide
19	AA	9	VAL	Peptide
44	B5	50	LYS	Peptide
40	B8	112	ARG	Peptide
40	B8	12	SER	Peptide
40	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	6	PRO	Peptide
20	BI	95	ALA	Peptide
41	C8	90	VAL	Peptide
41	C8	92	ARG	Peptide
41	C8	95	LEU	Peptide
41	C8	96	ALA	Peptide
46	D5	115	GLY	Peptide
46	D5	140	ASP	Peptide
46	D5	170	THR	Peptide
46	D5	51	ALA	Peptide
46	D5	52	SER	Peptide
46	D5	60	GLU	Peptide
42	D8	36	PRO	Peptide
42	D8	43	GLU	Peptide
48	F5	28	GLY	Peptide
48	F5	53	VAL	Peptide
48	F5	89	GLU	Peptide
48	F5	91	LYS	Peptide
49	G5	15	LYS	Peptide
49	G5	4	SER	Peptide
49	G5	43	GLN	Peptide
49	G5	45	SER	Peptide

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Mol	Chain	Res	Type	Group
45	G8	53	PRO	Peptide
45	G8	54	LYS	Peptide
45	G8	99	CYS	Peptide
46	H8	117	LEU	Peptide
46	H8	143	GLY	Peptide
46	H8	158	PRO	Peptide
46	H8	60	GLU	Peptide
46	H8	63	ASP	Peptide
48	J8	53	VAL	Peptide
48	J8	84	GLY	Peptide
48	J8	86	SER	Peptide
49	K8	17	SER	Peptide
49	K8	3	LEU	Peptide
49	K8	46	GLN	Peptide
49	K8	47	ASN	Peptide
54	M5	40	GLU	Peptide
54	M5	49	VAL	Peptide
54	M5	51	ALA	Peptide
51	M8	37	SER	Peptide
51	M8	40	HIS	Peptide
51	M8	42	PHE	Peptide
51	M8	44	THR	Peptide
54	Q8	30	ARG	Peptide
54	Q8	49	VAL	Peptide
54	Q8	51	ALA	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	32246	0	16276	648	0
1	1G	32028	0	16165	605	0
2	12	1696	0	1730	102	0
2	1E	1874	0	1926	85	0
3	22	1546	0	1608	79	0
3	2E	1605	0	1668	37	0
4	32	1698	0	1761	87	1
4	3E	1698	0	1760	71	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	42	1141	0	1199	58	0
5	4E	1142	0	1204	34	0
6	52	842	0	857	18	0
6	5E	837	0	852	19	1
7	62	1110	0	1163	51	0
7	6E	1242	0	1286	41	0
8	72	1107	0	1165	37	0
8	7E	1115	0	1177	46	0
9	82	953	0	983	56	0
9	8E	1000	0	1031	58	0
10	1A	801	0	849	51	0
10	1I	749	0	767	45	0
11	2A	835	0	847	29	0
11	2I	823	0	832	30	0
12	3A	956	0	1046	32	0
12	3I	956	0	1046	33	0
13	4A	879	0	935	48	0
13	4I	942	0	997	56	0
14	5A	486	0	526	22	0
14	5I	491	0	529	27	0
15	6A	729	0	768	12	0
15	6I	729	0	768	28	0
16	7A	705	0	725	19	0
16	7I	700	0	720	28	0
17	8A	823	0	891	32	0
17	8I	834	0	904	33	0
18	9A	554	0	609	15	0
18	9I	549	0	607	25	0
19	AA	510	0	507	33	0
19	AI	665	0	686	36	0
20	BA	778	0	863	26	0
20	BI	746	0	843	46	0
21	1B	188	0	195	14	0
21	1F	199	0	208	8	0
22	1K	1593	0	813	50	0
22	1L	1593	0	813	48	0
23	2K	1646	0	844	19	0
23	2L	1646	0	842	31	0
24	3K	1537	0	779	46	0
25	4K	391	0	197	7	0
25	4L	303	0	154	15	0
26	14	60561	0	30527	996	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	1H	61381	0	30944	1089	0
27	16	2617	0	1328	45	0
27	1J	2617	0	1328	68	0
28	11	2120	0	2197	58	0
28	19	2125	0	2199	67	0
29	21	1556	0	1612	74	0
29	29	1563	0	1629	82	0
30	31	1585	0	1632	70	0
30	39	1602	0	1649	84	0
31	41	1457	0	1514	64	0
31	49	1459	0	1507	54	0
32	51	1328	0	1396	46	0
32	59	1295	0	1366	78	0
33	61	1131	0	1218	49	0
33	69	1131	0	1218	46	0
34	15	1096	0	1168	51	0
34	58	995	0	1077	36	0
35	25	932	0	996	32	0
35	68	932	0	996	21	0
36	35	1122	0	1206	71	0
36	78	1127	0	1208	64	0
37	45	1099	0	1154	67	0
37	88	1117	0	1168	51	0
38	55	967	0	1033	45	0
38	98	967	0	1033	41	0
39	65	876	0	938	71	0
39	A8	881	0	943	43	0
40	75	1164	0	1221	59	0
40	B8	1128	0	1183	57	0
41	85	959	0	1019	61	0
41	C8	950	0	1011	43	0
42	95	770	0	838	32	0
42	D8	774	0	849	29	0
43	A5	886	0	948	23	0
43	E8	876	0	941	24	0
44	B5	735	0	785	19	0
44	F8	750	0	814	20	0
45	C5	396	0	444	18	0
45	G8	734	0	821	38	0
46	D5	1411	0	1436	71	0
46	H8	1365	0	1391	61	0
47	E5	603	0	620	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	I8	611	0	631	26	0
48	F5	737	0	813	32	0
48	J8	747	0	817	35	0
49	G5	576	0	625	31	0
49	K8	575	0	634	33	0
50	H5	459	0	512	18	0
50	L8	459	0	512	9	0
51	M8	475	0	465	33	0
52	J5	434	0	454	22	0
52	N8	369	0	388	23	0
53	L5	406	0	438	10	0
53	P8	401	0	436	10	0
54	M5	516	0	582	22	0
54	Q8	516	0	582	37	0
55	3L	1538	0	781	38	0
56	11	1	0	0	0	0
56	13	205	0	0	0	0
56	14	435	0	0	0	0
56	16	15	0	0	0	0
56	19	1	0	0	0	0
56	1B	1	0	0	0	0
56	1G	155	0	0	0	0
56	1H	622	0	0	0	0
56	1J	6	0	0	0	0
56	1K	1	0	0	0	0
56	21	4	0	0	0	0
56	25	1	0	0	0	0
56	29	3	0	0	0	0
56	2A	1	0	0	0	0
56	2I	1	0	0	0	0
56	2K	2	0	0	0	0
56	2L	2	0	0	0	0
56	31	2	0	0	0	0
56	35	3	0	0	0	0
56	39	1	0	0	0	0
56	3E	1	0	0	0	0
56	41	1	0	0	0	0
56	42	1	0	0	0	0
56	45	2	0	0	0	0
56	4A	1	0	0	0	0
56	4L	1	0	0	0	0
56	55	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	5E	1	0	0	0	0
56	5I	2	0	0	0	0
56	68	2	0	0	0	0
56	78	2	0	0	0	0
56	85	1	0	0	0	0
56	88	3	0	0	0	0
56	8I	1	0	0	0	0
56	98	1	0	0	0	0
56	9A	1	0	0	0	0
56	BA	2	0	0	0	0
56	BI	2	0	0	0	0
56	D8	1	0	0	0	0
56	E5	1	0	0	0	0
56	I8	2	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	32	8	0	0	1	0
57	3E	8	0	0	1	0
58	5A	1	0	0	0	0
58	5I	1	0	0	0	0
59	11	11	0	0	0	0
59	13	339	0	0	42	0
59	14	730	0	0	89	0
59	15	1	0	0	0	0
59	16	19	0	0	0	0
59	19	10	0	0	1	0
59	1A	1	0	0	0	0
59	1E	1	0	0	1	0
59	1F	2	0	0	2	0
59	1G	289	0	0	25	0
59	1H	1047	0	0	184	0
59	1I	3	0	0	1	0
59	1K	1	0	0	0	0
59	21	8	0	0	0	0
59	25	6	0	0	0	0
59	29	2	0	0	0	0
59	2L	6	0	0	0	0
59	31	7	0	0	0	0
59	32	2	0	0	0	0
59	35	6	0	0	0	0
59	39	5	0	0	0	0
59	3E	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	3I	1	0	0	0	0
59	42	1	0	0	0	0
59	45	4	0	0	0	0
59	4E	2	0	0	0	0
59	4I	2	0	0	1	0
59	4K	2	0	0	0	0
59	4L	3	0	0	1	0
59	52	4	0	0	0	0
59	58	3	0	0	0	0
59	5I	1	0	0	0	0
59	6E	1	0	0	0	0
59	6I	1	0	0	0	0
59	75	1	0	0	0	0
59	78	6	0	0	0	0
59	7A	4	0	0	1	0
59	7I	3	0	0	0	0
59	8E	2	0	0	0	0
59	95	1	0	0	0	0
59	9A	2	0	0	1	0
59	B5	3	0	0	0	0
59	BA	2	0	0	0	0
59	D8	1	0	0	0	0
59	E8	1	0	0	0	0
59	G8	1	0	0	0	0
59	H5	3	0	0	1	0
59	I8	2	0	0	1	0
59	J8	1	0	0	0	0
59	L8	4	0	0	0	0
59	M5	2	0	0	0	0
59	P8	1	0	0	0	0
59	Q8	2	0	0	1	0
All	All	294252	0	195096	6738	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 14.

All (6738) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:810:U:OP1	59:1H:3720:HOH:O	1.68	1.09
29:29:54:GLN:HA	29:29:74:PRO:HA	1.35	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1604:C:OP2	59:14:3509:HOH:O	1.71	1.07
37:45:27:VAL:HB	37:45:28:ALA:HA	1.32	1.07
26:14:2113:U:H3'	26:14:2114:A:H4'	1.34	1.06
26:1H:862:G:OP2	59:1H:3723:HOH:O	1.75	1.04
26:1H:730:C:OP2	59:1H:3721:HOH:O	1.74	1.03
37:45:135:ASP:H	37:45:136:ALA:HA	1.19	1.03
26:1H:1665:A:OP2	59:1H:3722:HOH:O	1.74	1.02
26:1H:2248:C:OP2	59:1H:3724:HOH:O	1.77	1.01
26:1H:763:G:OP1	59:1H:3725:HOH:O	1.78	1.00
45:G8:87:LYS:H	45:G8:94:LYS:HG2	1.23	1.00
26:1H:1764:G:OP2	59:1H:3727:HOH:O	1.80	0.99
26:1H:2308:G:H1	26:1H:2311:A:H2	1.01	0.99
26:14:330:A:H2	26:14:1210:A:HO2'	1.00	0.99
26:1H:2711:A:OP2	59:1H:3726:HOH:O	1.79	0.98
26:1H:2712(A):A:OP2	59:1H:3728:HOH:O	1.82	0.97
2:12:16:HIS:HB3	2:12:209:ARG:HE	1.30	0.97
26:1H:733:G:OP2	59:1H:3730:HOH:O	1.84	0.96
26:14:2210:G:H3'	26:14:2211:G:C8	2.01	0.96
26:1H:2712(A):A:OP1	59:1H:3729:HOH:O	1.84	0.95
26:1H:2867:G:OP2	40:B8:119:LYS:NZ	1.99	0.95
26:14:2712(A):A:OP1	59:14:3511:HOH:O	1.83	0.95
49:G5:4:SER:HA	49:G5:6:VAL:H	1.30	0.95
1:13:1197:G:OP1	59:13:1906:HOH:O	1.84	0.94
1:13:1502:A:H2	1:13:1505:G:H1	1.12	0.94
26:1H:1204:A:H62	26:1H:1241:A:H2	1.13	0.94
26:1H:1658:C:OP1	59:1H:3731:HOH:O	1.85	0.94
33:61:112:LYS:HB2	33:61:113:ARG:HG3	1.48	0.94
26:1H:2498:C:OP2	59:1H:3733:HOH:O	1.86	0.93
24:3K:76:A:H8	26:1H:2394:C:H42	1.16	0.92
26:1H:2577:A:OP1	59:1H:3732:HOH:O	1.85	0.92
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.06	0.92
26:1H:138:G:N2	44:F8:44:GLU:OE2	2.03	0.92
1:13:970:C:OP2	59:13:1907:HOH:O	1.85	0.92
1:13:346:G:OP1	40:B8:41:ARG:NH2	2.03	0.91
26:1H:990:A:OP2	59:1H:3734:HOH:O	1.86	0.91
26:14:1689:A:H62	26:14:1698:A:H2	1.15	0.91
26:1H:731:C:OP2	59:1H:3721:HOH:O	1.86	0.91
26:1H:453:C:OP1	59:1H:3735:HOH:O	1.87	0.91
26:1H:1689:A:H62	26:1H:1698:A:H2	1.12	0.91
32:59:98:LEU:HB2	32:59:126:PRO:HB3	1.52	0.91
1:13:1054:C:OP2	59:13:1908:HOH:O	1.89	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1671:U:OP2	59:1H:3737:HOH:O	1.88	0.91
22:1L:7:A:O2'	22:1L:50:G:OP1	1.87	0.91
22:1L:56:C:H3'	22:1L:57:G:H5''	1.51	0.91
26:1H:607:U:H3	26:1H:621:A:H2	1.18	0.91
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.00	0.91
26:14:67:U:H3	26:14:74:A:H2	1.18	0.91
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.52	0.90
26:1H:574:C:OP1	59:1H:3738:HOH:O	1.88	0.90
46:H8:52:SER:O	46:H8:54:HIS:N	2.03	0.90
49:K8:47:ASN:O	49:K8:49:LYS:N	2.04	0.90
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.34	0.90
26:14:2227:A:OP2	59:14:3513:HOH:O	1.88	0.90
26:14:1603:A:OP1	59:14:3509:HOH:O	1.87	0.90
26:14:1899:G:H21	26:14:1902:C:N4	1.69	0.90
1:13:664:G:H22	1:13:741:G:H1	1.11	0.90
48:F5:91:LYS:O	48:F5:93:GLU:N	2.04	0.90
26:1H:1627:G:OP1	59:1H:3740:HOH:O	1.90	0.90
26:1H:800:A:OP1	59:1H:3739:HOH:O	1.89	0.89
26:1H:847:U:OP2	59:1H:3736:HOH:O	1.87	0.89
32:59:59:ARG:HG2	32:59:62:LYS:HE3	1.55	0.89
1:13:964:A:OP1	59:13:1909:HOH:O	1.90	0.89
26:14:801:G:OP2	59:14:3512:HOH:O	1.88	0.89
29:29:60:ASN:HB2	29:29:62:PRO:HD2	1.54	0.89
1:1G:975:A:H4'	1:1G:976:G:H5''	1.55	0.88
27:1J:80:U:H2'	27:1J:81:G:H21	1.38	0.88
32:59:6:ARG:HB3	32:59:66:GLY:HA2	1.55	0.88
26:1H:2287:A:H62	26:1H:2344:U:H3	1.19	0.88
22:1L:51:C:N4	22:1L:63:G:O6	2.06	0.88
26:14:1771:C:HO2'	26:14:1786:A:H8	0.92	0.88
26:14:84:A:N6	26:14:102:G:O2'	2.06	0.88
26:1H:860:U:H5	26:1H:917:A:C2	1.91	0.88
26:1H:450:G:O6	59:1H:3735:HOH:O	1.92	0.87
26:1H:748:G:OP2	59:1H:3742:HOH:O	1.91	0.87
26:1H:1520:U:OP2	59:1H:3743:HOH:O	1.92	0.87
1:1G:1502:A:H2	1:1G:1505:G:H1	1.20	0.87
1:13:394:G:O6	59:13:1910:HOH:O	1.93	0.87
36:78:63:PRO:HB2	54:Q8:30:ARG:HH21	1.38	0.87
37:45:135:ASP:N	37:45:136:ALA:HA	1.87	0.87
26:1H:409:C:OP1	59:1H:3744:HOH:O	1.92	0.87
26:1H:734:A:OP2	59:1H:3741:HOH:O	1.91	0.87
1:1G:963:G:H21	10:1A:55:LYS:HD3	1.39	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1395:A:OP1	59:14:3509:HOH:O	1.93	0.86
26:1H:1009:A:OP2	34:58:37:LYS:NZ	2.08	0.86
26:1H:1041:C:H42	26:1H:1114:G:H1	1.24	0.86
26:1H:1189:A:OP2	59:1H:3746:HOH:O	1.92	0.86
26:14:1899:G:H21	26:14:1902:C:H42	1.22	0.86
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.54	0.86
26:1H:452:G:OP2	59:1H:3747:HOH:O	1.94	0.86
26:1H:945:A:OP1	59:1H:3745:HOH:O	1.92	0.86
26:1H:1653:G:H3'	38:98:2:ARG:HG3	1.57	0.86
34:15:56:ASN:H	34:15:125:GLY:HA3	1.39	0.86
26:14:1106:G:H3'	26:14:1107:G:H8	1.40	0.86
26:14:1209:G:OP2	59:14:3514:HOH:O	1.92	0.86
26:14:1313:U:OP1	59:14:3516:HOH:O	1.94	0.86
26:14:2705:A:OP2	59:14:3515:HOH:O	1.93	0.86
28:19:69:ARG:NH2	28:19:128:GLY:O	2.09	0.86
26:1H:2714:G:OP2	59:1H:3728:HOH:O	1.94	0.85
37:88:35:VAL:HG13	37:88:130:LYS:HB3	1.58	0.85
26:1H:270(L):U:C2	33:61:50:ARG:HG2	2.11	0.85
26:1H:1678:G:H22	26:1H:1989:G:H22	1.23	0.85
26:14:2210:G:H3'	26:14:2211:G:H8	1.40	0.85
1:13:1352:C:OP1	59:13:1911:HOH:O	1.94	0.85
26:1H:1055:G:H1	26:1H:1104:C:H42	1.21	0.85
26:14:1689:A:N3	59:14:3542:HOH:O	2.10	0.85
26:14:1757:U:H3	26:14:1762:A:H2	1.22	0.85
26:1H:759:G:OP1	59:1H:3751:HOH:O	1.95	0.85
28:11:182:LEU:H	28:11:272:ALA:HB3	1.41	0.85
26:1H:1899:G:H22	26:1H:1902:C:H5	1.21	0.85
26:1H:2656:U:H3	26:1H:2665:A:H2	1.25	0.85
1:1G:278:G:OP2	17:8A:92:ARG:NH2	2.08	0.85
31:49:161:THR:HG22	31:49:163:ALA:H	1.42	0.85
26:1H:1633:G:O6	59:1H:3749:HOH:O	1.94	0.85
26:14:654(B):C:O2'	26:14:654(S):G:N1	2.09	0.85
26:1H:49:A:N7	26:1H:120:U:H5	1.75	0.84
26:1H:592:G:H21	54:Q8:4:MET:HE1	1.42	0.84
26:14:792:G:O6	59:14:3517:HOH:O	1.95	0.84
26:14:676:A:H8	26:14:2069:G:H21	1.21	0.84
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.60	0.84
1:13:953:G:OP2	59:13:1912:HOH:O	1.95	0.84
26:1H:392:C:OP1	59:1H:3744:HOH:O	1.94	0.84
26:14:141:A:H8	26:14:1595:G:H21	1.24	0.84
55:3L:50:G:H1	55:3L:64:C:H42	1.25	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:571:A:OP2	59:1H:3753:HOH:O	1.96	0.84
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.10	0.83
26:14:1952:A:C6	35:25:22:ILE:HD11	2.12	0.83
32:59:137:ASP:HB2	32:59:140:LYS:HB2	1.59	0.83
41:85:90:VAL:HG22	42:95:38:LEU:HD11	1.58	0.83
1:13:1034:G:N2	1:13:1035:A:N7	2.24	0.83
26:14:1496:A:H8	26:14:1577:C:HO2'	1.26	0.83
1:13:963:G:H1	1:13:972:C:H42	1.24	0.83
26:1H:574:C:OP2	59:1H:3752:HOH:O	1.95	0.83
29:21:55:ASN:HD21	29:21:76:ARG:HB3	1.43	0.83
26:14:1330:C:OP1	59:14:3522:HOH:O	1.96	0.83
1:13:153:C:H42	1:13:168:G:H1	1.26	0.83
2:1E:87:ARG:HH21	2:1E:232:PRO:HB3	1.41	0.83
26:1H:1651:G:O6	59:1H:3748:HOH:O	1.94	0.83
26:1H:2069:G:O3'	59:1H:3756:HOH:O	1.97	0.83
26:14:1990:C:OP2	59:14:3519:HOH:O	1.96	0.83
13:4I:3:ARG:HD3	13:4I:7:VAL:HG13	1.60	0.83
26:1H:676:A:H8	26:1H:2069:G:H21	1.26	0.83
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.26	0.83
1:13:1198:G:N7	59:13:1929:HOH:O	2.12	0.83
26:1H:2136:C:N4	26:1H:2155:G:O6	2.10	0.83
28:19:182:LEU:H	28:19:272:ALA:HB3	1.42	0.83
26:1H:1664:A:OP1	59:1H:3755:HOH:O	1.97	0.83
37:45:97:VAL:HG11	37:45:103:MET:HE2	1.61	0.83
21:1F:5:ASP:OD2	59:1F:101:HOH:O	1.96	0.83
26:1H:1007:C:OP2	59:1H:3757:HOH:O	1.97	0.83
1:1G:448:A:OP2	1:1G:485:G:N2	2.09	0.83
1:13:1198:G:OP2	59:13:1906:HOH:O	1.94	0.83
26:14:733:G:OP2	59:14:3520:HOH:O	1.96	0.82
26:1H:778:G:O6	59:1H:3750:HOH:O	1.95	0.82
8:72:120:THR:HG22	8:72:123:GLU:H	1.44	0.82
1:13:1304:G:OP2	59:13:1913:HOH:O	1.97	0.82
26:14:1301:A:OP1	59:14:3518:HOH:O	1.95	0.82
23:2K:47:7MG:H81	23:2K:48:U:H5	1.45	0.82
4:3E:50:ARG:HD2	4:3E:51:PRO:HD2	1.61	0.82
46:H8:128:VAL:HB	46:H8:161:VAL:HG12	1.60	0.82
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.13	0.82
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.62	0.82
26:1H:1641:A:OP2	59:1H:3761:HOH:O	1.98	0.81
2:12:219:VAL:HA	2:12:220:ASP:HB3	1.62	0.81
46:D5:52:SER:O	46:D5:54:HIS:N	2.12	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.62	0.81
26:1H:1102:C:H2'	26:1H:1103:A:H8	1.45	0.81
26:1H:1728:G:H8	26:1H:1732:A:H62	1.27	0.81
1:13:262:A:H2'	1:13:263:A:C8	2.15	0.81
1:13:1133:G:H2'	1:13:1134:G:H8	1.45	0.81
26:1H:2502:G:OP2	59:1H:3759:HOH:O	1.98	0.81
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.13	0.81
26:14:2292:C:OP1	39:65:17:ARG:NH2	2.13	0.81
1:13:601:C:H2'	1:13:602:A:H8	1.45	0.81
45:G8:28:LYS:HE3	45:G8:40:GLU:HB2	1.61	0.81
29:29:36:ARG:HH21	29:29:89:ASP:HB3	1.44	0.81
26:1H:404:C:OP1	59:1H:3754:HOH:O	1.96	0.81
26:1H:761:A:N7	59:1H:3793:HOH:O	2.11	0.81
26:1H:762:U:OP1	59:1H:3762:HOH:O	1.98	0.81
29:29:37:ARG:NH1	29:29:80:GLU:OE2	2.14	0.81
26:1H:963:U:OP1	59:1H:3766:HOH:O	1.99	0.81
26:1H:1186:G:OP2	59:1H:3760:HOH:O	1.98	0.81
47:I8:53:MET:HG3	47:I8:59:LEU:HD23	1.63	0.81
51:M8:14:ILE:HG22	51:M8:24:THR:HG22	1.63	0.81
1:13:1126:U:O2'	1:13:1281:U:O4'	1.99	0.80
26:1H:1022:G:N2	26:1H:1023:U:O4	2.13	0.80
32:59:59:ARG:HA	32:59:62:LYS:HG2	1.63	0.80
20:BI:22:ARG:O	20:BI:26:ASN:ND2	2.14	0.80
22:1L:74:C:H1'	26:14:2555:U:H3	1.46	0.80
26:1H:879:G:N2	26:1H:898:C:O2	2.14	0.80
40:B8:77:PRO:HG2	40:B8:80:SER:HB2	1.64	0.80
13:4I:45:VAL:HA	13:4I:48:LEU:HD22	1.61	0.80
26:1H:929:G:O6	59:1H:3736:HOH:O	1.98	0.80
26:14:947:G:O6	59:14:3525:HOH:O	1.99	0.80
26:1H:1349:A:OP1	59:1H:3764:HOH:O	1.99	0.80
46:D5:19:ARG:NH1	46:D5:84:GLU:O	2.14	0.80
9:8E:7:THR:O	9:8E:83:ARG:NH1	2.14	0.80
26:1H:270(K):C:O2	26:1H:270(N):G:N1	2.15	0.80
26:14:2499:C:OP2	59:14:3523:HOH:O	1.98	0.80
26:1H:780:G:H21	26:1H:783:A:H62	1.27	0.80
1:13:968:A:OP2	59:13:1914:HOH:O	1.99	0.79
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.62	0.79
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.47	0.79
28:19:30:GLU:HG3	28:19:63:ARG:NH2	1.98	0.79
26:1H:2588:G:OP1	59:1H:3763:HOH:O	1.99	0.79
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.48	0.79
1:13:830:G:O6	59:13:1916:HOH:O	2.01	0.79
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.64	0.79
26:1H:1899:G:N2	26:1H:1902:C:H5	1.80	0.79
26:14:1633:G:O6	59:14:3526:HOH:O	2.00	0.79
26:14:1729:A:H2'	26:14:1731:G:H22	1.48	0.79
33:69:81:VAL:HG12	33:69:143:SER:HB3	1.64	0.79
26:14:161:U:H5''	26:14:171:G:H22	1.48	0.79
26:14:1383:C:O2	59:14:3527:HOH:O	2.00	0.79
26:1H:2706:G:O6	59:1H:3758:HOH:O	1.97	0.79
19:AA:3:ARG:HB2	19:AA:4:SER:HA	1.62	0.79
26:14:323:G:HO2'	26:14:1205:U:H3	1.31	0.79
26:1H:2061:G:OP2	59:1H:3765:HOH:O	1.99	0.79
41:C8:92:ARG:O	41:C8:94:ASN:N	2.15	0.79
26:14:1359:A:H62	26:14:1372:U:H3	1.31	0.79
26:14:900:A:H3'	26:14:901:A:H8	1.47	0.79
30:39:116:ASP:OD2	36:35:1:MET:N	2.15	0.79
1:13:1303:C:OP1	59:13:1915:HOH:O	2.00	0.78
29:21:105:THR:OG1	29:21:199:ARG:NH2	2.16	0.78
1:1G:617:G:OP2	59:1G:1807:HOH:O	2.02	0.78
26:14:847:U:OP2	59:14:3521:HOH:O	2.01	0.78
26:14:1653:G:H3'	38:55:2:ARG:HG2	1.63	0.78
26:1H:1521:G:N7	59:1H:3811:HOH:O	2.16	0.78
26:1H:2249:U:O4	59:1H:3724:HOH:O	2.01	0.78
26:14:929:G:O6	59:14:3521:HOH:O	1.96	0.78
54:M5:40:GLU:H	54:M5:43:GLN:HG3	1.47	0.78
26:14:1022:G:H22	26:14:1142(A):A:H2	1.31	0.78
26:1H:311:A:OP2	59:1H:3767:HOH:O	2.00	0.78
26:1H:792:G:H5''	26:1H:793:A:H5'	1.66	0.78
29:21:38:THR:HB	29:21:40:GLU:HG2	1.65	0.78
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.64	0.78
26:14:1022:G:O2'	26:14:1023:U:OP2	2.00	0.78
1:13:1348:U:H3	1:13:1374:A:H2	1.29	0.78
32:51:157:TYR:H	32:51:171:LEU:HA	1.47	0.78
26:1H:1381:G:N7	59:1H:3814:HOH:O	2.16	0.78
26:14:54:G:O6	59:14:3528:HOH:O	2.01	0.78
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.17	0.78
30:31:66:PRO:O	30:31:67:GLN:HB3	1.82	0.78
1:13:158:G:H2'	1:13:159:G:H8	1.49	0.78
26:1H:1037:G:N2	26:1H:1118:C:O2	2.16	0.78
26:14:2270:G:OP2	59:14:3529:HOH:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:946:G:OP2	59:1H:3769:HOH:O	2.01	0.77
26:1H:1138:G:H21	34:58:106:MET:HE3	1.49	0.77
36:78:39:LYS:HG3	36:78:45:LEU:HD22	1.65	0.77
45:G8:82:PRO:HG3	45:G8:97:ARG:HB3	1.65	0.77
26:14:2830:G:O6	59:14:3524:HOH:O	1.98	0.77
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.17	0.77
26:1H:1670:C:OP1	59:1H:3770:HOH:O	2.02	0.77
46:H8:111:VAL:HG11	46:H8:146:ILE:HG13	1.66	0.77
26:14:2378:A:H4'	39:65:23:ARG:HH11	1.49	0.77
1:1G:1023:G:H5''	1:1G:1024:G:H21	1.49	0.77
33:69:77:LEU:HA	33:69:141:LYS:HB3	1.65	0.77
26:1H:2002:G:N7	59:1H:3819:HOH:O	2.17	0.77
26:1H:2334:G:H5'	39:A8:9:ARG:HG2	1.67	0.77
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.18	0.77
22:1K:66:U:H5''	22:1K:67:A:H8	1.49	0.77
40:B8:12:SER:HA	40:B8:14:TYR:H	1.50	0.77
3:2E:13:GLY:HA2	14:5I:57:ARG:HH21	1.49	0.77
26:1H:860:U:H5	26:1H:917:A:H2	1.32	0.77
41:C8:65:ILE:HG13	41:C8:96:ALA:HB2	1.67	0.77
46:H8:6:LYS:N	46:H8:59:LEU:O	2.18	0.77
26:14:2227:A:N7	59:14:3556:HOH:O	2.16	0.77
28:19:68:LYS:HB3	28:19:70:TRP:CH2	2.20	0.77
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.50	0.76
26:1H:450:G:OP2	59:1H:3768:HOH:O	2.01	0.76
4:32:53:ASP:OD2	5:42:107:ARG:NH2	2.18	0.76
6:5E:100:ASN:ND2	18:9I:27:GLY:O	2.18	0.76
26:1H:2588:G:OP1	59:1H:3771:HOH:O	2.03	0.76
26:14:275:G:N2	26:14:276:A:N7	2.33	0.76
26:1H:2469:A:H2	26:1H:2481:G:H21	1.32	0.76
1:1G:993:G:O6	1:1G:1045:C:N4	2.18	0.76
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.67	0.76
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.66	0.76
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.50	0.76
26:14:2656:U:H3	26:14:2665:A:H2	1.33	0.76
20:BA:33:ILE:O	20:BA:37:SER:OG	2.04	0.76
22:1L:52:A:H61	22:1L:62:U:H3	1.34	0.76
26:14:958:U:OP2	37:45:14:ARG:NH1	2.18	0.76
26:1H:702:G:N7	59:1H:3822:HOH:O	2.18	0.76
26:14:1413:G:O6	59:14:3530:HOH:O	2.02	0.76
12:3I:42:THR:HG22	12:3I:54:LYS:HD2	1.67	0.76
24:3K:35:G:O6	25:4K:14:A:N6	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2471:C:OP2	59:14:3531:HOH:O	2.02	0.76
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.51	0.76
1:1G:957:U:H1'	1:1G:960:U:H5	1.49	0.76
19:AA:9:VAL:CB	19:AA:10:PHE:HA	2.16	0.76
1:13:926:G:O2'	25:4K:12:A:N7	2.18	0.76
26:1H:2016:U:OP1	59:1H:3773:HOH:O	2.04	0.76
26:1H:2101:G:H1	26:1H:2188:C:H42	1.34	0.76
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.18	0.76
49:K8:4:SER:H	49:K8:7:ARG:H	1.32	0.75
26:1H:832:G:H5'	36:78:45:LEU:HD11	1.68	0.75
26:1H:1382:G:O6	59:1H:3772:HOH:O	2.03	0.75
26:1H:2392:A:H2	26:1H:2424:C:H42	1.34	0.75
1:1G:974:A:H5'	14:5A:31:ARG:HD3	1.67	0.75
26:14:123:G:O6	59:14:3532:HOH:O	2.04	0.75
30:39:167:ALA:HB1	30:39:173:VAL:HG11	1.68	0.75
32:59:121:ILE:HD13	32:59:133:VAL:HG11	1.68	0.75
2:1E:185:ILE:HB	2:1E:199:TYR:HB2	1.67	0.75
1:1G:664:G:H22	1:1G:741:G:H1	1.33	0.75
1:13:576:G:OP1	59:13:1918:HOH:O	2.04	0.75
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.51	0.75
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.66	0.75
26:14:910:A:H62	37:45:12:GLN:HA	1.50	0.75
26:14:2032:G:H21	29:29:146:THR:HG23	1.51	0.75
1:13:1355:G:OP1	59:13:1920:HOH:O	2.05	0.75
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.66	0.75
2:1E:16:HIS:CE1	2:1E:213:LEU:HD12	2.21	0.75
26:1H:363(F):A:O3'	59:1H:3777:HOH:O	2.05	0.75
1:13:145:G:H1	1:13:177:C:H42	1.32	0.75
34:58:39:ARG:NH2	34:58:41:ASP:OD2	2.19	0.75
45:G8:83:THR:HG22	45:G8:84:ARG:HG2	1.68	0.75
7:62:148:ASN:ND2	7:62:148:ASN:O	2.20	0.75
26:14:2267:A:OP2	59:14:3533:HOH:O	2.05	0.75
36:35:29:LYS:HG2	36:35:30:THR:N	2.02	0.75
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.67	0.75
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.69	0.75
26:1H:2287:A:N6	26:1H:2344:U:H3	1.84	0.75
26:1H:2379:G:O2'	39:A8:17:ARG:NH1	2.20	0.75
40:75:91:ARG:NH1	40:75:124:ASP:OD2	2.17	0.75
51:M8:14:ILE:HG23	51:M8:21:VAL:HB	1.67	0.75
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.49	0.75
22:1L:18:G:H2'	22:1L:57:G:C6	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:780:G:H21	26:14:783:A:H62	1.34	0.75
33:69:98:ALA:HA	33:69:109:ILE:HD11	1.69	0.75
34:15:128:HIS:ND1	34:15:129:PRO:O	2.20	0.75
50:H5:7:LYS:HG3	50:H5:34:GLU:HG2	1.68	0.75
12:3I:62:SER:HB2	12:3I:64:TYR:HD2	1.52	0.74
26:1H:818:G:OP2	59:1H:3775:HOH:O	2.04	0.74
1:1G:5:U:O2'	1:1G:6:G:OP2	2.05	0.74
26:14:990:A:H5'	26:14:990:A:H8	1.51	0.74
26:14:2681:C:H5	26:14:2725:A:H62	1.34	0.74
1:13:1224:G:OP1	59:13:1917:HOH:O	2.04	0.74
30:39:101:LEU:O	30:39:106:ARG:NH1	2.19	0.74
35:25:115:VAL:HG13	35:25:121:VAL:HG21	1.70	0.74
26:1H:1313:U:OP1	59:1H:3778:HOH:O	2.05	0.74
19:AA:12:ASP:OD1	19:AA:37:ARG:NH1	2.20	0.74
55:3L:54:5MU:O2'	55:3L:55:PSU:OP1	2.05	0.74
26:14:1678:G:N2	26:14:1989:G:H22	1.85	0.74
1:13:1347:G:H5''	9:8E:107:ARG:HB3	1.70	0.74
2:1E:16:HIS:HE1	2:1E:213:LEU:HD12	1.50	0.74
26:1H:2714:G:OP2	59:1H:3726:HOH:O	2.06	0.74
1:1G:1263:C:N4	1:1G:1272:G:O6	2.17	0.74
13:4A:68:GLY:HA2	13:4A:71:ARG:HB2	1.70	0.74
26:14:2080:G:H5'	48:F5:35:THR:O	1.87	0.74
1:1G:991:U:H4'	1:1G:992:U:H5''	1.69	0.74
26:14:848:G:H2'	26:14:849:A:C8	2.22	0.74
26:14:1533:C:H3'	26:14:1534:G:H4'	1.70	0.74
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.69	0.74
26:1H:1434:A:H61	26:1H:1558:A:N6	1.85	0.74
26:1H:2306:C:H3'	26:1H:2307:G:H5''	1.68	0.74
27:1J:7:G:H4'	39:65:29:PHE:HD2	1.52	0.74
32:59:9:ILE:HG21	32:59:51:ARG:HE	1.51	0.74
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.68	0.74
1:13:141:A:O2'	1:13:182:U:O2	2.05	0.74
1:13:937:A:OP2	59:13:1919:HOH:O	2.05	0.74
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.52	0.74
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.68	0.74
55:3L:76:A:H8	26:14:2394:C:H42	1.34	0.74
2:12:42:ILE:HG21	2:12:202:PRO:HB2	1.70	0.74
3:22:6:HIS:HD2	3:22:9:GLY:H	1.33	0.74
41:85:86:ALA:HB2	41:85:116:ALA:HB2	1.70	0.74
46:D5:5:LEU:HD11	46:D5:47:VAL:HG11	1.69	0.74
46:D5:169:GLU:HB3	46:D5:171:ILE:HD13	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:972:C:OP1	59:13:1921:HOH:O	2.06	0.73
24:3K:8:U:O2	24:3K:13:C:N4	2.22	0.73
24:3K:29:C:N4	24:3K:41:G:O6	2.19	0.73
26:1H:1186:G:OP1	59:1H:3774:HOH:O	2.04	0.73
27:16:66:A:H61	27:16:107:U:H2'	1.53	0.73
26:14:654(B):C:HO2'	26:14:654(S):G:H1	1.30	0.73
46:D5:59:LEU:O	46:D5:61:LEU:N	2.21	0.73
26:1H:240:G:O6	59:1H:3776:HOH:O	2.05	0.73
4:3E:88:VAL:HG12	4:3E:89:THR:HG22	1.70	0.73
30:31:6:VAL:N	30:31:24:LEU:O	2.20	0.73
39:A8:83:LYS:O	39:A8:110:LEU:HA	1.88	0.73
26:14:981:A:OP1	59:14:3535:HOH:O	2.06	0.73
26:14:2392:A:H2	26:14:2424:C:H42	1.35	0.73
26:14:1762:A:N6	59:14:3566:HOH:O	2.21	0.73
27:1J:7:G:H4'	39:65:29:PHE:CD2	2.23	0.73
24:3K:15:G:N1	24:3K:59:A:N7	2.37	0.73
30:31:6:VAL:HG21	30:31:119:ARG:HB2	1.69	0.73
38:55:67:LEU:HD23	38:55:76:VAL:HG21	1.71	0.73
26:1H:314:A:N7	59:1H:3842:HOH:O	2.22	0.73
26:1H:2396:G:H5''	48:J8:25:LYS:HE2	1.70	0.73
2:12:16:HIS:HB3	2:12:209:ARG:NE	2.02	0.73
26:14:2002:G:N7	59:14:3565:HOH:O	2.21	0.73
11:2I:54:ARG:O	11:2I:56:GLY:N	2.21	0.73
20:BI:43:LEU:HD13	20:BI:51:GLU:HB3	1.69	0.73
26:1H:625:G:N7	36:78:107:LYS:NZ	2.36	0.73
26:1H:1006:C:OP2	59:1H:3779:HOH:O	2.05	0.73
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.23	0.73
30:31:198:ALA:HA	30:31:201:VAL:HG12	1.69	0.73
26:14:486:C:O2'	43:A5:60:ASN:ND2	2.21	0.73
26:14:2287:A:N6	26:14:2344:U:H3	1.86	0.73
1:13:1256:A:N6	1:13:1278:U:OP2	2.22	0.73
26:1H:2315:G:OP1	31:41:36:LYS:NZ	2.21	0.73
1:13:659:U:H2'	1:13:660:G:C8	2.24	0.73
33:61:110:ASP:N	33:61:110:ASP:OD1	2.16	0.73
26:14:273(F):C:H3'	26:14:274:G:H5''	1.71	0.73
26:14:993:G:OP1	41:85:50:ARG:NH2	2.22	0.73
50:H5:13:ILE:O	59:H5:101:HOH:O	2.05	0.73
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.53	0.73
32:51:107:VAL:HB	32:51:152:ARG:HG2	1.71	0.73
34:58:47:ALA:HB2	34:58:112:LEU:HD11	1.71	0.73
3:22:35:GLU:HA	3:22:38:ARG:HE	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.70	0.73
26:1H:259:G:H21	26:1H:621:A:H8	1.33	0.72
12:3A:47:LYS:HA	12:3A:49:ASN:H	1.54	0.72
29:29:68:ALA:O	29:29:70:ALA:N	2.19	0.72
26:1H:31:C:OP1	59:1H:3783:HOH:O	2.07	0.72
26:1H:71:A:H2	44:F8:31:HIS:HE2	1.35	0.72
26:14:2306:C:H3'	26:14:2307:G:H5''	1.71	0.72
30:39:66:PRO:O	30:39:67:GLN:HB3	1.89	0.72
1:13:964:A:N3	1:13:969:A:O2'	2.21	0.72
26:1H:761:A:OP1	59:1H:3782:HOH:O	2.06	0.72
28:11:171:ASP:OD1	28:11:171:ASP:N	2.22	0.72
42:D8:24:LYS:HA	42:D8:92:THR:HG23	1.70	0.72
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.22	0.72
26:14:2128:C:H42	26:14:2160:G:H1	1.37	0.72
26:14:2148:G:H2'	26:14:2149:G:H8	1.54	0.72
1:13:588:G:OP1	59:13:1922:HOH:O	2.06	0.72
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.54	0.72
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.53	0.72
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.03	0.72
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.04	0.72
1:1G:827:U:H3	1:1G:872:A:H62	1.35	0.72
2:12:83:MET:SD	2:12:212:GLN:NE2	2.63	0.72
26:14:259:G:H21	26:14:621:A:H8	1.35	0.72
26:14:2448:A:OP2	59:14:3536:HOH:O	2.07	0.72
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	1.71	0.72
55:3L:15:G:H2'	55:3L:59:A:H61	1.53	0.72
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.22	0.72
1:13:1126:U:C5	1:13:1127:G:C8	2.78	0.72
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.53	0.72
26:1H:2615:U:OP1	59:1H:3780:HOH:O	2.06	0.72
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.71	0.72
26:14:2710:C:O3'	59:14:3539:HOH:O	2.08	0.72
30:39:4:VAL:HA	30:39:19:GLU:HB3	1.72	0.72
1:1G:973:G:OP2	1:1G:974:A:O2'	2.06	0.72
26:14:1187:G:O6	59:14:3537:HOH:O	2.07	0.72
1:13:346:G:N2	1:13:347:G:N3	2.37	0.72
1:13:659:U:H2'	1:13:660:G:H8	1.55	0.72
26:1H:1102:C:H2'	26:1H:1103:A:C8	2.25	0.72
26:1H:1670:C:OP1	59:1H:3784:HOH:O	2.07	0.72
1:1G:411:A:H62	1:1G:413:G:H21	1.37	0.72
1:1G:609:A:N7	59:1G:1825:HOH:O	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:815:C:OP1	42:95:85:LYS:NZ	2.21	0.72
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.71	0.72
1:1G:547:A:OP1	59:1G:1808:HOH:O	2.05	0.72
26:14:6:A:C8	34:15:129:PRO:HB2	2.25	0.72
42:D8:65:GLY:HA3	42:D8:91:TYR:CZ	2.26	0.71
26:14:2379:G:O2'	39:65:17:ARG:NH1	2.22	0.71
1:13:1223:C:P	19:AI:78:ARG:HH12	2.13	0.71
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.21	0.71
26:14:2400:G:H2'	26:14:2401:U:C6	2.25	0.71
20:BI:33:ILE:O	20:BI:37:SER:OG	2.06	0.71
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.54	0.71
32:59:10:PRO:HG2	32:59:50:VAL:HG13	1.72	0.71
26:1H:70:G:H21	26:1H:71:A:N6	1.87	0.71
26:1H:226:G:H21	26:1H:228:A:H2	1.37	0.71
26:1H:1776:G:OP2	59:1H:3781:HOH:O	2.06	0.71
29:29:54:GLN:NE2	29:29:72:VAL:O	2.23	0.71
33:69:117:GLU:HB2	33:69:118:LYS:HE2	1.72	0.71
1:13:468:A:H5''	16:7I:80:PHE:HB3	1.71	0.71
20:BI:26:ASN:HD22	20:BI:26:ASN:H	1.38	0.71
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.23	0.71
40:B8:11:GLU:HG2	40:B8:57:PHE:CD2	2.26	0.71
13:4A:67:GLU:O	13:4A:69:GLU:N	2.23	0.71
26:14:617:G:OP1	30:39:40:GLN:NE2	2.22	0.71
26:1H:674:G:O2'	30:31:74:ARG:HG3	1.89	0.71
26:1H:761:A:OP1	59:1H:3721:HOH:O	2.08	0.71
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.72	0.71
26:14:2293:C:H5''	39:65:89:ARG:HH21	1.55	0.71
26:14:2400:G:H2'	26:14:2401:U:H6	1.56	0.71
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.72	0.71
22:1K:37:AET:HM62	22:1K:38:A:C6	2.25	0.71
26:1H:1784:A:OP1	59:1H:3786:HOH:O	2.08	0.71
26:1H:2448:A:OP2	59:1H:3733:HOH:O	2.07	0.71
1:1G:1238:A:H62	1:1G:1301:U:H3	1.37	0.71
39:65:30:ARG:HG3	39:65:35:ILE:HD12	1.73	0.71
40:75:55:ASN:H	40:75:59:THR:HG22	1.55	0.71
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.25	0.71
30:39:157:VAL:HB	30:39:194:MET:HG3	1.73	0.71
1:13:1124:G:N7	1:13:1145:C:O2'	2.22	0.71
26:1H:248:G:OP1	59:1H:3785:HOH:O	2.08	0.71
43:E8:58:ALA:HB1	43:E8:64:MET:HE2	1.72	0.71
54:Q8:33:ASN:HA	54:Q8:36:LYS:HD2	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:128:HIS:H	34:15:128:HIS:CD2	2.08	0.71
46:D5:149:SER:HA	46:D5:170:THR:HB	1.73	0.71
43:E8:12:ILE:HG13	43:E8:42:ARG:HH11	1.56	0.70
5:42:122:GLU:O	5:42:126:ARG:NH1	2.24	0.70
26:14:1345:C:OP2	59:14:3540:HOH:O	2.09	0.70
40:75:64:ARG:HB2	40:75:73:GLU:HG2	1.71	0.70
1:13:21:G:OP1	59:13:1924:HOH:O	2.08	0.70
1:13:972:C:OP1	59:13:1925:HOH:O	2.09	0.70
1:13:1423:G:OP1	35:68:49:ARG:NH2	2.23	0.70
9:8E:45:ALA:O	9:8E:78:LYS:NZ	2.24	0.70
26:1H:661:C:O2'	36:78:13:ASN:O	2.08	0.70
26:1H:1016:G:O6	59:1H:3787:HOH:O	2.08	0.70
26:14:862:G:OP2	59:14:3538:HOH:O	2.07	0.70
36:35:75:ILE:HD13	36:35:75:ILE:H	1.54	0.70
42:95:52:VAL:HG11	42:95:55:ALA:HB3	1.72	0.70
1:13:486:U:OP2	59:13:1927:HOH:O	2.10	0.70
1:13:1502:A:H2	1:13:1505:G:N1	1.88	0.70
2:1E:80:ILE:HG21	2:1E:212:GLN:HA	1.74	0.70
26:1H:1184:G:O6	59:1H:3788:HOH:O	2.09	0.70
10:1A:29:ARG:HD3	10:1A:84:GLN:HE22	1.56	0.70
26:14:761:A:N7	59:14:3574:HOH:O	2.24	0.70
26:14:2685:G:O6	59:14:3541:HOH:O	2.09	0.70
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.72	0.70
22:1K:50:G:N2	22:1K:51:C:N3	2.39	0.70
31:41:97:ASP:O	31:41:101:ILE:HG23	1.91	0.70
32:51:5:GLY:H	32:51:69:ARG:HG2	1.56	0.70
1:1G:1127:G:O2'	1:1G:1148:U:O2	2.08	0.70
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.73	0.70
10:1A:49:VAL:O	10:1A:60:ARG:HB2	1.90	0.70
26:14:2272:U:O4	59:14:3534:HOH:O	2.06	0.70
1:13:1335:C:O2	59:13:1923:HOH:O	2.07	0.70
8:7E:51:VAL:HG11	8:7E:60:ARG:HD2	1.73	0.70
11:2I:65:ALA:HB1	11:2I:98:LEU:HD21	1.74	0.70
37:88:138:ASP:OD1	37:88:138:ASP:N	2.23	0.70
52:N8:36:CYS:HB2	52:N8:49:CYS:SG	2.32	0.70
1:1G:812:C:N3	59:1G:1827:HOH:O	2.24	0.70
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.26	0.70
9:82:112:LYS:HE2	9:82:118:LYS:H	1.57	0.70
10:1A:33:GLN:HB2	10:1A:75:ILE:HG12	1.72	0.70
27:1J:83:G:H5'	50:H5:52:HIS:CE1	2.26	0.70
26:14:1041:C:H42	26:14:1114:G:H1	1.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:33:ARG:HD3	38:55:115:GLU:HB3	1.72	0.70
1:13:975:A:H4'	1:13:976:G:H5''	1.73	0.70
15:6I:82:ILE:O	15:6I:86:GLY:N	2.24	0.70
26:14:71:A:H2	44:B5:31:HIS:HE2	1.38	0.70
26:14:733:G:N7	59:14:3579:HOH:O	2.25	0.70
26:1H:860:U:C5	26:1H:917:A:H2	2.10	0.70
1:1G:353:A:H5'	1:1G:353:A:H8	1.57	0.70
1:1G:920:U:H2'	1:1G:921:U:C6	2.27	0.70
5:42:16:THR:OG1	5:42:17:ALA:N	2.23	0.70
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.72	0.70
32:59:97:ARG:HG2	32:59:98:LEU:H	1.57	0.70
45:C5:31:LEU:HD12	45:C5:36:ALA:HB3	1.71	0.70
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.25	0.70
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.72	0.70
30:31:29:ASN:H	30:31:112:MET:HE1	1.55	0.70
8:72:110:ALA:H	8:72:121:ASP:HB2	1.57	0.70
13:4A:84:ILE:H	13:4A:84:ILE:HD12	1.57	0.70
13:4A:91:ARG:NH1	13:4A:97:PRO:O	2.24	0.70
1:13:812:C:N3	59:13:1942:HOH:O	2.24	0.70
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.55	0.70
3:22:70:VAL:HG12	3:22:72:LYS:H	1.55	0.70
10:1A:54:PHE:CZ	10:1A:55:LYS:HD2	2.26	0.70
37:45:133:ARG:O	37:45:134:ARG:HD2	1.91	0.70
39:65:59:LYS:HD3	39:65:60:GLY:H	1.57	0.70
1:13:524:G:H2'	1:13:525:C:C6	2.27	0.69
26:1H:1187:G:O6	59:1H:3775:HOH:O	2.08	0.69
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.92	0.69
26:1H:1664:A:OP1	59:1H:3722:HOH:O	2.10	0.69
33:61:110:ASP:HB2	33:61:112:LYS:H	1.57	0.69
51:M8:45:GLY:O	51:M8:47:GLN:NE2	2.25	0.69
2:1E:126:GLU:HG3	2:1E:129:GLU:HG3	1.73	0.69
45:G8:38:ILE:HD11	45:G8:64:GLU:HG3	1.73	0.69
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.74	0.69
27:1J:44:G:H1'	27:1J:47:C:H42	1.56	0.69
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.28	0.69
12:3A:113:ARG:HH21	12:3A:116:SER:HB2	1.56	0.69
54:M5:40:GLU:HA	54:M5:43:GLN:HB2	1.73	0.69
43:E8:88:ARG:HB2	43:E8:92:ARG:HB3	1.72	0.69
26:14:122:G:N7	59:14:3576:HOH:O	2.24	0.69
40:75:24:PRO:HA	40:75:49:VAL:HG23	1.74	0.69
26:1H:563:G:OP2	59:1H:3789:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.27	0.69
35:68:2:ILE:HD12	35:68:6:THR:HG21	1.74	0.69
50:L8:3:ARG:HB2	50:L8:59:VAL:HG22	1.74	0.69
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.74	0.69
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.75	0.69
26:14:2444:G:OP2	30:39:68:LYS:HE2	1.92	0.69
30:31:29:ASN:H	30:31:112:MET:CE	2.05	0.69
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.74	0.69
40:B8:105:LEU:O	40:B8:107:ASP:N	2.25	0.69
26:14:2113:U:H3'	26:14:2114:A:C4'	2.20	0.69
26:14:2269:A:OP1	59:14:3543:HOH:O	2.10	0.69
46:D5:51:ALA:HB1	46:D5:57:ILE:HD11	1.75	0.69
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.74	0.69
13:4I:12:ASN:O	13:4I:14:ARG:N	2.23	0.69
36:78:114:ILE:HD13	36:78:125:VAL:HG11	1.75	0.69
26:14:198:C:H5'	26:14:2244:U:OP1	1.91	0.69
26:14:528:A:O2'	26:14:529:A:H5'	1.92	0.69
26:14:1346:G:OP2	59:14:3546:HOH:O	2.11	0.69
26:14:2068:U:H3	26:14:2430:A:H2	1.40	0.69
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.75	0.69
1:13:221:C:H2'	1:13:222:U:H6	1.58	0.69
1:13:346:G:H21	1:13:347:G:H1'	1.58	0.69
1:13:963:G:H21	10:1I:55:LYS:NZ	1.91	0.69
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.25	0.69
26:1H:67:U:H3	26:1H:74:A:H2	1.38	0.69
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.26	0.69
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.74	0.69
7:62:147:ALA:O	7:62:149:ARG:NH1	2.26	0.69
22:1L:69:C:H1'	22:1L:70:A:C8	2.28	0.69
26:14:1325:G:OP1	59:14:3545:HOH:O	2.10	0.69
26:14:2418:A:OP2	54:M5:29:LYS:NZ	2.25	0.69
26:14:2720:U:H3	26:14:2873:A:H2	1.38	0.69
33:69:75:LEU:HD21	33:69:77:LEU:HB2	1.75	0.69
36:35:138:LEU:HD12	36:35:144:GLU:HG3	1.72	0.69
46:D5:10:ARG:NH2	46:D5:26:GLY:O	2.25	0.69
26:1H:2786:U:O2'	29:21:62:PRO:O	2.10	0.69
1:1G:413:G:O2'	1:1G:428:G:N2	2.26	0.69
26:14:2836:U:H2'	26:14:2837:G:C8	2.26	0.69
32:59:121:ILE:HG23	32:59:133:VAL:HG21	1.74	0.69
36:35:39:LYS:HD2	36:35:45:LEU:HD21	1.73	0.69
1:13:1303:C:O5'	59:13:1913:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:620:G:H4'	26:1H:621:A:H5''	1.75	0.69
1:1G:4:U:O4	8:72:105:ARG:HA	1.93	0.69
1:1G:491:G:N7	59:1G:1830:HOH:O	2.26	0.69
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.09	0.69
32:59:7:LEU:HD12	32:59:8:PRO:HD3	1.74	0.69
2:1E:93:VAL:HG11	2:1E:97:TRP:HD1	1.57	0.68
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.58	0.68
21:1F:3:LYS:NZ	59:1F:102:HOH:O	2.26	0.68
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.75	0.68
9:82:48:GLU:HB3	9:82:101:PHE:HE2	1.59	0.68
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.74	0.68
26:14:1871:A:H2'	26:14:1872:A:C8	2.28	0.68
26:14:2268:A:OP1	59:14:3547:HOH:O	2.11	0.68
36:35:71:VAL:HG13	36:35:72:PRO:HD3	1.75	0.68
24:3K:2:C:H42	24:3K:71:G:H1	1.41	0.68
26:1H:389:G:H1	36:78:71:VAL:HG12	1.58	0.68
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.27	0.68
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.27	0.68
28:11:17:THR:HG22	28:11:204:ILE:HA	1.73	0.68
46:H8:169:GLU:OE1	46:H8:170:THR:N	2.25	0.68
26:14:1678:G:H22	26:14:1989:G:H22	1.41	0.68
23:2K:17:C:OP2	23:2K:18:U:O2'	2.09	0.68
26:1H:943:U:OP2	59:1H:3790:HOH:O	2.11	0.68
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.26	0.68
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.76	0.68
26:1H:2846:G:N7	59:1H:3855:HOH:O	2.25	0.68
26:14:1614:A:OP2	59:14:3544:HOH:O	2.10	0.68
26:14:1992:G:N7	59:14:3584:HOH:O	2.26	0.68
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.27	0.68
38:98:34:ILE:HG22	38:98:114:VAL:HB	1.74	0.68
44:F8:27:THR:HB	44:F8:80:ILE:HB	1.76	0.68
10:1A:61:GLU:HG3	14:5A:58:LYS:HE2	1.76	0.68
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.74	0.68
1:13:963:G:N3	10:1I:55:LYS:NZ	2.42	0.68
3:22:106:VAL:HB	3:22:109:PRO:HB3	1.75	0.68
26:14:907:U:O2'	37:45:101:ARG:NH2	2.25	0.68
30:39:129:PHE:HA	30:39:142:TRP:NE1	2.08	0.68
1:13:664:G:N2	1:13:741:G:H1	1.89	0.68
1:13:780:A:OP2	59:13:1926:HOH:O	2.09	0.68
19:AI:40:ILE:HG12	19:AI:41:VAL:HG13	1.76	0.68
26:1H:1332:G:N2	26:1H:1610:A:C8	2.62	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2705:A:OP2	59:1H:3792:HOH:O	2.11	0.68
1:1G:328:C:OP1	59:1G:1810:HOH:O	2.11	0.68
1:1G:977:A:O2'	1:1G:981:U:N3	2.26	0.68
26:14:2162:G:O2'	26:14:2173:A:OP1	2.09	0.68
33:69:14:ASP:OD1	33:69:15:VAL:N	2.26	0.68
35:25:92:GLU:OE1	35:25:113:LYS:NZ	2.25	0.68
41:85:88:ILE:HD11	42:95:47:VAL:HG21	1.76	0.68
46:D5:130:PRO:HA	46:D5:133:ILE:HD11	1.74	0.68
26:1H:1107:G:H2'	26:1H:1108:U:H6	1.59	0.68
26:1H:2017:U:P	59:1H:3826:HOH:O	2.52	0.68
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.29	0.68
33:61:110:ASP:HB2	33:61:112:LYS:HG2	1.75	0.68
42:D8:37:VAL:HG23	42:D8:51:VAL:HG21	1.76	0.68
26:14:2115:G:O2'	26:14:2171:A:N6	2.26	0.68
30:39:10:PRO:HA	30:39:127:GLU:HG2	1.73	0.68
13:4I:12:ASN:HB3	13:4I:46:LYS:HB2	1.76	0.68
24:3K:31:C:H42	24:3K:39:G:H1	1.41	0.68
26:1H:1678:G:N2	26:1H:1989:G:H22	1.91	0.68
5:42:143:ARG:NH2	8:72:77:GLU:OE1	2.27	0.68
7:62:15:ASP:HB3	7:62:20:ASP:H	1.59	0.68
26:14:2294:C:P	39:65:89:ARG:HH22	2.17	0.68
31:49:50:ALA:HA	31:49:53:LEU:HB3	1.74	0.68
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.76	0.68
1:1G:972:C:OP1	59:1G:1815:HOH:O	2.12	0.68
50:H5:39:ASP:OD1	50:H5:44:ARG:NH1	2.27	0.68
26:1H:1021:A:H62	26:1H:1141:U:H3	1.41	0.68
26:1H:1849:G:OP2	59:1H:3797:HOH:O	2.12	0.68
54:Q8:37:SER:O	54:Q8:40:GLU:N	2.26	0.68
1:1G:576:G:OP1	59:1G:1811:HOH:O	2.11	0.68
3:22:92:ALA:HB2	3:22:99:VAL:HG13	1.76	0.68
11:2A:98:LEU:O	11:2A:101:SER:OG	2.10	0.68
26:14:588:U:H2'	26:14:589:C:C6	2.28	0.68
34:15:13:TRP:O	34:15:135:PRO:HD2	1.94	0.68
37:45:27:VAL:CG1	37:45:134:ARG:HE	2.06	0.68
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.26	0.67
21:1B:2:GLY:O	21:1B:4:GLY:N	2.27	0.67
47:E5:38:VAL:HG13	47:E5:59:LEU:HB2	1.75	0.67
48:F5:92:LYS:O	48:F5:95:LEU:N	2.25	0.67
28:11:38:LYS:HB3	28:11:39:LYS:HA	1.76	0.67
52:N8:40:LYS:HG2	52:N8:46:CYS:HA	1.77	0.67
12:3A:82:VAL:O	12:3A:106:ASP:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:G5:35:LEU:HD23	49:G5:53:LEU:HD12	1.76	0.67
1:13:864:A:OP1	59:13:1930:HOH:O	2.12	0.67
26:1H:1534:G:H21	26:1H:1538:G:N2	1.93	0.67
26:1H:2321:G:H5''	26:1H:2322:A:OP2	1.94	0.67
31:41:161:THR:HG22	31:41:163:ALA:H	1.58	0.67
46:D5:27:VAL:HG12	46:D5:87:ASP:HB3	1.75	0.67
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.57	0.67
26:1H:1006:C:OP1	59:1H:3795:HOH:O	2.12	0.67
31:41:152:LEU:H	31:41:152:LEU:HD12	1.58	0.67
46:H8:19:ARG:NH1	46:H8:84:GLU:O	2.28	0.67
26:14:1017:G:N7	59:14:3593:HOH:O	2.27	0.67
41:85:92:ARG:HG3	41:85:94:ASN:HB3	1.75	0.67
1:13:645:C:OP2	59:13:1928:HOH:O	2.12	0.67
26:1H:646:A:H2'	26:1H:647:G:O4'	1.95	0.67
26:1H:974(A):C:O2'	59:1H:3800:HOH:O	2.13	0.67
26:1H:1986:A:OP1	59:1H:3799:HOH:O	2.12	0.67
1:1G:557:G:OP1	59:1G:1814:HOH:O	2.12	0.67
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.75	0.67
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.75	0.67
26:14:2016:U:O2	52:J5:7:PRO:HG2	1.95	0.67
37:45:138:ASP:N	37:45:138:ASP:OD1	2.27	0.67
1:13:1296:C:OP1	13:4I:44:ARG:NH2	2.28	0.67
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.60	0.67
26:1H:1594:G:OP1	59:1H:3791:HOH:O	2.11	0.67
52:N8:33:CYS:HB2	52:N8:40:LYS:HD3	1.77	0.67
1:1G:247:G:OP2	17:8A:100:LYS:N	2.28	0.67
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.76	0.67
4:32:89:THR:HA	5:42:97:GLY:HA3	1.76	0.67
46:D5:8:TYR:CD1	46:D5:62:PRO:HG3	2.29	0.67
1:13:619:U:H3	4:3E:134:ASP:HB2	1.60	0.67
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.28	0.67
26:1H:563:G:OP2	59:1H:3794:HOH:O	2.12	0.67
26:1H:1899:G:H1	26:1H:1902:C:H41	1.40	0.67
26:1H:2308:G:N1	26:1H:2311:A:H2	1.85	0.67
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.60	0.67
1:1G:316:G:OP2	1:1G:351:G:O2'	2.13	0.67
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.75	0.67
20:BA:97:ALA:HB1	20:BA:99:LEU:HG	1.77	0.67
26:14:1729:A:H2'	26:14:1731:G:N2	2.08	0.67
27:1J:88:C:H5''	27:1J:89:G:C5	2.29	0.67
26:1H:459:U:H5''	53:P8:40:TRP:CD2	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:617:G:OP2	30:31:43:LYS:NZ	2.28	0.67
26:1H:974(A):C:OP1	59:1H:3798:HOH:O	2.12	0.67
1:1G:278:G:N7	17:8A:92:ARG:NH1	2.43	0.67
4:32:107:ARG:HH22	4:32:194:LEU:HD22	1.60	0.67
8:72:7:ALA:HB2	8:72:85:ARG:HD3	1.76	0.67
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.29	0.67
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.27	0.67
1:1G:1110:A:OP2	59:1G:1812:HOH:O	2.11	0.67
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.76	0.67
26:14:6:A:H3'	26:14:7:G:H5'	1.76	0.67
26:14:963:U:OP1	59:14:3548:HOH:O	2.12	0.67
28:19:148:GLU:HB2	28:19:151:LYS:HD2	1.77	0.67
50:H5:39:ASP:O	50:H5:44:ARG:NH1	2.27	0.67
1:13:737:A:H2'	1:13:738:C:C6	2.30	0.67
4:3E:141:ARG:HB2	4:3E:141:ARG:CZ	2.25	0.67
26:1H:270(I):G:H1	26:1H:270(Q):C:N4	1.85	0.67
51:M8:39:CYS:HB3	51:M8:41:PRO:HD2	1.75	0.67
14:5A:13:THR:O	14:5A:13:THR:OG1	2.07	0.67
40:75:54:ARG:HA	40:75:59:THR:HB	1.77	0.67
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.77	0.66
33:61:144:VAL:HG12	33:61:145:VAL:HG23	1.77	0.66
22:1L:43:G:H2'	22:1L:44:A:C8	2.30	0.66
27:1J:88:C:H1'	27:1J:89:G:OP2	1.94	0.66
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.28	0.66
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.78	0.66
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.76	0.66
33:61:7:GLU:HA	33:61:15:VAL:HG22	1.75	0.66
26:14:1183:G:O3'	50:H5:29:ARG:NH2	2.27	0.66
26:14:1636:C:OP2	59:14:3551:HOH:O	2.14	0.66
26:14:2749:A:N1	26:14:2750:A:N6	2.44	0.66
1:13:608:A:OP2	59:13:1931:HOH:O	2.13	0.66
7:6E:16:LEU:HD11	9:8E:45:ALA:HB2	1.77	0.66
9:8E:91:ASP:N	9:8E:91:ASP:OD1	2.27	0.66
18:9I:22:VAL:HG22	18:9I:56:THR:HA	1.77	0.66
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.77	0.66
6:52:22:GLU:OE1	6:52:84:ASN:ND2	2.28	0.66
6:52:24:GLU:OE1	6:52:28:ARG:NH1	2.28	0.66
26:1H:2402:C:H1'	26:1H:2403:C:H5	1.60	0.66
26:1H:2751:G:C8	32:51:3:ARG:HD3	2.30	0.66
1:1G:324:G:O6	59:1G:1813:HOH:O	2.12	0.66
19:AA:20:LEU:HA	19:AA:23:ASN:HB2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2655:G:N2	26:14:2665:A:OP2	2.28	0.66
26:14:2882:A:H5'	38:55:96:ARG:HB2	1.77	0.66
47:E5:53:MET:HG3	47:E5:59:LEU:HD23	1.78	0.66
1:13:881:G:P	12:3I:12:ARG:HH22	2.18	0.66
6:5E:24:GLU:HG2	6:5E:28:ARG:CZ	2.26	0.66
29:29:76:ARG:HD3	29:29:77:ILE:H	1.61	0.66
36:35:122:PRO:HB3	36:35:141:ALA:HB1	1.77	0.66
46:D5:94:GLU:HB3	46:D5:96:VAL:HG23	1.77	0.66
1:13:345:C:H4'	1:13:346:G:N7	2.11	0.66
23:2K:62:C:H2'	23:2K:63:C:H6	1.60	0.66
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.28	0.66
1:1G:584:G:H5'	17:8A:91:ARG:HH22	1.61	0.66
23:2L:47:7MG:H3'	23:2L:48:U:C2	2.31	0.66
26:14:2074:U:OP1	59:14:3552:HOH:O	2.14	0.66
27:1J:11:C:OP2	27:1J:12:C:N4	2.22	0.66
27:1J:80:U:H2'	27:1J:81:G:N2	2.10	0.66
1:13:1345:U:OP1	59:13:1932:HOH:O	2.14	0.66
13:4I:37:THR:HB	13:4I:55:ARG:HD2	1.78	0.66
22:1K:65:C:H5	22:1K:67:A:H62	1.44	0.66
3:22:40:ARG:HG2	3:22:55:VAL:HG11	1.78	0.66
9:82:5:TYR:N	9:82:87:GLN:OE1	2.29	0.66
6:5E:22:GLU:OE1	6:5E:82:ARG:NH2	2.24	0.66
26:1H:136:G:N7	59:1H:3871:HOH:O	2.29	0.66
26:1H:1635:G:OP1	59:1H:3804:HOH:O	2.13	0.66
30:31:13:SER:HB3	30:31:16:GLY:H	1.59	0.66
35:68:93:PRO:HG3	35:68:114:ILE:HG12	1.78	0.66
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.77	0.66
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.77	0.66
8:72:54:ASP:N	8:72:54:ASP:OD1	2.28	0.66
16:7A:43:LYS:HG2	16:7A:48:TRP:CD2	2.30	0.66
26:14:1342:A:H2	26:14:1602:U:H3	1.43	0.66
1:13:501:C:H2'	1:13:502:G:C8	2.30	0.66
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.77	0.66
26:1H:2864:G:OP1	40:B8:119:LYS:HD2	1.96	0.66
27:16:18:G:H1	27:16:65:C:H42	1.43	0.66
47:I8:23:VAL:HG22	47:I8:38:VAL:HG22	1.78	0.66
26:14:2062:A:O2'	26:14:2063:C:OP1	2.14	0.66
26:14:2624:G:N7	59:14:3599:HOH:O	2.28	0.66
31:49:49:ASP:HB3	31:49:52:ILE:HB	1.78	0.66
49:G5:4:SER:CA	49:G5:6:VAL:H	2.08	0.66
7:6E:80:VAL:HG22	7:6E:85:TYR:HE2	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2431:U:OP2	59:1H:3801:HOH:O	2.13	0.66
33:61:113:ARG:HH21	33:61:132:PRO:HB3	1.60	0.66
36:78:71:VAL:HG13	36:78:72:PRO:HD3	1.78	0.66
37:88:109:VAL:HG13	37:88:113:GLN:HB3	1.78	0.66
45:G8:85:VAL:HG23	45:G8:96:ILE:HB	1.76	0.66
29:29:105:THR:HG21	29:29:164:ARG:HE	1.59	0.66
26:1H:309:G:N3	26:1H:329:G:O2'	2.28	0.65
26:1H:376:C:OP1	59:1H:3809:HOH:O	2.14	0.65
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.77	0.65
22:1L:53:G:H1	22:1L:61:C:H42	1.43	0.65
27:1J:88:C:H5''	27:1J:89:G:C6	2.31	0.65
39:65:29:PHE:HD1	39:65:30:ARG:N	1.94	0.65
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.79	0.65
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.28	0.65
25:4K:9:G:N7	25:4K:10:G:N2	2.44	0.65
26:1H:2711:A:OP1	59:1H:3803:HOH:O	2.13	0.65
1:1G:3:G:H1	4:32:88:VAL:HG13	1.61	0.65
1:13:1348:U:H2'	1:13:1349:A:H8	1.61	0.65
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.77	0.65
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	1.78	0.65
37:88:66:ILE:HA	37:88:104:PHE:HA	1.78	0.65
1:1G:1095:U:OP2	1:1G:1108:G:N1	2.24	0.65
26:14:6:A:H62	34:15:131:GLN:H	1.42	0.65
26:14:2074:U:OP1	59:14:3549:HOH:O	2.13	0.65
31:49:95:ARG:O	31:49:99:MET:HG2	1.96	0.65
39:65:61:ASN:O	39:65:65:VAL:HB	1.95	0.65
1:13:1133:G:H2'	1:13:1134:G:C8	2.28	0.65
26:1H:81:G:O6	59:1H:3805:HOH:O	2.14	0.65
26:1H:187:G:OP2	59:1H:3807:HOH:O	2.14	0.65
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.61	0.65
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.12	0.65
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.78	0.65
26:14:491:G:H2'	26:14:492:A:C8	2.31	0.65
1:13:179:A:H2'	1:13:180:U:H6	1.60	0.65
1:13:455:C:H42	1:13:477:G:H22	1.43	0.65
1:13:1165:C:O2	1:13:1171:G:N2	2.29	0.65
26:1H:1156:A:C8	41:C8:51:LYS:HG2	2.32	0.65
26:1H:2048:G:N7	59:1H:3872:HOH:O	2.29	0.65
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.32	0.65
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.79	0.65
15:6I:17:ARG:HD3	15:6I:77:ARG:NH2	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:47:ILE:HG13	35:68:48:PRO:HD2	1.78	0.65
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.31	0.65
26:14:2162:G:H3'	26:14:2164:C:H5	1.62	0.65
1:13:1104:G:OP1	2:1E:144:ARG:NH1	2.28	0.65
26:1H:80:G:N7	59:1H:3878:HOH:O	2.30	0.65
39:A8:89:ARG:HG2	39:A8:89:ARG:O	1.97	0.65
43:E8:86:LEU:HD12	43:E8:87:PRO:HD2	1.77	0.65
2:12:15:VAL:HB	2:12:16:HIS:CE1	2.32	0.65
9:82:40:LEU:HB3	9:82:43:ALA:HB2	1.79	0.65
26:14:1617:C:N3	59:14:3601:HOH:O	2.29	0.65
26:14:2873:A:H8	38:55:6:SER:N	1.95	0.65
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.12	0.65
26:1H:530:G:O2'	59:1H:3806:HOH:O	2.14	0.65
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.79	0.65
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.62	0.65
30:39:123:LEU:O	30:39:125:LEU:N	2.29	0.65
45:C5:42:VAL:HG13	45:C5:65:ALA:HB3	1.78	0.65
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.77	0.65
36:78:115:LEU:HA	36:78:134:ALA:HB2	1.79	0.65
40:B8:56:GLY:O	40:B8:59:THR:HG22	1.97	0.65
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.29	0.65
1:1G:677:U:H3	1:1G:713:G:H22	1.43	0.65
26:14:529:A:H4'	26:14:530:G:H5'	1.77	0.65
26:14:1581:G:H2'	26:14:1582:C:O4'	1.97	0.65
26:14:2531:A:H4'	32:59:157:TYR:HE2	1.62	0.65
33:69:76:THR:HG21	33:69:140:LEU:HD12	1.77	0.65
1:13:737:A:H2'	1:13:738:C:H6	1.61	0.65
26:1H:2256:G:N7	59:1H:3873:HOH:O	2.29	0.65
27:16:66:A:N6	27:16:107:U:H2'	2.10	0.65
48:J8:3:LYS:HG3	48:J8:46:LEU:HD22	1.78	0.65
26:14:1110:G:H2'	26:14:1111:A:C8	2.32	0.65
26:14:2378:A:O2'	39:65:21:THR:HG21	1.97	0.65
27:1J:52:A:H62	39:65:33:LYS:HG3	1.62	0.65
26:1H:2134:A:N7	26:1H:2156:G:O2'	2.30	0.64
26:1H:2409:G:N7	59:1H:3875:HOH:O	2.30	0.64
29:21:24:THR:HG21	29:21:188:VAL:HG22	1.79	0.64
32:51:56:SER:OG	32:51:57:ASP:N	2.27	0.64
26:14:1178:C:H2'	26:14:1179:C:C6	2.32	0.64
26:14:1364:G:OP2	48:F5:2:SER:N	2.30	0.64
26:14:2037:G:H2'	26:14:2038:G:C8	2.32	0.64
26:14:2196:C:OP2	59:14:3554:HOH:O	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:133:ASN:HA	30:39:162:LEU:HD23	1.80	0.64
45:C5:39:VAL:HG23	45:C5:41:GLY:H	1.62	0.64
1:13:1060:C:HO2'	10:11:56:HIS:HD1	1.45	0.64
29:21:111:ARG:HG3	29:21:160:TYR:CD2	2.32	0.64
46:H8:9:TYR:HE1	46:H8:35:ARG:HG2	1.62	0.64
1:1G:474:G:H2'	1:1G:475:G:H8	1.62	0.64
1:1G:1095:U:P	1:1G:1108:G:H1	2.19	0.64
27:1J:44:G:H1'	27:1J:47:C:N4	2.13	0.64
49:K8:3:LEU:H	49:K8:4:SER:C	2.01	0.64
1:1G:957:U:O2'	1:1G:959:A:N7	2.23	0.64
26:14:1756:G:OP2	59:14:3553:HOH:O	2.14	0.64
26:14:2268:A:OP1	59:14:3550:HOH:O	2.13	0.64
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.80	0.64
26:1H:1780:A:OP1	59:1H:3808:HOH:O	2.14	0.64
26:1H:2849:U:O4	40:B8:23:ARG:NH2	2.30	0.64
29:21:116:VAL:O	29:21:117:MET:HB3	1.96	0.64
1:1G:1443:G:O2'	40:75:122:ASP:OD2	2.15	0.64
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.38	0.64
26:14:389:G:H1	36:35:71:VAL:HG12	1.61	0.64
26:14:1778:U:H2'	26:14:1784:A:N6	2.11	0.64
32:59:152:ARG:HG2	32:59:153:LYS:HG3	1.78	0.64
37:45:21:THR:HG22	37:45:23:GLY:HA3	1.80	0.64
1:13:657:G:N2	1:13:749:C:O2	2.23	0.64
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.79	0.64
36:78:63:PRO:HD3	54:Q8:27:THR:HG22	1.79	0.64
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.62	0.64
40:B8:58:ASN:C	40:B8:58:ASN:HD22	1.99	0.64
1:1G:79:G:H1	1:1G:90:C:H42	1.45	0.64
1:1G:652:U:H1'	1:1G:653:A:H2	1.63	0.64
26:14:2250:G:OP1	37:45:85:LYS:NZ	2.24	0.64
26:14:2415:G:H4'	36:35:67:MET:N	2.13	0.64
37:45:27:VAL:HG13	37:45:136:ALA:HB1	1.80	0.64
40:75:2:ASN:HB3	40:75:4:GLY:O	1.96	0.64
49:G5:43:GLN:HG3	49:G5:46:GLN:HE22	1.62	0.64
1:13:1122:U:O4	1:13:1123:A:N6	2.31	0.64
26:1H:761:A:C8	59:1H:3831:HOH:O	2.50	0.64
26:1H:1332:G:H21	26:1H:1610:A:H8	1.43	0.64
29:21:129:HIS:H	29:21:129:HIS:CD2	2.15	0.64
39:A8:74:ALA:HB1	39:A8:108:GLY:HA3	1.80	0.64
5:42:28:PHE:HZ	25:4L:25:A:H8	1.44	0.64
8:72:113:SER:HB2	8:72:134:ILE:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4L:24:A:H2'	25:4L:25:A:H2	1.62	0.64
26:14:1106:G:H3'	26:14:1107:G:C8	2.30	0.64
26:14:2304:G:H22	26:14:2312:U:H3	1.45	0.64
27:1J:48:A:H4'	39:65:95:HIS:HD2	1.63	0.64
45:C5:39:VAL:O	45:C5:40:GLU:HB2	1.98	0.64
26:1H:607:U:OP1	30:31:102:PRO:HA	1.98	0.64
29:21:67:PHE:HD1	29:21:67:PHE:H	1.45	0.64
41:85:92:ARG:HD2	42:95:11:GLN:HB2	1.79	0.64
26:1H:1991:U:H2'	26:1H:1992:G:H5''	1.80	0.64
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.61	0.64
37:88:2:LEU:H	37:88:2:LEU:HD12	1.63	0.64
38:98:42:LYS:HA	38:98:45:ARG:HD2	1.80	0.64
49:K8:42:GLY:O	49:K8:44:LEU:N	2.31	0.64
2:12:210:SER:O	2:12:214:ILE:HG12	1.98	0.64
4:32:31:CYS:SG	4:32:33:MET:HB2	2.37	0.64
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.80	0.64
26:14:2839:G:H5'	38:55:46:GLY:HA2	1.78	0.64
32:59:8:PRO:HB2	32:59:69:ARG:CZ	2.28	0.64
1:13:601:C:H2'	1:13:602:A:C8	2.29	0.64
1:13:1422:G:H5''	35:68:48:PRO:HB3	1.79	0.64
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.80	0.64
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.43	0.64
26:1H:780:G:H21	26:1H:783:A:N6	1.96	0.64
26:14:607:U:H3	26:14:621:A:H2	1.42	0.64
26:14:870:A:H5''	37:45:6:ARG:HB3	1.80	0.64
28:19:35:LYS:O	28:19:35:LYS:HG2	1.97	0.64
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.79	0.64
32:59:144:VAL:HG12	32:59:148:ILE:HG12	1.78	0.64
1:13:1031:G:H2'	1:13:1032:A:H5'	1.80	0.64
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.12	0.64
26:1H:1253:A:C8	59:1H:3720:HOH:O	2.51	0.64
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.32	0.64
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.14	0.64
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.63	0.64
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	1.79	0.64
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.34	0.63
40:B8:12:SER:HA	40:B8:14:TYR:N	2.12	0.63
26:14:275:G:O2'	26:14:276:A:O4'	2.15	0.63
26:14:1332:G:C8	26:14:1332:G:H5'	2.32	0.63
44:B5:51:VAL:HG13	44:B5:81:VAL:HG23	1.79	0.63
1:13:1:U:C6	1:13:630:G:H2'	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:939:G:H2'	1:13:940:C:C6	2.32	0.63
1:13:1497:G:H2'	1:13:1498:U:H5'	1.80	0.63
20:BI:50:GLU:HB2	20:BI:99:LEU:HB3	1.80	0.63
31:41:47:LYS:HE3	31:41:81:LYS:HB2	1.80	0.63
1:1G:1189:C:O2	59:1G:1816:HOH:O	2.13	0.63
6:52:81:ILE:HD11	28:19:125:ILE:HB	1.78	0.63
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.30	0.63
38:55:38:VAL:HG12	38:55:42:LYS:HD2	1.81	0.63
44:B5:63:LYS:HA	44:B5:72:LYS:HA	1.78	0.63
1:13:266:G:H5''	1:13:267:C:C5	2.34	0.63
3:2E:78:GLY:HA3	3:2E:83:ARG:HB3	1.80	0.63
8:7E:85:ARG:HD3	8:7E:88:LYS:HG2	1.79	0.63
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.33	0.63
1:1G:345:C:OP2	40:75:39:ARG:NH2	2.31	0.63
13:4A:35:GLU:O	13:4A:38:GLY:N	2.31	0.63
17:8A:66:SER:OG	17:8A:69:LYS:HB2	1.98	0.63
19:AA:39:THR:OG1	19:AA:70:LYS:NZ	2.27	0.63
26:14:1633:G:O6	59:14:3555:HOH:O	2.14	0.63
26:14:2173:A:O2'	26:14:2174:C:OP1	2.15	0.63
26:14:2629:A:H2'	26:14:2629:A:N3	2.14	0.63
28:19:93:ALA:HB3	28:19:105:ILE:HG22	1.80	0.63
46:D5:61:LEU:HG	46:D5:67:LEU:HD12	1.81	0.63
1:13:1435:G:H2'	1:13:1436:U:C6	2.33	0.63
7:6E:20:ASP:OD2	7:6E:23:VAL:N	2.31	0.63
15:6I:17:ARG:HH11	15:6I:77:ARG:NH2	1.97	0.63
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.64	0.63
47:I8:14:ARG:NH1	59:I8:201:HOH:O	2.24	0.63
7:62:111:ARG:NH1	7:62:126:ASP:OD2	2.31	0.63
26:14:864:G:H1'	26:14:914:C:H42	1.63	0.63
26:14:1169:G:H1	26:14:1180:C:H42	1.44	0.63
49:G5:24:LEU:HD12	49:G5:60:LEU:HD21	1.80	0.63
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.78	0.63
26:1H:2632:A:HO2'	26:1H:2811:G:HO2'	1.43	0.63
39:A8:10:ARG:O	39:A8:14:VAL:HG13	1.98	0.63
1:1G:297:G:N2	1:1G:300:A:OP2	2.31	0.63
3:22:9:GLY:HA3	14:5A:49:HIS:HA	1.81	0.63
3:22:121:ALA:HB1	3:22:189:ALA:HB2	1.79	0.63
26:14:1049:C:N4	26:14:2751:G:O6	2.31	0.63
26:14:1203:G:H3'	26:14:1204:A:H5''	1.80	0.63
31:49:166:ASP:O	31:49:170:ARG:N	2.31	0.63
35:25:111:PHE:HB3	35:25:114:ILE:HG13	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:30:LYS:HE3	20:BI:80:ARG:HH22	1.63	0.63
26:14:581:C:H2'	26:14:582:G:H8	1.64	0.63
12:3I:58:VAL:O	12:3I:65:GLU:HA	1.98	0.63
46:H8:61:LEU:O	46:H8:64:GLY:HA2	1.99	0.63
12:3A:62:SER:HB2	12:3A:64:TYR:CD1	2.34	0.63
26:14:2611:U:C4	52:J5:3:LYS:HG3	2.34	0.63
26:1H:364:C:H3'	59:1H:3867:HOH:O	1.98	0.63
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.16	0.63
26:1H:2257:U:O2'	26:1H:2258:C:H5'	1.99	0.63
2:12:220:ASP:H	2:12:222:ILE:HD11	1.64	0.63
3:22:6:HIS:NE2	3:22:8:ILE:HB	2.14	0.63
5:42:151:LEU:O	5:42:152:ARG:NH1	2.32	0.63
30:39:134:GLY:HA2	30:39:166:ALA:HB2	1.80	0.63
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.81	0.63
1:1G:167:G:OP2	59:1G:1817:HOH:O	2.15	0.63
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.32	0.63
1:1G:922:G:N3	1:1G:1398:A:H2	1.96	0.63
1:1G:957:U:H1'	1:1G:960:U:C5	2.30	0.63
4:32:122:ARG:NH2	4:32:134:ASP:HB3	2.14	0.63
7:62:62:PHE:HA	7:62:124:LEU:HD13	1.80	0.63
19:AA:42:PRO:HA	19:AA:45:VAL:HG13	1.81	0.63
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.81	0.63
26:14:1482:U:H3	26:14:1512:G:H1	1.47	0.63
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.32	0.63
29:29:50:GLY:O	29:29:74:PRO:HG2	1.98	0.63
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.81	0.62
26:1H:270(L):U:H5	26:1H:270(N):G:H21	1.47	0.62
26:1H:592:G:N3	54:Q8:4:MET:HE3	2.14	0.62
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.46	0.62
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.34	0.62
55:3L:2:C:H42	55:3L:71:G:H1	1.45	0.62
26:14:226:G:H21	26:14:228:A:H62	1.47	0.62
26:14:2143:C:H42	26:14:2148:G:H1	1.46	0.62
26:1H:1078:U:H1'	26:1H:1088:A:C2	2.35	0.62
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.64	0.62
26:1H:2776:A:H4'	26:1H:2777:G:H5''	1.81	0.62
31:41:77:ILE:HG22	31:41:82:LEU:HD12	1.81	0.62
33:61:50:ARG:HD2	33:61:53:ALA:HB3	1.79	0.62
36:78:49:ARG:HD2	54:Q8:60:LEU:HB3	1.81	0.62
41:85:88:ILE:HG23	41:85:90:VAL:HB	1.80	0.62
24:3K:38:A:H3'	24:3K:39:G:H8	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.32	0.62
26:1H:193:U:H5	59:1H:4020:HOH:O	1.81	0.62
26:1H:991:C:OP2	59:1H:3760:HOH:O	2.16	0.62
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.17	0.62
1:1G:80:G:H1	1:1G:89:U:H3	1.48	0.62
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.81	0.62
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.30	0.62
26:14:2873:A:H8	38:55:6:SER:H	1.46	0.62
27:1J:87:G:C2	27:1J:89:G:H5'	2.35	0.62
31:49:166:ASP:N	31:49:166:ASP:OD1	2.31	0.62
1:13:661:G:H1	1:13:744:C:H42	1.48	0.62
1:13:1305:G:H22	1:13:1331:G:C2'	2.13	0.62
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.34	0.62
3:22:37:GLN:O	3:22:41:GLY:N	2.28	0.62
26:14:71:A:OP2	26:14:71:A:H3'	1.98	0.62
26:14:1537:C:H2'	26:14:1538:G:C8	2.35	0.62
40:75:80:SER:HB3	40:75:83:ILE:HG13	1.81	0.62
1:13:963:G:H21	10:1I:55:LYS:CE	2.12	0.62
3:22:59:ARG:O	10:1A:93:GLY:HA2	1.99	0.62
26:14:102:G:OP1	49:G5:7:ARG:NH2	2.32	0.62
26:14:1186:G:N7	59:14:3604:HOH:O	2.31	0.62
32:59:10:PRO:HD2	32:59:50:VAL:O	2.00	0.62
37:45:136:ALA:N	37:45:137:TYR:HA	2.14	0.62
1:13:501:C:H2'	1:13:502:G:H8	1.62	0.62
10:1I:58:ASP:OD1	59:1I:201:HOH:O	2.16	0.62
22:1K:18:G:H5'	22:1K:57:G:O6	2.00	0.62
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.33	0.62
47:I8:72:ARG:HH11	47:I8:75:LEU:HD12	1.65	0.62
23:2L:24:C:H2'	23:2L:25:U:C6	2.33	0.62
26:14:2238:G:H2'	26:14:2238:G:N3	2.14	0.62
26:1H:33:U:H4'	26:1H:34:C:OP1	1.97	0.62
49:K8:58:ALA:O	49:K8:62:THR:HG22	1.99	0.62
26:14:2789:C:H2'	26:14:2790:A:C8	2.34	0.62
26:14:2889:C:H3'	26:14:2891:G:C8	2.35	0.62
28:19:10:THR:OG1	28:19:13:ARG:HB2	1.98	0.62
28:19:12:SER:HB2	28:19:208:LYS:HB3	1.80	0.62
1:13:1366:C:H2'	1:13:1367:C:H6	1.64	0.62
12:3I:11:VAL:HG21	17:8I:34:LYS:HD3	1.79	0.62
40:B8:102:ILE:HG23	40:B8:110:ILE:HD12	1.82	0.62
26:14:389:G:N1	36:35:71:VAL:HG12	2.14	0.62
34:15:56:ASN:N	34:15:125:GLY:HA3	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1132:C:H2'	1:13:1133:G:C8	2.34	0.62
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.65	0.62
26:1H:2016:U:O2	52:N8:7:PRO:HG2	1.99	0.62
29:21:25:VAL:HG11	40:B8:7:ILE:HG22	1.82	0.62
40:B8:26:ASP:HB2	40:B8:91:ARG:HA	1.80	0.62
23:2L:8:4SU:H6	23:2L:8:4SU:H5''	1.80	0.62
26:14:833:U:O2	36:35:55:ARG:NH1	2.30	0.62
2:1E:223:ILE:O	2:1E:227:GLY:N	2.32	0.62
18:9I:47:THR:O	18:9I:83:GLU:N	2.29	0.62
26:1H:34:C:O2'	26:1H:35:G:OP2	2.15	0.62
26:1H:86:C:H4'	26:1H:104:U:H1'	1.80	0.62
26:1H:2183:C:H2'	26:1H:2184:G:C8	2.33	0.62
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.35	0.62
33:61:21:VAL:HG21	33:61:25:TYR:HD2	1.65	0.62
46:H8:105:VAL:HG22	46:H8:140:ASP:HA	1.81	0.62
47:I8:53:MET:HG3	47:I8:59:LEU:CD2	2.30	0.62
22:1L:15:G:H22	22:1L:48:C:H41	1.48	0.62
25:4L:24:A:H2'	25:4L:25:A:C2	2.35	0.62
26:14:855:G:H5'	26:14:856:C:OP2	2.00	0.62
27:1J:22:U:H3	27:1J:61:G:H1	1.47	0.62
37:45:139:GLU:N	37:45:139:GLU:OE2	2.33	0.62
1:13:187:C:O2	1:13:191(A):G:N1	2.33	0.61
1:13:474:G:H2'	1:13:475:G:C8	2.35	0.61
1:13:1129:C:H1'	1:13:1146:A:H61	1.63	0.61
2:1E:21:ARG:O	2:1E:23:ARG:N	2.33	0.61
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.35	0.61
26:1H:71:A:C8	26:1H:71:A:H5'	2.35	0.61
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.63	0.61
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.32	0.61
26:14:1021:A:H62	26:14:1141:U:H3	1.47	0.61
26:14:1525:G:H2'	26:14:1526:G:H8	1.64	0.61
33:69:93:THR:HG22	33:69:119:PRO:HG3	1.82	0.61
38:55:38:VAL:HG22	38:55:112:ALA:HB2	1.81	0.61
41:85:98:LEU:HB2	41:85:102:GLU:HB2	1.80	0.61
41:85:100:VAL:O	41:85:101:ARG:HG2	2.00	0.61
1:13:1182:G:H4'	1:13:1183:A:H5''	1.80	0.61
39:A8:28:VAL:HG11	39:A8:98:VAL:HG13	1.82	0.61
51:M8:56:VAL:O	51:M8:60:GLN:NE2	2.33	0.61
1:1G:1023:G:H5''	1:1G:1024:G:N2	2.15	0.61
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.32	0.61
18:9A:22:VAL:HG13	18:9A:56:THR:HA	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2232:U:P	48:F5:40:ARG:HH22	2.24	0.61
49:G5:4:SER:HB3	49:G5:7:ARG:HD2	1.81	0.61
1:13:75:C:HO2'	1:13:76:G:H8	1.47	0.61
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.33	0.61
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.81	0.61
26:1H:176:G:O2'	26:1H:177:G:H5'	2.00	0.61
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.35	0.61
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.15	0.61
48:J8:77:ALA:N	48:J8:78:LYS:HB2	2.16	0.61
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.35	0.61
1:1G:208:U:O2'	1:1G:209:U:H5''	2.00	0.61
2:12:33:TYR:HB3	2:12:41:ILE:HG23	1.81	0.61
3:22:28:GLN:HB3	3:22:32:LEU:HD12	1.82	0.61
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.34	0.61
14:5A:24:CYS:HB3	14:5A:29:ARG:HH21	1.65	0.61
1:13:1129:C:H42	1:13:1143:G:H1	1.48	0.61
26:1H:577:G:O6	59:1H:3796:HOH:O	2.12	0.61
39:A8:30:ARG:HG3	39:A8:30:ARG:O	2.00	0.61
26:14:1204:A:N1	26:14:1241:A:H2	1.98	0.61
26:14:2212:A:O2'	26:14:2215:G:N7	2.30	0.61
27:1J:9:G:P	39:65:25:ARG:HH22	2.23	0.61
29:29:65:GLY:O	29:29:68:ALA:HB2	2.00	0.61
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.81	0.61
26:1H:49:A:N7	26:1H:120:U:C5	2.64	0.61
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.00	0.61
28:11:177:LEU:HD11	28:11:183:ARG:HG2	1.82	0.61
51:M8:16:CYS:HB3	51:M8:36:CYS:HB3	1.83	0.61
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.33	0.61
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.00	0.61
19:AA:18:LYS:HA	19:AA:21:GLU:HG2	1.81	0.61
26:14:897:C:N3	26:14:898:C:N4	2.47	0.61
26:14:1332:G:N2	26:14:1609:A:O2'	2.34	0.61
46:D5:48:PHE:HE1	46:D5:71:VAL:HG21	1.64	0.61
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.27	0.61
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.18	0.61
1:13:642:A:N3	8:7E:113:SER:OG	2.33	0.61
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.01	0.61
50:L8:8:LEU:HB2	50:L8:28:LEU:HD22	1.83	0.61
1:1G:222:U:H2'	1:1G:223:U:C6	2.35	0.61
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.10	0.61
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:99:LEU:HD12	20:BA:100:ILE:HD12	1.80	0.61
27:1J:103:U:O2'	46:D5:72:ARG:HG2	2.00	0.61
46:D5:69:THR:HB	46:D5:88:PHE:HB3	1.82	0.61
1:13:1349:A:H2'	1:13:1350:A:H8	1.66	0.61
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.82	0.61
26:1H:273(F):C:H3'	26:1H:274:G:H5''	1.82	0.61
26:1H:1078:U:H1'	26:1H:1088:A:H2	1.65	0.61
49:K8:3:LEU:H	49:K8:5:GLU:N	1.98	0.61
26:14:479:A:N3	26:14:481:G:H5''	2.16	0.61
26:14:2019:A:OP2	52:J5:9:LYS:NZ	2.32	0.61
27:1J:17:C:H2'	27:1J:18:G:O4'	2.00	0.61
28:19:8:PRO:HB3	28:19:14:ARG:HB2	1.83	0.61
1:13:757:U:H2'	1:13:758:G:O4'	1.99	0.61
38:98:87:TYR:HD1	38:98:90:ARG:HD2	1.64	0.61
1:1G:34:C:H2'	1:1G:35:G:C8	2.36	0.61
1:1G:411:A:H62	1:1G:413:G:N2	1.98	0.61
3:22:58:GLU:HB2	3:22:65:ALA:HB3	1.81	0.61
1:13:837:G:OP2	1:13:842:C:N4	2.34	0.61
1:13:1020:U:H2'	1:13:1021:G:C8	2.36	0.61
2:1E:19:HIS:NE2	2:1E:206:ASP:HB2	2.15	0.61
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.82	0.61
26:1H:1022:G:N7	34:58:66:LYS:NZ	2.49	0.61
38:98:48:VAL:O	38:98:51:LEU:N	2.34	0.61
43:E8:14:PRO:HG2	43:E8:78:GLU:HB2	1.83	0.61
47:18:27:GLU:HG3	47:18:68:GLU:HA	1.82	0.61
19:AA:41:VAL:HG22	19:AA:44:MET:HG3	1.82	0.61
55:3L:16:U:C2	55:3L:61:C:H5''	2.36	0.61
26:14:2228:G:OP2	28:19:263:ARG:NH2	2.34	0.61
26:14:2275:C:C6	26:14:2275:C:H5'	2.35	0.61
28:19:238:GLY:O	59:19:401:HOH:O	2.16	0.61
30:39:15:SER:OG	30:39:16:GLY:N	2.32	0.61
1:13:153:C:N4	1:13:168:G:H1	1.97	0.60
1:13:170:U:H2'	1:13:171:A:H8	1.66	0.60
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.65	0.60
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.66	0.60
26:1H:973:A:OP2	59:1H:3813:HOH:O	2.16	0.60
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.35	0.60
45:C5:27:VAL:HG12	45:C5:28:LYS:O	2.01	0.60
1:13:677:U:H3	1:13:713:G:H22	1.49	0.60
1:13:838:G:H1	1:13:848:C:H42	1.49	0.60
1:13:1007:C:H42	1:13:1022:G:H1	1.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1194:U:H2'	1:13:1195:C:C6	2.36	0.60
22:1K:65:C:H5	22:1K:67:A:N6	1.99	0.60
26:1H:2217:G:N7	59:1H:3882:HOH:O	2.31	0.60
1:1G:963:G:H21	10:1A:55:LYS:CD	2.11	0.60
5:42:15:ARG:HD3	25:4L:25:A:H2'	1.83	0.60
16:7A:1:MET:HE1	16:7A:65:GLN:HB2	1.81	0.60
1:13:13:U:OP1	59:13:1933:HOH:O	2.16	0.60
1:13:74:C:N3	1:13:75:C:N4	2.49	0.60
1:13:396:G:O2'	1:13:398:C:OP1	2.12	0.60
26:1H:76:C:O2'	49:K8:62:THR:HG21	2.00	0.60
29:21:39:PRO:HD3	29:21:45:THR:HG23	1.81	0.60
29:21:131:ALA:HB1	29:21:135:HIS:HE1	1.66	0.60
40:B8:4:GLY:HA2	40:B8:7:ILE:HG12	1.82	0.60
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.49	0.60
26:14:2264:C:N4	47:E5:15:ASP:OD2	2.31	0.60
26:14:2327:A:H2'	26:14:2328:A:C8	2.35	0.60
33:69:45:LYS:HA	33:69:48:GLU:HB3	1.83	0.60
1:13:1349:A:H2'	1:13:1350:A:C8	2.35	0.60
2:1E:52:GLU:HB3	2:1E:56:ARG:NH1	2.16	0.60
23:2K:24:C:H2'	23:2K:25:U:C6	2.36	0.60
26:1H:582:G:N7	59:1H:3888:HOH:O	2.32	0.60
26:1H:2099:U:N3	26:1H:2190:G:O6	2.19	0.60
1:1G:673:G:H2'	1:1G:674:G:C8	2.37	0.60
3:22:54:ARG:HB2	3:22:69:HIS:HB2	1.82	0.60
13:4A:67:GLU:O	13:4A:70:LEU:N	2.25	0.60
26:14:6:A:C5	34:15:131:GLN:HB2	2.36	0.60
1:13:1305:G:H22	1:13:1331:G:H2'	1.65	0.60
2:1E:231:GLU:OE1	2:1E:231:GLU:N	2.34	0.60
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.83	0.60
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.36	0.60
26:1H:1243:G:H4'	36:78:7:ARG:HH21	1.66	0.60
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.84	0.60
37:88:110:THR:HG23	37:88:113:GLN:OE1	2.00	0.60
1:1G:457:C:H2'	1:1G:458:C:C6	2.37	0.60
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.37	0.60
2:12:74:LYS:HE2	2:12:166:ASP:HB2	1.84	0.60
28:19:30:GLU:HG3	28:19:63:ARG:CZ	2.30	0.60
30:39:21:ALA:C	30:39:23:ASP:H	2.05	0.60
1:13:1157:A:H2'	1:13:1157:A:N3	2.16	0.60
26:1H:667:U:O2	54:Q8:2:PRO:HD2	2.01	0.60
50:L8:35:ARG:HB3	50:L8:37:LEU:HD21	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1141:U:OP2	34:15:63:THR:OG1	2.18	0.60
30:39:21:ALA:O	30:39:23:ASP:N	2.35	0.60
37:45:136:ALA:H	37:45:137:TYR:HA	1.66	0.60
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.32	0.60
1:13:973:G:H3'	1:13:974:A:H5''	1.83	0.60
1:13:982:U:H5''	14:5I:6:LEU:HD11	1.83	0.60
13:4I:37:THR:O	13:4I:55:ARG:NH1	2.35	0.60
26:1H:336:C:OP1	45:G8:83:THR:HG23	2.02	0.60
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.02	0.60
26:1H:2401:U:H2'	26:1H:2402:C:O4'	2.00	0.60
31:41:142:PRO:HB2	51:M8:31:ILE:HG21	1.84	0.60
38:98:100:LEU:HD11	38:98:113:LEU:HD13	1.84	0.60
46:H8:116:VAL:HG22	46:H8:146:ILE:HA	1.82	0.60
1:1G:871:U:OP1	59:1G:1818:HOH:O	2.16	0.60
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.83	0.60
10:1A:79:ARG:H	10:1A:79:ARG:HD3	1.67	0.60
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.01	0.60
19:AA:48:THR:O	19:AA:48:THR:OG1	2.20	0.60
26:14:1794:U:H2'	26:14:1795:C:H6	1.66	0.60
26:14:2099:U:H3	26:14:2190:G:H1	1.50	0.60
26:14:2273:A:H2'	26:14:2274:A:C8	2.37	0.60
40:75:56:GLY:O	40:75:59:THR:HG23	2.02	0.60
26:1H:442:G:H1'	30:31:48:THR:HG21	1.83	0.60
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.37	0.60
31:41:16:ARG:NH2	31:41:31:VAL:HG21	2.16	0.60
41:C8:34:LYS:NZ	41:C8:37:GLU:OE1	2.34	0.60
9:82:70:LYS:O	9:82:74:ILE:HG13	2.01	0.60
26:14:1332:G:H21	26:14:1610:A:H8	1.47	0.60
36:35:126:VAL:HA	36:35:145:PRO:HD2	1.84	0.60
39:65:106:ARG:HA	39:65:110:LEU:HD11	1.84	0.60
40:75:45:PHE:CE1	40:75:74:ARG:HG3	2.37	0.60
48:F5:92:LYS:O	48:F5:94:LEU:N	2.35	0.60
1:13:1167:A:H2'	1:13:1169:A:C8	2.37	0.60
3:2E:123:GLN:O	3:2E:128:PHE:HB2	2.02	0.60
26:1H:259:G:N2	26:1H:621:A:H8	2.00	0.60
26:1H:761:A:H5''	59:1H:3782:HOH:O	2.02	0.60
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.37	0.60
30:31:185:ASP:HA	30:31:188:ARG:HD3	1.82	0.60
9:82:117:HIS:HB2	9:82:121:ARG:O	2.01	0.60
26:14:1266:G:O5'	43:A5:15:ARG:NH2	2.35	0.60
26:14:2152:G:C6	26:14:2153:G:H1'	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:71:ASP:CG	28:19:103:ARG:HH22	2.05	0.60
29:29:31:CYS:SG	29:29:51:PHE:HB3	2.41	0.60
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.84	0.60
9:8E:20:ARG:HB2	9:8E:60:ASP:HB2	1.83	0.60
26:1H:654(C):G:C2	26:1H:654(D):G:H1'	2.37	0.60
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.37	0.60
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.02	0.60
26:1H:2688:U:H1'	26:1H:2721:A:H61	1.67	0.60
29:21:55:ASN:ND2	29:21:76:ARG:HB3	2.17	0.60
26:14:1028:A:H2'	26:14:1029:A:C8	2.36	0.60
26:14:1796:U:H2'	26:14:1797:C:C6	2.37	0.60
31:49:120:LEU:N	31:49:179:PRO:O	2.23	0.60
1:13:612:C:O2	1:13:629:G:N2	2.35	0.59
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.84	0.59
26:1H:85:G:OP2	45:G8:9:LYS:HB2	2.02	0.59
29:21:51:PHE:CE2	29:21:52:LEU:HD23	2.37	0.59
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.67	0.59
1:1G:842:C:O2'	1:1G:848:C:N3	2.33	0.59
27:1J:16:G:H1	27:1J:68:C:H42	1.50	0.59
30:39:192:LEU:HD13	30:39:194:MET:HE1	1.84	0.59
40:75:2:ASN:OD1	40:75:4:GLY:HA3	2.01	0.59
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.84	0.59
26:1H:1058:U:H2'	26:1H:1059:G:H8	1.66	0.59
29:21:57:LYS:HG3	29:21:59:VAL:HG12	1.84	0.59
39:A8:25:ARG:NH1	39:A8:42:ASP:OD2	2.34	0.59
40:75:10:VAL:O	40:75:12:SER:N	2.33	0.59
1:13:645:C:H2'	1:13:646:U:O4'	2.03	0.59
1:13:1062:U:H2'	1:13:1063:C:C6	2.37	0.59
49:K8:4:SER:O	49:K8:4:SER:OG	2.15	0.59
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.01	0.59
1:1G:1208:C:H2'	1:1G:1209:C:H6	1.68	0.59
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.66	0.59
23:2L:62:C:H2'	23:2L:63:C:H6	1.67	0.59
26:14:1019:U:H3	26:14:1142(A):A:H62	1.49	0.59
26:14:1794:U:H2'	26:14:1795:C:C6	2.37	0.59
26:14:1952:A:C5	35:25:22:ILE:HD11	2.37	0.59
32:59:6:ARG:HB2	32:59:65:HIS:CE1	2.38	0.59
32:59:150:ALA:O	32:59:154:PRO:HG3	2.02	0.59
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	1.85	0.59
26:1H:1771:C:O2'	26:1H:1786:A:H8	1.85	0.59
26:1H:2052:G:H4'	29:21:143:ASN:O	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:19:ARG:HH11	46:H8:84:GLU:HB2	1.67	0.59
51:M8:42:PHE:O	51:M8:44:THR:N	2.36	0.59
1:1G:1392:G:H21	1:1G:1502:A:H8	1.48	0.59
2:12:162:ILE:HG23	2:12:182:ILE:HG21	1.85	0.59
13:4A:23:TYR:CE2	13:4A:71:ARG:HG3	2.37	0.59
55:3L:33:U:H2'	55:3L:34:G:H2'	1.83	0.59
39:65:43:GLU:HB2	47:E5:49:LYS:NZ	2.17	0.59
48:F5:88:LYS:O	48:F5:91:LYS:HB3	2.02	0.59
1:13:826:C:H2'	1:13:827:U:O2	2.01	0.59
1:13:1197:G:H5''	59:13:1906:HOH:O	2.02	0.59
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.69	0.59
17:8I:48:GLU:O	17:8I:50:LYS:N	2.36	0.59
26:1H:389:G:N1	36:78:71:VAL:HG12	2.16	0.59
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.36	0.59
26:1H:2255:G:OP2	59:1H:3815:HOH:O	2.17	0.59
26:1H:2499:C:OP2	59:1H:3733:HOH:O	2.17	0.59
32:51:58:GLU:O	32:51:60:ARG:N	2.36	0.59
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.37	0.59
55:3L:47:U:O3'	55:3L:48:C:H4'	2.01	0.59
26:14:6:A:N7	34:15:131:GLN:HB2	2.17	0.59
26:14:918:A:O2'	27:1J:96:G:N2	2.34	0.59
26:14:1226:G:H4'	42:95:84:LYS:HG2	1.84	0.59
7:6E:108:ALA:HA	7:6E:111:ARG:HD2	1.82	0.59
24:3K:38:A:H3'	24:3K:39:G:C8	2.38	0.59
26:1H:833:U:O2	36:78:55:ARG:NH2	2.32	0.59
30:31:136:THR:HG22	30:31:166:ALA:O	2.03	0.59
1:1G:589:C:H42	1:1G:650:G:H1	1.49	0.59
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.11	0.59
1:1G:1423:G:OP1	35:25:49:ARG:NH2	2.35	0.59
8:72:101:PRO:HG3	8:72:133:LEU:HD11	1.85	0.59
32:59:157:TYR:CG	32:59:171:LEU:HD11	2.38	0.59
32:59:158:HIS:O	32:59:158:HIS:ND1	2.30	0.59
1:13:1132:C:H2'	1:13:1133:G:H8	1.67	0.59
19:AI:11:VAL:HG11	19:AI:16:LEU:HD22	1.84	0.59
26:1H:589:C:H2'	26:1H:590:A:C8	2.38	0.59
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.38	0.59
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.37	0.59
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.66	0.59
38:98:55:ALA:HB2	38:98:79:LEU:HD13	1.85	0.59
1:1G:554:C:H2'	1:1G:555:C:H6	1.67	0.59
7:62:26:PHE:O	7:62:30:ILE:HG13	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:107:GLU:H	39:65:110:LEU:HD11	1.68	0.59
1:13:67:C:H2'	1:13:68:G:C8	2.37	0.59
1:13:67:C:H2'	1:13:68:G:H8	1.67	0.59
1:13:964:A:N6	59:13:1958:HOH:O	2.35	0.59
5:4E:37:ARG:HH12	5:4E:111:GLU:HG2	1.68	0.59
11:2I:84:VAL:HG21	11:2I:91:ARG:HG2	1.84	0.59
22:1K:59:C:O2'	22:1K:60:U:OP2	2.17	0.59
26:1H:270(N):G:N3	33:61:50:ARG:NH2	2.51	0.59
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.84	0.59
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.84	0.59
29:21:36:ARG:NH2	29:21:88:GLY:O	2.36	0.59
46:H8:139:VAL:HG22	46:H8:155:LEU:HD22	1.83	0.59
52:N8:41:PRO:O	52:N8:44:THR:OG1	2.20	0.59
1:1G:292:G:OP2	1:1G:305:G:N2	2.27	0.59
1:1G:619:U:H3	4:32:134:ASP:HB2	1.68	0.59
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.34	0.59
1:1G:1110:A:OP2	59:1G:1820:HOH:O	2.17	0.59
26:14:876:C:H2'	26:14:877:U:H5'	1.84	0.59
26:14:2105:C:H2'	26:14:2106:G:O4'	2.03	0.59
31:49:56:ALA:HB2	31:49:153:ARG:CZ	2.33	0.59
32:59:125:VAL:HG22	32:59:126:PRO:HA	1.83	0.59
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.85	0.59
22:1K:21:A:C6	22:1K:48:C:H1'	2.38	0.59
26:1H:1010:A:OP2	59:1H:3812:HOH:O	2.16	0.59
26:1H:2807:G:H3'	26:1H:2808:U:H5''	1.85	0.59
32:51:144:VAL:O	32:51:148:ILE:HG12	2.02	0.59
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.85	0.59
2:12:165:VAL:HG23	2:12:166:ASP:H	1.66	0.59
26:14:2816:C:O3'	38:55:99:LYS:NZ	2.32	0.59
27:1J:15:A:H1'	27:1J:109:G:C8	2.37	0.59
37:45:137:TYR:HD1	37:45:137:TYR:O	1.85	0.59
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.37	0.59
26:1H:141:A:C8	26:1H:1408:C:H1'	2.38	0.59
26:1H:2402:C:O2'	26:1H:2403:C:OP2	2.21	0.59
38:98:38:VAL:HG22	38:98:112:ALA:HB2	1.83	0.59
38:98:117:VAL:O	38:98:118:GLU:HB2	2.01	0.59
1:1G:1492:A:H5''	12:3A:47:LYS:HD3	1.84	0.59
18:9A:32:ARG:O	59:9A:201:HOH:O	2.17	0.59
22:1L:53:G:N2	22:1L:61:C:N3	2.39	0.59
26:14:1864:U:OP1	26:14:2410:G:O2'	2.19	0.59
28:19:69:ARG:HD3	28:19:105:ILE:HD11	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:182:LEU:N	28:19:272:ALA:HB3	2.15	0.59
41:85:82:GLY:O	41:85:86:ALA:N	2.35	0.59
1:13:266:G:H5'	1:13:268:C:H41	1.68	0.58
22:1K:66:U:H3'	22:1K:67:A:C5'	2.33	0.58
24:3K:76:A:H8	26:1H:2394:C:N4	1.96	0.58
26:1H:111:A:H4'	49:K8:69:ARG:NH2	2.18	0.58
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.67	0.58
26:1H:2362:G:OP1	54:Q8:44:LYS:NZ	2.36	0.58
48:J8:8:SER:HB3	48:J8:66:HIS:CD2	2.37	0.58
20:BA:53:LEU:HD12	20:BA:100:ILE:HG22	1.85	0.58
26:14:2208:U:H4'	28:19:151:LYS:HG2	1.84	0.58
27:1J:6:C:H2'	27:1J:7:G:H5''	1.85	0.58
1:13:1125:U:C2	1:13:1126:U:C4	2.91	0.58
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.43	0.58
26:1H:1478:G:HO2'	26:1H:1558:A:H2	1.51	0.58
26:1H:1778:U:OP1	59:1H:3816:HOH:O	2.17	0.58
26:1H:2061:G:P	59:1H:3765:HOH:O	2.60	0.58
30:31:12:LEU:HD13	30:31:124:LEU:HD11	1.84	0.58
1:1G:1318:A:H4'	19:AA:37:ARG:HH21	1.68	0.58
3:22:148:GLY:HA3	3:22:172:ARG:O	2.03	0.58
20:BA:45:GLN:HB2	20:BA:91:LEU:HD22	1.84	0.58
22:1L:37:AET:HM62	22:1L:38:A:C6	2.38	0.58
26:14:1434:A:H61	26:14:1558:A:H62	1.49	0.58
33:69:79:ILE:O	33:69:143:SER:HA	2.03	0.58
33:69:109:ILE:HB	33:69:130:TYR:CZ	2.38	0.58
1:13:475:G:OP1	16:7I:81:ARG:NH2	2.34	0.58
1:13:749:C:H2'	1:13:750:G:H8	1.68	0.58
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.38	0.58
1:1G:600:C:H2'	1:1G:601:C:C6	2.38	0.58
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.84	0.58
10:1A:54:PHE:CE1	10:1A:55:LYS:HD2	2.37	0.58
26:14:1040:C:H2'	26:14:1041:C:C6	2.37	0.58
26:14:1727:U:H3	26:14:1733:G:H1	1.50	0.58
33:69:9:LEU:HD11	33:69:35:LEU:HB3	1.85	0.58
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.36	0.58
1:13:649:G:H2'	1:13:650:G:H8	1.68	0.58
1:13:1292:U:H2'	1:13:1293:G:C8	2.38	0.58
13:4I:117:VAL:HG13	13:4I:118:ALA:H	1.67	0.58
15:6I:63:ARG:HG2	15:6I:67:LEU:HD12	1.84	0.58
30:31:63:LYS:NZ	30:31:75:HIS:O	2.31	0.58
38:98:97:VAL:HG22	38:98:114:VAL:HG22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:70:PHE:N	2:12:92:TYR:HA	2.18	0.58
19:AA:40:ILE:HG22	19:AA:67:VAL:HA	1.84	0.58
26:14:2807:G:H22	26:14:2892:A:N6	2.01	0.58
1:13:870:U:O2'	59:13:1934:HOH:O	2.17	0.58
22:1K:18:G:H5'	22:1K:57:G:C6	2.38	0.58
26:1H:192:C:P	59:1H:4020:HOH:O	2.61	0.58
26:1H:675:A:OP1	30:31:63:LYS:HE2	2.03	0.58
45:G8:49:VAL:HG21	45:G8:55:TYR:CD2	2.39	0.58
1:1G:17:U:H2'	1:1G:18:C:C6	2.38	0.58
11:2A:100:ALA:O	11:2A:102:GLY:N	2.36	0.58
29:29:37:ARG:HD2	29:29:44:TYR:OH	2.03	0.58
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.67	0.58
26:1H:621:A:OP2	36:78:108:LYS:NZ	2.36	0.58
28:11:142:VAL:HG23	28:11:193:VAL:HA	1.85	0.58
1:1G:328:C:H4'	1:1G:329:A:H5''	1.85	0.58
1:1G:620:C:H2'	1:1G:621:A:O4'	2.04	0.58
1:1G:922:G:H4'	5:42:20:GLN:HA	1.86	0.58
26:14:30:G:H2'	26:14:31:C:C6	2.38	0.58
39:65:11:LYS:HG3	39:65:91:PRO:HD3	1.86	0.58
1:13:560:U:O2'	1:13:561:U:OP2	2.19	0.58
1:1G:87:A:H4'	1:1G:88:C:OP1	2.03	0.58
6:52:6:VAL:HG22	6:52:90:VAL:HG22	1.85	0.58
26:14:140:A:H8	26:14:1408:C:HO2'	1.46	0.58
26:14:847:U:OP2	59:14:3557:HOH:O	2.17	0.58
26:14:872:A:H4'	37:45:66:ILE:HD11	1.84	0.58
26:14:1847:A:H4'	26:14:1848:A:OP2	2.04	0.58
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.18	0.58
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.85	0.58
23:2K:2:G:H2'	23:2K:3:C:H6	1.69	0.58
26:1H:600:G:N2	26:1H:605:C:O3'	2.37	0.58
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.85	0.58
1:1G:1347:G:C8	9:82:107:ARG:HB3	2.39	0.58
26:14:2712(A):A:P	59:14:3511:HOH:O	2.54	0.58
52:J5:41:PRO:O	52:J5:44:THR:OG1	2.22	0.58
1:13:1:U:C5	1:13:630:G:H2'	2.39	0.58
1:13:449:C:H5	16:7I:42:ARG:HH11	1.52	0.58
29:21:131:ALA:HB1	29:21:135:HIS:CE1	2.38	0.58
35:68:115:VAL:HG23	35:68:121:VAL:HG21	1.86	0.58
45:G8:94:LYS:HZ2	45:G8:95:LYS:H	1.51	0.58
1:1G:395:C:N4	59:1G:1846:HOH:O	2.37	0.58
1:1G:957:U:H2'	1:1G:959:A:OP2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1249:C:O2'	9:82:73:GLN:OE1	2.21	0.58
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.38	0.58
22:1L:15:G:H22	22:1L:48:C:N4	2.02	0.58
22:1L:50:G:N2	22:1L:65:C:N3	2.52	0.58
26:14:634:C:H2'	26:14:635:C:C6	2.38	0.58
26:14:2611:U:H6	26:14:2611:U:H5'	1.69	0.58
26:14:2793:G:H21	26:14:2794:C:H5	1.50	0.58
30:39:24:LEU:HD21	30:39:119:ARG:HB3	1.86	0.58
31:49:76:SER:OG	31:49:82:LEU:O	2.13	0.58
32:59:158:HIS:HB3	32:59:171:LEU:HG	1.86	0.58
48:F5:62:VAL:HG21	48:F5:70:VAL:HG21	1.85	0.58
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.18	0.58
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.86	0.58
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.86	0.58
23:2K:2:G:H2'	23:2K:3:C:C6	2.39	0.58
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.69	0.58
26:1H:2312:U:H5'	31:41:88:ILE:HD11	1.86	0.58
30:31:63:LYS:HE3	30:31:67:GLN:HB2	1.86	0.58
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.03	0.58
1:1G:690:G:H2'	1:1G:691:G:O4'	2.04	0.58
5:42:148:VAL:O	5:42:152:ARG:NH2	2.37	0.58
9:82:53:VAL:HG23	9:82:55:ALA:H	1.69	0.58
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.68	0.58
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.85	0.58
25:4L:14:A:O2'	25:4L:15:A:O5'	2.22	0.58
26:14:1006:C:H1'	34:15:106:MET:HG2	1.86	0.58
26:14:2591:C:OP2	28:19:239:ARG:HB3	2.04	0.58
29:29:47:VAL:HG21	29:29:86:PRO:HD2	1.85	0.58
41:85:92:ARG:CZ	42:95:11:GLN:H	2.17	0.58
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.86	0.57
26:1H:969:U:OP1	50:L8:17:LYS:HG2	2.04	0.57
1:1G:176:C:H2'	1:1G:177:C:H6	1.69	0.57
2:12:130:ARG:O	2:12:135:GLN:NE2	2.33	0.57
16:7A:22:THR:HA	16:7A:33:ILE:HD12	1.85	0.57
26:14:1048:A:N6	26:14:1111:A:O2'	2.37	0.57
11:2I:48:ILE:HG21	11:2I:63:LEU:HD13	1.85	0.57
15:6I:17:ARG:HD3	15:6I:77:ARG:HH21	1.69	0.57
26:1H:827:U:H2'	26:1H:2430:A:C2	2.39	0.57
26:1H:1062:G:H2'	26:1H:1063:G:C8	2.39	0.57
25:4L:12:A:O2'	25:4L:13:A:OP2	2.20	0.57
26:14:729:G:OP2	28:19:13:ARG:NH1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:122:LYS:HD2	30:39:191:ARG:HE	1.68	0.57
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.13	0.57
49:G5:4:SER:HA	49:G5:7:ARG:H	1.69	0.57
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.36	0.57
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.04	0.57
12:3I:104:VAL:HG12	12:3I:105:TYR:H	1.70	0.57
26:1H:1266:G:O5'	43:E8:15:ARG:NH2	2.37	0.57
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.39	0.57
26:1H:2032:G:H21	29:21:146:THR:CG2	2.17	0.57
1:1G:195:A:OP2	59:1G:1819:HOH:O	2.16	0.57
1:1G:490:G:P	4:32:132:ARG:HH22	2.26	0.57
26:14:2635:C:H5''	29:29:77:ILE:O	2.03	0.57
27:1J:15:A:H3'	27:1J:16:G:H5'	1.87	0.57
31:49:111:LEU:HD23	31:49:117:PHE:HZ	1.69	0.57
46:D5:76:LEU:HA	46:D5:83:PRO:HA	1.85	0.57
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.19	0.57
1:13:1159:U:O4'	1:13:1182:G:N2	2.38	0.57
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.84	0.57
13:4I:39:ILE:HD12	13:4I:56:LEU:HD22	1.87	0.57
22:1K:7:A:H61	22:1K:67:A:H2	1.52	0.57
24:3K:16:U:O2	24:3K:61:C:H5''	2.04	0.57
26:1H:1086:A:H1'	26:1H:1103:A:H61	1.69	0.57
31:41:16:ARG:CZ	31:41:31:VAL:HG21	2.35	0.57
1:1G:280:C:H3'	1:1G:281:G:H5'	1.85	0.57
23:2L:7:G:H8	23:2L:7:G:H5'	1.68	0.57
23:2L:24:C:H2'	23:2L:25:U:H6	1.69	0.57
26:14:1418:G:H8	26:14:1418:G:O5'	1.87	0.57
26:14:1786:A:C2	26:14:2606:C:H1'	2.39	0.57
26:14:2293:C:H5''	39:65:89:ARG:NH2	2.19	0.57
26:14:2531:A:H4'	32:59:157:TYR:CE2	2.39	0.57
29:29:91:VAL:HB	29:29:95:ILE:HD11	1.86	0.57
1:13:316:G:OP2	1:13:351:G:O2'	2.21	0.57
1:13:1369:C:H2'	1:13:1370:G:C8	2.39	0.57
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.04	0.57
26:1H:270(W):G:O6	59:1H:3817:HOH:O	2.17	0.57
37:88:12:GLN:HG2	37:88:73:PRO:HD2	1.87	0.57
39:A8:105:ALA:O	39:A8:110:LEU:HD12	2.05	0.57
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.37	0.57
4:32:149:ALA:HB1	4:32:151:LYS:HB3	1.85	0.57
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.05	0.57
29:29:173:VAL:N	29:29:183:LEU:O	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:137:LYS:HB3	34:15:137:LYS:HZ2	1.69	0.57
37:45:37:LEU:HD21	37:45:130:LYS:HD3	1.86	0.57
39:65:88:ASP:O	39:65:90:GLY:N	2.36	0.57
44:B5:53:LYS:HB3	44:B5:82:GLN:HB3	1.85	0.57
49:G5:13:ALA:HA	49:G5:16:LEU:HD23	1.87	0.57
1:13:4:U:C5	8:7E:102:ARG:HG3	2.39	0.57
1:13:1014:A:H2'	1:13:1015:A:C8	2.39	0.57
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.03	0.57
10:1I:80:LYS:O	10:1I:84:GLN:HG2	2.04	0.57
47:18:72:ARG:HB3	47:18:75:LEU:HB2	1.85	0.57
1:1G:1043:C:H2'	1:1G:1044:A:C8	2.38	0.57
40:75:123:GLN:HA	40:75:126:ALA:HB3	1.85	0.57
48:F5:53:VAL:HG12	48:F5:54:ALA:H	1.69	0.57
1:13:1450:U:N3	1:13:1452:C:O4'	2.38	0.57
2:1E:237:ALA:O	2:1E:239:VAL:N	2.38	0.57
20:BI:50:GLU:HG2	20:BI:100:ILE:HB	1.87	0.57
22:1K:47:U:O2'	22:1K:49:G:OP2	2.20	0.57
26:1H:265:A:C8	26:1H:266:G:H1'	2.40	0.57
26:1H:1496:A:H5'	26:1H:1497:U:OP1	2.04	0.57
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.87	0.57
27:16:11:C:H3'	27:16:12:C:H6	1.69	0.57
31:41:124:SER:HB2	31:41:131:TYR:CE1	2.40	0.57
36:78:59:LEU:O	54:Q8:13:ARG:HD2	2.04	0.57
42:D8:14:VAL:HB	42:D8:96:ILE:HG13	1.85	0.57
7:62:88:PRO:HG3	7:62:145:ALA:HA	1.87	0.57
26:14:880:G:H1'	26:14:898:C:H42	1.70	0.57
26:14:2577:A:O4'	52:J5:3:LYS:HB2	2.05	0.57
26:14:2711:A:OP1	59:14:3511:HOH:O	2.18	0.57
39:65:3:ARG:HD2	39:65:4:LEU:N	2.19	0.57
1:13:222:U:H2'	1:13:223:U:C6	2.39	0.57
1:13:271:C:H2'	1:13:272:C:H6	1.68	0.57
17:8I:100:LYS:HG2	17:8I:101:ARG:HG3	1.87	0.57
26:1H:548:A:N1	42:D8:21:ARG:NH1	2.53	0.57
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.31	0.57
26:1H:1187:G:N7	59:1H:3891:HOH:O	2.32	0.57
26:1H:2172:U:H4'	26:1H:2173:A:OP1	2.04	0.57
27:16:1:U:H2'	27:16:2:C:C6	2.39	0.57
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.86	0.57
4:32:4:TYR:HE2	4:32:11:LEU:HD11	1.68	0.57
5:42:35:GLY:HA3	5:42:41:VAL:HG23	1.85	0.57
26:14:49:A:H5''	26:14:51:G:O4'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:259:G:HO2'	26:14:621:A:HO2'	1.52	0.57
26:14:646:A:H2'	26:14:647:G:O4'	2.05	0.57
26:14:654(A):A:H2'	26:14:654(T):A:N6	2.19	0.57
26:14:1784:A:H4'	26:14:1785:A:O5'	2.05	0.57
41:85:92:ARG:NH1	41:85:94:ASN:HD22	2.03	0.57
54:M5:22:VAL:O	54:M5:50:LEU:HB3	2.04	0.57
1:13:73:G:H2'	1:13:74:C:C5	2.40	0.57
1:13:600:C:H4'	8:7E:128:GLY:O	2.05	0.57
1:13:618:C:H5''	1:13:619:U:H5''	1.87	0.57
4:3E:85:LYS:HD3	4:3E:88:VAL:O	2.05	0.57
5:4E:136:MET:HA	5:4E:139:LEU:HD12	1.85	0.57
24:3K:14:A:N6	24:3K:15:G:O6	2.37	0.57
26:1H:155:C:H42	26:1H:171:G:H1	1.50	0.57
26:1H:376:C:P	59:1H:3809:HOH:O	2.62	0.57
26:1H:957:A:N1	26:1H:2458:G:H4'	2.19	0.57
26:1H:1678:G:N2	26:1H:1989:G:N2	2.51	0.57
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.30	0.57
29:21:49:LEU:HD22	29:21:81:ILE:HG13	1.85	0.57
29:21:63:LEU:O	29:21:66:HIS:N	2.37	0.57
31:41:16:ARG:O	31:41:20:ILE:HG13	2.05	0.57
33:61:88:ILE:O	33:61:121:LYS:NZ	2.38	0.57
37:88:35:VAL:CG1	37:88:130:LYS:HB3	2.32	0.57
40:B8:4:GLY:O	40:B8:8:LYS:HG3	2.05	0.57
40:B8:107:ASP:O	40:B8:111:ARG:NH1	2.38	0.57
1:1G:191(E):G:H2'	1:1G:191(F):U:H6	1.70	0.57
1:1G:520:A:N1	1:1G:536:C:H1'	2.20	0.57
1:1G:1387:G:H2'	1:1G:1388:C:H6	1.70	0.57
2:12:73:THR:HG21	2:12:97:TRP:H	1.68	0.57
19:AA:38:SER:O	19:AA:71:LEU:HB2	2.05	0.57
26:14:651:G:H5'	54:M5:18:ALA:HB3	1.86	0.57
26:14:1757:U:N3	26:14:1762:A:H2	1.98	0.57
26:14:2761:G:H1'	32:59:143:GLN:OE1	2.05	0.57
30:39:178:PRO:HG2	30:39:179:GLU:OE1	2.05	0.57
46:D5:11:GLU:O	46:D5:36:LYS:NZ	2.38	0.57
1:13:95:G:H3'	1:13:96:G:H8	1.70	0.57
1:13:127:G:O2'	17:8I:2:PRO:O	2.21	0.57
1:13:160:A:N6	1:13:343:U:O2'	2.36	0.57
1:13:223:U:H2'	1:13:224:C:H6	1.68	0.57
1:13:1391:U:H2'	1:13:1392:G:C8	2.39	0.57
5:4E:64:ARG:HB2	5:4E:64:ARG:HH11	1.70	0.57
9:8E:55:ALA:HA	9:8E:58:HIS:HB2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.37	0.57
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.27	0.57
26:1H:1805:U:O2	28:11:50:THR:HB	2.05	0.57
33:61:73:GLU:OE2	33:61:137:PRO:HD2	2.05	0.57
49:K8:42:GLY:C	49:K8:44:LEU:H	2.08	0.57
1:1G:222:U:H2'	1:1G:223:U:H6	1.70	0.57
4:32:160:GLN:HA	4:32:163:GLU:HB3	1.87	0.57
8:72:110:ALA:O	8:72:121:ASP:N	2.37	0.57
26:14:987:G:O2'	26:14:1000:A:N3	2.34	0.57
29:29:54:GLN:HG3	29:29:73:GLU:O	2.04	0.57
46:D5:87:ASP:N	46:D5:87:ASP:OD1	2.38	0.57
1:13:553:A:H5''	12:3I:24:VAL:HG21	1.87	0.56
26:1H:719:C:H2'	26:1H:720:C:H6	1.70	0.56
30:31:7:TYR:O	30:31:21:ALA:HA	2.05	0.56
7:62:146:GLU:HG2	11:2A:50:TYR:OH	2.05	0.56
8:72:25:ASP:OD1	8:72:25:ASP:N	2.38	0.56
26:14:11:G:H2'	26:14:12:U:H5'	1.87	0.56
26:14:1568:G:OP2	28:19:63:ARG:NH2	2.36	0.56
26:14:1579:A:H2'	26:14:1580:A:C8	2.40	0.56
26:14:1786:A:H2	26:14:2606:C:H1'	1.70	0.56
26:14:2324:C:H5''	26:14:2325:G:H5'	1.86	0.56
36:35:82:GLY:HA2	36:35:113:LYS:O	2.05	0.56
40:75:3:ARG:HA	40:75:6:LEU:HB3	1.87	0.56
46:D5:30:ASN:HA	46:D5:89:PHE:HE1	1.70	0.56
50:H5:50:VAL:O	50:H5:54:VAL:HG12	2.04	0.56
1:13:1459:C:OP1	20:BI:31:SER:OG	2.19	0.56
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.33	0.56
46:H8:60:GLU:O	46:H8:61:LEU:HB3	2.03	0.56
49:K8:15:LYS:H	49:K8:67:LYS:HE3	1.70	0.56
1:1G:23:C:OP2	1:1G:561:U:N3	2.29	0.56
1:1G:41:G:H2'	1:1G:42:G:C8	2.39	0.56
25:4L:23:A:H4'	25:4L:24:A:OP1	2.05	0.56
26:14:548:A:C6	26:14:549:G:H1'	2.40	0.56
26:14:2786:U:O2	29:29:62:PRO:HB3	2.05	0.56
33:69:75:LEU:HG	33:69:76:THR:N	2.20	0.56
37:45:66:ILE:HG22	37:45:104:PHE:CE1	2.40	0.56
1:13:148:G:H2'	1:13:149:A:H8	1.71	0.56
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.29	0.56
22:1K:18:G:O6	22:1K:56:C:H5''	2.05	0.56
24:3K:64:C:H3'	24:3K:65:C:O4'	2.05	0.56
26:1H:193:U:OP1	59:1H:3820:HOH:O	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(S):G:H5''	48:J8:76:ARG:HH21	1.70	0.56
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.41	0.56
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.40	0.56
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.40	0.56
30:31:184:TYR:O	30:31:188:ARG:HG3	2.05	0.56
37:88:77:LYS:HE3	37:88:84:GLY:O	2.06	0.56
40:B8:26:ASP:O	40:B8:49:VAL:HG13	2.04	0.56
48:J8:86:SER:HB3	48:J8:89:GLU:H	1.71	0.56
51:M8:12:ALA:O	51:M8:24:THR:OG1	2.21	0.56
1:1G:1:U:H3'	1:1G:1:U:OP2	2.05	0.56
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.40	0.56
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.20	0.56
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.86	0.56
4:32:98:GLU:HG3	4:32:103:ASN:HD21	1.71	0.56
10:1A:35:SER:OG	10:1A:73:ASP:HB2	2.05	0.56
14:5A:23:ARG:HG3	14:5A:28:GLY:O	2.04	0.56
26:14:491:G:H2'	26:14:492:A:H8	1.70	0.56
26:14:1287:A:H8	38:55:104:ARG:HD3	1.69	0.56
26:14:1783:A:H5'	26:14:2608:G:H4'	1.86	0.56
26:14:2467:C:H4'	37:45:123:HIS:CE1	2.40	0.56
29:29:52:LEU:O	29:29:74:PRO:HB2	2.04	0.56
40:75:88:ILE:HD11	40:75:91:ARG:HG2	1.87	0.56
42:95:67:GLY:O	42:95:88:ARG:HD2	2.05	0.56
46:D5:10:ARG:HH21	46:D5:26:GLY:H	1.51	0.56
46:D5:10:ARG:HD2	46:D5:36:LYS:HE2	1.87	0.56
52:J5:6:VAL:HG22	52:J5:7:PRO:HD2	1.87	0.56
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.37	0.56
3:2E:15:THR:HG23	3:2E:181:ASN:HA	1.87	0.56
5:4E:115:VAL:HG11	5:4E:118:ILE:HB	1.87	0.56
26:1H:517:C:OP1	52:N8:16:ARG:NH2	2.34	0.56
26:1H:1310:G:OP2	53:P8:9:ARG:NE	2.32	0.56
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.86	0.56
49:K8:4:SER:N	49:K8:7:ARG:H	1.99	0.56
50:L8:39:ASP:OD2	50:L8:44:ARG:NH2	2.35	0.56
1:1G:804:U:H5''	1:1G:805:C:OP2	2.05	0.56
1:1G:1097:C:O2'	1:1G:1169:A:N3	2.37	0.56
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.41	0.56
7:62:93:PRO:CD	7:62:94:ARG:HH21	2.18	0.56
55:3L:9:A:H8	55:3L:11:C:H41	1.52	0.56
26:14:140:A:C8	26:14:1408:C:O2'	2.58	0.56
26:14:2441:C:OP2	26:14:2586:C:O2'	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:49:ILE:HD11	28:19:52:ARG:HA	1.88	0.56
40:75:55:ASN:N	40:75:59:THR:HG22	2.20	0.56
41:85:8:VAL:O	41:85:12:ARG:HG3	2.04	0.56
1:13:1263:C:H2'	1:13:1264:C:H6	1.69	0.56
18:9I:56:THR:HB	18:9I:58:LEU:HD13	1.88	0.56
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.38	0.56
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.40	0.56
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.53	0.56
51:M8:15:ILE:HB	51:M8:32:TYR:HD1	1.69	0.56
26:14:1154:G:OP2	41:85:58:ARG:NH1	2.38	0.56
30:39:89:VAL:HG12	30:39:90:PHE:H	1.70	0.56
38:55:24:GLN:OE1	38:55:36:THR:HG21	2.06	0.56
1:13:51:A:OP2	1:13:52:G:H8	1.89	0.56
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.87	0.56
26:1H:848:G:H2'	26:1H:849:A:C8	2.40	0.56
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.41	0.56
48:J8:93:GLU:C	48:J8:95:LEU:H	2.08	0.56
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.05	0.56
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.40	0.56
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.37	0.56
26:14:29:U:H2'	26:14:30:G:C8	2.41	0.56
26:14:852:G:H2'	26:14:853:G:H8	1.71	0.56
26:14:1044:G:H4'	26:14:1047:G:H4'	1.87	0.56
26:14:2478:A:H5''	26:14:2479:G:OP2	2.06	0.56
40:75:27:THR:HG23	40:75:90:GLN:HB3	1.88	0.56
1:13:75:C:O2'	1:13:76:G:H8	1.89	0.56
1:13:843:U:H3'	1:13:848:C:C6	2.40	0.56
13:4I:90:LEU:HA	13:4I:93:ARG:HB2	1.87	0.56
26:1H:972:G:O2'	59:1H:3821:HOH:O	2.18	0.56
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.41	0.56
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.36	0.56
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.40	0.56
33:61:75:LEU:HD21	33:61:105:HIS:HB3	1.88	0.56
40:B8:111:ARG:HD3	40:B8:111:ARG:H	1.71	0.56
54:Q8:49:VAL:HG12	54:Q8:49:VAL:O	2.06	0.56
1:1G:376:G:H5''	16:7A:5:ARG:HB2	1.87	0.56
3:22:73:PRO:O	3:22:76:VAL:HG22	2.05	0.56
15:6A:17:ARG:HD2	15:6A:26:GLU:HG3	1.88	0.56
26:14:2055:C:N3	59:14:3607:HOH:O	2.32	0.56
26:14:2331:G:H4'	47:E5:43:THR:H	1.70	0.56
32:59:15:VAL:HB	32:59:27:LYS:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:26:VAL:HG11	32:59:33:LEU:H	1.69	0.56
36:35:107:LYS:O	36:35:109:GLY:N	2.37	0.56
37:45:74:TYR:O	37:45:90:VAL:O	2.24	0.56
46:D5:121:HIS:ND1	46:D5:123:ASP:O	2.38	0.56
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.88	0.56
2:1E:209:ARG:HD2	2:1E:239:VAL:HA	1.87	0.56
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.86	0.56
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.70	0.56
7:6E:89:MET:HE1	7:6E:155:ARG:HD2	1.87	0.56
9:8E:5:TYR:HE2	9:8E:16:ARG:HB3	1.71	0.56
9:8E:99:LEU:HD12	9:8E:101:PHE:HE2	1.70	0.56
26:1H:581:C:OP1	41:C8:33:ARG:HG3	2.06	0.56
28:11:70:TRP:O	28:11:73:VAL:HG23	2.06	0.56
36:78:71:VAL:CG1	36:78:72:PRO:HD3	2.35	0.56
1:1G:3:G:N1	4:32:88:VAL:HG13	2.20	0.56
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.21	0.56
27:1J:7:G:O5'	39:65:29:PHE:HE2	1.88	0.56
28:19:68:LYS:HB3	28:19:70:TRP:CZ3	2.41	0.56
30:39:25:PRO:HB2	30:39:27:GLU:HB2	1.88	0.56
30:39:53:THR:HG22	30:39:56:GLU:HG3	1.88	0.56
1:13:685:G:O2'	1:13:686:U:H5'	2.06	0.56
1:13:1286:A:C8	1:13:1287:A:H4'	2.41	0.56
4:3E:110:PHE:CE2	4:3E:148:VAL:HG23	2.41	0.56
8:7E:82:HIS:CE1	8:7E:84:ARG:HB3	2.40	0.56
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.71	0.56
26:1H:589:C:H2'	26:1H:590:A:H8	1.70	0.56
46:H8:11:GLU:OE1	46:H8:36:LYS:NZ	2.31	0.56
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.39	0.56
1:1G:1422:G:H5''	35:25:48:PRO:HB3	1.88	0.56
1:1G:1454:G:H5''	20:BA:35:THR:HG21	1.88	0.56
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.87	0.56
20:BA:11:SER:HA	20:BA:13:LEU:HD22	1.88	0.56
26:14:2131:G:N2	26:14:2157:G:O2'	2.38	0.56
30:39:18:ARG:HH22	30:39:20:LEU:HD12	1.70	0.56
30:39:18:ARG:HH22	30:39:20:LEU:HB2	1.70	0.56
33:69:76:THR:HG22	33:69:139:GLN:O	2.06	0.56
39:65:88:ASP:C	39:65:90:GLY:H	2.08	0.56
41:85:92:ARG:C	41:85:94:ASN:H	2.09	0.56
45:C5:17:SER:HB2	45:C5:71:LYS:HZ3	1.71	0.56
1:13:1:U:H4'	1:13:2:U:O5'	2.06	0.56
26:1H:821:A:H2'	26:1H:946:G:H5''	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	1.86	0.56
26:1H:2106:G:C2	26:1H:2107:C:H1'	2.41	0.56
33:61:40:THR:O	33:61:44:LEU:HB2	2.06	0.56
44:F8:26:TYR:O	44:F8:81:VAL:HG12	2.06	0.56
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.20	0.56
1:1G:181:G:O2'	1:1G:183:G:O6	2.24	0.56
1:1G:503:C:OP2	12:3A:116:SER:OG	2.23	0.56
1:1G:518:C:H2'	1:1G:530:G:C8	2.41	0.56
1:1G:1126:U:H4'	1:1G:1127:G:N7	2.21	0.56
2:12:219:VAL:CA	2:12:220:ASP:HB3	2.33	0.56
7:62:144:MET:SD	7:62:145:ALA:N	2.79	0.56
10:1A:54:PHE:O	10:1A:55:LYS:HG3	2.06	0.56
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	1.87	0.56
26:14:71:A:H2	44:B5:31:HIS:NE2	2.03	0.56
26:14:1341:U:OP2	26:14:1394:U:O2'	2.19	0.56
31:49:125:PHE:HB3	31:49:166:ASP:HB3	1.88	0.56
47:E5:49:LYS:HD2	47:E5:82:ARG:HH22	1.71	0.56
1:13:1301:U:O2'	1:13:1302:U:H3'	2.06	0.55
2:1E:11:LEU:HB3	2:1E:213:LEU:HD13	1.88	0.55
19:AI:41:VAL:HG12	19:AI:44:MET:CB	2.36	0.55
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.71	0.55
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.41	0.55
1:1G:413:G:HO2'	1:1G:414:A:P	2.28	0.55
1:1G:604:G:H2'	1:1G:605:U:O4'	2.07	0.55
1:1G:837:G:N2	1:1G:850:U:O2	2.38	0.55
26:14:528:A:C2	26:14:2042:A:H2'	2.40	0.55
26:14:1430:C:H2'	26:14:1431:U:C6	2.41	0.55
26:14:2651:C:H42	26:14:2669:G:H1	1.54	0.55
26:14:2711:A:H5'	59:14:3539:HOH:O	2.05	0.55
32:59:107:VAL:HG23	32:59:109:PHE:H	1.70	0.55
36:35:2:LYS:HG3	36:35:5:ASP:OD2	2.06	0.55
36:35:85:LEU:HA	36:35:88:LEU:HB2	1.88	0.55
1:13:648:A:N6	1:13:649:G:O6	2.40	0.55
1:13:714:G:H2'	1:13:715:A:C8	2.41	0.55
1:13:972:C:OP2	10:1I:57:LYS:HE2	2.06	0.55
1:13:1497:G:C2'	1:13:1498:U:H5'	2.37	0.55
26:1H:444:C:H4'	30:31:49:ALA:HB2	1.86	0.55
26:1H:598:G:H5'	36:78:11:GLY:HA3	1.88	0.55
48:J8:2:SER:HB2	48:J8:4:VAL:HG13	1.89	0.55
1:1G:1124:G:HO2'	1:1G:1145:C:N4	2.03	0.55
10:1A:29:ARG:HD3	10:1A:84:GLN:NE2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:99:LYS:HD3	10:1A:100:THR:N	2.21	0.55
26:14:2807:G:H22	26:14:2892:A:H62	1.54	0.55
31:49:72:ARG:HB3	31:49:85:GLY:HA2	1.88	0.55
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.88	0.55
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.39	0.55
20:BI:100:ILE:HG12	20:BI:101:GLY:H	1.70	0.55
26:1H:945:A:P	59:1H:3825:HOH:O	2.65	0.55
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.41	0.55
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.22	0.55
34:58:9:VAL:HG21	34:58:39:ARG:HH12	1.71	0.55
34:58:12:ARG:HG2	34:58:13:TRP:N	2.20	0.55
36:78:86:LYS:HB3	36:78:118:GLY:HA3	1.87	0.55
38:98:53:HIS:ND1	38:98:94:TYR:OH	2.36	0.55
45:G8:5:MET:HE2	45:G8:5:MET:H	1.71	0.55
53:P8:24:THR:HG23	53:P8:27:GLY:H	1.71	0.55
1:1G:948:C:N4	59:1G:1849:HOH:O	2.38	0.55
1:1G:1328:C:OP1	21:1B:21:TYR:OH	2.19	0.55
2:12:34:ALA:O	2:12:40:HIS:HB3	2.05	0.55
6:52:83:ASP:OD1	6:52:83:ASP:N	2.39	0.55
12:3A:6:THR:OG1	12:3A:9:GLN:HG3	2.07	0.55
26:14:754:C:H2'	26:14:755:C:H6	1.71	0.55
46:D5:132:ASN:ND2	46:D5:159:PRO:HG2	2.22	0.55
48:F5:40:ARG:NH2	48:F5:42:GLN:HG2	2.22	0.55
1:13:165:C:H2'	1:13:166:G:H8	1.70	0.55
1:13:963:G:N2	1:13:972:C:N3	2.39	0.55
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.07	0.55
10:1I:24:VAL:O	10:1I:28:ARG:HB2	2.07	0.55
26:1H:214:G:H4'	26:1H:214:G:OP1	2.06	0.55
26:1H:860:U:C5	26:1H:917:A:C2	2.81	0.55
26:1H:2032:G:H21	29:21:146:THR:HG23	1.70	0.55
26:1H:2136:C:N3	26:1H:2155:G:N1	2.38	0.55
41:C8:105:VAL:HG22	42:D8:44:LYS:HG3	1.89	0.55
45:G8:42:VAL:HG23	45:G8:43:ASN:N	2.21	0.55
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.87	0.55
53:P8:12:ARG:NH2	53:P8:44:PRO:HB3	2.22	0.55
1:1G:191(E):G:H2'	1:1G:191(F):U:C6	2.40	0.55
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.06	0.55
10:1A:30:SER:OG	10:1A:81:THR:HG22	2.07	0.55
22:1L:18:G:H1'	22:1L:58:A:C2	2.42	0.55
26:14:602:G:HO2'	26:14:604:G:HO2'	1.54	0.55
26:14:2749:A:H4'	32:59:6:ARG:CZ	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:85:17:ILE:HD12	41:85:32:PHE:HE1	1.71	0.55
2:1E:7:VAL:HG21	2:1E:217:ARG:HH11	1.71	0.55
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.05	0.55
26:1H:724:U:H2'	26:1H:725:G:O4'	2.06	0.55
26:1H:747:U:O2	26:1H:2014:A:H1'	2.07	0.55
26:1H:901:A:H5'	26:1H:902:C:OP2	2.05	0.55
26:1H:1189:A:P	59:1H:3746:HOH:O	2.62	0.55
1:1G:980:C:N3	1:1G:1359:C:N4	2.54	0.55
4:32:84:LYS:H	4:32:84:LYS:HD2	1.71	0.55
13:4A:66:LEU:O	13:4A:67:GLU:O	2.25	0.55
55:3L:8:U:O2'	55:3L:13:C:N4	2.38	0.55
55:3L:76:A:H8	26:14:2394:C:N4	2.04	0.55
40:75:26:ASP:O	40:75:49:VAL:HG22	2.05	0.55
1:13:342:C:H2'	1:13:343:U:H5'	1.89	0.55
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.21	0.55
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.47	0.55
13:4I:7:VAL:HB	31:4I:115:ARG:NH2	2.21	0.55
13:4I:15:VAL:O	13:4I:19:LEU:HD22	2.07	0.55
26:1H:588:U:H2'	26:1H:589:C:C6	2.41	0.55
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.07	0.55
26:1H:2312:U:OP1	31:41:74:LYS:HG2	2.07	0.55
30:31:178:PRO:HB3	30:31:198:ALA:CB	2.36	0.55
51:M8:36:CYS:SG	51:M8:37:SER:N	2.80	0.55
1:1G:652:U:O2'	1:1G:653:A:N3	2.37	0.55
1:1G:983:A:H2	1:1G:984:C:C6	2.24	0.55
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.24	0.55
2:12:82:ARG:NE	2:12:92:TYR:OH	2.36	0.55
4:32:146:ILE:H	4:32:146:ILE:HD12	1.72	0.55
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.89	0.55
10:1A:44:VAL:HG22	10:1A:66:ARG:HG2	1.87	0.55
18:9A:29:PHE:HD2	18:9A:39:VAL:HG11	1.71	0.55
26:14:1047:G:H21	26:14:1111:A:H61	1.54	0.55
26:14:1871:A:H2'	26:14:1872:A:H8	1.71	0.55
34:15:125:GLY:HA2	34:15:126:PRO:O	2.07	0.55
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.06	0.55
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.39	0.55
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.87	0.55
26:1H:592:G:H21	54:Q8:4:MET:CE	2.18	0.55
39:A8:38:GLN:HG2	39:A8:47:THR:HG21	1.89	0.55
4:32:150:GLU:CD	4:32:150:GLU:H	2.09	0.55
30:39:3:GLU:OE1	30:39:3:GLU:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:127:GLU:HG3	30:39:128:ALA:HB2	1.88	0.55
33:69:76:THR:HG23	33:69:77:LEU:H	1.71	0.55
40:75:5:ALA:HB1	40:75:8:LYS:HB2	1.89	0.55
1:13:1007:C:N4	1:13:1022:G:H1	2.04	0.55
26:1H:1051:G:OP2	26:1H:1051:G:H8	1.90	0.55
26:1H:1858:G:O6	59:1H:3810:HOH:O	2.15	0.55
29:21:15:PHE:HA	29:21:19:ARG:O	2.07	0.55
31:41:161:THR:CG2	31:41:163:ALA:H	2.19	0.55
1:1G:45:U:H2'	1:1G:46:G:C8	2.41	0.55
1:1G:554:C:H2'	1:1G:555:C:C6	2.41	0.55
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.42	0.55
1:1G:1299:A:C8	1:1G:1301:U:H1'	2.42	0.55
6:52:74:ASP:OD1	6:52:74:ASP:N	2.40	0.55
13:4A:12:ASN:O	13:4A:12:ASN:ND2	2.36	0.55
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.89	0.55
22:1L:37:AET:HM62	22:1L:38:A:N6	2.22	0.55
55:3L:23:A:H2'	55:3L:24:G:H8	1.71	0.55
26:14:443:A:H1'	26:14:1201:C:O4'	2.07	0.55
29:29:111:ARG:HD2	29:29:160:TYR:CE2	2.41	0.55
37:45:77:LYS:HE3	37:45:84:GLY:HA3	1.89	0.55
1:13:265:G:H5'	17:8I:64:PRO:O	2.06	0.55
1:13:1064:G:H4'	1:13:1065:U:OP1	2.07	0.55
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.28	0.55
25:4K:14:A:H4'	25:4K:15:A:H5'	1.89	0.55
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.89	0.55
31:41:33:ARG:O	31:41:162:THR:HG23	2.07	0.55
43:E8:38:TYR:OH	52:N8:47:PRO:HG2	2.07	0.55
46:H8:47:VAL:O	46:H8:51:ALA:N	2.30	0.55
49:K8:32:LEU:HD13	49:K8:36:ARG:HH12	1.72	0.55
1:1G:1075:C:OP1	2:12:179:LYS:NZ	2.39	0.55
26:14:64:A:O3'	44:B5:71:GLY:HA3	2.06	0.55
26:14:796:C:H2'	26:14:797:C:C6	2.42	0.55
26:14:2429:G:O6	36:35:61:ARG:NH2	2.39	0.55
27:1J:2:C:H2'	27:1J:3:C:H6	1.72	0.55
53:L5:5:TRP:NE1	53:L5:7:PRO:HG3	2.21	0.55
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.72	0.55
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.71	0.55
32:51:164:TYR:O	32:51:167:GLU:HB3	2.07	0.55
23:2L:3:C:H42	23:2L:71:G:H1	1.54	0.55
26:14:2404:C:O3'	36:35:77:ARG:NH2	2.40	0.55
26:14:2745:C:O2	32:59:139:GLN:NE2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2795:G:H4'	26:14:2798:C:H5	1.72	0.55
33:69:57:ARG:O	33:69:61:ARG:HB2	2.07	0.55
35:25:14:THR:HG21	35:25:86:ILE:HG13	1.89	0.55
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.40	0.54
20:BI:86:ARG:O	20:BI:90:GLN:NE2	2.40	0.54
26:1H:1171:G:C5	26:1H:1174:A:N6	2.76	0.54
41:C8:92:ARG:NH1	41:C8:94:ASN:OD1	2.41	0.54
46:H8:151:HIS:HA	46:H8:169:GLU:O	2.07	0.54
1:1G:54:C:N4	1:1G:353:A:OP2	2.35	0.54
1:1G:994:A:C5	1:1G:1216:G:H4'	2.42	0.54
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.42	0.54
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.06	0.54
1:1G:1363:A:H1'	1:1G:1365:G:N7	2.22	0.54
3:22:121:ALA:HB2	3:22:198:VAL:HG21	1.88	0.54
7:62:116:ALA:HA	7:62:119:ARG:HE	1.71	0.54
55:3L:54:5MU:OP1	55:3L:54:5MU:H4'	2.07	0.54
26:14:127:A:H5''	26:14:128:C:C6	2.42	0.54
26:14:792:G:H5''	26:14:793:A:H5'	1.89	0.54
26:14:1322:A:O3'	43:A5:84:ARG:NH1	2.40	0.54
26:14:2528:U:O2'	26:14:2530:A:OP1	2.15	0.54
29:29:12:THR:HG21	40:75:11:GLU:OE1	2.07	0.54
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.07	0.54
7:6E:22:LEU:O	7:6E:26:PHE:N	2.36	0.54
26:1H:1057:A:H8	26:1H:1086:A:H2'	1.72	0.54
26:1H:2068:U:H3	26:1H:2430:A:H2	1.53	0.54
46:H8:145:GLU:OE1	46:H8:145:GLU:N	2.39	0.54
1:1G:352:C:O2'	1:1G:354:G:OP1	2.24	0.54
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.89	0.54
11:2A:87:THR:O	11:2A:87:THR:OG1	2.24	0.54
26:14:2147:G:H2'	26:14:2148:G:H4'	1.90	0.54
26:14:2823:A:OP1	29:29:159:HIS:NE2	2.32	0.54
31:49:97:ASP:H	31:49:100:TRP:HD1	1.55	0.54
32:59:6:ARG:HH12	32:59:63:SER:HA	1.72	0.54
34:15:137:LYS:HB3	34:15:137:LYS:NZ	2.21	0.54
36:35:126:VAL:HG12	36:35:147:LEU:HD22	1.89	0.54
1:13:165:C:H2'	1:13:166:G:C8	2.41	0.54
1:13:224:C:H2'	1:13:225:C:C6	2.41	0.54
1:13:1010:G:N2	1:13:1020:U:H1'	2.23	0.54
2:1E:82:ARG:HH12	2:1E:150:SER:HG	1.54	0.54
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.35	0.54
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:73:A:C4	27:16:104:A:C2	2.95	0.54
29:21:14:ILE:HG12	29:21:23:VAL:HG21	1.90	0.54
29:21:166:THR:HG21	29:21:199:ARG:HH22	1.73	0.54
45:G8:94:LYS:HG3	45:G8:95:LYS:N	2.22	0.54
54:Q8:8:LYS:O	54:Q8:12:LYS:HB2	2.08	0.54
1:1G:485:G:O2'	1:1G:486:U:O5'	2.25	0.54
4:32:61:LYS:HB2	4:32:203:VAL:HG13	1.89	0.54
4:32:107:ARG:HH22	4:32:194:LEU:HD13	1.71	0.54
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.38	0.54
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.89	0.54
25:4L:18:G:N7	59:4L:501:HOH:O	2.33	0.54
26:14:2158:A:H1'	26:14:2159:G:C8	2.42	0.54
28:19:71:ASP:OD1	28:19:103:ARG:NH2	2.38	0.54
34:15:4:TYR:O	41:85:64:ARG:NH1	2.40	0.54
41:85:70:ARG:HA	41:85:74:LEU:O	2.07	0.54
46:D5:132:ASN:HD22	46:D5:159:PRO:HG2	1.73	0.54
54:M5:52:LYS:N	54:M5:53:PRO:HD2	2.22	0.54
2:1E:80:ILE:HG12	2:1E:212:GLN:HB2	1.90	0.54
2:1E:100:GLY:O	2:1E:104:ASN:N	2.28	0.54
7:6E:42:ILE:HG12	7:6E:116:ALA:HB3	1.90	0.54
16:7I:4:ILE:HB	16:7I:66:PRO:HB3	1.88	0.54
26:1H:635:C:O2'	26:1H:639:U:OP1	2.23	0.54
26:1H:2849:U:OP2	40:B8:95:ARG:NH1	2.40	0.54
28:11:145:VAL:HG12	28:11:146:GLU:O	2.08	0.54
29:21:13:ARG:NH2	40:B8:77:PRO:HB3	2.23	0.54
1:1G:600:C:H2'	1:1G:601:C:H6	1.71	0.54
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.07	0.54
1:1G:1291:G:OP1	7:62:37:ASN:ND2	2.41	0.54
5:42:75:THR:OG1	5:42:117:ASP:O	2.20	0.54
17:8A:53:LEU:HD21	17:8A:85:VAL:HG11	1.88	0.54
18:9A:22:VAL:HA	18:9A:25:THR:HG22	1.89	0.54
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.06	0.54
55:3L:50:G:H1	55:3L:64:C:N4	2.01	0.54
26:14:792:G:N3	26:14:2072:G:O2'	2.34	0.54
26:14:1043:C:H42	26:14:1112:G:H1	1.55	0.54
26:14:1198:U:H2'	26:14:1199:U:C6	2.42	0.54
43:A5:47:VAL:HA	43:A5:50:VAL:HG12	1.90	0.54
1:13:221:C:H2'	1:13:222:U:C6	2.42	0.54
1:13:1256:A:O2'	1:13:1257:U:O5'	2.21	0.54
5:4E:73:ASN:OD1	5:4E:73:ASN:N	2.40	0.54
13:4I:68:GLY:HA3	31:4I:116:ASP:OD1	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:26:ARG:HH21	16:7I:31:LYS:HD2	1.73	0.54
22:1K:18:G:H1'	22:1K:58:A:C4	2.43	0.54
24:3K:33:U:H2'	24:3K:34:G:H2'	1.90	0.54
26:1H:827:U:H2'	26:1H:2430:A:H2	1.72	0.54
26:1H:836:G:H5''	26:1H:837:C:OP2	2.06	0.54
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.07	0.54
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.41	0.54
26:1H:2134:A:O2'	26:1H:2159:G:N2	2.40	0.54
33:6I:10:GLU:HG3	33:6I:10:GLU:O	2.08	0.54
5:42:51:VAL:O	5:42:55:VAL:HG23	2.07	0.54
8:72:110:ALA:N	8:72:121:ASP:HB2	2.23	0.54
26:14:2577:A:H5'	52:J5:3:LYS:HD3	1.89	0.54
37:45:27:VAL:CG1	37:45:136:ALA:HB1	2.37	0.54
37:45:57:HIS:ND1	37:45:117:ALA:HB2	2.22	0.54
1:13:407:G:OP1	4:3E:115:ARG:NH2	2.40	0.54
6:5E:100:ASN:HB2	18:9I:28:GLU:HG2	1.90	0.54
20:BI:26:ASN:HD22	20:BI:26:ASN:N	2.05	0.54
20:BI:42:GLN:HG3	20:BI:43:LEU:N	2.22	0.54
22:1K:7:A:N6	22:1K:50:G:O6	2.41	0.54
22:1K:66:U:H5''	22:1K:67:A:C8	2.36	0.54
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.90	0.54
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.42	0.54
26:1H:1899:G:H1	26:1H:1902:C:N4	2.05	0.54
34:58:30:ILE:HG22	34:58:34:LEU:HD22	1.89	0.54
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.41	0.54
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.72	0.54
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.88	0.54
13:4A:12:ASN:H	13:4A:45:VAL:HB	1.72	0.54
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.25	0.54
26:14:2257:U:O2'	26:14:2258:C:H5'	2.08	0.54
26:14:2557:G:H2'	26:14:2558:C:C6	2.43	0.54
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.42	0.54
1:13:1144:G:N2	1:13:1146:A:H62	2.04	0.54
2:1E:32:ILE:HG21	2:1E:40:HIS:HB3	1.89	0.54
8:7E:51:VAL:HG21	8:7E:60:ARG:HH11	1.71	0.54
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.73	0.54
24:3K:57:G:H2'	24:3K:58:A:H5'	1.89	0.54
27:16:30:C:H2'	27:16:31:C:H5'	1.90	0.54
28:11:10:THR:OG1	28:11:13:ARG:HB2	2.07	0.54
32:51:5:GLY:HA2	32:51:69:ARG:HB2	1.88	0.54
32:51:101:ARG:NH2	32:51:121:ILE:O	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:169:VAL:HG22	32:51:170:ARG:H	1.73	0.54
38:98:87:TYR:CD1	38:98:90:ARG:HD2	2.42	0.54
1:1G:1152:A:H5'	10:1A:13:HIS:HD1	1.73	0.54
1:1G:1320:C:H1'	19:AA:73:GLU:HG3	1.90	0.54
1:1G:1392:G:N2	1:1G:1502:A:H8	2.06	0.54
9:82:119:ALA:O	9:82:120:ARG:HB2	2.05	0.54
14:5A:27:CYS:O	14:5A:29:ARG:NH2	2.41	0.54
26:14:2144:U:H1'	26:14:2148:G:N2	2.23	0.54
26:14:2497:A:H5''	59:14:3568:HOH:O	2.08	0.54
29:29:68:ALA:C	29:29:70:ALA:H	2.09	0.54
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.22	0.54
49:G5:9:GLN:HE22	49:G5:56:GLN:HG2	1.73	0.54
1:13:179:A:H2'	1:13:180:U:C6	2.41	0.54
1:13:1002:G:H1	1:13:1038:C:H42	1.55	0.54
19:AI:31:ILE:HG22	19:AI:32:LYS:H	1.72	0.54
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.41	0.54
27:16:29:A:H2'	27:16:30:C:C6	2.42	0.54
27:16:75:G:H21	46:H8:85:HIS:CE1	2.26	0.54
34:58:97:ARG:H	34:58:100:GLU:HG3	1.73	0.54
54:Q8:16:ILE:HD13	54:Q8:59:LYS:HG2	1.89	0.54
1:1G:287:U:O4	59:1G:1822:HOH:O	2.18	0.54
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.54	0.54
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.43	0.54
4:32:187:ARG:NH2	4:32:193:ASP:OD2	2.40	0.54
26:14:548:A:H8	26:14:548:A:O5'	1.91	0.54
26:14:918:A:N3	27:1J:80:U:O2'	2.33	0.54
26:14:996:A:N6	26:14:1160:G:C6	2.76	0.54
26:14:1607:C:N4	26:14:1622:G:OP2	2.38	0.54
26:14:2295:C:C2	26:14:2296:U:H5	2.26	0.54
26:14:2318:G:H5'	26:14:2319:G:OP2	2.07	0.54
27:1J:18:G:H1	27:1J:65:C:H42	1.54	0.54
29:29:61:ARG:HA	29:29:63:LEU:HD22	1.88	0.54
1:13:1037:C:H2'	1:13:1038:C:H6	1.72	0.54
1:13:1129:C:H3'	1:13:1139:G:N7	2.23	0.54
1:13:1164:G:C6	1:13:1173:G:C6	2.96	0.54
3:2E:136:GLN:OE1	3:2E:140:ARG:NH1	2.41	0.54
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.90	0.54
22:1K:1:G:H3'	22:1K:2:C:C6	2.43	0.54
26:1H:96:G:H4'	49:K8:48:HIS:CD2	2.42	0.54
26:1H:729:G:C6	28:11:208:LYS:HB2	2.43	0.54
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.07	0.54
26:1H:2017:U:OP2	59:1H:3826:HOH:O	2.18	0.54
26:1H:2470:G:H5'	37:88:56:ARG:HH22	1.73	0.54
27:16:12:C:O2'	47:I8:74:ARG:HG2	2.08	0.54
28:11:263:ARG:NH1	28:11:263:ARG:HB2	2.23	0.54
39:A8:42:ASP:C	39:A8:44:LYS:H	2.10	0.54
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.21	0.54
47:I8:27:GLU:HA	47:I8:67:VAL:HG22	1.89	0.54
1:1G:1126:U:H2'	1:1G:1281:U:H5'	1.88	0.54
9:82:83:ARG:O	9:82:86:VAL:HG12	2.08	0.54
23:2L:17:C:H3'	23:2L:18:U:H2'	1.89	0.54
26:14:247:G:H4'	26:14:386:G:C5	2.42	0.54
26:14:1418:G:OP1	26:14:1588:C:O2'	2.25	0.54
26:14:2287:A:H61	26:14:2344:U:H3	1.55	0.54
27:1J:3:C:H2'	27:1J:4:C:C6	2.43	0.54
31:49:97:ASP:O	31:49:101:ILE:HG23	2.08	0.54
34:15:132:ALA:C	34:15:133:GLN:HG3	2.28	0.54
37:45:27:VAL:HB	37:45:28:ALA:CA	2.22	0.54
1:13:339:C:OP2	35:68:97:ARG:HD3	2.08	0.54
2:1E:118:LEU:HB3	2:1E:142:LEU:HD12	1.89	0.54
22:1K:52:A:H61	22:1K:62:U:H3	1.55	0.54
26:1H:796:C:H2'	26:1H:797:C:C6	2.43	0.54
26:1H:879:G:N1	26:1H:898:C:N3	2.56	0.54
26:1H:2127:G:H5''	26:1H:2162:G:N2	2.22	0.54
28:11:37:LEU:HD23	28:11:62:TYR:HB2	1.90	0.54
47:I8:41:ARG:O	47:I8:57:PHE:HD2	1.91	0.54
1:1G:584:G:OP1	17:8A:91:ARG:NH1	2.41	0.54
1:1G:629:G:H2'	1:1G:630:G:O4'	2.08	0.54
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.23	0.54
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.89	0.54
22:1L:8:U:H3'	22:1L:13:C:N4	2.23	0.54
26:14:276:A:N3	26:14:277:C:N4	2.56	0.54
26:14:2762:G:H5'	26:14:2763:G:OP2	2.07	0.54
11:2I:73:MET:HE2	11:2I:103:LEU:HD22	1.90	0.53
26:1H:722:A:H2'	26:1H:723:G:C8	2.43	0.53
26:1H:1171:G:N2	26:1H:1178:C:O2	2.38	0.53
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.24	0.53
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.91	0.53
26:1H:1800:C:OP2	28:11:183:ARG:NH2	2.41	0.53
1:1G:164:U:H2'	1:1G:165:C:C6	2.43	0.53
1:1G:197:A:C6	1:1G:221:C:H4'	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:544:G:OP1	4:32:59:ARG:NH2	2.32	0.53
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.43	0.53
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.43	0.53
1:1G:1492:A:H5''	12:3A:47:LYS:HB3	1.88	0.53
2:12:47:THR:HA	2:12:50:GLU:CD	2.28	0.53
3:22:6:HIS:CD2	3:22:9:GLY:H	2.21	0.53
18:9A:25:THR:O	18:9A:25:THR:OG1	2.26	0.53
26:14:274:G:H2'	26:14:275:G:O4'	2.08	0.53
26:14:2795:G:H2'	26:14:2795:G:N3	2.23	0.53
29:29:7:VAL:HG12	29:29:8:LYS:H	1.73	0.53
30:39:27:GLU:O	30:39:29:ASN:N	2.34	0.53
34:15:58:ASP:OD1	34:15:58:ASP:N	2.32	0.53
1:13:730:G:C5	1:13:731:G:H1'	2.42	0.53
1:13:827:U:C5	1:13:872:A:N1	2.76	0.53
3:2E:56:ASP:O	3:2E:57:ILE:HG13	2.09	0.53
4:3E:154:ASN:ND2	4:3E:155:LEU:H	2.06	0.53
12:3I:5:PRO:HG2	12:3I:10:LEU:HD21	1.91	0.53
26:1H:620:G:H4'	26:1H:621:A:C5'	2.38	0.53
26:1H:1061:U:O3'	26:1H:1070:A:H4'	2.08	0.53
31:41:34:LEU:HD23	31:41:172:LEU:HD21	1.90	0.53
41:C8:92:ARG:NH2	42:D8:10:LYS:HB3	2.23	0.53
46:H8:9:TYR:CE1	46:H8:35:ARG:HG2	2.44	0.53
3:22:32:LEU:HD23	3:22:59:ARG:HH22	1.72	0.53
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.90	0.53
8:72:17:THR:HG22	8:72:78:GLN:OE1	2.07	0.53
17:8A:59:ILE:HD13	17:8A:73:VAL:HA	1.88	0.53
26:14:67:U:N3	26:14:74:A:H2	1.98	0.53
26:14:249:C:O2	54:M5:12:LYS:NZ	2.39	0.53
26:14:1946:U:H2'	26:14:1947:C:C6	2.42	0.53
33:69:5:LEU:HD23	33:69:9:LEU:HD12	1.90	0.53
36:35:95:VAL:O	36:35:126:VAL:HG23	2.08	0.53
52:J5:52:TYR:C	52:J5:54:GLY:H	2.10	0.53
1:13:1133:G:H1	1:13:1141:C:H42	1.56	0.53
7:6E:5:ARG:HG3	7:6E:7:ALA:H	1.73	0.53
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.90	0.53
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.23	0.53
22:1K:27:C:H2'	22:1K:28:A:C8	2.43	0.53
26:1H:587:C:N3	36:78:33:ARG:NH1	2.56	0.53
26:1H:2160:G:N7	26:1H:2161:C:H1'	2.24	0.53
26:1H:2209:C:O2	26:1H:2216:G:C2	2.61	0.53
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:E8:92:ARG:NH1	43:E8:94:ASP:OD1	2.41	0.53
1:1G:1002:G:H1	1:1G:1038:C:N4	2.06	0.53
1:1G:1093:A:N3	1:1G:1109:C:O2'	2.36	0.53
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.73	0.53
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.24	0.53
26:14:320:A:OP1	30:39:135:LYS:NZ	2.41	0.53
26:14:900:A:OP1	26:14:900:A:H4'	2.07	0.53
29:29:50:GLY:HA3	29:29:78:LEU:HD23	1.89	0.53
1:13:1248:A:N3	9:8E:70:LYS:HE2	2.24	0.53
1:13:1446:A:OP1	1:13:1446:A:H4'	2.08	0.53
1:13:1504:G:OP1	1:13:1507:A:H4'	2.07	0.53
4:3E:152:SER:HB3	4:3E:155:LEU:HG	1.90	0.53
26:1H:185:U:H4'	26:1H:218:A:H4'	1.91	0.53
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.09	0.53
26:1H:1066:U:H2'	26:1H:1068:G:OP2	2.08	0.53
26:1H:2467:C:H4'	37:88:123:HIS:CD2	2.43	0.53
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.23	0.53
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.44	0.53
27:16:14:U:OP2	27:16:70:C:O2'	2.21	0.53
30:31:101:LEU:O	30:31:106:ARG:NH1	2.39	0.53
36:78:59:LEU:HD11	54:Q8:10:ALA:HA	1.89	0.53
1:1G:1316:G:H2'	1:1G:1317:C:H5''	1.90	0.53
1:1G:1368:G:H5''	9:82:112:LYS:HB3	1.90	0.53
5:42:69:VAL:O	5:42:71:LEU:N	2.37	0.53
5:42:80:ILE:HD13	8:72:104:ARG:HH22	1.73	0.53
22:1L:59:C:O2'	22:1L:60:U:OP2	2.24	0.53
26:14:271(B):G:N7	26:14:421:U:H2'	2.23	0.53
26:14:1019:U:H2'	26:14:1020:A:H8	1.72	0.53
26:14:2210:G:H5'	26:14:2211:G:N7	2.24	0.53
26:14:2414:G:H21	36:35:67:MET:CE	2.20	0.53
30:39:110:LEU:HD21	30:39:181:LEU:HD13	1.89	0.53
31:49:56:ALA:HB2	31:49:153:ARG:NE	2.23	0.53
35:25:1:MET:HE2	35:25:32:TYR:CE2	2.44	0.53
41:85:112:ARG:CZ	42:95:47:VAL:HG13	2.39	0.53
4:3E:165:MET:SD	4:3E:168:ARG:HD3	2.48	0.53
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.72	0.53
24:3K:39:G:H2'	24:3K:40:G:C8	2.44	0.53
26:1H:1037:G:N1	26:1H:1118:C:N3	2.38	0.53
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.09	0.53
26:1H:2419:U:O4	59:1H:3827:HOH:O	2.19	0.53
30:31:160:ASN:OD1	30:31:163:VAL:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:2:ILE:HG13	35:68:8:LEU:HD11	1.90	0.53
37:88:3:MET:HG3	37:88:4:PRO:O	2.09	0.53
40:B8:105:LEU:C	40:B8:107:ASP:H	2.10	0.53
1:1G:250:A:H4'	1:1G:251:G:O5'	2.08	0.53
1:1G:458:C:H2'	1:1G:464:G:H8	1.73	0.53
1:1G:986:A:H1'	19:AA:54:GLY:O	2.08	0.53
1:1G:1316:G:N2	1:1G:1319:A:O5'	2.37	0.53
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.07	0.53
13:4A:102:ARG:HD3	13:4A:105:THR:OG1	2.08	0.53
26:14:528:A:C2	26:14:2043:C:H4'	2.44	0.53
26:14:1448:G:H1'	26:14:1528:A:H62	1.72	0.53
26:14:2887:U:H2'	26:14:2888:C:C6	2.43	0.53
31:49:42:GLY:O	31:49:43:LEU:HD13	2.09	0.53
34:15:104:LYS:HA	34:15:107:LEU:HD12	1.91	0.53
2:1E:143:GLU:HA	2:1E:146:GLN:HB2	1.91	0.53
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.09	0.53
30:31:183:VAL:O	30:31:187:VAL:HG23	2.09	0.53
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.44	0.53
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.91	0.53
3:22:73:PRO:HG2	3:22:105:GLU:HB2	1.91	0.53
13:4A:86:CYS:SG	13:4A:88:ARG:HG3	2.49	0.53
26:14:981:A:P	59:14:3577:HOH:O	2.65	0.53
26:14:2118:U:O2'	26:14:2145:C:N3	2.40	0.53
26:14:2427:C:H5''	26:14:2428:G:OP1	2.09	0.53
46:D5:116:VAL:O	46:D5:117:LEU:HD22	2.09	0.53
1:13:244:U:H4'	1:13:245:C:O5'	2.08	0.53
1:13:662:G:H2'	1:13:663:A:C8	2.44	0.53
1:13:673:G:H2'	1:13:674:G:C8	2.44	0.53
1:13:1000:A:H2'	1:13:1001:G:C8	2.44	0.53
1:13:1144:G:H21	1:13:1146:A:H62	1.56	0.53
1:13:1225:A:H2'	1:13:1225:A:N3	2.23	0.53
19:AI:22:LEU:O	19:AI:28:LYS:NZ	2.30	0.53
24:3K:39:G:H2'	24:3K:40:G:H8	1.74	0.53
26:1H:71:A:H5'	26:1H:71:A:H8	1.71	0.53
26:1H:330:A:HO2'	26:1H:331:A:H8	1.55	0.53
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.09	0.53
38:98:104:ARG:NH1	38:98:107:ASP:OD2	2.42	0.53
44:F8:94:GLY:O	44:F8:95:LEU:HB2	2.08	0.53
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.44	0.53
1:1G:1492:A:C5'	12:3A:47:LYS:HB3	2.38	0.53
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:11:LEU:O	4:32:15:GLU:HB2	2.09	0.53
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.91	0.53
26:14:1525:G:H2'	26:14:1526:G:C8	2.42	0.53
36:35:111:ARG:HB3	36:35:128:HIS:CG	2.44	0.53
37:45:43:THR:O	37:45:46:GLN:N	2.42	0.53
40:75:112:ARG:HH21	40:75:113:LYS:HE2	1.72	0.53
1:13:1179:A:H2'	1:13:1180:A:O4'	2.09	0.53
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.09	0.53
10:1I:26:ALA:O	10:1I:30:SER:OG	2.24	0.53
33:61:127:VAL:HA	33:61:138:ILE:O	2.09	0.53
40:B8:24:PRO:HA	40:B8:49:VAL:HG22	1.91	0.53
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.92	0.53
3:22:70:VAL:HG12	3:22:72:LYS:N	2.24	0.53
7:62:146:GLU:HG2	11:2A:50:TYR:CZ	2.44	0.53
26:14:754:C:H2'	26:14:755:C:C6	2.44	0.53
26:14:2012:G:OP1	43:A5:11:ARG:NH2	2.41	0.53
28:19:72:LYS:HB3	28:19:75:ILE:HD12	1.91	0.53
29:29:27:LEU:HA	29:29:180:ASN:O	2.08	0.53
41:85:52:ARG:HA	41:85:55:ARG:HG3	1.90	0.53
49:G5:25:VAL:HG12	49:G5:60:LEU:HD23	1.91	0.53
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.08	0.53
22:1K:56:C:O2	22:1K:56:C:H2'	2.07	0.53
26:1H:1189:A:OP2	59:1H:3818:HOH:O	2.17	0.53
26:1H:1614:A:C2	43:E8:93:ALA:HB2	2.43	0.53
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.44	0.53
27:16:54:G:H2'	27:16:55:U:H6	1.74	0.53
38:98:72:ASP:O	38:98:76:VAL:HG23	2.09	0.53
42:D8:44:LYS:O	42:D8:44:LYS:HG2	2.09	0.53
1:1G:67:C:H2'	1:1G:68:G:C8	2.44	0.53
1:1G:1104:G:H4'	2:12:111:ARG:CZ	2.39	0.53
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.44	0.53
4:32:107:ARG:NH2	4:32:194:LEU:HD22	2.24	0.53
26:14:57:C:H2'	26:14:58:G:O4'	2.09	0.53
26:14:309:G:O3'	45:C5:18:GLY:HA3	2.09	0.53
26:14:586:A:N1	26:14:809:G:O2'	2.39	0.53
26:14:631:A:O2'	36:35:67:MET:HB3	2.08	0.53
26:14:1557:C:OP2	26:14:1558:A:O2'	2.26	0.53
27:1J:52:A:N6	39:65:33:LYS:HG3	2.23	0.53
30:39:32:LEU:HD11	30:39:105:VAL:HG13	1.90	0.53
31:49:41:GLN:NE2	31:49:154:GLY:O	2.35	0.53
37:45:138:ASP:N	37:45:139:GLU:OE2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:B5:36:LYS:HA	44:B5:39:ILE:HD12	1.91	0.53
48:F5:15:ALA:O	48:F5:40:ARG:HG3	2.09	0.53
1:13:145:G:H1	1:13:177:C:N4	2.04	0.53
1:13:158:G:H2'	1:13:159:G:C8	2.37	0.53
1:13:814:A:N7	1:13:816:A:C4	2.77	0.53
1:13:963:G:H21	10:1I:55:LYS:HE2	1.72	0.53
19:AI:20:LEU:HA	19:AI:23:ASN:OD1	2.08	0.53
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.06	0.53
22:1K:53:G:C6	22:1K:54:5MU:H72	2.44	0.53
26:1H:606:U:H4'	26:1H:658:C:H4'	1.91	0.53
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.43	0.53
26:1H:1675:C:O2	29:2I:128:SER:OG	2.27	0.53
31:4I:165:THR:OG1	31:4I:168:GLU:HG3	2.08	0.53
37:88:48:GLU:HG3	37:88:48:GLU:O	2.08	0.53
1:1G:108:G:C6	20:BA:15:ARG:HD2	2.44	0.53
1:1G:1504:G:OP1	1:1G:1507:A:H4'	2.09	0.53
5:42:144:THR:H	5:42:147:ASP:HB2	1.73	0.53
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.42	0.53
26:14:1204:A:H2	26:14:1241:A:N1	2.07	0.53
26:14:1292:U:H2'	26:14:1293:C:C6	2.43	0.53
26:14:1932:A:H2'	26:14:1933:G:O4'	2.09	0.53
32:59:149:ARG:HB2	32:59:149:ARG:HH11	1.73	0.53
39:65:74:ALA:HB1	39:65:107:GLU:HB2	1.90	0.53
50:H5:6:VAL:HB	50:H5:54:VAL:HG21	1.90	0.53
1:13:1129:C:H4'	1:13:1130:A:OP1	2.08	0.52
2:1E:5:ILE:HG22	2:1E:224:GLN:HE22	1.75	0.52
9:8E:53:VAL:HG11	9:8E:85:LEU:HD13	1.90	0.52
26:1H:75:G:H1	26:1H:111:A:H61	1.57	0.52
26:1H:141:A:H8	26:1H:1408:C:H1'	1.73	0.52
26:1H:910:A:N7	37:88:13:GLN:HG3	2.24	0.52
28:11:108:PRO:HD2	28:11:111:LEU:HG	1.92	0.52
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.09	0.52
4:32:194:LEU:HD23	4:32:196:LEU:HG	1.91	0.52
8:72:10:LEU:HD22	8:72:83:ILE:HD11	1.90	0.52
26:14:1614:A:C2	43:A5:93:ALA:HB2	2.44	0.52
26:14:2720:U:N3	26:14:2873:A:H2	2.06	0.52
32:59:150:ALA:O	32:59:152:ARG:N	2.42	0.52
39:65:54:LEU:O	39:65:56:LEU:N	2.40	0.52
1:13:201:C:H42	1:13:216:G:H1	1.57	0.52
1:13:626:U:C2	1:13:627:G:C8	2.97	0.52
26:1H:2414:G:H21	36:78:67:MET:CE	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:116:G:H2'	27:16:117:G:O4'	2.09	0.52
29:21:16:ARG:HG3	29:21:16:ARG:O	2.08	0.52
38:98:79:LEU:HA	38:98:83:ILE:HD12	1.91	0.52
48:J8:81:LYS:O	48:J8:83:GLU:HG2	2.09	0.52
54:Q8:6:THR:HG22	54:Q8:63:PRO:HD2	1.90	0.52
1:1G:35:G:O2'	12:3A:118:SER:O	2.26	0.52
1:1G:1308:U:OP2	13:4A:101:GLN:NE2	2.41	0.52
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.74	0.52
4:32:187:ARG:HH21	4:32:190:ASP:HB2	1.74	0.52
5:42:146:ALA:O	5:42:150:ARG:N	2.32	0.52
7:62:27:ILE:HD12	7:62:40:ALA:HA	1.92	0.52
55:3L:61:C:O5'	55:3L:61:C:H6	1.90	0.52
26:14:270(L):U:O2	33:69:50:ARG:HD3	2.09	0.52
26:14:871:U:OP1	37:45:5:ARG:HG2	2.08	0.52
26:14:1406:U:H2'	26:14:1407:C:C6	2.44	0.52
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.90	0.52
1:13:188:U:H2'	1:13:189:U:H5''	1.92	0.52
1:13:631:G:HO2'	1:13:632:A:H8	1.57	0.52
1:13:983:A:H1'	1:13:1049:U:O2	2.09	0.52
1:13:1126:U:O2'	1:13:1281:U:O2	2.15	0.52
1:13:1510:U:H2'	1:13:1511:G:C8	2.44	0.52
9:8E:42:ARG:NH1	9:8E:71:SER:OG	2.38	0.52
10:1I:61:GLU:HG2	10:1I:63:PHE:CE2	2.45	0.52
26:1H:274:G:N2	26:1H:276:A:H61	2.06	0.52
26:1H:573:G:O2'	26:1H:574:C:H3'	2.08	0.52
26:1H:944:G:O3'	59:1H:3825:HOH:O	2.18	0.52
1:1G:1502:A:H2	1:1G:1505:G:N1	1.98	0.52
11:2A:20:TYR:CZ	11:2A:83:ILE:HD13	2.45	0.52
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.17	0.52
23:2L:62:C:H2'	23:2L:63:C:C6	2.44	0.52
55:3L:15:G:C2'	55:3L:59:A:H61	2.22	0.52
26:14:2152:G:C5	26:14:2153:G:H1'	2.44	0.52
26:14:2340:G:O2'	26:14:2341:G:H5'	2.09	0.52
30:39:47:GLY:O	30:39:94:PRO:HA	2.09	0.52
31:49:111:LEU:HB3	31:49:117:PHE:CE2	2.44	0.52
35:25:68:GLU:OE2	35:25:78:ARG:NH1	2.42	0.52
40:75:16:ARG:NH2	40:75:19:LEU:HD21	2.25	0.52
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.24	0.52
49:G5:29:LYS:HE2	49:G5:57:ILE:HG21	1.92	0.52
53:L5:12:ARG:NH2	53:L5:44:PRO:HB3	2.25	0.52
1:13:345:C:H4'	1:13:346:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:727:G:N2	1:13:730:G:OP2	2.39	0.52
1:13:1126:U:H5	1:13:1127:G:C8	2.24	0.52
2:1E:46:LYS:HA	2:1E:49:GLU:OE1	2.10	0.52
3:2E:95:THR:HB	3:2E:97:LYS:HG3	1.91	0.52
20:BI:46:GLU:HB2	20:BI:48:LYS:HG3	1.90	0.52
22:1K:48:C:H2'	22:1K:49:G:C2	2.45	0.52
26:1H:31:C:OP1	59:1H:3824:HOH:O	2.18	0.52
26:1H:1210:A:H5''	26:1H:1212:G:O4'	2.10	0.52
26:1H:2780:G:OP1	34:58:118:LYS:HE2	2.09	0.52
28:11:124:PRO:O	28:11:129:ASN:ND2	2.36	0.52
38:98:32:GLY:HA2	38:98:116:LEU:CD1	2.40	0.52
38:98:67:LEU:HD22	38:98:76:VAL:HG21	1.91	0.52
1:1G:779:C:H2'	1:1G:780:A:O4'	2.10	0.52
5:42:151:LEU:HD21	8:72:77:GLU:OE2	2.09	0.52
26:14:587:C:O2	36:35:33:ARG:NH1	2.42	0.52
26:14:800:A:H8	26:14:800:A:OP1	1.91	0.52
26:14:1189:A:OP2	59:14:3560:HOH:O	2.19	0.52
26:14:2557:G:H2'	26:14:2558:C:H6	1.74	0.52
34:15:67:LEU:HD23	34:15:88:GLU:HG2	1.92	0.52
47:E5:19:LYS:HG3	47:E5:41:ARG:HH12	1.74	0.52
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	1.90	0.52
20:BI:92:LEU:HB3	20:BI:96:GLY:HA2	1.90	0.52
26:1H:274:G:H1'	26:1H:276:A:C2	2.45	0.52
26:1H:606:U:OP2	30:31:104:LYS:NZ	2.43	0.52
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.90	0.52
36:78:29:LYS:HG2	36:78:30:THR:HB	1.92	0.52
40:B8:12:SER:CA	40:B8:14:TYR:H	2.19	0.52
1:1G:1241:G:OP1	7:62:35:LYS:NZ	2.39	0.52
1:1G:1288:A:O3'	21:1B:10:ARG:NH2	2.42	0.52
3:22:16:ARG:HH22	3:22:181:ASN:HA	1.75	0.52
26:14:72:U:OP1	59:14:3559:HOH:O	2.19	0.52
26:14:2469:A:H2	26:14:2481:G:H21	1.57	0.52
37:45:26:TYR:HD1	37:45:27:VAL:H	1.56	0.52
41:85:83:LEU:HB3	41:85:88:ILE:HB	1.91	0.52
1:13:163:C:O2'	1:13:164:U:O4'	2.28	0.52
1:13:592:G:H2'	1:13:593:G:H8	1.75	0.52
1:13:1005:A:H1'	1:13:1036:G:N2	2.24	0.52
2:1E:162:ILE:O	2:1E:185:ILE:HG23	2.10	0.52
24:3K:15:G:C6	24:3K:59:A:N7	2.77	0.52
30:31:67:GLN:HG3	30:31:67:GLN:O	2.08	0.52
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:C8:92:ARG:HD2	42:D8:11:GLN:HB2	1.91	0.52
43:E8:12:ILE:HD13	43:E8:17:VAL:HB	1.92	0.52
46:H8:161:VAL:HG23	46:H8:161:VAL:O	2.09	0.52
48:J8:77:ALA:HA	48:J8:79:GLY:N	2.25	0.52
48:J8:93:GLU:C	48:J8:95:LEU:N	2.63	0.52
1:1G:1:U:H5'	1:1G:630:G:H21	1.73	0.52
1:1G:146:G:H2'	1:1G:147:G:H8	1.74	0.52
1:1G:1357:A:H2'	1:1G:1358:U:H5'	1.92	0.52
2:12:19:HIS:HE2	2:12:206:ASP:HB2	1.75	0.52
17:8A:45:HIS:CD2	17:8A:47:PRO:HD3	2.45	0.52
22:1L:69:C:H4'	22:1L:70:A:OP1	2.09	0.52
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.44	0.52
26:14:839:U:H2'	26:14:840:C:C6	2.44	0.52
26:14:2335:A:C8	26:14:2337:G:C5	2.98	0.52
38:55:82:GLU:H	38:55:85:PRO:HG2	1.75	0.52
38:55:106:GLY:O	38:55:107:ASP:HB3	2.09	0.52
41:85:91:ASP:OD2	41:85:96:ALA:HB2	2.10	0.52
1:13:8:A:N7	4:3E:208:SER:HB3	2.25	0.52
2:1E:11:LEU:HG	2:1E:14:GLY:HA3	1.92	0.52
3:2E:29:TYR:OH	14:5I:54:PRO:O	2.25	0.52
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.50	0.52
26:1H:207:A:H2'	26:1H:208:C:O4'	2.10	0.52
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.75	0.52
26:1H:1359:A:C2	26:1H:1372:U:O4	2.63	0.52
26:1H:1434:A:H61	26:1H:1558:A:H62	1.55	0.52
31:41:107:LEU:HD21	31:41:178:PHE:CE1	2.45	0.52
38:98:32:GLY:HA2	38:98:116:LEU:HD13	1.92	0.52
46:H8:53:ILE:HG22	46:H8:71:VAL:HG22	1.92	0.52
52:N8:33:CYS:SG	52:N8:40:LYS:NZ	2.72	0.52
1:1G:4:U:C4	8:72:105:ARG:HD3	2.45	0.52
1:1G:1169:A:C6	1:1G:1170:A:C6	2.98	0.52
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.93	0.52
7:62:62:PHE:HD1	7:62:124:LEU:HD11	1.74	0.52
7:62:87:VAL:HG23	7:62:148:ASN:HA	1.92	0.52
17:8A:67:LYS:O	17:8A:69:LYS:N	2.43	0.52
26:14:2104:G:N1	26:14:2186:G:C2	2.78	0.52
26:14:2567:G:H2'	26:14:2568:C:C6	2.45	0.52
26:14:2845:G:H5''	40:75:55:ASN:HA	1.91	0.52
29:29:119:ARG:HG2	29:29:160:TYR:HB2	1.92	0.52
50:H5:3:ARG:NH2	50:H5:38:GLU:OE2	2.42	0.52
1:13:693:G:H2'	1:13:694:A:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.92	0.52
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.91	0.52
19:AI:17:GLU:O	19:AI:21:GLU:HB2	2.09	0.52
26:1H:184:C:H2'	26:1H:185:U:C6	2.45	0.52
26:1H:507:A:H5''	26:1H:508:G:H3'	1.92	0.52
26:1H:1423:G:N7	59:1H:3895:HOH:O	2.34	0.52
26:1H:1639:U:H2'	26:1H:1640:C:H5''	1.92	0.52
26:1H:2053:G:H5'	29:21:144:ARG:O	2.10	0.52
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.74	0.52
40:B8:3:ARG:HA	40:B8:6:LEU:HB2	1.91	0.52
44:F8:36:LYS:HG2	44:F8:54:VAL:HB	1.92	0.52
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.43	0.52
1:1G:664:G:N2	1:1G:741:G:H1	2.07	0.52
1:1G:1285:A:H8	1:1G:1285:A:OP1	1.93	0.52
9:82:19:LEU:HD11	9:82:84:ALA:HB1	1.91	0.52
22:1L:9:A:H2'	22:1L:11:C:H41	1.75	0.52
26:14:1858:G:O2'	26:14:1883:G:N2	2.43	0.52
26:14:2275:C:H5'	26:14:2275:C:H6	1.73	0.52
26:14:2306:C:H2'	26:14:2307:G:H21	1.75	0.52
35:25:3:GLN:HB2	35:25:4:PRO:HD2	1.91	0.52
1:13:154:C:H2'	1:13:155:C:C6	2.45	0.52
1:13:963:G:H1	1:13:972:C:N4	1.99	0.52
1:13:963:G:N2	10:1I:55:LYS:NZ	2.57	0.52
1:13:1198:G:HO2'	10:1I:54:PHE:HD2	1.57	0.52
23:2K:20:G:C2	23:2K:58:A:N3	2.78	0.52
26:1H:277:C:H3'	26:1H:278:A:O4'	2.09	0.52
26:1H:1313:U:OP1	59:1H:3830:HOH:O	2.19	0.52
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.56	0.52
26:1H:2109:U:H1'	26:1H:2181:G:N2	2.25	0.52
28:11:38:LYS:HG2	28:11:40:THR:CG2	2.39	0.52
46:H8:116:VAL:HG22	46:H8:146:ILE:HG12	1.91	0.52
1:1G:296:U:H2'	1:1G:297:G:C8	2.45	0.52
1:1G:501:C:H2'	1:1G:502:G:H8	1.74	0.52
3:22:111:LEU:HD11	3:22:144:SER:O	2.09	0.52
6:52:8:ILE:HD11	6:52:79:LEU:HD13	1.92	0.52
10:1A:79:ARG:HA	10:1A:82:ILE:HB	1.91	0.52
26:14:768:G:O2'	26:14:1379:A:N6	2.43	0.52
30:39:7:TYR:CD1	30:39:18:ARG:HB2	2.45	0.52
42:95:37:VAL:HG13	42:95:37:VAL:O	2.10	0.52
1:13:1198:G:OP1	59:13:1935:HOH:O	2.19	0.52
2:1E:15:VAL:HB	2:1E:16:HIS:ND1	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:64:C:H5'	24:3K:65:C:OP2	2.10	0.52
26:1H:320:A:H2'	30:31:136:THR:HG21	1.92	0.52
26:1H:818:G:H4'	26:1H:838:C:O3'	2.10	0.52
26:1H:1053:C:H42	26:1H:1106:G:H1	1.58	0.52
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.25	0.52
26:1H:2402:C:H1'	26:1H:2403:C:C5	2.44	0.52
28:11:38:LYS:HG2	28:11:40:THR:HG22	1.92	0.52
9:82:77:ILE:O	9:82:81:ILE:HG12	2.10	0.52
26:14:1316:U:H2'	26:14:1317:A:C8	2.45	0.52
26:14:1585:C:O2	26:14:1585:C:H2'	2.09	0.52
37:45:10:ARG:NH1	37:45:10:ARG:HA	2.25	0.52
37:45:27:VAL:HG13	37:45:134:ARG:HE	1.75	0.52
1:13:1197:G:OP2	59:13:1908:HOH:O	2.19	0.51
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	1.92	0.51
7:6E:69:VAL:HG12	7:6E:100:ALA:HA	1.92	0.51
11:2I:53:SER:HA	11:2I:54:ARG:O	2.10	0.51
22:1K:47:U:O2'	22:1K:48:C:O5'	2.27	0.51
24:3K:50:G:O2'	24:3K:64:C:N4	2.43	0.51
26:1H:768:G:O2'	26:1H:1379:A:N6	2.43	0.51
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.10	0.51
26:1H:2679:A:H4'	29:21:165:VAL:HG11	1.91	0.51
37:88:133:ARG:O	37:88:134:ARG:HB2	2.10	0.51
48:J8:93:GLU:O	48:J8:95:LEU:N	2.43	0.51
1:1G:1125:U:O4	10:1A:5:ARG:NH2	2.42	0.51
2:12:75:LYS:H	2:12:78:GLN:HG3	1.74	0.51
7:62:141:VAL:HA	7:62:142:GLU:CB	2.41	0.51
17:8A:10:VAL:HG12	17:8A:55:ASP:O	2.10	0.51
26:14:2272:U:H5''	26:14:2273:A:OP1	2.10	0.51
28:19:84:TYR:HE1	28:19:86:PRO:HB3	1.75	0.51
42:95:51:VAL:HG12	42:95:52:VAL:H	1.76	0.51
1:13:578:C:OP1	59:13:1936:HOH:O	2.19	0.51
26:1H:1678:G:H22	26:1H:1989:G:N2	1.98	0.51
30:31:197:ASP:N	30:31:197:ASP:OD1	2.37	0.51
32:51:24:VAL:HG13	32:51:35:VAL:HB	1.92	0.51
35:68:64:ARG:HB2	35:68:79:PHE:CG	2.45	0.51
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.46	0.51
1:1G:1157:A:N7	1:1G:1181:G:H1'	2.25	0.51
1:1G:1320:C:N3	19:AA:36:ARG:NH2	2.58	0.51
4:32:103:ASN:OD1	4:32:114:ARG:NH2	2.38	0.51
9:82:16:ARG:O	9:82:63:ILE:HG23	2.10	0.51
26:14:1329:U:H5''	26:14:1330:C:H5	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2115:G:N1	26:14:2117:A:N7	2.59	0.51
26:14:2152:G:N3	26:14:2152:G:H2'	2.25	0.51
1:13:190:G:H3'	1:13:191(A):G:H5'	1.92	0.51
1:13:710:G:H5''	6:5E:54:LYS:HE2	1.93	0.51
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.45	0.51
20:BI:49:ALA:HA	20:BI:52:ALA:HB3	1.92	0.51
26:1H:617:G:OP1	30:31:40:GLN:NE2	2.43	0.51
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.76	0.51
40:B8:120:ARG:HA	40:B8:123:GLN:HG2	1.93	0.51
26:14:620:G:H4'	26:14:621:A:H5''	1.92	0.51
26:14:1190:G:H2'	26:14:1191:G:H8	1.74	0.51
36:35:55:ARG:HG2	36:35:56:SER:N	2.24	0.51
37:45:4:PRO:HD3	37:45:70:PRO:O	2.09	0.51
37:45:137:TYR:CE2	46:D5:76:LEU:HD22	2.45	0.51
1:13:108:G:C6	20:BI:15:ARG:HD2	2.46	0.51
1:13:455:C:N4	1:13:477:G:H22	2.08	0.51
2:1E:125:PRO:HA	2:1E:127:ILE:HG12	1.92	0.51
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.75	0.51
13:4I:26:GLY:C	13:4I:28:ALA:H	2.13	0.51
26:1H:479:A:N3	26:1H:481:G:H5''	2.25	0.51
26:1H:1012:U:O4	34:58:25:ARG:HA	2.09	0.51
26:1H:1425:G:O6	59:1H:3829:HOH:O	2.19	0.51
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.45	0.51
48:J8:3:LYS:HG3	48:J8:46:LEU:CD2	2.40	0.51
1:1G:1304:G:N1	1:1G:1332:A:OP2	2.38	0.51
26:14:244:A:C2	26:14:255:A:C4	2.99	0.51
26:14:1515:C:H2'	26:14:1516:U:H6	1.74	0.51
28:19:30:GLU:HG3	28:19:63:ARG:HH21	1.73	0.51
32:59:121:ILE:HA	32:59:133:VAL:HG13	1.92	0.51
36:35:95:VAL:HG13	36:35:100:LEU:HD11	1.92	0.51
36:35:110:TYR:N	36:35:110:TYR:CD1	2.78	0.51
38:55:52:ILE:O	38:55:55:ALA:N	2.42	0.51
1:13:1:U:H6	1:13:630:G:H2'	1.74	0.51
1:13:186:C:H2'	1:13:186(A):C:C6	2.45	0.51
1:13:626:U:N3	1:13:627:G:N7	2.59	0.51
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.08	0.51
2:1E:128:GLU:OE1	2:1E:135:GLN:NE2	2.44	0.51
3:2E:175:LEU:HD21	3:2E:201:TYR:CE2	2.45	0.51
9:8E:25:LYS:O	9:8E:61:ALA:N	2.43	0.51
10:1I:64:GLU:HG2	14:5I:59:ALA:HB2	1.92	0.51
22:1K:11:C:H2'	22:1K:12:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(L):U:N1	33:61:50:ARG:HG2	2.25	0.51
29:21:9:VAL:HG13	40:B8:3:ARG:HB3	1.93	0.51
38:98:51:LEU:HD22	38:98:66:VAL:HG13	1.91	0.51
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.11	0.51
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.46	0.51
22:1L:68:U:H2'	22:1L:69:C:C6	2.45	0.51
26:14:1041:C:H42	26:14:1114:G:H22	1.57	0.51
26:14:1299:G:N7	59:14:3612:HOH:O	2.34	0.51
36:35:47:ASP:HB3	36:35:50:ARG:H	1.76	0.51
46:D5:8:TYR:HD1	46:D5:62:PRO:HG3	1.73	0.51
46:D5:163:LEU:HD12	46:D5:165:VAL:HG22	1.92	0.51
48:F5:18:ILE:HG12	48:F5:37:ILE:HD12	1.92	0.51
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.92	0.51
1:13:625:G:H4'	16:7I:16:HIS:CG	2.45	0.51
1:13:1126:U:H3'	1:13:1126:U:C6	2.44	0.51
1:13:1176:A:H2'	1:13:1177:G:O4'	2.10	0.51
1:13:1434:A:H2'	1:13:1435:G:O4'	2.10	0.51
8:7E:98:LYS:H	8:7E:98:LYS:HD2	1.75	0.51
9:8E:78:LYS:HE3	9:8E:101:PHE:HE1	1.76	0.51
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.10	0.51
26:1H:2593:U:O2'	26:1H:2594:C:H5'	2.10	0.51
1:1G:952:U:H4'	1:1G:964:A:N1	2.26	0.51
26:14:315:G:H2'	26:14:316:C:C6	2.46	0.51
26:14:2295:C:N3	26:14:2296:U:H5	2.08	0.51
26:14:2850:A:C2	26:14:2851:A:C4	2.98	0.51
38:55:20:LEU:HD21	38:55:40:LYS:HD3	1.92	0.51
38:55:90:ARG:CZ	38:55:117:VAL:HG11	2.41	0.51
46:D5:170:THR:O	46:D5:172:ALA:N	2.44	0.51
1:13:688:G:H2'	1:13:689:C:H6	1.76	0.51
13:4I:60:VAL:HG12	13:4I:66:LEU:HD11	1.93	0.51
22:1K:23:A:H2'	22:1K:24:G:H8	1.75	0.51
22:1K:49:G:O6	22:1K:59:C:H5''	2.11	0.51
26:1H:569:U:C4	26:1H:570:G:C6	2.98	0.51
26:1H:719:C:H2'	26:1H:720:C:C6	2.46	0.51
26:1H:764:A:N3	28:11:213:ARG:NH1	2.58	0.51
26:1H:800:A:P	59:1H:3739:HOH:O	2.61	0.51
36:78:24:GLY:O	36:78:25:SER:HB3	2.09	0.51
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	1.93	0.51
1:1G:736:C:H2'	1:1G:737:A:C8	2.46	0.51
1:1G:1348:U:H3	1:1G:1374:A:H2	1.57	0.51
2:12:127:ILE:HA	2:12:130:ARG:CZ	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:125:GLU:O	3:22:127:ARG:NH1	2.43	0.51
7:62:111:ARG:NE	7:62:113:GLU:OE2	2.35	0.51
13:4A:78:ILE:O	13:4A:82:MET:N	2.44	0.51
26:14:27:G:N2	26:14:512:G:H1'	2.25	0.51
26:14:1028:A:N6	26:14:1125:G:H2'	2.25	0.51
26:14:1291:C:H2'	26:14:1292:U:C6	2.46	0.51
26:14:1859:A:N6	26:14:1883:G:O2'	2.44	0.51
26:14:2887:U:H2'	26:14:2888:C:H6	1.75	0.51
31:49:7:LEU:HG	31:49:104:GLU:HB2	1.93	0.51
1:13:1171:G:H8	1:13:1171:G:O5'	1.94	0.51
26:1H:234:C:H2'	26:1H:235:U:H6	1.76	0.51
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.10	0.51
26:1H:2287:A:C2	26:1H:2346:A:C2	2.99	0.51
39:A8:35:ILE:HD11	39:A8:101:LEU:HD23	1.91	0.51
40:B8:23:ARG:HG3	40:B8:120:ARG:NH1	2.26	0.51
1:1G:20:U:H2'	1:1G:21:G:O4'	2.11	0.51
1:1G:21:G:O2'	1:1G:914:A:N6	2.44	0.51
1:1G:522:C:H42	1:1G:527:G:H1	1.59	0.51
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.46	0.51
22:1L:6:U:H3	22:1L:67:A:H2	1.58	0.51
26:14:673:C:H5''	30:39:81:PRO:HD2	1.92	0.51
26:14:959:A:N3	26:14:2457:U:O2'	2.39	0.51
26:14:2184:G:H2'	26:14:2185:C:C6	2.45	0.51
31:49:66:GLN:NE2	31:49:93:THR:O	2.42	0.51
32:59:6:ARG:HH22	32:59:62:LYS:HG3	1.75	0.51
41:85:91:ASP:O	41:85:92:ARG:HG2	2.11	0.51
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.10	0.51
13:4I:12:ASN:CG	13:4I:13:LYS:H	2.10	0.51
26:1H:528:A:N1	26:1H:2042:A:H2'	2.25	0.51
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.93	0.51
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.46	0.51
26:1H:2470:G:H5'	37:88:56:ARG:NH2	2.26	0.51
26:1H:2499:C:P	59:1H:3733:HOH:O	2.68	0.51
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.64	0.51
27:16:9:G:OP1	39:A8:15:ARG:NH1	2.43	0.51
32:51:126:PRO:HG2	32:51:130:ARG:NH2	2.26	0.51
37:88:39:PRO:HA	37:88:97:VAL:O	2.10	0.51
1:1G:1:U:OP1	1:1G:630:G:O2'	2.22	0.51
2:12:163:PHE:HD1	2:12:185:ILE:HB	1.76	0.51
6:52:91:VAL:HG13	18:9A:72:ARG:HH12	1.76	0.51
7:62:22:LEU:HG	7:62:62:PHE:HE2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:68:ARG:HD3	8:72:69:ARG:O	2.10	0.51
13:4A:13:LYS:HG2	13:4A:44:ARG:NH1	2.26	0.51
26:14:1434:A:H61	26:14:1558:A:N6	2.08	0.51
26:14:2652:C:H42	26:14:2668:G:H1	1.59	0.51
27:1J:116:G:H5''	39:65:55:ALA:HB2	1.92	0.51
33:69:78:THR:OG1	33:69:104:GLN:NE2	2.44	0.51
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.43	0.51
1:13:57:G:H2'	1:13:58:C:C6	2.46	0.51
1:13:652:U:H1'	1:13:653:A:H2	1.75	0.51
19:AI:22:LEU:O	19:AI:25:LYS:N	2.42	0.51
26:1H:323:G:C8	30:31:171:PRO:HG3	2.45	0.51
26:1H:671:C:OP1	36:78:42:SER:O	2.29	0.51
26:1H:1297:C:OP1	26:1H:2710:C:H4'	2.10	0.51
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.11	0.51
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.10	0.51
26:1H:2751:G:H4'	32:51:4:ILE:HD11	1.92	0.51
29:21:103:ASP:OD1	29:21:201:THR:HG23	2.10	0.51
29:21:104:VAL:HG13	29:21:198:VAL:HG22	1.92	0.51
49:K8:63:VAL:HA	49:K8:66:GLU:HG2	1.91	0.51
2:12:77:ALA:O	2:12:81:VAL:HG23	2.10	0.51
3:22:172:ARG:HH11	3:22:174:PRO:HG3	1.76	0.51
6:52:26:ILE:O	6:52:30:LEU:HG	2.11	0.51
55:3L:4:G:H2'	55:3L:5:A:C8	2.46	0.51
26:14:900:A:H3'	26:14:901:A:C8	2.37	0.51
26:14:2542:A:N3	26:14:2542:A:H5''	2.25	0.51
27:1J:104:A:H2'	27:1J:105:G:O4'	2.11	0.51
28:19:108:PRO:HB3	28:19:143:HIS:CE1	2.46	0.51
29:29:199:ARG:HB3	29:29:200:GLU:OE1	2.11	0.51
30:39:53:THR:HG23	30:39:55:GLY:H	1.76	0.51
35:25:49:ARG:HA	35:25:53:LYS:HZ3	1.75	0.51
46:D5:94:GLU:OE1	46:D5:95:PRO:HD2	2.10	0.51
49:G5:15:LYS:H	49:G5:67:LYS:NZ	2.09	0.51
54:M5:22:VAL:HB	54:M5:55:ALA:HB1	1.93	0.51
1:13:8:A:N6	4:3E:205:GLU:O	2.44	0.50
1:13:1097:C:O2'	1:13:1169:A:N3	2.33	0.50
1:13:1372:U:H5''	9:8E:71:SER:HB3	1.93	0.50
26:1H:1919:A:H5''	26:1H:1920:C:OP2	2.11	0.50
33:61:133:HIS:CG	33:61:133:HIS:O	2.64	0.50
46:H8:53:ILE:HA	46:H8:71:VAL:HG13	1.93	0.50
1:1G:371:G:H1	1:1G:390:C:H42	1.58	0.50
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:71:VAL:HG21	2:12:165:VAL:N	2.26	0.50
12:3A:34:ARG:HG3	12:3A:35:GLY:N	2.26	0.50
26:14:467:G:OP1	53:L5:33:ARG:NH1	2.43	0.50
26:14:2213:U:H2'	26:14:2215:G:H5'	1.93	0.50
27:1J:94:C:H2'	27:1J:95:U:C6	2.46	0.50
30:39:67:GLN:HG3	30:39:67:GLN:O	2.09	0.50
32:59:17:VAL:HG12	32:59:45:VAL:HB	1.92	0.50
32:59:118:PRO:HD2	32:59:121:ILE:HG13	1.93	0.50
36:35:101:VAL:HA	36:35:105:LEU:O	2.10	0.50
36:35:110:TYR:N	36:35:110:TYR:HD1	2.08	0.50
49:G5:18:PRO:HA	49:G5:21:LEU:HD12	1.93	0.50
52:J5:46:CYS:SG	52:J5:48:GLU:HG2	2.51	0.50
1:13:114:U:O2'	1:13:115:G:H5'	2.12	0.50
1:13:877:C:H5''	8:7E:88:LYS:HD3	1.92	0.50
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.38	0.50
2:1E:166:ASP:C	2:1E:168:THR:H	2.15	0.50
19:AI:65:ASN:OD1	19:AI:65:ASN:N	2.45	0.50
24:3K:75:C:H5''	24:3K:76:A:OP1	2.10	0.50
26:1H:607:U:N3	26:1H:621:A:H2	1.98	0.50
26:1H:638:G:C5	26:1H:651:G:C2	2.99	0.50
26:1H:1264:G:H5'	52:N8:11:THR:CG2	2.42	0.50
26:1H:1364:G:C8	48:J8:2:SER:N	2.79	0.50
26:1H:2335:A:C8	26:1H:2337:G:C5	2.98	0.50
35:68:68:GLU:OE2	35:68:78:ARG:NH1	2.45	0.50
39:A8:85:VAL:HG22	39:A8:110:LEU:HB3	1.93	0.50
45:G8:87:LYS:N	45:G8:94:LYS:HG2	2.08	0.50
1:1G:45:U:H2'	1:1G:46:G:H8	1.75	0.50
1:1G:588:G:H1	1:1G:651:C:H42	1.58	0.50
1:1G:620:C:C2	4:32:135:LEU:HG	2.46	0.50
1:1G:1189:C:P	10:1A:51:ARG:HH22	2.34	0.50
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.33	0.50
4:32:173:TRP:CE3	4:32:193:ASP:HB3	2.46	0.50
7:62:57:GLU:OE1	7:62:57:GLU:N	2.38	0.50
7:62:93:PRO:HD2	7:62:94:ARG:NH2	2.23	0.50
10:1A:7:LYS:HZ3	10:1A:71:LEU:HD13	1.76	0.50
13:4A:13:LYS:HE2	13:4A:14:ARG:H	1.75	0.50
26:14:1033:U:H3'	26:14:1033:U:H6	1.77	0.50
26:14:1171:G:O2'	26:14:1173:G:OP2	2.29	0.50
26:14:2415:G:H4'	36:35:67:MET:H	1.74	0.50
26:14:2537:U:H2'	26:14:2538:C:C6	2.46	0.50
33:69:123:LEU:HD13	33:69:144:VAL:HG12	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:327:A:HO2'	1:13:329:A:H8	1.59	0.50
1:13:401:C:H2'	1:13:402:G:C8	2.46	0.50
1:13:652:U:H1'	1:13:653:A:C2	2.46	0.50
3:2E:136:GLN:HE22	3:2E:140:ARG:HH11	1.60	0.50
22:1K:21:A:N6	22:1K:48:C:H1'	2.26	0.50
26:1H:1021:A:C8	26:1H:1022:G:H5''	2.41	0.50
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.47	0.50
26:1H:2414:G:H21	36:78:67:MET:HE1	1.77	0.50
26:1H:2473:U:H2'	26:1H:2474:C:H5'	1.93	0.50
36:78:50:ARG:HH21	36:78:50:ARG:HG3	1.76	0.50
46:H8:98:MET:O	46:H8:125:LEU:HA	2.12	0.50
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.93	0.50
1:1G:1368:G:OP1	9:82:111:ARG:NH2	2.44	0.50
1:1G:1432:G:OP1	40:75:107:ASP:HB2	2.11	0.50
13:4A:92:HIS:NE2	13:4A:98:VAL:HG11	2.27	0.50
26:14:289:A:H3'	26:14:290:G:H8	1.75	0.50
26:14:1496:A:H8	26:14:1577:C:O2'	1.92	0.50
26:14:1991:U:H2'	26:14:1992:G:H5''	1.93	0.50
26:14:2105:C:N4	26:14:2184:G:H1	2.09	0.50
26:14:2693:A:H2'	26:14:2694:G:H8	1.76	0.50
29:29:12:THR:O	29:29:23:VAL:HG22	2.11	0.50
29:29:60:ASN:OD1	29:29:63:LEU:HD13	2.11	0.50
30:39:20:LEU:HD13	30:39:199:TRP:HH2	1.76	0.50
30:39:107:LYS:HE2	30:39:205:ARG:HD2	1.93	0.50
44:B5:3:THR:HG21	49:G5:26:ARG:HG3	1.93	0.50
46:D5:128:VAL:HG22	46:D5:129:SER:H	1.77	0.50
52:J5:16:ARG:NH1	52:J5:17:ASP:OD1	2.45	0.50
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.35	0.50
1:13:545:C:O2'	1:13:549:C:OP1	2.25	0.50
1:13:1013:G:N2	1:13:1016:A:OP2	2.45	0.50
3:2E:22:TRP:CH2	3:2E:32:LEU:HB3	2.47	0.50
3:2E:131:ARG:HD3	3:2E:131:ARG:H	1.76	0.50
12:3I:7:ILE:O	12:3I:11:VAL:HG23	2.12	0.50
26:1H:578:A:OP2	59:1H:3833:HOH:O	2.19	0.50
26:1H:607:U:N3	26:1H:621:A:C2	2.73	0.50
26:1H:1069:A:H4'	26:1H:1070:A:H5''	1.93	0.50
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.46	0.50
34:58:18:ALA:HA	34:58:21:LYS:HG3	1.92	0.50
34:58:73:THR:HB	34:58:82:LEU:HD11	1.93	0.50
41:C8:65:ILE:CG1	41:C8:96:ALA:HB2	2.41	0.50
46:H8:102:LEU:HG	46:H8:123:ASP:HA	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:J8:83:GLU:HA	48:J8:85:LEU:HD13	1.93	0.50
54:Q8:52:LYS:H	54:Q8:53:PRO:HD2	1.76	0.50
1:1G:42:G:H2'	1:1G:43:C:O4'	2.10	0.50
1:1G:176:C:H2'	1:1G:177:C:C6	2.47	0.50
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.46	0.50
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.12	0.50
2:12:130:ARG:HB3	2:12:135:GLN:HE21	1.76	0.50
4:32:15:GLU:HG3	4:32:63:LYS:HE2	1.94	0.50
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.47	0.50
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.44	0.50
22:1L:76:A:H4'	26:14:2506:U:O2'	2.11	0.50
23:2L:48:U:H4'	23:2L:49:C:H5'	1.93	0.50
26:14:635:C:O2'	26:14:639:U:OP1	2.26	0.50
26:14:1366:A:H2'	26:14:1367:A:O4'	2.10	0.50
26:14:1677:A:H8	26:14:1677:A:O5'	1.94	0.50
26:14:2776:A:OP1	26:14:2776:A:H3'	2.12	0.50
33:69:81:VAL:H	33:69:143:SER:CB	2.25	0.50
48:F5:92:LYS:O	48:F5:93:GLU:C	2.49	0.50
1:13:45:U:H2'	1:13:46:G:C8	2.46	0.50
1:13:76:G:N2	1:13:93:U:O2	2.30	0.50
1:13:658:G:H2'	1:13:659:U:C6	2.47	0.50
1:13:820:U:H4'	1:13:821:G:OP2	2.12	0.50
1:13:827:U:C5	1:13:870:U:C4	2.99	0.50
1:13:1077:G:N2	1:13:1080:A:OP2	2.41	0.50
1:13:1353:G:C2	1:13:1370:G:C2	3.00	0.50
7:6E:16:LEU:HD23	9:8E:42:ARG:HA	1.93	0.50
7:6E:95:ARG:HH21	7:6E:99:LEU:HD11	1.77	0.50
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	1.94	0.50
26:1H:192:C:OP1	59:1H:3832:HOH:O	2.19	0.50
26:1H:799:G:H2'	59:1H:3739:HOH:O	2.11	0.50
26:1H:1081:U:O2'	26:1H:1082:U:O5'	2.20	0.50
26:1H:2119:A:H2	26:1H:2171:A:H2	1.58	0.50
1:1G:814:A:H2'	1:1G:816:A:H5''	1.94	0.50
1:1G:1346:A:H5''	9:82:120:ARG:HH12	1.76	0.50
25:4L:12:A:H1'	25:4L:13:A:O5'	2.12	0.50
26:14:2106:G:N2	26:14:2107:C:O2	2.44	0.50
28:19:6:PHE:HE1	28:19:18:VAL:HG23	1.76	0.50
28:19:242:ARG:HG2	28:19:246:PRO:HG3	1.92	0.50
32:59:50:VAL:HG23	32:59:51:ARG:N	2.26	0.50
44:B5:49:VAL:HB	44:B5:83:VAL:HG23	1.93	0.50
54:M5:22:VAL:HG12	54:M5:50:LEU:HD23	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1053:G:N7	1:13:1199:U:H3'	2.27	0.50
1:13:1218:C:H2'	1:13:1219:U:C6	2.46	0.50
1:13:1510:U:H1'	1:13:1526:G:N2	2.26	0.50
4:3E:47:ARG:HH22	25:4K:26:A:N6	2.10	0.50
4:3E:155:LEU:O	4:3E:158:ILE:N	2.39	0.50
13:4I:34:LEU:HD22	13:4I:39:ILE:HB	1.93	0.50
26:1H:142:G:H1'	44:F8:37:THR:CG2	2.42	0.50
26:1H:309:G:H4'	45:G8:18:GLY:HA2	1.94	0.50
26:1H:918:A:N3	27:16:80:U:O2'	2.41	0.50
37:88:35:VAL:HA	37:88:101:ARG:O	2.10	0.50
1:1G:34:C:H2'	1:1G:35:G:H8	1.77	0.50
1:1G:428:G:C5	1:1G:430:A:C6	3.00	0.50
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.27	0.50
26:14:1323:U:H2'	26:14:1324:G:H5'	1.93	0.50
26:14:1582:C:HO2'	26:14:1586:A:H8	1.52	0.50
29:29:37:ARG:HD3	29:29:42:ASP:CG	2.32	0.50
30:39:51:THR:HG23	30:39:92:PRO:HG2	1.93	0.50
39:65:54:LEU:C	39:65:56:LEU:H	2.14	0.50
1:13:431:A:H2'	1:13:432:A:O4'	2.11	0.50
1:13:691:G:H2'	1:13:692:U:C6	2.46	0.50
1:13:1086:U:H3	1:13:1099:G:H22	1.59	0.50
5:4E:71:LEU:HD22	5:4E:114:GLY:HA3	1.93	0.50
22:1K:5:A:H2'	22:1K:5:A:N3	2.27	0.50
24:3K:8:U:H3	24:3K:14:A:H62	1.59	0.50
26:1H:265:A:H1'	26:1H:266:G:O4'	2.11	0.50
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.12	0.50
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.47	0.50
29:21:101:ARG:CZ	29:21:171:GLU:HB2	2.42	0.50
37:88:78:PRO:O	37:88:79:LEU:HB3	2.12	0.50
1:1G:266:G:H5''	1:1G:267:C:C5	2.47	0.50
1:1G:713:G:H2'	1:1G:714:G:C8	2.46	0.50
2:12:184:VAL:HG23	2:12:198:ASP:H	1.76	0.50
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.47	0.50
10:1A:3:LYS:HZ3	10:1A:77:PRO:HD2	1.75	0.50
26:14:192:C:O2'	26:14:802:A:N3	2.38	0.50
26:14:1942:C:OP2	26:14:1943:U:O2'	2.16	0.50
26:14:2280:G:C2'	26:14:2281:C:H5'	2.42	0.50
26:14:2865:U:C4	26:14:2866:U:C4	3.00	0.50
27:1J:112:G:H2'	27:1J:113:C:C6	2.46	0.50
36:35:58:THR:HG21	54:M5:54:GLU:HB3	1.94	0.50
1:13:26:A:N6	1:13:558:G:O2'	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:448:A:P	1:13:485:G:H22	2.35	0.50
1:13:926:G:H5'	1:13:927:G:O5'	2.10	0.50
1:13:953:G:H2'	1:13:954:G:O4'	2.12	0.50
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.12	0.50
4:3E:101:LEU:HB2	4:3E:138:TYR:HB3	1.94	0.50
5:4E:100:VAL:HG22	5:4E:118:ILE:HG22	1.94	0.50
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.26	0.50
13:4I:108:ARG:HA	13:4I:108:ARG:HH11	1.76	0.50
21:1F:9:ARG:HD2	21:1F:13:ILE:HD11	1.92	0.50
23:2K:16:C:H5'	23:2K:17:C:C5	2.46	0.50
30:31:177:ALA:HB1	30:31:178:PRO:HD2	1.93	0.50
32:51:126:PRO:O	32:51:127:GLU:HB3	2.12	0.50
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.12	0.50
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.46	0.50
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.47	0.50
7:62:38:LEU:O	7:62:42:ILE:HG13	2.12	0.50
9:82:14:VAL:O	9:82:65:VAL:HG23	2.11	0.50
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.94	0.50
26:14:706:A:H2'	26:14:707:G:O4'	2.12	0.50
28:19:102:LYS:C	28:19:103:ARG:HG2	2.32	0.50
37:45:38:GLU:HG3	37:45:127:ILE:HG22	1.92	0.50
39:65:87:PHE:CE1	39:65:102:ALA:HB2	2.47	0.50
1:13:456:C:H42	1:13:476:G:H1	1.59	0.50
1:13:456:C:N4	1:13:476:G:H1	2.10	0.50
19:AI:41:VAL:HG12	19:AI:44:MET:HB2	1.93	0.50
26:1H:479:A:H4'	26:1H:480:A:OP1	2.12	0.50
26:1H:784:A:C5	28:11:229:VAL:HG21	2.47	0.50
26:1H:1291:C:OP1	26:1H:1536:A:H4'	2.12	0.50
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.11	0.50
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.46	0.50
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.12	0.50
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.44	0.50
1:1G:493:G:H8	1:1G:493:G:O5'	1.93	0.50
1:1G:580:U:H2'	1:1G:581:G:O4'	2.12	0.50
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.76	0.50
22:1L:48:C:O2'	22:1L:49:G:N3	2.40	0.50
26:14:363(F):A:OP2	26:14:363(F):A:H8	1.95	0.50
26:14:1769:G:O2'	26:14:1958:C:OP1	2.19	0.50
26:14:2688:U:H5	26:14:2720:U:OP2	1.94	0.50
26:14:2724:C:OP1	29:29:118:LYS:HE3	2.12	0.50
34:15:128:HIS:H	34:15:128:HIS:HD2	1.57	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:128:VAL:HG23	46:D5:160:GLY:O	2.11	0.50
54:M5:37:SER:OG	54:M5:39:LYS:O	2.29	0.50
1:13:779:C:H2'	1:13:780:A:O4'	2.12	0.49
1:13:1126:U:N3	1:13:1280:A:C8	2.80	0.49
1:13:1396:A:H4'	1:13:1397:C:H5''	1.94	0.49
4:3E:104:VAL:HG21	4:3E:140:VAL:HG21	1.94	0.49
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.46	0.49
7:6E:95:ARG:O	7:6E:99:LEU:HD12	2.12	0.49
9:8E:17:VAL:HG11	9:8E:81:ILE:HD13	1.94	0.49
11:2I:112:THR:O	11:2I:114:VAL:HG12	2.12	0.49
19:AI:3:ARG:NH1	19:AI:10:PHE:HB2	2.27	0.49
26:1H:1313:U:P	59:1H:3830:HOH:O	2.69	0.49
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.46	0.49
26:1H:2712:U:OP1	26:1H:2714:G:H4'	2.12	0.49
29:21:32:PRO:HD2	29:21:50:GLY:O	2.11	0.49
32:51:9:ILE:HD11	32:51:76:VAL:HG21	1.94	0.49
46:H8:61:LEU:HD22	46:H8:67:LEU:HD12	1.94	0.49
53:P8:30:VAL:O	53:P8:34:ARG:HG3	2.12	0.49
1:1G:684:A:N6	59:1G:1860:HOH:O	2.44	0.49
1:1G:1128:C:H5'	9:82:66:ARG:NH2	2.26	0.49
1:1G:1137:C:O2	1:1G:1138:G:N2	2.44	0.49
3:22:149:ALA:HA	3:22:201:TYR:O	2.12	0.49
4:32:13:ARG:HB3	4:32:38:TYR:O	2.11	0.49
7:62:146:GLU:HA	11:2A:59:TYR:HD2	1.77	0.49
10:1A:99:LYS:HD3	10:1A:100:THR:H	1.77	0.49
12:3A:32:PHE:HB3	12:3A:84:LEU:HD11	1.94	0.49
22:1L:9:A:O2'	22:1L:45:G:N2	2.45	0.49
26:14:698:C:O2'	26:14:734:A:N6	2.45	0.49
26:14:2131:G:H5''	26:14:2133:G:C1'	2.42	0.49
26:14:2359:C:H2'	26:14:2360:A:O4'	2.12	0.49
28:19:39:LYS:O	28:19:40:THR:HG23	2.11	0.49
33:69:125:GLU:OE2	33:69:141:LYS:HB2	2.12	0.49
36:35:97:PRO:HG3	36:35:112:LEU:HD12	1.93	0.49
1:13:247:G:OP2	17:8I:100:LYS:N	2.37	0.49
1:13:255:G:P	17:8I:69:LYS:HZ3	2.34	0.49
1:13:474:G:H2'	1:13:475:G:H8	1.75	0.49
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.94	0.49
12:3I:86:ARG:HG3	12:3I:101:VAL:HG22	1.93	0.49
23:2K:25:U:O2	26:1H:1923:U:H5''	2.12	0.49
26:1H:960:A:C8	26:1H:962:G:C8	2.99	0.49
26:1H:1176:G:H3'	26:1H:1177:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:42:C:O2	31:41:93:THR:N	2.37	0.49
45:G8:94:LYS:HA	45:G8:94:LYS:HZ3	1.78	0.49
48:J8:55:GLY:HA3	48:J8:85:LEU:HD12	1.94	0.49
49:K8:15:LYS:H	49:K8:67:LYS:CE	2.24	0.49
1:1G:373:A:C2	1:1G:374:A:C8	3.00	0.49
1:1G:540:G:H2'	1:1G:541:G:O4'	2.12	0.49
1:1G:583:A:H2'	1:1G:584:G:O4'	2.12	0.49
1:1G:688:G:H2'	1:1G:689:C:H6	1.77	0.49
1:1G:730:G:C5	1:1G:731:G:H1'	2.48	0.49
1:1G:1015:A:H2'	1:1G:1016:A:O4'	2.12	0.49
2:12:17:PHE:HB2	2:12:44:LEU:HD23	1.94	0.49
7:62:106:GLN:O	7:62:110:GLN:HG2	2.11	0.49
7:62:116:ALA:O	7:62:120:ILE:HG12	2.12	0.49
20:BA:49:ALA:O	20:BA:100:ILE:HG21	2.12	0.49
26:14:6:A:H62	34:15:131:GLN:N	2.09	0.49
26:14:184:C:H2'	26:14:185:U:C6	2.47	0.49
26:14:1628:G:H2'	26:14:1629:U:C6	2.47	0.49
26:14:1676:A:OP2	26:14:1676:A:H8	1.96	0.49
26:14:2010:G:H5''	43:A5:42:ARG:HB2	1.94	0.49
27:1J:83:G:H4'	50:H5:52:HIS:ND1	2.27	0.49
1:13:155:C:H2'	1:13:156:G:O4'	2.12	0.49
1:13:266:G:H5''	1:13:267:C:H5	1.76	0.49
1:13:345:C:H4'	1:13:346:G:C5	2.47	0.49
1:13:1468:A:H8	1:13:1468:A:O5'	1.95	0.49
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.94	0.49
9:8E:47:LEU:HB2	9:8E:50:LEU:HG	1.93	0.49
26:1H:654(B):C:H2'	26:1H:654(C):G:O4'	2.12	0.49
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.47	0.49
26:1H:1442:G:C2	26:1H:1550:C:O2	2.65	0.49
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.76	0.49
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.12	0.49
31:41:98:ARG:O	31:41:101:ILE:HD13	2.12	0.49
32:51:157:TYR:O	32:51:158:HIS:CG	2.64	0.49
45:G8:102:CYS:SG	45:G8:103:GLY:N	2.85	0.49
1:1G:1307:U:H2'	1:1G:1308:U:C6	2.47	0.49
3:22:43:LEU:O	3:22:47:LEU:HB2	2.12	0.49
6:52:8:ILE:HD12	6:52:26:ILE:HD13	1.94	0.49
11:2A:109:VAL:HG13	18:9A:86:VAL:HG22	1.94	0.49
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.42	0.49
22:1L:65:C:H41	22:1L:67:A:N6	2.10	0.49
26:14:71:A:H5'	26:14:71:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2611:U:H3'	26:14:2611:U:OP2	2.12	0.49
37:45:2:LEU:O	37:45:70:PRO:HG2	2.12	0.49
39:65:18:ILE:C	39:65:20:ARG:H	2.16	0.49
41:85:17:ILE:HG23	41:85:39:LEU:HD12	1.93	0.49
44:B5:50:LYS:O	44:B5:51:VAL:C	2.51	0.49
49:G5:15:LYS:H	49:G5:67:LYS:HZ1	1.60	0.49
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.40	0.49
1:13:1033:G:H2'	1:13:1034:G:H5'	1.95	0.49
1:13:1220:G:O3'	19:AI:36:ARG:HD3	2.12	0.49
1:13:1274:G:H2'	1:13:1275:A:H8	1.77	0.49
4:3E:128:VAL:HB	4:3E:133:VAL:HG21	1.95	0.49
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.93	0.49
17:8I:41:LYS:NZ	17:8I:88:TYR:OH	2.28	0.49
18:9I:74:ARG:HG3	18:9I:79:LEU:HB2	1.95	0.49
26:1H:699:A:H2'	26:1H:700:G:O4'	2.13	0.49
27:16:14:U:O2	27:16:107:U:H4'	2.12	0.49
31:41:82:LEU:HD21	31:41:88:ILE:HG21	1.93	0.49
46:H8:77:ASP:OD1	46:H8:80:ARG:HD2	2.12	0.49
54:Q8:26:LYS:HE3	54:Q8:48:PHE:CG	2.47	0.49
1:1G:114:U:H2'	1:1G:115:G:C8	2.47	0.49
1:1G:532:A:N6	1:1G:1206:G:O2'	2.45	0.49
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.44	0.49
26:14:30:G:O6	59:14:3561:HOH:O	2.19	0.49
26:14:308:G:H5''	26:14:309:G:OP2	2.13	0.49
26:14:361:G:H2'	26:14:362:U:O2	2.12	0.49
26:14:1115:G:H2'	26:14:1116:C:C6	2.47	0.49
26:14:1331:A:O2'	26:14:1332:G:H8	1.94	0.49
26:14:2711:A:P	59:14:3539:HOH:O	2.71	0.49
32:59:86:GLU:OE1	32:59:86:GLU:N	2.45	0.49
36:35:111:ARG:HG2	36:35:128:HIS:CD2	2.47	0.49
39:65:34:HIS:CE1	39:65:54:LEU:HD12	2.47	0.49
46:D5:105:VAL:HG13	46:D5:106:GLY:H	1.78	0.49
7:6E:95:ARG:NH2	7:6E:99:LEU:HD11	2.27	0.49
7:6E:143:ARG:NH1	24:3K:42:U:H5'	2.27	0.49
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.12	0.49
26:1H:125:G:H5'	26:1H:125:G:C8	2.47	0.49
26:1H:654(A):A:H61	26:1H:654(T):A:H61	1.60	0.49
26:1H:847:U:C5	26:1H:933:A:N1	2.81	0.49
26:1H:910:A:H62	37:88:12:GLN:HA	1.77	0.49
26:1H:1359:A:N1	26:1H:1372:U:C4	2.80	0.49
32:51:94:TYR:HA	32:51:106:THR:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:E8:35:ILE:HG23	52:N8:28:PRO:HD2	1.93	0.49
46:H8:108:PRO:O	46:H8:144:LEU:HB2	2.11	0.49
26:14:492:A:H2'	26:14:493:G:O4'	2.13	0.49
26:14:495:G:N3	43:A5:61:ASN:ND2	2.59	0.49
26:14:1357:U:H2'	26:14:1358:G:O4'	2.13	0.49
27:1J:21:G:H1	27:1J:62:C:H42	1.59	0.49
46:D5:54:HIS:HB3	46:D5:101:PRO:HD3	1.93	0.49
1:13:690:G:H2'	1:13:691:G:O4'	2.12	0.49
1:13:1064:G:H1'	1:13:1190:G:H21	1.77	0.49
2:1E:16:HIS:CD2	2:1E:214:ILE:HD11	2.47	0.49
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.94	0.49
26:1H:198:C:H5'	26:1H:2244:U:OP1	2.13	0.49
26:1H:1050:A:N7	26:1H:2751:G:C2	2.80	0.49
26:1H:2567:G:H2'	26:1H:2568:C:C6	2.47	0.49
36:78:83:VAL:O	36:78:114:ILE:HA	2.13	0.49
40:B8:74:ARG:HD3	40:B8:76:PHE:CZ	2.48	0.49
46:H8:120:ILE:HG21	46:H8:170:THR:HB	1.93	0.49
47:I8:63:VAL:HG23	47:I8:64:ASP:O	2.12	0.49
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.95	0.49
1:1G:57:G:C6	1:1G:58:C:C4	3.00	0.49
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.94	0.49
10:1A:61:GLU:OE2	14:5A:45:ARG:NH1	2.45	0.49
26:14:259:G:O2'	26:14:621:A:O2'	2.22	0.49
26:14:581:C:H2'	26:14:582:G:C8	2.45	0.49
26:14:581:C:H42	26:14:1259:G:H1	1.60	0.49
26:14:1048:A:H5'	26:14:1108:U:O4	2.13	0.49
26:14:1420:U:O2'	26:14:1421:G:OP1	2.29	0.49
26:14:2408:U:H2'	26:14:2409:G:C8	2.48	0.49
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.47	0.49
27:1J:65:C:N4	27:1J:108:C:C2	2.81	0.49
29:29:6:GLY:O	29:29:195:LEU:HD12	2.12	0.49
33:69:133:HIS:CG	33:69:134:PRO:HD3	2.48	0.49
35:25:4:PRO:O	35:25:5:GLN:HB2	2.12	0.49
36:35:78:PRO:HA	36:35:110:TYR:HD2	1.77	0.49
41:85:27:LEU:HB3	41:85:31:SER:HB3	1.95	0.49
42:95:29:PRO:HA	42:95:61:VAL:HG11	1.93	0.49
43:A5:14:PRO:HG2	43:A5:78:GLU:HB2	1.94	0.49
50:H5:7:LYS:HE2	50:H5:32:GLN:O	2.12	0.49
1:13:1167:A:H8	1:13:1167:A:OP1	1.94	0.49
1:13:1223:C:OP1	19:AI:78:ARG:NH1	2.45	0.49
11:2I:60:ALA:HA	11:2I:63:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:69:GLU:HG3	31:4I:118:ARG:NH2	2.28	0.49
13:4I:107:ALA:HB3	13:4I:111:LYS:HD3	1.95	0.49
26:1H:527:C:N4	26:1H:2777:G:O2'	2.44	0.49
26:1H:863:A:H2'	26:1H:864:G:C8	2.47	0.49
26:1H:1077:A:H5'	26:1H:1078:U:H5''	1.93	0.49
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.47	0.49
36:78:49:ARG:HG3	36:78:49:ARG:HH11	1.77	0.49
43:E8:57:ASN:O	43:E8:62:HIS:HD2	1.96	0.49
43:E8:79:GLY:HA3	43:E8:100:THR:HG22	1.95	0.49
46:H8:117:LEU:HD12	46:H8:118:GLN:H	1.77	0.49
54:Q8:29:LYS:HG3	54:Q8:44:LYS:HG2	1.93	0.49
1:1G:1326:C:H5''	21:1B:12:LYS:HZ3	1.78	0.49
1:1G:1443:G:N2	40:75:119:LYS:HB2	2.28	0.49
4:32:119:GLN:HG3	4:32:123:HIS:CE1	2.48	0.49
13:4A:92:HIS:HE2	13:4A:98:VAL:HG11	1.77	0.49
26:14:1170:G:C2'	26:14:1171:G:H5'	2.42	0.49
26:14:1247:A:OP1	30:39:95:ARG:NH2	2.43	0.49
31:49:104:GLU:C	31:49:106:LEU:H	2.16	0.49
33:69:72:LEU:HD21	33:69:107:VAL:HG11	1.95	0.49
40:75:51:ARG:HG3	40:75:98:LYS:HD2	1.94	0.49
41:85:49:HIS:HA	41:85:52:ARG:HG2	1.93	0.49
42:95:98:GLU:OE1	42:95:100:ARG:NH2	2.45	0.49
47:E5:53:MET:HG3	47:E5:59:LEU:CD2	2.42	0.49
48:F5:49:VAL:HG21	48:F5:67:ILE:HD12	1.95	0.49
2:1E:131:PRO:HD2	2:1E:134:GLU:HB3	1.95	0.49
11:2I:18:ARG:HB2	11:2I:33:THR:OG1	2.12	0.49
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.13	0.49
20:BI:49:ALA:HB2	20:BI:92:LEU:HD22	1.94	0.49
26:1H:192:C:O2'	26:1H:802:A:N3	2.43	0.49
26:1H:1614:A:P	26:1H:1614:A:H8	2.35	0.49
26:1H:1639:U:C2'	26:1H:1640:C:H5''	2.42	0.49
26:1H:2483:C:O2	37:88:124:LYS:HE3	2.13	0.49
26:1H:2689:U:H5''	26:1H:2713:A:C2	2.48	0.49
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.13	0.49
29:21:2:LYS:HD3	29:21:95:ILE:HG13	1.94	0.49
40:B8:12:SER:CB	40:B8:15:VAL:H	2.25	0.49
46:H8:76:LEU:HA	46:H8:83:PRO:HA	1.95	0.49
1:1G:397:A:H5'	1:1G:398:C:OP1	2.12	0.49
1:1G:1134:G:N1	1:1G:1135:U:H1'	2.28	0.49
1:1G:1148:U:O3'	9:82:14:VAL:HG11	2.12	0.49
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.94	0.49
10:1A:6:ILE:HG22	10:1A:98:ILE:HG23	1.94	0.49
26:14:606:U:H4'	26:14:658:C:H4'	1.95	0.49
26:14:813:U:H2'	26:14:814:C:C6	2.48	0.49
26:14:852:G:H2'	26:14:853:G:C8	2.47	0.49
26:14:1275:A:N1	26:14:1295:C:O2'	2.39	0.49
26:14:2275:C:O2	37:45:85:LYS:HD3	2.11	0.49
26:14:2520:C:H41	26:14:2542:A:H62	1.61	0.49
32:59:62:LYS:O	32:59:65:HIS:HB3	2.13	0.49
34:15:56:ASN:H	34:15:125:GLY:CA	2.19	0.49
40:75:10:VAL:C	40:75:12:SER:H	2.15	0.49
46:D5:98:MET:SD	46:D5:100:VAL:HG23	2.53	0.49
1:13:129(A):G:H4'	1:13:130:A:H5''	1.93	0.49
1:13:286:G:N7	59:13:1960:HOH:O	2.35	0.49
1:13:324:G:N1	1:13:327:A:OP2	2.43	0.49
1:13:484:G:HO2'	1:13:485:G:P	2.36	0.49
1:13:692:U:O4	11:2I:53:SER:HB2	2.12	0.49
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	1.95	0.49
22:1K:43:G:H2'	22:1K:44:A:C8	2.48	0.49
24:3K:42:U:H2'	24:3K:43:G:C8	2.48	0.49
26:1H:1100:C:C4	26:1H:1101:U:C4	3.01	0.49
26:1H:1614:A:H8	26:1H:1614:A:O5'	1.96	0.49
26:1H:2210:G:H5'	26:1H:2211:G:C8	2.48	0.49
26:1H:2562:U:H1'	35:68:23:ARG:HD3	1.95	0.49
36:78:13:ASN:O	36:78:15:ARG:N	2.45	0.49
47:I8:38:VAL:HG12	47:I8:40:GLN:HG2	1.94	0.49
49:K8:52:ASP:OD1	49:K8:52:ASP:N	2.40	0.49
1:1G:49:U:C2	1:1G:361:G:N2	2.81	0.49
26:14:71:A:C2	44:B5:31:HIS:NE2	2.77	0.49
26:14:323:G:O2'	26:14:1205:U:N3	2.35	0.49
26:14:916:G:C2'	26:14:917:A:H5''	2.42	0.49
26:14:1489:U:HO2'	26:14:1490:A:H8	1.60	0.49
26:14:2151:G:C2	26:14:2152:G:H1'	2.48	0.49
26:14:2158:A:H2'	26:14:2158:A:N3	2.27	0.49
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.43	0.49
29:29:5:LEU:HD13	29:29:49:LEU:HD12	1.95	0.49
31:49:54:GLU:HA	31:49:57:ALA:HB3	1.95	0.49
46:D5:111:VAL:HG21	46:D5:145:GLU:HB2	1.95	0.49
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.12	0.49
1:13:748:C:H6	1:13:748:C:O5'	1.96	0.49
1:13:1157:A:H8	1:13:1158:C:C4	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1174:G:H2'	1:13:1175:G:H8	1.77	0.49
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.46	0.49
19:AI:42:PRO:HD3	51:M8:63:TYR:OH	2.13	0.49
22:1K:18:G:H2'	22:1K:57:G:C2	2.47	0.49
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.95	0.49
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.48	0.49
26:1H:2591:C:P	28:11:239:ARG:HG3	2.53	0.49
26:1H:2820:A:O5'	38:98:4:LEU:HD23	2.13	0.49
33:61:8:PRO:HB3	33:61:14:ASP:HA	1.94	0.49
1:1G:115:G:H1'	1:1G:116:A:N7	2.28	0.49
1:1G:167:G:H2'	1:1G:168:G:H8	1.78	0.49
1:1G:1321:C:C4	1:1G:1322:C:N3	2.81	0.49
2:12:169:LYS:O	2:12:169:LYS:HD3	2.12	0.49
3:22:118:GLN:HG3	3:22:187:ALA:HB2	1.94	0.49
7:62:146:GLU:HG2	11:2A:50:TYR:CE1	2.48	0.49
10:1A:16:LEU:O	10:1A:20:ALA:N	2.45	0.49
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.48	0.49
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.78	0.49
26:14:26:G:OP1	43:A5:80:PRO:HB3	2.13	0.49
26:14:590:A:H2'	26:14:591:C:C6	2.48	0.49
26:14:667:U:O2	54:M5:2:PRO:HD2	2.13	0.49
26:14:1926:U:H2'	26:14:1928:A:OP2	2.13	0.49
33:69:133:HIS:CD2	33:69:134:PRO:HD3	2.48	0.49
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.95	0.49
38:55:97:VAL:HG12	38:55:114:VAL:HG13	1.95	0.49
1:13:1015:A:H2'	1:13:1016:A:C8	2.48	0.48
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.95	0.48
11:2I:95:ILE:HG13	11:2I:96:ARG:N	2.27	0.48
13:4I:3:ARG:HG2	13:4I:9:ILE:HG12	1.95	0.48
26:1H:1280:G:N2	26:1H:1291:C:C2	2.81	0.48
26:1H:1864:U:H2'	26:1H:1869:G:H5''	1.93	0.48
29:21:8:LYS:HA	29:21:26:ILE:HG22	1.94	0.48
29:21:50:GLY:CA	29:21:75:VAL:HG11	2.43	0.48
32:51:9:ILE:HG13	32:51:9:ILE:O	2.12	0.48
51:M8:65:ASP:OD1	51:M8:65:ASP:N	2.46	0.48
1:1G:1022:G:C6	1:1G:1023:G:C8	3.01	0.48
4:32:126:ILE:HG22	4:32:127:THR:H	1.78	0.48
19:AA:18:LYS:HA	19:AA:21:GLU:CG	2.43	0.48
23:2L:6:G:H2'	23:2L:7:G:H5''	1.95	0.48
26:14:618(A):C:OP2	30:39:103:LYS:HE2	2.13	0.48
26:14:848:G:H2'	26:14:849:A:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1022:G:C6	26:14:1140:C:C4	3.00	0.48
26:14:1593:G:H2'	26:14:1594:G:C8	2.48	0.48
26:14:2689:U:H4'	26:14:2690:C:H5'	1.95	0.48
26:14:2695:C:H2'	26:14:2696:U:H6	1.77	0.48
32:59:106:THR:HG22	32:59:112:PRO:HB3	1.95	0.48
34:15:95:PRO:O	34:15:98:VAL:HG13	2.12	0.48
37:45:12:GLN:HG2	37:45:73:PRO:HD2	1.94	0.48
43:A5:27:LYS:O	43:A5:71:VAL:HG23	2.13	0.48
45:C5:20:TYR:CE1	45:C5:42:VAL:HB	2.47	0.48
1:13:262:A:H2'	1:13:263:A:H8	1.73	0.48
1:13:813:U:OP2	1:13:816:A:N6	2.43	0.48
1:13:838:G:H1	1:13:848:C:N4	2.10	0.48
26:1H:602:G:N2	26:1H:655:A:C8	2.69	0.48
26:1H:1040:C:H42	26:1H:1115:G:H1	1.60	0.48
26:1H:1067:A:N3	26:1H:1067:A:H2'	2.28	0.48
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.31	0.48
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.78	0.48
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.47	0.48
27:16:13:A:O2'	27:16:14:U:H3'	2.13	0.48
27:16:74:U:H2'	27:16:75:G:O4'	2.13	0.48
34:58:96:GLU:O	34:58:97:ARG:HB2	2.12	0.48
37:88:32:TYR:CE2	37:88:133:ARG:HG3	2.49	0.48
39:A8:27:SER:HA	39:A8:88:ASP:CB	2.43	0.48
40:B8:99:LEU:O	40:B8:102:ILE:HG12	2.12	0.48
1:1G:446:G:H2'	1:1G:447:G:O4'	2.13	0.48
1:1G:1095:U:H2'	1:1G:1096:C:C6	2.48	0.48
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.13	0.48
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.93	0.48
10:1A:28:ARG:HH21	10:1A:34:VAL:HB	1.78	0.48
13:4A:59:TYR:O	13:4A:63:THR:OG1	2.29	0.48
19:AA:16:LEU:O	19:AA:19:VAL:HG12	2.14	0.48
26:14:13:A:N1	26:14:525:U:H2'	2.28	0.48
26:14:573:G:O2'	26:14:574:C:H3'	2.13	0.48
26:14:733:G:C8	59:14:3574:HOH:O	2.65	0.48
35:25:7:TYR:HE1	35:25:20:MET:HE3	1.78	0.48
39:65:28:VAL:HG11	39:65:98:VAL:HG13	1.95	0.48
40:75:91:ARG:HD2	40:75:124:ASP:OD2	2.13	0.48
1:13:128:G:O3'	17:8I:3:LYS:NZ	2.46	0.48
1:13:484:G:O2'	1:13:485:G:OP2	2.25	0.48
1:13:1363:A:H1'	1:13:1365:G:N7	2.28	0.48
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.28	0.48
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.23	0.48
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.41	0.48
24:3K:43:G:H2'	24:3K:44:A:C8	2.47	0.48
26:1H:654(A):A:N1	26:1H:654(T):A:N1	2.60	0.48
26:1H:754:C:H2'	26:1H:755:C:C6	2.49	0.48
26:1H:810:U:O5'	26:1H:810:U:H6	1.95	0.48
26:1H:1580:A:H8	26:1H:1580:A:OP2	1.96	0.48
26:1H:1756:G:OP2	59:1H:3834:HOH:O	2.20	0.48
31:4I:111:LEU:HD23	31:4I:114:ILE:HD12	1.95	0.48
33:6I:110:ASP:OD2	33:6I:130:TYR:HE1	1.95	0.48
37:88:43:THR:HG22	37:88:94:VAL:HG12	1.95	0.48
38:98:26:LYS:HE3	38:98:70:LEU:O	2.13	0.48
41:C8:8:VAL:HG23	41:C8:11:ARG:NH2	2.28	0.48
42:D8:10:LYS:NZ	42:D8:23:GLU:OE1	2.46	0.48
43:E8:37:ARG:HD3	43:E8:38:TYR:CE2	2.48	0.48
45:G8:49:VAL:HG11	45:G8:61:ILE:HG13	1.94	0.48
1:1G:980:C:H3'	1:1G:981:U:C6	2.49	0.48
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.45	0.48
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.47	0.48
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.94	0.48
55:3L:67:A:H2'	55:3L:68:U:C6	2.48	0.48
26:14:375:C:H2'	26:14:376:C:C6	2.48	0.48
26:14:2186:G:C2	26:14:2187:G:N7	2.82	0.48
26:14:2475:C:H3'	26:14:2476:A:H5''	1.95	0.48
26:14:2773:C:OP1	29:29:166:THR:OG1	2.25	0.48
26:14:2785:C:H2'	26:14:2786:U:O4'	2.13	0.48
32:59:120:GLY:O	32:59:121:ILE:HG12	2.13	0.48
1:13:5:U:C5	4:3E:85:LYS:HB3	2.48	0.48
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.13	0.48
23:2K:62:C:H2'	23:2K:63:C:C6	2.45	0.48
26:1H:910:A:C5	37:88:13:GLN:HG3	2.48	0.48
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.80	0.48
26:1H:2062:A:N6	26:1H:2503:A:H62	2.12	0.48
28:11:70:TRP:CD1	28:11:70:TRP:C	2.86	0.48
37:88:67:ARG:HD2	37:88:105:GLU:OE1	2.13	0.48
48:J8:51:VAL:HG21	48:J8:74:VAL:HG21	1.94	0.48
1:1G:984:C:H2'	1:1G:985:C:C6	2.48	0.48
1:1G:1205:U:O3'	3:22:190:ARG:NH1	2.46	0.48
1:1G:1274:G:N2	1:1G:1275:A:H62	2.10	0.48
2:12:95:GLN:HB3	2:12:148:TYR:HD1	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:51:VAL:HB	5:42:52:PRO:HD3	1.96	0.48
26:14:2889:C:H3'	26:14:2891:G:H8	1.75	0.48
32:59:41:MET:N	32:59:41:MET:SD	2.86	0.48
37:45:27:VAL:HG22	37:45:136:ALA:C	2.34	0.48
40:75:50:ILE:HD11	40:75:102:ILE:CD1	2.43	0.48
1:13:413:G:N2	1:13:428:G:H1'	2.29	0.48
1:13:652:U:O2'	1:13:653:A:O5'	2.27	0.48
1:13:953:G:H5'	1:13:965:A:H61	1.79	0.48
5:4E:72:GLN:O	5:4E:75:THR:HG22	2.14	0.48
9:8E:9:ARG:HB3	9:8E:14:VAL:HG13	1.94	0.48
9:8E:27:THR:HB	9:8E:62:TYR:HD1	1.78	0.48
11:2I:106:LYS:N	11:2I:106:LYS:HD3	2.28	0.48
26:1H:274:G:H21	26:1H:276:A:H61	1.62	0.48
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.48	0.48
26:1H:2170:A:OP2	26:1H:2170:A:H3'	2.13	0.48
26:1H:2552:U:H2'	26:1H:2554:U:H5''	1.96	0.48
28:11:3:VAL:HB	28:11:17:THR:HG23	1.95	0.48
31:41:125:PHE:HB3	31:41:166:ASP:OD2	2.13	0.48
32:51:71:LEU:HD12	32:51:71:LEU:HA	1.76	0.48
35:68:64:ARG:HB2	35:68:79:PHE:CD1	2.49	0.48
42:D8:21:ARG:HG2	42:D8:91:TYR:CD1	2.48	0.48
1:1G:79:G:H1	1:1G:90:C:N4	2.10	0.48
3:22:106:VAL:O	3:22:109:PRO:HD3	2.13	0.48
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.94	0.48
19:AA:3:ARG:HH21	19:AA:10:PHE:C	2.17	0.48
26:14:276:A:H2'	26:14:277:C:C4	2.47	0.48
26:14:468:G:N7	53:L5:39:ARG:NH2	2.57	0.48
26:14:910:A:C5	37:45:13:GLN:HG3	2.48	0.48
26:14:994:C:OP2	41:85:54:LYS:NZ	2.26	0.48
26:14:1262:A:N3	52:J5:10:LYS:HE3	2.28	0.48
26:14:1270:C:H5''	26:14:1271:G:O5'	2.13	0.48
26:14:1689:A:N6	26:14:1698:A:H2	1.98	0.48
26:14:2104:G:H2'	26:14:2105:C:C6	2.48	0.48
26:14:2513:G:N2	29:29:143:ASN:HD21	2.11	0.48
27:1J:73:A:C4	27:1J:104:A:C2	3.02	0.48
30:39:24:LEU:HD11	30:39:119:ARG:HB3	1.95	0.48
49:G5:50:ILE:HD12	49:G5:51:ARG:H	1.77	0.48
54:M5:14:VAL:HG11	54:M5:58:ILE:HD11	1.95	0.48
1:13:610:G:OP2	59:13:1937:HOH:O	2.20	0.48
1:13:613:C:H42	1:13:627:G:H1	1.61	0.48
1:13:920:U:H2'	1:13:921:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1106:G:H5''	3:2E:172:ARG:HG3	1.96	0.48
7:6E:62:PHE:HA	7:6E:124:LEU:CD2	2.42	0.48
26:1H:492:A:H2'	26:1H:493:G:O4'	2.13	0.48
26:1H:1188:U:C4'	42:D8:79:VAL:HG22	2.44	0.48
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.77	0.48
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.48	0.48
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.29	0.48
40:B8:24:PRO:HD3	40:B8:52:ILE:HG13	1.94	0.48
43:E8:88:ARG:NH1	43:E8:94:ASP:OD2	2.46	0.48
1:1G:162:A:O5'	1:1G:162:A:H8	1.96	0.48
1:1G:186(C):G:H2'	1:1G:186(D):C:C6	2.48	0.48
1:1G:980:C:H3'	1:1G:981:U:H6	1.78	0.48
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.76	0.48
1:1G:1386:G:C2	1:1G:1387:G:C8	3.00	0.48
5:42:61:TYR:HA	5:42:64:ARG:HG3	1.95	0.48
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.96	0.48
13:4A:81:LEU:CD2	13:4A:88:ARG:HH21	2.26	0.48
26:14:1532:C:H42	26:14:1539:G:H1	1.61	0.48
26:14:1899:G:N2	26:14:1902:C:N4	2.51	0.48
26:14:2131:G:H5''	26:14:2133:G:O4'	2.14	0.48
26:14:2151:G:H2'	26:14:2152:G:O4'	2.13	0.48
26:14:2262:U:OP2	47:E5:19:LYS:HE2	2.12	0.48
27:1J:112:G:H2'	27:1J:113:C:H6	1.77	0.48
29:29:51:PHE:CG	29:29:52:LEU:N	2.80	0.48
30:39:192:LEU:HD22	30:39:194:MET:HE2	1.96	0.48
38:55:55:ALA:HB2	38:55:79:LEU:HD13	1.96	0.48
40:75:4:GLY:N	40:75:5:ALA:C	2.67	0.48
1:13:370:C:C2	1:13:392:G:N2	2.82	0.48
1:13:919:A:O2'	1:13:920:U:H5'	2.14	0.48
2:1E:213:LEU:H	2:1E:213:LEU:HG	1.47	0.48
3:2E:78:GLY:CA	3:2E:83:ARG:HB3	2.42	0.48
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.13	0.48
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.13	0.48
23:2K:24:C:H2'	23:2K:25:U:H6	1.79	0.48
26:1H:306:U:H2'	26:1H:307:G:O4'	2.13	0.48
26:1H:831:G:N2	36:78:53:GLY:O	2.46	0.48
26:1H:1569:A:H2'	26:1H:1570:A:O4'	2.14	0.48
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.13	0.48
26:1H:2254:C:H3'	59:1H:3815:HOH:O	2.13	0.48
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.48	0.48
33:61:79:ILE:HB	33:61:142:VAL:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:186(D):C:H2'	1:1G:186(E):C:H6	1.79	0.48
1:1G:448:A:P	1:1G:485:G:H22	2.30	0.48
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.28	0.48
3:22:87:LEU:HB2	3:22:88:ARG:NH2	2.28	0.48
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.95	0.48
5:42:13:ILE:HG13	5:42:13:ILE:O	2.14	0.48
7:62:47:CYS:HB3	7:62:58:PRO:HG2	1.96	0.48
23:2L:60:A:H2'	23:2L:61:U:H5'	1.96	0.48
26:14:784:A:H5''	59:14:3517:HOH:O	2.12	0.48
26:14:1405:U:H2'	26:14:1406:U:C6	2.48	0.48
26:14:2392:A:H2	26:14:2424:C:N4	2.09	0.48
26:14:2591:C:OP1	28:19:239:ARG:HG2	2.14	0.48
26:14:2734:A:C8	26:14:2735:G:C8	3.01	0.48
26:14:2793:G:N2	26:14:2794:C:H5	2.11	0.48
29:29:68:ALA:C	29:29:70:ALA:N	2.66	0.48
30:39:123:LEU:HA	30:39:192:LEU:O	2.14	0.48
32:59:19:VAL:HG13	32:59:43:VAL:HG23	1.95	0.48
40:75:7:ILE:HG13	40:75:8:LYS:N	2.28	0.48
41:85:70:ARG:HG3	41:85:75:ASN:HA	1.95	0.48
1:13:17:U:H2'	1:13:18:C:C6	2.49	0.48
1:13:113:G:H2'	1:13:114:U:C6	2.49	0.48
8:7E:114:THR:HG22	8:7E:131:GLY:HA3	1.96	0.48
22:1K:15:G:N2	22:1K:48:C:H41	2.12	0.48
26:1H:192:C:O2	59:1H:3828:HOH:O	2.19	0.48
26:1H:274:G:H8	26:1H:274:G:H3'	1.79	0.48
26:1H:449:A:N7	59:1H:3899:HOH:O	2.35	0.48
26:1H:639:U:H2'	26:1H:640:C:C6	2.48	0.48
26:1H:654:A:H3'	26:1H:654:A:N3	2.28	0.48
32:51:124:GLU:HB2	32:51:132:ARG:HB2	1.95	0.48
41:C8:79:PHE:HE2	41:C8:106:PHE:CZ	2.32	0.48
1:1G:1162:C:H42	1:1G:1174:G:H1	1.61	0.48
2:12:104:ASN:OD1	2:12:107:THR:OG1	2.31	0.48
2:12:158:LEU:H	2:12:158:LEU:HD12	1.78	0.48
13:4A:92:HIS:CD2	13:4A:98:VAL:HG11	2.49	0.48
20:BA:14:LYS:O	20:BA:18:GLN:HG3	2.13	0.48
26:14:34:C:O2'	26:14:35:G:H5'	2.14	0.48
26:14:603:A:H8	26:14:604:G:H1'	1.77	0.48
26:14:717:G:H2'	26:14:718:A:O4'	2.13	0.48
26:14:1652:A:OP1	38:55:8:ARG:NH1	2.47	0.48
26:14:2121:G:H1	26:14:2177:C:H42	1.62	0.48
26:14:2562:U:H1'	35:25:23:ARG:NE	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2772:C:H2'	26:14:2773:C:C6	2.49	0.48
28:19:27:THR:HG22	28:19:29:PRO:O	2.14	0.48
31:49:73:ALA:HB3	31:49:84:LYS:HA	1.95	0.48
1:13:57:G:C5	1:13:58:C:C4	3.01	0.48
1:13:631:G:O2'	1:13:632:A:O5'	2.32	0.48
1:13:722:A:O3'	1:13:723:U:H6	1.97	0.48
1:13:983:A:O5'	14:5I:3:ARG:NH2	2.47	0.48
1:13:1262:C:H2'	1:13:1263:C:C6	2.49	0.48
2:1E:19:HIS:HB3	2:1E:20:GLU:HG2	1.96	0.48
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.14	0.48
12:3I:20:LYS:HE2	12:3I:20:LYS:HB3	1.79	0.48
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.48	0.48
26:1H:1451:C:H2'	26:1H:1458:C:H41	1.79	0.48
26:1H:2287:A:H2	26:1H:2346:A:C2	2.32	0.48
27:16:80:U:H2'	27:16:81:G:H21	1.78	0.48
30:31:34:TRP:CH2	36:78:8:PRO:HB3	2.49	0.48
31:41:138:GLN:OE1	31:41:153:ARG:N	2.46	0.48
33:61:16:GLY:O	33:61:47:LEU:HD11	2.13	0.48
33:61:49:ALA:O	33:61:50:ARG:HD3	2.14	0.48
48:J8:53:VAL:O	48:J8:56:GLN:N	2.47	0.48
3:22:6:HIS:HB3	14:5A:49:HIS:CD2	2.49	0.48
3:22:88:ARG:HA	3:22:91:LEU:HD13	1.96	0.48
4:32:107:ARG:HH12	4:32:194:LEU:HD22	1.77	0.48
5:42:110:LEU:O	5:42:115:VAL:HB	2.14	0.48
7:62:50:ILE:HB	7:62:58:PRO:HG3	1.95	0.48
26:14:860:U:O2'	26:14:861:A:H5'	2.13	0.48
26:14:1018:C:H2'	26:14:1019:U:H6	1.79	0.48
26:14:1752:C:P	40:75:115:ARG:HH22	2.37	0.48
26:14:2198:A:OP1	33:69:33:ARG:NH2	2.38	0.48
29:29:105:THR:CG2	29:29:164:ARG:HE	2.26	0.48
29:29:167:VAL:HG11	29:29:189:PRO:HD3	1.96	0.48
30:39:63:LYS:NZ	30:39:67:GLN:HB2	2.28	0.48
35:25:22:ILE:HG22	35:25:40:VAL:HB	1.95	0.48
40:75:2:ASN:C	40:75:4:GLY:HA3	2.34	0.48
40:75:91:ARG:HG3	40:75:121:ILE:HG12	1.95	0.48
45:C5:17:SER:HB2	45:C5:71:LYS:NZ	2.28	0.48
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.14	0.48
1:13:261:U:H2'	1:13:263:A:OP2	2.13	0.48
1:13:271:C:H2'	1:13:272:C:C6	2.47	0.48
1:13:977:A:H1'	1:13:982:U:O4	2.14	0.48
1:13:1442:G:H2'	1:13:1443:G:H5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:6:GLU:H	15:6I:6:GLU:HG2	1.43	0.48
22:1K:72:C:C4	22:1K:73:A:C2	3.01	0.48
26:1H:50:U:H3'	26:1H:51:G:H5'	1.94	0.48
26:1H:150:C:H2'	26:1H:151:C:C6	2.48	0.48
26:1H:247:G:H4'	26:1H:386:G:C5	2.49	0.48
26:1H:270(K):C:H1'	26:1H:270(N):G:H22	1.79	0.48
26:1H:863:A:H2'	26:1H:864:G:H8	1.79	0.48
26:1H:1187:G:H5''	42:D8:81:TYR:CE1	2.48	0.48
26:1H:1433:U:O2	26:1H:1561:G:C2	2.67	0.48
26:1H:1857:G:C6	26:1H:1858:G:C6	3.02	0.48
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.14	0.48
29:21:9:VAL:HG13	40:B8:3:ARG:CB	2.44	0.48
29:21:14:ILE:HB	29:21:21:VAL:HG13	1.96	0.48
32:51:9:ILE:HD13	32:51:73:ALA:HA	1.95	0.48
32:51:164:TYR:HB2	32:51:167:GLU:HB2	1.95	0.48
37:88:138:ASP:HA	37:88:139:GLU:HA	1.63	0.48
41:C8:79:PHE:CE1	41:C8:83:LEU:HD21	2.49	0.48
1:1G:1003:G:H21	1:1G:1005:A:P	2.36	0.48
5:42:81:GLU:HA	5:42:89:ILE:O	2.14	0.48
10:1A:28:ARG:NH2	10:1A:34:VAL:HB	2.29	0.48
26:14:249:C:H4'	26:14:250:G:O5'	2.14	0.48
26:14:1007:C:OP1	34:15:35:ARG:NH1	2.47	0.48
26:14:1170:G:H2'	26:14:1171:G:H5'	1.96	0.48
26:14:1342:A:H2	26:14:1602:U:N3	2.08	0.48
26:14:1688:U:O2	26:14:1700:A:H5'	2.14	0.48
26:14:1728:G:N1	26:14:1730:U:OP2	2.47	0.48
26:14:2320:A:H1'	26:14:2321:G:C6	2.48	0.48
30:39:65:TRP:CZ3	30:39:72:ARG:HB3	2.49	0.48
1:13:1376:U:H2'	1:13:1377:A:C8	2.48	0.47
20:BI:54:LYS:HA	20:BI:57:ARG:NH2	2.29	0.47
24:3K:8:U:O2'	24:3K:13:C:H5	1.96	0.47
26:1H:1101:U:H2'	26:1H:1102:C:H6	1.77	0.47
27:16:44:G:H1'	27:16:47:C:N4	2.29	0.47
29:21:47:VAL:HB	29:21:49:LEU:HD13	1.95	0.47
31:41:96:ARG:HB2	31:41:96:ARG:HH11	1.78	0.47
33:61:11:ASN:O	33:61:12:LEU:HB2	2.13	0.47
36:78:133:SER:O	36:78:137:LYS:HG3	2.13	0.47
1:1G:32:A:C2	1:1G:33:A:C4	3.02	0.47
1:1G:32:A:H2'	1:1G:33:A:C8	2.49	0.47
1:1G:179:A:OP2	59:1G:1823:HOH:O	2.19	0.47
1:1G:584:G:H5'	17:8A:91:ARG:NH2	2.25	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:57:ARG:HH22	5:42:107:ARG:CZ	2.26	0.47
10:1A:48:THR:OG1	10:1A:62:HIS:HB3	2.13	0.47
12:3A:60:LEU:HB3	12:3A:62:SER:H	1.79	0.47
17:8A:23:VAL:O	17:8A:39:SER:HA	2.14	0.47
26:14:17:G:H4'	41:85:25:TRP:CH2	2.49	0.47
26:14:1678:G:N2	26:14:1989:G:N2	2.58	0.47
26:14:2062:A:HO2'	26:14:2063:C:P	2.36	0.47
28:19:133:LEU:HB3	28:19:173:VAL:HG11	1.96	0.47
29:29:24:THR:HG21	29:29:188:VAL:HG13	1.96	0.47
33:69:50:ARG:HA	33:69:53:ALA:HB3	1.96	0.47
1:13:4:U:O4	8:7E:105:ARG:HG3	2.14	0.47
1:13:883:C:C2'	1:13:884:U:H5'	2.44	0.47
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.96	0.47
24:3K:2:C:N4	24:3K:71:G:H1	2.09	0.47
26:1H:49:A:C8	26:1H:120:U:H5	2.31	0.47
26:1H:525:U:O5'	26:1H:525:U:H6	1.97	0.47
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.48	0.47
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.48	0.47
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.49	0.47
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.49	0.47
28:11:124:PRO:HG2	28:11:129:ASN:HD21	1.78	0.47
32:51:27:LYS:HA	32:51:32:GLU:HB3	1.95	0.47
34:58:19:GLU:HG3	34:58:59:LYS:HB3	1.96	0.47
45:G8:85:VAL:O	45:G8:86:ARG:HD2	2.14	0.47
1:1G:563:A:N6	59:1G:1864:HOH:O	2.47	0.47
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.29	0.47
1:1G:1243:C:OP1	21:1B:10:ARG:HG3	2.14	0.47
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.48	0.47
1:1G:1369:C:OP2	9:82:112:LYS:N	2.47	0.47
2:12:213:LEU:HG	2:12:214:ILE:HD13	1.96	0.47
5:42:80:ILE:HD13	8:72:104:ARG:NH2	2.29	0.47
11:2A:59:TYR:CE1	11:2A:63:LEU:HD21	2.49	0.47
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.78	0.47
22:1L:18:G:H2'	22:1L:57:G:C5	2.49	0.47
55:3L:48:C:O2	55:3L:59:A:H1'	2.14	0.47
26:14:863:A:H2'	26:14:864:G:C8	2.50	0.47
27:1J:59:A:H3'	27:1J:60:C:C6	2.50	0.47
28:19:70:TRP:CD1	28:19:70:TRP:C	2.87	0.47
32:59:37:VAL:HG22	32:59:38:SER:H	1.77	0.47
36:35:138:LEU:HD12	36:35:144:GLU:CG	2.42	0.47
37:45:98:LYS:HB3	37:45:99:PRO:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:173:U:C6	1:13:197:A:C2	3.03	0.47
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.14	0.47
1:13:1008:C:H5'	1:13:1009:G:OP2	2.14	0.47
1:13:1016:A:H2'	1:13:1017:G:O4'	2.14	0.47
1:13:1125:U:C4	1:13:1126:U:O4	2.68	0.47
1:13:1263:C:H2'	1:13:1264:C:C6	2.48	0.47
4:3E:174:LEU:HD23	4:3E:185:PHE:HA	1.95	0.47
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.18	0.47
26:1H:451:C:H5'	59:1H:3747:HOH:O	2.13	0.47
26:1H:775:G:C4	26:1H:794:G:C8	3.03	0.47
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.14	0.47
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.29	0.47
26:1H:1726:G:C6	26:1H:1727:U:C4	3.02	0.47
26:1H:2287:A:N6	26:1H:2344:U:N3	2.59	0.47
27:16:44:G:C2	27:16:48:A:C2	3.02	0.47
31:41:11:TYR:HA	31:41:15:VAL:HB	1.96	0.47
31:41:82:LEU:HD22	31:41:82:LEU:HA	1.73	0.47
40:B8:27:THR:HG23	40:B8:90:GLN:HB3	1.97	0.47
46:H8:5:LEU:HD23	46:H8:47:VAL:HG21	1.95	0.47
52:N8:36:CYS:SG	52:N8:37:LYS:N	2.87	0.47
1:1G:161:A:C6	1:1G:162:A:C6	3.02	0.47
2:12:223:ILE:HG23	2:12:224:GLN:NE2	2.29	0.47
10:1A:4:ILE:HG12	10:1A:100:THR:HG22	1.95	0.47
26:14:363:G:H2'	26:14:363(A):A:H8	1.79	0.47
26:14:813:U:C2	26:14:1195:G:N2	2.82	0.47
26:14:996:A:OP2	41:85:92:ARG:NH1	2.47	0.47
26:14:997:G:OP1	41:85:93:LYS:HB2	2.14	0.47
26:14:1999:C:H5''	26:14:2723:C:O2'	2.13	0.47
26:14:2185:C:H2'	26:14:2186:G:C8	2.49	0.47
31:49:16:ARG:O	31:49:20:ILE:HG13	2.14	0.47
31:49:124:SER:HB2	31:49:131:TYR:CE1	2.48	0.47
37:45:27:VAL:CB	37:45:28:ALA:HA	2.22	0.47
39:65:23:ARG:NH2	39:65:84:GLN:OE1	2.47	0.47
44:B5:23:GLU:H	44:B5:23:GLU:HG2	1.44	0.47
1:13:223:U:H2'	1:13:224:C:C6	2.47	0.47
1:13:1162:C:H2'	1:13:1163:C:C6	2.50	0.47
4:3E:167:GLY:HA2	28:19:135:PHE:CZ	2.49	0.47
8:7E:39:LEU:HB3	8:7E:45:ILE:CG1	2.44	0.47
19:AI:67:VAL:HG23	19:AI:68:GLY:H	1.79	0.47
22:1K:53:G:C2'	22:1K:54:5MU:H5''	2.45	0.47
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:287:C:H2'	26:1H:288:C:H6	1.79	0.47
26:1H:483:A:O4'	45:G8:48:ALA:HB1	2.14	0.47
26:1H:558:G:OP1	34:58:111:PRO:HD2	2.14	0.47
26:1H:844:C:H3'	26:1H:845:G:H8	1.79	0.47
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.50	0.47
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.14	0.47
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.49	0.47
26:1H:2615:U:C2	52:N8:7:PRO:HA	2.49	0.47
26:1H:2648:C:H2'	26:1H:2649:U:C6	2.49	0.47
30:31:191:ARG:HB3	30:31:191:ARG:HH11	1.79	0.47
37:88:5:ARG:CZ	37:88:5:ARG:HB2	2.44	0.47
43:E8:18:ARG:NH1	43:E8:76:VAL:O	2.48	0.47
44:F8:24:GLY:H	44:F8:82:GLN:HE22	1.62	0.47
1:1G:1148:U:OP1	9:82:7:THR:HG21	2.14	0.47
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.31	0.47
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.14	0.47
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.96	0.47
26:14:783:A:H8	26:14:784:A:H4'	1.79	0.47
26:14:2779:U:H6	26:14:2779:U:HO2'	1.60	0.47
28:19:267:SER:HA	28:19:270:ILE:HD12	1.97	0.47
36:35:79:ARG:HG2	36:35:110:TYR:HB2	1.96	0.47
38:55:33:ARG:HH11	38:55:113:LEU:HD21	1.79	0.47
39:65:106:ARG:NE	39:65:106:ARG:O	2.48	0.47
45:C5:42:VAL:O	45:C5:64:GLU:HA	2.15	0.47
1:13:200:G:N2	1:13:218:C:O2	2.47	0.47
1:13:279:A:H4'	1:13:280:C:H5''	1.96	0.47
1:13:1492:A:H5''	12:3I:47:LYS:HB3	1.97	0.47
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.96	0.47
26:1H:18:C:H4'	41:C8:23:GLY:O	2.14	0.47
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.49	0.47
26:1H:582:G:H2'	26:1H:583:G:C8	2.49	0.47
26:1H:654(R):C:C2'	26:1H:654(S):G:H5'	2.44	0.47
26:1H:730:C:H3'	59:1H:4230:HOH:O	2.13	0.47
26:1H:1532:C:H42	26:1H:1539:G:H1	1.60	0.47
26:1H:2563:U:H4'	35:68:28:SER:HA	1.96	0.47
26:1H:2572:A:C8	29:21:144:ARG:HD3	2.49	0.47
27:16:80:U:O2'	27:16:81:G:H5''	2.14	0.47
30:31:112:MET:HE3	30:31:112:MET:HB3	1.83	0.47
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.29	0.47
34:58:95:PRO:O	34:58:96:GLU:O	2.32	0.47
35:68:36:GLY:HA2	35:68:106:LEU:HD23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:5:ARG:O	37:88:6:ARG:O	2.32	0.47
38:98:78:LYS:HE2	38:98:83:ILE:HD11	1.96	0.47
38:98:87:TYR:HB3	38:98:90:ARG:HB3	1.96	0.47
40:B8:58:ASN:ND2	40:B8:58:ASN:O	2.43	0.47
1:1G:1189:C:O5'	1:1G:1189:C:H6	1.97	0.47
9:82:118:LYS:NZ	9:82:118:LYS:HB3	2.30	0.47
26:14:6:A:C3'	26:14:7:G:H5'	2.44	0.47
26:14:2002:G:C5	59:14:3565:HOH:O	2.67	0.47
26:14:2116:G:H2'	26:14:2117:A:C8	2.49	0.47
26:14:2689:U:OP2	26:14:2719:G:N2	2.46	0.47
26:14:2808:U:H5''	26:14:2891:G:O6	2.15	0.47
28:19:31:LYS:NZ	28:19:33:LEU:HB3	2.28	0.47
31:49:101:ILE:HA	31:49:104:GLU:HB3	1.96	0.47
33:69:81:VAL:N	33:69:143:SER:HB2	2.29	0.47
40:75:112:ARG:NH2	40:75:113:LYS:HE2	2.29	0.47
1:13:150:C:H2'	1:13:151:A:H8	1.80	0.47
1:13:1454:G:H4'	20:BI:36:LEU:HD21	1.96	0.47
3:2E:81:GLY:O	3:2E:85:ARG:HB2	2.15	0.47
10:1I:25:GLU:O	10:1I:29:ARG:HG2	2.15	0.47
19:AI:9:VAL:HG21	51:M8:63:TYR:CD2	2.49	0.47
26:1H:1952:A:C2	35:68:22:ILE:HG23	2.49	0.47
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.15	0.47
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.50	0.47
28:11:182:LEU:N	28:11:272:ALA:HB3	2.20	0.47
28:11:221:VAL:HG22	28:11:226:MET:CE	2.45	0.47
30:31:34:TRP:CZ3	36:78:8:PRO:HB3	2.49	0.47
31:41:66:GLN:OE1	31:41:98:ARG:NH1	2.47	0.47
36:78:82:GLY:HA2	36:78:113:LYS:O	2.15	0.47
36:78:94:GLU:HG2	36:78:124:LYS:HD3	1.96	0.47
37:88:106:VAL:HG21	37:88:114:ALA:HB1	1.97	0.47
46:H8:158:PRO:O	46:H8:161:VAL:HG22	2.14	0.47
1:1G:183:G:O5'	1:1G:183:G:H8	1.97	0.47
1:1G:191(B):G:H2'	1:1G:191(C):G:H5''	1.96	0.47
1:1G:1159:U:C5	1:1G:1182:G:C8	3.02	0.47
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.49	0.47
1:1G:1306:A:C6	1:1G:1307:U:C2	3.02	0.47
2:12:81:VAL:O	2:12:85:ALA:N	2.48	0.47
4:32:150:GLU:N	4:32:150:GLU:OE1	2.47	0.47
5:42:88:LYS:HB3	5:42:123:LEU:HB2	1.96	0.47
12:3A:8:ASN:O	12:3A:12:ARG:HG3	2.15	0.47
12:3A:86:ARG:HB2	12:3A:101:VAL:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:53:VAL:O	16:7A:57:ARG:HG3	2.15	0.47
19:AA:3:ARG:NH1	19:AA:7:LYS:HZ3	2.13	0.47
55:3L:57:G:H2'	55:3L:58:A:H5'	1.96	0.47
26:14:171:G:H2'	26:14:172:C:C6	2.50	0.47
26:14:516:C:P	52:J5:13:LYS:HZ1	2.38	0.47
26:14:528:A:N1	26:14:2042:A:H2'	2.30	0.47
26:14:1582:C:O2'	26:14:1586:A:C8	2.67	0.47
26:14:1939:U:OP1	26:14:2604:U:O2'	2.29	0.47
26:14:2745:C:H2'	26:14:2746:U:O4'	2.15	0.47
26:14:2777:G:OP2	26:14:2781:A:O2'	2.24	0.47
32:59:46:GLU:OE1	32:59:51:ARG:NH1	2.41	0.47
41:85:49:HIS:HD2	41:85:52:ARG:HD2	1.80	0.47
41:85:66:ASN:CB	41:85:76:TYR:HB2	2.42	0.47
54:M5:52:LYS:H	54:M5:53:PRO:HD2	1.76	0.47
1:13:169:C:H2'	1:13:170:U:H5'	1.97	0.47
1:13:342:C:C2	1:13:348:G:C2	3.03	0.47
1:13:692:U:O2	1:13:694:A:C8	2.68	0.47
1:13:706:A:N3	11:2I:31:THR:HG21	2.30	0.47
1:13:963:G:C2	10:1I:55:LYS:NZ	2.83	0.47
1:13:1026:G:OP2	1:13:1027:C:H5	1.97	0.47
1:13:1054:C:H6	1:13:1054:C:H5''	1.79	0.47
1:13:1118:C:OP1	9:8E:9:ARG:HD3	2.14	0.47
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.47	0.47
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.14	0.47
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.13	0.47
7:6E:111:ARG:CD	7:6E:123:GLU:HB2	2.43	0.47
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.95	0.47
13:4I:5:ALA:HB2	13:4I:61:GLU:HG2	1.96	0.47
24:3K:35:G:H2'	24:3K:36:U:O4'	2.15	0.47
26:1H:155:C:N4	26:1H:171:G:H1	2.11	0.47
26:1H:273(F):C:N4	26:1H:275:G:H5''	2.28	0.47
26:1H:634:C:H2'	26:1H:635:C:C6	2.48	0.47
26:1H:910:A:N1	26:1H:2277:G:H1'	2.30	0.47
26:1H:1168:G:C2	26:1H:1182:A:C2	3.02	0.47
26:1H:1176:G:N7	26:1H:1177:A:N6	2.62	0.47
26:1H:1545(A):A:H2'	26:1H:1546:C:O4'	2.15	0.47
26:1H:1658:C:P	59:1H:3731:HOH:O	2.63	0.47
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.49	0.47
26:1H:2600:A:H2'	26:1H:2601:C:C6	2.50	0.47
26:1H:2641:G:H5''	26:1H:2641:G:H8	1.79	0.47
26:1H:2756:U:H1'	26:1H:2757:A:H5''	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:16:ARG:NH1	31:41:31:VAL:HG21	2.29	0.47
31:41:108:ASN:HD22	51:M8:21:VAL:HG13	1.79	0.47
37:88:21:THR:HA	37:88:98:LYS:HB2	1.97	0.47
40:B8:57:PHE:HA	40:B8:79:HIS:HD2	1.80	0.47
41:C8:66:ASN:HB2	41:C8:76:TYR:HB2	1.97	0.47
1:1G:828:A:H2'	1:1G:829:G:O4'	2.13	0.47
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.80	0.47
1:1G:1326:C:H5''	21:1B:12:LYS:NZ	2.30	0.47
1:1G:1441:G:H5''	1:1G:1442:G:H5'	1.97	0.47
2:12:187:LEU:HA	2:12:201:ILE:O	2.14	0.47
3:22:37:GLN:NE2	14:5A:52:GLN:OE1	2.47	0.47
6:52:11:ASN:HB3	6:52:14:LEU:HD22	1.97	0.47
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.80	0.47
12:3A:102:ARG:HE	12:3A:102:ARG:HB3	1.60	0.47
16:7A:1:MET:HB2	16:7A:1:MET:HE3	1.63	0.47
18:9A:41:LYS:O	18:9A:41:LYS:HD3	2.15	0.47
26:14:140:A:H8	26:14:1408:C:O2'	1.93	0.47
26:14:234:C:H2'	26:14:235:U:H6	1.79	0.47
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.48	0.47
26:14:579:G:H2'	26:14:580:C:C6	2.50	0.47
26:14:607:U:OP1	30:39:102:PRO:HA	2.15	0.47
26:14:666:G:H5''	36:35:47:ASP:O	2.15	0.47
26:14:773:U:O2'	28:19:48:ARG:HD3	2.15	0.47
26:14:819:A:C4	26:14:1189:A:C2	3.02	0.47
26:14:955:C:OP1	37:45:87:LYS:HE2	2.14	0.47
26:14:997:G:O2'	26:14:998:C:H5'	2.14	0.47
26:14:1171:G:N2	26:14:1173:G:HO2'	2.12	0.47
26:14:1310:G:OP2	53:L5:9:ARG:NE	2.36	0.47
26:14:1408:C:C2	26:14:1595:G:N2	2.83	0.47
26:14:1820:U:H4'	26:14:1821:A:OP2	2.14	0.47
26:14:2086:U:H2'	26:14:2087:G:C8	2.49	0.47
26:14:2197:U:H1'	26:14:2198:A:C8	2.49	0.47
26:14:2801:A:H62	26:14:2894:G:H5'	1.80	0.47
27:1J:28:C:H2'	27:1J:29:A:C8	2.50	0.47
27:1J:66:A:N6	27:1J:108:C:O5'	2.48	0.47
27:1J:88:C:H4'	27:1J:89:G:H5''	1.96	0.47
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.45	0.47
33:69:130:TYR:HB3	33:69:136:VAL:HB	1.97	0.47
34:15:35:ARG:HB3	34:15:42:TRP:CZ3	2.50	0.47
45:C5:18:GLY:C	45:C5:20:TYR:H	2.17	0.47
4:3E:10:ARG:NH1	4:3E:10:ARG:HB2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:8:4SU:H6	23:2K:8:4SU:H5'	1.97	0.47
26:1H:107:C:H2'	26:1H:108:U:H6	1.79	0.47
26:1H:151:C:H2'	26:1H:152:G:H8	1.79	0.47
26:1H:330:A:O2'	26:1H:331:A:H8	1.97	0.47
26:1H:1206:G:C6	26:1H:1207:C:C4	3.02	0.47
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.49	0.47
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.50	0.47
26:1H:1630(A):C:H2'	59:1H:4058:HOH:O	2.14	0.47
26:1H:1729:A:H1'	26:1H:1730:U:C6	2.49	0.47
26:1H:1903:G:OP1	28:11:241:PRO:HB2	2.15	0.47
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.49	0.47
32:51:86:GLU:HB2	32:51:165:ALA:HB3	1.97	0.47
41:C8:88:ILE:C	41:C8:90:VAL:H	2.18	0.47
1:1G:474:G:H2'	1:1G:475:G:C8	2.48	0.47
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.50	0.47
2:12:147:LYS:HD2	2:12:148:TYR:CZ	2.49	0.47
11:2A:69:ALA:O	11:2A:73:MET:HG3	2.14	0.47
23:2L:73:A:C6	23:2L:74:A:C6	3.02	0.47
26:14:2378:A:H4'	39:65:23:ARG:NH1	2.24	0.47
27:1J:63:G:H2'	27:1J:64:C:C6	2.49	0.47
39:65:76:LYS:O	39:65:79:ALA:HB3	2.15	0.47
47:E5:50:ASN:O	47:E5:62:LEU:HB2	2.15	0.47
54:M5:36:LYS:HB3	54:M5:41:ILE:HG13	1.97	0.47
1:13:455:C:H42	1:13:477:G:N2	2.12	0.47
3:2E:5:ILE:HG22	10:11:51:ARG:HH12	1.79	0.47
26:1H:32:C:O2'	26:1H:33:U:H5'	2.14	0.47
26:1H:686:G:H8	53:P8:6:GLN:O	1.97	0.47
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.15	0.47
26:1H:2688:U:OP2	59:1H:3837:HOH:O	2.20	0.47
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.14	0.47
30:31:178:PRO:HB3	30:31:198:ALA:HB1	1.97	0.47
35:68:34:THR:OG1	35:68:35:VAL:N	2.47	0.47
38:98:2:ARG:O	38:98:5:LYS:HG3	2.15	0.47
1:1G:26:A:N6	1:1G:558:G:O2'	2.47	0.47
1:1G:57:G:C5	1:1G:58:C:C4	3.03	0.47
1:1G:748:C:H6	1:1G:748:C:O5'	1.98	0.47
1:1G:1217:C:OP1	14:5A:9:LYS:HE3	2.15	0.47
3:22:95:THR:C	3:22:97:LYS:H	2.18	0.47
19:AA:14:HIS:NE2	19:AA:15:LEU:HD22	2.30	0.47
23:2L:7:G:H5'	23:2L:7:G:C8	2.49	0.47
26:14:6:A:H2'	26:14:6:A:N3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.80	0.47
26:14:925:C:H2'	26:14:926:A:H8	1.80	0.47
26:14:1759:A:H4'	26:14:2715:C:O4'	2.15	0.47
26:14:2068:U:N3	26:14:2430:A:H2	2.10	0.47
26:14:2129:C:H5'	26:14:2130:U:OP2	2.15	0.47
26:14:2698:U:H2'	26:14:2699:C:C6	2.50	0.47
29:29:68:ALA:O	29:29:71:GLY:N	2.47	0.47
33:69:76:THR:HG23	33:69:77:LEU:N	2.30	0.47
36:35:147:LEU:HA	36:35:147:LEU:HD13	1.76	0.47
1:13:129(A):G:C2	1:13:188:U:O2'	2.68	0.47
2:1E:96:ARG:HB3	59:1E:301:HOH:O	2.15	0.47
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.96	0.47
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.49	0.47
26:1H:1332:G:N2	26:1H:1610:A:H8	2.04	0.47
26:1H:2170:A:OP2	26:1H:2170:A:H8	1.96	0.47
29:21:53:PRO:HA	29:21:75:VAL:HA	1.97	0.47
31:41:163:ALA:HB1	31:41:168:GLU:HB2	1.97	0.47
45:G8:55:TYR:N	45:G8:56:PRO:HD3	2.30	0.47
1:1G:517:G:N2	1:1G:530:G:OP1	2.43	0.47
2:12:49:GLU:HB3	2:12:53:ARG:NH2	2.30	0.47
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.80	0.47
55:3L:44:A:H2'	55:3L:45:G:O4'	2.15	0.47
26:14:309:G:N3	26:14:329:G:O2'	2.48	0.47
26:14:922:U:H2'	26:14:923:C:C6	2.50	0.47
26:14:1430:C:H2'	26:14:1431:U:H6	1.80	0.47
26:14:1636:C:P	59:14:3591:HOH:O	2.73	0.47
26:14:2689:U:P	26:14:2719:G:H22	2.37	0.47
26:14:2712:U:OP1	26:14:2714:G:H4'	2.15	0.47
26:14:2792:G:H2'	26:14:2792:G:N3	2.31	0.47
29:29:23:VAL:HA	29:29:184:VAL:O	2.15	0.47
31:49:27:ASN:HB3	31:49:30:GLU:HG3	1.97	0.47
32:59:158:HIS:HB3	32:59:171:LEU:CG	2.44	0.47
39:65:64:GLU:O	39:65:68:GLN:HG3	2.15	0.47
43:A5:19:LEU:O	43:A5:22:ASP:HB2	2.15	0.47
44:B5:12:VAL:HG22	44:B5:17:ALA:HB2	1.97	0.47
46:D5:58:VAL:O	46:D5:59:LEU:HB2	2.14	0.47
46:D5:110:GLY:HA2	46:D5:143:GLY:H	1.80	0.47
54:M5:14:VAL:CG1	54:M5:22:VAL:HG13	2.45	0.47
1:13:872:A:C5	1:13:874:G:C8	3.03	0.46
1:13:927:G:OP2	1:13:927:G:H4'	2.15	0.46
13:4I:7:VAL:H	31:41:115:ARG:HH12	1.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:663:G:OP1	36:78:16:ARG:HB2	2.14	0.46
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.44	0.46
26:1H:879:G:N3	26:1H:879:G:H2'	2.31	0.46
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.30	0.46
26:1H:2053:G:OP1	29:21:144:ARG:HG3	2.14	0.46
26:1H:2364:C:H4'	47:18:56:ASP:OD1	2.15	0.46
28:11:93:ALA:HB3	28:11:105:ILE:HG22	1.96	0.46
28:11:101:GLU:HG3	28:11:102:LYS:N	2.30	0.46
37:88:65:PHE:HB2	37:88:105:GLU:O	2.15	0.46
46:H8:44:PHE:CE2	46:H8:86:VAL:HG11	2.50	0.46
49:K8:15:LYS:HA	49:K8:67:LYS:HZ1	1.80	0.46
1:1G:113:G:O4'	1:1G:354:G:H4'	2.15	0.46
1:1G:167:G:H2'	1:1G:168:G:C8	2.50	0.46
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.48	0.46
2:12:24:TRP:HD1	2:12:25:ASN:C	2.18	0.46
2:12:47:THR:HA	2:12:50:GLU:OE2	2.15	0.46
4:32:119:GLN:HG3	4:32:123:HIS:ND1	2.30	0.46
10:1A:6:ILE:HG12	10:1A:72:VAL:O	2.15	0.46
11:2A:82:VAL:HG11	11:2A:95:ILE:HG22	1.96	0.46
12:3A:60:LEU:CB	12:3A:64:TYR:HB2	2.45	0.46
23:2L:2:G:H5'	47:E5:8:GLY:HA2	1.97	0.46
26:14:6:A:N6	34:15:129:PRO:O	2.48	0.46
26:14:172:C:H2'	26:14:173:G:H8	1.79	0.46
26:14:753:C:O2'	26:14:754:C:H5'	2.14	0.46
26:14:1786:A:H1'	26:14:1938:A:N6	2.30	0.46
26:14:2467:C:H4'	37:45:123:HIS:CG	2.50	0.46
26:14:2695:C:H2'	26:14:2696:U:C6	2.50	0.46
38:55:56:LYS:NZ	38:55:90:ARG:O	2.49	0.46
46:D5:6:LYS:HD3	46:D5:8:TYR:CE2	2.50	0.46
47:E5:69:PHE:CE2	47:E5:79:VAL:HG22	2.50	0.46
1:13:1:U:H1'	1:13:2:U:OP2	2.15	0.46
1:13:645:C:P	59:13:1928:HOH:O	2.73	0.46
4:3E:117:ALA:O	4:3E:121:VAL:HG23	2.15	0.46
7:6E:78:ARG:NH1	7:6E:154:TYR:O	2.48	0.46
14:5I:4:LYS:HE2	14:5I:4:LYS:HB2	1.76	0.46
21:1F:10:ARG:HB3	21:1F:10:ARG:HH11	1.80	0.46
26:1H:822:U:OP1	59:1H:3835:HOH:O	2.20	0.46
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.77	0.46
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.96	0.46
26:1H:1568:G:H5''	28:11:61:LEU:HD22	1.95	0.46
27:16:11:C:H3'	27:16:12:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:24:G:C2	27:16:56:G:C2	3.03	0.46
27:16:94:C:H2'	27:16:95:U:H6	1.80	0.46
1:1G:535:A:H5''	59:1G:1896:HOH:O	2.16	0.46
4:32:107:ARG:NH2	4:32:194:LEU:HD13	2.30	0.46
5:42:37:ARG:HG2	5:42:112:LEU:HA	1.97	0.46
26:14:49:A:H4'	26:14:50:U:H5''	1.97	0.46
26:14:479:A:H1'	26:14:480:A:H5''	1.98	0.46
26:14:1048:A:H62	26:14:1111:A:H1'	1.81	0.46
26:14:1169:G:H1	26:14:1180:C:N4	2.12	0.46
26:14:1338:G:N3	26:14:1393:A:H2	2.13	0.46
26:14:2467:C:H2'	26:14:2468:G:O4'	2.15	0.46
31:49:116:ASP:HB3	31:49:118:ARG:HH12	1.79	0.46
37:45:26:TYR:HD1	37:45:27:VAL:N	2.12	0.46
40:75:2:ASN:CB	40:75:4:GLY:HA3	2.45	0.46
41:85:58:ARG:HA	41:85:61:TRP:CE3	2.51	0.46
53:L5:12:ARG:HH21	53:L5:44:PRO:HB3	1.80	0.46
1:13:7:G:H5'	1:13:298:A:O4'	2.15	0.46
1:13:272:C:H2'	1:13:273:A:C8	2.50	0.46
1:13:484:G:O5'	1:13:484:G:H8	1.98	0.46
4:3E:97:LEU:O	4:3E:100:ARG:HG3	2.14	0.46
4:3E:162:LEU:HD12	4:3E:181:MET:CE	2.45	0.46
9:8E:5:TYR:O	9:8E:87:GLN:NE2	2.48	0.46
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.15	0.46
22:1K:72:C:C4	22:1K:73:A:H2	2.34	0.46
26:1H:450:G:P	59:1H:3768:HOH:O	2.71	0.46
26:1H:1057:A:C8	26:1H:1086:A:H2'	2.50	0.46
26:1H:1076:C:H2'	26:1H:1077:A:H5''	1.97	0.46
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.39	0.46
29:21:60:ASN:OD1	29:21:63:LEU:HB2	2.15	0.46
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.15	0.46
37:88:4:PRO:HD3	37:88:70:PRO:O	2.14	0.46
42:D8:35:LEU:HD23	42:D8:35:LEU:HA	1.62	0.46
1:1G:944:G:P	59:1G:1888:HOH:O	2.72	0.46
1:1G:983:A:O2'	1:1G:1050:G:OP2	2.29	0.46
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.81	0.46
1:1G:1306:A:N6	1:1G:1331:G:H1'	2.30	0.46
12:3A:111:LYS:HA	12:3A:111:LYS:NZ	2.30	0.46
14:5A:39:LEU:HD13	14:5A:47:LEU:HD12	1.97	0.46
26:14:1049:C:N4	26:14:1109:C:O2'	2.48	0.46
26:14:2320:A:N6	26:14:2333:A:H2'	2.31	0.46
29:29:101:ARG:O	29:29:201:THR:OG1	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:18:ARG:NH2	30:39:20:LEU:HB2	2.29	0.46
31:49:49:ASP:O	31:49:53:LEU:N	2.48	0.46
32:59:122:THR:HG22	32:59:123:PHE:H	1.80	0.46
40:75:124:ASP:HB3	40:75:125:ARG:HH11	1.79	0.46
41:85:65:ILE:HD11	41:85:96:ALA:HB3	1.96	0.46
46:D5:94:GLU:O	46:D5:129:SER:HA	2.14	0.46
1:13:8:A:H4'	1:13:9:G:OP1	2.15	0.46
1:13:148:G:H2'	1:13:149:A:C8	2.51	0.46
1:13:692:U:O4	11:2I:53:SER:CB	2.63	0.46
1:13:808:C:OP2	15:6I:48:LYS:NZ	2.49	0.46
2:1E:53:ARG:NH2	2:1E:198:ASP:O	2.48	0.46
2:1E:126:GLU:HA	2:1E:129:GLU:OE2	2.15	0.46
12:3I:111:LYS:HD3	12:3I:111:LYS:HA	1.79	0.46
26:1H:317:G:C2	26:1H:318:C:C2	3.03	0.46
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.50	0.46
27:16:31:C:N4	39:A8:32:LEU:HD22	2.30	0.46
28:11:12:SER:HB2	28:11:208:LYS:HB3	1.98	0.46
28:11:238:GLY:O	28:11:239:ARG:O	2.33	0.46
45:G8:94:LYS:HA	45:G8:94:LYS:NZ	2.31	0.46
1:1G:300:A:H1'	1:1G:565:U:O2	2.15	0.46
1:1G:397:A:H3'	1:1G:397:A:N3	2.30	0.46
1:1G:714:G:H2'	1:1G:715:A:C8	2.50	0.46
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.51	0.46
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.96	0.46
3:22:18:TRP:HB2	3:22:21:ARG:HG2	1.96	0.46
3:22:42:LEU:O	3:22:46:GLU:HG2	2.15	0.46
3:22:129:ALA:HB3	3:22:132:ARG:NH2	2.30	0.46
3:22:140:ARG:HA	3:22:140:ARG:HD2	1.73	0.46
4:32:152:SER:HB3	4:32:155:LEU:HG	1.96	0.46
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.98	0.46
10:1A:32:ALA:HA	10:1A:76:ASN:HB2	1.98	0.46
11:2A:54:ARG:HH22	55:3L:40:G:P	2.38	0.46
11:2A:62:GLN:HB2	11:2A:93:GLN:NE2	2.31	0.46
22:1L:50:G:O2'	22:1L:51:C:OP2	2.32	0.46
23:2L:76:C:H2'	23:2L:77:A:C8	2.50	0.46
26:14:1775:U:OP1	59:14:3563:HOH:O	2.21	0.46
26:14:2401:U:H2'	26:14:2402:C:C6	2.50	0.46
26:14:2807:G:H1	26:14:2892:A:H62	1.64	0.46
34:15:73:THR:HG22	34:15:84:LYS:HB3	1.97	0.46
35:25:102:VAL:HB	35:25:106:LEU:HD12	1.97	0.46
36:35:144:GLU:OE1	36:35:144:GLU:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:24:GLY:H	37:45:101:ARG:NH1	2.13	0.46
38:55:96:ARG:HD3	38:55:115:GLU:OE1	2.15	0.46
39:65:65:VAL:O	39:65:69:VAL:HG12	2.16	0.46
40:75:134:GLU:HG3	40:75:137:LYS:HD3	1.97	0.46
44:B5:24:GLY:O	44:B5:83:VAL:HG12	2.15	0.46
45:C5:17:SER:OG	45:C5:18:GLY:N	2.47	0.46
46:D5:161:VAL:HG23	46:D5:162:GLU:H	1.80	0.46
48:F5:71:TYR:O	48:F5:74:VAL:HG22	2.15	0.46
1:13:73:G:C2	1:13:74:C:N4	2.84	0.46
1:13:352:C:H6	1:13:352:C:H5''	1.80	0.46
1:13:417:C:H2'	1:13:418:C:H6	1.81	0.46
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.46	0.46
1:13:605:U:H2'	1:13:606:G:O4'	2.16	0.46
1:13:619:U:N3	4:3E:134:ASP:HB2	2.28	0.46
1:13:637:G:H2'	1:13:638:G:H8	1.81	0.46
2:1E:11:LEU:HD12	2:1E:11:LEU:HA	1.68	0.46
7:6E:45:ASP:O	7:6E:48:LYS:HB3	2.15	0.46
19:AI:28:LYS:HE3	19:AI:28:LYS:HB2	1.83	0.46
21:1F:2:GLY:O	21:1F:4:GLY:N	2.49	0.46
26:1H:762:U:H4'	26:1H:763:G:O5'	2.16	0.46
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.15	0.46
26:1H:2115:G:H2'	26:1H:2116:G:C8	2.51	0.46
27:16:88:C:H2'	27:16:89:G:O4'	2.14	0.46
29:21:67:PHE:CE2	29:21:74:PRO:HA	2.51	0.46
32:51:9:ILE:HG23	32:51:50:VAL:O	2.15	0.46
33:61:143:SER:HB3	33:61:144:VAL:HG23	1.97	0.46
45:G8:40:GLU:HA	45:G8:41:GLY:HA2	1.73	0.46
1:1G:1055:A:C5	1:1G:1206:G:C2	3.03	0.46
1:1G:1095:U:H5''	1:1G:1109:C:O2	2.16	0.46
1:1G:1312:G:H2'	1:1G:1313:U:O4'	2.16	0.46
1:1G:1396:A:H4'	1:1G:1397:C:H5''	1.98	0.46
2:12:48:MET:O	2:12:51:LEU:HG	2.15	0.46
4:32:84:LYS:HE3	4:32:84:LYS:HB3	1.51	0.46
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.51	0.46
9:82:118:LYS:HB3	9:82:118:LYS:HZ2	1.80	0.46
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.14	0.46
26:14:70:G:H21	26:14:71:A:H62	1.64	0.46
26:14:406:G:H1	26:14:421:U:H3	1.61	0.46
26:14:493:G:H2'	26:14:494:G:O4'	2.16	0.46
26:14:863:A:H2'	26:14:864:G:H8	1.80	0.46
26:14:1158:C:OP1	50:H5:30:ARG:NH1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2636:U:OP1	29:29:80:GLU:HB2	2.16	0.46
38:55:77:ARG:O	38:55:80:PHE:N	2.49	0.46
43:A5:86:LEU:HD12	43:A5:87:PRO:HD2	1.96	0.46
1:13:110:C:H2'	1:13:111:G:O4'	2.15	0.46
1:13:129(A):G:N1	1:13:188:U:O2'	2.49	0.46
1:13:476:G:N2	1:13:477:G:H1'	2.31	0.46
1:13:1399:C:H4'	1:13:1400:C:O5'	2.15	0.46
2:1E:17:PHE:CD1	2:1E:44:LEU:HD11	2.51	0.46
4:3E:164:ALA:O	4:3E:168:ARG:NE	2.49	0.46
5:4E:148:VAL:HA	5:4E:151:LEU:HD12	1.97	0.46
10:1I:82:ILE:HA	10:1I:85:LEU:HG	1.97	0.46
15:6I:74:ASP:CG	15:6I:77:ARG:HB2	2.36	0.46
23:2K:47:7MG:H81	23:2K:48:U:C5	2.36	0.46
26:1H:535:C:O3'	41:C8:53:ARG:NH1	2.49	0.46
26:1H:1183:G:O2'	50:L8:29:ARG:NH1	2.42	0.46
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.81	0.46
26:1H:1533:C:H6	26:1H:1534:G:H5''	1.81	0.46
26:1H:2053:G:OP2	59:1H:3839:HOH:O	2.21	0.46
26:1H:2062:A:N3	26:1H:2062:A:C2'	2.79	0.46
26:1H:2422:A:N7	54:Q8:31:HIS:HE1	2.13	0.46
31:41:35:GLU:HG3	31:41:36:LYS:HB2	1.96	0.46
37:88:140:ALA:O	37:88:141:GLN:NE2	2.49	0.46
43:E8:79:GLY:CA	43:E8:100:THR:HG22	2.46	0.46
44:F8:26:TYR:CD2	44:F8:89:ILE:HG13	2.51	0.46
1:1G:108:G:OP1	1:1G:326:G:N2	2.35	0.46
1:1G:501:C:H2'	1:1G:502:G:C8	2.51	0.46
1:1G:862:C:H1'	1:1G:874:G:H5''	1.98	0.46
1:1G:1069:C:O2'	1:1G:1192:C:H1'	2.16	0.46
1:1G:1128:C:H6	1:1G:1128:C:O5'	1.98	0.46
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.97	0.46
26:14:700:G:O2'	26:14:1632:A:N3	2.44	0.46
26:14:860:U:C2	26:14:2268:A:C8	3.03	0.46
26:14:1486:A:H2'	26:14:1487:G:C8	2.50	0.46
26:14:1520:U:H2'	26:14:1521:G:O4'	2.16	0.46
26:14:1915:U:C2'	26:14:1916:A:H5'	2.46	0.46
26:14:2287:A:C2	26:14:2346:A:H2	2.33	0.46
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.98	0.46
30:39:178:PRO:HB3	30:39:198:ALA:HA	1.98	0.46
34:15:90:MET:HB3	34:15:98:VAL:HG12	1.97	0.46
41:85:88:ILE:O	41:85:88:ILE:HG22	2.16	0.46
1:13:186:C:H2'	1:13:186(A):C:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:192:U:C1'	20:BI:103:GLY:HA2	2.45	0.46
1:13:1367:C:C5'	10:1I:60:ARG:HH11	2.24	0.46
2:1E:18:GLY:HA2	2:1E:42:ILE:HG13	1.97	0.46
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.46	0.46
8:7E:25:ASP:HB3	8:7E:58:TYR:HB3	1.98	0.46
9:8E:78:LYS:HE3	9:8E:101:PHE:CE1	2.50	0.46
11:2I:99:GLN:HE21	11:2I:99:GLN:HB3	1.56	0.46
13:4I:7:VAL:H	31:4I:115:ARG:NH1	2.13	0.46
13:4I:107:ALA:O	13:4I:111:LYS:HB2	2.15	0.46
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.15	0.46
26:1H:1257:C:OP1	30:3I:75:HIS:HE1	1.98	0.46
26:1H:1534:G:H2'	26:1H:1535:U:O4'	2.16	0.46
26:1H:2056:G:C2	26:1H:2057:A:C8	3.04	0.46
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.50	0.46
26:1H:2391:G:O6	26:1H:2425:A:H8	1.99	0.46
26:1H:2436:G:C5	26:1H:2437:U:C5	3.04	0.46
28:11:68:LYS:HB3	28:11:70:TRP:CH2	2.50	0.46
32:5I:2:SER:N	32:5I:4:ILE:O	2.49	0.46
33:6I:77:LEU:HD11	33:6I:101:LEU:HB2	1.98	0.46
45:G8:29:GLU:HB3	45:G8:38:ILE:CG2	2.45	0.46
1:1G:1151:A:HO2'	1:1G:1152:A:C5'	2.28	0.46
1:1G:1288:A:H2'	1:1G:1289:A:C8	2.50	0.46
2:12:28:PHE:CE2	2:12:31:TYR:HB2	2.51	0.46
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.96	0.46
2:12:98:LEU:O	2:12:101:MET:HG2	2.16	0.46
4:32:88:VAL:HB	4:32:89:THR:OG1	2.15	0.46
5:42:50:GLU:OE2	5:42:51:VAL:HG23	2.15	0.46
19:AA:53:ASN:HB2	19:AA:77:THR:HG22	1.97	0.46
26:14:805:G:OP2	36:35:41:ARG:HG2	2.16	0.46
26:14:957:A:N6	26:14:2459:A:C8	2.84	0.46
26:14:993:G:N3	42:95:89:GLN:NE2	2.57	0.46
26:14:2051:A:H5'	26:14:2578:G:O4'	2.15	0.46
26:14:2103:C:H2'	26:14:2104:G:C8	2.51	0.46
26:14:2250:G:OP2	26:14:2275:C:H2'	2.15	0.46
26:14:2776:A:H4'	26:14:2777:G:O5'	2.16	0.46
29:29:113:PHE:HA	29:29:159:HIS:HD2	1.81	0.46
46:D5:157:LEU:HG	46:D5:161:VAL:HG21	1.97	0.46
1:13:263:A:H8	1:13:263:A:OP2	1.97	0.46
1:13:267:C:H2'	1:13:268:C:C6	2.50	0.46
1:13:297:G:H4'	1:13:557:G:H4'	1.98	0.46
2:1E:16:HIS:NE2	2:1E:214:ILE:HD11	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.65	0.46
14:5I:4:LYS:O	14:5I:7:ILE:HG12	2.16	0.46
17:8I:41:LYS:HZ3	17:8I:92:ARG:HH12	1.63	0.46
19:AI:6:LYS:H	51:M8:66:SER:HB3	1.81	0.46
24:3K:16:U:C2	24:3K:61:C:H5'	2.51	0.46
24:3K:34:G:O2'	24:3K:35:G:C8	2.68	0.46
26:1H:654(O):G:H5''	26:1H:654(P):G:C2	2.50	0.46
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.30	0.46
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.45	0.46
26:1H:2100:G:O6	26:1H:2189:U:N3	2.49	0.46
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.81	0.46
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.31	0.46
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.51	0.46
28:11:96:HIS:CE1	28:11:102:LYS:HE2	2.50	0.46
30:31:117:ARG:HD3	30:31:117:ARG:HA	1.56	0.46
34:58:67:LEU:HD23	34:58:88:GLU:HB3	1.98	0.46
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.49	0.46
1:1G:1418:A:H2	26:14:1948:G:N3	2.14	0.46
3:22:87:LEU:HB2	3:22:88:ARG:HH21	1.81	0.46
3:22:142:MET:HE1	3:22:148:GLY:HA2	1.98	0.46
8:72:20:TYR:CE2	8:72:75:ARG:HB3	2.51	0.46
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.97	0.46
26:14:26:G:C6	26:14:27:G:N1	2.84	0.46
26:14:51:G:N3	26:14:119:A:C2	2.84	0.46
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.51	0.46
26:14:302:C:H2'	26:14:303:U:C6	2.50	0.46
26:14:313:C:H5'	59:14:3731:HOH:O	2.16	0.46
26:14:372:G:OP2	48:F5:69:LYS:NZ	2.47	0.46
26:14:937:U:H2'	26:14:938:G:O4'	2.15	0.46
26:14:994:C:OP1	41:85:53:ARG:NH2	2.49	0.46
26:14:1297:C:OP1	26:14:2710:C:H4'	2.15	0.46
26:14:2468:G:H3'	26:14:2476:A:N1	2.30	0.46
32:59:27:LYS:NZ	32:59:32:GLU:HG3	2.31	0.46
32:59:85:LYS:N	32:59:85:LYS:HD2	2.31	0.46
33:69:31:LEU:HD21	33:69:38:LEU:HG	1.98	0.46
36:35:125:VAL:HG13	36:35:144:GLU:HB3	1.97	0.46
37:45:97:VAL:HG11	37:45:103:MET:CE	2.41	0.46
39:65:106:ARG:NH2	39:65:107:GLU:OE1	2.37	0.46
52:J5:16:ARG:HG3	52:J5:17:ASP:H	1.80	0.46
1:13:49:U:C2	1:13:361:G:N2	2.84	0.46
1:13:353:A:H8	1:13:353:A:H5'	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:735:C:H2'	1:13:736:C:H6	1.80	0.46
13:4I:12:ASN:HB3	13:4I:46:LYS:HD2	1.96	0.46
20:BI:23:ARG:HA	20:BI:26:ASN:HD21	1.81	0.46
26:1H:229:A:HO2'	26:1H:230:U:P	2.39	0.46
26:1H:568:U:OP1	36:78:36:LYS:HE3	2.16	0.46
26:1H:1053:C:N4	26:1H:1106:G:H1	2.14	0.46
26:1H:1498:C:O4'	26:1H:1577:C:H4'	2.16	0.46
26:1H:1690:A:H2'	26:1H:1691:C:O4'	2.16	0.46
26:1H:1791:A:H5'	28:11:206:LEU:HD12	1.97	0.46
26:1H:2593:U:C2'	26:1H:2594:C:H5'	2.45	0.46
29:21:46:ALA:HB2	29:21:82:ARG:HA	1.98	0.46
30:31:178:PRO:HG2	30:31:179:GLU:CD	2.35	0.46
39:A8:88:ASP:O	39:A8:89:ARG:HB3	2.15	0.46
43:E8:51:LEU:HD23	43:E8:105:VAL:HG11	1.97	0.46
45:G8:94:LYS:CE	45:G8:95:LYS:H	2.29	0.46
1:1G:359:U:H2'	1:1G:360:A:C8	2.50	0.46
1:1G:751:U:H4'	15:6A:24:SER:HA	1.98	0.46
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.16	0.46
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.50	0.46
17:8A:59:ILE:HG23	17:8A:71:PHE:HB3	1.98	0.46
26:14:389:G:H22	36:35:72:PRO:HD3	1.81	0.46
26:14:1154:G:OP1	41:85:58:ARG:HD3	2.16	0.46
26:14:2002:G:OP2	38:55:9:LYS:NZ	2.49	0.46
26:14:2328:A:H2'	26:14:2329:G:C8	2.51	0.46
26:14:2686:G:C2	26:14:2724:C:O2	2.69	0.46
26:14:2693:A:H2'	26:14:2694:G:C8	2.51	0.46
27:1J:42:C:O2'	31:49:67:LYS:O	2.21	0.46
30:39:169:ASN:O	30:39:169:ASN:ND2	2.49	0.46
32:59:35:VAL:HG11	32:59:71:LEU:HG	1.96	0.46
33:69:81:VAL:H	33:69:143:SER:HB2	1.81	0.46
38:55:33:ARG:HD2	38:55:113:LEU:HD21	1.98	0.46
43:A5:65:LEU:HD13	43:A5:68:ARG:CZ	2.46	0.46
50:H5:18:ASP:OD1	50:H5:18:ASP:N	2.44	0.46
1:13:1366:C:H2'	1:13:1367:C:C6	2.49	0.46
1:13:1490:C:O2'	1:13:1491:G:H5'	2.16	0.46
15:6I:82:ILE:HD13	15:6I:88:ARG:HB2	1.98	0.46
23:2K:48:U:O2'	23:2K:49:C:OP2	2.31	0.46
24:3K:59:A:OP2	24:3K:59:A:H4'	2.16	0.46
26:1H:125:G:H5'	26:1H:125:G:H8	1.81	0.46
26:1H:270(T):G:H2'	26:1H:270(U):C:C6	2.50	0.46
26:1H:2404:C:O3'	36:78:77:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:70:C:H2'	27:16:71:C:H6	1.81	0.46
28:11:25:THR:HG21	28:11:113:VAL:HG11	1.98	0.46
30:31:134:GLY:CA	30:31:166:ALA:HB2	2.45	0.46
31:41:83:ARG:H	31:41:86:MET:CE	2.29	0.46
33:61:31:LEU:HD21	33:61:38:LEU:HD11	1.98	0.46
34:58:57:ALA:C	34:58:59:LYS:H	2.18	0.46
1:1G:1152:A:H2'	1:1G:1153:C:O4'	2.16	0.46
2:12:126:GLU:O	2:12:130:ARG:HD3	2.16	0.46
3:22:59:ARG:HG3	3:22:64:VAL:HA	1.97	0.46
3:22:181:ASN:ND2	3:22:204:LEU:HB2	2.31	0.46
4:32:99:SER:O	4:32:140:VAL:HG13	2.15	0.46
8:72:31:PHE:HZ	8:72:134:ILE:HD13	1.80	0.46
8:72:43:GLY:O	8:72:79:VAL:HG11	2.16	0.46
9:82:79:LEU:HD21	9:82:102:LEU:HA	1.98	0.46
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.99	0.46
26:14:635:C:H2'	26:14:636:G:O4'	2.17	0.46
26:14:999:U:H5''	26:14:1154:G:O6	2.16	0.46
26:14:1188:U:O2'	26:14:1189:A:H5'	2.16	0.46
26:14:1771:C:H1'	26:14:1786:A:C8	2.51	0.46
26:14:2473:U:O2	26:14:2473:U:H2'	2.15	0.46
29:29:117:MET:HA	29:29:122:PHE:N	2.30	0.46
32:59:97:ARG:HG2	32:59:98:LEU:N	2.28	0.46
34:15:136:GLU:OE2	34:15:138:LEU:HD22	2.16	0.46
37:45:10:ARG:HA	37:45:10:ARG:CZ	2.45	0.46
39:65:27:SER:HA	39:65:88:ASP:HB2	1.98	0.46
43:A5:26:GLY:H	43:A5:71:VAL:HB	1.79	0.46
46:D5:27:VAL:CG1	46:D5:87:ASP:HB3	2.43	0.46
49:G5:2:LYS:HA	49:G5:3:LEU:HA	1.76	0.46
1:13:107:G:O6	20:BI:15:ARG:HG3	2.17	0.45
1:13:295:C:H2'	1:13:296:U:O4'	2.16	0.45
1:13:947:G:H2'	1:13:948:C:O4'	2.17	0.45
1:13:950:U:OP2	13:4I:102:ARG:HD2	2.16	0.45
1:13:1130:A:H5'	9:8E:18:PHE:CE2	2.51	0.45
2:1E:7:VAL:HG22	2:1E:8:LYS:H	1.81	0.45
19:AI:25:LYS:HD2	19:AI:25:LYS:HA	1.83	0.45
20:BI:48:LYS:HB3	20:BI:51:GLU:HB2	1.99	0.45
26:1H:182:A:H2'	26:1H:183:C:O4'	2.16	0.45
26:1H:195:A:OP1	36:78:46:LYS:HE2	2.15	0.45
26:1H:443:A:N7	30:31:45:ARG:HG2	2.31	0.45
26:1H:511:U:C5	26:1H:512:G:C5	3.04	0.45
26:1H:1141:U:C5	34:58:64:GLY:HA3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.31	0.45
26:1H:2683:C:OP1	40:B8:53:ARG:NH2	2.48	0.45
29:21:143:ASN:HD22	29:21:147:PRO:HD2	1.81	0.45
31:41:11:TYR:O	31:41:16:ARG:HG3	2.16	0.45
38:98:20:LEU:HD21	38:98:40:LYS:HD3	1.98	0.45
41:C8:69:CYS:SG	41:C8:79:PHE:HD2	2.39	0.45
46:H8:110:GLY:C	46:H8:112:ARG:H	2.19	0.45
54:Q8:34:TRP:CE2	54:Q8:35:GLN:NE2	2.84	0.45
1:1G:690:G:H22	11:2A:55:LYS:NZ	2.14	0.45
1:1G:983:A:H3'	1:1G:983:A:N3	2.31	0.45
1:1G:1198:G:H2'	1:1G:1199:U:C6	2.51	0.45
2:12:168:THR:HG21	2:12:191:ASP:O	2.15	0.45
13:4A:84:ILE:HG13	19:AA:63:THR:HG21	1.98	0.45
18:9A:36:ASN:HB2	18:9A:38:GLU:OE2	2.16	0.45
22:1L:63:G:H2'	22:1L:64:C:O4'	2.16	0.45
26:14:98:G:OP1	49:G5:3:LEU:HB3	2.17	0.45
26:14:141:A:C8	26:14:1408:C:H1'	2.51	0.45
26:14:572:A:OP2	42:95:78:LYS:HE2	2.15	0.45
26:14:1142:U:O2	26:14:1142:U:H2'	2.16	0.45
26:14:1416:G:O2'	26:14:1417:C:O5'	2.13	0.45
26:14:1534:G:H3'	26:14:1535:U:H5''	1.97	0.45
26:14:1677:A:H2'	26:14:1678:G:C8	2.51	0.45
26:14:2287:A:C2	26:14:2346:A:C2	3.04	0.45
26:14:2335:A:C8	26:14:2337:G:N7	2.84	0.45
26:14:2542:A:H4'	26:14:2542:A:OP1	2.16	0.45
26:14:2572:A:N7	29:29:145:LYS:HB2	2.31	0.45
27:1J:70:C:H2'	27:1J:71:C:H6	1.81	0.45
33:69:79:ILE:HG13	33:69:140:LEU:HD11	1.97	0.45
40:75:3:ARG:N	40:75:4:GLY:O	2.49	0.45
46:D5:15:PRO:HA	46:D5:18:LEU:HB2	1.97	0.45
48:F5:91:LYS:HB2	48:F5:91:LYS:HE2	1.53	0.45
50:H5:43:ILE:O	50:H5:47:VAL:HG23	2.16	0.45
1:13:219:C:H2'	1:13:220:G:O4'	2.17	0.45
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.98	0.45
8:7E:112:LEU:HB3	8:7E:133:LEU:HA	1.98	0.45
8:7E:120:THR:OG1	8:7E:123:GLU:OE1	2.30	0.45
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.41	0.45
16:7I:74:LEU:HB3	16:7I:79:VAL:HG21	1.98	0.45
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.16	0.45
22:1K:49:G:H4'	22:1K:50:G:OP2	2.17	0.45
26:1H:140:A:C8	26:1H:1408:C:O2'	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:723:G:H2'	26:1H:724:U:O4'	2.17	0.45
26:1H:944:G:H5''	26:1H:945:A:O5'	2.17	0.45
26:1H:1048:A:H5'	26:1H:1049:C:OP2	2.16	0.45
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.79	0.45
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.16	0.45
26:1H:1763:G:OP1	26:1H:1763:G:H4'	2.15	0.45
26:1H:2162:G:H2'	26:1H:2163:C:C6	2.51	0.45
26:1H:2508:G:H2'	26:1H:2509:G:H8	1.81	0.45
26:1H:2632:A:O2'	26:1H:2811:G:O2'	2.20	0.45
27:16:94:C:H2'	27:16:95:U:C6	2.51	0.45
31:41:145:THR:O	31:41:146:TYR:HB3	2.16	0.45
32:51:52:VAL:O	32:51:65:HIS:NE2	2.32	0.45
32:51:101:ARG:HH22	32:51:122:THR:HA	1.81	0.45
42:D8:37:VAL:HG12	42:D8:55:ALA:O	2.15	0.45
1:1G:1360:A:H2'	1:1G:1361:G:O4'	2.16	0.45
3:22:73:PRO:CG	3:22:105:GLU:HB2	2.46	0.45
7:62:121:ALA:O	7:62:125:MET:HG3	2.16	0.45
26:14:67:U:H2'	26:14:68:G:H8	1.81	0.45
26:14:1287:A:N7	38:55:106:GLY:O	2.49	0.45
26:14:1456:G:OP2	59:14:3564:HOH:O	2.21	0.45
26:14:1728:G:C2	26:14:1730:U:OP2	2.69	0.45
26:14:1869:G:N2	26:14:1872:A:C8	2.84	0.45
26:14:2687:U:C4	26:14:2688:U:C5	3.04	0.45
36:35:39:LYS:HB2	36:35:45:LEU:HD11	1.97	0.45
41:85:106:PHE:O	41:85:109:LEU:N	2.49	0.45
46:D5:14:LYS:H	46:D5:14:LYS:CD	2.30	0.45
1:13:114:U:H2'	1:13:115:G:C8	2.52	0.45
1:13:313:A:H2'	1:13:314:C:C6	2.50	0.45
1:13:674:G:N2	1:13:717:C:O2	2.50	0.45
2:1E:79:ASP:N	2:1E:81:VAL:HG22	2.30	0.45
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.98	0.45
26:1H:60:G:H4'	49:K8:51:ARG:HH12	1.82	0.45
26:1H:274:G:H3'	26:1H:274:G:C8	2.51	0.45
26:1H:346:A:H5''	26:1H:347:A:OP2	2.16	0.45
26:1H:783:A:C8	26:1H:783:A:H3'	2.51	0.45
26:1H:1913:A:H8	26:1H:1913:A:OP1	1.98	0.45
26:1H:1971:A:H5'	26:1H:1972:A:H5''	1.97	0.45
26:1H:2104:G:C2	26:1H:2186:G:C2	3.04	0.45
26:1H:2394:C:H1'	59:1H:3930:HOH:O	2.15	0.45
27:16:1(M):A:H8	27:16:0:A:C8	2.34	0.45
28:11:253:GLN:HE21	28:11:253:GLN:HB2	1.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:104:ARG:HB3	38:98:107:ASP:HB3	1.98	0.45
41:C8:79:PHE:O	41:C8:79:PHE:HD1	1.99	0.45
42:D8:49:THR:O	42:D8:50:PRO:C	2.55	0.45
44:F8:41:ASN:O	44:F8:45:THR:HG23	2.16	0.45
45:G8:56:PRO:HD2	45:G8:57:GLN:H	1.81	0.45
1:1G:984:C:H2'	1:1G:985:C:H6	1.80	0.45
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.81	0.45
2:12:31:TYR:HB3	2:12:42:ILE:HG23	1.98	0.45
2:12:185:ILE:HG23	2:12:199:TYR:HB2	1.98	0.45
5:42:129:ILE:HG23	5:42:133:TYR:HE2	1.80	0.45
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.96	0.45
19:AA:15:LEU:O	19:AA:18:LYS:N	2.46	0.45
26:14:2107:C:H42	26:14:2182:G:H1	1.64	0.45
26:14:2393:A:H4'	36:35:62:LEU:O	2.16	0.45
26:14:2637:U:C4	26:14:2638:G:C6	3.04	0.45
26:14:2799:A:H3'	26:14:2801:A:H4'	1.98	0.45
27:1J:2:C:H2'	27:1J:3:C:C6	2.48	0.45
29:29:3:GLY:HA3	29:29:81:ILE:HG21	1.98	0.45
30:39:7:TYR:HA	30:39:125:LEU:HB3	1.98	0.45
30:39:11:VAL:HG23	30:39:13:SER:HB2	1.98	0.45
32:59:30:LYS:HD3	32:59:80:SER:HA	1.97	0.45
39:65:87:PHE:CZ	39:65:102:ALA:HB2	2.50	0.45
43:A5:19:LEU:HB3	52:J5:25:LEU:HD11	1.98	0.45
48:F5:91:LYS:HG3	48:F5:92:LYS:H	1.81	0.45
1:13:722:A:O3'	1:13:723:U:C6	2.70	0.45
15:6I:24:SER:OG	15:6I:26:GLU:HG2	2.17	0.45
22:1K:37:AET:HM62	22:1K:38:A:N6	2.31	0.45
26:1H:1110:G:HO2'	26:1H:1111:A:H8	1.61	0.45
26:1H:1182:A:H2'	26:1H:1183:G:O4'	2.17	0.45
26:1H:1301:A:H2	26:1H:1626:G:N3	2.15	0.45
27:16:21:G:H1	27:16:62:C:H42	1.64	0.45
33:61:134:PRO:HA	33:61:135:GLU:HG3	1.99	0.45
34:58:47:ALA:HB2	34:58:112:LEU:CD1	2.42	0.45
37:88:66:ILE:HD12	37:88:67:ARG:N	2.30	0.45
38:98:22:ARG:HG2	38:98:69:ASP:HB3	1.97	0.45
1:1G:1291:G:P	7:62:37:ASN:HD21	2.39	0.45
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.32	0.45
2:12:74:LYS:HD3	2:12:76:GLN:HG3	1.99	0.45
3:22:120:VAL:HG21	3:22:137:ALA:HB2	1.98	0.45
4:32:85:LYS:HD2	4:32:89:THR:N	2.31	0.45
7:62:115:ARG:O	7:62:118:VAL:HG22	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:45:THR:O	16:7A:48:TRP:HD1	1.98	0.45
19:AA:58:VAL:O	19:AA:60:VAL:HG22	2.16	0.45
55:3L:14:A:H2'	55:3L:14:A:N3	2.32	0.45
26:14:729:G:O5'	28:19:208:LYS:NZ	2.46	0.45
26:14:1239:G:H2'	26:14:1240:U:O4'	2.15	0.45
26:14:2056:G:C2	26:14:2057:A:C8	3.04	0.45
26:14:2331:G:O2'	47:E5:43:THR:HG22	2.17	0.45
31:49:111:LEU:HB3	31:49:117:PHE:CZ	2.52	0.45
32:59:98:LEU:HD22	32:59:126:PRO:HB3	1.98	0.45
39:65:7:TYR:CZ	39:65:91:PRO:HG3	2.51	0.45
42:95:37:VAL:HB	42:95:56:SER:HA	1.98	0.45
42:95:91:TYR:CD1	42:95:91:TYR:C	2.90	0.45
1:13:660:G:OP1	15:6I:5:LYS:HD3	2.16	0.45
1:13:859:A:H2'	1:13:860:A:O4'	2.15	0.45
1:13:1020:U:H2'	1:13:1021:G:H8	1.80	0.45
1:13:1460:A:H2'	1:13:1461:G:O4'	2.16	0.45
14:5I:32:SER:HB3	14:5I:41:ARG:HG2	1.99	0.45
18:9I:40:LEU:HD23	18:9I:40:LEU:HA	1.79	0.45
22:1K:37:AET:N1	22:1K:37:AET:N11	2.52	0.45
26:1H:444:C:C4'	30:31:49:ALA:HB2	2.45	0.45
26:1H:1059:G:O6	26:1H:1088:A:H8	1.99	0.45
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.17	0.45
26:1H:1141:U:H4'	26:1H:1142(A):A:O4'	2.17	0.45
26:1H:1283:G:N2	26:1H:1286:A:OP2	2.47	0.45
26:1H:2186:G:H2'	26:1H:2187:G:C8	2.52	0.45
26:1H:2309:A:N6	26:1H:2310:A:H62	2.15	0.45
26:1H:2331:G:O3'	47:I8:43:THR:HG22	2.17	0.45
29:21:55:ASN:HB3	29:21:58:ARG:H	1.80	0.45
31:41:107:LEU:HD21	31:41:178:PHE:CD1	2.51	0.45
39:A8:77:ALA:HA	39:A8:80:LEU:HD12	1.98	0.45
49:K8:17:SER:HB3	49:K8:67:LYS:HD3	1.98	0.45
54:Q8:26:LYS:HB2	54:Q8:44:LYS:O	2.16	0.45
1:1G:1003:G:H2'	1:1G:1004:A:H5'	1.99	0.45
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.47	0.45
3:22:51:GLY:O	3:22:70:VAL:HG13	2.16	0.45
4:32:31:CYS:C	4:32:33:MET:H	2.20	0.45
5:42:76:ILE:HG12	5:42:118:ILE:HG13	1.97	0.45
8:72:97:VAL:HA	8:72:100:ILE:HG13	1.98	0.45
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.46	0.45
26:14:2232:U:P	48:F5:40:ARG:NH2	2.89	0.45
26:14:2859:G:C8	26:14:2859:G:H3'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:267:SER:C	28:19:269:PHE:H	2.20	0.45
32:59:132:ARG:O	32:59:133:VAL:HG23	2.17	0.45
39:65:21:THR:HG23	39:65:23:ARG:HG3	1.98	0.45
39:65:86:ALA:O	39:65:87:PHE:HB2	2.17	0.45
42:95:69:LYS:HA	42:95:88:ARG:HG2	1.98	0.45
49:G5:13:ALA:O	49:G5:16:LEU:HB2	2.17	0.45
49:G5:60:LEU:HD12	49:G5:60:LEU:HA	1.79	0.45
54:M5:23:VAL:HG23	54:M5:49:VAL:HG12	1.97	0.45
1:13:177:C:H2'	1:13:178:C:C6	2.51	0.45
1:13:538:G:P	12:3I:115:LYS:HB2	2.57	0.45
1:13:1262:C:H2'	1:13:1263:C:H6	1.79	0.45
1:13:1292:U:H2'	1:13:1293:G:H8	1.79	0.45
2:1E:60:ASP:OD1	2:1E:64:ARG:NH2	2.36	0.45
3:2E:79:ARG:O	3:2E:82:GLU:HG2	2.16	0.45
9:8E:40:LEU:HD23	9:8E:74:ILE:HD11	1.99	0.45
10:1I:60:ARG:HE	10:1I:60:ARG:HB3	1.61	0.45
26:1H:533:G:H5'	41:C8:24:TYR:CD1	2.51	0.45
26:1H:795:C:H2'	26:1H:796:C:H6	1.81	0.45
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.52	0.45
26:1H:2392:A:H2	26:1H:2424:C:N4	2.08	0.45
29:21:4:ILE:HD13	29:21:28:ALA:HB1	1.98	0.45
30:31:32:LEU:HD13	30:31:105:VAL:CG1	2.47	0.45
31:41:51:ARG:HA	31:41:54:GLU:HG3	1.99	0.45
45:G8:6:HIS:HE1	45:G8:69:ALA:O	2.00	0.45
45:G8:94:LYS:NZ	45:G8:95:LYS:H	2.13	0.45
46:H8:76:LEU:HD23	46:H8:76:LEU:H	1.82	0.45
1:1G:390:C:H2'	1:1G:391:G:C8	2.51	0.45
1:1G:975:A:H5'	1:1G:975:A:H8	1.81	0.45
1:1G:989:C:H2'	1:1G:990:C:C6	2.52	0.45
1:1G:1435:G:H2'	1:1G:1436:U:C5	2.51	0.45
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.15	0.45
4:32:119:GLN:HE21	4:32:119:GLN:HB2	1.41	0.45
7:62:144:MET:HB2	7:62:146:GLU:OE1	2.17	0.45
16:7A:43:LYS:HG2	16:7A:48:TRP:CE2	2.51	0.45
26:14:38:A:H2'	26:14:39:C:C6	2.51	0.45
26:14:125:G:H5''	53:L5:19:ARG:HD3	1.98	0.45
26:14:194:G:H2'	26:14:195:A:O4'	2.16	0.45
26:14:631:A:N3	26:14:2415:G:O2'	2.40	0.45
26:14:673:C:H4'	30:39:82:ILE:HG12	1.99	0.45
26:14:674:G:O2'	30:39:74:ARG:HD2	2.16	0.45
26:14:960:A:C8	26:14:962:G:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1204:A:N1	26:14:1241:A:C2	2.81	0.45
26:14:2062:A:H2'	26:14:2063:C:O5'	2.17	0.45
26:14:2342:C:O2	26:14:2374:C:H4'	2.16	0.45
26:14:2467:C:H4'	37:45:123:HIS:ND1	2.32	0.45
27:1J:8:U:O3'	39:65:25:ARG:NH2	2.39	0.45
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.98	0.45
29:29:76:ARG:HD3	29:29:77:ILE:N	2.31	0.45
30:39:7:TYR:CE2	30:39:10:PRO:HD3	2.52	0.45
32:59:167:GLU:HG2	32:59:169:VAL:HG23	1.98	0.45
33:69:71:ILE:HG22	33:69:72:LEU:HD23	1.99	0.45
35:25:22:ILE:HB	35:25:41:ALA:HA	1.99	0.45
36:35:29:LYS:CG	36:35:30:THR:N	2.78	0.45
37:45:19:GLY:O	37:45:99:PRO:HD2	2.16	0.45
48:F5:84:GLY:CA	48:F5:85:LEU:HB3	2.46	0.45
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.16	0.45
1:13:591:U:C2	1:13:592:G:C8	3.04	0.45
1:13:1160:G:C6	1:13:1181:G:O6	2.70	0.45
2:1E:16:HIS:CE1	2:1E:210:SER:O	2.70	0.45
2:1E:192:SER:OG	2:1E:193:ASP:N	2.48	0.45
13:4I:15:VAL:HB	13:4I:41:PRO:O	2.16	0.45
14:5I:29:ARG:NH1	14:5I:31:ARG:HB2	2.32	0.45
26:1H:775:G:C5	26:1H:794:G:C8	3.05	0.45
26:1H:1062:G:H1'	26:1H:1088:A:C5	2.52	0.45
26:1H:1798:U:H5'	28:11:259:THR:OG1	2.15	0.45
26:1H:2025:C:N4	59:1H:3977:HOH:O	2.48	0.45
26:1H:2068:U:N3	26:1H:2430:A:H2	2.14	0.45
29:21:28:ALA:O	29:21:93:VAL:HG22	2.15	0.45
33:61:10:GLU:O	33:61:11:ASN:HB2	2.17	0.45
39:A8:88:ASP:OD1	39:A8:90:GLY:N	2.43	0.45
40:B8:7:ILE:O	40:B8:11:GLU:HB2	2.16	0.45
45:G8:53:PRO:HA	45:G8:56:PRO:HB3	1.98	0.45
51:M8:9:LEU:HD12	51:M8:27:THR:N	2.32	0.45
1:1G:5:U:HO2'	1:1G:6:G:P	2.36	0.45
1:1G:457:C:H2'	1:1G:458:C:H6	1.80	0.45
1:1G:967:C:HO2'	9:82:125:TYR:HH	1.62	0.45
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.52	0.45
2:12:54:THR:HG23	2:12:57:PHE:HB2	1.99	0.45
3:22:47:LEU:HD12	3:22:52:LEU:HB3	1.99	0.45
9:82:97:LYS:HB3	9:82:98:PRO:HD3	1.98	0.45
9:82:110:GLU:HG3	9:82:111:ARG:N	2.32	0.45
22:1L:37:AET:N1	22:1L:37:AET:N11	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:68:U:H2'	22:1L:69:C:C5	2.51	0.45
26:14:1005:C:H2'	26:14:1006:C:C6	2.52	0.45
26:14:1870:C:H2'	26:14:1871:A:C8	2.52	0.45
26:14:2074:U:H2'	26:14:2075:U:C6	2.52	0.45
26:14:2680:C:H5'	29:29:189:PRO:HA	1.98	0.45
32:59:6:ARG:HH11	32:59:66:GLY:HA3	1.81	0.45
32:59:18:GLU:HB2	32:59:25:LYS:HE3	1.98	0.45
34:15:23:LEU:HD12	34:15:99:LEU:HD23	1.98	0.45
38:55:26:LYS:HE2	38:55:70:LEU:O	2.16	0.45
1:13:405:U:O2'	1:13:497:U:H5'	2.17	0.45
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.17	0.45
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.47	0.45
10:1I:34:VAL:HG12	10:1I:74:ILE:HG12	1.99	0.45
11:2I:32:ILE:H	11:2I:32:ILE:HG12	1.61	0.45
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.52	0.45
22:1K:66:U:H3'	22:1K:67:A:H5'	1.98	0.45
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.17	0.45
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.81	0.45
26:1H:2275:C:O2'	37:88:85:LYS:HA	2.17	0.45
29:21:24:THR:HG21	29:21:188:VAL:CG2	2.45	0.45
37:88:28:ALA:N	37:88:105:GLU:OE2	2.45	0.45
37:88:54:MET:O	37:88:57:HIS:N	2.47	0.45
48:J8:56:GLN:HE21	48:J8:85:LEU:HG	1.82	0.45
1:1G:281:G:H8	1:1G:281:G:OP2	1.99	0.45
1:1G:376:G:O3'	16:7A:5:ARG:HD2	2.16	0.45
1:1G:539:A:H2'	1:1G:540:G:C8	2.51	0.45
1:1G:587:G:N1	1:1G:754:C:OP2	2.49	0.45
2:12:21:ARG:HA	2:12:39:ILE:HA	1.98	0.45
2:12:28:PHE:CZ	2:12:189:ASP:HA	2.52	0.45
4:32:86:LYS:HB2	4:32:86:LYS:HE3	1.47	0.45
12:3A:40:VAL:HG11	12:3A:77:LEU:O	2.17	0.45
13:4A:40:ASN:OD1	13:4A:41:PRO:HD2	2.17	0.45
55:3L:54:5MU:O2'	55:3L:55:PSU:P	2.75	0.45
26:14:196:A:OP2	36:35:46:LYS:NZ	2.50	0.45
26:14:303:U:H2'	26:14:304:G:C8	2.52	0.45
26:14:522:G:H2'	26:14:523:C:C6	2.51	0.45
26:14:631:A:H61	26:14:2402:C:N4	2.14	0.45
26:14:1011:G:C4	26:14:1151:G:N2	2.84	0.45
26:14:1465:G:C4	26:14:1466:G:C8	3.04	0.45
26:14:2823:A:OP1	29:29:113:PHE:HB2	2.17	0.45
29:29:76:ARG:NE	29:29:76:ARG:HA	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:34:TRP:CZ3	36:35:8:PRO:HB3	2.51	0.45
34:15:99:LEU:O	34:15:103:VAL:HG23	2.16	0.45
36:35:29:LYS:HG2	36:35:30:THR:H	1.77	0.45
43:A5:69:LEU:HA	43:A5:108:GLY:O	2.16	0.45
48:F5:39:LYS:HE2	48:F5:39:LYS:HB3	1.71	0.45
52:J5:25:LEU:H	52:J5:25:LEU:HD12	1.80	0.45
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.16	0.45
1:13:939:G:C2	1:13:940:C:C2	3.05	0.45
1:13:942:G:C2	1:13:1342:C:C2	3.05	0.45
1:13:1125:U:C5	1:13:1127:G:C6	3.05	0.45
1:13:1134:G:C2	1:13:1135:U:H1'	2.52	0.45
1:13:1291:G:H4'	9:8E:39:GLY:HA3	1.98	0.45
1:13:1352:C:N4	59:13:1991:HOH:O	2.49	0.45
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.52	0.45
3:2E:62:ASP:OD1	3:2E:97:LYS:HB3	2.17	0.45
3:2E:182:ILE:HA	3:2E:202:ILE:O	2.17	0.45
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.99	0.45
10:1I:50:ILE:CG1	10:1I:60:ARG:HH21	2.30	0.45
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.16	0.45
16:7I:26:ARG:HE	16:7I:31:LYS:HB3	1.81	0.45
19:AI:31:ILE:HB	19:AI:49:ILE:HG23	1.98	0.45
26:1H:53:A:H2'	26:1H:54:G:O4'	2.17	0.45
26:1H:484:C:OP1	45:G8:51:VAL:HG22	2.17	0.45
26:1H:795:C:H2'	26:1H:796:C:C6	2.52	0.45
26:1H:1329:U:H5''	26:1H:1330:C:C5	2.50	0.45
26:1H:2378:A:O2'	39:A8:21:THR:HG21	2.17	0.45
29:2I:57:LYS:HG3	29:2I:59:VAL:CG1	2.46	0.45
37:88:66:ILE:HD12	37:88:67:ARG:H	1.81	0.45
39:A8:27:SER:HA	39:A8:88:ASP:HB2	1.98	0.45
52:N8:16:ARG:HG3	52:N8:17:ASP:N	2.31	0.45
1:1G:1178:G:H5''	9:82:93:ARG:NH2	2.31	0.45
2:12:220:ASP:H	2:12:222:ILE:CD1	2.30	0.45
7:62:126:ASP:HB3	7:62:131:LYS:O	2.16	0.45
19:AA:17:GLU:O	19:AA:20:LEU:N	2.46	0.45
23:2L:51:U:H2'	23:2L:52:C:C6	2.51	0.45
55:3L:3:U:H2'	55:3L:4:G:O4'	2.17	0.45
26:14:181:A:H1'	26:14:435:C:H5'	1.98	0.45
26:14:923:C:H2'	26:14:924:C:C6	2.52	0.45
26:14:1133:U:O2	26:14:1137:G:H5''	2.16	0.45
26:14:1443:G:O6	59:14:3567:HOH:O	2.21	0.45
26:14:2532:G:O5'	26:14:2532:G:H8	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:9:VAL:HG23	29:29:26:ILE:O	2.16	0.45
30:39:20:LEU:HB3	30:39:203:GLN:HE22	1.82	0.45
31:49:106:LEU:HG	31:49:111:LEU:CD1	2.47	0.45
34:15:37:LYS:HG3	34:15:42:TRP:CE3	2.52	0.45
37:45:30:GLY:HA2	37:45:107:ALA:HB2	1.99	0.45
37:45:43:THR:HG22	37:45:94:VAL:HG12	1.99	0.45
43:A5:71:VAL:HA	43:A5:107:LEU:HD12	1.99	0.45
49:G5:43:GLN:CG	49:G5:46:GLN:HE22	2.28	0.45
50:H5:7:LYS:O	50:H5:54:VAL:HG23	2.17	0.45
1:13:75:C:H42	1:13:96:G:H1	1.65	0.45
1:13:454:C:H3'	1:13:455:C:C6	2.52	0.45
1:13:976:G:OP1	14:5I:32:SER:N	2.46	0.45
1:13:1014:A:C2	1:13:1219:U:H1'	2.53	0.45
7:6E:56:GLN:NE2	7:6E:56:GLN:HA	2.31	0.45
26:1H:445:C:O2'	26:1H:446:G:H5'	2.17	0.45
26:1H:1058:U:H2'	26:1H:1059:G:C8	2.48	0.45
26:1H:1095:A:H2'	26:1H:1095:A:N3	2.32	0.45
26:1H:1264:G:H5'	52:N8:11:THR:HG21	1.99	0.45
26:1H:1359:A:N6	26:1H:1372:U:H3	2.13	0.45
26:1H:1386:C:OP2	26:1H:1396:U:H5	2.00	0.45
34:58:46:VAL:O	34:58:47:ALA:HB3	2.17	0.45
39:A8:106:ARG:O	39:A8:107:GLU:HB2	2.17	0.45
40:B8:94:ALA:HB1	40:B8:99:LEU:HD21	1.98	0.45
1:1G:157:G:H1	1:1G:164:U:H3	1.64	0.45
1:1G:254:G:OP1	17:8A:67:LYS:O	2.35	0.45
1:1G:1118:C:OP1	9:82:104:ARG:NE	2.40	0.45
1:1G:1157:A:H1'	1:1G:1158:C:OP2	2.17	0.45
1:1G:1251:A:O2'	1:1G:1369:C:O2'	2.33	0.45
1:1G:1278:U:H5'	1:1G:1279:A:C5'	2.47	0.45
1:1G:1359:C:H4'	1:1G:1360:A:OP2	2.16	0.45
3:22:70:VAL:HG12	3:22:71:ALA:N	2.31	0.45
10:1A:78:ASN:HD22	10:1A:80:LYS:HB3	1.82	0.45
22:1L:52:A:N6	22:1L:62:U:H3	2.08	0.45
23:2L:6:G:C2'	23:2L:7:G:H5''	2.47	0.45
26:14:161:U:H5''	26:14:171:G:N2	2.25	0.45
26:14:958:U:O2	27:1J:89(A):A:O2'	2.27	0.45
26:14:1528:A:C2	26:14:1542:G:C2	3.05	0.45
26:14:2646:C:H2'	26:14:2647:U:O4'	2.17	0.45
26:14:2688:U:C5	26:14:2720:U:OP2	2.69	0.45
29:29:128:SER:OG	29:29:129:HIS:N	2.49	0.45
32:59:17:VAL:HG13	32:59:50:VAL:HG12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:83:VAL:HG11	36:35:100:LEU:HD23	1.99	0.45
36:35:85:LEU:HA	36:35:88:LEU:HD22	1.99	0.45
37:45:57:HIS:CG	37:45:117:ALA:HB2	2.52	0.45
39:65:80:LEU:HD23	39:65:80:LEU:HA	1.74	0.45
41:85:53:ARG:HA	41:85:56:ASP:HB2	1.99	0.45
41:85:106:PHE:HA	41:85:109:LEU:HD12	1.98	0.45
44:B5:21:PHE:CZ	44:B5:92:LEU:HD23	2.52	0.45
46:D5:118:GLN:OE1	46:D5:118:GLN:HA	2.17	0.45
54:M5:14:VAL:HG11	54:M5:22:VAL:HG13	1.99	0.45
1:13:113:G:H2'	1:13:114:U:H6	1.82	0.44
1:13:192:U:O4'	20:BI:103:GLY:HA2	2.17	0.44
1:13:540:G:H2'	1:13:541:G:O4'	2.16	0.44
1:13:604:G:H2'	1:13:605:U:O4'	2.17	0.44
8:7E:109:ILE:HG13	8:7E:120:THR:HB	1.98	0.44
11:2I:55:LYS:HG2	11:2I:55:LYS:O	2.17	0.44
13:4I:93:ARG:CZ	26:1H:889:C:H3'	2.48	0.44
14:5I:13:THR:N	14:5I:14:PRO:HD2	2.32	0.44
18:9I:32:ARG:NH1	18:9I:65:ILE:HD12	2.32	0.44
20:BI:56:MET:HG3	20:BI:88:VAL:HG21	1.98	0.44
26:1H:26:G:C6	26:1H:27:G:N1	2.84	0.44
26:1H:483:A:C8	26:1H:484:C:C5	3.05	0.44
28:11:2:ALA:O	28:11:20:ASP:HB2	2.17	0.44
29:21:105:THR:HG21	29:21:164:ARG:CZ	2.47	0.44
30:31:185:ASP:OD1	30:31:188:ARG:NH1	2.44	0.44
31:41:18:GLU:O	31:41:22:ARG:HB2	2.17	0.44
37:88:134:ARG:HH12	46:H8:122:ARG:CD	2.30	0.44
44:F8:11:PRO:HG2	44:F8:13:LEU:HD21	2.00	0.44
46:H8:165:VAL:HB	46:H8:167:PRO:HD3	2.00	0.44
1:1G:87:A:C6	1:1G:88:C:N3	2.85	0.44
1:1G:458:C:H2'	1:1G:464:G:C8	2.52	0.44
1:1G:603:U:H2'	1:1G:604:G:C8	2.52	0.44
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.53	0.44
2:12:128:GLU:O	2:12:130:ARG:HB2	2.18	0.44
2:12:164:VAL:HB	2:12:186:ALA:HB2	1.98	0.44
8:72:29:SER:HB3	8:72:32:LYS:CG	2.45	0.44
13:4A:35:GLU:HG3	13:4A:36:LYS:H	1.82	0.44
17:8A:5:VAL:HA	17:8A:59:ILE:O	2.17	0.44
17:8A:45:HIS:ND1	17:8A:65:ILE:HG21	2.31	0.44
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.16	0.44
26:14:868:U:C4	26:14:869:G:N7	2.86	0.44
26:14:996:A:O4'	41:85:92:ARG:NH2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1464:C:HO2'	26:14:1528:A:H8	1.56	0.44
26:14:2127:G:H2'	26:14:2128:C:C6	2.52	0.44
26:14:2262:U:H4'	26:14:2328:A:C2	2.52	0.44
26:14:2333:A:H5'	26:14:2333:A:H8	1.82	0.44
26:14:2360:A:H2'	26:14:2361:A:O4'	2.17	0.44
26:14:2416:C:O5'	26:14:2416:C:H6	2.00	0.44
26:14:2516:G:C6	26:14:2517:C:N4	2.84	0.44
26:14:2688:U:H1'	26:14:2721:A:N6	2.32	0.44
27:1J:116:G:H4'	39:65:54:LEU:HD23	1.99	0.44
31:49:145:THR:O	31:49:146:TYR:HB3	2.17	0.44
35:25:9:GLU:O	35:25:83:ALA:HA	2.17	0.44
46:D5:63:ASP:OD1	46:D5:65:GLN:HG3	2.17	0.44
1:13:131:C:O2	1:13:131:C:H2'	2.16	0.44
1:13:198:G:H2'	1:13:199:G:H8	1.81	0.44
2:1E:139:LYS:O	2:1E:142:LEU:HB3	2.18	0.44
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.17	0.44
3:2E:134:ILE:HG22	3:2E:168:ALA:HB3	1.99	0.44
12:3I:69:TYR:CG	12:3I:90:VAL:HG21	2.52	0.44
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.99	0.44
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.17	0.44
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.05	0.44
26:1H:1210:A:H5''	26:1H:1212:G:H5'	1.99	0.44
26:1H:1216:G:OP2	41:C8:12:ARG:NH2	2.36	0.44
26:1H:1263:U:O2'	52:N8:11:THR:HG23	2.17	0.44
26:1H:2111:C:H5	26:1H:2145:C:HO2'	1.64	0.44
26:1H:2711:A:P	59:1H:3803:HOH:O	2.75	0.44
28:11:17:THR:CG2	28:11:204:ILE:HA	2.44	0.44
29:21:50:GLY:HA2	29:21:75:VAL:HG11	1.98	0.44
29:21:64:LYS:HA	29:21:65:GLY:HA2	1.57	0.44
30:31:24:LEU:HA	30:31:25:PRO:HD2	1.84	0.44
31:41:170:ARG:HE	31:41:174:GLU:HG2	1.82	0.44
32:51:56:SER:HB3	32:51:61:HIS:ND1	2.32	0.44
33:61:123:LEU:HD23	33:61:143:SER:HA	2.00	0.44
34:58:38:HIS:O	41:C8:67:ALA:HB1	2.17	0.44
35:68:76:ALA:HB3	40:B8:75:ILE:HD12	1.99	0.44
41:C8:90:VAL:O	41:C8:92:ARG:N	2.50	0.44
51:M8:14:ILE:HG22	51:M8:24:THR:CG2	2.43	0.44
1:1G:160:A:H2'	1:1G:161:A:O4'	2.17	0.44
1:1G:927:G:OP2	1:1G:1503:A:H8	1.99	0.44
1:1G:1121:U:H2'	1:1G:1122:U:C6	2.52	0.44
1:1G:1297:C:OP1	13:4A:13:LYS:HE3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:104:VAL:O	4:32:108:LEU:HB2	2.17	0.44
4:32:155:LEU:HD23	4:32:155:LEU:HA	1.69	0.44
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.57	0.44
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.52	0.44
55:3L:26:G:H2'	55:3L:27:C:H5'	1.99	0.44
26:14:602:G:O2'	26:14:604:G:O2'	2.30	0.44
26:14:972:G:OP2	26:14:973:A:O2'	2.25	0.44
26:14:2023:G:OP2	26:14:2617:C:H4'	2.18	0.44
26:14:2432:A:C2	48:F5:35:THR:HG22	2.53	0.44
26:14:2648:C:H2'	26:14:2649:U:C6	2.52	0.44
26:14:2873:A:O4'	38:55:6:SER:HB2	2.17	0.44
27:1J:37:C:H2'	27:1J:38:C:H5'	2.00	0.44
34:15:126:PRO:HB2	34:15:127:ASP:H	1.60	0.44
41:85:88:ILE:HG23	41:85:90:VAL:CB	2.46	0.44
1:13:76:G:N3	1:13:76:G:H2'	2.32	0.44
1:13:157:G:H2'	1:13:158:G:H8	1.82	0.44
1:13:580:U:H2'	1:13:581:G:O4'	2.18	0.44
1:13:901:A:C5	1:13:902:G:H1'	2.52	0.44
1:13:1125:U:H5	1:13:1127:G:C6	2.35	0.44
1:13:1129:C:O2'	1:13:1130:A:O5'	2.35	0.44
1:13:1389:C:H2'	1:13:1390:U:O4'	2.17	0.44
4:3E:63:LYS:O	4:3E:67:ILE:HG13	2.18	0.44
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.17	0.44
26:1H:455:C:N3	26:1H:472:A:H2'	2.32	0.44
26:1H:459:U:H2'	26:1H:460:A:H8	1.83	0.44
26:1H:754:C:H2'	26:1H:755:C:H6	1.82	0.44
26:1H:1093:G:H1'	26:1H:1099:G:H22	1.82	0.44
26:1H:1158:C:H4'	50:L8:32:GLN:HB2	1.99	0.44
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.32	0.44
26:1H:2124:G:O6	26:1H:2173:A:N6	2.51	0.44
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.18	0.44
30:31:37:VAL:HG21	36:78:6:LEU:HD21	1.99	0.44
32:51:157:TYR:O	32:51:158:HIS:ND1	2.51	0.44
47:I8:70:GLN:HB2	47:I8:80:HIS:HE2	1.82	0.44
51:M8:60:GLN:H	51:M8:60:GLN:HG2	1.48	0.44
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.17	0.44
1:1G:420:U:O2'	1:1G:423:G:O6	2.22	0.44
1:1G:979:C:H5''	1:1G:980:C:OP2	2.16	0.44
1:1G:1357:A:C8	1:1G:1358:U:C6	3.06	0.44
2:12:119:GLU:OE2	2:12:153:ARG:NH1	2.50	0.44
4:32:85:LYS:HB3	4:32:88:VAL:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:17:GLY:N	11:2A:79:SER:O	2.37	0.44
18:9A:61:LYS:O	18:9A:65:ILE:HD13	2.17	0.44
21:1B:2:GLY:C	21:1B:4:GLY:H	2.21	0.44
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.52	0.44
26:14:1250:G:OP2	36:35:21:ARG:NH1	2.51	0.44
26:14:2036:C:H5'	26:14:2036:C:H6	1.82	0.44
26:14:2283:C:C2	26:14:2389:G:C2	3.05	0.44
28:19:37:LEU:N	28:19:37:LEU:HD12	2.33	0.44
28:19:108:PRO:HB3	28:19:143:HIS:HE1	1.82	0.44
33:69:109:ILE:HB	33:69:130:TYR:OH	2.17	0.44
35:25:10:VAL:HG12	35:25:19:ILE:HG12	1.98	0.44
1:13:5:U:H5	4:3E:85:LYS:HB3	1.83	0.44
1:13:128:G:H5'	17:8I:2:PRO:O	2.18	0.44
1:13:464:G:O6	1:13:466:C:H4'	2.17	0.44
1:13:875:C:C4	1:13:876:G:N7	2.85	0.44
1:13:1012:U:H2'	1:13:1013:G:C8	2.53	0.44
1:13:1064:G:H1'	1:13:1190:G:N2	2.32	0.44
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.50	0.44
1:13:1342:C:H4'	9:8E:125:TYR:HB3	1.99	0.44
2:1E:97:TRP:HZ3	2:1E:172:ILE:HB	1.82	0.44
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.99	0.44
9:8E:26:VAL:HA	9:8E:61:ALA:HB3	2.00	0.44
9:8E:99:LEU:HD12	9:8E:101:PHE:CE2	2.51	0.44
16:7I:4:ILE:O	16:7I:66:PRO:HA	2.17	0.44
19:AI:41:VAL:O	51:M8:63:TYR:OH	2.35	0.44
26:1H:270(K):C:H6	26:1H:270(K):C:H3'	1.82	0.44
26:1H:722:A:H2'	26:1H:723:G:H8	1.81	0.44
26:1H:916:G:C2'	26:1H:917:A:H5''	2.47	0.44
26:1H:973:A:OP2	59:1H:3823:HOH:O	2.21	0.44
26:1H:1729:A:C8	26:1H:1731:G:C8	3.05	0.44
26:1H:2311:A:H8	31:41:88:ILE:HG21	1.81	0.44
28:11:33:LEU:O	28:11:64:ILE:HG23	2.17	0.44
31:41:6:ALA:H	51:M8:23:GLU:HG3	1.82	0.44
31:41:120:LEU:HG	31:41:179:PRO:O	2.16	0.44
34:58:74:ARG:NH2	34:58:85:ILE:HD11	2.32	0.44
34:58:90:MET:O	34:58:94:HIS:N	2.43	0.44
41:C8:92:ARG:HH21	42:D8:10:LYS:HB3	1.82	0.44
46:H8:116:VAL:H	46:H8:146:ILE:HG12	1.82	0.44
49:K8:55:ARG:O	49:K8:58:ALA:HB3	2.18	0.44
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.52	0.44
1:1G:1288:A:H4'	21:1B:10:ARG:HH22	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:102:ARG:HG2	7:62:106:GLN:NE2	2.32	0.44
13:4A:31:LYS:HA	13:4A:34:LEU:HB2	1.99	0.44
55:3L:2:C:N4	55:3L:71:G:H1	2.12	0.44
26:14:619:G:H5''	26:14:620:G:OP2	2.18	0.44
26:14:1141:U:H2'	34:15:63:THR:HB	1.99	0.44
26:14:2273:A:O2'	26:14:2274:A:H5'	2.18	0.44
26:14:2352:A:H2	47:E5:33:ALA:O	1.99	0.44
31:49:27:ASN:OD1	31:49:28:VAL:N	2.49	0.44
31:49:107:LEU:HD11	31:49:178:PHE:CE1	2.52	0.44
32:59:14:GLY:O	32:59:29:PRO:HD3	2.17	0.44
32:59:40:GLU:HB2	32:59:41:MET:SD	2.57	0.44
33:69:91:SER:HB3	33:69:119:PRO:HB3	1.99	0.44
34:15:97:ARG:HA	34:15:100:GLU:HB2	1.99	0.44
36:35:46:LYS:HB3	36:35:46:LYS:HE2	1.48	0.44
39:65:62:LYS:H	39:65:62:LYS:HG2	1.51	0.44
39:65:77:ALA:O	39:65:80:LEU:N	2.49	0.44
41:85:19:LYS:O	41:85:22:LYS:HG3	2.17	0.44
46:D5:30:ASN:HA	46:D5:89:PHE:CE1	2.51	0.44
46:D5:157:LEU:CG	46:D5:161:VAL:HG21	2.47	0.44
1:13:970:C:H42	9:8E:128:ARG:C	2.20	0.44
1:13:1125:U:N3	1:13:1126:U:O4	2.50	0.44
4:3E:116:GLN:NE2	4:3E:157:LEU:HD11	2.31	0.44
6:5E:100:ASN:HB2	18:9I:28:GLU:CG	2.47	0.44
10:1I:54:PHE:CE1	10:1I:55:LYS:HE3	2.52	0.44
14:5I:23:ARG:HG3	14:5I:28:GLY:O	2.17	0.44
26:1H:274:G:H1'	26:1H:276:A:N1	2.33	0.44
26:1H:1662:C:O2'	26:1H:2687:U:OP1	2.34	0.44
26:1H:2109:U:C4	26:1H:2110:G:O6	2.71	0.44
26:1H:2135:A:H5'	26:1H:2160:G:C1'	2.48	0.44
26:1H:2182:G:H2'	26:1H:2183:C:O4'	2.18	0.44
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.18	0.44
38:98:38:VAL:HB	38:98:39:PRO:HD3	1.99	0.44
46:H8:113:ALA:N	46:H8:114:GLY:HA2	2.31	0.44
47:I8:19:LYS:HD3	47:I8:19:LYS:HA	1.72	0.44
1:1G:78:G:H1	1:1G:91:C:H42	1.65	0.44
1:1G:197:A:N1	1:1G:221:C:H4'	2.33	0.44
1:1G:295:C:H2'	1:1G:296:U:O4'	2.18	0.44
1:1G:1197:G:C4	1:1G:1198:G:C8	3.06	0.44
2:12:178:ARG:HD2	2:12:196:LEU:O	2.17	0.44
3:22:137:ALA:O	3:22:141:VAL:HG13	2.18	0.44
10:1A:54:PHE:CE2	10:1A:55:LYS:HB2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:54:PHE:CG	10:1A:55:LYS:N	2.86	0.44
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.83	0.44
26:14:654(A):A:H8	26:14:654(A):A:O5'	2.00	0.44
26:14:671:C:OP1	36:35:42:SER:O	2.34	0.44
26:14:699:A:H2'	26:14:700:G:O4'	2.17	0.44
26:14:996:A:C2	26:14:997:G:C8	3.05	0.44
26:14:1268:A:H2'	26:14:1269:A:O4'	2.17	0.44
29:29:182:LEU:C	29:29:183:LEU:HD12	2.38	0.44
47:E5:53:MET:HA	47:E5:58:THR:O	2.18	0.44
1:13:170:U:H2'	1:13:171:A:C8	2.49	0.44
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.85	0.44
6:5E:27:GLN:HA	6:5E:30:LEU:HB2	1.99	0.44
12:3I:21:LYS:HB3	12:3I:21:LYS:HE2	1.69	0.44
13:4I:8:GLU:O	13:4I:10:PRO:HD3	2.17	0.44
26:1H:1482:U:O4	26:1H:1510:A:H1'	2.17	0.44
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.18	0.44
31:4I:76:SER:HB2	31:4I:84:LYS:HB2	1.99	0.44
45:G8:43:ASN:OD1	45:G8:65:ALA:HB3	2.18	0.44
45:G8:63:LYS:HA	45:G8:63:LYS:HD2	1.74	0.44
1:1G:1023:G:C6	1:1G:1024:G:H1'	2.53	0.44
2:12:167:PRO:O	2:12:171:ALA:N	2.51	0.44
20:BA:62:LEU:HD23	20:BA:62:LEU:HA	1.80	0.44
22:1L:44:A:H2'	22:1L:45:G:O4'	2.17	0.44
22:1L:48:C:O2'	22:1L:49:G:H5'	2.18	0.44
22:1L:59:C:HO2'	22:1L:60:U:P	2.38	0.44
23:2L:17:C:H4'	23:2L:18:U:OP2	2.18	0.44
26:14:1034:G:H8	26:14:1034:G:OP1	2.00	0.44
26:14:1225:C:O2	42:95:85:LYS:HD3	2.18	0.44
26:14:2280:G:H2'	26:14:2281:C:H5'	1.99	0.44
26:14:2339:G:H2'	26:14:2340:G:C8	2.53	0.44
26:14:2849:U:H4'	26:14:2868:A:C2	2.53	0.44
31:49:49:ASP:OD1	31:49:51:ARG:HB3	2.18	0.44
32:59:138:LYS:HA	32:59:141:VAL:HG12	1.99	0.44
35:25:7:TYR:CE1	35:25:20:MET:HB2	2.53	0.44
38:55:83:ILE:N	38:55:85:PRO:HD2	2.33	0.44
48:F5:78:LYS:HG2	48:F5:79:GLY:N	2.33	0.44
49:G5:49:LYS:O	49:G5:53:LEU:HB2	2.16	0.44
1:13:182:U:H5	1:13:183:G:C4	2.35	0.44
1:13:1182:G:H4'	1:13:1183:A:C5'	2.46	0.44
1:13:1260:C:O5'	1:13:1284:C:H4'	2.18	0.44
1:13:1278:U:H5'	1:13:1279:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:16:LEU:HD11	10:1I:70:ARG:HB2	1.99	0.44
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.99	0.44
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.48	0.44
13:4I:100:GLY:HA3	59:4I:201:HOH:O	2.16	0.44
17:8I:14:LYS:N	17:8I:14:LYS:HD2	2.33	0.44
26:1H:275:G:N7	26:1H:363:G:C2	2.86	0.44
26:1H:389:G:O5'	26:1H:389:G:H8	2.01	0.44
26:1H:817:C:H4'	26:1H:932:G:C5	2.53	0.44
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.22	0.44
31:4I:13:GLU:O	31:4I:14:GLU:HG2	2.18	0.44
42:D8:14:VAL:HG21	42:D8:57:VAL:HG21	1.99	0.44
1:1G:41:G:H2'	1:1G:42:G:H8	1.81	0.44
1:1G:143:A:O3'	1:1G:144:G:H8	2.00	0.44
1:1G:408:A:H2'	1:1G:409:G:O4'	2.17	0.44
1:1G:1328:C:H2'	1:1G:1329:A:O4'	2.17	0.44
2:12:134:GLU:O	2:12:138:LEU:HG	2.17	0.44
2:12:178:ARG:HE	2:12:178:ARG:HB3	1.62	0.44
22:1L:5:A:OP2	22:1L:5:A:H8	2.00	0.44
26:14:747:U:O2	26:14:2014:A:H1'	2.17	0.44
26:14:940:G:H2'	26:14:941:A:O4'	2.18	0.44
26:14:2287:A:O2'	26:14:2288:A:H5''	2.18	0.44
31:49:66:GLN:HB3	31:49:92:VAL:HG21	2.00	0.44
33:69:74:ASN:O	33:69:75:LEU:HB2	2.18	0.44
34:15:50:ASP:O	34:15:52:VAL:HG23	2.16	0.44
34:15:59:LYS:HE3	34:15:60:ILE:H	1.83	0.44
42:95:98:GLU:OE2	42:95:100:ARG:HG2	2.17	0.44
1:13:272:C:H2'	1:13:273:A:H8	1.83	0.44
1:13:448:A:OP2	1:13:485:G:N1	2.40	0.44
1:13:768:A:H2'	1:13:769:G:O4'	2.18	0.44
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.18	0.44
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.44	0.44
15:6I:4:THR:OG1	15:6I:7:GLU:OE2	2.20	0.44
15:6I:17:ARG:HG2	15:6I:21:ASP:OD2	2.18	0.44
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.17	0.44
26:1H:242:G:C8	54:Q8:3:LYS:HE3	2.53	0.44
26:1H:548:A:H2'	26:1H:549:G:H5'	2.00	0.44
26:1H:721:C:H2'	26:1H:722:A:H8	1.82	0.44
26:1H:1199:U:H2'	26:1H:1200:C:C6	2.53	0.44
26:1H:1364:G:N7	48:J8:2:SER:N	2.66	0.44
26:1H:2180:U:H2'	26:1H:2181:G:C8	2.53	0.44
30:31:181:LEU:HD23	30:31:181:LEU:HA	1.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:50:ARG:NH2	36:78:50:ARG:HG3	2.33	0.44
40:B8:124:ASP:O	40:B8:128:GLU:HB3	2.18	0.44
49:K8:59:ARG:O	49:K8:63:VAL:HG23	2.18	0.44
51:M8:34:GLU:HG3	51:M8:35:VAL:H	1.83	0.44
1:1G:266:G:H2'	1:1G:266:G:N3	2.32	0.44
1:1G:1118:C:P	9:82:104:ARG:HE	2.40	0.44
1:1G:1358:U:H2'	1:1G:1359:C:H5'	1.99	0.44
1:1G:1359:C:N4	14:5A:21:TYR:HB3	2.32	0.44
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.51	0.44
2:12:19:HIS:NE2	2:12:206:ASP:HB2	2.33	0.44
4:32:62:GLN:O	4:32:66:ARG:HB2	2.17	0.44
12:3A:34:ARG:HH11	12:3A:82:VAL:HG11	1.83	0.44
26:14:82:G:N1	26:14:103:A:OP2	2.46	0.44
26:14:259:G:N2	26:14:621:A:H8	2.08	0.44
26:14:511:U:C5	26:14:512:G:C5	3.05	0.44
26:14:1312:U:H4'	26:14:1313:U:O5'	2.18	0.44
26:14:1486:A:H2'	26:14:1487:G:H8	1.83	0.44
26:14:2181:G:C6	26:14:2182:G:C5	3.06	0.44
26:14:2622:C:H5'	29:29:159:HIS:ND1	2.32	0.44
26:14:2880:C:O2	38:55:93:GLY:N	2.48	0.44
28:19:49:ILE:CD1	28:19:52:ARG:HA	2.48	0.44
30:39:129:PHE:CD1	30:39:163:VAL:HG21	2.52	0.44
36:35:85:LEU:HG	36:35:120:ALA:HA	1.99	0.44
37:45:22:LYS:N	37:45:23:GLY:HA3	2.32	0.44
1:13:1162:C:H2'	1:13:1163:C:H6	1.83	0.44
3:2E:136:GLN:NE2	3:2E:140:ARG:HH11	2.15	0.44
7:6E:46:ALA:HB2	7:6E:117:ALA:HB1	2.00	0.44
10:1I:48:THR:HG1	10:1I:62:HIS:CE1	2.34	0.44
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.17	0.44
24:3K:61:C:H2'	24:3K:62:U:C6	2.53	0.44
26:1H:448:U:H5'	59:1H:3899:HOH:O	2.18	0.44
26:1H:558:G:P	34:58:111:PRO:HD2	2.58	0.44
26:1H:950:G:H2'	26:1H:951:C:C6	2.53	0.44
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.83	0.44
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.18	0.44
26:1H:2138:C:H2'	26:1H:2139:C:C6	2.52	0.44
26:1H:2615:U:P	59:1H:3780:HOH:O	2.71	0.44
30:31:6:VAL:HG11	30:31:119:ARG:CA	2.48	0.44
31:41:6:ALA:HB2	51:M8:23:GLU:HB2	2.00	0.44
33:61:2:LYS:NZ	33:61:2:LYS:HB3	2.32	0.44
34:58:38:HIS:CE1	34:58:50:ASP:OD2	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:39:LYS:CG	36:78:45:LEU:HD22	2.43	0.44
36:78:63:PRO:HG2	54:Q8:25:MET:HB2	2.00	0.44
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.86	0.44
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.53	0.44
46:H8:69:THR:HA	46:H8:89:PHE:O	2.18	0.44
53:P8:5:TRP:NE1	53:P8:7:PRO:HG3	2.33	0.44
1:1G:12:U:O2'	1:1G:526:C:H4'	2.18	0.44
1:1G:15:G:H4'	5:42:24:ARG:NH1	2.32	0.44
1:1G:191:G:H1'	20:BA:104:LEU:O	2.18	0.44
1:1G:542:G:P	4:32:10:ARG:HH22	2.39	0.44
2:12:147:LYS:HD2	2:12:148:TYR:CE1	2.53	0.44
5:42:34:VAL:HG21	5:42:63:ARG:HH11	1.83	0.44
17:8A:99:SER:OG	17:8A:100:LYS:N	2.50	0.44
26:14:91:A:C2'	26:14:92:G:H5'	2.48	0.44
26:14:821:A:O2'	26:14:946:G:OP2	2.29	0.44
26:14:971:C:H2'	26:14:972:G:O4'	2.18	0.44
26:14:993:G:O4'	42:95:87:HIS:NE2	2.51	0.44
26:14:1182:A:H2'	26:14:1183:G:O4'	2.18	0.44
26:14:1283:G:N2	26:14:1285:G:H3'	2.32	0.44
26:14:1338:G:O2'	26:14:1393:A:N1	2.35	0.44
26:14:2815:C:H5'	52:J5:29:THR:HG21	1.99	0.44
30:39:36:VAL:HG11	30:39:183:VAL:HG21	2.00	0.44
30:39:185:ASP:CG	30:39:188:ARG:HH21	2.21	0.44
31:49:33:ARG:O	31:49:161:THR:HG23	2.17	0.44
46:D5:125:LEU:HD23	46:D5:164:ALA:O	2.18	0.44
1:13:74:C:N3	1:13:75:C:C4	2.86	0.43
1:13:247:G:OP2	17:8I:100:LYS:HB3	2.18	0.43
1:13:789:U:O2'	1:13:791:G:N7	2.36	0.43
1:13:1164:G:C6	1:13:1165:C:C4	3.06	0.43
2:1E:87:ARG:HH11	2:1E:223:ILE:HD11	1.83	0.43
10:1I:22:LYS:NZ	10:1I:90:LEU:HB2	2.33	0.43
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.33	0.43
19:AI:41:VAL:HG23	19:AI:42:PRO:HA	2.00	0.43
22:1K:50:G:C2	22:1K:51:C:N4	2.86	0.43
26:1H:275:G:N7	26:1H:363:G:C4	2.86	0.43
26:1H:322:A:OP1	30:31:168:ARG:NH2	2.40	0.43
26:1H:322:A:P	30:31:168:ARG:HH21	2.39	0.43
26:1H:673:C:H5''	30:31:81:PRO:HD2	1.99	0.43
26:1H:991:C:H2'	26:1H:992:C:H6	1.83	0.43
36:78:144:GLU:HA	36:78:145:PRO:HD3	1.85	0.43
37:88:101:ARG:HG3	37:88:102:VAL:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:J8:92:LYS:HA	48:J8:95:LEU:HD12	2.00	0.43
51:M8:12:ALA:HA	51:M8:29:PRO:HB3	2.00	0.43
1:1G:7:G:OP1	4:32:209:ARG:NH1	2.43	0.43
1:1G:814:A:H2'	1:1G:816:A:C5'	2.48	0.43
1:1G:1313:U:H2'	1:1G:1314:C:C6	2.54	0.43
1:1G:1325:C:OP2	21:1B:15:ARG:NH2	2.51	0.43
1:1G:1342:C:H1'	9:82:124:GLN:NE2	2.33	0.43
1:1G:1359:C:C4	14:5A:21:TYR:HB3	2.52	0.43
2:12:193:ASP:HB2	2:12:196:LEU:HD21	1.99	0.43
12:3A:111:LYS:HD3	12:3A:112:ASP:H	1.83	0.43
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.17	0.43
23:2L:32:G:C5	23:2L:33:OMC:C5	3.06	0.43
26:14:117:G:C6	26:14:119:A:C6	3.06	0.43
26:14:1043:C:H2'	26:14:1044:G:H5'	1.99	0.43
26:14:1475:G:C4	26:14:1519:G:N2	2.86	0.43
26:14:2414:G:H21	36:35:67:MET:HE3	1.81	0.43
26:14:2472:G:H8	26:14:2472:G:O5'	2.01	0.43
26:14:2758:A:H2'	26:14:2759:G:O4'	2.18	0.43
32:59:53:GLU:OE2	32:59:54:ARG:HG2	2.17	0.43
36:35:2:LYS:HD2	36:35:4:SER:OG	2.17	0.43
38:55:28:LEU:HD23	38:55:28:LEU:HA	1.85	0.43
39:65:43:GLU:HB2	47:E5:49:LYS:HZ3	1.81	0.43
39:65:67:ARG:HG3	39:65:104:GLY:HA3	1.99	0.43
43:A5:13:SER:HB3	43:A5:16:LYS:HD2	1.99	0.43
1:13:445:G:H1	1:13:489:C:H42	1.66	0.43
1:13:586:C:H2'	1:13:587:G:O4'	2.18	0.43
1:13:738:C:OP1	6:5E:2:ARG:NH1	2.51	0.43
1:13:980:C:HO2'	14:5I:21:TYR:HE1	1.64	0.43
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.99	0.43
2:1E:113:HIS:CD2	2:1E:156:LYS:HZ1	2.36	0.43
7:6E:73:MET:HG3	7:6E:90:GLU:HA	2.00	0.43
9:8E:111:ARG:HG3	9:8E:112:LYS:H	1.83	0.43
26:1H:1185:C:N4	59:1H:3788:HOH:O	2.51	0.43
26:1H:1379:A:H4'	26:1H:1380:G:OP2	2.19	0.43
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.18	0.43
26:1H:2119:A:N6	26:1H:2170:A:N1	2.67	0.43
29:21:59:VAL:HG22	29:21:60:ASN:N	2.33	0.43
30:31:106:ARG:H	30:31:106:ARG:HG2	1.65	0.43
31:41:11:TYR:O	31:41:15:VAL:HB	2.18	0.43
41:C8:61:TRP:CE2	41:C8:94:ASN:HA	2.52	0.43
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:384:G:H2'	1:1G:385:C:C6	2.53	0.43
1:1G:455:C:O5'	1:1G:455:C:H6	2.01	0.43
1:1G:622:A:C8	1:1G:623:C:C6	3.06	0.43
3:22:6:HIS:CD2	3:22:8:ILE:HB	2.53	0.43
4:32:70:ILE:HG23	4:32:75:PHE:HB2	2.00	0.43
4:32:107:ARG:HH22	4:32:194:LEU:CD2	2.29	0.43
7:62:67:GLU:HA	7:62:70:LYS:HD2	2.00	0.43
26:14:35:G:H1'	26:14:454:A:C4	2.53	0.43
26:14:172:C:H2'	26:14:173:G:C8	2.53	0.43
26:14:241:A:H5'	26:14:243:U:O4'	2.17	0.43
26:14:1528:A:H2	26:14:1542:G:C2	2.36	0.43
26:14:1569:A:O2'	28:19:37:LEU:HD23	2.17	0.43
26:14:2115:G:C6	26:14:2117:A:C8	3.06	0.43
26:14:2162:G:H2'	26:14:2163:C:H5'	2.00	0.43
26:14:2292:C:H4'	26:14:2375:G:H4'	2.01	0.43
26:14:2820:A:P	38:55:2:ARG:HH12	2.41	0.43
31:49:48:GLU:H	31:49:48:GLU:HG2	1.57	0.43
36:35:105:LEU:O	36:35:106:LEU:HB3	2.18	0.43
39:65:38:GLN:HB2	39:65:40:ILE:HD11	2.00	0.43
41:85:92:ARG:O	41:85:94:ASN:N	2.50	0.43
41:85:95:LEU:HD23	41:85:95:LEU:HA	1.85	0.43
47:E5:49:LYS:HD2	47:E5:82:ARG:NH2	2.33	0.43
48:F5:84:GLY:HA3	48:F5:86:SER:H	1.82	0.43
48:F5:86:SER:H	48:F5:87:PRO:HD2	1.83	0.43
1:13:1053:G:O5'	1:13:1054:C:H3'	2.19	0.43
1:13:1148:U:H2'	1:13:1149:C:O4'	2.18	0.43
1:13:1149:C:H2'	1:13:1150:U:C6	2.53	0.43
1:13:1286:A:C2	21:1F:18:TYR:OH	2.70	0.43
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.19	0.43
2:1E:70:PHE:HB2	2:1E:92:TYR:CB	2.48	0.43
24:3K:48:C:O2	24:3K:59:A:H1'	2.18	0.43
26:1H:686:G:H4'	26:1H:687:C:OP2	2.18	0.43
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.53	0.43
26:1H:2401:U:H3'	26:1H:2402:C:H6	1.83	0.43
29:21:68:ALA:HB1	29:21:70:ALA:O	2.17	0.43
33:61:130:TYR:CG	33:61:131:LYS:N	2.86	0.43
35:68:2:ILE:HD11	35:68:82:ASN:HB3	2.00	0.43
36:78:62:LEU:O	54:Q8:13:ARG:HD3	2.18	0.43
39:A8:62:LYS:HA	39:A8:65:VAL:HB	2.00	0.43
48:J8:92:LYS:HE3	48:J8:92:LYS:HB3	1.67	0.43
48:J8:94:LEU:N	48:J8:97:LEU:O	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.19	0.43
1:1G:109:A:H2'	1:1G:326:G:N2	2.33	0.43
1:1G:797:C:O2'	1:1G:798:G:H5'	2.19	0.43
1:1G:1080:A:OP1	5:42:47:LYS:HE2	2.18	0.43
1:1G:1286:A:H3'	1:1G:1286:A:H8	1.83	0.43
2:12:54:THR:HA	2:12:57:PHE:CG	2.54	0.43
2:12:91:PRO:HG2	2:12:155:LEU:HG	2.00	0.43
12:3A:62:SER:HB2	12:3A:64:TYR:HD1	1.81	0.43
15:6A:47:LYS:H	15:6A:47:LYS:HG2	1.57	0.43
18:9A:37:VAL:HG11	18:9A:78:LEU:HB3	2.00	0.43
26:14:1006:C:C2	26:14:1138:G:N2	2.85	0.43
26:14:2135:A:C5	26:14:2156:G:N2	2.85	0.43
26:14:2269:A:P	59:14:3550:HOH:O	2.76	0.43
30:39:34:TRP:CE2	36:35:8:PRO:HD3	2.53	0.43
31:49:106:LEU:HD12	31:49:110:ALA:HB3	2.00	0.43
32:59:129:THR:HG22	32:59:130:ARG:H	1.83	0.43
40:75:19:LEU:HD22	40:75:86:ILE:CG2	2.48	0.43
41:85:8:VAL:HB	41:85:12:ARG:HE	1.82	0.43
52:J5:20:ARG:HG2	52:J5:23:HIS:CD2	2.53	0.43
1:13:192:U:H1'	20:BI:103:GLY:HA2	1.99	0.43
1:13:983:A:H3'	1:13:983:A:N3	2.33	0.43
1:13:1074:G:N3	1:13:1102:A:C2	2.86	0.43
1:13:1157:A:O2'	1:13:1158:C:OP2	2.34	0.43
1:13:1228:C:H2'	1:13:1229:A:H8	1.83	0.43
1:13:1234:C:H2'	1:13:1235:U:C6	2.54	0.43
6:5E:100:ASN:HD22	18:9I:28:GLU:HA	1.83	0.43
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	2.00	0.43
11:2I:32:ILE:HG12	11:2I:41:THR:O	2.18	0.43
17:8I:76:LEU:HD21	17:8I:79:SER:OG	2.17	0.43
22:1K:53:G:O2'	22:1K:54:5MU:H5''	2.18	0.43
26:1H:997:G:OP1	41:C8:93:LYS:HD2	2.18	0.43
26:1H:1114:G:H2'	26:1H:1115:G:H8	1.82	0.43
26:1H:1931:U:H5	26:1H:1969:A:N7	2.16	0.43
26:1H:2111:C:H41	26:1H:2145:C:H2'	1.83	0.43
26:1H:2256:G:H4'	47:I8:9:SER:HB2	2.00	0.43
31:41:45:GLU:H	31:41:45:GLU:HG2	1.38	0.43
34:58:9:VAL:HG21	34:58:39:ARG:NH1	2.31	0.43
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.99	0.43
39:A8:64:GLU:H	39:A8:64:GLU:HG2	1.56	0.43
44:F8:25:LYS:HG3	44:F8:82:GLN:OE1	2.18	0.43
45:G8:34:LYS:O	45:G8:34:LYS:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:59:LEU:O	46:H8:60:GLU:HB2	2.18	0.43
48:J8:23:LYS:HB3	48:J8:29:GLY:HA3	1.99	0.43
54:Q8:30:ARG:NH1	59:Q8:201:HOH:O	2.50	0.43
1:1G:926:G:N2	25:4L:15:A:OP2	2.51	0.43
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.33	0.43
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.53	0.43
3:22:11:ARG:O	3:22:14:ILE:N	2.46	0.43
6:52:99:ALA:HB3	18:9A:29:PHE:CE1	2.53	0.43
12:3A:41:ARG:HE	12:3A:41:ARG:HB2	1.56	0.43
23:2L:20:G:C4	23:2L:58:A:C2	3.07	0.43
55:3L:40:G:H2'	55:3L:41:G:C8	2.53	0.43
26:14:270(P):C:O5'	26:14:270(P):C:H6	2.01	0.43
26:14:1515:C:H2'	26:14:1516:U:C6	2.52	0.43
26:14:2239:G:P	59:14:3594:HOH:O	2.75	0.43
26:14:2524:G:H1	26:14:2539:C:H42	1.66	0.43
27:1J:42:C:O2	31:49:93:THR:N	2.34	0.43
29:29:33:VAL:HB	29:29:89:ASP:HB2	1.99	0.43
30:39:183:VAL:O	30:39:187:VAL:HG23	2.19	0.43
31:49:131:TYR:O	31:49:159:VAL:HG13	2.18	0.43
32:59:43:VAL:HG12	32:59:51:ARG:O	2.18	0.43
36:35:59:LEU:O	36:35:59:LEU:HD22	2.18	0.43
44:B5:59:VAL:N	44:B5:76:ARG:O	2.44	0.43
52:J5:51:TYR:HD1	52:J5:52:TYR:CE1	2.36	0.43
1:13:123:C:OP1	1:13:311:C:O2'	2.25	0.43
1:13:407:G:H2'	1:13:408:A:C8	2.54	0.43
1:13:486:U:H2'	1:13:487:A:H8	1.83	0.43
1:13:640:A:O2'	8:7E:115:SER:HB2	2.18	0.43
1:13:690:G:H22	11:2I:55:LYS:NZ	2.17	0.43
1:13:776:G:HO2'	1:13:777:A:H8	1.66	0.43
1:13:1032:A:H2'	1:13:1032(B):G:P	2.59	0.43
9:8E:112:LYS:HD2	9:8E:113:LYS:N	2.33	0.43
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.83	0.43
17:8I:22:LEU:HD13	17:8I:41:LYS:HG3	2.00	0.43
23:2K:59:A:H4'	23:2K:60:A:OP1	2.19	0.43
24:3K:37:A:C2	25:4K:13:A:H2	2.36	0.43
26:1H:57:C:H2'	26:1H:58:G:O4'	2.18	0.43
26:1H:530:G:N3	26:1H:530:G:O4'	2.52	0.43
26:1H:1021:A:H3'	26:1H:1022:G:H5''	2.00	0.43
26:1H:1203:G:H3'	26:1H:1204:A:H5''	2.01	0.43
26:1H:1444:G:C2	26:1H:1548:C:N3	2.87	0.43
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2507:C:H5'	26:1H:2573:C:N4	2.33	0.43
29:21:59:VAL:HG22	29:21:60:ASN:H	1.83	0.43
36:78:15:ARG:HD2	36:78:15:ARG:HA	1.57	0.43
37:88:72:LYS:HB3	37:88:94:VAL:HG23	2.00	0.43
1:1G:4:U:C5	8:72:102:ARG:HG3	2.53	0.43
1:1G:278:G:O4'	1:1G:282:A:H1'	2.19	0.43
1:1G:612:C:O2	1:1G:629:G:N2	2.51	0.43
1:1G:865:A:H5'	1:1G:1078:U:C5	2.54	0.43
1:1G:942:G:C2	1:1G:1342:C:C2	3.06	0.43
1:1G:953:G:H5'	1:1G:965:A:H61	1.84	0.43
2:12:15:VAL:HB	2:12:16:HIS:CG	2.54	0.43
3:22:42:LEU:HA	3:22:45:LYS:HE2	1.99	0.43
3:22:47:LEU:HB3	3:22:52:LEU:HD22	2.01	0.43
8:72:103:VAL:HG21	8:72:110:ALA:HB2	2.00	0.43
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	2.00	0.43
14:5A:15:LYS:C	14:5A:16:PHE:CG	2.91	0.43
26:14:139:G:N2	26:14:1596:A:H4'	2.33	0.43
26:14:1344:G:H4'	26:14:1384:A:C5	2.53	0.43
26:14:1530:G:O6	26:14:1542:G:N2	2.51	0.43
26:14:1567:A:O2'	28:19:63:ARG:NH2	2.51	0.43
26:14:1946:U:H2'	26:14:1947:C:H6	1.84	0.43
26:14:2401:U:H2'	26:14:2402:C:H5''	1.99	0.43
26:14:2543:G:H21	26:14:2646:C:H5''	1.83	0.43
28:19:74:GLY:O	28:19:76:PRO:HD3	2.18	0.43
30:39:192:LEU:O	30:39:193:VAL:HG23	2.18	0.43
37:45:38:GLU:HG3	37:45:127:ILE:CG2	2.49	0.43
45:C5:20:TYR:CZ	45:C5:42:VAL:HB	2.53	0.43
46:D5:17:ALA:HA	46:D5:20:ARG:HB2	2.00	0.43
1:13:49:U:O2'	1:13:50:A:H3'	2.18	0.43
1:13:411:A:O2'	1:13:413:G:H5'	2.18	0.43
1:13:1223:C:P	19:AI:78:ARG:NH1	2.88	0.43
1:13:1257:U:H5'	1:13:1258:G:C8	2.53	0.43
1:13:1533:C:H4'	1:13:1534:A:H8	1.84	0.43
2:1E:131:PRO:O	2:1E:135:GLN:N	2.51	0.43
5:4E:8:GLU:OE2	5:4E:63:ARG:NH2	2.51	0.43
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	2.00	0.43
6:5E:100:ASN:C	18:9I:28:GLU:HG2	2.39	0.43
18:9I:59:SER:HB3	18:9I:62:GLU:HG3	2.01	0.43
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.19	0.43
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.99	0.43
26:1H:974(A):C:H4'	26:1H:974(A):C:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2016:U:H1'	52:N8:6:VAL:HG13	1.99	0.43
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.18	0.43
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.33	0.43
26:1H:2689:U:H5''	26:1H:2713:A:H2	1.83	0.43
31:41:17:PRO:HA	31:41:20:ILE:HD12	2.00	0.43
32:51:5:GLY:N	32:51:69:ARG:HG2	2.30	0.43
32:51:169:VAL:HG13	32:51:170:ARG:N	2.33	0.43
33:61:131:LYS:HA	33:61:131:LYS:NZ	2.33	0.43
34:58:12:ARG:HB3	34:58:50:ASP:OD1	2.19	0.43
36:78:18:ARG:HH21	36:78:18:ARG:HG3	1.82	0.43
44:F8:25:LYS:HA	44:F8:81:VAL:O	2.17	0.43
54:Q8:60:LEU:HA	54:Q8:60:LEU:HD12	1.70	0.43
1:1G:44:G:H2'	1:1G:45:U:O4'	2.17	0.43
1:1G:616:G:H2'	1:1G:617:G:H8	1.84	0.43
1:1G:963:G:N2	10:1A:55:LYS:HD3	2.21	0.43
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.17	0.43
1:1G:1353:G:C2	1:1G:1370:G:C2	3.07	0.43
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.53	0.43
3:22:44:GLU:HG3	3:22:52:LEU:HD11	2.01	0.43
19:AA:32:LYS:N	19:AA:33:THR:HG22	2.34	0.43
23:2L:41:C:H2'	23:2L:42:C:C6	2.53	0.43
55:3L:59:A:O5'	55:3L:60:U:H5''	2.18	0.43
26:14:275:G:N2	26:14:276:A:C5	2.78	0.43
26:14:329:G:H1	45:C5:19:LYS:NZ	2.16	0.43
26:14:639:U:H2'	26:14:640:C:C6	2.53	0.43
26:14:827:U:O2	26:14:2246:G:H4'	2.18	0.43
26:14:1810:A:H2'	26:14:1811:G:O4'	2.18	0.43
26:14:2020:A:P	41:85:27:LEU:HD23	2.58	0.43
26:14:2342:C:O2'	26:14:2374:C:H5''	2.17	0.43
27:1J:83:G:H4'	50:H5:52:HIS:CG	2.53	0.43
33:69:8:PRO:N	33:69:15:VAL:HG22	2.32	0.43
44:B5:49:VAL:HB	44:B5:83:VAL:CG2	2.48	0.43
1:13:874:G:C6	1:13:875:C:C4	3.07	0.43
1:13:1165:C:H2'	1:13:1166:G:O4'	2.19	0.43
1:13:1363:A:H4'	1:13:1364:U:H2'	2.00	0.43
4:3E:89:THR:OG1	4:3E:90:GLY:N	2.49	0.43
8:7E:56:LYS:HD2	8:7E:56:LYS:N	2.33	0.43
8:7E:104:ARG:HG3	8:7E:138:TRP:CD1	2.54	0.43
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.99	0.43
24:3K:16:U:O4'	24:3K:60:U:O2'	2.19	0.43
24:3K:34:G:O2'	24:3K:35:G:O4'	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:340:A:H2'	26:1H:341:G:O4'	2.18	0.43
26:1H:2272:U:H5''	26:1H:2273:A:OP1	2.19	0.43
26:1H:2378:A:H4'	39:A8:23:ARG:NH1	2.34	0.43
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.54	0.43
27:16:66:A:C5	27:16:108:C:C5	3.07	0.43
27:16:110:G:H2'	27:16:111:U:O4'	2.19	0.43
28:11:59:LYS:HG2	28:11:60:ARG:N	2.34	0.43
28:11:272:ALA:HB1	28:11:273:ARG:H	1.43	0.43
29:21:52:LEU:O	29:21:76:ARG:HG3	2.18	0.43
30:31:23:ASP:CG	30:31:24:LEU:H	2.22	0.43
30:31:197:ASP:O	30:31:199:TRP:N	2.48	0.43
31:41:61:ALA:HB2	31:41:67:LYS:HA	2.00	0.43
38:98:113:LEU:HD12	38:98:113:LEU:HA	1.82	0.43
47:I8:41:ARG:HA	47:I8:41:ARG:HE	1.83	0.43
52:N8:46:CYS:HB2	52:N8:48:GLU:O	2.19	0.43
53:P8:37:LYS:O	53:P8:37:LYS:HG2	2.19	0.43
1:1G:19:C:H5''	5:42:86:ALA:HB3	2.01	0.43
1:1G:975:A:C4'	1:1G:976:G:H5''	2.40	0.43
1:1G:1020:U:H2'	1:1G:1021:G:O4'	2.19	0.43
1:1G:1347:G:C5	9:82:107:ARG:NH2	2.87	0.43
2:12:136:VAL:HG13	2:12:139:LYS:HD3	2.01	0.43
3:22:65:ALA:HA	3:22:100:ALA:CB	2.48	0.43
4:32:155:LEU:HB3	4:32:158:ILE:HB	2.01	0.43
5:42:101:ILE:HD11	5:42:119:LEU:HD23	2.00	0.43
5:42:101:ILE:HG13	5:42:119:LEU:HA	2.00	0.43
9:82:17:VAL:HG11	9:82:81:ILE:HD13	2.01	0.43
10:1A:28:ARG:NH2	10:1A:34:VAL:O	2.52	0.43
19:AA:3:ARG:HH11	19:AA:7:LYS:HZ3	1.66	0.43
20:BA:14:LYS:HB2	20:BA:17:ARG:NH2	2.33	0.43
22:1L:11:C:H2'	22:1L:12:U:C6	2.54	0.43
26:14:459:U:H4'	53:L5:40:TRP:CZ3	2.53	0.43
26:14:547:A:C6	26:14:548:A:N6	2.86	0.43
26:14:588:U:H1'	30:39:90:PHE:CG	2.54	0.43
26:14:719:C:H6	26:14:719:C:O5'	2.01	0.43
26:14:1198:U:H2'	26:14:1199:U:H6	1.81	0.43
26:14:2156:G:N7	26:14:2157:G:N2	2.67	0.43
26:14:2212:A:H1'	26:14:2215:G:C6	2.54	0.43
59:14:3512:HOH:O	30:39:55:GLY:HA2	2.18	0.43
27:1J:15:A:H1'	27:1J:109:G:C5	2.53	0.43
27:1J:79:C:H2'	27:1J:80:U:O4'	2.18	0.43
27:1J:117:G:O5'	27:1J:117:G:H8	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:101:ARG:HD2	29:29:169:ASN:ND2	2.34	0.43
30:39:20:LEU:HD13	30:39:199:TRP:CH2	2.53	0.43
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.53	0.43
30:39:143:ALA:O	30:39:148:LEU:HB2	2.18	0.43
36:35:7:ARG:HA	36:35:8:PRO:HD2	1.90	0.43
39:65:27:SER:HA	39:65:88:ASP:CB	2.49	0.43
39:65:42:ASP:C	39:65:44:LYS:H	2.21	0.43
54:M5:50:LEU:HD12	54:M5:50:LEU:HA	1.49	0.43
1:13:143:A:H5''	1:13:144:G:H5'	2.00	0.43
1:13:143:A:OP1	1:13:144:G:H5'	2.18	0.43
1:13:599:C:H2'	1:13:600:C:H6	1.84	0.43
1:13:986:A:H2'	1:13:987:G:O4'	2.18	0.43
1:13:1298:C:P	7:6E:114:ARG:HH22	2.42	0.43
1:13:1429:C:H2'	1:13:1430:C:C6	2.53	0.43
2:1E:162:ILE:HD11	2:1E:182:ILE:HG21	2.00	0.43
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	2.00	0.43
9:8E:21:PRO:HG3	9:8E:88:TYR:OH	2.19	0.43
12:3I:60:LEU:HA	12:3I:60:LEU:HD13	1.73	0.43
14:5I:21:TYR:CE2	14:5I:23:ARG:NE	2.86	0.43
23:2K:17:C:H5'	23:2K:62:C:OP1	2.18	0.43
26:1H:142:G:H2'	26:1H:143:C:C6	2.54	0.43
26:1H:799:G:C2'	59:1H:3739:HOH:O	2.66	0.43
26:1H:1568:G:H5''	28:11:61:LEU:CD2	2.49	0.43
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.43
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.19	0.43
26:1H:2534:A:N7	59:1H:3711:HOH:O	2.51	0.43
28:11:181:GLU:HA	28:11:272:ALA:HB3	2.00	0.43
30:31:7:TYR:HD2	30:31:21:ALA:HB1	1.84	0.43
31:41:68:PRO:HG2	31:41:90:LEU:HG	2.01	0.43
32:51:126:PRO:HG2	32:51:130:ARG:HH22	1.83	0.43
34:58:94:HIS:C	34:58:95:PRO:O	2.53	0.43
39:A8:106:ARG:HB3	39:A8:112:PHE:CE1	2.54	0.43
40:B8:81:PRO:HG2	40:B8:82:LEU:HD12	2.01	0.43
40:B8:132:LYS:HE3	40:B8:132:LYS:HB3	1.60	0.43
50:L8:31:LEU:O	50:L8:32:GLN:HB2	2.19	0.43
1:1G:1060:C:H5''	10:1A:51:ARG:HG2	2.00	0.43
1:1G:1497:G:C2'	1:1G:1498:U:H5'	2.49	0.43
17:8A:4:LYS:HD2	17:8A:5:VAL:H	1.84	0.43
55:3L:2:C:O2'	55:3L:3:U:OP1	2.31	0.43
55:3L:38:A:H5'	55:3L:39:G:OP2	2.18	0.43
55:3L:59:A:N3	55:3L:59:A:H2'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:307:G:N2	26:14:309:G:H3'	2.33	0.43
26:14:2182:G:H2'	26:14:2183:C:C6	2.54	0.43
26:14:2849:U:H1'	26:14:2866:U:O2	2.19	0.43
26:14:2875:C:OP1	40:75:3:ARG:NH2	2.48	0.43
27:1J:6:C:C2	27:1J:115:G:N2	2.87	0.43
29:29:80:GLU:O	29:29:81:ILE:C	2.57	0.43
31:49:64:THR:HB	31:49:94:LEU:HD21	2.00	0.43
37:45:41:TRP:HZ3	37:45:74:TYR:HE1	1.65	0.43
45:C5:28:LYS:HB3	45:C5:38:ILE:HB	2.01	0.43
1:13:2:U:O2	1:13:612:C:O2'	2.37	0.43
1:13:210:U:O2'	1:13:216:G:O4'	2.32	0.43
1:13:280:C:C2	17:8I:38:ARG:HG3	2.54	0.43
1:13:1271:G:H2'	1:13:1272:G:H5''	2.00	0.43
1:13:1277:C:O2'	1:13:1279:A:H1'	2.19	0.43
1:13:1306:A:N6	1:13:1331:G:H1'	2.34	0.43
2:1E:91:PRO:HG3	2:1E:155:LEU:HB2	1.99	0.43
4:3E:26:CYS:HA	57:3E:302:SF4:S3	2.59	0.43
4:3E:98:GLU:OE2	4:3E:107:ARG:NH1	2.51	0.43
4:3E:108:LEU:HD13	4:3E:174:LEU:HD13	2.00	0.43
9:8E:22:GLY:HA3	9:8E:60:ASP:OD1	2.18	0.43
14:5I:47:LEU:HA	14:5I:47:LEU:HD23	1.71	0.43
22:1K:52:A:N6	22:1K:62:U:H3	2.17	0.43
26:1H:95:G:O2'	49:K8:48:HIS:HB3	2.18	0.43
26:1H:254:G:O2'	26:1H:384:U:H5'	2.18	0.43
26:1H:783:A:H8	26:1H:784:A:H4'	1.84	0.43
26:1H:818:G:OP2	59:1H:3838:HOH:O	2.21	0.43
26:1H:2822:G:H5''	29:21:159:HIS:NE2	2.34	0.43
31:41:53:LEU:HA	31:41:53:LEU:HD12	1.73	0.43
32:51:88:LEU:HD13	32:51:129:THR:O	2.18	0.43
38:98:9:LYS:HA	38:98:17:ARG:NE	2.34	0.43
43:E8:71:VAL:HA	43:E8:107:LEU:HD12	2.01	0.43
1:1G:111:G:H8	1:1G:111:G:O5'	2.01	0.43
1:1G:1357:A:C2'	1:1G:1358:U:H5'	2.48	0.43
2:12:15:VAL:HB	2:12:16:HIS:ND1	2.34	0.43
4:32:60:GLU:HG2	4:32:202:LEU:HB2	2.01	0.43
13:4A:37:THR:HG22	13:4A:55:ARG:HB3	2.00	0.43
20:BA:49:ALA:HB3	20:BA:100:ILE:HD13	2.01	0.43
22:1L:74:C:H5	22:1L:75:C:N4	2.17	0.43
22:1L:76:A:H1'	26:14:2583:G:N2	2.34	0.43
55:3L:37:A:H2'	55:3L:38:A:O4'	2.18	0.43
26:14:324:A:H2'	26:14:325:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2291:U:H2'	26:14:2292:C:C6	2.54	0.43
26:14:2734:A:H2'	26:14:2735:G:O4'	2.19	0.43
29:29:112:GLY:O	29:29:159:HIS:HA	2.19	0.43
32:59:156:ALA:HB3	32:59:160:LYS:O	2.19	0.43
36:35:57:THR:HG22	36:35:60:MET:H	1.84	0.43
46:D5:152:ALA:HA	46:D5:171:ILE:HD11	2.01	0.43
1:13:73:G:H2'	1:13:74:C:H5	1.82	0.43
1:13:158:G:C4	1:13:159:G:N7	2.87	0.43
1:13:303:A:HO2'	1:13:555:C:HO2'	1.67	0.43
1:13:346:G:N2	1:13:347:G:C4	2.86	0.43
1:13:538:G:OP2	12:3I:115:LYS:HB2	2.18	0.43
1:13:639:G:C2	1:13:640:A:C8	3.07	0.43
1:13:658:G:H2'	1:13:659:U:H6	1.82	0.43
1:13:680:C:H2'	1:13:681:C:C6	2.54	0.43
1:13:972:C:O3'	10:1I:57:LYS:HD3	2.19	0.43
1:13:1113:C:H2'	1:13:1114:C:H6	1.82	0.43
1:13:1118:C:H1'	1:13:1179:A:C4	2.54	0.43
1:13:1253:G:H2'	1:13:1254:C:C6	2.54	0.43
1:13:1286:A:H2'	1:13:1287:A:H4'	2.01	0.43
5:4E:80:ILE:HG12	5:4E:81:GLU:N	2.33	0.43
8:7E:10:LEU:HB3	8:7E:83:ILE:CD1	2.49	0.43
16:7I:21:VAL:HG23	16:7I:34:GLU:H	1.84	0.43
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.19	0.43
26:1H:415:A:H2'	26:1H:416:C:O4'	2.18	0.43
26:1H:721:C:H2'	26:1H:722:A:C8	2.54	0.43
26:1H:839:U:H2'	26:1H:840:C:C6	2.53	0.43
26:1H:844:C:H3'	26:1H:845:G:C8	2.54	0.43
26:1H:918:A:H8	26:1H:918:A:O5'	2.02	0.43
26:1H:1092:C:H2'	26:1H:1093:G:O4'	2.19	0.43
26:1H:1419:A:C8	26:1H:1421:G:C6	3.07	0.43
26:1H:1465:G:C4	26:1H:1466:G:C8	3.07	0.43
26:1H:1678:G:O5'	26:1H:1678:G:C8	2.72	0.43
27:16:7:G:H5''	27:16:7:G:H8	1.83	0.43
30:31:102:PRO:O	30:31:106:ARG:HG2	2.19	0.43
32:51:87:LEU:HD23	32:51:87:LEU:HA	1.74	0.43
33:61:68:LEU:HD12	33:61:68:LEU:HA	1.80	0.43
38:98:86:ARG:HH21	38:98:118:GLU:HG2	1.84	0.43
38:98:104:ARG:HD3	38:98:107:ASP:OD2	2.19	0.43
41:C8:36:ARG:HD3	41:C8:40:PHE:CZ	2.53	0.43
41:C8:66:ASN:O	41:C8:70:ARG:HB2	2.19	0.43
41:C8:92:ARG:HH21	42:D8:10:LYS:CB	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:I8:51:VAL:N	47:I8:62:LEU:HD12	2.33	0.43
53:P8:16:HIS:HB2	53:P8:44:PRO:HG2	2.01	0.43
1:1G:328:C:O2	1:1G:328:C:H2'	2.19	0.43
1:1G:345:C:H4'	1:1G:346:G:O5'	2.18	0.43
1:1G:1276:G:H2'	1:1G:1277:C:C6	2.54	0.43
3:22:38:ARG:H	3:22:38:ARG:HG2	1.71	0.43
3:22:152:ILE:HB	3:22:199:LYS:HB2	2.01	0.43
4:32:31:CYS:HA	57:32:301:SF4:S2	2.59	0.43
5:42:70:PRO:HD2	5:42:142:LEU:HB2	2.00	0.43
17:8A:90:ILE:HD12	17:8A:90:ILE:HA	1.85	0.43
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.34	0.43
22:1L:49:G:N3	22:1L:49:G:H2'	2.34	0.43
55:3L:70:A:H2'	55:3L:71:G:C8	2.54	0.43
26:14:218:A:C2	26:14:235:U:H4'	2.54	0.43
26:14:839:U:H2'	26:14:840:C:H6	1.84	0.43
26:14:1277:G:O2'	38:55:24:GLN:HG2	2.19	0.43
26:14:1420:U:HO2'	26:14:1421:G:P	2.42	0.43
26:14:2068:U:N3	26:14:2430:A:C2	2.77	0.43
26:14:2563:U:O2	26:14:2565:A:H8	2.01	0.43
29:29:32:PRO:O	29:29:34:VAL:HG23	2.18	0.43
30:39:149:ASP:N	30:39:149:ASP:OD1	2.51	0.43
31:49:115:ARG:HB2	31:49:136:ARG:NH2	2.34	0.43
33:69:52:ARG:HA	33:69:55:ALA:HB3	2.01	0.43
34:15:61:ARG:HA	34:15:61:ARG:NH1	2.33	0.43
35:25:113:LYS:O	35:25:117:LEU:HD22	2.18	0.43
39:65:36:TYR:CD1	39:65:36:TYR:N	2.87	0.43
46:D5:91:LEU:HD12	46:D5:91:LEU:H	1.84	0.43
1:13:590:C:H2'	1:13:591:U:H6	1.83	0.42
1:13:648:A:C6	1:13:649:G:C6	3.07	0.42
1:13:963:G:H21	10:1I:55:LYS:HZ1	1.61	0.42
6:5E:25:ILE:HA	6:5E:25:ILE:HD13	1.80	0.42
20:BI:44:ALA:HB3	20:BI:91:LEU:HD12	2.01	0.42
22:1K:3:U:O2	22:1K:3:U:H2'	2.18	0.42
26:1H:139:G:N3	26:1H:141:A:N1	2.67	0.42
26:1H:248:G:H5'	26:1H:250:G:N7	2.33	0.42
26:1H:1425:G:H2'	26:1H:1426:G:O4'	2.19	0.42
26:1H:1677:A:H8	26:1H:1677:A:O5'	2.02	0.42
26:1H:2287:A:C4	26:1H:2289:G:C8	3.07	0.42
26:1H:2680:C:H5'	29:21:189:PRO:HA	2.01	0.42
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.18	0.42
27:16:79:C:O5'	27:16:79:C:H6	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:86:GLU:OE2	32:51:165:ALA:N	2.52	0.42
42:D8:49:THR:OG1	42:D8:50:PRO:HD2	2.18	0.42
46:H8:120:ILE:HG21	46:H8:170:THR:CB	2.49	0.42
47:I8:10:THR:C	47:I8:12:ASN:H	2.21	0.42
1:1G:631:G:H1'	1:1G:632:A:H5'	2.01	0.42
1:1G:1142:G:H2'	1:1G:1143:G:O4'	2.19	0.42
3:22:73:PRO:HA	3:22:76:VAL:HG13	2.01	0.42
4:32:170:VAL:HG12	4:32:171:GLY:H	1.84	0.42
7:62:65:ALA:HB3	7:62:124:LEU:HD22	2.00	0.42
55:3L:40:G:H2'	55:3L:41:G:H8	1.84	0.42
26:14:185:U:H4'	26:14:218:A:H4'	2.00	0.42
26:14:486:C:H4'	43:A5:60:ASN:HD22	1.84	0.42
26:14:620:G:N3	26:14:620:G:H5'	2.34	0.42
26:14:688:U:H5'	26:14:1780:A:C2	2.54	0.42
26:14:1153:C:H2'	26:14:1154:G:O4'	2.19	0.42
29:29:37:ARG:HA	29:29:42:ASP:OD2	2.19	0.42
35:25:87:ILE:HG23	35:25:88:ASN:O	2.19	0.42
37:45:73:PRO:HB3	37:45:93:TYR:CE1	2.54	0.42
39:65:35:ILE:HB	39:65:97:ARG:HH21	1.84	0.42
40:75:24:PRO:HD3	40:75:52:ILE:HD12	2.01	0.42
40:75:45:PHE:CD1	40:75:74:ARG:HG3	2.53	0.42
42:95:29:PRO:HA	42:95:61:VAL:CG1	2.48	0.42
46:D5:6:LYS:HD3	46:D5:8:TYR:HE2	1.83	0.42
46:D5:94:GLU:HB3	46:D5:96:VAL:CG2	2.47	0.42
1:13:444:C:H42	1:13:490:G:H1	1.66	0.42
1:13:603:U:H2'	1:13:604:G:C8	2.54	0.42
1:13:1329:A:H5'	13:4I:29:ARG:HD2	2.01	0.42
1:13:1429:C:H2'	1:13:1430:C:H6	1.83	0.42
2:1E:22:LYS:C	2:1E:24:TRP:H	2.22	0.42
3:2E:50:ALA:HB2	3:2E:75:VAL:HB	2.01	0.42
7:6E:25:ALA:O	7:6E:29:LYS:HG2	2.18	0.42
7:6E:121:ALA:O	7:6E:125:MET:HG3	2.19	0.42
17:8I:89:LEU:HD22	17:8I:89:LEU:HA	1.88	0.42
20:BI:44:ALA:HB1	20:BI:91:LEU:HB2	2.00	0.42
26:1H:184:C:H2'	26:1H:185:U:H6	1.82	0.42
26:1H:482:A:H5''	26:1H:483:A:OP1	2.20	0.42
26:1H:657:U:H2'	26:1H:658:C:C6	2.54	0.42
26:1H:996:A:H4'	41:C8:92:ARG:NE	2.34	0.42
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.54	0.42
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.54	0.42
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2135:A:H5'	26:1H:2160:G:O4'	2.19	0.42
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.20	0.42
27:16:40:U:H2'	51:M8:2:LYS:HE3	2.01	0.42
28:11:119:ALA:CB	28:11:130:ALA:HB3	2.49	0.42
29:21:101:ARG:HG2	29:21:169:ASN:CG	2.39	0.42
30:31:7:TYR:CD2	30:31:21:ALA:HB1	2.53	0.42
31:41:97:ASP:HA	31:41:100:TRP:HB2	2.01	0.42
32:51:115:VAL:HG11	32:51:148:ILE:HD11	2.01	0.42
34:58:73:THR:HA	34:58:83:LYS:O	2.18	0.42
46:H8:30:ASN:OD1	46:H8:33:LEU:HD23	2.19	0.42
48:J8:81:LYS:C	48:J8:83:GLU:H	2.23	0.42
54:Q8:23:VAL:CG1	54:Q8:47:LYS:HD3	2.49	0.42
1:1G:363:A:C5	12:3A:31:PRO:HD2	2.54	0.42
1:1G:678:U:H2'	1:1G:679:C:C6	2.54	0.42
1:1G:901:A:C5	1:1G:902:G:H1'	2.54	0.42
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.18	0.42
1:1G:1101:A:N7	2:12:172:ILE:HD11	2.34	0.42
1:1G:1206:G:O2'	3:22:193:TYR:HA	2.19	0.42
1:1G:1289:A:OP1	21:1B:9:ARG:NH2	2.52	0.42
2:12:189:ASP:OD1	2:12:189:ASP:N	2.53	0.42
10:1A:33:GLN:HB2	10:1A:75:ILE:CG1	2.45	0.42
13:4A:23:TYR:CZ	13:4A:71:ARG:HG3	2.54	0.42
17:8A:87:LYS:O	17:8A:90:ILE:HG22	2.19	0.42
22:1L:72:C:O2'	22:1L:73:A:H5'	2.19	0.42
23:2L:14:A:C2	23:2L:23:G:C4	3.07	0.42
23:2L:50:G:H1	23:2L:66:C:H42	1.67	0.42
26:14:546:C:H2'	26:14:547:A:C8	2.55	0.42
26:14:830:G:H5''	59:14:3748:HOH:O	2.19	0.42
26:14:1035:U:H2'	26:14:1036:G:C8	2.55	0.42
26:14:1657:C:H2'	26:14:1658:C:C6	2.54	0.42
26:14:2212:A:H1'	26:14:2215:G:C5	2.54	0.42
26:14:2410:G:C2	26:14:2411:A:H1'	2.54	0.42
26:14:2572:A:OP1	26:14:2574:G:O2'	2.27	0.42
29:29:4:ILE:HD13	29:29:28:ALA:HB1	2.00	0.42
29:29:181:LEU:HD12	29:29:181:LEU:HA	1.85	0.42
31:49:18:GLU:CD	31:49:21:ARG:HH21	2.22	0.42
34:15:91:LEU:HA	34:15:91:LEU:HD23	1.65	0.42
39:65:23:ARG:NH2	39:65:84:GLN:HB3	2.33	0.42
41:85:48:ALA:O	41:85:52:ARG:HB3	2.20	0.42
42:95:18:LEU:O	42:95:96:ILE:HG12	2.19	0.42
1:13:898:G:HO2'	1:13:900:A:H62	1.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:933:G:OP2	7:6E:3:ARG:HB2	2.19	0.42
1:13:1240:U:OP2	7:6E:116:ALA:N	2.47	0.42
2:1E:154:LEU:CD1	2:1E:154:LEU:H	2.32	0.42
3:2E:72:LYS:HD3	3:2E:75:VAL:HG21	2.00	0.42
7:6E:115:ARG:HB3	7:6E:118:VAL:HG12	2.02	0.42
12:3I:37:CYS:O	12:3I:79:GLU:O	2.37	0.42
16:7I:4:ILE:HD12	16:7I:66:PRO:HD3	2.01	0.42
26:1H:176:G:C2'	26:1H:177:G:H5'	2.50	0.42
26:1H:508:G:N3	26:1H:508:G:H5''	2.34	0.42
26:1H:937:U:H2'	26:1H:938:G:O4'	2.19	0.42
26:1H:1279:G:N2	26:1H:1292:U:C2	2.87	0.42
26:1H:1311:G:C2	44:F8:60:ARG:NH1	2.87	0.42
26:1H:1381:G:H2'	26:1H:1382:G:H5'	2.01	0.42
26:1H:1528:A:C6	26:1H:1529:A:C6	3.08	0.42
26:1H:1671:U:O5'	26:1H:1671:U:H6	2.02	0.42
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.19	0.42
26:1H:2309:A:C6	26:1H:2310:A:N7	2.87	0.42
26:1H:2418:A:H5''	26:1H:2419:U:OP2	2.20	0.42
26:1H:2687:U:H2'	26:1H:2688:U:O4'	2.19	0.42
29:21:76:ARG:HG3	29:21:76:ARG:H	1.69	0.42
32:51:7:LEU:HD23	32:51:8:PRO:HD2	2.02	0.42
37:88:75:THR:HA	37:88:89:ASN:O	2.19	0.42
38:98:46:GLY:HA2	38:98:49:ASP:HB2	2.01	0.42
42:D8:69:LYS:HA	42:D8:88:ARG:HB3	2.01	0.42
45:G8:64:GLU:H	45:G8:64:GLU:HG2	1.67	0.42
46:H8:5:LEU:HD11	46:H8:39:VAL:HB	2.01	0.42
54:Q8:36:LYS:HA	54:Q8:40:GLU:OE1	2.19	0.42
1:1G:148:G:H1	1:1G:174:C:H42	1.67	0.42
1:1G:652:U:O2'	1:1G:653:A:O5'	2.38	0.42
1:1G:731:G:OP1	1:1G:766:A:H1'	2.18	0.42
1:1G:999:U:H3	1:1G:1041:A:H61	1.67	0.42
1:1G:1011:G:C2	1:1G:1019:C:O2	2.72	0.42
1:1G:1216:G:H2'	1:1G:1217:C:H6	1.84	0.42
1:1G:1305:G:H8	1:1G:1305:G:OP2	2.02	0.42
1:1G:1324:A:C4'	1:1G:1362:C:H4'	2.48	0.42
4:32:81:GLU:HG2	4:32:96:LEU:HD21	2.01	0.42
5:42:79:GLU:HB3	5:42:92:LYS:HG3	2.00	0.42
15:6A:12:ILE:O	15:6A:16:ALA:N	2.52	0.42
22:1L:53:G:H2'	22:1L:54:5MU:O4'	2.19	0.42
25:4L:24:A:H3'	25:4L:24:A:H8	1.84	0.42
26:14:6:A:C6	34:15:129:PRO:O	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:232:G:H8	26:14:232:G:OP2	2.02	0.42
26:14:1316:U:H2'	26:14:1317:A:H8	1.84	0.42
26:14:1505:C:H2'	26:14:1506:C:H6	1.84	0.42
26:14:1754:C:H2'	26:14:1755:A:C8	2.54	0.42
26:14:2810:A:N6	26:14:2891:G:O2'	2.52	0.42
29:29:5:LEU:HD13	29:29:49:LEU:CD1	2.48	0.42
30:39:178:PRO:HB2	30:39:201:VAL:HG11	2.02	0.42
36:35:39:LYS:CD	36:35:45:LEU:HD21	2.47	0.42
39:65:7:TYR:O	39:65:11:LYS:HB2	2.19	0.42
41:85:90:VAL:HA	42:95:38:LEU:HD21	2.01	0.42
46:D5:158:PRO:O	46:D5:161:VAL:HG22	2.19	0.42
1:13:8:A:H62	4:3E:208:SER:HB2	1.85	0.42
1:13:376:G:H5''	16:7I:5:ARG:HB2	2.00	0.42
4:3E:90:GLY:O	4:3E:93:PHE:HB3	2.19	0.42
4:3E:156:GLU:O	4:3E:160:GLN:HG3	2.19	0.42
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.83	0.42
17:8I:48:GLU:H	17:8I:48:GLU:HG3	1.64	0.42
19:AI:40:ILE:CG1	19:AI:41:VAL:HG13	2.48	0.42
20:BI:35:THR:O	20:BI:38:LYS:HB2	2.19	0.42
22:1K:15:G:H22	22:1K:48:C:H41	1.66	0.42
24:3K:52:A:H2'	24:3K:53:G:C8	2.55	0.42
26:1H:365:C:H2'	26:1H:366:C:O4'	2.19	0.42
26:1H:475:U:C4	26:1H:481:G:O6	2.73	0.42
26:1H:574:C:P	59:1H:3752:HOH:O	2.72	0.42
26:1H:705:A:C8	26:1H:727:A:C2	3.08	0.42
26:1H:733:G:O6	59:1H:3831:HOH:O	2.19	0.42
26:1H:806:C:OP2	36:78:41:ARG:HD3	2.19	0.42
26:1H:1185:C:P	59:1H:3939:HOH:O	2.77	0.42
26:1H:1933:G:H2'	26:1H:1934:C:O4'	2.19	0.42
26:1H:1965:C:H3'	26:1H:1966:A:H2'	2.01	0.42
26:1H:2101:G:H1	26:1H:2188:C:N4	2.10	0.42
26:1H:2356:C:O3'	47:I8:20:ARG:HD3	2.19	0.42
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.19	0.42
26:1H:2761:G:N7	59:1H:3916:HOH:O	2.37	0.42
29:21:49:LEU:HD12	29:21:49:LEU:HA	1.51	0.42
30:31:20:LEU:HD12	30:31:21:ALA:H	1.84	0.42
31:41:80:PHE:O	31:41:82:LEU:HB2	2.18	0.42
34:58:23:LEU:HA	34:58:23:LEU:HD12	1.76	0.42
40:B8:54:ARG:HA	40:B8:59:THR:HB	2.01	0.42
47:I8:14:ARG:HE	47:I8:14:ARG:HB2	1.51	0.42
54:Q8:50:LEU:HD22	54:Q8:50:LEU:HA	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:575:G:H4'	1:1G:576:G:O5'	2.19	0.42
1:1G:652:U:H1'	1:1G:653:A:C2	2.49	0.42
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.35	0.42
2:12:111:ARG:HG3	2:12:145:LEU:HD11	2.01	0.42
2:12:189:ASP:HB3	2:12:203:GLY:O	2.18	0.42
16:7A:25:ARG:HB2	59:7A:103:HOH:O	2.18	0.42
17:8A:55:ASP:OD1	17:8A:55:ASP:N	2.52	0.42
22:1L:50:G:N2	22:1L:51:C:N3	2.68	0.42
26:14:198:C:O2'	26:14:199:A:H5'	2.18	0.42
26:14:263:C:H2'	26:14:264:C:O4'	2.20	0.42
26:14:1149:G:H2'	26:14:1150:C:C6	2.54	0.42
26:14:1668:A:OP1	35:25:5:GLN:HG2	2.20	0.42
26:14:1790:C:H2'	26:14:1791:A:C5	2.54	0.42
26:14:1915:U:H2'	26:14:1916:A:O4'	2.19	0.42
26:14:2607:G:H2'	26:14:2608:G:O4'	2.19	0.42
32:59:20:ALA:HB1	32:59:23:ARG:HG3	2.00	0.42
35:25:22:ILE:HA	35:25:22:ILE:HD13	1.39	0.42
36:35:96:THR:HG23	36:35:99:LEU:HB2	2.02	0.42
37:45:43:THR:OG1	37:45:45:GLN:HG2	2.19	0.42
39:65:18:ILE:O	39:65:20:ARG:N	2.51	0.42
40:75:45:PHE:CZ	40:75:74:ARG:HG3	2.55	0.42
44:B5:11:PRO:HD3	49:G5:37:PHE:CD2	2.54	0.42
1:13:31:G:O2'	1:13:48:C:N4	2.53	0.42
1:13:186:C:H1'	20:BI:85:MET:HE3	2.00	0.42
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	2.01	0.42
14:5I:3:ARG:O	14:5I:7:ILE:HG23	2.20	0.42
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	2.01	0.42
22:1K:43:G:H2'	22:1K:44:A:H8	1.84	0.42
26:1H:322:A:OP2	30:31:169:ASN:HB2	2.19	0.42
26:1H:455:C:N3	26:1H:473:G:H5'	2.34	0.42
26:1H:459:U:H2'	26:1H:460:A:C8	2.54	0.42
26:1H:1850:G:H2'	26:1H:1851:U:C6	2.54	0.42
59:1H:4095:HOH:O	38:98:15:SER:HB3	2.20	0.42
33:61:70:GLU:HA	33:61:70:GLU:OE2	2.19	0.42
33:61:78:THR:HG22	33:61:141:LYS:HB2	2.01	0.42
39:A8:106:ARG:HB3	39:A8:112:PHE:HE1	1.85	0.42
46:H8:124:ILE:HD12	46:H8:125:LEU:H	1.85	0.42
48:J8:86:SER:HB3	48:J8:89:GLU:HB2	2.02	0.42
49:K8:4:SER:H	49:K8:7:ARG:N	2.06	0.42
51:M8:22:ILE:O	51:M8:24:THR:HG23	2.19	0.42
1:1G:108:G:H5''	1:1G:108:G:N3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:130:A:O2'	1:1G:131:C:O5'	2.32	0.42
1:1G:184:G:O2'	1:1G:185:A:H5'	2.19	0.42
1:1G:1160:G:H1	1:1G:1176:A:H61	1.67	0.42
2:12:49:GLU:HA	2:12:52:GLU:HG3	2.00	0.42
4:32:98:GLU:HG3	4:32:103:ASN:ND2	2.34	0.42
5:42:90:VAL:O	5:42:120:THR:HA	2.20	0.42
13:4A:68:GLY:O	13:4A:72:ALA:N	2.50	0.42
13:4A:83:ASP:O	13:4A:84:ILE:C	2.58	0.42
19:AA:37:ARG:H	19:AA:37:ARG:HG3	1.65	0.42
22:1L:50:G:C2	22:1L:51:C:C4	3.08	0.42
26:14:302:C:N4	59:14:3693:HOH:O	2.52	0.42
26:14:1542:G:O5'	26:14:1543:A:H5''	2.19	0.42
26:14:1543:A:H1'	26:14:1545:A:H1'	2.02	0.42
26:14:1670:C:O2	29:29:129:HIS:NE2	2.47	0.42
26:14:1716:U:O2'	26:14:1717:G:H5'	2.20	0.42
26:14:2101:G:H2'	26:14:2102:U:O4'	2.19	0.42
26:14:2261:C:H1'	26:14:2388:A:N3	2.34	0.42
26:14:2396:G:H4'	48:F5:30:VAL:HA	2.02	0.42
26:14:2441:C:O2'	26:14:2442:C:H5'	2.19	0.42
27:1J:23:G:C2	27:1J:24:G:O6	2.73	0.42
27:1J:76:G:H5''	46:D5:15:PRO:HG3	2.00	0.42
28:19:2:ALA:N	28:19:200:ASP:OD2	2.52	0.42
46:D5:127:LYS:HB3	46:D5:162:GLU:O	2.20	0.42
52:J5:41:PRO:HG2	52:J5:44:THR:OG1	2.19	0.42
1:13:7:G:O2'	5:4E:120:THR:O	2.38	0.42
1:13:384:G:H2'	1:13:385:C:C6	2.55	0.42
1:13:721:G:C6	1:13:733:A:C2	3.08	0.42
1:13:1331:G:O2'	1:13:1332:A:O5'	2.34	0.42
2:1E:16:HIS:HE2	2:1E:214:ILE:HD11	1.84	0.42
2:1E:69:LEU:HB3	2:1E:162:ILE:HG23	2.00	0.42
2:1E:74:LYS:HG3	2:1E:208:ILE:HD13	2.01	0.42
3:2E:58:GLU:O	3:2E:59:ARG:HG3	2.20	0.42
6:5E:99:ALA:HB1	18:9I:23:LYS:HD2	2.01	0.42
12:3I:62:SER:HB2	12:3I:64:TYR:CD2	2.42	0.42
18:9I:85:LEU:HD12	18:9I:86:VAL:H	1.84	0.42
22:1K:18:G:H2'	22:1K:57:G:C4	2.54	0.42
26:1H:832:G:C5'	36:78:45:LEU:HD11	2.43	0.42
26:1H:1762:A:OP1	26:1H:1762:A:H4'	2.20	0.42
28:11:221:VAL:HG22	28:11:226:MET:HE2	2.00	0.42
33:61:1:MET:O	33:61:21:VAL:N	2.39	0.42
36:78:79:ARG:HB3	36:78:110:TYR:CD1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:61:ASN:OD1	39:A8:64:GLU:HG2	2.18	0.42
41:C8:89:GLU:H	41:C8:89:GLU:HG3	1.51	0.42
42:D8:5:VAL:HG12	42:D8:38:LEU:HB3	2.00	0.42
51:M8:60:GLN:HG3	51:M8:61:ARG:NH1	2.35	0.42
1:1G:1279:A:H5''	1:1G:1280:A:P	2.60	0.42
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.01	0.42
2:12:18:GLY:O	2:12:204:ASN:ND2	2.53	0.42
2:12:54:THR:HA	2:12:57:PHE:HB2	2.01	0.42
3:22:65:ALA:HA	3:22:100:ALA:HB3	2.02	0.42
3:22:125:GLU:H	3:22:125:GLU:HG3	1.65	0.42
4:32:110:PHE:N	4:32:110:PHE:CD1	2.87	0.42
5:42:31:LEU:HD11	5:42:43:LEU:HD12	2.02	0.42
9:82:5:TYR:HD1	9:82:18:PHE:HD1	1.68	0.42
10:1A:45:ARG:O	10:1A:65:LEU:N	2.52	0.42
13:4A:80:ARG:NE	19:AA:66:MET:HG2	2.35	0.42
22:1L:2:C:H42	22:1L:68:U:H5	1.67	0.42
26:14:991:C:O2	26:14:1164:G:C2	2.73	0.42
26:14:1028:A:H61	26:14:1125:G:H2'	1.83	0.42
26:14:1190:G:OP1	36:35:32:THR:HA	2.19	0.42
26:14:2020:A:OP1	41:85:27:LEU:HD23	2.20	0.42
26:14:2209:C:O2	26:14:2216:G:C2	2.72	0.42
26:14:2494:G:O2'	37:45:80:GLU:HA	2.19	0.42
29:29:8:LYS:HE2	29:29:188:VAL:HG22	2.01	0.42
29:29:174:ASP:OD1	29:29:175:VAL:N	2.53	0.42
30:39:103:LYS:HA	30:39:106:ARG:HG3	2.00	0.42
34:15:22:THR:HA	34:15:61:ARG:HB2	2.02	0.42
1:13:157:G:H2'	1:13:158:G:C8	2.55	0.42
1:13:760:G:H2'	1:13:761:G:H5'	2.01	0.42
1:13:985:C:H2'	1:13:986:A:H8	1.85	0.42
1:13:1174:G:H2'	1:13:1175:G:C8	2.54	0.42
7:6E:113:GLU:HG3	7:6E:119:ARG:HA	2.00	0.42
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.34	0.42
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.31	0.42
11:2I:86:GLY:HA2	11:2I:112:THR:HG23	2.02	0.42
14:5I:15:LYS:HG2	14:5I:16:PHE:CE2	2.55	0.42
15:6I:17:ARG:HG2	15:6I:17:ARG:H	1.68	0.42
17:8I:31:LEU:HD22	17:8I:32:TYR:CE1	2.54	0.42
20:BI:72:LEU:HD23	20:BI:72:LEU:HA	1.74	0.42
26:1H:116:C:O2'	26:1H:117:G:H5'	2.19	0.42
26:1H:304:G:H2'	26:1H:305:U:C6	2.55	0.42
26:1H:562:U:O4	26:1H:2036:C:H1'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1164:G:O6	59:1H:3788:HOH:O	2.22	0.42
26:1H:1317:A:H2'	26:1H:1318:C:H6	1.84	0.42
26:1H:1535:U:H3'	26:1H:1537:C:C4	2.54	0.42
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.20	0.42
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.34	0.42
26:1H:2860:A:N7	26:1H:2861:G:H1'	2.35	0.42
26:1H:2865:U:C4	26:1H:2866:U:C4	3.08	0.42
26:1H:2876:G:O5'	40:B8:2:ASN:HA	2.20	0.42
27:16:71:C:C2	27:16:72:G:C8	3.08	0.42
38:98:86:ARG:NH2	38:98:118:GLU:HG2	2.34	0.42
38:98:103:ARG:NH1	38:98:108:GLY:O	2.52	0.42
44:F8:12:VAL:HG22	44:F8:17:ALA:HB2	2.02	0.42
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.20	0.42
48:J8:49:VAL:HG11	48:J8:70:VAL:HG11	2.00	0.42
1:1G:538:G:O3'	12:3A:114:LYS:NZ	2.41	0.42
1:1G:837:G:H2'	1:1G:838:G:C8	2.54	0.42
1:1G:1049:U:H1'	1:1G:1201:A:C8	2.54	0.42
1:1G:1157:A:H61	1:1G:1177:G:H1	1.68	0.42
8:72:100:ILE:O	8:72:125:ARG:NH1	2.52	0.42
18:9A:32:ARG:HA	18:9A:69:THR:HG21	2.02	0.42
26:14:878:A:N7	26:14:879:G:H1'	2.34	0.42
26:14:1000:A:C6	26:14:1001:A:N1	2.87	0.42
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.55	0.42
26:14:1999:C:H4'	26:14:2723:C:O2	2.20	0.42
26:14:2062:A:N6	26:14:2503:A:H62	2.16	0.42
26:14:2319:G:N7	39:65:3:ARG:HG3	2.34	0.42
26:14:2643:G:H2'	26:14:2644:G:O4'	2.20	0.42
26:14:2873:A:C8	38:55:5:LYS:HA	2.55	0.42
29:29:47:VAL:HG21	29:29:85:ASN:HA	2.00	0.42
31:49:47:LYS:HA	31:49:87:PRO:HG2	2.01	0.42
34:15:15:LEU:HD23	34:15:134:ARG:HB2	2.01	0.42
46:D5:44:PHE:HE2	46:D5:88:PHE:CZ	2.38	0.42
46:D5:94:GLU:O	46:D5:130:PRO:HD3	2.20	0.42
46:D5:157:LEU:HA	46:D5:161:VAL:HG11	2.02	0.42
47:E5:19:LYS:C	47:E5:20:ARG:HG2	2.39	0.42
1:13:38:G:C2	1:13:397:A:C2	3.08	0.42
1:13:280:C:H4'	1:13:281:G:OP2	2.20	0.42
1:13:309:G:H8	1:13:309:G:O5'	2.03	0.42
1:13:468:A:H3'	1:13:474:G:H8	1.85	0.42
1:13:651:C:N4	1:13:753:A:OP2	2.53	0.42
1:13:909:A:H2'	1:13:910:C:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1145:C:H4'	1:13:1146:A:H5'	2.02	0.42
1:13:1147:C:O2'	9:8E:16:ARG:HD2	2.18	0.42
1:13:1157:A:O2'	1:13:1158:C:P	2.77	0.42
1:13:1306:A:H61	1:13:1331:G:H1'	1.85	0.42
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.78	0.42
13:4I:56:LEU:O	13:4I:60:VAL:HG23	2.19	0.42
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.55	0.42
26:1H:1069:A:H4'	26:1H:1070:A:C5'	2.50	0.42
26:1H:1541:U:H2'	26:1H:1542:G:O4'	2.19	0.42
26:1H:2844:G:O6	59:1H:3836:HOH:O	2.20	0.42
32:51:129:THR:O	32:51:129:THR:OG1	2.36	0.42
33:61:93:THR:HG22	33:61:119:PRO:HB3	2.02	0.42
35:68:68:GLU:HA	35:68:78:ARG:HB3	2.02	0.42
40:B8:48:ILE:HD12	40:B8:110:ILE:HD11	2.02	0.42
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.34	0.42
42:D8:19:LYS:HG3	42:D8:95:LEU:HD23	2.01	0.42
48:J8:53:VAL:HB	48:J8:58:ILE:HD13	2.01	0.42
1:1G:128:G:H4'	17:8A:3:LYS:HG2	2.02	0.42
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.54	0.42
1:1G:522:C:N4	1:1G:527:G:H1	2.17	0.42
1:1G:631:G:H8	1:1G:631:G:OP2	2.02	0.42
1:1G:992:U:H5'	1:1G:993:G:O4'	2.20	0.42
1:1G:1049:U:H5'	1:1G:1201:A:OP2	2.19	0.42
1:1G:1418:A:H5''	1:1G:1419:G:OP2	2.20	0.42
3:22:102:ASN:OD1	3:22:102:ASN:N	2.53	0.42
4:32:101:LEU:HD23	4:32:121:VAL:CG1	2.49	0.42
5:42:8:GLU:HB3	5:42:34:VAL:HG23	2.02	0.42
6:52:72:VAL:H	6:52:72:VAL:HG12	1.56	0.42
8:72:120:THR:HG23	8:72:122:ARG:H	1.84	0.42
21:1B:12:LYS:O	21:1B:16:GLY:N	2.52	0.42
23:2L:77:A:H2'	23:2L:77:A:N3	2.34	0.42
26:14:656:G:H2'	26:14:657:U:O4'	2.19	0.42
26:14:692:C:H4'	28:19:40:THR:OG1	2.19	0.42
26:14:1313:U:P	59:14:3516:HOH:O	2.73	0.42
26:14:1382:G:O4'	26:14:1572:A:H2	2.02	0.42
26:14:2134:A:H2'	26:14:2134:A:N3	2.35	0.42
26:14:2259:G:C2	26:14:2282:G:N1	2.88	0.42
26:14:2498:C:H3'	59:14:3523:HOH:O	2.20	0.42
26:14:2740:A:C6	26:14:2741:A:C6	3.08	0.42
35:25:24:VAL:HA	35:25:39:ILE:HG22	2.01	0.42
38:55:118:GLU:OE1	38:55:118:GLU:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:75:12:SER:HA	40:75:15:VAL:HG22	2.00	0.42
46:D5:45:ASP:O	46:D5:49:ARG:HG2	2.20	0.42
1:13:533:A:C2	1:13:536:C:C5	3.08	0.42
1:13:1007:C:N3	1:13:1022:G:N2	2.63	0.42
1:13:1123:A:O2'	10:1I:38:ILE:HG23	2.20	0.42
1:13:1240:U:O2'	7:6E:38:LEU:HD12	2.20	0.42
1:13:1346:A:OP1	9:8E:120:ARG:NH1	2.41	0.42
1:13:1357:A:N6	1:13:1358:U:O4	2.53	0.42
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.64	0.42
8:7E:121:ASP:OD2	8:7E:125:ARG:NH2	2.52	0.42
9:8E:10:ARG:HG3	9:8E:105:ASP:HB3	2.02	0.42
11:2I:32:ILE:HD11	11:2I:68:ALA:O	2.18	0.42
16:7I:71:ARG:HA	16:7I:74:LEU:HD12	2.02	0.42
19:AI:27:GLU:OE1	19:AI:27:GLU:N	2.44	0.42
26:1H:363:G:C2	26:1H:363(A):A:C5	3.08	0.42
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.85	0.42
26:1H:1358:G:N2	26:1H:1372:U:C5	2.88	0.42
26:1H:1628:G:N7	59:1H:3913:HOH:O	2.37	0.42
26:1H:1813:G:H4'	28:11:43:ARG:O	2.20	0.42
39:A8:66:ALA:HA	39:A8:69:VAL:HG13	2.02	0.42
41:C8:85:LYS:HA	41:C8:85:LYS:HD2	1.68	0.42
48:J8:50:ARG:HG2	48:J8:59:THR:OG1	2.19	0.42
1:1G:149:A:H2'	1:1G:150:C:C6	2.54	0.42
1:1G:582:U:OP1	15:6A:64:ARG:NH1	2.53	0.42
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.55	0.42
1:1G:1260:C:OP1	1:1G:1284:C:H4'	2.20	0.42
5:42:104:ALA:HA	5:42:107:ARG:NH2	2.35	0.42
11:2A:51:LYS:HE2	11:2A:51:LYS:HB3	1.84	0.42
11:2A:54:ARG:NH2	55:3L:39:G:O3'	2.53	0.42
12:3A:51:ALA:O	12:3A:52:LEU:HD23	2.19	0.42
17:8A:74:LEU:HD23	17:8A:74:LEU:HA	1.90	0.42
26:14:72:U:P	59:14:3559:HOH:O	2.78	0.42
26:14:150:C:H2'	26:14:151:C:C6	2.55	0.42
26:14:273(E):U:H2'	26:14:273(F):C:O4'	2.20	0.42
26:14:452:G:N3	26:14:457:A:H2	2.18	0.42
26:14:458:G:O2'	53:L5:39:ARG:HD3	2.19	0.42
26:14:775:G:O5'	26:14:777:A:H1'	2.19	0.42
26:14:1165:U:H2'	26:14:1166:C:C6	2.55	0.42
26:14:1446:C:H42	26:14:1465:G:H1	1.67	0.42
26:14:1788:C:C2	26:14:1789:A:C8	3.08	0.42
26:14:2065:C:H2'	26:14:2066:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2104:G:H2'	26:14:2105:C:H6	1.85	0.42
29:29:50:GLY:HA2	29:29:78:LEU:HA	2.01	0.42
29:29:167:VAL:CG1	29:29:189:PRO:HD3	2.49	0.42
32:59:10:PRO:C	32:59:12:PRO:HD3	2.40	0.42
34:15:41:ASP:O	41:85:64:ARG:NH2	2.53	0.42
34:15:91:LEU:O	34:15:95:PRO:HB3	2.20	0.42
36:35:79:ARG:HG2	36:35:110:TYR:CB	2.50	0.42
40:75:128:GLU:O	40:75:132:LYS:HG3	2.20	0.42
45:C5:17:SER:HB2	45:C5:71:LYS:CE	2.49	0.42
46:D5:39:VAL:HG21	46:D5:44:PHE:HB2	2.01	0.42
49:G5:4:SER:H	49:G5:6:VAL:HG13	1.84	0.42
1:13:191:G:C2	1:13:192:U:C2	3.07	0.42
1:13:405:U:OP2	4:3E:3:ARG:NH1	2.53	0.42
1:13:607:A:C2	16:7I:31:LYS:HG3	2.55	0.42
1:13:1014:A:H4'	19:AI:14:HIS:CE1	2.55	0.42
1:13:1190:G:H5''	3:2E:176:HIS:NE2	2.33	0.42
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.53	0.42
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.94	0.42
12:3I:42:THR:HA	12:3I:53:ARG:O	2.20	0.42
13:4I:26:GLY:O	13:4I:28:ALA:N	2.53	0.42
19:AI:40:ILE:HG22	19:AI:68:GLY:HA2	2.00	0.42
22:1K:37:AET:H2'	22:1K:38:A:O4'	2.20	0.42
24:3K:55:U:OP1	24:3K:55:U:H4'	2.20	0.42
26:1H:363:G:H2'	26:1H:363(A):A:H8	1.84	0.42
26:1H:1021:A:C8	26:1H:1021:A:C3'	3.02	0.42
26:1H:1176:G:H5'	26:1H:1177:A:OP2	2.20	0.42
26:1H:1379:A:H1'	26:1H:1380:G:OP1	2.20	0.42
26:1H:2101:G:N2	26:1H:2189:U:O2	2.53	0.42
26:1H:2170:A:H3'	26:1H:2170:A:P	2.60	0.42
26:1H:2215:G:H2'	26:1H:2216:G:H8	1.85	0.42
26:1H:2250:G:C5	37:88:83:MET:HB3	2.55	0.42
26:1H:2652:C:H2'	26:1H:2653:U:O4'	2.20	0.42
26:1H:2723:C:H5''	38:98:1:MET:HE2	2.01	0.42
35:68:18:LYS:HB2	35:68:45:GLU:HB3	2.01	0.42
37:88:25:ASP:HA	37:88:100:GLY:O	2.19	0.42
40:B8:58:ASN:C	40:B8:58:ASN:ND2	2.71	0.42
46:H8:15:PRO:HB2	46:H8:19:ARG:NH2	2.35	0.42
46:H8:101:PRO:HA	46:H8:123:ASP:HB3	2.02	0.42
49:K8:7:ARG:O	49:K8:11:GLU:HB2	2.20	0.42
1:1G:21:G:OP1	59:1G:1824:HOH:O	2.22	0.42
1:1G:685:G:C2	1:1G:686:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1203:C:H2'	1:1G:1204:A:H8	1.82	0.42
2:12:141:GLU:O	2:12:145:LEU:HB2	2.20	0.42
4:32:126:ILE:HG22	4:32:127:THR:N	2.35	0.42
9:82:19:LEU:HD12	9:82:19:LEU:H	1.84	0.42
22:1L:53:G:H5''	37:45:56:ARG:CZ	2.50	0.42
23:2L:32:G:H2'	23:2L:33:OMC:H6	1.85	0.42
26:14:74:A:H4'	26:14:75:G:O5'	2.20	0.42
26:14:200:U:O2	26:14:386:G:N2	2.53	0.42
26:14:571:A:H5'	26:14:2030:A:N7	2.35	0.42
26:14:906:G:OP1	37:45:26:TYR:OH	2.32	0.42
26:14:1499:C:H2'	26:14:1500:G:C8	2.55	0.42
26:14:2027:G:H2'	26:14:2028:U:O4'	2.20	0.42
26:14:2820:A:O5'	38:55:4:LEU:HD23	2.20	0.42
27:1J:21:G:H2'	27:1J:22:U:O4'	2.20	0.42
27:1J:44:G:O2'	27:1J:47:C:N4	2.47	0.42
30:39:33:LEU:O	30:39:36:VAL:HG12	2.19	0.42
32:59:53:GLU:CD	32:59:54:ARG:H	2.23	0.42
34:15:34:LEU:HD21	34:15:120:LEU:HD13	2.02	0.42
35:25:14:THR:HG23	35:25:16:ALA:H	1.84	0.42
35:25:63:VAL:HG12	35:25:106:LEU:HD11	2.01	0.42
41:85:76:TYR:CZ	41:85:80:ILE:HG13	2.54	0.42
42:95:69:LYS:HG2	42:95:71:LEU:HD22	2.02	0.42
48:F5:83:GLU:N	48:F5:83:GLU:OE2	2.52	0.42
1:13:123:C:OP1	1:13:312:C:H5'	2.20	0.41
1:13:447:G:H8	1:13:447:G:O5'	2.03	0.41
1:13:538:G:H5''	12:3I:114:LYS:HB2	2.02	0.41
1:13:660:G:C2	1:13:746:A:C2	3.08	0.41
1:13:1026:G:H2'	1:13:1027:C:H5'	2.02	0.41
2:1E:87:ARG:NH1	2:1E:223:ILE:HD11	2.35	0.41
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.20	0.41
10:1I:88:LEU:HD12	10:1I:88:LEU:O	2.20	0.41
18:9I:21:LYS:HE3	18:9I:21:LYS:HB2	1.79	0.41
26:1H:518:G:H2'	26:1H:519:U:C6	2.54	0.41
26:1H:1032:A:H2	26:1H:1122:G:H22	1.68	0.41
26:1H:1811:G:H2'	26:1H:1812:A:O4'	2.20	0.41
26:1H:2165:G:N7	26:1H:2166:G:N2	2.68	0.41
31:4I:37:VAL:HG21	31:4I:103:LEU:HD21	2.02	0.41
33:6I:57:ARG:O	33:6I:61:ARG:HG2	2.20	0.41
50:L8:51:ALA:HA	50:L8:54:VAL:HG12	2.02	0.41
1:1G:426:G:OP1	4:32:38:TYR:OH	2.33	0.41
1:1G:885:G:O2'	1:1G:914:A:N1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1002:G:H1	1:1G:1038:C:H42	1.67	0.41
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.48	0.41
1:1G:1288:A:H2'	1:1G:1289:A:H8	1.84	0.41
3:22:16:ARG:NH2	3:22:181:ASN:HA	2.35	0.41
4:32:85:LYS:O	4:32:86:LYS:C	2.58	0.41
5:42:30:ALA:O	5:42:45:PHE:HA	2.20	0.41
7:62:114:ARG:H	7:62:114:ARG:HG2	1.32	0.41
10:1A:91:PRO:HB3	10:1A:96:ILE:HD11	2.02	0.41
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	2.02	0.41
17:8A:10:VAL:HG13	17:8A:54:GLY:H	1.85	0.41
19:AA:56:GLN:CD	19:AA:57:HIS:H	2.23	0.41
26:14:288:C:H2'	26:14:289:A:C8	2.55	0.41
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.54	0.41
26:14:1372:U:H2'	26:14:1373:A:O4'	2.20	0.41
26:14:1432:C:H2'	26:14:1433:U:O4'	2.19	0.41
26:14:1827:C:OP2	28:19:222:ARG:HD2	2.19	0.41
26:14:2037:G:H2'	26:14:2038:G:H8	1.80	0.41
27:1J:16:G:H2'	27:1J:17:C:H6	1.85	0.41
29:29:182:LEU:O	29:29:183:LEU:HD12	2.19	0.41
32:59:10:PRO:HG2	32:59:50:VAL:HG22	2.02	0.41
33:69:130:TYR:O	33:69:131:LYS:HD2	2.19	0.41
36:35:19:VAL:CG1	36:35:31:ALA:HB1	2.49	0.41
1:13:232:G:H1'	1:13:262:A:N1	2.36	0.41
1:13:947:G:H4'	13:4I:109:THR:HG23	2.02	0.41
1:13:1133:G:C4	1:13:1134:G:C8	3.08	0.41
4:3E:81:GLU:O	4:3E:84:LYS:HB2	2.20	0.41
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.20	0.41
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.20	0.41
13:4I:82:MET:C	13:4I:84:ILE:H	2.22	0.41
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.02	0.41
22:1K:42:U:H2'	22:1K:43:G:C8	2.55	0.41
23:2K:65:G:C2	23:2K:66:C:C2	3.08	0.41
26:1H:270(T):G:H2'	26:1H:270(U):C:H6	1.85	0.41
26:1H:370:G:H4'	26:1H:371:A:OP2	2.19	0.41
26:1H:484:C:H2'	26:1H:485:C:C6	2.56	0.41
26:1H:654(C):G:N3	26:1H:654(D):G:H1'	2.35	0.41
26:1H:962:G:H2'	26:1H:963:U:C6	2.56	0.41
26:1H:1665:A:H2'	26:1H:1666:G:O4'	2.20	0.41
26:1H:2017:U:O2	52:N8:10:LYS:HB2	2.20	0.41
26:1H:2030:A:H4'	26:1H:2031:A:C8	2.55	0.41
26:1H:2212:A:O2'	26:1H:2215:G:C8	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.56	0.41
29:21:14:ILE:HA	29:21:14:ILE:HD13	1.64	0.41
40:B8:31:SER:HB2	40:B8:84:GLN:HB3	2.01	0.41
46:H8:157:LEU:N	46:H8:158:PRO:HD3	2.35	0.41
1:1G:1:U:H5'	1:1G:630:G:N3	2.35	0.41
1:1G:974:A:H1'	1:1G:975:A:OP2	2.20	0.41
1:1G:1151:A:H5'	10:1A:41:PRO:HA	2.02	0.41
1:1G:1245:A:H2'	1:1G:1246:C:O4'	2.20	0.41
1:1G:1368:G:OP1	10:1A:62:HIS:HE1	2.04	0.41
2:12:71:VAL:HG23	2:12:165:VAL:HG13	2.02	0.41
2:12:182:ILE:H	2:12:182:ILE:HD12	1.85	0.41
4:32:76:ARG:NH2	4:32:80:GLU:OE2	2.53	0.41
4:32:107:ARG:HA	4:32:107:ARG:HD2	1.94	0.41
5:42:15:ARG:NH1	25:4L:25:A:H5''	2.35	0.41
14:5A:22:THR:HB	14:5A:33:VAL:HG21	2.01	0.41
55:3L:6:U:O4	55:3L:67:A:N6	2.53	0.41
26:14:251:A:C5	26:14:252:G:H1'	2.55	0.41
26:14:999:U:O2'	26:14:1000:A:H5'	2.20	0.41
26:14:1041:C:N4	26:14:1114:G:H22	2.16	0.41
26:14:1801:G:H3'	26:14:1802:A:H5'	2.02	0.41
26:14:1929:G:H4'	26:14:1930:G:OP1	2.20	0.41
26:14:2408:U:H2'	26:14:2409:G:H8	1.85	0.41
26:14:2747:G:O6	26:14:2755:C:H5''	2.20	0.41
26:14:2888:C:H2'	26:14:2889:C:C6	2.55	0.41
28:19:83:GLU:OE1	28:19:104:TYR:OH	2.35	0.41
30:39:107:LYS:CE	30:39:205:ARG:HD2	2.49	0.41
31:49:5:VAL:CG1	31:49:101:ILE:HG22	2.50	0.41
33:69:133:HIS:H	33:69:133:HIS:HD1	1.67	0.41
34:15:128:HIS:CE1	34:15:134:ARG:HD3	2.55	0.41
41:85:17:ILE:HD12	41:85:32:PHE:CE1	2.53	0.41
45:C5:18:GLY:O	45:C5:20:TYR:N	2.50	0.41
46:D5:4:ARG:HD3	46:D5:60:GLU:OE2	2.20	0.41
49:G5:24:LEU:HA	49:G5:24:LEU:HD22	1.83	0.41
54:M5:31:HIS:O	54:M5:32:LEU:HB2	2.20	0.41
1:13:1240:U:P	7:6E:116:ALA:HB2	2.60	0.41
4:3E:162:LEU:HD12	4:3E:181:MET:HE2	2.01	0.41
7:6E:26:PHE:O	7:6E:30:ILE:HG13	2.20	0.41
10:1I:90:LEU:N	10:1I:91:PRO:HD2	2.34	0.41
13:4I:34:LEU:HD23	13:4I:34:LEU:HA	1.83	0.41
17:8I:7:THR:O	17:8I:23:VAL:HG13	2.20	0.41
17:8I:65:ILE:CG2	17:8I:69:LYS:HE2	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:36:ASN:HD22	18:9I:39:VAL:HG21	1.83	0.41
22:1K:66:U:C5'	22:1K:67:A:H8	2.28	0.41
23:2K:63:C:O2	23:2K:64:G:C8	2.73	0.41
26:1H:613:U:H5'	26:1H:616:A:N6	2.35	0.41
26:1H:2773:C:OP1	29:21:166:THR:OG1	2.38	0.41
27:16:1(M):A:C8	27:16:0:A:C8	3.09	0.41
27:16:78:A:C2	27:16:99:A:C4	3.07	0.41
28:11:26:LYS:NZ	28:11:30:GLU:OE2	2.52	0.41
28:11:80:ALA:HB2	28:11:96:HIS:CD2	2.55	0.41
30:31:103:LYS:HA	30:31:106:ARG:HG3	2.03	0.41
30:31:197:ASP:O	30:31:198:ALA:HB3	2.19	0.41
31:41:62:LEU:HD12	51:M8:27:THR:HG21	2.02	0.41
33:61:130:TYR:C	33:61:131:LYS:HD2	2.40	0.41
38:98:97:VAL:HA	38:98:113:LEU:O	2.20	0.41
40:B8:87:ASP:O	40:B8:89:VAL:HG12	2.20	0.41
1:1G:543:C:C2'	1:1G:544:G:H5'	2.50	0.41
1:1G:837:G:H2'	1:1G:838:G:H8	1.85	0.41
1:1G:1240:U:OP2	7:62:116:ALA:N	2.53	0.41
1:1G:1286:A:C8	1:1G:1286:A:C3'	3.04	0.41
1:1G:1325:C:P	21:1B:15:ARG:HH21	2.44	0.41
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.20	0.41
2:12:42:ILE:CG2	2:12:202:PRO:HB2	2.47	0.41
2:12:54:THR:HA	2:12:57:PHE:CD2	2.55	0.41
4:32:84:LYS:HG2	4:32:86:LYS:HG2	2.01	0.41
11:2A:125:PHE:O	11:2A:126:ARG:HG3	2.21	0.41
16:7A:74:LEU:HD13	16:7A:74:LEU:HA	1.88	0.41
26:14:569:U:C4	26:14:570:G:C6	3.09	0.41
26:14:755:C:H2'	26:14:756:C:C6	2.55	0.41
26:14:830:G:H4'	26:14:831:G:OP2	2.21	0.41
26:14:951:C:O2'	26:14:952:G:H5'	2.20	0.41
26:14:1204:A:C2	26:14:1241:A:N1	2.88	0.41
26:14:1359:A:N7	26:14:1372:U:O4	2.53	0.41
26:14:1572:A:H2'	26:14:1573:G:O4'	2.20	0.41
26:14:1818:U:H2'	28:19:157:ARG:HD3	2.02	0.41
26:14:1921:G:H2'	26:14:1922:G:H8	1.86	0.41
26:14:2531:A:C4'	32:59:157:TYR:HE2	2.30	0.41
36:35:19:VAL:HG13	36:35:31:ALA:HB1	2.02	0.41
38:55:49:ASP:OD1	38:55:95:THR:HG22	2.20	0.41
38:55:63:ARG:O	38:55:67:LEU:HB2	2.20	0.41
40:75:51:ARG:HD3	40:75:100:TYR:OH	2.20	0.41
42:95:48:GLY:HA3	42:95:51:VAL:C	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:503:C:OP2	12:3I:116:SER:OG	2.34	0.41
1:13:1116:C:C2'	1:13:1117:G:H5'	2.50	0.41
1:13:1455:G:H5''	20:BI:31:SER:HB2	2.01	0.41
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.23	0.41
3:2E:172:ARG:HH21	3:2E:203:PHE:HZ	1.68	0.41
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.56	0.41
10:1I:54:PHE:CG	10:1I:55:LYS:HG2	2.55	0.41
24:3K:56:C:H2'	24:3K:57:G:O4'	2.21	0.41
26:1H:271(B):G:N7	26:1H:421:U:H2'	2.35	0.41
26:1H:581:C:H2'	26:1H:582:G:H8	1.84	0.41
26:1H:803:U:C4	26:1H:804:A:N7	2.88	0.41
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.56	0.41
26:1H:1408:C:C2	26:1H:1595:G:N2	2.89	0.41
26:1H:1488:G:C6	26:1H:1489:U:C4	3.09	0.41
26:1H:1545(A):A:N7	26:1H:1546:C:C2	2.89	0.41
26:1H:2352:A:C4	26:1H:2366:A:C2	3.09	0.41
30:31:129:PHE:O	30:31:142:TRP:CD1	2.73	0.41
36:78:49:ARG:HH11	36:78:49:ARG:CG	2.34	0.41
49:K8:47:ASN:C	49:K8:49:LYS:H	2.08	0.41
1:1G:157:G:C2	1:1G:165:C:C2	3.08	0.41
1:1G:407:G:P	4:32:115:ARG:HH21	2.42	0.41
1:1G:878:G:H5'	8:72:89:PRO:HG2	2.02	0.41
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.20	0.41
2:12:140:HIS:NE2	2:12:144:ARG:HD2	2.36	0.41
3:22:46:GLU:HG2	3:22:46:GLU:H	1.64	0.41
3:22:72:LYS:HG3	3:22:75:VAL:HG23	2.02	0.41
5:42:90:VAL:HG23	5:42:121:LYS:HB3	2.01	0.41
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.55	0.41
10:1A:78:ASN:HD22	10:1A:80:LYS:CB	2.32	0.41
11:2A:67:ASP:O	11:2A:71:LYS:HG3	2.21	0.41
25:4L:24:A:H3'	25:4L:24:A:C8	2.55	0.41
26:14:451:C:H41	26:14:454:A:H5'	1.84	0.41
26:14:1213:A:N3	26:14:1238:G:O2'	2.46	0.41
26:14:2314:C:H2'	26:14:2315:G:H8	1.85	0.41
26:14:2547:U:O2	35:25:23:ARG:NH2	2.52	0.41
26:14:2639:A:C2	26:14:2778:A:C8	3.08	0.41
26:14:2846:G:H2'	26:14:2847:U:O4'	2.21	0.41
27:1J:109:G:C6	27:1J:110:G:C5	3.08	0.41
28:19:17:THR:O	28:19:211:ARG:NH2	2.52	0.41
28:19:105:ILE:HD12	28:19:105:ILE:HA	1.88	0.41
31:49:75:LYS:O	31:49:75:LYS:HD3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:10:PRO:O	32:59:12:PRO:HD3	2.21	0.41
37:45:19:GLY:O	37:45:98:LYS:HB3	2.21	0.41
38:55:51:LEU:HA	38:55:51:LEU:HD23	1.70	0.41
39:65:107:GLU:N	39:65:110:LEU:HD11	2.33	0.41
40:75:128:GLU:HB3	40:75:132:LYS:HZ2	1.84	0.41
41:85:66:ASN:O	41:85:70:ARG:HB2	2.21	0.41
1:13:429:U:H1'	1:13:430:A:H5''	2.02	0.41
1:13:1126:U:C6	1:13:1126:U:C3'	3.03	0.41
1:13:1238:A:N3	1:13:1241:G:O2'	2.45	0.41
1:13:1516:G:N1	1:13:1519:A:OP2	2.54	0.41
2:1E:30:ARG:HB3	2:1E:31:TYR:CD1	2.55	0.41
2:1E:231:GLU:H	2:1E:231:GLU:CD	2.23	0.41
9:8E:5:TYR:CD2	9:8E:18:PHE:CE1	3.09	0.41
19:AI:41:VAL:HG21	19:AI:45:VAL:HB	2.03	0.41
22:1K:49:G:H1	22:1K:59:C:C5'	2.34	0.41
24:3K:70:A:H2'	24:3K:71:G:C8	2.55	0.41
26:1H:58:G:N2	26:1H:70:G:C4	2.89	0.41
26:1H:141:A:H8	26:1H:1595:G:H21	1.68	0.41
26:1H:234:C:H2'	26:1H:235:U:C6	2.54	0.41
26:1H:1359:A:N1	26:1H:1372:U:O4	2.53	0.41
26:1H:1472:A:H2'	26:1H:1473:G:O4'	2.20	0.41
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.35	0.41
26:1H:1999:C:H5''	26:1H:2723:C:O2'	2.20	0.41
26:1H:2830:G:N3	26:1H:2883:A:H2	2.19	0.41
29:21:30:PRO:HD3	29:21:180:ASN:ND2	2.36	0.41
31:41:109:VAL:O	31:41:113:ARG:HG3	2.20	0.41
39:A8:32:LEU:O	39:A8:62:LYS:NZ	2.48	0.41
39:A8:67:ARG:O	39:A8:71:ARG:HG3	2.20	0.41
42:D8:76:LYS:O	42:D8:79:VAL:HG12	2.21	0.41
1:1G:309:G:H1'	1:1G:608:A:C2	2.56	0.41
1:1G:566:G:H4'	1:1G:567:G:OP1	2.20	0.41
1:1G:854:G:C2	1:1G:855:G:C8	3.09	0.41
1:1G:1122:U:N3	1:1G:1123:A:N7	2.68	0.41
1:1G:1179:A:OP2	9:82:93:ARG:NH1	2.53	0.41
1:1G:1187:G:H5'	9:82:113:LYS:NZ	2.35	0.41
1:1G:1343:G:H4'	9:82:122:ALA:HB3	2.01	0.41
1:1G:1379:G:C6	1:1G:1380:U:O4	2.74	0.41
1:1G:1399:C:C2	1:1G:1502:A:N6	2.89	0.41
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.21	0.41
2:12:51:LEU:O	2:12:54:THR:N	2.50	0.41
3:22:88:ARG:CZ	3:22:88:ARG:HB3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:12:ASP:OD1	10:1A:13:HIS:N	2.54	0.41
10:1A:84:GLN:O	10:1A:88:LEU:HB2	2.21	0.41
11:2A:18:ARG:HH21	11:2A:37:GLY:N	2.18	0.41
13:4A:37:THR:CG2	13:4A:55:ARG:HB3	2.51	0.41
20:BA:11:SER:HA	20:BA:13:LEU:CD2	2.49	0.41
20:BA:51:GLU:HG2	20:BA:54:LYS:NZ	2.35	0.41
22:1L:49:G:H22	22:1L:59:C:P	2.43	0.41
23:2L:41:C:H2'	23:2L:42:C:H6	1.85	0.41
55:3L:29:C:H2'	55:3L:30:C:O4'	2.20	0.41
26:14:273(C):C:H42	26:14:363(C):G:H1	1.69	0.41
26:14:654(C):G:C8	26:14:654(C):G:H3'	2.55	0.41
26:14:1019:U:H2'	26:14:1020:A:C8	2.54	0.41
26:14:1109:C:H2'	26:14:1110:G:C1'	2.50	0.41
26:14:1358:G:N2	26:14:1372:U:C5	2.89	0.41
26:14:1635:G:H2'	26:14:1636:C:C6	2.55	0.41
26:14:1707:G:C5	26:14:1756:G:C6	3.09	0.41
27:1J:16:G:H1	27:1J:68:C:N4	2.14	0.41
27:1J:30:C:OP2	39:65:32:LEU:HD11	2.19	0.41
28:19:130:ALA:HA	28:19:192:THR:HA	2.02	0.41
30:39:49:ALA:O	30:39:92:PRO:HB2	2.19	0.41
30:39:68:LYS:HG2	30:39:69:HIS:NE2	2.35	0.41
31:49:29:TRP:C	31:49:31:VAL:N	2.74	0.41
31:49:170:ARG:HA	31:49:170:ARG:HD2	1.86	0.41
52:J5:16:ARG:HG3	52:J5:17:ASP:N	2.36	0.41
54:M5:35:GLN:HG3	54:M5:35:GLN:O	2.20	0.41
1:13:243:A:H5''	1:13:244:U:H3'	2.02	0.41
1:13:474:G:H5''	16:7I:81:ARG:CZ	2.50	0.41
1:13:646:U:H2'	1:13:647:C:C6	2.55	0.41
1:13:1037:C:H2'	1:13:1038:C:C6	2.53	0.41
1:13:1070:U:H2'	1:13:1071:C:H6	1.85	0.41
1:13:1342:C:H2'	1:13:1343:G:C8	2.56	0.41
1:13:1442:G:C6	1:13:1446:A:C6	3.08	0.41
2:1E:155:LEU:HD23	2:1E:155:LEU:HA	1.94	0.41
3:2E:134:ILE:HD11	3:2E:153:VAL:HG23	2.03	0.41
15:6I:70:LEU:HG	15:6I:78:TYR:HB2	2.02	0.41
26:1H:97:C:H5''	49:K8:2:LYS:HB2	2.03	0.41
26:1H:1070:A:H5'	26:1H:1071:G:H5''	2.02	0.41
26:1H:1110:G:O2'	26:1H:1111:A:H8	2.02	0.41
26:1H:1323:U:H2'	26:1H:1324:G:H5'	2.03	0.41
26:1H:1899:G:H22	26:1H:1902:C:H41	1.68	0.41
26:1H:2153:G:H2'	26:1H:2154:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2287:A:C2	26:1H:2346:A:H2	2.38	0.41
26:1H:2356:C:H2'	26:1H:2357:U:O4'	2.20	0.41
36:78:78:PRO:HB3	36:78:111:ARG:NH2	2.36	0.41
40:B8:128:GLU:O	40:B8:128:GLU:HG2	2.20	0.41
44:F8:66:LEU:HA	44:F8:66:LEU:HD13	1.77	0.41
45:G8:94:LYS:HZ2	45:G8:95:LYS:N	2.16	0.41
54:Q8:7:HIS:HB3	54:Q8:61:LEU:HB3	2.02	0.41
54:Q8:23:VAL:HG22	54:Q8:49:VAL:HG22	2.03	0.41
1:1G:184:G:C2'	1:1G:185:A:H5'	2.51	0.41
1:1G:560:U:H4'	1:1G:561:U:O5'	2.20	0.41
1:1G:564:C:C4	1:1G:565:U:C4	3.09	0.41
1:1G:955:U:H1'	1:1G:1227:A:H61	1.84	0.41
4:32:63:LYS:HE3	4:32:63:LYS:HB2	1.71	0.41
9:82:26:VAL:HG22	9:82:61:ALA:N	2.36	0.41
19:AA:66:MET:HG3	19:AA:69:HIS:NE2	2.35	0.41
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.53	0.41
23:2L:54:G:O2'	23:2L:55:5MU:H5''	2.21	0.41
23:2L:57:C:OP1	23:2L:57:C:H6	2.04	0.41
26:14:291:C:H42	26:14:349:G:H1	1.68	0.41
26:14:784:A:O4'	28:19:227:ASN:ND2	2.53	0.41
30:39:132:VAL:O	30:39:133:ASN:HB2	2.20	0.41
34:15:15:LEU:O	34:15:136:GLU:HA	2.20	0.41
39:65:7:TYR:CE1	39:65:91:PRO:HG3	2.55	0.41
42:95:20:LEU:O	42:95:93:GLU:HA	2.21	0.41
49:G5:4:SER:HB3	49:G5:7:ARG:CD	2.50	0.41
50:H5:5:LYS:HB3	50:H5:5:LYS:HE3	1.81	0.41
1:13:303:A:H2'	1:13:304:U:O4'	2.20	0.41
1:13:725:G:H2'	1:13:726:C:H6	1.85	0.41
2:1E:163:PHE:CD1	2:1E:185:ILE:HG12	2.55	0.41
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.19	0.41
6:5E:95:GLU:OE1	6:5E:95:GLU:N	2.44	0.41
13:4I:93:ARG:O	13:4I:94:ARG:HD3	2.21	0.41
23:2K:47:7MG:O2'	23:2K:48:U:H6	2.04	0.41
24:3K:72:C:H3'	24:3K:73:A:H5''	2.03	0.41
25:4K:23:A:H1'	25:4K:24:A:C8	2.55	0.41
26:1H:346:A:N3	26:1H:346:A:H2'	2.36	0.41
26:1H:810:U:P	59:1H:3720:HOH:O	2.64	0.41
26:1H:973:A:O4'	26:1H:1188:U:C6	2.73	0.41
26:1H:1296:G:OP1	26:1H:2709:G:O2'	2.27	0.41
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.86	0.41
26:1H:1451:C:H2'	26:1H:1458:C:N4	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1664:A:P	59:1H:3722:HOH:O	2.76	0.41
26:1H:1899:G:O2'	26:1H:1900:A:OP2	2.35	0.41
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.55	0.41
28:11:206:LEU:HD22	28:11:211:ARG:HG2	2.02	0.41
31:41:94:LEU:N	31:41:94:LEU:HD23	2.36	0.41
31:41:98:ARG:NH2	51:M8:1:MET:HG3	2.35	0.41
32:51:5:GLY:HA2	32:51:69:ARG:CB	2.50	0.41
36:78:65:ARG:HD3	54:Q8:25:MET:SD	2.60	0.41
40:B8:11:GLU:OE1	40:B8:57:PHE:HB3	2.20	0.41
40:B8:33:LYS:H	40:B8:33:LYS:HG2	1.49	0.41
43:E8:82:LEU:HD13	43:E8:84:ARG:NH2	2.36	0.41
46:H8:130:PRO:O	46:H8:133:ILE:HG13	2.20	0.41
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.20	0.41
1:1G:757:U:H2'	1:1G:758:G:O4'	2.20	0.41
1:1G:964:A:N3	1:1G:969:A:O2'	2.44	0.41
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.37	0.41
2:12:100:GLY:O	2:12:104:ASN:N	2.44	0.41
13:4A:84:ILE:H	13:4A:84:ILE:CD1	2.30	0.41
26:14:213:A:H5''	26:14:214:G:OP2	2.21	0.41
26:14:702:G:C2	26:14:731:C:C2	3.08	0.41
26:14:900:A:H5'	26:14:901:A:OP2	2.21	0.41
26:14:997:G:H2'	26:14:998:C:H6	1.86	0.41
26:14:1568:G:P	28:19:63:ARG:HH12	2.40	0.41
26:14:1641:A:H2'	26:14:1642:G:O4'	2.20	0.41
26:14:1747:G:H2'	26:14:1748:G:H8	1.86	0.41
26:14:2319:G:N2	26:14:2334:G:OP1	2.39	0.41
26:14:2366:A:H2'	26:14:2367:G:O4'	2.20	0.41
26:14:2854:G:C2	26:14:2855:C:C2	3.08	0.41
28:19:6:PHE:CE1	28:19:18:VAL:HG23	2.55	0.41
31:49:83:ARG:O	31:49:86:MET:HB2	2.21	0.41
33:69:124:GLY:O	33:69:142:VAL:HG23	2.20	0.41
34:15:61:ARG:HA	34:15:61:ARG:HH11	1.85	0.41
36:35:63:PRO:O	54:M5:13:ARG:HG2	2.20	0.41
38:55:86:ARG:HB3	38:55:118:GLU:OE2	2.21	0.41
40:75:51:ARG:HG3	40:75:98:LYS:HE3	2.02	0.41
41:85:85:LYS:HD2	41:85:85:LYS:HA	1.92	0.41
43:A5:68:ARG:O	43:A5:109:GLU:HA	2.20	0.41
46:D5:23:LYS:HD3	46:D5:40:ASP:HA	2.02	0.41
49:G5:8:LYS:HE2	49:G5:8:LYS:HB3	1.89	0.41
50:H5:4:LEU:O	50:H5:36:VAL:HA	2.20	0.41
1:13:320:C:H42	1:13:333:G:H1	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:967:C:H5''	1:13:968:A:OP2	2.20	0.41
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.33	0.41
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.55	0.41
4:3E:126:ILE:HD13	4:3E:126:ILE:HA	1.91	0.41
8:7E:110:ALA:HB3	8:7E:121:ASP:HB3	2.01	0.41
15:6I:71:GLN:O	15:6I:71:GLN:NE2	2.53	0.41
24:3K:29:C:N3	24:3K:41:G:N1	2.55	0.41
24:3K:38:A:H2'	24:3K:39:G:O4'	2.20	0.41
24:3K:59:A:N3	24:3K:59:A:H2'	2.35	0.41
26:1H:270(M):U:O2'	26:1H:270(N):G:C8	2.74	0.41
26:1H:1973:G:H2'	26:1H:1974:C:C6	2.55	0.41
26:1H:2259:G:C2	26:1H:2282:G:N1	2.89	0.41
28:11:9:TYR:CZ	28:11:13:ARG:HG2	2.56	0.41
29:21:105:THR:HB	29:21:197:ILE:HG23	2.03	0.41
36:78:50:ARG:HD3	54:Q8:7:HIS:CD2	2.56	0.41
46:H8:45:ASP:CG	46:H8:49:ARG:HH12	2.22	0.41
1:1G:790:A:H2'	1:1G:791:G:C8	2.56	0.41
1:1G:1117:G:O3'	9:82:104:ARG:HG2	2.20	0.41
1:1G:1153:C:H2'	1:1G:1154:G:O4'	2.21	0.41
1:1G:1194:U:H4'	5:42:22:GLY:O	2.21	0.41
1:1G:1205:U:O2'	3:22:195:VAL:HG13	2.20	0.41
1:1G:1206:G:C6	1:1G:1207:G:C6	3.09	0.41
1:1G:1321:C:C4	1:1G:1322:C:C4	3.08	0.41
1:1G:1410:G:H2'	1:1G:1411:C:C6	2.56	0.41
2:12:22:LYS:HE2	2:12:24:TRP:HZ3	1.86	0.41
3:22:39:ILE:O	3:22:43:LEU:HB2	2.20	0.41
5:42:99:GLY:O	5:42:117:ASP:HA	2.19	0.41
6:52:5:GLU:HG3	6:52:93:SER:OG	2.20	0.41
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.81	0.41
26:14:228:A:H2'	26:14:230:U:O4'	2.19	0.41
26:14:744:G:OP1	29:29:132:HIS:HA	2.21	0.41
26:14:957:A:H4'	37:45:74:TYR:OH	2.21	0.41
30:39:4:VAL:HG13	30:39:19:GLU:CD	2.41	0.41
30:39:27:GLU:C	30:39:29:ASN:H	2.23	0.41
37:45:64:ILE:HA	37:45:106:VAL:HG12	2.03	0.41
38:55:117:VAL:O	38:55:118:GLU:HB2	2.21	0.41
39:65:89:ARG:HG3	39:65:92:TYR:O	2.21	0.41
40:75:2:ASN:CG	40:75:4:GLY:HA3	2.41	0.41
41:85:92:ARG:NH2	42:95:11:GLN:H	2.18	0.41
43:A5:59:VAL:HG12	43:A5:60:ASN:OD1	2.21	0.41
46:D5:5:LEU:HD21	46:D5:44:PHE:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:20:U:H2'	1:13:21:G:O4'	2.20	0.41
1:13:184:G:H2'	1:13:185:A:H8	1.85	0.41
1:13:322:C:O2'	20:BI:23:ARG:HD2	2.20	0.41
1:13:648:A:C6	1:13:649:G:C5	3.09	0.41
1:13:848:C:H6	1:13:848:C:O5'	2.04	0.41
1:13:1226:C:O3'	13:4I:111:LYS:NZ	2.53	0.41
2:1E:21:ARG:C	2:1E:23:ARG:H	2.24	0.41
2:1E:118:LEU:CD1	2:1E:142:LEU:HB2	2.51	0.41
4:3E:99:SER:HB3	4:3E:139:ARG:HG3	2.02	0.41
5:4E:6:PHE:CD1	5:4E:36:ASP:HB3	2.55	0.41
6:5E:94:GLN:NE2	18:9I:33:ASP:OD2	2.42	0.41
7:6E:16:LEU:HD12	7:6E:16:LEU:HA	1.80	0.41
10:1I:47:PHE:CE1	14:5I:37:PHE:HE2	2.37	0.41
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	2.03	0.41
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.21	0.41
19:AI:41:VAL:HA	19:AI:44:MET:HG3	2.03	0.41
20:BI:97:ALA:O	20:BI:99:LEU:HD13	2.20	0.41
22:1K:21:A:C5	22:1K:46:G:C6	3.08	0.41
24:3K:43:G:H2'	24:3K:44:A:H8	1.85	0.41
26:1H:37:C:H2'	26:1H:38:A:C8	2.56	0.41
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.56	0.41
26:1H:705:A:O3'	28:11:7:LYS:HD2	2.21	0.41
26:1H:1061:U:N3	26:1H:1063:G:OP1	2.54	0.41
26:1H:1845:G:OP1	28:11:258:LYS:NZ	2.46	0.41
26:1H:1931:U:O2	26:1H:1931:U:O4'	2.39	0.41
26:1H:1983:C:O2'	26:1H:1984:G:H5'	2.20	0.41
26:1H:2019:A:C4'	41:C8:34:LYS:HD2	2.51	0.41
26:1H:2114:A:H5''	26:1H:2117:A:OP2	2.21	0.41
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.54	0.41
26:1H:2638:G:OP1	29:21:82:ARG:NH2	2.54	0.41
26:1H:2729:G:H1'	29:21:187:ALA:HB2	2.02	0.41
27:16:8:U:O2'	39:A8:40:ILE:HD13	2.20	0.41
28:11:14:ARG:HH11	28:11:14:ARG:HD2	1.67	0.41
28:11:123:ALA:HB3	28:11:131:LEU:HG	2.02	0.41
32:51:137:ASP:OD1	32:51:138:LYS:N	2.49	0.41
33:61:44:LEU:HD12	33:61:44:LEU:HA	1.92	0.41
33:61:114:LEU:HA	33:61:129:THR:O	2.21	0.41
34:58:30:ILE:HG23	34:58:52:VAL:HG11	2.03	0.41
34:58:37:LYS:HE2	34:58:37:LYS:HB3	1.75	0.41
37:88:81:VAL:HG23	37:88:82:ARG:O	2.20	0.41
38:98:53:HIS:HB2	38:98:94:TYR:HE2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:14:VAL:O	39:A8:18:ILE:HD13	2.21	0.41
39:A8:108:GLY:O	39:A8:110:LEU:HG	2.21	0.41
40:B8:24:PRO:O	40:B8:94:ALA:HB2	2.21	0.41
41:C8:75:ASN:HB3	41:C8:77:SER:H	1.86	0.41
45:G8:97:ARG:HH21	45:G8:103:GLY:C	2.24	0.41
47:I8:47:PRO:HG3	47:I8:53:MET:HB2	2.02	0.41
51:M8:41:PRO:HA	51:M8:47:GLN:OE1	2.20	0.41
1:1G:128:G:C6	1:1G:129:U:C4	3.09	0.41
1:1G:236:G:H2'	1:1G:237:C:O4'	2.19	0.41
1:1G:345:C:H5'	1:1G:346:G:C5	2.55	0.41
1:1G:570:G:H2'	1:1G:571:U:C6	2.56	0.41
1:1G:756:C:H2'	1:1G:757:U:O4'	2.21	0.41
1:1G:894:G:C6	1:1G:895:G:C5	3.09	0.41
1:1G:965:A:C2	1:1G:969:A:C2	3.09	0.41
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.56	0.41
2:12:19:HIS:O	2:12:39:ILE:HG22	2.21	0.41
2:12:25:ASN:HA	2:12:26:PRO:HD3	1.89	0.41
2:12:132:LYS:HA	2:12:135:GLN:HG3	2.03	0.41
2:12:136:VAL:O	2:12:139:LYS:HG2	2.21	0.41
3:22:14:ILE:O	3:22:16:ARG:N	2.54	0.41
4:32:31:CYS:SG	4:32:34:GLU:HG2	2.60	0.41
4:32:107:ARG:HH22	4:32:194:LEU:CD1	2.34	0.41
5:42:12:LEU:O	5:42:30:ALA:HA	2.21	0.41
5:42:39:GLY:O	5:42:69:VAL:N	2.50	0.41
7:62:15:ASP:CB	7:62:20:ASP:H	2.31	0.41
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.55	0.41
10:1A:13:HIS:HB3	10:1A:68:HIS:NE2	2.36	0.41
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	2.02	0.41
26:14:1007:C:H5''	34:15:35:ARG:HH11	1.86	0.41
26:14:1033:U:H3'	26:14:1033:U:C6	2.55	0.41
26:14:2032:G:O2'	29:29:145:LYS:HE3	2.21	0.41
26:14:2038:G:H2'	26:14:2039:C:O4'	2.21	0.41
26:14:2052:G:C8	29:29:141:ILE:HD11	2.55	0.41
26:14:2755:C:HO2'	26:14:2756:U:H6	1.68	0.41
26:14:2756:U:H4'	26:14:2757:A:OP1	2.18	0.41
26:14:2781:A:H5''	26:14:2782:G:H5'	2.03	0.41
26:14:2861:G:C2	26:14:2862:G:C4	3.09	0.41
29:29:66:HIS:C	29:29:68:ALA:H	2.24	0.41
31:49:77:ILE:HD13	31:49:77:ILE:HA	1.81	0.41
31:49:114:ILE:HD13	31:49:140:ILE:HG21	2.03	0.41
32:59:121:ILE:HG23	32:59:133:VAL:CG2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:6:LEU:HD13	33:69:37:VAL:HG22	2.03	0.41
33:69:82:ARG:O	33:69:89:TYR:HD2	2.04	0.41
37:45:31:ASP:O	37:45:133:ARG:HG2	2.21	0.41
40:75:106:SER:HA	40:75:110:ILE:HD11	2.03	0.41
42:95:62:LEU:HD11	42:95:95:LEU:HB2	2.02	0.41
48:F5:80:LEU:CD1	48:F5:82:LEU:HD13	2.51	0.41
1:13:280:C:O2	17:8I:38:ARG:HG3	2.20	0.41
1:13:321:A:H62	1:13:328:C:H1'	1.85	0.41
1:13:392:G:H5''	16:7I:12:LYS:HE3	2.03	0.41
1:13:447:G:C6	1:13:485:G:H1'	2.56	0.41
1:13:465:A:H2'	1:13:467:G:N7	2.35	0.41
1:13:532:A:N6	1:13:1206:G:O2'	2.54	0.41
1:13:631:G:O2'	1:13:632:A:H8	2.04	0.41
1:13:711:G:O2'	1:13:712:A:H5'	2.21	0.41
1:13:868:C:H2'	1:13:869:G:O4'	2.20	0.41
1:13:940:C:H2'	1:13:941:G:C8	2.56	0.41
1:13:985:C:H2'	1:13:986:A:C8	2.56	0.41
1:13:1044:A:C5	1:13:1045:C:H1'	2.56	0.41
1:13:1274:G:H2'	1:13:1275:A:C8	2.56	0.41
4:3E:155:LEU:HD22	4:3E:155:LEU:HA	1.93	0.41
7:6E:122:HIS:O	7:6E:126:ASP:N	2.43	0.41
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.21	0.41
26:1H:12:U:P	26:1H:12:U:H6	2.44	0.41
26:1H:38:A:H2'	26:1H:39:C:C6	2.55	0.41
26:1H:259:G:N2	26:1H:621:A:C8	2.83	0.41
26:1H:705:A:C2	26:1H:706:A:C4	3.09	0.41
26:1H:1059:G:O6	26:1H:1088:A:C8	2.74	0.41
26:1H:2110:G:C6	26:1H:2120:G:C8	3.09	0.41
26:1H:2173:A:P	26:1H:2173:A:H8	2.44	0.41
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.55	0.41
26:1H:2339:G:H2'	26:1H:2340:G:C8	2.55	0.41
26:1H:2483:C:C2	37:88:124:LYS:HE3	2.56	0.41
33:61:38:LEU:O	33:61:40:THR:HG23	2.21	0.41
34:58:40:PRO:O	41:C8:64:ARG:HG2	2.20	0.41
37:88:134:ARG:HH12	46:H8:122:ARG:NE	2.19	0.41
39:A8:62:LYS:H	39:A8:62:LYS:HG2	1.53	0.41
43:E8:51:LEU:HD23	43:E8:51:LEU:HA	1.93	0.41
44:F8:57:LEU:N	44:F8:57:LEU:HD23	2.35	0.41
49:K8:49:LYS:HA	49:K8:52:ASP:OD1	2.21	0.41
54:Q8:24:ALA:O	54:Q8:48:PHE:N	2.47	0.41
1:1G:598:U:H2'	1:1G:599:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1063:C:H3'	1:1G:1064:G:H2'	2.03	0.41
1:1G:1250:A:H4'	9:82:68:GLY:H	1.86	0.41
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.40	0.41
1:1G:1410:G:H2'	1:1G:1411:C:H6	1.85	0.41
2:12:167:PRO:HG2	2:12:188:ALA:HB2	2.03	0.41
8:72:53:VAL:O	8:72:56:LYS:N	2.49	0.41
9:82:48:GLU:N	9:82:49:PRO:HD2	2.36	0.41
18:9A:45:SER:HG	18:9A:47:THR:HG1	1.66	0.41
26:14:234:C:H2'	26:14:235:U:C6	2.56	0.41
26:14:685:A:H1'	26:14:688:U:O4	2.21	0.41
26:14:928:G:H2'	26:14:929:G:O4'	2.21	0.41
26:14:1376:C:N4	26:14:1377:G:C6	2.89	0.41
26:14:1914:C:H2'	26:14:1915:U:O4'	2.21	0.41
27:1J:52:A:O2'	27:1J:53:A:N7	2.51	0.41
28:19:75:ILE:HD13	28:19:99:ASP:OD2	2.20	0.41
29:29:170:LEU:HD13	29:29:170:LEU:HA	1.91	0.41
30:39:145:GLU:O	30:39:145:GLU:HG2	2.21	0.41
35:25:49:ARG:HA	35:25:53:LYS:NZ	2.36	0.41
38:55:99:LYS:O	52:J5:44:THR:HA	2.21	0.41
48:F5:90:ILE:C	48:F5:91:LYS:O	2.59	0.41
1:13:186(C):G:C4	1:13:191(E):G:C2	3.10	0.40
1:13:186(F):C:H5''	1:13:187:C:OP2	2.22	0.40
1:13:237:C:H5''	17:8I:25:ARG:NH1	2.35	0.40
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.56	0.40
1:13:1333:A:H2'	1:13:1334:G:O4'	2.21	0.40
4:3E:105:VAL:HG13	4:3E:110:PHE:HB2	2.03	0.40
8:7E:51:VAL:HG21	8:7E:60:ARG:NH1	2.36	0.40
18:9I:47:THR:HA	18:9I:83:GLU:HB2	2.02	0.40
24:3K:37:A:C5	24:3K:38:A:C8	3.09	0.40
26:1H:287:C:O2'	26:1H:288:C:H5'	2.20	0.40
26:1H:828:U:H4'	26:1H:831:G:N1	2.36	0.40
26:1H:994:C:OP2	41:C8:54:LYS:NZ	2.50	0.40
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.56	0.40
26:1H:1287:A:H5''	26:1H:1288:U:OP2	2.20	0.40
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.21	0.40
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.20	0.40
26:1H:1728:G:O6	26:1H:1730:U:H5''	2.22	0.40
26:1H:2882:A:OP1	38:98:96:ARG:NH1	2.42	0.40
28:11:85:ASP:OD2	28:11:88:ARG:NH1	2.44	0.40
32:51:92:ILE:HD12	32:51:92:ILE:N	2.37	0.40
36:78:71:VAL:HG13	36:78:72:PRO:CD	2.49	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:111:GLU:O	37:88:115:MET:HG2	2.21	0.40
48:J8:86:SER:O	48:J8:88:LYS:N	2.54	0.40
49:K8:34:GLU:O	49:K8:38:GLN:HG3	2.21	0.40
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.28	0.40
1:1G:255:G:C2	1:1G:272:C:C2	3.09	0.40
1:1G:728:A:H2'	1:1G:729:A:C8	2.56	0.40
1:1G:1178:G:H2'	1:1G:1180:A:N7	2.37	0.40
1:1G:1428:A:H2'	1:1G:1429:C:C6	2.55	0.40
1:1G:1505:G:H2'	25:4L:15:A:OP2	2.21	0.40
3:22:9:GLY:HA2	3:22:12:LEU:HG	2.03	0.40
3:22:152:ILE:O	3:22:198:VAL:HA	2.21	0.40
4:32:132:ARG:HG2	4:32:133:VAL:N	2.36	0.40
17:8A:45:HIS:O	17:8A:73:VAL:HG12	2.20	0.40
19:AA:21:GLU:HG2	19:AA:21:GLU:H	1.69	0.40
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.51	0.40
23:2L:51:U:H2'	23:2L:52:C:H6	1.86	0.40
26:14:77:C:OP1	49:G5:59:ARG:HD3	2.21	0.40
26:14:1568:G:P	28:19:63:ARG:HH22	2.44	0.40
26:14:1651:G:N7	38:55:11:ASN:ND2	2.69	0.40
26:14:2658:C:H2'	26:14:2659:G:O4'	2.21	0.40
28:19:58:HIS:ND1	28:19:59:LYS:N	2.69	0.40
37:45:16:ARG:HB2	37:45:18:LYS:HG3	2.03	0.40
39:65:81:GLY:O	39:65:83:LYS:HG3	2.21	0.40
46:D5:48:PHE:CE1	46:D5:71:VAL:HG21	2.49	0.40
46:D5:53:ILE:HA	46:D5:71:VAL:HG13	2.02	0.40
48:F5:57:GLU:O	48:F5:58:ILE:HD13	2.21	0.40
49:G5:43:GLN:HA	49:G5:45:SER:H	1.85	0.40
1:13:1331:G:HO2'	1:13:1332:A:P	2.44	0.40
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.54	0.40
3:2E:47:LEU:HB2	3:2E:52:LEU:HD13	2.04	0.40
4:3E:74:GLN:O	4:3E:78:LEU:HG	2.20	0.40
4:3E:86:LYS:HB2	4:3E:86:LYS:HE3	1.82	0.40
5:4E:142:LEU:HA	5:4E:142:LEU:HD23	1.86	0.40
7:6E:42:ILE:HG13	7:6E:117:ALA:HB2	2.01	0.40
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.22	0.40
11:2I:62:GLN:O	11:2I:66:LEU:HG	2.21	0.40
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.89	0.40
26:1H:65:C:H2'	26:1H:66:C:H6	1.85	0.40
26:1H:301:G:C4	26:1H:302:C:C5	3.09	0.40
26:1H:319:C:C2	26:1H:333:G:N2	2.89	0.40
26:1H:330:A:H2	26:1H:1210:A:O2'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:363:G:N2	26:1H:363(A):A:C5	2.89	0.40
26:1H:527:C:H4'	26:1H:528:A:H5'	2.03	0.40
26:1H:1043:C:C4	26:1H:1044:G:N7	2.89	0.40
26:1H:1087:G:C4	26:1H:1089:G:H1'	2.56	0.40
26:1H:1185:C:H5''	59:1H:3774:HOH:O	2.21	0.40
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.57	0.40
26:1H:1729:A:H1'	26:1H:1730:U:C5	2.56	0.40
26:1H:1753:G:N1	26:1H:1756:G:C2	2.89	0.40
26:1H:2545:G:H2'	26:1H:2546:U:O4'	2.22	0.40
27:16:1(M):A:H3'	27:16:0:A:C8	2.56	0.40
27:16:30:C:OP2	39:A8:32:LEU:HD11	2.22	0.40
33:61:25:TYR:HD1	33:61:25:TYR:HA	1.79	0.40
33:61:123:LEU:HD23	33:61:142:VAL:O	2.21	0.40
39:A8:25:ARG:O	39:A8:39:ILE:HA	2.21	0.40
41:C8:50:ARG:HG2	41:C8:53:ARG:NH2	2.36	0.40
41:C8:95:LEU:HD22	42:D8:4:ILE:HD13	2.02	0.40
42:D8:19:LYS:HA	42:D8:94:LEU:O	2.21	0.40
42:D8:37:VAL:HG23	42:D8:51:VAL:CG2	2.50	0.40
46:H8:116:VAL:CG2	46:H8:146:ILE:HA	2.47	0.40
48:J8:53:VAL:HG12	48:J8:54:ALA:H	1.87	0.40
49:K8:32:LEU:HD13	49:K8:36:ARG:NH1	2.34	0.40
51:M8:16:CYS:CB	51:M8:36:CYS:HB3	2.49	0.40
52:N8:40:LYS:NZ	52:N8:46:CYS:HB3	2.36	0.40
1:1G:607:A:H2'	1:1G:608:A:O4'	2.22	0.40
1:1G:956:U:H1'	1:1G:1225:A:H2	1.85	0.40
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.56	0.40
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.36	0.40
6:52:25:ILE:H	6:52:25:ILE:HG12	1.58	0.40
8:72:33:GLU:HG3	8:72:48:TYR:CE2	2.57	0.40
26:14:41:C:H2'	26:14:43:G:H8	1.86	0.40
26:14:59:U:O2'	26:14:73:A:H2'	2.21	0.40
26:14:492:A:H8	26:14:492:A:O5'	2.05	0.40
26:14:858:U:OP1	47:E5:44:ARG:NH2	2.54	0.40
26:14:1005:C:H2'	26:14:1006:C:H6	1.85	0.40
26:14:1007:C:H5''	34:15:35:ARG:NH1	2.36	0.40
26:14:1248:G:C5	41:85:3:ARG:HB2	2.56	0.40
26:14:1257:C:OP1	30:39:75:HIS:HE1	2.04	0.40
26:14:1647:G:P	26:14:1647:G:H3'	2.61	0.40
26:14:1889:A:N1	26:14:2234:G:H1'	2.36	0.40
26:14:2697:G:H2'	26:14:2698:U:O4'	2.22	0.40
28:19:108:PRO:HG2	28:19:111:LEU:HG	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:4:VAL:HG12	30:39:17:ARG:HG2	2.03	0.40
32:59:149:ARG:O	32:59:154:PRO:HB3	2.21	0.40
32:59:149:ARG:HA	32:59:162:ILE:HD12	2.03	0.40
32:59:163:TYR:HD1	32:59:167:GLU:CD	2.25	0.40
1:13:160:A:N3	1:13:160:A:H2'	2.35	0.40
1:13:454:C:H3'	1:13:455:C:H6	1.85	0.40
1:13:626:U:C4	1:13:627:G:N7	2.89	0.40
1:13:827:U:H5	1:13:872:A:N1	2.20	0.40
1:13:955:U:H1'	1:13:1227:A:N6	2.37	0.40
1:13:1118:C:P	9:8E:104:ARG:HH11	2.44	0.40
2:1E:5:ILE:HG22	2:1E:224:GLN:NE2	2.34	0.40
3:2E:36:ASP:O	3:2E:40:ARG:HG3	2.21	0.40
4:3E:107:ARG:HA	4:3E:107:ARG:HD2	1.74	0.40
4:3E:122:ARG:HH11	4:3E:122:ARG:HG2	1.86	0.40
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.86	0.40
8:7E:12:ARG:HD3	8:7E:26:VAL:HB	2.03	0.40
9:8E:94:ALA:O	9:8E:98:PRO:HD2	2.21	0.40
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.21	0.40
18:9I:59:SER:OG	18:9I:60:ALA:N	2.55	0.40
26:1H:128:C:H2'	26:1H:129:C:H6	1.85	0.40
26:1H:453:C:H5''	59:1H:4145:HOH:O	2.21	0.40
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.89	0.40
26:1H:755:C:H2'	26:1H:756:C:C6	2.56	0.40
26:1H:2145:C:H5	26:1H:2148:G:H21	1.69	0.40
26:1H:2235:G:H2'	26:1H:2236:C:H6	1.86	0.40
26:1H:2406:U:N3	36:78:73:GLY:O	2.33	0.40
26:1H:2592:G:N7	59:1H:3915:HOH:O	2.37	0.40
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.55	0.40
27:16:40:U:H1'	27:16:45:A:N6	2.37	0.40
30:31:178:PRO:HB2	30:31:201:VAL:HG11	2.03	0.40
31:41:59:GLU:OE1	31:41:138:GLN:NE2	2.54	0.40
32:51:132:ARG:HE	32:51:132:ARG:HB3	1.73	0.40
35:68:71:ARG:HH11	40:B8:74:ARG:HH21	1.69	0.40
36:78:79:ARG:HD2	36:78:110:TYR:CE1	2.57	0.40
43:E8:12:ILE:HG13	43:E8:42:ARG:NH1	2.31	0.40
46:H8:7:ALA:O	46:H8:8:TYR:CG	2.74	0.40
48:J8:8:SER:OG	48:J8:10:LYS:HG3	2.22	0.40
51:M8:39:CYS:HB3	51:M8:41:PRO:CD	2.48	0.40
53:P8:5:TRP:HA	53:P8:5:TRP:CE3	2.55	0.40
1:1G:799:G:O6	1:1G:800:G:C2	2.74	0.40
1:1G:957:U:C1'	1:1G:960:U:H5	2.27	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1086:U:H2'	1:1G:1087:G:H8	1.86	0.40
1:1G:1131:G:N7	1:1G:1132:C:C5	2.89	0.40
1:1G:1240:U:H5'	1:1G:1241:G:C8	2.57	0.40
1:1G:1350:A:C6	1:1G:1351:U:C4	3.10	0.40
2:12:144:ARG:HE	2:12:144:ARG:HB2	1.64	0.40
5:42:70:PRO:HB3	5:42:144:THR:CG2	2.52	0.40
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	2.02	0.40
16:7A:39:TYR:CD2	16:7A:73:LEU:HD11	2.57	0.40
22:1L:18:G:N2	22:1L:57:G:H5'	2.37	0.40
26:14:312:G:H4'	26:14:331:A:N3	2.36	0.40
26:14:315:G:H2'	26:14:316:C:H6	1.86	0.40
26:14:780:G:H21	26:14:783:A:N6	2.09	0.40
26:14:828:U:C5	26:14:2247:A:H4'	2.56	0.40
26:14:1131:G:C2	26:14:1132:A:C4	3.10	0.40
26:14:1387:C:C2	26:14:1388:G:C8	3.09	0.40
26:14:1392:A:N6	26:14:1393:A:N6	2.69	0.40
26:14:1499:C:H2'	26:14:1500:G:H8	1.86	0.40
26:14:1614:A:N1	43:A5:93:ALA:HB2	2.36	0.40
26:14:1628:G:H2'	26:14:1629:U:H6	1.84	0.40
26:14:1753:G:N1	26:14:1756:G:C2	2.89	0.40
26:14:1963:U:O2	26:14:1963:U:H2'	2.21	0.40
26:14:2224:G:H4'	26:14:2226:C:C2	2.57	0.40
26:14:2688:U:H3'	26:14:2688:U:O2	2.21	0.40
27:1J:11:C:H3'	27:1J:12:C:C6	2.57	0.40
28:19:35:LYS:HB3	28:19:35:LYS:HE2	1.12	0.40
29:29:103:ASP:OD1	29:29:201:THR:HG23	2.22	0.40
31:49:51:ARG:O	31:49:51:ARG:HG3	2.20	0.40
32:59:103:LEU:HD11	32:59:115:VAL:O	2.22	0.40
32:59:157:TYR:CD2	32:59:171:LEU:HD11	2.56	0.40
33:69:102:SER:HA	33:69:107:VAL:O	2.21	0.40
33:69:125:GLU:OE1	33:69:141:LYS:HD3	2.21	0.40
42:95:28:GLU:O	42:95:61:VAL:HG11	2.21	0.40
44:B5:1:MET:HA	44:B5:2:LYS:HA	1.74	0.40
1:13:560:U:H4'	1:13:561:U:H5''	2.04	0.40
1:13:878:G:H5'	8:7E:89:PRO:HG2	2.04	0.40
1:13:1533:C:H4'	1:13:1534:A:C8	2.56	0.40
59:13:2055:HOH:O	10:1I:57:LYS:HG2	2.22	0.40
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.20	0.40
4:3E:99:SER:O	4:3E:140:VAL:HG22	2.21	0.40
13:4I:7:VAL:O	13:4I:8:GLU:C	2.58	0.40
18:9I:43:PHE:O	18:9I:51:LEU:HG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:33:THR:HG22	19:AI:49:ILE:HG22	2.02	0.40
26:1H:65:C:H2'	26:1H:66:C:C6	2.56	0.40
26:1H:107:C:H2'	26:1H:108:U:C6	2.56	0.40
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.55	0.40
26:1H:1588:C:H2'	26:1H:1589:C:C6	2.57	0.40
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.22	0.40
26:1H:2184:G:C6	26:1H:2185:C:C4	3.09	0.40
26:1H:2324:C:H5''	26:1H:2325:G:H5'	2.02	0.40
30:31:176:LEU:HD21	30:31:180:GLY:O	2.21	0.40
32:51:83:TYR:CE2	32:51:138:LYS:HB2	2.56	0.40
33:61:9:LEU:HD13	33:61:9:LEU:HA	1.95	0.40
36:78:64:LYS:HD2	54:Q8:12:LYS:HG2	2.02	0.40
38:98:48:VAL:O	38:98:49:ASP:C	2.59	0.40
46:H8:7:ALA:HB3	46:H8:61:LEU:HB2	2.03	0.40
46:H8:42:VAL:H	46:H8:42:VAL:HG23	1.61	0.40
49:K8:3:LEU:HA	49:K8:3:LEU:HD23	1.66	0.40
1:1G:81:G:HO2'	1:1G:82:U:P	2.44	0.40
1:1G:151:A:H2'	1:1G:152:A:O4'	2.22	0.40
1:1G:1239:A:H4'	1:1G:1240:U:H5''	2.03	0.40
1:1G:1285:A:OP1	1:1G:1285:A:C8	2.73	0.40
6:52:35:ALA:HB1	6:52:65:VAL:HG11	2.04	0.40
7:62:93:PRO:HG2	7:62:94:ARG:HE	1.87	0.40
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	2.03	0.40
20:BA:54:LYS:HE3	20:BA:54:LYS:HB3	1.81	0.40
26:14:265:A:H1'	26:14:266:G:O4'	2.22	0.40
26:14:389:G:O5'	26:14:389:G:H8	2.04	0.40
26:14:654(C):G:N1	26:14:654(R):C:O2'	2.54	0.40
26:14:810:U:H6	26:14:810:U:O5'	2.04	0.40
26:14:1153:C:OP1	41:85:93:LYS:NZ	2.54	0.40
26:14:2323:G:H2'	26:14:2324:C:O4'	2.22	0.40
26:14:2478:A:H3'	26:14:2479:G:H8	1.86	0.40
26:14:2563:U:O2	26:14:2565:A:C8	2.74	0.40
26:14:2774:C:H2'	26:14:2775:A:O4'	2.21	0.40
28:19:137:PRO:HG2	28:19:140:THR:OG1	2.22	0.40
30:39:74:ARG:HH11	30:39:74:ARG:HD3	1.72	0.40
32:59:78:GLY:HA2	32:59:81:GLU:O	2.21	0.40
38:55:52:ILE:O	38:55:54:LEU:N	2.55	0.40
39:65:29:PHE:CD1	39:65:30:ARG:N	2.82	0.40
39:65:35:ILE:HG12	39:65:101:LEU:HD22	2.04	0.40
40:75:4:GLY:O	40:75:6:LEU:HB2	2.21	0.40
40:75:133:GLU:O	40:75:137:LYS:NZ	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:95:20:LEU:HA	42:95:20:LEU:HD12	1.81	0.40
42:95:99:ILE:H	42:95:99:ILE:HG13	1.62	0.40
46:D5:23:LYS:HB3	46:D5:38:TYR:CD1	2.56	0.40
48:F5:85:LEU:O	48:F5:85:LEU:HG	2.21	0.40
49:G5:4:SER:N	49:G5:5:GLU:HB2	2.36	0.40
1:13:848:C:H2'	1:13:849:C:O4'	2.20	0.40
1:13:949:A:OP1	13:4I:101:GLN:HB3	2.22	0.40
1:13:1024:G:N2	1:13:1025:U:H3	2.20	0.40
1:13:1319:A:O2'	1:13:1323:G:N7	2.42	0.40
2:1E:115:LEU:HD13	2:1E:145:LEU:HB2	2.02	0.40
17:8I:70:ARG:O	17:8I:71:PHE:HD1	2.05	0.40
26:1H:194:G:H2'	26:1H:195:A:O4'	2.20	0.40
26:1H:586:A:N1	26:1H:809:G:O2'	2.43	0.40
26:1H:860:U:H5	26:1H:917:A:N1	2.17	0.40
26:1H:1063:G:N2	26:1H:1076:C:H1'	2.36	0.40
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.39	0.40
26:1H:1165:U:H2'	26:1H:1166:C:H6	1.86	0.40
26:1H:1260:G:C6	26:1H:1261:C:C4	3.09	0.40
26:1H:1386:C:OP2	26:1H:1396:U:C5	2.75	0.40
26:1H:2331:G:N3	26:1H:2336:A:C2	2.90	0.40
26:1H:2663:G:C6	26:1H:2664:G:C4	3.09	0.40
26:1H:2749:A:H4'	32:51:62:LYS:HB3	2.04	0.40
27:16:60:C:C2	27:16:61:G:C8	3.10	0.40
29:21:64:LYS:HD2	29:21:65:GLY:HA2	2.04	0.40
30:31:66:PRO:O	30:31:67:GLN:CB	2.62	0.40
36:78:135:LEU:HD23	36:78:135:LEU:HA	1.92	0.40
40:B8:26:ASP:CB	40:B8:91:ARG:HA	2.51	0.40
43:E8:19:LEU:O	52:N8:25:LEU:HD12	2.21	0.40
46:H8:52:SER:C	46:H8:54:HIS:H	2.08	0.40
47:I8:23:VAL:HB	47:I8:26:TYR:HE1	1.86	0.40
48:J8:84:GLY:H	48:J8:85:LEU:HD22	1.86	0.40
54:Q8:62:LEU:HB3	54:Q8:65:GLU:HG2	2.04	0.40
1:1G:7:G:H5'	1:1G:298:A:O4'	2.21	0.40
1:1G:266:G:H5'	1:1G:268:C:H41	1.86	0.40
1:1G:487:A:H2'	1:1G:488:C:O4'	2.22	0.40
1:1G:1053:G:H4'	1:1G:1054:C:H3'	2.03	0.40
2:12:22:LYS:HB2	2:12:24:TRP:CE3	2.55	0.40
2:12:126:GLU:HB3	2:12:130:ARG:HH11	1.87	0.40
4:32:64:LEU:HB2	4:32:198:VAL:HG21	2.02	0.40
4:32:78:LEU:HD22	4:32:96:LEU:HB3	2.03	0.40
4:32:191:ARG:O	4:32:191:ARG:NH1	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:149:GLU:C	5:42:151:LEU:H	2.25	0.40
7:62:148:ASN:O	7:62:149:ARG:HD3	2.21	0.40
14:5A:47:LEU:HD23	14:5A:47:LEU:HA	1.74	0.40
26:14:433:C:C4	26:14:434:U:O4	2.75	0.40
26:14:676:A:H1'	26:14:2443:C:H1'	2.03	0.40
26:14:761:A:OP2	59:14:3569:HOH:O	2.22	0.40
26:14:1416:G:HO2'	26:14:1417:C:P	2.38	0.40
26:14:2190:G:H2'	26:14:2191:G:O4'	2.22	0.40
26:14:2801:A:N6	26:14:2894:G:H5'	2.36	0.40
39:65:18:ILE:HD13	39:65:87:PHE:O	2.20	0.40
40:75:5:ALA:N	40:75:6:LEU:CA	2.84	0.40
53:L5:26:GLY:O	53:L5:30:VAL:HG23	2.22	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:15:ASP:OD2	4:32:27:TYR:OH[4_555]	2.19	0.01

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	12	203/256 (79%)	161 (79%)	41 (20%)	1 (0%)	29 64
2	1E	227/256 (89%)	175 (77%)	49 (22%)	3 (1%)	12 41
3	22	193/239 (81%)	161 (83%)	31 (16%)	1 (0%)	29 64
3	2E	203/239 (85%)	181 (89%)	21 (10%)	1 (0%)	29 64
4	32	205/209 (98%)	186 (91%)	19 (9%)	0	100 100
4	3E	205/209 (98%)	175 (85%)	29 (14%)	1 (0%)	29 64
5	42	148/162 (91%)	136 (92%)	12 (8%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	4E	147/162 (91%)	140 (95%)	7 (5%)	0	100	100
6	52	99/101 (98%)	93 (94%)	6 (6%)	0	100	100
6	5E	98/101 (97%)	91 (93%)	7 (7%)	0	100	100
7	62	134/156 (86%)	127 (95%)	7 (5%)	0	100	100
7	6E	152/156 (97%)	142 (93%)	10 (7%)	0	100	100
8	72	135/138 (98%)	118 (87%)	16 (12%)	1 (1%)	22	56
8	7E	136/138 (99%)	123 (90%)	11 (8%)	2 (2%)	10	38
9	82	119/128 (93%)	103 (87%)	14 (12%)	2 (2%)	9	34
9	8E	124/128 (97%)	102 (82%)	22 (18%)	0	100	100
10	1A	97/105 (92%)	83 (86%)	14 (14%)	0	100	100
10	1I	92/105 (88%)	80 (87%)	12 (13%)	0	100	100
11	2A	111/129 (86%)	96 (86%)	14 (13%)	1 (1%)	17	51
11	2I	109/129 (84%)	94 (86%)	14 (13%)	1 (1%)	17	51
12	3A	120/132 (91%)	100 (83%)	19 (16%)	1 (1%)	19	53
12	3I	120/132 (91%)	104 (87%)	15 (12%)	1 (1%)	19	53
13	4A	107/126 (85%)	84 (78%)	17 (16%)	6 (6%)	2	8
13	4I	117/126 (93%)	86 (74%)	26 (22%)	5 (4%)	2	12
14	5A	57/61 (93%)	46 (81%)	10 (18%)	1 (2%)	8	33
14	5I	58/61 (95%)	50 (86%)	5 (9%)	3 (5%)	2	9
15	6A	85/89 (96%)	82 (96%)	3 (4%)	0	100	100
15	6I	85/89 (96%)	71 (84%)	14 (16%)	0	100	100
16	7A	82/88 (93%)	74 (90%)	7 (8%)	1 (1%)	13	43
16	7I	81/88 (92%)	72 (89%)	9 (11%)	0	100	100
17	8A	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
17	8I	98/105 (93%)	87 (89%)	11 (11%)	0	100	100
18	9A	67/88 (76%)	65 (97%)	2 (3%)	0	100	100
18	9I	66/88 (75%)	62 (94%)	4 (6%)	0	100	100
19	AA	59/93 (63%)	43 (73%)	15 (25%)	1 (2%)	9	34
19	AI	81/93 (87%)	67 (83%)	13 (16%)	1 (1%)	13	43
20	BA	101/106 (95%)	83 (82%)	17 (17%)	1 (1%)	15	48
20	BI	95/106 (90%)	84 (88%)	11 (12%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	1B	20/27 (74%)	17 (85%)	2 (10%)	1 (5%)	2	10
21	1F	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
28	11	271/276 (98%)	249 (92%)	17 (6%)	5 (2%)	8	33
28	19	272/276 (99%)	235 (86%)	36 (13%)	1 (0%)	34	69
29	21	203/206 (98%)	159 (78%)	39 (19%)	5 (2%)	5	25
29	29	202/206 (98%)	146 (72%)	48 (24%)	8 (4%)	3	14
30	31	200/210 (95%)	178 (89%)	22 (11%)	0	100	100
30	39	202/210 (96%)	163 (81%)	35 (17%)	4 (2%)	7	30
31	41	177/182 (97%)	153 (86%)	23 (13%)	1 (1%)	25	60
31	49	178/182 (98%)	149 (84%)	27 (15%)	2 (1%)	14	46
32	51	172/180 (96%)	132 (77%)	31 (18%)	9 (5%)	2	9
32	59	167/180 (93%)	125 (75%)	42 (25%)	0	100	100
33	61	143/148 (97%)	111 (78%)	28 (20%)	4 (3%)	5	22
33	69	143/148 (97%)	107 (75%)	34 (24%)	2 (1%)	11	39
34	15	135/140 (96%)	118 (87%)	16 (12%)	1 (1%)	22	56
34	58	123/140 (88%)	109 (89%)	13 (11%)	1 (1%)	19	53
35	25	120/122 (98%)	110 (92%)	10 (8%)	0	100	100
35	68	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
36	35	145/150 (97%)	117 (81%)	26 (18%)	2 (1%)	11	39
36	78	146/150 (97%)	111 (76%)	30 (20%)	5 (3%)	3	17
37	45	136/141 (96%)	106 (78%)	29 (21%)	1 (1%)	22	56
37	88	139/141 (99%)	120 (86%)	15 (11%)	4 (3%)	4	21
38	55	116/118 (98%)	104 (90%)	10 (9%)	2 (2%)	9	34
38	98	116/118 (98%)	102 (88%)	14 (12%)	0	100	100
39	65	108/112 (96%)	84 (78%)	23 (21%)	1 (1%)	17	51
39	A8	109/112 (97%)	85 (78%)	24 (22%)	0	100	100
40	75	138/146 (94%)	120 (87%)	16 (12%)	2 (1%)	11	39
40	B8	134/146 (92%)	112 (84%)	21 (16%)	1 (1%)	22	56
41	85	114/118 (97%)	99 (87%)	15 (13%)	0	100	100
41	C8	113/118 (96%)	97 (86%)	14 (12%)	2 (2%)	8	33
42	95	98/101 (97%)	79 (81%)	16 (16%)	3 (3%)	4	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	D8	98/101 (97%)	85 (87%)	13 (13%)	0	100	100
43	A5	109/113 (96%)	102 (94%)	7 (6%)	0	100	100
43	E8	108/113 (96%)	100 (93%)	8 (7%)	0	100	100
44	B5	92/96 (96%)	77 (84%)	14 (15%)	1 (1%)	14	46
44	F8	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
45	C5	48/110 (44%)	39 (81%)	8 (17%)	1 (2%)	7	29
45	G8	93/110 (84%)	64 (69%)	25 (27%)	4 (4%)	2	12
46	D5	175/206 (85%)	123 (70%)	45 (26%)	7 (4%)	3	14
46	H8	168/206 (82%)	127 (76%)	35 (21%)	6 (4%)	3	16
47	E5	74/85 (87%)	64 (86%)	8 (11%)	2 (3%)	5	23
47	I8	75/85 (88%)	66 (88%)	9 (12%)	0	100	100
48	F5	92/98 (94%)	78 (85%)	12 (13%)	2 (2%)	6	28
48	J8	94/98 (96%)	79 (84%)	13 (14%)	2 (2%)	7	29
49	G5	67/72 (93%)	60 (90%)	6 (9%)	1 (2%)	10	38
49	K8	66/72 (92%)	58 (88%)	7 (11%)	1 (2%)	10	38
50	H5	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
50	L8	56/60 (93%)	50 (89%)	6 (11%)	0	100	100
51	M8	56/71 (79%)	35 (62%)	19 (34%)	2 (4%)	3	16
52	J5	54/60 (90%)	45 (83%)	9 (17%)	0	100	100
52	N8	46/60 (77%)	37 (80%)	9 (20%)	0	100	100
53	L5	46/49 (94%)	44 (96%)	2 (4%)	0	100	100
53	P8	45/49 (92%)	42 (93%)	2 (4%)	1 (2%)	6	28
54	M5	62/65 (95%)	54 (87%)	8 (13%)	0	100	100
54	Q8	62/65 (95%)	47 (76%)	12 (19%)	3 (5%)	2	11
All	All	10929/11875 (92%)	9262 (85%)	1532 (14%)	135 (1%)	13	43

All (135) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
13	4I	12	ASN
28	11	239	ARG
33	61	134	PRO
34	58	96	GLU
36	78	36	LYS

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Mol	Chain	Res	Type
37	88	6	ARG
40	B8	106	SER
41	C8	93	LYS
46	H8	53	ILE
46	H8	60	GLU
48	J8	87	PRO
49	K8	48	HIS
9	82	118	LYS
13	4A	67	GLU
13	4A	68	GLY
16	7A	83	GLU
36	35	36	LYS
38	55	107	ASP
40	75	11	GLU
46	D5	53	ILE
46	D5	60	GLU
48	F5	92	LYS
8	7E	87	SER
11	2I	54	ARG
19	AI	41	VAL
28	11	238	GLY
29	21	60	ASN
29	21	129	HIS
32	51	157	TYR
32	51	171	LEU
33	61	12	LEU
36	78	15	ARG
36	78	16	ARG
36	78	25	SER
37	88	134	ARG
45	G8	54	LYS
45	G8	81	LYS
46	H8	6	LYS
46	H8	64	GLY
48	J8	86	SER
11	2A	101	SER
13	4A	84	ILE
21	1B	3	LYS
29	29	54	GLN
29	29	69	LYS
30	39	22	ALA
30	39	28	ILE

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Mol	Chain	Res	Type
33	69	113	ARG
33	69	144	VAL
34	15	127	ASP
40	75	10	VAL
42	95	99	ILE
2	1E	238	LEU
13	4I	13	LYS
13	4I	14	ARG
14	5I	17	LYS
29	21	118	LYS
31	41	117	PHE
32	51	138	LYS
32	51	170	ARG
41	C8	89	GLU
51	M8	25	TYR
54	Q8	35	GLN
54	Q8	50	LEU
2	12	223	ILE
3	22	15	THR
14	5A	17	LYS
20	BA	49	ALA
28	19	273	ARG
30	39	124	LEU
37	45	84	GLY
39	65	87	PHE
42	95	38	LEU
46	D5	93	ASP
46	D5	112	ARG
47	E5	33	ALA
48	F5	91	LYS
2	1E	156	LYS
3	2E	12	LEU
8	7E	86	ILE
13	4I	5	ALA
13	4I	27	LYS
14	5I	14	PRO
28	11	272	ALA
28	11	273	ARG
29	21	72	VAL
32	51	153	LYS
33	61	133	HIS
37	88	105	GLU

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Mol	Chain	Res	Type
46	H8	52	SER
46	H8	111	VAL
54	Q8	47	LYS
12	3A	48	PRO
13	4A	83	ASP
13	4A	106	ASN
38	55	82	GLU
49	G5	47	ASN
2	1E	22	LYS
4	3E	84	LYS
32	51	137	ASP
36	78	7	ARG
37	88	5	ARG
51	M8	40	HIS
9	82	120	ARG
29	29	53	PRO
29	29	68	ALA
29	29	144	ARG
30	39	90	PHE
31	49	117	PHE
45	C5	17	SER
47	E5	34	GLY
28	11	122	ASP
33	61	83	ALA
13	4A	95	GLY
19	AA	9	VAL
29	29	55	ASN
42	95	50	PRO
46	D5	52	SER
14	5I	13	THR
8	72	100	ILE
31	49	5	VAL
29	21	59	VAL
32	51	128	PRO
32	51	168	PRO
45	G8	53	PRO
29	29	77	ILE
44	B5	51	VAL
32	51	127	GLU
29	29	52	LEU
36	35	7	ARG
53	P8	46	VAL

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Mol	Chain	Res	Type
46	D5	171	ILE
12	3I	48	PRO
46	D5	116	VAL
45	G8	82	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	179/220 (81%)	135 (75%)	44 (25%)	0	2
2	1E	200/220 (91%)	152 (76%)	48 (24%)	0	2
3	22	154/188 (82%)	120 (78%)	34 (22%)	1	3
3	2E	159/188 (85%)	128 (80%)	31 (20%)	1	6
4	32	180/181 (99%)	152 (84%)	28 (16%)	2	11
4	3E	180/181 (99%)	148 (82%)	32 (18%)	2	8
5	42	114/123 (93%)	86 (75%)	28 (25%)	0	2
5	4E	115/123 (94%)	95 (83%)	20 (17%)	2	8
6	52	90/90 (100%)	76 (84%)	14 (16%)	2	11
6	5E	90/90 (100%)	78 (87%)	12 (13%)	4	15
7	62	114/127 (90%)	90 (79%)	24 (21%)	1	4
7	6E	125/127 (98%)	103 (82%)	22 (18%)	2	8
8	72	118/119 (99%)	95 (80%)	23 (20%)	1	6
8	7E	119/119 (100%)	95 (80%)	24 (20%)	1	5
9	82	92/99 (93%)	69 (75%)	23 (25%)	0	2
9	8E	97/99 (98%)	77 (79%)	20 (21%)	1	4
10	1A	89/92 (97%)	69 (78%)	20 (22%)	1	3
10	1I	81/92 (88%)	68 (84%)	13 (16%)	2	10
11	2A	85/99 (86%)	72 (85%)	13 (15%)	2	11
11	2I	84/99 (85%)	68 (81%)	16 (19%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	3A	103/109 (94%)	75 (73%)	28 (27%)	0	1
12	3I	103/109 (94%)	83 (81%)	20 (19%)	1	6
13	4A	90/101 (89%)	70 (78%)	20 (22%)	1	3
13	4I	94/101 (93%)	72 (77%)	22 (23%)	1	3
14	5A	49/50 (98%)	31 (63%)	18 (37%)	0	0
14	5I	49/50 (98%)	38 (78%)	11 (22%)	1	3
15	6A	79/80 (99%)	73 (92%)	6 (8%)	13	39
15	6I	79/80 (99%)	64 (81%)	15 (19%)	1	6
16	7A	72/74 (97%)	63 (88%)	9 (12%)	4	17
16	7I	72/74 (97%)	56 (78%)	16 (22%)	1	3
17	8A	94/97 (97%)	85 (90%)	9 (10%)	8	28
17	8I	95/97 (98%)	77 (81%)	18 (19%)	1	7
18	9A	58/77 (75%)	42 (72%)	16 (28%)	0	1
18	9I	58/77 (75%)	52 (90%)	6 (10%)	7	25
19	AA	56/80 (70%)	43 (77%)	13 (23%)	1	3
19	AI	72/80 (90%)	56 (78%)	16 (22%)	1	3
20	BA	76/82 (93%)	69 (91%)	7 (9%)	9	30
20	BI	75/82 (92%)	65 (87%)	10 (13%)	4	15
21	1B	17/22 (77%)	16 (94%)	1 (6%)	19	50
21	1F	18/22 (82%)	17 (94%)	1 (6%)	21	53
28	11	214/218 (98%)	172 (80%)	42 (20%)	1	6
28	19	214/218 (98%)	173 (81%)	41 (19%)	1	6
29	21	162/166 (98%)	132 (82%)	30 (18%)	1	7
29	29	165/166 (99%)	138 (84%)	27 (16%)	2	9
30	31	161/166 (97%)	131 (81%)	30 (19%)	1	7
30	39	163/166 (98%)	124 (76%)	39 (24%)	0	2
31	41	153/156 (98%)	121 (79%)	32 (21%)	1	4
31	49	152/156 (97%)	117 (77%)	35 (23%)	1	3
32	51	143/148 (97%)	120 (84%)	23 (16%)	2	10
32	59	140/148 (95%)	101 (72%)	39 (28%)	0	1
33	61	122/124 (98%)	91 (75%)	31 (25%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	69	122/124 (98%)	95 (78%)	27 (22%)	1	3
34	15	116/119 (98%)	88 (76%)	28 (24%)	0	2
34	58	105/119 (88%)	83 (79%)	22 (21%)	1	4
35	25	100/100 (100%)	85 (85%)	15 (15%)	3	12
35	68	100/100 (100%)	88 (88%)	12 (12%)	5	19
36	35	114/116 (98%)	80 (70%)	34 (30%)	0	1
36	78	114/116 (98%)	77 (68%)	37 (32%)	0	1
37	45	109/111 (98%)	85 (78%)	24 (22%)	1	4
37	88	110/111 (99%)	96 (87%)	14 (13%)	4	17
38	55	101/101 (100%)	75 (74%)	26 (26%)	0	2
38	98	101/101 (100%)	74 (73%)	27 (27%)	0	2
39	65	87/88 (99%)	60 (69%)	27 (31%)	0	1
39	A8	87/88 (99%)	63 (72%)	24 (28%)	0	1
40	75	122/127 (96%)	95 (78%)	27 (22%)	1	3
40	B8	118/127 (93%)	82 (70%)	36 (30%)	0	1
41	85	93/94 (99%)	77 (83%)	16 (17%)	2	8
41	C8	92/94 (98%)	77 (84%)	15 (16%)	2	9
42	95	81/82 (99%)	64 (79%)	17 (21%)	1	4
42	D8	82/82 (100%)	62 (76%)	20 (24%)	0	2
43	A5	91/92 (99%)	74 (81%)	17 (19%)	1	7
43	E8	90/92 (98%)	79 (88%)	11 (12%)	5	19
44	B5	74/78 (95%)	60 (81%)	14 (19%)	1	7
44	F8	77/78 (99%)	66 (86%)	11 (14%)	3	13
45	C5	43/91 (47%)	35 (81%)	8 (19%)	1	7
45	G8	79/91 (87%)	64 (81%)	15 (19%)	1	6
46	D5	156/179 (87%)	124 (80%)	32 (20%)	1	5
46	H8	151/179 (84%)	108 (72%)	43 (28%)	0	1
47	E5	61/67 (91%)	51 (84%)	10 (16%)	2	9
47	I8	62/67 (92%)	55 (89%)	7 (11%)	6	21
48	F5	79/83 (95%)	62 (78%)	17 (22%)	1	4
48	J8	79/83 (95%)	64 (81%)	15 (19%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	G5	63/67 (94%)	45 (71%)	18 (29%)	0	1
49	K8	64/67 (96%)	41 (64%)	23 (36%)	0	1
50	H5	50/52 (96%)	45 (90%)	5 (10%)	7	26
50	L8	50/52 (96%)	42 (84%)	8 (16%)	2	10
51	M8	52/63 (82%)	34 (65%)	18 (35%)	0	1
52	J5	48/52 (92%)	37 (77%)	11 (23%)	1	3
52	N8	43/52 (83%)	32 (74%)	11 (26%)	0	2
53	L5	38/42 (90%)	34 (90%)	4 (10%)	7	24
53	P8	38/42 (90%)	32 (84%)	6 (16%)	2	10
54	M5	54/55 (98%)	42 (78%)	12 (22%)	1	3
54	Q8	54/55 (98%)	48 (89%)	6 (11%)	6	22
All	All	9213/9831 (94%)	7323 (80%)	1890 (20%)	1	5

All (1890) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	21	ARG
2	1E	24	TRP
2	1E	28	PHE
2	1E	32	ILE
2	1E	33	TYR
2	1E	63	MET
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	95	GLN
2	1E	96	ARG
2	1E	109	SER
2	1E	118	LEU
2	1E	121	LEU
2	1E	122	PHE
2	1E	127	ILE
2	1E	129	GLU
2	1E	142	LEU

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Mol	Chain	Res	Type
2	1E	144	ARG
2	1E	155	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	164	VAL
2	1E	169	LYS
2	1E	172	ILE
2	1E	178	ARG
2	1E	185	ILE
2	1E	187	LEU
2	1E	190	THR
2	1E	191	ASP
2	1E	195	ASP
2	1E	197	VAL
2	1E	200	ILE
2	1E	205	ASP
2	1E	210	SER
2	1E	212	GLN
2	1E	214	ILE
2	1E	217	ARG
2	1E	223	ILE
2	1E	224	GLN
2	1E	226	ARG
2	1E	230	VAL
2	1E	233	SER
2	1E	239	VAL
3	2E	3	ASN
3	2E	5	ILE
3	2E	15	THR
3	2E	16	ARG
3	2E	21	ARG
3	2E	31	HIS
3	2E	32	LEU
3	2E	44	GLU
3	2E	49	SER
3	2E	52	LEU
3	2E	54	ARG
3	2E	63	ASN
3	2E	64	VAL
3	2E	70	VAL
3	2E	76	VAL
3	2E	79	ARG

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Mol	Chain	Res	Type
3	2E	86	VAL
3	2E	88	ARG
3	2E	98	ASN
3	2E	104	GLN
3	2E	108	ASN
3	2E	119	ARG
3	2E	128	PHE
3	2E	132	ARG
3	2E	136	GLN
3	2E	154	SER
3	2E	167	TRP
3	2E	190	ARG
3	2E	192	THR
3	2E	196	LEU
3	2E	206	GLU
4	3E	3	ARG
4	3E	10	ARG
4	3E	12	CYS
4	3E	15	GLU
4	3E	30	LYS
4	3E	31	CYS
4	3E	46	LYS
4	3E	49	ARG
4	3E	53	ASP
4	3E	58	LEU
4	3E	61	LYS
4	3E	66	ARG
4	3E	83	SER
4	3E	84	LYS
4	3E	85	LYS
4	3E	86	LYS
4	3E	89	THR
4	3E	92	VAL
4	3E	99	SER
4	3E	108	LEU
4	3E	115	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	141	ARG
4	3E	154	ASN
4	3E	155	LEU

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Mol	Chain	Res	Type
4	3E	184	LYS
4	3E	188	LEU
4	3E	193	ASP
4	3E	200	GLU
4	3E	208	SER
5	4E	12	LEU
5	4E	16	THR
5	4E	18	ARG
5	4E	24	ARG
5	4E	31	LEU
5	4E	41	VAL
5	4E	64	ARG
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	73	ASN
5	4E	79	GLU
5	4E	87	SER
5	4E	91	LEU
5	4E	112	LEU
5	4E	139	LEU
5	4E	144	THR
5	4E	147	ASP
5	4E	152	ARG
5	4E	153	LYS
6	5E	16	GLN
6	5E	24	GLU
6	5E	25	ILE
6	5E	40	VAL
6	5E	46	ARG
6	5E	55	ASP
6	5E	65	VAL
6	5E	70	ASP
6	5E	75	LEU
6	5E	86	ARG
6	5E	94	GLN
6	5E	100	ASN
7	6E	10	ARG
7	6E	12	LEU
7	6E	16	LEU
7	6E	27	ILE
7	6E	37	ASN

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Mol	Chain	Res	Type
7	6E	38	LEU
7	6E	45	ASP
7	6E	56	GLN
7	6E	59	LEU
7	6E	73	MET
7	6E	75	VAL
7	6E	84	ASN
7	6E	89	MET
7	6E	91	VAL
7	6E	99	LEU
7	6E	104	LEU
7	6E	113	GLU
7	6E	120	ILE
7	6E	124	LEU
7	6E	125	MET
7	6E	126	ASP
7	6E	155	ARG
8	7E	1	MET
8	7E	10	LEU
8	7E	19	VAL
8	7E	25	ASP
8	7E	39	LEU
8	7E	45	ILE
8	7E	49	GLU
8	7E	50	ARG
8	7E	63	LEU
8	7E	68	ARG
8	7E	80	ILE
8	7E	82	HIS
8	7E	84	ARG
8	7E	85	ARG
8	7E	91	ARG
8	7E	95	VAL
8	7E	98	LYS
8	7E	102	ARG
8	7E	105	ARG
8	7E	107	LEU
8	7E	109	ILE
8	7E	112	LEU
8	7E	129	VAL
8	7E	137	VAL
9	8E	3	GLN

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Mol	Chain	Res	Type
9	8E	5	TYR
9	8E	9	ARG
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG
9	8E	47	LEU
9	8E	50	LEU
9	8E	53	VAL
9	8E	58	HIS
9	8E	78	LYS
9	8E	79	LEU
9	8E	83	ARG
9	8E	91	ASP
9	8E	96	LEU
9	8E	99	LEU
9	8E	104	ARG
9	8E	108	VAL
9	8E	112	LYS
9	8E	121	ARG
10	1I	24	VAL
10	1I	25	GLU
10	1I	38	ILE
10	1I	51	ARG
10	1I	58	ASP
10	1I	60	ARG
10	1I	61	GLU
10	1I	66	ARG
10	1I	70	ARG
10	1I	75	ILE
10	1I	76	ASN
10	1I	78	ASN
10	1I	88	LEU
11	2I	16	SER
11	2I	31	THR
11	2I	32	ILE
11	2I	51	LYS
11	2I	54	ARG
11	2I	63	LEU
11	2I	71	LYS
11	2I	81	ASP
11	2I	87	THR
11	2I	99	GLN

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Mol	Chain	Res	Type
11	2I	106	LYS
11	2I	107	SER
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	117	ASN
12	3I	17	LYS
12	3I	22	SER
12	3I	28	LYS
12	3I	33	ARG
12	3I	44	THR
12	3I	46	LYS
12	3I	55	VAL
12	3I	60	LEU
12	3I	62	SER
12	3I	64	TYR
12	3I	67	THR
12	3I	78	GLN
12	3I	79	GLU
12	3I	81	SER
12	3I	83	VAL
12	3I	111	LYS
12	3I	115	LYS
12	3I	116	SER
12	3I	123	LYS
12	3I	126	LYS
13	4I	9	ILE
13	4I	13	LYS
13	4I	14	ARG
13	4I	19	LEU
13	4I	20	THR
13	4I	31	LYS
13	4I	45	VAL
13	4I	48	LEU
13	4I	50	GLU
13	4I	56	LEU
13	4I	57	ARG
13	4I	64	TRP
13	4I	65	LYS
13	4I	67	GLU
13	4I	70	LEU
13	4I	88	ARG

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Mol	Chain	Res	Type
13	4I	102	ARG
13	4I	106	ASN
13	4I	108	ARG
13	4I	109	THR
13	4I	111	LYS
13	4I	114	ARG
14	5I	4	LYS
14	5I	6	LEU
14	5I	8	GLU
14	5I	18	VAL
14	5I	22	THR
14	5I	23	ARG
14	5I	24	CYS
14	5I	32	SER
14	5I	33	VAL
14	5I	41	ARG
14	5I	44	LEU
15	6I	6	GLU
15	6I	7	GLU
15	6I	8	LYS
15	6I	17	ARG
15	6I	26	GLU
15	6I	35	ARG
15	6I	39	LEU
15	6I	47	LYS
15	6I	48	LYS
15	6I	66	LEU
15	6I	71	GLN
15	6I	76	GLU
15	6I	78	TYR
15	6I	79	ARG
15	6I	88	ARG
16	7I	1	MET
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	27	LYS
16	7I	28	ARG
16	7I	35	LYS

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Mol	Chain	Res	Type
16	7I	45	THR
16	7I	50	LYS
16	7I	67	THR
16	7I	71	ARG
16	7I	72	ARG
16	7I	83	GLU
17	8I	24	GLU
17	8I	25	ARG
17	8I	35	VAL
17	8I	48	GLU
17	8I	52	LYS
17	8I	57	VAL
17	8I	60	ILE
17	8I	63	ARG
17	8I	68	ARG
17	8I	74	LEU
17	8I	79	SER
17	8I	85	VAL
17	8I	86	GLU
17	8I	87	LYS
17	8I	89	LEU
17	8I	90	ILE
17	8I	100	LYS
17	8I	101	ARG
18	9I	26	LEU
18	9I	31	LEU
18	9I	32	ARG
18	9I	36	ASN
18	9I	82	THR
18	9I	86	VAL
19	AI	3	ARG
19	AI	11	VAL
19	AI	21	GLU
19	AI	27	GLU
19	AI	28	LYS
19	AI	29	ARG
19	AI	30	LEU
19	AI	37	ARG
19	AI	40	ILE
19	AI	43	GLU
19	AI	44	MET
19	AI	45	VAL

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Mol	Chain	Res	Type
19	AI	58	VAL
19	AI	62	ILE
19	AI	77	THR
19	AI	78	ARG
20	BI	15	ARG
20	BI	26	ASN
20	BI	31	SER
20	BI	37	SER
20	BI	42	GLN
20	BI	45	GLN
20	BI	62	LEU
20	BI	70	SER
20	BI	74	LYS
20	BI	99	LEU
21	1F	10	ARG
28	11	13	ARG
28	11	17	THR
28	11	30	GLU
28	11	32	SER
28	11	33	LEU
28	11	34	VAL
28	11	37	LEU
28	11	38	LYS
28	11	39	LYS
28	11	43	ARG
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	83	GLU
28	11	88	ARG
28	11	94	LEU
28	11	101	GLU
28	11	103	ARG
28	11	105	ILE
28	11	106	ILE
28	11	122	ASP
28	11	136	ILE
28	11	141	VAL
28	11	154	LYS
28	11	164	GLN
28	11	165	ILE
28	11	171	ASP

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Mol	Chain	Res	Type
28	11	173	VAL
28	11	183	ARG
28	11	192	THR
28	11	193	VAL
28	11	211	ARG
28	11	212	SER
28	11	217	ARG
28	11	221	VAL
28	11	229	VAL
28	11	242	ARG
28	11	253	GLN
28	11	257	LEU
28	11	260	ARG
28	11	271	ILE
28	11	273	ARG
29	21	2	LYS
29	21	14	ILE
29	21	23	VAL
29	21	33	VAL
29	21	34	VAL
29	21	40	GLU
29	21	47	VAL
29	21	52	LEU
29	21	54	GLN
29	21	63	LEU
29	21	67	PHE
29	21	76	ARG
29	21	78	LEU
29	21	79	ARG
29	21	82	ARG
29	21	91	VAL
29	21	93	VAL
29	21	101	ARG
29	21	111	ARG
29	21	116	VAL
29	21	118	LYS
29	21	119	ARG
29	21	146	THR
29	21	166	THR
29	21	167	VAL
29	21	175	VAL
29	21	179	GLU

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Mol	Chain	Res	Type
29	21	197	ILE
29	21	201	THR
29	21	202	LYS
30	31	7	TYR
30	31	17	ARG
30	31	18	ARG
30	31	24	LEU
30	31	28	ILE
30	31	32	LEU
30	31	33	LEU
30	31	57	VAL
30	31	64	ILE
30	31	74	ARG
30	31	88	VAL
30	31	106	ARG
30	31	107	LYS
30	31	112	MET
30	31	137	LYS
30	31	145	GLU
30	31	153	SER
30	31	158	THR
30	31	161	GLU
30	31	170	LEU
30	31	174	VAL
30	31	175	THR
30	31	176	LEU
30	31	181	LEU
30	31	183	VAL
30	31	188	ARG
30	31	191	ARG
30	31	192	LEU
30	31	197	ASP
30	31	200	GLU
31	41	3	LEU
31	41	19	LEU
31	41	22	ARG
31	41	26	GLN
31	41	28	VAL
31	41	43	LEU
31	41	45	GLU
31	41	47	LYS
31	41	51	ARG

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Mol	Chain	Res	Type
31	41	53	LEU
31	41	63	ILE
31	41	67	LYS
31	41	70	VAL
31	41	74	LYS
31	41	76	SER
31	41	80	PHE
31	41	82	LEU
31	41	90	LEU
31	41	94	LEU
31	41	96	ARG
31	41	101	ILE
31	41	121	ASN
31	41	133	LEU
31	41	136	ARG
31	41	139	LEU
31	41	145	THR
31	41	149	VAL
31	41	152	LEU
31	41	161	THR
31	41	162	THR
31	41	165	THR
31	41	173	LEU
32	51	7	LEU
32	51	9	ILE
32	51	24	VAL
32	51	40	GLU
32	51	41	MET
32	51	42	ARG
32	51	45	VAL
32	51	53	GLU
32	51	56	SER
32	51	63	SER
32	51	71	LEU
32	51	86	GLU
32	51	88	LEU
32	51	104	GLU
32	51	105	LEU
32	51	122	THR
32	51	129	THR
32	51	130	ARG
32	51	131	VAL

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Mol	Chain	Res	Type
32	51	139	GLN
32	51	152	ARG
32	51	160	LYS
32	51	167	GLU
33	61	2	LYS
33	61	3	VAL
33	61	7	GLU
33	61	9	LEU
33	61	20	ASP
33	61	25	TYR
33	61	37	VAL
33	61	44	LEU
33	61	50	ARG
33	61	54	GLN
33	61	58	LEU
33	61	64	GLU
33	61	69	LYS
33	61	75	LEU
33	61	76	THR
33	61	81	VAL
33	61	82	ARG
33	61	85	GLU
33	61	92	VAL
33	61	95	LYS
33	61	99	GLU
33	61	104	GLN
33	61	110	ASP
33	61	117	GLU
33	61	122	GLU
33	61	129	THR
33	61	131	LYS
33	61	133	HIS
33	61	135	GLU
33	61	136	VAL
33	61	143	SER
34	58	2	LYS
34	58	5	VAL
34	58	7	LYS
34	58	9	VAL
34	58	21	LYS
34	58	32	THR
34	58	33	LEU

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Mol	Chain	Res	Type
34	58	34	LEU
34	58	48	MET
34	58	55	VAL
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	83	LYS
34	58	84	LYS
34	58	87	LEU
34	58	90	MET
34	58	98	VAL
34	58	99	LEU
34	58	120	LEU
35	68	23	ARG
35	68	24	VAL
35	68	26	LYS
35	68	35	VAL
35	68	38	VAL
35	68	47	ILE
35	68	52	VAL
35	68	53	LYS
35	68	64	ARG
35	68	66	LYS
35	68	82	ASN
35	68	115	VAL
36	78	1	MET
36	78	5	ASP
36	78	6	LEU
36	78	10	PRO
36	78	15	ARG
36	78	19	VAL
36	78	21	ARG
36	78	25	SER
36	78	27	HIS
36	78	40	SER
36	78	41	ARG
36	78	45	LEU
36	78	49	ARG
36	78	56	SER
36	78	58	THR

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Mol	Chain	Res	Type
36	78	61	ARG
36	78	74	GLU
36	78	75	ILE
36	78	77	ARG
36	78	88	LEU
36	78	90	ARG
36	78	94	GLU
36	78	96	THR
36	78	98	GLU
36	78	100	LEU
36	78	101	VAL
36	78	105	LEU
36	78	106	LEU
36	78	112	LEU
36	78	115	LEU
36	78	117	GLU
36	78	119	GLU
36	78	126	VAL
36	78	135	LEU
36	78	138	LEU
36	78	144	GLU
36	78	146	VAL
37	88	5	ARG
37	88	11	LYS
37	88	18	LYS
37	88	25	ASP
37	88	45	GLN
37	88	56	ARG
37	88	58	PHE
37	88	59	ARG
37	88	81	VAL
37	88	83	MET
37	88	109	VAL
37	88	110	THR
37	88	112	GLU
37	88	138	ASP
38	98	1	MET
38	98	2	ARG
38	98	4	LEU
38	98	6	SER
38	98	9	LYS
38	98	17	ARG

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Mol	Chain	Res	Type
38	98	18	LEU
38	98	24	GLN
38	98	27	SER
38	98	28	LEU
38	98	29	LEU
38	98	33	ARG
38	98	34	ILE
38	98	36	THR
38	98	44	LEU
38	98	57	ARG
38	98	59	ASP
38	98	65	LEU
38	98	72	ASP
38	98	73	VAL
38	98	79	LEU
38	98	82	GLU
38	98	95	THR
38	98	100	LEU
38	98	105	ARG
38	98	113	LEU
38	98	118	GLU
39	A8	3	ARG
39	A8	4	LEU
39	A8	8	GLU
39	A8	14	VAL
39	A8	17	ARG
39	A8	20	ARG
39	A8	24	LEU
39	A8	27	SER
39	A8	30	ARG
39	A8	35	ILE
39	A8	36	TYR
39	A8	43	GLU
39	A8	48	LEU
39	A8	50	SER
39	A8	52	SER
39	A8	54	LEU
39	A8	57	LYS
39	A8	58	LEU
39	A8	69	VAL
39	A8	73	LEU
39	A8	83	LYS

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Mol	Chain	Res	Type
39	A8	89	ARG
39	A8	97	ARG
39	A8	101	LEU
40	B8	1	MET
40	B8	6	LEU
40	B8	10	VAL
40	B8	15	VAL
40	B8	17	THR
40	B8	18	ASP
40	B8	23	ARG
40	B8	27	THR
40	B8	30	VAL
40	B8	33	LYS
40	B8	38	ASN
40	B8	40	THR
40	B8	41	ARG
40	B8	42	ILE
40	B8	43	GLN
40	B8	58	ASN
40	B8	59	THR
40	B8	62	THR
40	B8	74	ARG
40	B8	85	LYS
40	B8	86	ILE
40	B8	88	ILE
40	B8	89	VAL
40	B8	96	ARG
40	B8	99	LEU
40	B8	106	SER
40	B8	108	ARG
40	B8	110	ILE
40	B8	111	ARG
40	B8	112	ARG
40	B8	115	ARG
40	B8	118	ARG
40	B8	128	GLU
40	B8	129	ARG
40	B8	132	LYS
40	B8	134	GLU
41	C8	5	LYS
41	C8	27	LEU
41	C8	34	LYS

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Mol	Chain	Res	Type
41	C8	51	LYS
41	C8	52	ARG
41	C8	57	PHE
41	C8	70	ARG
41	C8	74	LEU
41	C8	79	PHE
41	C8	83	LEU
41	C8	89	GLU
41	C8	93	LYS
41	C8	94	ASN
41	C8	108	GLU
41	C8	112	ARG
42	D8	7	THR
42	D8	12	TYR
42	D8	18	LEU
42	D8	20	LEU
42	D8	21	ARG
42	D8	25	LEU
42	D8	28	GLU
42	D8	36	PRO
42	D8	37	VAL
42	D8	39	LEU
42	D8	40	LEU
42	D8	46	VAL
42	D8	49	THR
42	D8	51	VAL
42	D8	52	VAL
42	D8	53	GLU
42	D8	57	VAL
42	D8	58	VAL
42	D8	79	VAL
42	D8	89	GLN
43	E8	11	ARG
43	E8	15	ARG
43	E8	20	VAL
43	E8	51	LEU
43	E8	70	TYR
43	E8	76	VAL
43	E8	78	GLU
43	E8	92	ARG
43	E8	96	ILE
43	E8	100	THR

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Mol	Chain	Res	Type
43	E8	107	LEU
44	F8	1	MET
44	F8	23	GLU
44	F8	27	THR
44	F8	38	GLU
44	F8	53	LYS
44	F8	66	LEU
44	F8	68	ARG
44	F8	70	LEU
44	F8	80	ILE
44	F8	87	GLN
44	F8	89	ILE
45	G8	3	VAL
45	G8	4	LYS
45	G8	5	MET
45	G8	31	LEU
45	G8	38	ILE
45	G8	57	GLN
45	G8	67	LEU
45	G8	82	PRO
45	G8	85	VAL
45	G8	86	ARG
45	G8	87	LYS
45	G8	94	LYS
45	G8	98	VAL
45	G8	101	LYS
45	G8	102	CYS
46	H8	1	MET
46	H8	2	GLU
46	H8	6	LYS
46	H8	11	GLU
46	H8	19	ARG
46	H8	24	LEU
46	H8	33	LEU
46	H8	35	ARG
46	H8	41	LEU
46	H8	42	VAL
46	H8	46	LYS
46	H8	58	VAL
46	H8	59	LEU
46	H8	61	LEU
46	H8	70	LEU

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Mol	Chain	Res	Type
46	H8	71	VAL
46	H8	72	ARG
46	H8	76	LEU
46	H8	77	ASP
46	H8	79	ARG
46	H8	80	ARG
46	H8	86	VAL
46	H8	91	LEU
46	H8	94	GLU
46	H8	96	VAL
46	H8	103	ARG
46	H8	105	VAL
46	H8	117	LEU
46	H8	118	GLN
46	H8	120	ILE
46	H8	121	HIS
46	H8	123	ASP
46	H8	126	VAL
46	H8	128	VAL
46	H8	131	ARG
46	H8	132	ASN
46	H8	142	SER
46	H8	149	SER
46	H8	151	HIS
46	H8	154	ASP
46	H8	162	GLU
46	H8	163	LEU
46	H8	169	GLU
47	I8	10	THR
47	I8	36	ILE
47	I8	67	VAL
47	I8	70	GLN
47	I8	74	ARG
47	I8	82	ARG
47	I8	84	LEU
48	J8	7	ILE
48	J8	17	SER
48	J8	21	ARG
48	J8	37	ILE
48	J8	41	ARG
48	J8	46	LEU
48	J8	62	VAL

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Mol	Chain	Res	Type
48	J8	74	VAL
48	J8	81	LYS
48	J8	82	LEU
48	J8	83	GLU
48	J8	85	LEU
48	J8	93	GLU
48	J8	94	LEU
48	J8	95	LEU
49	K8	3	LEU
49	K8	8	LYS
49	K8	14	ARG
49	K8	15	LYS
49	K8	17	SER
49	K8	19	VAL
49	K8	23	LYS
49	K8	24	LEU
49	K8	28	LYS
49	K8	30	ARG
49	K8	32	LEU
49	K8	35	LEU
49	K8	41	ILE
49	K8	44	LEU
49	K8	47	ASN
49	K8	48	HIS
49	K8	49	LYS
49	K8	51	ARG
49	K8	53	LEU
49	K8	55	ARG
49	K8	62	THR
49	K8	64	LEU
49	K8	67	LYS
50	L8	4	LEU
50	L8	6	VAL
50	L8	8	LEU
50	L8	31	LEU
50	L8	40	THR
50	L8	44	ARG
50	L8	58	VAL
50	L8	59	VAL
51	M8	5	ILE
51	M8	10	VAL
51	M8	15	ILE

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Mol	Chain	Res	Type
51	M8	16	CYS
51	M8	18	CYS
51	M8	23	GLU
51	M8	25	TYR
51	M8	36	CYS
51	M8	37	SER
51	M8	38	LYS
51	M8	40	HIS
51	M8	44	THR
51	M8	47	GLN
51	M8	60	GLN
51	M8	61	ARG
51	M8	62	ARG
51	M8	63	TYR
51	M8	65	ASP
52	N8	3	LYS
52	N8	6	VAL
52	N8	11	THR
52	N8	16	ARG
52	N8	26	THR
52	N8	29	THR
52	N8	31	VAL
52	N8	35	GLU
52	N8	37	LYS
52	N8	40	LYS
52	N8	46	CYS
53	P8	1	MET
53	P8	4	THR
53	P8	8	ASN
53	P8	14	LYS
53	P8	23	ARG
53	P8	43	THR
54	Q8	14	VAL
54	Q8	34	TRP
54	Q8	35	GLN
54	Q8	46	ARG
54	Q8	50	LEU
54	Q8	60	LEU
2	12	16	HIS
2	12	21	ARG
2	12	23	ARG
2	12	24	TRP

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Mol	Chain	Res	Type
2	12	30	ARG
2	12	32	ILE
2	12	36	ARG
2	12	39	ILE
2	12	40	HIS
2	12	44	LEU
2	12	49	GLU
2	12	50	GLU
2	12	51	LEU
2	12	52	GLU
2	12	53	ARG
2	12	55	PHE
2	12	60	ASP
2	12	61	LEU
2	12	76	GLN
2	12	84	GLU
2	12	86	GLU
2	12	94	ASN
2	12	96	ARG
2	12	107	THR
2	12	108	ILE
2	12	111	ARG
2	12	121	LEU
2	12	122	PHE
2	12	126	GLU
2	12	128	GLU
2	12	129	GLU
2	12	154	LEU
2	12	172	ILE
2	12	179	LYS
2	12	185	ILE
2	12	187	LEU
2	12	191	ASP
2	12	193	ASP
2	12	196	LEU
2	12	210	SER
2	12	220	ASP
2	12	221	LEU
2	12	222	ILE
2	12	224	GLN
3	22	17	ASP
3	22	21	ARG

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Mol	Chain	Res	Type
3	22	30	ARG
3	22	31	HIS
3	22	33	LEU
3	22	43	LEU
3	22	44	GLU
3	22	47	LEU
3	22	48	TYR
3	22	58	GLU
3	22	59	ARG
3	22	69	HIS
3	22	75	VAL
3	22	76	VAL
3	22	85	ARG
3	22	88	ARG
3	22	90	GLU
3	22	99	VAL
3	22	101	LEU
3	22	102	ASN
3	22	104	GLN
3	22	105	GLU
3	22	106	VAL
3	22	125	GLU
3	22	127	ARG
3	22	135	LYS
3	22	167	TRP
3	22	178	LEU
3	22	179	ARG
3	22	188	LEU
3	22	192	THR
3	22	196	LEU
3	22	202	ILE
3	22	204	LEU
4	32	8	VAL
4	32	10	ARG
4	32	19	LEU
4	32	24	GLU
4	32	30	LYS
4	32	31	CYS
4	32	58	LEU
4	32	61	LYS
4	32	66	ARG
4	32	73	ARG

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Mol	Chain	Res	Type
4	32	76	ARG
4	32	84	LYS
4	32	86	LYS
4	32	88	VAL
4	32	98	GLU
4	32	115	ARG
4	32	119	GLN
4	32	122	ARG
4	32	131	ARG
4	32	132	ARG
4	32	135	LEU
4	32	150	GLU
4	32	155	LEU
4	32	168	ARG
4	32	184	LYS
4	32	190	ASP
4	32	192	GLU
4	32	201	GLN
5	42	8	GLU
5	42	9	LYS
5	42	10	MET
5	42	12	LEU
5	42	14	ARG
5	42	16	THR
5	42	31	LEU
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	45	PHE
5	42	47	LYS
5	42	50	GLU
5	42	63	ARG
5	42	64	ARG
5	42	66	MET
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	81	GLU
5	42	83	GLU
5	42	90	VAL
5	42	101	ILE
5	42	118	ILE

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Mol	Chain	Res	Type
5	42	119	LEU
5	42	137	GLU
5	42	150	ARG
5	42	152	ARG
6	52	3	ARG
6	52	14	LEU
6	52	21	LEU
6	52	24	GLU
6	52	25	ILE
6	52	28	ARG
6	52	46	ARG
6	52	47	ARG
6	52	55	ASP
6	52	71	ARG
6	52	72	VAL
6	52	74	ASP
6	52	78	GLU
6	52	83	ASP
7	62	8	GLU
7	62	9	VAL
7	62	13	GLN
7	62	38	LEU
7	62	49	ILE
7	62	52	GLU
7	62	54	THR
7	62	57	GLU
7	62	60	LYS
7	62	61	VAL
7	62	66	VAL
7	62	67	GLU
7	62	94	ARG
7	62	97	GLN
7	62	98	SER
7	62	104	LEU
7	62	114	ARG
7	62	115	ARG
7	62	131	LYS
7	62	137	LYS
7	62	140	ASP
7	62	143	ARG
7	62	144	MET
7	62	149	ARG

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Mol	Chain	Res	Type
8	72	12	ARG
8	72	23	SER
8	72	25	ASP
8	72	33	GLU
8	72	38	ILE
8	72	39	LEU
8	72	41	ARG
8	72	54	ASP
8	72	70	GLN
8	72	73	ASP
8	72	77	GLU
8	72	78	GLN
8	72	80	ILE
8	72	82	HIS
8	72	88	LYS
8	72	91	ARG
8	72	97	VAL
8	72	99	GLU
8	72	102	ARG
8	72	119	LEU
8	72	120	THR
8	72	126	LYS
8	72	127	LEU
9	82	7	THR
9	82	10	ARG
9	82	19	LEU
9	82	27	THR
9	82	33	PHE
9	82	34	ASN
9	82	36	TYR
9	82	40	LEU
9	82	42	ARG
9	82	47	LEU
9	82	54	ASP
9	82	56	LEU
9	82	58	HIS
9	82	65	VAL
9	82	66	ARG
9	82	79	LEU
9	82	91	ASP
9	82	95	LYS
9	82	96	LEU

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Mol	Chain	Res	Type
9	82	109	VAL
9	82	110	GLU
9	82	117	HIS
9	82	124	GLN
10	1A	4	ILE
10	1A	5	ARG
10	1A	7	LYS
10	1A	8	LEU
10	1A	13	HIS
10	1A	21	GLN
10	1A	24	VAL
10	1A	40	LEU
10	1A	51	ARG
10	1A	58	ASP
10	1A	59	SER
10	1A	62	HIS
10	1A	70	ARG
10	1A	72	VAL
10	1A	79	ARG
10	1A	80	LYS
10	1A	90	LEU
10	1A	95	GLU
10	1A	96	ILE
10	1A	98	ILE
11	2A	18	ARG
11	2A	31	THR
11	2A	54	ARG
11	2A	55	LYS
11	2A	63	LEU
11	2A	78	GLN
11	2A	79	SER
11	2A	93	GLN
11	2A	99	GLN
11	2A	105	VAL
11	2A	107	SER
11	2A	109	VAL
11	2A	114	VAL
12	3A	19	ARG
12	3A	20	LYS
12	3A	21	LYS
12	3A	23	LYS
12	3A	24	VAL

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Mol	Chain	Res	Type
12	3A	33	ARG
12	3A	34	ARG
12	3A	41	ARG
12	3A	42	THR
12	3A	60	LEU
12	3A	62	SER
12	3A	64	TYR
12	3A	66	VAL
12	3A	67	THR
12	3A	78	GLN
12	3A	79	GLU
12	3A	81	SER
12	3A	83	VAL
12	3A	96	VAL
12	3A	100	ILE
12	3A	102	ARG
12	3A	111	LYS
12	3A	115	LYS
12	3A	116	SER
12	3A	117	ARG
12	3A	118	SER
12	3A	122	THR
12	3A	126	LYS
13	4A	12	ASN
13	4A	13	LYS
13	4A	37	THR
13	4A	39	ILE
13	4A	46	LYS
13	4A	47	ASP
13	4A	49	THR
13	4A	50	GLU
13	4A	57	ARG
13	4A	66	LEU
13	4A	78	ILE
13	4A	82	MET
13	4A	86	CYS
13	4A	88	ARG
13	4A	93	ARG
13	4A	94	ARG
13	4A	98	VAL
13	4A	103	THR
13	4A	106	ASN

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Mol	Chain	Res	Type
13	4A	117	VAL
14	5A	6	LEU
14	5A	7	ILE
14	5A	8	GLU
14	5A	12	ARG
14	5A	13	THR
14	5A	16	PHE
14	5A	17	LYS
14	5A	22	THR
14	5A	24	CYS
14	5A	26	ARG
14	5A	29	ARG
14	5A	33	VAL
14	5A	41	ARG
14	5A	42	ILE
14	5A	44	LEU
14	5A	46	GLU
14	5A	50	LYS
14	5A	57	ARG
15	6A	3	ILE
15	6A	31	LEU
15	6A	41	GLU
15	6A	66	LEU
15	6A	79	ARG
15	6A	84	LYS
16	7A	2	VAL
16	7A	6	LEU
16	7A	21	VAL
16	7A	34	GLU
16	7A	54	GLU
16	7A	55	ARG
16	7A	67	THR
16	7A	74	LEU
16	7A	81	ARG
17	8A	24	GLU
17	8A	26	GLN
17	8A	55	ASP
17	8A	60	ILE
17	8A	68	ARG
17	8A	74	LEU
17	8A	75	ARG
17	8A	79	SER

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Mol	Chain	Res	Type
17	8A	100	LYS
18	9A	21	LYS
18	9A	22	VAL
18	9A	23	LYS
18	9A	25	THR
18	9A	26	LEU
18	9A	29	PHE
18	9A	31	LEU
18	9A	32	ARG
18	9A	38	GLU
18	9A	45	SER
18	9A	46	GLU
18	9A	47	THR
18	9A	53	ARG
18	9A	58	LEU
18	9A	68	LYS
18	9A	82	THR
19	AA	4	SER
19	AA	14	HIS
19	AA	15	LEU
19	AA	19	VAL
19	AA	20	LEU
19	AA	21	GLU
19	AA	33	THR
19	AA	37	ARG
19	AA	48	THR
19	AA	56	GLN
19	AA	60	VAL
19	AA	66	MET
19	AA	71	LEU
20	BA	13	LEU
20	BA	23	ARG
20	BA	37	SER
20	BA	45	GLN
20	BA	48	LYS
20	BA	84	LEU
20	BA	99	LEU
21	1B	10	ARG
28	19	20	ASP
28	19	27	THR
28	19	28	GLU
28	19	34	VAL

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Mol	Chain	Res	Type
28	19	35	LYS
28	19	37	LEU
28	19	38	LYS
28	19	43	ARG
28	19	49	ILE
28	19	52	ARG
28	19	54	ARG
28	19	61	LEU
28	19	64	ILE
28	19	68	LYS
28	19	78	LYS
28	19	89	SER
28	19	94	LEU
28	19	99	ASP
28	19	103	ARG
28	19	105	ILE
28	19	111	LEU
28	19	116	GLN
28	19	118	VAL
28	19	147	LEU
28	19	162	SER
28	19	173	VAL
28	19	182	LEU
28	19	192	THR
28	19	204	ILE
28	19	208	LYS
28	19	211	ARG
28	19	217	ARG
28	19	242	ARG
28	19	244	ARG
28	19	255	LYS
28	19	257	LEU
28	19	260	ARG
28	19	266	SER
28	19	267	SER
28	19	271	ILE
28	19	273	ARG
29	29	27	LEU
29	29	45	THR
29	29	49	LEU
29	29	51	PHE
29	29	58	ARG

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Mol	Chain	Res	Type
29	29	63	LEU
29	29	66	HIS
29	29	72	VAL
29	29	73	GLU
29	29	76	ARG
29	29	77	ILE
29	29	78	LEU
29	29	80	GLU
29	29	97	LYS
29	29	107	THR
29	29	111	ARG
29	29	117	MET
29	29	119	ARG
29	29	144	ARG
29	29	149	ARG
29	29	170	LEU
29	29	175	VAL
29	29	181	LEU
29	29	188	VAL
29	29	197	ILE
29	29	200	GLU
29	29	201	THR
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	15	SER
30	39	19	GLU
30	39	20	LEU
30	39	24	LEU
30	39	28	ILE
30	39	29	ASN
30	39	32	LEU
30	39	36	VAL
30	39	38	ARG
30	39	50	SER
30	39	53	THR
30	39	57	VAL
30	39	62	ARG
30	39	67	GLN
30	39	82	ILE
30	39	88	VAL
30	39	110	LEU

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Mol	Chain	Res	Type
30	39	123	LEU
30	39	125	LEU
30	39	129	PHE
30	39	132	VAL
30	39	140	LEU
30	39	145	GLU
30	39	153	SER
30	39	154	VAL
30	39	158	THR
30	39	175	THR
30	39	176	LEU
30	39	181	LEU
30	39	191	ARG
30	39	194	MET
30	39	196	LEU
30	39	197	ASP
30	39	201	VAL
30	39	202	PHE
30	39	205	ARG
31	49	7	LEU
31	49	13	GLU
31	49	14	GLU
31	49	26	GLN
31	49	33	ARG
31	49	36	LYS
31	49	40	ASN
31	49	48	GLU
31	49	49	ASP
31	49	51	ARG
31	49	52	ILE
31	49	54	GLU
31	49	59	GLU
31	49	62	LEU
31	49	75	LYS
31	49	76	SER
31	49	80	PHE
31	49	82	LEU
31	49	86	MET
31	49	97	ASP
31	49	101	ILE
31	49	107	LEU
31	49	109	VAL

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Mol	Chain	Res	Type
31	49	116	ASP
31	49	133	LEU
31	49	136	ARG
31	49	138	GLN
31	49	144	ILE
31	49	147	ASP
31	49	152	LEU
31	49	153	ARG
31	49	156	ASP
31	49	159	VAL
31	49	166	ASP
31	49	181	ARG
32	59	6	ARG
32	59	7	LEU
32	59	16	SER
32	59	19	VAL
32	59	23	ARG
32	59	24	VAL
32	59	26	VAL
32	59	32	GLU
32	59	33	LEU
32	59	40	GLU
32	59	42	ARG
32	59	49	VAL
32	59	50	VAL
32	59	52	VAL
32	59	76	VAL
32	59	81	GLU
32	59	83	TYR
32	59	85	LYS
32	59	86	GLU
32	59	90	LYS
32	59	95	ARG
32	59	99	VAL
32	59	109	PHE
32	59	116	GLU
32	59	121	ILE
32	59	123	PHE
32	59	125	VAL
32	59	127	GLU
32	59	129	THR
32	59	130	ARG

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Mol	Chain	Res	Type
32	59	131	VAL
32	59	137	ASP
32	59	138	LYS
32	59	139	GLN
32	59	149	ARG
32	59	157	TYR
32	59	158	HIS
32	59	159	GLU
32	59	171	LEU
33	69	1	MET
33	69	4	ILE
33	69	7	GLU
33	69	19	VAL
33	69	27	ARG
33	69	37	VAL
33	69	40	THR
33	69	47	LEU
33	69	56	LYS
33	69	58	LEU
33	69	61	ARG
33	69	68	LEU
33	69	69	LYS
33	69	85	GLU
33	69	101	LEU
33	69	102	SER
33	69	105	HIS
33	69	109	ILE
33	69	112	LYS
33	69	114	LEU
33	69	117	GLU
33	69	118	LYS
33	69	127	VAL
33	69	130	TYR
33	69	131	LYS
33	69	141	LYS
33	69	142	VAL
34	15	4	TYR
34	15	9	VAL
34	15	12	ARG
34	15	15	LEU
34	15	32	THR
34	15	33	LEU

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Mol	Chain	Res	Type
34	15	34	LEU
34	15	46	VAL
34	15	48	MET
34	15	58	ASP
34	15	59	LYS
34	15	60	ILE
34	15	61	ARG
34	15	67	LEU
34	15	68	GLU
34	15	76	SER
34	15	84	LYS
34	15	85	ILE
34	15	87	LEU
34	15	89	LYS
34	15	93	THR
34	15	94	HIS
34	15	99	LEU
34	15	106	MET
34	15	130	HIS
34	15	133	GLN
34	15	137	LYS
34	15	138	LEU
35	25	5	GLN
35	25	8	LEU
35	25	10	VAL
35	25	22	ILE
35	25	35	VAL
35	25	38	VAL
35	25	49	ARG
35	25	52	VAL
35	25	78	ARG
35	25	82	ASN
35	25	87	ILE
35	25	97	ARG
35	25	113	LYS
35	25	114	ILE
35	25	117	LEU
36	35	2	LYS
36	35	4	SER
36	35	6	LEU
36	35	15	ARG
36	35	19	VAL

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Mol	Chain	Res	Type
36	35	21	ARG
36	35	29	LYS
36	35	30	THR
36	35	41	ARG
36	35	45	LEU
36	35	62	LEU
36	35	71	VAL
36	35	75	ILE
36	35	77	ARG
36	35	85	LEU
36	35	88	LEU
36	35	90	ARG
36	35	91	PHE
36	35	96	THR
36	35	98	GLU
36	35	102	ARG
36	35	105	LEU
36	35	106	LEU
36	35	110	TYR
36	35	111	ARG
36	35	112	LEU
36	35	114	ILE
36	35	126	VAL
36	35	132	LYS
36	35	133	SER
36	35	135	LEU
36	35	138	LEU
36	35	144	GLU
36	35	147	LEU
37	45	2	LEU
37	45	5	ARG
37	45	10	ARG
37	45	18	LYS
37	45	21	THR
37	45	31	ASP
37	45	38	GLU
37	45	45	GLN
37	45	56	ARG
37	45	58	PHE
37	45	59	ARG
37	45	76	LYS
37	45	79	LEU

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Mol	Chain	Res	Type
37	45	89	ASN
37	45	90	VAL
37	45	91	GLU
37	45	103	MET
37	45	110	THR
37	45	127	ILE
37	45	133	ARG
37	45	134	ARG
37	45	135	ASP
37	45	137	TYR
37	45	138	ASP
38	55	2	ARG
38	55	6	SER
38	55	9	LYS
38	55	18	LEU
38	55	28	LEU
38	55	29	LEU
38	55	33	ARG
38	55	35	THR
38	55	44	LEU
38	55	48	VAL
38	55	51	LEU
38	55	57	ARG
38	55	63	ARG
38	55	65	LEU
38	55	67	LEU
38	55	75	LEU
38	55	79	LEU
38	55	81	ASP
38	55	96	ARG
38	55	99	LYS
38	55	102	GLU
38	55	104	ARG
38	55	105	ARG
38	55	113	LEU
38	55	114	VAL
38	55	118	GLU
39	65	8	GLU
39	65	12	PHE
39	65	14	VAL
39	65	17	ARG
39	65	19	LYS

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Mol	Chain	Res	Type
39	65	20	ARG
39	65	24	LEU
39	65	27	SER
39	65	29	PHE
39	65	36	TYR
39	65	42	ASP
39	65	43	GLU
39	65	44	LYS
39	65	50	SER
39	65	52	SER
39	65	59	LYS
39	65	62	LYS
39	65	64	GLU
39	65	65	VAL
39	65	69	VAL
39	65	71	ARG
39	65	73	LEU
39	65	75	GLU
39	65	89	ARG
39	65	106	ARG
39	65	107	GLU
39	65	111	GLU
40	75	13	ARG
40	75	17	THR
40	75	21	GLU
40	75	27	THR
40	75	28	VAL
40	75	30	VAL
40	75	33	LYS
40	75	36	GLU
40	75	41	ARG
40	75	50	ILE
40	75	54	ARG
40	75	57	PHE
40	75	59	THR
40	75	62	THR
40	75	64	ARG
40	75	67	SER
40	75	85	LYS
40	75	86	ILE
40	75	88	ILE
40	75	91	ARG

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Mol	Chain	Res	Type
40	75	93	ARG
40	75	105	LEU
40	75	106	SER
40	75	112	ARG
40	75	113	LYS
40	75	118	ARG
40	75	124	ASP
41	85	5	LYS
41	85	20	LEU
41	85	30	LYS
41	85	31	SER
41	85	52	ARG
41	85	55	ARG
41	85	59	ARG
41	85	64	ARG
41	85	71	GLN
41	85	74	LEU
41	85	88	ILE
41	85	92	ARG
41	85	97	ASP
41	85	108	GLU
41	85	112	ARG
41	85	117	GLN
42	95	1	MET
42	95	5	VAL
42	95	7	THR
42	95	13	ARG
42	95	21	ARG
42	95	28	GLU
42	95	37	VAL
42	95	47	VAL
42	95	49	THR
42	95	52	VAL
42	95	66	ARG
42	95	71	LEU
42	95	74	LYS
42	95	82	ARG
42	95	89	GLN
42	95	91	TYR
42	95	95	LEU
43	A5	1	MET
43	A5	11	ARG

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Mol	Chain	Res	Type
43	A5	18	ARG
43	A5	19	LEU
43	A5	23	LEU
43	A5	30	GLU
43	A5	39	THR
43	A5	51	LEU
43	A5	65	LEU
43	A5	70	TYR
43	A5	96	ILE
43	A5	98	LYS
43	A5	100	THR
43	A5	106	ILE
43	A5	107	LEU
43	A5	109	GLU
43	A5	111	HIS
44	B5	12	VAL
44	B5	23	GLU
44	B5	27	THR
44	B5	30	VAL
44	B5	43	VAL
44	B5	52	VAL
44	B5	54	VAL
44	B5	63	LYS
44	B5	66	LEU
44	B5	72	LYS
44	B5	78	LYS
44	B5	80	ILE
44	B5	81	VAL
44	B5	90	GLU
45	C5	4	LYS
45	C5	19	LYS
45	C5	23	ARG
45	C5	24	VAL
45	C5	29	GLU
45	C5	31	LEU
45	C5	40	GLU
45	C5	73	ARG
46	D5	14	LYS
46	D5	18	LEU
46	D5	19	ARG
46	D5	24	LEU
46	D5	36	LYS

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Mol	Chain	Res	Type
46	D5	40	ASP
46	D5	41	LEU
46	D5	63	ASP
46	D5	71	VAL
46	D5	73	GLN
46	D5	76	LEU
46	D5	80	ARG
46	D5	87	ASP
46	D5	90	VAL
46	D5	91	LEU
46	D5	93	ASP
46	D5	100	VAL
46	D5	103	ARG
46	D5	117	LEU
46	D5	123	ASP
46	D5	129	SER
46	D5	136	PHE
46	D5	137	ILE
46	D5	140	ASP
46	D5	151	HIS
46	D5	155	LEU
46	D5	161	VAL
46	D5	168	GLU
46	D5	169	GLU
46	D5	171	ILE
46	D5	174	VAL
46	D5	178	GLU
47	E5	12	ASN
47	E5	20	ARG
47	E5	32	ARG
47	E5	36	ILE
47	E5	38	VAL
47	E5	43	THR
47	E5	46	LYS
47	E5	68	GLU
47	E5	74	ARG
47	E5	82	ARG
48	F5	4	VAL
48	F5	11	ARG
48	F5	21	ARG
48	F5	25	LYS
48	F5	30	VAL

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Mol	Chain	Res	Type
48	F5	38	SER
48	F5	39	LYS
48	F5	40	ARG
48	F5	52	ARG
48	F5	67	ILE
48	F5	72	GLU
48	F5	76	ARG
48	F5	78	LYS
48	F5	83	GLU
48	F5	90	ILE
48	F5	91	LYS
48	F5	95	LEU
49	G5	10	LEU
49	G5	12	GLU
49	G5	15	LYS
49	G5	16	LEU
49	G5	17	SER
49	G5	24	LEU
49	G5	35	LEU
49	G5	38	GLN
49	G5	40	SER
49	G5	44	LEU
49	G5	45	SER
49	G5	47	ASN
49	G5	48	HIS
49	G5	50	ILE
49	G5	51	ARG
49	G5	53	LEU
49	G5	60	LEU
49	G5	65	ASN
50	H5	5	LYS
50	H5	8	LEU
50	H5	24	LYS
50	H5	30	ARG
50	H5	38	GLU
52	J5	6	VAL
52	J5	8	LYS
52	J5	15	ARG
52	J5	23	HIS
52	J5	25	LEU
52	J5	29	THR
52	J5	35	GLU

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Mol	Chain	Res	Type
52	J5	37	LYS
52	J5	48	GLU
52	J5	49	CYS
52	J5	55	ARG
53	L5	1	MET
53	L5	4	THR
53	L5	41	ARG
53	L5	43	THR
54	M5	11	LYS
54	M5	13	ARG
54	M5	15	LYS
54	M5	23	VAL
54	M5	31	HIS
54	M5	32	LEU
54	M5	49	VAL
54	M5	57	ARG
54	M5	58	ILE
54	M5	59	LYS
54	M5	60	LEU
54	M5	61	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (20) such sidechains are listed below:

Mol	Chain	Res	Type
3	2E	181	ASN
6	5E	100	ASN
9	8E	87	GLN
20	BI	26	ASN
29	21	55	ASN
40	B8	58	ASN
49	K8	48	HIS
51	M8	60	GLN
2	12	212	GLN
3	22	6	HIS
4	32	119	GLN
4	32	123	HIS
13	4A	40	ASN
13	4A	101	GLN
29	29	54	GLN
33	69	104	GLN
37	45	123	HIS
41	85	94	ASN

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Mol	Chain	Res	Type
43	A5	60	ASN
49	G5	46	GLN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1499/1522 (98%)	326 (21%)	36 (2%)
1	1G	1488/1522 (97%)	314 (21%)	31 (2%)
22	1K	72/76 (94%)	39 (54%)	5 (6%)
22	1L	71/76 (93%)	40 (56%)	1 (1%)
23	2K	76/77 (98%)	18 (23%)	1 (1%)
23	2L	76/77 (98%)	18 (23%)	3 (3%)
24	3K	69/76 (90%)	36 (52%)	2 (2%)
25	4K	17/27 (62%)	10 (58%)	3 (17%)
25	4L	14/27 (51%)	6 (42%)	3 (21%)
26	14	2805/2917 (96%)	630 (22%)	35 (1%)
26	1H	2841/2917 (97%)	579 (20%)	45 (1%)
27	16	121/122 (99%)	17 (14%)	1 (0%)
27	1J	121/122 (99%)	33 (27%)	1 (0%)
55	3L	69/76 (90%)	31 (44%)	3 (4%)
All	All	9339/9634 (96%)	2097 (22%)	170 (1%)

All (2097) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	4	U
1	13	5	U
1	13	6	G
1	13	7	G
1	13	9	G
1	13	21	G
1	13	26	A
1	13	32	A
1	13	39	G
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G

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Mol	Chain	Res	Type
1	13	65	U
1	13	66	G
1	13	69	G
1	13	73	G
1	13	74	C
1	13	76	G
1	13	77	C
1	13	78	G
1	13	92	G
1	13	93	U
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	108	G
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	151	A
1	13	158	G
1	13	160	A
1	13	162	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	182	U
1	13	186(F)	C
1	13	187	C
1	13	188	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	191(E)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C

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Mol	Chain	Res	Type
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	220	G
1	13	222	U
1	13	231	G
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	262	A
1	13	263	A
1	13	266	G
1	13	267	C
1	13	289	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	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	348	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	363	A
1	13	365	U
1	13	367	U
1	13	372	C
1	13	373	A
1	13	384	G
1	13	388	G
1	13	390	C
1	13	392	G

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Mol	Chain	Res	Type
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	458	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	482	A
1	13	484	G
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	498	A
1	13	504	C
1	13	505	G
1	13	511	C
1	13	518	C
1	13	521	G
1	13	524	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	536	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	607	A
1	13	630	G

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Mol	Chain	Res	Type
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G
1	13	654	G
1	13	665	A
1	13	666	G
1	13	687	A
1	13	688	G
1	13	723	U
1	13	749	C
1	13	755	G
1	13	759	A
1	13	774	G
1	13	777	A
1	13	787	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	802	A
1	13	813	U
1	13	815	A
1	13	817	C
1	13	828	A
1	13	836	G
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	864	A
1	13	870	U
1	13	872	A
1	13	874	G
1	13	884	U
1	13	885	G
1	13	902	G
1	13	914	A
1	13	921	U
1	13	922	G
1	13	926	G
1	13	927	G
1	13	933	G

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Mol	Chain	Res	Type
1	13	934	C
1	13	936	C
1	13	941	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	991	U
1	13	992	U
1	13	993	G
1	13	997	U
1	13	999	U
1	13	1004	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1016	A
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(A)	C
1	13	1028(B)	C
1	13	1029	G
1	13	1031	G
1	13	1032	A
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1039	C
1	13	1042	G
1	13	1046	A
1	13	1054	C
1	13	1055	A
1	13	1065	U
1	13	1066	C

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Mol	Chain	Res	Type
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1117	G
1	13	1125	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1132	C
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1171	G
1	13	1176	A
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1182	G
1	13	1184	G
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1212	U
1	13	1213	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1262	C

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Mol	Chain	Res	Type
1	13	1270	C
1	13	1272	G
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	1292	U
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1302	U
1	13	1303	C
1	13	1312	G
1	13	1320	C
1	13	1331	G
1	13	1332	A
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1363	A
1	13	1364	U
1	13	1381	U
1	13	1397	C
1	13	1398	A
1	13	1401	G
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1449	C
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G

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Mol	Chain	Res	Type
1	13	1454	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1498	U
1	13	1499	A
1	13	1503	A
1	13	1504	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1525	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
22	1K	3	U
22	1K	4	G
22	1K	6	U
22	1K	8	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	13	C
22	1K	14	A
22	1K	15	G
22	1K	18	G
22	1K	19	G
22	1K	25	C
22	1K	26	G
22	1K	45	G
22	1K	47	U
22	1K	48	C
22	1K	49	G
22	1K	50	G
22	1K	51	C
22	1K	52	A
22	1K	54	5MU
22	1K	55	PSU
22	1K	56	C
22	1K	57	G
22	1K	58	A

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Mol	Chain	Res	Type
22	1K	59	C
22	1K	60	U
22	1K	61	C
22	1K	63	G
22	1K	66	U
22	1K	67	A
22	1K	68	U
22	1K	69	C
22	1K	70	A
22	1K	71	G
22	1K	72	C
22	1K	73	A
22	1K	74	C
23	2K	2	G
23	2K	6	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C
23	2K	15	G
23	2K	16	C
23	2K	17	C
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	23	G
23	2K	32	G
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	68	C
23	2K	77	A
24	3K	2	C
24	3K	3	U
24	3K	4	G
24	3K	7	A
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	15	G
24	3K	23	A
24	3K	26	G

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Mol	Chain	Res	Type
24	3K	30	C
24	3K	33	U
24	3K	34	G
24	3K	35	G
24	3K	36	U
24	3K	37	A
24	3K	38	A
24	3K	44	A
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	52	A
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	A
24	3K	60	U
24	3K	61	C
24	3K	62	U
24	3K	63	G
24	3K	65	C
24	3K	66	U
24	3K	69	C
24	3K	73	A
24	3K	75	C
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	23	A
25	4K	24	A
25	4K	25	A
25	4K	26	A
26	1H	13	A
26	1H	14	A
26	1H	15	G
26	1H	34	C
26	1H	43	G
26	1H	46	C
26	1H	51	G

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Mol	Chain	Res	Type
26	1H	61	G
26	1H	64	A
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	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	181	A
26	1H	188	G
26	1H	196	A
26	1H	199	A
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	228	A
26	1H	229	A
26	1H	233	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	266	G
26	1H	269	U
26	1H	270(G)	C
26	1H	270(J)	G
26	1H	270(K)	C
26	1H	270(L)	U
26	1H	270(M)	U
26	1H	270(N)	G

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Mol	Chain	Res	Type
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	335	C
26	1H	346	A
26	1H	352	G
26	1H	357	A
26	1H	363(E)	U
26	1H	372	G
26	1H	375	C
26	1H	376	C
26	1H	380	U
26	1H	382	G
26	1H	386	G
26	1H	405	U
26	1H	406	G
26	1H	410	G
26	1H	411	G
26	1H	418	G
26	1H	428	A
26	1H	444	C
26	1H	447	A
26	1H	448	U
26	1H	455	C
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	504	U
26	1H	505	A

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Mol	Chain	Res	Type
26	1H	508	G
26	1H	509	C
26	1H	525	U
26	1H	529	A
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	564	C
26	1H	573	G
26	1H	575	A
26	1H	588	U
26	1H	593	G
26	1H	603	A
26	1H	607	U
26	1H	609(A)	G
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	631	A
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	653	A
26	1H	654	A
26	1H	654(A)	A
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	677	A
26	1H	678	C
26	1H	686	G
26	1H	695	G

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Mol	Chain	Res	Type
26	1H	717	G
26	1H	730	C
26	1H	745	G
26	1H	765	G
26	1H	771	G
26	1H	775	G
26	1H	776	G
26	1H	777	A
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	800	A
26	1H	802	A
26	1H	805	G
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	832	G
26	1H	836	G
26	1H	845	G
26	1H	846	C
26	1H	853	G
26	1H	855	G
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	879	G
26	1H	880	G
26	1H	890	A
26	1H	892	G
26	1H	893	C
26	1H	895	U
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	926	A

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Mol	Chain	Res	Type
26	1H	932	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	947	G
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	983	A
26	1H	990	A
26	1H	996	A
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1031	G
26	1H	1033	U
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1051	G
26	1H	1057	A
26	1H	1058	U
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1065	U
26	1H	1066	U
26	1H	1067	A
26	1H	1068	G
26	1H	1070	A

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Mol	Chain	Res	Type
26	1H	1071	G
26	1H	1073	A
26	1H	1077	A
26	1H	1078	U
26	1H	1079	C
26	1H	1081	U
26	1H	1082	U
26	1H	1083	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1089	G
26	1H	1090	U
26	1H	1091	G
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1098	A
26	1H	1102	C
26	1H	1106	G
26	1H	1107	G
26	1H	1111	A
26	1H	1112	G
26	1H	1126	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1133	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A

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Mol	Chain	Res	Type
26	1H	1205	U
26	1H	1206	G
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1229(A)	G
26	1H	1244	G
26	1H	1253	A
26	1H	1256	G
26	1H	1267	U
26	1H	1268	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1282	U
26	1H	1286	A
26	1H	1287	A
26	1H	1300	U
26	1H	1301	A
26	1H	1303	G
26	1H	1329	U
26	1H	1344	G
26	1H	1345	C
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1377	G
26	1H	1379	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A
26	1H	1407	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1428	C
26	1H	1444(A)	A
26	1H	1449	A

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Mol	Chain	Res	Type
26	1H	1449(A)	G
26	1H	1453	A
26	1H	1455	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1493	C
26	1H	1494	A
26	1H	1497	U
26	1H	1506	C
26	1H	1509	C
26	1H	1510	A
26	1H	1517	G
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	1545	A
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1639	U
26	1H	1640	C
26	1H	1647	G

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Mol	Chain	Res	Type
26	1H	1648	C
26	1H	1664	A
26	1H	1674	G
26	1H	1678	G
26	1H	1726	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1743	G
26	1H	1746	G
26	1H	1750	G
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1782	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1835	G
26	1H	1836	C
26	1H	1840	G
26	1H	1847	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1887	C
26	1H	1889	A
26	1H	1900	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1919	A
26	1H	1923	U
26	1H	1929	G
26	1H	1930	G

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Mol	Chain	Res	Type
26	1H	1931	U
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1963	U
26	1H	1965	C
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1991	U
26	1H	1992	G
26	1H	1993	U
26	1H	1994	C
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2035	G
26	1H	2043	C
26	1H	2049	G
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2069	G
26	1H	2093	G
26	1H	2096	U
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	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2120	G

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Mol	Chain	Res	Type
26	1H	2122	U
26	1H	2123	G
26	1H	2127	G
26	1H	2128	C
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2150	U
26	1H	2156	G
26	1H	2161	C
26	1H	2162	G
26	1H	2165	G
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	2181	G
26	1H	2189	U
26	1H	2190	G
26	1H	2198	A
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	2239	G
26	1H	2240	C
26	1H	2267	A
26	1H	2273	A
26	1H	2275	C

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Mol	Chain	Res	Type
26	1H	2283	C
26	1H	2286	A
26	1H	2287	A
26	1H	2307	G
26	1H	2308	G
26	1H	2314	C
26	1H	2315	G
26	1H	2320	A
26	1H	2321	G
26	1H	2324	C
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2343	C
26	1H	2345	G
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2414	G
26	1H	2418	A
26	1H	2422	A
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2435	A
26	1H	2439	A
26	1H	2441	C
26	1H	2448	A
26	1H	2474	C
26	1H	2476	A

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Mol	Chain	Res	Type
26	1H	2477	C
26	1H	2480	C
26	1H	2482	G
26	1H	2497	A
26	1H	2498	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2525	G
26	1H	2529	G
26	1H	2535	G
26	1H	2549	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2582	G
26	1H	2594	C
26	1H	2595	G
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2632	A
26	1H	2636	U
26	1H	2641	G
26	1H	2654	A
26	1H	2663	G
26	1H	2665	A
26	1H	2673	G
26	1H	2689	U
26	1H	2702	U
26	1H	2703	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G

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Mol	Chain	Res	Type
26	1H	2718	G
26	1H	2721	A
26	1H	2726	U
26	1H	2733	A
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	2781	A
26	1H	2808	U
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2849	U
26	1H	2850	A
26	1H	2851	A
26	1H	2872	G
26	1H	2875	C
26	1H	2885	C
26	1H	2886	G
27	16	0	A
27	16	7	G
27	16	13	A
27	16	15	A
27	16	25	A
27	16	34	U
27	16	35	U
27	16	39	A
27	16	42	C
27	16	45	A
27	16	56	G
27	16	65	C
27	16	73	A
27	16	81	G
27	16	105	G
27	16	109	G

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Mol	Chain	Res	Type
27	16	115	G
1	1G	2	U
1	1G	3	G
1	1G	4	U
1	1G	5	U
1	1G	6	G
1	1G	7	G
1	1G	9	G
1	1G	22	G
1	1G	26	A
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	53	A
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	89	U
1	1G	90	C
1	1G	91	C
1	1G	93	U
1	1G	101	A
1	1G	108	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	162	A
1	1G	163	C
1	1G	167	G
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	185	A
1	1G	186	C
1	1G	186(F)	C
1	1G	191(A)	G

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Mol	Chain	Res	Type
1	1G	191(C)	G
1	1G	195	A
1	1G	197	A
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	247	G
1	1G	251	G
1	1G	266	G
1	1G	267	C
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	314	C
1	1G	316	G
1	1G	318	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	346	G
1	1G	347	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	367	U
1	1G	372	C
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	419	C
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	439	A

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Mol	Chain	Res	Type
1	1G	440	A
1	1G	442	C
1	1G	452	A
1	1G	456	C
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	478	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	505	G
1	1G	510	A
1	1G	511	C
1	1G	517	G
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	564	C
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	607	A
1	1G	615	C
1	1G	617	G
1	1G	618	C
1	1G	619	U
1	1G	620	C
1	1G	630	G
1	1G	631	G

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Mol	Chain	Res	Type
1	1G	632	A
1	1G	633	G
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	687	A
1	1G	688	G
1	1G	702	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	746	A
1	1G	749	C
1	1G	753	A
1	1G	755	G
1	1G	777	A
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	821	G
1	1G	827	U
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	848	C
1	1G	859	A
1	1G	873	A
1	1G	874	G
1	1G	885	G
1	1G	903	G
1	1G	914	A
1	1G	916	G
1	1G	922	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	955	U
1	1G	960	U

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Mol	Chain	Res	Type
1	1G	961	U
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	979	C
1	1G	980	C
1	1G	982	U
1	1G	983	A
1	1G	989	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	995	C
1	1G	1001	G
1	1G	1002	G
1	1G	1004	A
1	1G	1005	A
1	1G	1006	C
1	1G	1007	C
1	1G	1008	C
1	1G	1009	G
1	1G	1021	G
1	1G	1022	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1037	C
1	1G	1040	U
1	1G	1046	A
1	1G	1050	G
1	1G	1054	C
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U

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Mol	Chain	Res	Type
1	1G	1096	C
1	1G	1098	C
1	1G	1099	G
1	1G	1101	A
1	1G	1107	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	1137	C
1	1G	1139	G
1	1G	1140	C
1	1G	1146	A
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1181	G
1	1G	1183	A
1	1G	1184	G
1	1G	1188	A
1	1G	1196	U
1	1G	1197	G
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U

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Mol	Chain	Res	Type
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1274	G
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1281	U
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1293	G
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1358	U
1	1G	1359	C
1	1G	1360	A
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1370	G
1	1G	1379	G
1	1G	1398	A
1	1G	1399	C
1	1G	1402	C
1	1G	1406	U

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Mol	Chain	Res	Type
1	1G	1419	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	1469	G
1	1G	1487	G
1	1G	1492	A
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1519	A
1	1G	1520	G
1	1G	1529	G
1	1G	1530	G
22	1L	3	U
22	1L	4	G
22	1L	5	A
22	1L	7	A
22	1L	8	U
22	1L	9	A
22	1L	10	G
22	1L	11	C
22	1L	15	G
22	1L	18	G
22	1L	19	G
22	1L	22	G
22	1L	25	C
22	1L	26	G
22	1L	29	C
22	1L	30	C
22	1L	42	U
22	1L	45	G
22	1L	47	U
22	1L	48	C
22	1L	49	G

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Mol	Chain	Res	Type
22	1L	50	G
22	1L	53	G
22	1L	55	PSU
22	1L	56	C
22	1L	57	G
22	1L	58	A
22	1L	59	C
22	1L	60	U
22	1L	61	C
22	1L	63	G
22	1L	66	U
22	1L	67	A
22	1L	68	U
22	1L	69	C
22	1L	70	A
22	1L	71	G
22	1L	72	C
22	1L	73	A
22	1L	74	C
23	2L	2	G
23	2L	6	G
23	2L	8	4SU
23	2L	9	G
23	2L	13	C
23	2L	16	C
23	2L	17	C
23	2L	18	U
23	2L	19	G
23	2L	21	U
23	2L	46	G
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	55	5MU
23	2L	57	C
23	2L	61	U
23	2L	77	A
55	3L	2	C
55	3L	3	U
55	3L	6	U
55	3L	7	A
55	3L	8	U

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Mol	Chain	Res	Type
55	3L	9	A
55	3L	10	G
55	3L	11	C
55	3L	14	A
55	3L	15	G
55	3L	16	U
55	3L	26	G
55	3L	31	C
55	3L	33	U
55	3L	34	G
55	3L	35	G
55	3L	38	A
55	3L	41	G
55	3L	46	G
55	3L	47	U
55	3L	48	C
55	3L	54	5MU
55	3L	55	PSU
55	3L	56	C
55	3L	58	A
55	3L	59	A
55	3L	60	U
55	3L	61	C
55	3L	64	C
55	3L	66	U
55	3L	73	A
25	4L	13	A
25	4L	14	A
25	4L	15	A
25	4L	23	A
25	4L	24	A
25	4L	25	A
26	14	7	G
26	14	8	A
26	14	9	U
26	14	11	G
26	14	14	A
26	14	15	G
26	14	34	C
26	14	35	G
26	14	46	C
26	14	49	A

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Mol	Chain	Res	Type
26	14	50	U
26	14	51	G
26	14	58	G
26	14	60	G
26	14	63	U
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	78	A
26	14	92	G
26	14	95	G
26	14	101	G
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	138	G
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
26	14	181	A
26	14	182	A
26	14	196	A
26	14	199	A
26	14	205	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	232	G
26	14	233	A

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Mol	Chain	Res	Type
26	14	248	G
26	14	249	C
26	14	250	G
26	14	269	U
26	14	270(I)	G
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	308	G
26	14	311	A
26	14	312	G
26	14	324	A
26	14	329	G
26	14	330	A
26	14	333	G
26	14	352	G
26	14	354	G
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	386	G
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A

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Mol	Chain	Res	Type
26	14	415	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	470	A
26	14	481	G
26	14	501	A
26	14	505	A
26	14	509	C
26	14	528	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	546	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	563	G
26	14	573	G
26	14	575	A
26	14	584	C
26	14	592	G
26	14	603	A
26	14	607	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	619	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	631	A
26	14	634	C
26	14	637	A
26	14	645	C
26	14	646	A
26	14	651	G

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Mol	Chain	Res	Type
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	654(U)	A
26	14	669	G
26	14	686	G
26	14	708	C
26	14	709	U
26	14	717	G
26	14	730	C
26	14	738	G
26	14	747	U
26	14	748	G
26	14	752	A
26	14	753	C
26	14	765	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	789	A
26	14	790	C
26	14	792	G
26	14	801	G
26	14	805	G
26	14	812	C
26	14	819	A
26	14	827	U
26	14	828	U
26	14	830	G
26	14	832	G
26	14	835	A
26	14	845	G
26	14	846	C
26	14	855	G
26	14	859	G

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Mol	Chain	Res	Type
26	14	866	A
26	14	874	G
26	14	877	U
26	14	897	C
26	14	898	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	903	C
26	14	904	C
26	14	910	A
26	14	911	A
26	14	917	A
26	14	918	A
26	14	925	C
26	14	926	A
26	14	932	G
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	960	A
26	14	961	C
26	14	968	G
26	14	974	G
26	14	974(A)	C
26	14	982	C
26	14	983	A
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1004	C
26	14	1005	C
26	14	1008	C
26	14	1009	A
26	14	1010	A
26	14	1011	G
26	14	1012	U
26	14	1013	C

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Mol	Chain	Res	Type
26	14	1017	G
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1037	G
26	14	1039	G
26	14	1040	C
26	14	1044	G
26	14	1049	C
26	14	1050	A
26	14	1106	G
26	14	1107	G
26	14	1108	U
26	14	1109	C
26	14	1110	G
26	14	1111	A
26	14	1112	G
26	14	1114	G
26	14	1120	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1143	A
26	14	1151	G
26	14	1164	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1220	A
26	14	1230	C

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Mol	Chain	Res	Type
26	14	1236	G
26	14	1248	G
26	14	1253	A
26	14	1256	G
26	14	1268	A
26	14	1271	G
26	14	1272	A
26	14	1274	A
26	14	1284	A
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1304	C
26	14	1306	C
26	14	1321	A
26	14	1325	G
26	14	1329	U
26	14	1345	C
26	14	1347	G
26	14	1348	G
26	14	1352	U
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1400	G
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1421	G
26	14	1427	A
26	14	1428	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1451	C
26	14	1454	U

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Mol	Chain	Res	Type
26	14	1455	G
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1483	G
26	14	1493	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1522	G
26	14	1526	G
26	14	1534	G
26	14	1537	C
26	14	1543	A
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1578	U
26	14	1583	A
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1589	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1616	A
26	14	1625	C
26	14	1639	U
26	14	1647	G
26	14	1648	C
26	14	1674	G
26	14	1675	C
26	14	1676	A
26	14	1700	A
26	14	1701	A

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Mol	Chain	Res	Type
26	14	1703	G
26	14	1725	G
26	14	1726	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1816	G
26	14	1820	U
26	14	1829	A
26	14	1836	C
26	14	1839	G
26	14	1847	A
26	14	1858	G
26	14	1871	A
26	14	1878	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1905	C
26	14	1906	G
26	14	1913	A
26	14	1914	C
26	14	1916	A
26	14	1917	U
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1936	A
26	14	1938	A
26	14	1940	U
26	14	1955	U

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Mol	Chain	Res	Type
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1985	G
26	14	1993	U
26	14	2018	G
26	14	2023	G
26	14	2027	G
26	14	2031	A
26	14	2033	A
26	14	2036	C
26	14	2043	C
26	14	2049	G
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2066	C
26	14	2069	G
26	14	2076	U
26	14	2080	G
26	14	2093	G
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2110	G
26	14	2114	A
26	14	2115	G
26	14	2117	A
26	14	2118	U
26	14	2119	A
26	14	2120	G
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2129	C

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Mol	Chain	Res	Type
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	2140	C
26	14	2141	G
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2156	G
26	14	2157	G
26	14	2158	A
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2166	G
26	14	2168	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2176	A
26	14	2188	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2238	G

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Mol	Chain	Res	Type
26	14	2240	C
26	14	2251	G
26	14	2253	G
26	14	2259	G
26	14	2268	A
26	14	2269	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2281	C
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2318	G
26	14	2321	G
26	14	2325	G
26	14	2326	C
26	14	2327	A
26	14	2333	A
26	14	2336	A
26	14	2337	G
26	14	2342	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2359	C
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2389	G
26	14	2392	A
26	14	2396	G
26	14	2402	C

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Mol	Chain	Res	Type
26	14	2403	C
26	14	2406	U
26	14	2411	A
26	14	2414	G
26	14	2422	A
26	14	2425	A
26	14	2428	G
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2441	C
26	14	2448	A
26	14	2469	A
26	14	2470	G
26	14	2472	G
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2487	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2505	G
26	14	2507	C
26	14	2518	A
26	14	2520	C
26	14	2525	G
26	14	2529	G
26	14	2542	A
26	14	2543	G
26	14	2549	G
26	14	2554	U
26	14	2563	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2578	G

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Mol	Chain	Res	Type
26	14	2586	C
26	14	2602	A
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2630	G
26	14	2634	G
26	14	2636	U
26	14	2654	A
26	14	2660	A
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	2726	U
26	14	2733	A
26	14	2744	G
26	14	2747	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2757	A
26	14	2758	A
26	14	2762	G
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	2780	G

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Mol	Chain	Res	Type
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2803	C
26	14	2804	C
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2874	C
26	14	2880	C
26	14	2885	C
26	14	2886	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
27	1J	0	A
27	1J	2	C
27	1J	7	G
27	1J	8	U
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	25	A

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Mol	Chain	Res	Type
27	1J	28	C
27	1J	29	A
27	1J	33	G
27	1J	40	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	59	A
27	1J	73	A
27	1J	81	G
27	1J	83	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	100	G
27	1J	108	C
27	1J	109	G
27	1J	116	G
27	1J	118	G

All (170) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	1	U
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A
1	13	108	G
1	13	115	G
1	13	181	G
1	13	244	U
1	13	266	G
1	13	429	U
1	13	484	G
1	13	560	U
1	13	687	A
1	13	748	C

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Mol	Chain	Res	Type
1	13	793	U
1	13	871	U
1	13	913	A
1	13	1023	G
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1128	C
1	13	1129	C
1	13	1157	A
1	13	1182	G
1	13	1256	A
1	13	1285	A
1	13	1301	U
1	13	1331	G
1	13	1336	C
1	13	1397	C
1	13	1453	G
1	13	1498	U
1	13	1503	A
1	13	1533	C
22	1K	2	C
22	1K	17	H2U
22	1K	48	C
22	1K	68	U
22	1K	69	C
23	2K	48	U
24	3K	2	C
24	3K	8	U
25	4K	11	U
25	4K	12	A
25	4K	24	A
26	1H	125	G
26	1H	196	A
26	1H	222	A
26	1H	249	C
26	1H	404	C
26	1H	508	G
26	1H	587	C
26	1H	685	A
26	1H	746	A
26	1H	764	A

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Mol	Chain	Res	Type
26	1H	776	G
26	1H	827	U
26	1H	845	G
26	1H	858	U
26	1H	859	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1085	A
26	1H	1110	G
26	1H	1176	G
26	1H	1178	C
26	1H	1210	A
26	1H	1378	A
26	1H	1379	A
26	1H	1420	U
26	1H	1451	C
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1799	G
26	1H	1858	G
26	1H	1900	A
26	1H	1992	G
26	1H	2035	G
26	1H	2062	A
26	1H	2172	U
26	1H	2210	G
26	1H	2422	A
26	1H	2439	A
26	1H	2481	G
26	1H	2566	A
26	1H	2611	U
26	1H	2756	U
27	16	44	G
1	1G	2	U
1	1G	5	U
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G

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Mol	Chain	Res	Type
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	465	A
1	1G	485	G
1	1G	509	A
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	793	U
1	1G	913	A
1	1G	974	A
1	1G	1053	G
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1359	C
1	1G	1442	G
1	1G	1449	C
1	1G	1450	U
1	1G	1498	U
22	1L	69	C
23	2L	21	U
23	2L	47	7MG
23	2L	48	U
55	3L	2	C
55	3L	5	A
55	3L	58	A
25	4L	12	A
25	4L	22	A
25	4L	23	A
26	14	6	A
26	14	49	A
26	14	71	A
26	14	128	C
26	14	278	A
26	14	746	A
26	14	752	A

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Mol	Chain	Res	Type
26	14	764	A
26	14	774	A
26	14	960	A
26	14	974	G
26	14	1022	G
26	14	1325	G
26	14	1378	A
26	14	1379	A
26	14	1420	U
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1819	A
26	14	1992	G
26	14	2062	A
26	14	2173	A
26	14	2174	C
26	14	2275	C
26	14	2406	U
26	14	2439	A
26	14	2477	C
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2756	U
26	14	2776	A
26	14	2791	C
26	14	2859	G
27	1J	88	C

5.4 Non-standard residues in protein, DNA, RNA chains

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
55	PSU	3L	55	55	18,21,22	1.21	2 (11%)	22,30,33	1.78	4 (18%)
23	4SU	2K	8	23	18,21,22	1.81	3 (16%)	26,30,33	2.93	8 (30%)
23	OMC	2L	33	23	19,22,23	1.71	3 (15%)	26,31,34	0.81	0
22	5MU	1L	54	22	19,22,23	4.11	5 (26%)	28,32,35	3.23	10 (35%)
22	PSU	1K	55	22	18,21,22	1.31	2 (11%)	22,30,33	1.79	3 (13%)
55	5MU	3L	54	55	19,22,23	3.91	5 (26%)	28,32,35	3.27	9 (32%)
23	7MG	2K	47	23	22,26,27	3.02	8 (36%)	29,39,42	2.76	10 (34%)
23	7MG	2L	47	23	22,26,27	2.99	7 (31%)	29,39,42	2.83	10 (34%)
23	5MU	2K	55	23	19,22,23	3.86	5 (26%)	28,32,35	3.24	9 (32%)
22	PSU	1L	55	22	18,21,22	1.33	1 (5%)	22,30,33	1.75	5 (22%)
22	H2U	1K	17	22	18,21,22	2.27	4 (22%)	21,30,33	1.87	4 (19%)
22	AET	1K	37	22	28,35,36	2.57	4 (14%)	31,51,54	2.10	4 (12%)
23	OMC	2K	33	23	19,22,23	1.82	3 (15%)	26,31,34	1.24	5 (19%)
23	4SU	2L	8	23	18,21,22	1.78	3 (16%)	26,30,33	2.39	7 (26%)
23	PSU	2K	56	23	18,21,22	1.25	1 (5%)	22,30,33	1.95	4 (18%)
22	AET	1L	37	22	28,35,36	2.55	4 (14%)	31,51,54	1.99	9 (29%)
22	H2U	1L	17	22	18,21,22	2.46	4 (22%)	21,30,33	1.83	5 (23%)
22	5MU	1K	54	22	19,22,23	4.23	5 (26%)	28,32,35	3.46	13 (46%)
23	PSU	2L	56	23	18,21,22	1.19	2 (11%)	22,30,33	1.47	2 (9%)
23	5MU	2L	55	23	19,22,23	3.94	5 (26%)	28,32,35	3.39	9 (32%)

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
55	PSU	3L	55	55	-	2/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	2/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2
22	5MU	1L	54	22	-	0/7/25/26	0/2/2/2
22	PSU	1K	55	22	-	2/7/25/26	0/2/2/2
55	5MU	3L	54	55	-	2/7/25/26	0/2/2/2
23	7MG	2K	47	23	-	2/7/37/38	0/3/3/3
23	7MG	2L	47	23	-	0/7/37/38	0/3/3/3
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
22	PSU	1L	55	22	-	2/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	H2U	1K	17	22	-	4/7/38/39	0/2/2/2
22	AET	1K	37	22	-	10/23/45/46	0/3/3/3
23	OMC	2K	33	23	-	1/9/27/28	0/2/2/2
23	4SU	2L	8	23	-	2/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	AET	1L	37	22	-	4/23/45/46	0/3/3/3
22	H2U	1L	17	22	-	5/7/38/39	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	2/7/25/26	0/2/2/2

All (76) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	54	5MU	C2-N1	14.25	1.61	1.38
22	1L	54	5MU	C2-N1	13.45	1.60	1.38
23	2L	55	5MU	C2-N1	12.71	1.58	1.38
23	2K	55	5MU	C2-N1	12.42	1.58	1.38
55	3L	54	5MU	C2-N1	12.18	1.58	1.38
22	1K	37	AET	C10-N6	10.38	1.51	1.37
22	1L	37	AET	C10-N6	10.14	1.51	1.37
23	2K	47	7MG	C5-N7	8.83	1.45	1.35
23	2L	47	7MG	C5-N7	8.37	1.45	1.35
22	1L	17	H2U	C2-N1	7.63	1.46	1.35
22	1K	17	H2U	C2-N1	7.07	1.45	1.35
23	2K	47	7MG	C4-N9	-6.93	1.29	1.37
23	2L	47	7MG	C4-N9	-6.84	1.29	1.37
22	1L	37	AET	C10-N11	6.42	1.49	1.35
22	1K	54	5MU	C4-C5	6.28	1.55	1.44
22	1K	37	AET	C10-N11	6.21	1.49	1.35
55	3L	54	5MU	C6-N1	6.09	1.48	1.38
55	3L	54	5MU	C4-N3	-6.01	1.27	1.38
23	2K	55	5MU	C2-N3	5.99	1.48	1.38
23	2L	55	5MU	C4-N3	-5.97	1.27	1.38
22	1L	54	5MU	C4-N3	-5.97	1.27	1.38
23	2L	47	7MG	C4-N3	5.95	1.48	1.34
23	2L	55	5MU	C2-N3	5.95	1.48	1.38
55	3L	54	5MU	C2-N3	5.88	1.48	1.38
22	1K	54	5MU	C4-N3	-5.86	1.28	1.38
22	1L	54	5MU	C4-C5	5.86	1.54	1.44
22	1L	54	5MU	C2-N3	5.79	1.48	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	47	7MG	C4-N3	5.77	1.48	1.34
22	1L	54	5MU	C6-N1	5.62	1.47	1.38
23	2L	55	5MU	C6-N1	5.58	1.47	1.38
23	2K	55	5MU	C4-N3	-5.50	1.28	1.38
23	2K	55	5MU	C6-N1	5.47	1.47	1.38
22	1K	54	5MU	C6-N1	5.40	1.47	1.38
23	2K	55	5MU	C4-C5	5.35	1.53	1.44
22	1K	54	5MU	C2-N3	5.34	1.47	1.38
23	2L	55	5MU	C4-C5	5.14	1.53	1.44
23	2K	8	4SU	C5-C4	5.06	1.49	1.42
55	3L	54	5MU	C4-C5	5.05	1.53	1.44
23	2K	33	OMC	C2-N3	4.93	1.46	1.36
23	2L	8	4SU	C5-C4	4.93	1.48	1.42
22	1L	17	H2U	C2-N3	4.91	1.46	1.38
22	1L	55	PSU	C6-C5	4.86	1.41	1.35
23	2L	33	OMC	C2-N3	4.49	1.45	1.36
23	2K	33	OMC	C4-N4	4.48	1.44	1.33
22	1K	17	H2U	C2-N3	4.43	1.45	1.38
22	1K	55	PSU	C6-C5	4.39	1.40	1.35
23	2L	47	7MG	C5-C4	-4.21	1.24	1.38
22	1L	37	AET	C6-N6	4.09	1.48	1.39
23	2L	8	4SU	C2-N1	4.07	1.45	1.38
23	2K	56	PSU	C6-C5	4.03	1.40	1.35
23	2K	8	4SU	C2-N1	4.01	1.44	1.38
23	2L	33	OMC	C4-N4	4.00	1.43	1.33
22	1K	37	AET	C6-N6	3.95	1.47	1.39
55	3L	55	PSU	C6-C5	3.91	1.39	1.35
23	2L	56	PSU	C6-C5	3.91	1.39	1.35
23	2K	47	7MG	C5-C4	-3.88	1.25	1.38
22	1L	17	H2U	C4-N3	3.86	1.44	1.37
22	1K	17	H2U	C4-N3	3.55	1.43	1.37
23	2K	33	OMC	C5-C4	3.49	1.50	1.42
23	2L	33	OMC	C5-C4	3.41	1.50	1.42
23	2L	47	7MG	C2-N2	3.03	1.41	1.34
23	2K	47	7MG	C2-N2	2.92	1.41	1.34
23	2K	8	4SU	C6-N1	2.90	1.45	1.38
23	2L	8	4SU	C6-N1	2.84	1.44	1.38
22	1K	37	AET	C5-C4	-2.57	1.34	1.40
23	2K	47	7MG	C8-N9	2.49	1.47	1.46
22	1L	37	AET	C5-C4	-2.39	1.34	1.40
23	2L	47	7MG	C5-C6	2.27	1.49	1.43
22	1K	55	PSU	C2-N1	2.25	1.39	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	17	H2U	C6-N1	-2.22	1.43	1.47
23	2K	47	7MG	C6-N1	-2.19	1.34	1.38
22	1L	17	H2U	C6-N1	-2.12	1.43	1.47
23	2K	47	7MG	C5-C6	2.07	1.48	1.43
55	3L	55	PSU	C2-N1	2.06	1.39	1.36
23	2L	56	PSU	C2-N1	2.01	1.39	1.36
23	2L	47	7MG	C8-N9	2.01	1.47	1.46

All (130) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	55	5MU	C5-C4-N3	11.13	124.81	115.31
55	3L	54	5MU	C5-C4-N3	10.82	124.55	115.31
22	1K	54	5MU	C5-C4-N3	10.72	124.46	115.31
22	1L	54	5MU	C5-C4-N3	10.66	124.41	115.31
23	2K	55	5MU	C5-C4-N3	9.76	123.64	115.31
23	2K	8	4SU	C5-C4-N3	8.98	123.01	114.69
23	2K	8	4SU	C4-N3-C2	-8.82	118.77	127.34
23	2L	8	4SU	C5-C4-N3	7.24	121.40	114.69
22	1K	37	AET	N3-C2-N1	-7.00	117.73	128.68
23	2L	55	5MU	C4-N3-C2	-6.90	118.42	127.35
23	2K	47	7MG	C4-C5-N7	6.62	114.72	105.53
23	2L	8	4SU	C4-N3-C2	-6.49	121.03	127.34
23	2L	47	7MG	C4-C5-N7	6.44	114.47	105.53
23	2L	55	5MU	C5-C6-N1	-6.41	116.75	123.34
22	1K	54	5MU	C5M-C5-C6	-6.39	114.32	122.85
22	1L	54	5MU	C4-N3-C2	-6.34	119.15	127.35
23	2K	55	5MU	C5-C6-N1	-6.30	116.86	123.34
55	3L	54	5MU	C4-N3-C2	-6.29	119.21	127.35
23	2K	55	5MU	C4-N3-C2	-6.25	119.26	127.35
23	2K	55	5MU	C6-C5-C4	6.21	123.23	118.03
23	2K	47	7MG	CM7-N7-C5	6.20	142.40	126.40
22	1L	54	5MU	C5-C6-N1	-6.15	117.01	123.34
22	1L	37	AET	N3-C2-N1	-6.15	119.07	128.68
23	2L	47	7MG	C5-C4-N9	6.14	114.32	106.35
22	1K	54	5MU	C4-N3-C2	-6.13	119.42	127.35
22	1K	54	5MU	C5-C6-N1	-6.05	117.11	123.34
23	2K	47	7MG	C5-C4-N9	5.85	113.95	106.35
22	1K	37	AET	C12-N11-C10	5.84	134.01	122.39
23	2L	55	5MU	C6-C5-C4	5.78	122.86	118.03
55	3L	54	5MU	C5-C6-N1	-5.59	117.59	123.34
22	1K	17	H2U	C4-N3-C2	-5.54	121.20	125.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	47	7MG	CM7-N7-C5	5.51	140.63	126.40
22	1L	54	5MU	C6-C5-C4	5.51	122.64	118.03
22	1K	54	5MU	C6-C5-C4	5.32	122.48	118.03
55	3L	54	5MU	O4-C4-C5	-5.31	118.74	124.90
23	2L	55	5MU	O4-C4-C5	-5.22	118.85	124.90
23	2K	55	5MU	C5M-C5-C6	-5.17	115.94	122.85
23	2K	55	5MU	O4-C4-C5	-5.08	119.01	124.90
23	2K	56	PSU	N1-C2-N3	5.01	120.80	115.13
22	1L	17	H2U	C4-N3-C2	-4.97	121.67	125.79
23	2K	47	7MG	C6-C5-N7	-4.90	124.21	131.91
22	1L	54	5MU	C5M-C5-C6	-4.89	116.32	122.85
23	2L	47	7MG	C5-C6-N1	4.86	119.56	110.99
55	3L	54	5MU	C6-C5-C4	4.85	122.09	118.03
22	1L	37	AET	C12-N11-C10	4.69	131.72	122.39
23	2K	56	PSU	C4-N3-C2	-4.59	119.73	126.34
55	3L	55	PSU	C4-N3-C2	-4.57	119.76	126.34
22	1K	55	PSU	N1-C2-N3	4.51	120.24	115.13
23	2L	47	7MG	C6-C5-N7	-4.51	124.82	131.91
22	1L	37	AET	C13-C12-N11	-4.50	100.46	110.28
23	2K	47	7MG	C5-C6-N1	4.48	118.88	110.99
22	1K	55	PSU	C4-N3-C2	-4.45	119.93	126.34
23	2L	47	7MG	C5-C4-N3	-4.38	119.79	128.13
23	2L	55	5MU	C5M-C5-C6	-4.37	117.01	122.85
22	1K	37	AET	C14-C12-C13	4.34	117.59	110.19
22	1L	55	PSU	N1-C2-N3	4.27	119.97	115.13
23	2L	47	7MG	C2-N3-C4	4.26	119.88	112.30
55	3L	55	PSU	N1-C2-N3	4.19	119.87	115.13
23	2K	47	7MG	C5-C4-N3	-4.17	120.17	128.13
23	2K	8	4SU	C5-C4-S4	-4.17	119.10	124.47
55	3L	54	5MU	C5M-C5-C6	-4.10	117.38	122.85
23	2L	8	4SU	C5-C4-S4	-4.10	119.19	124.47
23	2L	56	PSU	C4-N3-C2	-4.03	120.54	126.34
22	1K	54	5MU	C5M-C5-C4	4.03	123.20	118.77
22	1L	54	5MU	O4-C4-C5	-3.91	120.38	124.90
22	1K	17	H2U	N3-C2-N1	3.84	120.72	116.65
23	2K	8	4SU	N3-C2-N1	3.82	119.96	114.89
22	1L	55	PSU	C4-N3-C2	-3.75	120.93	126.34
23	2K	47	7MG	C2-N3-C4	3.63	118.76	112.30
22	1L	17	H2U	C5-C6-N1	3.50	123.14	111.61
23	2K	56	PSU	C6-N1-C2	-3.50	119.11	122.68
22	1K	54	5MU	O4-C4-C5	-3.36	121.00	124.90
23	2L	56	PSU	N1-C2-N3	3.29	118.86	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	54	5MU	C1'-N1-C2	3.25	123.45	117.57
55	3L	54	5MU	C6-N1-C2	-3.18	118.08	121.30
22	1L	17	H2U	N3-C2-N1	3.14	119.98	116.65
23	2L	47	7MG	C2-N1-C6	-3.14	119.38	125.10
23	2K	56	PSU	O2-C2-N1	-3.08	119.40	122.79
22	1L	55	PSU	C6-N1-C2	-3.08	119.53	122.68
23	2L	8	4SU	C1'-N1-C2	3.04	123.07	117.57
22	1K	17	H2U	C5-C6-N1	3.01	121.54	111.61
23	2K	47	7MG	C2-N1-C6	-3.00	119.63	125.10
55	3L	55	PSU	C6-C5-C4	2.93	120.25	118.20
22	1L	17	H2U	C5-C4-N3	2.93	119.94	116.65
22	1K	54	5MU	O4-C4-N3	-2.91	114.53	120.12
23	2L	47	7MG	N9-C8-N7	-2.86	99.28	103.38
23	2K	8	4SU	C6-C5-C4	-2.85	117.49	119.95
23	2L	47	7MG	O6-C6-C5	-2.81	120.64	127.54
23	2K	47	7MG	O6-C6-C5	-2.77	120.75	127.54
23	2K	33	OMC	C1'-N1-C6	-2.74	114.86	120.84
22	1K	17	H2U	C5-C4-N3	2.73	119.71	116.65
22	1K	55	PSU	C6-N1-C2	-2.72	119.90	122.68
23	2L	8	4SU	C6-C5-C4	-2.71	117.60	119.95
55	3L	54	5MU	N3-C2-N1	2.70	118.48	114.89
22	1L	37	AET	O10-C10-N6	-2.70	119.19	122.20
23	2L	55	5MU	N3-C2-N1	2.66	118.42	114.89
22	1L	37	AET	N11-C10-N6	2.65	117.90	114.04
23	2K	33	OMC	N4-C4-N3	2.64	122.59	117.97
23	2K	8	4SU	O2-C2-N3	-2.64	116.59	121.50
22	1L	54	5MU	C6-N1-C2	-2.60	118.66	121.30
22	1L	54	5MU	O4-C4-N3	-2.56	115.21	120.12
23	2L	55	5MU	C6-N1-C2	-2.54	118.72	121.30
55	3L	54	5MU	O2-C2-N1	-2.50	119.47	122.79
22	1L	54	5MU	N3-C2-N1	2.44	118.13	114.89
22	1L	37	AET	C14-C12-C13	2.39	114.27	110.19
23	2K	8	4SU	S4-C4-N3	-2.36	117.89	120.21
23	2K	8	4SU	C1'-N1-C2	2.35	121.83	117.57
22	1K	54	5MU	O2-C2-N3	-2.35	117.13	121.50
23	2K	47	7MG	N9-C8-N7	-2.35	100.02	103.38
22	1K	54	5MU	C6-N1-C2	-2.31	118.96	121.30
23	2K	55	5MU	N3-C2-N1	2.29	117.93	114.89
23	2K	55	5MU	O2-C2-N1	-2.29	119.74	122.79
22	1L	55	PSU	O3'-C3'-C4'	2.28	117.64	111.05
23	2K	33	OMC	C1'-N1-C2	2.26	123.47	118.42
22	1K	37	AET	C4-C5-N7	-2.22	107.09	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2K	55	5MU	C6-N1-C2	-2.21	119.06	121.30
55	3L	55	PSU	O2-C2-N1	-2.17	120.40	122.79
22	1K	54	5MU	C1'-N1-C6	-2.12	117.59	121.12
22	1L	37	AET	N1-C6-N6	2.11	118.65	116.36
22	1L	37	AET	CM6-N6-C6	2.07	122.18	118.28
23	2L	8	4SU	C1'-N1-C6	-2.07	116.32	120.84
22	1L	37	AET	C14-C12-N11	2.07	117.02	111.72
22	1L	54	5MU	C5M-C5-C4	2.07	121.04	118.77
22	1L	55	PSU	O2-C2-N1	-2.05	120.53	122.79
23	2K	33	OMC	CM2-O2'-C2'	2.05	119.90	114.52
23	2L	55	5MU	O2-C2-N1	-2.05	120.06	122.79
23	2K	33	OMC	C5-C4-N4	-2.02	117.39	120.57
22	1K	54	5MU	N3-C2-N1	2.02	117.56	114.89
22	1L	17	H2U	O2-C2-N3	-2.01	117.76	121.50
23	2L	8	4SU	N3-C2-N1	2.00	117.55	114.89

There are no chirality outliers.

All (40) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	3L	54	5MU	C4'-C5'-O5'-P
22	1K	17	H2U	O4'-C1'-N1-C2
22	1K	17	H2U	O4'-C1'-N1-C6
22	1K	17	H2U	C2'-C1'-N1-C6
22	1L	17	H2U	O4'-C1'-N1-C2
22	1L	17	H2U	O4'-C1'-N1-C6
22	1K	37	AET	C5-C6-N6-CM6
22	1K	37	AET	N1-C6-N6-CM6
22	1K	37	AET	C14-C12-N11-C10
22	1K	37	AET	C13-C12-C14-O14
22	1K	37	AET	C13-C12-C14-C15
22	1L	37	AET	C14-C12-N11-C10
22	1K	55	PSU	C3'-C4'-C5'-O5'
22	1K	55	PSU	O4'-C4'-C5'-O5'
22	1L	55	PSU	C3'-C4'-C5'-O5'
23	2K	47	7MG	C2'-C1'-N9-C8
22	1K	17	H2U	C2'-C1'-N1-C2
22	1L	55	PSU	O4'-C4'-C5'-O5'
23	2K	8	4SU	O4'-C4'-C5'-O5'
23	2L	8	4SU	O4'-C4'-C5'-O5'
22	1L	17	H2U	O4'-C4'-C5'-O5'
22	1L	17	H2U	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
23	2L	55	5MU	C3'-C4'-C5'-O5'
23	2L	55	5MU	O4'-C4'-C5'-O5'
22	1K	37	AET	N11-C12-C14-O14
22	1K	37	AET	N11-C12-C14-C15
55	3L	54	5MU	C3'-C4'-C5'-O5'
22	1L	37	AET	C13-C12-C14-C15
22	1L	37	AET	N1-C6-N6-CM6
23	2K	8	4SU	C3'-C4'-C5'-O5'
22	1L	17	H2U	C4'-C5'-O5'-P
23	2K	47	7MG	C4'-C5'-O5'-P
22	1K	37	AET	N11-C12-C13-ODA
23	2L	8	4SU	C4'-C5'-O5'-P
55	3L	55	PSU	O4'-C1'-C5-C4
22	1K	37	AET	N1-C6-N6-C10
23	2K	33	OMC	C2'-C1'-N1-C2
55	3L	55	PSU	O4'-C1'-C5-C6
22	1K	37	AET	C5-C6-N6-C10
22	1L	37	AET	C5-C6-N6-C10

There are no ring outliers.

12 monomers are involved in 24 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	3L	55	PSU	2	0
23	2K	8	4SU	1	0
23	2L	33	OMC	2	0
22	1L	54	5MU	1	0
55	3L	54	5MU	3	0
23	2K	47	7MG	3	0
23	2L	47	7MG	1	0
22	1K	37	AET	4	0
23	2L	8	4SU	1	0
22	1L	37	AET	3	0
22	1K	54	5MU	3	0
23	2L	55	5MU	2	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 1498 ligands modelled in this entry, 1496 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
57	SF4	32	301	4	0,12,12	-	-	-		
57	SF4	3E	302	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
57	SF4	32	301	4	-	-	0/6/5/5
57	SF4	3E	302	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 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	32	301	SF4	1	0
57	3E	302	SF4	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
55	3L	1
24	3K	1
26	1H	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	3L	48:C	O3'	49:G	P	5.87
1	3K	48:C	O3'	49:G	P	5.53
1	1H	1053:C	O3'	1054:A	P	3.55

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	1500/1522 (98%)	0.02	10 (0%) 87 76	60, 99, 150, 173	0
1	1G	1490/1522 (97%)	-0.07	8 (0%) 91 81	69, 111, 148, 171	0
2	12	207/256 (80%)	0.13	5 (2%) 59 42	116, 138, 149, 156	0
2	1E	231/256 (90%)	0.64	29 (12%) 3 2	107, 131, 148, 156	0
3	22	197/239 (82%)	0.56	26 (13%) 3 2	114, 131, 144, 153	0
3	2E	205/239 (85%)	0.70	25 (12%) 4 2	82, 106, 127, 136	0
4	32	207/209 (99%)	1.31	60 (28%) 0 0	91, 110, 129, 137	0
4	3E	207/209 (99%)	1.14	44 (21%) 0 0	82, 105, 125, 132	0
5	42	150/162 (92%)	0.69	24 (16%) 1 1	99, 117, 132, 142	0
5	4E	149/162 (91%)	1.12	30 (20%) 1 0	83, 100, 118, 125	0
6	52	101/101 (100%)	0.38	4 (3%) 38 25	87, 104, 119, 131	0
6	5E	100/101 (99%)	0.94	21 (21%) 1 0	88, 105, 119, 128	0
7	62	138/156 (88%)	0.84	25 (18%) 1 1	110, 120, 130, 136	0
7	6E	154/156 (98%)	1.34	36 (23%) 0 0	101, 116, 137, 150	0
8	72	137/138 (99%)	0.63	15 (10%) 5 3	97, 119, 130, 138	0
8	7E	138/138 (100%)	0.33	8 (5%) 23 14	91, 108, 122, 128	0
9	82	121/128 (94%)	1.51	39 (32%) 0 0	105, 135, 143, 150	0
9	8E	126/128 (98%)	0.95	30 (23%) 0 0	86, 127, 142, 150	0
10	1A	99/105 (94%)	0.90	21 (21%) 0 0	112, 135, 147, 153	0
10	1I	94/105 (89%)	1.02	25 (26%) 0 0	77, 120, 141, 143	0
11	2A	113/129 (87%)	1.55	36 (31%) 0 0	83, 108, 122, 131	0
11	2I	111/129 (86%)	2.10	54 (48%) 0 0	76, 105, 125, 137	0
12	3A	122/132 (92%)	1.97	54 (44%) 0 0	81, 99, 118, 132	0
12	3I	122/132 (92%)	0.81	22 (18%) 1 1	64, 77, 108, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	4A	109/126 (86%)	1.11	31 (28%) 0 0	111, 131, 145, 152	0
13	4I	119/126 (94%)	0.46	10 (8%) 11 6	87, 116, 130, 141	0
14	5A	59/61 (96%)	3.96	44 (74%) 0 0	120, 129, 138, 142	0
14	5I	60/61 (98%)	1.31	17 (28%) 0 0	82, 95, 116, 123	0
15	6A	87/89 (97%)	1.41	32 (36%) 0 0	86, 108, 123, 126	0
15	6I	87/89 (97%)	0.94	16 (18%) 1 1	81, 100, 119, 128	0
16	7A	84/88 (95%)	0.40	2 (2%) 59 42	91, 101, 125, 143	0
16	7I	83/88 (94%)	0.90	14 (16%) 1 1	96, 110, 130, 143	0
17	8A	99/105 (94%)	2.78	63 (63%) 0 0	93, 107, 122, 127	0
17	8I	100/105 (95%)	1.71	38 (38%) 0 0	89, 105, 116, 119	0
18	9A	69/88 (78%)	-0.00	0 100 100	94, 110, 130, 139	0
18	9I	68/88 (77%)	0.52	6 (8%) 10 5	88, 106, 123, 131	0
19	AA	65/93 (69%)	2.25	31 (47%) 0 0	122, 140, 150, 156	0
19	AI	83/93 (89%)	0.66	11 (13%) 3 2	93, 112, 138, 145	0
20	BA	103/106 (97%)	1.98	48 (46%) 0 0	89, 110, 132, 136	0
20	BI	97/106 (91%)	1.01	22 (22%) 0 0	105, 116, 134, 137	0
21	1B	22/27 (81%)	2.07	9 (40%) 0 0	109, 122, 128, 128	0
21	1F	23/27 (85%)	2.23	11 (47%) 0 0	94, 102, 111, 117	0
22	1K	70/76 (92%)	0.16	5 (7%) 16 9	79, 151, 170, 173	0
22	1L	70/76 (92%)	0.29	7 (10%) 7 4	111, 158, 174, 179	0
23	2K	72/77 (93%)	0.21	2 (2%) 53 36	67, 93, 126, 137	0
23	2L	72/77 (93%)	-0.20	0 100 100	75, 104, 139, 145	0
24	3K	72/76 (94%)	0.41	9 (12%) 3 2	70, 157, 167, 169	0
25	4K	18/27 (66%)	2.13	7 (38%) 0 0	69, 124, 164, 170	0
25	4L	14/27 (51%)	0.68	2 (14%) 2 1	87, 122, 152, 154	0
26	14	2811/2917 (96%)	0.16	27 (0%) 82 68	52, 85, 154, 176	0
26	1H	2850/2917 (97%)	0.19	22 (0%) 86 73	41, 73, 157, 180	0
27	16	122/122 (100%)	-0.24	1 (0%) 86 73	67, 90, 108, 164	0
27	1J	122/122 (100%)	-0.21	1 (0%) 86 73	85, 110, 127, 162	0
28	11	273/276 (98%)	1.24	59 (21%) 0 0	45, 67, 87, 99	0
28	19	274/276 (99%)	1.65	94 (34%) 0 0	50, 73, 91, 110	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
29	21	205/206 (99%)	1.17	42 (20%)	1	0	51, 88, 122, 131	0
29	29	204/206 (99%)	1.07	43 (21%)	1	0	58, 97, 127, 140	0
30	31	202/210 (96%)	1.11	40 (19%)	1	0	47, 80, 115, 131	0
30	39	204/210 (97%)	1.18	52 (25%)	0	0	57, 102, 138, 149	0
31	41	179/182 (98%)	0.58	22 (12%)	4	2	84, 104, 132, 151	0
31	49	180/182 (98%)	1.78	62 (34%)	0	0	103, 122, 144, 154	0
32	51	174/180 (96%)	0.30	6 (3%)	45	29	83, 101, 117, 136	0
32	59	169/180 (93%)	2.33	73 (43%)	0	0	129, 156, 164, 168	0
33	61	145/148 (97%)	0.02	2 (1%)	75	59	79, 121, 132, 139	0
33	69	145/148 (97%)	0.05	3 (2%)	63	46	84, 117, 137, 143	0
34	15	137/140 (97%)	2.19	72 (52%)	0	0	80, 106, 131, 138	0
34	58	125/140 (89%)	1.51	40 (32%)	0	0	69, 89, 105, 131	0
35	25	122/122 (100%)	2.55	76 (62%)	0	0	68, 89, 105, 119	0
35	68	122/122 (100%)	1.21	20 (16%)	1	1	60, 78, 97, 105	0
36	35	147/150 (98%)	1.67	54 (36%)	0	0	59, 99, 130, 139	0
36	78	148/150 (98%)	0.67	16 (10%)	5	3	52, 83, 109, 121	0
37	45	138/141 (97%)	2.41	69 (50%)	0	0	72, 100, 121, 133	0
37	88	141/141 (100%)	1.55	42 (29%)	0	0	56, 80, 102, 129	0
38	55	118/118 (100%)	1.17	26 (22%)	0	0	64, 84, 99, 110	0
38	98	118/118 (100%)	1.74	51 (43%)	0	0	63, 83, 102, 115	0
39	65	110/112 (98%)	0.78	16 (14%)	2	1	86, 106, 125, 130	0
39	A8	111/112 (99%)	1.03	21 (18%)	1	0	77, 88, 106, 113	0
40	75	140/146 (95%)	1.29	37 (26%)	0	0	82, 98, 145, 155	0
40	B8	136/146 (93%)	0.91	25 (18%)	1	1	73, 92, 131, 146	0
41	85	116/118 (98%)	1.22	26 (22%)	0	0	68, 93, 128, 140	0
41	C8	115/118 (97%)	0.71	10 (8%)	10	6	56, 79, 108, 116	0
42	95	100/101 (99%)	0.58	10 (10%)	7	4	66, 114, 131, 136	0
42	D8	100/101 (99%)	0.80	10 (10%)	7	4	55, 101, 120, 127	0
43	A5	111/113 (98%)	2.19	54 (48%)	0	0	66, 78, 103, 131	0
43	E8	110/113 (97%)	1.35	27 (24%)	0	0	59, 74, 98, 108	0
44	B5	94/96 (97%)	1.36	22 (23%)	0	0	72, 84, 105, 116	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
44	F8	95/96 (98%)	0.97	18 (18%)	1	0	57, 70, 101, 112	0
45	C5	52/110 (47%)	3.37	40 (76%)	0	0	93, 103, 119, 123	0
45	G8	97/110 (88%)	0.57	4 (4%)	37	24	76, 96, 127, 133	0
46	D5	177/206 (85%)	2.26	84 (47%)	0	0	106, 131, 162, 166	0
46	H8	170/206 (82%)	1.48	52 (30%)	0	0	81, 116, 154, 162	0
47	E5	76/85 (89%)	1.84	30 (39%)	0	0	66, 87, 102, 110	0
47	I8	77/85 (90%)	1.21	17 (22%)	0	0	57, 72, 96, 104	0
48	F5	94/98 (95%)	1.90	40 (42%)	0	0	63, 83, 121, 129	0
48	J8	96/98 (97%)	1.87	39 (40%)	0	0	53, 75, 123, 138	0
49	G5	69/72 (95%)	0.71	4 (5%)	23	14	85, 106, 126, 142	0
49	K8	68/72 (94%)	1.03	9 (13%)	3	2	63, 84, 103, 121	0
50	H5	58/60 (96%)	2.18	28 (48%)	0	0	77, 98, 120, 127	0
50	L8	58/60 (96%)	0.68	7 (12%)	4	2	60, 81, 108, 113	0
51	M8	60/71 (84%)	0.63	8 (13%)	3	2	105, 135, 148, 152	0
52	J5	56/60 (93%)	1.47	21 (37%)	0	0	60, 85, 127, 136	0
52	N8	48/60 (80%)	1.26	12 (25%)	0	0	51, 87, 121, 128	0
53	L5	48/49 (97%)	3.07	33 (68%)	0	0	52, 61, 95, 104	0
53	P8	47/49 (95%)	1.00	7 (14%)	2	1	47, 52, 71, 89	0
54	M5	64/65 (98%)	2.36	35 (54%)	0	0	68, 81, 95, 115	0
54	Q8	64/65 (98%)	1.36	18 (28%)	0	0	56, 69, 83, 95	0
55	3L	70/76 (92%)	-0.03	3 (4%)	35	22	80, 150, 162, 164	0
All	All	20486/21509 (95%)	0.71	2870 (14%)	2	1	41, 98, 147, 180	0

All (2870) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
32	59	151	ILE	16.1
32	59	112	PRO	14.6
32	59	111	HIS	14.3
12	3A	64	TYR	13.4
32	59	114	VAL	13.1
14	5A	34	TYR	13.1
53	L5	1	MET	12.4
32	59	94	TYR	12.3
19	AA	9	VAL	12.1

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Mol	Chain	Res	Type	RSRZ
22	1L	76	A	11.9
42	D8	37	VAL	11.6
14	5A	39	LEU	11.6
32	59	123	PHE	11.5
22	1K	76	A	11.4
32	59	87	LEU	11.0
47	E5	9	SER	10.5
32	59	17	VAL	10.4
30	39	10	PRO	10.3
45	C5	29	GLU	10.3
28	19	2	ALA	10.2
14	5A	37	PHE	10.1
7	6E	84	ASN	9.9
10	1A	54	PHE	9.8
35	25	1	MET	9.6
7	6E	85	TYR	9.6
32	59	117	PRO	9.5
14	5A	35	ARG	9.5
7	6E	83	ALA	9.5
14	5A	30	ALA	9.5
31	49	139	LEU	9.4
32	59	93	GLY	9.2
14	5A	38	GLY	9.1
46	D5	153	SER	9.0
40	B8	106	SER	9.0
14	5A	25	VAL	8.6
46	D5	149	SER	8.6
36	35	110	TYR	8.5
17	8A	7	THR	8.5
32	59	122	THR	8.5
46	H8	165	VAL	8.4
46	D5	69	THR	8.4
13	4A	102	ARG	8.4
12	3A	19	ARG	8.4
25	4K	13	A	8.1
34	15	9	VAL	8.1
43	E8	92	ARG	8.1
46	D5	152	ALA	8.0
32	59	124	GLU	7.9
47	I8	8	GLY	7.9
32	59	55	PRO	7.9
14	5A	26	ARG	7.8

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Mol	Chain	Res	Type	RSRZ
43	A5	92	ARG	7.8
36	35	71	VAL	7.7
14	5A	23	ARG	7.7
52	J5	2	ALA	7.7
31	49	138	GLN	7.6
45	C5	64	GLU	7.6
37	45	68	ILE	7.6
46	H8	168	GLU	7.5
44	B5	68	ARG	7.5
14	5A	36	PHE	7.5
37	45	66	ILE	7.4
31	49	152	LEU	7.4
12	3A	20	LYS	7.4
51	M8	66	SER	7.3
37	88	1	MET	7.3
32	59	101	ARG	7.3
17	8A	22	LEU	7.3
46	D5	51	ALA	7.3
43	A5	93	ALA	7.3
46	H8	167	PRO	7.3
5	4E	24	ARG	7.2
32	59	169	VAL	7.2
17	8I	101	ARG	7.1
7	6E	81	GLY	7.1
46	D5	121	HIS	7.0
29	29	116	VAL	7.0
7	6E	80	VAL	7.0
47	E5	8	GLY	7.0
10	1A	59	SER	7.0
32	59	164	TYR	7.0
31	49	137	GLU	6.9
46	H8	166	SER	6.9
17	8A	86	GLU	6.9
4	3E	110	PHE	6.9
45	C5	65	ALA	6.8
19	AA	6	LYS	6.8
40	75	106	SER	6.8
46	D5	155	LEU	6.8
35	25	18	LYS	6.8
43	E8	94	ASP	6.8
35	25	2	ILE	6.8
46	D5	49	ARG	6.7

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Mol	Chain	Res	Type	RSRZ
28	19	5	LYS	6.7
7	6E	79	ARG	6.7
22	1L	75	C	6.7
53	L5	48	LYS	6.7
35	25	17	ARG	6.7
13	4I	120	LYS	6.6
21	1F	14	TRP	6.6
8	72	2	LEU	6.6
34	15	51	PHE	6.6
12	3I	19	ARG	6.6
29	21	151	TYR	6.5
7	6E	78	ARG	6.5
28	19	40	THR	6.5
45	C5	5	MET	6.5
46	D5	146	ILE	6.5
14	5A	31	ARG	6.4
20	BA	7	LYS	6.3
53	L5	2	LYS	6.3
37	45	6	ARG	6.3
4	32	169	LYS	6.3
46	D5	79	ARG	6.3
34	15	37	LYS	6.2
31	49	35	GLU	6.2
20	BA	41	ILE	6.2
45	C5	28	LYS	6.2
31	49	39	ILE	6.2
5	4E	19	MET	6.2
45	C5	25	GLY	6.2
17	8I	36	ILE	6.2
46	D5	164	ALA	6.2
9	82	109	VAL	6.1
4	3E	21	LEU	6.1
48	J8	21	ARG	6.1
37	45	33	GLY	6.1
21	1B	14	TRP	6.1
9	8E	126	SER	6.1
5	4E	21	ALA	6.1
9	82	115	GLY	6.1
11	2I	42	TRP	6.1
29	29	150	VAL	6.0
50	H5	26	LEU	6.0
11	2A	21	ILE	6.0

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Mol	Chain	Res	Type	RSRZ
14	5A	41	ARG	6.0
37	45	104	PHE	6.0
7	6E	38	LEU	6.0
43	E8	86	LEU	6.0
32	59	89	ILE	6.0
17	8A	89	LEU	6.0
37	45	74	TYR	6.0
39	65	33	LYS	6.0
37	45	17	LEU	5.9
46	D5	7	ALA	5.9
48	F5	26	ARG	5.9
34	15	84	LYS	5.9
54	M5	34	TRP	5.9
10	1I	47	PHE	5.9
35	25	42	SER	5.9
43	E8	96	ILE	5.9
10	1A	64	GLU	5.9
43	E8	93	ALA	5.9
2	12	133	LYS	5.9
13	4A	101	GLN	5.9
28	11	111	LEU	5.9
21	1B	13	ILE	5.9
12	3A	69	TYR	5.8
37	45	92	GLY	5.9
12	3A	68	ALA	5.8
46	D5	163	LEU	5.8
19	AA	53	ASN	5.8
37	45	65	PHE	5.8
54	M5	64	TYR	5.8
17	8A	85	VAL	5.8
2	1E	148	TYR	5.8
20	BA	9	ASN	5.8
17	8I	91	ARG	5.8
11	2I	25	TYR	5.8
53	L5	14	LYS	5.8
10	1A	47	PHE	5.8
37	88	104	PHE	5.8
19	AA	4	SER	5.8
13	4A	98	VAL	5.7
10	1A	55	LYS	5.7
31	49	142	PRO	5.7
30	39	82	ILE	5.7

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Mol	Chain	Res	Type	RSRZ
38	55	4	LEU	5.7
37	45	32	TYR	5.7
31	49	82	LEU	5.7
46	D5	50	GLN	5.7
54	M5	40	GLU	5.7
46	H8	153	SER	5.7
43	E8	90	ARG	5.7
11	2I	124	LYS	5.7
37	45	99	PRO	5.7
19	AA	13	ASP	5.6
46	D5	125	LEU	5.6
46	D5	168	GLU	5.6
20	BA	83	ARG	5.6
4	3E	24	GLU	5.6
43	A5	82	LEU	5.6
34	58	72	TYR	5.6
40	B8	104	ASN	5.6
32	59	110	SER	5.6
4	3E	96	LEU	5.6
31	49	90	LEU	5.6
37	45	7	MET	5.6
13	4A	111	LYS	5.6
4	32	166	LYS	5.5
35	25	122	LEU	5.5
43	A5	86	LEU	5.5
43	A5	6	ILE	5.5
28	11	2	ALA	5.5
7	62	2	ALA	5.5
12	3A	21	LYS	5.5
19	AA	11	VAL	5.5
34	15	8	GLN	5.5
2	1E	10	LEU	5.5
35	25	43	VAL	5.5
13	4A	94	ARG	5.5
38	98	34	ILE	5.5
12	3A	28	LYS	5.5
46	D5	156	LYS	5.4
9	8E	117	HIS	5.4
46	D5	147	GLY	5.4
40	75	100	TYR	5.4
53	L5	46	VAL	5.4
13	4A	88	ARG	5.4

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Mol	Chain	Res	Type	RSRZ
19	AA	7	LYS	5.4
17	8I	98	LEU	5.4
19	AA	5	LEU	5.4
3	2E	166	GLU	5.4
23	2K	1	C	5.4
29	29	151	TYR	5.4
17	8A	4	LYS	5.4
37	45	41	TRP	5.4
48	F5	23	LYS	5.4
19	AA	10	PHE	5.4
31	49	36	LYS	5.4
36	35	108	LYS	5.4
40	75	104	ASN	5.4
43	A5	85	VAL	5.4
5	4E	23	GLY	5.4
28	19	6	PHE	5.4
37	88	2	LEU	5.4
9	8E	121	ARG	5.3
2	1E	208	ILE	5.3
34	15	30	ILE	5.3
14	5A	59	ALA	5.3
17	8A	11	VAL	5.3
2	1E	96	ARG	5.3
46	D5	82	ARG	5.3
37	45	103	MET	5.3
43	A5	98	LYS	5.3
31	49	136	ARG	5.3
26	1H	165	U	5.3
50	H5	28	LEU	5.3
48	F5	28	GLY	5.3
2	1E	232	PRO	5.3
4	32	186	LEU	5.3
34	15	98	VAL	5.3
7	6E	151	TYR	5.3
35	25	32	TYR	5.3
48	F5	21	ARG	5.2
40	75	50	ILE	5.2
15	6I	88	ARG	5.2
17	8A	71	PHE	5.2
24	3K	35	G	5.2
17	8A	21	VAL	5.2
20	BI	23	ARG	5.2

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Mol	Chain	Res	Type	RSRZ
32	59	115	VAL	5.2
45	C5	39	VAL	5.2
53	L5	45	ALA	5.2
54	M5	12	LYS	5.2
31	49	155	MET	5.2
10	1A	49	VAL	5.2
7	62	5	ARG	5.2
36	35	76	LYS	5.2
14	5A	53	LEU	5.2
9	82	123	PRO	5.2
45	C5	24	VAL	5.2
47	I8	9	SER	5.2
20	BA	6	PRO	5.2
51	M8	22	ILE	5.2
36	35	106	LEU	5.2
9	8E	115	GLY	5.2
29	21	134	ILE	5.2
46	D5	162	GLU	5.2
48	J8	23	LYS	5.2
30	39	72	ARG	5.2
13	4A	97	PRO	5.2
28	19	4	LYS	5.1
32	59	83	TYR	5.1
46	D5	5	LEU	5.1
16	7I	32	TYR	5.1
53	L5	47	ARG	5.1
7	62	146	GLU	5.1
20	BA	42	GLN	5.1
20	BA	38	LYS	5.1
35	68	122	LEU	5.1
37	45	93	TYR	5.1
53	L5	8	ASN	5.1
11	2I	29	ILE	5.1
13	4A	103	THR	5.1
39	A8	7	TYR	5.1
19	AA	59	PRO	5.1
9	82	36	TYR	5.1
11	2I	50	TYR	5.1
37	45	85	LYS	5.1
47	E5	21	LEU	5.1
35	25	58	VAL	5.1
46	H8	121	HIS	5.1

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Mol	Chain	Res	Type	RSRZ
48	F5	22	GLY	5.0
37	45	39	PRO	5.0
36	35	51	PHE	5.0
31	49	41	GLN	5.0
38	98	33	ARG	5.0
17	8A	6	LEU	5.0
43	E8	85	VAL	5.0
13	4A	87	TYR	5.0
17	8A	80	GLY	5.0
3	2E	164	ARG	5.0
29	29	131	ALA	5.0
46	H8	99	TYR	5.0
46	D5	81	ARG	5.0
47	E5	39	ARG	5.0
29	29	134	ILE	5.0
31	49	140	ILE	5.0
10	1I	60	ARG	5.0
30	31	64	ILE	5.0
46	D5	76	LEU	5.0
32	59	16	SER	4.9
9	82	116	LYS	4.9
28	19	18	VAL	4.9
48	F5	36	GLY	4.9
30	31	72	ARG	4.9
15	6A	87	ILE	4.9
29	29	125	GLY	4.9
37	45	18	LYS	4.9
12	3I	11	VAL	4.9
17	8A	9	VAL	4.9
11	2A	75	TYR	4.9
12	3A	23	LYS	4.9
46	D5	52	SER	4.9
35	25	19	ILE	4.9
21	1F	6	ARG	4.9
32	59	106	THR	4.9
11	2A	50	TYR	4.9
19	AA	76	PRO	4.9
35	25	7	TYR	4.9
9	82	20	ARG	4.9
43	A5	46	PHE	4.9
28	19	39	LYS	4.9
52	J5	10	LYS	4.9

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Mol	Chain	Res	Type	RSRZ
43	A5	90	ARG	4.9
4	3E	108	LEU	4.9
46	H8	163	LEU	4.9
48	F5	32	LYS	4.9
37	45	67	ARG	4.9
8	72	112	LEU	4.9
44	B5	33	LYS	4.9
54	M5	61	LEU	4.9
11	2I	68	ALA	4.8
21	1B	2	GLY	4.8
3	22	198	VAL	4.8
19	AA	67	VAL	4.8
46	D5	159	PRO	4.8
17	8A	36	ILE	4.8
46	H8	146	ILE	4.8
54	M5	50	LEU	4.8
17	8A	92	ARG	4.8
12	3A	27	LEU	4.8
31	49	178	PHE	4.8
37	45	91	GLU	4.8
43	A5	94	ASP	4.8
21	1F	15	ARG	4.8
35	25	40	VAL	4.8
12	3A	60	LEU	4.8
30	39	192	LEU	4.8
32	59	102	ALA	4.8
36	35	46	LYS	4.8
40	75	99	LEU	4.8
45	C5	23	ARG	4.8
48	F5	37	ILE	4.8
34	15	48	MET	4.8
48	F5	33	LYS	4.8
34	15	90	MET	4.8
28	19	26	LYS	4.8
45	C5	13	VAL	4.8
29	29	141	ILE	4.8
43	A5	103	ILE	4.8
22	1K	75	C	4.8
35	68	120	GLU	4.8
45	C5	69	ALA	4.8
54	M5	2	PRO	4.8
44	B5	60	ARG	4.7

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Mol	Chain	Res	Type	RSRZ
12	3A	55	VAL	4.7
29	29	126	PRO	4.7
15	6A	88	ARG	4.7
36	35	15	ARG	4.7
35	25	20	MET	4.7
50	H5	10	LYS	4.7
34	15	85	ILE	4.7
35	25	22	ILE	4.7
38	55	70	LEU	4.7
3	22	155	GLY	4.7
37	88	80	GLU	4.7
11	2A	35	PRO	4.7
28	19	55	GLY	4.7
29	29	128	SER	4.7
37	45	10	ARG	4.7
20	BA	4	LYS	4.7
45	C5	26	LYS	4.7
17	8I	97	SER	4.7
35	25	48	PRO	4.7
21	1F	2	GLY	4.7
14	5A	58	LYS	4.7
13	4I	102	ARG	4.6
36	35	107	LYS	4.6
14	5A	33	VAL	4.6
17	8A	57	VAL	4.6
5	4E	18	ARG	4.6
37	88	41	TRP	4.6
41	85	40	PHE	4.6
28	11	262	ARG	4.6
48	J8	94	LEU	4.6
7	6E	82	GLY	4.6
50	H5	15	TYR	4.6
17	8A	37	LYS	4.6
37	45	102	VAL	4.6
12	3A	26	ALA	4.6
31	49	94	LEU	4.6
40	75	105	LEU	4.6
48	J8	28	GLY	4.6
53	P8	1	MET	4.6
30	39	89	VAL	4.6
46	D5	6	LYS	4.6
15	6I	60	VAL	4.6

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Mol	Chain	Res	Type	RSRZ
14	5A	10	ALA	4.6
17	8A	32	TYR	4.6
35	25	81	ASP	4.6
9	82	50	LEU	4.6
20	BI	20	LEU	4.6
20	BA	34	LYS	4.6
44	F8	92	LEU	4.6
47	E5	38	VAL	4.6
40	75	102	ILE	4.6
35	25	45	GLU	4.6
29	21	133	LYS	4.6
13	4I	96	LEU	4.5
14	5A	6	LEU	4.5
51	M8	65	ASP	4.5
20	BA	8	ARG	4.5
42	D8	38	LEU	4.5
35	25	11	ALA	4.5
12	3A	32	PHE	4.5
36	35	35	HIS	4.5
28	11	112	GLN	4.5
48	J8	70	VAL	4.5
35	25	31	LYS	4.5
37	45	76	LYS	4.5
46	D5	57	ILE	4.5
12	3A	46	LYS	4.5
14	5A	17	LYS	4.5
45	C5	34	LYS	4.5
14	5A	24	CYS	4.5
12	3A	98	TYR	4.5
40	75	70	VAL	4.5
3	2E	168	ALA	4.5
7	6E	32	ARG	4.5
37	88	10	ARG	4.5
54	M5	6	THR	4.5
12	3I	20	LYS	4.5
15	6A	71	GLN	4.5
38	98	21	TYR	4.5
40	75	49	VAL	4.5
30	39	65	TRP	4.5
54	M5	58	ILE	4.5
17	8A	87	LYS	4.5
17	8I	96	GLU	4.5

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Mol	Chain	Res	Type	RSRZ
45	C5	30	VAL	4.5
12	3A	15	ARG	4.5
34	15	99	LEU	4.5
31	49	83	ARG	4.5
14	5A	32	SER	4.5
43	A5	83	LYS	4.5
47	E5	46	LYS	4.5
13	4I	6	GLY	4.4
5	4E	123	LEU	4.4
28	19	177	LEU	4.4
45	C5	75	ILE	4.4
43	A5	81	ALA	4.4
28	19	38	LYS	4.4
24	3K	33	U	4.4
45	C5	38	ILE	4.4
9	8E	127	LYS	4.4
35	25	26	LYS	4.4
35	25	41	ALA	4.4
25	4K	15	A	4.4
32	59	107	VAL	4.4
37	45	87	LYS	4.4
25	4K	25	A	4.4
32	59	76	VAL	4.4
42	95	74	LYS	4.4
19	AA	62	ILE	4.4
28	19	53	PHE	4.4
32	59	33	LEU	4.4
30	31	66	PRO	4.4
46	D5	28	MET	4.4
12	3A	89	ARG	4.4
34	15	46	VAL	4.4
26	14	1379	A	4.4
34	58	15	LEU	4.4
37	45	105	GLU	4.4
46	D5	144	LEU	4.4
4	32	110	PHE	4.4
48	F5	92	LYS	4.4
46	D5	3	TYR	4.4
46	D5	68	PRO	4.4
17	8A	95	TYR	4.3
30	31	65	TRP	4.3
3	22	157	ILE	4.3

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Mol	Chain	Res	Type	RSRZ
48	F5	18	ILE	4.3
46	D5	46	LYS	4.3
37	88	17	LEU	4.3
40	75	108	ARG	4.3
4	3E	111	ALA	4.3
28	11	38	LYS	4.3
17	8I	95	TYR	4.3
18	9I	78	LEU	4.3
31	49	34	LEU	4.3
43	A5	9	TYR	4.3
46	H8	70	LEU	4.3
37	45	97	VAL	4.3
20	BA	63	ILE	4.3
35	68	66	LYS	4.3
50	H5	12	PRO	4.3
35	25	65	THR	4.3
26	14	229	A	4.3
50	H5	51	ALA	4.3
37	88	14	ARG	4.3
12	3I	91	LYS	4.3
44	F8	1	MET	4.3
6	5E	57	GLN	4.3
19	AA	56	GLN	4.3
3	22	60	ALA	4.3
53	L5	10	ARG	4.3
8	72	133	LEU	4.3
31	49	133	LEU	4.3
37	45	77	LYS	4.3
48	J8	85	LEU	4.3
46	H8	98	MET	4.3
9	82	53	VAL	4.3
4	32	146	ILE	4.3
32	59	148	ILE	4.3
37	45	22	LYS	4.3
13	4A	96	LEU	4.3
39	65	60	GLY	4.3
20	BI	18	GLN	4.3
12	3A	84	LEU	4.2
46	H8	150	LEU	4.2
7	6E	154	TYR	4.2
30	39	90	PHE	4.2
11	2I	48	ILE	4.2

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Mol	Chain	Res	Type	RSRZ
31	49	29	TRP	4.2
13	4A	114	ARG	4.2
17	8A	23	VAL	4.2
37	45	96	VAL	4.2
34	15	87	LEU	4.2
37	45	34	LEU	4.2
50	H5	53	LEU	4.2
7	62	41	ARG	4.2
11	2I	96	ARG	4.2
24	3K	34	G	4.2
35	68	1	MET	4.2
36	78	71	VAL	4.2
10	1A	62	HIS	4.2
32	59	168	PRO	4.2
36	35	52	GLU	4.2
38	98	102	GLU	4.2
31	49	135	LEU	4.2
14	5A	29	ARG	4.2
20	BI	17	ARG	4.2
35	68	97	ARG	4.2
37	45	69	PHE	4.2
46	H8	161	VAL	4.2
4	32	158	ILE	4.2
29	21	132	HIS	4.2
29	21	141	ILE	4.2
26	1H	163	U	4.2
37	45	130	LYS	4.2
37	45	19	GLY	4.2
11	2I	43	SER	4.2
28	19	257	LEU	4.2
14	5A	42	ILE	4.2
14	5I	29	ARG	4.2
29	21	131	ALA	4.2
48	F5	20	ARG	4.2
20	BA	24	LEU	4.2
39	A8	111	GLU	4.2
47	E5	12	ASN	4.2
6	5E	46	ARG	4.2
43	A5	8	ARG	4.2
43	A5	84	ARG	4.2
17	8A	8	GLY	4.2
42	95	75	PHE	4.2

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Mol	Chain	Res	Type	RSRZ
9	82	65	VAL	4.2
28	19	147	LEU	4.2
2	1E	122	PHE	4.2
20	BA	80	ARG	4.2
43	E8	84	ARG	4.2
7	62	42	ILE	4.2
36	35	75	ILE	4.2
37	88	68	ILE	4.2
3	2E	60	ALA	4.1
13	4A	107	ALA	4.1
31	41	25	TYR	4.2
48	J8	25	LYS	4.2
51	M8	25	TYR	4.2
17	8A	93	GLN	4.1
46	D5	56	VAL	4.1
15	6I	87	ILE	4.1
3	2E	193	TYR	4.1
5	42	12	LEU	4.1
28	11	15	PHE	4.1
8	72	86	ILE	4.1
54	M5	5	LYS	4.1
9	8E	125	TYR	4.1
14	5I	30	ALA	4.1
17	8A	98	LEU	4.1
32	59	95	ARG	4.1
34	15	72	TYR	4.1
37	45	12	GLN	4.1
39	65	108	GLY	4.1
35	25	8	LEU	4.1
41	85	6	THR	4.1
44	B5	79	ALA	4.1
46	D5	55	HIS	4.1
32	59	15	VAL	4.1
34	15	52	VAL	4.1
43	E8	91	GLY	4.1
20	BI	79	ARG	4.1
40	75	65	LYS	4.1
9	82	37	PHE	4.1
31	49	97	ASP	4.1
19	AA	58	VAL	4.1
38	98	32	GLY	4.1
40	B8	105	LEU	4.1

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Mol	Chain	Res	Type	RSRZ
12	3A	18	VAL	4.1
17	8A	60	ILE	4.1
28	19	211	ARG	4.1
35	25	9	GLU	4.1
29	21	138	PRO	4.1
37	88	77	LYS	4.1
43	E8	98	LYS	4.1
48	F5	25	LYS	4.1
19	AI	71	LEU	4.1
28	11	133	LEU	4.1
12	3A	33	ARG	4.1
11	2A	25	TYR	4.1
50	H5	35	ARG	4.0
46	H8	147	GLY	4.0
45	C5	66	PRO	4.0
47	E5	22	GLY	4.0
20	BI	21	LYS	4.0
54	M5	8	LYS	4.0
37	88	79	LEU	4.0
26	1H	2062	A	4.0
44	B5	69	TYR	4.0
48	J8	13	ILE	4.0
48	F5	24	ALA	4.0
17	8A	10	VAL	4.0
37	45	35	VAL	4.0
4	3E	207	TYR	4.0
38	98	45	ARG	4.0
45	C5	35	TYR	4.0
46	H8	169	GLU	4.0
12	3I	27	LEU	4.0
14	5A	47	LEU	4.0
37	45	75	THR	4.0
9	8E	116	LYS	4.0
31	49	159	VAL	4.0
37	45	106	VAL	4.0
54	M5	30	ARG	4.0
17	8A	51	TYR	4.0
36	35	68	GLN	4.0
9	82	64	THR	4.0
11	2A	89	ALA	4.0
22	1L	71	G	4.0
36	35	64	LYS	4.0

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Mol	Chain	Res	Type	RSRZ
35	25	97	ARG	4.0
46	H8	97	GLU	4.0
46	D5	151	HIS	4.0
3	2E	128	PHE	4.0
46	H8	5	LEU	4.0
10	1A	46	ARG	4.0
45	C5	27	VAL	4.0
4	32	94	LEU	4.0
42	95	81	TYR	4.0
34	15	12	ARG	4.0
12	3A	48	PRO	4.0
13	4I	98	VAL	4.0
34	15	50	ASP	4.0
52	J5	56	LYS	4.0
4	3E	176	LEU	4.0
36	35	45	LEU	4.0
40	75	68	TYR	4.0
5	4E	129	ILE	3.9
29	29	135	HIS	3.9
46	D5	150	LEU	3.9
46	H8	29	TYR	3.9
37	45	38	GLU	3.9
3	2E	167	TRP	3.9
39	A8	49	VAL	3.9
14	5A	44	LEU	3.9
50	H5	20	LYS	3.9
11	2I	65	ALA	3.9
34	58	18	ALA	3.9
29	29	76	ARG	3.9
54	M5	16	ILE	3.9
4	3E	97	LEU	3.9
38	98	20	LEU	3.9
48	F5	27	GLU	3.9
46	H8	38	TYR	3.9
52	N8	37	LYS	3.9
32	59	86	GLU	3.9
39	A8	4	LEU	3.9
9	82	121	ARG	3.9
38	98	8	ARG	3.9
46	D5	9	TYR	3.9
38	98	14	SER	3.9
48	J8	26	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
5	42	88	LYS	3.9
16	7I	1	MET	3.9
40	B8	109	GLU	3.9
3	22	7	PRO	3.9
13	4A	100	GLY	3.9
53	L5	18	PHE	3.9
17	8I	37	LYS	3.9
11	2I	60	ALA	3.9
4	32	24	GLU	3.9
19	AA	71	LEU	3.9
28	11	91	ARG	3.9
11	2A	42	TRP	3.9
41	85	25	TRP	3.9
30	31	78	ILE	3.9
45	C5	3	VAL	3.9
34	58	74	ARG	3.9
5	4E	20	GLN	3.8
6	5E	55	ASP	3.8
19	AA	68	GLY	3.8
31	49	37	VAL	3.8
40	75	101	PHE	3.8
9	82	110	GLU	3.8
33	69	1	MET	3.8
53	L5	3	ARG	3.8
30	31	6	VAL	3.8
43	A5	47	VAL	3.8
34	58	23	LEU	3.8
45	C5	31	LEU	3.8
46	D5	70	LEU	3.8
7	6E	5	ARG	3.8
36	35	77	ARG	3.8
4	32	126	ILE	3.8
4	32	185	PHE	3.8
45	C5	33	LYS	3.8
5	4E	25	ARG	3.8
11	2I	49	GLY	3.8
35	25	21	CYS	3.8
4	3E	162	LEU	3.8
17	8A	76	LEU	3.8
10	1I	64	GLU	3.8
11	2A	54	ARG	3.8
34	58	61	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
37	45	20	ALA	3.8
50	L8	8	LEU	3.8
34	15	11	PRO	3.8
13	4A	117	VAL	3.8
28	11	206	LEU	3.8
29	21	137	HIS	3.8
32	59	121	ILE	3.8
34	15	117	PHE	3.8
35	25	99	PHE	3.8
34	58	99	LEU	3.8
38	98	9	LYS	3.8
48	F5	39	LYS	3.8
12	3A	29	GLY	3.8
8	72	134	ILE	3.8
28	19	52	ARG	3.8
46	D5	72	ARG	3.8
48	J8	30	VAL	3.8
37	45	79	LEU	3.8
3	2E	201	TYR	3.8
32	59	85	LYS	3.8
20	BI	83	ARG	3.8
38	55	102	GLU	3.8
29	29	127	ASP	3.8
30	39	12	LEU	3.8
19	AA	77	THR	3.8
29	29	129	HIS	3.8
31	49	74	LYS	3.8
37	88	75	THR	3.8
29	21	147	PRO	3.8
32	59	39	PRO	3.8
17	8I	92	ARG	3.8
29	21	54	GLN	3.8
28	19	3	VAL	3.8
32	59	92	ILE	3.8
38	98	44	LEU	3.7
44	B5	28	PHE	3.7
35	68	22	ILE	3.7
52	J5	6	VAL	3.7
20	BA	13	LEU	3.7
50	H5	23	LEU	3.7
10	1I	46	ARG	3.7
17	8I	32	TYR	3.7

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Mol	Chain	Res	Type	RSRZ
32	59	119	GLU	3.7
7	6E	86	GLN	3.7
35	25	3	GLN	3.7
52	N8	5	PRO	3.7
7	6E	33	ASP	3.7
36	35	59	LEU	3.7
9	8E	118	LYS	3.7
40	75	35	LYS	3.7
53	L5	4	THR	3.7
32	51	39	PRO	3.7
17	8A	84	LEU	3.7
35	25	37	ASP	3.7
3	22	6	HIS	3.7
3	2E	200	ALA	3.7
5	4E	45	PHE	3.7
28	19	204	ILE	3.7
34	15	116	LEU	3.7
46	H8	155	LEU	3.7
47	E5	11	ARG	3.7
48	F5	95	LEU	3.7
28	19	7	LYS	3.7
3	2E	189	ALA	3.7
21	1B	22	ARG	3.7
3	22	32	LEU	3.7
15	6A	57	LEU	3.7
34	15	138	LEU	3.7
37	88	87	LYS	3.7
48	J8	81	LYS	3.7
54	M5	35	GLN	3.7
7	6E	131	LYS	3.7
17	8A	44	ALA	3.7
31	41	23	PHE	3.7
52	N8	38	ALA	3.7
11	2I	92	GLU	3.7
17	8A	43	LEU	3.7
32	59	46	GLU	3.7
39	65	32	LEU	3.7
34	15	58	ASP	3.7
13	4A	108	ARG	3.7
48	J8	33	LYS	3.7
53	L5	23	ARG	3.7
17	8I	89	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
38	98	6	SER	3.7
38	98	114	VAL	3.7
48	F5	14	VAL	3.7
35	25	44	LYS	3.7
31	49	95	ARG	3.7
30	31	75	HIS	3.7
9	8E	36	TYR	3.7
11	2I	82	VAL	3.7
29	21	195	LEU	3.7
11	2I	81	ASP	3.6
35	25	33	ALA	3.6
43	E8	89	ALA	3.6
6	5E	56	PRO	3.6
17	8A	19	VAL	3.6
32	59	44	VAL	3.6
38	98	100	LEU	3.6
37	45	8	LYS	3.6
4	32	168	ARG	3.6
10	1I	48	THR	3.6
14	5A	19	ARG	3.6
40	75	103	ARG	3.6
3	22	91	LEU	3.6
10	1I	94	VAL	3.6
29	21	116	VAL	3.6
34	58	16	ILE	3.6
32	59	91	GLY	3.6
38	98	69	ASP	3.6
14	5A	22	THR	3.6
35	25	6	THR	3.6
26	1H	2612	C	3.6
7	6E	141	VAL	3.6
10	1A	85	LEU	3.6
12	3A	5	PRO	3.6
17	8I	68	ARG	3.6
30	39	64	ILE	3.6
32	59	19	VAL	3.6
48	F5	62	VAL	3.6
14	5A	51	GLY	3.6
15	6A	50	HIS	3.6
46	D5	27	VAL	3.6
40	B8	68	TYR	3.6
21	1F	3	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
10	1I	59	SER	3.6
17	8I	99	SER	3.6
34	58	73	THR	3.6
38	55	68	ARG	3.6
20	BA	99	LEU	3.6
28	11	92	ILE	3.6
30	31	101	LEU	3.6
32	59	26	VAL	3.6
46	D5	126	VAL	3.6
54	Q8	50	LEU	3.6
37	45	98	LYS	3.6
45	C5	4	LYS	3.6
38	98	47	PHE	3.6
11	2A	32	ILE	3.6
34	15	54	VAL	3.6
38	98	7	GLY	3.6
30	39	69	HIS	3.6
34	15	56	ASN	3.6
4	32	122	ARG	3.6
25	4K	12	A	3.6
53	L5	15	THR	3.6
54	M5	3	LYS	3.6
43	A5	96	ILE	3.6
46	H8	74	VAL	3.6
17	8I	28	PRO	3.6
31	49	11	TYR	3.6
38	55	21	TYR	3.6
30	31	93	LYS	3.6
29	29	70	ALA	3.6
30	39	73	ALA	3.6
30	39	80	ALA	3.6
20	BA	20	LEU	3.6
36	35	123	LEU	3.6
43	A5	50	VAL	3.6
12	3I	5	PRO	3.6
28	11	176	ARG	3.6
53	L5	7	PRO	3.6
29	21	6	GLY	3.5
30	39	181	LEU	3.5
31	41	34	LEU	3.5
5	4E	14	ARG	3.5
35	25	49	ARG	3.5

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Mol	Chain	Res	Type	RSRZ
40	B8	70	VAL	3.5
53	L5	9	ARG	3.5
9	82	70	LYS	3.5
37	45	72	LYS	3.5
17	8A	27	PHE	3.5
6	5E	58	GLY	3.5
5	42	131	ILE	3.5
44	B5	89	ILE	3.5
50	H5	30	ARG	3.5
11	2I	123	LYS	3.5
54	M5	7	HIS	3.5
10	1A	63	PHE	3.5
28	11	6	PHE	3.5
32	51	34	GLU	3.5
37	88	7	MET	3.5
7	62	4	ARG	3.5
11	2I	98	LEU	3.5
11	2I	122	LYS	3.5
34	15	33	LEU	3.5
16	7I	36	ILE	3.5
30	39	57	VAL	3.5
21	1F	17	THR	3.5
10	1A	61	GLU	3.5
30	31	83	PHE	3.5
40	75	45	PHE	3.5
4	3E	68	TYR	3.5
22	1L	73	A	3.5
48	J8	31	GLY	3.5
48	J8	88	LYS	3.5
36	78	31	ALA	3.5
28	19	49	ILE	3.5
52	J5	11	THR	3.5
36	35	50	ARG	3.5
41	85	32	PHE	3.5
11	2I	45	GLY	3.5
17	8A	42	TYR	3.5
32	59	88	LEU	3.5
34	15	107	LEU	3.5
12	3I	7	ILE	3.5
11	2A	91	ARG	3.5
37	45	71	ASP	3.5
46	H8	170	THR	3.5

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Mol	Chain	Res	Type	RSRZ
48	F5	29	GLY	3.5
20	BA	84	LEU	3.5
34	15	26	LEU	3.5
28	11	3	VAL	3.5
34	15	100	GLU	3.5
36	78	70	GLN	3.5
9	8E	128	ARG	3.5
49	K8	15	LYS	3.5
3	2E	165	THR	3.5
37	88	88	GLY	3.5
48	J8	22	GLY	3.5
14	5I	34	TYR	3.5
38	98	10	LEU	3.5
36	35	70	GLN	3.5
46	H8	86	VAL	3.5
50	H5	13	ILE	3.5
25	4K	14	A	3.5
46	H8	87	ASP	3.5
46	H8	104	PHE	3.5
28	19	17	THR	3.5
52	J5	4	HIS	3.5
3	2E	196	LEU	3.5
7	6E	139	GLU	3.5
17	8A	88	TYR	3.5
20	BI	74	LYS	3.5
38	55	65	LEU	3.5
28	19	14	ARG	3.5
34	58	55	VAL	3.5
54	M5	23	VAL	3.5
46	D5	44	PHE	3.5
9	82	71	SER	3.4
48	J8	84	GLY	3.4
13	4A	90	LEU	3.4
16	7I	28	ARG	3.4
47	E5	44	ARG	3.4
2	1E	81	VAL	3.4
17	8A	59	ILE	3.4
40	B8	50	ILE	3.4
48	J8	32	LYS	3.4
20	BA	23	ARG	3.4
55	3L	34	G	3.4
37	88	90	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
37	88	92	GLY	3.4
17	8I	25	ARG	3.4
17	8A	96	GLU	3.4
4	3E	101	LEU	3.4
44	B5	92	LEU	3.4
38	55	101	ALA	3.4
46	H8	151	HIS	3.4
17	8A	65	ILE	3.4
31	49	109	VAL	3.4
34	58	54	VAL	3.4
46	D5	48	PHE	3.4
29	29	124	GLY	3.4
34	15	44	PRO	3.4
36	35	100	LEU	3.4
38	98	75	LEU	3.4
29	29	114	ALA	3.4
46	H8	113	ALA	3.4
46	D5	124	ILE	3.4
49	G5	43	GLN	3.4
53	L5	13	ALA	3.4
17	8I	88	TYR	3.4
43	A5	17	VAL	3.4
21	1F	16	GLY	3.4
30	39	62	ARG	3.4
10	1A	56	HIS	3.4
17	8A	5	VAL	3.4
4	3E	168	ARG	3.4
36	35	18	ARG	3.4
43	E8	88	ARG	3.4
12	3I	23	LYS	3.4
11	2I	62	GLN	3.4
5	42	24	ARG	3.4
36	35	125	VAL	3.4
40	75	64	ARG	3.4
21	1B	16	GLY	3.4
34	15	13	TRP	3.4
46	D5	99	TYR	3.4
12	3I	10	LEU	3.4
32	59	21	PRO	3.4
38	98	17	ARG	3.4
29	21	135	HIS	3.4
34	58	52	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
37	45	94	VAL	3.4
52	J5	3	LYS	3.4
39	A8	92	TYR	3.4
52	N8	44	THR	3.4
2	1E	149	LEU	3.4
17	8I	70	ARG	3.4
48	J8	41	ARG	3.4
50	H5	8	LEU	3.4
54	Q8	32	LEU	3.4
36	35	72	PRO	3.4
3	2E	153	VAL	3.4
4	3E	105	VAL	3.4
12	3A	62	SER	3.4
20	BA	14	LYS	3.4
14	5A	61	TRP	3.4
34	15	39	ARG	3.3
47	E5	14	ARG	3.3
36	35	74	GLU	3.3
9	8E	81	ILE	3.3
11	2I	83	ILE	3.3
28	19	219	PRO	3.3
17	8A	24	GLU	3.3
32	51	27	LYS	3.3
1	1G	1225	A	3.3
4	3E	203	VAL	3.3
20	BA	40	ALA	3.3
38	98	101	ALA	3.3
43	E8	95	ILE	3.3
28	19	176	ARG	3.3
52	N8	4	HIS	3.3
5	4E	133	TYR	3.3
13	4A	73	GLU	3.3
40	B8	99	LEU	3.3
47	E5	10	THR	3.3
11	2I	95	ILE	3.3
17	8A	82	MET	3.3
31	49	160	VAL	3.3
54	M5	22	VAL	3.3
19	AA	55	LYS	3.3
20	BA	79	ARG	3.3
29	29	149	ARG	3.3
37	45	133	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
39	A8	93	LYS	3.3
40	75	98	LYS	3.3
9	82	102	LEU	3.3
11	2A	28	THR	3.3
16	7I	4	ILE	3.3
34	58	85	ILE	3.3
13	4A	80	ARG	3.3
28	19	51	VAL	3.3
30	31	89	VAL	3.3
34	58	83	LYS	3.3
37	45	27	VAL	3.3
46	H8	164	ALA	3.3
52	J5	8	LYS	3.3
9	82	32	ASP	3.3
9	82	56	LEU	3.3
31	49	146	TYR	3.3
28	19	273	ARG	3.3
41	85	17	ILE	3.3
42	D8	70	ILE	3.3
54	M5	29	LYS	3.3
10	1I	63	PHE	3.3
28	19	90	ALA	3.3
31	49	92	VAL	3.3
34	15	92	ALA	3.3
35	25	57	VAL	3.3
38	98	41	ALA	3.3
46	D5	83	PRO	3.3
11	2I	63	LEU	3.3
34	58	107	LEU	3.3
45	C5	67	LEU	3.3
13	4A	104	ARG	3.3
28	19	15	PHE	3.3
32	59	29	PRO	3.3
38	98	39	PRO	3.3
4	3E	138	TYR	3.3
17	8A	74	LEU	3.3
36	35	79	ARG	3.3
5	4E	28	PHE	3.3
36	78	51	PHE	3.3
9	8E	110	GLU	3.3
11	2A	14	VAL	3.3
28	11	18	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
31	41	164	GLU	3.3
35	25	98	VAL	3.3
39	A8	91	PRO	3.3
47	I8	25	ARG	3.3
47	E5	41	ARG	3.3
4	32	19	LEU	3.3
4	32	64	LEU	3.3
4	32	109	GLY	3.3
24	3K	36	U	3.3
28	11	113	VAL	3.3
15	6A	47	LYS	3.3
34	15	73	THR	3.3
43	E8	87	PRO	3.3
31	49	113	ARG	3.3
45	C5	41	GLY	3.3
11	2A	83	ILE	3.2
20	BA	48	LYS	3.2
31	49	102	PHE	3.2
11	2I	73	MET	3.2
13	4A	99	ARG	3.2
46	D5	80	ARG	3.2
28	19	27	THR	3.2
48	J8	27	GLU	3.2
50	H5	27	GLY	3.2
1	1G	1202	G	3.2
3	22	184	TYR	3.2
9	8E	114	TYR	3.2
12	3A	100	ILE	3.2
17	8I	42	TYR	3.2
29	29	122	PHE	3.2
28	19	262	ARG	3.2
30	39	81	PRO	3.2
10	1A	65	LEU	3.2
12	3A	16	GLU	3.2
48	J8	97	LEU	3.2
40	B8	48	ILE	3.2
11	2I	47	VAL	3.2
43	A5	5	ALA	3.2
43	A5	40	ASN	3.2
54	M5	4	MET	3.2
17	8A	20	THR	3.2
30	39	20	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
34	15	81	GLY	3.2
35	68	81	ASP	3.2
38	55	103	ARG	3.2
46	D5	54	HIS	3.2
11	2A	84	VAL	3.2
14	5I	25	VAL	3.2
34	15	55	VAL	3.2
50	H5	9	VAL	3.2
28	19	256	GLY	3.2
3	22	101	LEU	3.2
35	25	25	LEU	3.2
53	L5	31	LEU	3.2
31	49	161	THR	3.2
2	1E	152	PHE	3.2
17	8I	65	ILE	3.2
34	15	122	VAL	3.2
36	35	124	LYS	3.2
43	A5	97	LYS	3.2
53	L5	11	LYS	3.2
38	55	71	GLN	3.2
30	31	41	LEU	3.2
30	39	123	LEU	3.2
43	A5	36	LEU	3.2
44	F8	68	ARG	3.2
31	49	141	PHE	3.2
47	E5	45	PHE	3.2
5	4E	22	GLY	3.2
9	82	111	ARG	3.2
11	2I	120	ARG	3.2
17	8A	53	LEU	3.2
41	85	74	LEU	3.2
30	39	52	LYS	3.2
12	3A	85	ILE	3.2
54	Q8	64	TYR	3.2
34	15	120	LEU	3.2
42	D8	36	PRO	3.2
3	22	35	GLU	3.2
9	8E	120	ARG	3.2
9	82	117	HIS	3.2
46	H8	96	VAL	3.2
4	32	151	LYS	3.2
16	7I	31	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
38	55	5	LYS	3.2
28	19	182	LEU	3.2
34	58	108	PRO	3.2
36	35	62	LEU	3.2
53	L5	5	TRP	3.2
2	1E	80	ILE	3.1
35	25	47	ILE	3.1
17	8A	81	ARG	3.1
28	19	184	LYS	3.1
30	31	69	HIS	3.1
34	15	89	LYS	3.1
48	F5	35	THR	3.1
14	5A	28	GLY	3.1
29	29	115	GLY	3.1
3	22	33	LEU	3.1
3	22	43	LEU	3.1
28	11	147	LEU	3.1
43	A5	19	LEU	3.1
47	E5	75	LEU	3.1
52	J5	25	LEU	3.1
7	6E	103	TRP	3.1
31	49	150	ASP	3.1
1	1G	1226	C	3.1
34	15	109	LYS	3.1
35	25	10	VAL	3.1
14	5A	49	HIS	3.1
9	8E	40	LEU	3.1
17	8I	74	LEU	3.1
19	AA	35	SER	3.1
20	BA	91	LEU	3.1
31	49	12	TYR	3.1
39	65	58	LEU	3.1
17	8I	71	PHE	3.1
17	8A	91	ARG	3.1
34	15	74	ARG	3.1
52	J5	5	PRO	3.1
35	25	66	LYS	3.1
3	22	39	ILE	3.1
19	AA	40	ILE	3.1
36	35	38	GLN	3.1
43	A5	43	GLY	3.1
4	3E	89	THR	3.1

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Mol	Chain	Res	Type	RSRZ
28	19	259	THR	3.1
7	6E	99	LEU	3.1
8	72	119	LEU	3.1
18	9I	40	LEU	3.1
54	M5	60	LEU	3.1
6	5E	47	ARG	3.1
8	72	31	PHE	3.1
17	8A	38	ARG	3.1
19	AA	12	ASP	3.1
30	39	83	PHE	3.1
35	25	38	VAL	3.1
15	6I	70	LEU	3.1
16	7I	35	LYS	3.1
28	11	155	LEU	3.1
38	98	40	LYS	3.1
46	H8	162	GLU	3.1
46	D5	11	GLU	3.1
54	Q8	60	LEU	3.1
46	H8	25	PRO	3.1
50	H5	18	ASP	3.1
37	88	47	ILE	3.1
44	F8	86	GLY	3.1
47	E5	42	GLY	3.1
48	F5	15	ALA	3.1
11	2A	92	GLU	3.1
20	BI	86	ARG	3.1
46	H8	156	LYS	3.1
53	P8	14	LYS	3.1
10	1I	8	LEU	3.1
28	19	206	LEU	3.1
29	21	52	LEU	3.1
51	M8	40	HIS	3.1
5	42	133	TYR	3.1
9	8E	88	TYR	3.1
52	J5	28	PRO	3.1
5	42	109	ILE	3.1
3	2E	155	GLY	3.1
15	6I	63	ARG	3.1
28	11	81	ALA	3.1
35	68	5	GLN	3.1
40	75	112	ARG	3.1
12	3A	93	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
14	5I	44	LEU	3.1
47	E5	57	PHE	3.1
11	2I	59	TYR	3.1
28	11	174	ILE	3.1
41	85	30	LYS	3.1
48	F5	38	SER	3.1
13	4A	95	GLY	3.1
4	32	178	VAL	3.1
15	6A	79	ARG	3.1
5	42	31	LEU	3.1
40	75	114	LEU	3.1
28	11	5	LYS	3.1
29	29	133	LYS	3.1
30	31	70	THR	3.1
4	32	131	ARG	3.1
5	4E	11	ILE	3.1
15	6A	68	ARG	3.1
30	39	78	ILE	3.1
35	25	29	ASN	3.1
29	21	88	GLY	3.1
46	H8	149	SER	3.1
2	12	62	ALA	3.1
50	H5	6	VAL	3.1
36	35	112	LEU	3.1
2	1E	97	TRP	3.1
53	L5	40	TRP	3.1
4	32	73	ARG	3.1
27	1J	88	C	3.1
2	1E	231	GLU	3.1
10	1I	97	GLU	3.1
17	8A	12	SER	3.0
17	8A	73	VAL	3.0
28	19	247	ALA	3.0
35	25	51	ALA	3.0
38	98	97	VAL	3.0
17	8A	3	LYS	3.0
29	21	155	LYS	3.0
38	98	99	LYS	3.0
13	4A	110	ARG	3.0
17	8A	75	ARG	3.0
20	BA	15	ARG	3.0
20	BA	22	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
29	21	136	ARG	3.0
31	49	96	ARG	3.0
28	11	16	MET	3.0
50	L8	13	ILE	3.0
36	35	30	THR	3.0
34	15	83	LYS	3.0
36	78	19	VAL	3.0
11	2I	89	ALA	3.0
48	F5	91	LYS	3.0
34	15	82	LEU	3.0
35	25	78	ARG	3.0
37	45	37	LEU	3.0
38	55	8	ARG	3.0
38	55	10	LEU	3.0
22	1K	74	C	3.0
40	75	48	ILE	3.0
37	88	27	VAL	3.0
38	98	38	VAL	3.0
50	H5	11	SER	3.0
12	3A	77	LEU	3.0
19	AA	36	ARG	3.0
20	BI	10	LEU	3.0
28	19	54	ARG	3.0
47	E5	55	ARG	3.0
39	65	57	LYS	3.0
4	3E	17	VAL	3.0
22	1L	72	C	3.0
4	32	187	ARG	3.0
30	39	54	ARG	3.0
36	35	65	ARG	3.0
20	BA	46	GLU	3.0
28	19	175	LEU	3.0
31	41	102	PHE	3.0
37	88	91	GLU	3.0
39	65	112	PHE	3.0
43	A5	23	LEU	3.0
43	A5	69	LEU	3.0
43	A5	72	LYS	3.0
54	M5	11	LYS	3.0
35	25	56	ASP	3.0
41	85	62	ILE	3.0
47	I8	40	GLN	3.0

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Mol	Chain	Res	Type	RSRZ
10	1I	72	VAL	3.0
14	5A	56	VAL	3.0
30	31	95	ARG	3.0
10	1I	65	LEU	3.0
12	3A	91	LYS	3.0
43	A5	51	LEU	3.0
17	8A	25	ARG	3.0
30	31	82	ILE	3.0
34	15	115	ARG	3.0
48	F5	40	ARG	3.0
3	2E	198	VAL	3.0
4	3E	170	VAL	3.0
5	4E	90	VAL	3.0
7	62	91	VAL	3.0
31	49	87	PRO	3.0
12	3A	65	GLU	3.0
14	5I	37	PHE	3.0
31	41	35	GLU	3.0
31	41	160	VAL	3.0
46	H8	127	LYS	3.0
9	8E	122	ALA	3.0
43	A5	30	GLU	3.0
16	7I	9	PHE	3.0
20	BA	10	LEU	3.0
31	49	27	ASN	3.0
11	2A	45	GLY	3.0
4	3E	158	ILE	3.0
11	2A	95	ILE	3.0
46	D5	37	VAL	3.0
41	C8	2	PRO	3.0
28	19	13	ARG	3.0
37	45	14	ARG	3.0
39	A8	13	ARG	3.0
12	3I	28	LYS	3.0
13	4A	115	LYS	3.0
43	A5	101	SER	3.0
40	75	1	MET	3.0
42	95	1	MET	3.0
30	39	11	VAL	3.0
45	C5	7	VAL	3.0
31	49	62	LEU	2.9
35	25	4	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
37	88	99	PRO	2.9
42	D8	55	ALA	2.9
54	M5	55	ALA	2.9
15	6A	54	ARG	2.9
20	BA	43	LEU	2.9
21	1B	15	ARG	2.9
15	6I	47	LYS	2.9
32	59	140	LYS	2.9
34	58	109	LYS	2.9
43	A5	49	LYS	2.9
47	E5	76	GLY	2.9
1	1G	1453	G	2.9
28	19	214	TRP	2.9
4	32	163	GLU	2.9
14	5I	13	THR	2.9
19	AI	56	GLN	2.9
35	25	69	ILE	2.9
44	F8	89	ILE	2.9
5	42	126	ARG	2.9
21	1F	10	ARG	2.9
30	31	92	PRO	2.9
35	68	84	ALA	2.9
46	D5	172	ALA	2.9
47	I8	24	LYS	2.9
12	3A	88	GLY	2.9
28	19	235	GLY	2.9
37	88	74	TYR	2.9
41	85	24	TYR	2.9
53	L5	6	GLN	2.9
4	32	70	ILE	2.9
28	11	14	ARG	2.9
34	58	53	VAL	2.9
34	15	134	ARG	2.9
43	A5	16	LYS	2.9
44	F8	49	VAL	2.9
46	D5	86	VAL	2.9
49	K8	69	ARG	2.9
53	P8	23	ARG	2.9
35	25	83	ALA	2.9
55	3L	37	A	2.9
13	4A	92	HIS	2.9
38	98	13	HIS	2.9

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Mol	Chain	Res	Type	RSRZ
30	31	81	PRO	2.9
38	98	113	LEU	2.9
35	25	120	GLU	2.9
41	C8	80	ILE	2.9
46	H8	123	ASP	2.9
30	39	63	LYS	2.9
32	51	25	LYS	2.9
38	98	42	LYS	2.9
50	H5	29	ARG	2.9
51	M8	13	ARG	2.9
43	E8	82	LEU	2.9
5	42	81	GLU	2.9
46	D5	137	ILE	2.9
32	59	134	SER	2.9
46	H8	88	PHE	2.9
4	32	101	LEU	2.9
4	32	108	LEU	2.9
4	32	120	LEU	2.9
40	B8	47	GLY	2.9
43	E8	29	LEU	2.9
10	1I	62	HIS	2.9
34	58	104	LYS	2.9
20	BA	17	ARG	2.9
3	22	177	THR	2.9
5	4E	82	VAL	2.9
9	82	59	PHE	2.9
17	8A	97	SER	2.9
28	11	175	LEU	2.9
35	25	53	LYS	2.9
7	6E	3	ARG	2.9
9	8E	111	ARG	2.9
12	3A	97	ARG	2.9
15	6I	64	ARG	2.9
10	1A	50	ILE	2.9
30	31	27	GLU	2.9
37	45	81	VAL	2.9
54	Q8	25	MET	2.9
54	M5	56	GLU	2.9
28	19	155	LEU	2.9
43	A5	39	THR	2.9
28	11	13	ARG	2.9
25	4K	23	A	2.9

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Mol	Chain	Res	Type	RSRZ
6	5E	9	VAL	2.9
17	8I	27	PHE	2.9
29	29	67	PHE	2.9
40	B8	101	PHE	2.9
50	H5	49	LYS	2.9
28	11	168	ARG	2.9
28	19	195	ALA	2.9
31	49	33	ARG	2.9
34	58	26	LEU	2.9
53	L5	22	MET	2.9
36	35	55	ARG	2.9
53	L5	41	ARG	2.9
31	41	26	GLN	2.9
50	H5	19	GLN	2.9
8	7E	80	ILE	2.9
28	19	270	ILE	2.9
32	59	160	LYS	2.9
43	A5	95	ILE	2.9
46	H8	8	TYR	2.9
46	H8	154	ASP	2.9
31	49	28	VAL	2.9
38	55	29	LEU	2.9
44	B5	66	LEU	2.9
53	P8	47	ARG	2.9
53	L5	42	LEU	2.9
19	AI	38	SER	2.8
20	BI	14	LYS	2.8
29	29	138	PRO	2.8
34	58	121	LYS	2.8
2	1E	211	ILE	2.8
32	59	167	GLU	2.8
37	88	42	ILE	2.8
3	22	158	GLY	2.8
7	62	148	ASN	2.8
9	82	14	VAL	2.8
14	5I	18	VAL	2.8
34	15	36	GLY	2.8
37	88	81	VAL	2.8
9	8E	119	ALA	2.8
14	5I	59	ALA	2.8
25	4K	26	A	2.8
30	39	124	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
19	AA	70	LYS	2.8
26	14	125	G	2.8
46	D5	166	SER	2.8
34	15	108	PRO	2.8
45	C5	32	PRO	2.8
48	J8	7	ILE	2.8
53	L5	21	ARG	2.8
7	6E	148	ASN	2.8
40	75	66	VAL	2.8
5	4E	31	LEU	2.8
30	31	156	LEU	2.8
29	21	152	LYS	2.8
49	K8	43	GLN	2.8
10	1A	48	THR	2.8
54	Q8	27	THR	2.8
17	8I	59	ILE	2.8
8	72	131	GLY	2.8
47	I8	69	PHE	2.8
10	1I	71	LEU	2.8
34	15	112	LEU	2.8
38	98	111	LEU	2.8
29	29	123	ALA	2.8
36	35	60	MET	2.8
1	13	1394	A	2.8
20	BI	15	ARG	2.8
28	19	60	ARG	2.8
31	49	118	ARG	2.8
38	98	12	ARG	2.8
46	H8	79	ARG	2.8
54	M5	13	ARG	2.8
42	D8	45	THR	2.8
48	F5	7	ILE	2.8
10	1I	58	ASP	2.8
31	49	105	LYS	2.8
41	C8	34	LYS	2.8
47	I8	57	PHE	2.8
49	G5	37	PHE	2.8
10	1I	44	VAL	2.8
42	95	72	VAL	2.8
2	12	102	LEU	2.8
30	31	24	LEU	2.8
48	J8	42	GLN	2.8

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Mol	Chain	Res	Type	RSRZ
11	2I	91	ARG	2.8
32	59	170	ARG	2.8
2	1E	125	PRO	2.8
48	J8	17	SER	2.8
19	AI	62	ILE	2.8
20	BI	16	HIS	2.8
45	C5	6	HIS	2.8
41	85	56	ASP	2.8
15	6A	32	LEU	2.8
31	41	28	VAL	2.8
37	88	9	TYR	2.8
9	82	29	ASN	2.8
30	39	113	ALA	2.8
46	D5	138	GLU	2.8
41	85	69	CYS	2.8
46	D5	23	LYS	2.8
12	3A	7	ILE	2.8
37	45	23	GLY	2.8
46	D5	167	PRO	2.8
34	58	51	PHE	2.8
26	1H	2015	A	2.8
7	62	104	LEU	2.8
18	9I	76	LEU	2.8
36	35	111	ARG	2.8
38	98	18	LEU	2.8
15	6I	59	MET	2.8
20	BA	30	LYS	2.8
28	19	226	MET	2.8
29	21	154	LYS	2.8
40	B8	65	LYS	2.8
47	E5	19	LYS	2.8
12	3I	29	GLY	2.8
37	88	78	PRO	2.8
2	1E	138	LEU	2.8
9	82	40	LEU	2.8
36	35	19	VAL	2.8
45	G8	86	ARG	2.8
46	H8	126	VAL	2.8
46	D5	20	ARG	2.8
51	M8	3	GLU	2.8
20	BA	39	LYS	2.8
14	5A	48	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
28	11	166	GLN	2.8
30	39	146	ALA	2.8
34	15	57	ALA	2.8
30	39	172	TRP	2.8
35	25	82	ASN	2.8
4	32	29	PRO	2.8
11	2I	35	PRO	2.8
28	11	165	ILE	2.8
12	3A	22	SER	2.8
20	BA	87	LYS	2.8
38	98	43	GLU	2.8
6	5E	14	LEU	2.8
15	6A	39	LEU	2.8
32	59	113	VAL	2.8
38	55	100	LEU	2.8
47	E5	23	VAL	2.8
8	72	58	TYR	2.8
46	D5	170	THR	2.8
30	31	71	GLY	2.7
31	49	100	TRP	2.7
36	35	73	GLY	2.7
7	6E	149	ARG	2.7
9	8E	33	PHE	2.7
20	BA	5	LYS	2.7
28	19	35	LYS	2.7
39	65	20	ARG	2.7
11	2I	30	VAL	2.7
29	29	7	VAL	2.7
35	25	35	VAL	2.7
45	C5	14	LEU	2.7
47	I8	84	LEU	2.7
48	F5	4	VAL	2.7
48	F5	70	VAL	2.7
9	82	27	THR	2.7
11	2I	75	TYR	2.7
14	5A	21	TYR	2.7
48	F5	34	THR	2.7
4	3E	166	LYS	2.7
6	5E	54	LYS	2.7
12	3I	17	LYS	2.7
54	Q8	28	GLY	2.7
9	8E	37	PHE	2.7

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Mol	Chain	Res	Type	RSRZ
11	2I	125	PHE	2.7
17	8A	58	GLU	2.7
28	19	165	ILE	2.7
34	15	16	ILE	2.7
4	32	148	VAL	2.7
38	55	51	LEU	2.7
3	2E	169	ALA	2.7
16	7I	7	ALA	2.7
33	69	83	ALA	2.7
39	A8	2	ALA	2.7
43	A5	7	ALA	2.7
11	2A	96	ARG	2.7
19	AA	44	MET	2.7
28	19	59	LYS	2.7
46	D5	122	ARG	2.7
54	M5	52	LYS	2.7
4	32	145	GLU	2.7
14	5A	8	GLU	2.7
5	42	45	PHE	2.7
26	1H	162	U	2.7
34	15	126	PRO	2.7
29	21	49	LEU	2.7
37	45	90	VAL	2.7
7	62	7	ALA	2.7
9	82	66	ARG	2.7
21	1F	13	ILE	2.7
28	19	135	PHE	2.7
23	2K	77	A	2.7
19	AA	16	LEU	2.7
30	39	93	LYS	2.7
37	88	12	GLN	2.7
37	88	97	VAL	2.7
46	D5	117	LEU	2.7
20	BA	25	ARG	2.7
32	59	152	ARG	2.7
35	25	84	ALA	2.7
10	1I	61	GLU	2.7
16	7I	22	THR	2.7
28	19	16	MET	2.7
38	98	36	THR	2.7
48	J8	34	THR	2.7
5	42	89	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
11	2A	26	ASN	2.7
12	3A	52	LEU	2.7
13	4A	83	ASP	2.7
20	BI	22	ARG	2.7
28	19	36	PRO	2.7
41	C8	90	VAL	2.7
44	F8	83	VAL	2.7
44	B5	65	ARG	2.7
49	K8	60	LEU	2.7
36	35	94	GLU	2.7
9	8E	30	GLY	2.7
28	11	9	TYR	2.7
9	82	120	ARG	2.7
47	E5	77	ARG	2.7
15	6A	31	LEU	2.7
32	59	43	VAL	2.7
35	25	101	PRO	2.7
10	1I	10	GLY	2.7
28	11	163	ALA	2.7
28	19	201	HIS	2.7
41	C8	21	ALA	2.7
34	15	104	LYS	2.7
4	32	68	TYR	2.7
12	3I	33	ARG	2.7
13	4A	91	ARG	2.7
15	6A	37	ASN	2.7
28	19	203	ASN	2.7
20	BA	53	LEU	2.7
28	11	177	LEU	2.7
40	75	63	VAL	2.7
46	D5	119	GLU	2.7
47	E5	71	ASP	2.7
52	N8	6	VAL	2.7
26	14	2795	G	2.7
11	2I	22	HIS	2.7
30	39	75	HIS	2.7
21	1F	22	ARG	2.7
3	2E	39	ILE	2.7
9	82	125	TYR	2.7
48	J8	20	ARG	2.7
4	3E	11	LEU	2.7
4	32	188	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
13	4A	106	ASN	2.7
11	2A	30	VAL	2.7
15	6I	34	LEU	2.7
28	11	4	LYS	2.7
29	29	25	VAL	2.7
37	45	118	LEU	2.7
34	15	125	GLY	2.7
40	75	69	GLY	2.7
7	62	6	ARG	2.7
30	31	90	PHE	2.6
41	85	55	ARG	2.7
36	78	1	MET	2.6
44	B5	18	TYR	2.6
14	5A	46	GLU	2.6
5	42	43	LEU	2.6
6	5E	21	LEU	2.6
11	2I	117	ASN	2.6
31	49	176	LEU	2.6
32	59	144	VAL	2.6
34	15	53	VAL	2.6
46	H8	27	VAL	2.6
4	32	3	ARG	2.6
7	62	32	ARG	2.6
20	BI	40	ALA	2.6
21	1B	6	ARG	2.6
17	8I	34	LYS	2.6
34	58	75	TYR	2.6
38	98	52	ILE	2.6
44	B5	8	ILE	2.6
47	E5	53	MET	2.6
39	A8	94	TYR	2.6
52	J5	13	LYS	2.6
15	6I	56	LEU	2.6
34	15	91	LEU	2.6
50	L8	53	LEU	2.6
4	32	161	ASN	2.6
35	25	85	VAL	2.6
30	39	76	GLY	2.6
37	45	100	GLY	2.6
19	AI	76	PRO	2.6
31	49	112	PRO	2.6
52	J5	19	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
35	25	30	ALA	2.6
3	22	186	PHE	2.6
39	A8	112	PHE	2.6
43	E8	110	LYS	2.6
47	E5	69	PHE	2.6
4	32	179	GLU	2.6
5	4E	13	ILE	2.6
20	BI	55	ILE	2.6
2	1E	115	LEU	2.6
4	3E	64	LEU	2.6
15	6A	34	LEU	2.6
30	31	181	LEU	2.6
41	85	20	LEU	2.6
28	11	173	VAL	2.6
31	49	5	VAL	2.6
34	15	127	ASP	2.6
40	75	34	VAL	2.6
17	8I	94	ASN	2.6
5	42	135	THR	2.6
28	19	50	THR	2.6
48	J8	35	THR	2.6
37	88	136	ALA	2.6
44	B5	88	LYS	2.6
3	22	10	PHE	2.6
15	6A	15	PHE	2.6
31	49	23	PHE	2.6
40	B8	45	PHE	2.6
52	N8	35	GLU	2.6
41	85	72	HIS	2.6
26	1H	2613	U	2.6
4	3E	135	LEU	2.6
5	42	123	LEU	2.6
15	6I	57	LEU	2.6
15	6A	52	SER	2.6
18	9I	79	LEU	2.6
28	19	62	TYR	2.6
41	85	33	ARG	2.6
14	5A	18	VAL	2.6
32	59	45	VAL	2.6
36	35	126	VAL	2.6
46	H8	148	ASP	2.6
15	6I	48	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
26	14	1762	A	2.6
29	21	126	PRO	2.6
29	21	187	ALA	2.6
24	3K	65	C	2.6
31	41	33	ARG	2.6
35	25	5	GLN	2.6
46	H8	133	ILE	2.6
2	1E	209	ARG	2.6
3	2E	91	LEU	2.6
43	E8	69	LEU	2.6
11	2I	71	LYS	2.6
4	3E	37	PRO	2.6
14	5I	8	GLU	2.6
30	39	49	ALA	2.6
34	58	68	GLU	2.6
46	D5	95	PRO	2.6
5	42	26	PHE	2.6
26	1H	2014	A	2.6
35	25	96	THR	2.6
39	65	5	THR	2.6
6	5E	81	ILE	2.6
31	49	63	ILE	2.6
32	59	136	ILE	2.6
10	1I	57	LYS	2.6
28	11	95	LEU	2.6
29	29	181	LEU	2.6
37	88	76	LYS	2.6
32	59	161	GLY	2.6
38	98	98	LEU	2.6
47	E5	37	LEU	2.6
10	1A	58	ASP	2.6
32	59	18	GLU	2.6
11	2I	58	PRO	2.6
19	AI	74	PHE	2.6
48	J8	24	ALA	2.6
48	J8	60	PHE	2.6
10	1I	45	ARG	2.6
34	15	43	THR	2.6
28	11	59	LYS	2.6
28	11	106	ILE	2.6
32	59	25	LYS	2.6
44	F8	87	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
4	3E	94	LEU	2.6
34	58	106	MET	2.6
4	32	20	TYR	2.6
6	5E	63	TYR	2.6
29	21	127	ASP	2.6
30	39	97	TYR	2.6
32	59	34	GLU	2.6
32	59	84	SER	2.6
54	Q8	22	VAL	2.6
9	8E	123	PRO	2.6
34	58	11	PRO	2.6
35	68	99	PHE	2.6
54	Q8	3	LYS	2.6
19	AI	79	THR	2.6
28	11	82	ILE	2.6
8	72	9	MET	2.6
49	K8	53	LEU	2.6
28	19	193	VAL	2.6
36	35	98	GLU	2.6
40	75	109	GLU	2.6
50	H5	50	VAL	2.6
43	E8	38	TYR	2.6
5	4E	26	PHE	2.6
5	4E	88	LYS	2.6
39	65	87	PHE	2.6
41	85	106	PHE	2.6
35	25	13	ASN	2.6
4	3E	204	ILE	2.5
11	2I	99	GLN	2.5
8	7E	133	LEU	2.5
28	11	37	LEU	2.5
34	15	34	LEU	2.5
38	98	79	LEU	2.5
42	D8	35	LEU	2.5
43	E8	23	LEU	2.5
3	2E	151	VAL	2.5
4	32	112	VAL	2.5
15	6A	51	HIS	2.5
26	1H	746	A	2.5
14	5I	26	ARG	2.5
28	11	205	VAL	2.5
30	39	68	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
9	82	92	TYR	2.5
26	1H	748	G	2.5
36	78	16	ARG	2.5
11	2A	43	SER	2.5
31	49	131	TYR	2.5
28	11	67	PHE	2.5
35	25	16	ALA	2.5
10	1I	50	ILE	2.5
19	AI	49	ILE	2.5
2	1E	187	LEU	2.5
4	3E	145	GLU	2.5
4	32	97	LEU	2.5
28	19	133	LEU	2.5
35	68	106	LEU	2.5
47	E5	59	LEU	2.5
50	L8	28	LEU	2.5
5	42	82	VAL	2.5
15	6I	68	ARG	2.5
28	19	20	ASP	2.5
29	29	159	HIS	2.5
32	51	26	VAL	2.5
11	2I	61	ALA	2.5
3	2E	170	GLN	2.5
34	15	133	GLN	2.5
35	68	45	GLU	2.5
4	32	176	LEU	2.5
11	2I	54	ARG	2.5
11	2I	126	ARG	2.5
48	F5	46	LEU	2.5
5	42	90	VAL	2.5
7	62	105	VAL	2.5
28	11	138	VAL	2.5
28	19	140	THR	2.5
45	C5	72	VAL	2.5
19	AA	74	PHE	2.5
7	62	139	GLU	2.5
14	5A	52	GLN	2.5
20	BA	45	GLN	2.5
50	H5	16	PRO	2.5
26	14	770	G	2.5
33	61	71	ILE	2.5
37	45	47	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
31	4I	19	LEU	2.5
5	4E	10	MET	2.5
16	7A	59	TRP	2.5
34	15	42	TRP	2.5
54	Q8	14	VAL	2.5
53	P8	18	PHE	2.5
7	6E	35	LYS	2.5
20	BA	21	LYS	2.5
43	A5	38	TYR	2.5
48	F5	69	LYS	2.5
6	5E	86	ARG	2.5
49	G5	45	SER	2.5
2	1E	94	ASN	2.5
11	2A	40	ILE	2.5
12	3A	25	PRO	2.5
40	75	24	PRO	2.5
44	B5	9	LEU	2.5
28	19	221	VAL	2.5
29	21	150	VAL	2.5
34	58	98	VAL	2.5
46	D5	74	VAL	2.5
48	F5	30	VAL	2.5
34	15	59	LYS	2.5
50	H5	17	LYS	2.5
54	M5	65	GLU	2.5
4	32	27	TYR	2.5
30	39	59	TYR	2.5
41	85	11	ARG	2.5
26	14	687	C	2.5
40	75	67	SER	2.5
53	L5	27	GLY	2.5
5	4E	128	PRO	2.5
9	82	47	LEU	2.5
26	1H	1536	A	2.5
26	14	909	A	2.5
6	5E	90	VAL	2.5
7	6E	137	LYS	2.5
26	1H	1248	G	2.5
34	15	17	ASP	2.5
37	45	129	THR	2.5
52	N8	11	THR	2.5
12	3I	14	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
28	19	9	TYR	2.5
6	5E	48	LEU	2.5
15	6A	70	LEU	2.5
35	68	53	LYS	2.5
36	78	59	LEU	2.5
36	35	138	LEU	2.5
49	G5	64	LEU	2.5
54	M5	59	LYS	2.5
8	7E	95	VAL	2.5
12	3I	43	VAL	2.5
26	1H	747	U	2.5
28	19	67	PHE	2.5
29	29	113	PHE	2.5
32	59	116	GLU	2.5
35	25	64	ARG	2.5
3	22	92	ALA	2.5
11	2I	64	ALA	2.5
45	C5	12	THR	2.5
34	58	78	TYR	2.5
12	3I	94	PRO	2.5
13	4I	90	LEU	2.5
28	11	215	LEU	2.5
30	31	123	LEU	2.5
34	15	15	LEU	2.5
46	D5	120	ILE	2.5
2	1E	164	VAL	2.5
4	32	133	VAL	2.5
10	1I	49	VAL	2.5
10	1A	60	ARG	2.5
45	C5	40	GLU	2.5
53	P8	3	ARG	2.5
25	4L	14	A	2.5
27	16	1(M)	A	2.5
38	55	47	PHE	2.5
4	3E	22	LYS	2.5
4	32	23	GLY	2.5
4	32	167	GLY	2.5
11	2I	69	ALA	2.5
30	39	79	GLY	2.5
20	BA	71	THR	2.5
29	21	90	THR	2.5
31	49	75	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
45	C5	8	LYS	2.5
2	1E	102	LEU	2.5
4	32	96	LEU	2.5
6	5E	61	LEU	2.5
11	2A	108	ILE	2.5
16	7I	33	ILE	2.5
31	49	157	ILE	2.5
39	A8	58	LEU	2.5
46	H8	18	LEU	2.5
46	H8	102	LEU	2.5
46	D5	8	TYR	2.5
47	E5	26	TYR	2.5
28	11	211	ARG	2.4
32	59	32	GLU	2.4
38	98	15	SER	2.4
13	4A	82	MET	2.4
22	1K	3	U	2.4
26	14	2506	U	2.4
28	11	142	VAL	2.4
29	29	104	VAL	2.4
12	3A	47	LYS	2.4
28	19	200	ASP	2.4
48	F5	60	PHE	2.4
43	E8	83	LYS	2.4
31	49	46	ALA	2.4
32	59	31	GLY	2.4
50	L8	14	GLY	2.4
12	3A	61	THR	2.4
2	12	92	TYR	2.4
4	32	21	LEU	2.4
4	32	49	ARG	2.4
17	8I	38	ARG	2.4
29	21	111	ARG	2.4
35	25	114	ILE	2.4
36	35	41	ARG	2.4
4	32	18	LYS	2.4
15	6A	60	VAL	2.4
20	BA	27	LYS	2.4
28	11	35	LYS	2.4
36	35	95	VAL	2.4
14	5A	55	GLY	2.4
29	29	142	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
45	C5	22	GLY	2.4
9	82	55	ALA	2.4
12	3A	30	ALA	2.4
35	25	103	ALA	2.4
36	35	103	ALA	2.4
12	3I	15	ARG	2.4
17	8A	90	ILE	2.4
28	19	181	GLU	2.4
37	88	82	ARG	2.4
39	65	4	LEU	2.4
39	65	82	ILE	2.4
43	A5	99	ARG	2.4
28	19	250	TRP	2.4
9	82	21	PRO	2.4
10	1A	57	LYS	2.4
36	78	64	LYS	2.4
46	D5	141	VAL	2.4
7	6E	34	GLY	2.4
48	F5	11	ARG	2.4
4	32	192	GLU	2.4
17	8I	45	HIS	2.4
1	13	1398	A	2.4
6	52	81	ILE	2.4
8	72	83	ILE	2.4
13	4A	84	ILE	2.4
20	BA	55	ILE	2.4
28	11	270	ILE	2.4
28	19	136	ILE	2.4
30	39	148	LEU	2.4
32	59	90	LYS	2.4
43	A5	41	LYS	2.4
48	J8	18	ILE	2.4
48	F5	10	LYS	2.4
6	52	59	TYR	2.4
12	3A	94	PRO	2.4
52	J5	51	TYR	2.4
17	8A	35	VAL	2.4
40	B8	30	VAL	2.4
43	E8	47	VAL	2.4
11	2I	44	SER	2.4
24	3K	32	U	2.4
48	F5	17	SER	2.4

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Mol	Chain	Res	Type	RSRZ
30	39	23	ASP	2.4
43	E8	34	ASN	2.4
53	L5	17	GLY	2.4
26	1H	790	C	2.4
2	1E	188	ALA	2.4
7	62	36	LYS	2.4
50	L8	20	LYS	2.4
8	7E	10	LEU	2.4
17	8I	6	LEU	2.4
20	BI	41	ILE	2.4
29	21	5	LEU	2.4
29	29	195	LEU	2.4
48	J8	82	LEU	2.4
26	14	685	A	2.4
35	25	34	THR	2.4
37	88	32	TYR	2.4
28	19	113	VAL	2.4
34	15	14	VAL	2.4
4	3E	25	ARG	2.4
20	BI	80	ARG	2.4
45	C5	10	GLY	2.4
28	19	198	ASN	2.4
34	15	10	GLU	2.4
43	A5	4	LYS	2.4
54	M5	15	LYS	2.4
2	1E	98	LEU	2.4
4	32	162	LEU	2.4
20	BA	104	LEU	2.4
31	49	60	LEU	2.4
46	H8	41	LEU	2.4
9	82	33	PHE	2.4
15	6A	38	ARG	2.4
19	AI	59	PRO	2.4
19	AI	60	VAL	2.4
28	19	234	GLY	2.4
30	31	57	VAL	2.4
41	85	2	PRO	2.4
45	C5	20	TYR	2.4
46	D5	42	VAL	2.4
14	5I	7	ILE	2.4
31	41	88	ILE	2.4
31	49	52	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
40	B8	52	ILE	2.4
4	3E	104	VAL	2.4
4	32	170	VAL	2.4
9	8E	41	VAL	2.4
20	BA	29	LYS	2.4
20	BA	86	ARG	2.4
28	11	154	LYS	2.4
36	78	36	LYS	2.4
38	55	9	LYS	2.4
39	A8	87	PHE	2.4
36	35	22	GLY	2.4
48	J8	29	GLY	2.4
52	J5	26	THR	2.4
4	32	181	MET	2.4
11	2A	61	ALA	2.4
31	49	151	ALA	2.4
34	58	92	ALA	2.4
20	BA	72	LEU	2.4
33	69	38	LEU	2.4
34	58	82	LEU	2.4
43	A5	35	ILE	2.4
3	2E	4	LYS	2.4
15	6A	64	ARG	2.4
32	59	132	ARG	2.4
46	H8	20	ARG	2.4
46	H8	36	LYS	2.4
54	Q8	29	LYS	2.4
2	1E	93	VAL	2.4
6	5E	31	GLU	2.4
15	6A	41	GLU	2.4
30	31	97	TYR	2.4
36	35	48	PRO	2.4
42	95	79	VAL	2.4
19	AA	38	SER	2.4
28	19	89	SER	2.4
40	B8	67	SER	2.4
20	BI	24	LEU	2.4
28	11	263	ARG	2.4
37	45	131	ILE	2.4
26	14	246	C	2.4
6	5E	60	PHE	2.3
12	3A	99	HIS	2.3

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Mol	Chain	Res	Type	RSRZ
29	21	122	PHE	2.3
29	29	132	HIS	2.3
9	82	62	TYR	2.3
11	2I	20	TYR	2.3
4	3E	3	ARG	2.3
4	3E	139	ARG	2.3
5	42	121	LYS	2.3
14	5I	17	LYS	2.3
37	88	3	MET	2.3
31	49	91	ARG	2.3
31	49	173	LEU	2.3
37	88	89	ASN	2.3
40	B8	112	ARG	2.3
5	4E	139	LEU	2.3
17	8I	22	LEU	2.3
26	1H	2013	A	2.3
28	19	37	LEU	2.3
28	19	61	LEU	2.3
40	B8	75	ILE	2.3
42	D8	40	LEU	2.3
43	E8	40	ASN	2.3
43	A5	106	ILE	2.3
4	3E	150	GLU	2.3
36	35	144	GLU	2.3
37	45	88	GLY	2.3
3	22	64	VAL	2.3
10	1A	34	VAL	2.3
32	59	24	VAL	2.3
35	25	63	VAL	2.3
47	I8	23	VAL	2.3
48	J8	4	VAL	2.3
15	6A	2	PRO	2.3
26	1H	2611	U	2.3
28	19	202	LYS	2.3
52	N8	8	LYS	2.3
15	6A	65	ARG	2.3
30	39	95	ARG	2.3
5	4E	138	ALA	2.3
9	82	106	ALA	2.3
30	31	48	THR	2.3
44	B5	10	ALA	2.3
5	42	119	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
20	BA	31	SER	2.3
54	Q8	61	LEU	2.3
24	3K	39	G	2.3
1	13	815	A	2.3
4	32	79	PHE	2.3
29	29	145	LYS	2.3
35	68	85	VAL	2.3
37	88	72	LYS	2.3
37	88	102	VAL	2.3
37	45	132	VAL	2.3
44	F8	7	VAL	2.3
12	3A	53	ARG	2.3
35	25	80	ASP	2.3
38	98	104	ARG	2.3
53	L5	39	ARG	2.3
38	98	109	ALA	2.3
45	C5	36	ALA	2.3
8	72	111	ILE	2.3
11	2A	31	THR	2.3
36	78	45	LEU	2.3
38	98	29	LEU	2.3
17	8I	41	LYS	2.3
17	8A	69	LYS	2.3
18	9I	68	LYS	2.3
20	BI	87	LYS	2.3
37	45	30	GLY	2.3
7	6E	153	HIS	2.3
22	1K	73	A	2.3
28	11	185	VAL	2.3
30	39	114	VAL	2.3
40	B8	72	VAL	2.3
54	M5	14	VAL	2.3
12	3A	31	PRO	2.3
30	39	92	PRO	2.3
44	B5	38	GLU	2.3
4	32	196	LEU	2.3
46	D5	61	LEU	2.3
49	K8	16	LEU	2.3
5	42	120	THR	2.3
12	3A	8	ASN	2.3
15	6A	48	LYS	2.3
28	19	10	THR	2.3

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Mol	Chain	Res	Type	RSRZ
39	65	19	LYS	2.3
29	21	148	GLY	2.3
7	62	76	ARG	2.3
32	51	42	ARG	2.3
36	78	18	ARG	2.3
38	98	103	ARG	2.3
40	75	111	ARG	2.3
47	I8	41	ARG	2.3
43	A5	20	VAL	2.3
45	G8	3	VAL	2.3
26	14	245	G	2.3
26	14	247	G	2.3
54	M5	31	HIS	2.3
30	39	27	GLU	2.3
4	3E	18	LYS	2.3
7	6E	16	LEU	2.3
11	2I	55	LYS	2.3
11	2A	20	TYR	2.3
46	D5	169	GLU	2.3
17	8I	67	LYS	2.3
28	11	7	LYS	2.3
39	65	54	LEU	2.3
46	D5	171	ILE	2.3
30	31	74	ARG	2.3
31	41	178	PHE	2.3
38	55	17	ARG	2.3
40	75	22	PHE	2.3
8	7E	137	VAL	2.3
11	2A	93	GLN	2.3
34	15	103	VAL	2.3
38	55	97	VAL	2.3
42	D8	46	VAL	2.3
11	2I	36	ASP	2.3
14	5A	50	LYS	2.3
17	8A	52	LYS	2.3
20	BA	58	LYS	2.3
28	11	39	LYS	2.3
46	D5	25	PRO	2.3
55	3L	33	U	2.3
1	1G	1224	G	2.3
22	1L	4	G	2.3
26	14	686	G	2.3

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Mol	Chain	Res	Type	RSRZ
4	3E	58	LEU	2.3
13	4A	76	ALA	2.3
29	21	117	MET	2.3
29	29	52	LEU	2.3
29	29	162	ALA	2.3
30	31	198	ALA	2.3
54	M5	62	LEU	2.3
5	42	14	ARG	2.3
29	29	79	ARG	2.3
30	39	74	ARG	2.3
29	21	113	PHE	2.3
5	42	105	VAL	2.3
28	19	117	VAL	2.3
40	75	30	VAL	2.3
44	F8	51	VAL	2.3
12	3I	13	LYS	2.3
44	F8	88	LYS	2.3
4	32	37	PRO	2.3
26	14	2611	U	2.3
34	15	101	HIS	2.3
4	32	35	ARG	2.3
6	52	10	LEU	2.3
7	62	101	LEU	2.3
16	7I	49	LEU	2.3
36	35	1	MET	2.3
36	35	21	ARG	2.3
38	55	22	ARG	2.3
41	C8	86	ALA	2.3
47	I8	61	ALA	2.3
47	I8	82	ARG	2.3
1	13	1511	G	2.3
12	3A	87	GLY	2.3
40	B8	110	ILE	2.3
47	E5	13	GLY	2.3
7	62	28	ASN	2.3
37	45	11	LYS	2.3
39	A8	59	LYS	2.3
17	8I	19	VAL	2.3
38	98	50	HIS	2.3
29	29	53	PRO	2.3
49	K8	68	ARG	2.3
7	6E	144	MET	2.3

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Mol	Chain	Res	Type	RSRZ
28	19	153	ALA	2.3
10	1I	96	ILE	2.3
29	21	124	GLY	2.3
41	C8	17	ILE	2.3
44	B5	1	MET	2.3
46	D5	98	MET	2.3
46	D5	173	ALA	2.3
24	3K	37	A	2.3
26	1H	750	A	2.3
26	14	2014	A	2.3
28	11	78	LYS	2.3
35	68	31	LYS	2.3
37	45	63	LYS	2.3
54	M5	48	PHE	2.3
26	14	508	G	2.3
11	2I	31	THR	2.2
14	5I	22	THR	2.2
30	39	84	VAL	2.2
28	19	12	SER	2.2
30	31	50	SER	2.2
39	A8	10	ARG	2.2
6	5E	83	ASP	2.2
26	14	958	U	2.2
37	88	25	ASP	2.2
4	3E	78	LEU	2.2
4	32	165	MET	2.2
11	2I	72	ALA	2.2
17	8A	31	LEU	2.2
19	AI	75	ALA	2.2
28	11	61	LEU	2.2
31	41	135	LEU	2.2
34	58	84	LYS	2.2
36	78	6	LEU	2.2
38	55	44	LEU	2.2
38	55	54	LEU	2.2
48	J8	36	GLY	2.2
52	J5	7	PRO	2.2
35	25	77	ILE	2.2
52	N8	40	LYS	2.2
7	62	26	PHE	2.2
29	21	160	TYR	2.2
41	85	89	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
19	AA	37	ARG	2.2
21	1B	10	ARG	2.2
28	19	217	ARG	2.2
35	68	17	ARG	2.2
4	32	184	LYS	2.2
10	1I	55	LYS	2.2
11	2I	119	CYS	2.2
15	6A	46	HIS	2.2
36	78	29	LYS	2.2
42	D8	84	LYS	2.2
31	49	69	ALA	2.2
35	25	36	GLY	2.2
38	55	75	LEU	2.2
43	A5	108	GLY	2.2
7	62	8	GLU	2.2
11	2A	62	GLN	2.2
12	3A	86	ARG	2.2
48	F5	49	VAL	2.2
11	2I	66	LEU	2.2
26	1H	2581	G	2.2
44	F8	85	PRO	2.2
46	H8	125	LEU	2.2
10	1A	86	MET	2.2
10	1A	98	ILE	2.2
15	6A	36	ILE	2.2
15	6A	82	ILE	2.2
48	J8	37	ILE	2.2
35	25	107	ARG	2.2
1	1G	163	C	2.2
11	2A	114	VAL	2.2
12	3I	47	LYS	2.2
17	8I	17	LYS	2.2
28	11	150	LYS	2.2
29	21	188	VAL	2.2
44	F8	52	VAL	2.2
44	B5	12	VAL	2.2
48	J8	62	VAL	2.2
3	22	165	THR	2.2
20	BA	50	GLU	2.2
28	11	10	THR	2.2
46	D5	154	ASP	2.2
39	A8	48	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
4	3E	93	PHE	2.2
34	15	79	PRO	2.2
46	D5	53	ILE	2.2
54	Q8	58	ILE	2.2
4	3E	114	ARG	2.2
5	4E	15	ARG	2.2
17	8I	26	GLN	2.2
24	3K	4	G	2.2
29	21	64	LYS	2.2
48	J8	92	LYS	2.2
28	11	250	TRP	2.2
30	31	199	TRP	2.2
28	19	145	VAL	2.2
40	B8	66	VAL	2.2
41	85	8	VAL	2.2
45	G8	42	VAL	2.2
50	H5	47	VAL	2.2
53	L5	30	VAL	2.2
1	1G	913	A	2.2
4	3E	19	LEU	2.2
37	88	48	GLU	2.2
38	55	111	LEU	2.2
42	95	39	LEU	2.2
43	A5	78	GLU	2.2
11	2A	41	THR	2.2
45	G8	67	LEU	2.2
13	4I	104	ARG	2.2
28	11	69	ARG	2.2
32	59	162	ILE	2.2
34	58	117	PHE	2.2
37	88	66	ILE	2.2
37	45	64	ILE	2.2
39	A8	72	ALA	2.2
50	H5	44	ARG	2.2
8	7E	1	MET	2.2
34	15	106	MET	2.2
37	88	83	MET	2.2
12	3A	101	VAL	2.2
34	58	103	VAL	2.2
14	5I	27	CYS	2.2
8	7E	2	LEU	2.2
15	6I	37	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
20	BA	36	LEU	2.2
28	19	48	ARG	2.2
39	65	3	ARG	2.2
41	85	10	ARG	2.2
4	32	67	ILE	2.2
14	5A	60	SER	2.2
20	BI	19	SER	2.2
34	58	30	ILE	2.2
38	98	37	THR	2.2
51	M8	31	ILE	2.2
19	AA	47	HIS	2.2
26	14	1614	A	2.2
52	N8	7	PRO	2.2
13	4I	117	VAL	2.2
37	88	96	VAL	2.2
46	H8	105	VAL	2.2
4	3E	34	GLU	2.2
37	45	80	GLU	2.2
3	22	30	ARG	2.2
31	41	75	LYS	2.2
32	59	27	LYS	2.2
41	C8	16	LYS	2.2
34	58	116	LEU	2.2
38	98	116	LEU	2.2
43	A5	65	LEU	2.2
45	C5	11	ASP	2.2
3	22	61	ALA	2.2
26	1H	2016	U	2.2
26	1H	2506	U	2.2
48	J8	80	LEU	2.2
11	2A	48	ILE	2.2
13	4I	5	ALA	2.2
30	39	22	ALA	2.2
8	72	89	PRO	2.2
30	39	51	THR	2.2
35	25	28	SER	2.2
36	78	68	GLN	2.2
36	35	56	SER	2.2
50	H5	52	HIS	2.2
1	13	344	A	2.2
2	1E	71	VAL	2.2
4	32	8	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
12	3A	17	LYS	2.2
14	5A	11	LYS	2.2
17	8A	56	VAL	2.2
28	19	23	GLU	2.2
30	31	52	LYS	2.2
30	39	88	VAL	2.2
37	45	86	GLY	2.2
38	98	68	ARG	2.2
40	75	39	ARG	2.2
50	H5	7	LYS	2.2
2	12	163	PHE	2.2
37	88	69	PHE	2.2
41	C8	83	LEU	2.2
7	62	30	ILE	2.2
28	11	93	ALA	2.2
42	95	77	ALA	2.2
11	2I	77	MET	2.2
28	19	58	HIS	2.2
34	58	44	PRO	2.2
38	98	95	THR	2.2
7	62	74	GLU	2.2
12	3I	46	LYS	2.2
14	5A	57	ARG	2.2
28	19	258	LYS	2.2
30	39	137	LYS	2.2
39	A8	11	LYS	2.2
46	D5	43	GLU	2.2
1	13	1434	A	2.2
4	32	17	VAL	2.2
47	I8	44	ARG	2.2
32	59	108	GLY	2.1
15	6A	56	LEU	2.1
17	8I	31	LEU	2.1
31	41	80	PHE	2.1
35	68	79	PHE	2.1
16	7I	19	ILE	2.1
38	98	19	ALA	2.1
43	E8	24	ILE	2.1
1	13	769	G	2.1
11	2A	18	ARG	2.1
15	6I	72	ARG	2.1
15	6A	59	MET	2.1

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Mol	Chain	Res	Type	RSRZ
49	K8	66	GLU	2.1
9	8E	8	GLY	2.1
17	8I	23	VAL	2.1
43	A5	10	VAL	2.1
26	14	1536	A	2.1
30	39	77	ASP	2.1
41	85	91	ASP	2.1
3	2E	160	ALA	2.1
11	2I	70	LYS	2.1
32	59	72	ILE	2.1
32	59	165	ALA	2.1
17	8I	12	SER	2.1
43	A5	13	SER	2.1
29	29	130	GLY	2.1
30	31	88	VAL	2.1
46	D5	47	VAL	2.1
46	D5	114	GLY	2.1
47	I8	81	VAL	2.1
7	6E	101	LEU	2.1
7	62	99	LEU	2.1
12	3A	10	LEU	2.1
52	N8	3	LYS	2.1
52	J5	9	LYS	2.1
54	Q8	8	LYS	2.1
54	Q8	44	LYS	2.1
29	29	176	ILE	2.1
37	45	82	ARG	2.1
47	I8	36	ILE	2.1
53	L5	44	PRO	2.1
9	82	28	VAL	2.1
34	15	38	HIS	2.1
45	C5	37	VAL	2.1
5	4E	9	LYS	2.1
9	82	114	TYR	2.1
10	1I	88	LEU	2.1
38	55	18	LEU	2.1
35	68	108	GLU	2.1
37	45	101	ARG	2.1
39	A8	12	PHE	2.1
40	75	32	TYR	2.1
9	82	42	ARG	2.1
35	25	46	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
36	78	38	GLN	2.1
43	A5	42	ARG	2.1
26	14	196	A	2.1
26	14	2015	A	2.1
30	31	73	ALA	2.1
43	E8	81	ALA	2.1
3	2E	150	LYS	2.1
4	3E	180	GLY	2.1
5	4E	55	VAL	2.1
13	4I	27	LYS	2.1
19	AA	8	GLY	2.1
28	19	197	GLY	2.1
28	19	236	GLY	2.1
30	39	147	GLY	2.1
17	8A	79	SER	2.1
38	98	48	VAL	2.1
39	65	85	VAL	2.1
52	J5	45	VAL	2.1
2	1E	215	LEU	2.1
6	52	33	TYR	2.1
12	3A	59	ARG	2.1
20	BI	72	LEU	2.1
49	K8	35	LEU	2.1
2	1E	95	GLN	2.1
28	19	271	ILE	2.1
43	A5	12	ILE	2.1
53	L5	36	GLN	2.1
3	2E	26	LYS	2.1
28	19	261	LYS	2.1
17	8A	33	GLY	2.1
44	B5	32	PRO	2.1
35	25	102	VAL	2.1
43	A5	76	VAL	2.1
8	72	91	ARG	2.1
15	6I	46	HIS	2.1
30	31	62	ARG	2.1
40	B8	108	ARG	2.1
28	11	23	GLU	2.1
39	A8	73	LEU	2.1
9	82	75	ASP	2.1
37	45	9	TYR	2.1
44	B5	26	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
29	29	77	ILE	2.1
26	14	771	G	2.1
42	95	78	LYS	2.1
46	H8	14	LYS	2.1
54	Q8	11	LYS	2.1
54	M5	21	LYS	2.1
7	6E	31	MET	2.1
11	2A	126	ARG	2.1
12	3I	89	ARG	2.1
21	1B	23	PRO	2.1
28	19	87	ASN	2.1
46	H8	106	GLY	2.1
29	21	47	VAL	2.1
41	85	3	ARG	2.1
52	J5	55	ARG	2.1
53	P8	46	VAL	2.1
9	8E	50	LEU	2.1
9	8E	102	LEU	2.1
11	2A	63	LEU	2.1
29	21	140	SER	2.1
52	J5	23	HIS	2.1
29	21	181	LEU	2.1
41	C8	32	PHE	2.1
41	85	60	LEU	2.1
47	I8	37	LEU	2.1
9	8E	112	LYS	2.1
31	41	74	LYS	2.1
36	35	81	GLN	2.1
34	58	71	ILE	2.1
35	25	12	ASP	2.1
40	B8	102	ILE	2.1
47	I8	26	TYR	2.1
43	A5	54	ALA	2.1
45	C5	16	ALA	2.1
48	J8	67	ILE	2.1
28	19	223	GLY	2.1
53	L5	12	ARG	2.1
54	Q8	46	ARG	2.1
5	4E	33	VAL	2.1
6	5E	84	ASN	2.1
17	8A	78	GLU	2.1
30	31	84	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
30	39	187	VAL	2.1
31	41	30	GLU	2.1
2	1E	156	LYS	2.1
5	42	28	PHE	2.1
7	62	43	PHE	2.1
7	62	103	TRP	2.1
11	2I	103	LEU	2.1
12	3I	32	PHE	2.1
14	5A	9	LYS	2.1
15	6A	81	LEU	2.1
18	9I	85	LEU	2.1
32	59	71	LEU	2.1
34	58	33	LEU	2.1
40	B8	114	LEU	2.1
44	F8	9	LEU	2.1
46	D5	14	LYS	2.1
34	15	47	ALA	2.1
35	68	19	ILE	2.1
8	72	55	GLY	2.1
2	1E	147	LYS	2.1
4	3E	8	VAL	2.1
39	A8	28	VAL	2.1
40	75	73	GLU	2.1
12	3A	57	LYS	2.1
17	8I	4	LYS	2.1
43	E8	97	LYS	2.1
46	D5	165	VAL	2.1
1	13	900	A	2.0
17	8A	26	GLN	2.0
31	49	172	LEU	2.0
32	59	7	LEU	2.0
33	61	116	LEU	2.0
43	A5	29	LEU	2.0
25	4L	25	A	2.0
26	1H	1761	C	2.0
26	14	861	A	2.0
3	22	193	TYR	2.0
7	6E	120	ILE	2.0
7	6E	134	ALA	2.0
12	3A	34	ARG	2.0
29	29	136	ARG	2.0
30	31	59	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
30	31	80	ALA	2.0
44	F8	5	TYR	2.0
48	F5	63	ALA	2.0
44	F8	48	LYS	2.0
46	D5	60	GLU	2.0
5	42	100	VAL	2.0
7	6E	73	MET	2.0
30	31	94	PRO	2.0
48	J8	16	ASN	2.0
52	J5	27	PRO	2.0
8	7E	63	LEU	2.0
28	19	46	GLN	2.0
1	1G	811	C	2.0
12	3A	70	ILE	2.0
14	5I	32	SER	2.0
15	6A	72	ARG	2.0
22	1L	2	C	2.0
26	14	2581	G	2.0
29	21	79	ARG	2.0
40	75	110	ILE	2.0
44	F8	76	ARG	2.0
48	F5	13	ILE	2.0
54	Q8	13	ARG	2.0
26	14	1354	A	2.0
13	4A	105	THR	2.0
41	85	34	LYS	2.0
28	11	196	VAL	2.0
38	55	114	VAL	2.0
40	B8	34	VAL	2.0
50	L8	50	VAL	2.0
3	22	162	GLN	2.0
34	58	87	LEU	2.0
38	98	70	LEU	2.0
21	1F	9	ARG	2.0
31	41	22	ARG	2.0
5	4E	89	ILE	2.0
6	5E	52	ILE	2.0
14	5I	58	LYS	2.0
34	15	29	LYS	2.0
35	25	39	ILE	2.0
46	D5	78	LYS	2.0
11	2A	49	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
28	19	199	ALA	2.0
28	19	210	GLY	2.0
37	45	24	GLY	2.0
40	75	97	ALA	2.0
44	B5	46	ALA	2.0
1	13	1513	A	2.0
26	1H	1762	A	2.0
28	19	97	TYR	2.0
36	35	57	THR	2.0
7	6E	69	VAL	2.0
35	25	24	VAL	2.0
44	F8	81	VAL	2.0
4	3E	185	PHE	2.0
4	32	93	PHE	2.0
7	6E	43	PHE	2.0
9	8E	47	LEU	2.0
16	7A	6	LEU	2.0
29	29	147	PRO	2.0
29	29	182	LEU	2.0
35	25	23	ARG	2.0
44	B5	13	LEU	2.0
47	E5	20	ARG	2.0
54	M5	32	LEU	2.0
11	2A	71	LYS	2.0
31	41	36	LYS	2.0
36	35	29	LYS	2.0
9	8E	15	ALA	2.0
29	21	3	GLY	2.0
30	39	56	GLU	2.0
31	41	137	GLU	2.0
35	68	69	ILE	2.0
35	25	100	GLY	2.0
36	35	47	ASP	2.0
41	85	14	HIS	2.0
29	21	157	ALA	2.0
48	F5	31	GLY	2.0
1	13	1367	C	2.0
4	32	207	TYR	2.0
34	15	75	TYR	2.0
3	2E	15	THR	2.0
26	14	751	A	2.0
42	95	82	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
46	D5	96	VAL	2.0
3	22	37	GLN	2.0
16	7I	73	LEU	2.0
31	41	82	LEU	2.0
34	58	34	LEU	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
22	H2U	1L	17	20/21	0.46	0.39	153,166,172,174	0
22	H2U	1K	17	20/21	0.54	0.26	153,168,175,178	0
55	PSU	3L	55	20/21	0.87	0.11	140,146,152,152	0
22	PSU	1L	55	20/21	0.90	0.10	122,134,145,147	0
23	4SU	2L	8	20/21	0.90	0.12	99,111,114,120	0
55	5MU	3L	54	21/22	0.91	0.09	136,142,145,152	0
22	5MU	1L	54	21/22	0.92	0.11	122,128,134,140	0
23	7MG	2L	47	24/25	0.92	0.13	113,120,131,141	0
22	5MU	1K	54	21/22	0.93	0.15	100,111,121,127	0
23	PSU	2L	56	20/21	0.93	0.10	108,116,121,124	0
23	4SU	2K	8	20/21	0.94	0.14	85,93,98,99	0
23	7MG	2K	47	24/25	0.94	0.15	94,102,111,114	0
23	5MU	2K	55	21/22	0.95	0.15	99,109,114,119	0
23	PSU	2K	56	20/21	0.95	0.10	96,104,114,115	0
22	PSU	1K	55	20/21	0.95	0.11	104,115,130,130	0
23	OMC	2L	33	21/22	0.96	0.16	93,95,98,101	0
22	AET	1L	37	33/34	0.96	0.23	94,112,119,124	0
23	OMC	2K	33	21/22	0.96	0.30	71,78,80,88	0
22	AET	1K	37	33/34	0.97	0.24	69,82,106,115	0
23	5MU	2L	55	21/22	0.98	0.10	116,121,123,124	0

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands i

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	1G	1666	1/1	0.12	0.09	122,122,122,122	0
56	MG	1G	1663	1/1	0.13	0.34	100,100,100,100	0
56	MG	14	3245	1/1	0.40	0.42	104,104,104,104	0
56	MG	13	1726	1/1	0.41	0.27	99,99,99,99	0
56	MG	1H	3448	1/1	0.43	0.20	96,96,96,96	0
56	MG	1H	3430	1/1	0.44	0.34	80,80,80,80	0
56	MG	13	1763	1/1	0.44	0.56	131,131,131,131	0
56	MG	68	201	1/1	0.44	0.19	84,84,84,84	0
56	MG	1H	3345	1/1	0.47	0.26	87,87,87,87	0
56	MG	1H	3340	1/1	0.48	0.33	83,83,83,83	0
56	MG	14	3216	1/1	0.48	0.18	91,91,91,91	0
56	MG	13	1674	1/1	0.48	0.17	101,101,101,101	0
56	MG	14	3053	1/1	0.49	0.20	72,72,72,72	0
56	MG	BA	202	1/1	0.51	3.85	113,113,113,113	0
56	MG	13	1606	1/1	0.51	0.19	81,81,81,81	0
56	MG	13	1682	1/1	0.51	0.29	116,116,116,116	0
56	MG	13	1711	1/1	0.51	0.26	114,114,114,114	0
56	MG	13	1662	1/1	0.53	0.29	105,105,105,105	0
56	MG	68	202	1/1	0.53	0.19	90,90,90,90	0
56	MG	14	3179	1/1	0.54	0.43	83,83,83,83	0
56	MG	1H	3294	1/1	0.55	0.16	112,112,112,112	0
56	MG	35	201	1/1	0.55	0.20	84,84,84,84	0
56	MG	14	3211	1/1	0.56	0.26	111,111,111,111	0
56	MG	1G	1674	1/1	0.56	0.16	106,106,106,106	0
56	MG	14	3178	1/1	0.56	0.40	85,85,85,85	0
56	MG	1H	3301	1/1	0.56	0.19	95,95,95,95	0
56	MG	14	3193	1/1	0.57	0.20	88,88,88,88	0
56	MG	14	3201	1/1	0.57	0.38	91,91,91,91	0
56	MG	16	209	1/1	0.57	0.22	81,81,81,81	0
56	MG	1H	3481	1/1	0.58	0.13	122,122,122,122	0
56	MG	14	3427	1/1	0.58	0.08	104,104,104,104	0
56	MG	1H	3608	1/1	0.58	0.08	110,110,110,110	0
56	MG	1H	3176	1/1	0.59	0.27	93,93,93,93	0
56	MG	1H	3445	1/1	0.59	0.34	90,90,90,90	0
56	MG	1G	1661	1/1	0.60	0.18	94,94,94,94	0
56	MG	1H	3241	1/1	0.60	0.21	93,93,93,93	0
56	MG	1J	205	1/1	0.60	0.17	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	1H	3523	1/1	0.60	0.18	82,82,82,82	0
56	MG	13	1706	1/1	0.61	1.38	111,111,111,111	0
56	MG	1H	3186	1/1	0.61	0.28	97,97,97,97	0
56	MG	1H	3463	1/1	0.61	0.07	101,101,101,101	0
56	MG	1H	3093	1/1	0.61	0.20	56,56,56,56	0
56	MG	1H	3172	1/1	0.61	0.40	96,96,96,96	0
56	MG	1H	3177	1/1	0.62	0.36	79,79,79,79	0
56	MG	13	1631	1/1	0.62	0.08	88,88,88,88	0
56	MG	14	3424	1/1	0.62	0.09	94,94,94,94	0
56	MG	1H	3193	1/1	0.62	0.31	89,89,89,89	0
56	MG	14	3029	1/1	0.62	0.20	96,96,96,96	0
56	MG	1H	3138	1/1	0.62	0.23	75,75,75,75	0
56	MG	1H	3139	1/1	0.63	0.24	79,79,79,79	0
56	MG	16	213	1/1	0.63	0.09	98,98,98,98	0
56	MG	1G	1643	1/1	0.63	0.26	92,92,92,92	0
56	MG	1G	1630	1/1	0.64	0.18	95,95,95,95	0
56	MG	1H	3337	1/1	0.64	0.14	99,99,99,99	0
56	MG	55	201	1/1	0.64	0.31	85,85,85,85	0
56	MG	14	3292	1/1	0.65	0.19	88,88,88,88	0
56	MG	13	1804	1/1	0.65	0.14	137,137,137,137	0
56	MG	1H	3479	1/1	0.65	0.12	107,107,107,107	0
56	MG	1H	3328	1/1	0.65	0.27	86,86,86,86	0
56	MG	1H	3021	1/1	0.65	0.29	67,67,67,67	0
56	MG	13	1667	1/1	0.65	0.22	86,86,86,86	0
56	MG	13	1764	1/1	0.66	0.52	128,128,128,128	0
56	MG	14	3278	1/1	0.66	0.23	74,74,74,74	0
56	MG	1G	1672	1/1	0.66	0.36	96,96,96,96	0
56	MG	13	1608	1/1	0.66	0.12	111,111,111,111	0
56	MG	1H	3227	1/1	0.67	0.21	99,99,99,99	0
56	MG	5I	101	1/1	0.67	0.29	85,85,85,85	0
56	MG	14	3047	1/1	0.67	0.26	80,80,80,80	0
56	MG	1H	3292	1/1	0.67	0.19	108,108,108,108	0
56	MG	13	1619	1/1	0.67	0.11	95,95,95,95	0
56	MG	1G	1675	1/1	0.67	0.20	92,92,92,92	0
56	MG	1G	1715	1/1	0.68	0.07	119,119,119,119	0
56	MG	1G	1651	1/1	0.68	0.22	107,107,107,107	0
56	MG	14	3235	1/1	0.68	0.19	88,88,88,88	0
56	MG	16	211	1/1	0.68	0.31	79,79,79,79	0
56	MG	1H	3307	1/1	0.68	0.31	89,89,89,89	0
56	MG	1G	1665	1/1	0.68	0.17	107,107,107,107	0
56	MG	1H	3205	1/1	0.68	0.49	94,94,94,94	0
56	MG	1H	3333	1/1	0.68	0.51	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3183	1/1	0.68	0.21	96,96,96,96	0
56	MG	13	1741	1/1	0.68	0.27	99,99,99,99	0
56	MG	1H	3053	1/1	0.68	0.17	53,53,53,53	0
56	MG	13	1670	1/1	0.69	0.11	84,84,84,84	0
56	MG	1H	3465	1/1	0.69	0.11	111,111,111,111	0
56	MG	1G	1654	1/1	0.69	0.14	98,98,98,98	0
56	MG	13	1737	1/1	0.69	0.20	79,79,79,79	0
56	MG	1H	3248	1/1	0.69	0.19	86,86,86,86	0
56	MG	14	3286	1/1	0.69	0.29	93,93,93,93	0
56	MG	16	207	1/1	0.70	0.25	110,110,110,110	0
56	MG	13	1788	1/1	0.70	0.08	123,123,123,123	0
56	MG	1H	3264	1/1	0.70	0.87	74,74,74,74	0
56	MG	1H	3482	1/1	0.70	0.07	142,142,142,142	0
56	MG	1H	3332	1/1	0.70	0.79	83,83,83,83	0
56	MG	1H	3266	1/1	0.70	0.28	83,83,83,83	0
56	MG	25	201	1/1	0.70	0.04	123,123,123,123	0
56	MG	1G	1604	1/1	0.70	0.21	87,87,87,87	0
56	MG	16	206	1/1	0.70	0.21	80,80,80,80	0
56	MG	14	3023	1/1	0.71	0.22	82,82,82,82	0
56	MG	1H	3265	1/1	0.71	0.19	72,72,72,72	0
56	MG	1H	3459	1/1	0.71	0.35	102,102,102,102	0
56	MG	1H	3070	1/1	0.71	0.15	78,78,78,78	0
56	MG	14	3229	1/1	0.71	0.36	92,92,92,92	0
56	MG	1H	3268	1/1	0.71	0.18	86,86,86,86	0
56	MG	1H	3252	1/1	0.71	0.10	102,102,102,102	0
56	MG	13	1686	1/1	0.71	0.60	129,129,129,129	0
56	MG	1G	1667	1/1	0.72	0.65	104,104,104,104	0
56	MG	14	3277	1/1	0.72	0.22	90,90,90,90	0
56	MG	1H	3185	1/1	0.72	0.21	87,87,87,87	0
56	MG	1H	3419	1/1	0.72	0.21	77,77,77,77	0
56	MG	1H	3426	1/1	0.72	0.29	80,80,80,80	0
56	MG	1H	3293	1/1	0.72	0.31	95,95,95,95	0
56	MG	1G	1722	1/1	0.72	0.51	111,111,111,111	0
56	MG	13	1696	1/1	0.72	2.85	104,104,104,104	0
56	MG	13	1689	1/1	0.72	0.64	105,105,105,105	0
56	MG	1H	3575	1/1	0.72	0.10	63,63,63,63	0
56	MG	1H	3283	1/1	0.72	0.24	79,79,79,79	0
56	MG	14	3206	1/1	0.73	0.27	87,87,87,87	0
56	MG	13	1712	1/1	0.73	1.39	106,106,106,106	0
56	MG	14	3318	1/1	0.73	0.14	84,84,84,84	0
56	MG	1G	1696	1/1	0.73	0.29	103,103,103,103	0
56	MG	13	1690	1/1	0.73	0.12	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3269	1/1	0.73	0.28	80,80,80,80	0
56	MG	1H	3055	1/1	0.73	0.12	69,69,69,69	0
56	MG	13	1748	1/1	0.73	0.08	122,122,122,122	0
56	MG	13	1727	1/1	0.73	0.19	103,103,103,103	0
56	MG	1G	1605	1/1	0.74	0.16	105,105,105,105	0
56	MG	14	3215	1/1	0.74	0.26	94,94,94,94	0
56	MG	13	1673	1/1	0.74	0.27	88,88,88,88	0
56	MG	1G	1642	1/1	0.74	0.21	110,110,110,110	0
56	MG	1H	3564	1/1	0.74	0.18	95,95,95,95	0
56	MG	1H	3219	1/1	0.74	0.46	98,98,98,98	0
56	MG	14	3262	1/1	0.74	0.43	87,87,87,87	0
56	MG	1H	3441	1/1	0.74	0.10	115,115,115,115	0
56	MG	13	1607	1/1	0.74	0.20	78,78,78,78	0
56	MG	1H	3235	1/1	0.74	0.24	66,66,66,66	0
56	MG	14	3073	1/1	0.74	0.15	72,72,72,72	0
56	MG	14	3300	1/1	0.74	0.21	84,84,84,84	0
56	MG	14	3312	1/1	0.74	0.08	99,99,99,99	0
56	MG	14	3154	1/1	0.74	0.27	87,87,87,87	0
56	MG	1H	3270	1/1	0.74	0.28	87,87,87,87	0
56	MG	1H	3180	1/1	0.74	0.38	88,88,88,88	0
56	MG	13	1622	1/1	0.74	0.30	72,72,72,72	0
56	MG	1H	3054	1/1	0.74	0.29	78,78,78,78	0
56	MG	1H	3386	1/1	0.74	0.37	96,96,96,96	0
56	MG	13	1685	1/1	0.74	0.48	114,114,114,114	0
56	MG	1G	1656	1/1	0.75	0.15	99,99,99,99	0
56	MG	14	3041	1/1	0.75	0.26	85,85,85,85	0
56	MG	1G	1626	1/1	0.75	0.28	102,102,102,102	0
56	MG	14	3051	1/1	0.75	0.14	75,75,75,75	0
56	MG	1H	3568	1/1	0.75	0.10	89,89,89,89	0
56	MG	1H	3520	1/1	0.75	0.14	54,54,54,54	0
56	MG	14	3224	1/1	0.75	0.29	101,101,101,101	0
56	MG	78	202	1/1	0.75	1.41	87,87,87,87	0
56	MG	14	3435	1/1	0.75	0.08	121,121,121,121	0
56	MG	14	3168	1/1	0.75	0.30	65,65,65,65	0
56	MG	1G	1752	1/1	0.75	0.06	139,139,139,139	0
56	MG	21	301	1/1	0.75	0.14	64,64,64,64	0
56	MG	31	301	1/1	0.75	0.09	67,67,67,67	0
56	MG	13	1710	1/1	0.76	2.00	103,103,103,103	0
56	MG	1H	3599	1/1	0.76	0.11	85,85,85,85	0
56	MG	1H	3228	1/1	0.76	0.32	85,85,85,85	0
56	MG	1G	1718	1/1	0.76	0.17	140,140,140,140	0
56	MG	1G	1639	1/1	0.76	0.21	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3315	1/1	0.76	0.10	93,93,93,93	0
56	MG	1H	3046	1/1	0.76	0.67	73,73,73,73	0
56	MG	14	3217	1/1	0.76	0.12	96,96,96,96	0
56	MG	1H	3238	1/1	0.76	0.39	87,87,87,87	0
56	MG	2L	102	1/1	0.76	0.06	113,113,113,113	0
56	MG	1H	3213	1/1	0.76	0.15	69,69,69,69	0
56	MG	13	1734	1/1	0.76	0.23	87,87,87,87	0
56	MG	14	3184	1/1	0.76	0.12	85,85,85,85	0
56	MG	35	202	1/1	0.76	0.26	79,79,79,79	0
56	MG	14	3191	1/1	0.76	0.66	84,84,84,84	0
56	MG	1H	3096	1/1	0.77	0.24	63,63,63,63	0
56	MG	14	3065	1/1	0.77	0.22	90,90,90,90	0
56	MG	1G	1627	1/1	0.77	0.09	88,88,88,88	0
56	MG	1H	3162	1/1	0.77	0.26	70,70,70,70	0
56	MG	14	3275	1/1	0.77	0.31	77,77,77,77	0
56	MG	1G	1695	1/1	0.77	0.23	96,96,96,96	0
56	MG	1H	3202	1/1	0.77	0.30	84,84,84,84	0
56	MG	1H	3434	1/1	0.77	0.17	86,86,86,86	0
56	MG	1H	3300	1/1	0.77	0.52	86,86,86,86	0
56	MG	1G	1646	1/1	0.77	0.23	116,116,116,116	0
56	MG	1G	1734	1/1	0.77	0.12	94,94,94,94	0
56	MG	1H	3165	1/1	0.77	0.42	98,98,98,98	0
56	MG	1H	3562	1/1	0.77	0.10	97,97,97,97	0
56	MG	14	3319	1/1	0.77	0.07	104,104,104,104	0
56	MG	14	3330	1/1	0.77	0.16	82,82,82,82	0
56	MG	14	3205	1/1	0.77	0.27	75,75,75,75	0
56	MG	13	1666	1/1	0.77	0.13	92,92,92,92	0
56	MG	14	3210	1/1	0.77	0.33	100,100,100,100	0
56	MG	1H	3456	1/1	0.77	0.08	100,100,100,100	0
56	MG	1H	3370	1/1	0.77	1.53	84,84,84,84	0
56	MG	1H	3595	1/1	0.77	0.07	99,99,99,99	0
56	MG	1H	3597	1/1	0.77	0.10	92,92,92,92	0
56	MG	1H	3316	1/1	0.77	0.18	106,106,106,106	0
56	MG	14	3157	1/1	0.78	0.19	86,86,86,86	0
56	MG	4L	401	1/1	0.78	0.23	99,99,99,99	0
56	MG	14	3012	1/1	0.78	0.24	66,66,66,66	0
56	MG	21	302	1/1	0.78	1.24	76,76,76,76	0
56	MG	13	1665	1/1	0.78	0.42	117,117,117,117	0
56	MG	1H	3142	1/1	0.78	0.23	79,79,79,79	0
56	MG	14	3385	1/1	0.78	0.16	84,84,84,84	0
56	MG	1H	3462	1/1	0.78	0.08	95,95,95,95	0
56	MG	1G	1738	1/1	0.78	0.33	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	1G	1739	1/1	0.78	0.09	107,107,107,107	0
56	MG	14	3276	1/1	0.78	0.24	92,92,92,92	0
56	MG	1G	1685	1/1	0.78	0.22	76,76,76,76	0
56	MG	14	3071	1/1	0.78	0.18	83,83,83,83	0
56	MG	1G	1647	1/1	0.78	0.44	92,92,92,92	0
56	MG	1H	3062	1/1	0.78	0.18	72,72,72,72	0
56	MG	1H	3579	1/1	0.79	0.09	81,81,81,81	0
56	MG	14	3068	1/1	0.79	0.21	78,78,78,78	0
56	MG	13	1757	1/1	0.79	0.11	119,119,119,119	0
56	MG	13	1725	1/1	0.79	0.80	101,101,101,101	0
56	MG	14	3317	1/1	0.79	0.12	153,153,153,153	0
56	MG	1H	3487	1/1	0.79	0.09	50,50,50,50	0
56	MG	1G	1673	1/1	0.79	0.23	104,104,104,104	0
56	MG	14	3162	1/1	0.79	0.14	89,89,89,89	0
56	MG	1H	3189	1/1	0.79	0.18	77,77,77,77	0
56	MG	14	3391	1/1	0.79	0.08	106,106,106,106	0
56	MG	1H	3016	1/1	0.79	0.27	66,66,66,66	0
56	MG	1H	3223	1/1	0.79	0.37	65,65,65,65	0
56	MG	1H	3196	1/1	0.79	0.43	68,68,68,68	0
56	MG	1G	1609	1/1	0.79	0.12	96,96,96,96	0
56	MG	1G	1659	1/1	0.79	0.36	104,104,104,104	0
56	MG	1G	1716	1/1	0.79	0.10	109,109,109,109	0
56	MG	1H	3473	1/1	0.79	0.12	112,112,112,112	0
56	MG	1H	3259	1/1	0.79	0.50	69,69,69,69	0
56	MG	1G	1669	1/1	0.80	0.22	85,85,85,85	0
56	MG	1H	3236	1/1	0.80	0.25	80,80,80,80	0
56	MG	1H	3284	1/1	0.80	0.30	79,79,79,79	0
56	MG	1H	3291	1/1	0.80	0.09	97,97,97,97	0
56	MG	14	3129	1/1	0.80	0.22	84,84,84,84	0
56	MG	13	1721	1/1	0.80	0.21	74,74,74,74	0
56	MG	1J	202	1/1	0.80	0.07	92,92,92,92	0
56	MG	1H	3229	1/1	0.80	0.13	83,83,83,83	0
56	MG	13	1789	1/1	0.80	0.08	63,63,63,63	0
56	MG	1H	3281	1/1	0.80	0.24	86,86,86,86	0
56	MG	1G	1701	1/1	0.80	0.36	94,94,94,94	0
56	MG	35	203	1/1	0.80	0.30	81,81,81,81	0
56	MG	14	3320	1/1	0.80	0.17	120,120,120,120	0
56	MG	1H	3422	1/1	0.81	0.27	90,90,90,90	0
56	MG	13	1801	1/1	0.81	0.12	113,113,113,113	0
56	MG	14	3160	1/1	0.81	0.47	86,86,86,86	0
56	MG	1G	1743	1/1	0.81	0.07	122,122,122,122	0
56	MG	1G	1748	1/1	0.81	0.07	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	1H	3614	1/1	0.81	0.26	97,97,97,97	0
56	MG	1H	3121	1/1	0.81	0.24	67,67,67,67	0
56	MG	13	1729	1/1	0.81	0.11	95,95,95,95	0
56	MG	1H	3036	1/1	0.81	0.09	73,73,73,73	0
56	MG	14	3001	1/1	0.81	0.17	76,76,76,76	0
56	MG	14	3006	1/1	0.81	0.18	56,56,56,56	0
56	MG	13	1805	1/1	0.81	0.06	115,115,115,115	0
56	MG	1H	3526	1/1	0.81	0.12	57,57,57,57	0
56	MG	1H	3209	1/1	0.81	0.23	80,80,80,80	0
56	MG	1H	3298	1/1	0.81	0.28	82,82,82,82	0
56	MG	14	3405	1/1	0.81	0.12	108,108,108,108	0
56	MG	14	3420	1/1	0.81	0.07	86,86,86,86	0
56	MG	14	3421	1/1	0.81	0.30	72,72,72,72	0
56	MG	14	3043	1/1	0.81	0.59	73,73,73,73	0
56	MG	1G	1699	1/1	0.81	0.14	90,90,90,90	0
56	MG	14	3432	1/1	0.81	0.12	91,91,91,91	0
56	MG	1H	3356	1/1	0.81	0.41	76,76,76,76	0
56	MG	1G	1708	1/1	0.81	0.16	105,105,105,105	0
56	MG	1H	3362	1/1	0.81	0.22	69,69,69,69	0
56	MG	1H	3210	1/1	0.81	0.22	68,68,68,68	0
56	MG	1H	3591	1/1	0.81	0.08	70,70,70,70	0
56	MG	1H	3146	1/1	0.81	0.14	71,71,71,71	0
56	MG	14	3124	1/1	0.81	0.34	82,82,82,82	0
56	MG	13	1680	1/1	0.81	0.30	103,103,103,103	0
56	MG	13	1779	1/1	0.82	0.31	106,106,106,106	0
56	MG	1H	3141	1/1	0.82	0.20	71,71,71,71	0
56	MG	1H	3396	1/1	0.82	0.12	71,71,71,71	0
56	MG	1H	3247	1/1	0.82	0.32	65,65,65,65	0
56	MG	14	3171	1/1	0.82	0.30	89,89,89,89	0
56	MG	1H	3297	1/1	0.82	0.28	80,80,80,80	0
56	MG	13	1656	1/1	0.82	0.23	91,91,91,91	0
56	MG	13	1684	1/1	0.82	0.53	99,99,99,99	0
56	MG	1H	3148	1/1	0.82	0.23	89,89,89,89	0
56	MG	14	3018	1/1	0.82	0.13	66,66,66,66	0
56	MG	1H	3435	1/1	0.82	0.11	68,68,68,68	0
56	MG	1H	3153	1/1	0.82	0.49	92,92,92,92	0
56	MG	1H	3312	1/1	0.82	0.23	100,100,100,100	0
56	MG	1H	3065	1/1	0.82	0.14	69,69,69,69	0
56	MG	1H	3455	1/1	0.82	0.07	92,92,92,92	0
56	MG	1H	3028	1/1	0.82	0.17	64,64,64,64	0
56	MG	1H	3457	1/1	0.82	0.11	99,99,99,99	0
56	MG	1H	3071	1/1	0.82	0.23	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3034	1/1	0.82	0.19	64,64,64,64	0
56	MG	13	1675	1/1	0.82	0.33	80,80,80,80	0
56	MG	14	3434	1/1	0.82	0.06	61,61,61,61	0
56	MG	13	1702	1/1	0.82	1.01	87,87,87,87	0
56	MG	14	3082	1/1	0.82	0.25	91,91,91,91	0
56	MG	14	3239	1/1	0.82	0.15	53,53,53,53	0
56	MG	14	3110	1/1	0.82	0.40	85,85,85,85	0
56	MG	1H	3137	1/1	0.82	0.33	74,74,74,74	0
56	MG	14	3273	1/1	0.82	0.23	70,70,70,70	0
56	MG	13	1659	1/1	0.82	0.49	115,115,115,115	0
56	MG	1H	3188	1/1	0.82	0.24	90,90,90,90	0
56	MG	1H	3104	1/1	0.83	0.25	65,65,65,65	0
56	MG	1H	3039	1/1	0.83	0.22	62,62,62,62	0
56	MG	14	3130	1/1	0.83	0.19	65,65,65,65	0
56	MG	14	3140	1/1	0.83	0.11	88,88,88,88	0
56	MG	14	3143	1/1	0.83	0.41	86,86,86,86	0
56	MG	1G	1664	1/1	0.83	0.20	106,106,106,106	0
56	MG	14	3285	1/1	0.83	0.37	95,95,95,95	0
56	MG	14	3156	1/1	0.83	0.12	68,68,68,68	0
56	MG	1H	3271	1/1	0.83	0.17	93,93,93,93	0
56	MG	14	3299	1/1	0.83	0.30	78,78,78,78	0
56	MG	1H	3421	1/1	0.83	0.43	92,92,92,92	0
56	MG	1H	3275	1/1	0.83	0.18	70,70,70,70	0
56	MG	1H	3425	1/1	0.83	0.33	101,101,101,101	0
56	MG	1H	3311	1/1	0.83	0.36	98,98,98,98	0
56	MG	14	3002	1/1	0.83	0.09	49,49,49,49	0
56	MG	1H	3276	1/1	0.83	2.11	68,68,68,68	0
56	MG	1H	3278	1/1	0.83	0.18	69,69,69,69	0
56	MG	1H	3280	1/1	0.83	0.25	90,90,90,90	0
56	MG	14	3365	1/1	0.83	0.10	89,89,89,89	0
56	MG	1H	3437	1/1	0.83	0.07	90,90,90,90	0
56	MG	1G	1693	1/1	0.83	0.20	84,84,84,84	0
56	MG	14	3200	1/1	0.83	0.40	72,72,72,72	0
56	MG	1H	3044	1/1	0.83	0.08	66,66,66,66	0
56	MG	13	1714	1/1	0.83	0.20	114,114,114,114	0
56	MG	1H	3033	1/1	0.83	0.21	64,64,64,64	0
56	MG	1H	3194	1/1	0.83	0.27	62,62,62,62	0
56	MG	14	3429	1/1	0.83	0.08	91,91,91,91	0
56	MG	1H	3341	1/1	0.83	0.96	80,80,80,80	0
56	MG	14	3064	1/1	0.83	0.44	53,53,53,53	0
56	MG	1H	3080	1/1	0.83	0.30	80,80,80,80	0
56	MG	1H	3347	1/1	0.83	0.73	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	13	1613	1/1	0.83	0.12	78,78,78,78	0
56	MG	29	301	1/1	0.83	0.17	78,78,78,78	0
56	MG	1H	3361	1/1	0.83	0.08	89,89,89,89	0
56	MG	13	1753	1/1	0.83	0.07	121,121,121,121	0
56	MG	14	3102	1/1	0.83	0.21	67,67,67,67	0
56	MG	14	3240	1/1	0.83	0.31	86,86,86,86	0
56	MG	1H	3206	1/1	0.83	0.64	73,73,73,73	0
56	MG	14	3166	1/1	0.84	0.62	88,88,88,88	0
56	MG	1H	3063	1/1	0.84	0.12	54,54,54,54	0
56	MG	88	202	1/1	0.84	0.43	69,69,69,69	0
56	MG	14	3298	1/1	0.84	0.31	100,100,100,100	0
56	MG	13	1774	1/1	0.84	0.10	87,87,87,87	0
56	MG	13	1605	1/1	0.84	0.14	86,86,86,86	0
56	MG	14	3309	1/1	0.84	0.11	87,87,87,87	0
56	MG	1H	3029	1/1	0.84	0.14	69,69,69,69	0
56	MG	1H	3590	1/1	0.84	0.06	107,107,107,107	0
56	MG	1H	3031	1/1	0.84	0.16	56,56,56,56	0
56	MG	13	1621	1/1	0.84	0.30	74,74,74,74	0
56	MG	1G	1631	1/1	0.84	0.21	85,85,85,85	0
56	MG	1H	3404	1/1	0.84	0.25	80,80,80,80	0
56	MG	1H	3418	1/1	0.84	0.17	90,90,90,90	0
56	MG	14	3343	1/1	0.84	0.12	54,54,54,54	0
56	MG	1G	1710	1/1	0.84	0.13	102,102,102,102	0
56	MG	14	3369	1/1	0.84	0.14	87,87,87,87	0
56	MG	1H	3603	1/1	0.84	0.07	121,121,121,121	0
56	MG	1H	3329	1/1	0.84	0.19	75,75,75,75	0
56	MG	14	3400	1/1	0.84	0.10	87,87,87,87	0
56	MG	1H	3610	1/1	0.84	0.15	106,106,106,106	0
56	MG	14	3077	1/1	0.84	0.43	87,87,87,87	0
56	MG	1H	3470	1/1	0.84	0.16	94,94,94,94	0
56	MG	14	3218	1/1	0.84	0.37	104,104,104,104	0
56	MG	1G	1727	1/1	0.84	0.09	108,108,108,108	0
56	MG	1G	1652	1/1	0.84	0.24	87,87,87,87	0
56	MG	13	1678	1/1	0.84	0.22	97,97,97,97	0
56	MG	1H	3097	1/1	0.84	0.31	70,70,70,70	0
56	MG	1H	3334	1/1	0.84	0.47	93,93,93,93	0
56	MG	1H	3336	1/1	0.84	0.17	81,81,81,81	0
56	MG	1H	3056	1/1	0.84	0.11	73,73,73,73	0
56	MG	1H	3489	1/1	0.84	0.12	53,53,53,53	0
56	MG	1H	3195	1/1	0.84	0.67	84,84,84,84	0
56	MG	13	1792	1/1	0.84	0.15	73,73,73,73	0
56	MG	1H	3201	1/1	0.84	0.32	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3136	1/1	0.84	0.29	68,68,68,68	0
56	MG	14	3281	1/1	0.84	0.17	89,89,89,89	0
56	MG	13	1653	1/1	0.85	0.11	82,82,82,82	0
56	MG	14	3287	1/1	0.85	0.42	86,86,86,86	0
56	MG	1H	3578	1/1	0.85	0.09	65,65,65,65	0
56	MG	D8	201	1/1	0.85	0.46	76,76,76,76	0
56	MG	1G	1603	1/1	0.85	0.10	78,78,78,78	0
56	MG	1H	3222	1/1	0.85	0.40	78,78,78,78	0
56	MG	13	1603	1/1	0.85	0.12	52,52,52,52	0
56	MG	1H	3183	1/1	0.85	0.27	80,80,80,80	0
56	MG	14	3030	1/1	0.85	0.18	78,78,78,78	0
56	MG	1H	3335	1/1	0.85	0.13	103,103,103,103	0
56	MG	1H	3466	1/1	0.85	0.16	115,115,115,115	0
56	MG	1H	3198	1/1	0.85	0.44	108,108,108,108	0
56	MG	1G	1698	1/1	0.85	0.23	88,88,88,88	0
56	MG	14	3323	1/1	0.85	0.18	100,100,100,100	0
56	MG	1H	3424	1/1	0.85	0.21	65,65,65,65	0
56	MG	1H	3025	1/1	0.85	0.18	49,49,49,49	0
56	MG	1G	1641	1/1	0.85	0.09	95,95,95,95	0
56	MG	13	1639	1/1	0.85	0.18	76,76,76,76	0
56	MG	1H	3187	1/1	0.85	0.27	75,75,75,75	0
56	MG	14	3072	1/1	0.85	0.37	69,69,69,69	0
56	MG	1H	3621	1/1	0.85	0.12	52,52,52,52	0
56	MG	1H	3484	1/1	0.85	0.10	45,45,45,45	0
56	MG	14	3225	1/1	0.85	0.43	111,111,111,111	0
56	MG	1H	3237	1/1	0.85	0.19	72,72,72,72	0
56	MG	14	3230	1/1	0.85	0.20	90,90,90,90	0
56	MG	1G	1725	1/1	0.85	0.05	111,111,111,111	0
56	MG	1H	3041	1/1	0.85	0.16	65,65,65,65	0
56	MG	1G	1729	1/1	0.85	0.24	113,113,113,113	0
56	MG	2K	102	1/1	0.85	0.30	81,81,81,81	0
56	MG	1H	3191	1/1	0.85	0.21	99,99,99,99	0
56	MG	14	3268	1/1	0.85	0.21	83,83,83,83	0
56	MG	1G	1658	1/1	0.85	0.21	108,108,108,108	0
56	MG	1H	3010	1/1	0.85	0.23	70,70,70,70	0
56	MG	39	301	1/1	0.85	0.17	94,94,94,94	0
56	MG	1H	3547	1/1	0.85	0.11	85,85,85,85	0
56	MG	1H	3317	1/1	0.85	0.13	102,102,102,102	0
56	MG	31	302	1/1	0.85	0.28	76,76,76,76	0
56	MG	1H	3218	1/1	0.85	0.28	70,70,70,70	0
56	MG	1H	3387	1/1	0.85	0.35	71,71,71,71	0
56	MG	85	201	1/1	0.85	0.33	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	14	3084	1/1	0.86	0.10	77,77,77,77	0
56	MG	88	203	1/1	0.86	0.68	79,79,79,79	0
56	MG	1H	3060	1/1	0.86	0.25	63,63,63,63	0
56	MG	13	1668	1/1	0.86	0.39	101,101,101,101	0
56	MG	1H	3447	1/1	0.86	0.10	65,65,65,65	0
56	MG	1H	3100	1/1	0.86	0.16	69,69,69,69	0
56	MG	1G	1702	1/1	0.86	0.30	101,101,101,101	0
56	MG	1H	3073	1/1	0.86	0.28	58,58,58,58	0
56	MG	1G	1616	1/1	0.86	0.43	100,100,100,100	0
56	MG	14	3360	1/1	0.86	0.10	69,69,69,69	0
56	MG	1H	3145	1/1	0.86	0.45	91,91,91,91	0
56	MG	1H	3049	1/1	0.86	0.10	95,95,95,95	0
56	MG	14	3158	1/1	0.86	0.29	80,80,80,80	0
56	MG	1H	3207	1/1	0.86	0.41	87,87,87,87	0
56	MG	1G	1721	1/1	0.86	0.08	143,143,143,143	0
56	MG	14	3402	1/1	0.86	0.11	94,94,94,94	0
56	MG	1H	3461	1/1	0.86	0.08	102,102,102,102	0
56	MG	14	3045	1/1	0.86	0.24	91,91,91,91	0
56	MG	1G	1637	1/1	0.86	0.08	121,121,121,121	0
56	MG	1G	1726	1/1	0.86	0.17	86,86,86,86	0
56	MG	1G	1638	1/1	0.86	0.18	93,93,93,93	0
56	MG	14	3057	1/1	0.86	0.16	78,78,78,78	0
56	MG	1H	3522	1/1	0.86	0.10	59,59,59,59	0
56	MG	13	1697	1/1	0.86	1.59	98,98,98,98	0
56	MG	1H	3095	1/1	0.86	0.21	64,64,64,64	0
56	MG	78	201	1/1	0.86	0.27	62,62,62,62	0
56	MG	14	3290	1/1	0.86	0.34	85,85,85,85	0
56	MG	14	3291	1/1	0.86	0.41	86,86,86,86	0
56	MG	1G	1683	1/1	0.86	0.28	87,87,87,87	0
56	MG	14	3294	1/1	0.86	0.28	94,94,94,94	0
56	MG	14	3297	1/1	0.86	0.28	91,91,91,91	0
56	MG	1G	1745	1/1	0.86	0.08	124,124,124,124	0
56	MG	1H	3342	1/1	0.86	1.77	75,75,75,75	0
56	MG	14	3209	1/1	0.86	0.19	97,97,97,97	0
56	MG	1H	3417	1/1	0.86	0.17	93,93,93,93	0
56	MG	1H	3040	1/1	0.87	0.20	62,62,62,62	0
56	MG	1H	3472	1/1	0.87	0.11	108,108,108,108	0
56	MG	1H	3358	1/1	0.87	0.57	83,83,83,83	0
56	MG	1H	3598	1/1	0.87	0.10	105,105,105,105	0
56	MG	1G	1625	1/1	0.87	0.17	111,111,111,111	0
56	MG	13	1707	1/1	0.87	0.84	108,108,108,108	0
56	MG	1G	1687	1/1	0.87	0.25	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3436	1/1	0.87	0.14	98,98,98,98	0
56	MG	1H	3324	1/1	0.87	0.27	78,78,78,78	0
56	MG	13	1610	1/1	0.87	0.10	56,56,56,56	0
56	MG	14	3306	1/1	0.87	0.18	66,66,66,66	0
56	MG	1H	3444	1/1	0.87	0.10	78,78,78,78	0
56	MG	1K	500	1/1	0.87	0.14	101,101,101,101	0
56	MG	1H	3498	1/1	0.87	0.08	70,70,70,70	0
56	MG	1H	3231	1/1	0.87	0.11	83,83,83,83	0
56	MG	14	3197	1/1	0.87	0.22	91,91,91,91	0
56	MG	14	3046	1/1	0.87	0.09	56,56,56,56	0
56	MG	13	1724	1/1	0.87	0.11	97,97,97,97	0
56	MG	13	1705	1/1	0.87	1.02	111,111,111,111	0
56	MG	14	3052	1/1	0.87	0.27	78,78,78,78	0
56	MG	14	3208	1/1	0.87	0.68	89,89,89,89	0
56	MG	1H	3134	1/1	0.87	0.44	85,85,85,85	0
56	MG	14	3054	1/1	0.87	0.18	48,48,48,48	0
56	MG	14	3367	1/1	0.87	0.14	86,86,86,86	0
56	MG	14	3368	1/1	0.87	0.07	101,101,101,101	0
56	MG	16	214	1/1	0.87	0.09	82,82,82,82	0
56	MG	14	3372	1/1	0.87	0.25	91,91,91,91	0
56	MG	14	3213	1/1	0.87	0.34	87,87,87,87	0
56	MG	13	1663	1/1	0.87	0.17	105,105,105,105	0
56	MG	1G	1720	1/1	0.87	0.23	112,112,112,112	0
56	MG	1H	3550	1/1	0.87	0.18	70,70,70,70	0
56	MG	1H	3554	1/1	0.87	0.19	108,108,108,108	0
56	MG	1H	3019	1/1	0.87	0.14	53,53,53,53	0
56	MG	1H	3304	1/1	0.87	0.21	106,106,106,106	0
56	MG	1H	3174	1/1	0.87	0.27	86,86,86,86	0
56	MG	14	3079	1/1	0.87	0.11	91,91,91,91	0
56	MG	1H	3573	1/1	0.87	0.07	51,51,51,51	0
56	MG	1H	3574	1/1	0.87	0.11	53,53,53,53	0
56	MG	14	3092	1/1	0.87	0.14	79,79,79,79	0
56	MG	14	3099	1/1	0.87	0.13	66,66,66,66	0
56	MG	1G	1735	1/1	0.87	0.06	112,112,112,112	0
56	MG	1H	3308	1/1	0.87	0.48	78,78,78,78	0
56	MG	1H	3083	1/1	0.87	0.24	82,82,82,82	0
56	MG	14	3125	1/1	0.87	0.18	84,84,84,84	0
56	MG	13	1747	1/1	0.87	0.29	93,93,93,93	0
56	MG	P8	101	1/1	0.87	0.24	68,68,68,68	0
56	MG	1G	1746	1/1	0.87	0.18	95,95,95,95	0
56	MG	14	3280	1/1	0.87	0.30	89,89,89,89	0
56	MG	1H	3469	1/1	0.87	0.32	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1671	1/1	0.87	0.15	92,92,92,92	0
56	MG	1H	3239	1/1	0.88	0.31	78,78,78,78	0
56	MG	14	3025	1/1	0.88	0.12	46,46,46,46	0
56	MG	1H	3026	1/1	0.88	0.25	92,92,92,92	0
56	MG	1H	3290	1/1	0.88	0.40	94,94,94,94	0
56	MG	14	3176	1/1	0.88	0.24	73,73,73,73	0
56	MG	14	3034	1/1	0.88	0.14	63,63,63,63	0
56	MG	13	1799	1/1	0.88	0.10	93,93,93,93	0
56	MG	1H	3212	1/1	0.88	0.28	91,91,91,91	0
56	MG	16	202	1/1	0.88	0.11	77,77,77,77	0
56	MG	14	3186	1/1	0.88	0.20	77,77,77,77	0
56	MG	14	3310	1/1	0.88	0.11	53,53,53,53	0
56	MG	1H	3151	1/1	0.88	0.25	78,78,78,78	0
56	MG	1G	1712	1/1	0.88	0.08	132,132,132,132	0
56	MG	1H	3256	1/1	0.88	0.18	85,85,85,85	0
56	MG	13	1614	1/1	0.88	0.13	69,69,69,69	0
56	MG	1H	3516	1/1	0.88	0.09	59,59,59,59	0
56	MG	1H	3343	1/1	0.88	0.15	76,76,76,76	0
56	MG	14	3322	1/1	0.88	0.17	123,123,123,123	0
56	MG	1H	3192	1/1	0.88	0.28	75,75,75,75	0
56	MG	1H	3439	1/1	0.88	0.14	59,59,59,59	0
56	MG	1H	3047	1/1	0.88	0.13	60,60,60,60	0
56	MG	1H	3127	1/1	0.88	0.21	81,81,81,81	0
56	MG	1H	3267	1/1	0.88	0.31	84,84,84,84	0
56	MG	1H	3012	1/1	0.88	0.08	40,40,40,40	0
56	MG	13	1669	1/1	0.88	0.22	109,109,109,109	0
56	MG	1H	3453	1/1	0.88	0.07	94,94,94,94	0
56	MG	13	1693	1/1	0.88	0.15	82,82,82,82	0
56	MG	14	3373	1/1	0.88	0.09	117,117,117,117	0
56	MG	14	3080	1/1	0.88	0.16	86,86,86,86	0
56	MG	13	1648	1/1	0.88	0.36	77,77,77,77	0
56	MG	1H	3272	1/1	0.88	0.15	85,85,85,85	0
56	MG	1H	3233	1/1	0.88	0.13	85,85,85,85	0
56	MG	14	3403	1/1	0.88	0.11	101,101,101,101	0
56	MG	14	3096	1/1	0.88	0.31	87,87,87,87	0
56	MG	14	3411	1/1	0.88	0.07	109,109,109,109	0
56	MG	1H	3090	1/1	0.88	0.19	73,73,73,73	0
56	MG	14	3100	1/1	0.88	0.18	65,65,65,65	0
56	MG	1G	1601	1/1	0.88	0.11	71,71,71,71	0
56	MG	1H	3408	1/1	0.88	0.37	60,60,60,60	0
56	MG	42	201	1/1	0.88	0.30	103,103,103,103	0
56	MG	1H	3410	1/1	0.88	0.47	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3433	1/1	0.88	0.11	87,87,87,87	0
56	MG	1H	3416	1/1	0.88	0.30	75,75,75,75	0
56	MG	1H	3023	1/1	0.88	0.34	72,72,72,72	0
56	MG	14	3135	1/1	0.88	0.11	90,90,90,90	0
56	MG	1H	3058	1/1	0.88	0.16	69,69,69,69	0
56	MG	1J	206	1/1	0.88	0.27	68,68,68,68	0
56	MG	1G	1619	1/1	0.88	0.18	94,94,94,94	0
56	MG	14	3279	1/1	0.88	0.47	96,96,96,96	0
56	MG	1G	1621	1/1	0.88	0.32	89,89,89,89	0
56	MG	14	3009	1/1	0.88	0.20	78,78,78,78	0
56	MG	14	3284	1/1	0.88	0.23	77,77,77,77	0
56	MG	14	3011	1/1	0.88	0.52	70,70,70,70	0
56	MG	13	1765	1/1	0.88	0.45	129,129,129,129	0
56	MG	1H	3420	1/1	0.88	0.39	75,75,75,75	0
56	MG	1H	3179	1/1	0.89	0.26	93,93,93,93	0
56	MG	1H	3318	1/1	0.89	0.68	68,68,68,68	0
56	MG	1H	3323	1/1	0.89	0.45	69,69,69,69	0
56	MG	1H	3216	1/1	0.89	0.57	81,81,81,81	0
56	MG	1H	3217	1/1	0.89	0.20	87,87,87,87	0
56	MG	13	1683	1/1	0.89	0.21	99,99,99,99	0
56	MG	14	3008	1/1	0.89	0.33	72,72,72,72	0
56	MG	1H	3182	1/1	0.89	0.27	85,85,85,85	0
56	MG	1H	3107	1/1	0.89	0.22	63,63,63,63	0
56	MG	14	3304	1/1	0.89	0.23	103,103,103,103	0
56	MG	13	1703	1/1	0.89	0.11	93,93,93,93	0
56	MG	1H	3030	1/1	0.89	0.25	75,75,75,75	0
56	MG	13	1609	1/1	0.89	0.15	83,83,83,83	0
56	MG	14	3024	1/1	0.89	0.10	57,57,57,57	0
56	MG	13	1766	1/1	0.89	0.14	70,70,70,70	0
56	MG	14	3026	1/1	0.89	0.12	65,65,65,65	0
56	MG	8I	201	1/1	0.89	0.58	98,98,98,98	0
56	MG	1G	1690	1/1	0.89	0.23	75,75,75,75	0
56	MG	14	3190	1/1	0.89	0.23	81,81,81,81	0
56	MG	14	3321	1/1	0.89	0.14	131,131,131,131	0
56	MG	1H	3067	1/1	0.89	0.18	68,68,68,68	0
56	MG	13	1768	1/1	0.89	0.10	92,92,92,92	0
56	MG	1H	3288	1/1	0.89	0.79	79,79,79,79	0
56	MG	14	3340	1/1	0.89	0.10	57,57,57,57	0
56	MG	14	3342	1/1	0.89	0.13	51,51,51,51	0
56	MG	1G	1697	1/1	0.89	0.21	106,106,106,106	0
56	MG	13	1773	1/1	0.89	0.07	96,96,96,96	0
56	MG	1H	3450	1/1	0.89	0.17	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3366	1/1	0.89	0.14	87,87,87,87	0
56	MG	1H	3582	1/1	0.89	0.06	56,56,56,56	0
56	MG	1H	3001	1/1	0.89	0.18	55,55,55,55	0
56	MG	1G	1703	1/1	0.89	0.13	87,87,87,87	0
56	MG	1H	3075	1/1	0.89	0.21	72,72,72,72	0
56	MG	1H	3594	1/1	0.89	0.17	95,95,95,95	0
56	MG	13	1723	1/1	0.89	0.22	98,98,98,98	0
56	MG	13	1746	1/1	0.89	0.25	96,96,96,96	0
56	MG	14	3067	1/1	0.89	0.13	62,62,62,62	0
56	MG	1G	1635	1/1	0.89	0.22	106,106,106,106	0
56	MG	1H	3296	1/1	0.89	0.77	68,68,68,68	0
56	MG	1H	3244	1/1	0.89	0.19	70,70,70,70	0
56	MG	14	3410	1/1	0.89	0.12	81,81,81,81	0
56	MG	1H	3374	1/1	0.89	0.26	101,101,101,101	0
56	MG	14	3074	1/1	0.89	0.09	84,84,84,84	0
56	MG	1H	3086	1/1	0.89	0.11	83,83,83,83	0
56	MG	13	1784	1/1	0.89	0.10	104,104,104,104	0
56	MG	1H	3092	1/1	0.89	0.21	62,62,62,62	0
56	MG	13	1629	1/1	0.89	0.12	71,71,71,71	0
56	MG	1H	3407	1/1	0.89	0.33	81,81,81,81	0
56	MG	1G	1650	1/1	0.89	0.09	81,81,81,81	0
56	MG	13	1671	1/1	0.89	0.44	99,99,99,99	0
56	MG	1H	3261	1/1	0.89	0.16	92,92,92,92	0
56	MG	1H	3414	1/1	0.89	0.15	68,68,68,68	0
56	MG	14	3101	1/1	0.89	0.24	79,79,79,79	0
56	MG	1G	1655	1/1	0.89	0.09	121,121,121,121	0
56	MG	16	210	1/1	0.89	0.36	101,101,101,101	0
56	MG	13	1688	1/1	0.89	0.29	86,86,86,86	0
56	MG	13	1793	1/1	0.89	0.15	114,114,114,114	0
56	MG	1H	3313	1/1	0.89	0.65	87,87,87,87	0
56	MG	14	3283	1/1	0.89	0.29	84,84,84,84	0
56	MG	1G	1753	1/1	0.89	0.12	109,109,109,109	0
56	MG	14	3134	1/1	0.89	0.24	81,81,81,81	0
56	MG	13	1698	1/1	0.89	2.42	99,99,99,99	0
56	MG	14	3308	1/1	0.90	0.13	80,80,80,80	0
56	MG	1H	3373	1/1	0.90	0.17	84,84,84,84	0
56	MG	13	1762	1/1	0.90	0.21	128,128,128,128	0
56	MG	1H	3382	1/1	0.90	0.22	73,73,73,73	0
56	MG	13	1736	1/1	0.90	0.35	96,96,96,96	0
56	MG	1H	3032	1/1	0.90	0.45	57,57,57,57	0
56	MG	1G	1633	1/1	0.90	0.31	94,94,94,94	0
56	MG	14	3214	1/1	0.90	0.59	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3009	1/1	0.90	0.20	66,66,66,66	0
56	MG	13	1636	1/1	0.90	0.19	85,85,85,85	0
56	MG	1H	3168	1/1	0.90	0.09	84,84,84,84	0
56	MG	1H	3204	1/1	0.90	0.34	92,92,92,92	0
56	MG	14	3324	1/1	0.90	0.13	50,50,50,50	0
56	MG	14	3219	1/1	0.90	0.14	100,100,100,100	0
56	MG	13	1704	1/1	0.90	0.17	85,85,85,85	0
56	MG	13	1624	1/1	0.90	0.10	102,102,102,102	0
56	MG	14	3128	1/1	0.90	0.26	82,82,82,82	0
56	MG	14	3352	1/1	0.90	0.21	90,90,90,90	0
56	MG	13	1767	1/1	0.90	0.14	61,61,61,61	0
56	MG	14	3364	1/1	0.90	0.10	108,108,108,108	0
56	MG	1G	1706	1/1	0.90	0.12	95,95,95,95	0
56	MG	1H	3565	1/1	0.90	0.08	110,110,110,110	0
56	MG	1H	3113	1/1	0.90	0.41	67,67,67,67	0
56	MG	14	3027	1/1	0.90	0.15	61,61,61,61	0
56	MG	1H	3020	1/1	0.90	0.10	56,56,56,56	0
56	MG	14	3264	1/1	0.90	0.29	82,82,82,82	0
56	MG	14	3267	1/1	0.90	0.34	77,77,77,77	0
56	MG	14	3380	1/1	0.90	0.14	92,92,92,92	0
56	MG	14	3149	1/1	0.90	0.15	74,74,74,74	0
56	MG	14	3388	1/1	0.90	0.18	87,87,87,87	0
56	MG	14	3270	1/1	0.90	0.20	70,70,70,70	0
56	MG	14	3393	1/1	0.90	0.13	67,67,67,67	0
56	MG	14	3272	1/1	0.90	0.34	94,94,94,94	0
56	MG	1G	1714	1/1	0.90	0.05	123,123,123,123	0
56	MG	14	3155	1/1	0.90	0.23	65,65,65,65	0
56	MG	1H	3043	1/1	0.90	0.12	48,48,48,48	0
56	MG	13	1802	1/1	0.90	0.07	114,114,114,114	0
56	MG	1H	3214	1/1	0.90	0.40	93,93,93,93	0
56	MG	1H	3468	1/1	0.90	0.18	92,92,92,92	0
56	MG	1H	3581	1/1	0.90	0.12	87,87,87,87	0
56	MG	14	3423	1/1	0.90	0.11	95,95,95,95	0
56	MG	1G	1657	1/1	0.90	0.20	117,117,117,117	0
56	MG	13	1642	1/1	0.90	0.20	66,66,66,66	0
56	MG	1H	3589	1/1	0.90	0.14	60,60,60,60	0
56	MG	1H	3078	1/1	0.90	0.30	59,59,59,59	0
56	MG	1H	3079	1/1	0.90	0.27	59,59,59,59	0
56	MG	13	1728	1/1	0.90	0.26	97,97,97,97	0
56	MG	14	3289	1/1	0.90	0.13	79,79,79,79	0
56	MG	1H	3477	1/1	0.90	0.29	90,90,90,90	0
56	MG	1H	3140	1/1	0.90	0.30	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1606	1/1	0.90	0.12	97,97,97,97	0
56	MG	1G	1742	1/1	0.90	0.09	131,131,131,131	0
56	MG	13	1694	1/1	0.90	0.12	96,96,96,96	0
56	MG	13	1709	1/1	0.90	0.24	73,73,73,73	0
56	MG	1G	1617	1/1	0.90	0.05	92,92,92,92	0
56	MG	1H	3087	1/1	0.90	0.17	54,54,54,54	0
56	MG	13	1758	1/1	0.90	0.24	111,111,111,111	0
56	MG	1G	1624	1/1	0.90	0.25	109,109,109,109	0
56	MG	14	3307	1/1	0.90	0.12	89,89,89,89	0
56	MG	1H	3082	1/1	0.91	0.15	76,76,76,76	0
56	MG	1G	1747	1/1	0.91	0.12	95,95,95,95	0
56	MG	13	1672	1/1	0.91	0.14	80,80,80,80	0
56	MG	14	3133	1/1	0.91	0.28	78,78,78,78	0
56	MG	1H	3084	1/1	0.91	0.22	72,72,72,72	0
56	MG	13	1660	1/1	0.91	0.11	83,83,83,83	0
56	MG	13	1625	1/1	0.91	0.25	75,75,75,75	0
56	MG	4A	201	1/1	0.91	0.10	116,116,116,116	0
56	MG	9A	101	1/1	0.91	0.07	115,115,115,115	0
56	MG	13	1749	1/1	0.91	0.06	92,92,92,92	0
56	MG	1H	3068	1/1	0.91	0.21	65,65,65,65	0
56	MG	13	1769	1/1	0.91	0.11	82,82,82,82	0
56	MG	41	201	1/1	0.91	0.12	69,69,69,69	0
56	MG	13	1720	1/1	0.91	0.13	97,97,97,97	0
56	MG	1H	3535	1/1	0.91	0.09	80,80,80,80	0
56	MG	1H	3536	1/1	0.91	0.10	62,62,62,62	0
56	MG	1H	3543	1/1	0.91	0.14	59,59,59,59	0
56	MG	14	3311	1/1	0.91	0.10	105,105,105,105	0
56	MG	14	3010	1/1	0.91	0.16	68,68,68,68	0
56	MG	88	201	1/1	0.91	0.26	79,79,79,79	0
56	MG	14	3173	1/1	0.91	0.11	77,77,77,77	0
56	MG	1H	3351	1/1	0.91	0.26	68,68,68,68	0
56	MG	1H	3354	1/1	0.91	0.09	81,81,81,81	0
56	MG	13	1657	1/1	0.91	0.22	101,101,101,101	0
56	MG	13	1658	1/1	0.91	0.19	96,96,96,96	0
56	MG	1H	3076	1/1	0.91	0.16	88,88,88,88	0
56	MG	1H	3220	1/1	0.91	0.29	79,79,79,79	0
56	MG	1H	3364	1/1	0.91	0.12	87,87,87,87	0
56	MG	1H	3367	1/1	0.91	0.15	97,97,97,97	0
56	MG	1H	3101	1/1	0.91	0.38	91,91,91,91	0
56	MG	14	3032	1/1	0.91	0.15	73,73,73,73	0
56	MG	1H	3452	1/1	0.91	0.04	81,81,81,81	0
56	MG	14	3035	1/1	0.91	0.16	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	14	3353	1/1	0.91	0.08	64,64,64,64	0
56	MG	14	3038	1/1	0.91	0.13	63,63,63,63	0
56	MG	14	3039	1/1	0.91	0.15	61,61,61,61	0
56	MG	1G	1613	1/1	0.91	0.09	88,88,88,88	0
56	MG	14	3042	1/1	0.91	0.34	82,82,82,82	0
56	MG	1H	3309	1/1	0.91	0.47	76,76,76,76	0
56	MG	1H	3077	1/1	0.91	0.45	62,62,62,62	0
56	MG	1H	3580	1/1	0.91	0.33	77,77,77,77	0
56	MG	1H	3158	1/1	0.91	0.17	81,81,81,81	0
56	MG	1G	1705	1/1	0.91	0.10	84,84,84,84	0
56	MG	13	1630	1/1	0.91	0.12	74,74,74,74	0
56	MG	1G	1707	1/1	0.91	0.08	92,92,92,92	0
56	MG	1H	3315	1/1	0.91	0.26	101,101,101,101	0
56	MG	14	3055	1/1	0.91	0.27	89,89,89,89	0
56	MG	14	3220	1/1	0.91	0.13	95,95,95,95	0
56	MG	14	3222	1/1	0.91	0.33	94,94,94,94	0
56	MG	1H	3163	1/1	0.91	0.28	74,74,74,74	0
56	MG	1H	3230	1/1	0.91	0.18	96,96,96,96	0
56	MG	1H	3592	1/1	0.91	0.09	96,96,96,96	0
56	MG	13	1681	1/1	0.91	0.12	98,98,98,98	0
56	MG	1H	3116	1/1	0.91	0.28	71,71,71,71	0
56	MG	14	3418	1/1	0.91	0.12	99,99,99,99	0
56	MG	14	3419	1/1	0.91	0.06	84,84,84,84	0
56	MG	1G	1717	1/1	0.91	0.07	129,129,129,129	0
56	MG	1H	3409	1/1	0.91	0.53	75,75,75,75	0
56	MG	1H	3279	1/1	0.91	0.15	93,93,93,93	0
56	MG	1H	3412	1/1	0.91	0.17	86,86,86,86	0
56	MG	1H	3413	1/1	0.91	0.19	81,81,81,81	0
56	MG	14	3266	1/1	0.91	0.26	85,85,85,85	0
56	MG	1H	3471	1/1	0.91	0.36	91,91,91,91	0
56	MG	1H	3200	1/1	0.91	0.18	79,79,79,79	0
56	MG	1H	3415	1/1	0.91	0.31	77,77,77,77	0
56	MG	1G	1728	1/1	0.91	0.11	96,96,96,96	0
56	MG	1H	3618	1/1	0.91	0.36	104,104,104,104	0
56	MG	1G	1732	1/1	0.91	0.08	102,102,102,102	0
56	MG	1H	3476	1/1	0.91	0.08	92,92,92,92	0
56	MG	1G	1648	1/1	0.91	0.24	85,85,85,85	0
56	MG	1H	3170	1/1	0.91	0.17	73,73,73,73	0
56	MG	16	205	1/1	0.91	0.17	70,70,70,70	0
56	MG	13	1745	1/1	0.91	0.20	87,87,87,87	0
56	MG	14	3118	1/1	0.91	0.07	66,66,66,66	0
56	MG	1H	3173	1/1	0.91	0.14	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	45	201	1/1	0.91	0.06	95,95,95,95	0
56	MG	1H	3285	1/1	0.91	1.01	85,85,85,85	0
56	MG	14	3126	1/1	0.91	0.24	102,102,102,102	0
56	MG	1H	3059	1/1	0.92	0.17	60,60,60,60	0
56	MG	14	3164	1/1	0.92	0.36	105,105,105,105	0
56	MG	14	3036	1/1	0.92	0.34	71,71,71,71	0
56	MG	1H	3098	1/1	0.92	0.18	66,66,66,66	0
56	MG	14	3170	1/1	0.92	0.23	105,105,105,105	0
56	MG	1H	3366	1/1	0.92	0.08	89,89,89,89	0
56	MG	14	3172	1/1	0.92	0.18	77,77,77,77	0
56	MG	1H	3326	1/1	0.92	0.18	67,67,67,67	0
56	MG	13	1640	1/1	0.92	0.16	65,65,65,65	0
56	MG	1H	3052	1/1	0.92	0.10	41,41,41,41	0
56	MG	14	3044	1/1	0.92	0.09	71,71,71,71	0
56	MG	1H	3103	1/1	0.92	0.39	64,64,64,64	0
56	MG	1H	3376	1/1	0.92	0.26	113,113,113,113	0
56	MG	14	3185	1/1	0.92	0.31	78,78,78,78	0
56	MG	1G	1660	1/1	0.92	0.15	91,91,91,91	0
56	MG	1G	1731	1/1	0.92	0.08	99,99,99,99	0
56	MG	1H	3480	1/1	0.92	0.08	113,113,113,113	0
56	MG	13	1743	1/1	0.92	0.20	91,91,91,91	0
56	MG	1H	3105	1/1	0.92	0.15	54,54,54,54	0
56	MG	13	1787	1/1	0.92	0.18	109,109,109,109	0
56	MG	14	3056	1/1	0.92	0.09	80,80,80,80	0
56	MG	1H	3593	1/1	0.92	0.21	61,61,61,61	0
56	MG	1H	3393	1/1	0.92	0.12	65,65,65,65	0
56	MG	1H	3488	1/1	0.92	0.18	53,53,53,53	0
56	MG	14	3332	1/1	0.92	0.09	57,57,57,57	0
56	MG	1G	1607	1/1	0.92	0.19	104,104,104,104	0
56	MG	1G	1608	1/1	0.92	0.17	108,108,108,108	0
56	MG	14	3070	1/1	0.92	0.14	72,72,72,72	0
56	MG	14	3345	1/1	0.92	0.10	89,89,89,89	0
56	MG	14	3349	1/1	0.92	0.09	60,60,60,60	0
56	MG	14	3212	1/1	0.92	0.43	91,91,91,91	0
56	MG	1H	3143	1/1	0.92	0.23	78,78,78,78	0
56	MG	14	3358	1/1	0.92	0.07	80,80,80,80	0
56	MG	1H	3493	1/1	0.92	0.15	48,48,48,48	0
56	MG	14	3362	1/1	0.92	0.08	96,96,96,96	0
56	MG	1H	3401	1/1	0.92	0.34	77,77,77,77	0
56	MG	1G	1679	1/1	0.92	0.16	74,74,74,74	0
56	MG	1G	1755	1/1	0.92	0.05	119,119,119,119	0
56	MG	1H	3144	1/1	0.92	0.16	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	2A	201	1/1	0.92	0.11	85,85,85,85	0
56	MG	1H	3405	1/1	0.92	0.24	80,80,80,80	0
56	MG	14	3221	1/1	0.92	0.10	88,88,88,88	0
56	MG	1H	3339	1/1	0.92	0.27	74,74,74,74	0
56	MG	1H	3066	1/1	0.92	0.20	66,66,66,66	0
56	MG	1B	101	1/1	0.92	0.17	92,92,92,92	0
56	MG	1H	3616	1/1	0.92	0.35	73,73,73,73	0
56	MG	1G	1694	1/1	0.92	0.15	102,102,102,102	0
56	MG	1H	3221	1/1	0.92	0.34	89,89,89,89	0
56	MG	1H	3620	1/1	0.92	0.05	73,73,73,73	0
56	MG	14	3003	1/1	0.92	0.13	47,47,47,47	0
56	MG	14	3004	1/1	0.92	0.12	73,73,73,73	0
56	MG	14	3256	1/1	0.92	0.13	75,75,75,75	0
56	MG	14	3261	1/1	0.92	0.40	93,93,93,93	0
56	MG	1G	1628	1/1	0.92	0.31	89,89,89,89	0
56	MG	14	3263	1/1	0.92	0.41	81,81,81,81	0
56	MG	14	3007	1/1	0.92	0.10	61,61,61,61	0
56	MG	1H	3534	1/1	0.92	0.11	51,51,51,51	0
56	MG	1H	3310	1/1	0.92	0.15	82,82,82,82	0
56	MG	13	1735	1/1	0.92	0.33	85,85,85,85	0
56	MG	1G	1634	1/1	0.92	0.15	89,89,89,89	0
56	MG	14	3425	1/1	0.92	0.17	95,95,95,95	0
56	MG	14	3132	1/1	0.92	0.19	58,58,58,58	0
56	MG	13	1687	1/1	0.92	0.26	82,82,82,82	0
56	MG	13	1664	1/1	0.92	0.41	91,91,91,91	0
56	MG	14	3019	1/1	0.92	0.14	70,70,70,70	0
56	MG	14	3139	1/1	0.92	0.18	69,69,69,69	0
56	MG	1H	3287	1/1	0.92	0.79	80,80,80,80	0
56	MG	14	3141	1/1	0.92	0.32	74,74,74,74	0
56	MG	1H	3352	1/1	0.92	0.69	68,68,68,68	0
56	MG	14	3145	1/1	0.92	0.21	88,88,88,88	0
56	MG	1H	3557	1/1	0.92	0.09	59,59,59,59	0
56	MG	1H	3558	1/1	0.92	0.09	100,100,100,100	0
56	MG	1H	3131	1/1	0.92	0.26	65,65,65,65	0
56	MG	1H	3184	1/1	0.92	0.30	79,79,79,79	0
56	MG	1H	3157	1/1	0.92	0.24	78,78,78,78	0
56	MG	14	3288	1/1	0.92	0.32	94,94,94,94	0
56	MG	1H	3319	1/1	0.92	0.15	85,85,85,85	0
56	MG	1H	3570	1/1	0.92	0.11	54,54,54,54	0
56	MG	14	3161	1/1	0.92	0.20	66,66,66,66	0
56	MG	1H	3505	1/1	0.93	0.12	51,51,51,51	0
56	MG	1H	3506	1/1	0.93	0.15	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3508	1/1	0.93	0.15	74,74,74,74	0
56	MG	1H	3513	1/1	0.93	0.23	83,83,83,83	0
56	MG	1H	3622	1/1	0.93	0.09	76,76,76,76	0
56	MG	1H	3371	1/1	0.93	0.76	72,72,72,72	0
56	MG	14	3192	1/1	0.93	0.09	77,77,77,77	0
56	MG	1G	1730	1/1	0.93	0.08	72,72,72,72	0
56	MG	14	3313	1/1	0.93	0.05	82,82,82,82	0
56	MG	14	3195	1/1	0.93	0.14	84,84,84,84	0
56	MG	1H	3519	1/1	0.93	0.25	73,73,73,73	0
56	MG	13	1634	1/1	0.93	0.19	118,118,118,118	0
56	MG	1G	1733	1/1	0.93	0.09	121,121,121,121	0
56	MG	1H	3521	1/1	0.93	0.13	66,66,66,66	0
56	MG	14	3066	1/1	0.93	0.24	67,67,67,67	0
56	MG	1H	3199	1/1	0.93	0.08	116,116,116,116	0
56	MG	13	1750	1/1	0.93	0.09	122,122,122,122	0
56	MG	1H	3380	1/1	0.93	0.26	66,66,66,66	0
56	MG	1H	3529	1/1	0.93	0.12	49,49,49,49	0
56	MG	1H	3327	1/1	0.93	0.30	65,65,65,65	0
56	MG	14	3339	1/1	0.93	0.08	61,61,61,61	0
56	MG	13	1643	1/1	0.93	0.29	78,78,78,78	0
56	MG	13	1646	1/1	0.93	0.19	58,58,58,58	0
56	MG	1H	3540	1/1	0.93	0.05	85,85,85,85	0
56	MG	1G	1662	1/1	0.93	0.30	96,96,96,96	0
56	MG	14	3346	1/1	0.93	0.07	60,60,60,60	0
56	MG	1G	1751	1/1	0.93	0.13	95,95,95,95	0
56	MG	1H	3169	1/1	0.93	0.22	56,56,56,56	0
56	MG	14	3083	1/1	0.93	0.15	73,73,73,73	0
56	MG	14	3354	1/1	0.93	0.06	68,68,68,68	0
56	MG	1H	3129	1/1	0.93	0.23	77,77,77,77	0
56	MG	13	1780	1/1	0.93	0.07	106,106,106,106	0
56	MG	1H	3133	1/1	0.93	0.20	67,67,67,67	0
56	MG	14	3223	1/1	0.93	0.08	93,93,93,93	0
56	MG	1H	3556	1/1	0.93	0.11	58,58,58,58	0
56	MG	13	1612	1/1	0.93	0.16	71,71,71,71	0
56	MG	1H	3460	1/1	0.93	0.16	94,94,94,94	0
56	MG	1H	3561	1/1	0.93	0.12	78,78,78,78	0
56	MG	13	1760	1/1	0.93	0.15	127,127,127,127	0
56	MG	1H	3338	1/1	0.93	0.16	83,83,83,83	0
56	MG	1H	3061	1/1	0.93	0.20	66,66,66,66	0
56	MG	14	3378	1/1	0.93	0.11	69,69,69,69	0
56	MG	14	3379	1/1	0.93	0.06	66,66,66,66	0
56	MG	1H	3003	1/1	0.93	0.17	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3383	1/1	0.93	0.09	62,62,62,62	0
56	MG	14	3251	1/1	0.93	0.24	77,77,77,77	0
56	MG	1G	1681	1/1	0.93	0.22	89,89,89,89	0
56	MG	1H	3091	1/1	0.93	0.20	68,68,68,68	0
56	MG	1H	3467	1/1	0.93	0.14	102,102,102,102	0
56	MG	13	1739	1/1	0.93	0.26	74,74,74,74	0
56	MG	1H	3302	1/1	0.93	0.07	98,98,98,98	0
56	MG	14	3265	1/1	0.93	0.16	83,83,83,83	0
56	MG	1G	1691	1/1	0.93	0.33	106,106,106,106	0
56	MG	14	3406	1/1	0.93	0.07	60,60,60,60	0
56	MG	1H	3064	1/1	0.93	0.08	59,59,59,59	0
56	MG	13	1708	1/1	0.93	0.22	76,76,76,76	0
56	MG	1H	3011	1/1	0.93	0.12	46,46,46,46	0
56	MG	1G	1610	1/1	0.93	0.22	83,83,83,83	0
56	MG	13	1677	1/1	0.93	0.26	94,94,94,94	0
56	MG	1G	1615	1/1	0.93	0.32	87,87,87,87	0
56	MG	14	3020	1/1	0.93	0.27	55,55,55,55	0
56	MG	13	1620	1/1	0.93	0.40	69,69,69,69	0
56	MG	14	3151	1/1	0.93	0.34	88,88,88,88	0
56	MG	1H	3583	1/1	0.93	0.17	52,52,52,52	0
56	MG	1H	3355	1/1	0.93	0.36	62,62,62,62	0
56	MG	1H	3478	1/1	0.93	0.17	68,68,68,68	0
56	MG	13	1795	1/1	0.93	0.15	100,100,100,100	0
56	MG	13	1654	1/1	0.93	0.32	86,86,86,86	0
56	MG	13	1800	1/1	0.93	0.20	118,118,118,118	0
56	MG	1J	201	1/1	0.93	0.30	95,95,95,95	0
56	MG	1H	3048	1/1	0.93	0.27	67,67,67,67	0
56	MG	1J	203	1/1	0.93	0.10	98,98,98,98	0
56	MG	14	3033	1/1	0.93	0.13	86,86,86,86	0
56	MG	1H	3363	1/1	0.93	0.22	83,83,83,83	0
56	MG	1H	3154	1/1	0.93	0.17	74,74,74,74	0
56	MG	1G	1713	1/1	0.93	0.08	119,119,119,119	0
56	MG	1H	3156	1/1	0.93	0.40	69,69,69,69	0
56	MG	13	1616	1/1	0.93	0.38	79,79,79,79	0
56	MG	1H	3601	1/1	0.93	0.09	84,84,84,84	0
56	MG	1H	3368	1/1	0.93	0.22	106,106,106,106	0
56	MG	1H	3496	1/1	0.93	0.12	66,66,66,66	0
56	MG	13	1713	1/1	0.93	0.22	82,82,82,82	0
56	MG	1H	3501	1/1	0.93	0.12	57,57,57,57	0
56	MG	1H	3502	1/1	0.94	0.15	49,49,49,49	0
56	MG	1H	3161	1/1	0.94	0.23	76,76,76,76	0
56	MG	1H	3108	1/1	0.94	0.29	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3245	1/1	0.94	0.23	57,57,57,57	0
56	MG	1H	3512	1/1	0.94	0.13	65,65,65,65	0
56	MG	13	1615	1/1	0.94	0.23	103,103,103,103	0
56	MG	1H	3431	1/1	0.94	0.13	54,54,54,54	0
56	MG	1H	3432	1/1	0.94	0.14	83,83,83,83	0
56	MG	14	3146	1/1	0.94	0.27	83,83,83,83	0
56	MG	1H	3357	1/1	0.94	0.30	66,66,66,66	0
56	MG	16	208	1/1	0.94	0.30	95,95,95,95	0
56	MG	14	3153	1/1	0.94	0.18	90,90,90,90	0
56	MG	1H	3017	1/1	0.94	0.18	51,51,51,51	0
56	MG	1H	3018	1/1	0.94	0.17	49,49,49,49	0
56	MG	1G	1668	1/1	0.94	0.30	106,106,106,106	0
56	MG	1H	3125	1/1	0.94	0.16	52,52,52,52	0
56	MG	16	212	1/1	0.94	0.37	65,65,65,65	0
56	MG	14	3159	1/1	0.94	0.20	66,66,66,66	0
56	MG	1H	3257	1/1	0.94	0.27	82,82,82,82	0
56	MG	1H	3527	1/1	0.94	0.17	50,50,50,50	0
56	MG	13	1754	1/1	0.94	0.25	108,108,108,108	0
56	MG	14	3016	1/1	0.94	0.17	51,51,51,51	0
56	MG	1H	3532	1/1	0.94	0.14	85,85,85,85	0
56	MG	14	3314	1/1	0.94	0.12	126,126,126,126	0
56	MG	1H	3365	1/1	0.94	0.18	83,83,83,83	0
56	MG	14	3169	1/1	0.94	1.10	73,73,73,73	0
56	MG	1H	3171	1/1	0.94	0.24	90,90,90,90	0
56	MG	14	3021	1/1	0.94	0.19	47,47,47,47	0
56	MG	14	3022	1/1	0.94	0.10	78,78,78,78	0
56	MG	1H	3262	1/1	0.94	0.65	73,73,73,73	0
56	MG	14	3175	1/1	0.94	0.11	70,70,70,70	0
56	MG	1H	3538	1/1	0.94	0.10	46,46,46,46	0
56	MG	13	1803	1/1	0.94	0.06	97,97,97,97	0
56	MG	1G	1689	1/1	0.94	0.31	81,81,81,81	0
56	MG	1H	3369	1/1	0.94	0.81	95,95,95,95	0
56	MG	14	3333	1/1	0.94	0.10	80,80,80,80	0
56	MG	13	1679	1/1	0.94	0.36	83,83,83,83	0
56	MG	1G	1692	1/1	0.94	0.35	87,87,87,87	0
56	MG	14	3341	1/1	0.94	0.11	46,46,46,46	0
56	MG	14	3031	1/1	0.94	0.18	63,63,63,63	0
56	MG	1H	3022	1/1	0.94	0.16	51,51,51,51	0
56	MG	1H	3454	1/1	0.94	0.14	93,93,93,93	0
56	MG	13	1604	1/1	0.94	0.08	77,77,77,77	0
56	MG	3E	301	1/1	0.94	0.11	121,121,121,121	0
56	MG	I8	101	1/1	0.94	0.20	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1781	1/1	0.94	0.07	97,97,97,97	0
56	MG	Q8	101	1/1	0.94	0.19	68,68,68,68	0
56	MG	1G	1700	1/1	0.94	0.28	113,113,113,113	0
56	MG	14	3359	1/1	0.94	0.09	105,105,105,105	0
56	MG	14	3204	1/1	0.94	0.24	76,76,76,76	0
56	MG	1H	3559	1/1	0.94	0.10	73,73,73,73	0
56	MG	14	3363	1/1	0.94	0.04	98,98,98,98	0
56	MG	1H	3560	1/1	0.94	0.12	84,84,84,84	0
56	MG	14	3207	1/1	0.94	0.18	67,67,67,67	0
56	MG	13	1740	1/1	0.94	0.47	76,76,76,76	0
56	MG	1H	3381	1/1	0.94	0.06	97,97,97,97	0
56	MG	1H	3322	1/1	0.94	0.09	94,94,94,94	0
56	MG	13	1618	1/1	0.94	0.12	97,97,97,97	0
56	MG	14	3050	1/1	0.94	0.09	62,62,62,62	0
56	MG	13	1602	1/1	0.94	0.18	59,59,59,59	0
56	MG	1H	3274	1/1	0.94	0.29	79,79,79,79	0
56	MG	13	1633	1/1	0.94	0.23	82,82,82,82	0
56	MG	1H	3399	1/1	0.94	0.31	61,61,61,61	0
56	MG	14	3382	1/1	0.94	0.06	88,88,88,88	0
56	MG	1G	1614	1/1	0.94	0.12	71,71,71,71	0
56	MG	1H	3400	1/1	0.94	0.29	48,48,48,48	0
56	MG	1H	3577	1/1	0.94	0.10	49,49,49,49	0
56	MG	14	3390	1/1	0.94	0.12	66,66,66,66	0
56	MG	14	3058	1/1	0.94	0.10	78,78,78,78	0
56	MG	13	1661	1/1	0.94	0.20	75,75,75,75	0
56	MG	14	3398	1/1	0.94	0.09	81,81,81,81	0
56	MG	1H	3008	1/1	0.94	0.11	47,47,47,47	0
56	MG	1G	1719	1/1	0.94	0.11	112,112,112,112	0
56	MG	1H	3224	1/1	0.94	0.32	85,85,85,85	0
56	MG	14	3404	1/1	0.94	0.16	85,85,85,85	0
56	MG	1G	1622	1/1	0.94	0.23	87,87,87,87	0
56	MG	1H	3406	1/1	0.94	0.29	91,91,91,91	0
56	MG	14	3408	1/1	0.94	0.14	91,91,91,91	0
56	MG	1H	3225	1/1	0.94	0.16	76,76,76,76	0
56	MG	1H	3226	1/1	0.94	0.13	77,77,77,77	0
56	MG	14	3412	1/1	0.94	0.04	102,102,102,102	0
56	MG	14	3413	1/1	0.94	0.04	93,93,93,93	0
56	MG	14	3417	1/1	0.94	0.12	80,80,80,80	0
56	MG	14	3236	1/1	0.94	0.20	69,69,69,69	0
56	MG	14	3237	1/1	0.94	0.28	81,81,81,81	0
56	MG	1H	3584	1/1	0.94	0.06	58,58,58,58	0
56	MG	1H	3585	1/1	0.94	0.19	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	14	3422	1/1	0.94	0.14	72,72,72,72	0
56	MG	14	3241	1/1	0.94	0.18	59,59,59,59	0
56	MG	1G	1629	1/1	0.94	0.36	84,84,84,84	0
56	MG	1H	3586	1/1	0.94	0.08	53,53,53,53	0
56	MG	1H	3587	1/1	0.94	0.13	51,51,51,51	0
56	MG	13	1715	1/1	0.94	0.28	102,102,102,102	0
56	MG	14	3431	1/1	0.94	0.12	104,104,104,104	0
56	MG	13	1732	1/1	0.94	0.15	65,65,65,65	0
56	MG	1H	3037	1/1	0.94	0.14	57,57,57,57	0
56	MG	1H	3286	1/1	0.94	1.15	68,68,68,68	0
56	MG	13	1717	1/1	0.94	0.18	98,98,98,98	0
56	MG	1H	3150	1/1	0.94	0.17	88,88,88,88	0
56	MG	13	1655	1/1	0.94	0.25	94,94,94,94	0
56	MG	1H	3013	1/1	0.94	0.19	42,42,42,42	0
56	MG	1J	204	1/1	0.94	0.12	95,95,95,95	0
56	MG	1H	3042	1/1	0.94	0.35	79,79,79,79	0
56	MG	1H	3344	1/1	0.94	0.22	89,89,89,89	0
56	MG	1H	3491	1/1	0.94	0.16	57,57,57,57	0
56	MG	14	3123	1/1	0.94	0.19	86,86,86,86	0
56	MG	1H	3015	1/1	0.94	0.20	47,47,47,47	0
56	MG	1H	3106	1/1	0.94	0.17	77,77,77,77	0
56	MG	1H	3074	1/1	0.94	0.10	57,57,57,57	0
56	MG	1H	3613	1/1	0.94	0.09	78,78,78,78	0
56	MG	1G	1754	1/1	0.94	0.08	104,104,104,104	0
56	MG	1H	3423	1/1	0.94	0.33	74,74,74,74	0
56	MG	1H	3615	1/1	0.94	0.06	108,108,108,108	0
56	MG	14	3136	1/1	0.95	0.24	58,58,58,58	0
56	MG	1H	3433	1/1	0.95	0.15	51,51,51,51	0
56	MG	16	201	1/1	0.95	0.29	79,79,79,79	0
56	MG	2L	101	1/1	0.95	0.23	86,86,86,86	0
56	MG	13	1638	1/1	0.95	0.34	85,85,85,85	0
56	MG	16	203	1/1	0.95	0.12	85,85,85,85	0
56	MG	1H	3234	1/1	0.95	0.12	67,67,67,67	0
56	MG	14	3148	1/1	0.95	0.30	84,84,84,84	0
56	MG	1H	3088	1/1	0.95	0.10	62,62,62,62	0
56	MG	14	3150	1/1	0.95	0.12	73,73,73,73	0
56	MG	14	3301	1/1	0.95	0.19	85,85,85,85	0
56	MG	13	1731	1/1	0.95	0.30	75,75,75,75	0
56	MG	1H	3190	1/1	0.95	0.15	80,80,80,80	0
56	MG	13	1771	1/1	0.95	0.14	81,81,81,81	0
56	MG	1H	3443	1/1	0.95	0.18	74,74,74,74	0
56	MG	1H	3024	1/1	0.95	0.13	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	13	1772	1/1	0.95	0.09	93,93,93,93	0
56	MG	1H	3242	1/1	0.95	0.26	82,82,82,82	0
56	MG	1H	3243	1/1	0.95	0.20	60,60,60,60	0
56	MG	11	301	1/1	0.95	0.30	47,47,47,47	0
56	MG	14	3014	1/1	0.95	0.08	50,50,50,50	0
56	MG	14	3015	1/1	0.95	0.06	51,51,51,51	0
56	MG	1H	3147	1/1	0.95	0.26	83,83,83,83	0
56	MG	13	1647	1/1	0.95	0.13	97,97,97,97	0
56	MG	21	303	1/1	0.95	0.23	51,51,51,51	0
56	MG	1H	3246	1/1	0.95	0.21	81,81,81,81	0
56	MG	1H	3149	1/1	0.95	0.24	64,64,64,64	0
56	MG	1H	3552	1/1	0.95	0.12	78,78,78,78	0
56	MG	1G	1686	1/1	0.95	0.32	69,69,69,69	0
56	MG	1H	3553	1/1	0.95	0.07	62,62,62,62	0
56	MG	14	3325	1/1	0.95	0.17	63,63,63,63	0
56	MG	14	3174	1/1	0.95	0.25	81,81,81,81	0
56	MG	14	3331	1/1	0.95	0.19	82,82,82,82	0
56	MG	1G	1688	1/1	0.95	0.19	89,89,89,89	0
56	MG	13	1733	1/1	0.95	0.11	64,64,64,64	0
56	MG	14	3334	1/1	0.95	0.07	51,51,51,51	0
56	MG	14	3335	1/1	0.95	0.12	57,57,57,57	0
56	MG	14	3177	1/1	0.95	0.14	92,92,92,92	0
56	MG	13	1775	1/1	0.95	0.05	68,68,68,68	0
56	MG	1H	3375	1/1	0.95	0.17	70,70,70,70	0
56	MG	14	3182	1/1	0.95	0.10	91,91,91,91	0
56	MG	1H	3253	1/1	0.95	0.21	72,72,72,72	0
56	MG	1H	3314	1/1	0.95	0.12	72,72,72,72	0
56	MG	1H	3255	1/1	0.95	0.22	75,75,75,75	0
56	MG	1H	3152	1/1	0.95	0.26	75,75,75,75	0
56	MG	BI	201	1/1	0.95	0.10	113,113,113,113	0
56	MG	1H	3563	1/1	0.95	0.06	81,81,81,81	0
56	MG	1H	3464	1/1	0.95	0.11	71,71,71,71	0
56	MG	14	3356	1/1	0.95	0.13	81,81,81,81	0
56	MG	1H	3258	1/1	0.95	0.27	115,115,115,115	0
56	MG	1G	1602	1/1	0.95	0.11	83,83,83,83	0
56	MG	14	3196	1/1	0.95	0.13	78,78,78,78	0
56	MG	1H	3388	1/1	0.95	0.26	54,54,54,54	0
56	MG	13	1751	1/1	0.95	0.28	106,106,106,106	0
56	MG	1H	3321	1/1	0.95	0.07	99,99,99,99	0
56	MG	1G	1704	1/1	0.95	0.07	85,85,85,85	0
56	MG	13	1719	1/1	0.95	0.14	106,106,106,106	0
56	MG	13	1628	1/1	0.95	0.18	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3576	1/1	0.95	0.06	68,68,68,68	0
56	MG	14	3048	1/1	0.95	0.29	66,66,66,66	0
56	MG	14	3370	1/1	0.95	0.07	70,70,70,70	0
56	MG	14	3049	1/1	0.95	0.10	89,89,89,89	0
56	MG	13	1755	1/1	0.95	0.06	94,94,94,94	0
56	MG	1H	3325	1/1	0.95	0.09	90,90,90,90	0
56	MG	1G	1711	1/1	0.95	0.11	109,109,109,109	0
56	MG	1H	3159	1/1	0.95	0.21	66,66,66,66	0
56	MG	1H	3474	1/1	0.95	0.05	83,83,83,83	0
56	MG	1H	3475	1/1	0.95	0.19	58,58,58,58	0
56	MG	1H	3208	1/1	0.95	0.29	86,86,86,86	0
56	MG	14	3387	1/1	0.95	0.11	61,61,61,61	0
56	MG	1H	3035	1/1	0.95	0.27	90,90,90,90	0
56	MG	1G	1618	1/1	0.95	0.11	74,74,74,74	0
56	MG	1H	3069	1/1	0.95	0.21	80,80,80,80	0
56	MG	1H	3006	1/1	0.95	0.18	52,52,52,52	0
56	MG	14	3395	1/1	0.95	0.10	89,89,89,89	0
56	MG	1H	3007	1/1	0.95	0.07	60,60,60,60	0
56	MG	1G	1623	1/1	0.95	0.18	86,86,86,86	0
56	MG	1H	3411	1/1	0.95	0.17	71,71,71,71	0
56	MG	1H	3588	1/1	0.95	0.15	52,52,52,52	0
56	MG	1H	3072	1/1	0.95	0.09	86,86,86,86	0
56	MG	14	3227	1/1	0.95	0.12	75,75,75,75	0
56	MG	1H	3115	1/1	0.95	0.12	69,69,69,69	0
56	MG	14	3407	1/1	0.95	0.14	84,84,84,84	0
56	MG	1H	3485	1/1	0.95	0.11	55,55,55,55	0
56	MG	14	3232	1/1	0.95	0.17	66,66,66,66	0
56	MG	13	1785	1/1	0.95	0.25	105,105,105,105	0
56	MG	13	1649	1/1	0.95	0.23	76,76,76,76	0
56	MG	13	1722	1/1	0.95	0.26	99,99,99,99	0
56	MG	13	1738	1/1	0.95	0.21	96,96,96,96	0
56	MG	13	1791	1/1	0.95	0.09	85,85,85,85	0
56	MG	13	1676	1/1	0.95	0.13	68,68,68,68	0
56	MG	1G	1636	1/1	0.95	0.26	99,99,99,99	0
56	MG	14	3248	1/1	0.95	0.20	80,80,80,80	0
56	MG	14	3089	1/1	0.95	0.20	72,72,72,72	0
56	MG	13	1652	1/1	0.95	0.16	75,75,75,75	0
56	MG	1H	3600	1/1	0.95	0.10	84,84,84,84	0
56	MG	13	1701	1/1	0.95	0.88	95,95,95,95	0
56	MG	1H	3135	1/1	0.95	0.30	59,59,59,59	0
56	MG	14	3428	1/1	0.95	0.08	81,81,81,81	0
56	MG	1G	1744	1/1	0.95	0.17	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3606	1/1	0.95	0.12	85,85,85,85	0
56	MG	14	3105	1/1	0.95	0.18	64,64,64,64	0
56	MG	14	3107	1/1	0.95	0.19	68,68,68,68	0
56	MG	14	3108	1/1	0.95	0.16	81,81,81,81	0
56	MG	14	3269	1/1	0.95	0.21	80,80,80,80	0
56	MG	1H	3504	1/1	0.95	0.10	56,56,56,56	0
56	MG	14	3111	1/1	0.95	0.24	78,78,78,78	0
56	MG	1G	1644	1/1	0.95	0.17	100,100,100,100	0
56	MG	1H	3181	1/1	0.95	0.67	71,71,71,71	0
56	MG	1G	1749	1/1	0.95	0.08	114,114,114,114	0
56	MG	1H	3611	1/1	0.95	0.12	88,88,88,88	0
56	MG	1H	3081	1/1	0.95	0.25	91,91,91,91	0
56	MG	29	303	1/1	0.95	0.17	64,64,64,64	0
56	MG	1H	3348	1/1	0.95	0.18	87,87,87,87	0
56	MG	1H	3511	1/1	0.95	0.13	42,42,42,42	0
56	MG	13	1796	1/1	0.95	0.08	79,79,79,79	0
56	MG	14	3131	1/1	0.95	0.38	78,78,78,78	0
56	MG	13	1626	1/1	0.95	0.05	78,78,78,78	0
56	MG	1H	3619	1/1	0.95	0.08	55,55,55,55	0
56	MG	13	1635	1/1	0.95	0.23	75,75,75,75	0
56	MG	13	1632	1/1	0.95	0.30	86,86,86,86	0
56	MG	E5	101	1/1	0.95	0.18	67,67,67,67	0
58	ZN	5A	101	1/1	0.95	0.09	125,125,125,125	0
56	MG	14	3060	1/1	0.96	0.10	64,64,64,64	0
56	MG	14	3061	1/1	0.96	0.09	74,74,74,74	0
56	MG	14	3187	1/1	0.96	0.18	62,62,62,62	0
56	MG	1H	3427	1/1	0.96	0.25	64,64,64,64	0
56	MG	5E	201	1/1	0.96	0.15	79,79,79,79	0
56	MG	13	1794	1/1	0.96	0.09	79,79,79,79	0
56	MG	1H	3178	1/1	0.96	0.14	91,91,91,91	0
56	MG	1H	3085	1/1	0.96	0.18	46,46,46,46	0
56	MG	14	3069	1/1	0.96	0.31	85,85,85,85	0
56	MG	1H	3494	1/1	0.96	0.12	40,40,40,40	0
56	MG	1H	3495	1/1	0.96	0.08	48,48,48,48	0
56	MG	14	3327	1/1	0.96	0.09	63,63,63,63	0
56	MG	14	3328	1/1	0.96	0.08	58,58,58,58	0
56	MG	14	3329	1/1	0.96	0.10	57,57,57,57	0
56	MG	1G	1750	1/1	0.96	0.06	109,109,109,109	0
56	MG	14	3203	1/1	0.96	0.65	83,83,83,83	0
56	MG	I8	102	1/1	0.96	0.05	66,66,66,66	0
56	MG	1H	3211	1/1	0.96	0.19	80,80,80,80	0
56	MG	1H	3111	1/1	0.96	0.20	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1H	3330	1/1	0.96	0.43	70,70,70,70	0
56	MG	1H	3377	1/1	0.96	0.24	49,49,49,49	0
56	MG	1G	1676	1/1	0.96	0.14	81,81,81,81	0
56	MG	1H	3438	1/1	0.96	0.07	94,94,94,94	0
56	MG	1G	1680	1/1	0.96	0.26	69,69,69,69	0
56	MG	14	3085	1/1	0.96	0.27	62,62,62,62	0
56	MG	1H	3112	1/1	0.96	0.15	57,57,57,57	0
56	MG	BA	201	1/1	0.96	0.07	102,102,102,102	0
56	MG	1H	3440	1/1	0.96	0.14	59,59,59,59	0
56	MG	1G	1684	1/1	0.96	0.07	89,89,89,89	0
56	MG	1H	3507	1/1	0.96	0.18	65,65,65,65	0
56	MG	5I	102	1/1	0.96	0.33	100,100,100,100	0
56	MG	1H	3509	1/1	0.96	0.09	77,77,77,77	0
56	MG	1H	3215	1/1	0.96	0.40	61,61,61,61	0
56	MG	14	3106	1/1	0.96	0.26	80,80,80,80	0
56	MG	1H	3114	1/1	0.96	0.42	90,90,90,90	0
56	MG	14	3361	1/1	0.96	0.07	80,80,80,80	0
56	MG	1G	1611	1/1	0.96	0.15	86,86,86,86	0
56	MG	14	3109	1/1	0.96	0.20	69,69,69,69	0
56	MG	13	1782	1/1	0.96	0.09	81,81,81,81	0
56	MG	14	3005	1/1	0.96	0.16	58,58,58,58	0
56	MG	14	3116	1/1	0.96	0.19	57,57,57,57	0
56	MG	1H	3051	1/1	0.96	0.10	46,46,46,46	0
56	MG	14	3231	1/1	0.96	0.23	57,57,57,57	0
56	MG	14	3122	1/1	0.96	0.25	55,55,55,55	0
56	MG	1H	3390	1/1	0.96	0.20	53,53,53,53	0
56	MG	14	3371	1/1	0.96	0.13	84,84,84,84	0
56	MG	1H	3391	1/1	0.96	0.24	61,61,61,61	0
56	MG	1H	3451	1/1	0.96	0.34	85,85,85,85	0
56	MG	14	3374	1/1	0.96	0.15	55,55,55,55	0
56	MG	14	3376	1/1	0.96	0.09	75,75,75,75	0
56	MG	14	3238	1/1	0.96	0.27	85,85,85,85	0
56	MG	1H	3392	1/1	0.96	0.25	54,54,54,54	0
56	MG	1H	3602	1/1	0.96	0.06	88,88,88,88	0
56	MG	1H	3119	1/1	0.96	0.37	76,76,76,76	0
56	MG	14	3243	1/1	0.96	0.11	52,52,52,52	0
56	MG	1H	3394	1/1	0.96	0.31	67,67,67,67	0
56	MG	14	3386	1/1	0.96	0.12	54,54,54,54	0
56	MG	14	3246	1/1	0.96	0.32	86,86,86,86	0
56	MG	1H	3089	1/1	0.96	0.14	62,62,62,62	0
56	MG	14	3389	1/1	0.96	0.09	54,54,54,54	0
56	MG	1H	3397	1/1	0.96	0.34	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3254	1/1	0.96	0.32	55,55,55,55	0
56	MG	14	3392	1/1	0.96	0.07	62,62,62,62	0
56	MG	14	3017	1/1	0.96	0.19	77,77,77,77	0
56	MG	14	3258	1/1	0.96	0.27	50,50,50,50	0
56	MG	14	3397	1/1	0.96	0.18	70,70,70,70	0
56	MG	14	3260	1/1	0.96	0.29	91,91,91,91	0
56	MG	1H	3299	1/1	0.96	0.25	87,87,87,87	0
56	MG	1H	3123	1/1	0.96	0.16	70,70,70,70	0
56	MG	13	1695	1/1	0.96	0.15	86,86,86,86	0
56	MG	1H	3402	1/1	0.96	0.14	58,58,58,58	0
56	MG	13	1797	1/1	0.96	0.13	105,105,105,105	0
56	MG	1H	3539	1/1	0.96	0.06	76,76,76,76	0
56	MG	14	3142	1/1	0.96	0.14	70,70,70,70	0
56	MG	13	1798	1/1	0.96	0.22	80,80,80,80	0
56	MG	1G	1632	1/1	0.96	0.27	83,83,83,83	0
56	MG	1H	3541	1/1	0.96	0.07	75,75,75,75	0
56	MG	14	3271	1/1	0.96	0.22	73,73,73,73	0
56	MG	1H	3306	1/1	0.96	0.28	87,87,87,87	0
56	MG	14	3414	1/1	0.96	0.11	86,86,86,86	0
56	MG	14	3415	1/1	0.96	0.09	101,101,101,101	0
56	MG	14	3416	1/1	0.96	0.09	98,98,98,98	0
56	MG	1H	3544	1/1	0.96	0.16	57,57,57,57	0
56	MG	1H	3545	1/1	0.96	0.04	63,63,63,63	0
56	MG	1H	3346	1/1	0.96	0.24	91,91,91,91	0
56	MG	14	3152	1/1	0.96	0.10	77,77,77,77	0
56	MG	1H	3130	1/1	0.96	0.25	70,70,70,70	0
56	MG	16	204	1/1	0.96	0.24	77,77,77,77	0
56	MG	13	1691	1/1	0.96	0.28	94,94,94,94	0
56	MG	1H	3349	1/1	0.96	1.26	74,74,74,74	0
56	MG	14	3282	1/1	0.96	0.23	67,67,67,67	0
56	MG	1H	3350	1/1	0.96	0.15	85,85,85,85	0
56	MG	14	3037	1/1	0.96	0.13	61,61,61,61	0
56	MG	1H	3094	1/1	0.96	0.11	48,48,48,48	0
56	MG	14	3430	1/1	0.96	0.10	90,90,90,90	0
56	MG	13	1786	1/1	0.96	0.06	65,65,65,65	0
56	MG	14	3040	1/1	0.96	0.16	62,62,62,62	0
56	MG	1G	1724	1/1	0.96	0.08	75,75,75,75	0
56	MG	1H	3057	1/1	0.96	0.21	52,52,52,52	0
56	MG	13	1761	1/1	0.96	0.09	110,110,110,110	0
56	MG	14	3167	1/1	0.96	0.15	81,81,81,81	0
56	MG	13	1644	1/1	0.96	0.26	89,89,89,89	0
56	MG	1H	3232	1/1	0.96	0.30	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3295	1/1	0.96	0.24	91,91,91,91	0
56	MG	1H	3273	1/1	0.96	0.08	73,73,73,73	0
56	MG	13	1776	1/1	0.96	0.10	93,93,93,93	0
56	MG	13	1744	1/1	0.96	0.17	81,81,81,81	0
56	MG	13	1770	1/1	0.96	0.10	89,89,89,89	0
56	MG	1H	3566	1/1	0.96	0.08	93,93,93,93	0
56	MG	1H	3203	1/1	0.96	0.09	70,70,70,70	0
56	MG	1H	3320	1/1	0.96	0.11	94,94,94,94	0
56	MG	1G	1737	1/1	0.96	0.13	127,127,127,127	0
56	MG	13	1617	1/1	0.96	0.08	84,84,84,84	0
56	MG	1H	3045	1/1	0.96	0.15	75,75,75,75	0
56	MG	45	202	1/1	0.96	0.23	84,84,84,84	0
56	MG	14	3180	1/1	0.96	0.29	82,82,82,82	0
56	MG	1G	1740	1/1	0.96	0.17	93,93,93,93	0
56	MG	1G	1741	1/1	0.96	0.12	98,98,98,98	0
56	MG	1H	3175	1/1	0.96	0.10	103,103,103,103	0
56	MG	14	3181	1/1	0.97	0.08	87,87,87,87	0
56	MG	1H	3005	1/1	0.97	0.23	56,56,56,56	0
56	MG	1H	3164	1/1	0.97	0.18	78,78,78,78	0
56	MG	1H	3497	1/1	0.97	0.12	40,40,40,40	0
56	MG	14	3112	1/1	0.97	0.20	83,83,83,83	0
56	MG	1H	3383	1/1	0.97	0.14	58,58,58,58	0
56	MG	14	3117	1/1	0.97	0.31	79,79,79,79	0
56	MG	14	3274	1/1	0.97	0.27	64,64,64,64	0
56	MG	14	3189	1/1	0.97	0.14	63,63,63,63	0
56	MG	1H	3500	1/1	0.97	0.14	43,43,43,43	0
56	MG	14	3119	1/1	0.97	0.14	91,91,91,91	0
56	MG	14	3120	1/1	0.97	0.23	70,70,70,70	0
56	MG	1H	3546	1/1	0.97	0.15	60,60,60,60	0
56	MG	1H	3385	1/1	0.97	0.23	75,75,75,75	0
56	MG	1H	3549	1/1	0.97	0.08	61,61,61,61	0
56	MG	1H	3050	1/1	0.97	0.18	51,51,51,51	0
56	MG	14	3375	1/1	0.97	0.09	75,75,75,75	0
56	MG	14	3199	1/1	0.97	0.29	67,67,67,67	0
56	MG	1H	3551	1/1	0.97	0.07	53,53,53,53	0
56	MG	1H	3027	1/1	0.97	0.18	40,40,40,40	0
56	MG	1H	3442	1/1	0.97	0.12	73,73,73,73	0
56	MG	14	3381	1/1	0.97	0.12	89,89,89,89	0
56	MG	13	1777	1/1	0.97	0.12	69,69,69,69	0
56	MG	1H	3295	1/1	0.97	0.18	65,65,65,65	0
56	MG	14	3384	1/1	0.97	0.14	81,81,81,81	0
56	MG	1H	3117	1/1	0.97	0.17	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3059	1/1	0.97	0.16	41,41,41,41	0
56	MG	13	1692	1/1	0.97	0.27	102,102,102,102	0
56	MG	1H	3120	1/1	0.97	0.29	75,75,75,75	0
56	MG	14	3293	1/1	0.97	0.23	81,81,81,81	0
56	MG	14	3063	1/1	0.97	0.12	80,80,80,80	0
56	MG	14	3138	1/1	0.97	0.11	71,71,71,71	0
56	MG	14	3296	1/1	0.97	0.18	68,68,68,68	0
56	MG	1H	3449	1/1	0.97	0.07	88,88,88,88	0
56	MG	BI	202	1/1	0.97	0.15	122,122,122,122	0
56	MG	1H	3514	1/1	0.97	0.13	84,84,84,84	0
56	MG	1G	1640	1/1	0.97	0.11	82,82,82,82	0
56	MG	1G	1736	1/1	0.97	0.09	111,111,111,111	0
56	MG	14	3401	1/1	0.97	0.06	85,85,85,85	0
56	MG	14	3302	1/1	0.97	0.12	56,56,56,56	0
56	MG	14	3144	1/1	0.97	0.13	65,65,65,65	0
56	MG	14	3305	1/1	0.97	0.13	60,60,60,60	0
56	MG	1H	3609	1/1	0.97	0.07	90,90,90,90	0
56	MG	1H	3260	1/1	0.97	0.28	69,69,69,69	0
56	MG	1H	3517	1/1	0.97	0.10	54,54,54,54	0
56	MG	13	1645	1/1	0.97	0.14	74,74,74,74	0
56	MG	14	3409	1/1	0.97	0.06	80,80,80,80	0
56	MG	1G	1645	1/1	0.97	0.14	101,101,101,101	0
56	MG	13	1752	1/1	0.97	0.07	86,86,86,86	0
56	MG	1H	3303	1/1	0.97	0.33	106,106,106,106	0
56	MG	1H	3263	1/1	0.97	0.20	64,64,64,64	0
56	MG	14	3226	1/1	0.97	0.31	60,60,60,60	0
56	MG	1G	1649	1/1	0.97	0.14	90,90,90,90	0
56	MG	14	3316	1/1	0.97	0.30	79,79,79,79	0
56	MG	14	3228	1/1	0.97	0.11	79,79,79,79	0
56	MG	1H	3571	1/1	0.97	0.11	58,58,58,58	0
56	MG	1H	3572	1/1	0.97	0.08	73,73,73,73	0
56	MG	13	1611	1/1	0.97	0.20	65,65,65,65	0
56	MG	1H	3525	1/1	0.97	0.13	58,58,58,58	0
56	MG	14	3233	1/1	0.97	0.20	72,72,72,72	0
56	MG	14	3086	1/1	0.97	0.20	59,59,59,59	0
56	MG	14	3087	1/1	0.97	0.28	60,60,60,60	0
56	MG	14	3088	1/1	0.97	0.18	61,61,61,61	0
56	MG	14	3426	1/1	0.97	0.06	108,108,108,108	0
56	MG	14	3326	1/1	0.97	0.10	53,53,53,53	0
56	MG	1H	3002	1/1	0.97	0.12	40,40,40,40	0
56	MG	14	3163	1/1	0.97	0.33	90,90,90,90	0
56	MG	14	3090	1/1	0.97	0.25	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3165	1/1	0.97	0.30	83,83,83,83	0
56	MG	14	3242	1/1	0.97	0.22	66,66,66,66	0
56	MG	1H	3486	1/1	0.97	0.14	45,45,45,45	0
56	MG	14	3093	1/1	0.97	0.17	56,56,56,56	0
56	MG	14	3095	1/1	0.97	0.28	92,92,92,92	0
56	MG	1H	3458	1/1	0.97	0.21	85,85,85,85	0
56	MG	14	3338	1/1	0.97	0.08	51,51,51,51	0
56	MG	14	3097	1/1	0.97	0.08	76,76,76,76	0
56	MG	14	3252	1/1	0.97	0.28	76,76,76,76	0
56	MG	14	3098	1/1	0.97	0.17	67,67,67,67	0
56	MG	1H	3160	1/1	0.97	0.15	66,66,66,66	0
56	MG	19	301	1/1	0.97	0.12	53,53,53,53	0
56	MG	1H	3533	1/1	0.97	0.07	46,46,46,46	0
56	MG	14	3344	1/1	0.97	0.10	66,66,66,66	0
56	MG	14	3259	1/1	0.97	0.36	87,87,87,87	0
56	MG	13	1623	1/1	0.97	0.17	106,106,106,106	0
56	MG	14	3347	1/1	0.97	0.10	53,53,53,53	0
56	MG	1G	1709	1/1	0.97	0.08	108,108,108,108	0
56	MG	14	3351	1/1	0.97	0.10	76,76,76,76	0
56	MG	14	3103	1/1	0.97	0.29	78,78,78,78	0
56	MG	1H	3004	1/1	0.97	0.15	35,35,35,35	0
56	MG	1H	3492	1/1	0.97	0.08	54,54,54,54	0
56	MG	1H	3331	1/1	0.97	0.55	69,69,69,69	0
56	MG	14	3357	1/1	0.97	0.10	67,67,67,67	0
56	MG	1H	3353	1/1	0.97	0.15	77,77,77,77	0
56	MG	13	1742	1/1	0.98	0.52	92,92,92,92	0
56	MG	1H	3537	1/1	0.98	0.08	52,52,52,52	0
56	MG	1H	3490	1/1	0.98	0.14	63,63,63,63	0
56	MG	1H	3378	1/1	0.98	0.18	56,56,56,56	0
56	MG	21	304	1/1	0.98	0.08	54,54,54,54	0
56	MG	1H	3379	1/1	0.98	0.32	85,85,85,85	0
56	MG	13	1716	1/1	0.98	0.10	94,94,94,94	0
56	MG	14	3377	1/1	0.98	0.09	51,51,51,51	0
56	MG	1H	3099	1/1	0.98	0.09	55,55,55,55	0
56	MG	13	1601	1/1	0.98	0.10	58,58,58,58	0
56	MG	14	3137	1/1	0.98	0.36	90,90,90,90	0
56	MG	14	3062	1/1	0.98	0.10	59,59,59,59	0
56	MG	1H	3118	1/1	0.98	0.26	74,74,74,74	0
56	MG	1H	3384	1/1	0.98	0.29	49,49,49,49	0
56	MG	13	1730	1/1	0.98	0.12	100,100,100,100	0
56	MG	1H	3596	1/1	0.98	0.11	75,75,75,75	0
56	MG	1H	3499	1/1	0.98	0.13	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3303	1/1	0.98	0.11	69,69,69,69	0
56	MG	1H	3102	1/1	0.98	0.33	63,63,63,63	0
56	MG	1H	3166	1/1	0.98	0.17	87,87,87,87	0
56	MG	1H	3167	1/1	0.98	0.24	83,83,83,83	0
56	MG	14	3147	1/1	0.98	0.31	94,94,94,94	0
56	MG	1H	3503	1/1	0.98	0.11	55,55,55,55	0
56	MG	13	1718	1/1	0.98	0.12	105,105,105,105	0
56	MG	14	3394	1/1	0.98	0.02	98,98,98,98	0
56	MG	1H	3555	1/1	0.98	0.22	85,85,85,85	0
56	MG	14	3396	1/1	0.98	0.11	54,54,54,54	0
56	MG	1H	3604	1/1	0.98	0.07	118,118,118,118	0
56	MG	14	3075	1/1	0.98	0.18	94,94,94,94	0
56	MG	14	3399	1/1	0.98	0.06	47,47,47,47	0
56	MG	14	3076	1/1	0.98	0.36	78,78,78,78	0
56	MG	1H	3605	1/1	0.98	0.09	90,90,90,90	0
56	MG	14	3078	1/1	0.98	0.10	54,54,54,54	0
56	MG	14	3013	1/1	0.98	0.15	50,50,50,50	0
56	MG	13	1650	1/1	0.98	0.36	100,100,100,100	0
56	MG	1H	3607	1/1	0.98	0.06	61,61,61,61	0
56	MG	1H	3124	1/1	0.98	0.20	52,52,52,52	0
56	MG	1H	3429	1/1	0.98	0.17	63,63,63,63	0
56	MG	1H	3038	1/1	0.98	0.16	44,44,44,44	0
56	MG	1G	1723	1/1	0.98	0.08	72,72,72,72	0
56	MG	1H	3359	1/1	0.98	0.18	58,58,58,58	0
56	MG	1H	3612	1/1	0.98	0.08	62,62,62,62	0
56	MG	1H	3395	1/1	0.98	0.11	54,54,54,54	0
56	MG	1H	3126	1/1	0.98	0.22	54,54,54,54	0
56	MG	1G	1612	1/1	0.98	0.10	79,79,79,79	0
56	MG	14	3247	1/1	0.98	0.22	59,59,59,59	0
56	MG	1H	3014	1/1	0.98	0.19	62,62,62,62	0
56	MG	14	3250	1/1	0.98	0.26	66,66,66,66	0
56	MG	14	3094	1/1	0.98	0.18	64,64,64,64	0
56	MG	1G	1670	1/1	0.98	0.27	99,99,99,99	0
56	MG	1H	3398	1/1	0.98	0.17	47,47,47,47	0
56	MG	14	3255	1/1	0.98	0.14	72,72,72,72	0
56	MG	14	3028	1/1	0.98	0.18	53,53,53,53	0
56	MG	14	3337	1/1	0.98	0.05	53,53,53,53	0
56	MG	1H	3617	1/1	0.98	0.24	127,127,127,127	0
56	MG	1H	3305	1/1	0.98	0.45	100,100,100,100	0
56	MG	1H	3128	1/1	0.98	0.20	60,60,60,60	0
56	MG	1H	3249	1/1	0.98	0.13	70,70,70,70	0
56	MG	1H	3569	1/1	0.98	0.11	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	1G	1677	1/1	0.98	0.09	94,94,94,94	0
56	MG	14	3104	1/1	0.98	0.34	48,48,48,48	0
56	MG	1G	1678	1/1	0.98	0.31	86,86,86,86	0
56	MG	1G	1620	1/1	0.98	0.11	83,83,83,83	0
56	MG	1H	3250	1/1	0.98	0.42	67,67,67,67	0
56	MG	14	3348	1/1	0.98	0.12	59,59,59,59	0
56	MG	1H	3403	1/1	0.98	0.20	76,76,76,76	0
56	MG	14	3350	1/1	0.98	0.14	45,45,45,45	0
56	MG	1G	1682	1/1	0.98	0.16	79,79,79,79	0
56	MG	13	1637	1/1	0.98	0.14	67,67,67,67	0
56	MG	2I	201	1/1	0.98	0.12	91,91,91,91	0
56	MG	1H	3524	1/1	0.98	0.17	56,56,56,56	0
56	MG	14	3355	1/1	0.98	0.07	75,75,75,75	0
56	MG	14	3113	1/1	0.98	0.17	69,69,69,69	0
56	MG	14	3114	1/1	0.98	0.24	60,60,60,60	0
56	MG	29	302	1/1	0.98	0.15	57,57,57,57	0
56	MG	1H	3109	1/1	0.98	0.26	44,44,44,44	0
56	MG	1H	3110	1/1	0.98	0.18	50,50,50,50	0
56	MG	1H	3155	1/1	0.98	0.29	73,73,73,73	0
56	MG	14	3194	1/1	0.98	0.17	75,75,75,75	0
56	MG	1H	3446	1/1	0.98	0.10	87,87,87,87	0
56	MG	1H	3530	1/1	0.98	0.08	54,54,54,54	0
56	MG	14	3121	1/1	0.98	0.20	65,65,65,65	0
56	MG	1H	3531	1/1	0.98	0.11	66,66,66,66	0
56	MG	13	1627	1/1	0.98	0.20	93,93,93,93	0
56	MG	13	1759	1/1	0.98	0.04	105,105,105,105	0
56	MG	13	1778	1/1	0.98	0.06	79,79,79,79	0
56	MG	1H	3289	1/1	0.98	0.10	85,85,85,85	0
56	MG	14	3244	1/1	0.99	0.25	67,67,67,67	0
56	MG	98	201	1/1	0.99	0.28	56,56,56,56	0
56	MG	13	1790	1/1	0.99	0.07	59,59,59,59	0
56	MG	2K	101	1/1	0.99	0.30	69,69,69,69	0
56	MG	1H	3277	1/1	0.99	0.11	66,66,66,66	0
56	MG	14	3249	1/1	0.99	0.27	54,54,54,54	0
56	MG	1H	3251	1/1	0.99	0.32	66,66,66,66	0
56	MG	1H	3548	1/1	0.99	0.08	50,50,50,50	0
56	MG	14	3336	1/1	0.99	0.08	60,60,60,60	0
56	MG	1H	3240	1/1	0.99	0.27	64,64,64,64	0
56	MG	14	3253	1/1	0.99	0.33	59,59,59,59	0
56	MG	13	1756	1/1	0.99	0.04	95,95,95,95	0
56	MG	1H	3389	1/1	0.99	0.23	52,52,52,52	0
56	MG	1H	3483	1/1	0.99	0.13	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	14	3257	1/1	0.99	0.21	62,62,62,62	0
56	MG	1H	3372	1/1	0.99	0.12	71,71,71,71	0
56	MG	1H	3528	1/1	0.99	0.08	49,49,49,49	0
56	MG	14	3081	1/1	0.99	0.21	114,114,114,114	0
56	MG	1H	3254	1/1	0.99	0.24	68,68,68,68	0
56	MG	14	3115	1/1	0.99	0.16	57,57,57,57	0
56	MG	16	215	1/1	0.99	0.09	71,71,71,71	0
56	MG	1H	3428	1/1	0.99	0.25	57,57,57,57	0
56	MG	1H	3282	1/1	0.99	0.05	94,94,94,94	0
56	MG	13	1699	1/1	0.99	0.47	94,94,94,94	0
56	MG	14	3188	1/1	0.99	0.13	68,68,68,68	0
56	MG	13	1700	1/1	0.99	0.19	90,90,90,90	0
56	MG	1H	3510	1/1	0.99	0.19	54,54,54,54	0
56	MG	1H	3360	1/1	0.99	0.17	50,50,50,50	0
56	MG	1H	3122	1/1	0.99	0.18	49,49,49,49	0
56	MG	14	3091	1/1	0.99	0.23	57,57,57,57	0
56	MG	13	1783	1/1	0.99	0.14	77,77,77,77	0
56	MG	1H	3132	1/1	0.99	0.24	46,46,46,46	0
56	MG	14	3127	1/1	0.99	0.11	61,61,61,61	0
56	MG	14	3234	1/1	0.99	0.18	60,60,60,60	0
56	MG	1H	3515	1/1	0.99	0.10	41,41,41,41	0
56	MG	14	3198	1/1	0.99	0.30	96,96,96,96	0
56	MG	13	1641	1/1	0.99	0.17	55,55,55,55	0
56	MG	1H	3567	1/1	0.99	0.13	51,51,51,51	0
56	MG	1H	3197	1/1	0.99	0.21	65,65,65,65	0
56	MG	14	3202	1/1	0.99	0.17	71,71,71,71	0
56	MG	1H	3542	1/1	0.99	0.20	68,68,68,68	0
56	MG	1H	3518	1/1	0.99	0.08	51,51,51,51	0
57	SF4	3E	302	8/8	0.99	0.21	85,90,93,95	0
57	SF4	32	301	8/8	0.99	0.19	95,103,111,112	0
58	ZN	5I	103	1/1	0.99	0.16	97,97,97,97	0
56	MG	1G	1653	1/1	0.99	0.33	112,112,112,112	0
56	MG	13	1651	1/1	1.00	0.32	91,91,91,91	0

6.5 Other polymers [i](#)

There are no such residues in this entry.